



2019
SPORTCOMPACT
CATALOG

Ferrea
RACING COMPONENTS

HIGH POWER
VALVETRAIN COMPONENTS

Competition Plus, 6000 Series and 5000 Series Valves

In the Sport Compact market for more than 18 years Ferrea has been the leader in offering a specific valve for your specific application. The competition continues to imitate but cannot duplicate the quality of our valves. Ferrea manufactures three different lines of valves!

- **Competition Plus Series valves for all your high boost turbocharged, supercharged and big nitrous applications.**
- **6000 Series for your mild to standard turbocharged, supercharged applications and normally aspirated applications.**
- **5000 Series for your direct replacement Honda Valves in a flat face design.**



Valve Springs

Dual & Beehive Valve Springs

Our Ferrea Valve Springs are processed with premium-grade alloy and feature special thermal treatment. Our advanced spring design and material specifications has uniform load & stress distribution even in most extreme racing environment.

- **Our beehive design spring offers additional durability in all high revving street performance and mid-race applications at an affordable price.**
- **The dual spring technology enables you to use in high lift camshafts and extreme high RPM.**

Roller Rocker System

This New and optimized Special Aluminum-Magnesium Roller Rocker System was designed and developed by Ferrea to replace the factory Steel Rocker Arm System and eliminate the VTEC Function. Factors such as weight, mass moment of inertia, deflection, and cycle durability are taken into account throughout the design and testing process.



Acura K20 Roller Rocker

Honda B18/H22 Roller Rocker

Acura K20 Roller Rocker .600 + High Lift

Lotus-Toyota 2ZZ-GE Roller Rocker Page 19 for Tech Info

Honda Type-R K20C1 Roller Rocker Page 15 for Tech Info

Premium Material: We use special high quality 70 Series Aerospace Aluminum-Magnesium Alloy, heat-treated to provide superior strength.

Manufacturing: Fully CNC machined, profiled for weight reduction, (OEM unit weighs 110% more) which improves moment of inertia, and increases the RPM range of Valve-train.

Roller Wheel: The Roller Needle Bearing prevents roller from skidding across the camshaft surface, unlike the (OEM) stock rocker pad, thus reducing friction dramatically.

Tool Steel Pin: The Tool Steel Roller Pin is compressed between the rocker to stabilize the rocker motion throughout the entire RPM range.

Installation: Our Roller Rocker System comes with all hardware and requires no head modifications for installation.

(1) U.S. Patent No. US6, 352, 062 B1.

Retainers

Titanium & Tool Steel Retainers

Ferrea's Titanium & Tool Steel Retainers are CNC machined from aerospace quality alloys and finished to exact tolerances.



- **Precision CNC Machined from aerospace quality alloys.**
- **Finished to exact tolerances.**
- **Engineered for optimum strength and weight savings, which is crucial to valve-train stability at High RPM.**

Seat Locators

To complete the valvetrain kit, Ferrea offers premium quality Spring Seat Locators.



- **We use superior materials and maintain high standards on the production process to deliver a reliable products.**

Valve Guides & Locks

Valve Guides

Ferrea Valve guides are precision machined high quality Copper-bronze material for the exhaust side and Manganese-bronze for the intake side. They are ideal for both intake and exhaust applications and are compatible with Stainless and Titanium Valves.



Valve Locks

We offer Valve Locks machined from premium quality heat-treated steel alloy, which insures precision fit between the spring retainer and the valve stem. These locks are stronger than OEM, maintaining proper installed height during operation, with high pressure springs. These valve locks are available for most applications.





HIGH POWER VALVETRAIN COMPONENTS

2019

APPLICATION GUIDE

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ACURA INTEGRA GSR 1.7L - DOHC VTEC 16 VALVE (B17A1) - 1992-1993
ACURA INTEGRA GSR 1.8L - DOHC VTEC 16 VALVE (B18C1-C3) - 1994-2000

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1449P	E	28 mm	5.45 mm	102.5 mm	2.5 mm	25° Flo Stock size. Super Alloy
F1447P	E	28.5 mm	5.45 mm	102.5 mm	2.5 mm	25° Flo - .5 mm oversize. Super Alloy
F1445P	E	29 mm	5.45 mm	102.5 mm	2.5 mm	25° Flo - 1 mm oversize. Super Alloy
F1448P	I	33 mm	5.47 mm	102.35 mm	2.5 mm	25° Super Flo. Stock size
F1446P	I	33.5mm	5.47 mm	102.35 mm	2.5 mm	25° Super Flo - .5 mm oversize
F1444P	I	34 mm	5.47 mm	102.35 mm	2.5 mm	25° Super Flo - 1 mm oversize

6000 SERIES COMPETITION VALVES

F6049	E	28 mm	5.45 mm	102.5 mm	2.5 mm	25° Flo Stock size. Special Alloy
F6047	E	28.5 mm	5.45 mm	102.5 mm	2.5 mm	25° Flo - .5 mm oversize. Special Alloy
F6045	E	29 mm	5.45 mm	102.5 mm	2.5 mm	25° Flo - 1 mm oversize. Special Alloy
F6048	I	33 mm	5.47 mm	102.35 mm	2.5 mm	25° Super Flo. Stock size
F6046	I	33.5 mm	5.47 mm	102.35 mm	2.5 mm	25° Super Flo - .5 mm oversize
F6044	I	34 mm	5.47 mm	102.35 mm	2.5 mm	25° Super Flo - 1 mm oversize

5000 SERIES HI PERFORMANCE VALVES

F5500	E	28 mm	5.45 mm	102.5 mm	2.5 mm	25° Flo. Stock size. Flat Head. Special Alloy
F5501	E	29 mm	5.45 mm	102.5 mm	2.5 mm	25° Flo. + 1 mm oversize. Flat Head. Special Alloy
F5502	I	33 mm	5.47 mm	102.35 mm	2.5 mm	25° Super Flo. Stock size. Flat Head
F5503	I	34 mm	5.47 mm	102.35 mm	2.5 mm	25° Super Flo. + 1 mm oversize. Flat Head

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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BEEHIVE VALVE SPRINGS

S2014	Single Beehive Ovate. PAC Alloy Nitrided Street Performance	22.94mm	14.73mm	70 lbs @31.75mm	160 lbs @21.75mm	230 lbs	17.50mm	12.70mm
E12020	Titanium Retainer							
SL1090	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10027	Dual Spring - Hi Pressure Special Alloy	22.8 mm 30.10 mm	17.15 mm 22.88 mm	100 lbs @ 34 mm	220 lbs @ 24 mm	305 lbs	20 mm	13.5 mm
E11000	Titanium Retainer							
E11000LW	Titanium Retainer Lightweight							
E20041	Tool Steel Retainer							
SL1000	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							
S10064	Dual Spring - Turbo Special Alloy-Hi Pressure	22.88 mm 30.10 mm	17.15 mm 22.88 mm	95 lbs @34 mm	215 lbs @24 mm	305 lbs	19 mm	14 mm
E11000	Titanium Retainer							
E11000LW	Titanium Retainer Lightweight							
E20041	Tool Steel Retainer							
SL1000	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							
S10070	Dual Spring - Special Alloy Endurance Spring	22.85 mm 30.45 mm	17.5 mm 22.85 mm	80 lbs @33 mm	190 lbs @23 mm	279 lbs	18 mm	14 mm
E11000	Titanium Retainer							
E11000LW	Titanium Retainer Lightweight							
E20041	Tool Steel Retainer							
SL1004	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							
S10086	Dual Spring Special Alloy Endurance Application: This Spring Requires Ferrea Roller Rocker # RR1000	22.85mm 30.45mm	17.5mm 22.85mm	110 lb @ 34mm	260 lb @ 21mm	292 lbs	20 mm	13 mm
E11000	Titanium Retainer							
E11000LW	Titanium Retainer Lightweight							
E20041	Tool Steel Retainer							
SL1044	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							
S10104	Dual Spring - Turbo - PAC enhanced Alloy	23.10 mm 30mm	17.2mm 23.10mm	80 lbs @34 mm	195 lbs @24 mm	292 lbs	20 mm	13.5 mm
E11000	Titanium Retainer							
E11000LW	Titanium Retainer Lightweight							
E20037	Tool Steel Retainer							
SL1000	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Lock							

ACURA INTEGRA GSR 1.7L - DOHC VTEC 16 VALVE (B17A1) - 1992-1993
ACURA INTEGRA GSR 1.8L - DOHC VTEC 16 VALVE (B18C1-C3) - 1994-2000

Part# Specifications

COPPER BRONZE VALVE GUIDES

VG1089	Exhaust -.002 Undersize. Use Ferrea Valve Seal Part # VS1002
VG1000	Exhaust Std. size. Use Ferrea Valve Seal Part # VS1002
VG1001	Exhaust +.001" Over size. Use Ferrea Valve Seal Part # VS1002
VG1090	Intake -.002 Undersize. Use Ferrea Valve Seal Part # VS1003
VG1002	Intake Std. size. Use Ferrea Valve Seal Part # VS1003
VG1003	Intake +.001" Over size. Use Ferrea Valve Seal Part # VS1003

Part# Specifications

VALVE SEALS

VS1002	Exhaust. 5.5 mm valve stem. Viton rubber compound. Hi Temp
VS1003	Intake. 5.5 mm valve stem. Viton rubber compound

Part# References

ROLLER ROCKER SYSTEM

U.S. Patent No. US6, 352, 062 B1.
 RR1000 Aluminum-Magnesium CNC machined
 Stock rocker assembly mass: 252 grams. Ferrea rocker assembly mass: 135 grams (46% less mass than factory rockers)
 Stock fulcrum mass: 110 grams. Ferrea fulcrum mass: 65 grams.
 Use stand alone ECU tuning system.
 To work properly you must disconnect the VTEC function and remove the "lost-motion assembly" components

ACURA INTEGRA LS-GS 1.8L - DOHC 16 VALVE (B18A1-B1) - 1990-2000

Part# Type Head Diam. Stem Diam. Overall Length Tip Length References

COMPETITION PLUS VALVES

F1815P	E	28 mm	6.54 mm	106.02 mm	4.1 mm	30° Flo Dish Head - Stock size. Super Alloy
F1488P	E	28.5 mm	6.54 mm	106.02 mm	4.1 mm	30° Flo Dish Head - .5mm oversize. Super Alloy
F1489P	E	29 mm	6.54 mm	106.02 mm	4.1 mm	30° Flo Dish Head - 1mm oversize. Super Alloy
F1816P	I	31 mm	6.57 mm	105.5 mm	4.1 mm	20° Super Flo Dish Head - Stock size
F1490P	I	31.5 mm	6.57 mm	105.5 mm	4.1 mm	20° Super Flo Dish Head - .5mm oversize
F1491P	I	32 mm	6.57 mm	105.5 mm	4.1 mm	20° Super Flo Dish Head - 1mm oversize

6000 SERIES COMPETITION VALVES

F6015	E	28 mm	6.54 mm	106.02 mm	4.1 mm	30° Flo Dish Head - Stock size. Special Alloy
F6016	I	31 mm	6.57 mm	105.5 mm	4.1 mm	20° Super Flo Dish Head - Stock size

Part# Type/Material/ Application O.D. I.D. Seat Press. Open Press. Rate Inch Coil Bind Max Net Lift

VALVE SPRINGS

S10046	Dual		20.8 mm	16.51 mm	60 lbs	160 lbs	254 lbs	20 mm	14 mm
	Chrome Silicon		28.0 mm	20.8 mm	@ 36.5 mm	@ 26.5 mm			
E11023	Titanium Retainer								
SL1017	Seat Locator (For Exhaust Application Only--For Intake Application us Factory supplied Spring Seat Locator)								

ACURA NSX 3.2L - DOHC 24 VALVE (C32B) - 1997-2005

Part# Type Head Diam. Stem Diam. Overall Length Tip Length References

COMPETITION PLUS VALVES

F1559P	E	30.05 mm	5.455 mm	111.6 mm	3.17 mm	30° Flo. Stock size
F1561P	E	31.05 mm	5.455 mm	111.6 mm	3.17 mm	30° Flo. +1mm oversize
F1558P	I	35.97 mm	5.48 mm	112.37 mm	3.25 mm	20° Super Flo. Stock size
F1560P	I	37 mm	5.48 mm	112.37 mm	3.25 mm	20° Super Flo. +1mm oversize

ACURA RSX 2.0L - DOHC VTEC 16 VALVE (K20) - 2001-2006

Part# Type Head Diam. Stem Diam. Overall Length Tip Length References

COMPETITION PLUS VALVES

F1546P	E	30 mm	5.45 mm	109.15 mm	2.5 mm	30° Flo. Dish Head. Stock size. Special Alloy
F1547P	E	31 mm	5.45 mm	109.15 mm	2.5 mm	30° Flo. Dish Head. +1 mm oversize. Special Alloy
F1548P	I	35 mm	5.47 mm	109.30 mm	2.5 mm	20° Super Flo. Stock size
F1549P	I	36 mm	5.47 mm	109.30 mm	2.5 mm	20° Super Flo. +1 mm oversize

6000 SERIES COMPETITION VALVES

F6071	E	30 mm	5.45 mm	109.15 mm	2.5 mm	22° Flo. Radius Groove - Stk size. Special Alloy
F6072	E	31 mm	5.45 mm	109.15 mm	2.5 mm	22° Flo. Radius Groove. + 1 mm over size. Special Alloy
F6073	I	35 mm	5.47 mm	109.3 mm	2.5 mm	20° Super Flo. Radius Groove. Stk size.
F6074	I	36 mm	5.47 mm	109.3 mm	2.5 mm	20° Super Flo. Radius Groove. + 1 mm over size

5000 SERIES HI PERFORMANCE VALVES

F5508	E	30 mm	5.45 mm	109.15 mm	2.5 mm	22° Flo. Stock size. Flat Head. Special Alloy
F5509	E	31 mm	5.45 mm	109.15 mm	2.5 mm	22° Flo. + 1 mm oversize. Flat Head. Special Alloy
F5510	I	35 mm	5.47 mm	109.3 mm	2.5 mm	20° Super Flo. Stock size. Flat Head
F5511	I	36 mm	5.47 mm	109.3 mm	2.5 mm	20° Super Flo. + 1 mm oversize. Flat Head

ACURA RSX 2.0L - DOHC VTEC 16 VALVE (K20) - 2001-2006

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
BEEHIVE VALVE SPRINGS								
S2018	Single Beehive Ovate. PAC Alloy Nitrided Street Performance	23.87mm	14.73mm	90 lbs @39mm	225 lbs @29mm	342 lbs	24mm	14mm
E12027	Titanium Retainer							
SL1094	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10099	Dual Spring-Special Alloy Endurance Spring	22.85 mm 30.45 mm	17.5 mm 22.85 mm	80 lbs @40 mm	190 lbs @30 mm	279 lbs	24 mm	14 mm
E11066	Titanium Retainer							
E20044	Tool Steel Retainer							
SL1052	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							
S10100	Dual Spring-Chrome Silicon Drag Racing	23.1 mm 31 mm	17.35 mm 23.1 mm	105 lbs @ 39 mm	225 lbs @ 29 mm	305 lbs	22 mm	15 mm
E11066	Titanium Retainer							
E20044	Tool Steel Retainer							
SL1053	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							
S10149	Dual Spring - PAC Enhanced High Lift Drag Racing	22.86 mm 30.38 mm	16.86 mm 22.86 mm	140 lbs @40 mm	265 lbs @30 mm	317 lbs	20 mm	18.4 mm
E11125	Titanium Retainer							
E20054	Tool Steel Retainer							
SL1136	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							

Part#	Specifications
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COPPER BRONZE VALVE GUIDES

VG1064	Exhaust Std. size. Use Ferrea Valve Seal Part# VS1002
VG1065	Exhaust + .001 Over size. Use Ferrea Valve Seal Part# VS1002
VG1062	Intake Std. size. Use Ferrea Valve Seal Part# VS1003
VG1063	Intake + .001 Over size. Use Ferrea Valve Seal Part# VS1003

Part#	Specifications
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VALVE SEALS

VS1002	Exhaust. 5.5 mm valve stem. Viton rubber compound. Hi Temp
VS1003	Intake. 5.5 mm valve stem. Viton rubber compound

Part#	References
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ROLLER ROCKER SYSTEM U.S. Patent No. US6, 352, 062 B1.

RR1002	Recommended Maximum Net Lift: 15.25 mm. Aluminum-Magnesium CNC machined Stock rocker assembly mass: 307 grams. Ferrea rocker assembly mass: 154 grams (50% less mass than factory rockers) Stock fulcrum mass: 134 grams. Ferrea fulcrum mass: 76 grams. Can be used with stock or any aftermarket camshafts. Uses center lobe only, must use stand alone ECU tuning system. To work properly, you must disconnect the VTEC function and remove the lost-motion assembly components.
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ACURA RSX 2.0L - DOHC VTEC 16 VALVE (K20) - 2001-2006

Part#	References
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ROLLER ROCKER SYSTEM U.S. Patent No. US6, 352, 062 B1.

RR1004	Drag Racing Applications. Aluminum-Magnesium CNC machined. Stock rocker assembly mass: 307 grams. Ferrea rocker assembly mass: 160 grams (48% less mass than factory rockers) Stock fulcrum mass: 134 grams. Ferrea fulcrum mass: 78 grams. Can be used with stock or any aftermarket camshafts. Uses center lobe only, must use stand alone ECU tuning system. To work properly, you must disconnect the VTEC function. and remove the "lost-motion assembly" components.
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ACURA TSX 2.4L - DOHC i-VTEC 16 VALVE (K24Z3) - 2009-2014**ACURA ILX 2.4L - DOHC i-VTEC 16 VALVE (K24Z7) - 2013-2015**

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2389P	E	31 mm	5.45 mm	109.3 mm	2.1 mm	25° Flo. Stock size. Super Alloy
F2391P	E	32 mm	5.45 mm	109.3 mm	2.1 mm	25° Flo. 1 mm oversize. Super Alloy
F2388P	I	36 mm	5.47 mm	109.15 mm	2.1 mm	15° Super Flo. Stock size.
F2390P	I	37 mm	5.47 mm	109.15 mm	2.1 mm	15° Super Flo. +1 mm oversize.

6000 SERIES COMPETITION VALVES

F6352	E	31 mm	5.45 mm	109.3 mm	2.1 mm	25° Flo. Stock size. Special Alloy
F6354	E	32 mm	5.45 mm	109.3 mm	2.1 mm	25° Flo. 1 mm oversize. Special Alloy
F6351	I	36 mm	5.47 mm	109.15 mm	2.1 mm	15° Super Flo. Stock size.
F6353	I	37 mm	5.47 mm	109.15 mm	2.1 mm	15° Super Flo. +1 mm oversize.

