

ENGINEERING



2018

HIGH PERFORMANCE VALVETRAIN



since 1939



VALVE GUIDE SEAL CATALOG

**MANUFACTURING
DISTRIBUTING**



LARRY MCBRIDE

Top Fuel World Champion



SAMMY HALBERT

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IAN KING


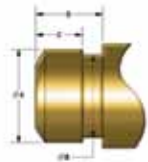

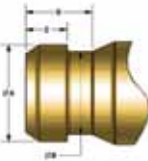

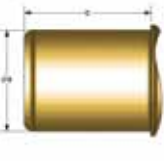

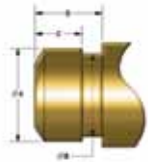

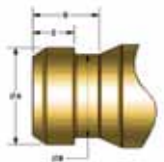

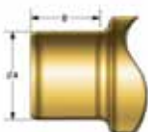

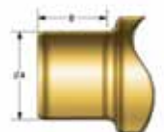
European Top Fuel World Champion

KPMI® VALVE STEM SEALS

USED BY THE TOP RACERS
IN THE WORLD

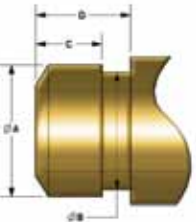

INSIST ON THE **RED** ONES!

KPMI® has been working for the past ten years designing and developing a premium line of “RED” valve stem seals. The KPMI® engineering team were given strict guidelines to develop seals that are made from premium materials, provide optimum fitment, offer maximum life and allow for maximum lift. By limiting material choices to High Temperature Viton® and Teflon®, the entire KPMI® Red Seal line are resistant to high temperatures, petroleum products and corrosive gasses that typically break down lesser quality seals. KPMI® seals retain their ability to seal in situations that other materials harden and deform, which then allows oil to bypass the seal and enter into the combustion chamber, causing detonation, carbon build up and a loss of power. Don't complete you're next rebuild without a set of the “Red Ones”.

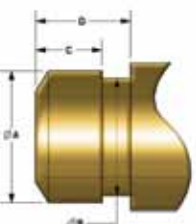

			KPMI® Seal Style 1		
KPMI® Seal Style 2			KPMI® Seal Style 3		
KPMI® Seal Style 4			KPMI® Seal Style 5		
KPMI® Seal Style 6			KPMI® Seal Style 7		
KPMI® Seal Designs Offer a Diagram and Dimentions So You Can Insure For a Proper Fit					

All KPMI® seals are conveniently packaged in quantities of: 4, 8, 16, 50, and 100. Value added savings have been built into the 16, 50, and 100 quantity packs with 10, 15, and 20% savings respectively. All 5-valve motors have been kitted and when a model has unique stem diameters between intake and exhaust, they too have been kitted. In the following pages of this brochure you can find the comprehensive offering of valve stem seals KPMI® has to offer.

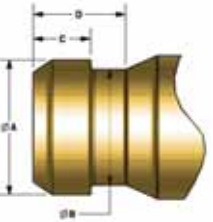

Seal Style 1 - Solid Viton

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
8.0mm	0.285"	0.555"	A	B	C	D	764.1.013.1A
			0.466"-0.475"	0.411"-0.430"	0.040"	0.135"	
				Part Number		Quantity	
				71043-4		Pkg. of 4	
				71043-8		Pkg. of 8	
				71043-16		Pkg. of 16	
				71043-50		Pkg. of 50	
				71043-100		Pkg. of 100	

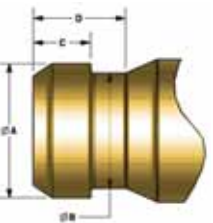

Seal Style 1 - Solid Viton

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.465"	0.550"	A	B	C	D	---
			0.500"±0.010"	0.445"	0.230"	0.280"	
				Part Number		Quantity	
				71012-4		Pkg. of 4	
				71012-8		Pkg. of 8	
				71012-16		Pkg. of 16	
				71012-50		Pkg. of 50	
				71012-100		Pkg. of 100	

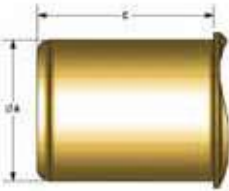

Seal Style 2 - Solid Viton w/ Tension Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
4.0mm	0.310"	0.380"	A	B	C	D	12209-KT7-013
			0.315"±0.005"	0.270"	0.120"	0.235"	
				Part Number		Quantity	
				71013-4		Pkg. of 4	
				71013-8		Pkg. of 8	
				71013-16		Pkg. of 16	
				71013-50		Pkg. of 50	
				71013-100		Pkg. of 100	

Seal Style 2 - Solid Viton w/ Tension Spring

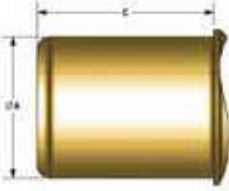

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5.5mm	0.330"	0.455"	A	B	C	D	51Y-12119-00-00
			0.365"±0.002"	0.325"	0.120"	0.235"	
				Part Number		Quantity	
				71040-4		Pkg. of 4	
				71040-8		Pkg. of 8	
				71040-16		Pkg. of 16	
				71040-50		Pkg. of 50	
				71040-100		Pkg. of 100	

Seal Style 3 - Solid Viton w/ Metal Jacket & Integral Spring Base

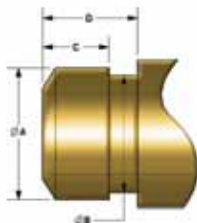

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs			Spring Shoulder Dia.	OEM REF.
			A	B	C		
7.0mm	0.974"	1.457"	A	B	C	0.970"	18094-02A
			0.560"±0.005"	---	0.700"		
		Part Number			Quantity		
		71030-4			Pkg. of 4		
		71030-8			Pkg. of 8		
		71030-16			Pkg. of 16		
		71030-50			Pkg. of 50		
		71030-100			Pkg. of 100		

NEW PRODUCTS

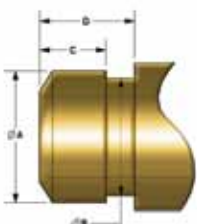

Seal Style 3 - Solid Viton w/ Metal Jacket & Integral Spring Base

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs			Spring Shoulder Dia.	OEM REF.
			A	B	C		
6.0mm	0.712"	1.170"	A	B	C	0.707"	18100044
			0.475"±0.005"	---	0.545"		
		Part Number			Quantity		
		71046-4			Pkg. of 4		
		71046-8			Pkg. of 8		
		71046-16			Pkg. of 16		
		71046-50			Pkg. of 50		
		71046-100			Pkg. of 100		

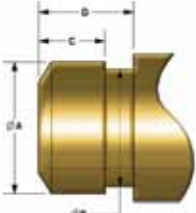

Seal Style 4 - Solid Viton w/ Choker & Tension Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
4.5mm	0.331"	0.370"	A	B	C	D	12209-ML0-722
			0.321"±0.005"	0.281"	0.120"	0.240"	
		Part Number			Quantity		
		71014-4			Pkg. of 4		
		71014-8			Pkg. of 8		
		71014-16			Pkg. of 16		
		71014-50			Pkg. of 50		
		71014-100			Pkg. of 100		

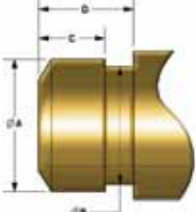

Seal Style 4 - Solid Viton w/ Choker & Tension Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
5.0mm	0.350"	0.405"	A	B	C	D	09289-05011
			0.340"±0.005"	0.303"	0.125"	0.230"	
		Part Number			Quantity		
		71015-4			Pkg. of 4		
		71015-8			Pkg. of 8		
		71015-16			Pkg. of 16		
		71015-50			Pkg. of 50		
		71015-100			Pkg. of 100		

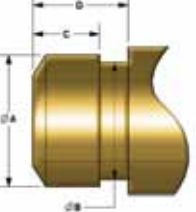

Seal Style 4 - Solid Viton w/ Choker & Tension Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
5.5mm	0.320"	0.440"	A	B	C	D	12209-422-005
			0.358"±0.005"	0.320"	0.115"	0.225"	
		Part Number		Quantity			
		71016-4		Pkg. of 4			
		71016-8		Pkg. of 8			
		71016-16		Pkg. of 16			
		71016-50		Pkg. of 50			
		71016-100		Pkg. of 100			

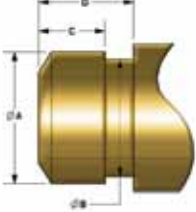

Seal Style 4 - Solid Viton w/ Choker & Tension Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
6.5mm	0.353"	0.560"	A	B	C	D	12209-300-003
			0.475"±0.005"	0.415"	0.115"	0.260"	
		Part Number		Quantity			
		71018-4		Pkg. of 4			
		71018-8		Pkg. of 8			
		71018-16		Pkg. of 16			
		71018-50		Pkg. of 50			
		71018-100		Pkg. of 100			

Seal Style 4 - Solid Viton w/ Choker & Tension Spring

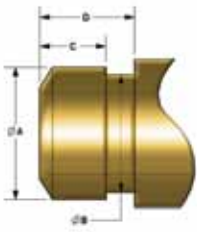

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
7.0mm	0.374"	0.560"	A	B	C	D	92049-016
			0.475"±0.005"	0.430"	0.115"	0.240"	
		Part Number		Quantity			
		71019-4		Pkg. of 4			
		71019-8		Pkg. of 8			
		71019-16		Pkg. of 16			
		71019-50		Pkg. of 50			
		71019-100		Pkg. of 100			

Seal Style 5 - Solid Viton w/ Metal Jacket & Choker Spring



Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
4.0mm	0.320"	0.355"	A	B	C	D	---
			0.285"±0.002"	0.245"	0.120"	0.215"	
		Part Number		Quantity			
		71039-4		Pkg. of 4			
		71039-8		Pkg. of 8			
		71039-16		Pkg. of 16			
		71039-50		Pkg. of 50			
		71039-100		Pkg. of 100			

Note: The 71039 seals do not have a choker spring.

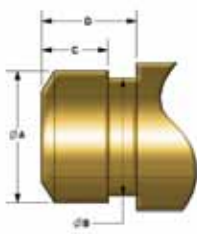

Seal Style 5 - Solid Viton w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5.0mm	0.320"	0.435"	A	B	C	D	77036027000
			0.305"±0.002"	0.265"	0.100"	0.195"	
		Part Number		Quantity			
		71041-4		Pkg. of 4			
		71041-8		Pkg. of 8			
		71041-16		Pkg. of 16			
		71041-50		Pkg. of 50			
		71041-100		Pkg. of 100			

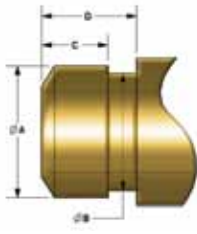

Seal Style 5 - Solid Viton w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5.5mm	0.540"	0.524"	A	B	C	D	---
			0.435"±0.002"	---	---	0.410"	
		Part Number		Quantity			
		71038-4		Pkg. of 4			
		71038-8		Pkg. of 8			
		71038-16		Pkg. of 16			
		71038-50		Pkg. of 50			
		71038-100		Pkg. of 100			

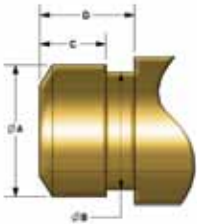

Seal Style 5 - Solid Viton w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5.5mm	0.315"	0.455"	A	B	C	D	420430420
			0.325"±0.002"	0.310"	0.110"	0.220"	
		Part Number		Quantity			
		71042-4		Pkg. of 4			
		71042-8		Pkg. of 8			
		71042-16		Pkg. of 16			
		71042-50		Pkg. of 50			
		71042-100		Pkg. of 100			

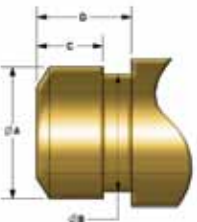

Seal Style 5 - Solid Viton w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
6.0mm	0.371"	0.480"	A	B	C	D	5H0-12119-00-00
			0.385"±0.002"	0.341"	0.120"	0.255"	
		Part Number		Quantity			
		71017-4		Pkg. of 4			
		71017-8		Pkg. of 8			
		71017-16		Pkg. of 16			
		71017-50		Pkg. of 50			
		71017-100		Pkg. of 100			

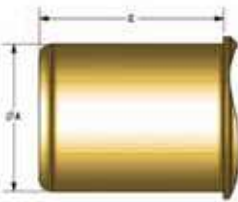

Seal Style 5 - Solid Viton w/ Metal Jacket & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
6.0mm	0.400"	0.560"	A	B	C	D	711230510
			0.435"±0.002"	0.400"	0.120"	0.285"	
 		Part Number		Quantity			
		71025-4		Pkg. of 4			
		71025-8		Pkg. of 8			
		71025-16		Pkg. of 16			
		71025-50		Pkg. of 50			
		71025-100		Pkg. of 100			

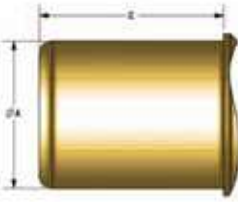

Seal Style 5 - Solid Viton w/ Metal Jacket & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
6.0mm	0.315"	0.520"	A	B	C	D	59036027000
			0.435"±0.002"	0.395"	0.120"	0.210"	
 		Part Number		Quantity			
		71029-4		Pkg. of 4			
		71029-8		Pkg. of 8			
		71029-16		Pkg. of 16			
		71029-50		Pkg. of 50			
		71029-100		Pkg. of 100			

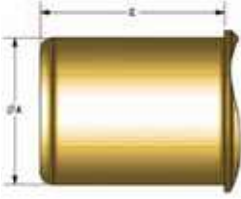

Seal Style 5 - Solid Viton w/ Metal Jacket & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
6.0mm	0.524"	0.615"	A	B	C	D	---
			0.495"±0.002"	---	---	0.385"	
 		Part Number		Quantity			
		71031-4		Pkg. of 4			
		71031-8		Pkg. of 8			
		71031-16		Pkg. of 16			
		71031-50		Pkg. of 50			
		71031-100		Pkg. of 100			

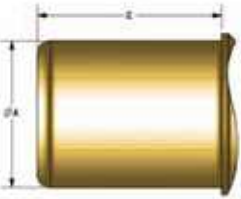

Seal Style 5 - Solid Viton w/ Metal Jacket & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
6.0mm	0.394"	0.555"	A	B	C	D	---
			0.447"±0.002"	---	---	0.265"	
 		Part Number		Quantity			
		71037-4		Pkg. of 4			
		71037-8		Pkg. of 8			
		71037-16		Pkg. of 16			
		71037-50		Pkg. of 50			
		71037-100		Pkg. of 100			

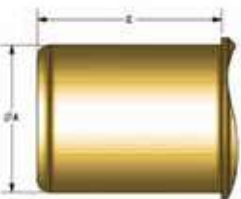

Seal Style 5 - Solid Viton w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
7.0mm	0.517"	0.550"	A	B	C	D	022-1516
			0.435"±0.002"	---	---	0.310"	
		Part Number		Quantity			
		71026-4		Pkg. of 4			
		71026-8		Pkg. of 8			
		71026-16		Pkg. of 16			
		71026-50		Pkg. of 50			
		71026-100		Pkg. of 100			

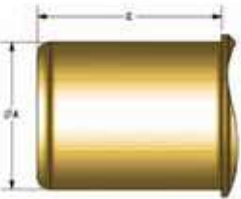

Seal Style 5 - Solid Viton w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
7.0mm	0.510"	0.665"	A	B	C	D	---
			0.560"±0.002"	---	---	0.375"	
		Part Number		Quantity			
		71028-4		Pkg. of 4			
		71028-8		Pkg. of 8			
		71028-16		Pkg. of 16			
		71028-50		Pkg. of 50			
		71028-100		Pkg. of 100			

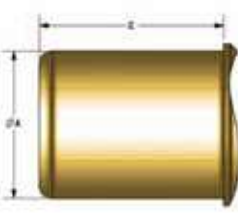

Seal Style 5 - Solid Viton w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
7.0mm	0.360"	0.520"	A	B	C	D	764.1.087.1A
			0.383"-0.389"	---	---	0.255"	
		Part Number		Quantity			
		71044-4		Pkg. of 4			
		71044-8		Pkg. of 8			
		71044-16		Pkg. of 16			
		71044-50		Pkg. of 50			
		71044-100		Pkg. of 100			

Seal Style 5 - Solid Viton w/ Metal Jacket & Choker Spring

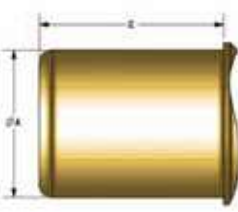

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
8.0mm	0.374"	0.598"	A	B	C	D	E6TZ6571A
			0.472"±0.002"	---	---	0.265"	
		Part Number		Quantity			
		71027-4		Pkg. of 4			
		71027-8		Pkg. of 8			
		71027-16		Pkg. of 16			
		71027-50		Pkg. of 50			
		71027-100		Pkg. of 100			

Seal Style 5 - Solid Viton w/ Metal Jacket & Choker Spring

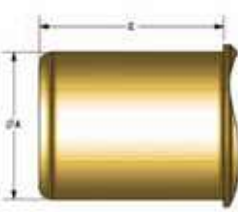

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.412"	0.566"	A	B	C	D	35178930
			0.420"±0.002"	---	---	0.275"	
 		Part Number		Quantity			
		71010-4		Pkg. of 4			
		71010-8		Pkg. of 8			
		71010-16		Pkg. of 16			
		71010-50		Pkg. of 50			
		71010-100		Pkg. of 100			

NEW PRODUCTS

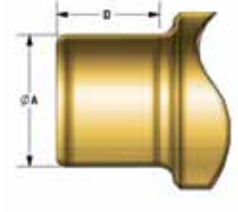

Seal Style 5 - Solid Viton w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.514"	0.671"	A	B	C	D	---
			0.530"±0.002"	---	---	0.330"	
 		Part Number		Quantity			
		71045-4		Pkg. of 4			
		71045-8		Pkg. of 8			
		71045-16		Pkg. of 16			
		71045-50		Pkg. of 50			
		71045-100		Pkg. of 100			

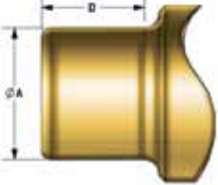

Seal Style 5 - Solid Viton w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
3/8"	0.516"	0.661"	A	B	C	D	---
			0.562"±0.002"	---	---	0.375"	
 		Part Number		Quantity			
		71011-4		Pkg. of 4			
		71011-8		Pkg. of 8			
		71011-16		Pkg. of 16			
		71011-50		Pkg. of 50			
		71011-100		Pkg. of 100			

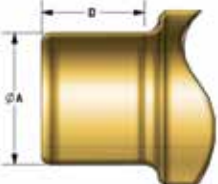

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.386"	0.512"	A	B	C	D	5403212
			0.425"±0.002"	---	---	0.235"	
 		Part Number		Quantity			
		71003-4		Pkg. of 4			
		71003-8		Pkg. of 8			
		71003-16		Pkg. of 16			
		71003-50		Pkg. of 50			
		71003-100		Pkg. of 100			

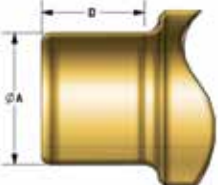

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.510"	0.600"	A	B	C	D	---
			0.500"±0.002"	---	---	0.365"	
		Part Number		Quantity			
		71006-4		Pkg. of 4			
		71006-8		Pkg. of 8			
		71006-16		Pkg. of 16			
		71006-50		Pkg. of 50			
		71006-100		Pkg. of 100			

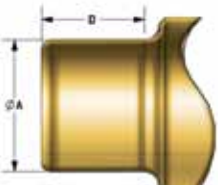

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.517"	0.510"	A	B	C	D	8921209
			0.415"±0.005"	---	---	0.350"	
		Part Number		Quantity			
		71008-4		Pkg. of 4			
		71008-8		Pkg. of 8			
		71008-16		Pkg. of 16			
		71008-50		Pkg. of 50			
		71008-100		Pkg. of 100			

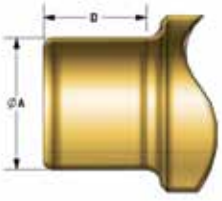

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.506"	0.632"	A	B	C	D	---
			0.530"±0.002"	---	---	0.365"	
		Part Number		Quantity			
		71009-4		Pkg. of 4			
		71009-8		Pkg. of 8			
		71009-16		Pkg. of 16			
		71009-50		Pkg. of 50			
		71009-100		Pkg. of 100			

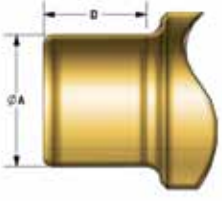

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
11/32"	0.510"	0.596"	A	B	C	D	---
			0.500"±0.002"	---	---	0.360"	
		Part Number		Quantity			
		71005-4		Pkg. of 4			
		71005-8		Pkg. of 8			
		71005-16		Pkg. of 16			
		71005-50		Pkg. of 50			
		71005-100		Pkg. of 100			

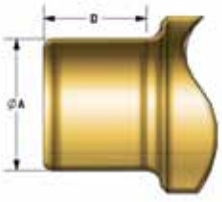

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
11/32"	0.514"	0.654"	A	B	C	D	---
			0.562"±0.002"	---	---	0.345"	
		Part Number		Quantity			
		71007-4		Pkg. of 4			
		71007-8		Pkg. of 8			
		71007-16		Pkg. of 16			
		71007-50		Pkg. of 50			
		71007-100		Pkg. of 100			

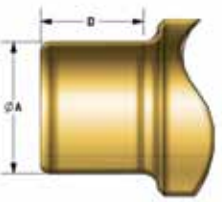

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
3/8"	0.502"	0.626"	A	B	C	D	---
			0.530"±0.002"	---	---	0.350"	
		Part Number		Quantity			
		71001-4		Pkg. of 4			
		71001-8		Pkg. of 8			
		71001-16		Pkg. of 16			
		71001-50		Pkg. of 50			
		71001-100		Pkg. of 100			

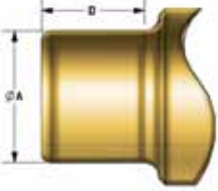

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
3/8"	0.518"	0.650"	A	B	C	D	---
			0.562"±0.002"	---	---	0.365"	
		Part Number		Quantity			
		71002-4		Pkg. of 4			
		71002-8		Pkg. of 8			
		71002-16		Pkg. of 16			
		71002-50		Pkg. of 50			
		71002-100		Pkg. of 100			

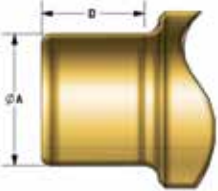

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
3/8"	0.507"	0.600"	A	B	C	D	---
			0.500"±0.002"	---	---	0.355"	
		Part Number		Quantity			
		71004-4		Pkg. of 4			
		71004-8		Pkg. of 8			
		71004-16		Pkg. of 16			
		71004-50		Pkg. of 50			
		71004-100		Pkg. of 100			

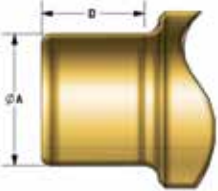

Seal Style 7 - H.D. OEM Style Solid Teflon w/ a Metal Jacket

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.385"	0.565"	A	B	C	D	18001-83B
			0.420"±0.002"	---	---	0.315"	
		Part Number		Quantity			
		71032-4		Pkg. of 4			
		71032-8		Pkg. of 8			
		71032-16		Pkg. of 16			
		71032-50		Pkg. of 50			
		71032-100		Pkg. of 100			

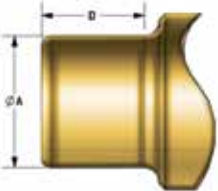

Seal Style 7 - H.D. OEM Style Solid Teflon w/ a Metal Jacket

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.375"	0.630"	A	B	C	D	1804698
			0.530"±0.002"	---	---	0.295"	
		Part Number		Quantity			
		71033-4		Pkg. of 4			
		71033-8		Pkg. of 8			
		71033-16		Pkg. of 16			
		71033-50		Pkg. of 50			
		71033-100		Pkg. of 100			

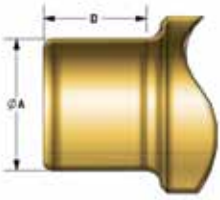

Seal Style 7 - H.D. OEM Style Solid Teflon w/ a Metal Jacket

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
11/32"	0.375"	0.630"	A	B	C	D	---
			0.530"±0.002"	---	---	0.295"	
		Part Number		Quantity			
		71034-4		Pkg. of 4			
		71034-8		Pkg. of 8			
		71034-16		Pkg. of 16			
		71034-50		Pkg. of 50			
		71034-100		Pkg. of 100			

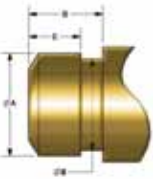

Seal Style 7 - H.D. OEM Style Solid Teflon w/ a Metal Jacket

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
3/8"	0.375"	0.660"	A	B	C	D	---
			0.562"±0.002"	---	---	0.315"	
		Part Number		Quantity			
		71035-4		Pkg. of 4			
		71035-8		Pkg. of 8			
		71035-16		Pkg. of 16			
		71035-50		Pkg. of 50			
		71035-100		Pkg. of 100			

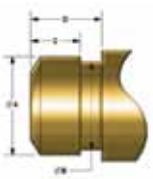

Seal Style 7 - H.D. OEM Style Solid Teflon w/ a Metal Jacket

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
3/8"	0.400"	0.720"	0.625"±0.002"	---	---	0.310"	1800081
		Part Number		Quantity			
		71036-4		Pkg. of 4			
		71036-8		Pkg. of 8			
		71036-16		Pkg. of 16			
		71036-50		Pkg. of 50			
		71036-100		Pkg. of 100			

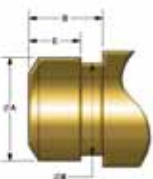

BSA® B25™ 1968-1971 (2-Valve) Seal Kit

IN / Ex Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
5/16"			0.465"	0.550"	0.500"±0.010"	0.445"	0.230"	0.280"
Part Number		Kit includes : 2- Intake / Exhaust Seals (Style 1)						
71012-2								

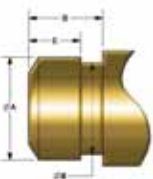

BSA® Rocket III™ 1968-1973 (6-Valve) Seal Kit

IN / Ex Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
5/16"			0.465"	0.550"	0.500"±0.010"	0.445"	0.230"	0.280"
Part Number		Kit includes : 6- Intake / Exhaust Seals (Style 1)						
71012-6								

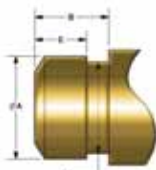

Honda® CRF™ / XR™ 75-100 1985-2013 (2-Valve) Seal Kit

IN / Ex Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
5.5mm			0.320"	0.440"	0.358"±0.005"	0.320"	0.115"	0.225"
Part Number		Kit includes : 2- Intake / Exhaust Seals (Style 4)						
71016-2								





Honda® XR™ 50 2000-2003 (2-Valve) Seal Kit

IN / Ex Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
5.0mm			0.350"	0.405"	0.340"±0.005"	0.303"	0.125"	0.230"
Part Number		Kit includes : 2- Intake / Exhaust Seals (Style 4)						
71015-2								





**Honda® ATC™ 185 / 200 1980-1986 • XL™ 200R/ XR™ 200 / XR™ 200R 1980-2002
XR™ 200R / XR™ 250R / XL™ 250R RFVC 1984-1985 (2-Valve) Seal Kit**

IN / Ex Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
5.5mm			0.320"	0.440"	0.358"±0.005"	0.320"	0.115"	0.225"
Part Number		Kit includes : 2- Intake / Exhaust Seals (Style 4)						
71016-2								





Honda® CRF™ 450R 2002-2008 (4-Valve) Seal Kit

Intake Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
5.5mm			0.320"	0.440"	0.358"±0.005"	0.320"	0.115"	0.225"
Exhaust Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
5.0mm			0.350"	0.405"	0.340"±0.005"	0.303"	0.125"	0.230"
Part Number		Kit includes : 2 - Intake Seals (Style 4) and 2 - Exhaust Seals (Style 4)						
30-30550								

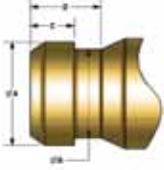



Honda® CRF™ 450X 2005-2017 (4-Valve) Seal Kit

Intake Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
5.5mm			0.320"	0.440"	0.358"±0.005"	0.320"	0.115"	0.225"
Exhaust Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
5.0mm			0.350"	0.405"	0.340"±0.005"	0.303"	0.125"	0.230"
Part Number		Kit includes : 2 - Intake Seals (Style 4) and 2 - Exhaust Seals (Style 4)						
30-31570								

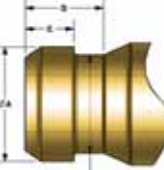

Honda® TRX™ 450R / ER 2006-2014 (4-Valve) Seal Kit

Intake Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
5.5mm			0.320"	0.440"	0.358"±0.005"	0.320"	0.115"	0.225"
Exhaust Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
5.0mm			0.350"	0.405"	0.340"±0.005"	0.303"	0.125"	0.230"
Part Number		Kit includes : 2 - Intake Seals (Style 4) and 2 - Exhaust Seals (Style 4)						
30-30980								





KTM® XC4 Engines 400-530cc 2008-2013 (4-Valve) Seal Kit

Intake Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
6.0mm			0.315"	0.520"	0.435"±0.002"	0.395"	0.120"	0.215"
Exhaust Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
5.0mm			0.320"	0.435"	0.305"±0.002"	0.265"	0.100"	0.195"
Part Number 96-96380		Kit includes : 2- Intake Seals (Style 5) and 2 - Exhaust Seals (Style 5)						

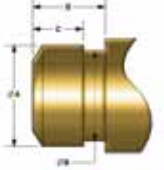

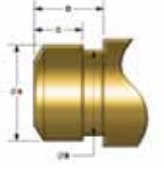

Yamaha® Raptor™ 250 2008-2013 (2-Valve) Seal Kit

IN / Ex Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
6.0mm			0.371"	0.480"	0.385"±0.002"	0.341"	0.120"	0.255"
Part Number 71017-2		Kit includes : 2- Intake / Exhaust Seals (Style 5)						



Yamaha® WR™ / YZ 250F™ 2001-2013 (5-Valve) Seal Kit

Intake Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
4.0mm			0.320"	0.355"	0.285"±0.002"	0.245"	0.120"	0.215"
Exhaust Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
4.5mm			0.331"	0.370"	0.321"±0.002"	0.281"	0.120"	0.240"
Part Number 80-80440		Kit includes : 3 - Intake Seals (Style 5) and 2 - Exhaust Seals (Style 4)						



Yamaha® YZ 250F™ 2014-2016 (4-Valve) Seal Kit

Intake Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
5.0mm			0.350"	0.405"	0.340"±0.005"	0.303"	0.125"	0.230"
Exhaust Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
4.5mm			0.331"	0.370"	0.321"±0.002"	0.281"	0.120"	0.240"
Part Number 80-80990		Kit includes : 2 - Intake Seals (Style 4) and 2 - Exhaust Seals (Style 4)						

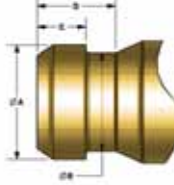

Yamaha® WR™ / YZ™ 400F / 426F 1998-2002 (5-Valve) Seal Kit

IN / Ex Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
4.5mm			0.331"	0.370"	0.321"±0.002"	0.281"	0.120"	0.240"
Part Number		Kit includes : 5 - Intake / Exhaust Seals (Style 4)						
80-80106								

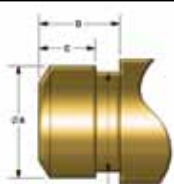

Yamaha® Various 450cc 2003-2016 (5-Valve) Seal Kit

IN / Ex Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
4.5mm / 5.0mm			0.331"	0.370"	0.321"±0.002"	0.281"	0.120"	0.240"
Part Number		Kit includes : 5 - Intake / Exhaust Seals (Style 4)						
80-80710								



Yamaha® Various 660's 2001-2008 (5-Valve) Seal Kit

IN / Ex Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
6.0mm			0.371"	0.480"	0.385"±0.002"	0.341"	0.120"	0.255"
Part Number		Kit includes : 5- Intake / Exhaust Seals (Style 5)						
71017-5								

Yamaha® YZF R1™ 1998-2003 APEX / RX-1 (All Models) 2008-2014 (20-Valve) Seal Kit

IN / Ex Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
4.5mm			0.331"	0.370"	0.321"±0.002"	0.281"	0.120"	0.240"
Part Number		Kit includes : 20- Intake / Exhaust Seals (Style 4)						
71014-20								

Yamaha® FX Nitro™ 2008-2014 (12-Valve) Seal Kit

IN / Ex Stem Diameter			O.L	Seal O.D.	Designed for these guide specs			
					A	B	C	D
4.5mm			0.331"	0.370"	0.321"±0.002"	0.281"	0.120"	0.240"
Part Number		Kit includes : 20- Intake / Exhaust Seals (Style 4)						
71014-12								

KPMI® Seal Part Numbers Assigned to Applications

If specific application is not listed, use the diagram and specifications to determine correct valve guide seal part number.

KPMI P/N	APPLICATIONS
71016-8	ARCTIC CAT® VARIOUS 1056cc TWINS 2008-'16
71029-4	BRP ® • CAN AM® DS 450™ 2008-2015
71041-4	BRP ® • CAN AM® 400 / 500 / 650 / 800 / 1000 2006-'14 (4 Valve)
71041-8	BRP ® • CAN AM® 400 / 500 / 650 / 800 / 1000 2006-'14 (8 Valve)
71025-4	BRP ® • CAN AM ® DS™ 650 2000-2007
71042-8	BRP ® • CAN AM® MAVERICK™ 2013-2017
71019-4	BRP ® • ROTAX ® AIR COOLED SINGLES 500/600 1982-'06
71012-2	BSA® B25™ 1968-1971
71012-6	BSA® ROCKET III™ 1968-1973
71043-4	Ducati® 750 GT™ 1971-1974
71043-4	Ducati® 750/ 906 1986-1990
71044-4	Ducati® SBK™ 851/ 888/ 916 1987-1998
71043-4	Ducati® 900/ 800 2000-2007
71044-4	Ducati® Various 696/ 796/ 1000/ 1100 2003-2010
71011-4	HD® PANHEAD™ 1948-1965
71002-4	HD® PANHEAD™ 1948-1965
71035-4	HD® PANHEAD™ 1948-1965
71035-50	HD® PANHEAD™ 1948-1965
71035-100	HD® PANHEAD™ 1948-1965
71033-4	HD® SPORTSTER™ 1957-1969
71033-50	HD® SPORTSTER™ 1957-1969
71033-100	HD® SPORTSTER™ 1957-1969
71034-4	HD® SPORTSTER™ 1957-1969
71034-50	HD® SPORTSTER™ 1957-1969
71034-100	HD® SPORTSTER™ 1957-1969
71033-4	HD® SPORTSTER™ 1970-1983
71033-50	HD® SPORTSTER™ 1970-1983
71033-100	HD® SPORTSTER™ 1970-1983
71034-4	HD® SPORTSTER™ 1970-1983
71034-50	HD® SPORTSTER™ 1970-1983
71034-100	HD® SPORTSTER™ 1970-1983
71035-4	HD® SHOVELHEAD™ 74" 1966-1977
71035-50	HD® SHOVELHEAD™ 74" 1966-1977
71035-100	HD® SHOVELHEAD™ 74" 1966-1977
71011-4	HD® SHOVELHEAD™ 74" 1966-1977
71002-4	HD® SHOVELHEAD™ 74" 1966-1977
71036-4	HD® SHOVELHEAD™ 80" 1978-1983
71036-50	HD® SHOVELHEAD™ 80" 1978-1983
71036-100	HD® SHOVELHEAD™ 80" 1978-1983
71011-4	HD® SHOVELHEAD™ 80" 1978-1983
71002-4	HD® SHOVELHEAD™ 80" 1978-1983
71010-4	HD® EVOLUTION™ 1984-1999
71008-4	HD® EVOLUTION™ 1984-1999
71032-4	HD® EVOLUTION™ 1984-1999
71032-50	HD® EVOLUTION™ 1984-1999
71032-100	HD® EVOLUTION™ 1984-1999
71032-4	HD® EVO SPORTSTER™ 883cc 1986-'03
71032-50	HD® EVO SPORTSTER™ 883cc 1986-'03

KPMI P/N	APPLICATIONS
71032-100	HD® EVO SPORTSTER™ 883cc 1986-'03
71010-4	HD® EVO SPORTSTER™ 883cc 1986-'03
71008-4	HD® EVO SPORTSTER™ 883cc 1986-'03
71030-4	HD® EVO SPORTSTER™ 883cc 2004-'17
71030-50	HD® EVO SPORTSTER™ 883cc 2004-'17
71030-100	HD® EVO SPORTSTER™ 883cc 2004-'17
71028-4	HD® EVO SPORTSTER™ 883cc 2004-'17
71032-4	HD® XL™ 1100cc 1986-1987
71032-50	HD® XL™ 1100cc 1986-1987
71032-100	HD® XL™ 1100cc 1986-1987
71010-4	HD® XL™ 1100cc 1986-1987
71008-4	HD® XL™ 1100cc 1986-1987
71032-4	HD® EVO SPORTSTER™ 1200cc 1988-'03
71032-50	HD® EVO SPORTSTER™ 1200cc 1988-'03
71032-100	HD® EVO SPORTSTER™ 1200cc 1988-'03
71010-4	HD® EVO SPORTSTER™ 1200cc 1988-'03
71008-4	HD® EVO SPORTSTER™ 1200cc 1988-'03
71030-4	HD® EVO SPORTSTER™ 1200cc 2004-'17
71030-50	HD® EVO SPORTSTER™ 1200cc 2004-'17
71030-100	HD® EVO SPORTSTER™ 1200cc 2004-'17
71028-4	HD® EVO SPORTSTER™ 1200cc 2004-'17
71032-4	HD® TWIN CAM™ 88" 1999-2004
71032-50	HD® TWIN CAM™ 88" 1999-2004
71032-100	HD® TWIN CAM™ 88" 1999-2004
71010-4	HD® TWIN CAM™ 88" 1999-2004
71008-4	HD® TWIN CAM™ 88" 1999-2004
71030-4	HD® TWIN CAM™ 88"-103" 2005-2017
71028-4	HD® TWIN CAM™ 88"-103" 2005-2017
71030-4	HD® BUELL® XB9™ 2003-2007
71028-4	HD® BUELL® XB9™ 2003-2007
71016-2	HONDA® CRF™ / XR™ 75-100 1985-2013
71015-2	HONDA® XR™ 50 2000-2003
71014-4	HONDA® CRF™ 150R 2007-2018
71016-4	HONDA® CB™ 160 1965-1969
71016-4	HONDA® CB™ 175 1970-1975
71016-2	HONDA® ATC™ 185 / 200 1980-1986
71016-2	HONDA® XL™ 200R / XR™ 200 / XR™ 200R 1980-'02
71016-2	HONDA® XR™ 200R 1984-1985 RFVC
71014-4	HONDA® CRF™ 250R 2004-'07 / 250X 2004-'17
71014-4	HONDA® CRF™ 250R 2008-2009
71014-4	HONDA® CRF™ 250R 2010-2017
71016-4	HONDA® TRX™ 250X 1987-1992
71016-2	HONDA® XR™ / XL™ 250R RFVC 1984-'95
71016-4	HONDA® XR™ 250R RFVC 1996-2004
71016-4	HONDA® 350 RFVC 1983-1985
71016-4	HONDA® XR™ 250L 1991-1996
71016-4	HONDA® TRX™ 300EX / X 1993-2009
71015-4	HONDA® CB™ / CL™ 350 TWIN 1968-'73 (5mm Conv.)

KPMI P/N	APPLICATIONS
71016-4	HONDA® TRX™ 400X/ 400EX 1999-'14
71016-4	HONDA® XR™ 400 RFVC 1996-2004
71015-4	HONDA® CB™ 450 1965-'72 / CB™ 500 TWIN 1965-'76 (5mm Conv.)
30-30550	HONDA® CRF™ 450R 2002-2008
71015-4	HONDA® CRF™ 450R 2009-2012
71015-4	HONDA® CRF™ 450R 2013-2016
30-31570	HONDA® CRF™ 450X 2005-2017
71016-4	HONDA® TRX™ 450R 2004-2005
30-30980	HONDA® TRX™ 450R / ER 2006-2014
71016-8	HONDA® CB™ 500 / 4 - CB™ 550 / 4 1971-'78
71013-16	HONDA® CBR™ 600 F2 / F3 1991-1996
71013-16	HONDA® CBR™ 600F4i 2001-2006
71018-4	HONDA® VARIOUS 500cc-650cc 1983-'14
71018-4	HONDA® XR™ 650R 2000-2007
71018-4	HONDA® TRX™ 700XX 2008-2009
71018-8	HONDA® CB™ / 750 SOHC 1969-1977
71015-8	HONDA® CB™ 750 SOHC 1969-1977 (5mm Conv.)
71014-16	HONDA® CBR™ 900RR 1993-1999
71016-16	HONDA® VARIOUS 750cc-1100cc 1979-'83
71016-24	HONDA® CBX 6 CYLINDER 1979-1982
71013-4	KAWASAKI® KX250F™ 2004-2016
71013-4	KAWASAKI® KLX™ 300R/ 250R/ S/ SF 1994-'14
71015-4	KAWASAKI® KLX™ / KFX™ 400 2001-'06
71016-4	KAWASAKI® KLX 450R™ 2008-2015
71016-4	KAWASAKI® KX 450F™ 2006-2008
71016-4	KAWASAKI® KX 450F™ 2009-2016
71016-4	KAWASAKI® KFX 450R™ 2008-2014
71016-8	KAWASAKI® NINJA 500R™ 1987-2009
71013-8	KAWASAKI® NINJA™ 650R / VERSYS 2006-'13
71015-8	KAWASAKI® VARIOUS 2005-2013
71014-8	KAWASAKI® VARIOUS 2012-2017
71019-8	KAWASAKI® KZ™ / Z1™ 900 1973-1977
71019-8	KAWASAKI® KZ™ / Z1™ POLICE 1000 1977-'05
71019-8	KAWASAKI® GPZ™ 1100 1981-1982
71013-16	KAWASAKI® ZX-7R™ 1991-1995
71013-16	KAWASAKI® ZX-7R™ 1996-2003
71013-16	KAWASAKI® ZX-9R™ 1994-2003
71015-16	KAWASAKI® ZX-10R™ 1988-1990
71015-16	KAWASAKI® ZX-11™ / ZRX™ 1100/ 1200 1999-'05
71015-16	KAWASAKI® ZX-12R™ 2000-2005
71015-16	KAWASAKI® ZX-14™ 2006-2011
71015-16	KAWASAKI® PWC™ 2007-2014
71029-4	KTM® ALL RFS ENGINES 400cc-560cc 2000-'09
71041-4	KTM® 250 2005-2007 (For RC4 Engines)
71041-4	KTM® 250 2008-2011 (For RC4 Engines)
71041-4	KTM® 250 2012-2013 (For RC4 Engines)
71041-4	KTM® SX-F / XC-F 250 2013-2015
71029-4	KTM® 450 2007-2011 (For RC4 Engines)
96-96380	KTM® 400-530cc 2008-2013 (XC4 Engines)
71012-4	NORTON® 750 1968-1973
71012-4	NORTON® 850 1973-1977
71017-4	POLARIS® PREDATOR™ / OUTLAW™ 500 2003-'07

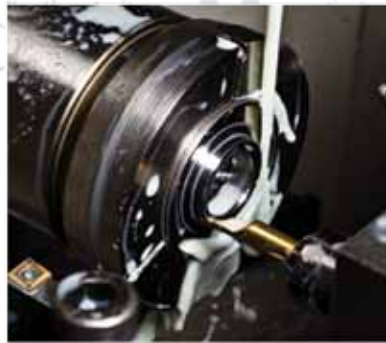
KPMI P/N	APPLICATIONS
71017-4	POLARIS® SPORTSMAN™ 800 2006-2014
71017-4	POLARIS® RZR™ 800 2008-2010
71017-4	POLARIS® RZR™ 800 2011-2014
71015-8	POLARIS® RZR™ XP900 2011-2012
71015-8	POLARIS® RANGER™ XP900 2013-2014
71016-8	POLARIS® RZR™ 900 2013-2016
71016-8	POLARIS® RZR™ XP1000 2014
71015-4	SUZUKI® DR™ 250/ 350S/ SE 1990-'99
71013-4	SUZUKI® RM-Z250™ 2004-2006
71013-4	SUZUKI® RM-Z250™ 2007-2017
71015-4	SUZUKI® DR-Z400™ E/ S/ SM/ LT-Z400™/ 400Z™ 2000-'17
71016-4	SUZUKI® LTR™ 450 / 450Z 2006-2009
71015-4	SUZUKI® RM-Z450™ 2005-2006
71016-4	SUZUKI® RM-Z450™ 2007
71016-4	SUZUKI® RM-Z450™ 2008-2017
71014-16	SUZUKI® GSX-R™ 600 1997-2000
71014-8	SUZUKI® SV™ 650 1999-2009
71019-4	SUZUKI® DR™ 750 / 800 BIG 1988-1998
71019-8	SUZUKI® GS™ 750 PRE-1980
71016-16	SUZUKI® GS™ 750 E/ ES/ L/ T 1980-1986
71015-16	SUZUKI® GS™ 750 E/ ES/ L/ T 1980-1986 (5mm Conv.)
71015-16	SUZUKI® GSX-R™ 750 1980-1992
71014-16	SUZUKI® GSX-R™ 750 1993-1995
71014-16	SUZUKI® GSX-R™ 750 SRAD 1996-1999
71018-8	SUZUKI® GS™ 1000 PRE-1981
71014-16	SUZUKI® GSX-R™ 1000 2005-2008
71016-16	SUZUKI® GS™ 1100 E / ES / S 1980-1986
71015-16	SUZUKI® GSX-R™ 1100 1986-1990
71015-16	SUZUKI® GSX-R™ 1100 1991-1992
71014-16	SUZUKI® GSX-R™ 1100 1993-1998
71016-16	SUZUKI® GS™ 1150 1984-1986
71015-16	SUZUKI® GS™ 1150 1984-1986 (5mm Conv.)
71015-16	SUZUKI® HAYABUSA™ 1999-2017
71017-4	TRIUMPH® 650 / 750 1963-1983 (6mm Conv.)
71012-4	TRIUMPH® 650 / 750 1963-1983
71012-4	TRIUMPH® Pre-Unit 500 / 600 1951-'62 / TRIDENT™ 1971-'76
71016-8	TRIUMPH® 865 2001-2010
71017-2	YAMAHA® RAPTOR™ 250 2008-2013
71016-4	YAMAHA® SRX™ 250 / XT™ 250 / 350 1984-2000
80-80440	YAMAHA® WR™ / YZ™ 250F 2001-2013
80-80990	YAMAHA® YZ™ 250F / FX 2014-2018
80-80106	YAMAHA® WR™ / YZ™ 400F/426F 1998-'02
80-80710	YAMAHA® VARIOUS 450cc 2003-2018
71040-4	YAMAHA® YZ™ 450F 2010-2013
71040-4	YAMAHA® YZ™ 450F/ FX 2014-2018
71017-5	YAMAHA® VARIOUS 660'S 2001-2008
71017-4	YAMAHA® VARIOUS 700'S 2006-2017
71016-16	YAMAHA® FJ™ 1100/ 1200 1984-1993
71016-16	YAMAHA® V-MAX™ 1985-2007
71014-20	YAMAHA® YZF™ R1 1998-2003
71014-12	YAMAHA® Various 1049cc Triples 2008-2015
71014-20	YAMAHA® APEX™ / RX-1 (ALL MODELS) 2003-2010



KIBBLEWHITE PRECISION MACHINING INC.

MADE IN USA

ENGINEERING VALVETRAIN FOR 77 - YEARS & 2 - GENERATIONS





KPMI® ENGINEERING & MANUFACTURING VALVETRAIN FOR 78-YEARS & 2-GENERATIONS



KPMI®
Designs and manufactures longevity into valvetrain

Company

Kibblewhite Precision Machining, Inc. (KPMI®) is a 78 year old valvetrain manufacturing company supplying the Motorsport Industry and select OEM's. We stock and distribute over 3,000 items to customers around the world. No other company in the world has our product coverage for the motorsport industry. You will not find any other company with such an extensive product line solely dedicated to the motorsport industry.

KPMI® not only manufactures ready-made parts, we also provide contract manufacturing for OEM and other parties. Our expert services include engineering, prototyping, and limited or full production runs.

Legacy

Kibblewhite Precision Machining, Inc. was founded by James L. Kibblewhite in 1939. In 1989 the operation was taken over by William F. Kibblewhite, Jim's son. William Kibblewhite took the solid foundation created by his father and dramatically expanded the product line to provide the vast coverage that it offers today.

KPMI® is known by its trademark and registered marks: Black Diamond™, White Diamond®, Tensilite®, KPMI® Kibblewhite®, and Spin True®. Know that when you purchase products under these brands you are purchasing product that has been engineered by a company that's been doing so for 78 years and 2 generations. This wealth of knowledge can be seen in the product detail, fitment, material choices, processes and the uniqueness in which all systems and components are expected to achieve the mechanical work they will be asked to do.

Employees

Kibblewhite valvetrain and custom engineered components are second to none. KPMI® employs twenty six employees and fosters a work smart culture. The dedication of top notch employees (A-players) in Engineering and Customer Service is the reason why we are the industry leader in valvetrain development. Putting our customers first can be found in every element of product development and you will see that precision level of detail in every single package that is shipped out of our warehouses. This type of commitment is found in the class of employee, equipment, and investment in emerging technologies.

MADE IN USA



Our Primary Focus is :
Engineering product that exceeds expectations

At KPMI®
There are no exceptions for quality

Facility

Kibblewhite encompasses five locations and over 20,000 square feet of Machine Shop, Office, Engineering, and Warehouse space. KPMI® has spent the past five years aggressively updating our operations. Our complete facility has eleven of the latest model CNC lathes (2010 & later), CAD, CAM, and custom machining equipment. Our Engineering Department and machinists are ready and waiting to assist you with your custom requirements and drive our ongoing production of high performance valvetrain systems for 4-stroke engines.

Quality Control

It is our sole intent to provide our customers with product that works right the first time and gives maximum value for the dollar in terms of reliability and performance. None of our product achieves final approval without first traveling through a grueling development flow process. Final reviews require three engineering signatures and a signature from production. What this means is that there are three independent reviews following each and every product through all phases of development before the final review and production signature can be granted. I am very proud of what we do and of every single employee that has been hand selected to contribute to the success of KPMI®.

We measure our success by our satisfied customers and for this we are truly grateful. Without our loyal customers and their continued demand for consistent, high quality valvetrain and engineering services, we would not be the company that we are today. Because of this we thank each and every one of our customers and future customers.



Sincerely,
William Kibblewhite

KPMI[®] ENGINEERING & MANUFACTURING VALVETRAIN FOR 78-YEARS & 2-GENERATIONS

KPMI[®]

Designs and manufactures longevity into valvetrain

Our Primary focus is:
Engineering product that exceeds expectations

At KPMI[®]
There are no exceptions for quality



World
Top Fuel Champion
Larry "Spiderman" McBride

European
SuperTwin Champion
Ton Pels

European
Top Fuel Champion
Ian King

Valvetrain That The Top Champions of The World Rely On

VALVES LIGHTWEIGHT HIGH FLOW

TRADEMARKS: BLACK DIAMOND™ WHITE DIAMOND® & TENSILITE® TITANIUM



- 220 Different Applications
- F.E.A Designed
- Titanium, Inconel, Ev8 SS, Bi-Metallic
- Crn Coated (Tensilite® Titanium)
- Black Nitride Coated (Black Diamond™)
- Hard Chrome stems (White Diamond®)
- Hollow stem and custom



VALVE GUIDES

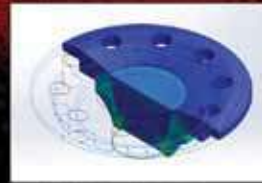
G2 CAST IRON • G630 BRONZE • MANGANESE BRONZE



- *Over 200 Different Applications*
- *Undersized Bores*
- *Superior Surface Finish*
- *Excellent Heat Transfer*
- *100% Quality Controlled*



SPRING KITS **LARGEST SELECTION** IN THE WORLD



- Over 200 Different Applications
- Race & Direct O. E. M. Replacement
- Super Clean CrSi Wire
- Complete F. E. A. Design
- 100% Quality Controlled
- Manufactured in the USA



PISTON SYSTEM **INCLUDES** VALVETRAIN

KPMI® INTRODUCES OUR PISTON SYSTEM



Yamaha YZ 250F 2014-2016

- In order to maximize compression, the valve reliefs in the piston are purposely convex and match the geometry of the dishes in the valves
- The conversion to Black Diamond™ Stainless Steel Valves offers up to double the life over stock Titanium valves without a loss in performance

Kit Includes:

- Piston, Rings, Clips and Pin
- Top End Gasket Kit by Cometic
- KPMI® S.S. Black Diamond™ Valves, Stock Head Dia.
- Dual Spring Titanium Retainer Spring Kit, Which Allows for 0.395" In. and 0.370" Ex. Valve Lift



BUSHINGS

CAM • CRANKSHAFT • FORK • ROCKER ARM • WRIST PIN



- Direct O.E.M. Replacement
- Superior Surface Finishes
- Improved Durability
- 100% Quality Controlled
- Manufactured in USA



CYLINDER STUD KITS

USED BY THE TOP RACERS IN THE WORLD



- 180,000 psi H.T. Steel
- Rolled Threads
- Interference Fit Case End
- OD Ground, Maximizing Strength
- Treated 100% with Black Oxide



VALVE SEATS UNIVERSAL

USED IN ALL OUT RACING APPLICATIONS AND STOCK REPLACEMENT



- 24mm to 57mm
- 80 - Different part numbers
- Small I.D.
- Extra tall
- Call for Custom Seat Sizes



TAPPETS H.T. STEEL DLC COATED



Shim in Tappet (SIT)



Shim on Bottom (SOB)

- Billet Aircraft Alloy Steel
- F.E.A Designed
- H.T. Steel Coated
- H.T. Steel Plus DLC Coated



VALVE STEM SEALS

INSIST ON THE RED ONES!



- *Contact surfaces designed for improved sealing*
- *High temperature Viton® and Teflon® materials*
- *Improved tolerances over OEM*
- *100% Quality Controlled*
- *Available in a variety of sizes*



CLUTCH SPRINGS

FOR OVER 40-YEARS THESE HAVE BEEN THE SPRINGS OF CHOICE



TOOLS & COMPONENTS

KPMI CAPABILITIES ARE NOT LIMITED TO VALVETRAIN

- Seal Installation Tools
- Exhaust Spigots
- Head Nuts
- Tappets
- Push Rods
- Tappet Blocks



- Lash Caps
- Ball Hones
- Reamers
- Shims
- Keepers
- Washers



SPIN TRUE[®] UNIVERSAL LEAD FREE SPOKE WHEEL WEIGHTS

CALIFORNIA COMPLIANT "LEAD FREE" WHEEL WEIGHTS

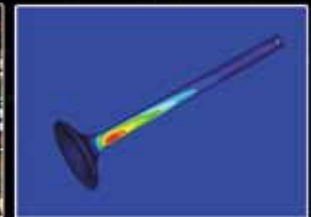


- CNC Machined, Chrome Plated Stainless Steel
- .25oz, .5oz, .75oz, 1oz, 1.25oz and 1.5oz
- Symmetrical Halves Lock Onto the Nipple
- Fits .250" to .350" Nipple Diameters



ENGINEERING

FULL SERVICE. DESIGN-BUILD. MANUFACTURING CAPABILITIES



For 78 years KPMI® has continued to be at the forefront of innovation, manufacturing, and development of high performance valve train. KPMI® is constantly investing in new technologies in order to maintain our position as one of the foremost authorities in valve train development.



Software

Utilizing the advances in power, speed, and user interface of modern software, KPMI® employs an arsenal of software programs to plan, design, simulate, fabricate and test all aspects of development and production.

- **3D Modeling/FEA:** Every KPMI® component is designed using the latest in 3D modeling technologies, allowing KPMI® engineers to assemble entire valve train systems virtually to verify fitment and clearances. Once assembled, each system is subject to a rigorous Finite Element Analysis (FEA) that allows KPMI® engineers to validate designs and isolate areas of stress concentration. This FEA analysis ensures that KPMI® parts are both light and strong enough to stand up to the rigorous environment inside a modern racing engine.
- **Valve train Simulation:** Once a KPMI design has been modeled and refined the entire system is simulated using valve train simulation software. This allows KPMI® engineers to “tune” each system to ensure that it will work harmoniously in the engine.
- **Spring Design:** Each of KPMI's valve springs are designed using advanced spring design software that allow KPMI® engineers to balance designs for the perfect blend of performance and longevity.

Prototyping

KPMI® has integrated the use of 3D rapid prototyping technologies into the many aspects of design process. This technology allows KPMI® engineers to almost instantaneously create working plastic prototypes of designs that can be used to check fitment, clearances and design validity.



Flow Testing

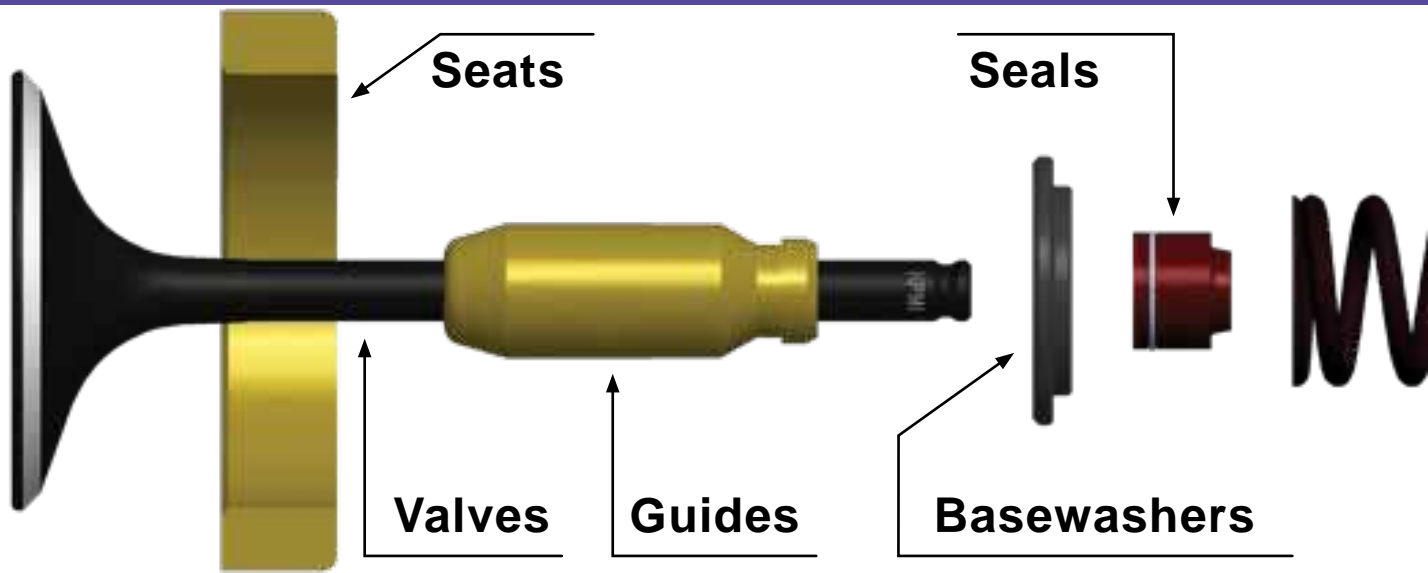
Before a design is complete, test valves are made with different tulip profiles and each design is flow tested on our FlowData 700 computerized flow bench to optimize airflow characteristics for that application. This often leads to improvements not only in flow characteristics, but in weight reduction as well.

Testing

When it comes to testing our product, KPMI® does not hold back. We pride ourselves in supplying the consumer with a product that works right the first time, keeping this in mind when it comes time to test, KPMI® looks at every aspect of the design under several different criterion. The springs are brought to failure under fatigue testing and shake table dynamics, whereas the heat-treated materials are destructively tested to insure that they did not become brittle during the manufacturing process; we do not, however, stop there. When we are sure that our product lives up to the name, we go one step further and supply the product to our test riders to see how it performs under real world riding conditions. Only once all of this information has been compiled and we are sure that the product is ready for sale, is it released to our vast network of world-wide dealers and distributors.



THE KPMI® SYSTEM



THE KPMI SYSTEM

Valves

Light and strong with optimum airflow

A combination of FEA stress analysis and flow bench testing of prototype valves allows KPMI® engineers to optimally balance valve mass, strength, and airflow characteristics. A unique tulip and dish are designed for each application.

Stellite tips for rocker applications

Stellite is welded to the valve tips in rocker actuated applications for resistance to the impact and abrasive wear common in rocker arm systems. This welded stellite can never come loose.

Black Diamond™ Valves

KPMI® Black Diamond™ one piece forged stainless steel valves are impregnated by a special German process to improve wear properties and reduce friction. This process provides resistance to corrosion and wear that is superior to that of hard chromium and electrolysis nickel plating.

White Diamond® Valves

We fully CNC machine our White Diamond® valves from a one-piece forging of either EV8 Stainless Steel or Inconel-751. These materials have proven heat and corrosion resistance properties and are hard chromed with a 360 degree anode to produce the highest possible grade of hard chrome finish.

Tensilite® Valves

KPMI® Tensilite® titanium valves are one piece forgings made from 6AL4V or 6-2-4-2 titanium alloy. These are the latest developments in titanium valve alloys and have superior hardness, strength, and thermal characteristics when compared to other titanium valve alloys. Tensilite® valves are covered with a chromium nitride (CRN) PVD coating. This coating adheres exceptionally well to titanium, has a low coefficient of friction, and is impact, abrasion, and corrosion resistant.

Seats

Repair /Modify

Seats are tall, offered in several sizes, and have ample material on the ID for shaping, making them universal in application. They allow the builder to repair damaged seat bores, or to increase the seat size for larger racing valves.

Ease of installation

Seat ODs are ground for a smooth uniform surface finish to insure good contact with the cylinder head for optimal heat transfer and smooth installation. Seats also have a generous radius on the leading edge to prevent galling during installation.

Powdered metal seats

With the latest in powdered metal technology, KPMI's R&D team was able to create a high density seat with exceptional wear resistance, resistance to micro welding, and good thermal qualities. This material is compatible with all types of fuel blends, resists corrosion and burning, and is machinable with standard tooling.

Nickel aluminum bronze seats

The product of a two year KPMI® R&D effort, this proprietary high copper, beryllium free bronze alloy is designed specifically for use with titanium valves in high performance applications.

Guides

Superior airflow

Guide profiles are designed to have as little effect on the airstream as possible, while maintaining critical cross sectional thickness in high temperature areas. Promoting both high performance and endurance.

Oversize ODs

Multiple oversizes are available.

Guides cont.

Tight tolerances

High concentricity tolerances are held to insure the best possible geometry between the seat and guide is maintained when the guides are replaced. This means minimal material removal from the seat, time savings, and consistent chamber volumes, when valve jobs are performed.

C630 bronze guides

C630 is a blend of copper, nickel, and aluminum. The high copper content gives excellent thermal qualities, the nickel makes the guide tough and wear resistant, and the aluminum brings work hardening characteristics. This bronze alloy allows for tighter clearances than other materials, creating better valve and seat sealing, as well as superior oil control. The expansion qualities of C630 bronze make it especially compatible with aluminum cylinder heads.

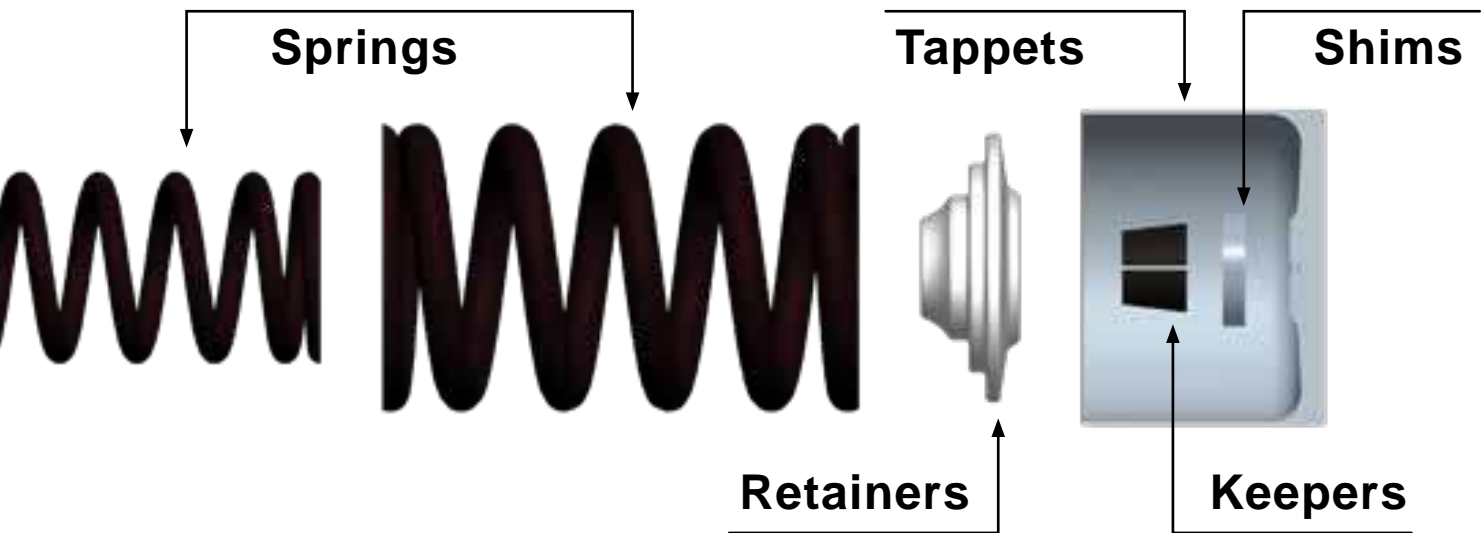
Cast iron guides

KPMI® R&D has produced a proprietary cast iron blend that thrives in the tough operating conditions of today's engine. KPMI's certified cast iron provides excellent wear resistance and a superior guide bore finish that is easy on valve stems.

Manganese guides

These Engine Builder valve guides have been designed with the price conscious builder in mind. Expect the same exacting KPMI® tolerances, but with a reduced toughness / wear-ability when compared to premium "C630" Nickel Aluminum Bronze valve guides. The softer Manganese guides are easily reamed, and then can be delicately finished with our high quality ball hones. Now, with any battery operated or electric drill you can ream and hone manganese valve guides in less time and in the absence of expensive honing equipment required to properly size "tough" Nickel Bronze guides.

THE KPMI® SYSTEM



THE KPMI SYSTEM

Seals

High operating temperature

KPMI® Red Viton® seals operate at a higher temperature than other seal materials.

Chemical resistance

Viton® seals are resistant to petroleum products, and by-products of combustion. Retaining pliability in situations where other materials would become hard and lose their sealing capability.

Springs

Advanced spring design

Springs are engineered for each specific application using proprietary advanced spring design, simulation, and analysis software. Engineers pay special attention to cam and spring harmonics, stress, mass, and operating rpm.

Premium grade, super clean ground chrome silicon wire

X-Rayed at regular intervals to check for inclusions, heat treated, and shot peened. Insuring maximum spring life.

Basewashers

Proprietary heat treatment process

Creates a hard outer shell with a non-brittle core, resisting wear and maximizing toughness.

Tight tolerance for precise fit

Manufactured to tolerances that allow no excessive lateral movement. Correct fitment promotes longer component life and optimizes performance of the entire valve train.

Retainers

Engineered with advanced computer software

FEA stress analysis allows engineers to lighten retainer without sacrificing strength.

Tight tolerance for precise fit

KPMI® Engineers specify tight tolerances that allow no excessive lateral movement. Correct fitment promotes longer component life and optimizes performance of the entire valve train.

Heat treated steel retainers

KPMI's proprietary heat treatment process creates a hard outer shell with a non-brittle core, resisting wear and maximizing toughness.

Titanium retainers

To further reduce reciprocating mass, KPMI® offers titanium retainers as an alternative to steel.

Custom retainers available

KPMI® is ready to design a custom retainer to your specifications.

Keepers

Wide variety of styles

KPMI® offers radius bead, triple radius bead, and square bead steel keepers. See keeper section in back of catalog for full selection.

High tensile heat treated steel

Forged or single point machined.

Tappets

Machined from billet aircraft quality steel

Proprietary heat treatment process

Creates a hard outer shell with a non-brittle core, resisting wear and maximizing toughness.

Engineered with advanced computer software

FEA stress analysis allows engineers to lighten tappet without sacrificing strength.

Racing performance

KPMI® tappets are run in high performance automotive and motorcycle racing applications including Motocross, Flat track racing, Road racing, Drag racing, and land speed racing

Many stock sizes available

See KPMI® Tappet Section in back of catalog for full selection.

Custom tappets available

Send KPMI® your requirements so we can develop your next tappet.

Shims

Ground to a precise height

KPMI® offers valve adjustment shims in 7.5mm, 9.5mm, and 13mm diameters, with heights increasing in increments of 0.05 mm. See KPMI® Shim Section in back of catalog for full selection.



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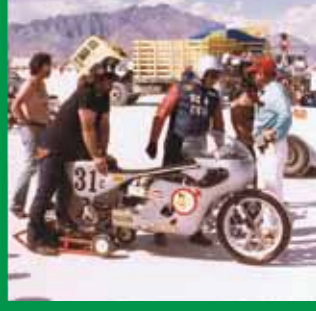
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ARCTIC CAT[®] H2[™] V-TWIN 2008-'16



ARCTIC CAT

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure	Open Pressure	@ Lift
	88-88000	Intake	.450"		1.200"		49#	159#	.450"
		Exhaust							
Kit Includes			8	CrSi Valve Springs	8	Titanium Retainers	8	H. T. Steel Basewashers	

Valves • Black Diamond[™] • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	88-88012	Intake	31.62mm	1.245"	0.1960"	14°	3.695"	Standard
	88-88013	Intake	32.62mm	1.284"	0.1960"	14°	3.695"	Oversize
	88-88016	Exhaust	27.94mm	1.100"	0.1955"	20°	3.670"	Standard
	88-88017	Exhaust	28.94mm	1.139"	0.1955"	20°	3.670"	Oversize

Valve Guides • C630 Bronze For H2 V-Twin 2008-2013

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.420"	0.445"	0.730"	1.110"	0.455"	0.1955"	0.4163" / Std		88-88020	
								+0.001"		88-88021
								+0.002"		88-88022
								+0.010"		88-88029

Use O.E.M. Seal

ARCTIC CAT[®] VARIOUS 1056cc TWINS 2008-'15

- All 2014 5000 & 9000 C-TEC4 Engines
- Bearcat[™] Z1 XT (Incl. Limited)
- TZ1[™] (All Models Incl. Turbo)
- Z1[™] (All Models Incl. Turbo)
- ProCross[™] F & XF 1100 (All Models Incl. Turbo)
- ProClimb[™] M 1100 (All Models Incl. Turbo)
- Jaguar[™] Z1

Valve Spring Kit • Turbo Racing • High Performance

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure	Open Pressure	@ Lift
	88-88050	Intake	.380"		1.440"		70#	184#	.380"
		Exhaust							
Kit Includes			8	CrSi Valve Springs	8	Titanium Retainers	8	H. T. Steel Basewashers	

Both our Turbo spring kit and "Shim in Tappet" Turbo spring kits are designed for applications with up to 35psi of boost.



ARCTIC CAT® VARIOUS 1056cc TWINS 2008-'15

- All 2014 5000 & 9000 C-TEC4 Engines
- Bearcat™ Z1 XT (Incl. Limited)
- TZ1™ (All Models Incl. Turbo)
- Z1™ (All Models Incl. Turbo)
- ProCross™ F & XF 1100 (All Models Incl. Turbo)
- ProClimb™ M 1100 (All Models Incl. Turbo)
- Jaguar™ Z1

Valve Spring Kit • Turbo Racing • "Shim in Tappet" High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	88-88100	Intake	.380"	1.440"	70#	184#	.380"
		Exhaust					
Kit Includes			8	CrSi Valve Springs	8	Titanium Retainers	
			8	H. T. Steel Basewashers	8	H. T. Steel Tappets	

"Shim in Tappet" valve spring kits provide a solution to the common ovaling of retainers and shim spitting in higher performance applications. By locating the shim in the heat treated steel tappet instead of the titanium retainer, wear is greatly reduced, and reliability is increased. These tappets were designed and analyzed using the same Finite Element Analysis software used in the development of our valves in order to maintain the same strength and mass as our high performance traditional tappet/retainer system.

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	88-88062	Intake	36.00mm	1.417"	0.2160"	10°	3.880"	Standard
	88-88063	Intake	37.00mm	1.457"	0.2160"	10°	3.880"	Oversize
	88-88066	Exhaust	33.00mm	1.299"	0.2155"	20°	3.525"	Standard
	88-88067	Exhaust	34.00mm	1.339"	0.2155"	20°	3.525"	Oversize

Valve Guides • C630 Bronze For H2 V-Twin 2008-2013

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.620"	0.655"	0.645"	0.825"	0.460"	0.2155"	0.4167" / Std.	88-88070		
								+0.001"	88-88071	
								+0.002"	88-88072	
								+0.010"	88-88079	

Tappets • O.E.M. Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity
	88-88057	Intake Exhaust	H. T. Steel	28.00mm	1.1017"	1.038"	0.763"	--	0.098"

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71016-4			Pkg. of 4		0%		
	71016-8			Pkg. of 8		0%		
	71016-16			Pkg. of 16		Less- 10%		
	71016-50			Pkg. of 50		Less- 15%		
71016-100			Pkg. of 100		Less- 20%			

ARCTIC CAT

BMW® R60™ / 2 1960-1969



BMW

Valve Spring Kit • O. E. M. Replacement • High Performance

	KPMI P/N	Type	Kit Includes							
			H. T. Steel Retainers		H. T. Steel Keepers		CrSi Valve Springs		H. T. Steel Basewashers	
	90-9082	Intake	4	90-9084	4	90-9085	4	90-9086	4	90-9087
		Exhaust								
Max Valve Lift	Installed Height	Seat Pressure		Open Pressure		@ Lift				
.450"	1.355"	58#		152#		@ .450"				

The springs in these kits are wound from super clean chrome silicon wire that has been heat treated and shot peened. These components offer optimal fitment, keeping lateral movement to a minimum. They work together as a system, providing long life, and maximum performance. Parts in this kit can be purchased individually as OEM replacements.

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	90-9060	Intake	34.00mm	1.339"	0.2730"	23°	3.425"	Standard
	90-9062	Exhaust	32.00mm	1.260"	0.2720"	29°	3.415"	Standard

Our valves are the quality you expect from Kibblewhite®, manufactured to exact O.E.M. specifications.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.600"	0.650"	1.000"	1.200"	0.620"	0.2730"	0.5140" / Std.		90-9070
								+0.001"	90-9071
								+0.002"	90-9072
								+0.004"	90-9074
								+0.010"	90-9080

No seal required



BMW® 5 / 6 / 7 / R80™ / R90™ / R100™ 1970-1995

Valve Spring Kit • Lightweight • Performance Upgrade

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	90-9034	Intake	.500"	1.445"	104#	196#	.367"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	H.T. Steel Retainers	4	H. T. Steel Basewashers

The springs in these kits are wound from super clean chrome silicon wire that has been heat treated and shot peened. These components offer optimal fitment, keeping lateral movement to a minimum. They work together as a system, providing long life, and maximum performance.

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	90-9035	Intake	42.00mm	1.654"	0.3130"	23°	3.885"	Standard
	90-9054	Intake	44.00mm	1.732"	0.3130"	23°	3.885"	Standard
	90-9037	Exhaust	34.00mm	1.339"	0.3125"	29°	3.885"	Standard
	90-9036	Exhaust	38.00mm	1.496"	0.3125"	29°	3.885"	Standard
90-9045	Exhaust	40.00mm	1.575"	0.3125"	29°	3.885"	Standard	

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.600"	0.650"	0.980"	1.400"	0.620"	0.3125"	0.554" / Std.	90-9000		
							+0.001"	90-9001		
							+0.002"	90-9002		
							+0.003"	90-9003		
							+0.004"	90-9004		
							+0.010"	90-9009		
		0.600"	0.650"	0.980"	1.300"	0.620"	0.3125"	0.554" / Std.		90-9020
								+0.001"		90-9021
								+0.002"		90-9022
							+0.003"		90-9023	
							+0.004"		90-9024	
						+0.010"			90-9029	

Wrist Pin Bushings • Nickel Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	90-9030	Bronze	0.9515"	0.8555"	0.9325"	Standard	Pkg. of 1

These wrist pin bushings have been machined from solid nickel bronze bar stock with a superior surface finish and are designed to be direct OEM replacements. The nickel content gives these bushings improved wearability when compared to the OEM bushing. All of these bushings are 100% quality controlled.

BRP® • CAN AM® DS 450™ 2008-2015



• 450X™

• 450XXC™

• 450XXM™

• 450 EFi™

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	91-91100	Intake	.450"	1.385"	75#	235#	.450"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers
			4	H. T. Steel Basewashers	4	H. T. Shims	

Valves • Black Diamond™ • Black Nitroleg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	91-91112	Intake	38.00mm	1.496"	0.2350"	20°	3.550"	Standard
	91-91113	Intake	39.00mm	1.535"	0.2350"	20°	3.550"	Oversize
	91-91116	Exhaust	31.00mm	1.220"	0.2347"	29°	3.565"	Standard
	91-91117	Exhaust	32.00mm	1.260"	0.2347"	29°	3.565"	Oversize

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.315"	0.520"	5	A	B	C	D	Intake
				0.435"±0.002"	0.395"	0.120"	0.210"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71029-4		Pkg. of 4		0%	
			71029-8		Pkg. of 8		0%	
			71029-16		Pkg. of 16		Less- 10%	
			71029-50		Pkg. of 50		Less- 15%	
			71029-100		Pkg. of 100		Less- 20%	

BRP® • CAN AM® 400 / 500 / 650 / 800 / 1000 2006-'14

• Renegade™

• Outlander™

• Commander™

Valve Spring Kit • Lightweight Racing

For Outlander 500 2007-2014 / Outlander 650 2006-'14 / Outlander 800 2007-'14 / Outlander 1000 2014 / Renegade 500 2008-'14 / Renegade 500 2008-'14 / Renegade 800 2007-'14 / Renegade 1000 2012-'14 / Commander 800 2012-2014 / Commander 1000 2012-'14

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	91-91150	Intake	.445"	1.275"	58#	171#	.445"	
		Exhaust						
	Kit Includes			8	CrSi Valve Springs	8	Titanium Retainers	8

It may be necessary to use KPMI® Shortened Valve Guides (KPMI® # 91-91170 & # 91-91180) to achieve higher than stock lift.



BRP® • CAN AM® 400/500/650/800/1000 2006-'14

• Renegade™

• Outlander™

• Commander™

Valve Spring Kit • Lightweight Racing For Outlander 400 2006-'13

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	91-91156	Intake	.445"	1.275"	58#	171#	.445"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers

It may be necessary to use KPMI® Shortened Valve Guides (KPMI® # 91-91170 & # 91-91180) to achieve higher than stock lift.

Valves • Black Diamond™ • Black Nitroeng Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	91-91162	Intake	31.12mm	1.225"	0.1958"	22°	3.585"	Standard
	91-91163	Intake	32.12mm	1.264"	0.1958"	22°	3.585"	Oversize
	91-91166	Exhaust	27.00mm	1.063"	0.1953"	16°	3.520"	Standard
	91-91167	Exhaust	28.00mm	1.102"	0.1953"	16°	3.520"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	---	0.470"	0.780"	0.895"	0.433"	0.1958"	0.4362" / Std.		91-91170	
								+0.001"	91-91171	
								+0.002"	91-91172	
								+0.010"	91-91179	
	---	0.470"	0.680"	0.895"	0.433"	0.1953"	0.4362" / Std.			91-91180
								+0.001"		91-91181
								+0.002"		91-91182
							+0.010"		91-91189	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.320"	0.435"	5	A	B	C	D	Intake
				0.305"±0.002"	0.265"	0.100"	0.195"	Exhaust
				Part Number	Quantity		Quantity Incentive	
				71041-4	Pkg. of 4		0%	
				71041-8	Pkg. of 8		0%	
				71041-16	Pkg. of 16		Less- 10%	
				71041-50	Pkg. of 50		Less- 15%	
			71041-100	Pkg. of 100		Less- 20%		

BRP® • CAN AM® MAVERICK™ 2013-2017



BRP

ALL MODELS EXCEPT MAVERICK™ X3

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	91-91200	Intake	.470"	1.370"	57#	177#	.470"	
		Exhaust						
Kit Includes			8	CrSi Valve Springs	8	Titanium Retainers	8	H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroleg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	91-91212	Intake	36.50mm	1.437"	0.2160"	14°	3.620"	Standard
	91-91213	Intake	37.50mm	1.476"	0.2160"	14°	3.620"	Oversize
	91-91216	Exhaust	31.00mm	1.220"	0.2155"	25°	3.515"	Standard
	91-91217	Exhaust	32.00mm	1.260"	0.2155"	25°	3.515"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.515"	0.745"	0.935"	0.433"	0.2155"	0.4361"/ Std.		91-91220
								+0.001"	91-91221
								+0.002"	91-91222
								+0.010"	91-91229

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.315"	0.455"	5	A	B	C	D	Intake
				0.325"±0.002"	0.310"	0.110"	0.220"	Exhaust
				Part Number	Quantity		Quantity Incentive	
				71042-4	Pkg. of 4		0%	
				71042-8	Pkg. of 8		0%	
				71042-16	Pkg. of 16		Less- 10%	
				71042-50	Pkg. of 50		Less- 15%	
			71042-100	Pkg. of 100		Less- 20%		



BRP® • CAN AM® DS™ 650 2000-2007

BRP

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	91-91010	Intake	.500"	1.405"	69#	196#	.500"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers

Valve Spring Kit • Lightweight Racing with Shim Under Conversion

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	91-91000	Intake	.500"	1.390"	74#	216#	.400"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers
			4	H. T. Steel Tappets		4	H. T. Steel Shims	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	91-91015	Intake	36.00mm	1.417"	0.2350"	23°	3.565"	Standard
	91-91016	Intake	37.00mm	1.457"	0.2350"	23°	3.565"	Oversize
	91-91017	Exhaust	31.00mm	1.220"	0.2347"	29°	3.565"	Standard
	91-91018	Exhaust	32.00mm	1.260"	0.2347"	29°	3.565"	Oversize

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.400"	0.560"	5	A	B	C	D	Intake
				0.435"±0.002"	0.400"	0.120"	0.280"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71025-4		Pkg. of 4		0%		
		71025-8		Pkg. of 8		0%		
		71025-16		Pkg. of 16		Less- 10%		
		71025-50		Pkg. of 50		Less- 15%		
		71025-100		Pkg. of 100		Less- 20%		

BRP® • ROTAX® AIR COOLED SINGLES 500/600 1982-'06



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	91-9400	Intake	.450"	1.305"	106#	266#	.450"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.440"	0.490"	0.785"	1.165"	0.495"	0.2745"	0.4752" / Std.	91-0478		
									+0.002"	91-0479	
									+0.004"	91-0480	
									+0.006"	91-0481	
								+0.015"	91-4036		
									+0.027"	91-0499	
		0.440"	0.490"	---	1.240"	0.495"	0.2745"	0.4752" / Std.		91-0482	
									+0.002"	91-0483	
									+0.004"	91-0484	
							+0.006"	91-0485			
							+0.015"	91-4037			

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.374"	0.560"	4	A	B	C	D	Intake
				0.475"±0.005"	0.430"	0.115"	0.240"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71019-4				Pkg. of 4		0%
		71019-8				Pkg. of 8		0%
		71019-16				Pkg. of 16		Less- 10%
		71019-50				Pkg. of 50		Less- 15%
71019-100				Pkg. of 100		Less- 20%		


Tappets • O.E.M. Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity	
	91-9411	Intake	H. T. Steel	33.00mm	1.298"	1.235"	1.025"	0.340"	0.115"	Pkg. of 1
		Exhaust								




BRP® • SEADOO® "1503" 4-TEC ENGINES 2006-'16

Valve Spring Kit • Lightweight Racing **NEW PRODUCTS**

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	91-91051	Intake	.390"	1.360"	75#	185#	.390"
		Exhaust					
Kit Includes			12	CrSi Valve Springs			


This spring kit is designed specifically for this supercharged application. This spring kit drops into the cylinder head, working with the O.E.M. components to provide the correct pressure and harmonic range for this high performance supercharged power plant

Retainer Set • O.E.M. Replacement • H. T. Steel **NEW PRODUCTS**


	KPMI P/N	Type	Material	Quantity
	91-91052	Intake	H. T. Steel	Pkg. of 12
		Exhaust		

By utilizing FEA software and a special blend of heat treated alloy steel, it was possible to reduce mass while maintaining strength and wear resistance. These retainers are intended as an OEM replacement and are completely compatible with the OEM springs, keepers, and basewashers. The spring shoulder diameter has been designed to match the OEM retainer and spring as well as KPMI's high performance spring (P/N 91-91051), making this retainer your high performance OEM alternative.

Valves • Black Diamond™ • Black Nitroreg Stems **NEW PRODUCTS**

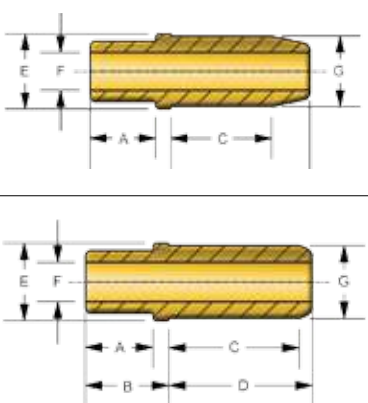


	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	91-91062	Intake	38.00mm	1.496"	0.2350"	20°	3.555"	Standard
	91-91063	Intake	39.00mm	1.535"	0.2350"	20°	3.555"	Oversize
	91-91066	Exhaust	31.00mm	1.220"	0.2345"	25°	3.565"	Standard
	91-91067	Exhaust	32.00mm	1.260"	0.2345"	28°	3.565"	Oversize

Valves • White Diamond® • Inconel® **NEW PRODUCTS**

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	91-91096	Exhaust	31.00mm	1.220"	0.2345"	28°	3.555"	Standard

Inconel® is classified as a "Super Alloy", meaning that it is designed to survive under the most extreme temperatures and pressures, where other valves will begin to burn, corrode, or completely fail. This is the material of choice for high output engines running turbos, superchargers, nitromethane, or nitrous.

Valve Guides • C630 Bronze **NEW PRODUCTS**

		A	B	C	D	E	F	G	Intake	Exhaust
		0.405"	0.500"	0.625"	0.860"	0.465"	0.2350"	0.4360" / Std.	91-91070	
								+0.001"	91-91071	
								+0.002"	91-91072	
								+0.004"	91-91074	
								+0.010"	91-91079	
		0.405"	0.500"	0.785"	0.860"	0.465"	0.2345"	0.4360" / Std.		91-91080
									+0.001"	91-91081
									+0.002"	91-91082
									+0.004"	91-91084
									+0.010"	91-91089

BSA® B25™ 1968-1971



Valve Spring Kit • Lightweight Racing **NEW PRODUCTS**

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	10-10300	Intake	.500"	1.375"	80#	258#	.500"
		Exhaust					
Kit Includes	2	CrSi Valve Springs	2	H. T. Steel Retainers	2	H. T. Steel Basewashers	

The springs in these kits are wound from super clean chrome silicon wire that has been heat treated and shot peened. These components offer optimal fitment, keeping lateral movement to a minimum. They work together as a system, providing long life, and maximum performance.

