



SHOVEL HEAD®

- Extreme Duty Replacement Valves
- Valves Guides
- Valves Seals
- Compression Release Valves
- Valves Spring kits



AV&V Extreme Duty Replacement Valves

These superb valves feature the highest flow level on the market. They are one piece forged from a racing grade stainless steel alloy.

Each valve has a bearing quality hardened tip to prevent premature wear with high-lift cams.

AV&V's 3/8" stem valves also features a 45° angle below the lock groove to facilitate valve seal installation.

Each valve is heat treated with a special process and their stems centerless grinded to a micro finish for longer life.



HDO7					
Exhaust					
Head Dia.	Overall Length	Stem Dia.	Coating	Tip Length	Groove
1.750"	3.830"	.3764"	Black nitride	.200"	Single
Note					
<ul style="list-style-type: none"> • 25° back angle tulip • 3/8" stem 					



HD09					
Intake					
Head Dia.	Overall Length	Stem Dia.	Coating	Tip Length	Groove
1.955"	3.875"	.3770"	Black nitride	.200"	Single
Note					
<ul style="list-style-type: none"> • 20° back angle tulip • Shovel Head 1200 and 1340 • 3/8" stem 					

SHOVEL HEAD

- AV&V's Manganese bronze valve guides are CNC machined. Our alloy allows you to fit both intake and exhaust valves at tighter clearances for better heat dissipation, quieter running and longer engine life.
- Special Hi-temp. Viton O'rings are used to prevent oil infiltration between guide & head.
- Tapered & radiused nose for easier installation and better air flow.
- Unique Super Grip valve seal section : use either OEM style or viton seals.
- Unfinished I.D. ready to be easily finished with AV&V's Carbide reamers. (see reamers section)



O.D.	I.D.	Oversize	Overall Length	Intake & Exhaust
Stock replacement				
.6250"	.375"	Std	1.900"	VG5400
.6260"	.375"	.001"	1.900"	VG5401
.6270"	.375"	.002"	1.900"	VG5402
.6280"	.375"	.003"	1.900"	VG5403
.6290"	.375"	.004"	1.900"	VG5404
.6300"	.375"	.005"	1.900"	VG5405
.6310"	.375"	.006"	1.900"	VG5406
.6350"	.375"	.010"	1.900"	VG5410
.6400"	.375"	.015"	1.900"	VG5415
.6500"	.375"	.025"	1.900"	VG5425

- 1340 Shovel Head (1979-84)t



O.D.	I.D.	Oversize	Overall Length	Intake & Exhaust
Stock replacement				
.5660"	.375"	Std	1.900"	VG5300
.5670"	.375"	.001"	1.900"	VG5301
.5680"	.375"	.002"	1.900"	VG5302
.5690"	.375"	.003"	1.900"	VG5303
.5700"	.375"	.004"	1.900"	VG5304
.5710"	.375"	.005"	1.900"	VG5305
.5720"	.375"	.006"	1.900"	VG5306
.5740"	.375"	.008"	1.900"	VG5308
.5760"	.375"	.010"	1.900"	VG5310
.5810"	.375"	.015"	1.900"	VG5315
.5910"	.375"	.025"	1.900"	VG5325

- 1200 Shovel Heads (1948-79)

AV&V Universal Valve Guides (3/8 valves)

UVG375



O.D.	I.D.	Overall Length	Intake & Exhaust
Universal Repair guides			
.740"	.375"	2.700"	UVG375
<ul style="list-style-type: none"> • Manganese bronze alloy • Ready to be machined 			

AV&V Valve Seals



O.E. Style Seals		K375562
Description		
Stem Dia.	Seal section O.D.	<ul style="list-style-type: none"> • Shovel Head® (1948-1979)
.375"	.562"	
Note		
<ul style="list-style-type: none"> • O.E. Style metal clad seal 		

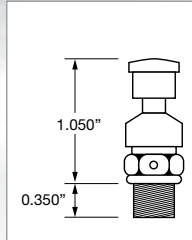


O.E. Style Seals		K375625
Description		
Stem Dia.	Seal section O.D.	<ul style="list-style-type: none"> • Shovel Head® (1980-1984)
.375"	.625"	
Note		
<ul style="list-style-type: none"> • O.E. Style metal clad seal 		

SHOVEL HEAD

- AV&V compression release valves are easier to install due to their short thread section. (# JCR10A & JCR10B). You don't need to machine the heads as deep as if you were using O.E.M. style CR'S
- O.E.M. style also available (# JCR10D)

- Ideal for stock replacement
- Also their high-temperature resistant knobs are charcoal colored for a better match with texture black or silver heads.

