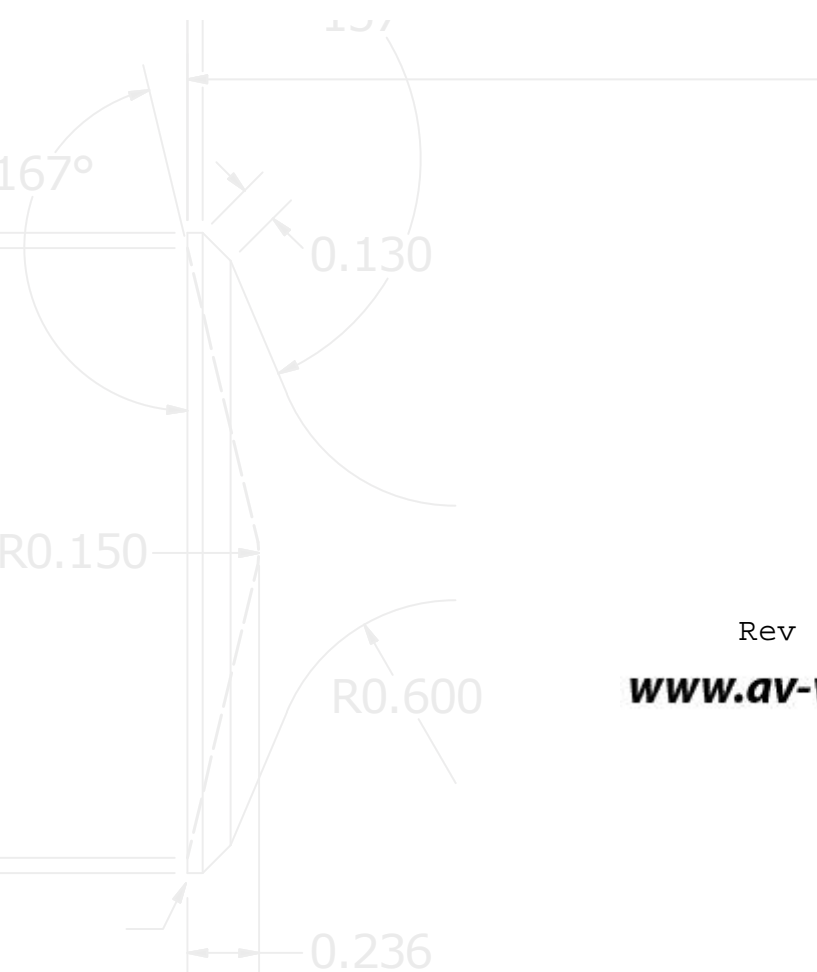


# 2012 Offroad Catalog



*-It always pays to buy the best-*



Rev 3

**[www.av-v.com](http://www.av-v.com)**

## AV&V Extreme Duty Valves for Off-Road Bikes and ATVs

These superb valves are one piece forged from a racing grade stainless steel alloy. Their profile has been optimized to reduce the weight and to maximize the airflow. This means AV&V's valves are lighter yet are as strong as other aftermarket valves.

Our liquid nitriding process creates a valve that is smoother and stronger than traditional O.E.M. or replacement valves.

The stems are centerless grinded to a micro finish for a longer life.

It is recommended to read the **Technical Info Section** about AV&V Extreme Duty High Flow Valves.



### IMPORTANT NOTE:

**If you are changing your OEM titanium valves for AV&V Extreme Duty Steel Valves, you must also upgrade your OEM springs for our Extreme Duty Valve Spring Kits due to the need for higher pressure and toughness. (See valves below with Δ)**

## CAN-AM

### DS 450 (2008-2009)

Part No.	Type	Stem Dia.	Head Dia.	Overall Length	Back Angle	Coating	Note
AV4001	Exhaust	5.97mm	31.00mm	3.565" (90.55mm )	20 Deg.	Chrome	Stock size
AV4002	Exhaust	5.98mm	32.00mm	3.565" (90.55mm)	20 Deg.	Chrome	+1.00mm oversize
AV4003	Intake	5.98mm	38.00mm	3.565" (90.55mm)	19 Deg.	Chrome	Stock size