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	10-10312	Intake	36.91mm	1.453"	0.3105"	27°	3.660"	Standard
	10-10313	Intake	37.92mm	1.493"	0.3105"	27°	3.660"	Oversize
	10-10316	Exhaust	33.40mm	1.315"	0.3100"	24°	3.645"	Standard
	10-10317	Exhaust	34.39mm	1.354"	0.3100"	24°	3.645"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.330"	0.570"	0.630"	1.030"	0.560"	0.3095"	0.5010" / Std.		10-10320
							+0.001"		10-10321
							+0.010"		10-10329

Push Rod • Steel • Alloy Tube **NEW PRODUCTS**

	KPMI P/N	Type	Material	"A"	"B"	Quantity
	10-10410	Intake	• Thin Wall Alloy Tube	6.915"	6.775"	Pkg. of 2
		Exhaust	• Steel Tips	6.873"	6.733"	
Custom length push rods available upon request.						

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.465"	0.550"	1	A	B	C	D	Intake
				0.500"±0.010"	0.445"	0.230"	0.280"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71012-2			Pkg. of 2		0%	
		71012-4			Pkg. of 4		0%	
		71012-8			Pkg. of 8		0%	
		71012-16			Pkg. of 16		Less- 10%	
		71012-50			Pkg. of 50		Less- 15%	
71012-100			Pkg. of 100		Less- 20%			

Keeper Set • H. T. Steel • O.E.M. Replacement

	KPMI P/N	Style	A	B	C	D	E	Quantity
	51023-2	Single Radius Bead	0.310"	10.0°	0.235"	0.285"	0.417"	2 Pr.



BSA® A10™ 1950-1962

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.585"	0.765"	0.675"	1.335"	0.620"	0.3105"	0.5632" / Std.		10-4132
								+0.002"	10-4133
No seal required.							+0.004"	10-4134	

Wrist Pin Bushings • Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	10-10350	SAE660 Bronze	0.8775"	0.7480"	0.950"	Standard	Pkg. of 1
	10-10352	SAE660 Bronze	0.8795"	0.7480"	0.950"	+0.002"	Pkg. of 1

Designed and manufactured by Kibblewhite® to original OEM specifications with Kibblewhite® quality and precision.

Crankshaft Bushings • Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	10-5020	SAE660 Bronze	1.690"	1.372"	1.075"	Standard	Pkg. of 1
	10-5021	SAE660 Bronze	1.690"	1.362"	1.075"	-0.010"	Pkg. of 1
	10-5022	SAE660 Bronze	1.690"	1.352"	1.075"	-0.020"	Pkg. of 1
	10-5023	SAE660 Bronze	1.690"	1.342"	1.075"	-0.030"	Pkg. of 1
	10-5024	SAE660 Bronze	1.690"	1.332"	1.075"	-0.040"	Pkg. of 1
10-5025	SAE660 Bronze	1.690"	1.322"	1.075"	-0.050"	Pkg. of 1	

Machined from high quality mill certified SAE660 Bearing Bronze (custom sizes available).

BSA® A50™ 1966-1970

Wrist Pin Bushings • Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	10-10350	SAE660 Bronze	0.8775"	0.7480"	0.950"	Standard	Pkg. of 1
	10-10352	SAE660 Bronze	0.8795"	0.7480"	0.950"	+0.002"	Pkg. of 1

Designed and manufactured by Kibblewhite® to original OEM specifications with Kibblewhite® quality and precision.

Crankshaft Bushings • Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	10-5010	SAE660 Bronze	1.815"	1.501"	1.005"	Standard	Pkg. of 1
	10-5011	SAE660 Bronze	1.815"	1.491"	1.005"	-0.010"	Pkg. of 1
	10-5012	SAE660 Bronze	1.815"	1.481"	1.005"	-0.020"	Pkg. of 1
	10-5013	SAE660 Bronze	1.815"	1.471"	1.005"	-0.030"	Pkg. of 1
	10-5014	SAE660 Bronze	1.815"	1.461"	1.005"	-0.040"	Pkg. of 1
	10-5015	SAE660 Bronze	1.815"	1.451"	1.005"	-0.050"	Pkg. of 1
10-10000	SAE660 Bronze	1.835"	1.451"	1.005"	+0.020" OD	Pkg. of 1	

Machined from high quality mill certified SAE660 Bearing Bronze (Custom sizes available).

Crankshaft Thrust Washer • Bearing Bronze

	KPMI P/N	Outside Diameter A	Inside Diameter B	Thickness C	Locating Flats D
	10-1000	2.115"	1.690"	0.065"	1.900"

NEW PRODUCTS

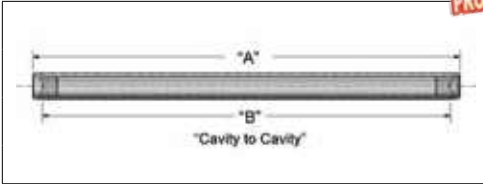
- Designed and manufactured by KPMI® specifically for use with various BSA® applications
- Improved from OEM parts to include KPMI® design standards and precision machining
- Manufactured from bearing bronze for increased wear resistance compared to OEM

BSA® A50™ 1966-1970



Push Rod • Steel • Alloy Tube

NEW PRODUCTS



KPMI P/N	Type	Material	"A"	"B"	Quantity
10-10400	Intake	• Thin Wall Alloy Tube • Steel Tips	6.148"	5.868"	Pkg. of 4
	Exhaust		7.421"	7.141"	

Custom length pushrods available upon request.

BSA® B50 GOLDSTAR™ 1971-1973

Valve Spring Kit • Lightweight Racing

NEW PRODUCTS



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
10-10050	Intake	.500"	1.375"	80#	258#	.500"	
	Exhaust						
Kit Includes		2	CrSi Valve Springs	2	H. T. Steel Retainers	2	H. T. Steel Basewashers

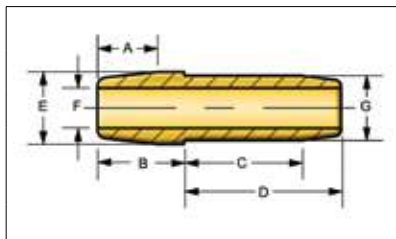
The springs in these kits are wound from super clean chrome silicon wire that has been heat treated and shot peened. These components offer optimal fitment, keeping lateral movement to a minimum. They work together as a system, providing long life, and maximum performance.

Valves • Black Diamond™ • Black Nitroreg Stems



KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
10-10062	Intake	44.45mm	1.750"	0.3105"	20°	4.080"	Standard
10-10063	Intake	45.97mm	1.810"	0.3105"	20°	4.060"	Oversize
10-10066	Exhaust	38.86mm	1.530"	0.3100"	24°	4.025"	Standard
10-10067	Exhaust	40.39mm	1.590"	0.3100"	24°	4.005"	Oversize

Valve Guides • C630 Bronze

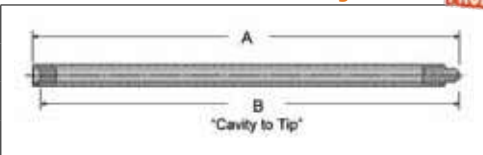


A	B	C	D	E	F	G	Intake	Exhaust
0.465"	0.675"	0.910"	1.215"	0.560"	0.3100"	0.5010" / Std.		10-10070
						+0.002"		10-10072
						+0.004"		10-10074
						+0.006"		10-10076
						+0.050"		10-10079

No seal required.

Push Rod • Steel • Alloy Tube

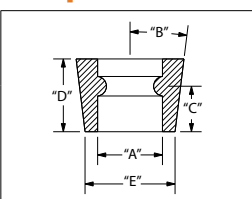
NEW PRODUCTS



KPMI P/N	Type	Material	"A"	"B"	Quantity
10-10425	Intake	• Thin Wall Alloy Tube • Steel Tips	8.642"	8.502"	Pkg. of 2
	Exhaust				

Custom length pushrods available upon request.

Keeper Set • H. T. Steel • O.E.M. Replacement



KPMI P/N	Style	A	B	C	D	E	Quantity
51023-2	Single Radius Bead	0.310"	10.0°	0.235"	0.285"	0.417"	2 Pr.



BSA® A65™ 1971-1972

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	10-4148	Intake	40.64mm	1.600"	0.3110"	R 1.500"	3.600"	Standard
	10-10100	Intake	42.14mm	1.659"	0.3110"	R 1.500"	3.580"	Oversize
	10-4150	Exhaust	35.81mm	1.410"	0.3105"	25°	3.555"	Standard
	10-10104	Exhaust	37.31mm	1.469"	0.3105"	25°	3.535"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.760"	0.840"	0.685"	1.135"	0.680"	0.3105"	0.5010" / Std.		10-4135
								+0.002"	10-4136
	No seal required.							+0.004"	10-4137

Crankshaft Thrust Washer • Bearing Bronze NEW PRODUCTS

	KPMI P/N	Outside Diameter A	Inside Diameter B	Thickness C	Locating Flats D
	10-1000	2.115"	1.690"	0.065"	1.900"
<ul style="list-style-type: none"> Designed and manufactured by KPMI® specifically for use with various BSA® applications Improved from OEM parts to include KPMI® design standards and precision machining Manufactured from bearing bronze for increased wear resistance compared to OEM 					

Push Rod • Steel • Alloy Tube NEW PRODUCTS

	KPMI P/N	Type	Material	"A"	"B"	Quantity
	10-10405	Intake	• Thin Wall Alloy Tube • Steel Tips	6.391"	6.111"	Pkg. of 4
		Exhaust		7.667"	7.387"	
Custom length pushrods available upon request.						

Wrist Pin Bushings • Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	10-10350	SAE660 Bronze	0.8775"	0.7480"	0.950"	Standard	Pkg. of 1
	10-10352	SAE660 Bronze	0.8795"	0.7480"	0.950"	+0.002"	Pkg. of 1

Designed and manufactured by Kibblewhite® to original OEM specifications with Kibblewhite® quality and precision.

Crankshaft Bushings • Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	10-5010	SAE660 Bronze	1.815"	1.501"	1.005"	Standard	Pkg. of 1
	10-5011	SAE660 Bronze	1.815"	1.491"	1.005"	-0.010"	Pkg. of 1
	10-5012	SAE660 Bronze	1.815"	1.481"	1.005"	-0.020"	Pkg. of 1
	10-5013	SAE660 Bronze	1.815"	1.471"	1.005"	-0.030"	Pkg. of 1
	10-5014	SAE660 Bronze	1.815"	1.461"	1.005"	-0.040"	Pkg. of 1
	10-5015	SAE660 Bronze	1.815"	1.451"	1.005"	-0.050"	Pkg. of 1
10-10000	SAE660 Bronze	1.835"	1.451"	1.005"	+0.020" OD	Pkg. of 1	

Machined from high quality mill certified SAE660 Bearing Bronze (Custom sizes available).

Keeper Set • H. T. Steel • O.E.M. Replacement

	KPMI P/N	Style	A	B	C	D	E	Quantity
	51023-4	Single Radius Bead	0.310"	10.0°	0.235"	0.285"	0.417"	4 Pr.

BSA® ROCKET III™ 1968-1973



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	10-10200	Intake	.400"	1.350"	94#	240#	.400"	
		Exhaust						
Kit Includes			6	CrSi Valve Springs	6	Titanium Retainers	6	H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	10-10212	Intake	38.86mm	1.530"	0.3097"	R 1.500"	3.975"	Standard
	10-10213	Intake	40.39mm	1.590"	0.3097"	R 1.500"	3.950"	Oversize
	10-10216	Exhaust	33.40mm	1.315"	0.3100"	25°	3.915"	Standard
	10-10217	Exhaust	35.56mm	1.400"	0.3092"	25°	3.890"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.460"	0.560"	0.760"	1.310"	0.560"	0.3100"	0.5010" / Std.		10-10220
								+0.002"	10-10222
	No seal required							+0.015"	10-10230
	A	B	C	D	E	F	G	Intake	Exhaust
	0.330"	0.430"	0.765"	1.315"	0.560"	0.3100"	0.5010" / Std.		10-10240
								+0.002"	10-10242
								+0.004"	10-10244
								+0.006"	10-10246
	Machined for seal. One seal supplied with each guide.							+0.015"	10-10250

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.465"	0.550"	1	A	B	C	D	Intake
				0.500"±0.010"	0.445"	0.230"	0.280"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71012-4			Pkg. of 4		0%		
	71012-6			Pkg. of 6		0%		
	71012-8			Pkg. of 8		0%		
	71012-16			Pkg. of 16		Less- 10%		
	71012-50			Pkg. of 50		Less- 15%		
71012-100			Pkg. of 100		Less- 20%			

BSA® 650™ TWIN

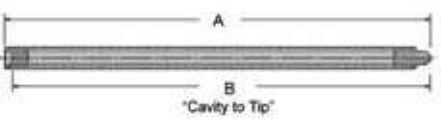
Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.465"	0.675"	0.910"	1.215"	0.560"	0.3100"	0.5010" / Std.		10-0347
								+0.002"	10-0348
								+0.004"	10-0349
								+0.006"	10-0350
No seal required.							+0.050"	10-4055	



BSA® VARIOUS B44™ 1967-1970


Push Rod • Steel • Alloy Tube NEW PRODUCTS

	KPMI P/N	Model	Type	Material	"A"	"B"	Quantity
	10-10415	Round Barrel 1967- Earlier	Intake	• Thin Wall Alloy Tube • Steel Tips	8.205"	8.065"	Pkg. of 2
		Exhaust					
10-10420	Square Barrel 1968-1970	Intake	• Thin Wall Alloy Tube • Steel Tips	8.355"	8.215"	Pkg. of 2	
		Exhaust					

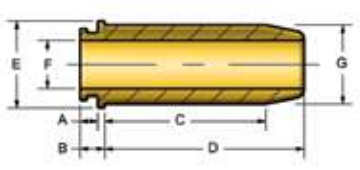
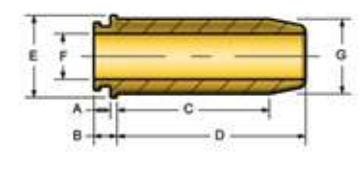
Custom length pushrods available upon request.

DUCATI® 800 / 900 2000-2007

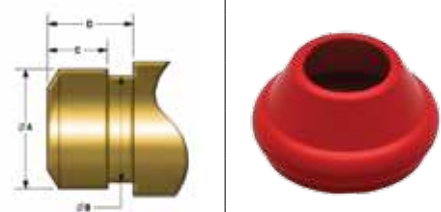
Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	92-92012	Intake	43.00mm	1.693"	0.3140"	22°	3.825"	Standard
	92-92013	Intake	44.00mm	1.732"	0.3140"	22°	3.825"	Oversize
	92-92016	Exhaust	38.00mm	1.496"	0.3135"	22°	3.730"	Standard
	92-92017	Exhaust	39.00mm	1.535"	0.3135"	22°	3.730"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.165"	0.205"	0.855	1.290"	0.560"	0.3145"	0.5147" / Std.	92-92020	
							+0.001"	92-92021	
							+0.002"	92-92022	
							+0.010"	92-92029	
	0.125"	0.165"	0.855	1.250"	0.560"	0.3140"	0.5147" / Std.		92-92030
							+0.001"		92-92031
							+0.002"		92-92032
							+0.010"		92-92039

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
8.0mm	0.285"	0.555"	1	0.466"-0.475"	0.411"-0.430"	0.040"	0.135"	Intake
								Exhaust
			Part Number		Quantity		Quantity Incentive	
			71043-4		Pkg. of 4		0%	
			71043-8		Pkg. of 8		0%	
			71043-16		Pkg. of 16		Less- 10%	
			71043-50		Pkg. of 50		Less- 15%	
			71043-100		Pkg. of 100		Less- 20%	

DUCATI® VARIOUS 750-916 1971-'98



DUCATI

Valve Guides • C630 Bronze • For 750 GT 1971-1974

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.345"	0.415"	0.810"	1.110"	0.644"	0.3140"	0.5152" / Std.		92-9600	
									+0.001"		92-9601
									+0.002"		92-9602
									+0.004"		92-9604
							+0.010"		92-9610		

Valve Guides • C630 Bronze • For 750 FI Special / Paso 1986-1988 / 906 Paso 1988-1990

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.115"	0.160"	1.050"	1.300"	0.560"	0.3140"	0.5152" / Std.		92-9640	
									+0.001"		92-9641
									+0.002"		92-9642
									+0.004"		92-9644
							+0.010"		92-9650		

Valve Guide Seals • Viton® For 750 GT 1971-'74 / 750 FI Special / Paso 1986-'88 / 906 Paso 1988-'90

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
8.0mm	0.285"	0.555"	1	A	B	C	D	Intake
				0.466"-0.475"	0.411"-0.430"	0.040"	0.135"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71043-4		Pkg. of 4		0%		
		71043-8		Pkg. of 8		0%		
		71043-16		Pkg. of 16		Less- 10%		
		71043-50		Pkg. of 50		Less- 15%		
71043-100		Pkg. of 100		Less- 20%				

Valve Guides • C630 Bronze • For 750 FI Special / Paso 1986-1988 / 906 Paso 1988-1990

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.245"	0.300"	0.900"	1.400"	---	0.2745	0.4745" / Std.		92-9620	
									+0.001"		92-9621
									+0.002"		92-9622
									+0.004"		92-9624
							+0.010"		92-9630		

Valve Guide Seals • Viton® • For 851 SBK 1987-1992 / 888 SBK 1991-1993 / 916 SBK 1994-1998

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.360"	0.520"	5	A	B	C	D	Intake
				0.383"-0.389"	---	---	0.255"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71044-4		Pkg. of 4		0%		
		71044-8		Pkg. of 8		0%		
		71044-16		Pkg. of 16		Less- 10%		
		71044-50		Pkg. of 50		Less- 15%		
71044-100		Pkg. of 100		Less- 20%				



DUCATI® SHIM KIT

Ducati Shim Kit

	KPMI P/N	Type of Shim	Quantity
	92-92300	Fits all years and two valve models except 1000cc, 1100cc, and Multistrada	Single Kit / 37 pcs. ----- 15 Closers / 21 Openers 1 Measurement Tool

This KPMI® Ducati Shim Kit # 92-92300 includes a closer measurement tool, 15 closers from 6.20 mm to 7.60 mm in 0.1 mm increments, and 21 openers from 3.00mm to 5.00mm in 0.1mm increments. All parts are heat treated for optimal performance and processed with black oxide for corrosion resistance and durability.

Individual Closers	
KPMI P/N	Size Range
92-92255	5.50mm
92-92256	5.60mm
92-92257	5.70mm
92-92258	5.80mm
92-92259	5.90mm
92-92260	6.00mm
92-92261	6.10mm
92-92262	6.20mm
92-92263	6.30mm
92-92264	6.40mm
92-92265	6.50mm
92-92266	6.60mm
92-92267	6.70mm
92-92268	6.80mm
92-92269	6.90mm
92-92270	7.00mm
92-92271	7.10mm
92-92272	7.20mm
92-92273	7.30mm
92-92274	7.40mm
92-92275	7.50mm
92-92276	7.60mm
92-92277	7.70mm
92-92278	7.80mm
92-92279	7.90mm
92-92280	8.00mm

Individual Openers	
KPMI P/N	Size Range
92-92120	2.00mm
92-92121	2.10mm
92-92122	2.20mm
92-92123	2.30mm
92-92124	2.40mm
92-92125	2.50mm
92-92126	2.60mm
92-92127	2.70mm
92-92128	2.80mm
92-92129	2.90mm
92-92130	3.00mm
92-92131	3.10mm
92-92132	3.20mm
92-92133	3.30mm
92-92134	3.40mm
92-92135	3.50mm
92-92136	3.60mm
92-92137	3.70mm
92-92138	3.80mm
92-92139	3.90mm
92-92140	4.00mm
92-92141	4.10mm
92-92142	4.20mm
92-92143	4.30mm
92-92144	4.40mm
92-92145	4.50mm

Individual Openers	
KPMI P/N	Size Range
92-92146	4.60mm
92-92147	4.70mm
92-92148	4.80mm
92-92149	4.90mm
92-92150	5.00mm
92-92151	5.10mm
92-92152	5.20mm
92-92153	5.30mm
92-92154	5.40mm
92-92155	5.50mm
92-92156	5.60mm
92-92157	5.70mm
92-92158	5.80mm
92-92159	5.90mm
92-92160	6.00mm
92-92161	6.10mm
92-92162	6.20mm
92-92163	6.30mm

KPMI® Shim Kit

- Designed and manufactured by KPMI® specifically for use with various Ducati® 8mm stem diameter valves.
- Improved from OEM parts to include KPMI® design standards and precision machining.
- All parts are through hardened for optimal performance, then black oxide coated for corrosion resistance and durability.


DUCATI® 696 / 796 / 1000 / 1100 2003-'10



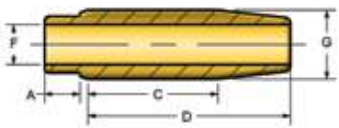
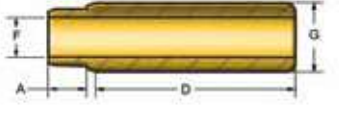
• Monster™ 1100 2010

• 1100S & Sport Classic GT™ 1000 Only


Valves • Black Diamond™ • Black Nitroneg Stems for 1000cc-1100cc Models Only

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	92-92062	Intake	45.00mm	1.772"	0.2746"	22°	3.830"	Standard
	92-92063	Intake	46.00mm	1.811"	0.2746"	22°	3.830"	Oversize
	92-92066	Exhaust	40.00mm	1.575"	0.2740"	22°	3.770"	Standard
	92-92067	Exhaust	41.00mm	1.614"	0.2740"	22°	3.770"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.235"	---	1.010"	1.270"	---	0.2745"	0.4744" / Std.		92-92070
							+0.001"	92-92071	
							+0.002"	92-92072	
							+0.010"	92-92079	
	0.235"	---	---	1.280"	---	0.2740"	0.4744" / Std.		92-92080
							+0.001"		92-92081
							+0.002"		92-92082
							+0.010"		92-92089

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.360"	0.520"	5	A	B	C	D	Intake
				0.383"-0.389"	---	---	0.255"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71044-4		Pkg. of 4		0%	
			71044-8		Pkg. of 8		0%	
			71044-16		Pkg. of 16		Less- 10%	
			71044-50		Pkg. of 50		Less- 15%	
		71044-100		Pkg. of 100		Less- 20%		



HD® FLATHEAD™ 1930-1973

HARLEY-DAVIDSON

Valve Spring Kit • O. E. M. Replacement for 74" - 80" Flathead 1930-1948

	KPMI P/N	Type	Kit Includes			
			H. T. Steel Retainers		H. T. Steel Keepers Pr.	
	20-20480	Intake	4	20-20481	4	20-20489
		Exhaust	4	20-20483	4	20-20487
Max Valve Lift	Installed Height	Seat Pressure		Open Pressure	@ Lift	
.375"	2.125"	65#		130#	.375"	

Some models may require shim# 20-20487 to achieve recommended installed height. All components are the quality you can expect from Kibblewhite®, manufactured to exact O.E.M. dimensions. These O.E.M. replacement parts may be purchased separately using the above part numbers.

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-20740	Intake	1.625"	41.28mm	0.3395"	R0.540	R 0.540	5.585"	45" Standard 1941-1973
		Exhaust							
	20-20742	Intake	1.930"	49.02mm	0.3715"	R0.325	7°	6.280"	UL 74"-80"
		Exhaust							
	20-20743	Intake	2.050"	52.07mm	0.3715"	R0.325	7°	6.280"	UL 74"-80"
		Exhaust							
20-20744	Intake	1.930"	49.02mm	0.3715"	R0.325	7°	5.940"	VL 74"-80"	
	Exhaust								
20-20745	Intake	2.050"	52.07mm	0.3715"	R0.325	7°	5.940"	VL 74"-80"	
	Exhaust								

Valve Guides • Cast Iron For 45" Flathead 1941-1973

	A	B	C	D	E	F	G	Intake	Exhaust
	1.200"	1.330"	1.310"	1.470"	0.855"	0.3395"	0.5647" / Std.		20-20750
							+0.001"		20-20751
							+0.002"		20-20752
							+0.010"		20-20759

Valve Guides • Cast Iron For 74"- 80" Flathead 1930-1948

	A	B	C	D	E	F	G	Intake	Exhaust
	1.120"	1.275"	1.630"	1.860"	0.935"	0.3715"	0.5952" / Std.		20-20760
							+0.001"		20-20761
							+0.002"		20-20762
							+0.010"		20-20769

For sizing KPMI® Cast Iron Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

HD® KNUCKLEHEAD™ 1936-1947

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20170	Intake	.480"	1.310"	158#	340#	.480"
		Exhaust					
	Kit Includes			4	H. T. Steel Retainers	4	H. T. Steel Keepers Pr.
			4	CrSi Valve Springs	4	H. T. Steel Shims	

Spring kit must be used with Kibblewhite® guides, or the tops of your guides must be machined to use this kit. Retainers manufactured from heat treated, aircraft quality, steel billet. FEA stress analysis used to incorporate unique concave radius, and design equidistant holes to lighten retainer without sacrificing strength.

HD® KNUCKLEHEAD™ 1936-1947



Valve Spring Kit • O. E. M. Replacement

	KPMI P/N	Type	Kit Includes			
			H. T. Steel Retainers	H. T. Steel Keepers Pr.	CrSi Valve Springs	H. T. Steel Basewashers
	20-20425	Intake Exhaust	4 20-20426	4 20-20429	4 20-20427	4 20-20428
	Max Valve Lift	Installed Height	Seat Pressure		Open Pressure	@ Lift
.415"	1.375"	127#		270#	.415"	

All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance. All components are the quality you can expect from KPMI®, manufactured to exact O.E.M. dimensions. These O.E.M. replacement parts may be purchased separately using the above part numbers.

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
			Radius	Angle					
	20-4101	Intake	1.750"	44.45mm	0.3765"	R0.234	23°	3.590"	Standard
	20-20414	Intake	1.940"	49.28mm	0.3765"	R0.234	23°	3.590"	Oversize
20-4102	Exhaust	1.750"	44.45mm	0.3760"	R0.236	27°	3.670"	Standard	

Valve Guides • Cast Iron

	A	B	C	D	E	F	G	Intake	Exhaust
	0.600"	0.700"	0.700"	1.200"	1.050"	0.3755"	0.6440" / Std.		20-4095C
								+0.002"	20-4096C
								+0.004"	20-4097C
								+0.006"	20-4098C
								+0.008"	20-4099C
								+0.025"	20-4100C

For sizing KPMI® Cast Iron Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-20570	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 2
	20-20572	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 2
	20-20580	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1
20-20582	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 1	

Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

Wrist Pin Bushings • High Performance • C630 Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-0645	C630 Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Clutch Springs

	KPMI P/N	Description	A	B	C	Quantity
	20-0788	Replace 38075-41	0.468"	0.685"	1.488"	Pkg. of 10
<p>Manufactured from high quality chrome silicon wire, they are designed to supply 20% more plate load than stock springs.</p>						



HD® PANHEAD™ 1948-1965

HARLEY-DAVIDSON

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20445	Intake	.600"	1.500"	154#	389#	.600"
		Exhaust					
	Kit Includes			4	H. T. Steel Retainers	4	H. T. Steel Keepers Pr.
			4	CrSi Valve Springs	4	H. T. Steel Basewashers	

This lightweight Panhead® spring kit is designed to work with factory covers without interference. Further, the basewasher in this kit has been counter bored to allow the seal to fit inside the basewasher which increases the retainer to seal clearance for higher lift cams. The retainers in this kit are designed using the latest CAD software available. The retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

Valve Spring Kit • O. E. M. Replacement

	KPMI P/N	Type	Kit Includes							
			H. T. Steel Retainers	H. T. Steel Keepers Pr.	CrSi Valve Springs	H. T. Steel Basewashers				
	20-20430	Intake	4	20-20431	4	20-20434	4	20-20432	4	20-20433
		Exhaust								
Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	.415"	1.375"	129#	272#	.415"	

All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance. All components are the quality you can expect from KPMI®, manufactured to exact O.E.M. dimensions. These O.E.M. replacements parts may be purchased separately using the above part numbers.

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip		O. L.	Remarks
					Radius	Angle		
	20-4257	Intake	1.750"	44.45mm	0.3765"	R0.234	23°	3.800"
20-4195	Exhaust	1.750"	44.45mm	0.3760"	R0.234	29°	3.820"	OEM18082-57

Valve Guides • C630 Bronze • Cast Iron

	A	B	C	D	E	F	G	Intake	
	0.450"	0.540"	0.810"	1.340"	0.745"	0.3760"	0.5650" / Std.	C630 Bronze	Cast Iron
							+0.001"	20-2020	20-2020C
							+0.002"	20-2022	20-2022C
							+0.003"	20-2023	20-2023C
							+0.004"	20-2024	20-2024C
							+0.006"	20-2026	20-2026C
							+0.008"	20-2028	20-2028C
							+0.010"	20-2029	20-2029C
							+0.025"	20-20HS	20-20HSC
	A	B	C	D	E	F	G	Exhaust	
	0.450"	0.540"	0.810"	1.340"	0.745"	0.3760"	0.5650" / Std.	C630 Bronze	Cast Iron
							+0.001"	20-2030	20-2030C
							+0.002"	20-2031	20-2031C
							+0.003"	20-2032	20-2032C
							+0.004"	20-2033	20-2033C
							+0.006"	20-2034	20-2034C
							+0.008"	20-2036	20-2036C
							+0.010"	20-2038	20-2038C
							+0.025"	20-2039	20-2039C
						+0.025"	20-30HS	20-30HSC	

For sizing KPMI® Cast Iron Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Wrist Pin Bushings • High Performance • C630 Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-0645	C630 Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

HD® PANHEAD™ 1948-1965



Valve Guides • Manganese Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.375"	0.465"	0.885"	1.435"	0.745"	0.3760"	0.5650" / Std.	20-2020M	20-2030M	
								+0.001"	20-2021M	20-2031M
								+0.002"	20-2022M	20-2032M
								+0.003"	20-2023M	20-2033M
								+0.004"	20-2024M	20-2034M
								+0.006"	20-2026M	20-2036M
								+0.008"	20-2028M	20-2038M
								+0.010"	20-2029M	20-2039M
							+0.025"	20-20HSM	20-30HSM	

For sizing KPMI® Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
3/8"	0.516"	0.661"	5	A	B	C	D	Intake
				0.562"±0.002"	---	---	0.375"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71011-4		Pkg. of 4		0%
				71011-8		Pkg. of 8		0%
				71011-16		Pkg. of 16		Less- 10%
				71011-50		Pkg. of 50		Less- 15%
				71011-100		Pkg. of 100		Less- 20%

Valve Guide Seals • PC Style

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
3/8"	0.518"	0.650"	6	A	B	C	D	Intake
				0.562"±0.002"	---	---	0.375"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71002-4		Pkg. of 4		0%
				71002-8		Pkg. of 8		0%
				71002-16		Pkg. of 16		Less- 10%
				71002-50		Pkg. of 50		Less- 15%
				71002-100		Pkg. of 100		Less- 20%

Valve Guide Seals • O.E.M. Replacement

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
3/8"	0.375"	0.660"	7	A	B	C	D	Intake
				0.562"±0.002"	---	---	0.315"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71035-4		Pkg. of 4		0%
				71035-8		Pkg. of 8		0%
				71035-16		Pkg. of 16		Less- 10%
				71035-50		Pkg. of 50		Less- 15%
				71035-100		Pkg. of 100		Less- 20%

Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
		20-20570	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard
	20-20572	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 2
	20-20580	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1
	20-20582	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 1

Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.



HD® PANHEAD™ 1948-1965

Clutch Springs

	KPMI P/N	Description	A	B	C	Quantity
	20-0788	Replace 38075-41	0.468"	0.685"	1.488"	Pkg. of 10

Manufactured from high quality chrome silicon wire, they are designed to supply 20% more plate load than stock springs.

Spigot • Exhaust • 6061-T6 Aluminum

	KPMI P/N	Type	Material	O. D.	I. D.	O. L.	Quantity
	20-2104	Exhaust	6061-T6 aluminum	2.060"	1.765"	0.970"	Pkg. of 1

Kibblewhite®'s replacement exhaust spigot has been designed and machined from 6061-T6 aluminum extruded tubing. This spigot allows you to rebuild the exhaust attachment point on your classic Panhead engine.

Recommended Valve Seats • Powdered Metal

	KPMI P/N	Type	O. D.		I. D.		Height		Quantity
	10-SC510	Intake	2.007"	50.98mm	1.562"	39.67mm	0.450"	11.43mm	Pkg. of 1

KPMI's proprietary seat material is compatible with leaded and unleaded fuels including methanol and ethanol fuel blends. This material offers excellent thermal characteristics and resists microwelding that leads to seat and valve face recession. Leading edge has generous radius to ease installation.

HD® SPORTSTER™ 1957-1969

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-2210	Intake	.480"	1.310"	158#	340#	.480"
		Exhaust					
	Kit Includes	4	H. T. Steel Retainers		4	H. T. Steel Keepers Pr.	
4		CrSi Valve Springs		4	H. T. Steel Basewashers		

Longer KPMI 'R' model valves, 20-4167 (int.) and 20-4168 (ex.) may be required to achieve correct installed height for this spring kit. Rockers should clear covers when kit is installed correctly.

Valve Spring Kit • O. E. M. Replacement

	KPMI P/N	Type	Kit Includes							
			H. T. Steel Retainers		H. T. Steel Keepers Pr.		CrSi Valve Springs		H. T. Steel Basewashers	
	20-20440	Intake	4	20-20441	4	20-4275	4	20-2215	4	20-20085
		Exhaust								
Max Valve Lift	Installed Height	Seat Pressure		Open Pressure		@ Lift				
.400"	1.245"	95#		330#		.400"				

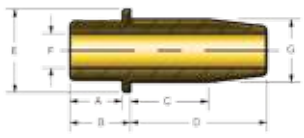

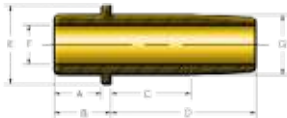

All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance. All components are the quality you can expect from KPMI®, manufactured to exact O.E.M. dimensions. These O.E.M. replacements parts may be purchased separately using the above part numbers.

HD® SPORTSTER™ 1957-1969




HARLEY-DAVIDSON

Valve Guides • C630 Bronze • Cast Iron


		A	B	C	D	E	F	G	Intake	
		0.470"	0.545"	0.700"	1.225"	0.745"	0.3085"	0.5650" / Std.	C630 Bronze	Cast Iron
								+0.001"	20-2320	20-2320C
								+0.002"	20-2321	20-2321C
								+0.010"	20-2322	20-2322C
								+0.010"	20-2329	20-2329C
		A	B	C	D	E	F	G	Exhaust	
		0.470"	0.545"	0.600"	1.225"	0.745"	0.3375"	0.5650" / Std.	C630 Bronze	Cast Iron
								+0.001"	20-2330	20-2330C
								+0.002"	20-2331	20-2331C
								+0.010"	20-2332	20-2332C
								+0.010"	20-2339	20-2339C

For sizing KPMI® Cast Iron Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valves • Black Diamond™ • Black Nitroreg Stems

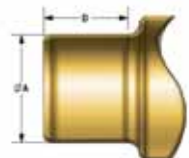

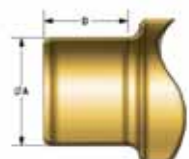

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
			Radius	Angle					
	20-4258	Intake	1.825"	46.36mm	0.3090"	R0.375	23°	3.562"	OEM18071-58
	20-4197	Exhaust	1.570"	39.88mm	0.3384"	R0.236	29°	3.512"	OEM18080-58R
	20-4197-1	Exhaust	1.630"	41.40mm	0.3384"	R0.236	29°	3.512"	Oversize

Valve Seats • Powdered Metal

	KPMI P/N	Type	O. D.		I. D.		Height		Quantity
		10-SC541	Intake	2.132"	54.15mm	1.690"	42.93mm	0.450"	11.43mm
	10-SC446	Exhaust	1.757"	44.62mm	1.375"	35.00mm	0.450"	11.43mm	Pkg. of 1

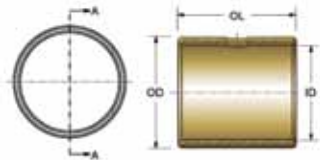
KPMI's proprietary seat material is compatible with leaded and unleaded fuels including methanol and ethanol fuel blends. This material offers excellent thermal characteristics and resists microwelding that leads to seat and valve face recession. Leading edge has generous radius to ease installation.

Valve Guide Seals • O.E.M. Replacement

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.375"	0.630"	7	A	B	C	D	Intake
				0.530"±0.002"	---	---	0.295"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71033-4		Pkg. of 4		0%		
		71033-8		Pkg. of 8		0%		
		71033-16		Pkg. of 16		Less- 10%		
		71033-50		Pkg. of 50		Less- 15%		
71033-100		Pkg. of 100		Less- 20%				
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
11/32"	0.375"	0.630"	7	A	B	C	D	Intake
				0.530"±0.002"	---	---	0.295"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71034-4		Pkg. of 4		0%		
		71034-8		Pkg. of 8		0%		
		71034-16		Pkg. of 16		Less- 10%		
		71034-50		Pkg. of 50		Less- 15%		
71034-100		Pkg. of 100		Less- 20%				

Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

Rocker Arm Bushings • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8



HD® SPORTSTER™ 1957-1969

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-20810	660 Bearing Bronze	0.897"	0.788"	0.945"	Standard	Pkg. of 1
	20-20812	660 Bearing Bronze	0.899"	0.788"	0.945"	+0.002"	Pkg. of 1

Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

Wrist Pin Bushings • High Performance • C630 Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-0644	C630 Bronze	0.897"	0.788"	0.945"	Pkg. of 1

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

HD® SPORTSTER™ 1970-1983

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-2210	Intake	.480"	1.310"	158#	340#	.480"
		Exhaust					
	Kit Includes			4	H. T. Steel Retainers	4	H. T. Steel Keepers Pr.
			4	CrSi Valve Springs	4	H. T. Steel Basewashers	

Longer KPMI 'R' model valves, 20-4167 (int.) and 20-4168(ex.) may be required to achieve correct installed height for this spring kit. Rockers should clear covers when kit is installed correctly. Retainers manufactured from heat treated, aircraft quality, steel billet. FEA stress analysis used to incorporate unique concave radius, and design equidistant holes to lighten retainer without sacrificing strength. Black Oxide treatment applied to resist corrosion.

Valve Spring Kit • O. E. M. Replacement

	KPMI P/N	Type	Kit Includes							
			H. T. Steel Retainers		H. T. Steel Keepers Pr.		CrSi Valve Springs		H. T. Steel Basewashers	
	20-20440	Intake	4	20-20441	4	20-4275	4	20-2215	4	20-20085
		Exhaust								
	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift	
.400"		1.245"		95#		330#		.400"		

All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance. All components are the quality you can expect from KPMI®, manufactured to exact O.E.M. dimensions. These O.E.M. replacements parts may be purchased separately using the above part numbers.

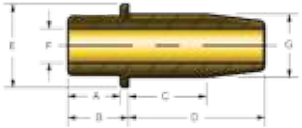



Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-4196	Intake	1.935"	49.15mm	0.3090"	R0.256	23°	3.620"	OEM18070-70
	20-4167	Intake	1.950"	49.53mm	0.3090"	R0.256	23°	3.690"	OEM18069-65R
	20-4196-1	Intake	2.000"	50.80mm	0.3090"	R0.256	23°	3.620"	Oversize
	20-4197	Exhaust	1.570"	39.88mm	0.3384"	R0.236	29°	3.512"	OEM18080-58R
20-4197-1	Exhaust	1.630"	41.40mm	0.3384"	R0.236	29°	3.512"	Oversize	
20-4168	Exhaust	1.750"	44.45mm	0.3384"	R0.236	29°	3.620"	OEM18080-70R	

HD® SPORTSTER™ 1970-1983




Valve Guides • C630 Bronze • Cast Iron

		A	B	C	D	E	F	G	Intake	
		0.470"	0.545"	0.700"	1.225"	0.745"	0.3085"	0.5650" / Std.	C630 Bronze	Cast Iron
								+0.001"	20-2320	20-2320C
								+0.002"	20-2321	20-2321C
								+0.010"	20-2322	20-2322C
								+0.010"	20-2329	20-2329C
		A	B	C	D	E	F	G	Exhaust	
		0.470"	0.545"	0.600"	1.225"	0.745"	0.3375"	0.5650" / Std.	C630 Bronze	Cast Iron
								+0.001"	20-2330	20-2330C
								+0.002"	20-2331	20-2331C
								+0.010"	20-2332	20-2332C
								+0.010"	20-2339	20-2339C

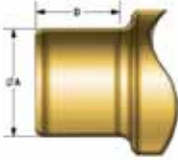

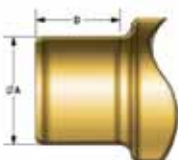

For sizing KPMI® Cast Iron Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Seats • Powdered Metal

	KPMI P/N	Type	O. D.		I. D.		Height		Quantity
	10-SC541	Intake	2.132"	54.15mm	1.690"	42.93mm	0.450"	11.43mm	Pkg. of 1
	10-SC446	Exhaust	1.757"	44.62mm	1.375"	35.00mm	0.450"	11.43mm	Pkg. of 1

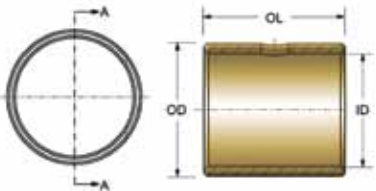
KPMI's proprietary seat material is compatible with leaded and unleaded fuels including methanol and ethanol fuel blends. This material offers excellent thermal characteristics and resists microwelding that leads to seat and valve face recession. Leading edge has generous radius to ease installation.

Valve Guide Seals • O.E.M. Replacement

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	Intake
5/16"	0.375"	0.630"	7	0.530"±0.002"	---	---	0.295"	Exhaust
				Part Number		Quantity	Quantity Incentive	
		71033-4		Pkg. of 4	0%			
		71033-8		Pkg. of 8	0%			
		71033-16		Pkg. of 16	Less- 10%			
		71033-50		Pkg. of 50	Less- 15%			
		71033-100		Pkg. of 100	Less- 20%			
Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	Intake
11/32"	0.375"	0.630"	7	0.530"±0.002"	---	---	0.295"	Exhaust
				Part Number		Quantity	Quantity Incentive	
		71034-4		Pkg. of 4	0%			
		71034-8		Pkg. of 8	0%			
		71034-16		Pkg. of 16	Less- 10%			
		71034-50		Pkg. of 50	Less- 15%			
		71034-100		Pkg. of 100	Less- 20%			

Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

Rocker Arm Bushings • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8



HD[®] SPORTSTER™ 1970-1983

HARLEY-DAVIDSON

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze For Sportster 1957-1983

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-20810	660 Bearing Bronze	0.897"	0.788"	0.945"	Standard	Pkg. of 1
	20-20812	660 Bearing Bronze	0.899"	0.788"	0.945"	+0.002"	Pkg. of 1

Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

Wrist Pin Bushings • High Performance • C630 Bronze For Ironhead Sportster 1957-1983

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-0644	C630 Bronze	0.897"	0.788"	0.945"	Pkg. of 1

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Clutch Springs

	KPMI P/N	Description	O. D.	I. D.	Free Length	Quantity
	20-0787	Replaces 38075-68 Dual Spring	2.520"	3.090"	2.630"	Pkg. of 1

Manufactured from high quality chrome silicon wire, spring is designed to supply 20% more plate load than stock.

HD[®] SHOVELHEAD™ 74" 1966-1977

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-2110	Intake	.600"	1.510"	152#	387#	.600"
		Exhaust					
Kit Includes			4	H.A. 7075-T6 Retainers	4	H. T. Steel Keepers Pr.	
			4	CrSi Valve Springs	4	H. T. Steel Basewashers	

Retainer offset 0.070" for taller installed height. Basewashers counter-bored to accept a 0.665" OD seal

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20450	Intake	.600"	1.510"	152#	387#	.600"
		Exhaust					
Kit Includes			4	H. T. Steel Retainers	4	H. T. Steel Keepers Pr.	
			4	CrSi Valve Springs	4	H. T. Steel Basewashers	

All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

Valve Spring Kit • O. E. M. Replacement


	KPMI P/N	Type	Kit Includes							
			H. T. Steel Retainers		H. T. Steel Keepers Pr.		CrSi Valve Springs		H. T. Steel Basewashers	
	20-20435	Intake	4	20-20436	4	20-20439	4	20-20437	4	20-20438
		Exhaust								
Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift						
.415"	1.375"	129#	272#	.415"						

All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance. All components are the quality you can expect from KPMI®, manufactured to exact O.E.M. dimensions. These O.E.M. replacements parts may be purchased separately using the above part numbers.


HD® SHOVELHEAD™ 74" 1966-1977



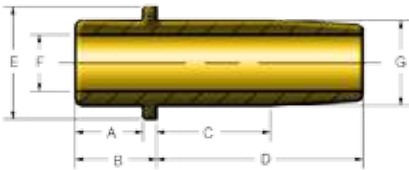

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
						20-4194	Intake		
20-4256	Intake	2.000"	50.80mm	0.3765"	R0.234	23°	3.885"	Oversize	
20-4195	Exhaust	1.750"	44.45mm	0.3760"	R0.234	29°	3.810"	OEM18082-57	
20-4195S	Exhaust	1.780"	45.21mm	0.3760"	R0.234	29°	3.820"	Oversize	
20-4195-1	Exhaust	1.8120"	46.02mm	0.3760"	R0.234	29°	3.820"	Oversize	

Black Diamond™ Valves • Fat Stem • Black Nitroreg Stems

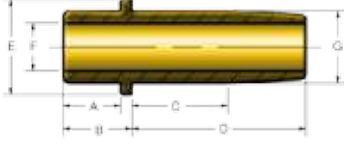
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
						20-4294	Intake		
20-4295	Exhaust	1.750"	44.45mm	0.3775"	R0.234	29°	3.810"	Standard	

Valve Guides • C630 Bronze • Cast Iron

	A	B	C	D	E	F	G	Intake	
	0.450"	0.540"	0.810"	1.340"	0.745"	0.3760"	0.5650" / Std.	C630 Bronze	Cast Iron
								+0.001"	20-2020
							+0.002"	20-2021	20-2021C
							+0.003"	20-2022	20-2022C
							+0.004"	20-2023	20-2023C
							+0.006"	20-2024	20-2024C
							+0.008"	20-2026	20-2026C
							+0.010"	20-2028	20-2028C
							+0.025"	20-2029	20-2029C
								20-20HS	20-20HSC
	A	B	C	D	E	F	G	Exhaust	
	0.450"	0.540"	0.810"	1.340"	0.745"	0.3760"	0.5650" / Std.	Cast Iron	Cast Iron
								+0.001"	20-2030
							+0.002"	20-2031	20-2031C
							+0.003"	20-2032	20-2032C
							+0.004"	20-2033	20-2033C
							+0.006"	20-2034	20-2034C
							+0.008"	20-2036	20-2036C
							+0.010"	20-2038	20-2038C
							+0.025"	20-2039	20-2039C
								20-30HS	20-30HSC

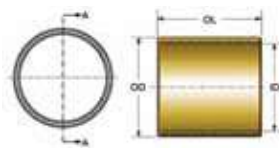
For sizing KPMI® Cast Iron Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guides • Manganese Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.375"	0.465"	0.885"	1.435"	0.745"	0.3760"	0.5650" / Std.	20-2020M	20-2030M
								+0.001"	20-2021M
							+0.002"	20-2022M	20-2032M
							+0.003"	20-2023M	20-2033M
							+0.004"	20-2024M	20-2034M
							+0.006"	20-2026M	20-2036M
							+0.008"	20-2028M	20-2038M
							+0.010"	20-2029M	20-2039M
							+0.025"	20-20HSM	20-30HSM

For sizing KPMI® Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Kicker Shaft Bushings & Seal

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-2107	Bronze	0.9355"	0.741"	1.105"	Standard	2 Bushings & 1 O-Ring
	20-2108	Bronze	0.9405"	0.741"	1.105"	+0.005"	2 Bushings & 1 O-Ring



HD® SHOVELHEAD™ 74" 1966-1977

HARLEY-DAVIDSON

Valve Guide Seals • O.E.M. Replacement

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
3/8"	0.375"	0.660"	7	A	B	C	D	Intake
				0.562"±0.002"	---	---	0.315"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71035-4		Pkg. of 4	0%	
				71035-8		Pkg. of 8	0%	
				71035-16		Pkg. of 16	Less- 10%	
				71035-50		Pkg. of 50	Less- 15%	
		71035-100		Pkg. of 100	Less- 20%			

Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
3/8"	0.516"	0.661"	5	A	B	C	D	Intake
				0.562"±0.002"	---	---	0.375"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71011-4		Pkg. of 4	0%	
				71011-8		Pkg. of 8	0%	
				71011-16		Pkg. of 16	Less- 10%	
				71011-50		Pkg. of 50	Less- 15%	
		71011-100		Pkg. of 100	Less- 20%			

Valve Guide Seals • PC Style

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
3/8"	0.518"	0.650"	6	A	B	C	D	Intake
				0.562"±0.002"	---	---	0.375"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71002-4		Pkg. of 4	0%	
				71002-8		Pkg. of 8	0%	
				71002-16		Pkg. of 16	Less- 10%	
				71002-50		Pkg. of 50	Less- 15%	
		71002-100		Pkg. of 100	Less- 20%			

Rocker Arm Bushings • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
		20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"

Wrist Pin Bushings • High Performance • Nickel Bronze Alloy

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
		20-0645	C630 Bronze	0.897"	0.788"	1.065"	Standard

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze


	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-20570	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 2
	20-20572	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 2
	20-20580	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1
	20-20582	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 1

Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

HD® SHOVELHEAD™ 74" 1966-1977

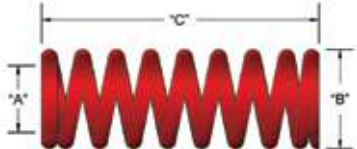


Valve Seats • Powdered Metal

	KPMI P/N	Type	O. D.		I. D.		Height		Quantity
	10-SC550	Intake	54.97mm	2.164"	44.45mm	1.750"	11.43mm	0.450"	Pkg. of 1
	10-SC523	Exhaust	52.32mm	2.060"	39.67mm	1.562"	11.43mm	0.450"	Pkg. of 1

KPMI's proprietary seat material is compatible with leaded and unleaded fuels including methanol and ethanol fuel blends. This material offers excellent thermal characteristics and resists microwelding that leads to seat and valve face recession. Leading edge has generous radius to ease installation.


Clutch Springs

	KPMI P/N	Description	A	B	C	Quantity
	20-0789	Replace 38075-68	0.439"	0.629"	1.718"	Pkg. of 10

Manufactured from high quality chrome silicon wire, they are designed to supply 20% more plate load than stock springs.


HD® SHOVELHEAD™ 80" 1978-1983

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-21100	Intake	.600"	1.510"	152#	387#	.600"
		Exhaust					
	Kit Includes			4	H.A. 7075-T6 Retainers	4	H. T. Steel Keepers Pr.
			4	CrSi Valve Springs	4	H. T. Steel Basewashers	
<hr/>							
Kit Includes							
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
*20-21150	Intake	.600"	1.510"	152#	387#	.600"	
	Exhaust						
Kit Includes			4	H. T. Steel Retainers	4	H. T. Steel Keepers Pr.	
			4	CrSi Valve Springs	4	H. T. Steel Basewashers	


*All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance. Retainer offset 0.070" for taller installed height. Basewashers counter-bored to accept a 0.720" OD seal. Basewasher fits over 0.625" guide top.

Valve Spring Kit • O. E. M. Replacement

	KPMI P/N	Type	Kit Includes							
			H. T. Steel Retainers	H. T. Steel Keepers Pr.	CrSi Valve Springs	H. T. Steel Basewashers				
	20-20850	Intake	4	20-20851	4	20-20857	4	20-20853	4	20-20855
		Exhaust								
Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift						
.415"	1.375"	129#	272#	.415"						

All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance. All components are the quality you can expect from KPMI®, manufactured to exact O.E.M. dimensions. These O.E.M. replacements parts may be purchased separately using the above part numbers.

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-4194	Intake	1.950"	49.53mm	0.3765"	R0.234	23°	3.885"	OEM18078-80
	20-4256	Intake	2.000"	50.80mm	0.3765"	R0.234	23°	3.885"	Oversize
	20-4195	Exhaust	1.750"	44.45mm	0.3760"	R0.234	29°	3.810"	OEM18082-57
	20-4195S	Exhaust	1.780"	45.21mm	0.3760"	R0.234	29°	3.820"	Oversize
20-4195-1	Exhaust	1.8120"	46.02mm	0.3760"	R0.234	29°	3.820"	Oversize	



HD® SHOVELHEAD™ 80" 1978-1983

Valves • Black Diamond™ Valves • Fat Stem • Black Nitroleg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-4294	Intake	1.950"	49.53mm	0.3780"	R0.234	23°	3.885"	OEM18075-81
20-4295	Exhaust	1.750"	44.45mm	0.3775"	R0.234	29°	3.810"	Standard	

Valve Guides • C630 Bronze • Cast Iron • Manganese Bronze

	A	B	C	D	E	F	G	Intake		
								C630 Bronze	Cast Iron	Manganese
								0.450"	0.540"	0.755"
						+0.001"	20-2051	20-2051C	20-2051M	
						+0.002"	20-2052	20-2052C	20-2052M	
						+0.003"	---	20-2053C	---	
						+0.004"	20-2054	20-2054C	20-2054M	
						+0.005"	---	20-2055C	---	
						+0.006"	20-2056	20-2056C	20-2056M	
						+0.008"	---	20-2058C	---	
						+0.010"	---	20-2059C	---	
						+0.025"	20-50HS	20-50HSC	20-50HSM	
	A	B	C	D	E	F	G	Exhaust		
	0.450"	0.540"	0.755"	1.370"	0.745"	0.3745"	0.625" / Std.	20-2060	20-2060C	20-2060M
							+0.001"	20-2061	20-2061C	20-2061M
							+0.002"	20-2062	20-2062C	20-2062M
							+0.003"	---	20-2063C	---
							+0.004"	20-2064	20-2064C	20-2064M
							+0.005"	---	20-2065C	---
							+0.006"	20-2066	20-2066C	20-2066M
							+0.008"	---	20-2068C	---
							+0.010"	---	20-2069C	---
							+0.025"	20-60HS	20-60HSC	20-60HSM

For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
3/8"	0.516"	0.661"	5	A	B	C	D	Intake
				0.562"±0.002"	---	---	0.375"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			*71011-4		Pkg. of 4		0%	
			*71011-8		Pkg. of 8		0%	
			*71011-16		Pkg. of 16		Less- 10%	
			*71011-50		Pkg. of 50		Less- 15%	
		*71011-100		Pkg. of 100		Less- 20%		

Valve Guide Seals • PC Style

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
3/8"	0.518"	0.650"	6	A	B	C	D	Intake
				0.562"±0.002"	---	---	0.375"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			*71002-4		Pkg. of 4		0%	
			*71002-8		Pkg. of 8		0%	
			*71002-16		Pkg. of 16		Less- 10%	
			*71002-50		Pkg. of 50		Less- 15%	
		*71002-100		Pkg. of 100		Less- 20%		

HD® SHOVELHEAD™ 80" 1978-1983



Valve Guide Seals • O.E.M. Replacement

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
3/8"	0.400"	0.720"	7	0.625"±0.002"	---	---	0.310"	Intake
				---	---	---	---	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71036-4			Pkg. of 4		0%	
		71036-8			Pkg. of 8		0%	
		71036-16			Pkg. of 16		Less- 10%	
		71036-50			Pkg. of 50		Less- 15%	
		71036-100			Pkg. of 100		Less- 20%	

Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-20570	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 2
	20-20572	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 2
	20-20580	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1
	20-20582	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 1

Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

Wrist Pin Bushings • High Performance • C630 Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-0645	C630 Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Kicker Shaft Bushings & Seal

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-2107	Bronze	0.9355"	0.741"	1.105"	Standard	2 Bushings & 1 O-Ring
	20-2108	Bronze	0.9405"	0.741"	1.105"	+0.005"	2 Bushings & 1 O-Ring

Rocker Arm Bushings • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8

Clutch Springs

	KPMI P/N	Description	A	B	C	Quantity
	20-0789	Replace 38075-68	0.439"	0.629"	1.718"	Pkg. of 10

Manufactured from high quality chrome silicon wire, they are designed to supply 20% more plate load than stock springs.

Valve Seats • Powdered Metal

	KPMI P/N	Type	O. D.		I. D.		Height		Quantity
	10-SC550	Intake	2.164"	54.97mm	1.750"	44.45mm	0.450"	11.43mm	Pkg. of 1
	10-SC523	Exhaust	2.060"	52.32mm	1.562"	39.67mm	0.450"	11.43mm	Pkg. of 1

KPMI's proprietary seat material is compatible with leaded and unleaded fuels including methanol and ethanol fuel blends. This material offers excellent thermal characteristics and resists microwelding that leads to seat and valve face recession. Leading edge has generous radius to ease installation.



HD® EVOLUTION™ 1984-1999

HARLEY-DAVIDSON

Valve Spring Kit • "High Performance" Ovate Wire Beehive

NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-21300	Intake	.610"	1.860"	175#	400#	.610"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Retainers
			4	H. T. Steel Keeper (OEM Style)	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-21500	Intake	.660"	1.860"	178#	371#	.660"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Retainers
			4	H. T. Steel Keepers (9° Degree Taper)	4	H. T. Steel Basewashers	

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20122	Intake	.600"	1.810"	175#	380#	.600"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.
			4	Titanium Retainers	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20132	Intake	.600"	1.810"	175#	380#	.600"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.
			4	H. T. Steel Retainers	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20060	Intake	.655"	1.865"	190#	465#	.655"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.
			4	Titanium Retainers	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20081	Intake	.655"	1.860"	185#	450#	.655"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.
			4	H. T. Steel Retainers	4	H. T. Steel Basewashers	

* All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

Valves • Black Diamond™ • Black Nitroreg Stems

NEW PRODUCTS

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-4171	Intake	1.840"	46.74mm	0.3100"	R0.236	23°	4.445"	OEM18074-83B
	20-20900	Intake	2.150"	54.61mm	0.3108"	R0.550	24°	4.480"	AV&V# AV2150
	20-20905	Intake	1.990"	50.55mm	0.3108"	R0.675	25°	4.440"	AV&V# AV1990
	20-20910	Intake	1.940"	49.28mm	0.3108"	R0.675	25°	4.440"	AV&V# AV1940
	20-20915	Intake	1.900"	48.26mm	0.3108"	R0.675	25°	4.440"	AV&V# AV1900
	20-20955	Intake	2.100"	53.34mm	0.3108"	R0.560	24°	4.475"	AV&V# AV2100
	20-20990	Intake	2.020"	51.31mm	0.3108"	R0.670	25°	4.440"	AV&V# AV2020A
	20-20965	Intake	2.020"	51.31mm	0.3108"	R0.645	25°	4.510"	AV&V# AV2020S
	20-4170	Exhaust	1.615"	41.02mm	0.3096"	R0.236	29°	4.525"	OEM18082-83
	20-20920	Exhaust	1.650"	41.91mm	0.3106"	R0.750	25°	4.515"	AV&V# AV1650
	20-20925	Exhaust	1.610"	40.89mm	0.3106"	R0.750	25°	4.510"	AV&V# AV1610D
	20-20930	Exhaust	1.585"	40.26mm	0.3106"	R0.750	25°	4.505"	AV&V# AV1585
	20-20960	Exhaust	1.700"	43.18mm	0.3106"	R0.600	25°	4.535"	AV&V# AV1700A
20-20970	Exhaust	1.610"	40.89mm	0.3106"	R0.750	25°	4.565"	AV&V# AV1610S	

HD® EVOLUTION™ 1984-1999



Valves • Black Diamond™ and White Diamond® • Specially Designed for HD Racing Applications

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks	
						Radius	Angle			
	20-4169	In	Black Diamond™	1.940"	49.28mm	0.3100"	R0.234	23°	4.400"	Branch Heads
	20-20108	In	Black Diamond™	2.000"	50.80mm	0.3100"	R0.234	23°	4.445"	STD Heads
	20-4171R	In	Black Diamond™	1.900"	48.26mm	0.3100"	R0.344	28°	4.420"	Racing Profile
	20-4270K	Ex	White Diamond®	1.630"	41.40mm	0.3096"	R0.500	40°	4.525"	*Inconel®
	20-20419	In	White Diamond®	1.900"	48.26mm	0.3100"	R0.344	28°	4.445"	Oversize
	20-B101	Ex	Black Diamond™	1.615"	41.02mm	0.3096"	R0.325	R01.625	4.460"	Branch Heads
	20-4170R	Ex	Black Diamond™	1.630"	41.40mm	0.3096"	R0.500	40°	4.525"	Racing Profile
	20-4170S	Ex	Black Diamond™	1.750"	44.45mm	0.3095"	R0.236	24°	4.480"	STD Heads

* Custom sizes available, see **custom KPMI® Valve Order Form** at back of catalog. **Inconel®** is a high nickel content stainless steel classified as a "super alloy". It retains its mechanical properties at higher temps than other stainless materials. It also resists valve face pitting and recession in performance applications with unleaded and exotic fuels to a greater degree than other stainless materials. It is an excellent choice for turbocharged and nitrous applications.

Valve Guides • C630 Bronze • Cast Iron • Manganese • Shouldered • .420" Seal Ø • Shortened for .600" Lift

	A	B	C	D	E	F	G	Intake		
	0.650"	0.700"	0.800"	1.400"	0.615"	0.3098"	0.5620" / Std.	C630 Bronze	Cast Iron	Manganese
							+0.001"	20-2120	20-2120C	20-2120M
							+0.002"	20-2121	20-2121C	20-2121M
							+0.003"	20-2122	20-2122C	20-2122M
							+0.004"	20-2123	20-2123C	20-2123M
							+0.010"	20-2124	20-2124C	20-2124M
								20-2129	20-2129C	20-2129M
	A	B	C	D	E	F	G	Exhaust		
	0.650"	0.700"	1.150"	1.450"	0.615"	0.3098"	0.5620" / Std.	20-2130	20-2130C	20-2130M
							+0.001"	20-2131	20-2131C	20-2131M
							+0.002"	20-2132	20-2132C	20-2132M
							+0.003"	20-2133	20-2133C	20-2133M
							+0.004"	20-2134	20-2134C	20-2134M
							+0.010"	20-2139	20-2139C	20-2139M

For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guides • Manganese Bronze • .530" Seal Ø • Shortened for .655" Lift

NEW PRODUCTS

	A	B	C	D	E	F	G	Intake	Exhaust	AV&V#
		0.620"	0.665"	0.737"	1.435"	0.615"	0.3100"	0.5625" / Std.	20-20860M	
							+0.001"	20-20861M		VG5601
							+0.002"	20-20862M		VG5602
							+0.010"	20-20869M		VG5610
	0.620"	0.665"	1.135"	1.435"	0.615"	0.3096"	0.5625" / Std.		20-20870M	VG5700
							+0.001"		20-20871M	VG5701
							+0.002"		20-20872M	VG5702
							+0.010"		20-20879M	VG5710

For sizing KPMI® Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Rocker Arm Bushings • 660 Bearing Bronze

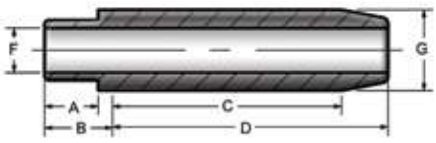

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8



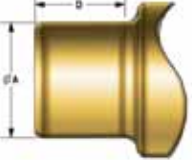

HD® EVOLUTION™ 1984-1999

HARLEY-DAVIDSON

Valve Guides • O.E.M. Replacement • .420" Seal Ø

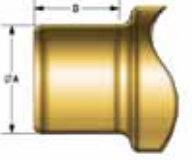

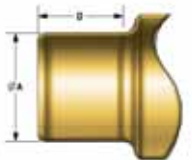

	A	B	C	D	E	F	G	Intake / Exhaust		
	0.375"	0.375"	1.700"	2.025"	---	0.3098"	0.5620" / Std.	C630 Bronze	Cast Iron	
								+0.001"	20-4320	20-4320C
								+0.002"	20-4321	20-4321C
								+0.003"	20-4322	20-4322C
								+0.004"	20-4323	20-4323C
								+0.010"	20-4324	20-4324C

Valve Guide Seals • O.E.M. Replacement

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5/16"	0.385"	0.565"	7	0.420"±0.002"	---	---	0.315"	Intake
				0.420"±0.002"	---	---	0.315"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71032-4		Pkg. of 4		0%		
		71032-8		Pkg. of 8		0%		
		71032-16		Pkg. of 16		Less- 10%		
		71032-50		Pkg. of 50		Less- 15%		
71032-100		Pkg. of 100		Less- 20%				


Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5/16"	0.412"	0.566"	5	0.420"±0.002"	---	---	0.275"	Intake
				0.420"±0.002"	---	---	0.275"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71010-4		Pkg. of 4		0%		
		71010-8		Pkg. of 8		0%		
		71010-16		Pkg. of 16		Less- 10%		
		71010-50		Pkg. of 50		Less- 15%		
71010-100		Pkg. of 100		Less- 20%				
5/16"	0.514"	0.671"	5	0.530"±0.002"	---	---	0.330"	Intake
				0.530"±0.002"	---	---	0.330"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71045-4		Pkg. of 4		0%		
		71045-8		Pkg. of 8		0%		
		71045-16		Pkg. of 16		Less- 10%		
		71045-50		Pkg. of 50		Less- 15%		
71045-100		Pkg. of 100		Less- 20%				

NEW PRODUCTS

Valve Seats • Powdered Metal

	KPMI P/N	Type	O. D.		I. D.		Height		Quantity
	10-SC500	Intake	1.969"	50.00mm	1.535"	39.00mm	0.453"	11.50mm	Pkg. of 1
	10-SC510	Intake	2.007"	50.98mm	1.562"	39.67mm	0.450"	11.43mm	Pkg. of 1
	10-SC541	Intake	2.132"	54.15mm	1.690"	42.93mm	0.450"	11.43mm	Pkg. of 1
	10-SC446	Exhaust	1.757"	44.62mm	1.375"	35.00mm	0.450"	11.43mm	Pkg. of 1

KPMI's proprietary seat material is compatible with leaded and unleaded fuels including methanol and ethanol fuel blends. This material offers excellent thermal characteristics and resists microwelding that leads to seat and valve face recession. Leading edge has generous radius to ease installation.

HD® EVOLUTION™ 1984-1999



Valve Guide Seals • PC Style

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5/16"	0.517"	0.510"	6	A	B	C	D	Intake
				0.415"±0.005"	---	---	0.350"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71008-4			Pkg. of 4		0%	
		71008-8			Pkg. of 8		0%	
		71008-16			Pkg. of 16		Less- 10%	
		71008-50			Pkg. of 50		Less- 15%	
		71008-100			Pkg. of 100		Less- 20%	

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-20570	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 2
	20-20572	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 2
	20-20580	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1
	20-20582	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 1

Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

Wrist Pin Bushings • High Performance • C630 Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-0645	C630 Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	A	B	C	D	E	Quantity
		51014-4	Single Square Bead	0.310	7.0°	0.190"	0.380"	0.380"	

The bead height is referenced from the minor diameter of the keeper to the center of the bead.

Cylinder Studs • H. T. Steel

	KPMI P/N	Material	O.L.	Body Dia.	A	B	Quantity
	20-2098	H. T. Steel	6.725"	0.370"	1.050"	1.100"	Pkg. of 8

Machined from U.S. milled fine grain, heat treated aircraft quality steel. 180,000 psi yield strength. Threads rolled after heat treatment for maximum strength and fatigue life. Centerless ground OD to insure concentricity. Case end threaded for interference fit to maintain good thread engagement at high temps. Black Oxide finish to resist corrosion and to give excellent appearance.

Cylinder Dowels • Steel

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2099	Steel	0.5575"	0.375"	0.505"	Pkg. of 4



HD® EVO SPORTSTER™ 883cc 1986-'03

HARLEY-DAVIDSON

Valve Spring Kit • "High Performance" Ovate Wire Beehive

NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-21300	Intake	.610"	1.860"	175#	400#	.610"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs		4	H. T. Steel Retainers
		4	H. T. Steel Keeper (OEM Style)		4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-21500	Intake	.660"	1.860"	178#	371#	.660"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs		4	H. T. Steel Retainers
		4	H. T. Steel Keepers (9° Degree Taper)		4	H. T. Steel Basewashers	

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20122	Intake	.600"	1.810"	175#	380#	.600"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs		4	H. T. Steel Keepers Pr.
		4	Titanium Retainers		4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20132	Intake	.600"	1.810"	175#	380#	.600"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs		4	H. T. Steel Keepers Pr.
		4	H. T. Steel Retainers		4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20060	Intake	.655"	1.860"	190#	450#	.655"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs		4	H. T. Steel Keepers Pr.
		4	Titanium Retainers		4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20081	Intake	.655"	1.860"	185#	450#	.655"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs		4	H. T. Steel Keepers Pr.
		4	H. T. Steel Retainers		4	H. T. Steel Basewashers	

* All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

Valves • Black Diamond™ • Black Nitroreg Stems For 883cc 1986-2003 Model

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
	20-20090	Intake	1.585"	40.26mm	0.3100"	Radius	Angle		
			20-20092	Exhaust		1.350"	34.29mm	0.3095"	R0.250

Valves • Black Diamond™ • Black Nitroreg Stems • Special Conversion Valves For 883cc / 1200cc 1986-'03 Model

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
	20-2010	Intake	1.715"	43.56mm	0.3100"	Radius	Angle		
			20-2012	Exhaust		1.480"	37.59mm	0.3096"	R0.500

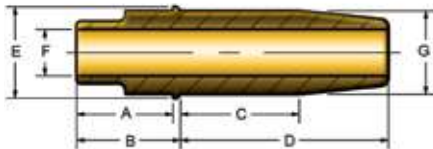

Cylinder Dowels • Steel

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2099	Steel	0.5575"	0.375"	0.505"	Pkg. of 4

HD® EVO SPORTSTER™ 883cc 1986-'03

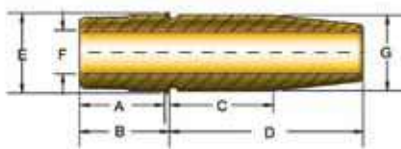



Valve Guides • C630 Bronze • Cast Iron • Manganese • Shouldered • .420" Seal Ø • Shortened for .600" Lift

	A	B	C	D	E	F	G	Intake		
	0.650"	0.700"	0.800"	1.400"	0.615"	0.3098"	0.5620" / Std.	C630 Bronze	Cast Iron	Manganese
							+0.001"	20-2120	20-2120C	20-2120M
							+0.002"	20-2121	20-2121C	20-2121M
							+0.003"	20-2122	20-2122C	20-2122M
							+0.004"	20-2123	20-2123C	20-2123M
							+0.010"	20-2124	20-2124C	20-2124M
								20-2129	20-2129C	20-2129M
	A	B	C	D	E	F	G	Exhaust		
	0.650"	0.700"	1.150"	1.450"	0.615"	0.3098"	0.5620" / Std.	20-2130	20-2130C	20-2130M
							+0.001"	20-2131	20-2131C	20-2131M
							+0.002"	20-2132	20-2132C	20-2132M
							+0.003"	20-2133	20-2133C	20-2133M
							+0.004"	20-2134	20-2134C	20-2134M
							+0.010"	20-2139	20-2139C	20-2139M

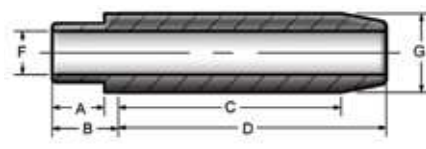
For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guides • Manganese Bronze • .530" Seal Ø • Shortened for .655" Lift NEW PRODUCTS

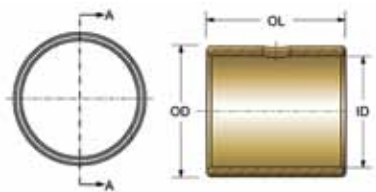
	A	B	C	D	E	F	G	Intake	Exhaust	AV&V#
		0.620"	0.665"	0.737"	1.435"	0.615"	0.3100"	0.5625" / Std.	20-20860M	
							+0.001"	20-20861M		VG5601
							+0.002"	20-20862M		VG5602
							+0.010"	20-20869M		VG5610
	0.620"	0.665"	1.135"	1.435"	0.615"	0.3096"	0.5625" / Std.		20-20870M	VG5700
							+0.001"		20-20871M	VG5701
							+0.002"		20-20872M	VG5702
							+0.010"		20-20879M	VG5710

For sizing KPMI® Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guides • C630 Bronze • Cast Iron • O.E.M. Replacement • .420" Seal Ø

	A	B	C	D	E	F	G	Intake / Exhaust	
	0.375"	0.375"	1.700"	2.025"	---	0.3098"	0.5620" / Std.	C630 Bronze	Cast Iron
							+0.001"	20-4320	20-4320C
							+0.002"	20-4321	20-4321C
							+0.003"	20-4322	20-4322C
							+0.004"	20-4323	20-4323C
							+0.010"	20-4324	20-4324C
								20-4329	20-4329C

Rocker Arm Bushings • 660 Bearing Bronze


	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
		20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"



HD® EVO SPORTSTER™ 883cc 1986-'03



HARLEY-DAVIDSON

Valve Guide Seals • O.E.M. Replacement


Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5/16"	0.385"	0.565"	7	A	B	C	D	Intake
				0.420"±0.002"	---	---	0.315"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71032-4		Pkg. of 4	0%	
				71032-8		Pkg. of 8	0%	
				71032-16		Pkg. of 16	Less- 10%	
				71032-50		Pkg. of 50	Less- 15%	
				71032-100		Pkg. of 100	Less- 20%	

Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

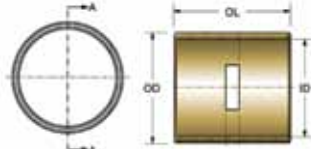
Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5/16"	0.412"	0.566"	5	A	B	C	D	Intake
				0.420"±0.002"	---	---	0.275"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71010-4		Pkg. of 4	0%	
				71010-8		Pkg. of 8	0%	
				71010-16		Pkg. of 16	Less- 10%	
				71010-50		Pkg. of 50	Less- 15%	
				71010-100		Pkg. of 100	Less- 20%	
5/16"	0.514"	0.671"	5	A	B	C	D	Intake
				0.530"±0.002"	---	---	0.330"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71045-4		Pkg. of 4	0%	
				71045-8		Pkg. of 8	0%	
				71045-16		Pkg. of 16	Less- 10%	
				71045-50		Pkg. of 50	Less- 15%	
				71045-100		Pkg. of 100	Less- 20%	

Valve Guide Seals • PC Style

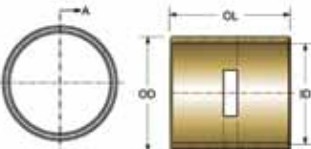
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5/16"	0.517"	0.510"	6	A	B	C	D	Intake
				0.415"±0.005"	---	---	0.350"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71008-4		Pkg. of 4	0%	
				71008-8		Pkg. of 8	0%	
				71008-16		Pkg. of 16	Less- 10%	
				71008-50		Pkg. of 50	Less- 15%	
				71008-100		Pkg. of 100	Less- 20%	

Wrist Pin Bushings • High Performance • C630 Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
		20-0644	C630 Bronze	0.897"	0.788"	0.945"

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-20810	660 Bearing Bronze	0.897"	0.788"	0.945"	Standard	Pkg. of 1
	20-20812	660 Bearing Bronze	0.899"	0.788"	0.945"	+0.002"	Pkg. of 1

Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

HD® EVO SPORTSTER™ 883cc 1986-'03



Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	A	B	C	D	E	Quantity
		51014-4	Single Square Bead	0.310	7.0°	0.190"	0.380"	0.380"	4Pr.

The bead height is referenced from the minor diameter of the keeper to the center of the bead.

HD® EVO SPORTSTER™ 883cc 2004-'17

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20360	Intake	.600"	1.860"	160#	365#	.600"
		Exhaust					
	Kit Includes		4	Titanium Retainers	4	CrSi Valve Springs	4
		2	Ex H. T. Steel Basewashers	4	H. T. Steel Basewashers		
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20364	Intake	.600"	1.860"	160#	365#	.600"
		Exhaust					
	Kit Includes		4	H.T. Steel Retainers	4	CrSi Valve Springs	4
		2	Ex H. T. Steel Basewashers	4	H. T. Steel Basewashers		
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20350	Intake	.655"	1.860"	185#	450#	.655"
		Exhaust					
	Kit Includes		4	Titanium Retainers	4	CrSi Valve Springs	4
		2	Ex H. T. Steel Basewashers	4	H. T. Steel Basewashers		
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20355	Intake	.655"	1.860"	185#	450#	.655"
		Exhaust					
	Kit Includes		4	H.T. Steel Retainers	4	CrSi Valve Springs	4
		2	Ex H. T. Steel Basewashers	4	H. T. Steel Basewashers		

Note: These kits are supplied with 2 supplemental exhaust basewashers for use with the OEM exhaust guides.

* All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

Valve Spring Kit • "High Performance" Ovate Wire Beehive


NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-21400	Intake	.610"	1.860"	175#	400#	.610"
		Exhaust					
	Kit Includes		4	H. T. Steel Retainers	4	CrSi Valve Springs	4
		4	H. T. Steel Keeper (OEM Style)	4	H. T. Steel Basewashers		
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-21550	Intake	.660"	1.860"	178#	371#	.660"
		Exhaust					
	Kit Includes		4	H. T. Steel Retainers	4	CrSi Valve Springs	4
		4	H. T. Steel Keepers (9° Degree Taper)	4	H. T. Steel Basewashers		

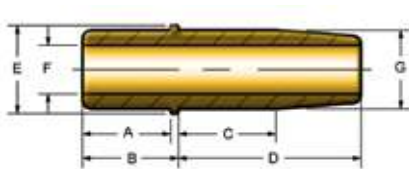

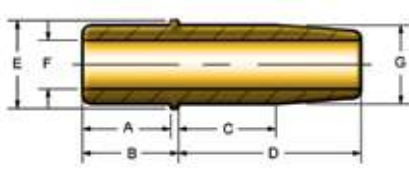



HD® EVO SPORTSTER™ 883cc 2004-'17

Valves • Black Diamond™ • Black Nitroreg Stems • Special Conversion Valves for 883cc to 1200cc 2004-'17

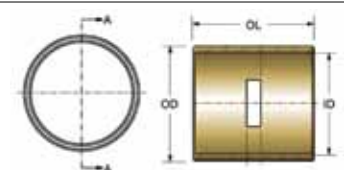
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-20550	Intake	1.715"	43.56mm	0.2760"	R0.236	23°	4.580"	Conversion Valve
	20-20555	Exhaust	1.480"	37.59mm	0.2755"	R0.500	40°	4.660"	Conversion Valve

Valve Guides • Shouldered • Use O.E.M. Style or Kibblewhite® Seals • Shortened for 0.655" Lift

	A	B	C	D	E	F	G	Intake	
								C630 Bronze	Cast Iron
	0.690"	0.770"	0.800"	1.280"	0.615"	0.2750"	0.5620" / Std.	20-20690	20-20690C
							+0.001"	20-20691	20-20691C
							+0.002"	20-20692	20-20692C
							+0.010"	20-20699	20-20699C
	A	B	C	D	E	F	G	Exhaust	
								C630 Bronze	Cast Iron
	0.650"	0.770"	1.030"	1.280"	0.615"	0.2750"	0.5620" / Std.	20-20700	20-20700C
							+0.001"	20-20701	20-20701C
							+0.002"	20-20702	20-20702C
							+0.010"	20-20709	20-20709C
	A	B	C	D	E	F	G	Intake	
								Manganese	Ref. AV&V
	0.685"	0.735"	0.702"	1.305"	0.615"	0.2750"	0.5625" / Std.	20-20690M	VG6600
							+0.001"	20-20691M	VG6601
							+0.002"	20-20692M	VG6602
							+0.010"	20-20699M	VG6610
	A	B	C	D	E	F	G	Exhaust	
								Manganese	Ref. AV&V
	0.685"	0.735"	0.920"	1.305"	0.615"	0.2750"	0.5625" / Std.	20-20700M	VG6700
							+0.001"	20-20701M	VG6701
							+0.002"	20-20702M	VG6702
							+0.010"	20-20709M	VG6710

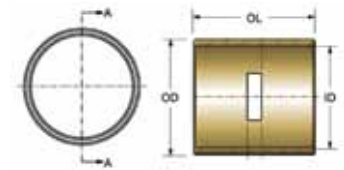
For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Wrist Pin Bushings • High Performance • Nickel Bronze Alloy

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-0644	Nickel Bronze Alloy	0.897"	0.788"	0.945"	Pkg. of 1

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-20810	660 Bearing Bronze	0.897"	0.788"	0.945"	Standard	Pkg. of 1
	20-20812	660 Bearing Bronze	0.899"	0.788"	0.945"	+0.002"	Pkg. of 1

Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

HD® EVO SPORTSTER™ 883cc 2004-'17



Valve Guide Seals • Tophat

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
7.0mm	0.974"	1.457"	3	A	B	C	D	Intake
				0.560"±0.005"	---	---	0.970"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71030-4		Pkg. of 4	0%	
				71030-8		Pkg. of 8	0%	
				71030-16		Pkg. of 16	Less- 10%	
				71030-50		Pkg. of 50	Less- 15%	
				71030-100		Pkg. of 100	Less- 20%	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
7.0mm	0.510"	0.665"	5	A	B	C	D	Intake
				0.560"±0.002"	---	---	0.375"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71028-4		Pkg. of 4	0%	
				71028-8		Pkg. of 8	0%	
				71028-16		Pkg. of 16	Less- 10%	
				71028-50		Pkg. of 50	Less- 15%	
				71028-100		Pkg. of 100	Less- 20%	

Use with Kibblewhite® Spring Kits on O.E.M. or Kibblewhite® Valve Guides

Cylinder Dowels • Steel

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
		20-2099	Steel	0.5575"	0.375"	0.505"

Rocker Arm Bushings • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
		20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"

Cylinder Studs • H. T. Steel

	KPMI P/N	Material	O.L.	Body Dia.	A	B	Quantity
		20-2097	H. T. Steel	5.760"	0.370"	1.050"	1.100"

Machined from U.S. milled fine grain, heat treated aircraft quality steel. 180,000 psi yield strength. Threads rolled after heat treatment for maximum strength and fatigue life. Centerless ground OD to insure concentricity. Case end threaded for interference fit to maintain good thread engagement at high temps. Black Oxide finish to resist corrosion and to give excellent appearance.

Keeper Set • O.E.M. Replacement

	KPMI P/N	Style	A	B	C	D	E	Quantity
			51016-4	Triple Radius Bead	0.275	7.0°	---	0.345"

The bead height is referenced from the minor diameter of the keeper to the center of the bead.



HD® XL™ 1100cc 1986-1987

Valve Spring Kit • "High Performance" Ovate Wire Beehive

NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-21300	Intake	.610"	1.860"	175#	400#	.610"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs		4	H. T. Steel Retainers
		4	H. T. Steel Keeper (OEM Style)		4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-21500	Intake	.660"	1.860"	178#	371#	.660"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs		4	H. T. Steel Retainers
		4	H. T. Steel Keepers (9° Degree Taper)		4	H. T. Steel Basewashers	

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20122	Intake	.600"	1.810"	175#	380#	.600"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs		4	H. T. Steel Keepers Pr.
		4	Titanium Retainers		4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20132	Intake	.600"	1.810"	175#	380#	.600"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs		4	H. T. Steel Keepers Pr.
		4	H. T. Steel Retainers		4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20060	Intake	.655"	1.860"	190#	450#	.655"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs		4	H. T. Steel Keepers Pr.
		4	Titanium Retainers		4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20081	Intake	.655"	1.860"	185#	450#	.655"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs		4	H. T. Steel Keepers Pr.
		4	H. T. Steel Retainers		4	H. T. Steel Basewashers	

* All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

Valves • Black Diamond™ • Black Nitroreg Stems for 1100cc 1986 Model

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
	20-4249	Intake	1.850"	47.00mm	0.3105"	Radius	Angle	4.490"	OEM18023-86
						R0.236	23°		
	20-4250	Intake	1.940"	49.28mm	0.3105"	R0.375	23°	4.440"	Oversize
20-4251	Exhaust	1.615"	41.02mm	0.3096"	R0.500	40°	4.575	OEM18024-86	

Valves • Black Diamond™ • Black Nitroreg Stems for 1100cc 1987 Model

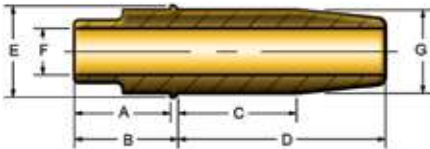

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
	20-2013	Intake	1.715"	43.56mm	0.3100"	Radius	Angle	4.480"	OEM180823-87
						R0.236	23°		
20-2014	Exhaust	1.480"	37.59mm	0.3096"	R0.500	40°	4.560"	OEM18024-87	

HD® XL™ 1100cc 1986-1987



HARLEY-DAVIDSON

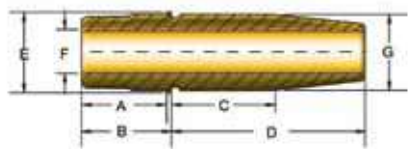

Valve Guides • C630 Bronze • Cast Iron • Manganese • Shouldered • .420" Seal Ø • Shortened for .600" Lift

	A	B	C	D	E	F	G	Intake		
	0.650"	0.700"	0.800"	1.400"	0.615"	0.3098"	0.5620" / Std.	C630 Bronze	Cast Iron	Manganese
							+0.001"	20-2120	20-2120C	20-2120M
							+0.002"	20-2121	20-2121C	20-2121M
							+0.003"	20-2122	20-2122C	20-2122M
							+0.004"	20-2123	20-2123C	20-2123M
							+0.010"	20-2124	20-2124C	20-2124M
								20-2129	20-2129C	20-2129M
	A	B	C	D	E	F	G	Exhaust		
	0.650"	0.700"	1.150"	1.450"	0.615"	0.3098"	0.5620" / Std.	C630 Bronze	Cast Iron	Manganese
							+0.001"	20-2130	20-2130C	20-2130M
							+0.002"	20-2131	20-2131C	20-2131M
							+0.003"	20-2132	20-2132C	20-2132M
							+0.004"	20-2133	20-2133C	20-2133M
							+0.010"	20-2134	20-2134C	20-2134M
								20-2139	20-2139C	20-2139M

For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

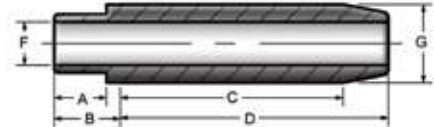
Valve Guides • Manganese Bronze • .530" Seal Ø • Shortened for .655" Lift

NEW PRODUCTS

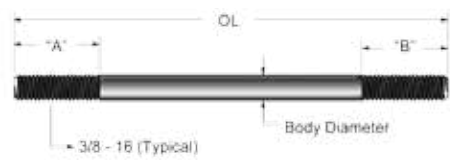
	A	B	C	D	E	F	G	Intake	Exhaust	AV&V#
		0.620"	0.665"	0.737"	1.435"	0.615"	0.3100"	0.5625" / Std.	20-20860M	
							+0.001"	20-20861M		VG5601
							+0.002"	20-20862M		VG5602
							+0.010"	20-20869M		VG5610
	0.620"	0.665"	1.135"	1.435"	0.615"	0.3096"	0.5625" / Std.		20-20870M	VG5700
							+0.001"		20-20871M	VG5701
							+0.002"		20-20872M	VG5702
							+0.010"		20-20879M	VG5710

For sizing KPMI® Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guides • C630 Bronze • Cast Iron • O.E.M. Replacement • .420" Seal Ø

	A	B	C	D	E	F	G	Intake / Exhaust	
	0.375"	0.375"	1.700"	2.025"	---	0.3098"	0.5620" / Std.	C630 Bronze	Cast Iron
							+0.001"	20-4320	20-4320C
							+0.002"	20-4321	20-4321C
							+0.003"	20-4322	20-4322C
							+0.004"	20-4323	20-4323C
							+0.010"	20-4324	20-4324C
								20-4329	20-4329C

Cylinder Studs • H. T. Steel

	KPMI P/N	Material	O.L.	Body Dia.	A	B	Quantity
	20-2097	H. T. Steel	5.760"	0.370"	1.050"	1.100"	Pkg. of 8


Machined from U.S. milled fine grain, heat treated aircraft quality steel. 180,000 psi yield strength. Threads rolled after heat treatment for maximum strength and fatigue life. Centerless ground OD to insure concentricity. Case end threaded for interference fit to maintain good thread engagement at high temps. Black Oxide finish to resist corrosion and to give excellent appearance.