ACURA TSX 2.4L - DOHC i-VTEC 16 VALVE (K24Z3) - 2009-2014
ACURA ILX 2.4L - DOHC i-VTEC 16 VALVE (K24Z7) - 2013-2015

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10164	Dual Spring-PAC Enhanced Drag / Enduro Racing	23.1 mm 31 mm	17.35 mm 23.1 mm	105 lbs @39 mm	225 lbs @29 mm	305 lbs	22 mm	15 mm
E11141	Titanium Retainer							
K10034	Steel Valve Lock							
SL1149	Seat Locator (Discard OEM Spring Seat Locator)							

Part#	Specifications
COPPER BRONZE VALVE GUIDES	
VG1095	Exhaust Std. size. Use Ferrea Valve Seal Part# VS1002
VG1096	Exhaust + .001 Over size. Use Ferrea Valve Seal Part# VS1002
VG1097	Intake Std. size. Use Ferrea valve Seal Part# VS1003
VG1098	Inakte + .001 Over size. Use Ferrea Valve Seal Part# VS1003

AUDI 1.8T - DOHC 20 VALVE - 1996-2005
AUDI 2.7T - DOHC 30 VALVE (APB) 1998-2004
AUDI RS6 4.2L - DOHC V8 40 VALVE (BCY) - 2002-2004

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F1554P	E	29.9 mm	5.96 mm	103.92 mm	5 mm	26° Flo. Stk size. Trip. groove. 2 Valves required
F1555P	E	30.9 mm	5.96 mm	103.92 mm	5 mm	26° Flo. +1 mm o/s. Trip. groove. 2 Valves required
F1556P	I	26.9 mm	5.97 mm	105.1 mm	5 mm	24° Sup. Flo. Stk size. Trip. groove. 3 Val. required
F1557P	I	27.9 mm	5.97 mm	105.1 mm	5 mm	24° Sup. Flo. +1 mm o/s. Trip. groove. 3 Val. required

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10055	Single Spring - Turbo Special Alloy (Intake - 1.8T-12 pieces, 2.7T-18 pieces, 4.2L-24 pieces)	21.5 mm	15.1 mm	65 lbs @ 34.5 mm	145 lbs @ 24.5 mm	216 lbs	22.5 mm	11 mm
E11031	Titanium Retainer							
SL1025	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
S10056	Dual Spring - Turbo Special Alloy (Exhaust - 1.8T-8 pieces, 2.7T-12 pieces, 4.2L-16 pieces)	22.75 mm 29.5 mm	17.1 mm 22.75 mm	80 lbs @ 32.5 mm	180 lbs @ 22.5 mm	254 lbs	20 mm	12 mm
E11032	Titanium Retainer							
SL1026	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							

AUDI 2.0T FSI - DOHC 16 VALVE - 2006-2008

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F2177P	E	28 mm	5.97 mm	102 mm	5 mm	24° Flo. Stock size. Triple Groove. Super Alloy
F2178P	E	29 mm	5.97 mm	102 mm	5 mm	24° Flo. + 1 mm o/size. Triple Groove. Super Alloy
F2179P	I	33.9 mm	5.99 mm	104 mm	5 mm	20° Super Flo. Stock size. Triple Groove
F2180P	I	34.9 mm	5.99 mm	104 mm	5 mm	20° Super Flo. + 1 mm o/size. Triple Groove.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10157	Single Spring - Turbo PAC Enhanced Alloy	22.38 mm	15.52 mm	80 lbs @37 mm	180 lbs @27mm	254 lbs	24.6 mm	11 mm
NOTE: Max Net Lift is limited due to the OEM factory valve seal install height.								
E11129	Titanium Retainer							
SL1142	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							

Part#	Specifications
LIFTER SHIMS	
LP1100	Lifter Shim .9mm Thick(16 pieces).
LP1105	Lifter Shim 1.3mm Thick(16 pieces).
Note: Lifter shim goes below stock hydraulic lifter to shorten travel distance.	

SPORT COMPACT APPLICATIONS

AUDI 2.0T FSI - DOHC 16 VALVE - 2009-2013

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F2177P	E	28 mm	5.97 mm	102 mm	5 mm	24° Flo. Stock size. Triple Groove. Super Alloy
F2178P	E	29 mm	5.97 mm	102 mm	5 mm	24° Flo. + 1 mm o/size. Triple Groove. Super Alloy
F2179P	I	33.9 mm	5.99 mm	104 mm	5 mm	20° Super Flo. Stock size. Triple Groove
F2180P	I	34.9 mm	5.99 mm	104 mm	5 mm	20° Super Flo. + 1 mm o/size. Triple Groove.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10157	Single Spring - Turbo PAC Enhanced Alloy INTAKE ASSEMBLY	22.38 mm	15.52 mm	80 lbs @ 37 mm	180 lbs @ 27 mm	254 lbs	24.6 mm	11 mm
	EXHAUST ASSEMBLY			85 lbs @ 36.5 mm	185 lbs @ 26.5 mm	254 lbs	24.6 mm	10.5 mm
E11139	Titanium Retainer (INTAKE)							
E11140	Titanium Retainer (EXHAUST)							
SL1142	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							

VALVE SPRINGS

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
S10157	Single Spring - Turbo PAC Enhanced Alloy INTAKE ASSEMBLY	22.38 mm	15.52 mm	80 lbs @ 37 mm	180 lbs @ 27 mm	254 lbs	24.6 mm	11 mm
	EXHAUST ASSEMBLY			85 lbs @ 36.5 mm	185 lbs @ 26.5 mm	254 lbs	24.6 mm	10.5 mm
E11139	Titanium Retainer (INTAKE)							
E11140	Titanium Retainer (EXHAUST)							
SL1142	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							

Part# Specifications**LIFTER SHIMS**

LP1100	Lifter Shim .9mm Thick(16 pieces).
LP1105	Lifter Shim 1.3mm Thick(16 pieces).

Note: Lifter shim goes below stock hydraulic lifter to shorten travel distance.

AUDI TTRS / RS3 2.5L TFSI - DOHC 20 VALVE (DAZA) TURBO - 2017-2018

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F2417P	E	28mm	5.97 mm	102 mm	5 mm	24° Flo. Stock Size. Triple Groove. Super Alloy
F2418P	E	29mm	5.97 mm	102 mm	5 mm	24° Flo. +1 mm oversize. Triple Groove. Super Alloy
F2419P	I	33.9 mm	5.98 mm	104 mm	5 mm	20° Super Flo. Stock Size. Triple Groove
F2420P	I	34.9 mm	5.98 mm	104 mm	5 mm	20° Super Flo. +1 mm oversize. Triple groove

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10170	Single Spring - Turbo PAC Enhanced Alloy INTAKE ASSEMBLY	22.38 mm	15.52 mm	80 lbs @37 mm	180 lbs @27 mm	254 lbs	24.6 mm	11 mm
	EXHAUST ASSEMBLY			85 lbs @36.5 mm	185 lbs @26.5 mm	254 lbs	24.6 mm	10.5 mm
E12035	Titanium Retainer							
SL1162	Spring Seat Locator (INTAKE)							
SL1163	Spring Seat Locator (EXHAUST). Required OEM Factory EXHAUST supplied Spring Seat Locator / Valve Hat Seal.							
LP1106	Lifter Shims (Lifter Shim goes below stock hydraulic lifter to shorten travel distance).							

VALVE SPRINGS

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
S10170	Single Spring - Turbo PAC Enhanced Alloy INTAKE ASSEMBLY	22.38 mm	15.52 mm	80 lbs @37 mm	180 lbs @27 mm	254 lbs	24.6 mm	11 mm
	EXHAUST ASSEMBLY			85 lbs @36.5 mm	185 lbs @26.5 mm	254 lbs	24.6 mm	10.5 mm
E12035	Titanium Retainer							
SL1162	Spring Seat Locator (INTAKE)							
SL1163	Spring Seat Locator (EXHAUST). Required OEM Factory EXHAUST supplied Spring Seat Locator / Valve Hat Seal.							
LP1106	Lifter Shims (Lifter Shim goes below stock hydraulic lifter to shorten travel distance).							

AUDI 80 QUATRO 2.2 L - DOHC 20 VALVE (7A) - 1989-1992**AUDI 200 QUATRO 2.2 L - DOHC 20 VALVE (3B) - 1991****AUDI COUPE QUATRO 2.2 L - DOHC 20 VALVE (7A) -1990-1991****AUDI RS2 2.2 L - DOHC 20 VALVE (ADU) - 1994-1995****AUDI S4 2.2 L - DOHC 20 VALVE (AAN) - 1992-1994****AUDI S6 2.2 L - DOHC 20 VALVE (AAN) - 1995****AUDI V8 3.6 L - DOHC 32 VALVE (PT) - 1990-1991****AUDI V8 4.2 L - DOHC 32 VALVE (ABH) - 1992-1994**

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
6000 SERIES COMPETITION VALVES						
F6027	E	28.1 mm	6.93 mm	98.3 mm	2.8 mm	22° Flo Radius Groove. Stk size. Special Alloy
F6028	E	28.6 mm	6.93 mm	98.3 mm	2.8 mm	22° Flo Radius Groove. + 0.5 mm over size. Special Alloy
F6029	I	32 mm	6.96 mm	95.5 mm	2.6 mm	15° S. Flo Radius Groove. Stock size.
F6030	I	32.5 mm	6.96 mm	95.5 mm	2.6 mm	15° S. Flo Radius Groove. + 0.5 mm over size.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10115	Dual Spring Special Alloy Endurance Application	22.75 mm 29.5 mm	17.1 mm 22.75 mm	85 lbs @ 33 mm	205 lbs @ 23 mm	304 lbs	17.5 mm	14 mm
E11084	Titanium Retainer							
SL1073	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10082	Valve locks							

VALVE SPRINGS

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
S10115	Dual Spring Special Alloy Endurance Application	22.75 mm 29.5 mm	17.1 mm 22.75 mm	85 lbs @ 33 mm	205 lbs @ 23 mm	304 lbs	17.5 mm	14 mm
E11084	Titanium Retainer							
SL1073	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10082	Valve locks							

AUDI TT VR6 3.2L - DOHC 24 VALVE (BHE-CBRA) 2005-2009

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2288P	E	30.20 mm	5.96 mm	136.48 mm	4.6 mm	25° Taper Flo. Stock size. Super Alloy.
F2289P	E	30.20 mm	5.96 mm	102.58 mm	4.6 mm	25° Taper Flo. Stock size. Super Alloy.
F2290P	E	31.20 mm	5.96 mm	136.48 mm	4.6 mm	25° Taper Flo. +1 mm oversize. Super Alloy.
F2291P	E	31.20 mm	5.96 mm	102.58 mm	4.6 mm	25° Taper Flo. +1 mm oversize. Super Alloy.
F2292P	I	33.20 mm	5.98 mm	136.70 mm	4.6 mm	20° Super Flo. Stock size.
F2293P	I	33.20 mm	5.98 mm	102.80 mm	4.6 mm	20° Super Flo. Stock size.
F2294P	I	34.20 mm	5.98 mm	136.70 mm	4.6 mm	20° Super Flo. +1 mm oversize.
F2295P	I	34.20 mm	5.98 mm	102.80 mm	4.6 mm	20° Super Flo. +1 mm oversize.

(*) Every motor takes 6 long INT valves, 6 short INT valves, 6 long EXH valves, 6 short EXH valves

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10087	Single Spring Special Alloy	23.5 mm	15.7 mm	85 lbs @39 mm	190 lbs @29 mm	265 lbs	26 mm	12 mm
E11063	Titanium Retainer							

Part#	Specifications
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LIFTER SHIMS

LP1104 Lifter Shim (24 pieces).

BMW E36 3.2L - DOHC 24 VALVE (S42 / M42 / M50/ S50 / M52 / M54) - 1990-2000

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1552P	E	30.5 mm	5.96 mm	106 mm	3.7 mm	25° Flo. Stock size. Triple groove
F1553P	E	31.5 mm	5.96 mm	106 mm	3.7 mm	25° Flo. + 1 mm o/size. Triple groove
F1550P	I	32.95 mm	5.97 mm	106.1 mm	3.7 mm	12° Super Flo. Stock size. Triple groove
F1551P	I	33.95 mm	5.97 mm	106.1 mm	3.7 mm	12° Super Flo. + 1 mm o/size. Triple groove

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10049	Dual Spring - Turbo Special Alloy	22.75 mm 29.5 mm	17.1 mm 22.75 mm	80 lbs @ 36 mm	180 lbs @ 26 mm	254 lbs	21 mm	14 mm
E11025	Titanium Retainer							
SL1021	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							

BMW E46 3.2L - DOHC 24 VALVE (S54) - 2001-2006

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2360P	E	30.5 mm	5.96 mm	119.2 mm	1.1 mm	30° Taper Flo. Stock size. Triple radial groove. Super Alloy
F2361P	I	35 mm	5.98 mm	117.6 mm	1.2 mm	19° Super Flo. Stk size. 30° Backcut. Triple radial groove.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10156	Dual Spring - Endurance Special Alloy	20.8 mm 28.0 mm	16.51 mm 20.8 mm	85 lbs @41 mm	185 lbs @31 mm	254 lbs	26.5 mm	14.0 mm
E11128	Titanium Retainer							
SL1141	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							

BMW E60/E82/E91/E92 3.0L - DOHC 24 VALVE (N54) - 2007-2010

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2365P	E	28 mm	5.96 mm	114.75 mm	4.7 mm	19° Taper Flo. Stk size. Triple radial groove. Super Alloy
F2366P	E	28.5 mm	5.96 mm	114.75 mm	4.7 mm	19° Taper Flo. +.5mm oversize. Triple radial groove. Super Alloy
F2367P	I	31.5 mm	4.97 mm	106.8 mm	4.2 mm	24° Taper Flo. Stock size. Triple Groove.
F2368P	I	32 mm	4.97 mm	106.8 mm	4.2 mm	24° Taper Flo. +.5mm oversize. Triple radial groove.

NOTE: The Exhaust valves feature a 1mm reduction stem in the tip area to allow the use of the OEM Factory rocker arm.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10158	Single Spring - Turbo PAC Enhanced Alloy	22.38 mm	15.52 mm	70 lbs @36.5mm	170 lbs @26.5mm	254 lbs	23.15 mm	12.5 mm
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This Spring requires 2 Ferrea Titanium Retainer (EXHAUST) # E11130, and (INTAKE) # E11131 and Factory supplied Spring Seat Locator / Valve Hat Seal.

E11130	Titanium Retainer
E11131	Titanium Retainer

CITROEN SAXO 1.6L - 16 VALVE (TU5J4) - 1996 & UP

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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6000 SERIES COMPETITION VALVES

F6758	E	24.56 mm	5.96 mm	104.4 mm	4.9 mm	20° Flo. Stock size
F6760	E	25.56 mm	5.96 mm	104.4 mm	4.9 mm	20° Flo. + 1 mm over size.
F6759	I	28.8 mm	5.98 mm	104.4 mm	4.9 mm	20° Super Flo. Stock size
F6761	I	29.8 mm	5.98 mm	104.4 mm	4.9 mm	20° Super Flo. + 1 mm over size.

DODGE NEON 2.0 - DOHC 16 VALVE - 1994-1999

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1544P	E	30.5 mm	5.9 mm	109.80 mm	11 mm	24° Tulip. Stock Size
F1545P	I	34.75 mm	5.93 mm	111.75 mm	11 mm	14° Super Flo. Stock size

DODGE NEON 2.4 - SRT4 - DOHC 16 VALVE (A853) - 2003-2005

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2141P	E	28.36 mm	5.95 mm	109.80 mm	9.1 mm	21° Flo. Stock size. Super Alloy. Turbo Appl. Single Groove
F2142P	E	29.36 mm	5.95 mm	109.80 mm	9.1 mm	21° Flo. 1mm O/Size Super Alloy. Turbo Appl. Single Groove
F2143P	I	34.81 mm	5.96 mm	111.7 mm	11.05 mm	21° Super Flo. Stock size. Single Groove
F2144P	I	35.81 mm	5.96 mm	111.7 mm	11.05 mm	21° Super Flo. + 1mm oversize. Stock Size. Single Groove

Tech Note: These Ferrea Racing Valves come with single radial grooves. For racing applications Ferrea Racing does not recommend the use of triple radial grooved valves. These valves are designed to be used only with Ferrea Valve Train Kit components.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10107	Dual Spring - Turbo Stage 1 - Special Alloy	20.8 mm 28.0 mm	16.51 mm 20.8 mm	90 lbs @37 mm	200 lbs @27 mm	279 lbs	23 mm	12 mm
E11073	Titanium Retainer							
SL1061	Seat Locator (Use with the OEM Factory supplied Spring Seat Locator)							
K10079	Valve Locks							
S10108	Dual Spring - Turbo Stage 2 - Special Alloy	20.8 mm 28.0 mm	15.88 mm 20.8 mm	105 lbs @37 mm	235 lbs @27 mm	330 lbs	23.5 mm	12 mm
E11074	Titanium Retainer							
SL1062	Seat Locator (Use with the OEM Factory supplied Spring Seat Locator)							
K10079	Valve Locks							

Part#	Specifications
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VALVE SEALS

VS1017	Intake 6mm valve stem. Poly rubber compound. The seal include the Stock Spring Seat Locator
VS1018	Exhaust 6mm valve system. Viton rubber compound. Hi Temp. The seal include the Stock Spring Seat Locator

FIAT BRAVO/STILO/TEMPRA 1.6L-DOHC 16 VALVE (178B-182A-M645TA15T) - 1995 & UP

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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6000 SERIES COMPETITION VALVES

F6762	E	29.71 mm	6.98 mm	102.71 mm	3.1 mm	30° Flo. Stock size
F6764	E	30.71 mm	6.98 mm	102.71 mm	3.1 mm	30° Flo. + 1 mm over size.
F6763	I	30.45 mm	6.98 mm	102.52 mm	3.15 mm	25° Super Flo. Stock size
F6765	I	31.45 mm	6.98 mm	102.52 mm	3.15 mm	25° Super Flo. + 1 mm over size.

FIAT PUNTO TURBO / UNO TURBO 1.4L - 8 VALVE (176A) - 1993-1999

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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6000 SERIES COMPETITION VALVES

F6768	E	33 mm	7.97 mm	109.11 mm	4.11 mm	15° Flo. Triple Groove. Stock size
F6770	E	34 mm	7.97 mm	109.11 mm	4.11 mm	15° Flo. Triple Groove. + 1 mm over size.
F6769	I	36 mm	7.98 mm	108.52 mm	4.06 mm	18° Super Flo. Triple Groove. Stock size
F6771	I	37 mm	7.98 mm	108.52 mm	4.06 mm	18° Super Flo. Triple Groove. + 1 mm over size.

FORD COSWORTH SIERRA / ESCORT 2.0L - DOHC 16 VALVE (N5B) - 1984-1997

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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6000 SERIES COMPETITION VALVES

F6746	E	31.15 mm	7.95 mm	105.85 mm	1.6 mm	23° Flo. Stock size
F6748	E	32.15 mm	7.95 mm	105.85 mm	1.6 mm	23° Flo. + 1 mm over size.
F6747	I	35.12 mm	6.95 mm	105.44 mm	1.6 mm	30° Super Flo. Stock size
F6749	I	36.12 mm	6.95 mm	105.44 mm	1.6 mm	30° Super Flo. + 1 mm over size.