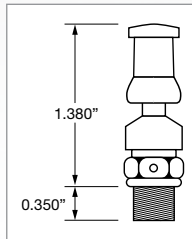


JCR 10A

Protrusion	Thread section	Thread
1.050"	.350"	M10x1

Note

- Mostly Evo's®
- Short protrusion
- Short thread section

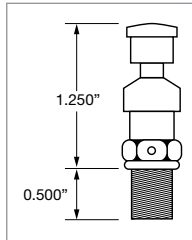


JCR 10B

Protrusion	Thread section	Thread
1.380"	.350"	M10x1

Note

- All mostly Twin Cams®
- Short protrusion
- Short thread section



JCR 10D

Protrusion	Thread section	Thread
1.250"	.500"	M10x1

Note

- O.E.M. Style
- Long protrusion
- Long thread section

AV&V High Performance Valve Spring kits



VSK470

- Manufactured from ultra clean high silicon & vanadium alloy wire.
- CNC machined tight fit locks.
- Light weight 1.375" chromoly top retainers; for better clearance inside rocker covers.



SPRINGS - S470-4

Max. Recommended Lift	Seat Pressure		Open Pressure (lbs@mm)
.470"	155lb @ 1.375"		300lb @ .980"
Coil Bind Height	O.D.	I.D.	Type
.850"	1.640"	1.010"	Double springs

RETAINER - R530-4

Alloy	Traitement	Notes
4140 Chromoly steel	Black Oxyde	Angle 15°

LOWER COLLAR - LSC530-4

Thickness	O.D.	I.D.	Alloy
.055" / .180"	1.495"	.755"	Heat treated steel

VALVE LOCKS - VL375-8

Tapper	Notes
Jumbo 15°	OE replacement and AV&V470, AV&V530, VSK590



VSK530

- Manufactured from ultra clean high silicon & vanadium alloy wire.
- CNC machined tight fit locks.
- Light weight 1.375" chromoly top retainers; for better clearance inside rocker covers.



SPRINGS - S530-4

Max. Recommended Lift	Seat Pressure		Open Pressure (lbs@mm)
.530"	155lb @ 1.455"		320b @ 0.980"
Coil Bind Height	O.D.	I.D.	Type
.980"	1.640"	.970"	Double springs

RETAINER - R530-4

Alloy	Traitement	Notes
4140 Chromoly steel	Black Oxyde	Angle 15°

LOWER COLLAR - LSC530-4

Thickness	O.D.	I.D.	Alloy
.055" / .180"	1.495"	.755"	Heat treated steel

VALVE LOCKS - VL375-8

Tapper	Notes
Jumbo 15°	OE replacement and AV&V470, AV&V530, VSK590



VSK590

- Manufactured from ultra clean high silicon & vanadium alloy wire.
- CNC machined tight fit locks.
- Light weight 1.375" chromoly top retainers; for better clearance inside rocker covers.



SPRINGS - S590-4

Max. Recommended Lift	Seat Pressure		Open Pressure (lbs@mm)
.625"	175lbs @ 1.455"		350lbs @ .980"
Coil Bind Height	O.D.	I.D.	Type
.850"	1.625"	.965"	Double springs

RETAINER - R530-4

Alloy	Traitement	Notes
4140 Chromoly steel	Black Oxyde	Angle 15°

LOWER COLLAR - LSC530-4

Thickness	O.D.	I.D.	Alloy
.055" / .180"	1.495"	.755"	Heat treated steel

VALVE LOCKS - VL375-8

Tapper	Notes
Jumbo 15°	OE replacement and AV&V470, AV&V530, VSK590

NOTE: These Pan/Shovel valve springs are not bolt-in items. Always make sure to check the minimum spring spacing and to keep a minimum of .060" before coil bind, at full lift.

Early 1948-1980 heads must be machined to accept AV&V's late style lower collars.

You may need to machine the spring seat with Goodson spring seat cutter #VSS-1680HD and/or use AV&V upper spring collar kit #R530-4 and/or machine the valve seats deeper to get the correct spring spacing.

For reference, on late style Shovel (1980-1984), with a 1.630" valve stem protrusion, the spring spacing is +/- 1.375".

*Curiosity is the
mother of creativity.*

AV&V™ is and always has been a pioneer when it comes to technological innovations for the Harley-Davidson® cylinder head components.

Systematic and advanced development are part of our mission to offer you the ultimate valve train components.

With more than 66 valve models, 17 valve guide models and 14 valve spring kits, **AV&V™** offers you the most complete line of high-performance valve train components in the industry.



High Performance Valvetrain Components Manufacturer



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