HD® XL™ 1100cc 1986-1987



HARLEY-DAVIDSON

Valve Guide Seals • O.E.M. Replacement


Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5/16"	0.385"	0.565"	7	A	B	C	D	Intake
				0.420"±0.002"	---	---	0.315"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71032-4				Pkg. of 4		0%
		71032-8				Pkg. of 8		0%
		71032-16				Pkg. of 16		Less- 10%
		71032-50				Pkg. of 50		Less- 15%
		71032-100				Pkg. of 100		Less- 20%

Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)


Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5/16"	0.412"	0.566"	5	A	B	C	D	Intake
				0.420"±0.002"	---	---	0.275"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71010-4				Pkg. of 4		0%
		71010-8				Pkg. of 8		0%
		71010-16				Pkg. of 16		Less- 10%
		71010-50				Pkg. of 50		Less- 15%
		71010-100				Pkg. of 100		Less- 20%
5/16"	0.514"	0.671"	5	A	B	C	D	Intake
				0.530"±0.002"	---	---	0.330"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71045-4				Pkg. of 4		0%
		71045-8				Pkg. of 8		0%
		71045-16				Pkg. of 16		Less- 10%
		71045-50				Pkg. of 50		Less- 15%
		71045-100				Pkg. of 100		Less- 20%

Valve Guide Seals • PC Style

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5/16"	0.517"	0.510"	6	A	B	C	D	Intake
				0.415"±0.005"	---	---	0.350"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71008-4				Pkg. of 4		0%
		71008-8				Pkg. of 8		0%
		71008-16				Pkg. of 16		Less- 10%
		71008-50				Pkg. of 50		Less- 15%
		71008-100				Pkg. of 100		Less- 20%

Valve Seats • Powdered Metal

	KPMI P/N	Type	O. D.		I. D.		Height		Quantity
	10-SC500	Intake	1.969"	50.00mm	1.535"	39.00mm	0.453"	11.50mm	Pkg. of 1
	10-SC510	Intake	2.007"	50.98mm	1.562"	39.67mm	0.450"	11.43mm	Pkg. of 1
	10-SC541	Intake	2.132"	54.15mm	1.690"	42.93mm	0.450"	11.43mm	Pkg. of 1
	10-SC446	Exhaust	1.757"	44.62mm	1.375"	35.00mm	0.450"	11.43mm	Pkg. of 1

KPMI's proprietary seat material is compatible with leaded and unleaded fuels including methanol and ethanol fuel blends. This material offers excellent thermal characteristics and resists microwelding that leads to seat and valve face recession. Leading edge has generous radius to ease installation.

HD® XL™ 1100cc 1986-1987



HARLEY-DAVIDSON

Wrist Pin Bushings • High Performance • C630 Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-0644	C630 Bronze	0.897"	0.788"	0.945"	Pkg. of 1

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-20810	660 Bearing Bronze	0.897"	0.788"	0.945"	Standard	Pkg. of 1
	20-20812	660 Bearing Bronze	0.899"	0.788"	0.945"	+0.002"	Pkg. of 1

Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

Rocker Arm Bushings • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8

Cylinder Dowels • Steel

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2099	Steel	0.5575"	0.375"	0.505"	Pkg. of 4

Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	A	B	C	D	E	Quantity
		51014-4	Single Square Bead	0.310	7.0°	0.190"	0.380"	0.380"	4Pr.

The bead height is referenced from the minor diameter of the keeper to the center of the bead.

HD® EVO SPORTSTER™ 1200cc 1988-'03

Valve Spring Kit • "High Performance" Ovate Wire Beehive

NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	20-21300	Intake	.610"	1.860"	175#	400#	.610"	
		Exhaust						
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Retainers	
				4	H. T. Steel Keeper (OEM Style)	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
20-21500	Intake	.660"	1.860"	178#	371#	.660"		
	Exhaust							
Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Retainers		
			4	H. T. Steel Keepers (9° Degree Taper)	4	H. T. Steel Basewashers		



HD® EVO SPORTSTER™ 1200cc 1988-'03

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20122	Intake	.600"	1.810"	175#	380#	.600"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.
			4	Titanium Retainers	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20132	Intake	.600"	1.810"	175#	380#	.600"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.
			4	H. T. Steel Retainers	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20060	Intake	.655"	1.860"	185#	450#	.655"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.
			4	Titanium Retainers	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20081	Intake	.655"	1.860"	185#	450#	.655"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.
			4	H. T. Steel Retainers	4	H. T. Steel Basewashers	

* All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

Valves • Black Diamond™ • Black Nitroreg Stems for 1200cc 1988 Model

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-2013	Intake	1.715"	43.56mm	0.3100"	R0.236	23°	4.480"	OEM180823-87
	20-2014	Exhaust	1.480"	37.59mm	0.3096"	R0.500	40°	4.560"	OEM18024-87

Valve Guides • C630 Bronze • Cast Iron • O.E.M. Replacement • .420" Seal Ø

	A	B	C	D	E	F	G	Intake / Exhaust	
								C630 Bronze	Cast Iron
	0.375"	0.375"	1.700"	2.025"	---	0.3098"	0.5620" / Std.	20-4320	20-4320C
							+0.001"	20-4321	20-4321C
							+0.002"	20-4322	20-4322C
							+0.003"	20-4323	20-4323C
							+0.004"	20-4324	20-4324C
							+0.010"	20-4329	20-4329C

Valve Guides • Manganese Bronze • .530" Seal Ø • Shortened for .655" Lift

	A	B	C	D	E	F	G	Intake	Exhaust	AV&V#
	0.620"	0.665"	0.737"	1.435"	0.615"	0.3100"	0.5625" / Std.	20-20860M		VG5600
							+0.001"	20-20861M		VG5601
							+0.002"	20-20862M		VG5602
							+0.010"	20-20869M		VG5610
	0.620"	0.665"	1.135"	1.435"	0.615"	0.3096"	0.5625" / Std.	20-20870M		VG5700
							+0.001"	20-20871M		VG5701
							+0.002"	20-20872M		VG5702
							+0.010"	20-20879M		VG5710

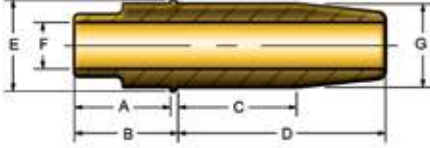

For sizing KPMI® Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

HD® EVO SPORTSTER™ 1200cc 1988-'03



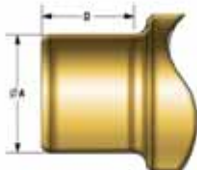

HARLEY-DAVIDSON

Valve Guides • C630 Bronze • Cast Iron • Manganese • Shouldered • .420" Seal Ø • Shortened for .600" Lift

	A	B	C	D	E	F	G	Intake			
	0.650"	0.700"	0.800"	1.400"	0.615"	0.3098"	0.5620" / Std.	C630 Bronze	Cast Iron	*Manganese	
								20-2120	20-2120C	20-2120M	
							+0.001"	20-2121	20-2121C	20-2121M	
							+0.002"	20-2122	20-2122C	20-2122M	
							+0.003"	20-2123	20-2123C	20-2123M	
							+0.004"	20-2124	20-2124C	20-2124M	
							+0.010"	20-2129	20-2129C	20-2129M	
	A	B	C	D	E	F	G	Exhaust			
	0.650"	0.700"	1.150"	1.450"	0.615"	0.3098"	0.5620" / Std.	20-2130	20-2130C	20-2130M	
								+0.001"	20-2131	20-2131C	20-2131M
								+0.002"	20-2132	20-2132C	20-2132M
								+0.003"	20-2133	20-2133C	20-2133M
								+0.004"	20-2134	20-2134C	20-2134M
								+0.010"	20-2139	20-2139C	20-2139M

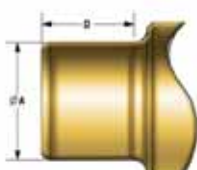

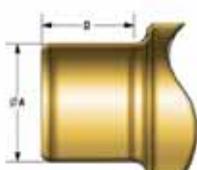

For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guide Seals • O.E.M. Replacement

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5/16"	0.385"	0.565"	7	A	B	C	D	Intake
				0.420"±0.002"	---	---	0.315"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71032-4		Pkg. of 4		0%		
		71032-8		Pkg. of 8		0%		
		71032-16		Pkg. of 16		Less- 10%		
		71032-50		Pkg. of 50		Less- 15%		
		71032-100		Pkg. of 100		Less- 20%		

Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5/16"	0.412"	0.566"	5	A	B	C	D	Intake
				0.420"±0.002"	---	---	0.275"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71010-4		Pkg. of 4		0%		
		71010-8		Pkg. of 8		0%		
		71010-16		Pkg. of 16		Less- 10%		
		71010-50		Pkg. of 50		Less- 15%		
		71010-100		Pkg. of 100		Less- 20%		
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5/16"	0.514"	0.671"	5	A	B	C	D	Intake
				0.530"±0.002"	---	---	0.330"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71045-4		Pkg. of 4		0%		
		71045-8		Pkg. of 8		0%		
		71045-16		Pkg. of 16		Less- 10%		
		71045-50		Pkg. of 50		Less- 15%		
		71045-100		Pkg. of 100		Less- 20%		

NEW PRODUCTS



HD® EVO SPORTSTER™ 1200cc 1988-'03

HARLEY-DAVIDSON

Valve Guide Seals • PC Style

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5/16"	0.517"	0.510"	6	0.415"±0.005"	---	---	0.350"	Intake
								Exhaust
		Part Number		Quantity		Quantity Incentive		
		71008-4		Pkg. of 4		0%		
		71008-8		Pkg. of 8		0%		
		71008-16		Pkg. of 16		Less- 10%		
		71008-50		Pkg. of 50		Less- 15%		
		71008-100		Pkg. of 100		Less- 20%		

Rocker Arm Bushings • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8

Wrist Pin Bushings • High Performance • Nickel Bronze Alloy

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-0644	Nickel Bronze Alloy	0.897"	0.788"	0.945"	Pkg. of 1

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-20810	660 Bearing Bronze	0.897"	0.788"	0.945"	Standard	Pkg. of 1
	20-20812	660 Bearing Bronze	0.899"	0.788"	0.945"	+0.002"	Pkg. of 1

Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

Cylinder Studs • H. T. Steel

	KPMI P/N	Material	O.L.	Body Dia.	A	B	Quantity
	20-2097	H. T. Steel	5.760"	0.370"	1.050"	1.100"	Pkg. of 8

Machined from U.S. milled fine grain, heat treated aircraft quality steel. 180,000 psi yield strength. Threads rolled after heat treatment for maximum strength and fatigue life. Centerless ground OD to insure concentricity. Case end threaded for interference fit to maintain good thread engagement at high temps. Black Oxide finish to resist corrosion and to give excellent appearance.

Keeper Set • O.E.M. Replacement

	KPMI P/N	Style	A	B	C	D	E	Quantity
	51014-4	Single Square Bead	0.310	7.0°	0.190"	0.380"	0.380"	4Pr.

The bead height is referenced from the minor diameter of the keeper to the center of the bead.

HD® EVO SPORTSTER™ 1200cc 1988-'03



HARLEY-DAVIDSON

Cylinder Dowels • Steel

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2099	Steel	0.5575"	0.375"	0.505"	Pkg. of 4

HD® EVO SPORTSTER™ 1200cc 2004-'17

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20360	Intake	.600"	1.860"	160#	365#	.600"
		Exhaust					
	Kit Includes		4	Titanium Retainers	4	CrSi Valve Springs	4
		2	Ex H. T. Steel Basewashers	4	H. T. Steel Basewashers		
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20364	Intake	.600"	1.860"	160#	365#	.600"
		Exhaust					
	Kit Includes		4	H.T. Steel Retainers	4	CrSi Valve Springs	4
		2	Ex H. T. Steel Basewashers	4	H. T. Steel Basewashers		
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20350	Intake	.655"	1.860"	185#	450#	.655"
		Exhaust					
	Kit Includes		4	Titanium Retainers	4	CrSi Valve Springs	4
		2	Ex H. T. Steel Basewashers	4	H. T. Steel Basewashers		
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20355	Intake	.655"	1.860"	185#	450#	.655"
		Exhaust					
	Kit Includes		4	H. T. Steel Retainers	4	CrSi Valve Springs	4
		2	Ex H. T. Steel Basewashers	4	H. T. Steel Basewashers		

Note: These kits are supplied with 2 supplemental exhaust basewashers for use with the OEM exhaust guides.

* All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

Valve Spring Kit • "High Performance" Ovate Wire Beehive

NEW PRODUCTS


	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-21400	Intake	.610"	1.860"	175#	400#	.610"
		Exhaust					
	Kit Includes		4	H. T. Steel Retainers	4	CrSi Valve Springs	4
		4	H. T. Steel Keeper (OEM Style)	4	H. T. Steel Basewashers		
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-21550	Intake	.660"	1.860"	178#	371#	.660"
		Exhaust					
	Kit Includes		4	H. T. Steel Retainers	4	CrSi Valve Springs	4
		4	H. T. Steel Keepers (9° Degree Taper)	4	H. T. Steel Basewashers		



HD® EVO SPORTSTER™ 1200cc 2004-'17

HARLEY-DAVIDSON

Valves • Black Diamond™ • Black Nitroneg Stems



	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-20260	Intake	1.805"	45.85mm	0.2760"	R0.344	28°	4.525"	OEM18690-02
	20-20262	Intake	1.900"	48.26mm	0.2760"	R0.344	28°	4.500"	Oversize
	20-20265	Exhaust	1.575"	40.00mm	0.2755"	R0.500	34°	4.610"	OEM18691-02
	20-20266	Exhaust	1.615"	41.02mm	0.2755"	R0.500	34°	4.590"	Oversize

Valve Guides • Shouldered • Use O.E.M. Style or Kibblewhite® Seals • Shortened for 0.655" Lift

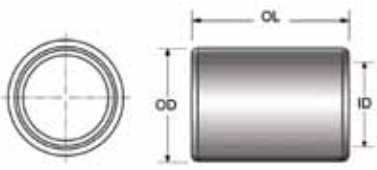
	A	B	C	D	E	F	G	Intake	
								C630 Bronze	Cast Iron
	0.690"	0.770"	0.800"	1.280"	0.615"	0.2750"	0.5620" / Std.	20-20690	20-20690C
							+0.001"	20-20691	20-20691C
							+0.002"	20-20692	20-20692C
							+0.010"	20-20699	20-20699C
	A	B	C	D	E	F	G	Exhaust	
								C630 Bronze	Cast Iron
	0.650"	0.770"	1.030"	1.280"	0.615"	0.2750"	0.5620" / Std.	20-20700	20-20700C
							+0.001"	20-20701	20-20701C
							+0.002"	20-20702	20-20702C
							+0.010"	20-20709	20-20709C
	A	B	C	D	E	F	G	Intake	
								Manganese	Ref. AV&V
	0.685"	0.735"	0.702"	1.305"	0.615"	0.2750"	0.5625" / Std.	20-20690M	VG6600
							+0.001"	20-20691M	VG6601
							+0.002"	20-20692M	VG6602
							+0.010"	20-20699M	VG6610
	A	B	C	D	E	F	G	Exhaust	
								Manganese	Ref. AV&V
	0.685"	0.735"	0.920"	1.305"	0.615"	0.2750"	0.5625" / Std.	20-20700M	VG6700
							+0.001"	20-20701M	VG6701
							+0.002"	20-20702M	VG6702
							+0.010"	20-20709M	VG6710

For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guide Seals • Tophat

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.974"	1.457"	3	A	B	C	D	Intake
				0.560"±0.005"	---	---	0.970"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71030-4			Pkg. of 4		0%	
		71030-8			Pkg. of 8		0%	
		71030-16			Pkg. of 16		Less- 10%	
		71030-50			Pkg. of 50		Less- 15%	
71030-100			Pkg. of 100		Less- 20%			

Cylinder Dowels • Steel

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
		20-2099	Steel	0.5575"	0.375"	0.505"

HD® EVO SPORTSTER™ 1200cc 2004-'17



Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
7.0mm	0.510"	0.665"	5	A	B	C	D	Intake
				0.560"±0.002"	---	---	0.375"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71028-4		Pkg. of 4		0%
				71028-8		Pkg. of 8		0%
				71028-16		Pkg. of 16		Less- 10%
				71028-50		Pkg. of 50		Less- 15%
				71028-100		Pkg. of 100		Less- 20%

Use with Kibblewhite® Spring Kits on O.E.M. or Kibblewhite® Valve Guides

Cylinder Studs • H. T. Steel

	KPMI P/N	Material	O.L.	Body Dia.	A	B	Quantity
		20-2097	H. T. Steel	5.760"	0.370"	1.050"	1.100"

Machined from U.S. milled fine grain, heat treated aircraft quality steel. 180,000 psi yield strength. Threads rolled after heat treatment for maximum strength and fatigue life. Centerless ground OD to insure concentricity. Case end threaded for interference fit to maintain good thread engagement at high temps. Black Oxide finish to resist corrosion and to give excellent appearance.

Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	A	B	C	D	E	Quantity
		51016-4	Triple Radius Bead	0.275	7.0°	---	0.345"	0.290"	4Pr.

The bead height is referenced from the minor diameter of the keeper to the center of the bead.

Wrist Pin Bushings • High Performance • C630 Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-0644	C630 Bronze	0.897"	0.788"	0.945"	Pkg. of 1

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-20810	660 Bearing Bronze	0.897"	0.788"	0.945"	Standard	Pkg. of 1
	20-20812	660 Bearing Bronze	0.899"	0.788"	0.945"	+0.002"	Pkg. of 1

Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

Rocker Arm Bushings • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8




HD® TWIN CAM™ 88" 1999-2004



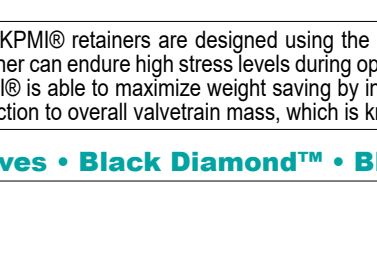
HARLEY-DAVIDSON

Valve Spring Kit • "High Performance" Ovate Wire Beehive

NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-21300	Intake	.610"	1.860"	175#	400#	.610"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Retainers
			4	H. T. Steel Keeper (OEM Style)	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-21500	Intake	.660"	1.860"	178#	371#	.660"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Retainers
			4	H. T. Steel Keepers (9° Degree Taper)	4	H. T. Steel Basewashers	


Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20122	Intake	.600"	1.810"	175#	380#	.600"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.
			4	Titanium Retainers	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20132	Intake	.600"	1.810"	175#	380#	.600"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.
			4	H. T. Steel Retainers	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20060	Intake	.655"	1.865"	190#	465#	.655"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.
			4	Titanium Retainers	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20081	Intake	.655"	1.860"	185#	450#	.655"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.
			4	H. T. Steel Retainers	4	H. T. Steel Basewashers	

* All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

Valves • Black Diamond™ • Black Nitroreg Stems For All 5/16 Stem Valves

NEW PRODUCTS

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-20055	Intake	1.840"	46.74mm	0.3100"	R0.234	23°	4.445"	OEM18074-83A
	20-20056	Intake	1.900"	48.26mm	0.3100"	R0.344	28°	4.420"	Oversize
	20-20108	Intake	2.000"	50.80mm	0.3100"	R0.234	23°	4.445"	Oversize
	20-20900	Intake	2.150"	54.61mm	0.3108"	R0.550	24°	4.480"	AV&V# AV2150
	20-20905	Intake	1.990"	50.55mm	0.3108"	R0.675	25°	4.440"	AV&V# AV1990
	20-20910	Intake	1.940"	49.28mm	0.3108"	R0.675	25°	4.440"	AV&V# AV1940
	20-20915	Intake	1.900"	48.26mm	0.3108"	R0.675	25°	4.440"	AV&V# AV1900
	20-20955	Intake	2.100"	53.34mm	0.3108"	R0.560	24°	4.475"	AV&V# AV2100
	20-20990	Intake	2.020"	51.31mm	0.3108"	R0.670	25°	4.440"	AV&V# AV2020A
	20-20965	Intake	2.020"	51.31mm	0.3108"	R0.645	25°	4.510"	AV&V# AV2020S
	20-20057	Exhaust	1.565"	39.75mm	0.3095"	R0.250	17°	4.505	OEM18085-991
	20-20920	Exhaust	1.650"	41.91mm	0.3106"	R0.750	25°	4.515"	AV&V# AV1650
	20-20925	Exhaust	1.610"	40.89mm	0.3106"	R0.750	25°	4.510"	AV&V# AV1610D
	20-20930	Exhaust	1.585"	40.26mm	0.3106"	R0.750	25°	4.505"	AV&V# AV1585
20-20960	Exhaust	1.700"	43.18mm	0.3106"	R0.600	25°	4.535"	AV&V# AV1700A	
20-20970	Exhaust	1.610"	40.89mm	0.3106"	R0.750	25°	4.565"	AV&V# AV1610S	

HD® TWIN CAM™ 88" 1999-2004



HARLEY-DAVIDSON

Valves • Black Diamond™ and White Diamond® • Specially Designed For HD Racing Applications

	KPMI P/N	Type		Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
							Radius	Angle		
	20-4169	In	Black Diamond™	1.940"	49.28mm	0.3100"	R0.234	23°	4.400"	Branch Heads
	20-4270K	Ex	White Diamond®	1.630"	41.40mm	0.3096"	R0.500	40°	4.525"	O/S Inconel®
	20-20419	In	White Diamond®	1.900"	48.26mm	0.3100"	R0.344	28°	4.445"	Oversize
	20-B101	Ex	Black Diamond™	1.615"	41.02mm	0.3096"	R0.325	R01.625	4.460"	Branch Heads
	20-4170R	Ex	Black Diamond™	1.630"	41.40mm	0.3096"	R0.500	40°	4.525"	Oversize
	20-4170S	Ex	Black Diamond™	1.750"	44.45mm	0.3095"	R0.236	24°	4.480"	Std. Heads

Valve Guides • C630 Bronze • Cast Iron • Manganese • Shouldered • .420" Seal Ø • Shortened for .600" Lift

	A	B	C	D	E	F	G	Intake		
	0.650"	0.700"	0.800"	1.400"	0.615"	0.3098"	0.5620" / Std.	C630 Bronze	Cast Iron	Manganese
							+0.001"	20-2120	20-2120C	20-2120M
							+0.002"	20-2121	20-2121C	20-2121M
							+0.003"	20-2122	20-2122C	20-2122M
							+0.004"	20-2123	20-2123C	20-2123M
							+0.010"	20-2124	20-2124C	20-2124M
								20-2129	20-2129C	20-2129M

	A	B	C	D	E	F	G	Exhaust		
	0.650"	0.700"	1.150"	1.450"	0.615"	0.3098"	0.5620" / Std.	C630 Bronze	Cast Iron	Manganese
							+0.001"	20-2130	20-2130C	20-2130M
							+0.002"	20-2131	20-2131C	20-2131M
							+0.003"	20-2132	20-2132C	20-2132M
							+0.004"	20-2133	20-2133C	20-2133M
							+0.010"	20-2134	20-2134C	20-2134M
								20-2139	20-2139C	20-2139M

For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guides • C630 Bronze • Cast Iron • O.E.M. Replacement • .420" Seal Ø

	A	B	C	D	E	F	G	Intake / Exhaust	
	0.375"	0.375"	1.700"	2.025"	---	0.3098"	0.5620" / Std.	C630 Bronze	Cast Iron
							+0.001"	20-4320	20-4320C
							+0.002"	20-4321	20-4321C
							+0.003"	20-4322	20-4322C
							+0.004"	20-4323	20-4323C
							+0.010"	20-4324	20-4324C

Valve Guides • Manganese Bronze • .530" Seal Ø • Shortened for .655" Lift NEW PRODUCTS

	A	B	C	D	E	F	G	Intake	Exhaust	AV&V#
		0.620"	0.665"	0.737"	1.435"	0.615"	0.3100"	0.5625" / Std.	20-20860M	
							+0.001"	20-20861M		VG5601
							+0.002"	20-20862M		VG5602
							+0.010"	20-20869M		VG5610
	0.620"	0.665"	1.135"	1.435"	0.615"	0.3096"	0.5625" / Std.		20-20870M	VG5700
							+0.001"		20-20871M	VG5701
							+0.002"		20-20872M	VG5702
							+0.010"		20-20879M	VG5710

For sizing KPMI® Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).



HD® TWIN CAM™ 88" 1999-2004

Valve Guide Seals • O.E.M. Replacement

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5/16"	0.385"	0.565"	7	A	B	C	D	Intake
				0.420"±0.002"	---	---	0.315"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71032-4		Pkg. of 4	0%	
				71032-8		Pkg. of 8	0%	
				71032-16		Pkg. of 16	Less- 10%	
				71032-50		Pkg. of 50	Less- 15%	
				71032-100		Pkg. of 100	Less- 20%	

Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5/16"	0.412"	0.566"	5	A	B	C	D	Intake
				0.420"±0.002"	---	---	0.275"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71010-4		Pkg. of 4	0%	
				71010-8		Pkg. of 8	0%	
				71010-16		Pkg. of 16	Less- 10%	
				71010-50		Pkg. of 50	Less- 15%	
				71010-100		Pkg. of 100	Less- 20%	
5/16"	0.514"	0.671"	5	A	B	C	D	Intake
				0.530"±0.002"	---	---	0.330"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71045-4		Pkg. of 4	0%	
				71045-8		Pkg. of 8	0%	
				71045-16		Pkg. of 16	Less- 10%	
				71045-50		Pkg. of 50	Less- 15%	
				71045-100		Pkg. of 100	Less- 20%	

Valve Guide Seals • PC Style

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5/16"	0.517"	0.510"	6	A	B	C	D	Intake
				0.415"±0.005"	---	---	0.350"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71008-4		Pkg. of 4	0%	
				71008-8		Pkg. of 8	0%	
				71008-16		Pkg. of 16	Less- 10%	
				71008-50		Pkg. of 50	Less- 15%	
				71008-100		Pkg. of 100	Less- 20%	

Cylinder Studs • H. T. Steel

	KPMI P/N	Material	O.L.	Body Dia.	A	B	Quantity
		20-20412	H. T. Steel	6.310"	0.370"	1.250"	1.250"

Machined from U.S. milled fine grain, heat treated aircraft quality steel. 180,000 psi yield strength. Threads rolled after heat treatment for maximum strength and fatigue life. Centerless ground OD to insure concentricity. Case end threaded for interference fit to maintain good thread engagement at high temps. Black Oxide finish to resist corrosion and to give excellent appearance.

HD® TWIN CAM™ 88" 1999-2004



HARLEY-DAVIDSON

Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	A	B	C	D	E	Quantity
		51014-4	Single Square Bead	0.310	7.0°	0.190"	0.380"	0.380"	4Pr.

The bead height is referenced from the minor diameter of the keeper to the center of the bead.

Rocker Arm Bushings • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8

Cylinder Dowels • Steel

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-20413	Steel	0.4365"	0.323"	0.610"	Pkg. of 4

Valve Seats • Powdered Metal

	KPMI P/N	Type	O. D.		I. D.		Height		Quantity
	10-SC500	Intake	1.969"	50.00mm	1.535"	39.00mm	0.453"	11.50mm	Pkg. of 1
	10-SC510	Intake	2.007"	50.98mm	1.562"	39.67mm	0.450"	11.43mm	Pkg. of 1
	10-SC541	Intake	2.132"	54.15mm	1.690"	42.93mm	0.450"	11.43mm	Pkg. of 1
	10-SC446	Exhaust	1.757"	44.62mm	1.375"	35.00mm	0.450"	11.43mm	Pkg. of 1

KPMI's proprietary seat material is compatible with leaded and unleaded fuels including methanol and ethanol fuel blends. This material offers excellent thermal characteristics and resists microwelding that leads to seat and valve face recession. Leading edge has generous radius to ease installation.

HD® TWIN CAM™ 88"-103" 2005-2017

Valve Spring Kit • "High Performance" Ovate Wire Beehive

NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift		
	20-21400	Intake	.610"	1.860"	175#	400#	.610"		
		Exhaust							
	Kit Includes			4	H. T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals
				4	H. T. Steel Keeper (OEM Style)	4	H. T. Steel Basewashers		
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift			
20-21550	Intake	.660"	1.860"	178#	371#	.660"			
	Exhaust								
Kit Includes			4	H. T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals	
			4	H. T. Steel Keepers (9° Degree Taper)	4	H. T. Steel Basewashers			



HD® TWIN CAM™ 88"-103" 2005-2017

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20360	Intake	.600"	1.860"	160#	365#	.600"
		Exhaust					
	Kit Includes			4 Titanium Retainers	4 CrSi Valve Springs	4 Viton® Seals	
			2 Ex H. T. Steel Basewashers	4 H. T. Steel Basewashers			
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20364	Intake	.600"	1.860"	160#	365#	.600"
		Exhaust					
	Kit Includes			4 H.T. Steel Retainers	4 CrSi Valve Springs	4 Viton® Seals	
			2 Ex H. T. Steel Basewashers	4 H. T. Steel Basewashers			
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20350	Intake	.655"	1.860"	185#	450#	.655"
		Exhaust					
	Kit Includes			4 Titanium Retainers	4 CrSi Valve Springs	4 Viton® Seals	
			2 Ex H. T. Steel Basewashers	4 H. T. Steel Basewashers			
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20355	Intake	.655"	1.860"	185#	450#	.655"
		Exhaust					
	Kit Includes			4 H.T. Steel Retainers	4 CrSi Valve Springs	4 Viton® Seals	
			2 Ex H. T. Steel Basewashers	4 H. T. Steel Basewashers			

Note: These kits are supplied with 2 supplemental exhaust basewashers for use with the OEM exhaust guides.

* All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

Valve Guides • Shouldered • Use O.E.M. Style or Kibblewhite® Seals • Shortened for 0.655" Lift

	A	B	C	D	E	F	G	Intake		
	0.690"	0.770"	0.800"	1.280"	0.615"	0.2750"	0.5620" / Std.	C630 Bronze	Cast Iron	
								20-20690	20-20690C	
								+0.001"	20-20691	20-20691C
								+0.002"	20-20692	20-20692C
+0.010"	20-20699	20-20699C								
	A	B	C	D	E	F	G	Exhaust		
	0.650"	0.770"	1.030"	1.280"	0.615"	0.2750"	0.5620" / Std.	20-20700	20-20700C	
								+0.001"	20-20701	20-20701C
								+0.002"	20-20702	20-20702C
								+0.010"	20-20709	20-20709C
	A	B	C	D	E	F	G	Intake		
	0.685"	0.735"	0.702"	1.305"	0.615"	0.2750"	0.5625" / Std.	Manganese	Ref. AV&V	
								20-20690M	VG6600	
								+0.001"	20-20691M	VG6601
								+0.002"	20-20692M	VG6602
+0.010"	20-20699M	VG6610								
	A	B	C	D	E	F	G	Exhaust		
	0.685"	0.735"	0.920"	1.305"	0.615"	0.2750"	0.5625" / Std.	20-20700M	VG6700	
								+0.001"	20-20701M	VG6701
								+0.002"	20-20702M	VG6702
								+0.010"	20-20709M	VG6710

For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).


Cylinder Dowels • Steel

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-20413	Steel	0.4365"	0.323"	0.610"	Pkg. of 4


HD® TWIN CAM™ 88"-103" 2005-2017



Valves • Black Diamond™ • Black Nitroreg Stems NEW PRODUCTS

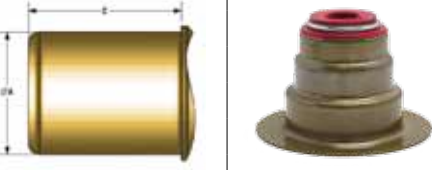
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-20322	Intake	1.805"	45.85mm	0.2760"	R0.413	1.700"R	4.420"	OEM18074-05
	20-20323R	Intake	1.900"	48.26mm	0.2760"	R0.344	28°	4.420"	Oversize
	20-20935	Intake	1.980"	50.29mm	0.2757"	R0.290	23°	4.455"	AV1980-7TGB
	20-20940	Intake	1.900"	48.26mm	0.2757"	R0.475	24°	4.445"	AV1900-7TGB
	20-20325	Exhaust	1.575"	40.00mm	0.2755"	R0.354	22°	4.520"	OEM18085-991
	20-20326R	Exhaust	1.630"	41.40mm	0.2755"	R0.500	34°	4.520"	Oversize
	20-20945	Exhaust	1.610"	40.89mm	0.2755"	R0.595	25°	4.545"	AV1610-7TGB
	20-20950	Exhaust	1.575"	40.00mm	0.2755"	R0.595	25°	4.560"	AV1575-7TGB

Valves • Black Diamond™ • Fat Stem • Black Nitroreg Stems


	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-20772	Intake	1.805"	45.85mm	0.2810"	R0.413	1.700"R	4.415"	Standard
	20-20776	Exhaust	1.575"	40.00mm	0.2805"	R0.374	23°	4.510"	Standard

KPMI® Reamer GR-2820 should be used to size the OEM valve guides to accommodate these valves.

Valve Guide Seals • Tophat


Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
7.0mm	0.974"	1.457"	3	A	B	C	D	Intake
				0.560"±0.005"	---	---	0.970"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71030-4		Pkg. of 4		0%	
			71030-8		Pkg. of 8		0%	
			71030-16		Pkg. of 16		Less- 10%	
			71030-50		Pkg. of 50		Less- 15%	
			71030-100		Pkg. of 100		Less- 20%	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
7.0mm	0.510"	0.665"	5	A	B	C	D	Intake
				0.560"±0.002"	---	---	0.375"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71028-4		Pkg. of 4		0%	
			71028-8		Pkg. of 8		0%	
			71028-16		Pkg. of 16		Less- 10%	
			71028-50		Pkg. of 50		Less- 15%	
			71028-100		Pkg. of 100		Less- 20%	

Use with Kibblewhite® Spring Kits on O.E.M. or Kibblewhite® Valve Guides

Valve Seats • Powdered Metal

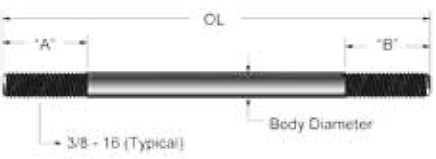
	KPMI P/N	Type	O. D.		I. D.		Height		Quantity
	10-SC500	Intake	1.969"	50.00mm	1.535"	39.00mm	0.453"	11.50mm	Pkg. of 1
	10-SC510	Intake	2.007"	50.98mm	1.562"	39.67mm	0.450"	11.43mm	Pkg. of 1
	10-SC541	Intake	2.132"	54.15mm	1.690"	42.93mm	0.450"	11.43mm	Pkg. of 1
	10-SC446	Exhaust	1.757"	44.62mm	1.375"	35.00mm	0.450"	11.43mm	Pkg. of 1

KPMI's proprietary seat material is compatible with leaded and unleaded fuels including methanol and ethanol fuel blends. This material offers excellent thermal characteristics and resists microwelding that leads to seat and valve face recession. Leading edge has generous radius to ease installation.



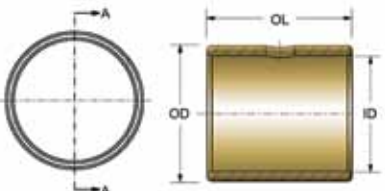
HD® TWIN CAM™ 88"-103" 2005-2017

Cylinder Studs • H. T. Steel

	KPMI P/N	Material	O.L.	Body Dia.	A	B	Quantity
	20-20412	H. T. Steel	6.310"	0.370"	1.250"	1.250"	Pkg. of 8

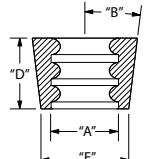

Machined from U.S. milled fine grain, heat treated aircraft quality steel. 180,000 psi yield strength. Threads rolled after heat treatment for maximum strength and fatigue life. Centerless ground OD to insure concentricity. Case end threaded for interference fit to maintain good thread engagement at high temps. Black Oxide finish to resist corrosion and to give excellent appearance.

Rocker Arm Bushings • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-20780	660 Bearing Bronze	1.019"	0.925"	1.040"	Pkg. of 2
	20-20790	660 Bearing Bronze	1.019"	0.925"	1.040"	Pkg. of 1

Note: Wrist Pins do not include oil hole(s). These must be drilled after installation.



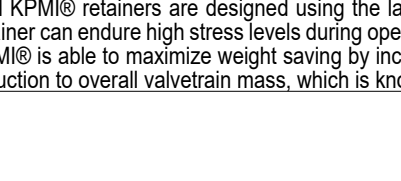
Keeper Set • O.E.M. Replacement

	KPMI P/N	Style	A	B	C	D	E	Quantity
	51016-4	Triple Radius Bead	0.275	7.0°	---	0.345"	0.290"	4Pr.

The bead height is referenced from the minor diameter of the keeper to the center of the bead.

HD® BUELL® XB9™ 2003-2007

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20360	Intake Exhaust	.600"	1.860"	160#	365#	.600"
	Kit Includes		4 Titanium Retainers	4 CrSi Valve Springs	4 Viton® Seals		
			2 Ex H. T. Steel Basewashers	4 H. T. Steel Basewashers			
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20364	Intake Exhaust	.600"	1.860"	160#	365#	.600"
	Kit Includes		4 H.T. Steel Retainers	4 CrSi Valve Springs	4 Viton® Seals		
			2 Ex H. T. Steel Basewashers	4 H. T. Steel Basewashers			
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20350	Intake Exhaust	.655"	1.860"	185#	450#	.655"
	Kit Includes		4 Titanium Retainers	4 CrSi Valve Springs	4 Viton® Seals		
			2 Ex H. T. Steel Basewashers	4 H. T. Steel Basewashers			
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20355	Intake Exhaust	.655"	1.860"	185#	450#	.655"
	Kit Includes		4 H.T. Steel Retainers	4 CrSi Valve Springs	4 Viton® Seals		
			2 Ex H. T. Steel Basewashers	4 H. T. Steel Basewashers			

Note: These kits are supplied with 2 supplemental exhaust basewashers for use with the OEM exhaust guides.

* All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

HD® BUELL® XB9™ 2003-2007



Valve Spring Kit • "High Performance" Ovate Wire Beehive

NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift		
	20-21400	Intake	.610"	1.860"	175#	400#	.610"		
		Exhaust							
	Kit Includes			4	H. T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals
				4	H. T. Steel Keeper (OEM Style)	4	H. T. Steel Basewashers		
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift			
20-21550	Intake	.660"	1.860"	178#	371#	.660"			
	Exhaust								
Kit Includes			4	H. T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals	
			4	H. T. Steel Keepers (9° Degree Taper)	4	H. T. Steel Basewashers			

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip		O. L.	Remarks	
					Radius	Angle			
	20-20260	Intake	1.805"	45.85mm	0.2760"	R0.344	28°	4.525"	Standard
	20-20262	Intake	1.900"	48.26mm	0.2760"	R0.344	28°	4.500"	Oversize
	20-20265	Exhaust	1.575"	40.00mm	0.2755"	R0.500	34°	4.610"	Standard
20-20266	Exhaust	1.615"	41.02mm	0.2755"	R0.500	34°	4.590"	Oversize	

Valve Guides • Shouldered • Use O.E.M. Style or Kibblewhite® Seals • Shortened for 0.655" Lift

	A	B	C	D	E	F	G	Intake		
								C630 Bronze	Cast Iron	
	0.690"	0.770"	0.800"	1.280"	0.615"	0.2750"	0.5620" / Std.	20-20690	20-20690C	
								+0.001"	20-20691	20-20691C
								+0.002"	20-20692	20-20692C
							+0.010"	20-20699	20-20699C	
	A	B	C	D	E	F	G	Exhaust		
	0.650"	0.770"	1.030"	1.280"	0.615"	0.2750"	0.5620" / Std.	20-20700	20-20700C	
								+0.001"	20-20701	20-20701C
								+0.002"	20-20702	20-20702C
							+0.010"	20-20709	20-20709C	
	A	B	C	D	E	F	G	Intake		
								Manganese	Ref. AV&V	
	0.685"	0.735"	0.702"	1.305"	0.615"	0.2750"	0.5625" / Std.	20-20690M	VG6600	
								+0.001"	20-20691M	VG6601
								+0.002"	20-20692M	VG6602
							+0.010"	20-20699M	VG6610	
	A	B	C	D	E	F	G	Exhaust		
	0.685"	0.735"	0.920"	1.305"	0.615"	0.2750"	0.5625" / Std.	20-20700M	VG6700	
								+0.001"	20-20701M	VG6701
								+0.002"	20-20702M	VG6702
							+0.010"	20-20709M	VG6710	


For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).




HD® BUELL® XB9™ 2003-2007

HARLEY-DAVIDSON

Valve Guide Seals • Tophat

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
7.0mm	0.974"	1.457"	3	A	B	C	D	Intake
				0.560"±0.005"	---	---	0.970"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71030-4		Pkg. of 4		0%		
		71030-8		Pkg. of 8		0%		
		71030-16		Pkg. of 16		Less- 10%		
		71030-50		Pkg. of 50		Less- 15%		
		71030-100		Pkg. of 100		Less- 20%		


Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
7.0mm	0.510"	0.665"	5	A	B	C	D	Intake
				0.560"±0.002"	---	---	0.375"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71028-4		Pkg. of 4		0%		
		71028-8		Pkg. of 8		0%		
		71028-16		Pkg. of 16		Less- 10%		
		71028-50		Pkg. of 50		Less- 15%		
		71028-100		Pkg. of 100		Less- 20%		


Use with Kibblewhite® Spring Kits on O.E.M. or Kibblewhite® Valve Guides

HD® V-ROD™ 2005

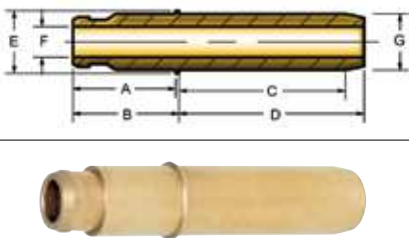
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20140		Intake	.500"	1.360"	72#	230#
Exhaust							
Kit Includes			8	Titanium Retainers	8	CrSi Valve Springs	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
			1.575"	40.00mm		Radius	Angle		
20-20147	Intake	1.575"	40.00mm	0.2350"	R0.310	10°	4.580"	Standard	
20-20152	Exhaust	1.360"	34.54mm	0.2345"	R0.465	25°	4.620"	Standard	

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.720"	0.745"	1.050"	1.180"	0.440"	0.2340"	0.3957" / Std.		20-20330	
							+0.001"	20-20331		
							+0.010"	20-20339		
0.720"	0.745"	1.170"	1.300"	0.440"	0.2340"	0.3957" / Std.			20-20340	
							+0.001"		20-20341	
Use O.E.M valve guide seals.							+0.010"			20-20349

HD® V-ROD™ 2005



Tappets • O.E.M. Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
	20-20157	Intake	None	31.00mm	1.2195"	1.156"	0.800"	0.325"	0.108"	Pkg. of 8
		Exhaust								
Refer to KPMI® Tappet Section , in back of catalog, when selecting oversize tappets.										

HD® MILWAUKEE-EIGHT™ 2017

Valve Spring Kit • Ovate Wire Beehive

NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	20-21000	Intake	.465"	1.410"	80#	212#	.465"	
		Exhaust						
Kit Includes			8	Titanium Retainers	8	CrSi Valve Springs	8	H. T. Steel Basewashers

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	20-21050	Intake	.465"	1.410"	80#	212#	.465"	
		Exhaust						
Kit Includes			8	H. T. Steel Retainers	8	CrSi Valve Springs	8	H. T. Steel Basewashers

Valve Spring Kit • Ovate Wire Beehive • High Lift

NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-21200	Intake	0.550"	1.550"	104#	230#	0.550"
		Exhaust					
Kit Includes			8	Titanium Retainers	8	CrSi Valve Springs	

Valves • Black Diamond™ • Black Nitroreg Stems

NEW PRODUCTS

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip		O. L.	Remarks	
					Radius	Angle			
	20-21012	Intake	1.571"	39.90mm	0.2347"	R0.235	10°	4.015"	Standard
	20-21015	Intake	1.591"	40.40mm	0.2347"	R0.235	10°	4.015"	Oversize
	20-21013	Intake	1.630"	41.40mm	0.2347"	R0.235	10°	4.055"	Oversize
	20-21016	Exhaust	1.264"	32.11mm	0.2342"	R0.460	24°	4.050"	Standard
20-21017	Exhaust	1.284"	32.61mm	0.2342"	R0.460	24°	4.050"	Oversize	

KPMI® Black Diamond™ Blank Valve PN 20-21019 is available for M8 Application and please see Blank Valve section in back of catalog.



HD® MILWAUKEE-EIGHT™ 2017

Valve • White Diamond® • Inconel® • Exhaust

NEW PRODUCTS

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-21018	Exhaust	1.284"	32.61mm	0.2342"	R0.460	24°	4.050"	Oversize

Valve Guides • C630 Bronze • Cast Iron • Manganese Bronze

NEW PRODUCTS

	A	B	C	D	E	F	G	Intake		
	0.480"	0.545"	0.540"	1.110"	0.600"	0.2347	0.4750" / Std.	C630 Bronze	Cast Iron	Manganese
							+0.001"	20-21020	20-21020C	20-21020M
							+0.002"	20-21021	20-21021C	20-21021M
							+0.010"	20-21022	20-21022C	20-21022M
								20-21029	20-21029C	20-21029M
	A	B	C	D	E	F	G	Exhaust		
	0.480"	0.545"	0.600"	1.110"	0.600"	0.2342	0.4750" / Std.	C630 Bronze	Cast Iron	Manganese
							+0.001"	20-21030	20-21030C	20-21030M
							+0.002"	20-21031	20-21031C	20-21031M
								20-21032	20-21032C	20-21032M
								20-21039	20-21039C	20-21039M

For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guide Seals • Tophat

NEW PRODUCTS

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.712"	1.170"	3	A	B	C	Spring shoulder Ø	Intake
				0.475"±0.002"	---	0.545"	0.707	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71046-4			Pkg. of 4		0%		
	71046-8			Pkg. of 8		0%		
	71046-16			Pkg. of 16		Less- 10%		
	71046-50			Pkg. of 50		Less- 15%		
71046-100			Pkg. of 100		Less- 20%			

Keeper Set • O.E.M. Replacement

NEW PRODUCTS

	KPMI P/N	Style	A	B	C	D	E	Quantity
	51029-8	Triple Radius Bead	0.236"	7.0°	---	0.200"	0.282"	8Pr.


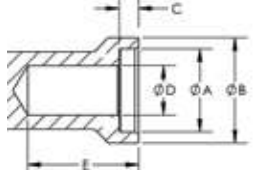

HD® TOOLS

Compression Release Valves

NEW PRODUCTS


	KPMI P/N	Thread	Upper Body	Thread Length	Quantity	Note
	20-21250	M10 x 1	1.050"	0.350"	Pkg. of 2	Fits Evos, Shortened thread for ease of installation, 6kn closing force
	20-21265	M10 x 1	1.050"	0.350"	Pkg. of 20	
	20-21255	M10 x 1	1.380"	0.350"	Pkg. of 2	Fits Twin Cams, Shortened thread for ease of installation, 6kn closing force
	20-21270	M10 x 1	1.380"	0.350"	Pkg. of 20	
	20-21260	M10 x 1	1.250"	0.500"	Pkg. of 2	
20-21275	M10 x 1	1.250"	0.500"	Pkg. of 20		

Installation Tools & Tool Kits

			Tool Kit P/N		Description					
			20-20835		Kit includes all 4 sizes of installations					
Tool P/N	Fits	Color	ØA	ØB	C	ØD	E	Quantity		
20-20830	71032-4	Red	Ø0.575"	0.860"	0.160"	0.404"	0.910	Pkg. of 1		
20-20831	71036-4	Blue	Ø0.758"	0.860"	0.160"	0.404"	0.910	Pkg. of 1		
20-20832	71033-4	White	Ø0.638"	0.860"	0.160"	0.404"	0.910	Pkg. of 1		
	71034-4									
20-20833	71035-4	Black	Ø0.673"	0.860"	0.160"	0.404"	0.910	Pkg. of 1		

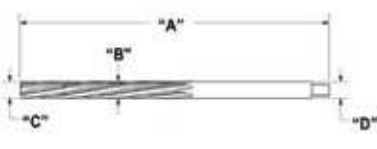

These installation tools for OE style seals are manufactured from high strength 6061-T6 Aluminum for increased durability when compared to plastic installers. The tools are designed for precision fitment onto the seal OD to help the builder center the seal over the valve guide so that a few light strikes from a hammer will set the seal. Radiused top striking surface reduces the likelihood of a burr forming from deformation. Each installation tool is color coded and laser marked for each seal size by guide diameter.

Installation Protector

	KPMI P/N (2-pack)	KPMI P/N (1-pack)	Application	Stem Diameter	Fits		Color
	20-20634	20-20637	Evolution Ironhead Sportster Intake	5/16"	71032-4	71033-4	Green
	20-20635	20-20638	Ironhead Sportster Exhaust	11/32"	71034-4		Clear
	20-20636	20-20639	Panhead Shovelhead 74" & Shovelhead 80"	3/8"	71035-4	71036-4	Red

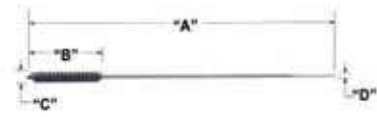
The flexible thin wall protectors are designed to fit over the top of the valve stem, protecting the sealing element from any sharp edges that might damage it during installation.

Reamers

 	KPMI P/N	Description	Overall Length "A"	Cutting Diameter "B"	Pilot Diameter "C"	Shank Diameter "D"
	GR-2357	0.2357 HSS valve guide reamer	7.125"	0.2357"	0.229"	0.228"
	GR-2770	0.2770 HSS valve guide reamer	7.125"	0.2770"	0.271"	0.270"
	GR-2820	0.2820 HSS valve guide reamer	7.125"	0.2820"	0.271"	0.270"
	GR-3100	0.3100 HSS valve guide reamer	7.125"	0.3100"	0.304"	0.303"
	GR-3110	0.3110 HSS valve guide reamer	7.125"	0.3110"	0.305"	0.304"
	GR-3115	0.3115 HSS valve guide reamer	7.125"	0.3115"	0.305"	0.304"
	GR-3120	0.3120 HSS valve guide reamer	7.125"	0.3120"	0.306"	0.305"
	GR-3400	0.3400 HSS valve guide reamer	7.125"	0.3400"	0.334"	0.333"
	GR-3410	0.3410 HSS valve guide reamer	7.125"	0.3410"	0.335"	0.334"
	GR-3730	0.3730 HSS valve guide reamer	7.125"	0.3730"	0.367"	0.336"
	GR-3775	0.3775 HSS valve guide reamer	7.125"	0.3775"	0.371"	0.370"
	GR-3790	0.3790 HSS valve guide reamer	7.125"	0.3790"	0.373"	0.372"

KPMI® valve guide reamers are manufactured from premium hardened High Speed Steel. The advertised finished reamer diameters are ground to: +/- .0002". These spiral fluted reamers incorporate a 1.00" long pilot (reduced diameter) which gets inserted into an unfinished guide bore, to align the reamer to the valve guide centerline, during the sizing process. **These reamers have been specifically designed for KPMI® Manganese Bronze valve guides. Do not attempt to use these reamers to size C630 Nickel Aluminum Bronze guides.**

Ball Hones

	KPMI P/N	Description	Overall Length "A"	Hone Head Length "B"	Hone Diameter "C"	Shank Diameter "D"
	GH-2755	7.0mm valve guide hone	7.975"	2.075"	0.325"	0.130"
	GH-3125	5/16 (.3125") valve guide hone	8.125"	2.225"	0.375"	0.145"
	GH-3750	3/8 (.3750") valve guide hone	8.050"	2.190"	0.415"	0.145"

BC Series Flex-Hone are manufactured by Brush Research (BRM). The BC Series Flex-Hone tool is designed for use on any type or size of valve guide from 4mm up to 3/8" in diameter. This guide hone is designed for surface finishing and cross hole deburring. Although Ball Hones have many uses, KPMI® offers them primarily to be used after a guide has been reamed. Using a Ball Hone after reaming creates a uniform surface free of irregularities, which improves surface contact and reduces the risk of galling or seizure. Please see our FAQ for recommended clearances.





HONDA® XR™ 50 2000-2003

HONDA

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.245"	0.335"	0.655"	0.775"	0.645"	0.1960"	0.3963" / Std.	30-30510		
									+0.002"	30-30512	
									+0.010"	30-30519	
		0.245"	0.335"	0.790"	0.865"	0.645"	0.1960"	0.3963" / Std.		30-30520	
									+0.002"	30-30522	
							+0.010"	30-30529			

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71015-2				Pkg. of 2		0%
		71015-4				Pkg. of 4		0%
		71015-8				Pkg. of 8		0%
		71015-16				Pkg. of 16		Less- 10%
		71015-50				Pkg. of 50		Less- 15%
71015-100				Pkg. of 100		Less- 20%		

HONDA® CRF™ / XR™ 75-100 1973-2013

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-30235	Intake	.360"	1.165"	47#	130#	.360"	
		Exhaust						
Kit Includes			2	CrSi Valve Springs	2	Titanium Retainers	2	Spring Shims

Spring Only Kit • Replacement

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-4062	Intake	.400"	1.210"	54#	145#	.400"
		Exhaust					
Kit Includes			2	CrSi Valve Springs			

Valves • Black Diamond™ • Black Nitroreg Stems (Excludes XR75 1973-'76 Intake)

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30238	Intake	24.00mm	0.945"	0.2145"	20°	3.115"	Standard
	30-30239	Intake	26.00mm	1.024"	0.2145"	20°	3.115"	Oversize
	30-30241	Exhaust	20.50mm	0.807"	0.2140"	20°	3.100"	Standard
	30-30242	Exhaust	22.00mm	0.866"	0.2140"	20°	3.100"	Oversize

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.115"	0.225"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71016-2				Pkg. of 2		0%
		71016-4				Pkg. of 4		0%
		71016-8				Pkg. of 8		0%
		71016-16				Pkg. of 16		Less- 10%
		71016-50				Pkg. of 50		Less- 15%
71016-100				Pkg. of 100		Less- 20%		

66

HONDA® CRF™ 150R 2007-2018



HONDA

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-30880	Intake	.350"	1.320"	45#	143#	.350"	
		Exhaust						
Kit Includes			2	In, CrSi Valve Springs	2	In, Titanium Retainers	2	In, H. T. Steel Basewashers
			2	Ex, CrSi Valve Springs	2	Ex, Titanium Retainers	2	Ex, H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	30-30910	Intake	26.00mm	1.024"	0.1765"	19°	3.065"	Standard
	30-30911	Intake	27.00mm	1.063"	0.1765"	19°	3.065"	Oversize
	30-30913	Exhaust	22.50mm	0.886"	0.1760"	19°	3.145"	Standard
	30-30914	Exhaust	23.50mm	0.925"	0.1760"	19°	3.145"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.550"	0.570"	0.710"	---	0.1765	0.3566" / Std.	30-30890	
							+0.001"	30-30891	
							+0.002"	30-30892	
							+0.010"	30-30899	
	---	0.790"	0.600"	0.710"	---	0.1760	0.3566" / Std.		30-30900
							+0.001"		30-30901
							+0.002"		30-30902
						+0.010"		30-30909	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
	Part Number		Quantity		Quantity Incentive			
	71014-4		Pkg. of 4		0%			
	71014-8		Pkg. of 8		0%			
	71014-16		Pkg. of 16		Less- 10%			
	71014-50		Pkg. of 50		Less- 15%			
	71014-100		Pkg. of 100		Less- 20%			

HONDA® CB™ 160 1965-1969

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30800	Intake	.354"	1.175"	48#	134 #	.354"
		Exhaust					
Kit Includes			4	CrSi Valve Springs	4	* H. T. Steel Keepers Pr.	
			4	Titanium Retainers	4	H. T. Steel Basewashers	

*Designed for use with Kibblewhite® valves only. KPMI® keepers which are supplied with this kit are designed to work with Kibblewhite® valves utilizing a radius groove keeper design.



HONDA® CB™ 160 1965-1969

HONDA

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30830	Intake	25.00mm	0.984"	0.2157"	21°	2.980"	Standard
	30-30831	Intake	26.00mm	1.024"	0.2157"	21°	2.980"	Oversize
	30-30833	Exhaust	22.00mm	0.866"	0.2152"	15°	2.975"	Standard
	30-30834	Exhaust	23.00mm	0.906"	0.2152"	15°	2.975"	Oversize

Not recommended for O.E.M. replacement. These valves have been designed to work with Kibblewhite® Radius Groove Keepers, which are supplied with Kibblewhite® Spring Kit #30-30800.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.415"	0.450"	0.650"	0.880"	0.440"	0.2155"	0.3975" / Std.	30-30810	
							+0.001"	30-30811	
							+0.002"	30-30812	
							+0.010"	30-30819	
	0.415"	0.450"	0.790"	1.040"	0.440"	0.2152"	0.3975" / Std.		30-30820
							+0.001"		30-30821
							+0.002"		30-30822
							+0.010"		30-30829

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
			Part Number	Quantity		Quantity Incentive		
			71016-4	Pkg. of 4		0%		
			71016-8	Pkg. of 8		0%		
			71016-16	Pkg. of 16		Less- 10%		
			71016-50	Pkg. of 50		Less- 15%		
		71016-100	Pkg. of 100		Less- 20%			

HONDA® CB™ 175 1970-1975

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30840	Intake	.354"	1.175"	47#	133#	.354"
		Exhaust					
Kit Includes			4	CrSi Valve Springs	4	* H. T. Steel Keepers Pr.	
			4	Titanium Retainers	4	H. T. Steel Basewashers	

*Designed for use with Kibblewhite® valves only. KPMI® keepers which are supplied with this kit are designed to work with Kibblewhite® valves utilizing a radius groove keeper design.

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30870	Intake	28.00mm	1.102"	0.2157"	21°	2.920"	Standard
	30-30871	Intake	29.00mm	1.142"	0.2157"	21°	2.920"	Oversize
	30-30873	Exhaust	24.00mm	0.945"	0.2152"	15°	2.895"	Standard
	30-30874	Exhaust	25.00mm	0.984"	0.2152"	15°	2.895"	Oversize

Not recommended for O.E.M. replacement. These valves have been designed to work with Kibblewhite® Radius Groove Keepers, which are supplied with Kibblewhite® Spring Kit #30-30840.

HONDA® CB™ 175 1970-1975



Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.415"	0.450"	0.650"	0.880"	0.440"	0.2155"	0.3975" / Std.	30-30850	
							+0.001"	30-30851	
							+0.002"	30-30852	
							+0.010"	30-30859	
	0.415"	0.450"	0.790"	1.040"	0.440"	0.2152"	0.3975" / Std.		30-30860
							+0.001"		30-30861
							+0.002"		30-30862
							+0.010"		30-30869

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	Intake
5.5mm	0.320"	0.440"	4	0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
	Part Number			Quantity	Quantity Incentive			
	71016-4			Pkg. of 4	0%			
	71016-8			Pkg. of 8	0%			
	71016-16			Pkg. of 16	Less- 10%			
	71016-50			Pkg. of 50	Less- 15%			
71016-100			Pkg. of 100	Less- 20%				

HONDA® VARIOUS 185-200 1980-2002

• ATC™ 185 / 200 1980-1986

• XL 200R / XR 200 / XR 200R 1980-2002

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-4021	Intake	.450"	1.345"	66#	202#	.450"	
		Exhaust						
Kit Includes			2	CrSi Valve Springs	2	Titanium Retainers	2	H. T. Steel Basewashers

Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-4016	Intake	.500"	1.390"	57#	145#	.290"
		Exhaust					
Kit Includes			2	CrSi Valve Springs	2	H. T. Steel Shims	

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	30-30120	Intake	30.00mm	1.181"	0.2145"	23°	3.605"	Standard
	30-30121	Intake	31.00mm	1.220"	0.2145"	23°	3.620"	Oversize
	30-30122	Exhaust	25.00mm	0.984"	0.2140"	29°	3.595"	Standard



HONDA® VARIOUS 185-200 1980-2002

• ATC™ 185 / 200 1980-1986

• XL 200R / XR 200 / XR 200R 1980-2002

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.550"	0.650"	0.890"	1.050"	0.685"	0.2155"	0.4372" / Std.	30-4069	
								+0.004"	30-4159
							+0.015"	30-4160	

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	Intake
5.5mm	0.320"	0.440"	4	0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71016-2			Pkg. of 2		0%		
	71016-4			Pkg. of 4		0%		
	71016-8			Pkg. of 8		0%		
	71016-16			Pkg. of 16		Less- 10%		
	71016-50			Pkg. of 50		Less- 15%		
71016-100			Pkg. of 100		Less- 20%			

HONDA® XR™ 200R RFVC 1984-1985

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-30077	Intake	.355"	1.205"	55#	150#	.355"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.400"	0.495"	1.185"	1.300"	0.650"	0.2155"	0.4355" / Std.	30-3100	
								+0.002"	30-3102
							+0.010"	30-3110	

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	Intake
5.5mm	0.320"	0.440"	4	0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71016-4			Pkg. of 4		0%		
	71016-8			Pkg. of 8		0%		
	71016-16			Pkg. of 16		Less- 10%		
	71016-50			Pkg. of 50		Less- 15%		
	71016-100			Pkg. of 100		Less- 20%		

HONDA® CRF™ 250R 2004-'07 / 250X 2004-'17



HONDA

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30590	Intake	.350"	1.320"	50#	145#	.350"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers
			4	H. T. Steel Basewashers	4	Red Viton® Seals	

Valve Spring Kit • High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-31300	Intake	.385"	1.185"	50#	160#	.385"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers
			4	H. T. Steel Basewashers	4	Red Viton® Seals	

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift		
	30-31200	Intake	.350"	1.320"	50#	145#	.350"		
	Kit Includes			2	CrSi Valve Springs	2	Titanium Retainers	2	H. T. Steel Basewashers
				2	Black Diamond™ Valves	2	Red Viton® Seals		

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	30-30630	Intake	31.00mm	1.220"	0.1961"	20°	3.280"	Standard
	30-30631	Intake	32.00mm	1.260"	0.1961"	20°	3.280"	Oversize
	30-30633	Exhaust	26.00mm	1.024"	0.1956"	20°	3.235"	Standard
	30-30634	Exhaust	27.00mm	1.063"	0.1956"	20°	3.235"	Oversize

Valves • O.E.M. Replacement • Titanium • Stainless

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Material	
	30-30630T	Intake	31.00mm	1.220"	0.1960"	20°	3.275"	Titanium
	30-30633	Exhaust	26.00mm	1.024"	0.1956"	20°	3.235"	Stainless

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.540"	0.540"	0.710"	0.770"	0.394"	0.1961"	0.3965" / Std.	30-30610	
							+0.001"	30-30611	
							+0.002"	30-30612	
							+0.010"	30-30619	
	0.740"	0.740"	0.675"	0.775"	0.394"	0.1956"	0.3965" / Std.		30-30620
							+0.001"		30-30621
							+0.002"		30-30622
							+0.004"		30-30624
						+0.010"		30-30629	

Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	Type	A	B	C	D	E	Quantity
		51025-4	Single Radius Bead	Intake	0.196"	7.0°	0.170"	0.205"	0.236"	4Pr.
				Exhaust						

Note: The bead height is referenced from the minor diameter of the keeper to the center of the bead.



HONDA® CRF™ 250R 2004-'07 / 250X 2004-'17

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
4.5mm	0.331"	0.370"	4	0.321"±0.005"	0.281"	0.120"	0.240"	Intake
								Exhaust
		Part Number			Quantity		Quantity Incentive	
		71014-4			Pkg. of 4		0%	
		71014-8			Pkg. of 8		0%	
		71014-16			Pkg. of 16		Less- 10%	
		71014-50			Pkg. of 50		Less- 15%	
		71014-100			Pkg. of 100		Less- 20%	

HONDA® CRF™ 250R 2008-2009

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-31150	Intake	.350"	1.320"	50#	145#	.350"
Kit Includes	4	CrSi Valve Springs		4	Titanium Retainers		
	4	H. T. Steel Basewashers		4	Red Viton® Seals		

Valve Spring Kit • High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-31310	Intake	.385"	1.185"	50#	160#	.385"
Kit Includes	4	CrSi Valve Springs		4	Titanium Retainers		
	4	H. T. Steel Basewashers		4	Red Viton® Seals		

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-31200	Intake	.350"	1.320"	50#	145#	.350"
Kit Includes	2	CrSi Valve Springs	2	Titanium Retainers	2	H. T. Steel Basewashers	
	2	Black Diamond™ Valves		2	Red Viton® Seals		

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	30-31162	Intake	31.00mm	1.220"	0.1961"	20°	3.280"	Standard
	30-31163	Intake	32.00mm	1.260"	0.1961"	20°	3.280"	Oversize
	30-31166	Exhaust	26.00mm	1.024"	0.1760"	20°	3.235"	Standard

Valves • O.E.M. Replacement • Titanium • Stainless

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Material	
	30-31162T	Intake	31.00mm	1.220"	0.1960"	20°	3.275"	Titanium
	30-31166	Exhaust	26.00mm	1.024"	0.1768"	20°	3.235"	Stainless

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

HONDA® CRF™ 250R 2008-2009



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Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.540"	0.540"	0.710"	0.770"	0.394"	0.1960"	0.3965" / Std.	30-31170	
							+0.001"	30-31171	
							+0.002"	30-31172	
							+0.010"	30-31179	
	0.740"	0.740"	0.750"	0.850"	0.394"	0.1760"	0.3965" / Std.		30-31180
							+0.001"		30-31181
							+0.002"		30-31182
						+0.010"		30-31189	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71014-4			Pkg. of 4		0%		
	71014-8			Pkg. of 8		0%		
	71014-16			Pkg. of 16		Less- 10%		
	71014-50			Pkg. of 50		Less- 15%		
	71014-100			Pkg. of 100		Less- 20%		

HONDA® CRF™ 250R 2010-2015

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-31450	Intake	.385"	1.185"	50#	160#	.385"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers
Kit Includes			4	H. T. Steel Basewashers	4	Red Viton® Seals	

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-31500	Intake	.385"	1.185"	50#	160#	.385"	
	Kit Includes			2	CrSi Valve Springs	2	Titanium Retainers	2
Kit Includes			2	Black Diamond™ Valves	2	Red Viton® Seals		

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	30-31462	Intake	30.50mm	1.201"	0.1961"	20°	3.500"	Standard
	30-31463	Intake	31.50mm	1.240"	0.1961"	20°	3.500"	Oversize
	30-31466	Exhaust	25.00mm	0.984"	0.1760"	20°	3.310"	Standard
	30-31467	Exhaust	26.00mm	1.024"	0.1760"	20°	3.310"	Oversize



HONDA® CRF™ 250R 2010-2015

Valves • O.E.M. Replacement • Titanium • Stainless

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	30-31462T	Intake	30.50mm	1.221"	0.1960"	20°	3.500"	Titanium
	30-31466	Exhaust	25.00mm	0.984"	0.1760"	20°	3.310"	Stainless

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.610"	0.610"	0.745"	0.965"	0.394"	0.1961"	0.3965" / Std.		30-31470
								+0.001"	30-31471	
								+0.002"	30-31472	
								+0.010"	30-31479	
		0.820"	0.820"	0.650"	0.770"	0.394"	0.1760"	0.3965" / Std.		30-31480
								+0.001"		30-31481
								+0.002"		30-31482
								+0.010"		30-31489

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
4.5mm	0.331"	0.370"	4	0.321"±0.005"	0.281"	0.120"	0.240"	Intake
								Exhaust
		Part Number		Quantity		Quantity Incentive		
		71014-4		Pkg. of 4		0%		
		71014-8		Pkg. of 8		0%		
		71014-16		Pkg. of 16		Less- 10%		
		71014-50		Pkg. of 50		Less- 15%		
71014-100		Pkg. of 100		Less- 20%				

HONDA® CRF™ 250R 2016-2017

Valve Spring Kit • Lightweight Racing NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-32400	Intake	.380"	1.180"	51#	160#	.380"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	*Red Viton® Seals
			2	In H. T. Steel Basewashers	2	Ex H. T. Steel Basewashers		

*KPMI® supplied Viton® seals must be used with this kit. O.E.M. seals are NOT compatible.

HONDA® CRF™ 250R 2016-2017



Intake Only • Steel Valve Conversion Kit

NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-32440	Intake	.380"	1.180"	51#	160#	.380"
	Kit Includes		2	CrSi Valve Springs	2	Titanium Retainers	2
		2	Black Diamond™ Valves		2	*Red Viton® Seals	

*KPMI® supplied Viton® seals must be used with this kit. O.E.M. seals are NOT compatible.

Valves • Black Diamond™ • Black Nitroreg Stems

NEW PRODUCTS

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-32412	Intake	30.50mm	1.201"	0.1961"	20°	3.500"	Standard
	30-32413	Intake	31.50mm	1.240"	0.1961"	20°	3.500"	Oversize
	30-32416	Exhaust	25.00mm	0.984"	0.1956"	20°	3.310"	Standard

You must use KPMI® Spring Kit 30-32400 When installing Black Diamond™ Valves

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

NEW PRODUCTS

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	30-32412T	Intake	30.50mm	1.201"	0.1960"	20°	3.500"	Titanium
	30-32416T	Exhaust	25.00mm	0.984"	0.1956"	20°	3.300"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. KPMI® Tensilite® titanium valves are one piece forgings made from 6-2-4-2 titanium alloy. These are the latest developments in titanium valve alloys and have superior hardness, strength, and thermal characteristics when compared to other titanium valve alloys. Tensilite® valves are covered with a chromium nitride (CRN) PVD coating. This coating adheres exceptionally well to titanium, has a low coefficient of friction, and is impact, abrasion, and corrosion resistant.

Valve Guides • C630 Bronze

NEW PRODUCTS

	A	B	C	D	E	F	G	Intake	Exhaust
	0.675"	0.675"	0.710"	0.815"	0.394"	0.1961"	0.3963" / Std.	30-32420	
							+0.001"	30-32421	
							+0.002"	30-32422	
							+0.010"	30-32429	
	0.835"	0.835"	0.630"	0.735"	0.394"	0.1956"	0.3963" / Std.		30-32430
							+0.001"		30-32431
							+0.002"		30-32432
							+0.010"		30-32439

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71014-4			Pkg. of 4		0%	
		71014-8			Pkg. of 8		0%	
		71014-16			Pkg. of 16		Less- 10%	
		71014-50			Pkg. of 50		Less- 15%	
71014-100			Pkg. of 100		Less- 20%			



HONDA® TRX™ 250X 1987-1992

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-3041	Intake	.400"	1.215"	76#	192#	.400"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Shims

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	30-30088	Intake	25.50mm	1.004"	0.2155"	23°	3.680"	Standard
	30-30090	Exhaust	22.50mm	0.886"	0.2150"	29°	3.650"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.400"	0.495"	1.185"	1.300"	0.800"	0.2150"	0.4355" / Std.		30-3030	
								+0.002"		30-3032
								+0.010"		30-3040

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71016-4			Pkg. of 4		0%		
	71016-8			Pkg. of 8		0%		
	71016-16			Pkg. of 16		Less- 10%		
	71016-50			Pkg. of 50		Less- 15%		
71016-100			Pkg. of 100		Less- 20%			

HONDA® XR™ / XL™ 250R RFVC 1984-'95

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-30077	Intake	.355"	1.205"	55#	150#	.355"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers

HONDA® XR™ / XL™ 250R RFVC 1984-'95



Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30081	Intake	28.50mm	1.122"	0.2160"	23°	3.805"	Standard
	30-30082	Intake	29.50mm	1.161"	0.2160"	23°	3.805"	Oversize
	*30-30083	Exhaust	23.50mm	0.925"	0.2155"	29°	3.775"	Standard

* Note # 30-30083 - Recommended for XR250R 1986-1995 Model only

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.400"	0.495"	1.185"	1.300"	0.650"	0.2155"	0.4355" / Std.		30-3100
							+0.002"		30-3102
							+0.010"		30-3110

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
	Part Number		Quantity		Quantity Incentive			
	71016-4		Pkg. of 4		0%			
	71016-8		Pkg. of 8		0%			
	71016-16		Pkg. of 16		Less- 10%			
	71016-50		Pkg. of 50		Less- 15%			
71016-100		Pkg. of 100		Less- 20%				

HONDA® XR™ 250R RFVC 1996-2004

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30070	Intake	.465"	1.455"	52#	143#	.300"
		Exhaust					
Kit Includes	4	CrSi Valve Springs	4	Titanium Retainers			


Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-4154	Intake	.465"	1.205"	55#	140#	.300"
		Exhaust					
Kit Includes	4	CrSi Valve Springs	4	H. T. Steel Basewashers			




HONDA® XR™ 250R RFVC 1996-2004

Valves • Black Diamond™ • Black Nitroreg Stems

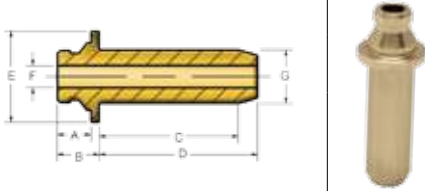
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30073	Intake	28.50mm	1.122"	0.1960"	23°	3.805"	Standard
	30-30075	Exhaust	23.50mm	0.925"	0.1955"	29°	3.765"	Standard

Valve Guide Seals • Viton®


Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	Intake
5.5mm	0.320"	0.440"	4	0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
	Part Number		Quantity		Quantity Incentive			
	71016-4		Pkg. of 4		0%			
	71016-8		Pkg. of 8		0%			
	71016-16		Pkg. of 16		Less- 10%			
	71016-50		Pkg. of 50		Less- 15%			
	71016-100		Pkg. of 100		Less- 20%			

HONDA® XR™ 250L 1991-1996

Valve Guides • C630 Bronze


	A	B	C	D	E	F	G	Intake	Exhaust	
	0.400"	0.495"	1.185"	1.300"	0.650"	0.2155"	0.4355" / Std.	30-3100		
								+0.002"	30-3102	
								+0.010"	30-3110	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	Intake
5.5mm	0.320"	0.440"	4	0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
	Part Number		Quantity		Quantity Incentive			
	71016-4		Pkg. of 4		0%			
	71016-8		Pkg. of 8		0%			
	71016-16		Pkg. of 16		Less- 10%			
	71016-50		Pkg. of 50		Less- 15%			
	71016-100		Pkg. of 100		Less- 20%			

HONDA® TRX™ 300EX / X 1993-2009


Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-3041	Intake	.400"	1.215"	76#	192#	.400"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Shims

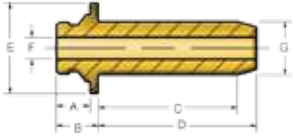

HONDA® TRX™ 300EX / X 1993-2009



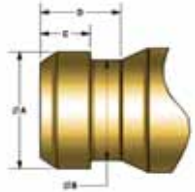

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30088	Intake	25.50mm	1.004"	0.2155"	23°	3.680"	Standard
	30-30090	Exhaust	22.50mm	0.886"	0.2150"	29°	3.650"	Standard

Valve Guides • C630 Bronze


		A	B	C	D	E	F	G	Intake	Exhaust		
		0.400"	0.495"	1.185"	1.300"	0.800"	0.2150"	0.4355" / Std.	30-3030			
										+0.002"	30-3032	
										+0.010"	30-3040	

Valve Guide Seals • Viton®

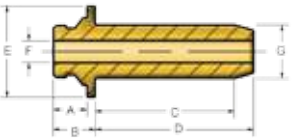

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
		Part Number				Quantity	Quantity Incentive	
		71016-4				Pkg. of 4	0%	
		71016-8				Pkg. of 8	0%	
		71016-16				Pkg. of 16	Less- 10%	
		71016-50				Pkg. of 50	Less- 15%	
71016-100				Pkg. of 100	Less- 20%			

HONDA® 350 RFVC 1983-1985

Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-4083	Intake	.460"	1.390"	65#	204#	.460"
		Exhaust					
Kit Includes			4	CrSi Valve Springs			


Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust		
		0.400"	0.495"	1.185"	1.300"	0.650"	0.2155"	0.4355" / Std.	30-3100			
										+0.002"	30-3102	
										+0.010"	30-3110	




HONDA® 350 RFVC 1983-1985

Valve Guide Seals • Viton®


Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5.5mm	0.320"	0.440"	4	0.358"±0.005"	0.320"	0.110"	0.200"	Intake
								Exhaust
		Part Number		Quantity		Quantity Incentive		
		71016-4		Pkg. of 4		0%		
		71016-8		Pkg. of 8		0%		
		71016-16		Pkg. of 16		Less- 10%		
		71016-50		Pkg. of 50		Less- 15%		
		71016-100		Pkg. of 100		Less- 20%		

HONDA® CB™ / CL™ 350 TWIN 1968-'73

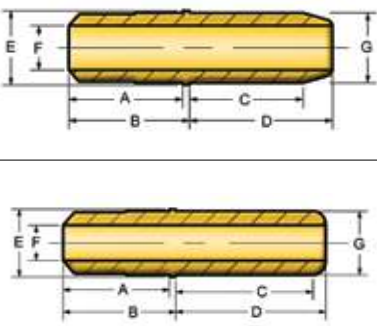
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30104	Intake	.465"	1.315"	101#	266#	.465"
		Exhaust					
Kit Includes	4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.			
	4	Titanium Retainers	4	H. T. Steel Basewashers			

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	30-30361	Intake	34.00mm	1.339"	0.2745"	15°	3.910"	Standard
	30-30362	Intake	35.00mm	1.378"	0.2745"	15°	3.900"	Oversize
	30-30364	Exhaust	28.00mm	1.102"	0.2740"	23°	3.850"	Standard
	30-30365	Exhaust	29.00mm	1.142"	0.2740"	23°	3.840"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.830"	0.880"	0.810"	1.020"	0.525"	0.2745"	0.4950" / Std.		30-0359
							+0.002"	30-0360	
							+0.010"	30-0400	
0.830"	0.880"	1.070"	1.170"	0.525"	0.2740"	0.4950" / Std.		30-0363	
							+0.002"	30-0364	
							+0.010"	30-0401	

No seal required.

HONDA® CB™ / CL™ 350 TWIN 1968-'73



• **Lightweight 5.00mm Conversion System**

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30320	Intake	.460"	1.370"	68#	207#	.460"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.
			4	Titanium Retainers	4	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30326	Intake	34.00mm	1.339"	0.1965"	20°	3.835"	Standard
	30-30327	Intake	35.00mm	1.378"	0.1965"	20°	3.825"	Oversize
	30-30328	Exhaust	28.00mm	1.102"	0.1960"	23°	3.775"	Standard
	30-30329	Exhaust	29.00mm	1.142"	0.1960"	23°	3.765"	Oversize

Must use Kibblewhite® Lash Caps #94007-4 (Pkg. of 4). Valves have been shortened to fit lash caps.

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.440"	0.600"	0.825"	1.165"	0.525"	0.1960"	0.4953" / Std.	30-30330		
									+0.001"	30-30331	
									+0.002"	30-30332	
									+0.010"	30-30339	
		0.440"	0.600"	1.000"	1.180"	0.525"	0.1960"	0.4953" / Std.		30-30340	
							+0.001"		30-30341		
							+0.002"		30-30342		
							+0.010"		30-30349		

One seal supplied with each guide.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71015-4				Pkg. of 4		0%
		71015-8				Pkg. of 8		0%
		71015-16				Pkg. of 16		Less- 10%
		71015-50				Pkg. of 50		Less- 15%
71015-100				Pkg. of 100		Less- 20%		


Lash Caps • H.T. Steel

	KPMI P/N	Material	"A"	"B"	"C"	"D"	"C"- "D"	Quantity
	94007-4	H.T. Steel	5.00mm	0.277"	0.175"	0.100"	0.075"	Pkg. of 4
		0.1969"						




HONDA® ATC™ 350X 1985-1986

Spring Only Kit • High Performance

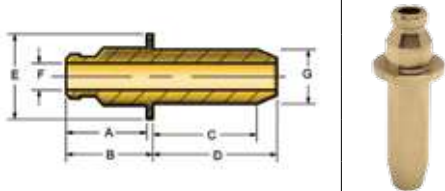
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-3045	Intake	.415"	1.160"	90#	210#	.415"
		Exhaust					
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	

HONDA® XL™ 350 1974-1978

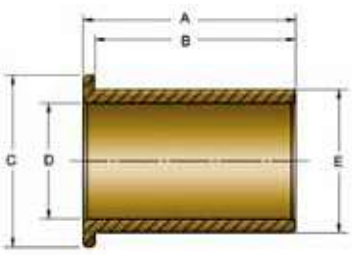
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-30230	Intake	.440"	1.195"	59#	172#	.440"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers

Valve Guides • C630 Bronze


	A	B	C	D	E	F	G	Intake	Exhaust
	0.550"	0.650"	0.890"	1.050"	0.685"	0.2155"	0.4372" / Std.	30-0494	
							+0.004"	30-0496	
	0.550"	0.650"	0.890"	1.050"	0.685"	0.2155"	0.4372" / Std.		30-0498
						+0.004"		30-0500	

Swing Arm Bushing • Bearing Bronze For XL™350 1976-1978

	KPMI P/N	Material	A	B	C	D	E	Quantity
	30-0477	Bearing Bronze	1.550"	1.465"	Ø 1.250"	Ø 0.8435"	Ø 1.045"	1 Pr.
	<ul style="list-style-type: none"> • Replaces worn or damaged plastic OEM bushing • High quality bearing bronze offers increased durability and better fitment than OEM component • OEM P/N: 52108-457-300 & 52108-422-300 							

HONDA® CB™ 350F / 400F 1972-1977


Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-1032	Intake	.400"	1.270"	40#	131#	.400"
		Exhaust					
Kit Includes			8	CrSi Valve Springs			


HONDA® XR™ 400 RFVC 1996-2004



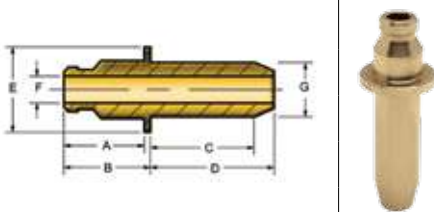
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30085	Intake	.430"	1.380"	71#	210#	.430"
		Exhaust					
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	

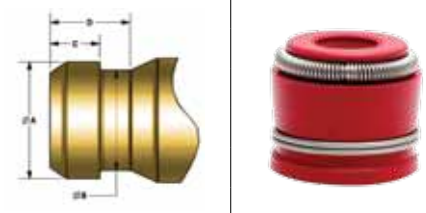
Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-3115	Intake	33.00mm	1.300"	0.2156"	20°	4.040"	Standard
	30-3116	Intake	34.00mm	1.340"	0.2156"	20°	4.020"	Oversize
	30-3117	Exhaust	29.00mm	1.142"	0.2150"	29°	3.980"	Standard
	30-3118	Exhaust	30.00mm	1.181"	0.2150"	29°	3.960"	Oversize

Valve Guides • C630 Bronze


	A	B	C	D	E	F	G	Intake	Exhaust
	0.550"	0.645"	1.020"	1.300"	0.715"	0.2150"	0.4355" / Std.		30-3120
							+0.001"		30-3121
							+0.002"		30-3122
							+0.010"		30-3130

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
	Part Number		Quantity		Quantity Incentive			
	71016-4		Pkg. of 4		0%			
	71016-8		Pkg. of 8		0%			
	71016-16		Pkg. of 16		Less- 10%			
	71016-50		Pkg. of 50		Less- 15%			
71016-100		Pkg. of 100		Less- 20%				

HONDA® TRX™ 400X/ 400EX 1999-'14

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-3111	Intake	.465"	1.375"	70#	157#	.300"
		Exhaust					
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	


Running cams with over .350" lift requires the use of shortened KPMI® guide, PN 30-3120



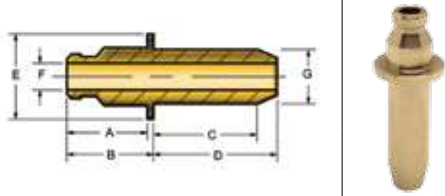
HONDA® TRX™ 400X/ 400EX 1999-'14

HONDA


Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-3115	Intake	33.00mm	1.300"	0.2156"	20°	4.040"	Standard
	30-3116	Intake	34.00mm	1.340"	0.2156"	20°	4.020"	Oversize
	30-3117	Exhaust	29.00mm	1.142"	0.2150"	29°	3.980"	Standard
	30-3118	Exhaust	30.00mm	1.181"	0.2150"	29°	3.960"	Oversize

Valve Guides • C630 Bronze

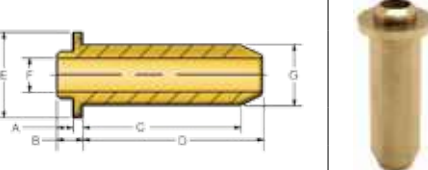
	A	B	C	D	E	F	G	Intake	Exhaust
	0.550"	0.645"	1.020"	1.300"	0.715"	0.2150"	0.4355" / Std.		30-3120
							+0.001"		30-3121
							+0.002"		30-3122
							+0.010"		30-3130

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5.5mm	0.320"	0.440"	4	0.358±0.005"	0.320"	0.115"	0.225"	Intake
								Exhaust
		Part Number		Quantity		Quantity Incentive		
		71016-4		Pkg. of 4		0%		
		71016-8		Pkg. of 8		0%		
		71016-16		Pkg. of 16		Less- 10%		
		71016-50		Pkg. of 50		Less- 15%		
		71016-100		Pkg. of 100		Less- 20%		

HONDA® CB™ 450 1965-'72 / CB™ 500 TWIN 1965-'76

Valve Guides • C630 Bronze


	A	B	C	D	E	F	G	Intake	Exhaust
	0.130"	0.210"	1.293"	1.468"	0.702"	0.2750"	0.4955" / Std.		30-0367
							+0.002"		30-0368
							+0.004"		30-0369
							+0.006"		30-0370

Use O.E.M. valve guide seals.

HONDA® CB™ 450 1965-'72 / CB™ 500 TWIN 1965-'76

• Lightweight 5.00mm Conversion System

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30300	Intake	.460"	1.180"	72#	188#	.460"
		Exhaust					
Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
			4	Titanium Retainers	4	H. T. Steel Basewashers	

HONDA® CB™ 450 1965-'72 / CB™ 500 TWIN 1965-'76



• **Lightweight 5.00mm Conversion System**

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30306	Intake	38.00mm	1.496"	0.1960"	20°	3.855"	Standard
	30-30307	Intake	39.00mm	1.535"	0.1960"	20°	3.845"	Oversize
	30-30308	Exhaust	33.00mm	1.299"	0.1955"	18°	3.715"	Standard
	30-30309	Exhaust	34.00mm	1.339"	0.1955"	18°	3.695"	Oversize

Valves shortened for lash caps. Use Kibblewhite® Lash Caps #94007-4 (Pkg. of 4). Using these valves as O.E.M. replacements requires Kibblewhite® 5.0mm Conversion Guides and Keepers.