FORD ESCORT 2.0L - DOHC ZETEC 16 VALVE (ZX2) - 1999-2001

FORD FOCUS 2.0L - DOHC ZETEC 16 VALVE (ZX3) - 2000-2001

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1817P	E	27.96 mm	6.012 mm	97.16 mm	5.25 mm	25° Flo. Stock size. Super Alloy
F1818P	E	28.96 mm	6.012 mm	97.16 mm	5.25 mm	25° Flo. 1 mm oversize. Super Alloy
F1959P	E	28.96 mm	5.5 mm	97.16 mm	5.25 mm	25° Flo. 1 mm oversize. Super Alloy
F1819P	I	32 mm	6.03 mm	97.55 mm	5.25 mm	25° Super Flo. Stock size
F1820P	I	33 mm	6.03 mm	97.55 mm	5.25 mm	25° Super Flo. 1 mm oversize
F1960P	I	33 mm	5.5 mm	97.55 mm	5.25 mm	25° Super Flo. 1 mm oversize

FORD ESCORT 2.0L - DOHC ZETEC 16 VALVE (ZX2) - 1999-2001

FORD FOCUS 2.0L - DOHC ZETEC 16 VALVE (ZX3) - 2000-2001

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10040	Single Spring Special Alloy	24.70 mm	18.23 mm	60 lbs @ 31.5 mm	140 lbs @ 21.5 mm	203 lbs	18.5 mm	12.5 mm
E11018	Titanium Retainer							
SL1014	Seat Locator (Use with the OEM Factory supplied Spring Seat Locator)							

S10041	Dual Spring - Turbo Special Alloy	18.23 mm 24.70 mm	13.40 mm 18.23 mm	75 lbs @ 32.75 mm	195 lbs @ 22.75 mm	305 lbs	18.75 mm	13.5 mm
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E11018 Titanium Retainer
SL1015 Seat Locator (Discard OEM Factory supplied Spring Seat Locator)

K10052 Valve Locks (Required for 5.5mm Stem Conversion)

NOTE: This Spring (#S10041) can be used only with Ferrea Valve Guides, Valve Seals and Valve Locks (for 5.5 mm valve stem)

Part# Specifications

COPPER BRONZE VALVE GUIDES

VG1006	Intake Std. To be used with 5.5 mm stem valve. (Required for 5.5mm Stem Conversion)
VG1007	Exhaust Std. To be used with 5.5 mm stem valve. (Required for 5.5mm Stem Conversion)

Part# Specifications

VALVE SEALS

VS1000	Exhaust. 5.5 mm valve stem. Viton rubber compound. Hi Temp (Required for 5.5mm Stem Conversion)
VS1001	Intake. 5.5 mm valve stem. Viton rubber compound (Required for 5.5mm Stem Conversion)

FORD 2.3L - DOHC DURATEC 16 VALVE (23E) - 2003-2008

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1910P	E	29.96 mm	5.47 mm	104.78 mm	4 mm	20° Flo. Stock size. Super Alloy
F1911P	E	30.96 mm	5.47 mm	104.78 mm	4 mm	20° Flo. 1 mm oversize. Super Alloy
F1908P	I	35.08 mm	5.48 mm	103.6 mm	4 mm	20° Super Flo. Stock size
F1909P	I	36.08 mm	5.48 mm	103.6 mm	4 mm	20° Super Flo. 1 mm oversize

FORD ECOBOOST 2.3L - DOHC 16 VALVE - 2015

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2370P	E	30mm	5.46mm	104.75mm	3.75mm	25° Taper Flo. Stock. Super Alloy
F2371P	E	30.5mm	5.46mm	104.75mm	3.75mm	25° Taper Flo. +.5mm Oversize. Super Alloy
F2374P	I	32.5mm	5.47mm	103.55mm	4 mm	22° Super Flo. Stock.
F2375P	I	33mm	5.47mm	103.55mm	4mm	22° Super Flo. +.5mm Oversize.

6000 SERIES COMPETITION VALVES

F6343	E	30mm	5.46mm	104.75mm	3.75mm	25° Taper Flo. Stock. Special Alloy
F6344	I	32.5mm	5.47mm	103.55mm	4 mm	22° Super Flo. Stock.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10163	Single Spring PAC Alloy - Turbo Endurance Application	24.61 mm	17.40 mm	75 lbs @37.75mm	160 lbs @27.75mm	215.7 lbs	23.78mm	12.7mm
E11135	Titanium Retainer							
K10113	Steel Valve Lock							
SL1147	Seat Locator and Valve Seal one piece assembly							

GEO METRO/SUZUKI SWIFT 1.0 L - SOHC 6 VALVE (G10) - 1995-2001

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10047	Dual Spring - Turbo Special Alloy	18.23 mm 24.70 mm	13.40 mm 18.23 mm	70 lbs @ 35.5 mm	175 lbs @ 25.5 mm	266 lbs	18.75 mm	14 mm
E11024	Titanium Retainer							
SL1018	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							

GM 2.2 ECO TEC - 2000-2008

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References		
COMPETITION PLUS VALVES								
F1961P	E	30.1 mm	5.96 mm	101.5 mm	5.5 mm	22° Flo. Stock size		
F1962P	E	31.1 mm	5.96 mm	101.5 mm	5.5 mm	22° Flo. 1 mm oversize		
F1963P	I	35.1 mm	5.97 mm	102.5 mm	5.5 mm	20° Super Flo. Stock size		
F1964P	I	36.1 mm	5.97 mm	102.5 mm	5.5 mm	20° Super Flo. + 1 mm oversize		
VALVE SPRINGS								
S10057	Dual Spring - Turbo Special Alloy	20.8 mm 28 mm	16.51 mm 20.8 mm	75 lbs @ 32.5 mm	175 lbs @ 22.5 mm	254 lbs	17.5 mm	14 mm
E11033	Titanium Retainer							
This Spring Uses the Factory OEM Seat Locator								
NOTE: For High Pressure use Both Ferrea Spring Seat Locator #SL1028 And Factory supplied Spring Seat Locator								
				110 lbs @ 31 mm	210 lbs @ 21 mm			12.5 mm
SL1028	Seat Locator (Use with the OEM Factory supplied Spring Seat Locator)							

GM 5 CYLINDER - L5 - 2002-2006

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References		
COMPETITION PLUS VALVES								
F1948P	E	30.15 mm	5.96 mm	108 mm	5.5 mm	22° Flo. Stock size		
F1949P	E	31.15 mm	5.96 mm	108 mm	5.5 mm	22° Flo. 1 mm oversize		
F1950P	I	37 mm	5.97 mm	105.5 mm	5.5 mm	20° Super Flo. Stock size		
F1951P	I	38 mm	5.97 mm	105.5 mm	5.5 mm	20° Super Flo. 1 mm oversize		
VALVE SPRINGS								
S10058	Dual Spring - Turbo Special Alloy	20.8 mm 28 mm	16.51 mm 20.8 mm	85 lbs @ 32 mm	185 lbs @ 22 mm	254 lbs	17.5 mm	13.5 mm
E11034	Titanium Retainer							
SL1027	Seat Locator (Use with the OEM Factory supplied Spring Seat Locator)							

HONDA ACCORD LX 2.4L - DOHC i-VTEC 16 VALVE (K24Z2) - 2008-2012**HONDA CIVIC Si 2.4L - DOHC i-VTEC 16 VALVE (K24Z7) - 2012-2015**

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References		
COMPETITION PLUS VALVES								
F2389P	E	31 mm	5.45 mm	109.3 mm	2.1 mm	25° Flo. Stock size. Super Alloy		
F2391P	E	32 mm	5.45 mm	109.3 mm	2.1 mm	25° Flo. 1 mm oversize. Super Alloy		
F2388P	I	36 mm	5.47 mm	109.15 mm	2.1 mm	15° Super Flo. Stock size.		
F2390P	I	37 mm	5.47 mm	109.15 mm	2.1 mm	15° Super Flo. +1 mm oversize.		
6000 SERIES COMPETITION VALVES								
F6352	E	31 mm	5.45 mm	109.3 mm	2.1 mm	25° Flo. Stock size. Special Alloy		
F6354	E	32 mm	5.45 mm	109.3 mm	2.1 mm	25° Flo. 1 mm oversize. Special Alloy		
F6351	I	36 mm	5.47 mm	109.15 mm	2.1 mm	15° Super Flo. Stock size.		
F6353	I	37 mm	5.47 mm	109.15 mm	2.1 mm	15° Super Flo. +1 mm oversize.		

Part#	Specifications							
VALVE SPRINGS								
S10164	Dual Spring-PAC Enhanced Drag / Enduro Racing 31 mm	23.1 mm 23.1 mm	17.35 mm @39 mm	105 lbs @29 mm	225 lbs	305 lbs	22 mm	15 mm
E11141	Titanium Retainer							
K10034	Steel Valve Lock							
SL1149	Seat Locator (Discard OEM Spring Seat Locator)							

HONDA ACCORD LX 2.4L - DOHC i-VTEC 16 VALVE (K24Z2) - 2008-2012
HONDA CIVIC Si 2.4L - DOHC i-VTEC 16 VALVE (K24Z7) - 2012-2015

Part# Specifications

COPPER BRONZE VALVE GUIDES

VG1095 Exhaust Std. size. Use Ferrea Valve Seal Part# VS1002
 VG1096 Exhaust + .001 Over size. Use Ferrea Valve Seal Part# VS1002
 VG1097 Intake Std. size. Use Ferrea valve Seal Part# VS1003
 VG1098 Intake + .001 Over size. Use Ferrea Valve Seal Part# VS1003

HONDA CIVIC CRX SI 1.6L - SOHC 16 VALVE (D16A6) - 1988-1991

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1857P	E	25 mm	5.5 mm	118.75 mm	4.35 mm	25° Flo. Stock size. Super Alloy
F1858P	E	26 mm	5.5 mm	118.75 mm	4.35 mm	25° Flo. 1 mm oversize. Super Alloy
F1855P	I	29 mm	5.5 mm	115 mm	4.1 mm	25° Super Flo. Stock size
F1856P	I	30 mm	5.5 mm	115 mm	4.1 mm	25° Super Flo. 1 mm oversize

Part# Specifications

VALVE SEALS

VS1002 Exhaust. 5.5 mm valve stem. Viton rubber compound. Hi Temp
 VS1003 Intake. 5.5 mm valve stem. Viton rubber compound

HONDA CIVIC 1.6L - SOHC 16 VALVE (D16Z6-Y5-Y7-Y8) - 1992-2000

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1821P	E	26 mm	5.46 mm	115.95 mm	1.9 mm	22° Flo. Stock size. Super Alloy
F1495P	E	27 mm	5.46 mm	115.95 mm	1.9 mm	22° Flo. 1 mm oversize. Super Alloy
F1822P	I	30 mm	5.48 mm	118.6 mm	1.9 mm	20° Super Flo. Stock size
F1494P	I	31 mm	5.48 mm	118.6 mm	1.9 mm	20° Super Flo. 1 mm oversize

6000 SERIES COMPETITION VALVES

F6067	E	26 mm	5.46 mm	115.95 mm	1.9 mm	22° Flo. Radius Groove. Stk size
F6070	E	27 mm	5.46 mm	115.95 mm	1.9 mm	22° Flo. Radius Groove. + 1 mm over size.
F6068	I	30 mm	5.48 mm	118.6 mm	1.9 mm	20° Super Flo. Radius Groove. Stk size
F6069	I	31 mm	5.48 mm	118.6 mm	1.9 mm	20° Super Flo. Radius Groove. + 1 mm over size.

5000 SERIES COMPETITION VALVES

F5512	E	26 mm	5.46 mm	115.95 mm	1.9 mm	22° Flo. Stock size. Flat Head. Special Alloy
F5514	E	27 mm	5.46 mm	115.95 mm	1.9 mm	22° Flo. + 1 mm over size. Flat Head. Special Alloy
F5515	I	30 mm	5.48 mm	118.6 mm	1.9 mm	20° Super Flo. Stock size. Flat Head
F5516	I	31 mm	5.48 mm	118.6 mm	1.9 mm	20° Super Flo. + 1 mm over size. Flat Head

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10029	Single Spring Special Alloy	22.9 mm	15.35 mm	60 lbs @ 50 mm	155 lbs @ 40 mm	241 lbs	32 mm	17 mm
E11010	Titanium Retainer							
This Spring Uses the Factory OEM Seat Locator								
K10034	Valve Locks							

HONDA CIVIC 1.6L - SOHC 16 VALVE (D16Z6-Y5-Y7-Y8) - 1992-2000

Part# Specifications

VALVE SEALS

VS1002 Exhaust. 5.5 mm valve stem. Viton rubber compound. Hi Temp
 VS1003 Intake. 5.5 mm valve stem. Viton rubber compound

HONDA DEL SOL 1.6L - DOHC VTEC 16 VALVE (B16A1) - 1994-1997

HONDA CIVIC SI 1.6L - DOHC VTEC 16 VALVE (B16A3) - 1999-2000

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1449P	E	28 mm	5.45 mm	102.5 mm	2.5 mm	25° Flo Stock size. Super Alloy
F1447P	E	28.5 mm	5.45 mm	102.5 mm	2.5 mm	25° Flo - .5 mm oversize. Super Alloy
F1445P	E	29 mm	5.45 mm	102.5 mm	2.5 mm	25° Flo - 1 mm oversize. Super Alloy
F1448P	I	33 mm	5.47 mm	102.35 mm	2.5 mm	25° Super Flo. Stock size
F1446P	I	33.5mm	5.47 mm	102.35 mm	2.5 mm	25° Super Flo - .5 mm oversize
F1444P	I	34 mm	5.47 mm	102.35 mm	2.5 mm	25° Super Flo - 1 mm oversize

6000 SERIES COMPETITION VALVES

F6049	E	28 mm	5.45 mm	102.5 mm	2.5 mm	25° Flo Stock size. Special Alloy
F6047	E	28.5 mm	5.45 mm	102.5 mm	2.5 mm	25° Flo - .5 mm oversize. Special Alloy
F6045	E	29 mm	5.45 mm	102.5 mm	2.5 mm	25° Flo - 1 mm oversize. Special Alloy
F6048	I	33 mm	5.47 mm	102.35 mm	2.5 mm	25° Super Flo. Stock size
F6046	I	33.5 mm	5.47 mm	102.35 mm	2.5 mm	25° Super Flo - .5 mm oversize
F6044	I	34 mm	5.47 mm	102.35 mm	2.5 mm	25° Super Flo - 1 mm oversize

5000 SERIES COMPETITION VALVES

F5500	E	28 mm	5.45 mm	102.5 mm	2.5 mm	25° Flo. Stock size. Flat Head. Special Alloy
F5501	E	29 mm	5.45 mm	102.5 mm	2.5 mm	25° Flo. + 1 mm oversize. Flat Head. Special Alloy
F5502	I	33 mm	5.47 mm	102.35 mm	2.5 mm	25° Super Flo. Stock size. Flat Head
F5503	I	34 mm	5.47 mm	102.35 mm	2.5 mm	25° Super Flo. + 1 mm oversize. Flat Head

HONDA DEL SOL 1.6L - DOHC VTEC 16 VALVE (B16A1) - 1994-1997
HONDA CIVIC SI 1.6L - DOHC VTEC 16 VALVE (B16A3) - 1999-2000

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
BEEHIVE VALVE SPRINGS								
S2014	Single Beehive Ovate. PAC Alloy Nitrided Street Performance	22.94mm 30.48mm	14.73mm 22.27mm	70 lbs @31.75mm	160 lbs @21.75mm	230 lbs	17.50mm	12.70mm
E12020	Titanium Retainer							
SL1090	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10027	Dual Spring - Hi Pressure Special Alloy	22.8 mm 30.10 mm	17.15 mm 22.88 mm	100 lbs @ 34 mm	220 lbs @ 24 mm	305 lbs	20 mm	13.5 mm
E11000	Titanium Retainer							
E11000LW	Titanium Retainer Lightweight							
E20041	Tool Steel Retainer							
SL1000	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							

S10064	Dual Spring - Turbo Special Alloy- Hi Pressure	22.88 mm 30.10 mm	17.15 mm 22.88 mm	95 lbs @34 mm	215 lbs @24 mm	305 lbs	19 mm	14 mm
E11000	Titanium Retainer							
E11000LW	Titanium Retainer Lightweight							
SL1000	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							

S10070	Dual Spring - Special Alloy Endurance Spring	22.85 mm 30.45 mm	17.5 mm 22.85 mm	80 lbs @33 mm	190 lbs @23 mm	279 lbs	18 mm	14 mm
E11000	Titanium Retainer							
E11000LW	Titanium Retainer Lightweight							
E20041	Tool Steel Retainer							
SL1004	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							

S10086	Dual Spring Special Alloy Endurance Application: This Spring Requires Ferrea Roller Rocker # RR1000	22.85mm 30.45mm	17.5mm 22.85mm	110 lb @ 34mm	260 lb @ 21mm	292 lbs	20 mm	13 mm
E11000	Titanium Retainer							
E11000LW	Titanium Retainer Lightweight							
SL1044	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							

S10104	Dual Spring - Turbo - PAC enhanced Alloy	23.10 mm 30mm	17.2mm 23.10mm	80 lbs @34 mm	195 lbs @24 mm	292 lbs	20 mm	13.5 mm
E11000	Titanium Retainer							
E11000LW	Titanium Retainer Lightweight							
E20037	Tool Steel Retainer							
SL1000	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							

Part#	Specifications
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COPPER BRONZE VALVE GUIDES

VG1089	Exhaust -.002 Undersize. Use Ferrea Valve Seal Part # VS1002
VG1000	Exhaust Std. size. Use Ferrea Valve Seal Part # VS1002
VG1001	Exhaust +.001" Over size. Use Ferrea Valve Seal Part # VS1002
VG1090	Intake -.002 Undersize. Use Ferrea Valve Seal Part # VS1003
VG1002	Intake Std. size. Use Ferrea Valve Seal Part # VS1003
VG1003	Intake +.001" Over size. Use Ferrea Valve Seal Part # VS1003

Part#	Specifications
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VALVE SEALS

VS1002	Exhaust. 5.5 mm valve stem. Viton rubber compound. Hi Temp
VS1003	Intake. 5.5 mm valve stem. Viton rubber compound

Part#	References
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ROLLER ROCKER SYSTEM

U.S. Patent No. US6, 352, 062 B1.
 RR1000 Aluminum-Magnesium CNC machined
 Stock rocker assembly mass: 252 grams. Ferrea rocker assembly mass: 135 grams (46% less mass than factory rockers)
 Stock fulcrum mass: 110 grams. Ferrea fulcrum mass: 65 grams.
 Must use stand alone ECU tuning system.
 To work properly you must disconnect the VTEC function and remove the "lost-motion assembly" components

HONDA CRV 2.0L - DOHC 16 VALVE (B20A-B20Z) - 1997-2000

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1815P	E	28 mm	6.54 mm	106.02 mm	4.1 mm	30° Flo Dish Head - Stock size. Super Alloy
F1488P	E	28.5 mm	6.54 mm	106.02 mm	4.1 mm	30° Flo Dish Head - .5mm oversize. Super Alloy
F1489P	E	29 mm	6.54 mm	106.02 mm	4.1 mm	30° Flo Dish Head - 1mm oversize. Super Alloy
F1816P	I	31 mm	6.57 mm	105.5 mm	4.1 mm	20° Super Flo Dish Head - Stock size
F1490P	I	31.5 mm	6.57 mm	105.5 mm	4.1 mm	20° Super Flo Dish Head - .5mm oversize
F1491P	I	32 mm	6.57 mm	105.5 mm	4.1 mm	20° Super Flo Dish Head - 1mm oversize



HONDA CRV 2.0L - DOHC 16 VALVE (B20A-B20Z) - 1997-2000

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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6000 SERIES COMPETITION VALVES

F6015	E	28 mm	6.54 mm	106.02 mm	4.1 mm	30° Flo Dish Head - Stock size. Special Alloy
F6016	I	31 mm	6.57 mm	105.5 mm	4.1 mm	20° Super Flo Dish Head - Stock size

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10046	Dual	20.8 mm	16.51 mm	60 lbs	160 lbs	254 lbs	20 mm	14 mm
	Chrome Silicon	28.0 mm	20.8 mm	@ 36.5 mm	@ 26.5 mm			
E11023	Titanium Retainer							
SL1017	Seat Locator (For Exhaust Application Only--For Intake Application us Factory supplied Spring Seat Locator)							