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.259"	0.354"	1.311"	1.621"	0.524"	0.1960"	0.4951" / Std.	30-30690		
									+0.001"	30-30691	
									+0.002"	30-30692	
		0.259"	0.354"	1.241"	1.436"	0.524"	0.1955"	0.4951" / Std.		30-30700	
									+0.001"	30-30701	
									+0.002"	30-30702	
									+0.010"	30-30709	

One seal supplied with each guide.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71015-4		Pkg. of 4		0%		
		71015-8		Pkg. of 8		0%		
		71015-16		Pkg. of 16		Less- 10%		
		71015-50		Pkg. of 50		Less- 15%		
71015-100		Pkg. of 100		Less- 20%				

Keeper Set • O.E.M. Style • 5.0mm Conversion

		KPMI P/N	Style	A	B	C	D	E	Quantity
		51015-4	Single Radius Bead	0.196"	10.0°	0.160"	0.200"	0.308"	4Pr.

These Kibblewhite® Keepers seamlessly merge the Kibblewhite® 5.0mm Conversion Valves and Guides with the O.E.M. Retainer and Torsion System.

Lash Caps • H.T. Steel

	KPMI P/N	Material	"A"	"B"	"C"	"D"	"C" - "D"	Quantity
	94007-4	H.T. Steel	5.00mm	0.277"	0.175"	0.100"	0.075"	Pkg. of 4
			0.1969"					



HONDA® CRF™ 450R 2002-2008

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-30640	Intake	.440"	1.215"	40#	147#	.440"	
		Exhaust	.440"	1.365"	70#	203#	.440"	
Kit Includes			2	In CrSi Valve Springs	2	In Titanium Retainers	2	In H.T. Steel Basewashers
			2	*Ex CrSi Valve Springs	2	Ex Titanium Retainers	2	Ex H.T. Steel Basewashers

*The Exhaust springs for this kit include a progressively wound Inner Spring, which should be installed with the tightly wound end seated on the H. T. Steel Basewashers.

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-31210	Intake	.440"	1.215"	40#	147#	.440"
	Kit Includes			2	CrSi Valve Springs	2	Titanium Retainers
			2	Black Diamond™ Valves	2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	30-30220	Intake	36.00mm	1.417"	0.2158"	20°	3.315"	Standard
	30-30221	Intake	37.00mm	1.457"	0.2158"	20°	3.325"	Oversize
	30-30222	Intake	38.00mm	1.496"	0.2158"	20°	3.325"	Oversize
	30-30223	Exhaust	31.00mm	1.220"	0.1957"	20°	3.310"	Standard
	30-30224	Exhaust	32.00mm	1.260"	0.1957"	20°	3.320"	Oversize
30-30225	Exhaust	30.00mm	1.181"	0.1957"	20°	3.310"	2007-'08 Std.	

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Titanium • Stainless

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Material	
	30-30220T	Intake	36.00mm	1.417"	0.2158"	20°	3.325"	Titanium
	30-30223	Exhaust	31.00mm	1.220"	0.1957"	20°	3.310"	Stainless
30-30225	Exhaust	30.00mm	1.181"	0.1957"	20°	3.310"	2007-'08 Stainless	

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.495"	0.520"	0.650"	0.760"	0.480"	0.2155"	0.4360" / Std.	30-30200	
							+0.001"	30-30201	
							+0.002"	30-30202	
							+0.004"	30-30204	
							+0.010"	30-30209	
	0.580"	0.605"	0.740"	0.890"	0.480"	0.1955"	0.4360" Std.		30-30210
							+0.001"		30-30211
							+0.002"		30-30212
							+0.004"		30-30214
							+0.010"		30-30219

Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	Type	A	B	C	D	E	Quantity
		30-30650	Single Radius Bead	Intake	0.215"	7.0°	0.179"	0.214"	0.262"	2 Pr.
				Exhaust	0.196"	7.0°	0.170"	0.205"	0.236"	2 Pr.

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.

HONDA® CRF™ 450R 2002-2008



Valve Guide Seal Kits • High Performance

	Intake Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs			
	5.5mm	0.320"	0.440"	4	A	B	C	D
					0.358"±0.005"	0.320"	0.115"	0.225"
	Exhaust Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs			
5.0mm	0.350"	0.405"	4	A	B	C	D	
				0.340"±0.005"	0.303"	0.125"	0.230"	
Part Number	30-30550		Kit Includes	2	Intake Viton® Seals	2	Exhaust Viton® Seals	

Tappets • O.E.M Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity
	30-30648	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"
Refer to KPMI® Tappet Section , in back of catalog, when selecting oversize tappets.									

HONDA® CRF™ 450R 2009-2012

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-31250	Intake	.440"	1.215"	40#	147#	.440"
		Exhaust	.440"	1.365"	71#	203#	.440"
	Kit Includes	2	In CrSi Valve Springs	2	In Titanium Retainers	2	In H.T. Steel Basewashers
	2	*Ex CrSi Valve Springs	2	In Titanium Retainers	2	Ex H.T. Steel Basewashers	
*The Exhaust springs for this kit include a progressively wound Inner Spring, which should be installed with the tightly wound end seated on the H.T. Steel Basewashers.							

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-31240	Intake	.440"	1.215"	40#	147#	.440"
	Kit Includes	2	CrSi Valve Springs	2	Titanium Retainers		
		2	Black Diamond™ Valves	2	H. T. Steel Basewashers		

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	30-31262	Intake	36.00mm	1.417"	0.1960"	20°	3.095"	Standard
	30-31263	Intake	37.00mm	1.457"	0.1960"	20°	3.095"	Oversize
	30-31266	Exhaust	30.00mm	1.181"	0.1955"	20°	3.175"	Standard
	30-31267	Exhaust	31.00mm	1.220"	0.1955"	20°	3.185"	Oversize

Must use **Kibblewhite® Lightweight Valve Spring Kits** when installing **Black Diamond™ Valves**.



HONDA® CRF™ 450R 2009-2012

HONDA

Valves • O.E.M. Replacement • Titanium • Stainless

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	30-31262T	Intake	36.00mm	1.417"	0.1960"	20°	3.095"	Titanium
	30-31266	Exhaust	30.00mm	1.181"	0.1955"	20°	3.175"	Stainless

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.535"	0.535"	0.590"	0.670"	0.433"	0.1960"	0.4360" / Std.	30-31270		
								+0.001"	30-31271	
								+0.002"	30-31272	
								+0.010"	30-31279	
	0.630"	0.630"	0.730"	0.870"	0.433"	0.1955"	0.4360" / Std.		30-31280	
								+0.002"	30-31282	
							+0.010"	30-31289		

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71015-4		Pkg. of 4		0%
				71015-8		Pkg. of 8		0%
				71015-16		Pkg. of 16		Less- 10%
				71015-50		Pkg. of 50		Less- 15%
			71015-100		Pkg. of 100		Less- 20%	

Tappets • H.T. Steel • High Performance

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity
	30-31292	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"

Refer to **KPMI® Tappet Section**, in back of catalog, when selecting oversize tappets.

HONDA® CRF™ 450R 2013-2016

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-31600	Intake	.440"	1.215"	40#	147#	.440"
		Exhaust	.440"	1.365"	70#	203#	.440"
	Kit Includes		2	In, CrSi Valve Springs	2	In, Titanium Retainers	2
		2	*Ex, CrSi Valve Springs	2	Ex, Titanium Retainers	2	Ex, H. T. Steel Basewashers

*The Exhaust springs for this kit include a progressively wound Inner Spring, which should be installed with the tightly wound end seated on the H.T. Steel Basewashers.

HONDA® CRF™ 450R 2013-2016



Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-31580	Intake	.440"	1.215"	40#	147#	.440"	
	Kit Includes		2	CrSi Valve Springs		2	Titanium Retainers	
			2	Black Diamond™ Valves		2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Head Length	Stem Diameter	Tulip	O. L.	Remarks
	30-31612	Intake	36.00mm	1.417"	0.1960"	20°	3.095"	Standard
	30-31613	Intake	37.00mm	1.457"	0.1960"	20°	3.095"	Oversize
	30-31616	Exhaust	31.00mm	1.220"	0.1955"	20°	3.175"	Standard
30-31617	Exhaust	32.00mm	1.260"	0.1955"	20°	3.175"	Oversize	

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Titanium • Stainless

	KPMI P/N	Type	Head Diameter	Head Length	Stem Diameter	Tulip	O. L.	Material
	30-31612T	Intake	36.00mm	1.417"	0.1960"	20°	3.095"	Titanium
30-31616	Exhaust	31.00mm	1.220"	0.1955"	20°	3.175"	Stainless	

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.535"	0.535"	0.590"	0.670"	0.433"	0.1960"	0.4360" / Std.	30-31620		
								+0.001"	30-31621	
								+0.002"	30-31622	
								+0.010"	30-31629	
	0.630"	0.630"	0.730"	0.870"	0.433"	0.1955"	0.4360" / Std.		30-31630	
								+0.001"	30-31631	
								+0.002"	30-31632	
								+0.010"	30-31639	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71015-4			Pkg. of 4		0%		
	71015-8			Pkg. of 8		0%		
	71015-16			Pkg. of 16		Less- 10%		
	71015-50			Pkg. of 50		Less- 15%		
71015-100			Pkg. of 100		Less- 20%			



HONDA® CRF™ 450R 2013-2016

Tappets • O.E.M Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
	30-31642	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"	Pkg. of 2
Refer to KPMI® Tappet Section , in back of catalog, when selecting oversize tappets.										

HONDA® CRF™ 450X 2005-2017

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-31050	Intake	.440"	1.215"	40#	147#	.440"	
		Exhaust	.440"	1.365"	70#	203#	.440"	
Kit Includes			2	In, CrSi Valve Springs	2	In, Titanium Retainers	2	In, H. T. Steel Basewashers
			2	Ex, CrSi Valve Springs	2	Ex, Titanium Retainers	2	Ex, H. T. Steel Basewashers

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-31230	Intake	.440"	1.215"	40#	147#	.440"
	Kit Includes			2	CrSi Valve Springs	2	Titanium Retainers
			2	Black Diamond™ Valves	2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks	
	30-31062	Intake	35.00mm	1.378"	0.2158"	20°	3.315"	Standard	
	30-31063	Intake	36.00mm	1.417"	0.2158"	20°	3.315"	Oversize	
	30-31066	Exhaust	30.00mm	1.181"	0.1957"	20°	3.310"	Standard	
		30-31067	Exhaust	31.00mm	1.220"	0.1957"	20°	3.310"	Oversize

Must use **Kibblewhite® Lightweight Valve Spring Kits** when installing **Black Diamond™ Valves**.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.495"	0.520"	0.650"	0.760"	0.480"	0.2155"	0.4360" / Std.	30-31070	
								+0.001"	30-31071
								+0.002"	30-31072
								+0.004"	30-31074
								+0.010"	30-31079
	0.580"	0.605"	0.740"	0.890"	0.480"	0.1955"	0.4360" / Std.		30-31080
								+0.001"	30-31081
							+0.002"	30-31082	
							+0.004"	30-31084	
							+0.010"	30-31089	

Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	Type	A	B	C	D	E	Quantity
		30-31095	Single Radius Bead	Intake	0.215"	7.0°	0.179"	0.214"	0.262"	2 Pr.
				Exhaust	0.196"	7.0°	0.170"	0.205"	0.236"	2 Pr.

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.

HONDA® CRF™ 450X 2005-2017



Valve Guide Seal Kits • High Performance

	Intake Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs			
	5.5mm	0.320"	0.440"	4	A	B	C	D
					0.358"±0.005"	0.320"	0.115"	0.225"
	Exhaust Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs			
5.0mm	0.350"	0.405"	4	A	B	C	D	
				0.340"±0.005"	0.303"	0.125"	0.230"	
Part Number	30-31570		Kit Includes	2	Intake Viton® Seals	2	Exhaust Viton® Seals	

Tappets • O.E.M Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity	
	30-31092	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"	Pkg. of 2
	Refer to KPMI® Tappet Section , in back of catalog, when selecting oversize tappets.									

HONDA® TRX™ 450R 2004-2005

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30720	Intake	.440"	1.215"	40#	147#	.440"
		Exhaust	.440"	1.365"	70#	203#	.440"
Kit Includes	2	In, CrSi Valve Springs	2	In, Titanium Retainers	2	In, H. T. Steel Basewashers	
	2	Ex, CrSi Valve Springs	2	Ex, Titanium Retainers	2	Ex, H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30750	Intake	36.00mm	1.417"	0.2158"	20°	3.315"	Standard
	30-30751	Intake	37.00mm	1.457"	0.2158"	20°	3.325"	Oversize
	30-30752	Intake	38.00mm	1.496"	0.2158"	20°	3.325"	Oversize
	30-30753	Exhaust	30.00mm	1.181"	0.2151"	20°	3.315"	Standard
	30-30754	Exhaust	31.00mm	1.220"	0.2151"	20°	3.325"	Oversize
30-30755	Exhaust	32.00mm	1.260"	0.2151"	20°	3.325"	Oversize	

Must use **Kibblewhite® Lightweight Valve Spring Kits** when installing **Black Diamond™ Valves**.

Racing Valve Kit • Titanium • Stainless

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	30-30750T	Intake	36.00mm	1.417"	0.2158"	20°	3.325"	Titanium
	30-30753	Exhaust	30.00mm	1.181"	0.2151"	20°	3.315"	Stainless

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.



HONDA® TRX™ 450R 2004-2005

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.495"	0.520"	0.650"	0.760"	0.480"	0.2155"	0.4360" / Std.	30-30730	
							+0.001"	30-30731	
							+0.002"	30-30732	
							+0.004"	30-30734	
							+0.010"	30-30739	
	0.580"	0.605"	0.705"	0.830"	0.480"	0.2150"	0.4360" / Std.		30-30740
							+0.001"		30-30741
							+0.002"		30-30742
							+0.004"		30-30744
						+0.010"		30-30749	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	Intake
5.5mm	0.320"	0.440"	4	0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
				Part Number				Quantity
	71016-4				Pkg. of 4	0%		
	71016-8				Pkg. of 8	0%		
	71016-16				Pkg. of 16	Less- 10%		
	71016-50				Pkg. of 50	Less- 15%		
	71016-100				Pkg. of 100	Less- 20%		

Tappets • O.E.M Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity
	30-30728	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"

Refer to **KPMI® Tappet Section**, in back of catalog, when selecting oversize tappets.

HONDA® TRX™ 450R / ER 2006-2014

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30920	Intake	.440"	1.215"	40#	147#	.440"
		Exhaust	.440"	1.365"	70#	203#	.440"
Kit Includes			2 In, CrSi Valve Springs	2 In, Titanium Retainers	2 In, H. T. Steel Basewashers		
			2 Ex, CrSi Valve Springs	2 Ex, Titanium Retainers	2 Ex, H. T. Steel Basewashers		

Racing Valve Kit • Titanium • Stainless

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Material	
	30-30950T	Intake	36.00mm	1.417"	0.2158"	20°	3.325"	Titanium
	30-30953	Exhaust	30.00mm	1.181"	0.1957"	20°	3.310"	Stainless


Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

HONDA® TRX 450R / ER 2006-2014



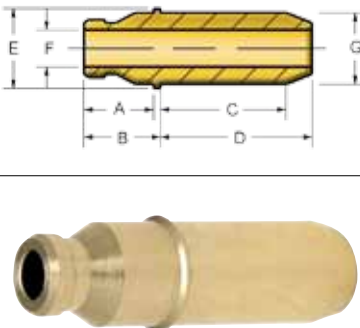
HONDA

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30950	Intake	36.00mm	1.417"	0.2158"	20°	3.315"	Standard
	30-30951	Intake	37.00mm	1.457"	0.2158"	20°	3.325"	Oversize
	30-30952	Intake	38.00mm	1.496"	0.2158"	20°	3.325"	Oversize
	30-30953	Exhaust	30.00mm	1.181"	0.1957"	20°	3.310"	Standard
	30-30954	Exhaust	31.00mm	1.220"	0.1957"	20°	3.310"	Oversize
	30-30955	Exhaust	32.00mm	1.260"	0.1957"	20°	3.320"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valve Guides • C630 Bronze

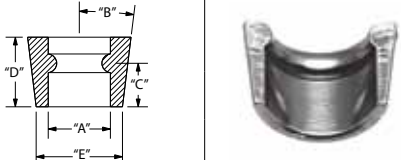
	A	B	C	D	E	F	G	Intake	Exhaust
	0.495"	0.520"	0.650"	0.760"	0.480"	0.2155"	0.4360" / Std.	+0.001"	30-30930
							+0.002"	30-30931	
							+0.004"	30-30932	
							+0.010"	30-30933	
							+0.010"	30-30934	
							+0.010"	30-30939	
	0.580"	0.605"	0.740"	0.890"	0.480"	0.1955"	0.4360" / Std.		30-30940
							+0.001"		30-30941
							+0.002"		30-30942
							+0.004"		30-30944
							+0.010"		30-30949

Valve Guide Seal Kits • High Performance

	Intake Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs			
					A	B	C	D
	5.5mm	0.320"	0.440"	4	0.358"±0.005"	0.320"	0.115"	0.225"
Exhaust Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				
				A	B	C	D	
5.0mm	0.350"	0.405"	4	0.340"±0.005"	0.303"	0.125"	0.230"	
Part Number		30-30980		Kit Includes	2	Intake Viton® Seals	2	Exhaust Viton® Seals

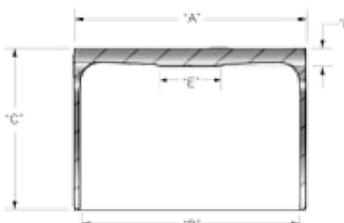
Keeper Set • O.E.M. Replacement

NEW PRODUCTS

	KPMI P/N	Style	Type	A	B	C	D	E	Quantity	
	30-30655	Single Radius Bead	Intake		0.215"	7.0°	0.179"	0.214"	0.262"	2 Pr.
			Exhaust		0.196"	7.0°	0.170"	0.205"	0.236"	2 Pr.

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.

Tappets • O.E.M Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity
	30-30648	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"
Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.									



HONDA® CB™ 500 / 4 - CB™ 550 / 4 1971-'78

HONDA

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-31550	Intake	.440"	1.385"	70#	203#	.440"
		Exhaust					
	Kit Includes			8	CrSi Valve Springs	8	Titanium Retainers
Use O.E.M. Basewashers							

Spring Only Kit • OEM Replacement

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-4045	Intake	.440"	1.390"	60#	195#	.440"
		Exhaust					
	Kit Includes			8	CrSi Valve Springs		

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	30-31330	Intake	27.50mm	1.083"	0.2150"	20°	3.680"	Standard
	30-31331	Intake	28.50mm	1.122"	0.2150"	20°	3.680"	Oversize
	30-31334	Exhaust	23.00mm	0.905"	0.2145"	30°	3.650"	Standard
	30-31335	Exhaust	24.00mm	0.945"	0.2145"	30°	3.650"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.475"	0.595"	0.980"	1.230"	0.720"	0.2150"	0.4372" / Std.		30-3150
								+0.001"	30-3151
								+0.002"	30-3152
								+0.004"	30-3154
								+0.010"	30-3160

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
	Part Number			Quantity	Quantity Incentive			
	71016-4			Pkg. of 4	0%			
	71016-8			Pkg. of 8	0%			
	71016-16			Pkg. of 16	Less- 10%			
	71016-50			Pkg. of 50	Less- 15%			
71016-100			Pkg. of 100	Less- 20%				

Cylinder Head Studs For CB™500 1976 and CB™550 1976-1978

NEW PRODUCTS

	KPMI P/N	O. L. "C"	O. L. "D"	Body Dia.	A	B	Remarks
	30-32450	5.787"	5.118"	0.309"	0.551"	0.827"	Standard
	Kit Includes	6	5.787" O.L. Studs		6	5.118" O.L. Studs	

These High Performance Cylinder studs are made from 180,000 psi yield strength, fine grain, heat treated, premium grade 8740 steel. Threads are rolled after heat treating to ensure maximum strength and the longest fatigue life possible. The case-end threads are designed to have a slight interference fit to maintain good thread contact at high temperature. Studs are centerless ground to ensure concentricity, and finished with a black oxide treatment for a premium appearance.

HONDA® CB™ 500 / 4 - CB™ 550 / 4 1971-'78



Swing Arm Bushing • Bearing Bronze For CB™500 1975-1976 and CB™550 1975-1978

NEW PRODUCTS

	KPMI P/N	Material	A	B	C	D	E	Quantity
	30-0477	Bearing Bronze	1.550"	1.465"	Ø 1.250"	Ø 0.8435"	Ø 1.045"	1 Pr.
<ul style="list-style-type: none"> • Replaces worn or damaged plastic OEM bushing • High quality bearing bronze offers increased durability and better fitment than OEM component • OEM P/N: 52108-457-300 & 52108-422-300 								

HONDA® CBR™ 600 F2 / F3 1991-1996

Spring Only Kit • OEM Replacement

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-3020	Intake	.420"	1.220"	50#	140#	.400"
		Exhaust					
Kit Includes			16	CrSi Valve Springs			

Retainer Set • Titanium

	KPMI P/N	Type	Material	Quantity
	30-3021	Intake	Titanium	Pkg. of 16
		Exhaust		

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	30-3024	Intake	25.50mm	1.004"	0.1566"	19°	3.115"	Standard
	30-3025	Intake	26.50mm	1.043"	0.1566"	19°	3.115"	Oversize
	30-3022	Exhaust	22.00mm	0.866"	0.1561"	20°	3.120"	Standard
	30-3023	Exhaust	23.00mm	0.905"	0.1561"	20°	3.120"	Oversize

Intake valves made from special alloy to resist face recession common in these models

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.385"	0.410"	0.800"	0.900"	0.365"	0.1561"	0.3370" / Std.	30-3010		
								+0.002"	30-3012	
								+0.010"	30-3019	



HONDA® CBR™ 600 F2 / F3 1991-1996

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
4.0mm	0.310"	0.380"	2	A	B	C	D	Intake
				0.315"±0.005"	0.270"	0.120"	0.235"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71013-4				Pkg. of 4		0%
		71013-8				Pkg. of 8		0%
		71013-16				Pkg. of 16		Less- 10%
		71013-50				Pkg. of 50		Less- 15%
		71013-100				Pkg. of 100		Less- 20%

Tappets • O.E.M Replacement • H.T. Steel

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
30-30019	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"	Pkg. of 16
	Exhaust								
Refer to KPMI® Tappet Section , in back of catalog, when selecting oversize tappets.									

HONDA® CBR™ 600F4i 2001-2006

Valve Spring Kit • Lightweight High-Lift Racing

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
Exhaust						
Kit Includes		16	CrSi Valve Springs	16	Titanium Retainers	
		8	In, H. T. Steel Basewashers	8	Ex, H. T. Steel Basewashers	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
4.0mm	0.310"	0.380"	2	A	B	C	D	Intake
				0.315"±0.005"	0.270"	0.120"	0.235"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71013-4				Pkg. of 4		0%
		71013-8				Pkg. of 8		0%
		71013-16				Pkg. of 16		Less- 10%
		71013-50				Pkg. of 50		Less- 15%
		71013-100				Pkg. of 100		Less- 20%

Tappets • O.E.M Replacement • H.T. Steel

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
30-30019	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"	Pkg. of 16
	Exhaust								
Refer to KPMI® Tappet Section , in back of catalog, when selecting oversize tappets.									

HONDA® HAWK NT™ 650 1988-1991



Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-3070	Intake	.500"	1.460"	45#	196#	.500"	
		Exhaust	.500"	1.420"	74#	252#	.500"	
Kit Includes			4	In, CrSi Valve Springs	4	In, Titanium Retainers	4	In, H. T. Steel Basewashers
			2	Ex, CrSi Valve Springs	2	Ex, Titanium Retainers	4	In, Spring Shims
			2	Ex, Spring Shims	2	Ex, Spring Shims		

HONDA® VARIOUS 500cc-650cc 1983-'14

- XL™ 500 S / XR™ 500 / 500R 1983-1984
- GB™ 500 / 1989-1990
- XL™ / XR™ 600 1983-2000
- XL™ / XR™ 650L 1993-2014

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-30015	Intake	.465"	1.210"	70#	185#	.400"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Shims

Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-4081	Intake	.465"	1.210"	70#	210#	.465"
		Exhaust					
Kit Includes			4	CrSi Valve Springs			

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	30-3003	Intake	36.00mm	1.417"	0.2590"	23°	4.165"	Standard
	30-3004	Exhaust	31.00mm	1.220"	0.2585"	29°	4.095"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.300"	0.375"	1.240"	1.410"	0.808"	0.2585"	0.4755"/ Std.		30-3050
								+0.002"	30-3052
								+0.010"	30-3060

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.5mm	0.353"	0.560"	4	A	B	C	D	Intake
				0.475"±0.005"	0.415"	0.115"	0.260"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71018-4			Pkg. of 4		0%		
	71018-8			Pkg. of 8		0%		
	71018-16			Pkg. of 16		Less- 10%		
	71018-50			Pkg. of 50		Less- 15%		
71018-100			Pkg. of 100		Less- 20%			



HONDA® XR™ 650R 2000-2007

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-30161	Intake	.440"	1.225"	70#	195#	.440"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30166	Intake	37.00mm	1.457"	0.2590"	19°	4.025"	Standard
	30-30167	Intake	38.00mm	1.496"	0.2590"	19°	4.040"	Oversize
	30-30168	Exhaust	32.00mm	1.260"	0.2585"	19°	4.065"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.600"	0.600"	0.805"	1.075"	0.475"	0.2590"	0.4753" / Std.	30-30170	
							+0.001"	30-30171	
							+0.002"	30-30172	
							+0.010"	30-30179	
	0.600"	0.600"	1.000"	1.230"	0.475"	0.2590"	0.4753" / Std.		30-30180
							+0.001"		30-30181
							+0.002"		30-30182
						+0.010"		30-30189	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.5mm	0.353"	0.560"	4	A	B	C	D	Intake
				0.475"±0.005"	0.415"	0.115"	0.260"	Exhaust
	Part Number		Quantity		Quantity Incentive			
	71018-4		Pkg. of 4		0%			
	71018-8		Pkg. of 8		0%			
	71018-16		Pkg. of 16		Less- 10%			
	71018-50		Pkg. of 50		Less- 15%			
71018-100		Pkg. of 100		Less- 20%				

HONDA® TRX™ 700XX 2008-2009

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-31350	Intake	.375"	1.220"	71#	180#	.375"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers

HONDA® TRX™ 700XX 2008-2009



Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-31362	Intake	36.00mm	1.417"	0.2590"	19°	4.025"	Standard
	30-31363	Intake	37.00mm	1.457"	0.2590"	19°	4.025"	Oversize
	30-31366	Exhaust	32.00mm	1.260"	0.2585"	19°	4.065"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.600"	0.600"	0.805"	1.075"	0.475"	0.2590"	0.4753"/ Std.	30-31370	
							+0.001"	30-31371	
							+0.002"	30-31372	
							+0.010"	30-31379	
	0.600"	0.600"	1.000"	1.230"	0.475"	0.2590"	0.4753"/ Std.		30-31380
							+0.001"		30-31381
							+0.002"		30-31382
							+0.010"		30-31389

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.5mm	0.353"	0.560"	4	A	B	C	D	Intake
				0.475"±0.005"	0.415"	0.115"	0.260"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71018-4			Pkg. of 4		0%		
	71018-8			Pkg. of 8		0%		
	71018-16			Pkg. of 16		Less- 10%		
	71018-50			Pkg. of 50		Less- 15%		
	71018-100			Pkg. of 100		Less- 20%		

HONDA® CB™ 750 SOHC 1969-1977

• Excluding F2™ Models

Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-0307	Intake	.500"	1.330"	80#	240#	.440"
		Exhaust					
	Kit Includes			8	CrSi Valve Springs		

Retainer Set • Titanium

	KPMI P/N	Type	Material	Quantity
	30-0308	Intake	Titanium	Pkg. of 8
		Exhaust		

Valves • Black Diamond™ • Black Nitroreg Stems

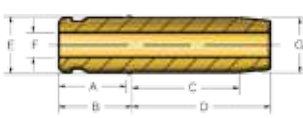

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-4186	Intake	32.00mm	1.260"	0.2590"	23°	4.020"	Standard
	30-4187	Intake	33.50mm	1.319"	0.2590"	23°	4.040"	Oversize
	30-4188	Exhaust	28.00mm	1.102"	0.2585"	29°	4.020"	Standard
	30-4189	Exhaust	28.50mm	1.122"	0.2585"	29°	4.040"	Oversize



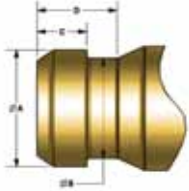

HONDA® CB™ 750 SOHC 1969-1977

• Excluding F2™ Models

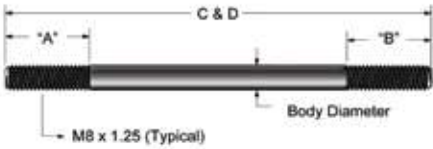
Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.585"	0.635"	0.865"	1.135"	0.495"	0.2590"	0.4762" / Std.	+0.002"	30-0379
							+0.015"	30-0380	
	0.585"	0.635"	0.925"	1.195"	0.495"	0.2585"	0.4762" / Std.		30-0383
							+0.002"		30-0384
							+0.015"		30-4035

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
6.5mm	0.353"	0.560"	4	0.475"±0.005"	0.415"	0.115"	0.260"	Intake Exhaust
					Part Number		Quantity	Quantity Incentive
					71018-4		Pkg. of 4	0%
					71018-8		Pkg. of 8	0%
					71018-16		Pkg. of 16	Less- 10%
					71018-50		Pkg. of 50	Less- 15%
					71018-100		Pkg. of 100	Less- 20%

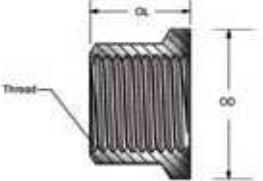
Cylinder Head Studs For CB™750 1969-1978

	KPMI P/N	O. L. "C"	O. L. "D"	Body Dia.	A	B	Remarks
	30-0800		6.299"	7.717"	0.309"	0.630"	0.787"
Includes	4	6.299" O.L. Studs		12	7.717" O.L. Studs		

These High Performance Cylinder studs are made from 180,000 psi yield strength, fine grain, heat treated, premium grade 8740 steel. Threads are rolled after heat treating to ensure maximum strength and the longest fatigue life possible. The case-end threads are designed to have a slight interference fit to maintain good thread contact at high temperature. Studs are centerless ground to ensure concentricity, and finished with a black oxide treatment for a premium appearance.

Cylinder Head Nuts For CB™750 1969-1978

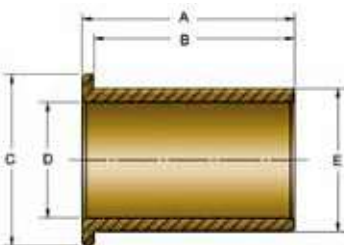
NEW PRODUCTS

	KPMI P/N	Material	O. L.	O. D.	Thread	Quantity
	30-32300	H. T. Steel	0.385"	0.670"	M8 x 1.25	Pkg. of 16
41003-4	H. T. Steel	0.385"	0.670"	M8 x 1.25	Pkg. of 4	
Designed for Honda CB750, but can be used for general purpose (see diagram for detail)						

These nuts are manufactured from a high strength premium steel that promotes excellent surface finish and tight tolerances, two critical factors for achieving correct fit and torque. After machining, the nuts are heat treated to a specific depth. This creates hard, wear resistant working surfaces, while retaining a ductile core to prevent cracking under load. The premium black oxide treatment gives an excellent, corrosion resistant appearance.

Swing Arm Bushing • Bearing Bronze For CB™750 1976-1979

NEW PRODUCTS

	KPMI P/N	Material	A	B	C	D	E	Quantity
	30-0477	Bearing Bronze	1.550"	1.465"	Ø 1.250"	Ø 0.8435"	Ø 1.045"	1 Pr.
<ul style="list-style-type: none"> • Replaces worn or damaged plastic OEM bushing • High quality bearing bronze offers increased durability and better fitment than OEM component • OEM P/N: 52108-457-300 & 52108-422-300 								

HONDA® CB™ 750 SOHC 1969-1977



- Excluding F2™ Models (5.0mm Conversion System)

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-30150	Intake	.435"	1.375"	71#	203#	.435"	
		Exhaust						
	Kit Includes			8	CrSi Valve Springs	8	H. T. Steel Keepers Pr.	8
			8	H. T. Steel Basewashers		8	H. T. Steel Shims	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30157	Intake	32.00mm	1.260"	0.1960"	20°	3.935"	Standard
	30-30158	Intake	34.00mm	1.339"	0.1960"	20°	3.935"	Oversize
	30-30159	Exhaust	27.00mm	1.063"	0.1955"	23°	3.940"	KPMI® Standard
	30-30160	Exhaust	28.00mm	1.102"	0.1955"	23°	3.925"	KPMI® Oversize

Must use Kibblewhite® Lash Caps #94007-8. Valves shortened for lash caps. Must use 5.00mm conversion guides and spring kit with these valves.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.400"	0.440"	0.980"	1.380"	0.510"	1.960"	0.4762" / Std.	30-0379-5	
							+0.002"	30-0380-5	
							+0.015"	30-4034-5	
	0.400"	0.440"	1.030"	1.430"	0.510"	1.960"	0.4762" / Std.		30-0383-5
							+0.002"		30-0384-5
							+0.015"		30-4035-5

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
			Part Number	Quantity		Quantity Incentive		
			71015-4	Pkg. of 4		0%		
			71015-8	Pkg. of 8		0%		
			71015-16	Pkg. of 16		Less- 10%		
			71015-50	Pkg. of 50		Less- 15%		
		71015-100	Pkg. of 100		Less- 20%			

Lash Caps • H.T. Steel


	KPMI P/N	Material	"A"	"B"	"C"	"D"	"C"- "D"	Quantity
	94007-8	H.T. Steel	5.00mm	0.277"	0.175"	0.100"	0.075"	Pkg. of 8
			0.1969"					




HONDA® CBR™ 900RR 1993-1999

HONDA

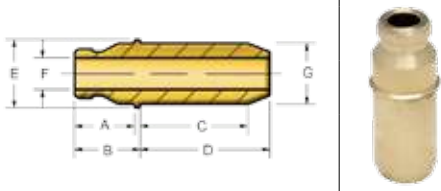
Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-6068	Intake	.480"	1.270"	45#	135#	.400"
		Exhaust					
Kit Includes			16	CrSi Valve Springs			


Retainer Set • Titanium

	KPMI P/N	Type	Material	Quantity
	30-6067	Intake	Titanium	Pkg. of 16
		Exhaust		

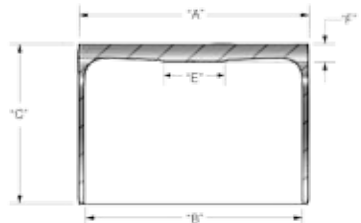
Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.545"	0.570"	0.660"	0.780"	0.385"	0.1765"	0.3570" / Std.	30-30050		
								+0.001"	30-30051	
								+0.002"	30-30052	
								+0.010"	30-30059	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71014-4			Pkg. of 4		0%		
	71014-8			Pkg. of 8		0%		
	71014-16			Pkg. of 16		Less- 10%		
	71014-50			Pkg. of 50		Less- 15%		
71014-100			Pkg. of 100		Less- 20%			

Tappets • O.E.M Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity	
	30-30227	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"	Pkg. of 16
		Exhaust								
Refer to KPMI® Tappet Section , in back of catalog, when selecting oversize tappets.										

HONDA® CBR™ 1000 2004-2005



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30760	Intake	.385"	1.320"	46#	140#	.385"
		Exhaust					
Kit Includes			16 CrSi Valve Springs	16 Titanium Retainers	16 H. T. Steel Basewashers		

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	30-30790	Intake	29.00mm	1.142"	0.1570"	10°	3.740"	Standard
	30-30791	Intake	30.00mm	1.181"	0.1570"	10°	3.740"	Oversize
	30-30793	Exhaust	24.00mm	0.945"	0.1565"	20°	3.755"	Standard
	30-30794	Exhaust	25.00mm	0.984"	0.1565"	20°	3.755"	Oversize

Tappets • O.E.M Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity	
	30-30766	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"	Pkg. of 16
		Exhaust								
Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.										

HONDA® VARIOUS 750cc-1100cc 1979-'83

• CB™ 750 C/ F/ K/ SC DOHC 1979-1983

• CB™ 900/ 1000 / 1100F DOHC 1980-1983

Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-1017	Intake	.500"	1.390"	60#	185#	.400"
		Exhaust					
Kit Includes			16	CrSi Valve Springs			

Retainer Set • Titanium

	KPMI P/N	Type	Material	Quantity
	30-1019	Intake	Titanium	Pkg. of 16
		Exhaust		
These retainers accept a 9.5mm OD shim and requires use of 30-1020 "Shim Under" style tappet. See adjustment shim section for available sizes.				

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.550"	0.650"	0.890"	1.050"	0.685"	0.2155"	0.4372" / Std.		30-4071
							+0.004"		30-4161
							+0.015"		30-4162




HONDA® VARIOUS 750cc-1100cc 1979-'83

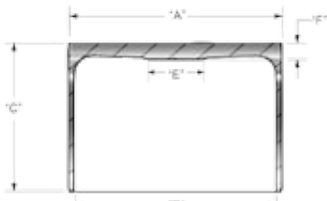
• CB™ 750 C/ F/ K/ SC DOHC 1979-1983

• CB™ 900/ 1000 / 1100F DOHC1980-1983

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71016-4			Pkg. of 4		0%	
		71016-8			Pkg. of 8		0%	
		71016-16			Pkg. of 16		Less- 10%	
		71016-50			Pkg. of 50		Less- 15%	
		71016-100			Pkg. of 100		Less- 20%	


Tappets • Shim On Bottom Conv. • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity
	30-1020	Intake	H. T. Steel	28.00mm	1.1016"	1.040"	0.860"	0.310"	0.135"
	Exhaust								

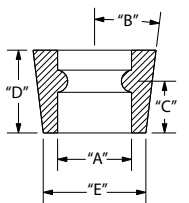

Requires use of Kibblewhite® "Shim Under" Style Retainer # 30-1019 (Pkg. of 16).

HONDA® CBR™ 1100XX-BLACKBIRD™ 1997-2003

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-30100	Intake		.405"	1.290"	66#	168#	.405"
		Exhaust						
Kit Includes			16	CrSi Valve Springs	16	Titanium Retainers	16	H. T. Steel Basewashers


Keeper Set • O.E.M. Replacement NEW PRODUCTS

		KPMI P/N	Style	Type	A	B	C	D	E	Quantity		
		51025-16	Single Radius Bead	Intake			0.196"	7.0°	0.170"	0.205"	0.236"	16Pr.
				Exhaust								

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.

HONDA® CBX 6 CYLINDER 1979-1982

Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-1018	Intake		.500"	1.390"	60#	175	.400"
		Exhaust						
Kit Includes			24	CrSi Valve Springs				

HONDA® CBX 6 CYLINDER 1979-1982



Retainer Set • Titanium

	KPMI P/N	Type	Material	Quantity
	30-1021	Intake	Titanium	Pkg. of 24
		Exhaust		
These retainers accept a 9.5mm OD shim and requires use of 30-1022 "Shim Under" style tappet. See adjustment shim section for available sizes.				

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.550"	0.650"	0.890"	1.050"	0.685"	0.2155"	0.4372" / Std.		30-4071	
								+0.004"		30-4161
								+0.015"		30-4162

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	Intake
5.5mm	0.320"	0.440"	4	0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
	Part Number		Quantity		Quantity Incentive			
	71016-4		Pkg. of 4		0%			
	71016-8		Pkg. of 8		0%			
	71016-16		Pkg. of 16		Less- 10%			
	71016-24		Pkg. of 24		Less- 10%			
	71016-50		Pkg. of 50		Less- 15%			
71016-100		Pkg. of 100		Less- 20%				

Tappets • Shim On Bottom Conv. • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity	
	30-1022	Intake	H. T. Steel	28.00mm	1.1016"	1.040"	0.860"	0.310"	0.135"	Pkg. of 24
		Exhaust								
Refer to KPMI® Tappet Section , in back of catalog, when selecting oversize tappets.										

Swing Arm Bushing • Bearing Bronze For CBX™ 1979

NEW PRODUCTS

	KPMI P/N	Material	A	B	C	D	E	Quantity
	30-0477	Bearing Bronze	1.550"	1.465"	Ø 1.250"	Ø 0.8435"	Ø 1.045"	1 Pr.
	<ul style="list-style-type: none"> • Replaces worn or damaged plastic OEM bushing • High quality bearing bronze offers increased durability and better fitment than OEM component • OEM P/N: 52108-457 & 52108-422-300 							



HUSQVARNA® 350 / 410 1991-2000

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	93-93020	Intake	.400"	1.210"	74#	189#	.400"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	93-93010	Intake	32.50mm	1.280"	0.2352"	23°	4.020"	Standard
	93-93011	Exhaust	27.00mm	1.063"	0.2347"	29°	4.020"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.430"	0.465"	0.970"	1.110"	0.510"	0.2350"	0.4750" / Std.	93-93000	
								+0.010"	93-93009
Use O.E.M. valve guide seal.									

HUSQVARNA® VARIOUS 510-610cc 1983-2001

- TX™ 510 1983-'88
- TE™ 510 1983-'90
- TC™ 510 1987-'90
- WXE™ 610 1991-'96
- WMX™ 610 1991
- TE™ 610 1992-'98
- TC™ 610 1992-'98
- WXC™ 610 1992-'96
- SM™ 610 R 2000-2001

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	93-93012	Intake	35.00mm	1.378"	0.2352"	23°	3.970"	Standard
	93-93013	Intake	36.00mm	1.417"	0.2352"	23°	3.970"	Oversize
	93-93014	Exhaust	30.00mm	1.181"	0.2347"	29°	3.970"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.430"	0.465"	0.970"	1.110"	0.510"	0.2350"	0.4750" / Std.	93-93000	
								+0.010"	93-93009
Use O.E.M. valve guide seal.									

HUSQVARNA® VARIOUS 450'S 2014-2018



NEW PRODUCTS

• FS 450 2017-2018

• FX 450 2017

• FC 450 2014-2018

Valve Spring Kit • Beehive Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift			
	96-96500	Intake	.435"	1.360"	80#	205#	.435"			
		Exhaust								
Kit Includes			2	In CrSi Valve Springs	2	In Titanium Retainers	2	In H. T. Steel Basewashers	2	In H. T. Steel Shims
			2	Ex CrSi Valve Springs	2	Ex Titanium Retainers	2	Ex H. T. Steel Basewashers	--	Ex H. T. Steel Shims

*KPMI® supplied Viton® seals must be used with this kit. O.E.M. seals are NOT compatible.

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	96-96540	Intake	.435"	1.360"	80#	205#	.435"	
	Kit Includes			2	CrSi Valve Springs	2	Titanium Retainers	2
			2	Black Diamond™ Valves	2	H.T. Steel Shims		

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	96-96512	Intake	39.93mm	1.572"	0.2358"	15°	3.675"	Standard
	96-96516	Exhaust	33.15mm	1.305"	0.2353"	30°	3.645"	Standard

You must use KPMI® Spring Kit 96-96500 when installing Black Diamond™ Valves

Valve Guides • C630 Bronze

		*A	*C	*D	E	F	G	Intake	Exhaust	
		0.555"	0.945"	1.140"	0.433"	0.2353"	0.4352" / Std.	96-96520		
								+0.001"	96-96521	
								+0.002"	96-96522	
		0.635"	0.865"	1.060"	0.433"	0.2353"	0.4352" / Std.		96-96520	
								+0.001"	96-96521	
								+0.002"	96-96522	
							+0.010"	96-96529		

*Note: One guide design installs at two different heights depending on Intake or Exhaust usage. You must install to lower line for exhaust and upper line for intake.

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.315"	0.520"	5	A	B	C	D	Intake
				0.435"±0.002"	0.395"	0.120"	0.210"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71029-4		Pkg. of 4		0%
				71029-8		Pkg. of 8		0%
				71029-16		Pkg. of 16		Less- 10%
				71029-50		Pkg. of 50		Less- 15%
			71029-100		Pkg. of 100		Less- 20%	

HUSQVARNA / INDIAN



HUSQVARNA® VARIOUS 450-510cc 2006-'08

• TE/ TC/ TXC 450-510

• SM 450R-510R

• SM 450RR 2006

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	93-93050	Intake	.440"	1.350"	50#	160#	.440"
		Exhaust	.440"	1.390"	40#	150#	.440"
Kit Includes		4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	93-93062	Intake	37.00mm	1.457"	0.2160"	20°	3.955"	Standard
	93-93063	Intake	38.00mm	1.496"	0.2160"	20°	3.955"	Oversize
	93-93066	Exhaust	31.00mm	1.220"	0.1958"	20°	3.565"	Standard
	93-93067	Exhaust	32.00mm	1.260"	0.1958"	20°	3.565"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.515"	0.515"	0.660"	1.290"	0.432"	0.2160"	0.4355" / Std.	93-93070		
									+0.001"	93-93071	
									+0.002"	93-93072	
								+0.010"	93-93079		
		0.650"	0.650"	0.700"	0.990"	0.412"	0.1958"	0.4156" / Std.		93-93080	
									+0.001"	93-93081	
									+0.002"	93-93082	
								+0.010"	93-93089		

Use O.E.M. valve guide seal.

INDIAN® 74" V-TWIN MODELS


Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	20-2018	Intake	50.80mm	2.000"	0.3697"	19°	5.126"	Standard
	20-2019	Exhaust	50.80mm	2.000"	0.3697"	10°	5.130"	Standard

KAWASAKI® MOJAVE™ 1987-2004




Valves • Black Diamond™ • Black Nitroeneg Stems


	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-4190	Intake	29.00mm	1.142"	0.2155"	20°	3.510"	Standard
	40-4191	Intake	30.50mm	1.201"	0.2155"	20°	3.530"	Oversize
	40-4192	Exhaust	24.50mm	0.965"	0.2150"	25°	3.430"	Standard
	40-4193	Exhaust	25.00mm	0.984"	0.2150"	25°	3.440"	Oversize

KAWASAKI® KX250F™ 2004-2016


Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-40100	Intake	.445"	1.320"	46#	155#	.445"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers

Intake Only • Steel Valve Conversion Kit


	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40350	Intake	.445"	1.320"	46#	155#	.445"
	Kit Includes			2	CrSi Valve Springs	2	Titanium Retainers
			2	Black Diamond™ Valves	2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroeneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40140	Intake	31.00mm	1.220"	0.1765"	20°	3.120"	Standard
	40-40141	Intake	32.00mm	1.260"	0.1765"	20°	3.130"	Oversize
	40-40143	Exhaust	25.00mm	0.985"	0.1756"	25°	3.125"	Standard
	40-40144	Exhaust	26.00mm	1.024"	0.1756"	25°	3.135"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	40-40140T	Intake	31.00mm	1.220"	0.1765"	20°	3.120"	Titanium
	40-40143T	Exhaust	25.00mm	0.985"	0.1756"	25°	3.125"	Titanium

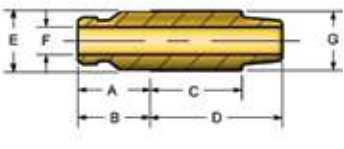

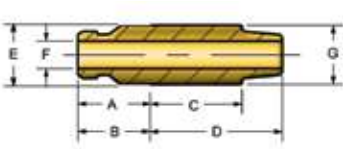

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.





KAWASAKI® KX250F™ 2004-2016

KAWASAKI

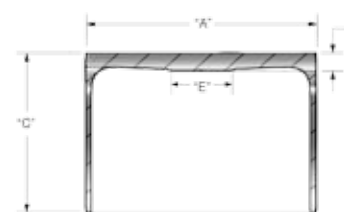
Valve Guides • C630 Bronze

 	A	B	C	D	E	F	G	Intake	Exhaust
	0.465"	0.465"	0.565"	0.870"	0.374"	0.1765"	0.3765" / Std.		40-40520
							+0.001"	40-40521	
							+0.002"	40-40522	
							+0.010"	40-40529	
Note: #40-40520-29 - Recommended for 2007-2016 model only									
 	A	B	C	D	E	F	G	Intake	Exhaust
	0.440"	0.465"	0.590"	0.850"	0.410"	0.1765"	0.3765" / Std.		40-40120
							+0.001"	40-40121	
							+0.002"	40-40122	
							+0.010"	40-40129	
Note: #40-40120-29 - Recommended for Intake 2004-2006 model only and Exhaust 2004-2016 all model.									

Valve Guide Seals • Viton®


Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
4.0mm	0.310"	0.380"	2	0.315"±0.005"	0.270"	0.120"	0.235"	Intake Exhaust
 	Part Number		Quantity		Quantity Incentive			
	71013-4		Pkg. of 4		0%			
	71013-8		Pkg. of 8		0%			
	71013-16		Pkg. of 16		Less- 10%			
	71013-50		Pkg. of 50		Less- 15%			
	71013-100		Pkg. of 100		Less- 20%			

Tappets • O.E.M. Replacement • H.T. Steel


	KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
	40-40106	Intake	H. T. Steel	26.50mm	1.0420"	0.992"	0.748"	0.285"	0.106"	Pkg. of 2
Refer to KPMI® Tappet Section , in back of catalog, when selecting oversize tappets.										

KAWASAKI® KLX™ 300R/ 250R/ S/ SF 1994-'14

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40008	Intake Exhaust	.440"	1.245"	49#	156#	.440"
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	
			4	H. T. Steel Basewashers	4	H. T. Steel Shims	

Valve Spring Kit • High Performance for O.E.M. Retainers

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-4431	Intake Exhaust	.430"	1.245"	51#	155#	.430"	
Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Basewashers	4	H. T. Steel Shims

KAWASAKI® KLX™ 300R/ 250R/ S/ SF 1994-'14



Valves • White Diamond™ • Hard Chrome Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-4372H	Intake	29.00mm	1.142"	0.1765"	20°	3.360"	Standard
	40-4374H	Intake	30.00mm	1.181"	0.1765"	20°	3.360"	Oversize
	40-4373H	Exhaust	25.00mm	0.895"	0.1760"	20°	3.375"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.560"	0.595"	0.620"	0.855"	0.460"	0.1760"	0.4165" / Std.	40-4420	
								+0.010"	40-4430

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.0mm	0.310"	0.380"	2	A	B	C	D	Intake
				0.315"±0.005"	0.270"	0.120"	0.235"	Exhaust
				Part Number			Quantity	Quantity Incentive
				71013-4			Pkg. of 4	0%
				71013-8			Pkg. of 8	0%
				71013-16			Pkg. of 16	Less- 10%
				71013-50			Pkg. of 50	Less- 15%
			71013-100			Pkg. of 100	Less- 20%	

KAWASAKI® KLX™ / KFX™ 400 2001-'06

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-40148	Intake	.440"	1.205"	57#	171#	.440"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroleg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40188	Intake	36.00mm	1.417"	0.1960"	20°	3.245"	Standard
	40-40189	Intake	37.00mm	1.457"	0.1960"	20°	3.245"	Oversize
	40-40191	Exhaust	29.00mm	1.142"	0.1953"	21°	3.210"	Standard
	40-40192	Exhaust	30.00mm	1.181"	0.1953"	21°	3.210"	Oversize



KAWASAKI® KLX™ / KFX™ 400 2001-'06

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.390"	0.430"	0.570"	0.770"	0.466"	0.1960"	0.4167" / Std.		40-40170	
								+0.001"		40-40171
								+0.002"		40-40172
								+0.004"		40-40174
							+0.010"		40-40179	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type	
				A	B	C	D	Intake	Exhaust
5.0mm	0.350"	0.405"	4	0.340"±0.005"	0.303"	0.125"	0.230"	Intake	Exhaust
	Part Number			Quantity		Quantity Incentive			
	71015-4			Pkg. of 4		0%			
	71015-8			Pkg. of 8		0%			
	71015-16			Pkg. of 16		Less- 10%			
	71015-50			Pkg. of 50		Less- 15%			
71015-100			Pkg. of 100		Less- 20%				

KAWASAKI® KLX 450R™ 2008-2015

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40700	Intake	.415"	1.325"	50#	155#	.415"
		Exhaust	.415"	1.215"	50#	144#	.415"
Kit Includes			2 In, CrSi Valve Springs	2 In, Titanium Retainers	2 In, H. T. Steel Basewashers		
			2 Ex, CrSi Valve Springs	2 Ex, Titanium Retainers	2 Ex, H. T. Steel Basewashers		

Valves • Black Diamond™ • Black Nitroleg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40712	Intake	35.00mm	1.378"	0.2158"	20°	3.280"	Standard
	40-40713	Intake	36.00mm	1.417"	0.2158"	20°	3.280"	Oversize
	40-40716	Exhaust	30.00mm	1.181"	0.2150"	20°	3.230"	Standard
	40-40717	Exhaust	31.00mm	1.221"	0.2150"	20°	3.230"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	---	0.390"	0.550"	0.895"	0.434"	0.2150"	0.4365" / Std.		40-40720	
								+0.001"		40-40721
								+0.002"		40-40722
								+0.010"		40-40729

KAWASAKI® KLX 450R™ 2008-2015



Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5.5mm	0.320"	0.440"	4	0.358"±0.005"	0.320"	0.110"	0.200"	Intake
								Exhaust
		Part Number		Quantity		Quantity Incentive		
		71016-4		Pkg. of 4		0%		
		71016-8		Pkg. of 8		0%		
		71016-16		Pkg. of 16		Less- 10%		
		71016-50		Pkg. of 50		Less- 15%		
		71016-100		Pkg. of 100		Less- 20%		

Tappets • O.E.M. Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
	40-40742	Intake	None	28.00mm	1.1017"	1.038"	0.763"	0.320"	0.098"	Pkg. of 4

Refer to **KPMI® Tappet Section**, in back of catalog, when selecting oversize tappets.

KAWASAKI® KX 450F™ 2006-2008

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40300	Intake	.415"	1.325"	51#	155#	.415"
		Exhaust	.415"	1.215"	52#	146#	.415"
Kit Includes		2	In, CrSi Valve Springs	2	In, Titanium Retainers	2	In, H. T. Steel Basewashers
		2	Ex, CrSi Valve Springs	2	Ex, Titanium Retainers	2	Ex, H. T. Steel Basewashers

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40360	Intake	.415"	1.325"	51#	155#	.415"
	Kit Includes		2	CrSi Valve Springs	2	Titanium Retainers	
		2	Black Diamond™ Valves	2	H. T. Steel Basewashers		

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	40-40312	Intake	36.00mm	1.417"	0.2158"	20°	3.280"	Standard
	40-40313	Intake	37.00mm	1.457"	0.2158"	20°	3.280"	Oversize
	40-40316	Exhaust	31.00mm	1.220"	0.2150"	20°	3.230"	Standard

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.



KAWASAKI® KX 450F™ 2006-2008

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.390"	0.390"	0.550"	0.895"	0.434"	0.2150"	0.4365" / Std.	40-40320		
								+0.001"	40-40321	
								+0.002"	40-40322	
							+0.010"	40-40329		

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type	
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake	
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust	
			Part Number				Quantity		Quantity Incentive
			71015-4				Pkg. of 4		0%
			71015-8				Pkg. of 8		0%
			71015-16				Pkg. of 16		Less- 10%
			71015-50				Pkg. of 50		Less- 15%
71015-100				Pkg. of 100		Less- 20%			

Tappets • O.E.M. Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity
	40-40342	Intake	None	28.00mm	1.1017"	1.038"	0.763"	0.320"	0.098"
Exhaust									
Refer to KPMI® Tappet Section , in back of catalog, when selecting oversize tappets.									

KAWASAKI® KX 450F™ 2009-2016

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40660	Intake	.415"	1.290"	64#	169#	.415"
		Exhaust	.415"	1.240"	65#	170#	.415"
Kit Includes			2 In, CrSi Valve Springs	2 In, Titanium Retainers	2 In, H. T. Steel Basewashers		
			2 Ex, CrSi Valve Springs	2 Ex, Titanium Retainers	2 Ex, H. T. Steel Basewashers		

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40380	Intake	.415"	1.290"	64#	169#	.415"
	Kit Includes			2 CrSi Valve Springs	2 Titanium Retainers		
			2 Black Diamond™ Valves	2 H. T. Steel Basewashers			

KAWASAKI® KX 450F™ 2009-2016



KAWASAKI

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40652	Intake	35.99mm	1.417"	0.2155"	20°	3.080"	Standard
	40-40653	Intake	37.01mm	1.457"	0.2155"	20°	3.080"	Oversize
	40-40656	Exhaust	31.01mm	1.221"	0.2150"	20°	3.030"	Standard
	40-40657	Exhaust	32.00mm	1.260"	0.2150"	20°	3.030"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	---	0.380"	0.525"	0.760"	0.434"	0.2150"	0.4365" / Std.	40-40670		
								+0.001"	40-40671	
								+0.002"	40-40672	
							+0.010"	40-40679		

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71015-4		Pkg. of 4		0%
				71015-8		Pkg. of 8		0%
				71015-16		Pkg. of 16		Less- 10%
				71015-50		Pkg. of 50		Less- 15%
			71015-100		Pkg. of 100		Less- 20%	

Tappets • O.E.M. Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity
	40-40690	Intake Exhaust	H. T. Steel	28.00mm	1.1017"	1.038"	0.763"	0.320"	0.098"

Refer to **KPMI® Tappet Section**, in back of catalog, when selecting oversize tappets.

KAWASAKI® KFX 450R™ 2008-2014

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-40550	Intake	.415"	1.325"	51#	155#	.415"	
		Exhaust	.415"	1.215"	52#	146#	.415"	
Kit Includes			2	In, CrSi Valve Springs	2	In, Titanium Retainers	2	In, H. T. Steel Basewashers
			2	Ex, CrSi Valve Springs	2	Ex, Titanium Retainers	2	Ex, H. T. Steel Basewashers



KAWASAKI® KFX 450R™ 2008-2014

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Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-40950	Intake	.415"	1.325"	51#	155#	.415"	
	Kit Includes		2	CrSi Valve Springs		2	Titanium Retainers	
			2	Black Diamond™ Valves		2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	40-40562	Intake	36.00mm	1.417"	0.2158"	20°	3.280"	Standard
	40-40563	Intake	37.00mm	1.457"	0.2158"	20°	3.280"	Oversize
	40-40566	Exhaust	31.00mm	1.221"	0.2150"	20°	3.230"	Standard

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.390"	0.390"	0.550"	0.895"	0.434"	0.2150"	0.4365" / Std.	40-40570		
								+0.001"	40-40571	
								+0.002"	40-40572	
								+0.010"	40-40579	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type	
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake	
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust	
			Part Number				Quantity		Quantity Incentive
			71016-4				Pkg. of 4		0%
			71016-8				Pkg. of 8		0%
			71016-16				Pkg. of 16		Less- 10%
			71016-50				Pkg. of 50		Less- 15%
71016-100				Pkg. of 100		Less- 20%			

Tappets • O.E.M. Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity	
	40-40592	Intake	None	28.00mm	1.1017"	1.038"	0.763"	0.320"	0.098"	Pkg. of 4
		Exhaust								
Refer to KPMI® Tappet Section , in back of catalog, when selecting oversize tappets.										

KAWASAKI® NINJA 500R™ 1987-2009



KAWASAKI

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-4190	Intake	29.00mm	1.142"	0.2155"	20°	3.510"	Standard
	40-4191	Intake	30.50mm	1.201"	0.2155"	20°	3.530"	Oversize
	40-4192	Exhaust	24.50mm	0.965"	0.2150"	25°	3.430"	Standard
	40-4193	Exhaust	25.00mm	0.984"	0.2150"	25°	3.440"	Oversize

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71016-4		Pkg. of 4		0%
				71016-8		Pkg. of 8		0%
				71016-16		Pkg. of 16		Less- 10%
				71016-50		Pkg. of 50		Less- 15%
				71016-100		Pkg. of 100		Less- 20%

KAWASAKI® KLR™ 600 / 650 1984-2010

Valve Spring Kit • High Performance for O.E.M. Retainers

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-4350	Intake	.460"	1.205"	75#	175#	.460"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Basewashers

KAWASAKI® KZ™ 650 / 750 1976-1985

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-0893	Intake	.500"	1.330"	90#	268#	.500"
		Exhaust					
	Kit Includes			8	CrSi Valve Springs		

Retainer Set • O.E.M. Replacement • Titanium

	KPMI P/N	Type	Material	Quantity
	40-1008	Intake	Titanium	Pkg. of 8
		Exhaust		

Tappets • Shim On Bottom Conv. • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity	
	40-1013	Intake	None	33.00mm	1.298"	1.235"	1.025"	0.340"	0.115"	Pkg. of 8
		Exhaust								
Refer to KPMI® Tappet Section , in back of catalog, when selecting oversize tappets.										



KAWASAKI® KLX™ 650 / 650R 1993-'96

KAWASAKI

Valve Spring Kit with Shim Under Conversions • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-40051	Intake	.450"	1.195"	77#	207#	.450"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Keepers	4	Titanium Retainers
			4	H. T. Steel Basewashers	4	H. T. Steel Tappets	4	Adj. Shims

To prevent high lift cams from spitting shims, Kibblewhite® recommends using shim under tappets for cams with over 0.400" lift. See Kibblewhite® Tappet Section in back of catalog.

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-4349	Intake	.400"	1.200"	75#	191#	.400"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers

Valve Spring Only Kit • High Performance for O.E.M. Retainers

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-4089	Intake	.450"	1.380"	75#	175#	.450"
		Exhaust					
Kit Includes			4	CrSi Valve Springs			

KAWASAKI® NINJA™ 650R / VERSYS 2006-'13

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-40800	Intake	.400"	1.215"	39#	136#	.400"	
		Exhaust						
Kit Includes			8	CrSi Valve Springs	8	Titanium Retainers	8	H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40812	Intake	33.35mm	1.313"	0.1765"	10°	3.810"	Standard
	40-40813	Intake	34.35mm	1.352"	0.1765"	10°	3.810"	Oversize
	40-40816	Exhaust	28.27mm	1.113"	0.1760"	22°	3.820"	Standard
	40-40817	Exhaust	29.27mm	1.152"	0.1760"	22°	3.820"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.560"	0.595"	0.620"	0.855"	0.460"	0.1760"	0.4165" / Std.	40-40820	
								+0.010"	40-40829

KAWASAKI® NINJA™ 650R / VERSYS 2006-'13



Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
4.0mm	0.310"	0.380"	2	0.315"±0.005"	0.270"	0.120"	0.235"	Intake
								Exhaust
				Part Number		Quantity	Quantity Incentive	
				71013-4		Pkg. of 4	0%	
				71013-8		Pkg. of 8	0%	
				71013-16		Pkg. of 16	Less- 10%	
				71013-50		Pkg. of 50	Less- 15%	
				71013-100		Pkg. of 100	Less- 20%	

Tappets • O.E.M. Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity
	40-40807	Intake Exhaust	None	26.50mm	1.0420"	0.992"	0.748"	0.285"	0.106"

NOTE: Shims of less than 1.90mm may cause clearance issues between tappet and retainer. Always check clearances before installing smaller than O.E.M. shims. Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.

KAWASAKI® VARIOUS 2005-2013

- KFX™ 700 2005-'09
- Brute Force™ 650 2005-'13
- Brute Force™ 650I 2006-'12
- Prairie™ 700 • 2005-'06
- Brute Force™ 750I • 2005-'12
- Teryx™ 750 • 2008-'12 (Excluding Teryx 4)

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40400	Intake Exhaust	.500"	1.400"	59#	210#	.500"
Kit Includes		8	CrSi Valve Springs	8	Titanium Retainers		
		8	H. T. Steel Basewashers	8	H. T. Steel Shims		

KPMI® Guides must be installed when using cams greater than .430" valve lift.

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40412	Intake	30.00mm	1.181"	0.1960"	10°	3.610"	Standard
	40-40413	Intake	31.00mm	1.220"	0.1960"	10°	3.610"	Oversize
	40-40416	Exhaust	26.00mm	1.024"	0.1955"	10°	3.655"	Standard
	40-40417	Exhaust	27.00mm	1.063"	0.1955"	10°	3.655"	Oversize

Custom oversize's available +3 and +4 mm, call for availability.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.450"	0.550"	0.590"	0.790"	0.675"	0.1955"	0.4161" / Std.		40-40420
							+ 0.001"		40-40421
							+ 0.002"		40-40422
							+0.010"		40-40429



KAWASAKI® VARIOUS 2005-2013

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71015-4				Pkg. of 4		0%
		71015-8				Pkg. of 8		0%
		71015-16				Pkg. of 16		Less- 10%
		71015-50				Pkg. of 50		Less- 15%
		71015-100				Pkg. of 100		Less- 20%

KAWASAKI® VARIOUS 650 / 750 2012-2018

- Brute Force 650 4x4 / 4x4i • 2013
- Brute Force 750 4x4i • 2013-2018
- Teryx™ • 2013-2018
- Teryx 4™ • 2012-2018

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40900	Intake	.500"	1.400"	59#	210#	.500"
		Exhaust					
Kit Includes			8	CrSi Valve Springs	8	Titanium Retainers	
			8	H. T. Steel Basewashers	8	H. T. Steel Shims	

Note: KPMI® Guides must be installed when using cams greater than 0.430" valve lift.

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40920	Intake	30.00mm	1.181"	0.1960"	10°	3.610"	Standard
	40-40921	Intake	31.00mm	1.220"	0.1960"	10°	3.610"	Oversize
	40-40924	Exhaust	26.00mm	1.024"	0.1955"	10°	3.655"	Standard
	40-40925	Exhaust	27.00mm	1.063"	0.1955"	10°	3.655"	Oversize

If the above sizes are not what you need, we can make any size custom valve. Please call for more information.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.500"	0.550"	0.590"	0.790"	0.510"	0.1955"	0.4161" / Std.		40-40910
							+ 0.001"		40-40911
							+ 0.002"		40-40912
							+0.010"		40-40919

Valve Guide Seals • Viton®


Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71014-4				Pkg. of 4		0%
		71014-8				Pkg. of 8		0%
		71014-16				Pkg. of 16		Less- 10%
		71014-50				Pkg. of 50		Less- 15%
		71014-100				Pkg. of 100		Less- 20%

KAWASAKI® KZ™ / Z1™ 900 1973-1977




KAWASAKI


Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-0449	Intake	.425"	1.330"	90#	245#	.425"
		Exhaust					
Kit Includes			8	CrSi Valve Springs			


Retainer Set • O.E.M. Replacement • Titanium for Valve Spring Only Kit 40-0449

	KPMI P/N	Type	Material	Quantity	Remarks
	40-1008M	Intake	Titanium	Pkg. of 8	O.E.M. Style
		Exhaust			


Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-1016	Intake	.475"	1.330"	90#	265#	.475"	
		Exhaust						
	Kit Includes			8	CrSi Valve Springs			
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-1007	Intake	.490"	1.320"	95#	269#	.490"	
		Exhaust						
	Kit Includes			8	CrSi Valve Springs			
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
40-1014	Intake	.565"	1.405"	105#	305#	.565"		
	Exhaust							
Kit Includes			8	CrSi Valve Springs				

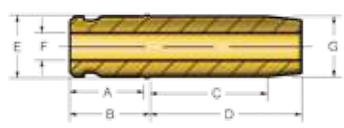

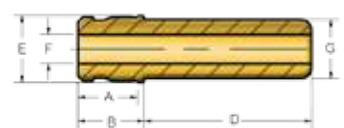

Retainer Set • Shim On Bottom • Titanium for Valve Spring Only Kits 40-1016, 40-1007, and 40-1014

	KPMI P/N	Type	Material	Quantity
	40-1008	Intake	Titanium	Pkg. of 8
		Exhaust		
Use with Kibblewhite® "Shim On Bottom" Style Tappets # 40-1013 with this retainer.				

Valves • White Diamond® • Stainless

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	40-4180H	Intake	36.00mm	1.417"	0.2745"	23°	3.615"	Standard
	40-4181H	Intake	37.50mm	1.476"	0.2745"	23°	3.615"	Oversize (max w/ stock seat)
	40-4183H	Exhaust	30.00mm	1.181"	0.2745"	29°	3.555"	Standard
	40-4184H	Exhaust	31.00mm	1.220"	0.2745"	29°	3.555"	Oversize (max w/ stock seat)

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.440"	0.490"	0.785"	1.165"	0.495"	0.2745"	0.4752" / Std.	40-0478		
								+0.002"	40-0479		
								+0.004"	40-0480		
								+0.006"	40-0481		
								+0.015"	40-4036		
								+0.027"	40-0499		
		0.440"	0.490"	---	1.240"	0.495"	0.2745"	0.4752" / Std.		40-0482	
								+0.002"		40-0483	
						+0.004"		40-0484			
						+0.006"		40-0485			
						+0.015"		40-4037			



KAWASAKI® KZ™ / Z1™ 900 1973-1977

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	Intake
7.0mm	0.374"	0.560"	4	0.475"±0.005"	0.430"	0.115"	0.240"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71019-4		Pkg. of 4		0%		
		71019-8		Pkg. of 8		0%		
		71019-16		Pkg. of 16		Less- 10%		
		71019-50		Pkg. of 50		Less- 15%		
		71019-100		Pkg. of 100		Less- 20%		

Tappets • Shim On Bottom Conv. • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity
	40-1013	Intake	None	33.00mm	1.2980"	1.235"	1.025"	0.340"	0.115"
Exhaust									
40-4202	Intake	None	33.50mm	1.3184"	1.250"	1.025"	0.313"	0.115"	Pkg. of 1 (Oversize)
	Exhaust								
40-4203	Intake	None	34.00mm	1.3380"	1.258"	1.025"	0.313"	0.115"	Pkg. of 1 (Oversize)
	Exhaust								

Use Kibblewhite® Shim On Bottom Retainers # 40-1008 (Pkg. of 8). Large tappets available, see Kibblewhite® Tappet Section in back of catalog.

Retainer Set • Replacement • High Performance

	KPMI P/N	Type	Material	Description				
	40-4006	Intake	Exhaust	Titanium	"Shim Under" Style supplied with 15° Jumbo Keepers for radius groove valves.			
Exhaust								
Set Includes			8	Titanium Retainers	8	H.T. Steel Keepers Pr.		
15° Jumbo keepers are designed for high spring loads in racing application.								

Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	A	B	C	D	E	Quantity
		51001-8	Single Radius Bead	0.275"	7.0°	0.160"	0.340"	0.349"	8Pr.
51008-8	Single Radius Bead	0.275"	7.0°	0.188"	0.323"	0.342"	8Pr.		

KAWASAKI® NINJA™ 900 1984-1986

Valves • Black Diamond™ • Black Nitroneg Stems


	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-4190	Intake	29.00mm	1.142"	0.2155"	20°	3.510"	Standard
	40-4191	Intake	30.50mm	1.201"	0.2155"	20°	3.530"	Oversize
	40-4192	Exhaust	24.50mm	0.965"	0.2150"	25°	3.430"	Standard
	40-4193	Exhaust	25.00mm	0.984"	0.2150"	25°	3.440"	Oversize

KAWASAKI® KZ™ / Z1™ POLICE 1000 1977-'05




KAWASAKI


Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-0449	Intake	.425"	1.330"	90#	245#	.425"
		Exhaust					
Kit Includes			8	CrSi Valve Springs			


Retainer Set • O.E.M. Replacement • Titanium for Valve Spring Only Kit 40-0449

	KPMI P/N	Type	Material	Quantity	Remarks
	40-1008M	Intake	Titanium	Pkg. of 8	O.E.M. Style
		Exhaust			


Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-1016	Intake	.475"	1.330"	90#	265#	.475"	
		Exhaust						
	Kit Includes			8	CrSi Valve Springs			
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-1007	Intake	.490"	1.320"	95#	269#	.490"	
		Exhaust						
	Kit Includes			8	CrSi Valve Springs			
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-1014	Intake	.565"	1.405"	105#	305#	.565"	
Exhaust								
Kit Includes			8	CrSi Valve Springs				


Retainer Set • Shim On Bottom • Titanium for Valve Spring Only Kits 40-1016, 40-1007, and 40-1014

	KPMI P/N	Type	Material	Quantity
	40-1008	Intake	Titanium	Pkg. of 8
		Exhaust		
Use with Kibblewhite® "Shim On Bottom" Style Tappets # 40-1013 with this retainer.				

Valves • White Diamond® • Stainless

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	40-4180H	Intake	36.00mm	1.417"	0.2745"	23°	3.615"	Standard
	40-4181H	Intake	37.50mm	1.476"	0.2745"	23°	3.615"	Oversize (max w/ stock seat)
	40-4183H	Exhaust	30.00mm	1.181"	0.2745"	29°	3.555"	Standard
40-4184H	Exhaust	31.00mm	1.220"	0.2745"	29°	3.555"	Oversize (max w/ stock seat)	

Valves • White Diamond® • J Model Valves • Stainless

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks
	40-4281H	Intake	38.50mm	1.516"	0.2745"	23°	3.565"
40-4285H	Exhaust	32.00mm	1.260"	0.2745"	29°	3.500"	Standard



KAWASAKI® KZ™ / Z1™ POLICE 1000 1977-'05

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Valve Guides • C630 Bronze

Diagram	Image	A	B	C	D	E	F	G	Intake	Exhaust
		0.440"	0.490"	0.785"	1.165"	0.495"	0.2745"	0.4752" / Std.	+0.002"	40-0478
								+0.002"	40-0479	
								+0.004"	40-0480	
								+0.006"	40-0481	
								+0.015"	40-4036	
								+0.027"	40-0499	
		0.440"	0.490"	---	1.240"	0.495"	0.2745"	0.4752" / Std.		40-0482
								+0.002"		40-0483
								+0.004"		40-0484
								+0.006"		40-0485
								+0.015"		40-4037

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.374"	0.560"	4	A	B	C	D	Intake
				0.475"±0.005"	0.430"	0.115"	0.240"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71019-4		Pkg. of 4		0%	
			71019-8		Pkg. of 8		0%	
			71019-16		Pkg. of 16		Less- 10%	
			71019-50		Pkg. of 50		Less- 15%	
			71019-100		Pkg. of 100		Less- 20%	

Tappets • Shim On Bottom Conv. • H.T. Steel

Diagram	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity	
		40-1013	Intake	None	33.00mm	1.2980"	1.235"	1.025"	0.340"	0.115"
Exhaust										
40-4202		Intake	None	33.50mm	1.3184"	1.250"	1.025"	0.313"	0.115"	Pkg. of 1 (Oversize)
		Exhaust								
40-4203		Intake	None	34.00mm	1.3380"	1.258"	1.025"	0.313"	0.115"	Pkg. of 1 (Oversize)
		Exhaust								

Use Kibblewhite® Shim On Bottom Retainers # 40-1008 (Pkg. of 8). Large tappets available, see Kibblewhite® Tappet Section in back of catalog.

Retainer Set • Titanium

Image	KPMI P/N	Type	Material	Description		
		40-4006	Intake	Titanium	"Shim Under" Style supplied with 15° Jumbo Keepers for radius groove valves.	
Exhaust						
Set Includes			8	Titanium Retainers	8	H.T. Steel Keepers Pr.

15° Jumbo keepers are designed for high spring loads in racing application.


Keeper Set • O.E.M. Replacement

Diagram	Image	KPMI P/N	Style	A	B	C	D	E	Quantity
				51001-8	Single Radius Bead	0.275"	7.0°	0.160"	0.340"
51008-8	Single Radius Bead			0.275"	7.0°	0.188"	0.323"	0.342"	8Pr.

KAWASAKI® NINJA™ 1000R 1986-1987




Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-4190	Intake	29.00mm	1.142"	0.2155"	20°	3.510"	Standard
	40-4191	Intake	30.50mm	1.201"	0.2155"	20°	3.530"	Oversize
	40-4192	Exhaust	24.50mm	0.965"	0.2150"	25°	3.430"	Standard
	40-4193	Exhaust	25.00mm	0.984"	0.2150"	25°	3.440"	Oversize


Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust


	Part Number		Quantity	Quantity Incentive
	71016-4		Pkg. of 4	0%
	71016-8		Pkg. of 8	0%
	71016-16		Pkg. of 16	Less- 10%
	71016-50		Pkg. of 50	Less- 15%
	71016-100		Pkg. of 100	Less- 20%

KAWASAKI® GPZ™ 1100 1981-1982


Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-0449	Intake	.425"	1.330"	90#	245#	.425"
		Exhaust					
	Kit Includes			8	CrSi Valve Springs		


Retainer Set • O.E.M. Replacement • Titanium for Valve Spring Only Kit 40-0449

	KPMI P/N	Type	Material	Quantity	Remarks
	40-1008M	Intake	Titanium	Pkg. of 8	O.E.M. Style
		Exhaust			

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-1016	Intake	.475"	1.330"	90#	265#	.475"	
		Exhaust						
	Kit Includes			8	CrSi Valve Springs			
	40-1007	Intake	.490"	1.320"	95#	269#	.490"	
		Exhaust						
	Kit Includes			8	CrSi Valve Springs			
	40-1014	Intake	.565"	1.405"	105#	305#	.565"	
		Exhaust						
	Kit Includes			8	CrSi Valve Springs			

Retainer Set • Shim On Bottom • Titanium for Valve Spring Only Kits 40-1016, 40-1007, and 40-1014

	KPMI P/N	Type	Material	Quantity
	40-1008	Intake	Titanium	Pkg. of 8
		Exhaust		
Use with Kibblewhite® "Shim On Bottom" Style Tappets # 40-1013 with this retainer.				



KAWASAKI® GPZ™ 1100 1981-1982

KAWASAKI

Valves • White Diamond® • J Model Valves • Stainless

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-4281H	Intake	38.50mm	1.516"	0.2745"	23°	3.565"	Standard
	40-4285H	Exhaust	32.00mm	1.260"	0.2745"	29°	3.500"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.440"	0.490"	0.785"	1.165"	0.495"	0.2745"	0.4752" / Std.	40-0478	
							+0.002"	40-0479	
							+0.004"	40-0480	
							+0.006"	40-0481	
							+0.015"	40-4036	
	0.440"	0.490"	---	1.240"	0.495"	0.2745"	0.4752" / Std.		40-0482
							+0.002"		40-0483
							+0.004"		40-0484
							+0.006"		40-0485
							+0.015"		40-4037

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type	
7.0mm	0.374"	0.560"	4	A	B	C	D	Intake	
				0.475"±0.005"	0.430"	0.115"	0.240"	Exhaust	
	Part Number			Quantity	Quantity Incentive				
	71019-4			Pkg. of 4	0%				
	71019-8			Pkg. of 8	0%				
	71019-16			Pkg. of 16	Less- 10%				
	71019-50			Pkg. of 50	Less- 15%				
	71019-100			Pkg. of 100	Less- 20%				

Tappets • Shim On Bottom Conv. • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity	
	40-1013	Intake	None	33.00mm	1.2980"	1.235"	1.025"	0.340"	0.115"	Pkg. of 8
		Exhaust								
	40-4202	Intake	None	33.50mm	1.3184"	1.250"	1.025"	0.313"	0.115"	Pkg. of 1 (Oversize)
		Exhaust								
	40-4203	Intake	None	34.00mm	1.3380"	1.258"	1.025"	0.313"	0.115"	Pkg. of 1 (Oversize)
Exhaust										

Use Kibblewhite® Shim On Bottom Retainers # 40-1008 (Pkg. of 8). Large tappets available, see Kibblewhite® Tappet Section in back of catalog.

Retainer Set • Replacement • High Performance

	KPMI P/N	Type	Material	Description			
	40-4006	Intake	Titanium	"Shim Under" Style supplied with 15° Jumbo Keepers for radius groove valves.			
		Exhaust					
	Set Includes			8	Titanium Retainers	8	H.T. Steel Keepers Pr.
15° Jumbo keepers are designed for high spring loads in racing application.							

Keeper Set • O.E.M. Replacement

	KPMI P/N	Style	A	B	C	D	E	Quantity
	51001-8	Single Radius Bead	0.275"	7.0°	0.160"	0.340"	0.349"	8Pr.
	51008-8	Single Radius Bead	0.275"	7.0°	0.188"	0.323"	0.342"	8Pr.

KAWASAKI® ZX-7R™ 1991-1995



KAWASAKI

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-4385	Intake	.425"	1.220"	55#	159#	.425"	
		Exhaust						
Kit Includes			16	CrSi Valve Springs	16	Titanium Retainers	16	H. T. Steel Basewashers

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.560"	0.595"	0.620"	0.855"	0.460"	0.1760"	0.4165" / Std.		40-4400	
									+0.010"		40-4410

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
4.0mm	0.310"	0.380"	2	0.315"±0.005"	0.270"	0.120"	0.235"	Intake
								Exhaust
		Part Number		Quantity		Quantity Incentive		
		71013-4		Pkg. of 4		0%		
		71013-8		Pkg. of 8		0%		
		71013-16		Pkg. of 16		Less- 10%		
		71013-50		Pkg. of 50		Less- 15%		
71013-100		Pkg. of 100		Less- 20%				

KAWASAKI® VULCAN™ 1500 1986-'08

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-40004	Intake	.450"	1.450"	67#	227#	.450"	
		Exhaust						
Kit Includes			8	CrSi Valve Springs	8	Titanium Retainers	8	H. T. Steel Shims

KAWASAKI® VULCAN™ 1500 (Mean Streak) 2002-'03

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40060	Intake	.450"	1.450"	67#	227#	.450"
		Exhaust					
Kit Includes			8	CrSi Valve Springs	8	Titanium Retainers	



KAWASAKI® ZX-7R™ 1996-2003

KAWASAKI

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-4395	Intake	.460"	1.260"	45#	157#	.460"	
		Exhaust						
Kit Includes			16	CrSi Valve Springs	16	Titanium Retainers	16	H. T. Steel Basewashers

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.560"	0.595"	0.620"	0.855"	0.460"	0.1760"	0.4165" / Std.	40-4400	
								+0.010"	40-4410

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
4.0mm	0.310"	0.380"	2	0.315"±0.005"	0.270"	0.120"	0.235"	Intake Exhaust
	Part Number			Quantity		Quantity Incentive		
	71013-4			Pkg. of 4		0%		
	71013-8			Pkg. of 8		0%		
	71013-16			Pkg. of 16		Less- 10%		
	71013-50			Pkg. of 50		Less- 15%		
71013-100			Pkg. of 100		Less- 20%			

KAWASAKI® ZX-9R™ 1994-2003

Valve Spring Kit • Lightweight Racing For 1994-1997 Models

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-4385	Intake	.425"	1.220"	55#	159#	.425"	
		Exhaust						
Kit Includes			16	CrSi Valve Springs	16	Titanium Retainers	16	H. T. Steel Basewashers

Valve Spring Kit • Lightweight Racing For 1998-2003 Models

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-4500	Intake	.470"	1.280"	40#	155#	.470"	
		Exhaust						
Kit Includes			16	CrSi Valve Springs	16	Titanium Retainers	16	H. T. Steel Basewashers

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.560"	0.595"	0.620"	0.855"	0.460"	0.1760"	0.4165" / Std.	40-4400	
								+0.010"	40-4410

KAWASAKI® ZX-9R™ 1994-2003



Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
4.0mm	0.310"	0.380"	2	0.315"±0.005"	0.270"	0.120"	0.235"	Intake
								Exhaust
				Part Number		Quantity	Quantity Incentive	
				71013-4		Pkg. of 4	0%	
				71013-8		Pkg. of 8	0%	
				71013-16		Pkg. of 16	Less- 10%	
				71013-50		Pkg. of 50	Less- 15%	
				71013-100		Pkg. of 100	Less- 20%	

KAWASAKI® ZX-10R™ 1988-1990

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-4611	Intake	.500"	1.400"	39#	160#	.400"
		Exhaust					
Kit Includes			16	CrSi Valve Springs			

Retainer Set • Titanium

	KPMI P/N	Type	Material	Quantity
	40-4612	Intake	Titanium	Pkg. of 16
		Exhaust		

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5.0mm	0.350"	0.405"	4	0.340"±0.005"	0.303"	0.125"	0.230"	Intake
								Exhaust
				Part Number		Quantity	Quantity Incentive	
				71015-4		Pkg. of 4	0%	
				71015-8		Pkg. of 8	0%	
				71015-16		Pkg. of 16	Less- 10%	
				71015-50		Pkg. of 50	Less- 15%	
				71015-100		Pkg. of 100	Less- 20%	

KAWASAKI® ZX-10R™ 2004-2007

Single Spring Kit • High Performance NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40500	Intake	.425"	1.320"	65#	182#	.425"
		Exhaust					
Kit Includes			16	CrSi Valve Springs	16	H. T. Steel Retainers	

* Springs are compatible with OEM Retainers & Basewashers and can be ordered individually, however KPMI® supplies this kit with the 40-40501 Retainers for increased durability over the OEM Aluminum Retainers.

Retainer Set • H. T. Steel NEW PRODUCTS

	KPMI P/N	Type	Material	Quantity
	40-40501	Intake	H. T. Steel	Pkg. of 16
		Exhaust		



KAWASAKI® ZX-10R™ 2004-2007

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40450	Intake	.445"	1.350"	50#	162#	.445"
		Exhaust	.445"	1.240"	44#	153#	.445"
Kit Includes			8 In, CrSi Valve Springs	8 In, Titanium Retainers	8 In, H. T. Steel Basewashers		
			8 Ex, CrSi Valve Springs	8 Ex, Titanium Retainers	8 Ex, H. T. Steel Basewashers		

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	40-40462	Intake	30.00mm	1.181"	0.1765"	10°	3.565"	Standard
	40-40463	Intake	31.00mm	1.220"	0.1765"	11°	3.580"	Oversize

Valves • Tensilite® • Exhaust • Chromium Nitride PVD Coated Titanium NEW PRODUCTS

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks
	40-40466T	Exhaust	25.50mm	1.004"	0.1762"	25°	3.595"
<p>All titanium valves are 1 piece forged for superior strength over a 2 piece valve. The Tensilite PVD CrN coating is a state of the art process, which exceeds OEM specifications.</p>							

Tappets • O.E.M. Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity	
	40-40485	Intake	H. T. Steel	26.50mm	1.0420"	0.992"	0.748"	0.285"	0.106"	Pkg. of 16
		Exhaust								
<p>Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.</p>										

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.0mm	0.310"	0.380"	2	A	B	C	D	Intake
				0.315"±0.005"	0.270"	0.120"	0.235"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71013-4			Pkg. of 4		0%		
	71013-8			Pkg. of 8		0%		
	71013-16			Pkg. of 16		Less- 10%		
	71013-50			Pkg. of 50		Less- 15%		
71013-100			Pkg. of 100		Less- 20%			

KAWASAKI® ZX-10R™ 2008-2010

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-41100	Intake	.445"	1.350"	50#	162#	.445"
		Exhaust	.445"	1.240"	44#	153#	.445"
Kit Includes			8 In, CrSi Valve Springs	8 In, Titanium Retainers	8 In, H. T. Steel Basewashers		
			8 Ex, CrSi Valve Springs	8 Ex, Titanium Retainers	8 Ex, H. T. Steel Basewashers		

KAWASAKI® ZX-10R™ 2008-2010



Single Spring Kit • High Performance

NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-41120	Intake	.425"	1.320"	65#	182#	.425"
		Exhaust					
Kit Includes			16	CrSi Valve Springs	16	H. T. Steel Retainers	

Springs are compatible with OEM Retainers & Basewashers and can be ordered individually, however KPMI® supplies this kit with the 40-41121 Retainers for increased durability over the OEM Aluminum Retainers.

Retainer Set • H. T. Steel

NEW PRODUCTS

	KPMI P/N	Type	Material	Quantity
	40-41121	Intake	H. T. Steel	Pkg. of 16
		Exhaust		

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-41112	Intake	30.00mm	1.181"	0.1767"	10°	3.565"	Standard
	40-41113	Intake	31.00mm	1.220"	0.1767"	10°	3.580"	Oversize
	40-41116	Exhaust	24.50mm	0.965"	0.1762"	25°	3.590"	Standard

Valves • Tensilite® • Exhaust • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-41117T	Exhaust	25.50mm	1.004"	0.1762"	25°	3.595"	Standard

All titanium valves are 1 piece forged for superior strength over a 2 piece valve. The Tensilite PVD CrN coating is a state of the art process, which exceeds OEM specifications.

Tappets • O.E.M. Replacement • H.T. Steel

NEW PRODUCTS

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity	
	40-41125	Intake	None	26.50mm	1.0420"	0.992"	0.748"	0.285"	0.106"	Pkg. of 16
		Exhaust								

Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.0mm	0.310"	0.380"	2	A	B	C	D	Intake
				0.315"±0.005"	0.270"	0.120"	0.235"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71013-4			Pkg. of 4		0%		
	71013-8			Pkg. of 8		0%		
	71013-16			Pkg. of 16		Less- 10%		
	71013-50			Pkg. of 50		Less- 15%		
71013-100			Pkg. of 100		Less- 20%			



KAWASAKI® ZX-10R™ 2011-2013

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40850	Intake	.445" *	1.350"	50#	162#	.445"
		Exhaust	.445"	1.240"	44#	153#	.445"
	Kit Includes		8	In, CrSi Valve Springs		8	In, Titanium Retainers
		8	In, H. T. Steel Basewashers		8	In, H. T. Steel Shims	
		8	Ex, CrSi Valve Springs	8	Ex, Titanium Retainers	8	Ex, H. T. Steel Basewashers

* When converting to a stainless steel intake valve, it is recommend to not exceed the OEM cam lift. Stainless steel exhaust valve OK to 0.445" lift. Titanium IN&EX valves OK to 0.445"

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
4.0mm	0.310"	0.380"	2	0.315"±0.005"	0.270"	0.120"	0.235"	Intake Exhaust
		Part Number		Quantity		Quantity Incentive		
		71013-4		Pkg. of 4		0%		
		71013-8		Pkg. of 8		0%		
		71013-16		Pkg. of 16		Less- 10%		
		71013-50		Pkg. of 50		Less- 15%		
		71013-100		Pkg. of 100		Less- 20%		

KAWASAKI® ZX-11™ / ZRX™ 1100/ 1200 1999-'05

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-4611	Intake	.500"	1.400"	39#	160#	.400"
		Exhaust					
Kit Includes		16	CrSi Valve Springs				

Retainer Set • Titanium

	KPMI P/N	Type	Material	Quantity
	40-4612	Intake	Titanium	Pkg. of 16
		Exhaust		

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5.0mm	0.350"	0.405"	4	0.340"±0.005"	0.303"	0.125"	0.230"	Intake Exhaust
		Part Number		Quantity		Quantity Incentive		
		71015-4		Pkg. of 4		0%		
		71015-8		Pkg. of 8		0%		
		71015-16		Pkg. of 16		Less- 10%		
		71015-50		Pkg. of 50		Less- 15%		
		71015-100		Pkg. of 100		Less- 20%		

KAWASAKI® ZX-12R™ 2000-2005



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40025	Intake	.420"	1.410"	56#	183#	.420"
		Exhaust					
Kit Includes			16	CrSi Valve Springs	16	Titanium Retainers	
			16	H. T. Steel Basewashers	16	H. T. Steel Shims	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	40-40030	Intake	33.40mm	1.315"	0.1960"	10°	3.845"	Standard
	40-40031	Intake	34.40mm	1.354"	0.1960"	10°	3.845"	Oversize
	40-40032	Exhaust	28.24mm	1.112"	0.1955"	10°	3.865"	Standard
	40-40033	Exhaust	29.26mm	1.152"	0.1955"	10°	3.865"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.690"	0.730"	0.555"	0.855"	0.460"	0.1955"	0.4165" / Std.	40-40040		
								+0.001"	40-40041	
								+0.002"	40-40042	
								+0.010"	40-40050	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
				Part Number	Quantity		Quantity Incentive	
				71015-4	Pkg. of 4		0%	
				71015-8	Pkg. of 8		0%	
				71015-16	Pkg. of 16		Less- 10%	
				71015-50	Pkg. of 50		Less- 15%	
			71015-100	Pkg. of 100		Less- 20%		

KAWASAKI® ZX-14™ 2006-2011

Valve Spring Kit • Lightweight Racing


	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-40267	Intake	.405"	1.285"	66#	168#	.405"	
		Exhaust						
Kit Includes			16	CrSi Valve Springs	16	Titanium Retainers	16	H. T. Steel Basewashers



KAWASAKI® ZX-14™ 2006-2011


KAWASAKI

Valve Spring Only Kit • High Performance


	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40292	Intake	.425"	1.320"	65#	182#	.425"
		Exhaust					
Kit Includes			16	CrSi Valve Springs			

Springs are compatible with OEM Retainers & Basewashers and can be ordered individually, however KPMI® recommends the 40-40291 Retainer for increased durability over the OEM.

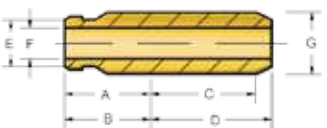

Retainer Set • O. E. M. Replacement • H. T. Steel NEW PRODUCTS

	KPMI P/N	Type	Material	Quantity
	40-40291	Intake	H. T. Steel	Pkg. of 16
Exhaust				

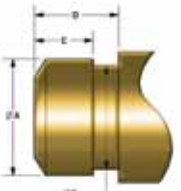

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40273	Intake	33.40mm	1.315"	0.1958"	10°	3.565"	Standard
	40-40274	Intake	34.40mm	1.354"	0.1958"	10°	3.565"	Oversize
	40-40276	Exhaust	28.25mm	1.112"	0.1953"	10°	3.575"	Standard
	40-40277	Exhaust	29.25mm	1.152"	0.1953"	10°	3.575"	Oversize

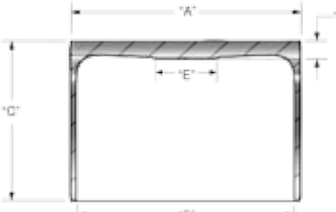
Valve Guides • C630 Bronze

 	A	B	C	D	E	F	G	Intake	Exhaust
	0.460"	0.460"	0.500"	0.780"	0.413"	0.1950"	0.4162" / Std.		40-40280
								+0.001"	40-40281
								+0.002"	40-40282
								+0.010"	40-40289

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
 	Part Number		Quantity		Quantity Incentive			
	71015-4		Pkg. of 4		0%			
	71015-8		Pkg. of 8		0%			
	71015-16		Pkg. of 16		Less- 10%			
	71015-50		Pkg. of 50		Less- 15%			
71015-100		Pkg. of 100		Less- 20%				

Tappets • O.E.M. Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity
	40-40271	Intake Exhaust	None	26.50mm	1.0420"	0.992"	0.748"	0.285"	0.106"

Refer to **KPMI® Tappet Section**, in back of catalog, when selecting oversize tappets.

KAWASAKI® PWC™ 2007-2014



- STX • 2009-2010
- STX-15F™ • 2006-2014
- Ultra 250X™ • 2007-2008
- Ultra LX™ • 2008-2014
- Ultra 260X™ • 2009-2010
- Ultra 260LX™ • 2009-2010

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40750	Intake	.385"	1.410"	56#	171#	.383"
		Exhaust					
	Kit Includes			16	CrSi Valve Springs	16	Titanium Retainers
16				H. T. Steel Basewashers	8	In, H. T. Steel Shims	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40762	Intake	33.40mm	1.315"	0.1960"	10°	3.845"	Standard
	40-40763	Intake	34.40mm	1.354"	0.1960"	10°	3.845"	Oversize
	40-40766	Exhaust	28.24mm	1.112"	0.1955"	10°	3.865"	Standard
	40-40767	Exhaust	29.26mm	1.152"	0.1955"	10°	3.865"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.690"	0.730"	0.555"	0.855"	0.460"	0.1955"	0.4165" / Std.		40-40770
							+0.001"		40-40771
							+0.002"		40-40772
							+0.010"		40-40779

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71015-4			Pkg. of 4		0%		
	71015-8			Pkg. of 8		0%		
	71015-16			Pkg. of 16		Less- 10%		
	71015-50			Pkg. of 50		Less- 15%		
71015-100			Pkg. of 100		Less- 20%			



KTM® 250 2005-2007

• For RC4 Engines

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	96-96090	Intake	.425"	1.175"	60#	169#	.425"
		Exhaust	.425"	1.175"	60#	169#	.425"
Kit Includes			2 In, CrSi Valve Springs	2 In, Titanium Retainers	2 In, H. T. Steel Basewashers		
			2 Ex, CrSi Valve Springs	2 Ex, Titanium Retainers	2 Ex, H. T. Steel Basewashers		

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	96-96130	Intake	.425"	1.175"	60#	169#	.425"
	Kit Includes			2 CrSi Valve Springs	2 Titanium Retainers		
			2 Black Diamond™ Valves	2 H. T. Steel Basewashers			

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks		
	96-96102	Intake	30.95mm	1.218"	0.1960"	15°	3.910"	Standard	
	96-96103	Intake	31.95mm	1.258"	0.1960"	15°	3.910"	Oversize	
	96-96106	Exhaust	26.60mm	1.047"	0.1955"	30°	3.665"	Standard	
		96-96107	Exhaust	27.60mm	1.087"	0.1955"	30°	3.665"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Material	
	96-96102T	Intake	30.95mm	1.218"	0.1960"	15°	3.910"	Titanium
	96-96106T	Exhaust	26.60mm	1.047"	0.1955"	30°	3.665"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust							
	0.200"	0.475"	1.020"	1.335"	0.470"	0.1960"	0.3958" / Std.	96-96110								
								+0.001"	96-96111							
								+0.002"	96-96112							
								+0.010"	96-96119							
								0.200"	0.475"	0.765"	1.200"	0.470"	0.1955"	0.3958" / Std.		96-96120
										+0.001"					96-96121	
										+0.002"					96-96122	
										+0.010"					96-96129	

KTM® 250 2005-2007



- For RC4 Engines

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5.0mm	0.320"	0.435"	5	0.305"±0.002"	0.265"	0.100"	0.195"	Intake
								Exhaust
				Part Number		Quantity		Quantity Incentive
				71041-4		Pkg. of 4		0%
				71041-8		Pkg. of 8		0%
				71041-16		Pkg. of 16		Less- 10%
				71041-50		Pkg. of 50		Less- 15%
				71041-100		Pkg. of 100		Less- 20%

KTM® 250 2008-2011

- For RC4 Engines

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	96-96250	Intake	.425"	1.285"	60#	169#	.425"
		Exhaust	.425"	1.285"	60#	169#	.425"
Kit Includes			2 In, CrSi Valve Springs	2 In, Titanium Retainers	2 In, H. T. Steel Basewashers		
			2 Ex, CrSi Valve Springs	2 Ex, Titanium Retainers	2 Ex, H. T. Steel Basewashers		

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	96-96450	Intake	.425"	1.175"	60#	169#	.425"
	Kit Includes			2 CrSi Valve Springs	2 Titanium Retainers		
			2 Black Diamond™ Valves	2 H. T. Steel Basewashers			

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	96-96262	Intake	30.95mm	1.218"	0.1960"	15°	3.910"	Standard
	96-96263	Intake	31.95mm	1.258"	0.1960"	15°	3.910"	Oversize
	96-96266	Exhaust	26.60mm	1.047"	0.1955"	30°	3.665"	Standard
	96-96267	Exhaust	27.60mm	1.087"	0.1955"	30°	3.665"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Material	
	96-96262T	Intake	30.95mm	1.218"	0.1960"	15°	3.910"	Titanium
	96-96266T	Exhaust	26.60mm	1.047"	0.1955"	30°	3.665"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.



KTM® 250 2008-2011

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.200"	0.475"	1.020"	1.335"	0.470"	0.1960"	0.3958" / Std.	96-96270	
							+0.001"	96-96271	
							+0.002"	96-96272	
	0.200"	0.475"	0.765"	1.200"	0.470"	0.1955"	0.3958" / Std.		96-96280
							+0.001"		96-96281
							+0.002"		96-96282
							+0.010"		96-96289

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.320"	0.435"	5	A	B	C	D	Intake
				0.305"±0.002"	0.265"	0.100"	0.195"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71041-4			Pkg. of 4		0%		
	71041-8			Pkg. of 8		0%		
	71041-16			Pkg. of 16		Less- 10%		
	71041-50			Pkg. of 50		Less- 15%		
	71041-100			Pkg. of 100		Less- 20%		

KTM® 250 2012-2013

• For RC4 Engines

• XCF - W™ Only • 2013

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	96-96250	Intake	.425"	1.175"	60#	169#	.425"
		Exhaust	.425"	1.175"	60#	169#	.425"
	Kit Includes		2	In, CrSi Valve Springs	2	In, Titanium Retainers	2
		2	Ex, CrSi Valve Springs	2	Ex, Titanium Retainers	2	Ex, H. T. Steel Basewashers

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	96-96450	Intake	.425"	1.175"	60#	169#	.425"	
	Kit Includes		2	CrSi Valve Springs	2	Titanium Retainers		
			2	Black Diamond™ Valves	2	H. T. Steel Basewashers		

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	96-96262	Intake	30.95mm	1.218"	0.1960"	15°	3.910"	Standard
	96-96263	Intake	31.95mm	1.258"	0.1960"	15°	3.910"	Oversize
	96-96266	Exhaust	26.60mm	1.047"	0.1955"	30°	3.665"	Standard
	96-96267	Exhaust	27.60mm	1.087"	0.1955"	30°	3.665"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

KTM® 250 2012-2013



• For RC4 Engines

• XCF - W™ Only • 2013

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	96-96262T	Intake	30.95mm	1.218"	0.1960"	15°	3.910"	Titanium
	96-96266T	Exhaust	26.60mm	1.047"	0.1955"	30°	3.665"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.475"	1.020"	1.335"	---	0.1960"	0.4352" / Std.	96-96290	
							+0.001"	96-96291	
							+0.002"	96-96292	
							+0.010"	96-96299	
	---	0.475"	0.765"	1.200"	---	0.1955"	0.4352" / Std.		96-96300
							+0.001"		96-96301
							+0.002"		96-96302
							+0.010"		96-96309

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5.0mm	0.320"	0.435"	5	0.305"±0.002"	0.265"	0.100"	0.195"	Intake
								Exhaust
	Part Number			Quantity		Quantity Incentive		
	71041-4			Pkg. of 4		0%		
	71041-8			Pkg. of 8		0%		
	71041-16			Pkg. of 16		Less- 10%		
	71041-50			Pkg. of 50		Less- 15%		
	71041-100			Pkg. of 100		Less- 20%		

KTM® SX-F / XC-F 250 2013-2015

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure	Open Pressure	@ Lift
	96-96400	Intake	.450"		1.340"		50#	165#	.450"
		Exhaust	.450"		1.340"		50#	165#	.450"
Kit Includes			2	In, CrSi Valve Springs	2	In, H. T. Steel Retainers	2	In, H. T. Steel Basewashers	
			2	Ex, CrSi Valve Springs	2	In, H. T. Steel Retainers	2	Ex, H. T. Steel Basewashers	


Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure	Open Pressure	@ Lift
	96-96480	Intake	.450"		1.340"		50#	165#	.450"
		Kit Includes			2	CrSi Valve Springs	2	H. T. Steel Retainers	
			2	Black Diamond™ Valves	2	H. T. Steel Basewashers			




KTM® SX-F / XC-F 250 2013-2015

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	96-96412	Intake	32.51mm	1.280"	0.1960"	15°	3.770"	Standard
	96-96416	Exhaust	26.55mm	1.045"	0.1955"	30°	3.875"	Standard

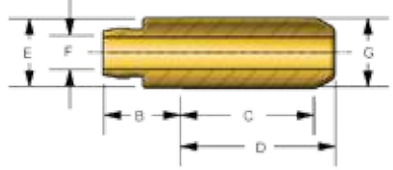

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium


	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	96-96412T	Intake	32.51mm	1.280"	0.1960"	15°	3.770"	Titanium
	96-96416T	Exhaust	26.55mm	1.045"	0.1955"	30°	3.875"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze


	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.490"	0.715"	1.165"	---	0.1960"	0.4352" / Std.	96-96420	
							+0.001"	96-96421	
							+0.002"	96-96422	
							+0.010"	96-96429	
	---	0.490"	0.885"	1.165"	---	0.1955"	0.4352" / Std.		96-96430
							+0.001"		96-96431
							+0.002"		96-96432
							+0.010"		96-96439

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.320"	0.435"	5	A	B	C	D	Intake
				0.305"±0.002"	0.265"	0.100"	0.195"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71041-4			Pkg. of 4		0%		
	71041-8			Pkg. of 8		0%		
	71041-16			Pkg. of 16		Less- 10%		
	71041-50			Pkg. of 50		Less- 15%		
71041-100			Pkg. of 100		Less- 20%			

KTM® ALL RFS ENGINES 400cc-560cc 2000-'09

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure	Open Pressure	@ Lift
	96-96000	Intake	.435"		1.175"		75#	214#	.435"
		Exhaust							
	Kit Includes			2	In, CrSi Valve Springs	2	In, H. T. Steel Retainers	2	In, H. T. Steel Basewashers
2				Ex, CrSi Valve Springs	2	In, H. T. Steel Retainers	2	Ex, H. T. Steel Basewashers	
2				In, Spring Shims		2	Ex, Spring Shims		

KTM® ALL RFS ENGINES 400cc-560cc 2000-'09



Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	96-96070	Intake	.435"	1.175"	75#	214#	.435"	
	Kit Includes		2	CrSi Valve Springs		2	H. T. Steel Retainers	
			2	Black Diamond™ Valves		2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	96-96004	Intake	35.00mm	1.378"	0.2350"	20°	3.815"	Standard
	96-96005	Intake	36.00mm	1.417"	0.2350"	20°	3.815"	Oversize
	96-96007	Exhaust	30.00mm	1.181"	0.2342"	24°	3.815"	Standard
	96-96008	Exhaust	31.00mm	1.220"	0.2342"	24°	3.815"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.410"	0.450"	0.555"	0.945"	0.525"	0.2360"	0.4745" / Std.	96-96010		
								+0.001"	96-96011	
								+0.002"	96-96012	
								+0.010"	96-96019	
	0.410"	0.450"	0.740"	1.100"	0.525"	0.2360"	0.4745" / Std.		96-96020	
								+0.001"	96-96021	
							+0.002"	96-96022		
							+0.010"	96-96029		

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.315"	0.520"	5	A	B	C	D	Intake
				0.435"±0.002"	0.395"	0.120"	0.210"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71029-4			Pkg. of 4		0%		
	71029-8			Pkg. of 8		0%		
	71029-16			Pkg. of 16		Less- 10%		
	71029-50			Pkg. of 50		Less- 15%		
	71029-100			Pkg. of 100		Less- 20%		



KTM® 450 2007-2011

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	96-96162T	Intake	40.25mm	1.585"	0.2358"	15°	3.455"	Titanium
	96-96166T	Exhaust	31.70mm	1.248"	0.2353"	30°	3.520"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.315"	0.520"	5	A	B	C	D	Intake
				0.435"±0.002"	0.395"	0.120"	0.210"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71029-4			Pkg. of 4		0%		
	71029-8			Pkg. of 8		0%		
	71029-16			Pkg. of 16		Less- 10%		
	71029-50			Pkg. of 50		Less- 15%		
71029-100			Pkg. of 100		Less- 20%			

KTM® 400cc-530cc 2008-2013

• (For XC4 Engines)

• EXC-R / XCR-W / EXC / XC-W

Valves • O.E.M. Replacement • Titanium • Stainless

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	96-96212T	Intake	39.95mm	1.573"	0.2350"	15°	3.650"	Titanium
	96-96216	Exhaust	33.10mm	1.303"	0.1955"	30°	3.620"	Stainless

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

High Performance Valve Guide Seal Kits

	Intake Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				
	6.0mm	0.315"	0.520"	5	A	B	C	D	
					0.435"±0.002"	0.395"	0.120"	0.215"	
	Exhaust Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				
	5.0mm	0.320"	0.435"	5	A	B	C	D	
0.305"±0.002"					0.265"	0.100"	0.195"		
Part Number		96-96380		Kit Includes		2	Intake Viton® Seals	2	Exhaust Viton® Seals

KTM® VARIOUS 450'S 2013-2018



• 450 XC-F 2013-2017

• 450 SX-F 2013-2018

NEW PRODUCTS

Valve Spring Kit • Beehive Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift			
	96-96500	Intake	.435"	1.360"	80#	205#	.435"			
		Exhaust								
Kit Includes			2	In CrSi Valve Springs	2	In Titanium Retainers	2	In H. T. Steel Basewashers	2	In H. T. Steel Shims
			2	Ex CrSi Valve Springs	2	Ex Titanium Retainers	2	Ex H. T. Steel Basewashers	--	Ex H. T. Steel Shims

*KPMI® supplied Viton® seals must be used with this kit. O.E.M. seals are NOT compatible.

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	96-96540	Intake	.435"	1.360"	80#	205#	.435"	
	Kit Includes			2	CrSi Valve Springs	2	Titanium Retainers	2
			2	Black Diamond™ Valves	2	H. T. Steel Shims		

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	96-96512	Intake	39.93mm	1.572"	0.2358"	15°	3.675"	Standard
	96-96516	Exhaust	33.15mm	1.305"	0.2353"	30°	3.645"	Standard

You must use KPMI® Spring Kit 96-96500 when installing Black Diamond™ Valves

Valve Guides • C630 Bronze

		*A	*C	*D	E	F	G	Intake	Exhaust
		0.555"	0.945"	1.140"	0.433"	0.2353"	0.4352" / Std.	96-96520	
							+0.001"	96-96521	
							+0.002"	96-96522	
							+0.010"	96-96529	
		0.635"	0.865"	1.060"	0.433"	0.2353"	0.4352" / Std.		96-96520
							+0.001"		96-96521
							+0.002"		96-96522
							+0.010"	96-96529	

*Note: One guide design installs at two different heights depending on Intake or Exhaust usage. You must install to lower line for exhaust and upper line for intake.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.315"	0.520"	5	A	B	C	D	Intake
				0.435"±0.002"	0.395"	0.120"	0.210"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71029-4			Pkg. of 4		0%	
		71029-8			Pkg. of 8		0%	
		71029-16			Pkg. of 16		Less- 10%	
		71029-50			Pkg. of 50		Less- 15%	
71029-100			Pkg. of 100		Less- 20%			



MOTO GUZZI® ALL 2-VALVE "BIG-BLOCKS" 1971-'12

MOTO GUZZI

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	90-90000	Intake	.575"	1.420"	111#	204#	.375"	
		Exhaust						
Kit Includes			4	CrSi Valve Springs	4	H.T. Steel Retainers	4	H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	90-9100	Intake	41.00mm	1.614"	0.3145"	23°	4.200"	Standard (OEM #13036000)
	90-9102	Intake	44.00mm	1.732"	0.3145"	23°	4.185"	Standard (OEM #14036050)
	90-9101	Exhaust	36.00mm	1.417"	0.3140"	27°	4.130"	Standard (OEM #13033100)
	90-9103	Exhaust	37.10mm	1.461"	0.3140"	27°	4.100"	Standard (OEM #14036150)

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.645"	0.695"	1.205"	1.405"	0.620"	0.3145"	0.5538" / Std.		90-4067	
								+0.002"		90-4068
	Seal not required.							+0.015"		90-4175

PERFORMANCE FEATURES-BLACK DIAMOND™ VALVE

Welded Stellite resists impact and abrasion and never comes loose.

Lower edge of the keeper groove design incorporates a taper leading to a radius to prevent valve stem seal damage and ease installation.

Tulip profiles tested on a Flow Data 700 computerized flow bench for optimized airflow characteristics.

Finite Element Analysis is used to create a unique dish design that makes the valve light and strong.

Minor diameter of keeper grooves incorporate a radius in each corner for maximum strength.

Proprietary Black Diamond™ process treats the steel to a depth of 0.002" creating a hard, smooth, corrosion resistant surface that cannot flake, crack or peel off.

Intake Valves have a chamfer on the edge of the margin to help keep flow organized without promoting reversion.

Exhaust valves have a radiused margin to optimize flow.

NORTON® 750 1968-1973



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	* Installed Height	Seat Pressure	Open Pressure	@ Lift
	50-0460	Intake	.500"	1.420"	105#	185#	.320"
		Exhaust					
Kit Includes			4	7075-T6 H. A. Retainers	4	H. T. Steel Keepers Pr.	
			4	CrSi Valve Springs	4	H. T. Steel Basewashers	

*Important: In order to achieve the above installation height, it will be necessary to spot face the spring pad prior to guide installation.

Valve Spring Kit • O. E. M. Replacement

	KPMI P/N	Type	Kit Includes					
	50-50000	Intake	H. T. Steel Retainers		CrSi Valve Springs		H. T. Steel Basewashers	
		Exhaust	4	50-50001	4	50-50004	4	50-50003
	Max Valve Lift	Installed Height	Seat Pressure		Open Pressure		@ Lift	
.410"	1.280"	93#		170#		.320"		

All components are the quality you can expect from Kibblewhite®, manufactured to exact O.E.M. dimensions. These O.E.M. replacements parts may be purchased separately using the above part numbers.

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	50-4092	Intake	38.10mm	1.500"	0.3107"	1.5" R	4.065"	Standard
	50-4092-1	Intake	39.62mm	1.560"	0.3107"	1.5" R	4.055"	Oversize
	50-4091	Exhaust	33.02mm	1.300"	0.3107"	27°	4.015"	Standard
	50-4091-1	Exhaust	34.54mm	1.360"	0.3107"	27°	4.005"	Oversize

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.330"	0.430"	1.025"	1.525"	0.680"	0.3105"	0.5010" / Std.	50-0403		
									+0.002"	50-0404	
									+0.004"	50-0405	
		0.470"	0.655"	0.785"	1.345"	0.682"	0.3105"	0.5010" / Std.		50-0410	
									+0.002"	50-0411	
									+0.004"	50-0412	
									+0.006"	50-0413	

Push Rod • Alloy Tube • H. T. Steel Endpieces

	KPMI P/N	Type	Material	"A"	"B"	Quantity
	50-50010	Intake	H. T. Seamless Aluminum	8.150"	8.010"	Pkg. of 2
		Exhaust		7.300"	7.160"	Pkg. of 2



NORTON® 750 1968-1973

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	Intake
5/16"	0.465"	0.550"	1	0500"±0.010"	0.445"	0.230"	0.280"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71012-4		Pkg. of 4		0%	
			71012-8		Pkg. of 8		0%	
			71012-16		Pkg. of 16		Less- 10%	
			71012-50		Pkg. of 50		Less- 15%	
			71012-100		Pkg. of 100		Less- 20%	

NORTON® 850 1973-1977

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	* Installed Height	Seat Pressure	Open Pressure	@ Lift
	50-0460	Intake	.500"	1.420"	105#	185#	.320"
		Exhaust					
Kit Includes			4	7075-T6 H. A. Retainers	4	H. T. Steel Keepers Pr.	
			4	CrSi Valve Springs	4	H. T. Steel Basewashers	

*Important: In order to achieve the above installation height, it will be necessary to spot face the spring pad prior to guide installation.

Valve Spring Kit • O. E. M. Replacement

	KPMI P/N	Type	Kit Includes				
	50-50000	Intake	H. T. Steel Retainers	CrSi Valve Springs		H. T. Steel Basewashers	
		Exhaust	4	50-50001	4	50-50004	4
Max Valve Lift	Installed Height	Seat Pressure	Open Pressure		@ Lift		
.410"	1.280"	93#	170#		.320"		

All components are the quality you can expect from Kibblewhite®, manufactured to exact O.E.M. dimensions. These O.E.M. replacements parts may be purchased separately using the above part numbers.

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	50-4092	Intake	38.10mm	1.500"	0.3107"	1.5" R	4.065"	Standard
	50-4092-1	Intake	39.62mm	1.560"	0.3107"	1.5" R	4.055"	Oversize
	50-4091	Exhaust	33.02mm	1.300"	0.3107"	27°	4.015"	Standard
	50-4091-1	Exhaust	34.54mm	1.360"	0.3107"	27°	4.005"	Oversize

NORTON® 850 1973-1977



Push Rod • Alloy Tube • H. T. Steel Endpieces

	KPMI P/N	Type	Material	"A"	"B"	Quantity
	50-50010	Intake	H. T. Seamless Aluminum	8.150"	8.010"	Pkg. of 2
Exhaust		7.300"		7.160"	Pkg. of 2	

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.330"	0.400"	1.030"	1.560"	0.680"	0.3105"	0.6260" / Std.	50-0648		
									+0.002"	50-0649	
									+0.004"	50-0650	
		0.525"	0.580"	0.955"	1.420"	0.680"	0.3105"	0.6260" / Std.		50-0652	
									+0.002"	50-0653	
									+0.004"	50-0654	
									+0.006"	50-0655	

Note: Exhaust seals are not required.

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5/16"	0.465"	0.550"	1	A	B	C	D	Intake
				0500"±0.010"	0.445"	0.230"	0.280"	
		Part Number				Quantity		Quantity Incentive
		71012-4				Pkg. of 4		0%
		71012-8				Pkg. of 8		0%
		71012-16				Pkg. of 16		Less- 10%
		71012-50				Pkg. of 50		Less- 15%
		71012-100				Pkg. of 100		Less- 20%



POLARIS® 400-500 1996-'14, Series 10, 11

- Ranger™ 400 2010-2014
- Sportsman™ 500 1996-2013
- Xpedition™ 425 2000-2002
- Scrambler™ 500 1997-2012
- Magnum™ 500 1996-2003
- Ranger™ 500 1999-'13, Series 10,11

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	82-82000	Intake	.440"	1.285"	40#	140#	.440"	
		Exhaust						
Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	4	H.T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	82-82005	Intake	31.00mm	1.220"	0.2345"	14°	3.970"	Standard
	82-82008	Exhaust	26.55mm	1.063"	0.2340"	25°	3.985"	Standard

POLARIS® PREDATOR™ / OUTLAW™ 500 2003-'07

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82012	Intake	.440"	1.375"	66#	199#	.440"
		Exhaust					
Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	82-82052	Intake	37.00mm	1.457"	0.2345"	20°	4.030"	Standard
	82-82053	Intake	38.00mm	1.496"	0.2345"	20°	4.030"	Oversize
	82-82055	Exhaust	32.00mm	1.260"	0.2345"	22°	4.055"	Standard
	82-82056	Exhaust	33.00mm	1.300"	0.2345"	22°	4.055"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.375"	0.545"	0.880"	0.980"	0.704"	0.2345"	0.4160" / Std.		82-82030
							+0.001"		82-82031
							+0.010"		82-82039

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.371"	0.480"	5	A	B	C	D	Intake
				0.385"±0.002"	0.341"	0.120"	0.255"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71017-4			Pkg. of 4		0%		
	71017-8			Pkg. of 8		0%		
	71017-16			Pkg. of 16		Less- 10%		
	71017-50			Pkg. of 50		Less- 15%		
71017-100			Pkg. of 100		Less- 20%			

POLARIS® SPORTSMAN™ 800 2006-'14



POLARIS

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	82-82060	Intake	.500"	1.495"	65#	235#	.500"	
		Exhaust						
Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	2	In, Viton® Seals
			2	In, H.T. Steel Basewashers	2	Ex, H.T. Steel Basewashers		

These seals are designed to work with the KPMI® Spring Kit and OEM intake Valve Guides. Use the recommended #71017-4 seals when using KPMI® Valve Guides.

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	82-82065	Intake	35.00mm	1.378"	0.2357"	25°	4.510"	Standard
	82-82066	Intake	36.00mm	1.417"	0.2357"	25°	4.510"	Oversize
	82-82068	Exhaust	30.00mm	1.181"	0.2352"	11°	4.555"	Standard
	82-82069	Exhaust	31.00mm	1.220"	0.2352"	11°	4.555"	Oversize

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.470"	0.560"	0.495"	1.335"	0.544"	0.2360"	0.4950" / Std.	82-82070		
									+0.001"	82-82071	
									+0.002"	82-82072	
									+0.010"	82-82079	
		0.525"	0.615"	0.520"	1.115"	0.544"	0.2355"	0.4531" / Std.		82-82080	
									+0.001"	82-82081	
							+0.002"	82-82082			
							+0.010"	82-82089			

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.371"	0.480"	5	A	B	C	D	Intake
				0.385"±0.002"	0.341"	0.120"	0.255"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71017-4		Pkg. of 4		0%		
		71017-8		Pkg. of 8		0%		
		71017-16		Pkg. of 16		Less- 10%		
		71017-50		Pkg. of 50		Less- 15%		
71017-100		Pkg. of 100		Less- 20%				

These seals are designed to work with the KPMI® Guides.



POLARIS® RZR™ 800 2008-2010

POLARIS

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	82-82200	Intake	.500"	1.495"	65#	235#	.500"	
		Exhaust						
Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	2	In, Viton® Seals
			2	In, H. T. Steel Basewashers	2	Ex, H. T. Steel Basewashers		

These seals are designed to work with the KPMI® Spring Kit and OEM intake Valve Guides. Use the recommended #71017-4 seals when using KPMI® Valve Guides.

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	82-82212	Intake	35.00mm	1.378"	0.2357"	25°	4.510"	Standard
	82-82213	Intake	36.00mm	1.417"	0.2357"	25°	4.510"	Oversize
	82-82216	Exhaust	30.00mm	1.181"	0.2352"	11°	4.555"	Standard
	82-82217	Exhaust	31.00mm	1.220"	0.2352"	11°	4.555"	Oversize

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.470"	0.560"	0.495"	1.335"	0.544	0.2360"	0.4950" / Std.	82-82220		
									+0.001"	82-82221	
									+0.002"	82-82222	
								+0.010"	82-82229		
		0.525"	0.615"	0.520"	1.115"	0.544"	0.2355"	0.4531" / Std.		82-82230	
									+0.001"	82-82231	
									+0.002"	82-82232	
								+0.010"	82-82239		

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.371"	0.480"	5	A	B	C	D	Intake
				0.385"±0.002"	0.341"	0.120"	0.255"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71017-4		Pkg. of 4		0%		
		71017-8		Pkg. of 8		0%		
		71017-16		Pkg. of 16		Less- 10%		
		71017-50		Pkg. of 50		Less- 15%		
71017-100		Pkg. of 100		Less- 20%				

These seals are designed to work with the KPMI® Guides.

POLARIS® RZR™ 800 2011-2014

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	82-82300	Intake	.500"	1.495"	65#	235#	.500"	
		Exhaust						
Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	2	In, Viton® Seals
			2	In, H. T. Steel Basewashers	2	Ex, H. T. Steel Basewashers		

These seals are designed to work with the KPMI® Spring Kit and OEM intake Valve Guides. Use the recommended #71017-4 seals when using KPMI® Valve Guides.

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POLARIS® RZR™ 800 2011-2014



Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	82-82312	Intake	35.00mm	1.378"	0.2357"	25°	4.510"	Standard
	82-82313	Intake	36.00mm	1.417"	0.2357"	25°	4.510"	Oversize
	82-82316	Exhaust	30.00mm	1.181"	0.2352"	11°	4.555"	Standard
	82-82317	Exhaust	31.00mm	1.220"	0.2352"	11°	4.555"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.490"	0.580"	1.385"	1.515"	0.552"	0.2352"	0.4531" / Std.	82-82320	
							+0.001"	82-82321	
							+0.002"	82-82322	
							+0.010"	82-82329	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.371"	0.480"	5	A	B	C	D	Intake
				0.385"±0.002"	0.341"	0.120"	0.255"	Exhaust
	Part Number			Quantity			Quantity Incentive	
	71017-4			Pkg. of 4			0%	
	71017-8			Pkg. of 8			0%	
	71017-16			Pkg. of 16			Less- 10%	
	71017-50			Pkg. of 50			Less- 15%	
71017-100			Pkg. of 100			Less- 20%		

These seals are designed to work with the KPMI® Guides.

POLARIS® RZR™ XP900 2011-2012

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift		
	82-82160	Intake	.450"	1.375"	57#	150#	.450"		
		Exhaust							
	Kit Includes			8	Titanium Retainers	8	CrSi Valve Springs	8	H. T. Steel Basewashers
	*82-82650	Intake	.450"	1.375"	57#	150#	.450"		
Exhaust									
Kit Includes			8	H. T. Steel Retainers	8	CrSi Valve Springs	8	H. T. Steel Basewashers	

*KPMI® performance valve spring kits are modeled using cam profile and simulation softwares. By utilizing FEA software, it was possible to take advantage of the increased strength and wear resistance of a heat treated steel retainer, while reducing its mass to within grams of a comparable titanium retainer. With two different spring pressure option kits to choose from, these are the ultimate setup for any Polaris RZR/Ranger tuner.

Valve Spring Kit • Beehive Racing


	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	82-82580	Intake	.435"	1.360"	80#	205#	.435"	
		Exhaust						
Kit Includes			8	H.T. Steel Retainers	8	CrSi Valve Springs	8	H.T. Steel Basewashers



POLARIS® RZR™ XP900 2011-2012

POLARIS

Valve Spring Kit • High Performance “Turbo” Racing




KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
82-82190	Intake	.450"	1.375"	65#	200#	.450"	
	Exhaust						
Kit Includes		8	Titanium Retainers	8	CrSi Valve Springs	8	H.T. Steel Basewashers
When installing these kits with a shouldered guide, the use of a spring shim (KPMI P/N 92039-8 or equivalent) may be necessary for guide shoulder to basewasher clearance.							
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
*82-82700	Intake	.450"	1.375"	65#	200#	.450"	
	Exhaust						
Kit Includes		8	H.T. Steel Retainers	8	CrSi Valve Springs	8	H.T. Steel Basewashers

NEW PRODUCTS

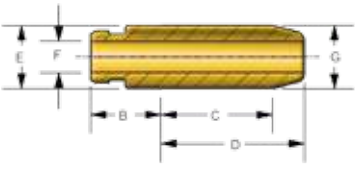
*KPMI® performance valve spring kits are modeled using cam profile and simulation softwares. By utilizing FEA software, it was possible to take advantage of the increased strength and wear resistance of a heat treated steel retainer, while reducing its mass to within grams of a comparable titanium retainer. With two different spring pressure option kits to choose from, these are the ultimate setup for any Polaris RZR/Ranger tuner.

Valves • Black Diamond™ • Black Nitroreg Stems



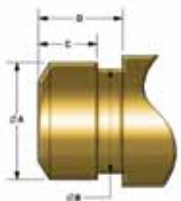

KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks
82-82155	Intake	37.72mm	1.485"	0.2160"	17°	3.775" Standard
82-82156	Intake	38.72mm	1.524"	0.2160"	17°	3.775" Oversize
82-82158	Exhaust	32.44mm	1.277"	0.2155"	25°	3.815" Standard
82-82159	Exhaust	33.44mm	1.317"	0.2155"	25°	3.815" Oversize

Valve Guides • C630 Bronze

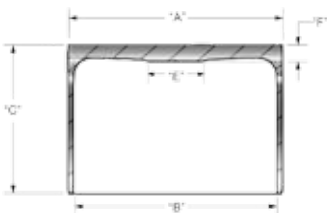


A	B	C	D	E	F	G	Intake	Exhaust
---	0.460"	0.815"	0.960"	0.433"	0.2155"	0.4353" / Std.	82-82170	
						+0.001"	82-82171	
						+0.002"	82-82172	
						+0.004"	82-82174	
						+0.010"	82-82179	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71015-4	Pkg. of 4		0%			
		71015-8	Pkg. of 8		0%			
		71015-16	Pkg. of 16		Less- 10%			
		71015-50	Pkg. of 50		Less- 15%			
71015-100	Pkg. of 100		Less- 20%					

Tappets • O.E.M. Replacement • H.T. Steel



KPMI P/N	Type	Coating	A	B	C	E	F	Quantity	
82-82185	Intake	None	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"	Pkg. of 8
	Exhaust								
82-82187	Intake	DLC Coated	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"	Pkg. of 8
	Exhaust								

NEW PRODUCTS

Note: These tappets must be used with KPMI® spring kit to convert to a 9.5mm shim adjustment system.*Our coated tappets undergo a low temperature PVD process to deposit a DLC film, which is extremely hard and has a very low coefficient of friction. These properties help the tappet to maintain its durability in extreme duty situations. Although KPMI® recommends never running a camshaft off the edge of the tappet, this coating may help increase durability in these applications.

POLARIS® RZR™ 900 2013-2014



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82500	Intake	.450"	1.375"	57#	150#	.450"
		Exhaust					
Kit Includes			8	Titanium Retainers	8	CrSi Valve Springs	
			8	H.T. Steel Basewashers	8	Viton® Seals	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*82-82750	Intake	.450"	1.375"	57#	150#	.450"
		Exhaust					
Kit Includes			8	H.T. Steel Retainers	8	CrSi Valve Springs	
			8	H.T. Steel Basewashers	8	Viton® Seals	

*KPMI® performance valve spring kits are modeled using cam profile and simulation softwares. By utilizing FEA software, it was possible to take advantage of the increased strength and wear resistance of a heat treated steel retainer, while reducing its mass to within grams of a comparable titanium retainer. With two different spring pressure option kits to choose from, these are the ultimate setup for any Polaris RZR/Ranger tuner.

Valve Spring Kit • High Performance "Turbo" Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82450	Intake	.450"	1.375"	65#	200#	.450"
		Exhaust					
Kit Includes			8	Titanium Retainers	8	CrSi Valve Springs	
			8	H.T. Steel Basewashers	8	Viton® Seals	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*82-82800	Intake	.450"	1.375"	65#	200#	.450"
		Exhaust					
Kit Includes			8	H.T. Steel Retainers	8	CrSi Valve Springs	
			8	H.T. Steel Basewashers	8	Viton® Seals	

1) Both of these kits are compatible with the OEM tappet lash adjustment system and the KPMI® shim conversion tappets listed below.
 2) The seals included in these kits are intended for use with OEM guides. Please use KPMI® P/N 71016-8 when installing KPMI® guides.
 3) Some early 2013 models came from the OEM with guides that included a seal detail. These guides require the use of KPMI® seal/P/N 71015-8.
 4) Our Turbo spring kit has been designed for applications with up to 15psi of boost.

Valve Spring Kit • Beehive Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82560	Intake	.435"	1.360"	80#	205#	.435"
		Exhaust					
Kit Includes			8	H.T. Steel Retainers	8	CrSi Valve Springs	

1) This kit is compatible with the OEM tappet lash adjustment system and the KPMI® shim conversion tappets listed below.
 2) This kit is designed for compatibility with the OEM integrated Seal/Base (OE# 3610212).

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	82-82462	Intake	37.72mm	1.485"	0.2160"	17°	3.775"	Standard
	82-82463	Intake	38.72mm	1.524"	0.2160"	17°	3.775"	Oversize
	82-82466	Exhaust	32.44mm	1.277"	0.2155"	25°	3.815"	Standard
	82-82467	Exhaust	33.44mm	1.317"	0.2155"	25°	3.815"	Oversize



POLARIS® RZR™ 900 2013-2014

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.455"	0.755"	0.940"	0.433"	0.2160'	0.4353" / Std.	82-82480	
							+0.001"	82-82481	
							+0.002"	82-82482	
	---	0.455"	0.815"	0.940"	0.433"	0.2155'	0.4353" / Std.		82-82470
							+0.001"		82-82471
							+0.002"		82-82472
							+0.010"		82-82479

Note: These guides are compatible with both KPMI® seals and the OEM Tophat Seal.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71016-4		Pkg. of 4		0%
				71016-8		Pkg. of 8		0%
				71016-16		Pkg. of 16		Less- 10%
				71016-50		Pkg. of 50		Less- 15%
			71016-100		Pkg. of 100		Less- 20%	

Tappets • Shim On Bottom Conv. • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity	
	82-82459	Intake	None	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"	Pkg. of 8
		Exhaust								
	*82-82495	Intake	DLC Coated	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"	Pkg. of 8
Exhaust										

Note: These tappets must be used with KPMI® spring kit to convert to a 9.5mm shim adjustment system.*Our coated tappets undergo a low temperature PVD process to deposit a DLC film, which is extremely hard and has a very low coefficient of friction. These properties help the tappet to maintain its durability in extreme duty situations. Although KPMI® recommends never running a camshaft off the edge of the tappet, this coating may help increase durability in these applications.

POLARIS® VARIOUS 900'S 2013-2016

• Ranger™ 900 XP 2013-2015

• RZR™ 900 2015-2016

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82260	Intake	.450"	1.375"	57#	150#	.450"
		Exhaust					
Kit Includes			8	Titanium Retainers	8	H.T. Steel Basewashers	
			8	CrSi Valve Springs	8	Viton® Seals	
The tappet must never contact the retainer for this application. To ensure this, the top surface of the shim must never fall below the top surface of the retainer.							
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*82-82850	Intake	.450"	1.375"	57#	150#	.450"
		Exhaust					
Kit Includes			8	H.T. Steel Retainers	8	H.T. Steel Basewashers	
			8	CrSi Valve Springs	8	Viton® Seals	

*KPMI® performance valve spring kits are modeled using cam profile and simulation softwares. By utilizing FEA software, it was possible to take advantage of the increased strength and wear resistance of a heat treated steel retainer, while reducing its mass to within grams of a comparable titanium retainer. With two different spring pressure option kits to choose from, these are the ultimate setup for any Polaris RZR/Ranger tuner.

POLARIS® VARIOUS 900'S 2013-2016



POLARIS

• Ranger™ 900 XP 2013-2015

• RZR™ 900 2015-2016

Valve Spring Kit • High Performance “Turbo” Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82290	Intake	.450"	1.375"	65#	200#	.450"
		Exhaust					
	Kit Includes		8	Titanium Retainers	8	CrSi Valve Springs	
		8	H.T. Steel Basewashers	8	Viton® Seals		
<p>When installing these kits with a shouldered guide, the use of a spring shim (KPMI P/N 92039-8 or equivalent) may be necessary for guide shoulder to basewasher clearance.</p>							
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*82-82900	Intake	.450"	1.375"	65#	200#	.450"
		Exhaust					
	Kit Includes		8	H.T. Steel Retainers	8	CrSi Valve Springs	
		8	H.T. Steel Basewashers	8	Viton® Seals		

*KPMI® performance valve spring kits are modeled using cam profile and simulation softwares. By utilizing FEA software, it was possible to take advantage of the increased strength and wear resistance of a heat treated steel retainer, while reducing its mass to within grams of a comparable titanium retainer. With two different spring pressure option kits to choose from, these are the ultimate setup for any Polaris RZR/Ranger tuner.

Valve Spring Kit • Beehive Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82570	Intake	.435"	1.360"	80#	205#	.435"
		Exhaust					
Kit Includes		8	H.T. Steel Retainers	8	CrSi Valve Springs		

- 1) This kit is compatible with the OEM tappet lash adjustment system and the KPMI® shim conversion tappets listed below.
- 2) This kit is designed for compatibility with the OEM integrated Seal/Base (OE# 3610212).

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	82-82255	Intake	34.42mm	1.355"	0.2160"	17°	3.765'	Standard
	82-82256	Intake	35.42mm	1.394"	0.2160"	17°	3.765'	Oversize
	82-82258	Exhaust	29.21mm	1.150"	0.2155"	25°	3.805"	Standard
	82-82259	Exhaust	30.21mm	1.189"	0.2155"	25°	3.805"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.455"	0.755"	0.940"	0.433"	0.2160'	0.4353" / Std.	82-82270	
							+0.001"	82-82271	
							+0.002"	82-82272	
							+0.010"	82-82279	
	---	0.455"	0.815"	0.940"	0.433"	0.2155'	0.4353" / Std.		82-82420
							+0.001"		82-82421
							+0.002"		82-82422
							+0.010"		82-82429

Note: These guides are compatible with both KPMI® seals and the OEM Tophat Seal.



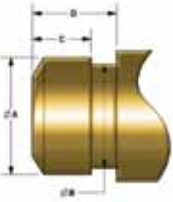

POLARIS® VARIOUS 900'S 2013-2016

• Ranger™ 900 XP 2013-2015

• RZR™ 900 2015-2016

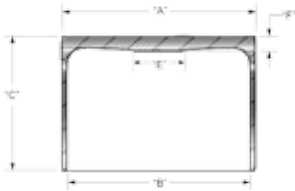
Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust

 	Part Number		Quantity	Quantity Incentive
	71016-4		Pkg. of 4	0%
	71016-8		Pkg. of 8	0%
	71016-16		Pkg. of 16	Less- 10%
	71016-50		Pkg. of 50	Less- 15%
	71016-100		Pkg. of 100	Less- 20%

Note: These seals are intended to be used with KPMI® Guides in conjunction with KPMI® dual spring kits.


Tappets • Shim On Bottom Conv. • H.T. Steel


	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity	
	82-82285	Intake	None	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"	Pkg. of 8
		Exhaust								
*82-82287	Intake	DLC Coated	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"	Pkg. of 8	
	Exhaust									

Note: These tappets must be used with KPMI® spring kit to convert to a 9.5mm shim adjustment system.*Our coated tappets undergo a low temperature PVD process to deposit a DLC film, which is extremely hard and has a very low coefficient of friction. These properties help the tappet to maintain its durability in extreme duty situations. Although KPMI® recommends never running a camshaft off the edge of the tappet, this coating may help increase durability in these applications.

POLARIS® RZR™ XP1000 2014


Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82400	Intake	.450"	1.375"	57#	150#	.450"
		Exhaust					
Kit Includes		8	Titanium Retainers		8	CrSi Valve Springs	
		8	H.T. Steel Basewashers		8	Viton® Seals	

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*82-82950	Intake	.450"	1.375"	57#	150#	.450"
		Exhaust					
Kit Includes		8	H.T. Steel Retainers		8	CrSi Valve Springs	
		8	H.T. Steel Basewashers		8	Viton® Seals	

*KPMI® performance valve spring kits are modeled using cam profile and simulation softwares. By utilizing FEA software, it was possible to take advantage of the increased strength and wear resistance of a heat treated steel retainer, while reducing its mass to within grams of a comparable titanium retainer. With two different spring pressure option kits to choose from, these are the ultimate setup for any Polaris RZR/Ranger tuner.

Valve Spring Kit • Beehive Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82550	Intake	.435"	1.360"	80#	205#	.435"
		Exhaust					
Kit Includes		8	H.T. Steel Retainers		8	CrSi Valve Springs	

- 1) This kit is compatible with the OEM tappet lash adjustment system and the KPMI® shim conversion tappets listed below.
- 2) This kit is designed for compatibility with the OEM integrated Seal/Base (OE# 3610212).

POLARIS® RZR™ XP1000 2014



Valve Spring Kit • High Performance “Turbo” Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82350	Intake	.450"	1.375"	65#	200#	.450"
		Exhaust					
Kit Includes			8	Titanium Retainers	8	CrSi Valve Springs	
			8	H.T. Steel Basewashers	8	Viton® Seals	

- 1) Both of these kits are compatible with the OEM tappet lash adjustment system and the KPMI® shim conversion tappets listed below.
- 2) The seals included in these kits are intended for use with OEM guides. Please use KPMI® P/N 71016-8 when installing KPMI® guides.
- 3) Some early 2013 models came from the OEM with guides that included a seal detail. These guides require the use of KPMI® seal P/N 71015-8.
- 4) Our Turbo spring kit has been designed for applications with up to 15psi of boost.

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	*82-83000	Intake	.450"	1.375"	65#	200#	.450"	
		Exhaust						
Kit Includes			8	H.T. Steel Retainers	8	CrSi Valve Springs	8	H.T. Steel Basewashers

*KPMI® performance valve spring kits are modeled using cam profile and simulation softwares. By utilizing FEA software, it was possible to take advantage of the increased strength and wear resistance of a heat treated steel retainer, while reducing its mass to within grams of a comparable titanium retainer. With two different spring pressure option kits to choose from, these are the ultimate setup for any Polaris RZR/Ranger tuner.

Valves • Black Diamond™ • Black Nitroeng Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	82-82362	Intake	37.72mm	1.485"	0.2160"	17°	3.775"	Standard
	82-82363	Intake	38.72mm	1.524"	0.2160"	17°	3.775"	Oversize
	82-82366	Exhaust	29.21mm	1.150"	0.2155"	25°	3.805"	Standard
	82-82367	Exhaust	30.21mm	1.189"	0.2155"	25°	3.805"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.455"	0.750"	0.935"	0.433"	0.2160"	0.4353" / Std.	82-82370	
							+0.001"	82-82371	
							+0.002"	82-82372	
							+0.010"	82-82379	
		0.455"	1.090"	1.190"	0.433"	0.2155"	0.4353" / Std.		82-82380
							+0.001"		82-82381
							+0.002"		82-82382
						+0.010"		82-82389	

Note: These guides are compatible with both KPMI® seals and the OEM Tophat Seal.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
	Part Number			Quantity			Quantity Incentive	
	71016-4			Pkg. of 4			0%	
	71016-8			Pkg. of 8			0%	
	71016-16			Pkg. of 16			Less- 10%	
	71016-50			Pkg. of 50			Less- 15%	
71016-100			Pkg. of 100			Less- 20%		

Note: These seals are intended to be used with KPMI® Guides in conjunction with KPMI® dual spring kits.



POLARIS® RZR™ XP1000 2014

POLARIS

Tappets • Shim On Bottom Conv. • H.T. Steel

	KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
	82-82359	Intake	None	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"	Pkg. of 8
		Exhaust								
	*82-82395	Intake	DLC Coated	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"	Pkg. of 8
Exhaust										

NEW PRODUCTS

Note: These tappets must be used with KPMI® spring kit to convert to a 9.5mm shim adjustment system.*Our coated tappets undergo a low temperature PVD process to deposit a DLC film, which is extremely hard and has a very low coefficient of friction. These properties help the tappet to maintain its durability in extreme duty situations. Although KPMI® recommends never running a camshaft off the edge of the tappet, this coating may help increase durability in these applications.

POLARIS® RZR™ XP1000 2015-2018

Valve Spring Kit • Beehive Racing

NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82600	Intake	.435"	1.360"	80#	205#	.435"
		Exhaust					
Kit Includes			8	H.T. Steel Retainers	8	CrSi Valve Springs	

- 1) This kit is compatible with the OEM tappet lash adjustment system and the KPMI® shim conversion tappets listed below.
- 2) This kit is designed for compatibility with the OEM integrated Seal/Base (OE# 3610212).

Valves • Black Diamond™ • Black Nitroeng Stems

NEW PRODUCTS

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	82-82612	Intake	37.72mm	1.485"	0.2160"	17°	3.775"	Standard
	82-82613	Intake	38.72mm	1.524"	0.2160"	17°	3.775"	Oversize
	82-82616	Exhaust	29.21mm	1.150"	0.2155"	25°	3.805"	Standard
	82-82617	Exhaust	30.21mm	1.189"	0.2155"	25°	3.805"	Oversize

Valve Guides • C630 Bronze

NEW PRODUCTS

	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.455"	0.755"	0.940"	0.433"	0.2160"	0.4353" / Std.	82-82620	
							+0.001"	82-82621	
							+0.002"	82-82622	
	---	0.455"	1.090"	1.190"	0.433"	0.2155"	0.4353" / Std.		82-82630
							+0.001"		82-82631
							+0.002"		82-82632
							+0.010"		82-82639

Note: These guides are compatible with both KPMI® seals and the OEM Tophat Seal.

Tappets • Shim On Bottom Conv. • H.T. Steel

NEW PRODUCTS

	KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
	82-82607	Intake	None	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"	Pkg. of 8
		Exhaust								
	*82-82609	Intake	DLC Coated	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"	Pkg. of 8
Exhaust										

Note: These tappets must be used with KPMI® spring kit to convert to a 9.5mm shim adjustment system.*Our coated tappets undergo a low temperature PVD process to deposit a DLC film, which is extremely hard and has a very low coefficient of friction. These properties help the tappet to maintain its durability in extreme duty situations. Although KPMI® recommends never running a camshaft off the edge of the tappet, this coating may help increase durability in these applications.

SUZUKI® DR™ 250/ 350S/ SE 1990-1999



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	60-6041	Intake	.350"	1.200"	61#	141#	.350"	
		Exhaust						
Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	4	H.T. Steel Basewashers

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.410"	0.450"	0.740"	0.890"	0.467"	0.1955"	0.4170" / Std.		60-6030
							+0.001"		60-6031
							+0.002"		60-6032
							+0.003"		60-6033
						+0.010"		60-6040	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71015-4			Pkg. of 4		0%		
	71015-8			Pkg. of 8		0%		
	71015-16			Pkg. of 16		Less- 10%		
	71015-50			Pkg. of 50		Less- 15%		
71015-100			Pkg. of 100		Less- 20%			

SUZUKI® RM-Z250™ 2004-2006

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	60-60170	Intake	.445"	1.320"	46#	155#	.445"	
		Exhaust						
Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	4	H.T. Steel Basewashers

Intake Only • Steel Valve Conversion Kit


	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60450	Intake	.445"	1.320"	46#	155#	.445"
	Kit Includes			2	CrSi Valve Springs	2	Titanium Retainers
			2	Black Diamond™ Valves	2	H. T. Steel Basewashers	



SUZUKI® RM-Z250™ 2004-2006


SUZUKI

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60210	Intake	31.00mm	1.220"	0.1765"	20°	3.120"	Standard
	60-60211	Intake	32.00mm	1.260"	0.1765"	20°	3.120"	Oversize
	60-60213	Exhaust	25.00mm	0.984"	0.1756"	25°	3.125"	Standard
	60-60214	Exhaust	26.00mm	1.024"	0.1756"	25°	3.125"	Oversize

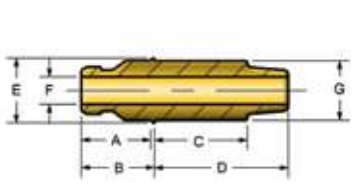

Must use **Kibblewhite® Lightweight Valve Spring Kits** when installing **Black Diamond™ Valves**.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

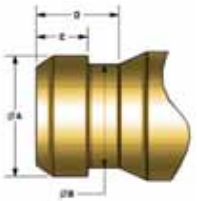

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	60-60210T	Intake	31.00mm	1.220"	0.1765"	20°	3.110"	Titanium
	60-60213T	Exhaust	25.00mm	0.984"	0.1756"	25°	3.115"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

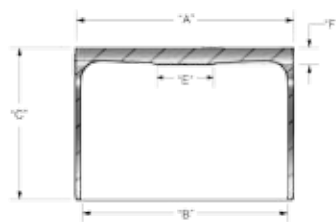
Valve Guides • C630 Bronze

 	A	B	C	D	E	F	G	Intake	Exhaust
	0.440"	0.465"	0.590"	0.850"	0.410"	0.1765"	0.3765" / Std.		60-60190
							+0.001"		60-60191
							+0.002"		60-60192
							+0.010"		60-60199

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.0mm	0.310"	0.380"	2	A	B	C	D	Intake
				0.315"±0.005"	0.270"	0.120"	0.235"	Exhaust
 	Part Number		Quantity		Quantity Incentive			
	71013-4		Pkg. of 4		0%			
	71013-8		Pkg. of 8		0%			
	71013-16		Pkg. of 16		Less- 10%			
	71013-50		Pkg. of 50		Less- 15%			
71013-100		Pkg. of 100		Less- 20%				

Tappets • O.E.M. Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity
	60-60176	Intake	None	26.50mm	1.0420"	0.992"	0.748"	0.285"	0.106"

Refer to **KPMI® Tappet Section**, in back of catalog, when selecting oversize tappets.

SUZUKI® RM-Z250™ 2007-2017



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	60-60500	Intake	.445"	1.300"	51#	160#	.445"	
		Exhaust						
Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	4	H.T. Steel Basewashers

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60470	Intake	.445"	1.300"	51#	160#	.445"
	Kit Includes			2	CrSi Valve Springs	2	Titanium Retainers
			2	Black Diamond™ Valves	2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60512	Intake	31.00mm	1.220"	0.1765"	15°	3.175"	Standard
	60-60513	Intake	32.00mm	1.260"	0.1765"	15°	3.185"	Oversize
	60-60516	Exhaust	25.00mm	0.985"	0.1760"	25°	3.185"	Standard
	60-60517	Exhaust	26.00mm	0.1025"	0.1760"	25°	3.195"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	60-60512T	Intake	31.00mm	1.220"	0.1765"	15°	3.165"	Titanium
	60-60516T	Exhaust	25.00mm	0.985"	0.1760"	25°	3.175"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.545"	0.545"	0.530"	0.700"	0.374"	0.1765	0.3778" / Std.		60-60520
								+0.001"	60-60521
								+0.002"	60-60522
								+0.010"	60-60529

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.0mm	0.310"	0.380"	2	A	B	C	D	Intake
				0.315"±0.005"	0.270"	0.120"	0.235"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71013-4			Pkg. of 4		0%		
	71013-8			Pkg. of 8		0%		
	71013-16			Pkg. of 16		Less- 10%		
	71013-50			Pkg. of 50		Less- 15%		
71013-100			Pkg. of 100		Less- 20%			



SUZUKI® LT-Z / D-RZ 400 2000-2017

• LT-Z™ 400 2003-2014

• D-RZ™ 400E/ S/ SM™ 2000-2017

Valve Spring Kit • Lightweight Racing • with Shim Under Conversion

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	60-60045	Intake	.440"	1.205"	57#	171#	.440"	
		Exhaust						
Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	4	H.T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroreg Stems (SPECIAL INDUCTION HARDENED FACES)

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60050	Intake	36.00mm	1.418"	0.1960"	20°	3.245"	Standard
	60-60051	Intake	37.00mm	1.457"	0.1960"	20°	3.245"	Oversize
	60-60053	Exhaust	29.00mm	1.142"	0.1953"	17°	3.200"	Standard
	60-60054	Exhaust	30.00mm	1.182"	0.1953"	17°	3.200"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.390"	0.430"	0.570"	0.770"	0.466"	0.1960"	0.4167" / Std.		60-60060
								+0.001"	60-60061
								+0.002"	60-60062
								+0.004"	60-60064
								+0.010"	60-60069

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71015-4			Pkg. of 4		0%		
	71015-8			Pkg. of 8		0%		
	71015-16			Pkg. of 16		Less- 10%		
	71015-50			Pkg. of 50		Less- 15%		
	71015-100			Pkg. of 100		Less- 20%		

SUZUKI® LTR™ 450 / 450Z 2006-2009



SUZUKI

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	60-60280	Intake	.415"	1.190"	61#	168#	.415"	
		Exhaust	.415"	1.215"	56#	157#	.415"	
Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	4	H.T. Steel Basewashers

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60850	Intake	.415"	1.190"	61#	168#	.415"
	Kit Includes			2	CrSi Valve Springs	2	Titanium Retainers
			2	Black Diamond™ Valves	2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	60-60310	Intake	36.00mm	1.418"	0.2155"	20°	3.210"	Standard
	60-60311	Intake	37.00mm	1.457"	0.2155"	20°	3.210"	Oversize
	60-60313	Exhaust	29.00mm	1.142"	0.2150"	20°	3.190"	Standard
	60-60314	Exhaust	30.00mm	1.182"	0.2150"	20°	3.190"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.375"	0.410"	0.600"	0.820"	0.460"	0.2155"	0.4170" / Std.	60-60290	
								+0.001"	60-60291
								+0.002"	60-60292
								+0.004"	60-60294
								+0.010"	60-60299
	0.375"	0.410"	0.600"	0.820"	0.460"	0.2155"	0.4170" / Std.		60-60300
								+0.001"	60-60301
								+0.002"	60-60302
								+0.004"	60-60304
								+0.010"	60-60309

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71016-4		Pkg. of 4		0%
				71016-8		Pkg. of 8		0%
				71016-16		Pkg. of 16		Less- 10%
				71016-50		Pkg. of 50		Less- 15%
				71016-100		Pkg. of 100		Less- 20%



SUZUKI® RM-Z450™ 2005-2006

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	60-60240	Intake	.415"	1.190"	61#	168#	.415"	
		Exhaust	.415"	1.220"	55#	156#	.415"	
Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	4	H.T. Steel Basewashers

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60460	Intake	.415"	1.190"	61#	168#	.415"
	Kit Includes			2	CrSi Valve Springs	2	Titanium Retainers
			2	Black Diamond™ Valves	2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60270	Intake	36.00mm	1.418"	0.1960"	20°	3.245"	Standard
	60-60271	Intake	37.00mm	1.456"	0.1960"	20°	3.245"	Oversize
	60-60273	Exhaust	29.00mm	1.142"	0.1953"	25°	3.210"	Standard
	60-60274	Exhaust	30.00mm	1.182"	0.1953"	25°	3.210"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.375"	0.410"	0.580"	0.800"	0.460"	0.1955"	0.4170" / Std.		60-60320
							+0.001"		60-60321
							+0.002"		60-60322
							+0.010"		60-60329

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71015-4			Pkg. of 4		0%		
	71015-8			Pkg. of 8		0%		
	71015-16			Pkg. of 16		Less- 10%		
	71015-50			Pkg. of 50		Less- 15%		
71015-100			Pkg. of 100		Less- 20%			

SUZUKI® RM-Z450™ 2007



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	60-60650	Intake	.415"	1.190"	61#	168#	.415"	
		Exhaust	.415"	1.220"	55#	156#	.415"	
Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	4	H.T. Steel Basewashers

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-61000	Intake	.415"	1.190"	61#	168#	.415"
	Kit Includes			2	CrSi Valve Springs	2	Titanium Retainers
Kit Includes			2	Black Diamond™ Valves	2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	60-60662	Intake	36.00mm	1.418"	0.2160"	20°	3.240"	Standard
	60-60666	Exhaust	29.00mm	1.142"	0.2150"	20°	3.190"	Standard

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.375"	0.410"	0.600"	0.820"	0.460"	0.2155"	0.4170" / Std.	60-60670		
										+0.001"	60-60671
										+0.002"	60-60672
										+0.010"	60-60679

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71016-4			Pkg. of 4		0%	
		71016-8			Pkg. of 8		0%	
		71016-16			Pkg. of 16		Less- 10%	
		71016-50			Pkg. of 50		Less- 15%	
71016-100			Pkg. of 100		Less- 20%			



SUZUKI® RM-Z450™ 2008-2017

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60700	Intake	.415"	1.190"	61#	168#	.415"
		Exhaust	.415"	1.220"	56#	157#	.415"
Kit Includes			4 Titanium Retainers	4 CrSi Valve Springs	4 H.T. Steel Basewashers		

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60720	Intake	.415"	1.190"	61#	168#	.415"
	Kit Includes			2 CrSi Valve Springs	2 Titanium Retainers		
			2 Black Diamond™ Valves	2 H. T. Steel Basewashers			

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	60-60712	Intake	36.00mm	1.418"	0.2155"	20°	3.210"	Standard
	60-60713	Intake	37.00mm	1.417"	0.2155"	20°	3.210"	Oversize
	60-60718	Exhaust	31.00mm	1.220"	0.2150"	20°	3.195"	Standard

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Material	
	60-60712T	Intake	36.00mm	1.418"	0.2155"	20°	3.215"	Titanium
	60-60718T	Exhaust	31.00mm	1.220"	0.2150"	20°	3.180"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.375"	0.410"	0.600"	0.820"	0.460"	0.2155"	0.4170" / Std.	60-60730		
										+0.001"	60-60731
										+0.002"	60-60732
										+0.004"	60-60734
										+0.010"	60-60739


Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71016-4				Pkg. of 4		0%
		71016-8				Pkg. of 8		0%
		71016-16				Pkg. of 16		Less- 10%
		71016-50				Pkg. of 50		Less- 15%
71016-100				Pkg. of 100		Less- 20%		

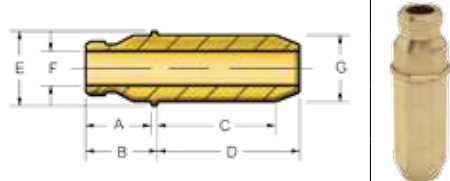
SUZUKI® GSX-R™ 600 1997-2000




Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	60-1006	Intake	.420"	1.225"	55#	157#	.420"	
		Exhaust						
Kit Includes			16	Titanium Retainers	16	CrSi Valve Springs	16	H.T. Steel Basewashers

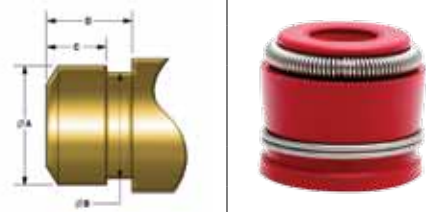
Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.435"	0.460"	0.875"	1.020"	0.460"	0.1750"	0.4170" / Std.	60-6130		
								+0.001"	60-6131	
								+0.010"	60-6140	

Retainer Set • O. E. M. Replacement • Titanium


	KPMI P/N	Type	Material	Quantity
	60-6156	Intake	Titanium	Pkg. of 16
		Exhaust		

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71014-4			Pkg. of 4		0%		
	71014-8			Pkg. of 8		0%		
	71014-16			Pkg. of 16		Less- 10%		
	71014-50			Pkg. of 50		Less- 15%		
71014-100			Pkg. of 100		Less- 20%			

SUZUKI® GS 500E™ 1989-2009

Valve Spring Kit • Lightweight Racing • with Shim Under Conversion

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	60-60120	Intake	.500"	1.345"	90#	268#	.500"	
		Exhaust						
Kit Includes			4	Titanium Retainers	4	H.T. Steel Keepers Pr.	4	CrSi Valve Springs
			4	H.T. Steel Basewashers		4	H.T. Steel Spring Shims	



SUZUKI® SV™ 650 1999-2009

Valve Spring Kit • Lightweight Racing • with Shim Under Conversion

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60030	Intake	.405"	1.285"	66#	168#	.405"
		Exhaust					
Kit Includes			8	Titanium Retainers	8	CrSi Valve Springs	
			8	H.T. Steel Basewashers	8	H.T. Steel Spring Shims	

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.435"	0.460"	0.875"	1.020"	0.460"	0.1750"	0.4170" / Std.	60-60080		
								+0.001"	60-60081	
								+0.010"	60-60089	

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71014-4		Pkg. of 4	0%	
				71014-8		Pkg. of 8	0%	
				71014-16		Pkg. of 16	Less- 10%	
				71014-50		Pkg. of 50	Less- 15%	
			71014-100		Pkg. of 100	Less- 20%		

SUZUKI® DR™ 750 / 800 BIG 1988-1998

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.440"	0.490"	0.785"	1.165"	0.495"	0.2745"	0.4752"	60-60090		
								+0.002"	60-60092	
								+0.004"	60-60094	
							+0.015"	60-60099		

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.374"	0.560"	4	A	B	C	D	Intake
				0.475"±0.005"	0.430"	0.115"	0.240"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71019-4		Pkg. of 4	0%	
				71019-8		Pkg. of 8	0%	
				71019-16		Pkg. of 16	Less- 10%	
				71019-50		Pkg. of 50	Less- 15%	
			71019-100		Pkg. of 100	Less- 20%		

SUZUKI® GS™ 750 PRE-1980



SUZUKI

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-0891	Intake	.480"	1.375"	78#	250#	.480"
		Exhaust					
Kit Includes			8	CrSi Valve Springs			

Retainer Set • Titanium

	KPMI P/N	Type	Material				
	60-6106	Intake	Titanium				
		Exhaust					
Set Includes		8	Titanium Retainers	8	H. T. Steel Keepers Pr.		

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.620"	0.670"	0.860"	1.115"	0.495"	0.2745"	0.4752" / Std.	60-0860		
									+0.002"	60-0861	
		0.620"	0.670"	---	1.115"	0.495"	0.2745"	0.4752" / Std.		60-0864	
									+0.002"		60-0865
									+0.015"		60-4107

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.374"	0.560"	4	A	B	C	D	Intake
				0.475"±0.005"	0.430"	0.115"	0.240"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71019-4			Pkg. of 4		0%	
		71019-8			Pkg. of 8		0%	
		71019-16			Pkg. of 16		Less- 10%	
		71019-50			Pkg. of 50		Less- 15%	
71019-100			Pkg. of 100		Less- 20%			

SUZUKI® GS™ 750 E/ ES/ L/ T 1980-1986

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-1028	Intake	.390"	1.215"	50#	138#	.390"
		Exhaust					
Kit Includes			16	CrSi Valve Springs			



SUZUKI® GS™ 750 E/ ES/ L/ T 1980-1986

Retainer Set • O. E. M. Replacement • Titanium

	KPMI P/N	Type	Material	Quantity
	60-1034T	Intake	Titanium	Pkg. of 16
		Exhaust		
Note : Fits O.E.M. Springs				

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60220	Intake	27.50mm	1.083"	0.2145"	27°	3.380"	Standard
	60-4301	Intake	28.50mm	1.122"	0.2155"	23°	3.435"	Oversize
	60-4311	Intake	29.50mm	1.161"	0.2155"	23°	3.435"	Oversize
	60-4302	Intake	31.00mm	1.220"	0.2155"	23°	3.435"	Oversize
	60-4304	Exhaust	24.50mm	0.965"	0.2145"	27°	3.415"	Oversize
	60-4305	Exhaust	25.00mm	0.984"	0.2145"	27°	3.415"	Oversize

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.465"	0.510"	0.780"	0.940"	0.488"	0.2160"	0.4365" / Std.		60-1029	
								+0.002"		60-1030	
								+0.015"		60-4030	
								+0.065"		60-1052	
Valve Guides • C630 Bronze • Special 5.0mm Conversion											
		A	B	C	D	E	F	G	Intake	Exhaust	
		0.465"	0.510"	0.780"	0.940"	0.488"	0.1950"	0.4365"		60-4298	
Special Blank											
		A	B	C	D	E	F	G	Intake	Exhaust	
		0.465"	---	---	1.285"	0.435"	0.2145"	0.6250"±0.010		60-4031	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
			Part Number	Quantity		Quantity Incentive		
			71016-4	Pkg. of 4		0%		
			71016-8	Pkg. of 8		0%		
			71016-16	Pkg. of 16		Less- 10%		
			71016-50	Pkg. of 50		Less- 15%		
			71016-100	Pkg. of 100		Less- 20%		


Valve Guide Seals • Viton® For Special 5.0mm Conversion

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
			Part Number	Quantity		Quantity Incentive		
			71015-4	Pkg. of 4		0%		
			71015-8	Pkg. of 8		0%		
			71015-16	Pkg. of 16		Less- 10%		
			71015-50	Pkg. of 50		Less- 15%		
			71015-100	Pkg. of 100		Less- 20%		


SUZUKI® GSX-R™ 750 1986-1992




Valve Spring Only Kit • High Performance For 1986-1990 Models

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-1002	Intake	.440"	1.215"	55#	170#	.440"
		Exhaust					
Kit Includes			16	CrSi Valve Springs			

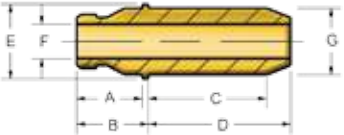

Valve Spring Only Kit • High Performance For 1991-1992 Models

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-1003	Intake	.440"	1.255"	45#	158#	.440"
		Exhaust					
Kit Includes			16	CrSi Valve Springs			

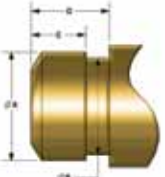

Retainer Set • Titanium

	KPMI P/N	Type	Material	Models	Quantity
	60-6155	Intake	Titanium	1986-1990	Pkg. of 16
		Exhaust			
Note : Fits O.E.M. Springs and KPMI® Spring Kit PN 60-1002					

Valve Guides • C630 Bronze


 	A	B	C	D	E	F	G	Intake	Exhaust
	0.410"	0.450"	0.740"	0.890"	0.467"	0.1955"	0.4170" / Std.		60-4156-1
							+0.002"		60-4157-1
							+0.006"		60-4159-1
							+0.085"		60-4160-1

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5.0mm	0.350"	0.405"	4	0.340"±0.005"	0.303"	0.125"	0.230"	Intake
								Exhaust
 	Part Number		Quantity		Quantity Incentive			
	71015-4		Pkg. of 4		0%			
	71015-8		Pkg. of 8		0%			
	71015-16		Pkg. of 16		Less- 10%			
	71015-50		Pkg. of 50		Less- 15%			
71015-100		Pkg. of 100		Less- 20%				

SUZUKI® GSX-R™ 750 1993-1995


Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	60-60040	Intake	.440"	1.230"	50#	158#	.440"	
		Exhaust						
Kit Includes			16	Titanium Retainers	16	CrSi Valve Springs	16	H. T. Steel Basewashers

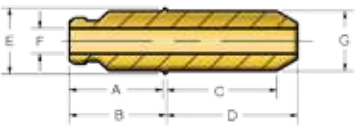



SUZUKI® GSX-R™ 750 1993-1995

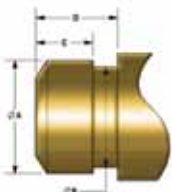

Retainer Set • O. E. M. Replacement • Titanium

	KPMI P/N	Type	Material	Quantity
	60-6154	Intake	Titanium	Pkg. of 16
		Exhaust		
Note : Fits O.E.M. Springs				

Valve Guides • C630 Bronze


 	A	B	C	D	E	F	G	Intake	Exhaust
	0.655"	0.680"	0.770"	0.915"	0.460"	0.1760"	0.4170" / Std.		60-6000
								+0.002"	60-6002
								+0.010"	60-6010

Valve Guide Seals • Viton®


Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
4.5mm	0.331"	0.370"	4	0.321"±0.005"	0.281"	0.120"	0.240"	Intake
								Exhaust
 		Part Number				Quantity		Quantity Incentive
		71014-4				Pkg. of 4		0%
		71014-8				Pkg. of 8		0%
		71014-16				Pkg. of 16		Less- 10%
		71014-50				Pkg. of 50		Less- 15%
71014-100				Pkg. of 100		Less- 20%		

SUZUKI® GSX-R™ 750 SRAD 1996-1999

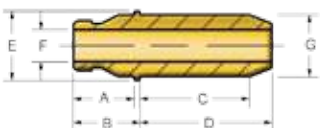

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	60-1005	Intake	.420"	1.220"	55#	157#	.420"	
		Exhaust						
Kit Includes			16	Titanium Retainers	16	CrSi Valve Springs	16	H. T. Steel Basewashers

Retainer Set • O. E. M. Replacement • Titanium

	KPMI P/N	Type	Material	Quantity
	60-6155	Intake	Titanium	Pkg. of 16
		Exhaust		
Note : Fits O.E.M. Springs				

Valve Guides • C630 Bronze

 	A	B	C	D	E	F	G	Intake	Exhaust
	0.435"	0.460"	0.875"	1.020"	0.460"	0.1755"	0.4170" / Std.		60-6130
								+0.002"	60-6131
								+0.010"	60-6140

SUZUKI® GSX-R™ 750 SRAD 1996-1999



Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71014-4			Pkg. of 4		0%	
		71014-8			Pkg. of 8		0%	
		71014-16			Pkg. of 16		Less- 10%	
		71014-50			Pkg. of 50		Less- 15%	
		71014-100			Pkg. of 100		Less- 20%	

SUZUKI® GS™ 850 1979-1983

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-0891	Intake	.480"	1.375"	78#	250#	.480"
		Exhaust					
Kit Includes	8	CrSi Valve Springs					

Retainer Set • Titanium

	KPMI P/N	Type	Material					
	60-6106	Intake	Titanium					
		Exhaust						
Set Includes	8	Titanium Retainers	8	H. T. Steel 15° Jumbo Keepers Pr.				

SUZUKI® GS™ 1000 PRE-1981

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-0891	Intake	.480"	1.375"	78#	250#	.480"
		Exhaust					
Kit Includes	8	CrSi Valve Springs					

Retainer Set • Titanium

	KPMI P/N	Type	Material					
	60-6106	Intake	Titanium					
		Exhaust						
Set Includes	8	Titanium Retainers	8	H. T. Steel 15° Jumbo Keepers Pr.				



SUZUKI® GS™ 1000 PRE-1981

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.620"	0.670"	0.860"	1.115"	0.495"	0.2745"	0.4752" / Std.	60-0860	
								+0.002"	60-0861	
								+0.015"	60-4090	
		0.620"	0.670"	---	1.115"	0.495"	0.2745"	0.4752" / Std.		60-0864
								+0.002"		60-0865
								+0.015"		60-4107

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	Intake
7.0mm	0.374"	0.560"	4	0.475"±0.005"	0.430"	0.115"	0.240"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71019-4		Pkg. of 4		0%		
		71019-8		Pkg. of 8		0%		
		71019-16		Pkg. of 16		Less- 10%		
		71019-50		Pkg. of 50		Less- 15%		
71019-100		Pkg. of 100		Less- 20%				

Tappets • Shim On Bottom Conv. • H.T. Steel

	KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
	60-1026	Std.	None	33.50mm	1.3184"	1.250"	1.025"	0.313"	0.115"	Pkg. of 8
	60-4220	+0.020	None	34.00mm	1.3380"	1.258"	1.025"	0.313"	0.115"	Pkg. of 1

Requires Kibblewhite® Shim On Bottom Retainers # 60-6106 (Pkg. of 8). Refer to KPMI® Tappet Section, in back of catalog, when selecting other size tappets.

SUZUKI® GSX-R 1000™ 2001-2004

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	60-60146	Intake	.440"	1.320"	46#	154#	.440"	
		Exhaust						
Kit Includes			16	Titanium Retainers	16	CrSi Valve Springs	16	H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	60-60140	Intake	29.00mm	1.142"	0.1568"	20°	3.740"	Standard
	60-60141	Intake	30.00mm	1.181"	0.1568"	20°	3.740"	Oversize
	60-60143	Exhaust	24.00mm	0.945"	0.1563"	20°	3.755"	Standard
	60-60144	Exhaust	25.00mm	0.984"	0.1563"	20°	3.755"	Oversize

SUZUKI® GSX-R1000™ 2001-2004



Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.425"	0.450"	0.750"	0.990"	0.385"	0.1570"	0.3573" / Std.		60-60150
							+0.001"		60-60151
							+0.002"		60-60152
							+0.010"		60-60159

SUZUKI® GSX-R™ 1000 2005-2008

Valve Spring Kit • Lightweight Racing and Stainless Steel Conversion

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	60-60600	Intake	Titanium Valve Only					
		Exhaust	.445"	1.330"	43#	152#	.445"	
		Intake	Stainless Steel Conversion					
		Exhaust	.370"	1.245"	65#	156#	.370"	
Kit Includes			16	Titanium Retainers	16	CrSi Valve Springs	16	H. T. Steel Basewashers
			16	Spring Shims		16	Spring Shims	

To achieve the proper installed height when using the stainless valve conversion, it may be necessary to utilize the 0.030" & 0.060" shims provided with the kit.

Valve Spring Only Kit • "Performance Rebuild" Beehive NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60950	Intake	.425"	1.335"	60#	181#	.425"
		Exhaust					
Kit Includes			16	CrSi Valve Springs		16	H. T. Steel Basewashers

- These springs have been designed to provide pressures to control stainless steel valves. Experienced engine builders who are running aggressive camshafts or higher than factory RPM's may choose to run these elevated pressures with titanium valves as well
- These high quality replacement springs have been designed to exceed the OEM specifications by fitting precisely on the spring shoulder diameter of both the OEM retainers, and KPMI H.T. Steel retainers (P/N 60-60941)
- This kit also includes H.T. Steel basewashers in order to achieve a precision fitment on the large end of our beehive spring which, better controls the lateral motion of the spring, ensuring longer life and less wear on the spring, retainer, and basewasher.
- KPMI® has gone a step further and specified the latest in spring materials and processing, for an extremely robust design that will last longer than anything currently on the market
- Unique features of this spring include is beehive variable rate wind to reduce the chances of spring surge due to cam harmonics, Super-Clean Chrome Silicon wire with additional Vanadium and Nickel added for increased strength, and a gas nitrided and double shot peened finish for greater fatigue life

Retainer Set • O. E. M. Replacement • H. T. Steel NEW PRODUCTS

	KPMI P/N	Type	Material	Quantity
	60-60941	Intake	H.T. Steel	Pkg. of 16
		Exhaust		

- By utilizing FEA software, it was possible to take advantage of the increased strength and wear resistance of a heat treated steel retainer, while reducing its mass to within grams of a comparable titanium retainer
- These retainers are intended as an OEM replacement and are completely compatible with the OEM springs, keepers, and shims
- The spring shoulder diameter has been designed to match the OEM retainer and spring as well as KPMI's beehive spring (P/N 60-60950), making this retainer your high performance OEM alternative



SUZUKI® GSX-R™ 1000 2005-2008

SUZUKI

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60612	Intake	30.00mm	1.181"	0.1765"	25°	3.760"	Standard
	60-60616	Exhaust	24.00mm	0.945"	0.1760"	14°	3.750"	Standard
Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.								

Valve • Titanium • Tensilite® • Intake

NEW PRODUCTS

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60614T	Intake	31.00mm	1.220"	0.1765"	25°	3.755"	Oversize

Valve • White Diamond® • Inconel® • Exhaust

NEW PRODUCTS

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60618	Exhaust	24.00mm	0.945"	0.1760"	14°	3.750"	Standard

Inconel® is classified as a "Super Alloy", meaning that it is designed to survive under the most extreme temperatures and pressures, where other valves will begin to burn, corrode, or completely fail. This is the material of choice for high output engines running turbos, superchargers, nitromethane, or nitrous.