HONDA CIVIC TYPE-R 2.0L - DOHC VTEC 16 VALVE (K20C1-TURBO) - 2017-2018

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2394P	E	29 mm	5.47 mm	114.75 mm	2.1 mm	28° Taper Flo. Stock size. Super Alloy
F2395P	E	30 mm	5.47 mm	114.75 mm	2.1 mm	28° Taper Flo. +1 mm oversize. Super Alloy
F2396P	I	35 mm	5.48 mm	117.25 mm	2.1 mm	20° Super Flo. Stock size. Special Alloy
F2397P	I	36 mm	5.48 mm	117.25 mm	2.1 mm	20° Super Flo. +1 mm oversize. Special Alloy

6000 SERIES COMPETITION VALVES

F6355	E	29 mm	5.47 mm	114.75 mm	2.1 mm	28° Taper Flo. Stock size. Special Alloy
F6356	E	30 mm	5.47 mm	114.75 mm	2.1 mm	28° Taper Flo. +1 mm oversize. Special Alloy
F6357	I	35 mm	5.48 mm	117.25 mm	2.1 mm	20° Super Flo. Stock size.
F6358	I	36 mm	5.48 mm	117.25 mm	2.1 mm	20° Super Flo. +1 mm oversize.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10165	Single Spring - Turbo Special Alloy Endurance Application INTAKE ASSEMBLY	23.5mm	15.7mm	75 lbs @ 46.3 mm	185 lbs @ 36.3 mm	279 lbs	33.3 mm	12 mm
	EXHAUST ASSEMBLY			75 lbs @ 44.3 mm	185 lbs @ 34.3 mm	279 lbs	31.3 mm	12 mm
E20056	Tool Steel Retainer							
SL1152	Seat Locator (EXH Side) - (Discard OEM Factory supplied Spring Seat Locator)							
SL1151	Seat Locator (INT Side) - (Discard OEM Factory supplied Spring Seat Locator)							
K10116	Valve Locks							
S10166	Single Spring - Turbo Special Alloy Drag Application **Can only be used with Ferrea Roller Rocker Kit # RR1006** INTAKE ASSEMBLY	22.9mm	15.35mm	75 lbs @ 51.85 mm	182 lbs @ 41.85 mm	272 lbs	35.6 mm	15.25 mm
	EXHAUST ASSEMBLY			75 lbs @ 49.85 mm	182 lbs @ 39.85 mm	272 lbs	33.6 mm	15.25 mm
E11142	Titanium Retainer							
SL1154	Seat Locator (EXH Side) - (Discard OEM Factory supplied Spring Seat Locator)							
SL1153	Seat Locator (INT Side) - (Discard OEM Factory supplied Spring Seat Locator)							
K10116	Valve Locks							

Part#	Specifications
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COPPER BRONZE VALVE GUIDES

VG1100	Exhaust Std. size. Use Ferrea Valve Seal Part# VS1002
VG1101	Exhaust + .001 Over size. Use Ferrea Valve Seal Part# VS1002
VG1102	Intake Std. size. Use Ferrea valve Seal Part# VS1003
VG1103	Intake + .001 Over size. Use Ferrea Valve Seal Part# VS1003

Part#	Specifications
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VALVE SEALS

VS1002	Exhaust. 5.5 mm valve stem. Viton rubber compound. Hi Temp
VS1003	Intake. 5.5 mm valve stem. Viton rubber compound

Part#	References
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ROLLER ROCKER SYSTEM (1)

RR1006	U.S. Patent No. US6, 352, 062 B1. Aluminum-Magnesium CNC machined. Stock exhaust rocker assembly mass: 270 grams. Stock intake rocker assembly mass: 170 grams. Ferrea rocker assembly mass: 162 grams (40 % less mass than factory exhaust rockers). Stock exhaust rocker fulcrum mass: 122 grams. Stock intake rocker fulcrum mass: 87 grams. Ferrea fulcrum mass: 80 grams. Can be used with stock or any aftermarket camshafts. Uses center lobe only. To work properly, you must disconnect the VTEC function and remove the "lost-motion assembly" components. Note: Ferrea Valve Spring Kit S10166 must use Ferrea Rockers RR1006 due to rocker arm and retainer clearances.
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HONDA PRELUDE 2.2L - DOHC VTEC 16 VALVE (H22A1-A4) - 1993-2000

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1823P	E	30 mm	5.48 mm	107.1 mm	1.9 mm	22° Flo. Stock size. Super Alloy
F1958P	E	30.5 mm	5.48 mm	107.1 mm	1.9 mm	22° Flo - .5 mm oversize. Super Alloy
F1458P	E	31 mm	5.48 mm	107.1 mm	1.9 mm	22° Flo. 1 mm oversize. Super Alloy
F1824P	I	35 mm	5.48 mm	106.85 mm	1.9 mm	20° Super Flo. Stock size
F1956P	I	35.5 mm	5.48 mm	106.85 mm	1.9 mm	20° Super Flo - .5 mm oversize
F1456P	I	36 mm	5.48 mm	106.85 mm	1.9 mm	20° Super Flo. 1 mm oversize

6000 SERIES COMPETITION VALVES

F6023	E	30 mm	5.48 mm	107.1 mm	2.8 mm	22° Flo. Stock size. Special Alloy
F6058	E	31 mm	5.48 mm	107.1 mm	2.8 mm	22° Flo. 1 mm oversize. Special Alloy
F6024	I	35 mm	5.48 mm	106.85 mm	2.8 mm	20° Super Flo. Stock size
F6056	I	36 mm	5.48 mm	106.85 mm	2.8 mm	20° Super Flo. 1 mm oversize

5000 SERIES COMPETITION VALVES

F5504	E	30 mm	5.48 mm	107.1 mm	2.5 mm	22° Flo. Stock size. Flat Head. Special Alloy
F5505	E	31 mm	5.48 mm	107.1 mm	2.5 mm	22° Flo. + 1 mm oversize. Flat Head. Special Alloy
F5506	I	35 mm	5.48 mm	106.85 mm	2.5 mm	20° Super Flo. Stock size. Flat Head
F5507	I	36 mm	5.48 mm	106.85 mm	2.5 mm	20° Super Flo. + 1 mm oversize. Flat Head

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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BEEHIVE VALVE SPRINGS

S2014	Single Beehive Ovate. PAC Alloy Nitrided Street Performance	22.94mm	14.73mm	70 lbs	160 lbs	230 lbs	17.50mm	12.70mm
		30.48mm	22.27mm	@31.75mm	@21.75mm			
E12020	Titanium Retainer							
SL1090	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10027	Dual Spring - Hi Pressure Special Alloy	22.88 mm	17.15 mm	100 lbs	220 lbs	305 lbs	20 mm	13.5 mm
		30.10 mm	22.88 mm	@ 34 mm	@ 24 mm			
E11000	Titanium Retainer							
E11000LW	Titanium Retainer Lightweight							
E20041	Tool Steel Retainer							
SL1003	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							
S10064	Dual Spring - Turbo Special Alloy- Hi Pressure	22.88 mm	17.15 mm	95 lbs	215 lbs	305 lbs	19 mm	14 mm
		30.10 mm	22.88 mm	@34 mm	@24 mm			
E11000	Titanium Retainer							
E11000LW	Titanium Retainer Lightweight							
SL1000	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							
S10070	Dual Spring - Special Alloy Endurance Spring	22.85 mm	17.5 mm	80 lbs	190 lbs	279 lbs	18 mm	14 mm
		30.45 mm	22.85 mm	@33 mm	@23 mm			
E11000	Titanium Retainer							
E11000LW	Titanium Retainer Lightweight							
E20041	Tool Steel Retainer							
SL1003	Seat Locator (Use with the OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							
S10104	Dual Spring - Turbo - PAC enhanced Alloy	23.10 mm	17.2mm	80 lbs	195 lbs	292 lbs	20 mm	13.5 mm
		30mm	23.10mm	@34 mm	@24 mm			
E11000	Titanium Retainer							
E11000LW	Titanium Retainer Lightweight							
E20037	Tool Steel Retainer							
SL1003	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							

Part#	Specifications
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COPPER BRONZE VALVE GUIDES

VG1089	Exhaust -.002 Undersize. Use Ferrea Valve Seal Part # VS1002
VG1000	Exhaust Std. size. Use Ferrea Valve Seal Part # VS1002
VG1001	Exhaust +.001" Over size. Use Ferrea Valve Seal Part # VS1002
VG1090	Intake -.002 Undersize. Use Ferrea Valve Seal Part # VS1003
VG1002	Intake Std. size. Use Ferrea Valve Seal Part # VS1003
VG1003	Intake +.001" Over size. Use Ferrea Valve Seal Part # VS1003

Part#	Specifications
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VALVE SEALS

VS1002	Exhaust. 5.5 mm valve stem. Viton rubber compound. Hi Temp
VS1003	Intake. 5.5 mm valve stem. Viton rubber compound

HONDA S 2000 - F20C - 2000-2003
HONDA S 2000 - F22C - 2004-2008

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1952P	E	31 mm	5.46 mm	109 mm	2.5 mm	22° Flo. Stock size
F1953P	E	32 mm	5.46 mm	109 mm	2.5 mm	22° Flo. +1mm o/size
F1954P	I	36 mm	5.48 mm	109.8 mm	2.5 mm	20° Super Flo. Stock size
F1955P	I	37 mm	5.48 mm	109.8 mm	2.5 mm	20° Super Flo. +1mm o/size

6000 SERIES COMPETITION VALVES

F6329	E	31 mm	5.46 mm	109 mm	2.5 mm	24° Flo. Stock size
F6330	I	36 mm	5.48 mm	109.8 mm	2.5 mm	22° Super Flo. Stock size

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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BEEHIVE VALVE SPRINGS

S2022	Single Beehive Ovate. PAC Alloy Nitrided Street Performance STOCK CAMSHAFT	23.87mm 28.07mm	14.73mm 18.85mm					
		INTAKE ASSEMBLY		100 lbs @40.4mm	225 lbs @30.4mm	317 lbs	26.15mm	13mm
		EXHAUST ASSEMBLY		112 lbs @40.4mm	235 lbs @30.4mm	312 lbs	26.93mm	12.1mm
E12030	Titanium Retainer							
SL1120	EXHAUST Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
SL1119	INTAKE Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks STAGE 2 CAMSHAFT							
		INTAKE ASSEMBLY		100 lbs @40.4mm	225 lbs @30.4mm	317 lbs	26.15mm	13mm
		EXHAUST ASSEMBLY		100 lbs @40.4mm	225 lbs @30.4mm	317 lbs	26.15mm	13mm
E12030	Titanium Retainer							
SL1121	EXHAUST Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
SL1119	INTAKE Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10074	Dual Spring - Special Alloy Turbo - Endurance Spring	22.85 mm 30.45 mm	17.5 mm 22.85 mm	90 lbs @42 mm	210 lbs @32 mm	292 lbs	28 mm	13 mm
E11045	Titanium Retainer							
SL1035	Seat Locator (Use with the OEM Factory supplied Spring Seat Locator)							
K10034	Valve Locks							

Part#	Specifications
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COPPER BRONZE VALVE GUIDES

VG1056	Exhaust Std. size. Use Ferrea Valve Seal Part# VS1002
VG1057	Exhaust + .001 Over size. Use Ferrea Valve Seal Part# VS1002
VG1092	Exhaust Std. size. Use with Factory OEM seat locator and Ferrea Valve Seal Part # VS1002
VG1058	Inake Std size. Use Ferrea Valve Seal Part# VS1003e Ferrea Valve Seal Part# VS1003
VG1059	Intake + .001 Over size. Use Ferrea Valve Seal Part# VS1003
VG1091	Intake Std. size. Use with Factory OEM seat locator and Ferrea Valve Seal Part # VS1003

Part#	Specifications
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VALVE SEALS

VS1002	Exhaust. 5.5 mm valve stem. Viton rubber compound. Hi Temp
VS1003	Intake. 5.5 mm valve stem. Viton rubber compound

HYUNDAI GENESIS 2.0L - DOHC 16 VALVE (TURBO BK) - 2008-2010

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F2181P	E	29 mm	5.46 mm	105.90 mm	2.32 mm	25° Flo. Stock size. Single Groove. Super Alloy
F2174P	E	30 mm	5.46 mm	105.90 mm	2.32 mm	25° Flo. + 1 mm oversize. Single Groove. Super Alloy
F2175P	I	35 mm	5.47 mm	113.25 mm	4.24 mm	15° Super Flo. Stock size. Single Groove.
F2176P	I	36 mm	5.47 mm	113.25 mm	4.24 mm	15° Super Flo. + 1 mm oversize. Single Groove.

6000 SERIES COMPETITION VALVES

F6292	E	29.00 mm	5.46 mm	105.90 mm	2.32 mm	25° Flo. Stock size. Special Alloy
F6293	E	30.00 mm	5.46 mm	105.90 mm	2.32 mm	25° Flo. + 1 mm oversize. Special Alloy
F6294	I	35.00 mm	5.47 mm	113.25 mm	4.24 mm	15° S. Flo. Stock size.
F6295	I	36.00 mm	5.47 mm	113.25 mm	4.24 mm	15° S. Flo. + 1 mm oversize.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10118	Dual Spring - Turbo	20.8 mm	16.51 mm	75 lbs.	175 lbs	254 lbs	(*)	12 mm
	Special Alloy	28 mm	20.8 mm	@36 mm	@26 mm			

NOTE: (*) Max Net Lift is limited by the OEM Factory hat style seat/seal locator height, so Spring Coil Bind does not apply.

E11089	Titanium Retainer
E20046	Tool Steel Retainer
SL1096	Seat Locator (Use with the OEM Factory supplied Spring Seat Locator)
K10091	Valve Locks

Part#	Specifications
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COPPER BRONZE VALVE GUIDES

VG1077	Exhaust Std. size. Use Ferrea Valve Seal Part# VS1024.
VG1078	Exhaust + .001 Over size. Use Ferrea Valve Seal Part# VS1024.
VG1079	Intake Std. size. Use Ferrea Valve Seal Part# VS1025.
VG1080	Intake + .001 Over size. Use Ferrea Valve Seal Part# VS1025.

HYUNDAI GENESIS COUPE V-6 3.8L - DOHC 24 VALVE (LAMBDA) - 2010

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F2238P	E	31.00mm	5.46mm	105.50mm	2.00mm	20° Flo. Single Radial Gro. Stock size. Special Alloy
F2239P	E	32.00mm	5.46mm	105.50mm	2.00mm	20° Flo. Single Radial Gro. +1 mm. Special Alloy
F2240P	I	36.00mm	5.47mm	105.25mm	2.00mm	12° Super Flo. Single Radial Gro. Stock size. Special Alloy
F2241P	I	37.00mm	5.47mm	105.25mm	2.00mm	12° Super Flo. Single Radial Gro. +1 mm. Special Alloy

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10134	Single Spring	25.19 mm	18.3 mm	90 lbs	152 lbs	157 lbs	21.6 mm	12.5 mm
	Special Alloy			@34.85 mm	@24.85 mm			

E11105	Titanium Retainer
	This Spring Uses the Factory OEM Seat Locator
K10100	Valve Locks

INFINITI V6 3.0L - DOHC 24 VALVE (VR30DDTT) - 2015-2018

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F2411P	E	28.50mm	5.46mm	97.50mm	8.5mm	25° Taper Flo. Stock size. Super Alloy
F2412P	E	29.50mm	5.46mm	97.50mm	8.5mm	25° Taper Flo. +1mm Over size. Super Alloy
F2413P	I	33.35mm	5.47mm	101.10mm	4.5mm	24° Super Flo. Stock size. Special Alloy
F2414P	I	34.35mm	5.47mm	101.10mm	4.5mm	24° Super Flo. +1mm Over size. Special Alloy

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10169	Single Spring	25.19mm	18.3mm	80 lbs	145 lbs	165 lbs	23.75 mm	13 mm
	Special Alloy			@37.5 mm	@27.5 mm			

E12032	Titanium Retainer
SL1161	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)
K10119	Valve Locks

Part#	Specifications
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COPPER BRONZE VALVE GUIDES

VG1109	Exhaust Std. size. Use Ferrea Valve Seal Part# VS1033
VG1110	Intake Std. size. Use Ferrea Valve Seal Part# VS1034

Part#	Specifications
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VALVE SEALS

VS1033	Exhaust 5.5 mm valve stem. Viton rubber compound. Hi Temp.
VS1034	Intake 5.5 mm valve stem. Viton rubber compound. Hi Temp.

LAMBORGHINI V10 5.0L - DOHC 40 VALVE - 2003-2007

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2284P	E	28 mm	5.97 mm	102 mm	5 mm	24° Flo. Stock size. Triple Groove. Super Alloy
F2286P	I	33.9 mm	5.98 mm	104 mm	5 mm	20° Super Flo. Stock size. Triple Groove

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10145	Single Spring Special Alloy Turbo - Endurance	23.5 mm	15.8 mm	90 lbs. @39.9 mm	210 lbs @29 mm	287 lbs	28 mm	11 mm
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NOTE: Max Net Lift is limited by the OEM Factory install height and rocker arm bottom clearance with Ferrea titanium retainer.

E11119	Titanium Retainer
SL1127	Seat Locator

Part#	Specifications
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LIFTER SHIMS

LP1106 Lifter Shim (40 pieces)

Note: Lifter shim goes below stock hydraulic lifter to shorten travel distance.

LOTUS ELISE / EXIGE 1.8L - DOHC 16 VALVE (2ZZ-GE) - 2008

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2190P	E	29 mm	5.45 mm	111.8 mm	5.4 mm	25° Super Flo. Stock size. Single Groove. Super Alloy
F2191P	E	30 mm	5.45 mm	111.8 mm	5.4 mm	25° Super Flo. + 1 mm oversize. Single Groove. Super Alloy
F2192P	I	34 mm	5.46 mm	111.45 mm	5.4 mm	9° Super Flo. Stock size. Single Groove
F2193P	I	35 mm	5.46 mm	111.45 mm	5.4 mm	9° Super Flo. + 1 mm oversize. Single Groove

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10123	Dual Spring - Endurance Special Alloy	19.05 mm 25.30 mm	13.95 mm 19.05 mm	75 lbs @ 38.5 mm	180 lbs @ 28.5 mm	274 lbs	24 mm	13.5 mm
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E11097	Titanium Retainer
SL1105	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)
K10094	Valve Locks

Part#	References
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ROLLER ROCKER SYSTEM (1) U.S. Patent No. US6, 352, 062 B1.

RR1005 Maximum Net Lift: 13.5 mm. (With Ferrea Valve Spring Assembly) Aluminum-Magnesium CNC machined Stock rocker assembly mass: 268 grams. Ferrea rocker assembly mass: 138 grams (51 % less mass than factory rockers) Stock fulcrum mass: 97 grams. Ferrea fulcrum mass: 74 grams. Can be used with stock or any aftermarket camshafts. Uses center large lobe only, must use reprogrammed ECU or stand alone ECU tuning system.

To work properly and provide lubrication to the rocker arms during operation, the ECU must control the VVTi timing sequence function.