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.520"	0.545"	0.730"	0.945"	0.410"	0.1760"	0.3773" / Std.		60-60620	
									+0.001"		60-60621
									+0.002"		60-60622
									+0.010"		60-60629

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71014-4		Pkg. of 4		0%
				71014-8		Pkg. of 8		0%
				71014-16		Pkg. of 16		Less- 10%
				71014-50		Pkg. of 50		Less- 15%
				71014-100		Pkg. of 100		Less- 20%

SUZUKI® GS™ 1100 E / ES / S 1980-1986

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-1028	Intake	.390"	1.215"	50#	138#	.390"
		Exhaust					
Kit Includes			16	CrSi Valve Springs			

SUZUKI® GS™ 1100 E / ES / S 1980-1986



Retainer Set • O. E. M. Replacement • Titanium

	KPMI P/N	Type	Material	Quantity
	60-1034T	Intake	Titanium	Pkg. of 16
		Exhaust		
Note : Fits O.E.M. Springs and KPMI® Spring Kit PN 60-1028				

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60220	Intake	27.50mm	1.083"	0.2145"	27°	3.380"	Standard
	60-4301	Intake	28.50mm	1.122"	0.2155"	23°	3.435"	Oversize
	60-4311	Intake	29.50mm	1.161"	0.2155"	23°	3.435"	Oversize
	60-4302	Intake	31.00mm	1.220"	0.2155"	23°	3.435"	Oversize
	60-4304	Exhaust	24.50mm	0.965"	0.2145"	27°	3.415"	Oversize
	60-4305	Exhaust	25.00mm	0.984"	0.2145"	27°	3.415"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.465"	0.510"	0.780"	0.940"	0.488"	0.2160"	0.4365" / Std.	60-1029		
								+0.002"	60-1030	
								+0.015"	60-4030	
								+0.065"	60-1052	
	Valve Guides • C630 Bronze • Special 5.0mm Conversion									
	A	B	C	D	E	F	G	Intake	Exhaust	
0.465"	0.510"	0.780"	0.940"	0.488"	0.1950"	0.4365"	60-4298			

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
				Part Number	Quantity		Quantity Incentive	
				71016-4	Pkg. of 4		0%	
				71016-8	Pkg. of 8		0%	
				71016-16	Pkg. of 16		Less- 10%	
				71016-50	Pkg. of 50		Less- 15%	
				71016-100	Pkg. of 100		Less- 20%	


Valve Guide Seals • Viton® For Special 5.0mm Conversion

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
				Part Number	Quantity		Quantity Incentive	
				71015-4	Pkg. of 4		0%	
				71015-8	Pkg. of 8		0%	
				71015-16	Pkg. of 16		Less- 10%	
				71015-50	Pkg. of 50		Less- 15%	
				71015-100	Pkg. of 100		Less- 20%	




SUZUKI® GSX-R™ 1100 1986-1990


Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-1002	Intake	.440"	1.215"	55#	170#	.440"
		Exhaust					
Kit Includes			16	CrSi Valve Springs			

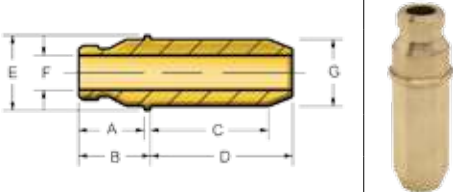
Retainer Set • Titanium

	KPMI P/N	Type	Material	Quantity
	60-4155	Intake	Titanium	Pkg. of 16
		Exhaust		
Note : Fits O.E.M. Springs and KPMI® Spring Kit PN 60-1002				


Valve • White Diamond® • Stainless

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	60-4216H	Intake	28.50mm	1.122"	0.1958"	19°	3.390"	Standard
	60-4218H	Intake	30.00mm	1.181"	0.1958"	19°	3.390"	Oversize
	60-4215H	Exhaust	25.00mm	0.984"	0.1948"	17°	3.360"	Standard
	60-4217H	Exhaust	26.00mm	1.024"	0.1948"	17°	3.360"	Oversize

Valve Guides • C630 Bronze


	A	B	C	D	E	F	G	Intake	Exhaust	
	0.410"	0.450"	0.740"	0.890"	0.467"	0.1955"	0.4170" / Std.	60-4156-1		
								+0.002"	60-4157-1	
								+0.006"	60-4159-1	
								+0.085"	60-4160-1	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
	Part Number			Quantity	Quantity Incentive			
	71015-4			Pkg. of 4	0%			
	71015-8			Pkg. of 8	0%			
	71015-16			Pkg. of 16	Less- 10%			
	71015-50			Pkg. of 50	Less- 15%			
71015-100			Pkg. of 100	Less- 20%				

SUZUKI® GSX-R™ 1100 1991-1992

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-1003	Intake	.440"	1.255"	45#	158#	.440"
		Exhaust					
Kit Includes			16	CrSi Valve Springs			

SUZUKI® GSX-R™ 1100 1991-1992



Valve • White Diamond® • Stainless

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-6091H	Intake	28.50mm	1.122"	0.1958"	19°	3.450"	Standard
	60-6092H	Exhaust	25.00mm	0.984"	0.1948"	17°	3.420"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.410"	0.450"	0.740"	0.890"	0.467"	0.1955"	0.4170" / Std.	60-4156-1	
							+0.002"	60-4157-1	
							+0.006"	60-4159-1	
							+0.085"	60-4160-1	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71015-4		Pkg. of 4		0%
				71015-8		Pkg. of 8		0%
				71015-16		Pkg. of 16		Less- 10%
				71015-50		Pkg. of 50		Less- 15%
				71015-100		Pkg. of 100		Less- 20%

SUZUKI® GSX-R™ 1100 1993-1998

• Water Cooled

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	60-60040	Intake	.440"	1.235"	50#	158#	.440"	
		Exhaust						
Kit Includes			16	Titanium Retainers	16	CrSi Valve Springs	16	H. T. Steel Basewashers

Retainer Set • O. E. M. Replacement • Titanium

	KPMI P/N	Type	Material	Quantity
	60-6154	Intake	Titanium	Pkg. of 16
		Exhaust		
Note : Fits O.E.M. Springs				



SUZUKI® GSX-R™ 1100 1993-1998

• Water Cooled

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.520"	0.545"	0.730"	0.945"	0.410"	0.1760"	0.3773" / Std.	60-60620		
								+0.001"	60-60621	
								+0.002"	60-60622	
								+0.010"	60-60629	

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	Intake
4.5mm	0.331"	0.370"	4	0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71014-4			Pkg. of 4		0%		
	71014-8			Pkg. of 8		0%		
	71014-16			Pkg. of 16		Less- 10%		
	71014-50			Pkg. of 50		Less- 15%		
71014-100			Pkg. of 100		Less- 20%			

SUZUKI® GS™ 1150 1984-1986

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-1028	Intake	.390"	1.215"	50#	138#	.390"
		Exhaust					
Kit Includes			16	CrSi Valve Springs			

Retainer Set • O. E. M. Replacement • Titanium

	KPMI P/N	Type	Material	Quantity
	60-1034T	Intake	Titanium	Pkg. of 16
		Exhaust		
Note : Fits O.E.M. Springs and KPMI® Spring Kit PN 60-1028				

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	60-60220	Intake	27.50mm	1.083"	0.2145"	27°	3.380"	Standard
	60-4301	Intake	28.50mm	1.122"	0.2155"	23°	3.435"	Oversize
	60-4311	Intake	29.50mm	1.161"	0.2155"	23°	3.435"	Oversize
	60-4302	Intake	31.00mm	1.220"	0.2155"	23°	3.435"	Oversize
	60-4304	Exhaust	24.50mm	0.965"	0.2145"	27°	3.415"	Oversize
60-4305	Exhaust	25.00mm	0.984"	0.2145"	27°	3.415"	Oversize	

ORDER 650-557-2046

SUZUKI® GS™ 1150 1984-1986



Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.465"	0.510"	0.780"	0.940"	0.488"	0.2160"	0.4365" / Std.		60-1029
								+0.002"		60-1030
								+0.015"		60-4030
								+0.065"		60-1052
Valve Guides • C630 Bronze • Special 5.0mm Conversion										
		A	B	C	D	E	F	G	Intake	Exhaust
		0.465"	0.510"	0.780"	0.940"	0.488"	0.1950"	0.4365"		60-4298

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5.5mm	0.320"	0.440"	4	0.358"±0.005"	0.320"	0.110"	0.200"	Intake
								Exhaust
	Part Number		Quantity		Quantity Incentive			
	71016-4		Pkg. of 4		0%			
	71016-8		Pkg. of 8		0%			
	71016-16		Pkg. of 16		Less- 10%			
	71016-50		Pkg. of 50		Less- 15%			
	71016-100		Pkg. of 100		Less- 20%			

Valve Guide Seals • Viton® For Special 5.0mm Conversion

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
5.0mm	0.350"	0.405"	4	0.340"±0.005"	0.303"	0.125"	0.230"	Intake
								Exhaust
	Part Number		Quantity		Quantity Incentive			
	71015-4		Pkg. of 4		0%			
	71015-8		Pkg. of 8		0%			
	71015-16		Pkg. of 16		Less- 10%			
	71015-50		Pkg. of 50		Less- 15%			
	71015-100		Pkg. of 100		Less- 20%			

SUZUKI® HAYABUSA™ 1999-2017

Valve Spring Kit • "Shim in Tappet" Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60750	Intake	.490"	1.455"	65#	195#	.415"
		Exhaust					
	Kit Includes			16	Titanium Retainers	16	CrSi Valve Springs
			16	H. T. Steel Basewashers	16	H. T. Steel Tappets	

This high lift kit is designed for maximum performance applications on 1999-2014 models. It includes KPMI® "Shim in Tappet" design tappets that solve the issues of retainer counter-bore ovaling and adjustment shims becoming dislodged. It is especially recommended for use with reduced base circle cams.

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	60-60760	Intake	.490"	1.455"	65#	190#	.415"	
		Exhaust						
	Kit Includes			16	Titanium Retainers	16	CrSi Valve Springs	16


This high lift kit is designed for maximum performance applications on 1999-2014 models, and includes lightweight titanium retainers as well as high lift, super-clean chrome silicon wire dual valve springs.



SUZUKI® HAYABUSA™ 1999-2017

Valve Spring Kit • Lightweight Racing


NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	60-60900	Intake	.490"	1.455"	65#	190#	.415"	
		Exhaust						
Kit Includes			16	H. T. Steel Retainers	16	CrSi Valve Springs	16	H. T. Steel Basewashers


KPMI® performance valve spring kits are modeled using cam profile and simulation softwares. By utilizing FEA software, it was possible to take advantage of the increased strength and wear resistance of a heat treated steel retainer, while reducing its mass to within grams of a comparable titanium retainer. With 65lbs of seat pressure these kits are the ultimate setup for any 1999-'14 'Busa street/strip tuner.

Retainer Set • O. E. M. Replacement • H. T. Steel

NEW PRODUCTS


	KPMI P/N	Type	Material	Quantity
	60-60901	Intake	H. T. Steel	Pkg. of 16
		Exhaust		
Note : Fits O.E.M. Springs and KPMI® Spring Kit PN 60-60900				

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60560	Intake	.490"	1.455"	65#	195#	.415"
		Exhaust					
Kit Includes			16	CrSi Valve Springs			


This spring set fits the stock retainers and bases on all 1999-2015 'Busa models. It is the street/strip tuner's answer for high performance valve springs.

Valve Kit • High Performance Racing

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	60-60910	Intake	34.00mm	1.339"	0.1962"	21°	3.745"	Oversize
		Exhaust	27.50mm	1.083"	0.1956"	17°	3.735"	Standard
Kit Includes			8	Intake Titanium Valves	8	Exhaust Inconel® Valves		


The High Performance Racing Valve Kit for the Suzuki Hayabusa is a specially formulated combination of valve materials and sizes, designed in conjunction with top racers, for maximum performance. The kit includes a +1mm oversize Tensilite Titanium Intake Valve and a White Diamond Inconel Exhaust Valve (standard head size). Components are designed for increased air flow and resistance to the high operating temperatures from applications running forced induction and/or exotic fuels. This combination has been offered as a kit to provide the greatest value for builders and racers looking for the ultimate valve setup.

Valve • Titanium • Tensilite® • Intake

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks
	60-60413T	Intake	34.00mm	1.339"	0.1962"	21°	3.745"

All titanium valves are 1 piece forged for superior strength over a 2 piece valve. The Tensilite PVD CrN coating is a state of the art process, which is much tougher than the OEM oxidizing process. These +1mm oversized valves offer a 33% savings in mass over the '99-'07 steel valves and come within 2 grams of the '08 and later titanium valves.

Valves • White Diamond® • Inconel® • Exhaust

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	60-60436	Exhaust	27.50mm	1.083"	0.1956"	17°	3.735"	Standard
	60-60437	Exhaust	28.50mm	1.122"	0.1956"	17°	3.735"	Oversize

Inconel® is classified as a "Super Alloy", meaning that it is designed to survive under the most extreme temperatures and pressures, where other valves will begin to burn, corrode, or completely fail. This is the material of choice for high output engines running turbos, superchargers, nitromethane, or nitrous.

SUZUKI® HAYABUSA™ 1999-2017



Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60008	Intake	33.00mm	1.299"	0.1962"	18°	3.740"	Standard
	60-60009	Intake	34.00mm	1.339"	0.1962"	18°	3.750"	Oversize
	60-60010	Exhaust	27.50mm	1.083"	0.1956"	17°	3.735"	Standard
	60-60011	Exhaust	28.50mm	1.122"	0.1956"	17°	3.725"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake / Exhaust	
	0.560"	0.585"	0.650"	0.860"	0.461"	0.1962"	0.4170" / Std.	60-60020	60-60020-M
							+0.001"	60-60021	60-60021-M
							+0.002"	60-60022	60-60022-M
							+0.004"	60-60024	60-60024-M
						+0.010"	60-60029	60-60029-M	

For sizing **KPMI® Manganese Bronze Valve guides** please use **Reamer #GR-1970**. For a complete listing of hones and reamers please see component section in back of catalog.

Valve Guides • Cast Iron NEW PRODUCTS

	A	B	C	D	E	F	G	Intake / Exhaust
	0.585"	----	0.650"	0.860"	0.415"	0.1931"	0.4170" / Std.	60-60020-C
							+0.001"	60-60021-C
							+0.002"	60-60022-C
							+0.004"	60-60024-C
						+0.010"	60-60029-C	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71015-4			Pkg. of 4		0%		
	71015-8			Pkg. of 8		0%		
	71015-16			Pkg. of 16		Less- 10%		
	71015-50			Pkg. of 50		Less- 15%		
71015-100			Pkg. of 100		Less- 20%			

Tappets • O.E.M. Replacement • Shim On Bottom Conv. • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity	
	60-60014	In/ Ex	None	28.00mm	1.1017"	1.038"	0.763"	0.320"	0.098"	Pkg. of 16
	60-60035	In/ Ex	None	28.50mm	1.1220"	1.058"	0.763"	0.320"	0.098"	Pkg. of 16
	60-60335	In/ Ex	DLC Coated	28.00mm	1.1017"	1.038"	0.763"	0.320"	0.098"	Pkg. of 16

Refer to **KPMI® Tappet Section**, in back of catalog, when selecting other size tappets.



SUZUKI® HAYABUSA™ 1999-2017

Cylinder Stud Kit • H. T. Steel • Oversize • 1/2" -20 Thread NEW PRODUCTS

	KPMI P/N	Material	O.L.	Body Dia.	A	B	Remarks
	60-61200	H. T. Steel	8.200"	0.498"	1.340"	1.340"	1/2" Dia. Oversize
	Kit Includes	10	H. T. Steel Studs	10	H. T. Steel Nuts	10	H. T. Steel Washers

- 1/2" Oversized studs for maximum strength, intended for high HP and forced induction applications
- High quality CNC machined, heat treated steel nuts and studs with rolled threads for maximum tensile strength
- 12- Point Nut pattern allows maximum power transmission and clearance when installing
- Cases must be drilled and tapped for 1/2-20 thread, prior to installation
- Aftermarket head/base gaskets that can accept a 1/2" diameter stud are required
- Black Oxided for enhanced corrosion resistance
- Nuts also sold separately, see the KPMI® "Tools & Components" section of our website and catalog for purchasing information

Cylinder Stud • H. T. Steel • Oversize • 1/2" -20 Thread NEW PRODUCTS

	KPMI P/N	Material	O.L.	Body Dia.	A	B	Remarks
	60-61201	H. T. Steel	8.200"	0.498"	1.340"	1.340"	1/2" Dia. Oversize
	Includes	10	H. T. Steel Studs				

- Replaces the stock cylinder head bolt design, with a superior stud / nut configuration
- 1/2" Oversized studs for maximum strength, intended for high HP and forced induction applications
- High quality CNC machined, heat treated steel studs with rolled threads (not cut) for maximum tensile strength

Cylinder Studs • H. T. Steel • M10 x 1.25 Thread

	KPMI P/N	Material	O.L.	Body Dia.	A	B	Remarks
	60-60825	H. T. Steel	8.010"	0.370"	1.155"	1.310"	Std. Length
	Includes	10	H. T. Steel Studs		10	H. T. Steel Washers	

- High quality CNC machined, ground and heat treated steel studs with rolled threads for maximum tensile strength
- Black Oxided for enhanced corrosion resistance

Cylinder Nuts • Steel NEW PRODUCTS

	KPMI P/N	Material	O.D.	O.L.	Thread	Quantity
	41002-4	H.T. Steel	0.786"	0.520"	1/2-20 UNF 3A	Pkg. of 4
	60-60820	H.T. Steel	0.740"	0.750"	M10 x 1.25	Pkg. of 10
	41001-4	H.T. Steel	0.740"	0.750"	M10 x 1.25	Pkg. of 4

- High quality CNC machined, heat treated steel nuts with rolled threads for maximum tensile strength
- Black Oxided for enhanced corrosion resistance

Washers • Spacers for 10M x 1.25 Thread

	KPMI P/N	Material	O.D.	O.L.	Thickness	Quantity
	60-60840	Stainless Steel	0.787"	0.413"	0.079"	Pkg. of 10
	60-60835	Apmco - 45	0.740"	0.396"	0.100"	Pkg. of 10

Note: Washers may be needed with +0.200" Length Studs

TRIUMPH® 500 TWIN 1958-1973



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	70-70030	Intake	.455"	1.205"	74#	206#	.455"	
		Exhaust						
Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	4	H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	70-4290	Intake	39.12mm	1.540"	0.3105"	23°	3.480"	Standard
	70-4292	Intake	40.64mm	1.600"	0.3105"	23°	3.500"	Oversize
	70-4291	Exhaust	33.66mm	1.325"	0.3100"	27°	3.425"	Standard
	70-4293	Exhaust	34.93mm	1.375"	0.3100"	27°	3.445"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.560"	0.610"	0.620"	1.160"	0.550"	0.3105"	0.5010" / Std.		70-0339	
								+0.002"		70-0340
								+0.004"		70-0341
								+0.006"		70-0342
								+0.015"		70-4031
No seal required.										

Fork Bushing • Nickel Bronze

	KPMI P/N	Type	O. D.	I. D.	O. L.	Quantity
	70-0646	Top	1.4990"	1.3075"	1.000"	Pkg. of 1
	70-0647	Bottom	1.4945"	1.2495"	0.875"	Pkg. of 1

Note: Fits 1963-1970 Triumph 500 Twin's.

Crankshaft Bushings • Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	70-0817	Bronze	1.814"	1.439"	1.035"	Standard	Pkg. of 1
	70-0818	Bronze	1.814"	1.429"	1.035"	-0.010"	Pkg. of 1
	70-0819	Bronze	1.814"	1.419"	1.035"	-0.020"	Pkg. of 1
	70-0820	Bronze	1.814"	1.409"	1.035"	-0.030"	Pkg. of 1

Machined from high quality mill certified SAE660 Bearing Bronze (custom sizes available).



TRIUMPH® PRE-UNIT 500/ 650 1951-'62

TRIUMPH

Valves • Black Diamond™ • Black Nitroreg Stems • For Pre-Unit 650 1956-1962

NEW PRODUCTS

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	70-70380	Intake	38.10mm	1.500"	0.3105"	R1.4	3.790"	Standard
	70-70385	Exhaust	34.11mm	1.343"	0.3100"	15°	3.775"	Standard

Welded tips (no lash caps required).

Valve Guides • C630 Bronze • Manganese

	A	B	C	D	E	F	G	Intake / Exhaust	
	0.460"	0.610"	0.840"	1.390"	0.680"	0.3105"	0.5010" / Std.	C630 Bronze	Manganese
							+0.002"	70-0331	70-0331-M
							+0.004"	70-0332	70-0332-M
							+0.006"	70-0333	70-0333-M
							+0.015"	70-0334	70-0334-M
						+0.050"	70-0840	70-0840-M	
						+0.050"	70-4033	70-4033-M	

Note : No seal required.

For sizing **KPMI® Cast Iron and Manganese Bronze Valve guides** please use **Reamers #GR-3115**. For a complete listing of hones and reamers please see component section in back of catalog.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.315"	0.405"	0.820"	1.370"	0.680"	0.3105"	0.5010" / Std.		70-0331S
							+0.002"		70-0332S
							+0.004"		70-0333S
							+0.006"		70-0334S
							+0.015"		70-0840S
						+0.050"		70-4033S	

Machined for seal, seals sold separately.

Valve Guide Seals • Viton® • 6.00mm Coverison Systems

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.465"	0.550"	1	A	B	C	D	Intake
				0.500"±0.010"	0.445"	0.230"	0.280"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71012-4		Pkg. of 4		0%
				71012-8		Pkg. of 8		0%
				71012-16		Pkg. of 16		Less- 10%
				71012-50		Pkg. of 50		Less- 15%
			71012-100		Pkg. of 100		Less- 20%	

Thrust Washer • Transmission • For Pre-Unit 650's 1960-1962

	KPMI P/N	Material	O.D.	O.L.	Thickness	Quantity
	70-0474	Bronze	1.280"	0.880"	0.090"	Pkg. of 1

Note: Transmission thrust washer for needle bearing gearbox

TRIUMPH® PRE-UNIT 500/ 650 1951-'62



Fork Bushing • Nickel Bronze

	KPMI P/N	Type	O.D.	I.D.	O.L.	Quantity
	70-0646	Top	1.4990"	1.3075"	1.000"	Pkg. of 1
	70-0647	Bottom	1.4945"	1.2495"	0.875"	Pkg. of 1

Camshaft Bushings • Nickel Bronze

	KPMI P/N	Type	O.D.	I.D.	O.L.	Quantity
	70-0458	Outer (Timing Side)	1.270"	0.8740"	1.000"	Pkg. of 1
	70-0467	Inner (Drive Side)	1.0015"	0.809"	0.937"	Pkg. of 1

Wrist Pin Bushings • Bearing Bronze

	KPMI P/N	Type	O.D.	I.D.	O.L.	Quantity
	70-0459	Rod (Small End)	0.815"	0.6885"	1.031"	Pkg. of 1

Push Rods Alloy Tube • For Pre-Unit 650's 1956-1962

	KPMI P/N	Material	A	B	Quantity
	70-0301	H.T. Steel Endpieces	6.302"	6.022"	Pkg. of 4

Made from light, strong, and tough, aircraft quality heat treated seamless aluminum tubing. These push rods are assembled with hardened steel ends that are held to exacting radius and surface finish tolerances. They are a perfect match for the rocker and tappet. After assembly, the OD of the entire push rod is precision ground to create a part that is first class in finish, fit, and function. This is the push rod of choice for Triumph racers, rebuilders, and restorers around the world.

Tappet Blocks • Racing

	KPMI P/N	Material	Camshaft Lift	O.L.	Quantity
	70-0448	Bronze - 674	0.450"	1.0005"	Pkg. of 1
	70-70332	Bronze - 674	0.450"	1.0005"	Pkg. of 2
	70-70340	Cast Iron - G2	0.450"	1.0005"	Pkg. of 1
	70-70342	Cast Iron - G2	0.450"	1.0005"	Pkg. of 2

Made from Nickel Aluminum Bronze / Cast Iron and designed to accept more lift. When installing this tappet block in 1946-'68 models, it will be necessary to reduce the upper body diameter. To ensure the push rod tube fits around the upper portion of the tappet block, the existing $\varnothing 0.984$ diameter must be machined down to to $\varnothing 0.920$ " as shown in diagram.

Keeper Set • O.E.M. Replacement

	KPMI P/N	Style	A	B	C	D	E	Quantity
	51017-4	Shouldered Square Bead	0.310	7.0°	---	0.245"	0.369"	4Pr.



TRIUMPH® 650 / 750 1963-1983

• 6.00mm Conversion System

Valve Spring Kit • Beehive For Triumph 650

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	70-70510	Intake	.460"	1.375"	90#	220#	.460"
		Exhaust					
Kit Includes			4	Titanium Retainers	4	H. T. Steel Keepers	
			4	CrSi Valve Springs	4	H. T. Steel Basewashers	

Note: Must use 6.0mm Valves and Guides

Valve Spring Kit • Beehive For Triumph 750

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	70-70520	Intake	.460"	1.375"	90#	220#	.460"
		Exhaust					
Kit Includes			4	Titanium Retainers	4	H. T. Steel Keepers	
			4	CrSi Valve Springs	4	H. T. Steel Basewashers	

Note: Must use 6.0mm Valves and Guides

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	70-70550	Intake	40.64mm	1.600"	0.2355"	23°	3.850"	Standard
	70-70551	Intake	42.16mm	1.660"	0.2355"	23°	3.830"	Oversize
	70-70553	Exhaust	36.58mm	1.440"	0.2350"	29°	3.780"	Standard
	70-70554	Exhaust	38.10mm	1.500"	0.2350"	29°	3.760"	Oversize

Note: Welded tips (no lash caps required). Titanium Valves Available Custom

Lash Caps • H.T. Steel

	KPMI P/N	Material	"A"	"B"	"C"	"D"	"C" - "D"	Quantity
	94008-4	H.T. Steel	6.00mm 0.2362"	0.315"	0.120"	0.080"	0.040"	Pkg. of 4

TRIUMPH® 650 / 750 1963-1983



TRIUMPH

• 6.00mm Conversion System

Valve Guides • C630 Bronze • 6.00mm Conversion Systems

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.330"	0.500"	0.820"	1.370"	0.685"	0.2350"	0.5010" / Std.		70-70530	
								+0.002"		70-70532
								+0.015"		70-70545

One seal supplied with each guide.

Valve Guide Seals • Viton® • 6.00mm Conversion Systems

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
6.0mm	0.371"	0.480"	5	0.385"±0.002"	0.341"	0.120"	0.255"	Intake
								Exhaust
				Part Number		Quantity		Quantity Incentive
				71017-4		Pkg. of 4		0%
				71017-8		Pkg. of 8		0%
				71017-16		Pkg. of 16		Less- 10%
				71017-50		Pkg. of 50		Less- 15%
				71017-100		Pkg. of 100		Less- 20%

These seals are designed to work with the KPMI® Guides.

TRIUMPH® 650 / 750 1963-1983

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	70-0300	Intake	.520"	1.420"	104#	234#	.520"	
		Exhaust						
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Keepers	
			4	H.A. 7075-T6 Retainers	4	H. T. Steel Basewashers		
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	70-70170	Intake	.520"	1.420"	104#	234#	.520"	
		Exhaust						
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Keepers	
			4	Titanium Retainers	4	H. T. Steel Basewashers		
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	70-70400 for 650cc	Intake	.460"	1.310"	90#	220#	.460"	
		Exhaust						
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Retainers	4
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	70-70450 for 750cc	Intake	.460"	1.310"	90#	220#	.460"	
		Exhaust						
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Retainers	4

*O.E.M. Replacement Keepers available in pairs P/N 51017-4



TRIUMPH® 650 / 750 1963-1983

TRIUMPH

Valve Spring Kit • Beehive • For Triumph 650

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	70-70270	Intake	.460"	1.375"	90#	220#	.460"	
		Exhaust						
Kit Includes			4	H. T. Steel Retainers	4	CrSi Valve Springs	4	H. T. Steel Basewashers

Valve Spring Kit • Beehive • For Triumph 750

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	70-70280	Intake	.460"	1.375"	90#	220#	.460"	
		Exhaust						
Kit Includes			4	H. T. Steel Retainers	4	CrSi Valve Springs	4	H. T. Steel Basewashers

Valve Spring Kit • O. E. M. Replacement For Triumph 650

	KPMI P/N	Type	Kit Includes						
			H. T. Steel Retainers	H. T. Steel Keepers	CrSi Valve Springs	H. T. Steel Basewashers			
	70-70140	Intake	4	70-70141	Use O.E.M	4	70-70143	4	70-70145
		Exhaust							
	Max Valve Lift		Installed Height		Seat Pressure	Open Pressure		@ Lift	
.348"		1.250"		68#	145#		.348"		

1963-1965: Basewasher and springs are not direct O.E.M. replacements, all spring kit parts must be used together.

1966-1972: All components are direct O.E.M. replacements. These O.E.M. replacements parts may be purchased separately using the above part numbers.
O.E.M. Replacement keepers available in pairs PT#51017-4.

Valve Spring Kit • O. E. M. Replacement For Triumph 750

	KPMI P/N	Type	Kit Includes						
			H. T. Steel Retainers	H. T. Steel Keepers	CrSi Valve Springs	H. T. Steel Basewashers			
	70-70250	Intake	4	70-70251	Use O.E.M	4	70-70253	4	70-70255
		Exhaust							
	Max Valve Lift		Installed Height		Seat Pressure	Open Pressure		@ Lift	
.348"		1.250"		68#	145#		.348"		

All components are the quality you can expect from KPMI®, manufactured to exact O.E.M. specifications. These O.E.M. replacements parts may be purchased separately using the above part numbers.

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	70-4228	Intake	40.64mm	1.600"	0.3105"	1.5" R	3.850"	Standard
	70-4229	Intake	42.16mm	1.660"	0.3105"	1.5" R	3.830"	Oversize
	70-4230	Exhaust	36.58mm	1.440"	0.310"	24°	3.780"	Standard
	70-4231	Exhaust	38.10mm	1.500"	0.310"	24°	3.760"	Oversize

TRIUMPH® 650 / 750 1963-1983



Valves • Untreated Stems • O.E.M. Replacement (RAW)

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	70-70500	Intake	40.64mm	1.600"	0.3105"	1.5" R	3.850"	Standard
	70-70501	Intake	42.16mm	1.660"	0.3105"	1.5" R	3.830"	Oversize
	70-70504	Exhaust	36.58mm	1.440"	0.310"	24°	3.780"	Standard
	70-70505	Exhaust	38.10mm	1.500"	0.310"	24°	3.760"	Oversize

Valve Guides • C630 Bronze • Manganese

	A	B	C	D	E	F	G	Intake / Exhaust		
	0.460"	0.610"	0.840"	1.390"	0.680"	0.3105"	0.5010" / Std.	70-0331	70-0331-M	
							+0.002"	70-0332	70-0332-M	
							+0.004"	70-0333	70-0333-M	
							+0.006"	70-0334	70-0334-M	
							+0.015"	70-0840	70-0840-M	
	Note : No seal required.							+0.050"	70-4033	70-4033-M

For sizing KPMI® Cast Iron and Manganese Bronze Valve guides please use Reamers #GR-3115. For a complete listing of hones and reamers please see component section in back of catalog.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.315"	0.405"	0.820"	1.370"	0.680"	0.3105"	0.5010" / Std.	70-0331S	
							+0.002"	70-0332S	
							+0.004"	70-0333S	
							+0.006"	70-0334S	
							+0.015"	70-0840S	
						+0.050"	70-4033S		

Machined for seal, seals sold separately.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.465"	0.550"	1	A	B	C	D	Intake
				0.500"±0.010"	0.445"	0.230"	0.280"	Exhaust
				Part Number	Quantity		Quantity Incentive	
				71012-4	Pkg. of 4		0%	
				71012-8	Pkg. of 8		0%	
				71012-16	Pkg. of 16		Less- 10%	
				71012-50	Pkg. of 50		Less- 15%	
			71012-100	Pkg. of 100		Less- 20%		

Tappet Blocks • Racing NEW PRODUCTS

	KPMI P/N	Material	Camshaft Lift	O.L.	Quantity
	70-0448	Bronze - 674	0.450"	1.0005"	Pkg. of 1
	70-70332	Bronze - 674	0.450"	1.0005"	Pkg. of 2
	70-70340	Cast Iron - G2	0.450"	1.0005"	Pkg. of 1
	70-70342	Cast Iron - G2	0.450"	1.0005"	Pkg. of 2

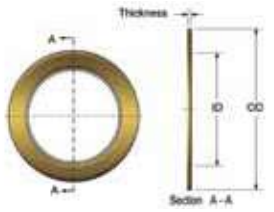
Made from Nickel Aluminum Bronze / Cast Iron and designed to accept more lift. When installing this tappet block in 1946-'68 models, it will be necessary to reduce the upper body diameter. To ensure the push rod tube fits around the upper portion of the tappet block, the existing Ø0.984 diameter must be machined down to to Ø0.920" as shown in diagram.



TRIUMPH® 650 / 750 1963-1983

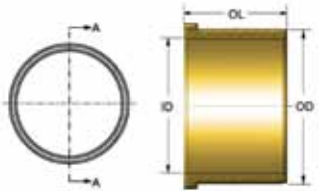
TRIUMPH

Thrust Washer • Transmission

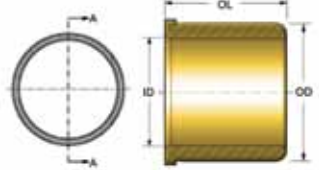
	KPMI P/N	Material	O.D.	I.D.	Thickness	Quantity
	*70-0474	Bronze	1.280"	0.880"	0.090"	Pkg. of 1
	70-0476	Bronze	2.620"	2.018"	0.057"	Pkg. of 1
	70-0477	Bronze	2.620"	1.835"	0.057"	Pkg. of 1

*Note: Transmission thrust washer for needle bearing gearbox

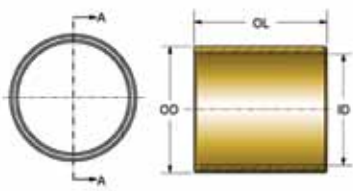
Fork Bushing • Nickel Bronze

	KPMI P/N	Type	O.D.	I.D.	O.L.	Quantity
	70-0646	Top	1.4990"	1.3075"	1.000"	Pkg. of 1
	70-0647	Bottom	1.4945"	1.2495"	0.875"	Pkg. of 1

Camshaft Bushings • Nickel Bronze

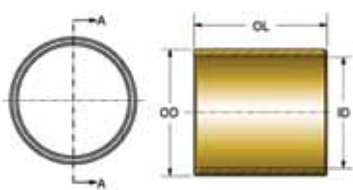
	KPMI P/N	Type	O.D.	I.D.	O.L.	Quantity
	70-0458	Outer (Timing Side)	1.270"	0.8740"	1.000"	Pkg. of 1
	70-0467	Inner (Drive Side)	1.0015"	0.809"	0.937"	Pkg. of 1

Wrist Pin Bushings • Bearing Bronze

	KPMI P/N	Type	O.D.	I.D.	O.L.	Quantity
	70-0459	Rod (Small End)	0.815"	0.6885"	1.031"	Pkg. of 1

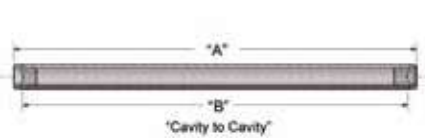
High Gear Bushings • Bronze • For 650 1963-1972 Models

NEW PRODUCTS

	KPMI P/N	Type	O.D.	I.D.	O.L.	Quantity
	70-70160	4-Speed	0.910"	0.810"	1.100"	1 Pr.

These bushings are designed to replace the single OEM style bushing. They maintain the same bearing surface while the gap between each bushing provides a large cavity for oil to pool, aiding in lubrication of the shaft.

Push Rods Alloy Tube • H.T. Steel Endpieces

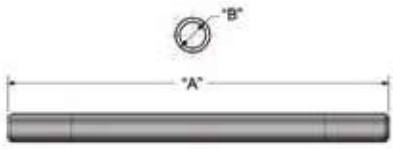
	KPMI P/N	Material	A	B	Quantity
	70-0301	H.T. Steel Endpieces (for 650)	6.302"	6.022"	Pkg. of 4
	70-0447	H.T. Steel Endpieces (for 750)	5.905"	5.625"	Pkg. of 4

Made from light, strong, and tough, aircraft quality heat treated seamless aluminum tubing. These push rods are assembled with hardened steel ends that are held to exacting radius and surface finish tolerances. They are a perfect match for the rocker and tappet. After assembly, the OD of the entire push rod is precision ground to create a part that is first class in finish, fit, and function. This is the push rod of choice for Triumph racers, rebuilders, and restorers around the world.

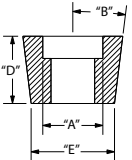

TRIUMPH® 650 / 750 1963-1983



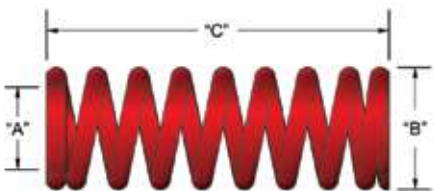
Clutch Push Rod • H.T. Steel

	KPMI P/N	Material	Type	A	B	Quantity
	70-0505	H.T. Steel	Drill Rod (H.T. tips)	11.812"	0.219"	Pkg. of 1

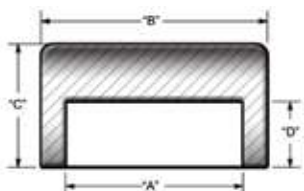
Keeper Set • O.E.M. Replacement • H.T. Steel

 	KPMI P/N	Style	A	B	C	D	E	Quantity
	51017-4	Shouldered Square Bead	0.310	7.0°	---	0.245"	0.369"	4Pr.

Clutch Springs


	KPMI P/N	Description	A	B	C	Quantity
	70-0124	3 Clutch Spring Models	0.452"	0.662"	1.858"	Pkg. of 3
	70-0465	4 Clutch Spring Models	0.452"	0.662"	1.858"	Pkg. of 4
<p>Manufactured from high quality chrome silicon wire, they are designed to supply 20% more plate load than stock springs.</p>						

Lash Caps • H.T. Steel


	KPMI P/N	Material	"A"	"B"	"C"	"D"	"C" - "D"	Quantity
	94001-4	H.T. Steel	7.94mm	0.395"	0.160"	0.080"	0.080"	Pkg. of 4
			0.3126"					

TRIUMPH® TRIDENT™ 1971-1976

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	70-70350	Intake	.400"	1.350"	95#	242#	.400"	
		Exhaust						
Kit Includes			6	Titanium Retainers	6	CrSi Valve Springs	6	H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroreg Stems • For 1971-1972 Models

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	70-1009	Intake	38.86mm	1.530"	0.3105"	1.5" R	3.975"	Standard
	70-1010	Intake	40.39mm	1.590"	0.3105"	1.5" R	3.950"	Oversize
	70-1011	Exhaust	33.40mm	1.315"	0.3100"	25°	3.915"	Standard
	70-1012	Exhaust	35.56mm	1.400"	0.3100"	25°	3.890"	Oversize



TRIUMPH® TRIDENT™ 1971-1976

TRIUMPH

Valves • Black Diamond™ • Black Nitroreg Stems • For 1973-1976 Models

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	70-0885	Intake	38.86mm	1.530"	0.3105"	1.5" R	3.735"	Standard
	70-0852	Intake	40.39mm	1.590"	0.3105"	1.5" R	3.710"	Oversize
	70-0886	Exhaust	33.40mm	1.315"	0.3100"	25°	3.680"	Standard
	70-0853	Exhaust	35.56mm	1.400"	0.3100"	25°	3.655"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.460"	0.560"	0.760"	1.310"	0.560"	0.3105"	0.5010" / Std.	70-0343		
								+0.002"	70-0344	
								+0.015"	70-4153	

No seal required

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.330"	0.430"	0.765"	1.315"	0.560"	0.3105"	0.5010" / Std.	70-0812		
								+0.002"	70-0813	
								+0.004"	70-0814	
								+0.006"	70-0815	
							+0.015"	70-4039		

One seal supplied with each guide.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.465"	0.550"	1	A	B	C	D	Intake
				0.500"±0.010"	0.445"	0.230"	0.280"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71012-4		Pkg. of 4		0%
				71012-8		Pkg. of 8		0%
				71012-16		Pkg. of 16		Less- 10%
				71012-50		Pkg. of 50		Less- 15%
				71012-100		Pkg. of 100		Less- 20%

TRIUMPH® 865 2001-2010

Valve Spring Kit • Lightweight Racing • Shim Under Conversion

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	70-70300	Intake	.450"	1.415"	55#	191#	.450"	
		Exhaust						
	Kit Includes			8	Titanium Retainers	8	H. T. Steel Keeper Pr.	8
			8	H. T. Steel Basewashers	8	H. T. Steel Tappets	8	Adj. Shims 9.5mm OD

Spring Kit requires 9.5mm adjustment shims. See Kibblewhite® Adjustment Shim Section in back of catalog for more information.

TRIUMPH® 865 2001-2010



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	70-70120	Intake	.450"	1.280"	52#	166#	.450"	
		Exhaust						
Kit Includes			8	Titanium Retainers	8	CrSi Valve Springs	8	H. T. Steel Basewashers

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.625"	0.670"	0.995"	0.995"	0.590"	0.2150"	0.5338" / Std.		70-70320	
									+0.001"		70-70321
									+0.002"		70-70322
									+0.010"		70-70329

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
		Part Number		Quantity	Quantity Incentive			
		71016-4		Pkg. of 4	0%			
		71016-8		Pkg. of 8	0%			
		71016-16		Pkg. of 16	Less- 10%			
		71016-50		Pkg. of 50	Less- 15%			
71016-100		Pkg. of 100	Less- 20%					

TRIUMPH® VARIOUS 885cc-955cc 1997-2001

• T509 885cc 1997-1998

• T595 / 955I / 955cc 1997-2001

Valve Spring Kit • Lightweight Racing • Shim Under Conversion

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	70-70035	Intake	.440"	1.375"	68#	201#	.440"	
		Exhaust						
Kit Includes			12	Titanium Retainers	12	H. T. Steel Keeper Pr.	12	CrSi Valve Springs
			12	H. T. Steel Basewashers	12	H. T. Steel Tappets	12	Spacers

Spring Kit requires 9.5mm adjustment shims. See Kibblewhite® Adjustment Shim Section in back of catalog for more information.

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	70-70026	Intake	.440"	1.375"	65#	204#	.440"	
		Exhaust						
Kit Includes			12	Titanium Retainers	12	H. T. Steel Keeper Pr.	12	CrSi Valve Springs
			12	H. T. Steel Basewashers	12	Spacers		



YAMAHA® RAPTOR™ 250 2008-2013

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-80550	Intake	.440"	1.240"	65#	192#	.440"
		Exhaust					
Kit Includes		2	Titanium Retainers	2	CrSi Valve Springs	2	H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	80-80562	Intake	34.00mm	1.339"	0.2355"	15°	3.690"	Standard
	80-80563	Intake	35.00mm	1.378"	0.2355"	15°	3.670"	Oversize
	80-80566	Exhaust	28.50mm	1.122"	0.2350"	23°	3.640"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.455"	0.490"	0.845"	1.245"	0.480"	0.2355"	0.4552" / Std.	80-80570	
							+0.002"	80-80572	
	0.455"	0.490"	0.975"	1.295"	0.480"	0.2350"	0.4552" / Std.		80-80580
							+0.002"		80-80582
							+0.010"		80-80589

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.371"	0.480"	5	A	B	C	D	Intake
				0.385"±0.002"	0.341"	0.120"	0.255"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71017-2			Pkg. of 2		0%		
	71017-4			Pkg. of 4		0%		
	71017-8			Pkg. of 8		0%		
	71017-16			Pkg. of 16		Less- 10%		
	71017-50			Pkg. of 50		Less- 15%		
71017-100			Pkg. of 100		Less- 20%			

YAMAHA® SR™ / TT™ / XT™ 250 1976-1981

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.645"	0.765"	0.970"	1.200"	0.905"	0.3135"	0.5535" / Std.		80-8100
							+0.001"		80-8101
							+0.010"		80-8110

YAMAHA® SRX™ 250 / XT™ 250 / 350 1984-2000



Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.470"	0.610"	0.585"	0.850"	0.470"	0.2160"	0.4350" / Std.	80-8030		
								+0.002"	80-8032	
								+0.015"	80-8039	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	Intake
5.5mm	0.320"	0.440"	4	0.358"±0.005"	0.320"	0.110"	0.200"	
	Part Number			Quantity		Quantity Incentive		
	71016-4			Pkg. of 4		0%		
	71016-8			Pkg. of 8		0%		
	71016-16			Pkg. of 16		Less- 10%		
	71016-50			Pkg. of 50		Less- 15%		
	71016-100			Pkg. of 100		Less- 20%		

YAMAHA® TTR™ 250 1999-2006

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80000	Intake	.380"	1.165"	32#	75#	.380"	
		Exhaust						
Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	4	H. T. Steel Basewashers

The springs in these kits are wound from super clean chrome silicon wire that has been heat treated and shot peened. These components offer optimal fitment, keeping lateral movement to a minimum. They work together as a system, providing long life, and maximum performance.

YAMAHA® WR™ / YZ™ 250F 2001-2013

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80066	Intake	.380"	1.105"	39#	86#	.380"	
		Exhaust						
	Kit Includes			3	In Titanium Retainers	3	In CrSi Valve Springs	3
2				Ex Titanium Retainers	2	Ex CrSi Valve Springs	2	Ex H. T. Steel Basewashers
3				In Viton® Seals		2	Ex Viton® Seals	



YAMAHA® WR™ / YZ™ 250F 2001-2013

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-80850	Intake	.380"	1.105"	39#	86#	.380"
	Kit Includes			3 In Titanium Retainers	3 In CrSi Valve Springs	3 In H. T. Steel Basewashers	
			2 Outer In Black Diamond™ Valves	1 Center In Black Diamond™ Valves			

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	80-80073	Intake	23.00mm	0.906"	0.1568"	25°	3.150"	Standard
	80-80075	Intake (Center)	23.00mm	0.906"	0.1568"	25°	3.095"	Standard
	80-80077	Exhaust	24.50mm	0.965"	0.1758"	25°	3.070"	Standard

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Material	
	80-80073T	Intake	23.00mm	0.906"	0.1570"	25°	3.150"	Titanium
	80-80075T	Intake (Center)	23.00mm	0.906"	0.1570"	25°	3.090"	Titanium
	80-80077T	Exhaust	24.50mm	0.965"	0.1758"	25°	3.070"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.375"	.400"	0.520"	0.720"	.400"	0.1570"	0.3563" / Std.	80-80080	
							+0.001"	80-80081	
							+0.002"	80-80082	
							+0.010"	80-80089	
	0.405"	.430"	0.590"	0.790"	.440"	0.1760"	0.3958" / Std.		80-80090
							+0.001"		80-80091
							+0.002"		80-80092
							+0.010"		80-80099

Valve Guide Seal Kits • High Performance

	Intake Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				
	A	B	C	D					
	4.0mm	0.320"	0.355"	5	0.285"±0.002"	0.245"	0.120"	0.215"	
	Exhaust Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				
	A	B	C	D					
	4.5mm	0.331"	0.370"	4	0.321"±0.002"	0.281"	0.120"	0.240"	
Part Number		80-80440		Kit Includes		3	Intake Viton® Seals	2	Exhaust Viton® Seals

YAMAHA® YFM™ 350 / 400 1987-2014



- **BIG BEAR™ 350 1987-'99**
- **GRIZZLY™ 350 2007-'14**
- **RAPTOR™ 350 2004-'13**
- **WARRIOR™ 350 1987-'04**
- **WOLVERINE™ 350 1995-'09**
- **BIG BEAR™ 400 2000-'12**
- **KODIAK™ 400 1987-'06**

YAMAHA

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-8000	Intake	.475"	1.325"	97#	266#	.475"
		Exhaust					
Kit Includes			2	Titanium Retainers	2	H. T. Steel Keepers Pr.	
			2	CrSi Valve Springs	2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	80-80012	Intake	40.00mm	1.575"	0.2750"	23°	4.020"	Standard
	80-80013	Intake	41.00mm	1.614"	0.2750"	23°	4.020"	Oversize
	80-80014	Exhaust	34.00mm	1.339"	0.2745"	29°	3.945"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.475"	0.515"	1.100"	1.290"	0.520"	0.2750"	0.4942" / Std.	80-8010		
								+0.002"	80-8012	
								+0.010"	80-8020	

Use O.E.M. valve guide seal.

YAMAHA® YZ™ 250F / FX 2014-2018

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80900	Intake	.425"	1.180"	48#	151#	.425"	
		Exhaust	.400"	1.125"	40#	119#	.400"	
Kit Includes			2	In Titanium Retainers	2	In CrSi Valve Springs	2	In H. T. Steel Basewashers
			2	Ex Titanium Retainers	2	Ex CrSi Valve Springs	2	Ex H. T. Steel Basewashers

Intake Only • Titanium Valve Kits

	KPMI P/N	Type	*Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-80970	Intake	.425"	1.180"	48#	151#	.425"
	Kit Includes			2	Intake Titanium Retainers	2	Intake CrSi Valve Springs
			2	Intake H. T. Steel Basewashers	2	Intake Tensilite® Titanium Valves	

* It may be necessary to use KPMI shortened valve guides (KPMI® #80-8092X & 80-8093X) to achieve higher than stock lift.



YAMAHA® YZ™ 250F / FX 2014-2018

YAMAHA

Top End Service Kit For YZ 250F 2014-2016

NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-81200	Intake	.395"	1.150"	55#	151#	.395"
		Exhaust	.370"	1.100"	46#	119#	.370"
	Kit Includes	2	In Titanium Retainers	2	In CrSi Valve Springs	2	In H. T. Steel Basewashers
		2	Ex Titanium Retainers	2	Ex CrSi Valve Springs	2	Ex H. T. Steel Basewashers
2		In Black Diamond™ Valves	2	Ex Black Diamond™ Valves			
1		High Compression Racing Piston Kit	1	Top End Gasket Kit			
IMPORTANT NOTE: The piston, rings, valves and pin clips in this kit are designed to work together as a system. They are NOT COMPATIBLE with O.E.M. components and should ONLY be used with the components in this KPMI® Top End Service Kit.							

Components • Replacement • Top End Service Kit For YZ 250F 2014-2016

NEW PRODUCTS

KPMI P/N	Description	Specification
80-81400	Spring Kit	Includes: Ti Retainers, CrSi Valve Springs, H.T. Steel Basewashers
80-80912	Intake, Standard Valve	Valves • Black Diamond™ • Black Nitroneg Stems
80-80916	Exhaust, Standard Valve	Valves • Black Diamond™ • Black Nitroneg Stems
80-81201	Gasket Kit	Includes: Base gasket, Engine case gasket, Exhaust gasket, Head gasket, Washers, Valve stem seals
80-81202	Piston Rings	1 complete set
80-81203	Piston Pin	1 piece
80-81204	Piston Pin Clips	1 pair
80-81205	Piston	Includes: Pin, Rings, Clips, Piston

These components are intended for use with the KPMI® Top End Kit and are not intended for OEM compatibility.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Material
	80-80912T	Intake	31.00mm 1.220"	0.1962"	18°	3.280"	Titanium
	80-80916T	Exhaust	25.00mm 0.984"	0.1760"	30°	3.235"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.350"	0.360"	0.535"	0.905"	0.430"	0.1962"	0.3957" / Std.	80-80920	
							+0.001"	80-80921	
							+0.002"	80-80922	
							+0.010"	80-80929	
	0.330"	0.340"	0.615"	1.015"	0.391"	0.1760"	0.3563" / Std.		80-80930
							+0.001"		80-80931
							+0.002"		80-80932
							+0.010"		80-80939

Valve Guide Seal Kits • High Performance

	Intake Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs			
	5.0mm	0.350"	0.405"	4	A	B	C	D
					0.340"±0.005"	0.303"	0.125"	0.230"
	Exhaust Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs			
4.5mm	0.331"	0.370"	4	A	B	C	D	
				0.321"±0.002"	0.281"	0.120"	0.240"	
Part Number	80-80990		Kit Includes	2	Intake Viton® Seals	2	Exhaust Viton® Seals	

YAMAHA® WR™ / YZ™ 400F / 426F 1998-'02



YAMAHA

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-80100	Intake	.375"	1.105"	39#	85#	.375"
		Exhaust	.375"	1.105"	39#	85#	.375"
	Kit Includes	3	In Titanium Retainers	3	In CrSi Valve Springs	3	In H. T. Steel Basewashers
2		Ex Titanium Retainers	2	Ex CrSi Valve Springs	2	Ex H. T. Steel Basewashers	
3		In Viton® Seals	2	Ex Viton® Seals			

Valves • White Diamond® • Stainless

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	80-8055H	Intake	27.00mm	1.063"	0.1765"	15°	3.320"	Standard
	80-8056H	Intake (Center)	27.00mm	1.063"	0.1765"	15°	3.280"	Standard
	80-8057H	Exhaust	28.00mm	1.102"	0.1955"	25°	3.220"	Standard

Must use Kibblewhite® Lightweight Valve Spring Kits when installing White Diamond™ Valves.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.550"	0.580"	0.510"	0.640"	0.430"	0.1765"	0.3957" / Std.	80-80110	
							+0.002"	80-80112	
							+0.010"	80-80119	
	0.580"	0.610"	0.580"	0.695"	0.420"	0.1955"	0.3957" / Std.		80-80120
							+0.002"		80-80122
							+0.010"		80-80129

Use O.E.M. valve guide seal.

Valve Guide Seal Kits • High Performance

	In / Ex Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs			
	4.5mm	0.331"	0.370"	4	A	B	C	D
Part Number	80-80106	Kit Includes	3	Intake Viton® Seals	2	Exhaust Viton® Seals		

Keeper Set • O.E.M. Replacement

	KPMI P/N	Style	Type	A	B	C	D	E	Quantity
	80-80130	Single Radius Bead	Intake	0.177"	6.0°	0.186"	0.221"	0.212"	3 Pr.
			Exhaust	0.196"	6.5°	0.181"	0.216"	0.270"	2 Pr.

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.

YAMAHA® VARIOUS 450cc 2003-'18

- WR™ 450 2003-'15
- YZ™ 450F 2003-'09
- YFZ™ 450 2004-'09
- YFZ™ 450X 2008-'11
- YFZ™ 450R 2009-'18
- YFZ™ 450SE 2010-'18

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-80206	Intake	.380"	1.105"	39#	86#	.380"
		Exhaust	.380"	1.105"	39#	86#	.380"
	Kit Includes	3	In Titanium Retainers	3	In CrSi Valve Springs	3	In H. T. Steel Basewashers
2		Ex Titanium Retainers	2	Ex CrSi Valve Springs	2	Ex H. T. Steel Basewashers	
3		In Viton® Seals	2	Ex Viton® Seals			



YAMAHA® VARIOUS 450cc 2003-'18

- WR™ 450 2003-'15
- YZ™ 450F 2003-'09
- YFZ™ 450 2004-'09
- YFZ™ 450X 2008-'11
- YFZ™ 450R 2009-'18
- YFZ™ 450SE 2010-'18

Intake Only • Stainless Valve Conversion Kits

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-80950	Intake	.380"	1.105"	39#	86#	.380"
	Kit Includes		3	In Titanium Retainers	3	In CrSi Valve Springs	3
			3	In Viton® Seals	3	In White Diamond® Valves	

Valves • White Diamond® • Stainless

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	80-80213H	Intake	27.00mm	1.063"	0.1765"	15°	3.040"	Standard
	80-80214H	Intake	28.00mm	1.102"	0.1765"	15°	3.030"	Oversize
	80-80215H	Intake	27.00mm	1.063"	0.1765"	15°	3.000"	Std.(Center)
	80-80216H	Intake	28.00mm	1.102"	0.1765"	15°	2.990"	OS (Center)
	80-80217H	Exhaust	28.00mm	1.102"	0.1956"	20°	2.955"	Standard
80-80218H	Exhaust	29.00mm	1.142"	0.1956"	20°	2.945"	Oversize	

Must use Kibblewhite® Lightweight Valve Spring Kits when installing White Diamond® Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Material	
	80-80213T	Intake	27.00mm	1.063"	0.1765"	15°	3.030"	Titanium
	80-80215T	Intake (Center)	27.00mm	1.063"	0.1765"	15°	2.995"	Titanium
	80-80217T	Exhaust	28.00mm	1.102"	0.1957"	20°	2.950"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.350"	0.385"	0.480"	0.680"	0.430"	0.1768"	0.3957" / Std.	80-80220	
							+0.001"	80-80221	
							+0.002"	80-80222	
	0.350"	0.385"	0.510"	0.680"	0.430"	0.1961"	0.3957" / Std.		80-80230
							+0.001"		80-80231
							+0.002"		80-80232
							+0.010"		80-80239

Valve Guide Seal Kits • High Performance

	In / Ex Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs			
	4.5mm /	0.331"	0.370"	4	A	B	C	D
Part Number	80-80710		Kit Includes	3	Intake Viton® Seals	2	Exhaust Viton® Seals	

Keeper Set • O.E.M. Replacement

	KPMI P/N	Style	Type	A	B	C	D	E	Quantity
	80-80715	Single Radius Bead	Intake	0.177"	6.0°	0.186"	0.221"	0.212"	3 Pr.
			Exhaust	0.196"	6.5°	0.181"	0.216"	0.270"	2 Pr.

Note: The bead height is referenced from the minor diameter of the keeper to the center of the bead.

YAMAHA® YZ™ 450F 2010-2013



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80750	Intake	.450"	1.185"	46#	155#	.450"	
		Exhaust	.450"	1.185"	46#	155#	.450"	
Kit Includes			2	In Titanium Retainers	2	In CrSi Valve Springs	2	In H. T. Steel Basewashers
			2	Ex Titanium Retainers	2	Ex CrSi Valve Springs	2	Ex H. T. Steel Basewashers

The use of KPMI® guides(#80-8077X and #80-8078X) may be necessary when using higher than stock lift cams.

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-81050	Intake	.450"	1.185"	46#	155#	.450"
	Kit Includes			2	Intake Titanium Retainers	2	Intake CrSi Valve Springs
			2	Intake H. T. Steel Basewashers	2	Intake Black Diamond™ Valves	

The use of KPMI® guides(#80-8077X and #80-8078X) may be necessary when using higher than stock lift cams.

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-80762	Intake	36.00mm	1.417"	0.2158"	20°	3.280"	Standard
	80-80763	Intake	37.00mm	1.457"	0.2158"	20°	3.280"	Oversize
	80-80766	Exhaust	30.00mm	1.181"	0.2155"	20°	3.385"	Standard
	80-80767	Exhaust	31.00mm	1.220"	0.2155"	20°	3.385"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	80-80762T	Intake	36.00mm	1.417"	0.2160"	20°	3.280"	Titanium
	80-80766T	Exhaust	30.00mm	1.181"	0.2155"	20°	3.375"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.540"	0.540"	0.560"	0.775"	0.432"	0.2160"	0.4352" / Std.	80-80770	
							+0.001"	80-80771	
							+0.002"	80-80772	
							+0.010"	80-80779	
	0.390"	0.390"	0.760"	1.030"	0.432"	0.2155"	0.4352" Std.		80-80780
							+0.001"		80-80781
							+0.002"		80-80782
							+0.010"		80-80789



YAMAHA® YZ™ 450F 2010-2013

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
6.0mm	0.333"	0.455"	2	0.365"±0.002"	0.325"	0.120"	0.235"	Intake
								Exhaust
		Part Number		Quantity		Quantity Incentive		
		71040-4		Pkg. of 4		0%		
		71040-8		Pkg. of 8		0%		
		71040-16		Pkg. of 16		Less- 10%		
		71040-50		Pkg. of 50		Less- 15%		
		71040-100		Pkg. of 100		Less- 20%		

YAMAHA® YZ™ 450F 2014-'17 / 450FX 2014-'18

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80750	Intake	.450"	1.185"	46#	155#	.450"	
		Exhaust	.450"	1.185"	46#	155#	.450"	
Kit Includes			2	In Titanium Retainers	2	In CrSi Valve Springs	2	In H. T. Steel Basewashers
			2	Ex Titanium Retainers	2	Ex CrSi Valve Springs	2	Ex H. T. Steel Basewashers

The use of KPMI® guides(#80-8077X and #80-8078X) may be necessary when using higher than stock lift cams.

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	*Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-81100	Intake	.450"	1.185"	46#	155#	.450"
	Kit Includes			2	Intake Titanium Retainers	2	Intake CrSi Valve Springs
			2	Intake H. T. Steel Basewashers	2	Intake Black Diamond™ Valves	

The use of KPMI® guides(#80-8077X and #80-8078X) may be necessary when using higher than stock lift cams.

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	80-80872	Intake	37.00mm	1.457"	0.2158"	20°	3.280"	Standard
	80-80876	Exhaust	30.50mm	1.201"	0.2155"	28°	3.380"	Standard

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

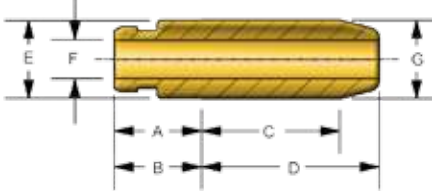

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Material	
	80-80872T	Intake	37.00mm	1.457"	0.2160"	18°	3.280"	Titanium
	80-80876T	Exhaust	30.50mm	1.201"	0.2155"	28°	3.375"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

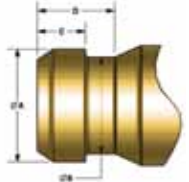

YAMAHA® YZ™ 450F 2014-'17 / 450FX 2014-'18



Valve Guides • C630 Bronze


	A	B	C	D	E	F	G	Intake	Exhaust
		0.540"	0.540"	0.560"	0.775"	0.432"	0.2160"	0.4352" / Std.	80-80770
							+0.001"	80-80771	
							+0.002"	80-80772	
							+0.010"	80-80779	
	0.390"	0.390"	0.760"	1.030"	0.432"	0.2155"	0.4352" Std.		80-80780
							+0.001"		80-80781
							+0.002"		80-80782
							+0.010"		80-80789

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.333"	0.455"	2	A	B	C	D	Intake
				0.365"±0.002"	0.325"	0.120"	0.235"	Exhaust
 	Part Number			Quantity		Quantity Incentive		
	71040-4			Pkg. of 4		0%		
	71040-8			Pkg. of 8		0%		
	71040-16			Pkg. of 16		Less- 10%		
	71040-50			Pkg. of 50		Less- 15%		
	71040-100			Pkg. of 100		Less- 20%		


YAMAHA® SR™ / TT™ / XT™ 500 1976-1981

Valve Spring Kit • High Performance

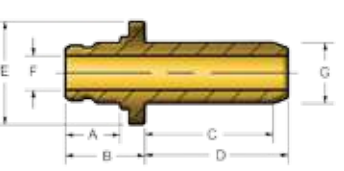

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-81500		Intake	.515"	1.690"	117#	254#
Exhaust							
Kit Includes	2	H.T. Steel Retainers		2	H.T. Steel Keeper Pr.		
	2	CrSi Valve Springs		2	H.T. Steel Spring Shims		

This kit supersedes KPMI® spring only kit **80-0514**, which is no longer available

Retainer Set • H. T. Steel

	KPMI P/N	Type	Material				
	80-80350		Intake	H.T. Steel			
Exhaust							
Set Includes	2	H.T. Steel Retainers		2	H. T. Steel Keepers Pr.		

Valve Guides • C630 Bronze

 	A	B	C	D	E	F	G	Intake	Exhaust
		0.645"	0.765"	0.970"	1.200"	0.905"	0.3135"	0.5535" / Std.	80-8100
							+0.001"	80-8101	
							+0.010"	80-8110	

Use O.E.M. valve guide seal



YAMAHA® SR™ / TT™ / XT™ 550 / 600 1982-'95

Valve Spring Kit • High Lift

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80241	Intake	.438"	1.220"	70#	197#	.438"	
		Exhaust						
Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	4	H. T. Steel Basewashers

YAMAHA® XJ™ 650 / 700 1980-1984

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80200	Intake	.440"	1.335"	75#	200#	.440"	
		Exhaust						
Kit Includes			8	Titanium Retainers	8	CrSi Valve Springs	8	H. T. Steel Keeper Pr.

YAMAHA® XS™ 650 1970-1983

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-80340	Intake	.515"	1.450"	100#	228#	.515"
		Exhaust					
Kit Includes			4	Titanium Retainers	4	H. T. Steel Keeper Pr.	
			4	CrSi Valve Springs	4	H. T. Steel Basewashers	

Must use Kibblewhite® Guides with high lift cams. This kit is supplied with radiused bead keepers and must be used with radius groove valves

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.430"	0.550"	0.840"	1.290"	0.905"	0.3140"	0.5930" / Std.	80-80370	
							+0.001"	80-80371	
							+0.002"	80-80372	
							+0.010"	80-80379	
	0.430"	0.550"	1.150"	1.550"	0.905"	0.3140"	0.5930" / Std.		80-80360
							+0.001"		80-80361
							+0.002"		80-80362
							+0.010"		80-80369

Use O.E.M. valve guide seal

YAMAHA® XS™ 650 1970-1983



Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-80380	Intake	41.15mm	1.620"	0.3145"	25°	4.105"	Standard
	80-80381	Intake	42.15mm	1.659"	0.3145"	25°	4.085"	Oversize
	80-80383	Exhaust	35.15mm	1.384"	0.3140"	29°	4.030"	Standard
	80-80384	Exhaust	36.15mm	1.423"	0.3140"	29°	4.010"	Oversize

These valves utilize a radiused keeper groove. To install in models prior to 1973, use with radius beaded keepers #51012-4

YAMAHA® VARIOUS 660'S 2001-2008

- GRIZZLY™ 2002-2008
- RAPTOR™ 2001-2005
- RHINO™ 2004-2007

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-80030	Intake	.450"	1.205"	55#	145#	.345"
		Exhaust					
	Kit Includes			5	Titanium Retainers	5	CrSi Valve Springs
			3	In H. T. Steel Basewashers	2	Ex H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-80060	Intake	30.00mm	1.181"	0.2355"	15°	3.960"	Standard
	80-80061	Intake	31.00mm	1.220"	0.2355"	15°	3.960"	Oversize
	80-80063	Exhaust	32.00mm	1.260"	0.2348"	25°	3.650"	Standard
	80-80064	Exhaust	33.00mm	1.299"	0.2348"	25°	3.650"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.315"	0.350"	1.125"	1.255"	0.495"	0.2345"	0.4550" / Std.	80-80040	
							+0.001"	80-80041	
							+0.002"	80-80042	
							+0.010"	80-80049	
	0.440"	0.475"	0.860"	0.990"	0.495"	0.2348"	0.4550" / Std.		80-80050
							+0.001"		80-80051
							+0.002"		80-80052
							+0.010"		80-80059

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.371"	0.480"	5	A	B	C	D	Intake
				0.385"±0.002"	0.341"	0.120"	0.255"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71017-4		Pkg. of 4		0%		
		71017-8		Pkg. of 8		0%		
		71017-16		Pkg. of 16		Less- 10%		
		71017-50		Pkg. of 50		Less- 15%		
71017-100		Pkg. of 100		Less- 20%				

Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	Type	A	B	C	D	E	Quantity
		51028-4	Single Radius Bead	Intake	0.235"	7.0°	0.075"	0.238"	0.295"	4 Pr.
		Exhaust								

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.



YAMAHA® VARIOUS 700'S 2006-2018

- GRIZZLY™ 2007-2015
- RAPTOR™ 2006-2018

- RHINO™ 2008-2013
- VIKING™ 2014-2018

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80410	Intake	.480"	1.420"	54#	195#	.480"	
		Exhaust						
Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	4	H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-80430	Intake	38.00mm	1.496"	0.2355"	11°	4.025"	Standard
	80-80431	Intake	39.00mm	1.535"	0.2355"	11°	4.010"	Oversize
	80-80432	Intake	40.00mm	1.575"	0.2355"	11°	4.010"	Oversize (+2mm)
	80-80433	Exhaust	32.00mm	1.260"	0.2350"	25°	3.785"	Standard
	80-80434	Exhaust	33.00mm	1.299"	0.2350"	25°	3.770"	Oversize
80-80435	Exhaust	34.00mm	1.339"	0.2350"	25°	3.770"	Oversize (+2mm)	

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.485"	0.525"	0.790"	1.110"	0.495"	0.2350"	0.4550" / Std.	80-80420		
								+0.001"	80-80421	
								+0.002"	80-80422	
								+0.010"	80-80429	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.371"	0.480"	5	A	B	C	D	Intake
				0.385"±0.002"	0.341"	0.120"	0.255"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71017-4		Pkg. of 4	0%	
				71017-8		Pkg. of 8	0%	
				71017-16		Pkg. of 16	Less- 10%	
				71017-50		Pkg. of 50	Less- 15%	
			71017-100		Pkg. of 100	Less- 20%		

Keeper Set • O.E.M. Replacement

NEW PRODUCTS

	KPMI P/N	Style	Type	A	B	C	D	E	Quantity
	51028-4	Single Radius Bead	Intake	0.235"	7.0°	0.075"	0.238"	0.295"	4 Pr.
Exhaust									

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.

YAMAHA® YXZ 1000R 2016-2017



YAMAHA

Valve Spring Kit • Lightweight Racing NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-81300	Intake	.445"	1.300"	53#	167#	.445"	
		Exhaust						
Kit Includes			12	Titanium Retainers	12	CrSi Valve Springs	12	H. T. Steel Basewashers

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-81700	Intake	.445"	1.300"	53#	167#	.445"	
		Exhaust						
Kit Includes			12	H. T. Steel Retainers	12	CrSi Valve Springs	12	H. T. Steel Basewashers

It may be necessary to use **KPMI® Shortened Valve Guides # 80-81320**, to achieve higher stock lift.

Valves • Black Diamond™ • Black Nitroreg Stems NEW PRODUCTS

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	80-81312	Intake	31.00mm	1.220"	0.1765"	15°	3.495"	Standard
	80-81313	Intake	32.00mm	1.260"	0.1765"	15°	3.495"	Oversize
	80-81316	Exhaust	26.00mm	1.024"	0.1760"	25°	3.470"	Standard
	80-81317	Exhaust	27.00mm	1.063"	0.1760"	25°	3.470"	Oversize

Valve Guides • C630 Bronze NEW PRODUCTS

	A	B	C	D	E	F	G	Intake	Exhaust
	0.530"	0.530"	0.585"	0.750"	0.354"	0.1760"	0.3564" / Std.		80-81320
							+0.001"		80-81321
							+0.002"		80-81322
							+0.004"		80-81324
							+0.010"		80-81329

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71014-4			Pkg. of 4		0%		
	71014-8			Pkg. of 8		0%		
	71014-12			Pkg. of 12		0%		
	71014-16			Pkg. of 16		Less- 10%		
	71014-50			Pkg. of 50		Less- 15%		
71014-100			Pkg. of 100		Less- 20%			

Keeper Set • O.E.M. Replacement NEW PRODUCTS

	KPMI P/N	Style	Type	A	B	C	D	E	Quantity
	80-81330	Single Radius Bead	Intake	0.177"	6.0°	0.186"	0.221"	0.212"	12 Pr.
Exhaust									

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.



YAMAHA® FJ™ 1100/ 1200 1984-1993

YAMAHA

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-1017	Intake	.500"	1.390"	60#	210#	.500"
		Exhaust					
Kit Includes			16	CrSi Valve Springs			

Retainer Set • Shim On Bottom Conversion • Titanium

	KPMI P/N	Type	Material				
	80-1019	Intake	Titanium				
		Exhaust					
Set Includes		16	Titanium Retainers	16	H. T. Steel Keepers Pr.		
<p>Retainer may not be used separately as O.E.M. replacement. Use of Shim On Bottom conversion Tappet, PN 80-1020, is required when using these retainers. Retainers require the use of 9.5mm adjustment shim; see KPMI® Adjustment Shim Section in back of catalog for more information.</p>							

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-8120	Intake	29.00mm	1.142"	0.2160"	20°	3.700"	Standard
	80-8122	Intake	30.50mm	1.201"	0.2160"	20°	3.690"	Oversize
	80-8121	Exhaust	25.00mm	0.984"	0.2155"	20°	3.690"	Standard
	80-8123	Exhaust	26.00mm	1.024"	0.2155"	20°	3.690"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.470"	0.610"	0.695"	0.960"	0.470"	0.2160"	0.4350" / Std.		80-4172
							+0.002"		80-4173
							+0.004"		80-4180
							+0.006"		80-4181
							+0.015"		80-4174

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71016-4			Pkg. of 4		0%		
	71016-8			Pkg. of 8		0%		
	71016-16			Pkg. of 16		Less- 10%		
	71016-50			Pkg. of 50		Less- 15%		
71016-100			Pkg. of 100		Less- 20%			

Tappets • Shim On Bottom Conv. • H.T. Steel


	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity	
	80-1020	Intake	None	28.00mm	1.1016"	1.040"	0.860"	0.310"	0.135"	Pkg. of 16
		Exhaust								
<p>Use of Shim On Bottom conversion Retainer Set, PN 80-1019, is required when using these tappets. Refer to KPMI® Tappet Section, in back of catalog, when selecting other size tappets.</p>										

YAMAHA® V-MAX™ 1985-2007




YAMAHA

Valve Spring Only Kit • High Performance

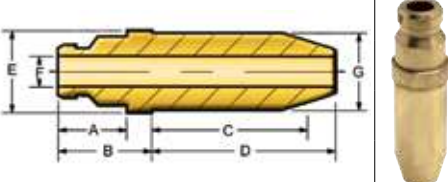
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-8021	Intake	.450"	1.375"	65#	198#	.450"
		Exhaust					
Kit Includes			16	CrSi Valve Springs			

Retainer Set • Shim On Bottom Conversion • Titanium


	KPMI P/N	Type	Material			
	80-8023	Intake	Titanium			
		Exhaust				
Set Includes		16	Titanium Retainers		16	H. T. Steel Keepers Pr.

Retainer may not be used separately as O.E.M. replacement. Use of Shim On Bottom conversion **Tappet**, PN 80-1020, is required when using these retainers. Retainers require the use of 9.5mm adjustment shim; see KPMI® Adjustment Shim Section in back of catalog for more information.

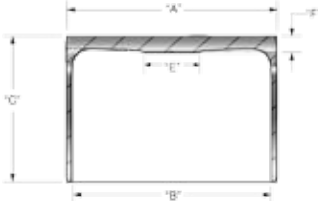
Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust	
	0.470"	0.610"	0.585"	0.850"	0.470"	0.2160"	0.4350" / Std.	80-8030		
								+0.002"	80-8032	
								+0.015"	80-8039	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71016-4			Pkg. of 4		0%		
	71016-8			Pkg. of 8		0%		
	71016-16			Pkg. of 16		Less- 10%		
	71016-50			Pkg. of 50		Less- 15%		
71016-100			Pkg. of 100		Less- 20%			


Tappets • Shim On Bottom Conv. • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity	
	80-1020	Intake	None	28.00mm	1.1016"	1.040"	0.860"	0.310"	0.135"	Pkg. of 16
		Exhaust								

Use of Shim On Bottom conversion **Retainer Set**, PN 80-1023, is required when using these tappets. Refer to **KPMI® Tappet Section**, in back of catalog, when selecting other size tappets.

YAMAHA® XS™ 1978-1981

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-0449	Intake	.440"	1.275"	85#	215#	.440"
		Exhaust					
Kit Includes			8	CrSi Valve Springs			

Note: Use OEM Retainers.



YAMAHA® YZF™ R1 1998-2003

YAMAHA

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80250	Intake	.380"	1.200"	28#	74#	.380"	
		Exhaust	.380"	1.120"	38#	84#	.380"	
Kit Includes			12	In Titanium Retainers	20	CrSi Valve Springs	12	In H. T. Steel Basewashers
			8	Ex Titanium Retainers	8	Ex Viton® Seals	8	Ex H. T. Steel Basewashers

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80394	Intake	.350"	1.370"	30#	90#	.350"	
		Exhaust	.315"	1.415"	44#	95#	.315"	
Kit Includes			12	In CrSi Valve Springs	8	Ex. CrSi Valve Springs	8	Ex H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-80280	Intake	23.00mm	0.906"	0.1568"	15°	3.620"	Standard
	80-80281	Intake	23.50mm	0.925"	0.1568"	15°	3.620"	Oversize
	80-80283	Intake	23.00mm	0.906"	0.1568"	15°	3.565"	Standard (Center)
	80-80284	Intake	23.50mm	0.925"	0.1568"	15°	3.565"	Oversize (Center)
	80-80286	Exhaust	24.50mm	0.965"	0.1757"	25°	3.505"	Standard
80-80287	Exhaust	25.00mm	0.984"	0.1757"	25°	3.505"	Oversize	

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.580"	0.610"	0.520"	0.710"	0.381"	0.1568"	0.3563" / Std	80-80190	
							+0.001"	80-80191	
							+0.010"	80-80199	
Intake - Use O.E.M valve guide seal									
	0.580"	0.610"	0.510"	0.690"	0.420"	0.1757"	0.3955" / Std.		80-80180
							+0.001"		80-80181
							+0.010"		80-80189

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Exhaust
				0.321"±0.005"	0.281"	0.120"	0.240"	
	Part Number			Quantity		Quantity Incentive		
	71014-4			Pkg. of 4		0%		
	71014-8			Pkg. of 8		0%		
	71014-16			Pkg. of 16		Less- 10%		
	71014-50			Pkg. of 50		Less- 15%		
71014-100			Pkg. of 100		Less- 20%			

YAMAHA® YZF™ R1 2004-2006



YAMAHA

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80500	Intake	.340"	1.325"	48#	118#	.340"	
		Exhaust						
Kit Includes			12	In Titanium Retainers	20	CrSi Valve Springs	12	In H. T. Steel Basewashers
			8	Ex Titanium Retainers		8	Ex H. T. Steel Basewashers	

YAMAHA® YZF™ R1 2007-2008

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80650	Intake	.400"	1.410"	50#	188#	.400"	
		Exhaust	.400"	1.280"	66#	167#	.400"	
	Kit Includes			8	In Titanium Retainers	8	Ex Titanium Retainers	8
			8	Ex CrSi Valve Springs		8	In H. T. Steel Basewashers	
			8	In H. T. Steel Basewashers		8	Ex H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	80-80666	Exhaust	25.00mm	0.989"	0.1760"	15°	3.565"	Standard
	80-80667	Exhaust	26.00mm	1.024"	0.1760"	15°	3.565"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	80-80662T	Intake	31.00mm	1.220"	0.1960"	25°	3.590"	Standard
	80-80663T	Intake	32.00mm	1.260"	0.1960"	25°	3.590"	Oversize

Keeper Set • O.E.M. Replacement

NEW PRODUCTS

	KPMI P/N	Style	Type	A	B	C	D	E	Quantity
	80-80660	Single Radius Bead	Intake	0.177"	6.0°	0.186"	0.221"	0.212"	8 Pr.
			Exhaust	0.196"	6.5°	0.181"	0.216"	0.270"	8 Pr.

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.



YAMAHA® VARIOUS 1049cc TRIPLES 2008-'15

• FX NYTRO™ 2008-2014

• SRVIPER™ 2014-2015

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-80450	Intake	.445"	1.300"	53#	162#	.445"
		Exhaust					
Kit Includes	12	Titanium Retainers	12	CrSi Valve Springs	12	H. T. Steel Basewashers	

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-81800	Intake	.445"	1.300"	53#	162#	.445"
		Exhaust					
Kit Includes	12	H. T. Steel Retainers	12	CrSi Valve Springs	12	H. T. Steel Basewashers	

It may be necessary to use KPMI® Shortened Valve Guides # 80-80470, to achieve higher stock lift.

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-80462	Intake	31.00mm	1.220"	0.1765"	15°	3.495"	Standard
	80-80463	Intake	32.00mm	1.260"	0.1765"	15°	3.495"	Oversize
	80-80466	Exhaust	26.00mm	1.024"	0.1760"	25°	3.470"	Standard
	80-80467	Exhaust	27.00mm	1.063"	0.1760"	25°	3.470"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.530"	0.530"	0.585"	0.750"	0.354"	0.1760"	0.3564" / Std.		80-80470
							+0.001"		80-80471
							+0.002"		80-80472
							+0.004"		80-80474
						+0.010"		80-80479	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
	Part Number		Quantity		Quantity Incentive			
	71014-4		Pkg. of 4		0%			
	71014-8		Pkg. of 8		0%			
	71014-12		Pkg. of 12		0%			
	71014-16		Pkg. of 16		Less- 10%			
	71014-50		Pkg. of 50		Less- 15%			
71014-100		Pkg. of 100		Less- 20%				

Keeper Set • O.E.M. Replacement

	KPMI P/N	Style	Type	A	B	C	D	E	Quantity
	80-80495	Single Radius Bead	Intake	0.177"	6.0°	0.186"	0.221"	0.212"	12 Pr.
			Exhaust						

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.

Tappets • O.E.M. Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity	
	80-80492	Intake	None	26.50mm	1.0420"	0.992"	0.748"	0.285"	0.106"	Pkg. of 1
		Exhaust								

Refer to KPMI® Tappet Section, in back of catalog, when selecting other size tappets.

YAMAHA® APEX™ / RX-1 (ALL MODELS) 2003-'10



YAMAHA

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80600	Intake	.365"	1.100"	40#	85#	.365"	
		Exhaust						
Kit Includes			12	In Titanium Retainers	12	In CrSi Valve Springs	12	In H. T. Steel Basewashers
			8	Ex Titanium Retainers	8	Ex CrSi Valve Springs	8	Ex H. T. Steel Basewashers
			8	Ex Viton® Seals				

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80394	Intake	.350"	1.370"	30#	90#	.350"	
		Exhaust	.315"	1.415"	44#	95#	.315"	
Kit Includes			12	In CrSi Valve Springs	8	Ex. CrSi Valve Springs	8	Ex H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroreg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-80612	Intake	23.00mm	0.906"	0.1568"	15°	3.620"	Standard
	80-80613	Intake	23.50mm	0.925"	0.1568"	15°	3.620"	Oversize
	80-80614	Intake	23.00mm	0.906"	0.1568"	15°	3.565"	Standard (Center)
	80-80615	Intake	23.50mm	0.925"	0.1568"	15°	3.565"	Oversize (Center)
	80-80616	Exhaust	24.50mm	0.965"	0.1757"	25°	3.505"	Standard
	80-80617	Exhaust	25.00mm	0.984"	0.1757"	25°	3.505"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.580"	0.610"	0.520"	0.710"	0.381"	0.1568"	0.3563" / Std	80-80620	
							+0.001"	80-80621	
							+0.010"	80-80629	
Intake - Use O.E.M valve guide seal									
	0.580"	0.610"	0.510"	0.690"	0.420"	0.1757"	0.3955" / Std.		80-80630
							+0.001"		80-80631
							+0.010"		80-80639

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Exhaust
				0.321"±0.005"	0.281"	0.120"	0.240"	
	Part Number			Quantity		Quantity Incentive		
	71014-4			Pkg. of 4		0%		
	71014-8			Pkg. of 8		0%		
	71014-16			Pkg. of 16		Less- 10%		
	71014-50			Pkg. of 50		Less- 15%		
71014-100			Pkg. of 100		Less- 20%			



YAMAHA® MR-1™ WATERCRAFT ENG. 2002-'13

- FX1000™ 2002-2006
 - FX140™ 2002-2004
 - SR230™ 2003-2007
 - AR230™ 2004-2009
 - FX™ MODELS 2004-2006
- SX230™ 2004-2009
 - AR210™ 2006-2013
 - SR210™ 2006-2007
 - SX210™ 2006-2013
 - 212SS/ X™ 2008-2010
- 232 LIMITED 2008-2009
 - VX CRUISER™ 2011-2013
 - WAVE RUNNER™ FX's & VX's 2005-2013

Valve Spring Kit • Lightweight Racing NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-81150	Intake	.365"	1.100"	40#	85#	.365"
		Exhaust					
	Kit Includes	12	In Titanium Retainers	12	In CrSi Valve Springs	12	In H. T. Steel Basewashers
8		Ex Titanium Retainers	8	Ex CrSi Valve Springs	8	Ex H. T. Steel Basewashers	
8		Ex Viton® Seals					

Valves • Black Diamond™ • Black Nitroreg Stems NEW PRODUCTS

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-81162	Intake	23.00mm	0.906"	0.1568"	15°	3.620"	Standard
	80-81163	Intake	23.50mm	0.925"	0.1568"	15°	3.620"	Oversize
	80-81164	Intake	23.00mm	0.906"	0.1568"	15°	3.565"	Standard (Center)
	80-81165	Intake	23.50mm	0.925"	0.1568"	15°	3.565"	Oversize (Center)
	80-81166	Exhaust	24.50mm	0.965"	0.1757"	25°	3.505"	Standard
	80-81167	Exhaust	25.00mm	0.984"	0.1757"	25°	3.505"	Oversize

Valve Guides • C630 Bronze NEW PRODUCTS

	A	B	C	D	E	F	G	Intake	Exhaust
	0.580"	0.610"	0.520"	0.710"	0.381"	0.1568"	0.3563" / Std	80-81170	
							+0.001"	80-81171	
							+0.010"	80-81179	
Intake - Use O.E.M valve guide seal									
	0.580"	0.610"	0.510"	0.690"	0.420"	0.1757"	0.3955" / Std.		80-81180
							+0.001"		80-81181
							+0.010"		80-81189

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Exhaust
				0.321"±0.005"	0.281"	0.120"	0.240"	
	Part Number			Quantity		Quantity Incentive		
	71014-4			Pkg. of 4		0%		
	71014-8			Pkg. of 8		0%		
	71014-16			Pkg. of 16		Less- 10%		
	71014-50			Pkg. of 50		Less- 15%		
71014-100			Pkg. of 100		Less- 20%			

YAMAHA® 1.8L 4V WATERCRAFT 2008-'18



Valve Spring Kit • High Performance Lightweight Racing

NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-81000	Intake	.425"	1.375"	85#	221#	.425"
		Exhaust					
Kit Includes	16	Titanium Retainers	16	CrSi Valve Springs	16	H. T. Steel Basewashers	

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-81600	Intake	.425"	1.375"	85#	221#	.425"
		Exhaust					
Kit Includes	16	H.T. Steel Retainers	16	CrSi Valve Springs	16	H. T. Steel Basewashers	

- Spring Kit is designed with increased spring rate and higher lift compatibility over the stock components
- Spring Kit is specifically designed for high boost / high RPM applications
- CNC'd Titanium or H.T. Steel Retainers and Cr-Si dual springs provide valvetrain control at high RPM with high performance camshaft compatibility

Valves • White Diamond® • Stainless • Inconel®

NEW PRODUCTS

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
	80-81012	Intake	34.00mm	1.339"	0.2159"	15°	3.560"	Standard (Stainless)
	*80-81016	Exhaust	29.00mm	1.142"	0.2154"	25°	3.535"	Standard (Inconel®)

*Inconel® is classified as a "Super Alloy", meaning that it is designed to survive under the most extreme temperatures and pressures, where other valves will begin to burn, corrode, or completely fail. This is the material of choice for high output engines running turbos, superchargers, nitromethane, or nitrous.

Valve Guides • C630 Bronze

NEW PRODUCTS

	A	B	C	D	E	F	G	Intake	Exhaust
	0.435"	0.495"	0.730"	1.020"	0.475"	0.2154"	0.3774" / Std.		80-81020
							+0.001"		80-81021
							+0.002"		80-81022
							+0.010"		80-81029

Valve Guide Seals • Viton®


Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.333"	0.455"	2	A	B	C	D	Intake
				0.365"±0.002"	0.325"	0.120"	0.235"	Exhaust
	Part Number			Quantity		Quantity Incentive		
	71040-4			Pkg. of 4		0%		
	71040-8			Pkg. of 8		0%		
	71040-16			Pkg. of 16		Less- 10%		
	71040-50			Pkg. of 50		Less- 15%		
71040-100			Pkg. of 100		Less- 20%			



AUTOMOTIVE BMW™ / MITSUBISHI™ / PORSCHE™


BMW™ M3™ • E36

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	90-90010	Intake	.500"	1.430"	50#	191#	.500"
		Exhaust					
	Kit Includes			24	Titanium Retainers	24	CrSi Valve Springs
24				H. T. Steel Basewashers (Outer)	24	H. T. Steel Basewashers (Inner)	

MITSUBISHI™ 3.0L 24V 6G72


Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	97-97040	Intake	.465"	1.300"	88#	219#	.465"	
		Exhaust						
	Kit Includes			24	Titanium Retainers	24	CrSi Valve Springs	24


PORSCHE™ 911 / 930 / 964 / 2V

2.0L / 2.2L / 2.4L / 2.7L / 3.0L / 3.2L / 3.3L

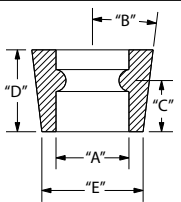

Valve Spring Kit • Lightweight Racing

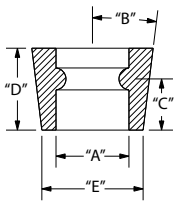

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	98-98000	Intake	.540"	1.485"	91#	226#	.540"	
		Exhaust						
	Kit Includes			12	Titanium Retainers	12	CrSi Valve Springs	12

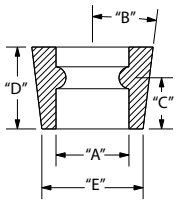

Valve Spring Kit • Turbocharged Lightweight Racing

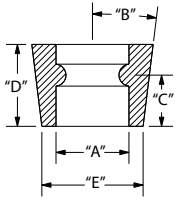

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	98-98010	Intake	.540"	1.455"	100#	233#	.540"
		Exhaust					
	Kit Includes			12	Titanium Retainers	12	CrSi Valve Springs
12				H. T. Steel Basewashers (Outer)	12	H. T. Steel Shims	

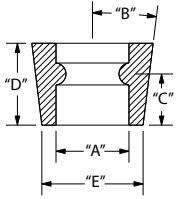

All KPMI® keepers are single-point machined from high tensile strength billet material (with the exception of forged multi-bead styles). After machining, the keepers are split, tumbled and then heat treated. At KPMI® we pay close attention to the surface finish and tolerance of all diameters, taper angle, and bead location. This type of detail insures repeatability you can count on. All Kibblewhite® Keepers are sold in pairs of 4, 8, 16, 50, and 100. * The bead height is referenced from the minor diameter of the keeper to the center of the bead.