MITSUBISHI 3000 GT 3.0L - DOHC 24 VALVE (6G72-TURBO 6G72T) - 1990-2001

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1853P	E	30.5 mm	6.55 mm	105.5 mm	3.8 mm	25° Flo. Stock size. Super Alloy
F1854P	E	31.5 mm	6.55 mm	105.5 mm	3.8 mm	25° Flo. + 1 mm oversize. Super Alloy
F1851P	I	35 mm	6.57 mm	106.35 mm	3.8 mm	25° Super Flo. Stock Size
F1852P	I	36 mm	6.57 mm	106.35 mm	3.8 mm	25° Super Flo. + 1 mm oversize

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10037	Dual Spring - Turbo - PAC enhanced Alloy	23.10 mm 30mm	17.2mm 23.10mm	80 lbs @34 mm	195 lbs @24 mm	292 lbs	20 mm	13.5 mm
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E11053	Titanium Retainer
SL1008	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)
K10035	Valve Locks

MITSUBISHI ECLIPSE GS-GST 2.0L - DOHC 16 VALVE (4G63-4G63T) - 1990-1999

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1825P	E	30.5 mm	6.55 mm	109.7 mm	3.8 mm	22° Flo. Stock size. Super Alloy
F1454P	E	31.5 mm	6.55 mm	109.7 mm	3.8 mm	20° Flo. + 1 mm oversize. Super Alloy
F1826P	I	34 mm	6.57 mm	109.7 mm	3.8 mm	20° Super Flo. Stock size
F1452P	I	35 mm	6.57 mm	109.7 mm	3.8 mm	20° Super Flo. + 1 mm oversize

6000 SERIES COMPETITION VALVES

F6025	E	30.5 mm	6.55 mm	109.7 mm	3.8 mm	22° Flo. Stock size. Special Alloy
F6054	E	31.5 mm	6.55 mm	109.7 mm	3.8 mm	22° Flo. 1 mm oversize. Special Alloy
F6026	I	34 mm	6.57 mm	109.7 mm	3.8 mm	20° Super Flo. Stock size
F6052	I	35 mm	6.57 mm	109.7 mm	3.8 mm	20° Super Flo. 1 mm oversize

MITSUBISHI ECLIPSE GS-GST 2.0L - DOHC 16 VALVE (4G63-4G63T) - 1990-1999

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
BEEHIVE VALVE SPRINGS								
S2015	Single Beehive Ovate. PAC Alloy Street Performance	23.87mm 28.07mm	14.73mm 18.85mm	90 lbs @38mm	225 lbs @28mm	342 lbs	23mm	13.5mm
E12021	Titanium Retainer							
SL1091	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10035	Valve Locks							

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10031	Dual Chrome Silicon	23.1 mm 31 mm	17.35 mm 23.1 mm	90 lbs @ 38 mm	210 lbs @ 28 mm	305 lbs	21 mm	15 mm
E11005	Titanium Retainer							
SL1002	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10035	Valve Locks							
S10036	Dual Spring - Turbo Special Alloy	22.75 mm 29.5 mm	17.1 mm 22.75 mm	80 lbs @ 34 mm	180 lbs @ 24 mm	254 lbs	20 mm	13.5 mm
E11005	Titanium Retainer							
SL1009	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10035	Valve Locks							

Part#	Specifications
COPPER BRONZE VALVE GUIDES	
VG1048	Exhaust Std. size. Use Ferrea Valve Seal Part# VS1010.
VG1049	Exhaust + .001 Over size. Use Ferrea Valve Seal Part# VS1010.
VG1050	Intake Std. size. Use Ferrea Valve Seal Part# VS1011.
VG1051	Intake + .001 Over size. Use Ferrea Valve Seal Part# VS1011.

Part#	Specifications
VALVE SEALS	
VS1010	Exhaust 6.55 mm valve stem. Viton rubber compound. Hi Temp.
VS1011	Intake 6.57 mm valve stem. Viton rubber compound.

MITSUBISHI EVOLUTION VIII 2.0L - DOHC 16 VALVE (TURBO 4G63T) - 2003-

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F1825P	E	30.5 mm	6.55 mm	109.7 mm	3.8 mm	22° Flo. Stock size. Super Alloy
F1454P	E	31.5 mm	6.55 mm	109.7 mm	3.8 mm	20° Flo. + 1 mm oversize. Super Alloy
F1826P	I	34 mm	6.57 mm	109.7 mm	3.8 mm	20° Super Flo. Stock size
F1452P	I	35 mm	6.57 mm	109.7 mm	3.8 mm	20° Super Flo. + 1 mm oversize
6000 SERIES COMPETITION VALVES						
F6025	E	30.5 mm	6.55 mm	109.7 mm	3.8 mm	22° Flo. Stock size. Special Alloy
F6054	E	31.5 mm	6.55 mm	109.7 mm	3.8 mm	22° Flo. 1 mm oversize. Special Alloy
F6026	I	34 mm	6.57 mm	109.7 mm	3.8 mm	20° Super Flo. Stock size
F6052	I	35 mm	6.57 mm	109.7 mm	3.8 mm	20° Super Flo. 1 mm oversize

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
BEEHIVE VALVE SPRINGS								
S2015	Single Beehive Ovate. PAC Alloy Street Performance	23.87mm 28.07mm	14.73mm 18.85mm	90 lbs @38mm	225 lbs @28mm	342 lbs	23mm	13.5mm
E12021	Titanium Retainer							
SL1091	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10035	Valve Locks							

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10084	Dual Spring - Turbo Special Alloy	22.85 mm 30.45 mm	17.5 mm 22.85 mm	95 lbs @30.6 mm	225 lbs @20.6 mm	327 lbs	18 mm	12.5 mm
E11052	Titanium Retainer							
E20045	Tool Steel Retainer							
SL1041	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10035	Valve Locks							

MITSUBISHI EVOLUTION VIII 2.0L - DOHC 16 VALVE (TURBO 4G63T) - 2003-2007

Part#	Specifications
COPPER BRONZE VALVE GUIDES	
VG1048	Exhaust Std. size. Use Ferrea Valve Seal Part# VS1010.
VG1049	Exhaust + .001 Over size. Use Ferrea Valve Seal Part# VS1010.
VG1050	Intake Std. size. Use Ferrea Valve Seal Part# VS1011.
VG1051	Intake + .001 Over size. Use Ferrea Valve Seal Part# VS1011.

Part#	Specifications
VALVE SEALS	
VS1010	Exhaust 6.55 mm valve stem. Viton rubber compound. Hi Temp.
VS1011	Intake 6.57 mm valve stem. Viton rubber compound.

MITSUBISHI EVOLUTION X 2.0L - DOHC 16 VALVE (4B11T) - 2007-2009

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F2181P	E	29 mm	5.46 mm	105.90 mm	2.32 mm	25° Flo. Stock size. Single Groove. Super Alloy
F2174P	E	30 mm	5.46 mm	105.90 mm	2.32 mm	25° Flo. + 1 mm oversize. Single Groove. Super Alloy
F2175P	I	35 mm	5.47 mm	113.25 mm	4.24 mm	15° Super Flo. Stock size. Single Groove.
F2176P	I	36 mm	5.47 mm	113.25 mm	4.24 mm	15° Super Flo. + 1 mm oversize. Single Groove.
6000 SERIES COMPETITION VALVES						
F6292	E	29 mm	5.46 mm	105.90 mm	2.32 mm	25° Flo. Stock size. Single Groove. Special Alloy
F6293	E	30 mm	5.46 mm	105.90 mm	2.32 mm	25° Flo. + 1 mm oversize. Single Groove. Special Alloy
F6294	I	35 mm	5.47 mm	113.25 mm	4.24 mm	15° Super Flo. Stock size. Single Groove
F6295	I	36 mm	5.47 mm	113.25 mm	4.24 mm	15° Super Flo. + 1 mm oversize. Single Groove

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10118	Dual Spring-Endurance Special Alloy	20.8 mm 28 mm	16.51 mm 20.8 mm	75 lbs @36 mm	175 lbs @26 mm	254 lbs	(*)	12 mm
NOTE: (*)Max Net Lift is limited by the OEM Factory hat style seat/seal locator height, so Spring Coil Bind does not apply.								
E11089	Titanium Retainer							
E20046	Tool Steel Retainer							
SL1096	Seat Locator (Use with the OEM Factory supplied Spring Seat Locator)							
K10091	Valve Locks							

Part#	Specifications
COPPER BRONZE VALVE GUIDES	
VG1077	Exhaust Std. size. Use Ferrea Valve Seal Part# VS1024.
VG1078	Exhaust + .001 Over size. Use Ferrea Valve Seal Part# VS1024.
VG1079	Intake Std. size. Use Ferrea Valve Seal Part# VS1025.
VG1080	Intake + .001 Over size. Use Ferrea Valve Seal Part# VS1025.

Part#	Specifications
VALVE SEALS	
VS1024	Exhaust 5.5 mm valve stem. Viton rubber compound. Hi Temp.
VS1025	Intake 5.5 mm valve stem. Viton rubber compound.

NISSAN 280 ZX 2.8i - SOHC 12 VALVE (L28E-TURBO L28ET) - 1981-1983

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F1841P	E	35 mm	8 mm	115.25 mm	3 mm	20° Flo. Stock size. Super Alloy
F1842P	E	36 mm	8 mm	115.25 mm	3 mm	20° Flo. + 1 mm oversize. Super Alloy
F1839P	I	44 mm	8 mm	114.3 mm	3 mm	20° Super Flo. Stock size
F1840P	I	45 mm	8 mm	114.3 mm	3 mm	20° Super Flo. + 1 mm oversize

NISSAN 300 ZX 3.0L - SOHC 12 VALVE (VG30D-TURBO VG30T) - 1984-1989

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F1845P	E	35.1 mm	8 mm	124.5 mm	4.5 mm	20° Flo. Stock size. Super Alloy
F1846P	E	36.1 mm	8 mm	124.5 mm	4.5 mm	20° Flo. + 1 mm oversize. Super Alloy
F1843P	I	42 mm	7 mm	125.85 mm	4.5 mm	20° Super Flo. Stock size
F1844P	I	43 mm	7 mm	125.85 mm	4.5 mm	20° Super Flo. + 1 mm oversize

NISSAN 300 ZX 3.0L - DOHC 24 VALVE (VG30D-TURBO VG30DTT) - 1990-1996

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1849P	E	29.5 mm	6 mm	103.65 mm	3.5 mm	25° Flo. Stock size. Super Alloy
F1850P	E	30.5 mm	6 mm	103.65 mm	3.5 mm	25° Flo. + 1 mm oversize. Super Alloy
F1847P	I	34 mm	6 mm	103.13 mm	3.5 mm	25° Super Flo. Stock size
F1848P	I	35 mm	6 mm	103.13 mm	3.5 mm	25° Super Flo. + 1 mm oversize

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10039	Dual Spring	20.8 mm	15.3 mm	80 lbs	200 lbs	305 lbs	22 mm	13 mm
	Chrome Silicon	28.0 mm	20.8 mm	@ 35 mm	@ 25 mm			
E11017	Titanium Retainer							
SL1012	Seat Locator and use OEM Factory supplied Spring Seat Locator							
K10036	Valve Locks							

NISSAN 350 Z 3.5 L - V-6 - DOHC 24 VALVE (VQ35) - 2003-2008

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1564P	E	31.35 mm	5.96 mm	94.40 mm	3.5 mm	22° Flo. Radial Groove. Stock size. Special Alloy
F1565P	E	32.35 mm	5.96 mm	94.40 mm	3.5 mm	22° Flo. + 1mm oversize. Radial Gro. Super Alloy. Turbo Appl.
F1562P	I	37.15 mm	5.97 mm	96.70 mm	3.5 mm	20° Super Flo. Stock size. Radial Groove. Special Alloy
F1563P	I	38.15 mm	5.97 mm	96.70 mm	3.5 mm	20° Super Flo. + 1 mm oversize. Radial Gro. Special Alloy

6000 SERIES COMPETITION VALVES

F6017	E	31.35 mm	5.96 mm	94.4 mm	3.5 mm	22° Flo. Radius Groove. Stock size.
F6018	E	32.35 mm	5.96 mm	94.4 mm	3.5 mm	22° Flo. Radius Groove. + 1 mm over size
F6019	I	37.15 mm	5.97 mm	96.7 mm	3.5 mm	20° S. Flo. Radius Groove. Stock size.
F6020	I	38.15 mm	5.97 mm	96.7 mm	3.5 mm	20° S. Flo. Radius Groove. + 1 mm over size

TECH NOTE: Both 6000 Series, Exhaust and Intake Valves, feature a .5 mm reduction stem in the groove area.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10091	Single Spring	25.19mm	18.3mm	75 lbs	145 lbs	178 lbs	20.5 mm	12.5 mm
	Special Alloy - Turbo			@34.8mm	@24.8mm			
	Endurance Application							
E11060	Titanium Retainer							
	This Spring Uses the Factory OEM Seat Locator							
K10071	Valve Locks							

NOTE: This spring requires BOTH Ferrea 6000 Series Valves with recess tip and Factory Spring Seat Locator

S10093	Single Spring	25.19mm	18.3mm	85 lbs	155 lbs	178 lbs	20.5 mm	12.5 mm
	Special Alloy - Turbo			@34mm	@24mm			
	Endurance Application							
E11058	Titanium Retainer							
SL1048	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10069	Valve Locks							

NOTE: This spring requires Ferrea Competition Series Valves without recess tip.

S10103	Dual Spring -	20.8 mm	15.88mm	80 lbs	200 lbs	305 lbs	19 mm	13 mm
	Special Alloy - Turbo	28.0 mm	20.8 mm	@34mm	@24mm			
	Street/Drag							
E11079	Titanium Retainer							
SL1065	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10069	Valve Locks							

NOTE: This spring requires Ferrea Competition Series Valves without recess tip.

NISSAN 350 Z 3.5 L - V-6 - DOHC 24 VALVE (VQ35) - 2003-2008

Part#	Specifications
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COPPER BRONZE VALVE GUIDES

VG1038	Intake Std. size. Use Ferrea Valve Seal Part# VS1014.
VG1039	Intake + .001 Over size. Use Ferrea Valve Seal Part# VS1014.
VG1040	Exhaust Std. size. Use Ferrea Valve Seal Part# VS1012.
VG1041	Exhaust + .001 Over size. Use Ferrea Valve Seal Part# VS1012.

Part#	Specifications
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VALVE SEALS

VS1012	Exhaust 6 mm valve stem. Viton rubber compound. Hi Temp.
VS1014	Intake 6 mm valve stem. Viton rubber compound.

NISSAN ALTIMA 2.4L - DOHC 16 VALVE (KA24DE) - 1995-1999

NISSAN 240 SX 2.4L - DOHC 16 VALVE (KA24DE) - 1991-1998

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1837P	E	31.3 mm	7 mm	98.85 mm	4.5 mm	25° Flo. Stock size. Super Alloy
F1838P	E	32.3 mm	7 mm	98.85 mm	4.5 mm	25° Flo. + 1 mm oversize. Super Alloy
F1835P	I	36.6 mm	7 mm	101.32 mm	4.5 mm	25° Super Flo. Stock Size
F1836P	I	37.6 mm	7 mm	101.32 mm	4.5 mm	25° Super Flo. + 1 mm oversize

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10043	Dual Spring - Turbo PAC enhanced Alloy	23.10 mm 30 mm	17.2 mm 23.10 mm	80 lbs @36 mm	195 lbs @26 mm	254 lbs	22 mm	12.5 mm
E11021	Titanium Retainer							
SL1064	Seat Locator and use OEM Factory supplied Spring Seat Locator							
K10062	Valve Locks							

NISSAN GT-R 3.8 L V-6 - DOHC 24 VALVE (VR38DETT) - 2009-2010

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2234P	E	32.2 mm	5.97 mm	92 mm	2.1 mm	24° Taper Flo. Stock size. Super Alloy. Turbo Application
F2235P	E	33.2 mm	5.97 mm	92 mm	2.1 mm	24° Taper Flo. + 1mm o/size. Super Alloy. Turbo Application
F2236P	I	37 mm	5.98 mm	95 mm	4.8 mm	22° Super Flo. Stock size. Special Alloy.
F2237P	I	38 mm	5.98 mm	95 mm	4.8 mm	22° Super Flo. + 1mm o/size. Special Alloy.

TECH NOTE: Both, Exhaust and Intake Valves, feature a .5 mm reduction stem in the groove area.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10136	Dual Spring - Turbo Special Alloy	20.8 mm 28.0 mm	15.88 mm 20.8 mm					
				90 lbs @37.5 mm	212 lbs @27.5 mm	309.6 lbs	23.5 mm	13 mm
				90 lbs @34.35 mm	212 lbs @24.35 mm	309.6 lbs	19.6 mm	13.5 mm
E11106	Titanium Retainer							
SL1115	Intake Side Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
SL1118	Exhaust Side Seat locator (Discard OEM Factory supplied Spring Seat Locator)							
K10102	Valve Locks							

S10137	Single Spring Special Alloy	25.19 mm	18.3 mm	90 lbs @35 mm	160 lbs @25 mm	177 lbs	22.65 mm	11 mm
E11107	Intake Side Titanium Retainer							
E11110	Exhaust Side Titanium Retainer							
SL1116	Seat locator (Discard OEM Factory supplied Spring Seat Locator)							
K10102	Valve Locks							

Part#	Specifications
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COPPER BRONZE VALVE GUIDES

VG1083	Exhaust Std. size.
VG1084	Exhaust + .001 Over size.
VG1085	Intake Std. size.
VG1086	Intake +.001 Over size.

Part#	Specifications
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VALVE SEALS

VS1012	Exhaust 6 mm valve stem. Viton rubber compound. Hi Temp.
VS1014	Intake 6 mm valve stem. Viton rubber compound.

NISSAN PATROL 4.5L 6 CYL IN LINE - 12 VALVE - (TB45E) 1997-2004

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2225P	E	38.1 mm	7.94 mm	118.8 mm	5 mm	25° Taper Flo. Stock size. Square Groove. Special Alloy
F2226P	E	39.1 mm	7.94 mm	118.8 mm	5 mm	25° Taper Flo. +1mm o/size. Square Groove. Special Alloy
F2227P	I	47 mm	7.94 mm	118.15 mm	5 mm	15° Super Flo. Stock size. Square Groove
F2228P	I	48 mm	7.94 mm	118.15 mm	5 mm	15° Super Flo. + 1mm o/size. Square Groove

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10128	Dual Spring Chrome Silicon Endurance	23.1 mm 31 mm	17.35 mm 23.1 mm	70 lbs @40.6mm	195 lbs @30.6mm	317 lbs	20.5 mm	14.15 mm
E11102	Titanium Retainer							
SL1111	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							

NISSAN PATROL 4.8L 6 CYL IN LINE - 24 VALVE - (TB48DE) - 2004-2010

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2153P	E	33.5 mm	6.96 mm	98.3 mm	3.5 mm	20° Flo. Stock size. Super Alloy. Turbo Appl.
F2154P	E	34.5 mm	6.96 mm	98.3 mm	3.5 mm	20° Flo. + 1 mm oversize. Super Alloy. Turbo Appl.
F2166P	E	35 mm	6.96 mm	98.3 mm	3.5 mm	20° Flo. + 1.5 mm oversize. Super Alloy. Turbo Appl.
F2155P	I	38.5 mm	6.96 mm	100.02 mm	3.5 mm	12° Super Flo. Stock size. Special Alloy
F2156P	I	39.5 mm	6.96 mm	100.02 mm	3.5 mm	12° Super Flo. + 1 mm oversize. Special Alloy
F2167P	I	40 mm	6.96 mm	100.02 mm	3.5 mm	12° Super Flo. + 1.5 mm oversize. Special Alloy

TECH NOTE: Both, Exhaust and Intake Valves, feature a 1 mm reduction stem in the groove area.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10114	Dual Spring - Turbo Special Alloy	20.8 mm 28.0 mm	16.51 mm 20.8 mm	85 lbs @36.85mm	190 lbs @26.85mm	266 lbs	22.85 mm	12 mm
E11083	Titanium Retainer							
SL1070	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10081	Valve Locks							
S10133	Single Spring Special Alloy	28.0 mm	20.8 mm	73 lbs @35.85 mm	155 lbs @25.85 mm	208 lbs	22.85 mm	12 mm
E11109	Titanium Retainer							
SL1070	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10081	Valve Locks							

NISSAN SENTRA SE-R 2.0L - DOHC 16 VALVE (SR20DE) - 1991-1998

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1869P	E	30.15 mm	5.94 mm	102.4 mm	3.5 mm	22° Flo. Stock size. Super Alloy
F1870P	E	31.15 mm	5.94 mm	102.4 mm	3.5 mm	22° Flo. 1 mm oversize. Super Alloy
F1867P	I	34.15 mm	5.96 mm	101.4 mm	3.5 mm	20° Super Flo. Stock size
F1868P	I	35.15 mm	5.96 mm	101.4 mm	3.5 mm	20° Super Flo. 1 mm oversize

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10038	Dual Spring - Turbo PAC enhanced Alloy	23.10 mm 30 mm	17.2 mm 23.10 mm	80 lbs @ 34 mm	195 lbs @ 24 mm	254 lbs	22 mm	12.5 mm
E11002	Titanium Retainer							
SL1011	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10036	Valve Locks							

NISSAN SENTRA SE-R 2.0L - DOHC 16 VALVE (SR20DET) 1991-1998

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F2129P	E	30.15 mm	6.95 mm	102.4 mm	3.5 mm	22° Flo.Radial Groove.Stock.Super Alloy.Turbo appl.
F2130P	E	31.15 mm	6.95 mm	102.4 mm	3.5 mm	22° Flo.Radial Groove+1mm o/size.Super Alloy.Turbo appl.
F1867P	I	34.15 mm	5.96 mm	101.4 mm	3.5 mm	20° Super Flo. Radial Gro. Stock Size
F1868P	I	35.15 mm	5.96 mm	101.4 mm	3.5 mm	20° Super Flo. Radial Gro.+ 1 mm oversize

TECH NOTE: Exhaust Valves feature a 1 mm reduction stem in the groove area.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10038	Dual Spring - Turbo	23.10 mm	17.2 mm	80 lbs	195 lbs	254 lbs	22 mm	12.5 mm
	PAC enhanced Alloy	30 mm	23.10 mm	@ 34 mm	@ 24 mm			
E11002	Titanium Retainer							
SL1011	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10036	Valve Locks							

NISSAN SKYLINE 6 CYL IN LINE - 24 VALVE - (RB26) - 1989-2002

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F2131P	E	30.15mm	6.9mm	101.52mm	3.5mm	22° Flo. Radial Gro. Stock. Super Alloy Turbo appl.
F2132P	E	31.15mm	6.9mm	101.52mm	3.5mm	22° Flo. Radial Gro. + 1mm o/size.Super Alloy Turbo appl.
F2133P	I	34.6mm	5.98mm	102.33mm	3.5mm	20° Super Flo. Radial Groove. Stock. Special Alloy
F2134P	I	35.6mm	5.98mm	102.33mm	3.5mm	20° Super Flo. Radial Gro. + 1mm o/size. Special Alloy

TECH NOTE: Exhaust Valves feature a 1 mm reduction stem in the groove area.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10090	Dual Spring - Turbo	20.8 mm	16.51 mm	110 lbs	210 lbs	254 lbs	26.5 mm	12 mm
	Special Alloy	28.0 mm	20.8 mm	@39mm	@29mm			
E11057	Titanium Retainer							
SL1047	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10072	Valve Locks							

NISSAN SKYLINE 6 CYL IN LINE - 24 VALVE - (RB25DET) - 1993-1997

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F2149P	E	29.6 mm	5.96 mm	88.95 mm	3.2 mm	21° Flo. Stock size. Super Alloy. Turbo Applications
F2150P	E	30.6 mm	5.96 mm	88.95 mm	3.2 mm	21° Flo. +1 mm o/s. Super Alloy. Turbo Applications
F2151P	I	34.12 mm	5.97 mm	86.7 mm	3.5 mm	15° Super Flo. Stock size. Special Alloy
F2152P	I	35.12 mm	5.97 mm	86.7 mm	3.5 mm	15° Super Flo. +1 mm o/s. Special Alloy

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10112	Dual Spring - Turbo	20.8 mm	16.51 mm					
	Special Alloy	28.0 mm	20.8 mm					
		INTAKE ASSEMBLY		110 lbs	215 lbs	266 lbs	18 mm	10.5 mm
		EXHAUST ASSEMBLY		@ 30.55 mm	@ 20.55 mm			
				90 lbs	190 lbs	254 lbs	21.5 mm	10.5 mm
				@ 34.50 mm	@ 24.50 mm			
E11082	Titanium Retainer							
SL1069	Intake Side Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
SL1068	Exhaust Side Seat locator (Discard OEM Factory supplied Spring Seat Locator)							
K10063	Valve Locks							

WARNING: DUE TO VALVETRAIN ASSEMBLY INSTALLED HIEGHTS, MAXIMUM VALVE NET LIFT MUST NOT EXCEED 10.5 MM BECAUSE OF VALVE SEAL TO SPRING RETAINER CLEARANCES.

Part#	Specifications
VALVE SEALS	
VS1022	Exhaust 6.00 mm valve stem. Viton rubber compound. Hi Temp.
VS1023	Intake 6.00 mm valve stem. Viton rubber compound. Hi Temp.

NISSAN SKYLINE 6 CYL IN LINE - 24 VALVE - (NEO) - 1998-2002

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1935P	E	29.65 mm	5.96 mm	97.95 mm	3.7 mm	22° Flo. Stock size.
F1936P	E	30.65 mm	5.96 mm	97.95 mm	3.7 mm	22° Flo. + 1 mm oversize.
F1933P	I	34.15 mm	5.98 mm	104.2 mm	6.25 mm	20° Super Flo. Stock size.
F1934P	I	35.15 mm	5.98 mm	104.2 mm	6.25 mm	20° Super Flo. + 1 mm oversize.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10078	Dual Spring - Turbo Special Alloy	20.8 mm 28.0 mm	16.51 mm 20.8 mm	95 lbs @30 mm	195 lbs @20 mm	254 lbs	17.5 mm	12 mm
E11048	Titanium Retainer							
SL1037	INT Seat Locator and use OEM Factory supplied Spring Seat Locator							
SL1150	EXH Seat Locator and use OEM Factory supplied Spring Seat Locator							
K10063	Valve Locks							

PEUGEOT RALLY 106 1.6L - 16 VALVE (TU5J4) - 1996 & UP

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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6000 SERIES COMPETITION VALVES

F6758	E	24.56 mm	5.96 mm	104.4 mm	4.9 mm	20° Flo. Stock size.
F6760	E	25.56 mm	5.96 mm	104.4 mm	4.9 mm	20° Flo. + 1 mm over size
F6759	I	28.8 mm	5.98 mm	104.4 mm	4.9 mm	20° Super Flo. Stock size.
F6761	I	29.8 mm	5.98 mm	104.4 mm	4.9 mm	20° Super Flo. + 1 mm over size

PORSCHE 944 I4 2.5L - SOHC 8 VALVE (M44.X) - 1983-1987

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2298P	E	40mm	8.96mm	112.3mm	5mm	25° Taper Flo. Stock size. Special Alloy. Triple Groove
F2299P	I	46mm	8.98mm	111.6mm	5mm	20° Super Flo. +1mm Oversize. Triple Groove

PORSCHE 996TT 3.6L - FLAT 6 CYL - DOHC 24 VALVE - 2000-2005

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2271P	E	32 mm	5.95 mm	109.1 mm	3.7 mm	21° Flo. Stock size. Single radial groove. Super Alloy
F2272P	E	33 mm	5.95 mm	109.1 mm	3.7 mm	21° Flo. Oversize. Single radial groove. Super Alloy
F2273P	I	37 mm	5.97 mm	104.2 mm	8.4 mm	19° Super Flo. Stock size. Single radial groove
F2274P	I	38 mm	5.97 mm	104.2 mm	8.4 mm	19° Super Flo. Oversize. Single radial groove

TECH NOTE: These Ferrea Racing Valves come with single radial grooves. For racing applications, Ferrea does not recommend the use of triple radial grooved valves. These valves are designed to be used only with Ferrea Valve Train Kit components.

Ferrea offers Triple Radial Groove OEM design vavles through special custom orders only.

PORSCHE 996TT 3.6L - FLAT 6 CYL - DOHC 24 VALVE - 2000-2005

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10122	Dual Spring - Turbo Special Alloy	20.8 mm 28 mm	15.88 mm 20.8 mm	98 lbs. @33.5 mm	220 lbs @24.5 mm	309 lbs	20.0 mm	11.2 mm
E11094	Titanium Retainer							
SL1099	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10092	Valve Locks							

TECH NOTE: Ferrea Seat Locators must be installed before valve seal installation and Max Net Lift is limited to 11.2 mm due to spring retainer and valve seal clearance.

SCION tC 2.4L - DOHC 16 VALVE (2AZFE) - 2005

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F2145P	E	29.45 mm	5.48 mm	101.22 mm	2.55 mm	22° Flo. Stock size. Super Alloy
F2146P	E	30.45 mm	5.48 mm	101.22 mm	2.55 mm	22° Flo. 1 mm oversize. Super Alloy
F2147P	I	34 mm	5.5 mm	101.85 mm	2.55 mm	19° S. Flo. Stock Size. Special Alloy
F2148P	I	35 mm	5.5 mm	101.85 mm	2.55 mm	19° S. Flo. 1 mm oversize. Special Alloy

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10110	Single Spring - Turbo Special Alloy Endurance Spring	25.19 mm	18.3 mm	80 lbs @34.2 mm	150 lbs @24.2 mm	180 lbs	20.5 mm	12.5 mm
E11075	Titanium Retainer							
SL1063	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10080	Valve Locks							

SCION tC 2.5L - DOHC 16 VALVE (2ARFE) - 2011

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F2276P	E	31 mm	5.47 mm	113 mm	5.5 mm	24° Flo. Stock size. Super Alloy.
F2277P	E	32 mm	5.47 mm	113 mm	5.5 mm	24° Flo. + 1 mm oversize. Super Alloy.
F2278P	I	36.5 mm	5.48 mm	104 mm	5.5 mm	12° S. Flo. Stock size. Special Alloy.
F2279P	I	37.5 mm	5.48 mm	104 mm	5.5 mm	12° S. Flo. + 1 mm oversize. Special Alloy.

6000 SERIES COMPETITION VALVES

F6325	E	31 mm	5.47 mm	113.00 mm	5.5 mm	24° Flo. Stock size. Special Alloy.
F6326	E	32 mm	5.47 mm	113.00 mm	5.5 mm	24° Flo. + 1 mm oversize. Special Alloy.
F6327	I	36.5 mm	5.48 mm	104.00 mm	5.5 mm	12° S. Flo. Stock size.
F6328	I	37.5 mm	5.48 mm	104.00 mm	5.5 mm	12° S. Flo. + 1 mm oversize.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10143	Single Spring Stage 1 Endurance Application	25.19 mm	18.3 mm	78 lbs. @38.7mm	160 lbs. @28.7mm	208 lbs	22.6 mm	14.5 mm
E11118	Titanium Retainer							
SL1126	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10080	Valve Locks							
S10144	Dual Spring - Turbo Special Alloy Stage 2 Road/Drag Application	18.82 mm 25.19 mm	13.84 mm 18.82 mm	80 lbs. @35.7mm	180 lbs. @25.7mm	254 lbs	21.5 mm	13 mm
E11117	Titanium Retainer							
SL1126	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10080	Valve Locks							

SCION FR-S 2.0L - DOHC 16 VALVE (4U-GSE) - 2012-2014

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F2356P	E	29mm	5.45mm	95.3mm	7.5mm	29° Flo. Stock size. Super Alloy
F2359P	E	30mm	5.45mm	95.3mm	7.5mm	29° Flo. +1mm oversize. Super Alloy
F2357P	I	35mm	5.46mm	103.45mm	6.5mm	10° Super Flo. Flat Head. Stock size
F2358P	I	36mm	5.46mm	103.45mm	6.5mm	10° Super Flo. Flat Head. +1mm oversize
600 SERIES COMPETITION VALVES						
F6335	E	29mm	5.45mm	95.3mm	7.5mm	29° Flo. Flat head. Stock size. Special Alloy
F6336	E	30mm	5.45mm	95.3mm	7.5mm	29° Flo. Flat head. +1mm oversize. Special Alloy
F6337	I	35mm	5.46mm	103.45mm	6.5mm	10° Super Flo. Flat Head. Stock size
F6338	I	36mm	5.46mm	103.45mm	6.5mm	10° Super Flo. Flat Head. +1mm oversize

SCION FR-S 2.0L - DOHC 16 VALVE (4U-GSE) - 2012-2014

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10154	Single Spring - Endurance Special Alloy	28.0 mm	20.8 mm	60 lbs @34 mm	135 lbs @24 mm	190 lbs	18.6 mm	14.5 mm
S10155	Dual Spring - Turbo Special Alloy	20.8 mm 28.0 mm	16.51 mm 20.8 mm	70 lbs @34 mm	170 lbs @24 mm	254 lbs	18.6 mm	14.5 mm
E11127	Titanium Retainer							
E20055	Tool Steel Retainers							
SL1139	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
SL1140	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							

SCION FR-S 2.0L - DOHC 16 VALVE (4U-GSE) - 2015

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F2378P	E	29mm	5.45mm	97.6mm	10.1mm	29° Flo. Flat Head. Stock. Super Alloy
F2380P	E	30mm	5.45mm	97.6mm	10.1mm	29° Flo. Flat Head. +1mm. Super Alloy
F2379P	I	35mm	5.46mm	105mm	8.2mm	10° Super Flo. Flat Head. Stock. Special Alloy
F2381P	I	36mm	5.46mm	105mm	8.2mm	10° Super Flo. Flat Head. +1mm. Special Alloy
6000 SERIES COMPETITION VALVES						
F6347	E	29mm	5.45mm	97.6mm	10.1mm	29° Flo. Flat Head. Stock. Special Alloy
F6348	E	30mm	5.45mm	97.6mm	10.1mm	29° Flo. Flat Head. +1mm. Special Alloy
F6349	I	35mm	5.46mm	105mm	8.2mm	10° Super Flo. Flat Head. Stock. Special Alloy
F6350	I	36mm	5.46mm	105mm	8.2mm	10° Super Flo. Flat Head. +1mm. Special Alloy

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10154	Single Spring - Endurance Special Alloy	28.0 mm	20.8 mm	60 lbs @34 mm	135 lbs @24 mm	190 lbs	18.6 mm	14.5 mm
S10155	Dual Spring - Turbo Special Alloy	20.8 mm 28.0 mm	16.51 mm 20.8 mm	70 lbs @34 mm	170 lbs @24 mm	254 lbs	18.6 mm	14.5 mm
E11127	Titanium Retainer							
E20055	Tool Steel Retainers							
SL1139	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
SL1140	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							

SMART 6 VALVE - 2008-2012

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
6000 SERIES COMPETITION VALVES						
F6750	E	25 mm	5.96 mm	89.57 mm	4.26 mm	30° Flo. Stock size.
F6752	E	26 mm	5.96 mm	89.57 mm	4.26 mm	30° Flo. + 1 mm over size
F6751	I	30 mm	5.96 mm	89.16 mm	4.09 mm	20° Super Flo. Stock size.
F6753	I	31 mm	5.96 mm	89.16 mm	4.09 mm	20° Super Flo. + 1 mm over size

SUBARU WRX - EJ20 - 2001-2008

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F1968P	E	32 mm	5.96 mm	104.75 mm	3.5 mm	25° Flo. Stock size. Super Alloy
F1966P	E	33 mm	5.96 mm	104.75 mm	3.5 mm	25° Flo. + 1 mm oversize. Super Alloy
F1967P	I	36 mm	5.97 mm	104.44 mm	3.5 mm	19° Super Flo. Stock size.
F1965P	I	37 mm	5.97 mm	104.44 mm	3.5 mm	19° Super Flo. + 1 mm oversize
TECH NOTE: These Ferrea Valves must be used with Ferrea Valve Locks # K10061.						
6000 SERIES COMPETITION VALVES						
F6075	E	32 mm	5.96 mm	104.75 mm	3.5 mm	25° Flo. Radius Groove. Stock size. Special Alloy
F6076	E	33 mm	5.96 mm	104.75 mm	3.5 mm	25° Flo. Radius Groove. + 1 mm over size. Special Alloy
F6077	I	36 mm	5.97 mm	104.6 mm	3.5 mm	19° S. Flo. Radius Groove. Stock size.
F6078	I	37 mm	5.97 mm	104.6 mm	3.5 mm	19° S. Flo. Radius Groove. + 1 mm over size.
TECH NOTE: These Ferrea Valves must be used with Ferrea Valve Locks # K10061.						

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10071	Dual Spring - Special Alloy Turbo - Drag Racing	20.8 mm 28 mm	15.88 mm 20.8 mm	75 lbs @39.4 mm	200 lbs @29.4 mm	317 lbs	21.5 mm	15 mm
E11043	Titanium Retainer							
E20047	Tool Steel Retainer							
SL1034	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10061	Valve Locks							
S10072	Dual Spring - Special Alloy Turbo Endurance Spring	20.8 mm 28 mm	16.51 mm 20.8 mm	70 lbs @39.4 mm	165 lbs @29.4 mm	241 lbs	20 mm	15 mm
E11044	Titanium Retainer							
E20048	Tool Steel Retainer							
SL1034	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10061	Valve Locks							

SUBARU WRX - EJ20 - 2001-2008

Part#	Specifications
COPPER BRONZE VALVE GUIDES	
VG1071	Exhaust Std. size. Use Ferrea Valve Seal Part# VS1015.
VG1072	Exhaust +.001 Over size. Use Ferrea Valve Seal Part# VS1015.
VG1073	Intake Std. size. Use Ferrea Valve Seal Part# VS1016.
VG1074	Intake +.001 Over size. Use Ferrea Valve Seal Part# VS1016.

Part#	Specifications
VALVE SEALS	
VS1015	Exhaust 6 mm valve stem. Viton rubber compound. Hi Temp
VS1016	Intake 6 mm valve stem. Viton rubber compound

SUBARU WRX - STI - 2004-2008

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F1514P	E	32 mm	5.96 mm	104.75 mm	3.5 mm	25° Flo. Stock size. Super Alloy
F1519P	E	33 mm	5.96 mm	104.75 mm	3.5 mm	25° Flo. + 1 mm oversize. Super Alloy
F1520P	I	36 mm	5.97 mm	104.6 mm	3.5 mm	19° Super Flo. Stock size.
F1524P	I	37 mm	5.97 mm	104.6 mm	3.5 mm	19° Super Flo. + 1 mm oversize

TECH NOTE: These Ferrea Valves must be used with Ferrea Valve Locks # K10074.

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
6000 SERIES COMPETITION VALVES						
F6075	E	32 mm	5.96 mm	104.75 mm	3.5 mm	25° Flo. Radius Groove. Stock size. Special Alloy
F6076	E	33 mm	5.96 mm	104.75 mm	3.5 mm	25° Flo. Radius Groove. + 1 mm over size. Special Alloy
F6077	I	36 mm	5.97 mm	104.6 mm	3.5 mm	19° S. Flo. Radius Groove. Stock size.
F6078	I	37 mm	5.97 mm	104.6 mm	3.5 mm	19° S. Flo. Radius Groove. + 1 mm over size.