Single Radius Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.275"	7.0°	0.160"	0.340"	0.349"
		Part Number		Quantity
		51001-4		4 Pairs
		51001-8		8 Pairs
		51001-16		16 Pairs
		51001-50		50 Pairs
		51001-100		100 Pairs

Single Radius Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.215"	10.0°	0.076"	0.210"	0.285"
		Part Number		Quantity
		51002-4		4 Pairs
		51002-8		8 Pairs
		51002-16		16 Pairs
		51002-50		50 Pairs
		51002-100		100 Pairs

Single Radius Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.196"	7.0°	0.185"	0.225"	0.279"
		Part Number		Quantity
		51004-4		4 Pairs
		51004-8		8 Pairs
		51004-16		16 Pairs
		51004-50		50 Pairs
		51004-100		100 Pairs

Single Radius Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.275"	15.0°	0.135"	0.300"	0.350"
		Part Number		Quantity
		51006-4		4 Pairs
		51006-8		8 Pairs
		51006-16		16 Pairs
		51006-50		50 Pairs
		51006-100		100 Pairs

Single Radius Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.275"	7.0°	0.188"	0.323"	0.342"
		Part Number		Quantity
		51008-4		4 Pairs
		51008-8		8 Pairs
		51008-16		16 Pairs
		51008-50		50 Pairs
		51008-100		100 Pairs



KEEPERS

All KPMI® keepers are single-point machined from high tensile strength billet material (with the exception of forged multi-bead styles). After machining, the keepers are split, tumbled and then heat treated. At KPMI® we pay close attention to the surface finish and tolerance of all diameters, taper angle, and bead location. This type of detail insures repeatability you can count on. All Kibblewhite® Keepers are sold in pairs of 4, 8, 16, 50, and 100. * The bead height is referenced from the minor diameter of the keeper to the center of the bead.

Single Radius Bead

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.215"	10.0°	0.199"	0.237"	0.288"
		Part Number		Quantity
		51010-4		4 Pairs
		51010-8		8 Pairs
		51010-16		16 Pairs
		51010-50		50 Pairs
51010-100		100 Pairs		

Single Radius Bead

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.275"	7.0°	0.190"	0.340"	0.349"
		Part Number		Quantity
		51011-4		4 Pairs
		51011-8		8 Pairs
		51011-16		16 Pairs
		51011-50		50 Pairs
51011-100		100 Pairs		

Single Radius Bead

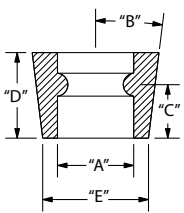

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.315"	15.0°	0.100"	0.300"	0.344"
		Part Number		Quantity
		51012-4		4 Pairs
		51012-8		8 Pairs
		51012-16		16 Pairs
		51012-50		50 Pairs
51012-100		100 Pairs		

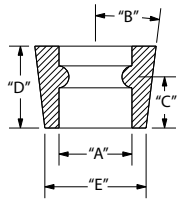

Single Radius Bead

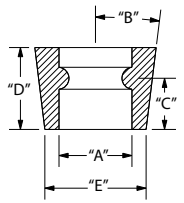

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.235"	7.0°	0.153"	0.250"	0.300"
		Part Number		Quantity
		51013-4		4 Pairs
		51013-8		8 Pairs
		51013-16		16 Pairs
		51013-50		50 Pairs
51013-100		100 Pairs		

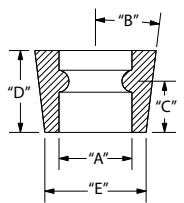

Single Radius Bead

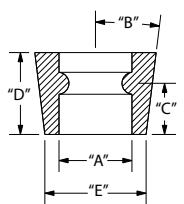

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.196"	10.0°	0.160"	0.200"	0.308"
		Part Number		Quantity
		51015-4		4 Pairs
		51015-8		8 Pairs
		51015-16		16 Pairs
		51015-50		50 Pairs
51015-100		100 Pairs		

Single Radius Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.310"	10.0°	0.235"	0.285"	0.417"
		Part Number		Quantity
		51023-4		4 Pairs
		51023-8		8 Pairs
		51023-16		16 Pairs
		51023-50		50 Pairs
		51023-100		100 Pairs

Single Radius Bead NEW PRODUCTS				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.215"	7.0°	0.179"	0.214"	0.262"
		Part Number		Quantity
		51024-4		4 Pairs
		51024-8		8 Pairs
		51024-16		16 Pairs
		51024-50		50 Pairs
		51024-100		100 Pairs

Single Radius Bead NEW PRODUCTS				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.196"	7.0°	0.170"	0.205"	0.236"
		Part Number		Quantity
		51025-4		4 Pairs
		51025-8		8 Pairs
		51025-16		16 Pairs
		51025-50		50 Pairs
		51025-100		100 Pairs

Single Radius Bead NEW PRODUCTS				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.177"	6.0°	0.186"	0.221"	0.212"
		Part Number		Quantity
		51026-4		4 Pairs
		51026-8		8 Pairs
		51026-16		16 Pairs
		51026-50		50 Pairs
		51026-100		100 Pairs

Single Radius Bead NEW PRODUCTS				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.196"	6.5°	0.181"	0.216"	0.270"
		Part Number		Quantity
		51027-4		4 Pairs
		51027-8		8 Pairs
		51027-16		16 Pairs
		51027-50		50 Pairs
		51027-100		100 Pairs



KEEPERS

All KPMI® keepers are single-point machined from high tensile strength billet material (with the exception of forged multi-bead styles). After machining, the keepers are split, tumbled and then heat treated. At KPMI® we pay close attention to the surface finish and tolerance of all diameters, taper angle, and bead location. This type of detail insures repeatability you can count on. All Kibblewhite® Keepers are sold in pairs of 4, 8, 16, 50, and 100. * The bead height is referenced from the minor diameter of the keeper to the center of the bead.

TOOLS & COMPONENTS

Single Radius Bead NEW PRODUCTS

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.235"	7.0°	0.075"	0.238"	0.295"
		Part Number		Quantity
		51028-4		4 Pairs
		51028-8		8 Pairs
		51028-16		16 Pairs
		51028-50		50 Pairs
		51028-100		100 Pairs

Single Radius Bead NEW PRODUCTS

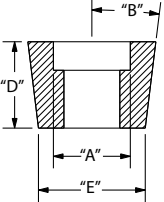

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.275"	9.0°	0.300"	0.345"	0.398"
		Part Number		Quantity
		51030-4		4 Pairs
		51030-8		8 Pairs
		51030-16		16 Pairs
		51030-50		50 Pairs
		51030-100		100 Pairs

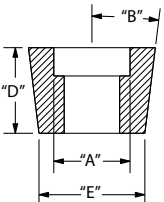

Shouldered Square Bead

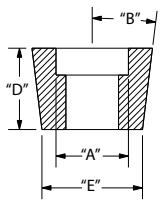

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.375"	15.0°	----	0.305"	0.403"
		Part Number		Quantity
		51005-4		4 Pairs
		51005-8		8 Pairs
		51005-16		16 Pairs
		51005-50		50 Pairs
		51005-100		100 Pairs

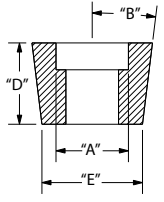

Shouldered Square Bead

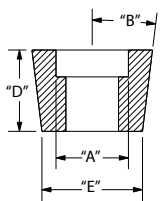

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.310"	15.0°	----	0.315"	0.381"
		Part Number		Quantity
		51007-4		4 Pairs
		51007-8		8 Pairs
		51007-16		16 Pairs
		51007-50		50 Pairs
		51007-100		100 Pairs

Shouldered Square Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.310"	15.0°	----	0.343"	0.375"
		Part Number		Quantity
		51009-4		4 Pairs
		51009-8		8 Pairs
		51009-16		16 Pairs
		51009-50		50 Pairs
		51009-100		100 Pairs

Shouldered Square Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.310"	7.0°	----	0.245"	0.369"
		Part Number		Quantity
		51017-4		4 Pairs
		51017-8		8 Pairs
		51017-16		16 Pairs
		51017-50		50 Pairs
		51017-100		100 Pairs

Shouldered Square Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.315"	15.0°	----	0.315"	0.379"
		Part Number		Quantity
		51018-4		4 Pairs
		51018-8		8 Pairs
		51018-16		16 Pairs
		51018-50		50 Pairs
		51018-100		100 Pairs

Shouldered Square Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.310"	7.0°	----	0.250"	0.371"
		Part Number		Quantity
		51020-4		4 Pairs
		51020-8		8 Pairs
		51020-16		16 Pairs
		51020-50		50 Pairs
		51020-100		100 Pairs

Shouldered Square Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.310"	15.0°	----	0.235"	0.380"
		Part Number		Quantity
		51022-4		4 Pairs
		51022-8		8 Pairs
		51022-16		16 Pairs
		51022-50		50 Pairs
		51022-100		100 Pairs



KEEPERS

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TOOLS & COMPONENTS

Single Square Bead

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.310"	15.0°	0.220"	0.365"	0.360"
		Part Number	Quantity	
		51003-4	4 Pairs	
		51003-8	8 Pairs	
		51003-16	16 Pairs	
		51003-50	50 Pairs	
		51003-100	100 Pairs	

Single Square Bead

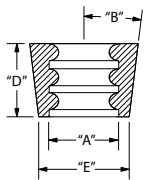

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.310"	7.0°	0.190"	0.380"	0.380"
		Part Number	Quantity	
		51014-4	4 Pairs	
		51014-8	8 Pairs	
		51014-16	16 Pairs	
		51014-50	50 Pairs	
		51014-100	100 Pairs	

Single Square Bead NEW PRODUCTS

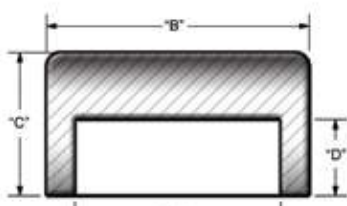
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.310"	9.0°	0.155"	0.345"	0.398"
		Part Number	Quantity	
		51031-4	4 Pairs	
		51031-8	8 Pairs	
		51031-16	16 Pairs	
		51031-50	50 Pairs	
		51031-100	100 Pairs	

Triple Radius Bead

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.275"	7.0°	----	0.290"	0.345"
		Part Number	Quantity	
		51016-4	4 Pairs	
		51016-8	8 Pairs	
		51016-16	16 Pairs	
		51016-50	50 Pairs	
		51016-100	100 Pairs	

Triple Radius Bead NEW PRODUCTS				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.236"	7.0°	----	0.200"	0.282"
		Part Number		Quantity
		51029-4		4 Pairs
		51029-8		8 Pairs
		51029-16		16 Pairs
		51029-50		50 Pairs
51029-100		100 Pairs		

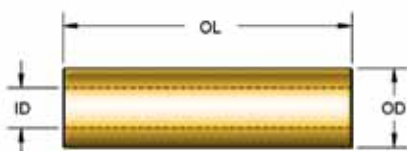
LASH CAPS



KPMI® lash caps are machined from a tough steel that is heat treated to a specific depth, creating a hard impact and wear resistant surface, with a ductile core so they do not crack.

Lash Caps										
Qty. 4 KPMI P/N	Qty. 8 KPMI P/N	Qty. 16 KPMI P/N	Qty. 50 KPMI P/N	Qty. 100 KPMI P/N	"A" Bore Diameter		"B" Outside Diameter	"C" Overall Length	"D" Counterbore Depth	("C"- "D") Roof Thickness
94001-4	94001-8	94001-16	94001-50	94001-100	7.94mm	0.3126"	0.395"	0.160"	0.080"	0.080"
94002-4	94002-8	94002-16	94002-50	94002-100	7.00mm	0.2756"	0.355"	0.160"	0.080"	0.080"
94003-4	94003-8	94003-16	94003-50	94003-100	6.50mm	0.2595"	0.335"	0.120"	0.080"	0.040"
94004-4	94004-8	94004-16	94004-50	94004-100	5.50mm	0.2165"	0.295"	0.090"	0.050"	0.040"
94005-4	94005-8	94005-16	94005-50	94005-100	5.00mm	0.1969"	0.277"	0.090"	0.050"	0.040"
94006-4	94006-8	94006-16	94006-50	94006-100	5.00mm	0.1969"	0.277"	0.230"	0.150"	0.080"
94007-4	94007-8	94007-16	94007-50	94007-100	5.00mm	0.1969"	0.277"	0.175"	0.100"	0.075"
94008-4	94008-8	94008-16	94008-50	94008-100	6.00mm	0.2282"	0.315"	0.120"	0.080"	0.040"

MANGANESE BLANK GUIDES



The Manganese blank guides are designed with large OD's and long lengths to allow maximum versatility and can be machined to fit a large variety of applications. The Manganese material is easily reamed, and then can be delicately finished with our high quality ball hones. These blank guides are a perfect choice for repair work or machining a custom guide for hard to find applications.

Manganese Blank Guides NEW PRODUCTS					
KPMI P/N	ID	OD	OL	Quantity	Fits
20-20380	7.0mm	0.740"	2.700"	Pkg. of 1	Universal
20-20381	0.308"	0.740"	2.700"	Pkg. of 1	Universal
20-20382	0.372"	0.740"	2.700"	Pkg. of 1	Universal
20-20383	0.341"	0.740"	2.700"	Pkg. of 1	Universal



VALVE GUIDE SEALS

All KPMI® seals are conveniently packaged in quantities of: 4, 8, 16, 50, and 100. Value added savings have been built into the 16, 50, and 100 quantity packs with 10, 15, and 20% savings respectively. Select your seal type and then use the diagram and specifications to ensure your valve guides share the same dimensions for a proper fit.

Seal Style 1 - Solid Viton®

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
8.0mm	0.285"	0.455"	A	B	C	D	764.1.013.1A
			0.466"-0.475"	0.411"-0.430"	0.040"	0.135"	
		KPMI P/N		Quantity		Quantity Incentive	
		71043-4		Pkg. of 4		0%	
		71043-8		Pkg. of 8		0%	
		71043-16		Pkg. of 16		Less- 10%	
		71043-50		Pkg. of 50		Less- 15%	
		71043-100		Pkg. of 100		Less- 20%	

Seal Style 1 - Solid Viton®

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
5/16"	0.465"	0.550"	A	B	C	D	---
			0.500"±0.010"	0.445"	0.230"	0.280"	
		KPMI P/N		Quantity		Quantity Incentive	
		71012-4		Pkg. of 4		0%	
		71012-8		Pkg. of 8		0%	
		71012-16		Pkg. of 16		Less- 10%	
		71012-50		Pkg. of 50		Less- 15%	
		71012-100		Pkg. of 100		Less- 20%	

Seal Style 2 - Solid Viton® w/ Tension Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
4.0mm	0.310"	0.380"	A	B	C	D	12209-KT7-013
			0.315"±0.005"	0.270"	0.120"	0.235"	
		KPMI P/N		Quantity		Quantity Incentive	
		71013-4		Pkg. of 4		0%	
		71013-8		Pkg. of 8		0%	
		71013-16		Pkg. of 16		Less- 10%	
		71013-50		Pkg. of 50		Less- 15%	
		71013-100		Pkg. of 100		Less- 20%	

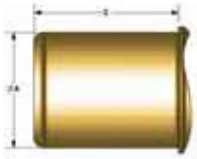
Seal Style 2 - Solid Viton® w/ Tension Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
5.5mm	0.330"	0.455"	A	B	C	D	51Y-12119-00-00
			0.365"±0.002"	0.325"	0.120"	0.235"	
		KPMI P/N		Quantity		Quantity Incentive	
		71040-4		Pkg. of 4		0%	
		71040-8		Pkg. of 8		0%	
		71040-16		Pkg. of 16		Less- 10%	
		71040-50		Pkg. of 50		Less- 15%	
		71040-100		Pkg. of 100		Less- 20%	

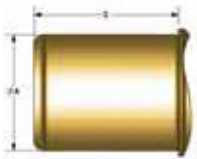
VALVE GUIDE SEALS



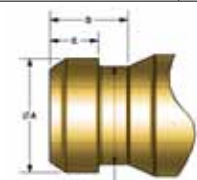
Seal Style 3 - Solid Viton® w/ Metal Jacket & Integral Spring Base NEW PRODUCTS

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs			Spring Shoulder Dia.	OEM REF.			
			A	B	C					
	0.712"	1.170"	A	B	C	0.707"	18100044			
			0.475"±0.005"					---	0.545"	
			KPMI P/N					Quantity		Quantity Incentive
			71046-4					Pkg. of 4		0%
			71046-8					Pkg. of 8		0%
			71046-16					Pkg. of 16		Less- 10%
71046-50			Pkg. of 50		Less- 15%					
71046-100			Pkg. of 100		Less- 20%					

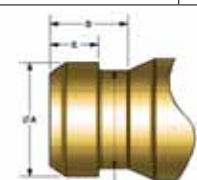
Seal Style 3 - Solid Viton® w/ Metal Jacket & Integral Spring Base

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs			Spring Shoulder Dia.	OEM REF.			
			A	B	C					
	0.974"	1.457"	A	B	C	0.970"	18094-02A			
			0.560"±0.005"					---	0.700"	
			KPMI P/N					Quantity		Quantity Incentive
			71030-4					Pkg. of 4		0%
			71030-8					Pkg. of 8		0%
			71030-16					Pkg. of 16		Less- 10%
71030-50			Pkg. of 50		Less- 15%					
71030-100			Pkg. of 100		Less- 20%					

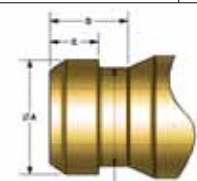
Seal Style 4 - Solid Viton® w/ Choker & Tension Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.			
			A	B	C	D				
	0.331"	0.370"	A	B	C	D	12209-ML0-722			
			0.321"±0.005"					0.281"	0.120"	0.240"
			KPMI P/N					Quantity		Quantity Incentive
			71014-4					Pkg. of 4		0%
			71014-8					Pkg. of 8		0%
			71014-16					Pkg. of 16		Less- 10%
71014-50				Pkg. of 50		Less- 15%				
71014-100				Pkg. of 100		Less- 20%				

Seal Style 4 - Solid Viton® w/ Choker & Tension Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.			
			A	B	C	D				
	0.350"	0.405"	A	B	C	D	09289-05011			
			0.340"±0.005"					0.303"	0.125"	0.230"
			KPMI P/N					Quantity		Quantity Incentive
			71015-4					Pkg. of 4		0%
			71015-8					Pkg. of 8		0%
			71015-16					Pkg. of 16		Less- 10%
71015-50				Pkg. of 50		Less- 15%				
71015-100				Pkg. of 100		Less- 20%				

Seal Style 4 - Solid Viton® w/ Choker & Tension Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.			
			A	B	C	D				
	0.320"	0.440"	A	B	C	D	12206.502-005			
			0.358"±0.005"					0.320"	0.110"	0.200"
			KPMI P/N					Quantity		Quantity Incentive
			71016-4					Pkg. of 4		0%
			71016-8					Pkg. of 8		0%
			71016-16					Pkg. of 16		Less- 10%
71016-50				Pkg. of 50		Less- 15%				
71016-100				Pkg. of 100		Less- 20%				



VALVE GUIDE SEALS

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Seal Style 4 - Solid Viton® w/ Choker & Tension Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
6.5mm	0.353"	0.560"	A	B	C	D	12209-300-003
			0.475"±0.005"	0.415"	0.115"	0.260"	
		KPMI P/N		Quantity		Quantity Incentive	
		71018-4		Pkg. of 4		0%	
		71018-8		Pkg. of 8		0%	
		71018-16		Pkg. of 16		Less- 10%	
		71018-50		Pkg. of 50		Less- 15%	
		71018-100		Pkg. of 100		Less- 20%	

Seal Style 4 - Solid Viton® w/ Choker & Tension Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
7.0mm	0.374"	0.560"	A	B	C	D	92049-016
			0.475"±0.005"	0.430"	0.115"	0.240"	
		KPMI P/N		Quantity		Quantity Incentive	
		71019-4		Pkg. of 4		0%	
		71019-8		Pkg. of 8		0%	
		71019-16		Pkg. of 16		Less- 10%	
		71019-50		Pkg. of 50		Less- 15%	
		71019-100		Pkg. of 100		Less- 20%	

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
4.0mm	0.320"	0.355"	A	B	C	D	---
			0.285"±0.002"	0.245"	0.120"	0.215"	
		KPMI P/N		Quantity		Quantity Incentive	
		71039-4		Pkg. of 4		0%	
		71039-8		Pkg. of 8		0%	
		71039-16		Pkg. of 16		Less- 10%	
		71039-50		Pkg. of 50		Less- 15%	
		71039-100		Pkg. of 100		Less- 20%	

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
5.0mm	0.320"	0.435"	A	B	C	D	77036027000
			0.305"±0.002"	0.265"	0.100"	0.195"	
		KPMI P/N		Quantity		Quantity Incentive	
		71041-4		Pkg. of 4		0%	
		71041-8		Pkg. of 8		0%	
		71041-16		Pkg. of 16		Less- 10%	
		71041-50		Pkg. of 50		Less- 15%	
		71041-100		Pkg. of 100		Less- 20%	

VALVE GUIDE SEALS



Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
5.5mm	0.540"	0.524"	A	B	C	D	---
			0.435"±0.002"	---	---	0.410"	
		KPMI P/N		Quantity		Quantity Incentive	
		71038-4		Pkg. of 4		0%	
		71038-8		Pkg. of 8		0%	
		71038-16		Pkg. of 16		Less- 10%	
		71038-50		Pkg. of 50		Less- 15%	
		71038-100		Pkg. of 100		Less- 20%	

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
5.5mm	0.315"	0.455"	A	B	C	D	420430420
			0.325"±0.002"	0.310"	0.110"	0.220"	
		KPMI P/N		Quantity		Quantity Incentive	
		71042-4		Pkg. of 4		0%	
		71042-8		Pkg. of 8		0%	
		71042-16		Pkg. of 16		Less- 10%	
		71042-50		Pkg. of 50		Less- 15%	
		71042-100		Pkg. of 100		Less- 20%	

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
6.0mm	0.371"	0.480"	A	B	C	D	5H0-12119-00-00
			0.385"±0.002"	0.341"	0.120"	0.255"	
		KPMI P/N		Quantity		Quantity Incentive	
		71017-4		Pkg. of 4		0%	
		71017-8		Pkg. of 8		0%	
		71017-16		Pkg. of 16		Less- 10%	
		71017-50		Pkg. of 50		Less- 15%	
		71017-100		Pkg. of 100		Less- 20%	

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
6.0mm	0.400"	0.560"	A	B	C	D	711230510
			0.435"±0.002"	0.400"	0.120"	0.285"	
		KPMI P/N		Quantity		Quantity Incentive	
		71025-4		Pkg. of 4		0%	
		71025-8		Pkg. of 8		0%	
		71025-16		Pkg. of 16		Less- 10%	
		71025-50		Pkg. of 50		Less- 15%	
		71025-100		Pkg. of 100		Less- 20%	

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

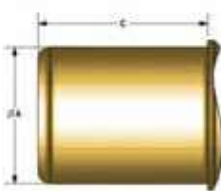

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
6.5mm	0.315"	0.520"	A	B	C	D	59036027000
			0.435"±0.002"	0.395"	0.120"	0.210"	
		KPMI P/N		Quantity		Quantity Incentive	
		71029-4		Pkg. of 4		0%	
		71029-8		Pkg. of 8		0%	
		71029-16		Pkg. of 16		Less- 10%	
		71029-50		Pkg. of 50		Less- 15%	
		71029-100		Pkg. of 100		Less- 20%	



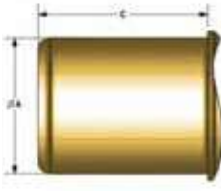

VALVE GUIDE SEALS

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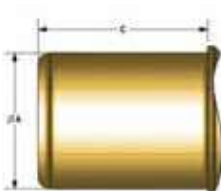

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
6.0mm	0.524"	0.615"	A	B	C	D	---
			0.495"±0.002"	---	---	0.385"	
 		KPMI P/N		Quantity		Quantity Incentive	
		71031-4		Pkg. of 4		0%	
		71031-8		Pkg. of 8		0%	
		71031-16		Pkg. of 16		Less- 10%	
		71031-50		Pkg. of 50		Less- 15%	
		71031-100		Pkg. of 100		Less- 20%	

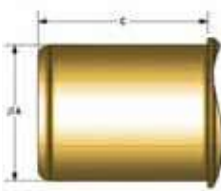

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
6.0mm	0.394"	0.555"	A	B	C	D	---
			0.447"±0.002"	---	---	0.265"	
 		KPMI P/N		Quantity		Quantity Incentive	
		71037-4		Pkg. of 4		0%	
		71037-8		Pkg. of 8		0%	
		71037-16		Pkg. of 16		Less- 10%	
		71037-50		Pkg. of 50		Less- 15%	
		71037-100		Pkg. of 100		Less- 20%	

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
7.0mm	0.517"	0.550"	A	B	C	D	022-1516
			0.435"±0.002"	---	---	0.310"	
 		KPMI P/N		Quantity		Quantity Incentive	
		71026-4		Pkg. of 4		0%	
		71026-8		Pkg. of 8		0%	
		71026-16		Pkg. of 16		Less- 10%	
		71026-50		Pkg. of 50		Less- 15%	
		71026-100		Pkg. of 100		Less- 20%	

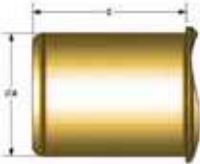

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
7.0mm	0.510"	0.665"	A	B	C	D	---
			0.560"±0.002"	---	---	0.375"	
 		KPMI P/N		Quantity		Quantity Incentive	
		71028-4		Pkg. of 4		0%	
		71028-8		Pkg. of 8		0%	
		71028-16		Pkg. of 16		Less- 10%	
		71028-50		Pkg. of 50		Less- 15%	
		71028-100		Pkg. of 100		Less- 20%	



VALVE GUIDE SEALS





Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
7.0mm	0.360"	0.520"	A	B	C	D	764.1.087.1A
			0.383"-0.389"	---	---	0.255"	
		KPMI P/N		Quantity		Quantity Incentive	
		71044-4		Pkg. of 4		0%	
		71044-8		Pkg. of 8		0%	
		71044-16		Pkg. of 16		Less- 10%	
		71044-50		Pkg. of 50		Less- 15%	
		71044-100		Pkg. of 100		Less- 20%	



Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
8.0mm	0.374"	0.598"	A	B	C	D	E6TZ6571A
			0.427"±0.002"	---	---	0.265"	
		KPMI P/N		Quantity		Quantity Incentive	
		71027-4		Pkg. of 4		0%	
		71027-8		Pkg. of 8		0%	
		71027-16		Pkg. of 16		Less- 10%	
		71027-50		Pkg. of 50		Less- 15%	
		71027-100		Pkg. of 100		Less- 20%	

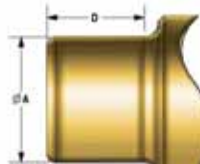

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.412"	0.566"	A	B	C	D	35178930
			0.420"±0.002"	---	---	0.275"	
		KPMI P/N		Quantity		Quantity Incentive	
		71010-4		Pkg. of 4		0%	
		71010-8		Pkg. of 8		0%	
		71010-16		Pkg. of 16		Less- 10%	
		71010-50		Pkg. of 50		Less- 15%	
		71010-100		Pkg. of 100		Less- 20%	

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring NEW PRODUCTS

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.514"	0.671"	A	B	C	D	---
			0.530"±0.002"	---	---	0.330"	
		KPMI P/N		Quantity		Quantity Incentive	
		71045-4		Pkg. of 4		0%	
		71045-8		Pkg. of 8		0%	
		71045-16		Pkg. of 16		Less- 10%	
		71045-50		Pkg. of 50		Less- 15%	
		71045-100		Pkg. of 100		Less- 20%	

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
3/8"	0.516"	0.661"	A	B	C	D	---
			0.562"±0.002"	---	---	0.210"	
		KPMI P/N		Quantity		Quantity Incentive	
		71011-4		Pkg. of 4		0%	
		71011-8		Pkg. of 8		0%	
		71011-16		Pkg. of 16		Less- 10%	
		71011-50		Pkg. of 50		Less- 15%	
		71011-100		Pkg. of 100		Less- 20%	



VALVE GUIDE SEALS

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Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
5/16"	0.386"	0.512"	A	B	C	D	5403212
			0.425"±0.002"	---	---	0.235"	
		KPMI P/N		Quantity		Quantity Incentive	
		71003-4		Pkg. of 4		0%	
		71003-8		Pkg. of 8		0%	
		71003-16		Pkg. of 16		Less- 10%	
		71003-50		Pkg. of 50		Less- 15%	
		71003-100		Pkg. of 100		Less- 20%	

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
5/16"	0.510"	0.600"	A	B	C	D	---
			0.500"±0.002"	---	---	0.365"	
		KPMI P/N		Quantity		Quantity Incentive	
		71006-4		Pkg. of 4		0%	
		71006-8		Pkg. of 8		0%	
		71006-16		Pkg. of 16		Less- 10%	
		71006-50		Pkg. of 50		Less- 15%	
		71006-100		Pkg. of 100		Less- 20%	

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
5/16"	0.517"	0.510"	A	B	C	D	8921209
			0.415"±0.002"	---	---	0.350"	
		KPMI P/N		Quantity		Quantity Incentive	
		71008-4		Pkg. of 4		0%	
		71008-8		Pkg. of 8		0%	
		71008-16		Pkg. of 16		Less- 10%	
		71008-50		Pkg. of 50		Less- 15%	
		71008-100		Pkg. of 100		Less- 20%	

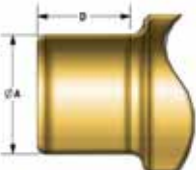

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
5/16"	0.506"	0.632"	A	B	C	D	---
			0.530"±0.002"	---	---	0.365"	
		KPMI P/N		Quantity		Quantity Incentive	
		71009-4		Pkg. of 4		0%	
		71009-8		Pkg. of 8		0%	
		71009-16		Pkg. of 16		Less- 10%	
		71009-50		Pkg. of 50		Less- 15%	
		71009-100		Pkg. of 100		Less- 20%	

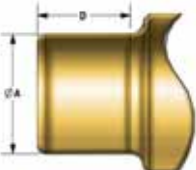

VALVE GUIDE SEALS



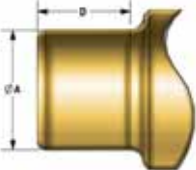

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
11/32"	0.510"	0.596"	A	B	C	D	---
			0.500"±0.002"	---	---	0.360"	
		KPMI P/N		Quantity		Quantity Incentive	
		71005-4		Pkg. of 4		0%	
		71005-8		Pkg. of 8		0%	
		71005-16		Pkg. of 16		Less- 10%	
		71005-50		Pkg. of 50		Less- 15%	
		71005-100		Pkg. of 100		Less- 20%	

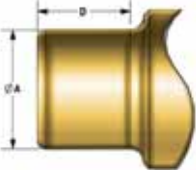

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
11/32"	0.514"	0.654"	A	B	C	D	---
			0.562"±0.002"	---	---	0.345"	
		KPMI P/N		Quantity		Quantity Incentive	
		71007-4		Pkg. of 4		0%	
		71007-8		Pkg. of 8		0%	
		71007-16		Pkg. of 16		Less- 10%	
		71007-50		Pkg. of 50		Less- 15%	
		71007-100		Pkg. of 100		Less- 20%	

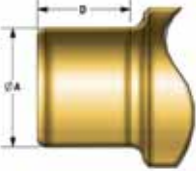

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
3/8"	0.502"	0.626"	A	B	C	D	---
			0.530"±0.002"	---	---	0.350"	
		KPMI P/N		Quantity		Quantity Incentive	
		71001-4		Pkg. of 4		0%	
		71001-8		Pkg. of 8		0%	
		71001-16		Pkg. of 16		Less- 10%	
		71001-50		Pkg. of 50		Less- 15%	
		71001-100		Pkg. of 100		Less- 20%	

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
3/8"	0.518"	0.650"	A	B	C	D	---
			0.562"±0.002"	---	---	0.365"	
		KPMI P/N		Quantity		Quantity Incentive	
		71002-4		Pkg. of 4		0%	
		71002-8		Pkg. of 8		0%	
		71002-16		Pkg. of 16		Less- 10%	
		71002-50		Pkg. of 50		Less- 15%	
		71002-100		Pkg. of 100		Less- 20%	

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

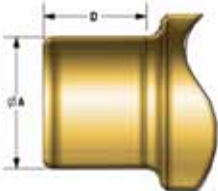

Stem Diameter	O.L	Seal O.D.	Designed for these guide specs				OEM REF.
3/8"	0.507"	0.600"	A	B	C	D	---
			0.500"±0.002"	---	---	0.355"	
		KPMI P/N		Quantity		Quantity Incentive	
		71004-4		Pkg. of 4		0%	
		71004-8		Pkg. of 8		0%	
		71004-16		Pkg. of 16		Less- 10%	
		71004-50		Pkg. of 50		Less- 15%	
		71004-100		Pkg. of 100		Less- 20%	



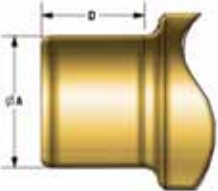

VALVE GUIDE SEALS

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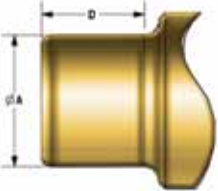

Seal Style 7 - H.D. OEM Style Solid Teflon w/ a Metal Jacket

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
5/16"	0.385"	0.565"	A	B	C	D	18001-83B
			0.420"±0.002"	---	---	0.315"	
 		KPMI P/N		Quantity		Quantity Incentive	
		71032-4		Pkg. of 4		0%	
		71032-8		Pkg. of 8		0%	
		71032-16		Pkg. of 16		Less- 10%	
		71032-50		Pkg. of 50		Less- 15%	
		71032-100		Pkg. of 100		Less- 20%	

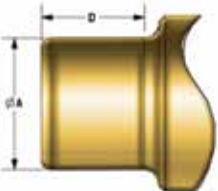

Seal Style 7 - H.D. OEM Style Solid Teflon w/ a Metal Jacket

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
5/16"	0.375"	0.630"	A	B	C	D	1804698
			0.530"±0.002"	---	---	0.295"	
 		KPMI P/N		Quantity		Quantity Incentive	
		71033-4		Pkg. of 4		0%	
		71033-8		Pkg. of 8		0%	
		71033-16		Pkg. of 16		Less- 10%	
		71033-50		Pkg. of 50		Less- 15%	
		71033-100		Pkg. of 100		Less- 20%	

Seal Style 7 - H.D. OEM Style Solid Teflon w/ a Metal Jacket

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
11/32"	0.375"	0.630"	A	B	C	D	---
			0.530"±0.002"	---	---	0.365"	
 		KPMI P/N		Quantity		Quantity Incentive	
		71034-4		Pkg. of 4		0%	
		71034-8		Pkg. of 8		0%	
		71034-16		Pkg. of 16		Less- 10%	
		71034-50		Pkg. of 50		Less- 15%	
		71034-100		Pkg. of 100		Less- 20%	

Seal Style 7 - H.D. OEM Style Solid Teflon w/ a Metal Jacket

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
3/8"	0.375"	0.660"	A	B	C	D	---
			0.562"±0.002"	---	---	0.315"	
 		KPMI P/N		Quantity		Quantity Incentive	
		71035-4		Pkg. of 4		0%	
		71035-8		Pkg. of 8		0%	
		71035-16		Pkg. of 16		Less- 10%	
		71035-50		Pkg. of 50		Less- 15%	
		71035-100		Pkg. of 100		Less- 20%	

VALVE GUIDE SEALS



Seal Style 7 - H.D. OEM Style Solid Teflon w/ a Metal Jacket

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
			A	B	C	D	
3/8"	0.400"	0.720"	0.625"±0.002"	---	---	0.310"	1800081
			KPMI P/N		Quantity		Quantity Incentive
			71036-4		Pkg. of 4		0%
			71036-8		Pkg. of 8		0%
			71036-16		Pkg. of 16		Less- 10%
			71036-50		Pkg. of 50		Less- 15%
			71036-100		Pkg. of 100		Less- 20%

INSTALLATION TOOLS

These installation tools for OE style seals are manufactured from high strength 6061-T6 Aluminum for increased durability when compared to plastic installers. The tools are designed for precision fitment onto the seal OD to help the builder center the seal over the valve guide so that a few light strikes from a hammer will set the seal. Radiused top striking surface reduces the likelihood of a burr forming from deformation. Each installation tool is color coded and laser marked for each seal size by guide diameter.



20-20830



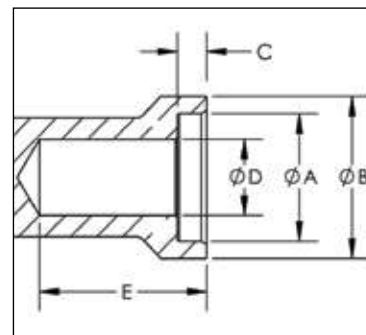
20-20831



20-20832



20-20833



Installation Tools

KPMI P/N (1-pack)	Application	ØA	ØB	C	ØD	E	Fits KPMI Seal P/N	Color
20-20830	Evolution 5/16" Stem	Ø0.575	0.860	0.160	0.404	0.910	71032-4	Red
20-20831	Shovelhead 80"	Ø0.728	0.860	0.160	0.404	0.910	71036-4	Blue
20-20832	Ironhead Sportster In/ Ex	Ø0.638	0.860	0.160	0.404	0.910	71033-4 71034-4	White
20-20833	Panhead & Shovelhead 74"	Ø0.673	0.860	0.160	0.404	0.910	71035-4	Black



20-20835



Installation Tool Kit

KPMI P/N	Description
20-20835	Kit includes all 4 sizes of installations



INSTALLATION PROTECTORS



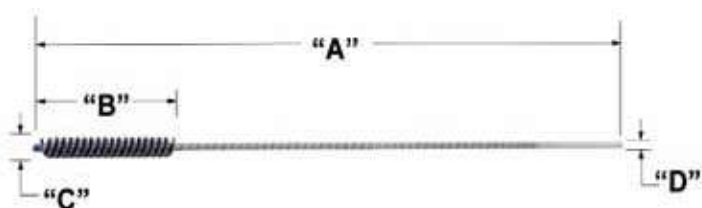
20-20637 / 20-20638 / 20-20639

The flexible thin wall protectors are designed to fit over the top of the valve stem, protecting the sealing element from any sharp edges that might damage it during installation.

Installation Protector

KPMI P/N (2-pack)	KPMI P/N (1-pack)	Application	Stem Diameter	Fits		Color
20-20634	20-20637	Evolution & Ironhead Sportster Intake	5/16"	71032-4	71033-4	Green
20-20635	20-20638	Ironhead Sportster Exhaust	11/32"	71034-4		Clear
20-20636	20-20639	Panhead & Shovelhead 74" & Shovelhead 80"	3/8"	71035-4	71036-4	Red

BALL HONES



- Silicon Carbide composite for Bronze or Cast Iron
- Ideal for finishing a reamed hole
- Cleaning up a used guide
- Minor sizing less than a thou



Ball Hones - Universal

KPMI P/N	Description	Overall Length "A"	Hone Head Length "B"	Hone Diameter "C"	Shank Diameter "D"
GH-1574	4.0mm valve guide hone	6.010"	0.925"	0.180"	0.055"
GH-1771	4.5mm valve guide hone	6.010"	0.975"	0.205"	0.060"
GH-1968	5.0mm valve guide hone	8.055"	1.775"	0.220"	0.085"
GH-2165	5.5mm valve guide hone	8.120"	1.790"	0.240"	0.085"
GH-2362	6.0mm valve guide hone	7.975"	1.590"	0.260"	0.110"
GH-2755	7.0mm valve guide hone	7.975"	2.075"	0.325"	0.130"
GH-3125	5/16 (.3125") valve guide hone	8.125"	2.225"	0.375"	0.145"
GH-3750	3/8 (.3750") valve guide hone	8.050"	2.190"	0.415"	0.145"

BC Series Flex-Hone are manufactured by Brush Research (BRM). The BC Series Flex-Hone tool is designed for use on any type or size of valve guide from 4mm up to 3/8" in diameter. This guide hone is designed for surface finishing and cross hole deburring. Although Ball Hones have many uses, KPMI® offers them primarily to be used after a guide has been reamed. Using a Ball Hone after reaming creates a uniform surface free of irregularities, which improves surface contact and reduces the risk of galling or seizure. Please see our FAQ for recommended clearances.

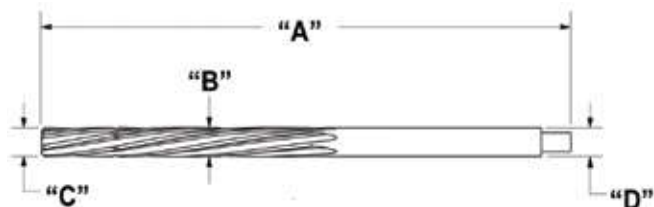
COMPRESSION RELEASE VALVES

NEW PRODUCTS

Compression Release Valves

	KPMI P/N	Thread	Upper Body	Thread Length	Quantity	Note
	20-21250	M10 x 1	1.050"	0.350"	Pkg. of 2	Fits Evos, Shortened thread for ease of installation, 6kn closing force
	20-21255	M10 x 1	1.380"	0.350"	Pkg. of 2	Fits Twin Cams, Shortened thread for ease of installation, 6kn closing force
	20-21260	M10 x 1	1.250"	0.500"	Pkg. of 2	6kn closing force

REAMERS



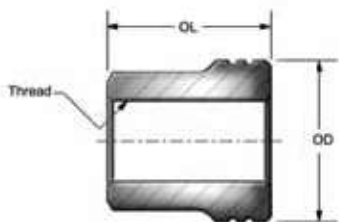
GR-3770 / GR-2770

Reamers

KPMI P/N	Description	Overall Length "A"	Cutting Diameter "B"	Pilot Diameter "C"	Shank Diameter "D"
GR-1970	0.1970 HSS valve guide reamer	7.125"	0.1970"	0.191"	0.190"
GR-2770	0.2770 HSS valve guide reamer	7.125"	0.2770"	0.271"	0.270"
GR-2820	0.2820 HSS valve guide reamer	7.125"	0.2820"	0.272"	0.275"
GR-3100	0.3100 HSS valve guide reamer	7.125"	0.3100"	0.304"	0.303"
GR-3110	0.3110 HSS valve guide reamer	7.125"	0.3110"	0.305"	0.304"
GR-3115 NEW PRODUCTS	0.3115 HSS valve guide reamer	7.125"	0.3115"	0.305"	0.304"
GR-3120	0.3120 HSS valve guide reamer	7.125"	0.3120"	0.306"	0.305"
GR-3400	0.3400 HSS valve guide reamer	7.125"	0.3400"	0.334"	0.333"
GR-3410	0.3410 HSS valve guide reamer	7.125"	0.3410"	0.335"	0.334"
GR-3730	0.3730 HSS valve guide reamer	7.125"	0.3730"	0.367"	0.336"
GR-3770	0.3770 HSS valve guide reamer	7.125"	0.3770"	0.371"	0.370"
GR-3775	0.3775 HSS valve guide reamer	7.125"	0.3775"	0.371"	0.370"
GR-3780	0.3780 HSS valve guide reamer	7.125"	0.3780"	0.372"	0.371"
GR-3790	0.3790 HSS valve guide reamer	7.125"	0.3790"	0.373"	0.372"

KPMI® valve guide reamers are manufactured from premium hardened High Speed Steel. The advertised finished reamer diameters are ground to: +/- .0002". These spiral fluted reamers incorporate a 1.00" long pilot (reduced diameter) which gets inserted into an unfinished guide bore, to align the reamer to the valve guide centerline, during the sizing process. These reamers have been specifically designed for KPMI® Manganese Bronze valve guides. Do not attempt to use these reamers to size C630 Nickel Aluminum Bronze guides.

NUTS



41001-4

These nuts are manufactured from a premium steel that promotes excellent surface finish and tight tolerances, two critical factors for achieving correct fit and torque. After machining, the nuts are heat treated to a specific depth to create hard, wear resistant working surfaces, while retaining a ductile core to prevent cracking under load. The premium black oxide treatment gives an excellent, corrosion resistant appearance.

Nuts

NEW PRODUCTS

KPMI P/N	Thread	Overall Length	Flange Diameter	HEX Pattern	Quantity
41001-4	M10 x 1.25	0.750"	0.740"	14mm	Pkg. of 4
41002-4	1/2-20 UNF	0.520"	0.786"	14mm	Pkg. of 4
41003-4	M8 x 1.25	0.385"	0.670"	13mm	Pkg. of 4



BLACK DIAMOND™ VALVE BLANKS

The Proprietary Black Diamond™ process is not a coating. It penetrates and treats the steel to a depth of .002", so it can never peel or flake off. Coatings such as chrome are "surface build ups" that rely on adhesion to remain intact. They can crack, peel, and flake off, depositing abrasive debris in the guide, causing wear and seizure. The Black Diamond™ process creates an extremely hard and smooth finish, preventing accelerated wear on the stem and keeper groove areas. This hard smooth finish has a low coefficient of friction, making it less aggressive on the valve guide, and promoting longer guide life. In exhaust environments, the Black Diamond™ process offers increased resistance to corrosion which is critical for long life.



Black Diamond™ Valve Blanks						
KPMI Part No.	Type	Head Diameter		Stem Diameter	Tulip Profile	Overall Length
3/8" Stem Diameter						
20-4194B	IN	54.00mm	2.125"	0.3765"	23°	5.000"
20-4195B	EX	47.00mm	1.850"	0.3745"	29°	5.000"
5/16" Stem Diameter						
20-4171B2	IN	57.15mm	2.250"	0.3100"	23°	5.000"
20-4171B1	IN	53.34mm	2.100"	0.3100"	23°	5.000"
20-4171B	IN	50.80mm	2.000"	0.3100"	23°	5.000"
20-4170B2	EX	44.45mm	1.750"	0.3096"	30°	5.000"
20-4170B1	EX	44.45mm	1.750"	0.3096"	40°	5.000"
20-4170B	EX	43.56mm	1.715"	0.3096"	40°	5.000"
8.0mm Stem Diameter						
11-10011	IN	46.00mm	1.811"	0.3145"	18°	5.000"
7.0mm Stem Diameter						
11-10008	IN	50.80mm	2.000"	0.2750"	23°	5.200"
40-4178B	IN	42.00mm	1.654"	0.2745"	23°	5.000"
6.5mm Stem Diameter						
30-30228B	IN	42.00mm	1.653"	0.2590"	20°	5.000"
6.0mm Stem Diameter						
93-93015B	IN	42.00mm	1.653"	0.2352"	23°	5.000"
20-21019	IN	44.00mm	1.732"	0.2347"	10°	5.200"
5.5mm Stem Diameter						
30-30244B	IN	40.00mm	1.575"	0.2158"	20°	5.000"
60-4303B	IN	34.00mm	1.339"	0.2155"	23°	5.000"
40-4176B	EX	29.00mm	1.142"	0.2145"	29°	5.000"
5.0mm Stem Diameter						
60-60012B	IN	34.00mm	1.339"	0.1962"	18°	5.000"
60-60013B	EX	28.50mm	1.122"	0.1953"	17°	5.000"
60-60076B	IN	40.00mm	1.575"	0.1962"	20°	5.000"
4.5mm Stem Diameter						
11-10004	IN	34.00mm	1.339"	0.1760"	18°	5.000"
11-10005	IN	32.00mm	1.260"	0.1765"	18°	5.000"
11-10006	EX	28.00mm	1.102"	0.1755"	20°	5.000"
11-10007	EX	26.00mm	1.024"	0.1755"	20°	5.000"
4.0mm Stem Diameter						
11-10000	IN	32.00mm	1.260"	0.1568"	18°	5.000"
11-10001	IN	28.00mm	1.102"	0.1568"	18°	5.000"
11-10002	EX	26.00mm	1.024"	0.1563"	20°	5.000"
11-10003	EX	24.00mm	0.945"	0.1563"	20°	5.000"

TENSILITE® TITANIUM / WHITE DIAMOND® WHITE BLANKS



Tensilite® Titanium Valve Blanks						
KPMI Part No.	Type	Head Diameter	Stem Diameter	Tulip Profile	Overall Length	
7.0mm Stem Diameter						
40-4244T	IN / Ex	48.00mm	1.890"	0.2745"	17°	5.100"
40-4238T	IN / Ex	42.00mm	1.654"	0.2745"	23°	5.000"
6.0mm Stem Diameter						
11-10020T	IN / EX	42.00mm	1.653"	0.2355"	23°	5.320"
5.5mm Stem Diameter						
60-1062T	IN / Ex	40.00mm	1.575"	0.2155"	20°	5.000"
60-1060T	IN / Ex	34.00mm	1.339"	0.2155"	20°	5.000"
5.0mm Stem Diameter						
11-10017T	IN / Ex	38.00mm	1.496"	0.1960"	18°	5.000"
11-10019T	IN / Ex	29.00mm	1.142"	0.1955"	20°	5.000"
4.5mm Stem Diameter						
11-10016T	IN / Ex	28.00mm	1.102"	0.1755"	20°	4.300"
4.0mm Stem Diameter						
11-10013T	IN / Ex	30.00mm	1.181"	0.1568"	18°	5.000"
11-10014T	IN / Ex	26.00mm	1.024"	0.1560"	20°	5.000"

White Diamond® Valve Blanks						
KPMI Part No.	Type	Head Diameter	Stem Diameter	Tulip Profile	Overall Length	AV&V Part No.
5/16" Stem Diameter						
*20-20975	IN	55.88mm	2.200"	0.3108"	25°	5.700" AV2200BC
*20-20980	IN	53.34mm	2.100"	0.3108"	24°	5.700" AV2100BC
*20-20985	EX	43.18mm	1.700"	0.3106"	25°	5.700" AV1700BC
*Note: Bi-metal (can be hardened)						
7.0mm Stem Diameter						
40-4178BH	IN	42.01mm	1.657"	0.2745"	23°	5.200" ---
40-4179BH	EX	33.00mm	1.299"	0.2745"	29°	5.200" ---
5.0mm Stem Diameter						
60-4310BH	IN / EX	34.00mm	1.339"	0.1958"	23°	4.900" ---

Kibblewhite® Tensilite® titanium valves are manufactured from solid U.S. milled titanium bar. The titanium bar is cut, and forged, and then the stem is pulled from the forging process and cross-sectionally reduced.

These one piece forgings made from 6AL4V or 6-2-4-2 titanium alloy reflect the latest developments in titanium valve alloys. These alloys have superior hardness, strength, and thermal characteristics.

After final grinding and machining, Tensilite® valves are encased in a hard Chromium Nitride (CrN) shell. CrN offers excellent resistance to impact, abrasion and corrosion.

These qualities and its low coefficient of friction make CrN the coating of choice for high performance titanium valves.



**Tensilite®
Valve Blank**

We fully CNC machine our White Diamond® Valves from a one-piece forging of either EV8 Stainless Steel or Inconel-751. These materials have proven heat and corrosion resistance properties and are hard chromed with a 360 degree anode to produce the highest possible grade of hard chrome finish.



**White Diamond®
Valve Blank**



TAPPETS



H.T. Steel



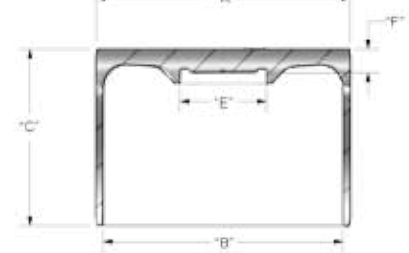
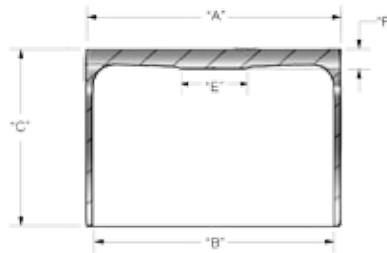
H.T. Steel Plus DLC Coated



Shim On Bottom (SOB)



Shim In Tappet (SIT)



Tappet / Shim On Bottom (SOB)

Qty.1 Part Number	Outside Diameter "A"		Inside Diameter "B"	Overall Length "C"	Button Diameter "E"	Roof Thickness "F"
600-100001	26.00mm	1.0232"	0.970"	0.790"	0.236"	0.115"
600-100050	26.50mm	1.0420"	0.992"	0.748"	0.285"	0.106"
600-100200	28.00mm	1.1016"	1.040"	0.860"	0.310"	0.135"
600-100202	28.00mm	1.1017"	1.038"	0.763"	0.320"	0.098"
600-100250	28.50mm	1.1220"	1.058"	0.763"	0.320"	0.098"
600-100500	31.00mm	1.2195"	1.156"	0.800"	0.325"	0.108"
600-100525	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"
600-100700	33.00mm	1.2980"	1.235"	1.025"	0.340"	0.115"
600-100750	33.50mm	1.3184"	1.250"	1.025"	0.340"	0.115"
600-100800	34.00mm	1.3380"	1.258"	1.025"	0.313"	0.115"
600-101095	36.95mm	1.4547"	1.388"	1.040"	0.400"	0.105"
600-101300	39.00mm	1.5350"	1.457"	1.040"	0.400"	0.145"

Tappet / Shim In Tappet (SIT)

Qty.1 Part Number	Outside Diameter "A"		Inside Diameter "B"	Overall Length "C"	Shim Diameter "E"	Roof Thickness "F"
600-100205	28.00mm	1.1017"	1.038"	0.763"	0.375"	0.100"

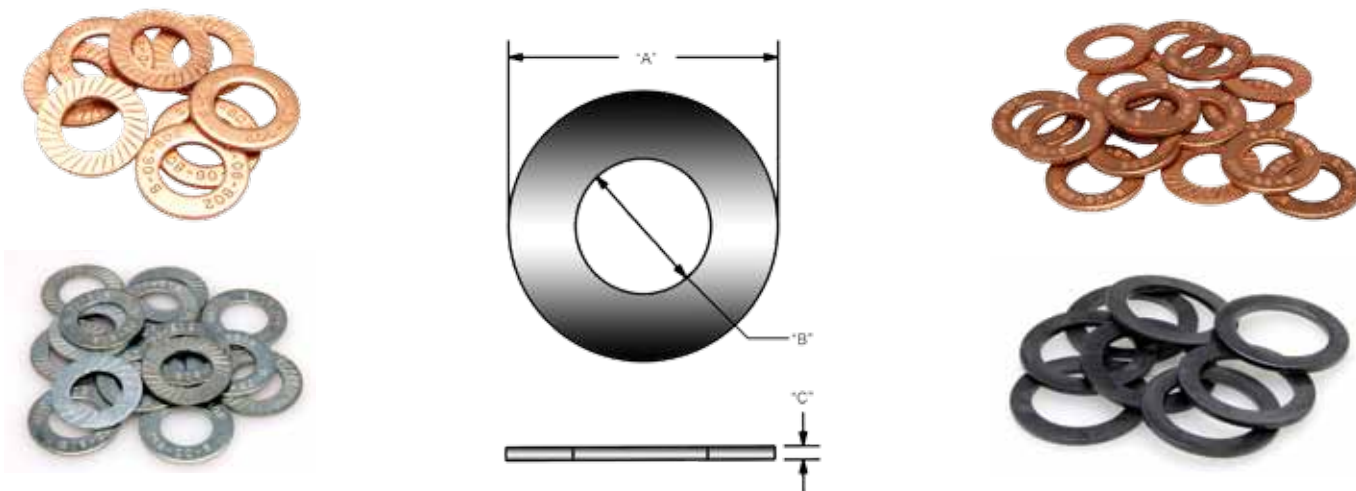
Kibblewhite® Engineers design our tappets using Finite Element Stress Analysis (FEA) software. This software allows our engineers to lighten the tappets without sacrificing strength so we can create the strongest, lightest tappets possible. These tappets are machined from aircraft quality solid steel bar stock. They undergo a proprietary heat treat process that creates a hard surface and a non brittle-core, maximizing toughness and wear resistance. Kibblewhite® tappets are run in high performance automotive and motorcycle applications including Motocross, Flat Track, Road Race, Drag Race, and Land Speed Racing at the Bonneville Salt Flats.

Tappet / DLC Coated

Qty.1 Part Number	Outside Diameter "A"		Inside Diameter "B"	Overall Length "C"	Button Diameter "E"	Roof Thickness "F"
600-100202-DLC	28.00mm	1.1017"	1.038"	0.763"	0.320"	0.098"
600-100525-DLC	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"

Our coated tappets undergo a low temperature PVD process to deposit a DLC film, which is extremely hard and has a very low coefficient of friction. These properties help the tappet to maintain its durability in extreme duty situations. Although KPMI® never recommends running a camshaft off the edge of the tappet, this coating may help increase durability in these applications.

SHIMS BOOSTER / VALVE SPRING



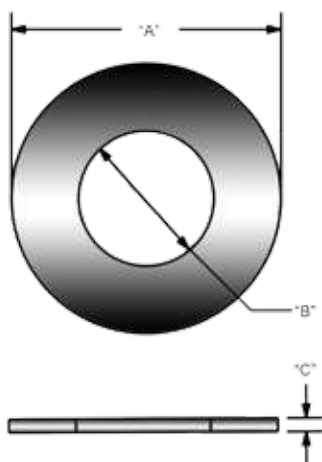
Shims - Booster / Valve Spring

Qty 4 Part No.	Qty 8 Part No.	Qty 16 Part No.	Qty 50 Part No.	Qty 100 Part No.	Outside Diameter - A -	Inside Diameter - B -	Thickness - C -
92001-4	92001-8	92001-16	92001-50	92001-100	1.437"	0.645"	0.015"
92002-4	92002-8	92002-16	92002-50	92002-100	1.437"	0.645"	0.030"
92003-4	92003-8	92003-16	92003-50	92003-100	1.437"	0.645"	0.060"
92004-4	92004-8	92004-16	92004-50	92004-100	0.760"	0.578"	0.060"
92005-4	92005-8	92005-16	92005-50	92005-100	0.760"	0.578"	0.030"
92006-4	92006-8	92006-16	92006-50	92006-100	0.760"	0.578"	0.015"
92007-4	92007-8	92007-16	92007-50	92007-100	0.920"	0.520"	0.030"
92008-4	92008-8	92008-16	92008-50	92008-100	0.920"	0.520"	0.060"
92009-4	92009-8	92009-16	92009-50	92009-100	1.218"	0.875"	0.060"
92010-4	92010-8	92010-16	92010-50	92010-100	1.156"	0.828"	0.030"
92011-4	92011-8	92011-16	92011-50	92011-100	1.020"	0.735"	0.125"
92012-4	92012-8	92012-16	92012-50	92012-100	1.100"	0.721"	0.060"
92013-4	92013-8	92013-16	92013-50	92013-100	1.250"	0.812"	0.060"
92014-4	92014-8	92014-16	92014-50	92014-100	1.250"	0.812"	0.030"
92015-4	92015-8	92015-16	92015-50	92015-100	1.125"	0.719"	0.030"
92016-4	92016-8	92016-16	92016-50	92016-100	1.125"	0.719"	0.060"
92017-4	92017-8	92017-16	92017-50	92017-100	1.312"	0.765"	0.030"
92018-4	92018-8	92018-16	92018-50	92018-100	1.218"	0.875"	0.030"
92019-4	92019-8	92019-16	92019-50	92019-100	1.100"	0.719"	0.030"
92020-4	92020-8	92020-16	92020-50	92020-100	1.000"	0.688"	0.060"
92021-4	92021-8	92021-16	92021-50	92021-100	1.000"	0.765"	0.060"
92022-4	92022-8	92022-16	92022-50	92022-100	1.438"	1.059"	0.030"
92023-4	92023-8	92023-16	92023-50	92023-100	1.000"	0.688"	0.030"
92024-4	92024-8	92024-16	92024-50	92024-100	1.000"	0.688"	0.015"
92025-4	92025-8	92025-16	92025-50	92025-100	1.360"	1.000"	0.060"
92026-4	92026-8	92026-16	92026-50	92026-100	1.360"	1.000"	0.030"
92027-4	92027-8	92027-16	92027-50	92027-100	1.360"	1.000"	0.015"
92028-4	92028-8	92028-16	92028-50	92028-100	1.500"	1.031"	0.060"
92029-4	92029-8	92029-16	92029-50	92029-100	1.500"	1.031"	0.030"
92030-4	92030-8	92030-16	92030-50	92030-100	1.500"	1.031"	0.015"
92031-4	92031-8	92031-16	92031-50	92031-100	1.000"	0.765"	0.030"



SHIMS BOOSTER / VALVE SPRING

TOOLS & COMPONENTS



Shims - Booster / Valve Spring

Qty 4 Part No.	Qty 8 Part No.	Qty 16 Part No.	Qty 50 Part No.	Qty 100 Part No.	Outside Diameter - A -	Inside Diameter - B -	Thickness - C -
92032-4	92032-8	92032-16	92032-50	92032-100	1.000"	0.765"	0.015"
92033-4	92033-8	92033-16	92033-50	92033-100	1.218"	0.875"	0.015"
92034-4	92034-8	92034-16	92034-50	92034-100	1.100"	0.719"	0.015"
92035-4	92035-8	92035-16	92035-50	92035-100	1.250"	0.625"	0.060"
92036-4	92036-8	92036-16	92036-50	92036-100	1.250"	0.625"	0.030"
92037-4	92037-8	92037-16	92037-50	92037-100	1.250"	0.625"	0.015"
92038-4	92038-8	92038-16	92038-50	92038-100	0.970"	0.445"	0.060"
92039-4	92039-8	92039-16	92039-50	92039-100	0.970"	0.445"	0.030"
92040-4	92040-8	92040-16	92040-50	92040-100	0.970"	0.445"	0.015"
92041-4	92041-8	92041-16	92041-50	92041-100	0.915"	0.640"	0.060"
92042-4	92042-8	92042-16	92042-50	92042-100	0.915"	0.640"	0.030"
92043-4	92043-8	92043-16	92043-50	92043-100	0.915"	0.640"	0.015"
92044-4	92044-8	92044-16	92044-50	92044-100	0.796"	0.515"	0.060"
92045-4	92045-8	92045-16	92045-50	92045-100	0.796"	0.515"	0.030"
92046-4	92046-8	92046-16	92046-50	92046-100	0.796"	0.515"	0.015"
92047-4	92047-8	92047-16	92047-50	92047-100	1.312"	0.765"	0.060"
92048-4	92048-8	92048-16	92048-50	92048-100	1.312"	0.765"	0.015"
92049-4	92049-8	92049-16	92049-50	92049-100	1.480"	0.703"	0.060"
92050-4	92050-8	92050-16	92050-50	92050-100	1.480"	0.703"	0.030"
92051-4	92051-8	92051-16	92051-50	92051-100	1.480"	0.703"	0.015"
92052-4	92052-8	92052-16	92052-50	92052-100	1.640"	0.635"	0.060"
92053-4	92053-8	92053-16	92053-50	92053-100	1.640"	0.635"	0.030"
92054-4	92054-8	92054-16	92054-50	92054-100	1.640"	0.635"	0.015"
92055-4	92055-8	92055-16	92055-50	92055-100	1.500"	0.765"	0.060"
92056-4	92056-8	92056-16	92056-50	92056-100	1.500"	0.765"	0.030"
92057-4	92057-8	92057-16	92057-50	92057-100	1.477"	0.765"	0.015"
92058-4	92058-8	92058-16	92058-50	92058-100	1.500"	0.562"	0.060"
92059-4	92059-8	92059-16	92059-50	92059-100	1.500"	0.562"	0.030"
92060-4	92060-8	92060-16	92060-50	92060-100	1.500"	0.562"	0.015"
92061-4	92061-8	92061-16	92061-50	92061-100	1.247"	0.518"	0.060"
92062-4	92062-8	92062-16	92062-50	92062-100	1.247"	0.518"	0.030"
92063-4	92063-8	92063-16	92063-50	92063-100	1.247"	0.518"	0.015"

SHIMS VALVE ADJUSTMENT



Manufactured from heat treated aircraft quality steel, KPMI® holds exact dimensional tolerances, height and perpendicularity on these shims. KPMI® sets specific hardness and surface finish specifications to insure optimum fit, Performance, strength, and durability. Shims are available in 7.5mm, 9.5mm, and 13.0mm ODs.



7.5mm Shims - Valve Adjustment

Qty 4 Part No.	Qty 8 Part No.	Qty 16 Part No.	Qty 50 Part No.	Qty 100 Part No.	Thickness
93075-4	93075-8	93075-16	93075-50	93075-100	1.20mm
93076-4	93076-8	93076-16	93076-50	93076-100	1.25mm
93077-4	93077-8	93077-16	93077-50	93077-100	1.30mm
93078-4	93078-8	93078-16	93078-50	93078-100	1.35mm
93079-4	93079-8	93079-16	93079-50	93079-100	1.40mm
93080-4	93080-8	93080-16	93080-50	93080-100	1.45mm
93081-4	93081-8	93081-16	93081-50	93081-100	1.50mm
93082-4	93082-8	93082-16	93082-50	93082-100	1.55mm
93083-4	93083-8	93083-16	93083-50	93083-100	1.60mm
93084-4	93084-8	93084-16	93084-50	93084-100	1.65mm
93085-4	93085-8	93085-16	93085-50	93085-100	1.70mm
93086-4	93086-8	93086-16	93086-50	93086-100	1.75mm
93087-4	93087-8	93087-16	93087-50	93087-100	1.80mm
93088-4	93088-8	93088-16	93088-50	93088-100	1.85mm
93089-4	93089-8	93089-16	93089-50	93089-100	1.90mm
93090-4	93090-8	93090-16	93090-50	93090-100	1.95mm
93091-4	93091-8	93091-16	93091-50	93091-100	2.00mm
93092-4	93092-8	93092-16	93092-50	93092-100	2.05mm
93093-4	93093-8	93093-16	93093-50	93093-100	2.10mm
93094-4	93094-8	93094-16	93094-50	93094-100	2.15mm
93095-4	93095-8	93095-16	93095-50	93095-100	2.20mm
93096-4	93096-8	93096-16	93096-50	93096-100	2.25mm
93097-4	93097-8	93097-16	93097-50	93097-100	2.30mm
93098-4	93098-8	93098-16	93098-50	93098-100	2.35mm
93099-4	93099-8	93099-16	93099-50	93099-100	2.40mm
93100-4	93100-8	93100-16	93100-50	93100-100	2.45mm
93101-4	93101-8	93101-16	93101-50	93101-100	2.50mm
93102-4	93102-8	93102-16	93102-50	93102-100	2.55mm
93103-4	93103-8	93103-16	93103-50	93103-100	2.60mm
93104-4	93104-8	93104-16	93104-50	93104-100	2.65mm
93105-4	93105-8	93105-16	93105-50	93105-100	2.70mm
93106-4	93106-8	93106-16	93106-50	93106-100	2.75mm
93107-4	93107-8	93107-16	93107-50	93107-100	2.80mm
93108-4	93108-8	93108-16	93108-50	93108-100	2.85mm
93109-4	93109-8	93109-16	93109-50	93109-100	2.90mm
93110-4	93110-8	93110-16	93110-50	93110-100	2.95mm
93111-4	93111-8	93111-16	93111-50	93111-100	3.00mm
93112-4	93112-8	93112-16	93112-50	93112-100	3.05mm



SHIMS VALVE ADJUSTMENT



Manufactured from heat treated aircraft quality steel, KPMI® holds exact dimensional tolerances, height and perpendicularity on these shims. KPMI® sets specific hardness and surface finish specifications to insure optimum fit, Performance, strength, and durability. Shims are available in 7.5mm, 9.5mm, and 13.0mm ODs.

All KPMI® adj. shims are conveniently packaged in quantities of: 4, 8, 16, 50, and 100. For more information visit KPMI.US

7.5mm Shims - Valve Adjustment

Qty 4 Part No.	Qty 8 Part No.	Qty 16 Part No.	Qty 50 Part No.	Qty 100 Part No.	Thickness
93113-4	93113-8	93113-16	93113-50	93113-100	3.10mm
93114-4	93114-8	93114-16	93114-50	93114-100	3.15mm
93115-4	93115-8	93115-16	93115-50	93115-100	3.20mm
93116-4	93116-8	93116-16	93116-50	93116-100	3.25mm
93117-4	93117-8	93117-16	93117-50	93117-100	3.30mm
93118-4	93118-8	93118-16	93118-50	93118-100	3.35mm
93119-4	93119-8	93119-16	93119-50	93119-100	3.40mm
93120-4	93120-8	93120-16	93120-50	93120-100	3.45mm
93121-4	93121-8	93121-16	93121-50	93121-100	3.50mm

9.5mm Shims - Valve Adjustment

Qty 4 Part No.	Qty 8 Part No.	Qty 16 Part No.	Qty 50 Part No.	Qty 100 Part No.	Thickness
93001-4	93001-8	93001-16	93001-50	93001-100	1.20mm
93002-4	93002-8	93002-16	93002-50	93002-100	1.25mm
93003-4	93003-8	93003-16	93003-50	93003-100	1.30mm
93004-4	93004-8	93004-16	93004-50	93004-100	1.35mm
93005-4	93005-8	93005-16	93005-50	93005-100	1.40mm
93006-4	93006-8	93006-16	93006-50	93006-100	1.45mm
93007-4	93007-8	93007-16	93007-50	93007-100	1.50mm
93008-4	93008-8	93008-16	93008-50	93008-100	1.55mm
93009-4	93009-8	93009-16	93009-50	93009-100	1.60mm
93010-4	93010-8	93010-16	93010-50	93010-100	1.65mm
93011-4	93011-8	93011-16	93011-50	93011-100	1.70mm
93012-4	93012-8	93012-16	93012-50	93012-100	1.75mm
93013-4	93013-8	93013-16	93013-50	93013-100	1.80mm
93014-4	93014-8	93014-16	93014-50	93014-100	1.85mm
93015-4	93015-8	93015-16	93015-50	93015-100	1.90mm
93016-4	93016-8	93016-16	93016-50	93016-100	1.95mm
93017-4	93017-8	93017-16	93017-50	93017-100	2.00mm
93018-4	93018-8	93018-16	93018-50	93018-100	2.05mm
93019-4	93019-8	93019-16	93019-50	93019-100	2.10mm
93020-4	93020-8	93020-16	93020-50	93020-100	2.15mm
93021-4	93021-8	93021-16	93021-50	93021-100	2.20mm
93022-4	93022-8	93022-16	93022-50	93022-100	2.25mm
93023-4	93023-8	93023-16	93023-50	93023-100	2.30mm
93024-4	93024-8	93024-16	93024-50	93024-100	2.35mm
93025-4	93025-8	93025-16	93025-50	93025-100	2.40mm
93026-4	93026-8	93026-16	93026-50	93026-100	2.45mm
93027-4	93027-8	93027-16	93027-50	93027-100	2.50mm
93028-4	93028-8	93028-16	93028-50	93028-100	2.55mm
93029-4	93029-8	93029-16	93029-50	93029-100	2.60mm
93030-4	93030-8	93030-16	93030-50	93030-100	2.65mm
93031-4	93031-8	93031-16	93031-50	93031-100	2.70mm
93032-4	93032-8	93032-16	93032-50	93032-100	2.75mm
93033-4	93033-8	93033-16	93033-50	93033-100	2.80mm
93034-4	93034-8	93034-16	93034-50	93034-100	2.85mm
93035-4	93035-8	93035-16	93035-50	93035-100	2.90mm
93036-4	93036-8	93036-16	93036-50	93036-100	2.95mm
93037-4	93037-8	93037-16	93037-50	93037-100	3.00mm
93038-4	93038-8	93038-16	93038-50	93038-100	3.05mm
93039-4	93039-8	93039-16	93039-50	93039-100	3.10mm
93040-4	93040-8	93040-16	93040-50	93040-100	3.15mm
93041-4	93041-8	93041-16	93041-50	93041-100	3.20mm

SHIMS VALVE ADJUSTMENT



9.5mm Shims - Valve Adjustment

Qty 4 Part No.	Qty 8 Part No.	Qty 16 Part No.	Qty 50 Part No.	Qty 100 Part No.	Thickness
93042-4	93042-8	93042-16	93042-50	93042-100	3.25mm
93043-4	93043-8	93043-16	93043-50	93043-100	3.30mm
93044-4	93044-8	93044-16	93044-50	93044-100	3.35mm
93045-4	93045-8	93045-16	93045-50	93045-100	3.40mm
93046-4	93046-8	93046-16	93046-50	93046-100	3.45mm
93047-4	93047-8	93047-16	93047-50	93047-100	3.50mm

13mm Shims - Valve Adjustment

Qty 4 Part No.	Qty 8 Part No.	Qty 16 Part No.	Qty 50 Part No.	Qty 100 Part No.	Thickness
93050-4	93050-8	93050-16	93050-50	93050-100	2.05mm
93051-4	93051-8	93051-16	93051-50	93051-100	2.10mm
93052-4	93052-8	93052-16	93052-50	93052-100	2.15mm
93053-4	93053-8	93053-16	93053-50	93053-100	2.20mm
93054-4	93054-8	93054-16	93054-50	93054-100	2.25mm
93055-4	93055-8	93055-16	93055-50	93055-100	2.30mm
93056-4	93056-8	93056-16	93056-50	93056-100	2.35mm
93057-4	93057-8	93057-16	93057-50	93057-100	2.40mm
93058-4	93058-8	93058-16	93058-50	93058-100	2.45mm
93059-4	93059-8	93059-16	93059-50	93059-100	2.50mm
93060-4	93060-8	93060-16	93060-50	93060-100	2.55mm
93061-4	93061-8	93061-16	93061-50	93061-100	2.60mm
93062-4	93062-8	93062-16	93062-50	93062-100	2.65mm
93063-4	93063-8	93063-16	93063-50	93063-100	2.70mm
93064-4	93064-8	93064-16	93064-50	93064-100	2.75mm
93065-4	93065-8	93065-16	93065-50	93065-100	2.80mm
93066-4	93066-8	93066-16	93066-50	93066-100	2.85mm
93067-4	93067-8	93067-16	93067-50	93067-100	2.90mm
93068-4	93068-8	93068-16	93068-50	93068-100	2.95mm
93069-4	93069-8	93069-16	93069-50	93069-100	3.00mm
93070-4	93070-8	93070-16	93070-50	93070-100	3.05mm
93071-4	93071-8	93071-16	93071-50	93071-100	3.10mm

SEATS (HIGH CHROME)

- 18-22% Chromium for resistance to abrasion, corrosion and deformation
- 1-2% Nickel content, which lends to corrosion-resistance and toughness
- Machined from solid bar stock and ground to exacting tolerances
- The alternative to Powder Metal
- Machines as a continuous chip
- Use KPMI® "High Chromium Seats" for your next gasoline or diesel engine rebuild

KPMI Part Number	Outside Diameter		Inside Diameter		Height	
10-HC414	41.40mm	1.630"	29.97mm	1.180"	9.78mm	0.385"
10-HC446	44.63mm	1.757"	34.82mm	1.371"	8.00mm	0.315"
10-HC447	44.63mm	1.757"	35.81mm	1.410"	10.92mm	0.430"
10-HC462	46.23mm	1.820"	34.93mm	1.375"	11.43mm	0.450"
10-HC477	47.75mm	1.880"	36.45mm	1.435"	10.41mm	0.410"
10-HC478	47.80mm	1.882"	38.61mm	1.520"	10.41mm	0.410"
10-HC493	49.38mm	1.944"	40.01mm	1.575"	10.16mm	0.400"
10-HC494	49.40mm	1.945"	34.93mm	1.375"	11.18mm	0.440"
10-HC510	51.00mm	2.008"	40.89mm	1.610"	11.18mm	0.440"
10-HC518	51.82mm	2.040"	43.18mm	1.700"	10.80mm	0.425"
10-HC525	52.53mm	2.068"	44.45mm	1.750"	8.00mm	0.315"
10-HC526	52.58mm	2.070"	40.89mm	1.610"	11.68mm	0.460"
10-HC541	54.15mm	2.132"	45.72m	1.800"	11.68mm	0.460"
10-HC542	54.23mm	2.135"	44.45m	1.750"	10.16mm	0.400"
10-HC549	54.94mm	2.163"	44.45mm	1.750"	11.56mm	0.455"
10-HC573	57.33mm	2.257"	39.37mm	1.550"	12.70mm	0.500"



SEATS (POWDERED METAL)



In an effort to develop valve seats that fit our exacting standards, Kibblewhite® tested and chemically separated several iron based valve seats. We specified a combination of materials that gave us a seat with good uniform hardness and resistance to microwelding, wear, and recession. Casting a seat with this combination of alloys was not possible, and only with the latest in Powdered Metal Technology were we able to blend these alloys creating a high density seat with exceptional wear resistance, machinability, and thermal qualities. This material is compatible with all types of fuel blends, resists corrosion and burning, and is machinable with standard tooling.

These seats have been thoroughly tested on the track and street, in high RPM multi-valve applications, high spring load V-twin applications, with leaded and unleaded gasoline, ethanol, methanol, and in naturally aspirated and forced induction applications. In each case they have performed flawlessly, making these the seats of choice for cylinder head builders everywhere.

KPMI Part Number	Outside Diameter		Inside Diameter		Height	
10-SC250	25.00mm	0.984"	17.00mm	0.669"	9.00mm	0.355"
10-SC260	26.00mm	1.024"	18.00mm	0.709"	9.00mm	0.355"
10-SC270	27.00mm	1.063"	19.00mm	0.748"	9.00mm	0.355"
10-SC280	28.00mm	1.102"	20.00mm	0.787"	9.00mm	0.355"
10-SC290	29.00mm	1.142"	21.00mm	0.827"	9.50mm	0.375"
10-SC300	30.00mm	1.181"	22.00mm	0.866"	9.50mm	0.375"
10-SC310	31.00mm	1.220"	23.00mm	0.906"	9.50mm	0.375"
10-SC320	32.00mm	1.260"	24.00mm	0.945"	9.50mm	0.375"
10-SC330	33.00mm	1.299"	25.00mm	0.984"	9.50mm	0.375"
10-SC340	34.00mm	1.339"	26.00mm	1.024"	9.50mm	0.375"
10-SC350	35.00mm	1.378"	26.00mm	1.024"	11.00mm	0.434"
10-SC360	36.00mm	1.417"	27.00mm	1.063"	11.00mm	0.434"
10-SC370	37.00mm	1.457"	28.00mm	1.102"	11.00mm	0.434"
10-SC380	38.00mm	1.496"	29.00mm	1.142"	11.00mm	0.434"
10-SC390	39.00mm	1.535"	30.00mm	1.181"	11.00mm	0.434"
10-SC400	40.00mm	1.575"	30.00mm	1.181"	11.00mm	0.434"
10-SC410	41.00mm	1.614"	31.00mm	1.220"	11.00mm	0.434"
10-SC414	41.43mm	1.631"	30.15mm	1.187"	11.43mm	0.450"
10-SC420	42.00mm	1.654"	32.00mm	1.260"	11.00mm	0.434"
10-SC430	43.00mm	1.693"	33.00mm	1.299"	11.00mm	0.434"
10-SC440	44.00mm	1.732"	34.00mm	1.339"	11.00mm	0.434"
10-SC446	44.62mm	1.757"	35.00mm	1.375"	11.43mm	0.450"
10-SC450	45.00mm	1.772"	34.50mm	1.358"	11.00mm	0.434"
10-SC460	46.00mm	1.811"	35.50mm	1.398"	11.00mm	0.434"
10-SC462	46.20mm	1.819"	34.93mm	1.375"	11.43mm	0.450"
10-SC470	47.00mm	1.850"	36.50mm	1.437"	11.00mm	0.434"
10-SC478	47.78mm	1.881"	36.50mm	1.437"	11.43mm	0.450"
10-SC480	48.00mm	1.890"	37.50mm	1.476"	11.00mm	0.434"
10-SC490	49.00mm	1.929"	38.50mm	1.516"	11.00mm	0.434"
10-SC494	49.40mm	1.945"	38.10mm	1.500"	11.43mm	0.450"
10-SC500	50.00mm	1.969"	39.00mm	1.535"	11.50mm	0.453"
10-SC510	50.98mm	2.007"	39.67mm	1.562"	11.43mm	0.450"
10-SC523	52.32mm	2.060"	39.67mm	1.562"	11.43mm	0.450"
10-SC525	52.53mm	2.068"	42.85mm	1.687"	11.43mm	0.450"
10-SC541	54.15mm	2.132"	42.93mm	1.690"	11.43mm	0.450"
10-SC550	54.97mm	2.164"	44.45mm	1.750"	11.43mm	0.450"
10-SC557	55.73mm	2.194"	45.72mm	1.800"	11.43mm	0.450"
10-SC573	57.30mm	2.256"	47.50mm	1.870"	11.43mm	0.450"

SEATS (NICKEL ALUMINUM BRONZE)



TITANIUM valves require the use of Kibblewhite® Nickel Aluminum Bronze valve seat inserts. This premium copper based alloy is designed specifically for use with titanium valves. These seats are the product of a 2 year Kibblewhite® R&D effort during which we recorded and verified results with 4&5 valve singles, domestic and foreign sport compacts, multi valve and single cylinder street bikes, as well as British and European 4strokes. In every one of our tests for wear, thermal conductivity, and machinability, the seats surpassed the standard we set for success. These seats have been used successfully with titanium valves in drag race, road race, desert race, motocross, and land speed racing. The seats are tall, have ample material on the ID for shaping, and are offered in several sizes making them truly universal in application. The ODs have a smooth surface finish that offers maximum contact with the head counterbore for optimum heat transfer, and a generous radius on the leading edge to prevent galling during installation.

KPMI Part Number	Outside Diameter		Inside Diameter		Height	
	mm	in	mm	in	mm	in
10-SB240	24.00	0.945	16.00	0.630	9.00	0.355
10-SB250	25.00	0.984	17.00	0.669	9.00	0.355
10-SB260	26.00	1.024	18.00	0.709	9.00	0.355
10-SB270	27.00	1.063	19.00	0.748	9.00	0.355
10-SB275	27.50	1.083	19.00	0.748	9.00	0.355
10-SB280	28.00	1.102	20.00	0.787	9.00	0.355
10-SB285	28.50	1.122	20.00	0.787	9.00	0.355
10-SB290	29.00	1.142	21.00	0.827	9.50	0.375
10-SB295	29.50	1.161	21.00	0.827	9.50	0.375
10-SB300	30.00	1.181	22.00	0.866	9.50	0.375
10-SB305	30.50	1.201	22.00	0.866	9.50	0.375
10-SB310	31.00	1.220	23.00	0.906	9.50	0.375
10-SB315	31.50	1.240	23.00	0.906	9.50	0.375
10-SB320	32.00	1.260	24.00	0.945	9.50	0.375
10-SB325	32.50	1.280	24.00	0.945	9.50	0.375
10-SB330	33.00	1.299	25.00	0.984	9.50	0.375
10-SB335	33.50	1.319	25.00	0.984	9.50	0.375
10-SB340	34.00	1.339	26.00	1.024	9.50	0.375
10-SB345	34.50	1.358	26.00	1.024	9.50	0.375
10-SB350	35.00	1.378	25.00	0.984	11.00	0.434
10-SB355	35.50	1.398	26.00	1.024	11.00	0.434
10-SB360	36.00	1.417	27.00	1.063	11.00	0.434
10-SB365	36.50	1.437	27.00	1.063	11.00	0.434
10-SB370	37.00	1.457	28.00	1.102	11.00	0.434
10-SB375	37.50	1.476	28.00	1.102	11.00	0.434
10-SB380	38.00	1.496	29.00	1.142	11.00	0.434
10-SB385	38.50	1.516	29.00	1.142	11.00	0.434
10-SB390	39.00	1.535	30.00	1.181	11.00	0.434
10-SB395	39.50	1.555	30.00	1.181	11.00	0.434
10-SB400	40.00	1.575	30.00	1.181	11.00	0.434
10-SB405	40.50	1.594	30.00	1.181	11.00	0.434
10-SB410	41.00	1.614	31.00	1.220	11.00	0.434
10-SB415	41.50	1.634	31.00	1.220	11.00	0.434
10-SB420	42.00	1.654	32.00	1.260	11.00	0.434
10-SB430	43.00	1.693	33.00	1.299	11.00	0.434
10-SB440	44.00	1.732	34.00	1.339	11.00	0.434
10-SB450	45.00	1.772	34.50	1.358	11.00	0.434
10-SB460	46.00	1.811	35.50	1.398	11.00	0.434
10-SB470	47.00	1.850	36.50	1.437	11.00	0.434
10-SB480	48.00	1.890	37.50	1.476	11.00	0.434
10-SB490	49.00	1.929	38.50	1.516	11.00	0.434
10-SB500	50.00	1.969	39.00	1.535	11.50	0.453



LEAD-FREE • CHROME PLATED WHEEL WEIGHTS

SPIN TRUE



The Spin True® Wheel Weights have several advantages beyond other existing Wheel Weight products.

Symmetrical Clamping Force: The Spin True® Wheel Weights (unlike other products) maintain at least four points of contact with the spoke nipple creating a secure and balanced fitment.

“Lead-Free” Composition: Unlike many other wheel weights on the market, Spin True® Wheel Weights are manufactured from a material that does not contain lead. This is particularly important for customers in states that have anti-lead legislation.

60 Pieces Wheel Weight Kit for Large Spoke Nipples (0.300”Ø - 0.350”Ø)

	KPMI P/N	Kit Includes					
		0.25 Oz Weights Pr.		0.50 Oz Weights Pr.		0.75 Oz Weights Pr.	
	99-99125	10	99-99025	10	99-99035	10	99-99045
		1.00 Oz Weights Pr.		1.25 Oz Weights Pr.		1.50 Oz Weights Pr.	
	10	99-99055	10	99-99065	10	99-99075	
Kit Also Includes	1	Allen Wrench	1	Tap	120	Screws	

60 Pieces Wheel Weight Kit for Small Spoke Nipples (0.250”Ø - 0.300”Ø)

	KPMI P/N	Kit Includes					
		0.25 Oz Weights Pr.		0.50 Oz Weights Pr.		0.75 Oz Weights Pr.	
	99-99130	10	99-99020	10	99-99030	10	99-99040
		1.00 Oz Weights Pr.		1.25 Oz Weights Pr.		1.50 Oz Weights Pr.	
	10	99-99050	10	99-99060	10	99-99070	
Kit Also Includes	1	Allen Wrench	1	Tap	120	Screws	

6 Pieces Wheel Weight Sample Kit for Large Spoke Nipples (0.300”Ø - 0.350”Ø)

	KPMI P/N	Kit Includes					
		1	0.25 Oz Weights Pr.	1	0.50 Oz Weights Pr.	1	0.75 Oz Weights Pr.
	99-99135	1	1.00 Oz Weights Pr.	1	1.25 Oz Weights Pr.	1	1.50 Oz Weights Pr.
		1	Allen Wrench	12	Screws		

6 Pieces Wheel Weight Sample Kit for Small Spoke Nipples (0.250”Ø - 0.300”Ø)

	KPMI P/N	Kit Includes					
		1	0.25 Oz Weights Pr.	1	0.50 Oz Weights Pr.	1	0.75 Oz Weights Pr.
	99-99140	1	1.00 Oz Weights Pr.	1	1.25 Oz Weights Pr.	1	1.50 Oz Weights Pr.
		1	Allen Wrench	12	Screws		

Note: See Figure1 on how to determine your nipple diameter

Replacement Screws

	KPMI P/N	Quantity
	99-99105	Pkg. of 240
	99-99106	Pkg. of 120
	99-99107	Pkg. of 40

LEAD-FREE • CHROME PLATED WHEEL WEIGHTS

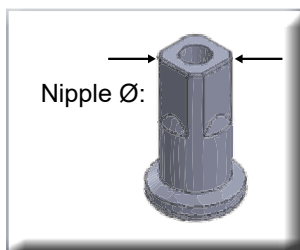


Figure 1





Figure 2



- CNC Machined, Chrome Plated Stainless Steel
- .25oz, .5oz, .75oz, 1oz, 1.25oz and 1.5oz
- Symmetrical Halves Lock Onto the Nipple
- Fits .250" to .350" Nipple Diameters

Refill Packs

	KPMI P/N	Weight	Nipple Size	Quantity
	99-99020	0.25 Oz	(Ø0.250 - Ø0.300)	10-Wheel Weights 20-Screws
	99-99025	0.25 Oz	(Ø0.300 - Ø0.350)	10-Wheel Weights 20-Screws
	KPMI P/N	Weight	Nipple Size	Quantity
	99-99030	0.50 Oz	(Ø0.250 - Ø0.300)	10-Wheel Weights 20-Screws
	99-99035	0.50 Oz	(Ø0.300 - Ø0.350)	10-Wheel Weights 20-Screws
	KPMI P/N	Weight	Nipple Size	Quantity
	99-99040	0.75 Oz	(Ø0.250 - Ø0.300)	10-Wheel Weights 20-Screws
	99-99045	0.75 Oz	(Ø0.300 - Ø0.350)	10-Wheel Weights 20-Screws
	KPMI P/N	Weight	Nipple Size	Quantity
	99-99050	1.00 Oz	(Ø0.250 - Ø0.300)	10-Wheel Weights 20-Screws
	99-99055	1.00 Oz	(Ø0.300 - Ø0.350)	10-Wheel Weights 20-Screws
	KPMI P/N	Weight	Nipple Size	Quantity
	99-99060	1.25 Oz	(Ø0.250 - Ø0.300)	10-Wheel Weights 20-Screws
	99-99065	1.25 Oz	(Ø0.300 - Ø0.350)	10-Wheel Weights 20-Screws
	KPMI P/N	Weight	Nipple Size	Quantity
	99-99070	1.50 Oz	(Ø0.250 - Ø0.300)	10-Wheel Weights 20-Screws
	99-99075	1.50 Oz	(Ø0.300 - Ø0.350)	10-Wheel Weights 20-Screws

Note: See Figure1 on how to determine your nipple diameter

Spin True® FAQ

Q: Why is maintaining four points of contact with the spoke nipple better than two points or how other wheel weights work?