TECH NOTE: These Ferrea Valves must be used with Ferrea Valve Locks # K10061.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10097	Dual Spring-Special Alloy Turbo - Drag Racing	20.8 mm 28 mm	15.88 mm 20.8 mm	90 lbs @36 mm	215 lbs @26 mm	317 lbs	21.5 mm	14 mm
E11064	Titanium Retainer							
E20047	Tool Steel Retainer							
SL1051	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10074	Valve Locks							
S10098	Dual Spring-Special Alloy Turbo-Endurance Racing	20.8 mm 28 mm	16.51 mm 20.8 mm	80 lbs @36 mm	180 lbs @26 mm	254 lbs	21.0 mm	14 mm
E11065	Titanium Retainer							
E20048	Tool Steel Retainer							
SL1051	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10074	Valve Locks							

Part#	Specifications
COPPER BRONZE VALVE GUIDES	
VG1071	Exhaust Std. size. Use Ferrea Valve Seal Part# VS1015.
VG1072	Exhaust +.001 Over size. Use Ferrea Valve Seal Part# VS1015.
VG1073	Intake Std. size. Use Ferrea Valve Seal Part# VS1016.
VG1074	Intake +.001 Over size. Use Ferrea Valve Seal Part# VS1016.

Part#	Specifications
VALVE SEALS	
VS1015	Exhaust 6 mm valve stem. Viton rubber compound. Hi Temp
VS1016	Intake 6 mm valve stem. Viton rubber compound

SUBARU BRZ 2.0L - DOHC 16 VALVE (FA20) - 2012-2014

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F2356P	E	29mm	5.45mm	95.3mm	7.5mm	29° Flo. Stock size. Super Alloy
F2359P	E	30mm	5.45mm	95.3mm	7.5mm	29° Flo. +1mm oversize. Super Alloy
F2357P	I	35mm	5.46mm	103.45mm	6.5mm	10° Super Flo. Flat Head. Stock size
F2358P	I	36mm	5.46mm	103.45mm	6.5mm	10° Super Flo. Flat Head. +1mm oversize
6000 SERIES COMPETITION VALVES						
F6335	E	29mm	5.45mm	95.3mm	7.5mm	29° Flo. Flat head. Stock size. Special Alloy
F6336	E	30mm	5.45mm	95.3mm	7.5mm	29° Flo. Flat head. +1mm oversize. Special Alloy
F6337	I	35mm	5.46mm	103.45mm	6.5mm	10° Super Flo. Flat Head. Stock size
F6338	I	36mm	5.46mm	103.45mm	6.5mm	10° Super Flo. Flat Head. +1mm oversize

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10154	Single Spring - Endurance Special Alloy	28.0 mm	20.8 mm	60 lbs @34 mm	135 lbs @24 mm	190 lbs	18.6 mm	14.5 mm
S10155	Dual Spring - Turbo Special Alloy	20.8 mm 28.0 mm	16.51 mm 20.8 mm	70 lbs @34 mm	170 lbs @24 mm	254 lbs	18.6 mm	14.5 mm
E11127	Titanium Retainer							
E20055	Tool Steel Retainer							
SL1139	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
SL1140	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							

SUBARU BRZ 2.0L - DOHC 16 VALVE (FA20) - 2015

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2378P	E	29mm	5.45mm	97.6mm	10.1mm	29° Flo. Flat Head. Stock. Super Alloy
F2380P	E	30mm	5.45mm	97.6mm	10.1mm	29° Flo. Flat Head. +1mm. Super Alloy
F2379P	I	35mm	5.46mm	105mm	8.2mm	10° Super Flo. Flat Head. Stock. Special Alloy
F2381P	I	36mm	5.46mm	105mm	8.2mm	10° Super Flo. Flat Head. +1mm. Special Alloy

6000 SERIES COMPETITION VALVES

F6075	E	32 mm	5.96 mm	104.75 mm	3.5 mm	25° Flo. Radius Groove. Stock size. Special Alloy
F6076	E	33 mm	5.96 mm	104.75 mm	3.5 mm	25° Flo. Radius Groove. + 1 mm over size. Special Alloy
F6077	I	36 mm	5.97 mm	104.6 mm	3.5 mm	19° S. Flo. Radius Groove. Stock size.
F6078	I	37 mm	5.97 mm	104.6 mm	3.5 mm	19° S. Flo. Radius Groove. + 1 mm over size.

TECH NOTE: These Ferrea Valves must be used with Ferrea Valve Locks # K10061.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10154	Single Spring - Endurance Special Alloy	28.0 mm	20.8 mm	60 lbs @34 mm	135 lbs @24 mm	190 lbs	18.6 mm	14.5 mm
S10155	Dual Spring - Turbo Special Alloy	20.8 mm 28.0 mm	16.51 mm 20.8 mm	70 lbs @34 mm	170 lbs @24 mm	254 lbs	18.6 mm	14.5 mm
E11127	Titanium Retainer							
E20055	Tool Steel Retainer							
SL1139	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
SL1140	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							

SUZUKI SWIFT 1.3L - DOHC 16 VALVE (G13) - 2005-2012

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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6000 SERIES COMPETITION VALVES

F6766	E	24.5 mm	5.45 mm	104.65 mm	4.2 mm	20° Flo. + 0.5 oversize.
F6767	I	29.5 mm	5.47 mm	105.35 mm	4.2 mm	15° Super Flo. + 0.5 oversize.

TOYOTA 2TC-3TC-20R-22R

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1435P	E	38 mm	8 mm	113.3 mm	4.6 mm	19° Super Flo-Toyota 20R
F1433P	E	39 mm	8 mm	108.9 mm	5 mm	19° Super Flo-Toyota 2TC-3TC
F1431P	E	39 mm	8 mm	112.2 mm	4.6 mm	19° Super Flo-Toyota 22R
F1434P	I	44 mm	8 mm	108.2 mm	5 mm	R. 8.3 mm Super Flo-Toyota 2TC-3TC
F1436P	I	45 mm	8 mm	115.4 mm	4.6 mm	R. 8.3 mm Super Flo-Toyota 20R
F1432P	I	47.1 mm	8 mm	113.4 mm	4.6 mm	R. 8.3 mm Super Flo-Toyota 22R

TOYOTA 4AG 1.6L 16 VALVE (ATLANTIC)- 1983-1989

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1422P	E	27.5 mm	6 mm	99.75 mm	3.5 mm	28° Flo
F1421P	I	32 mm	6 mm	99.6 mm	3.5 mm	15° Flo

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10080	Single Spring - Special Alloy	23.5 mm	16.46 mm	40 lbs @35 mm	120 lbs @25 mm	203 lbs	22 mm	12 mm
E11046	Titanium Retainer							

This Spring Uses the Factory OEM Seat Locator

TOYOTA 4AGELU 1.6L - DOHC 20 VALVE - 1995-1998

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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6000 SERIES COMPETITION VALVES

F6331	E	26mm	4.98mm	108.45mm	4.91mm	22° Taper Flo. Stock size. Special Alloy. 2 Valves required
F6332	I	26.5mm	4.98mm	98.42mm	5.06mm	12° Super Flo. Stock size. 3 Valves required

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10150	Single Spring - Endurance Special Alloy	20.32 mm	14.23 mm	40 lbs @37 mm	133 lbs @27 mm	236 lbs	25.15 mm	11 mm
E20052	Tool Steel Retainer							
SL1133	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10106	Valve Locks							

TOYOTA 1.8L DOHC 16 VALVE (2ZZGE) 2003-2006

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2190P	E	29 mm	5.45 mm	111.8 mm	5.4 mm	25° Super Flo. Stock size. Single Groove. Super Alloy
F2191P	E	30 mm	5.45 mm	111.8 mm	5.4 mm	25° Super Flo. + 1 mm oversize. Single Groove. Super Alloy
F2192P	I	34 mm	5.46 mm	111.45 mm	5.4 mm	9° Super Flo. Stock size. Single Groove
F2193P	I	35 mm	5.46 mm	111.45 mm	5.4 mm	9° Super Flo. + 1 mm oversize. Single Groove

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10123	Dual Spring - Endurance Special Alloy	19.05 mm 25.30 mm	13.95 mm 19.05 mm	75 lbs @ 38.5 mm	180 lbs @ 28.5 mm	274 lbs	24 mm	13.5 mm
E11097	Titanium Retainer							
SL1105	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10094	Valve Locks							

Part#	References
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ROLLER ROCKER SYSTEM

((1) U.S. Patent No. US6, 352, 062 B1.

RR1005 Maximum Net Lift: 13.5 mm. (With Ferrea Valve Spring Assembly) Aluminum-Magnesium CNC machined Stock rocker assembly mass: 268 grams. Ferrea rocker assembly mass: 138 grams (51 % less mass than factory rockers) Stock fulcrum mass: 97 grams. Ferrea fulcrum mass: 74 grams.
Can be used with stock or any aftermarket camshafts. Uses center large lobe only, must use reprogrammed ECU or stand alone ECU tuning system.
To work properly and provide lubrication to the rocker arms during operation, the ECU must control the VVTi timing sequence function.

TOYOTA MR2 2.0L - DOHC 16 VALVE (TURBO 3SGTE) - 1990-1995

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1865P	E	29 mm	5.97 mm	99.65 mm	3.5 mm	25° Flo. Stock size. Super Alloy
F1866P	E	30 mm	5.97 mm	99.65 mm	3.5 mm	25° Flo. 1 mm oversize. Super Alloy
F1863P	I	33.5 mm	5.98 mm	100.70 mm	3.5 mm	25° Super Flo. Stock size
F1864P	I	34.5 mm	5.98 mm	100.70 mm	3.5 mm	25° Super Flo. 1 mm oversize

6000 SERIES COMPETITION VALVES

F6065	E	29 mm	5.97 mm	99.65 mm	3.5 mm	25° Flo. Stock size. Special Alloy
F6066	E	30 mm	5.97 mm	99.65 mm	3.5 mm	25° Flo. 1 mm oversize. Special Alloy
F6063	I	33.5 mm	5.98 mm	100.70 mm	3.5 mm	25° Super Flo. Stock size
F6064	I	34.5 mm	5.98 mm	100.70 mm	3.5 mm	25° Super Flo. 1 mm oversize

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10034	Dual Chrome Silicon	20.8 mm 28.0 mm	16.51 mm 20.8 mm	65 lbs @ 35 mm	185 lbs @ 25 mm	305 lbs	20 mm	14 mm
E11011	Titanium Retainer							
E10022	Aluminum Magnesium Retainer							
SL1007	Seat Locator and use OEM Factory supplied Spring Seat Locator							
K10037	Valve Locks							

TOYOTA MR2 2.0L - DOHC 16 VALVE (3SGTE GEN 3) - 1996-1998

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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6000 SERIES COMPETITION VALVES

F6065	E	29 mm	5.97 mm	99.65 mm	3.5 mm	25° Flo. Stock size. Special Alloy
F6066	E	30 mm	5.97 mm	99.65 mm	3.5 mm	25° Flo. 1 mm oversize. Special Alloy
F6063	I	33.5 mm	5.98 mm	100.70 mm	3.5 mm	25° Super Flo. Stock size
F6064	I	34.5 mm	5.98 mm	100.70 mm	3.5 mm	25° Super Flo. 1 mm oversize

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10151	Dual Spring - Endurance Special Alloy	20.8 mm 28 mm	16.51 mm 20.8 mm	80 lbs @37.6 mm	178 lbs @27.6 mm	249 lbs	25.1 mm	11.5 mm
E11123	Titanium Retainer							
SL1133	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10108	Valve Locks							

TOYOTA FJ CRUISER V6 4L - DOHC 24 VALVE (1GR-FE) - 2006-2008

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1286P	E	29.5 mm	5.46 mm	105.95 mm	2.25 mm	25° Taper Flo. Stock size. Single Groove. Super Alloy
F1287P	E	30.5 mm	5.46 mm	105.95 mm	2.25 mm	25° Taper Flo. + 1 mm oversize. Single Groove. Super Alloy
F1284P	I	36.55 mm	5.47 mm	107.1 mm	2.25 mm	10° Super Flo. Stock size. Single Groove
F1285P	I	37.55 mm	5.47 mm	107.1 mm	2.25 mm	10° Super Flo. + 1 mm oversize. Single Groove

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10127	Double Spring-Special Alloy Endurance	20.8 mm 28.0 mm	16.51 mm 20.8 mm	75 lbs @ 35.65 mm	175 lbs @ 25.65 mm	254 lbs	20 mm	13 mm
E11100	Titanium Retainer							
SL1110	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10097	Valve Locks							

S10132	Single Spring-Special Alloy Endurance	25.19mm	18.30 mm	80 lbs @ 36 mm	145 lbs @ 26 mm	165 lbs	21 mm	13 mm
E11104	Titanium Retainer							
This Spring Uses the Factory OEM Seat Locator								
K10097	Valve Locks							

TOYOTA LANDCRUISER 4.5L - DOHC 24 VALVE (1FZFE) - 1993-1997

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2170P	E	32 mm	6.97 mm	98.25 mm	2.54 mm	22° Flo. Stock size. Special Alloy
F2185P	E	32 mm	6.97 mm	98.25 mm	2.54 mm	22° Flo. Stock size. Super Alloy. Turbo Applications
F2189P	E	33 mm	6.97 mm	98.25 mm	2.54 mm	22° Flo. + 1 mm oversize. Special Alloy
F2186P	E	33 mm	6.97 mm	98.25 mm	2.54 mm	22° Flo. + 1 mm oversize. Super Alloy. Turbo Appl.
F2168P	E	35 mm	6.97 mm	98.25 mm	2.54 mm	22° Flo. + 3 mm oversize. Special Alloy
F2171P	I	38 mm	6.98 mm	98.85 mm	2.54 mm	19° Flo. Stock size. Special Alloy
F2188P	I	39 mm	6.98 mm	98.85 mm	2.54 mm	19° Flo. + 1 mm oversize. Special Alloy
F2169P	I	41 mm	6.98 mm	98.85 mm	2.54 mm	19° Flo. + 3 mm oversize. Special Alloy

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10126	Double Spring-Special Alloy Endurance	20.8 mm 28.0 mm	16.51 mm 20.8 mm	75 lbs @33 mm	175 lbs @23 mm	254 lbs	17 mm	16 mm
E11096	Titanium Retainer							
SL1109	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10096	Valve Locks							

S10131	Single Spring-Special Alloy	28 mm	20.8 mm	67 lbs @31 mm	150 lbs @21 mm	210 lbs	17 mm	13 mm
This Spring Uses the Factory OEM Steel Retainer								
SL1114	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10096	Valve Locks							

Part#	Specifications
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COPPER BRONZE VALVE GUIDES

VG1075	Exhaust Std. size. For Turbo applications
VG1076	Intake Std size

TOYOTA 2.0 L - 3SGE ENGINE

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F1944P	E	30.1 mm	5.46 mm	109.32 mm	2.25 mm	20° Flo. Oversize. Special Alloy
F1945P	I	35.5 mm	5.47 mm	106.63 mm	2 mm	12° Super Flo. Oversize

TOYOTA 2.0 L - 3SGE ENGINE

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10073	Dual Spring - Turbo Special Alloy	20.8 mm 28.0 mm	15.88 mm 20.8 mm	87 lbs @34 mm	195 lbs @24 mm	285 lbs	21.5 mm	12.5 mm
E11042	Titanium Retainer							
SL1032	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10107	Valve Locks							

TOYOTA SUPRA 3.0L - DOHC 24 VALVE (7MGE-TURBO 7MGTE) - 1986-1992

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F1861P	E	27.5 mm	6 mm	98.20 mm	4 mm	25° Flo. Stock size. Super Alloy
F1862P	E	28.5 mm	6 mm	98.20 mm	4 mm	25° Flo. 1 mm oversize. Super Alloy
F1859P	I	32 mm	6 mm	98.20 mm	4 mm	25° Super Flo. Stock size
F1860P	I	33 mm	6 mm	98.20 mm	4 mm	25° Super Flo. 1 mm oversize
6000 SERIES COMPETITION VALVES						
F6061	E	27.50 mm	6 mm	98.20 mm	4 mm	25° Flo. Stock size. Special Alloy
F6062	E	28.50 mm	6 mm	98.20 mm	4 mm	25° Flo. 1 mm oversize. Special Alloy
F6059	I	32 mm	6 mm	98.20 mm	4 mm	25° Super Flo. Stock size
F6060	I	33 mm	6 mm	98.20 mm	4 mm	25° Super Flo. 1 mm oversize

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10120	Dual Spring - Endurance Special Alloy	19.05 mm 25.30 mm	13.95 mm 19.05 mm	70 lbs @ 34 mm	180 lbs @ 24 mm	280 lbs	20 mm	13 mm
E11095	Titanium Retainer							
SL1104	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10037	Valve Locks							

TOYOTA SUPRA 3.0L I/L 6 CYL - DOHC 24 VALVE (2JZGE-2JZGTE) - 1994-1998

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F1499P	E	29 mm	5.98 mm	99.1 mm	3.5 mm	22° Flo. Stock size. Super Alloy
F1497P	E	30 mm	5.98 mm	99.1 mm	3.5 mm	22° Flo. 1 mm oversize. Super Alloy
F1498P	I	33.6 mm	5.98 mm	98.55 mm	3.5 mm	20° Super Flo. Stock size
F1496P	I	34.6 mm	5.98 mm	98.55 mm	3.5 mm	20° Super Flo. 1 mm oversize
6000 SERIES COMPETITION VALVES						
F6099	E	29 mm	5.98 mm	99.1 mm	3.5 mm	22° Flo. Stock size. Special Alloy
F6097	E	30 mm	5.98 mm	99.1 mm	3.5 mm	22° Flo. 1 mm oversize. Special Alloy
F6098	I	33.60 mm	5.98 mm	98.55 mm	3.5 mm	20° Super Flo. Stock size
F6096	I	34.60 mm	5.98 mm	98.55 mm	3.5 mm	20° Super Flo. 1 mm oversize

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
BEEHIVE VALVE SPRINGS								
S2021	Single Beehive Ovate. PAC Alloy Street Performance	23.87mm 28.07mm	14.73mm 18.85mm	110 lbs @35mm	240 lbs @25mm	330 lbs	21.85mm	11mm
E12029	Titanium Retainer							
This Spring Uses the Factory OEM Seat Locator								
K10037	Valve Locks							

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10033	Dual Chrome Silicon	20.8 mm 28.0 mm	16.51 mm 20.8 mm	65lbs @ 35 mm	185 lbs @ 25 mm	305 lbs	20 mm	14 mm
E11011	Titanium Retainer							
E20040	Tool Steel Retainer							
SL1001	Seat Locator and use OEM Factory supplied Spring Seat Locator							
K10037	Valve Locks							
S10045	Dual Spring - Turbo Special Alloy	20.8 mm 28.0 mm	15.88 mm 20.8 mm	87 lbs @ 34 mm	195 lbs @ 24 mm	285 lbs	21.5 mm	12.5 mm
E11037	Titanium Retainer							
E20042	Tool Steel Retainer							
SL1001	Seat Locator and use OEM Factory supplied Spring Seat Locator							
K10037	Valve Locks							
NOTE: For HIGH PRESSURE use BOTH Ferrea Spring Seat Locator # SL1001 AND #SL1060. (Discard OEM Spring Seat Locator)								
HIGH PRESSURE VALUES SPEC								
SL1060	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)			100 lbs @34mm	225 lbs @24 mm	317 lbs	22 mm	10.5 mm
S10109	Dual Spring - Turbo High Pressure	20.8 mm 28.0 mm	15.88 mm 20.8 mm	115 lbs @ 34 mm	245 lbs @ 24 mm	330 lbs	21.8 mm	11 mm
E11037	Titanium Retainer							
E20042	Tool Steel Retainer							
SL1001	Seat Locator (Discard OEM Factory supplied Spring Seat Locator) Requires Both the SL1001 and the SL1060							
SL1060	Seat Locator (Discard OEM Factory supplied Spring Seat Locator) Requires Both the SL1001 and the SL1060							
K10037	Valve Locks							

Part#	Specifications
COPPER BRONZE VALVE GUIDES	
VG1034	Exhaust Std. size. Use Ferrea Valve Seal Part# VS1008.
VG1037	Exhaust + .001 Over size. Use Ferrea Valve Seal Part# VS1008.
VG1035	Inake Std size. Use Ferrea Valve Seal Part# VS1009.
VG1036	Intake + .001 Over size. Use Ferrea Valve Seal Part# VS1009.

Part#	Specifications
VALVE SEALS	
VS1008	Exhaust 6 mm valve stem. Viton rubber compound. Hi Temp.
VS1009	Intake 6 mm valve stem. Viton rubber compound.

TOYOTA TACOMA (2RZ - 3RZ) - 1995-2004

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F1993P	E	30.60 mm	5.967 mm	103.6 mm	3.50 mm	21° Flo. Dish Head. Stock size. Special Alloy
F1995P	E	31.60 mm	5.967 mm	103.6 mm	3.50 mm	21° Flo. Dish Head - 1mm oversize. Special Alloy
F1992P	I	37.55 mm	5.97 mm	103.6 mm	3.50 mm	19° Super Flo. Dish Head. Stock size.
F1994P	I	38.55 mm	5.97 mm	103.6 mm	3.50 mm	19° Super Flo. Dish Head. - 1mm oversize.
6000 SERIES COMPETITION VALVES						
F6669	I	40 mm	5.97 mm	103.15 mm	3.80 mm	19° Super Flo. Oversize

TOYOTA GT86 2.0L - DOHC 16 VALVE (4U-GSE) EUROPE - 2012-2014

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F2356P	E	29mm	5.45mm	95.3mm	7.5mm	29° Flo. Stock size. Super Alloy
F2359P	E	30mm	5.45mm	95.3mm	7.5mm	29° Flo. +1mm oversize. Super Alloy
F2357P	I	35mm	5.46mm	103.45mm	6.5mm	10° Super Flo. Flat Head. Stock size
F2358P	I	36mm	5.46mm	103.45mm	6.5mm	10° Super Flo. Flat Head. +1mm oversize
6000 SERIES COMPETITION VALVES						
F6335	E	29mm	5.45mm	95.3mm	7.5mm	29° Flo. Flat head. Stock size. Special Alloy
F6336	E	30mm	5.45mm	95.3mm	7.5mm	29° Flo. Flat head. +1mm oversize. Special Alloy
F6337	I	35mm	5.46mm	103.45mm	6.5mm	10° Super Flo. Flat Head. Stock size
F6338	I	36mm	5.46mm	103.45mm	6.5mm	10° Super Flo. Flat Head. +1mm oversize

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10154	Single Spring - Endurance Special Alloy	28.0 mm	20.8 mm	60 lbs @34 mm	135 lbs @24 mm	190 lbs	18.6 mm	14.5 mm
S10155	Dual Spring - Turbo Special Alloy	20.8 mm 28.0 mm	16.51 mm 20.8 mm	70 lbs @34 mm	170 lbs @24 mm	254 lbs	18.6 mm	14.5 mm
E11127	Titanium Retainer							
E20055	Tool Steel Retainer							
SL1139	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
SL1140	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							

TOYOTA GT86 2.0L - DOHC 16 VALVE (4U-GSE) EUROPE - 2015

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F2378P	E	29mm	5.45mm	97.6mm	10.1mm	29° Flo. Flat Head. Stock. Super Alloy
F2380P	E	30mm	5.45mm	97.6mm	10.1mm	29° Flo. Flat Head. +1mm. Super Alloy
F2379P	I	35mm	5.46mm	105mm	8.2mm	10° Super Flo. Flat Head. Stock. Special Alloy
F2381P	I	36mm	5.46mm	105mm	8.2mm	10° Super Flo. Flat Head. +1mm. Special Alloy
6000 SERIES COMPETITION VALVES						
F6347	E	29mm	5.45mm	97.6mm	10.1mm	29° Flo. Flat Head. Stock. Special Alloy
F6348	E	30mm	5.45mm	97.6mm	10.1mm	29° Flo. Flat Head. +1mm. Special Alloy
F6349	I	35mm	5.46mm	105mm	8.2mm	10° Super Flo. Flat Head. Stock. Special Alloy
F6350	I	36mm	5.46mm	105mm	8.2mm	10° Super Flo. Flat Head. +1mm. Special Alloy

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10154	Single Spring - Endurance Special Alloy	28.0 mm	20.8 mm	60 lbs @34 mm	135 lbs @24 mm	190 lbs	18.6 mm	14.5 mm
S10155	Dual Spring - Turbo Special Alloy	20.8 mm 28.0 mm	16.51 mm 20.8 mm	70 lbs @34 mm	170 lbs @24 mm	254 lbs	18.6 mm	14.5 mm
E11127	Titanium Retainer							
E20055	Tool Steel Retainer							
SL1139	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
SL1140	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							

VW 1.8T - DOHC 20 VALVE - 1998-2005

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F1554P	E	29.9 mm	5.96 mm	103.92 mm	5 mm	26° Flo. Stk size. Trip. groove. 2 Valves required
F1555P	E	30.9 mm	5.96 mm	103.92 mm	5 mm	26° Flo. +1 mm o/s. Trip. groove. 2 Valves required
F1556P	I	26.9 mm	5.97 mm	105.1 mm	5 mm	24° Sup. Flo. Stk size. Trip. groove. 3 Val. required
F1557P	I	27.9 mm	5.97 mm	105.1 mm	5 mm	24° Sup. Flo. +1 mm o/s. Trip. groove. 3 Val. required

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10055	Single Spring - Turbo Special Alloy (Intake - 1.8T-12 pieces, 2.7T-18 pieces, 4.2L-24 pieces)	21.5 mm	15.1 mm	65 lbs @ 34.5 mm	145 lbs @ 24.5 mm	216 lbs	22.5 mm	11 mm
E11031	Titanium Retainer							
SL1025	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
S10056	Dual Spring - Turbo Special Alloy (Exhaust - 1.8T-8 pieces, 2.7T-12 pieces, 4.2L-16 pieces)	22.75 mm 29.5 mm	17.1 mm 22.75 mm	80 lbs @ 32.5 mm	180 lbs @ 22.5 mm	254 lbs	20 mm	12 mm
E11032	Titanium Retainer							
SL1026	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							

VW 2.0T FSI - DOHC 16 VALVE - 2006-2008

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2177P	E	28 mm	5.97 mm	102 mm	5 mm	24° Flo. Stock size. Triple Groove. Super Alloy
F2178P	E	29 mm	5.97 mm	102 mm	5 mm	24° Flo. + 1 mm o/size. Triple Groove. Super Alloy
F2179P	I	33.9 mm	5.99 mm	104 mm	5 mm	20° Super Flo. Stock size. Triple Groove
F2180P	I	34.9 mm	5.99 mm	104 mm	5 mm	20° Super Flo. + 1 mm o/size. Triple Groove.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10157	Single Spring - Turbo PAC Enhanced Alloy	22.38 mm	15.52 mm	80 lbs @37 mm	180 lbs @27mm	254 lbs	24.6 mm	11 mm
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NOTE: Max Net Lift is limited due to the OEM factory valve seal install height.

E11129	Titanium Retainer
SL1142	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)

Part# Specifications

LIFTER SHIMS

LP1100	Lifter Shim .9mm Thick(16 pieces).
LP1105	Lifter Shim 1.3mm Thick(16 pieces).

Note: Lifter shim goes below stock hydraulic lifter to shorten travel distance.

VW 2.0T TSI - DOHC 16 VALVE - 2009-2013 VW GOLF R 2.0T TSI - DOHC 16 VALVE - 2015-2016

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2177P	E	28 mm	5.97 mm	102 mm	5 mm	24° Flo. Stock size. Triple Groove. Super Alloy
F2178P	E	29 mm	5.97 mm	102 mm	5 mm	24° Flo. + 1 mm o/size. Triple Groove. Super Alloy
F2179P	I	33.9 mm	5.99 mm	104 mm	5 mm	20° Super Flo. Stock size. Triple Groove
F2180P	I	34.9 mm	5.99 mm	104 mm	5 mm	20° Super Flo. + 1 mm o/size. Triple Groove.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10157	Single Spring - Turbo PAC Enhanced Alloy INTAKE ASSEMBLY	22.38 mm	15.52 mm	80 lbs @ 37 mm	180 lbs @ 27 mm	254 lbs	24.6 mm	11 mm
	EXHAUST ASSEMBLY			85 lbs @ 36.5 mm	185 lbs @ 26.5 mm	254 lbs	24.6 mm	10.5 mm

E11139	Titanium Retainer (INTAKE)
E11140	Titanium Retainer (EXHAUST)
SL1142	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)

Part# Specifications

LIFTER SHIMS

LP1100	Lifter Shim .9mm Thick(16 pieces).
LP1105	Lifter Shim 1.3mm Thick(16 pieces).

Note: Lifter shim goes below stock hydraulic lifter to shorten travel distance.

VW BEETLE/GOLF/JETTA/RABBIT 2.5L - DOHC 20 VALVE (BTW) - 2005- 1/2

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
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COMPETITION PLUS VALVES

F2177P	E	28 mm	5.97 mm	102 mm	5 mm	24° Flo. Stock size. Triple Groove. Super Alloy
F2178P	E	29 mm	5.97 mm	102 mm	5 mm	24° Flo. + 1 mm o/size. Triple Groove. Super Alloy
F2194P	I	32.35 mm	5.98 mm	104 mm	5 mm	20° Super Flo. Stock size. Triple Groove
F2195P	I	33.35 mm	5.98 mm	104 mm	5 mm	20° Super Flo. + 1 mm o/size. Triple Groove.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
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VALVE SPRINGS

S10162	Single Spring - Endurance Application PAC Enhanced Alloy	22.38mm	15.52mm	80 lbs @37mm	180 lbs @27mm	254 lbs	24.6mm	11mm
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E11134	Titanium Retainer
SL1145	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)

Part# Specifications

LIFTER SHIMS

LP1102	Lifter Shim (20 pieces).
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Note: Lifter shim goes below stock hydraulic lifter to shorten travel distance.

VW GOLF / JETTA 1.8 L - DOHC 16 VALVE (PL) -1987-1989
VW SCIROCCO 1.8 L - DOHC 16 VALVE (PL) -1986-1988
VW GOLF / JETTA 2.0 L - DOHC 16 VALVE (9A) -1990-1992
VW PASSAT 2.0 L - DOHC 16 VALVE (9A) -1990-1994

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
6000 SERIES COMPETITION VALVES						
F6027	E	28.1 mm	6.93 mm	98.3 mm	2.8 mm	22° Flo Radius Groove. Stk size. Special Alloy
F6028	E	28.6 mm	6.93 mm	98.3 mm	2.8 mm	22° Flo Radius Groove. + 0.5 mm over size. Special Alloy
F6029	I	32 mm	6.96 mm	95.5 mm	2.6 mm	15° S. Flo Radius Groove. Stock size.
F6030	I	32.5 mm	6.96 mm	95.5 mm	2.6 mm	15° S. Flo Radius Groove. + 0.5 mm over size.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10115	Dual Spring Special Alloy Endurance Application	22.75 mm 29.5 mm	17.1 mm 22.75 mm	85 lbs @ 33 mm	205 lbs @ 23 mm	304 lbs	17.5 mm	14 mm
E11084	Titanium Retainer							
SL1073	Seat Locator (Discard OEM Factory supplied Spring Seat Locator)							
K10082	Valve locks							

VW VR6 2.8L - DOHC 12 VALVE -1992-2002

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES(*) (**)						
F1932P	E	34 mm	6.96 mm	106.90 mm	2.25 mm	22° Flo. Stock Size. Single Groove
F1920P	E	35 mm	6.96 mm	106.90 mm	2.25 mm	22° Flo. + 1 mm oversize. Single Groove
F1921P	E	35 mm	6.96 mm	106.90 mm	2.25 mm	22° S. Flo. + 1 mm o/size. S. Alloy. Turbo Appl. Single Groove
F2135P	E	36 mm	6.96 mm	106.90 mm	2.25 mm	22° S. Flo. + 2 mm o/size. S. Alloy. Turbo Appl. Single Groove
F1931P	I	39 mm	6.98 mm	106.15 mm	2.25 mm	20° S. Flo. Stock Size. Single Groove
F1919P	I	40 mm	6.98 mm	106.15 mm	2.25 mm	20° S. Flo. + 1 mm oversize. Single Groove
F2136P	I	41 mm	6.98 mm	106.15 mm	2.25 mm	20° S. Flo. + 2 mm oversize. Single Groove

(*) NOTE: Ferrea Valves require Valve Lock K10099 for either E11039 retainer or OEM steel retainers. (**) NOTE: These Ferrea Valves are designed with Flat Face for increased compression.

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10062	Dual Spring - Turbo Special Alloy	22.75 mm 29.5 mm	17.1 mm 22.75 mm	95 lbs @32 mm	195 lbs @22 mm	254 lbs	19 mm	13 mm
E11039	Titanium Retainer							
K10099	Valve Locks. 7 mm. Radial Groove. Ferrea Valves require K10099 for either E11039 or OEM steel retainers.							

VW VR6 2.8L - DOHC 24 VALVE (BDF) - 2002-2004 (*)

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F1988P	E	27.00mm	5.94mm	136.48mm	4.6mm	25° Flo. Triple Gro. Special Alloy. - Stock size
F1989P	E	27.00mm	5.94mm	102.58mm	4.6mm	25° Flo. Triple Gro. Special Alloy. - Stock size
F1990P	E	28.00mm	5.94mm	136.48mm	4.6mm	25° Flo. Triple Gro. Special Alloy. - 1mm oversize
F1991P	E	28.00mm	5.94mm	102.58mm	4.6mm	25° Flo. Triple Gro. Special Alloy. - 1mm oversize
F2137P	E	29.00mm	5.94mm	136.48mm	4.6mm	25° Flo. Triple Gro. Special Alloy. - 2mm oversize
F2138P	E	29.00mm	5.94mm	102.58mm	4.6mm	25° Flo. Triple Gro. Special Alloy. - 2mm oversize
F1984P	I	31.00mm	5.95mm	136.70mm	4.6mm	25° S. Flo. Triple Gro. Special Alloy. - Stock size
F1985P	I	31.00mm	5.95mm	102.40mm	4.6mm	25° S. Flo. Triple Gro. Special Alloy. - Stock size
F1986P	I	32.00mm	5.95mm	136.70mm	4.6mm	25° S. Flo. Triple Gro. Special Alloy. - 1mm o/size
F1987P	I	32.00mm	5.95mm	102.40mm	4.6mm	25° S. Flo. Triple Gro. Special Alloy. - 1mm o/size
F2139P	I	33.00mm	5.95mm	136.70mm	4.6mm	25° S. Flo. Triple Gro. Special Alloy. - 2mm o/size
F2140P	I	33.00mm	5.95mm	102.40mm	4.6mm	25° S. Flo. Triple Gro. Special Alloy. - 2mm o/size

(*) Every motor takes 6 long INT valves, 6 short INT valves, 6 long EXH valves, 6 short EXH valves

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10087	Single Spring Special Alloy	23.5 mm	15.7 mm	85 lbs @39 mm	190 lbs @29 mm	265 lbs	26 mm	12 mm
E11063	Titanium Retainer							

Part# Specifications

LIFTER SHIMS

LP1101 Lifter Shim (24 pieces)
 Note: Lifter shim goes below stock hydraulic lifter to shorten travel distance.

VW VR6 R32 3.2/3.6L - DOHC 24 VALVE 2004-PRESENT

Part#	Type	Head Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES						
F2288P	E	30.20 mm	5.96 mm	136.48 mm	4.6 mm	25° Taper Flo. Stock size. Super Alloy.
F2289P	E	30.20 mm	5.96 mm	102.58 mm	4.6 mm	25° Taper Flo. Stock size. Super Alloy.
F2290P	E	31.20 mm	5.96 mm	136.48 mm	4.6 mm	25° Taper Flo. +1 mm oversize. Super Alloy.
F2291P	E	31.20 mm	5.96 mm	102.58 mm	4.6 mm	25° Taper Flo. +1 mm oversize. Super Alloy.
F2292P	I	33.20 mm	5.98 mm	136.70 mm	4.6 mm	20° Super Flo. Stock size.
F2293P	I	33.20 mm	5.98 mm	102.80 mm	4.6 mm	20° Super Flo. Stock size.
F2294P	I	34.20 mm	5.98 mm	136.70 mm	4.6 mm	20° Super Flo. +1 mm oversize.
F2295P	I	34.20 mm	5.98 mm	102.80 mm	4.6 mm	20° Super Flo. +1 mm oversize.

(*) Every motor takes 6 long INT valves, 6 short INT valves, 6 long EXH valves, 6 short EXH valves

VW VR6 R32 3.2/3.6L - DOHC 24 VALVE 2004-PRESENT

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10148	Dual Spring - Endurance Special Alloy	18.23 mm 25.19 mm	13.4 mm 18.23 mm	75 lbs @37.5 mm	180 lbs @27.5 mm	266 lbs	24.3 mm	12 mm
E11122	Titanium Retainer							
SL1131	Spring Seat Locator (*)							
SL1132	Spring Seat Locator (*)							

(*) Use BOTH Spring Seat Locators

Part# Specifications

LIFTER SHIMS

LP1103 Lifter Shim (24 pieces).

Note: Lifter shim goes below stock hydraulic lifter to shorten travel distance.

VW 2.0T TSI - DOHC 16 VALVE - 2011-2013

Part#	Head Type Diam.	Stem Diam.	Overall Length	Tip Length	References
COMPETITION PLUS VALVES					
F2177P	E 28 mm	5.97 mm	102 mm	5 mm	24° Flo. Stock size. Triple Groove. Super Alloy
F2178P	E 29 mm	5.97 mm	102 mm	5 mm	24° Flo. +1 mm oversize. Triple Groove. Super Alloy
F2179P	I 33.9 mm	5.98 mm	104 mm	5 mm	20° Super Flo. Stock size. Triple Groove.
F2180P	I 34.9 mm	5.98 mm	104 mm	5 mm	20° Super Flo. +1 mm oversize. Triple Groove

Part#	Type/Material/ Application	O.D.	I.D.	Seat Press.	Open Press.	Rate Inch	Coil Bind	Max Net Lift
VALVE SPRINGS								
S10157	Single Spring - Turbo PAC Enhanced Alloy	22.38 mm	15.52 mm	80 lbs @37 mm	180 lbs @27mm	254 lbs	24.6 mm	11 mm

This Spring requires either Ferrea Titanium Retainer #E11129, and Ferrea Spring Seat Locator #SL1142.
(Discard OEM factory supplied Spring Seat Locator)
NOTE: Max Net Lift is limited due to the OEM factory valve seal install height.

E11129 Titanium Retainer
SL1142 Seat Locator (Discard OEM Factory supplied Spring Seat Locator)

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