A: The Spin True® Wheel Weights (unlike other products) maintain at least four points of contact with the spoke nipple creating a secure and balanced fitment (See Figure 2).

Q: What is the finish and is it durable in all-weather / terrains?

A: Spin True® Wheel Weights are chrome plated Stainless Steel and durable for all manners of usage.

Q: Will these fit dirt bikes, Harley's, BMW?

A: These are universal and will fit all motorcycles with spoke wheels using either .250"-.300" or .300"-.350" exposed nipples. Two series of weights tailored to the specific nipple sizes (.250"-.300 and .300"-.350") are available to provide the most complete application coverage.

Q: Are they reusable?

A: They are completely reusable.

Q: Are they larger in physical size compared to other spoke wheel weights?

A: No. There may be small variations in volume due to slightly varying material density, but it's not significant.



• SNAPBACKS



- Red
- Front patches with embroidery.
- Pro bill.
- No curve.
- 80% acrylic, 20% cotton.



- Black
- Front patches with embroidery.
- Pro bill.
- No curve.
- 80% acrylic, 20% cotton.



- Cream
- Front patches with embroidery.
- Pro bill.
- No curve.
- 80% acrylic, 20% cotton.



- Black and Red
- Front patches with embroidery.
- Pro bill.
- No curve.
- 80% acrylic, 20% cotton.



- Black and White
- Trucker Hat
- Front patches with embroidery.
- Medium profile with natural curve bill.
- 6 panel mesh back.
- 47% Cotton, 50% polyester.



- White
- Trucker Hat
- Front patches with embroidery.
- Medium profile with natural curve bill.
- 6 panel mesh back.
- 47% Cotton, 50% polyester.

• BEANIES



- Black, Navy, and Red
- One Size
- Ribbed knit. Logo Patch
- 100% Acrylic

• T-Shirts



- Black
- KPMI® screen printed graphics
- Soft 100% Cotton
- Regular fit
- Size : Medium, Large, and Extra Large

• STICKERS



Item Detail	
Size	Quantity
5 in x 1/4 in	Pkg. of 10
8.5 in x 1.55	Pkg. of 4
10.5 in x 1.88	Pkg. of 4

Item Detail	
Size	Quantity
5 in x 1/4 in	Pkg. of 10
8.5 in x 1.55	Pkg. of 4
10.5 in x 1.88	1 ea.



KPMI® RACING TEAMS

RACING TEAMS

Kibblewhite Racing



Cole Crowley
2009 District 36 250cc Champion



Larry "Spiderman" McBride
16 Time Top Fuel world Champion



Jordan Phillips
Grand National Cross Country



Ton Pels
European Super Twin Top Fuel Championship
7 Time 1st / 2nd Finisher



KPMI® RACING TEAMS



RACING TEAMS

Ian King
10 Time European Top Fuel Champion



Sammy Halbert
2012 AMA Flat Track Finals/ Expert Singles Champion



Alp Sungurtekin
175MPH worlds Fastest 650cc Pushrod Engine
SCTA & AMA LSR Grand National Champion



Sims Motorsports
2012 New record
with APS-1350-G/ M-2000-G Class





KPMI® CUSTOM VALVE ORDER FORM

KPMI® Custom Valve Order Form

Part Number	
Engr. Approval / Date	

Customer Information	
Contact:	
Company:	
Phone:	Fax:
E-Mail:	Date:
Make:	Disp:
Model:	Years:
Material:	<input type="checkbox"/> S.S. <input type="checkbox"/> Ti. <input type="checkbox"/> Other: _____
Blank Part #:	
Notes:	

Additional Specifications	
Rocker Arm	YES <input type="checkbox"/>
Rocker Arm (w/ Elephant Foot)	YES <input type="checkbox"/>
Cam Follower (Shim & Bucket)	YES <input type="checkbox"/>
Using Lash Cap	YES <input type="checkbox"/>
Intake Valve	YES <input type="checkbox"/>
Exhaust Valve	YES <input type="checkbox"/>

Customer Approval:	
Date:	

Groove Dimensions	
Radius Groove	Triple Groove
Square Groove	Triple Groove
Groove Location:	
Groove Minor Ø:	
Groove Width:	
Groove Radius:	N/A
Groove Spacing:	N/A

Groove Location is measured from the tip of the valve to the center of the radius or to the top of the square groove (for the triple groove it is measured from the tip of the valve to the center of the middle radius)

Reduced Dia. Groove Detail (if applicable)	
-A- Undercut Ø:	
-B- Undercut Length:	
-C- Groove Location:	
-D- Groove Ø:	
-E- Groove Width: <small>E = √(A-D) · (A-D)</small>	
-F- Groove Radius:	

Dish Dimensions	
-A- Dish Radius:	-D- Dish Depth:
-B- Dish Depth:	-E- Dish Width:
-C- Dish Width:	-F- Dish Angle:

Radius/Dish	
-A- Dish Radius:	-D- Dish Depth:
-B- Dish Depth:	-E- Dish Width:
-C- Dish Width:	-F- Dish Angle:

KPMI® CUSTOM GUIDE ORDER FORM



KPMI® Custom Guide Order Form



Part Number	
Engr. Approval / Date	
Customer Information	
Company:	
Contact:	
Phone:	
Fax:	Date:
E-mail:	
Material:	<input type="checkbox"/> Cast Iron <input type="checkbox"/> Ni Al Bronze <input type="checkbox"/> Manganese <input type="checkbox"/>
Notes:	

Shouldered Guide	Snap Ring Guide	Stepped Shoulder Guide

Make:	Model:	Disp:	Years:
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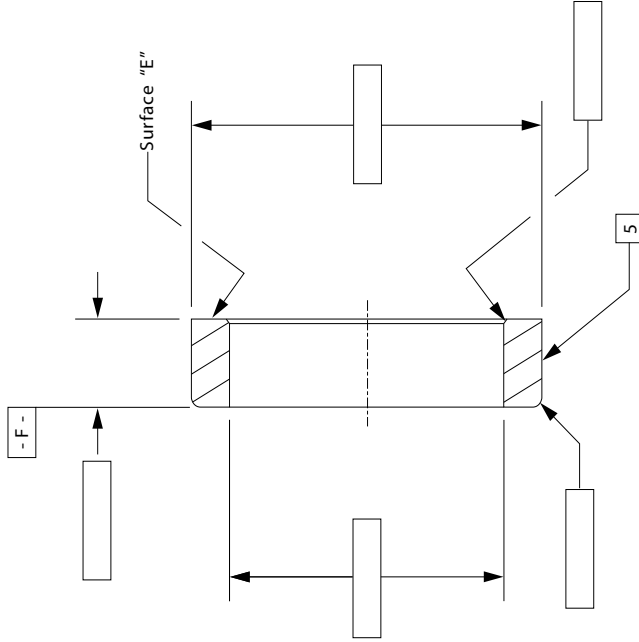
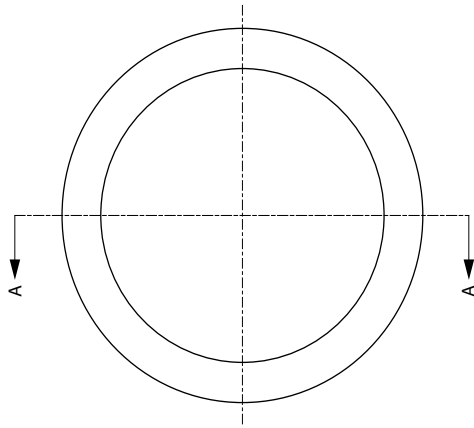


KPMI® CUSTOM SEAT ORDER FORM

KPMI® Custom Seat Order Form



Part Number:



Customer Information			
Contact Name:			
Company Name:			
Phone:	Date:	Model:	Years:
Make:			
Disp:			
Customer Approval:			Date:

Seat Information			
Additional Notes:			
KPMI Blank P/N:			
Material:	<input type="checkbox"/> SAE 630	<input type="checkbox"/> G2 Cast Iron	
(KPMI use only) Total Cost Per Seat:			Qty.
(KPMI use only) Total Cost:			

NOTES:

1. Break and deburr all sharp edges 0.010" X 45°
2. Finish O.D. to RMS-16 parallel and round within 0.0004" (For wall thickness less than 0.120", parallel and round within 0.0008")
3. Surface "E" parallel to Datum F within 0.002"
4. I.D. and O.D. must be concentric within 0.010" TIR
5. I.D. and O.D. must be parallel within 0.002"
6. O.D. must be perpendicular to Datum F within 0.002"
7. (U.O.S.) Unless Otherwise Specified



KIBBLEWHITE PRECISION MACHINING INC.

MADE IN USA

ENGINEERING VALVETRAIN FOR 78 - YEARS & 2 - GENERATIONS



KPMI® LEGAL NOTES



Since 1939, Kibblewhite® Precision Machining, Inc. (KPMI®), an independent company, has been committed to serving the valvetrain component needs of the powersport industry.

IMPORTANT TRADEMARK NOTICES

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PAYMENTS - All Dealer/ Distributor orders will be shipped C.O.D., certified check / money order or prepaid by Visa®, MasterCard®, American Express® or bank wire transfer. Company checks will be accepted from Dealers or Distributors after completing a KPMI® Survey/ Application and histories warrant. All international orders should be prepaid in U.S. funds to avoid delays. Proforma invoices are available upon request. Terms are granted by arrangement only.

WARRANTY - All merchandise and services offered by KPMI® are for racing use only. KPMI® warrants to the original purchaser the racing components listed in this catalog as manufactured by us to be free from defects in material and workmanship under normal use and service.

Our obligation under this warranty shall be limited to the repair or exchange of any part(s) which may thus prove defective under normal use and service within 30 days from date of installation by the original purchaser, and which our examination shall disclose to

our satisfaction to be thus defective. This Warranty is expressly in lieu of all other warranties expressed or implied including the warranties of merchantability and fitness for use and all other obligations or liabilities on our part, and we neither assume, nor authorize any person to assume for us, any other liability in connection with the sale of these components. This warranty shall not apply to components or any part thereof which has been subjected to an accident, negligence, alteration, abuse or misuse. We make no warranty whatsoever with regard to accessories or parts not supplied by us. The term "original purchaser," as used in this warranty, shall be deemed to mean that person to whom the components were originally delivered. This warranty shall apply only within the continental United States. Seller makes no warranties which extend beyond that set forth in the preceding paragraph. Subject to applicable State laws.

SHIPPING - We ship by Federal Express (FedEx), United Parcel Service (UPS), USPS (upon request) and DHL Express. Shipping charges are added to invoice total.

MACHINE WORK - Anything sent to Kibblewhite® Precision Machining to be machined must be accompanied with complete instructions and return address. Please be sure to include a packing list of the parts being sent to us. Any discrepancy that is not accounted for with the package(s) received will be the responsibility of the sender. Any damage to merchandise at the time of receipt will need to be handled by the sender with the carrier.

CLAIMS - If damage occurs to any item during transit; it is the responsibility of the freight carrier. Responsibility for the goods is passed from the shipper to carrier when the carrier leaves the point of pickup. All claims must be made with the carrier. We will, however, help you with the claim in any way we can.

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CURRENT FITMENT INFORMATION

To the best of our knowledge, all the pictures and application information contained herein are accurate as of the date this catalog was approved for printing (August 2017). Because some models had not yet been released at the time, it was not possible to provide application information for these vehicles. Therefore, whenever a part is listed as fitting "to present" this would apply to models that had been able to verify application for by catalog press date ONLY. Please check with your KPMI® dealer or account representative for verification of the latest 2017 model year applications.

NOTICES

All KPMI® valve guides, standard valves, and spring kits are intended for use as OEM replacement parts, exceeding OEM specifications in terms of durability and or expected cyclical life. Oversize valves are intended for racing vehicles with planned use on closed courses.



VALVE dEVELOpmEnt



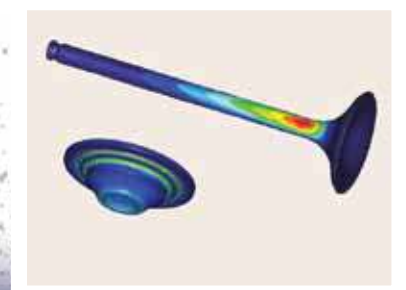
Experimental Engine t echnology Valves

KPMI® has created this “Engineering Custom Work” brochure to give our customers a snapshot of our custom work capabilities here at KPMI®. Many know us for our extensive line of finished goods (valvetrain components) for the motorsport industry. However, many of our customers are unaware we have the capability to custom design and manufacture one-off prototypes or offer in-house full run production for a variety of motorsport and non-motorsport applications.

KPMI® has a full dedicated engineering department solely responsible for the development, fitment and review of custom designs. These designs can either be directly per the customer’s specifications or from specifications derived from KPMI® Engineering development team. KPMI® utilizes the latest in scientific and engineering software, including CAD/CAM technologies, Finite Element Analysis software, flow bench testing, rapid prototyping and computerized valvetrain dynamics simulation software.

However, we at KPMI® are not limited to valvetrain and have designed and manufactured elevator parts, generator parts, drone parts, window parts, airplane prototype parts, and pre-production to full production runs for accelerated testing.

We also offer private labeling for a nominal fee. KPMI® has invested thousands of dollars in state of the art label printer(s) and laser etching equipment just for the purpose of in-house private labeling. Some of our customers have KPMI® develop, manufacture, inspect, and package, so product can be delivered complete, finished and ready for sale.



GUIDE dEVELOpment

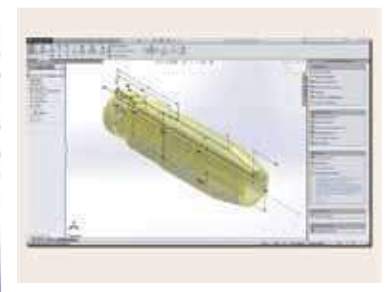


1964 Ferrari BRM Valve Guide

One of our customers sent us a used 1964 Ferrari BRM valve guide. The KPMI® Custom Work Department provided the sample guide to the KPMI® Engineering department for reverse engineering. Engineering sourced the O-ring and completed the RE... (Reverse Engineering) of the sample. By using one of two Mitutoyo PH-A14 Optical Comparators, suited with fiber-Optic edge sensing, KPMI's Mechanical Engineers were able to very accurately pull dimensions from the sample. Using the information gathered from the RE, a PRO/E drawing was created for the customer's review. The photo above is the finished product machined from solid C630 / NiAlBrnz.

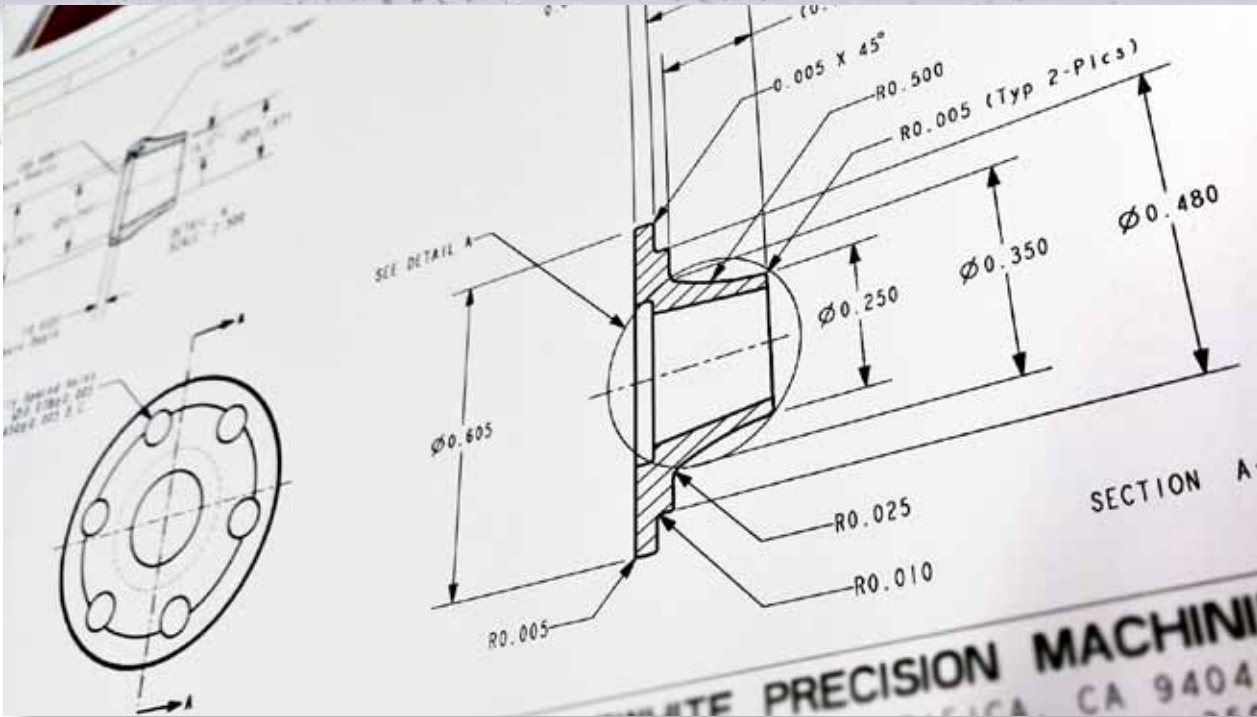


KPMI® is eager to earn your next custom work project and invites you to contact our engineering department for whatever your needs may be.





RETAINER DEVELOPMENT



Utilizing the advances in power, speed, and user interface of modern software, KPMI® employs an arsenal of software programs to plan, design, simulate, fabricate and test all aspects of development and production.

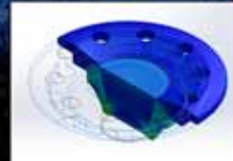
- **3D Modeling/FEA:** Every KPMI® component is designed using the latest in 3D modeling technologies, allowing KPMI® engineers to assemble entire valvetrain systems virtually to verify fitment and clearances. Once assembled, each system is subject to a rigorous Finite Element Analysis (FEA) that allows KPMI® engineers to validate designs and isolate areas of stress concentration. This FEA analysis ensures that KPMI® parts are both light and strong enough to stand up to the rigorous environment inside a modern racing engine.
- **Valvetrain Simulation:** Once a KPMI design has been modeled and refined the entire system is simulated using valvetrain simulation software. This allows KPMI® engineers to “tune” each system to ensure that it will work harmoniously in the engine.
- **Spring Design:** Each of KPMI’s valve springs are designed using advanced spring design software that allow KPMI® engineers to balance designs for the perfect blend of performance and longevity.



SPRING dEVELOpmEnt



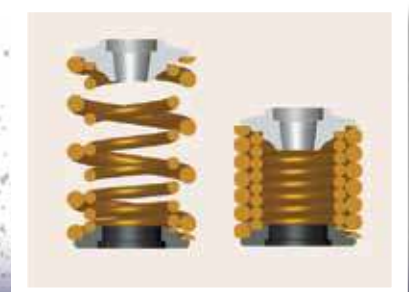
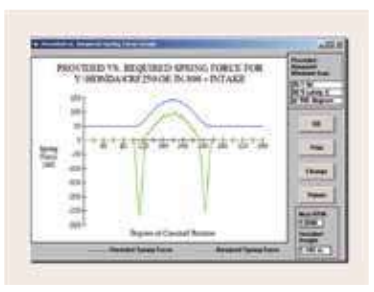
SPRING KITS LARGEST SELECTION IN THE WORLD



- Race & Direct O. E. M. Replacement
- Super Clean CrSi Wire
- Complete F. E. A. Design
- 100% Quality Controlled
- Manufactured in the USA

All KPMI® valve springs are designed in house using sophisticated, proprietary design and simulation software programs. Our engineers, software, and 78 years of experience enable us to determine critical characteristics including stress, natural frequency, system harmonics, required spring force, and fatigue life. Our spring manufacturing partners are U.S based companies that are ISO certified. The Super-Clean Chrome-Silicon valve spring wire we use is traceable back to Kobe Japan where some of the best spring wire in the world is manufactured.

Each spring goes through a rigidly controlled heat treatment, stress relief, and shot peening process. Combining our design, simulation, and manufacturing protocols with this premium quality valve spring wire allows KPMI® to supply you with the best possible valve springs period!





AV&V TO KPMI® VALVE PARTS CROSSOVER LIST

The following list describes which items are supersessions with similar (but not exact) dimensions and which items are dimensionally identical replacements. This allows you to search by part number to find the proper item for your use.

Brand	Part Number	Replacement	Type	Head Dia.	O.L.	Stem Dia.	Coating	Back Angle Tulip
AVV	AV001	No Rep. at this time	Intake	31.00MM	5.000"	4.48MM	Black Nitride	19°
AVV	AV002	Supersedes	Intake	32.00MM	5.000"	4.48MM	Black Nitride	19°
KPMI®	11-10005		Intake	32.00MM	5.000"	4.48MM	Black Nitride	18°
AVV	AV003	No Rep. at this time	Intake	31.00MM	5.000"	4.98MM	Black Nitride	19°
AVV	AV004	No Rep. at this time	Intake	29.00MM	5.000"	4.98MM	Black Nitride	19°
AVV	AV005	No Rep. at this time	Intake	36.00MM	5.000"	5.48MM	Black Nitride	19°
AVV	AV006	No Rep. at this time	Intake	37.00MM	5.000"	5.48MM	Black Nitride	19°
AVV	AV007	No Rep. at this time	Intake	38.00MM	5.000"	5.98MM	Chrome	19°
AVV	AV008	No Rep. at this time	Exhaust	26.00MM	5.000"	4.47MM	Black Nitride	20°
AVV	AV009	No Rep. at this time	Exhaust	28.00MM	5.000"	4.97MM	Black Nitride	20°
AVV	AV010	No Rep. at this time	Exhaust	27.00MM	5.000"	4.97MM	Black Nitride	20°
AVV	AV011	Supersedes	Exhaust	29.00MM	5.000"	5.47MM	Black Nitride	20°
KPMI®	40-4176B		Exhaust	29.00MM	5.000"	5.45MM	Black Nitride	29°
AVV	AV012	No Rep. at this time	Exhaust	32.00MM	4.300"	5.97MM	Chrome	20°
AVV	AV013	No Rep. at this time	Exhaust	35.4mMM	4.300"	5.97MM	Chrome	20°
AVV	AV014	No Rep. at this time	Intake	40.00MM	4.300"	5.98MM	Chrome	19°
AVV	AV015	No Rep. at this time	Intake	27.00MM	5.000"	4.48MM	Black Nitride	19°
AVV	AV016	No Rep. at this time	Intake	41.00MM	4.300"	5.98MM	Chrome	19°
AVV	AV017	No Rep. at this time	Intake	32.00MM	5.000"	4.98MM	Black Nitride	19°
AVV	AV018	No Rep. at this time	Exhaust	29.00MM	5.000"	4.97MM	Black Nitride	20°
AVV	AV019	Supersedes	Intake	28.00MM	5.000"	4.48MM	Black Nitride	19°
KPMI®	11-10006		Exhaust	28.00MM	5.000"	4.46MM	Black Nitride	20°
AVV	AV020	No Rep. at this time	Exhaust	31.00MM	5.000"	5.47MM	Black Nitride	20°
AVV	AV021	No Rep. at this time	Intake	36.00MM	5.000"	5.98MM	Black Nitride	19°
AVV	AV022	No Rep. at this time	Exhaust	35.00MM	5.000"	4.47MM	Black Nitride	20°
AVV	AV8-41	No Rep. at this time	Intake	41.00MM	5.000"	7.97MM	Black Nitride	22°
AVV	AV8-36	No Rep. at this time	Exhaust	36.30MM	5.000"	7.97MM	Black Nitride	24°
AVV	AV34-6TGC	Supersedes	Exhaust	34.40MM	4.602"	5.96MM	Chrome	21°
KPMI®	20-20152		Exhaust	34.50MM	4.618"	5.96MM	Black Nitride	25°
AVV	AV35-6TGC	No Rep. at this time	Exhaust	35.40MM	4.602"	5.96MM	Chrome	21°
AVV	AV40-6TGC	Supersedes	Intake	40.00MM	4.579"	5.97MM	Chrome	18°
KPMI®	20-20147		Intake	40.00MM	4.579"	5.97MM	Black Nitride	10°
AVV	AV41-6TGC	No Rep. at this time	Intake	41.00MM	4.578"	5.97MM	Chrome	18°
AVV	AV35-6SGC	No Rep. at this time	Exhaust	35.40MM	4.602"	5.96MM	Chrome	21°
AVV	AV41-6SGC	No Rep. at this time	Intake	41.00MM	4.578"	5.97MM	Chrome	18°
AVV	AV35-6B	No Rep. at this time	Exhaust	35.40MM	4.602"	5.96MM	Chrome	21°
AVV	AV41-6B	No Rep. at this time	Intake	41.00MM	4.578"	5.97MM	Chrome	18°
AVV	AV500	No Rep. at this time	Exhaust	37.97MM	3.745"	7.97MM	Black Nitride	24°
AVV	AV501	No Rep. at this time	Exhaust	37.40MM	3.730"	7.97MM	Black Nitride	24°
AVV	AV502	No Rep. at this time	Intake	43.00MM	3.819"	7.98MM	Black Nitride	22°

AV&V TO KPMI® VALVE PARTS CROSSOVER LIST



Brand	Part Number	Replacement	Type	Head Dia.	O.L.	Stem Dia.	Coating	Back Angle Tulip
AVV	AV503	No Rep. at this time	Intake	43.82MM	3.819"	7.98MM	Black Nitride	22°
AVV	AV504	No Rep. at this time	Intake	37.01MM	4.185"	6.98MM	Black Nitride	20°
AVV	AV505	No Rep. at this time	Exhaust	30.50MM	4.200"	6.97MM	Black Nitride	24°
AVV	AV506	No Rep. at this time	Intake	36.00MM	4.185"	6.98MM	Black Nitride	20°
AVV	AV507	No Rep. at this time	Exhaust	30.00MM	4.185"	6.97MM	Black Nitride	24°
AVV	AV508	No Rep. at this time	Intake	37.50MM	3.910"	7.97MM	Black Nitride	22°
AVV	AV509	No Rep. at this time	Exhaust	33.50MM	3.850"	7.97MM	Black Nitride	24°
AVV	AV510	No Rep. at this time	Intake	40.00MM	3.360"	7.97mm	Black Nitride	22°
AVV	AV511	No Rep. at this time	Exhaust	36.00MM	3.285"	7.97mm	Black Nitride	24°
AVV	AV512	Supersedes	Intake	45.01MM	3.830"	6.97MM	Black Nitride	22°
KPMI®	92-92062		Intake	45.01MM	3.830"	6.97MM	Black Nitride	22°
AVV	AV513	Supersedes	Exhaust	40.00MM	3.767"	6.97MM	Black Nitride	24°
KPMI®	92-92066		Exhaust	40.01MM	3.770"	6.96MM	Black Nitride	22°
AVV	AV515	Supersedes	Exhaust	41.00MM	3.767"	6.97MM	Black Nitride	24°
KPMI®	92-92067		Exhaust	41.00MM	3.770"	6.96MM	Black Nitride	22°
AVV	AV524	No Rep. at this time	Intake	41.00MM	3.802"	7.97MM	Black Nitride	22°
AVV	AV525	No Rep. at this time		35.00MM	3.711"	7.97MM	Black Nitride	24°
AVV	AV530	No Rep. at this time	Intake	41.00MM	3.805"	7.97MM	Black Nitride	22°
AVV	AV531	No Rep. at this time	Exhaust	35.00MM	3.714"	7.97MM	Black Nitride	24°
AVV	AV533	No Rep. at this time	Intake	42.00MM	3.819"	7.98MM	Black Nitride	22°
AVV	AV540A	No Rep. at this time	Intake	40.00MM	3.307"	7.97MM	Black Nitride	22°
AVV	AV540	No Rep. at this time	Intake	40.00MM	3.307"	7.97MM	Black Nitride	22°
AVV	AV541A	No Rep. at this time	Intake	41.00MM	3.307"	7.97MM	Black Nitride	22°
AVV	AV541	No Rep. at this time	Intake	41.00MM	3.307"	7.97MM	Black Nitride	22°
AVV	AV542	No Rep. at this time	Exhaust	36.00MM	3.183"	7.97MM	Black Nitride	24°
AVV	AV546	No Rep. at this time	Intake	44.00MM	3.881"	6.97MM	Black Nitride	22°
AVV	AV547	No Rep. at this time	Intake	46.00MM	3.878"	7.97MM	Black Nitride	22°
AVV	AV548	No Rep. at this time	Exhaust	38.00MM	3.849"	6.97MM	Black Nitride	24°
AVV	AV549	No Rep. at this time	Exhaust	39.00MM	3.849"	6.97MM	Black Nitride	24°
AVV	AV552	No Rep. at this time	Intake	41.00MM	3.340"	7.97MM	Black Nitride	22°
AVV	AV553	No Rep. at this time	Exhaust	36.30MM	3.311"	7.97MM	Black Nitride	24°
AVV	AV557	No Rep. at this time	Intake	40.00MM	3.362"	7.97MM	Black Nitride	22°
AVV	AV558	No Rep. at this time	Exhaust	36.00MM	3.335"	7.97MM	Black Nitride	24°
AVV	AV558A	No Rep. at this time	Exhaust	36.00MM	3.306"	7.97MM	Black Nitride	24°
AVV	AV561	No Rep. at this time	Intake	47.00MM	3.830"	6.97MM	Black Nitride	22°
AVV	AV563	No Rep. at this time	Intake	40.00MM	3.389"	7.97MM	Black Nitride	22°
AVV	AV565	No Rep. at this time	Intake	40.00MM	3.375"	7.97MM	Black Nitride	22°
AVV	AV566	No Rep. at this time	Exhaust	35.85MM	3.359"	7.97MM	Black Nitride	24°
AVV	AV568	No Rep. at this time	Intake	37.00MM	3.820"	7.97MM	Black Nitride	22°
AVV	AV569	No Rep. at this time	Exhaust	33.00MM	3.794"	7.97MM	Black Nitride	24°



AV&V TO KPMI® VALVE PARTS CROSSOVER LIST

The following list describes which items are supersessions with similar (but not exact) dimensions and which items are dimensionally identical replacements. This allows you to search by part number to find the proper item for your use.

Brand	Part Number	Replacement	Type	Head Dia.	O.L.	Stem Dia.	Coating	Back Angle Tulip
AVV	AV1001	Supersedes	Exhaust	26.00MM	3.237"	4.97MM	Black Nitride	20°
KPMI®	30-30633		Exhaust	26.01MM	3.235"	4.97MM	Black Nitride	20°
AVV	AV1002	Supersedes	Exhaust	27.00MM	3.234"	4.97MM	Black Nitride	20°
KPMI®	30-30634		Exhaust	27.00MM	3.235"	4.97MM	Black Nitride	20°
AVV	AV1003	Supersedes	Intake	31.00MM	3.279"	4.98MM	Black Nitride	19°
KPMI®	30-30630		Intake	30.99MM	3.280"	4.98MM	Black Nitride	20°
AVV	AV1004	Supersedes	Intake	32.00MM	3.279"	4.98MM	Black Nitride	19°
KPMI®	30-30631		Intake	32.00MM	3.280"	4.98MM	Black Nitride	20°
AVV	AV1005	Supersedes	Exhaust	26.00MM	3.234"	4.47MM	Black Nitride	20°
KPMI®	30-31166		Exhaust	26.01MM	3.235"	4.47MM	Black Nitride	20°
AVV	AV1008	Supersedes	Intake	36.00MM	3.329"	5.48MM	Black Nitride	19°
KPMI®	30-30220		Intake	35.99MM	3.315"	5.48MM	Black Nitride	20°
AVV	AV1008T	Supersedes	Intake	36.00MM	3.327"	5.48MM	Titanium	19°
KPMI®	30-30220T		Intake	35.99MM	3.325"	5.48MM	Titanium	20°
AVV	AV1009	Supersedes	Intake	37.00MM	3.327"	5.48MM	Black Nitride	19°
KPMI®	30-30221		Intake	37.01MM	3.325"	5.48MM	Black Nitride	20°
AVV	AV1010	Supersedes	Exhaust	30.00MM	3.320"	4.97MM	Black Nitride	20°
KPMI®	30-30953		Exhaust	30.00MM	3.310"	4.97MM	Black Nitride	20°
AVV	AV1011	Supersedes	Exhaust	31.00MM	3.320"	4.97MM	Black Nitride	20°
KPMI®	30-30223		Exhaust	30.99MM	3.310"	4.97MM	Black Nitride	20°
AVV	AV1012	Supersedes	Exhaust	30.00MM	3.317"	5.44MM	Black Nitride	20°
KPMI®	30-30750		Exhaust	30.00MM	3.315"	5.46MM	Black Nitride	20°
AVV	AV1013	Supersedes	Exhaust	31.00MM	3.325"	5.44MM	Black Nitride	20°
KPMI®	30-30754		Exhaust	30.99MM	3.325"	5.46MM	Black Nitride	20°
AVV	AV1014	Supersedes	Intake	36.00MM	3.095"	4.98MM	Black Nitride	19°
KPMI®	30-31262		Intake	35.99MM	3.095"	4.98MM	Black Nitride	20°
AVV	AV1015	Supersedes	Intake	37.00MM	3.100"	4.98MM	Black Nitride	19°
KPMI®	30-31263		Intake	37.01MM	3.095"	4.98MM	Black Nitride	20°
AVV	AV1016	Supersedes	Exhaust	30.00MM	3.170"	4.97MM	Black Nitride	20°
KPMI®	30-31266		Exhaust	30.00MM	3.175"	4.97MM	Black Nitride	20°
AVV	AV1017	Supersedes	Exhaust	31.00MM	3.175"	4.97MM	Black Nitride	20°
KPMI®	30-31267		Exhaust	30.99MM	3.185"	4.97MM	Black Nitride	20°
AVV	AV1053	Supersedes	Intake	26.00MM	3.066"	4.48MM	Black Nitride	16°
KPMI®	30-30910		Intake	26.01MM	3.065"	4.48MM	Black Nitride	19°
AVV	AV1055	Supersedes	Exhaust	22.50MM	3.140"	4.47MM	Black Nitride	20°
KPMI®	30-30913		Exhaust	22.50MM	3.145"	4.47MM	Black Nitride	19°
AVV	AV1070	No Rep. at this time	Intake	31.93MM	3.933"	5.00MM	Black Nitride	19°
AVV	AV1080	No Rep. at this time	Exhaust	26.11MM	3.702"	5.00MM	Black Nitride	20°
AVV	AV1101	Supersedes	Exhaust	25.00MM	3.125"	4.47MM	Black Nitride	20°
KPMI®	40-40143		Exhaust	25.00MM	3.125"	4.46MM	Black Nitride	25°

AV&V TO KPMI® VALVE PARTS CROSSOVER LIST



Brand	Part Number	Replacement	Type	Head Dia.	O.L.	Stem Dia.	Coating	Back Angle Tulip
AVV	AV1102	Supersedes	Exhaust	26.00MM	3.125"	4.47MM	Black Nitride	20°
KPMI®	40-40144		Exhaust	26.00MM	3.135"	4.46MM	Black Nitride	25°
AVV	AV1103	Supersedes	Intake	31.00MM	3.115"	4.48MM	Black Nitride	19°
KPMI®	40-40140		Intake	31.00MM	3.120"	4.48MM	Black Nitride	20°
AVV	AV1104	Supersedes	Intake	32.00MM	3.115"	4.48MM	Black Nitride	19°
KPMI®	40-40141		Intake	32.00MM	3.130"	4.48MM	Black Nitride	20°
AVV	AV1111	Supersedes	Intake	30.00MM	3.600"	4.98MM	Black Nitride	19°
KPMI®	40-40412		Intake	30.00MM	3.610"	4.98MM	Black Nitride	10°
AVV	AV1112	Supersedes	Intake	31.00MM	3.600"	4.98MM	Black Nitride	19°
KPMI®	40-40413		Intake	31.00MM	3.610"	4.98MM	Black Nitride	10°
AVV	AV1201	Supersedes	Exhaust	25.00MM	3.185"	4.47MM	Black Nitride	20°
KPMI®	60-60516		Exhaust	25.00MM	3.185"	4.47MM	Black Nitride	25°
AVV	AV1202	Supersedes	Exhaust	26.00MM	3.190"	4.47MM	Black Nitride	20°
KPMI®	60-60517		Exhaust	26.00MM	3.185"	4.47MM	Black Nitride	25°
AVV	AV1203	Supersedes	Intake	31.00MM	3.175"	4.48MM	Black Nitride	19°
KPMI®	60-60512		Intake	31.00MM	3.175"	4.48MM	Black Nitride	15°
AVV	AV1204	Supersedes	Intake	32.00MM	3.180"	4.48MM	Black Nitride	19°
KPMI®	60-60513		Intake	32.00MM	3.185"	4.48MM	Black Nitride	15°
AVV	AV1205	Supersedes	Exhaust	29.00MM	3.190"	5.44MM	Black Nitride	20°
KPMI®	60-60313		Exhaust	29.00MM	3.190"	5.46MM	Black Nitride	20°
AVV	AV1207	Supersedes	Intake	36.00MM	3.225"	5.48MM	Black Nitride	19°
KPMI®	60-60310		Intake	36.00MM	3.210"	5.47MM	Black Nitride	20°
AVV	AV1208	Supersedes	Intake	37.00MM	3.225"	5.48MM	Black Nitride	19°
KPMI®	60-60311		Intake	37.00MM	3.210"	5.47MM	Black Nitride	20°
AVV	AV1301	Supersedes	Exhaust	28.00MM	2.955"	4.97MM	Black Nitride	20°
KPMI®	80-80217H		Exhaust	28.00MM	2.955"	4.97MM	Chrome	20°
AVV	AV1302	Supersedes	Exhaust	29.00MM	2.955"	4.97MM	Black Nitride	20°
KPMI®	80-80218H		Exhaust	29.00MM	2.945"	4.97MM	Chrome	20°
AVV	AV1303	Supersedes	Intake	27.00MM	3.039"	4.48MM	Black Nitride	19°
KPMI®	80-80213H		Intake	27.00MM	3.040"	4.48MM	Chrome	15°
AVV	AV1304	Supersedes	Intake	28.00MM	3.039"	4.48MM	Black Nitride	19°
KPMI®	80-80214H		Intake	28.00MM	3.030"	4.48MM	Chrome	15°
AVV	AV1305	Supersedes	Intake	27.00MM	3.000"	4.48MM	Black Nitride	19°
KPMI®	80-80217H		Intake	27.00MM	3.000"	4.97MM	Chrome	15°
AVV	AV1306	Supersedes	Intake	28.00MM	3.000"	4.48MM	Black Nitride	19°
KPMI®	80-80218H		Intake	28.00MM	2.990"	4.97MM	Chrome	15°
AVV	AV1307	Supersedes	Exhaust	30.00MM	3.385"	5.47MM	Black Nitride	20°
KPMI®	80-80762		Exhaust	30.00MM	3.385"	5.48MM	Black Nitride	20°
AVV	AV1308	Supersedes	Exhaust	31.00MM	3.385"	5.47MM	Black Nitride	20°
KPMI®	80-80767		Exhaust	31.00MM	3.385"	5.47MM	Black Nitride	20°



AV&V TO KPMI® VALVE PARTS CROSSOVER LIST

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Brand	Part Number	Replacement	Type	Head Dia.	O.L.	Stem Dia.	Coating	Back Angle Tulip
AVV	AV1309	Supersedes	Intake	36.00MM	3.290"	5.48MM	Black Nitride	19°
KPMI®	80-80762		Intake	36.00MM	3.280"	5.48MM	Black Nitride	20°
AVV	AV1310	Supersedes	Intake	37.00MM	3.290"	5.48MM	Black Nitride	19°
KPMI®	80-80763		Intake	37.00MM	3.280"	5.48MM	Black Nitride	20°
AVV	AV1312	No Rep. at this time	Exhaust	28.00MM	3.825"	5.96MM	Black Nitride	20°
AVV	AV1313	No Rep. at this time	Exhaust	29.00MM	3.825"	5.96MM	Black Nitride	20°
AVV	AV1314	No Rep. at this time	Exhaust	30.00MM	3.825"	5.96MM	Black Nitride	20°
AVV	AV1315	No Rep. at this time	Intake	38.00MM	4.067"	5.97MM	Black Nitride	19°
AVV	AV1316	No Rep. at this time	Intake	39.00MM	4.067"	5.97MM	Black Nitride	19°
AVV	AV1317	No Rep. at this time	Intake	40.00MM	4.067"	5.97MM	Black Nitride	19°
AVV	AV1322	Supersedes	Exhaust	29.00MM	3.213"	4.97MM	Black Nitride	20°
KPMI®	40-40191		Exhaust	29.00MM	3.210"	4.96MM	Black Nitride	21°
AVV	AV1323	Supersedes	Intake	36.00MM	3.245"	4.98MM	Black Nitride	19°
KPMI®	40-40188		Intake	36.00MM	3.245"	4.98MM	Black Nitride	20°
AVV	AV1850B	No Rep. at this time	Intake	46.99MM	5.700"	6.97MM	Black Nitride	20°
AVV	AV1875B	No Rep. at this time	Exhaust	40.01MM	5.700"	6.97MM	Black Nitride	24°
AVV	AV1355	Supersedes	Exhaust	1.355"	4.635"	.3106"	Black Nitride	23°
KPMI®	20-20092		Exhaust	1.350"	4.640"	.3095"	Black Nitride	17°
AVV	AV1480	Supersedes	Exhaust	1.480"	4.640"	.3106"	Black Nitride	25°
KPMI®	20-2012		Exhaust	1.480"	4.625"	.3096"	Black Nitride	40°
AVV	AV1485	Supersedes	Exhaust	1.485"	4.560"	.3106"	Black Nitride	25°
KPMI®	20-2014		Exhaust	1.480"	4.560"	.3096"	Black Nitride	40°
AVV	AV1485-7TGC	Supersedes	Exhaust	1.485"	4.680"	.2755"	Chrome	23°
KPMI®	20-20555		Exhaust	1.480"	4.660"	.2755"	Black Nitride	40°
AVV	AV1575-7TGB	Direct	Exhaust	1.575"	4.560"	.2755"	Black Nitride	25°
KPMI®	20-20950		Exhaust	1.575"	4.560"	.2755"	Black Nitride	25°
AVV	AV1575-7TGC	Supersedes	Exhaust	1.575"	4.560"	.2755"	Chrome	25°
KPMI®	20-20950		Exhaust	1.575"	4.560"	.2755"	Black Nitride	25°
AVV	AV1576-7TGB	Supersedes	Exhaust	1.575"	4.620"	.2755"	Black Nitride	25°
KPMI®	20-20265		Exhaust	1.575"	4.610"	.2755"	Black Nitride	34°
AVV	AV1580	No Rep. at this time	Exhaust	1.580"	4.575"	.3106"	Chrome	25°
AVV	AV1585	Direct	Exhaust	1.585"	4.505"	.3106"	Black Nitride	25°
KPMI®	20-20930		Exhaust	1.585"	4.505"	.3106"	Black Nitride	25°
AVV	AV1590	Supersedes	Intake	1.590"	4.550"	.3108"	Black Nitride	23°
KPMI®	20-20090		Intake	1.585"	4.550"	.3100"	Black Nitride	23°
AVV	AV1610-7TGB	Direct	Exhaust	1.610"	4.545"	.2755"	Black Nitride	25°
KPMI®	20-20945		Exhaust	1.610"	4.545"	.2755"	Black Nitride	25°
AVV	AV1610-7TGC	No Rep. at this time	Exhaust	1.610"	4.545"	.2755"	Chrome	25°
AVV	AV1610D	Direct	Exhaust	1.610"	4.510"	.3106"	Black Nitride	25°
KPMI®	20-20925		Exhaust	1.610"	4.510"	.3106"	Black Nitride	25°

AV&V TO KPMI® VALVE PARTS CROSSOVER LIST



Brand	Part Number	Replacement	Type	Head Dia.	O.L.	Stem Dia.	Coating	Back Angle Tulip
AVV	AV1610S	Direct	Exhaust	1.610"	4.565"	.3106"	Black Nitride	25°
KPMI®	20-20970		Exhaust	1.610"	4.565"	.3106"	Black Nitride	25°
AVV	AV1650	Direct	Exhaust	1.650"	4.515"	.3106"	Black Nitride	25°
KPMI®	20-20920		Exhaust	1.650"	4.515"	.3106"	Black Nitride	25°
AVV	AV1700A	Direct	Exhaust	1.700"	4.510"	.3106"	Black Nitride	25°
KPMI®	20-20960		Exhaust	1.700"	4.510"	.3106"	Black Nitride	25°
AVV	AV1700C	No Rep. at this time	Exhaust	1.700"	4.445"	.3106"	Chrome	25°
AVV	AV1700U	No Rep. at this time	Exhaust	1.700"	4.655"	.3106"	Black Nitride	25°
AVV	AV1720	Supersedes	Intake	1.720"	4.560"	.3108"	Black Nitride	22°
KPMI®	20-2010		Intake	1.715"	4.550"	.3100"	Black Nitride	23°
AVV	AV1720B	Supersedes	Intake	1.720"	4.480"	.3108"	Black Nitride	23°
KPMI®	20-2013		Intake	1.715"	4.480"	.3100"	Black Nitride	23°
AVV	AV1725-7TGB	Supersedes	Intake	1.725"	4.580"	.2757"	Black Nitride	23°
KPMI®	20-20550		Intake	1.715"	4.580"	.2760"	Black Nitride	23°
AVV	AV1770	No Rep. at this time	Intake	1.770"	4.480"	.3108"	Black Nitride	23°
AVV	AV1810-7TGB	Supersedes	Intake	1.810"	4.455"	.2757"	Black Nitride	25°
KPMI®	20-20322		Intake	1.805"	4.420"	.2760"	Black Nitride	R1.7
AVV	AV1810-7TGC	Supersedes	Intake	1.810"	4.455"	.2757"	Chrome	25°
KPMI®	20-20322		Intake	1.805"	4.420"	.2760"	Black Nitride	R1.7
AVV	AV1811-7TGB	No Rep. at this time	Intake	1.810"	4.480"	.2757"	Chrome	24°
AVV	AV1813	No Rep. at this time	Intake	1.812"	4.485"	.3108"	Chrome	24°
AVV	AV1850-7TGB	No Rep. at this time	Intake	1.850"	4.455"	.2757"	Black Nitride	24°
AVV	AV1850-7TGC	No Rep. at this time	Intake	1.850"	4.455"	.2757"	Chrome	24°
AVV	AV1851-7TGB	No Rep. at this time	Intake	1.851"	4.520"	.2757"	Black Nitride	24°
AVV	AV1851	Supersedes	Intake	1.851"	4.485"	.3108"	Chrome	24°
KPMI®	20-4249		Intake	1.850"	4.490"	.3105"	Black Nitride	23°
AVV	AV1900	Direct	Intake	1.900"	4.440"	.3108"	Black Nitride	25°
KPMI®	20-20915		Intake	1.900"	4.440"	.3108"	Black Nitride	25°
AVV	AV1900-7TGB	Direct	Intake	1.900"	4.445"	.2757"	Black Nitride	24°
KPMI®	20-20940		Intake	1.900"	4.445"	.2757"	Black Nitride	24°
AVV	AV1900-7TGC	Supersedes	Intake	1.900"	4.445"	.2757"	Chrome	24°
KPMI®	20-20940		Intake	1.900"	4.445"	.2757"	Black Nitride	24°
AVV	AV1900S	Supersedes	Intake	1.900"	4.415"	.3108"	Black Nitride	25°
KPMI®	20-4171R		Intake	1.900"	4.420"	.3100"	Black Nitride	28°
AVV	AV1940	Direct	Intake	1.940"	4.440"	.3108"	Black Nitride	25°
KPMI®	20-20910		Intake	1.940"	4.440"	.3108"	Black Nitride	25°
AVV	AV1980-7TGB	Direct	Intake	1.980"	4.455"	.2757"	Black Nitride	25°
KPMI®	20-20935		Intake	1.980"	4.455"	.2757"	Black Nitride	25°
AVV	AV1990	Direct	Intake	1.990"	4.440"	.3108"	Black Nitride	25°
KPMI®	20-20905		Intake	1.990"	4.440"	.3108"	Black Nitride	25°
AVV	AV2020	No Rep. at this time	Intake	2.020"	4.490"	.3108"	Chrome	25°



AV&V TO KPMI® VALVE PARTS CROSSOVER LIST

The following list describes which items are supersessions with similar (but not exact) dimensions and which items are dimensionally identical replacements. This allows you to search by part number to find the proper item for your use.

Brand	Part Number	Replacement	Type	Head Dia.	O.L.	Stem Dia.	Coating	Back Angle Tulip
AVV	AV2020A	Direct	Intake	2.020"	4.440"	.3108"	Black Nitride	25°
KPMI®	20-20990		Intake	2.020"	4.440"	.3108"	Black Nitride	25°
AVV	AV2020S	Direct	Intake	2.020"	4.510"	.3108"	Black Nitride	25°
KPMI®	20-20965		Intake	2.020"	4.510"	.3108"	Black Nitride	25°
AVV	AV2060LC	No Rep. at this time	Intake	2.060"	4.510"	.3108"	Chrome	24°
AVV	AV2100	Direct	Intake	2.100"	4.475"	.3108"	Black Nitride	24°
KPMI®	20-20955		Intake	2.100"	4.475"	.3108"	Black Nitride	24°
AVV	AV2100BC	Direct	Intake	2.100"	4.475"	.3108"	Black Nitride	24°
KPMI®	20-20980		Intake	2.100"	4.475"	.3108"	Black Nitride	24°
AVV	AV2100S	No Rep. at this time	Intake	2.100"	5.700"	.3108"	Chrome	24°
AVV	AV2100U	No Rep. at this time	Intake	2.100"	5.590"	.3108"	Black Nitride	23°
AVV	AV2150	Supersedes	Intake	2.150"	4.480"	.3108"	Chrome	24°
KPMI®	20-20900		Intake	2.150"	4.480"	.3108"	Black Nitride	24°
AVV	AV1700BC	Direct	Exhaust	1.700"	5.700"	.3106"	Chrome	25°
KPMI®	20-20985		Exhaust	1.700"	5.700"	.3106"	Chrome	25°
AVV	AV2200BC	Direct	Intake	2.200"	5.700"	.3108"	Chrome	25°
KPMI®	20-20975		Intake	2.200"	5.700"	.3108"	Chrome	25°
AVV	AV4001	Supersedes	Exhaust	31.00MM	3.560"	5.97MM	Black Nitride	24°
KPMI®	91-91116		Exhaust	31.00MM	3.565	5.96MM	Black Nitride	29°
AVV	AV4002	Supersedes	Exhaust	32.00MM	3.560"	5.97MM	Black Nitride	24°
KPMI®	91-91117		Exhaust	32.00MM	3.565"	5.96MM	Black Nitride	29°
AVV	AV4003	Supersedes	Intake	38.00MM	3.560"	5.98MM	Black Nitride	18°
KPMI®	91-91112		Intake	38.00MM	3.550"	5.97MM	Black Nitride	20°
AVV	AVD-37	No Rep. at this time	Intake	37.01MM	4.185"	6.98MM	Black Nitride	20°
AVV	AVD-1200	No Rep. at this time	Exhaust	30.50MM	4.200"	6.97MM	Black Nitride	24°
AVV	HD03	Supersedes	Exhaust	1.561"	3.505"	.3389"	Black Nitride	20°
KPMI®	20-4197		Exhaust	1.570"	3.512"	.3384"	Black Nitride	29°
AVV	HD04	No Rep. at this time	Intake	1.812"	3.615"	.3108"	Black Nitride	20°
AVV	HD05	Supersedes	Intake	1.940"	3.615"	.3108"	Black Nitride	20°
KPMI®	20-4196		Intake	1.935"	3.620"	.3090"	Black Nitride	23°
AVV	HD07	Supersedes	Exhaust	1.750"	3.830"	.3764"	Black Nitride	25°
KPMI®	20-4195		Exhaust	1.752"	3.810"	.3760"	Black Nitride	29°
AVV	HD09	Supersedes	Intake	1.955"	3.875"	.3770"	Black Nitride	20°
KPMI®	20-4194		Intake	1.950"	3.885"	.3765"	Black Nitride	23°
AVV	HD10	Supersedes	Exhaust	1.615"	4.525"	.3106"	Black Nitride	25°
KPMI®	20-4170		Exhaust	1.615"	4.525"	.3096"	Black Nitride	29°
AVV	HD11	Supersedes	Intake	1.845"	4.440"	.3108"	Black Nitride	25°
KPMI®	20-20055		Intake	1.840"	4.445"	.3100"	Black Nitride	23°
AVV	HD12	Supersedes	Exhaust	1.570"	4.525"	.3106"	Black Nitride	25°
KPMI®	20-20057		Exhaust	1.565"	4.505"	.3095"	Black Nitride	17°

AV&V TO KPMI® GUIDE PARTS CROSSOVER LIST



Brand	Intake	Exhaust	Replacement	O.D.	I.D.	Oversize	O.L.
AVV	VG5600	VG5700	Direct	.5625"	.308"	STD	2.100"
KPMI®	20-20860M	20-20870M		.5625"	.310"	STD	2.100"
AVV	VG5601	VG5701	Direct	.5635"	.308"	.001"	2.100"
KPMI®	20-20861M	20-20871M		.5635"	.310"	.001"	2.100"
AVV	VG5602	VG5702	Direct	.5645"	.308"	.002"	2.100"
KPMI®	20-20862M	20-20872M		.5645"	.310"	.002"	2.100"
AVV	VG5603	VG5703	No Rep. at this time	.5655"	.308"	.003"	2.100"
AVV	VG5604	VG5704	No Rep. at this time	.5665"	.308"	.004"	2.100"
AVV	VG5605	VG5705	No Rep. at this time	.5675"	.308"	.005"	2.100"
AVV	VG5606	VG5706	No Rep. at this time	.5685"	.308"	.006"	2.100"
AVV	VG5610	VG5710	Direct	.5725"	.308"	.010"	2.100"
KPMI®	20-20869M	20-20879M		.5725"	.310"	.010"	2.100"
AVV	VG5625	VG5725	No Rep. at this time	.5875"	.308"	.025"	2.100"
AVV	VG5600S	VG5700S	Supersedes	.5625"	.308"	STD	2.100"
KPMI®	20-2120M	20-2130M		.5620"	.310"	STD	2.100"
AVV	VG5600-5S	VG5700-5S	Supersedes	.5630"	.308"	.0005"	2.100"
KPMI®	20-2121M	20-2131M		.5630"	.310"	.001"	2.100"
AVV	VG5601S	VG5701S	Supersedes	.5635"	.308"	.001"	2.100"
KPMI®	20-2122M	20-2132M		.5640"	.310"	.002"	2.100"
AVV	VG5500	-	No Rep. at this time	.5625"	.308"	STD	2.250"
AVV	VG5501	-	No Rep. at this time	.5635"	.308"	.001"	2.250"
AVV	VG5502	-	No Rep. at this time	.5645"	.308"	.002"	2.250"
AVV	VG5503	-	No Rep. at this time	.5655"	.308"	.003"	2.250"
AVV	VG5504	-	No Rep. at this time	.5665"	.308"	.004"	2.250"
AVV	VG5525	-	No Rep. at this time	.5875"	.308"	.025"	2.250"
AVV	VG6600	VG6700	Direct	.5625"	.273"	STD	2.040"
KPMI®	20-20690M	20-20700M		.5625"	.275"	STD	2.040"
AVV	VG6601	VG6701	Direct	.5635"	.273"	.001"	2.040"
KPMI®	20-20691M	20-20701M		.5635"	.275"	.001"	2.040"
AVV	VG6602	VG6702	Direct	.5645"	.273"	.002"	2.040"
KPMI®	20-20692M	20-20702M		.5645"	.275"	.002"	2.040"
AVV	VG6603	VG6703	No Rep. at this time	.5655"	.273"	.003"	2.040"
AVV	VG6604	VG6704	No Rep. at this time	.5665"	.273"	.004"	2.040"
AVV	VG6605	VG6705	No Rep. at this time	.5675"	.273"	.005"	2.040"
AVV	VG6606	VG6706	No Rep. at this time	.5685"	.273"	.006"	2.040"
AVV	VG6610	VG6710	Direct	.5725"	.273"	.010"	2.040"
KPMI®	20-20699M	20-20709M		.5725"	.275"	.010"	2.040"
AVV	VG6625	VG6725	No Rep. at this time	.5875"	.273"	.025"	2.040"
AVV	VG5400	VG5400	Supersedes	.6250"	.375"	STD	1.900"
KPMI®	20-2050M	20-2060M		.6250"	.375"	STD	1.910"



AV&V TO KPMI® GUIDE PARTS CROSSOVER LIST

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Brand	Intake	Exhaust	Replacement	O.D.	I.D.	Oversize	O.L.
AVV	VG5401	VG5401	Supersedes	.6260"	.375"	.001"	1.900"
KPMI®	20-2051M	20-2061M		.6260"	.375"	.001"	1.910"
AVV	VG5402	VG5402	Supersedes	.6270"	.375"	.002"	1.900"
KPMI®	20-2052M	20-2062M		.6270"	.375"	.002"	1.910"
AVV	VG5403	VG5403	No Rep. at this time	.6280"	.375"	.003"	1.900"
AVV	VG5404	VG5404	Supersedes	.6290"	.375"	.004"	1.900"
KPMI®	20-2054M	20-2064M		.6290"	.375"	.004"	1.910"
AVV	VG5405	VG5405	No Rep. at this time	.6300"	.375"	.005"	1.900"
AVV	VG5406	VG5406	Supersedes	.6310"	.375"	.006"	1.900"
KPMI®	20-2056M	20-2066M		.6310"	.375"	.006"	1.910"
AVV	VG5410	VG5410	No Rep. at this time	.6350"	.375"	.010"	1.900"
AVV	VG5415	VG5415	No Rep. at this time	.6400"	.375"	.015"	1.900"
AVV	VG5425	VG5425	Supersedes	.6500"	.375"	.025"	1.900"
KPMI®	20-50HSM	20-60HSM		.6500"	.375"	.025"	1.910"
AVV	VG5300	VG5300	Supersedes	.5660"	.375"	STD	1.900"
KPMI®	20-2021M	20-2031M		.5660"	.375"	STD	1.880"
AVV	VG5301	VG5301	Supersedes	.5670"	.375"	.001"	1.900"
KPMI®	20-2022M	20-2032M		.5670"	.375"	.001"	1.880"
AVV	VG5302	VG5302	Supersedes	.5680"	.375"	.002"	1.900"
KPMI®	20-2023M	20-2033M		.5680"	.375"	.002"	1.880"
AVV	VG5303	VG5303	Supersedes	.5690"	.375"	.003"	1.900"
KPMI®	20-2024M	20-2034M		.5690"	.375"	.003"	1.880"
AVV	VG5304	VG5304	No Rep. at this time	.5700"	.375"	.004"	1.900"
AVV	VG5305	VG5305	Supersedes	.5710"	.375"	.005"	1.900"
KPMI®	20-2026M	20-2036M		.5710"	.375"	.005"	1.880"
AVV	VG5306	VG5306	No Rep. at this time	.5720"	.375"	.006"	1.900"
AVV	VG5310	VG5310	No Rep. at this time	.5760"	.375"	.010"	1.900"
AVV	VG5315	VG5315	No Rep. at this time	.5810"	.375"	.015"	1.900"
AVV	VG5325	VG5325	No Rep. at this time	.5910"	.375"	.025"	1.900"
AVV	VG5100C	-	Supersedes	.5645"	.308"	STD	1.750"
KPMI®	20-2320C	-		.5650"	.309"	STD	1.770"
AVV	VG5101C	-	Supersedes	.5655"	.308"	.001"	1.750"
KPMI®	20-2321C	-		.5660"	.309"	.001"	1.770"
AVV	VG5102C	-	Supersedes	.5665"	.308"	.002"	1.750"
KPMI®	20-2322C	-		.5670"	.309"	.002"	1.770"
AVV	VG5103C	-	No Rep. at this time	.5675"	.308"	.003"	1.750"
AVV	-	VG5200C	Supersedes	.5645"	.338"	STD	1.750"
KPMI®	-	20-2330C		.5650"	.338"	STD	1.770"
AVV	-	VG5201C	Supersedes	.5655"	.338"	.001"	1.750"
KPMI®	-	20-2331C		.5660"	.338"	.001"	1.770"

AV&V TO KPMI® GUIDE PARTS CROSSOVER LIST



Brand	Intake	Exhaust	Replacement	O.D.	I.D.	Oversize	O.L.
AVV	-	VG5202C	Supersedes	.5665"	.338"	.002"	1.750"
KPMI®	-	20-2332C		.5670"	.338"	.002"	1.770"
AVV	-	VG5203C	No Rep. at this time	.5675"	.338"	.003"	1.750"
AVV	VG7000	-	No Rep. at this time	.3955"	5.9MM	STD	1.950"
AVV	VG7001	-	No Rep. at this time	.3965"	5.9MM	.001"	1.950"
AVV	VG7002	-	No Rep. at this time	.3975"	5.9MM	.002"	1.950"
AVV	VG7003	-	No Rep. at this time	.3985"	5.9MM	.003"	1.950"
AVV	VG1910-00	-	No Rep. at this time	.4360"	.2323"	STD	1.318"
AVV	VG1021-00	-	Supersedes	.3564"	.1732"	STD	1.260"
KPMI®	30-30890	-		.3566"	.1765"	STD	1.260"
AVV	-	VG1020-00	Supersedes	.3564"	.1732"	STD	1.500"
KPMI®	-	30-30900		.3566"	.1760"	STD	1.500"
AVV	VG1024-00	-	Supersedes	.3962"	.1929"	STD	1.310"
KPMI®	30-30610	-		.3965"	.1961"	STD	1.310"
AVV	-	VG1025-00	Supersedes	.3962"	.1929"	STD	1.510"
KPMI®	-	30-30620		.3965"	.1956"	STD	1.515"
AVV	VG1026-00	-	Supersedes	.3963"	.1929"	STD	1.440"
KPMI®	30-31470	-		.3965"	.1961"	STD	1.575"
AVV	VG1040-00	VG1040-00	Supersedes	.4352"	.2126"	STD	1.971"
KPMI®	30-3120	30-3120		.4355"	.2150"	STD	1.945"
AVV	VG1040-01	VG1040-01	Supersedes	.4362"	.2126"	.001"	1.971"
KPMI®	30-3121	30-3121		.4365"	.2150"	.001"	1.945"
AVV	VG1043-00	VG1043-00	No Rep. at this time	.4157"	.193"	STD	1.630"
AVV	VG1050-00	-	Supersedes	.4358"	.2126"	STD	1.283"
KPMI®	30-30200	-		.4360"	.2155"	STD	1.280"
AVV	-	VG1051-00	Supersedes	.4358"	.1929"	STD	1.497"
KPMI®	-	30-30210		.4360"	.1955"	STD	1.495"
AVV	VG1050-00	-	Supersedes	.4358"	.2126"	STD	1.283"
KPMI®	30-30730	-		.4360"	.2155"	STD	1.280"
AVV	-	VG1055-00	Supersedes	.4358"	.2126"	STD	1.350"
KPMI®	-	30-30740		.4360"	.2150"	STD	1.435"
AVV	VG1060-00	-	Supersedes	.4360"	.2480"	STD	1.830"
KPMI®	30-0379	-		.4762"	.2590"	STD	1.770"
AVV	-	VG1060-00	Supersedes	.4360"	.2480"	STD	1.830"
KPMI®	-	30-0383		.4762"	.2585"	STD	1.830"
AVV	VG1110-00	-	Supersedes	.3765"	.1732"	STD	1.279"
KPMI®	40-40120	-		.3765"	.1765"	STD	1.315"



AV&V TO KPMI® GUIDE PARTS CROSSOVER LIST

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Brand	Intake	Exhaust	Replacement	O.D.	I.D.	Oversize	O.L.
AVV	VG1111-00	-	Supersedes	.3765"	.1732"	STD	1.435"
KPMI®	40-40520	-		.3765"	.1765"	STD	1.335"
AVV	VG1110-00	VG1110-00	Supersedes	.3765"	.1732"	STD	1.279"
KPMI®	60-60190	60-60190		.3765"	.1765"	STD	1.315"
AVV	VG1210-00	-	Supersedes	.4170"	.2126"	STD	1.220"
KPMI®	60-60290	-		.4170"	.2155"	STD	1.230"
AVV	-	VG1210-00	Supersedes	.4170"	.2126"	STD	1.220"
KPMI®	-	60-60300		.4170"	.2155"	STD	1.230"
AVV	VG1215-00	VG1215-00	Supersedes	.4169"	.1930"	STD	1.260"
KPMI®	60-60060	60-60060		.4167"	.1960"	STD	1.200"
AVV	-	VG1312-00	Supersedes	.3955"	.1732"	STD	1.180"
KPMI®	-	80-80090		.3958"	.1760"	STD	1.220"
AVV	VG1310-00	-	Supersedes	.3955"	.1732"	STD	1.068"
KPMI®	80-80220	-		.3957"	.1768"	STD	1.065"
AVV	-	VG1311-00	Supersedes	.3956"	.1930"	STD	1.065"
KPMI®	-	80-80230		.3957"	.1961"	STD	1.065"
AVV	VG1315-00	-	Supersedes	.4353"	.2126"	STD	1.480"
KPMI®	80-80770	-		.4352"	.2160"	STD	1.315"
AVV	VG1330-00	VG1330-00	Supersedes	.4550"	.2323"	STD	1.630"
KPMI®	80-80420	80-80420		.4550"	.2350"	STD	1.635"
AVV	-	VG1333-00	No Rep. at this time	.3956"	.173"	STD	1.305"
AVV	UVG4.5MM	UVG4.5MM	No Rep. at this time	4.4MM	.620"	Blank	2.000"
AVV	UVG5MM	UVG5MM	No Rep. at this time	4.9MM	.620"	Blank	2.000"
AVV	UVG5.5MM	UVG5.5MM	No Rep. at this time	5.4MM	.620"	Blank	2.225"
AVV	UVG6MM	UVG6MM	No Rep. at this time	5.9MM	.620"	Blank	2.375"
AVV	UVG7MM	UVG7MM	Direct	7MM	.735"	Blank	2.700"
KPMI®	20-20380	20-20380		7MM	.740"	Blank	2.700"
AVV	UVG312	UVG312	Direct	.308"	.735"	Blank	2.700"
KPMI®	20-20381	20-20381		.308"	.740"	Blank	2.700"
AVV	UVG341	UVG341	Direct	.338"	.735"	Blank	2.700"
KPMI®	20-20383	20-20383		.341"	.740"	Blank	2.700"
AVV	UVG375	UVG375	Direct	.372"	.735"	Blank	2.700"
KPMI®	20-20382	20-20382		.372"	.740"	Blank	2.700"
AVV	UVG378	UVG378	No Rep. at this time	.375"	.735"	Blank	2.700"

AV&V TO KPMI® SPRING KIT PARTS CROSSOVER LIST



Brand	Part Number	Replacement	Max. Rec. Lift	Seat Pressure	Open Pressure (lbs @Lift)
AVV	VSK600S	Supersedes	.600"	155lbs @ 1.885"	405lbs @ 1.260"
KPMI®	20-20132		.600"	175lbs @ 1.810"	380lbs @ 1.210"
AVV	VSK600T	Supersedes	.600"	155lbs @ 1.885"	405lbs @ 1.260"
KPMI®	20-20122		.600"	175lbs @ 1.810"	380lbs @ 1.210"
AVV	VSK650S	Supersedes	.650"	185lbs @ 1.860"	460lbs @ 1.160"
KPMI®	20-20081		.655"	185lbs @ 1.860"	450lbs @ 1.205"
AVV	VSK650T	Supersedes	.650"	185lbs @ 1.860"	460lbs @ 1.160"
KPMI®	20-20060		.655"	185lbs @ 1.860"	450lbs @ 1.205"
AVV	VSK675T	No Rep. at this time	.675"	185lbs @ 1.860"	460lbs @ 1.160"
AVV	VSK6000	Supersedes	.600"	165lbs @ 1.860"	384lbs @ 1.250"
KPMI®	20-21300		.610"	175lbs @ 1.860"	400 lbs @ 1.250"
AVV	VSK6500	Supersedes	.650"	178lbs @ 1.860"	385lbs @ 1.200"
KPMI®	20-21500		.660"	178lbs @ 1.860"	371 lbs @ 1.200"
AVV	VSK60007SG	Supersedes	.600"	165lbs @ 1.860"	384lbs @ 1.250"
KPMI®	20-21400		.610"	175lbs @ 1.860"	400 lbs @ 1.250"
AVV	VSK65007SG	Supersedes	.650"	178lbs @ 1.860"	385lbs @ 1.200"
KPMI®	20-21550		.660"	178lbs @ 1.860"	371 lbs @ 1.200"
AVV	VSK470	Supersedes (PANHEAD)	.470"	155lbs @ 1.375"	300 lbs @ .980"
KPMI®	20-20445		.600"	152lbs @ 1.510"	378lbs @ .910"
AVV	VSK470	Supersedes (SHOVELHEAD™ 74")	.470"	155lbs @ 1.375"	300 lbs @ .980"
KPMI®	20-20450		.600"	152lbs @ 1.510"	378lbs @ .910"
AVV	VSK470	Supersedes (SHOVELHEAD™ 80")	.470"	155lbs @ 1.375"	300 lbs @ .980"
KPMI®	20-21150		.600"	152lbs @ 1.510"	378lbs @ .910"
AVV	VSK530	Supersedes (PANHEAD)	.530"	155lbs @ 1.455"	320 lbs @ .980"
KPMI®	20-20445		.600"	152lbs @ 1.510"	378lbs @ .910"
AVV	VSK530	Supersedes (SHOVELHEAD™ 74")	.530"	155lbs @ 1.455"	320 lbs @ .980"
KPMI®	20-20450		.600"	152lbs @ 1.510"	378lbs @ .910"
AVV	VSK530	Supersedes (SHOVELHEAD™ 80")	.530"	155lbs @ 1.455"	320 lbs @ .980"
KPMI®	20-21150		.600"	152lbs @ 1.510"	378lbs @ .910"
AVV	VSK590	Supersedes (PANHEAD)	.625"	175lbs @ 1.455"	350 lbs @ .980"
KPMI®	20-20445		.600"	152lbs @ 1.510"	378lbs @ .910"
AVV	VSK590	Supersedes (SHOVELHEAD™ 74")	.625"	175lbs @ 1.455"	350 lbs @ .980"
KPMI®	20-20450		.600"	152lbs @ 1.510"	378lbs @ .910"
AVV	VSK590	Supersedes (SHOVELHEAD™ 80")	.625"	175lbs @ 1.455"	350 lbs @ .980"
KPMI®	20-21150		.600"	152lbs @ 1.510"	378lbs @ .910"
AVV	VSK7000TG	No Rep. at this time	.580"	95lbs @ 1.500"	290lbs @ .900"
AVV	VSK7000SG	No Rep. at this time	.580"	95lbs @ 1.500"	290lbs @ .900"
AVV	VSK7000SGT	Supersedes	.580"	95lbs @ 1.500"	290lbs @ .900"
KPMI®	20-20140		.500"	72lbs @ 1.360"	230lbs @ .860"
AVV	VSK1116	No Rep. at this time	.444"	38lbs @ 1.317"	145lbs @ 0.990"



AV&V TO KPMI® SPRING KIT PARTS CROSSOVER LIST

The following list describes which items are supersessions with similar (but not exact) dimensions and which items are dimensionally identical replacements. This allows you to search by part number to find the proper item for your use.

Brand	Part Number	Replacement	Max. Rec. Lift	Seat Pressure	Open Pressure (lbs @Lift)
AVV	VSK1410	Supersedes	.460"	45lbs @ 1.450"	195lbs @ 0.950"
KPMI®	91-91100		.450"	75lbs @ 1.385"	235lbs @ .935"
AVV	VSK1006	Supersedes	IN .380" EX .401"	IN 38lbs @ 1.309" EX 43lbs @ 1.525"	IN 116lbs @ .929" EX 168lbs @ 1.124"
KPMI®	30-31300		IN / EX .385"	IN / EX 50lbs @ 1.185"	IN / EX 160lbs @ .800"
AVV	VSK1015	Supersedes	IN .435" EX .385"	IN 51lbs @ 1.337" EX 52lbs @ 1.416"	IN 179lbs @ .902" EX 179lbs @ 1.031"
KPMI®	30-30640		IN / EX .440"	IN 40lbs @ 1.215" EX 70lbs @ 1.365"	IN 147lbs @ .775" EX 203lbs @ .925"
AVV	VSK1110	Supersedes	.397"	38lbs @ 1.317"	130lbs @ .920"
KPMI®	40-40100		.445"	46lbs @ 1.320"	155lbs @ .875"
AVV	VSK1111	Supersedes	.397"	38lbs @ 1.317"	130lbs @ .920"
KPMI®	40-40100		.445"	46lbs @ 1.320"	155lbs @ .875"
AVV	VSK1110	Supersedes	.444"	48lbs @ 1.364"	145lbs @ .990"
KPMI®	40-40400		.500"	59lbs @ 1.400"	210lbs @ .900"
AVV	VSK1217	Supersedes	.400"	IN 44lbs @ 1.160" EX 34lbs @ 1.160"	IN 141lbs @ 0.760" EX 111lbs @ 0.760"
KPMI®	60-60240		.415"	IN 61lbs @ 1.190" EX 55lbs @ 1.122"	IN 168lbs @ 0.775" EX 157lbs @ 0.800"
AVV	VSK1317	Supersedes	.380"	38lbs @ 1.060"	81lbs @ .680"
KPMI®	80-80206		.380"	39lbs @ 1.105"	86lbs @ .725"
AVV	VSK1318	Supersedes	.460"	45lbs @ 1.450"	195lbs @ 0.950"
KPMI®	80-80410		.480"	54lbs @ 1.420"	195lbs @ 0.940"

AV&V TO KPMI® SEAL PARTS CROSSOVER LIST

Brand	Part Number	Replacement	Stem Dia.	Seal Section O.D.	Material
AVV	V312421	Direct	.312"	.421"	High Temperature Viton® seal
KPMI®	71010-4		.312"	.421"	High Temperature Viton® seal
AVV	V312531	Direct	.312"	.531"	High Temperature Viton® seal
KPMI®	71045-4		.312"	.531"	High Temperature Viton® seal
AVV	V7MM-100	Direct	7MM	.562"	High Temperature Viton® seal
KPMI®	71028-4		7MM	.562"	High Temperature Viton® seal
AVV	V7MMOE_100	Direct	7MM	.562"	High Temperature Viton® seal
KPMI®	71030-4		7MM	.562"	High Temperature Viton® seal
AVV	K312420	Direct	.312"	.421"	O.E. Style metal clad seal
KPMI®	71032-4		.312"	.421"	O.E. Style metal clad seal

AV&V TO KPMI® SEAL PARTS CROSSOVER LIST



Brand	Part Number	Replacement	Stem Dia.	Seal Section O.D.	Material
AVV	K312530	Direct	.312"	.531"	O.E. Style metal clad seal
KPMI®	71033-4		.312"	.531"	O.E. Style metal clad seal
AVV	K375562	Direct	.375"	.562"	O.E. Style metal clad seal
KPMI®	71035-4		.375"	.562"	O.E. Style metal clad seal
AVV	K375625	Direct	.375"	.625"	O.E. Style metal clad seal
KPMI®	71036-4		.375"	.625"	O.E. Style metal clad seal
AVV	K341530	Direct	.341"	.530"	O.E. Style metal clad seal
KPMI®	71034-4		.341"	.530"	O.E. Style metal clad seal
AVV	V6MM	No Rep. at this time	6MM	8.5MM	High Temperature Viton® seal
AVV	V110-01	Direct	8MM	---	High Temperature Viton® seal
KPMI®	71043-4		8MM	.470"	High Temperature Viton® seal
AVV	V100-01	Direct	7MM	---	High Temperature Viton® seal
KPMI®	71044-4		7MM	.386"	High Temperature Viton® seal
AVV	V4050	Direct	6MM	---	High Temperature Viton® seal
KPMI®	71029-4		6MM	.435"	High Temperature Viton® seal
AVV	V1050	Direct	4.5MM	0.325"	High Temperature Viton® seal
KPMI®	71014-4		4.5MM	0.325"	High Temperature Viton® seal
AVV	V1055	Direct	5MM	0.339"	High Temperature Viton® seal
KPMI®	71014-4		5MM	0.339"	High Temperature Viton® seal
AVV	V1060	Direct	5.5MM	0.360"	High Temperature Viton® seal
KPMI®	71016-4		5.5MM	0.360"	High Temperature Viton® seal
AVV	V1065	Direct	IN 5.5MM EX 5MM	IN 0.358" EX 0.339"	High Temperature Viton® seal
KPMI®	30-30550		IN 5.5MM EX 5MM	IN 0.358" EX 0.339"	High Temperature Viton® seal
AVV	V1155	Direct	4.5MM	0.293"	High Temperature Viton® seal
KPMI®	71013-4		4.5MM	0.293"	High Temperature Viton® seal
AVV	V1110	Direct	4.5MM	0.294"	High Temperature Viton® seal
KPMI®	71013-4		4.5MM	0.294"	High Temperature Viton® seal
AVV	V1250	Direct	5.5MM	0.360"	High Temperature Viton® seal
KPMI®	71016-4		5.5MM	0.360"	High Temperature Viton® seal
AVV	V098	Direct	5MM	0.325"	High Temperature Viton® seal
KPMI®	71015-4		5MM	0.325"	High Temperature Viton® seal
AVV	V1350	Direct	IN 4.5MM EX 5MM	IN 0.325" EX 0.337"	High Temperature Viton® seal
KPMI®	80-80710		IN 4.5MM EX 5MM	IN 0.325" EX 0.337"	High Temperature Viton® seal
AVV	V1316	Direct	5.5MM	0.360"	High Temperature Viton® seal
KPMI®	71040-4		5.5MM	0.360"	High Temperature Viton® seal



AV&V TO KPMI® SEAT PARTS CROSSOVER LIST

The following list describes which items are supersessions with similar (but not exact) dimensions and which items are dimensionally identical replacements. This allows you to search by part number to find the proper item for your use.

Brand	Part number	Replacement	O.D.	I.D.	Thickness
AVV	AV1630	Direct	1.630"	1.180"	.385"
KPMI®	10-HC414		1.630"	1.180"	.385"
AVV	AV1757	Direct	1.757"	1.410"	.430"
KPMI®	10-HC447		1.757"	1.410"	.430"
AVV	AV1757S	Direct	1.757"	1.371"	.315"
KPMI®	10-HC446		1.757"	1.371"	.315"
AVV	AV1820	Direct	1.820"	1.375"	.450"
KPMI®	10-HC462		1.820"	1.375"	.450"
AVV	AV1880	Direct	1.880"	1.435"	.410"
KPMI®	10-HC477		1.880"	1.435"	.410"
AVV	AV1882	Direct	1.882"	1.530"	.410"
KPMI®	10-HC478		1.882"	1.530"	.410"
AVV	AV1944	Direct	1.944"	1.575"	.400"
KPMI®	10-HC493		1.944"	1.575"	.400"
AVV	AV1945	Direct	1.945"	1.375"	.440"
KPMI®	10-HC494		1.945"	1.375"	.440"
AVV	AV2008	Direct	2.008"	1.610"	.440"
KPMI®	10-HC510		2.008"	1.610"	.440"
AVV	AV2040	Direct	2.040"	1.700"	.425"
KPMI®	10-HC518		2.040"	1.700"	.425"
AVV	AV2068	Direct	2.068"	1.750"	.315"
KPMI®	10-HC525		2.068"	1.750"	.315"
AVV	AV2070	Direct	2.070"	1.610"	.460"
KPMI®	10-HC526		2.070"	1.610"	.460"
AVV	AV2132	Direct	2.132"	1.800"	.460"
KPMI®	10-HC541		2.132"	1.800"	.460"
AVV	AV2135	Direct	2.135"	1.750"	.400"
KPMI®	10-HC542		2.135"	1.750"	.400"
AVV	AV2163	Direct	2.163"	1.750"	.410"
KPMI®	10-HC549		2.163"	1.750"	.410"
AVV	AV2257	Direct	2.257"	1.550"	.500"
KPMI®	10-HC573		2.257"	1.550"	.500"

AV&V TO KPMI® SEAL DRIVER PARTS CROSSOVER LIST



Brand	Part Number	Replacement	Material	I.D.	Driving Section I.D.	Handle	OAL
AVV	VSD6MM	No Rep. at this time	Aluminum	.238"	.400"	.990"	3.500"
AVV	VSD7MM	No Rep. at this time	Aluminum	.277"	.480"	.990"	3.500"
AVV	VSD312	No Rep. at this time	Aluminum	.315"	.515"	.990"	3.500"
AVV	VSD343	No Rep. at this time	Aluminum	.343"	.540"	.990"	3.500"
AVV	VSD378	No Rep. at this time	Aluminum	.380"	.550"	.990"	3.500"
AVV	VSDB	No Rep. at this time	Plastic	---	---	---	---
AVV	VSDR	No Rep. at this time	Plastic	---	---	---	---
AVV	VSDW	No Rep. at this time	Plastic	---	---	---	---

AV&V TO KPMI® REAMER PARTS CROSSOVER LIST

Brand	Part Number	Replacement	Size	Material
AVV	VGRC4MM	No Rep. at this time	4MM	Solid Carbide
AVV	VGRC4.5MM	No Rep. at this time	4.5MM	Solid Carbide
AVV	VGRC5MM	Supersedes	5MM	Solid Carbide
KPMI®	CR-1971		5MM	Solid Carbide
AVV	VGRC5.5MM	No Rep. at this time	5.5MM	Solid Carbide
AVV	VGRC6MM	Supersedes	6MM	Solid Carbide
KPMI®	CR-2357		6MM	Solid Carbide
AVV	VGRC2750	No Rep. at this time	7MM / .2750"	Solid Carbide
AVV	VGRC7MM	No Rep. at this time	7MM / .2756"	Solid Carbide
AVV	VGRC2761	No Rep. at this time	7MM / .2761"	Solid Carbide
AVV	VGRC2766	Supersedes	7MM / .2766"	Solid Carbide
KPMI®	CR-2768		7MM / .2768"	Solid Carbide
AVV	VGRC3110	Supersedes	.3110"	Solid Carbide
KPMI®	CR-3110		.3110"	Solid Carbide
AVV	VGRC3115	Supersedes	.3115"	Solid Carbide
KPMI®	CR-3115		.3115"	Solid Carbide
AVV	VGRC3120	Supersedes	.3120"	Solid Carbide
KPMI®	CR-3120		.3120"	Solid Carbide
AVV	VGRC8MM	No Rep. at this time	.3150"	Solid Carbide
AVV	VGRC9MM	No Rep. at this time	.3543"	Solid Carbide
AVV	VGRC3777	Supersedes	.3777"	Solid Carbide
KPMI®	CR-3775		.3775"	Solid Carbide
AVV	VGRC3782	No Rep. at this time	.3782"	Solid Carbide



AV&V TO KPMI® RETAINER PARTS CROSSOVER LIST

The following list describes which items are supersessions with similar (but not exact) dimensions and which items are dimensionally identical replacements. This allows you to search by part number to find the proper item for your use.

Brand	Part number	Replacement	Alloy	Traitement	Angle
AVV	R311CS-4	No Rep. at this time	4140 Chromoly Steel	Black Oxide	10°
AVV	R311CT-4	No Rep. at this time	Titanium	---	10°
AVV	R6000-4	No Rep. at this time	4140 Chromoly Steel	Black Oxide	9°
AVV	R6500-4	No Rep. at this time	4140 Chromoly Steel	Black Oxide	9°
AVV	R60007SG-4	No Rep. at this time	4140 Chromoly Steel	Black Oxide	7°
AVV	R6500-4	No Rep. at this time	4140 Chromoly Steel	Black Oxide	9°
AVV	R530-4	No Rep. at this time	4140 Chromoly Steel	Black Oxide	15°
AVV	R7000S	No Rep. at this time	4140 Chromoly Steel	Black Oxide	7°
AVV	R7000T	No Rep. at this time	Titanium	---	7°

AV&V TO KPMI® BASEWASHER PARTS CROSSOVER LIST

Brand	Part number	Replacement	Thickness	O.D.	I.D.	Alloy
AVV	LSC600-4	No Rep. at this time	.040"	1.418"	.562"	H. T. Steel
AVV	LSC6000-4	No Rep. at this time	.050"	1.425"	.565"	H. T. Steel
AVV	LSC6500-4	No Rep. at this time	.040"	1.485"	.565"	H. T. Steel
AVV	LSC6000-4	No Rep. at this time	.050"	1.425"	.565"	H. T. Steel
AVV	LSC6500-4	No Rep. at this time	.040"	1.485"	.565"	H. T. Steel
AVV	LSC530-4	No Rep. at this time	.055" / .180"	1.495"	.755"	H. T. Steel

AV&V TO KPMI® KEEPER PARTS CROSSOVER LIST

Brand	Part Number	Replacement	Stem	Tapper
AVV	VL311A-8	No Rep. at this time	5/16"	Jumbo 10°
AVV	VL311C-8	Supersedes	5/16"	9°
KPMI®	51031-4		5/16"	9°
AVV	VL7MMSG-8	No Rep. at this time	7MM	7°
AVV	VL7MMSGC-8	Supersedes	7MM	9°
KPMI®	51030-4		7MM	9°
AVV	VL375-8	Supersedes	3/8"	Jumbo 15°
KPMI®	51005-4		3/8"	Jumbo 15°
AVV	VL6MMTG	No Rep. at this time	6MM	7°
AVV	VL6MMSG	No Rep. at this time	6MM	7°