## HONDA

### CRF 250R (2004-2007)

Part No.	Type	Stem Dia.	Head Dia.	Overall Length	Back Angle	Coating	Note
AV1001	Exhaust	4.97mm	26.00mm	3.234" (82.15mm)	20 Deg.	Black	Stock size
AV1002	Exhaust	4.97mm	27.00mm	3.234" (82.15mm)	20 Deg.	Black	+1.00mm oversize
AV1003Δ	Intake	4.98mm	31.00mm	3.279" (83.30mm)	19 Deg.	Black	Stock size
AV1004Δ	Intake	4.98mm	32.00mm	3.279" (83.30mm)	19 Deg.	Black	+1.00mm oversize

### CRF 250R (2008-2009)

Part No.	Type	Stem Dia.	Head Dia.	Overall Length	Back Angle	Coating	Note
AV1005	Exhaust	4.47mm	26.00mm	3.234" (82.15mm)	20 Deg.	Black	Stock size
AV1003Δ	Intake	4.98mm	31.00mm	3.279" (83.30mm)	19 Deg.	Black	Stock size

### CRF 450R (2002-2008)

Part No.	Type	Stem Dia.	Head Dia.	Overall Length	Back Angle	Coating	Note
AV1011	Exhaust	4.97mm	31.00mm	3.321" (84.35mm)	20 Deg.	Black	Stock size
AV1008Δ	Intake	5.48mm	36.00mm	3.327" (84.50mm)	19 Deg.	Black	Stock size
AV1009Δ	Intake	5.48mm	37.00mm	3.327" (84.50mm)	19 Deg.	Black	+1.00mm oversize

### CRF 450R (2009-2011)

Part No.	Type	Stem Dia.	Head Dia.	Overall Length	Back Angle	Coating	Note
AV1016	Exhaust	4.97mm	30.00mm	3.170" (80.52mm)	20 Deg.	Black	Stock size
AV1017	Exhaust	4.97mm	31.00mm	3.175" (80.64mm)	20 Deg.	Black	+1.00mm oversize
AV1014Δ	Intake	4.98mm	36.00mm	3.095" (78.61mm)	19 Deg.	Black	Stock size
AV1015Δ	Intake	4.98mm	37.00mm	3.100" (78.73mm)	19 Deg.	Black	+1.00mm oversize

## TRX 450R (2004-2005)

Part No.	Type	Stem Dia.	Head Dia.	Overall Length	Back Angle	Coating	Note
AV1012	Exhaust	5.47mm	30.00mm	3.317" (84.35mm)	20 Deg.	Black	Stock size
AV1013	Exhaust	5.47mm	31.00mm	3.325" (84.35mm)	20 Deg.	Black	+1.00mm oversize
AV1008Δ	Intake	5.48mm	36.00mm	3.327" (84.50mm)	19 Deg.	Black	Stock size
AV1009Δ	Intake	5.48mm	37.00mm	3.327" (84.50mm)	19 Deg.	Black	+1.00mm oversize

## TRX 450R (2006-2009)

Part No.	Type	Stem Dia.	Head Dia.	Overall Length	Back Angle	Coating	Note
AV1010	Exhaust	4.97mm	30.00mm	3.317" (84.35mm)	20 Deg.	Black	Stock size
AV1011	Exhaust	4.97mm	31.00mm	3.317" (84.35mm)	20 Deg.	Black	+1.00mm oversize
AV1008Δ	Intake	5.48mm	36.00mm	3.327" (84.50mm)	19 Deg.	Black	Stock size
AV1009Δ	Intake	5.48mm	37.00mm	3.327" (84.50mm)	19 Deg.	Black	+1.00mm oversize

# KAWASAKI

## KX 250F (2003-2011)

Part No.	Type	Stem Dia.	Head Dia.	Overall Length	Back Angle	Coating	Note
AV1101Δ	Exhaust	4.47mm	25.00mm	3.125" (79.51mm)	20 Deg.	Black	Stock size
AV1102Δ	Exhaust	4.47mm	26.00mm	3.125" (79.51mm)	20 Deg.	Black	+1.00mm oversize
AV1103Δ	Intake	4.48mm	31.00mm	3.115" (79.51mm)	19 Deg.	Black	Stock size
AV1104Δ	Intake	4.48mm	32.00mm	3.115" (79.51mm)	19 Deg.	Black	+1.00mm oversize

## KFX 650/700/750 (2005-2009)

### Prairie - Brute Force - Teryx

This intake valve will also work on these models:

- Polaris 650 (V-Twin Engines)
- Arctic Cat 650 (V-Twin Engines)

Part No.	Type	Stem Dia.	Head Dia.	Overall Length	Back Angle	Coating	Note
AV1111	Intake	4.98mm	30.00mm	3.600" (91.44mm)	19 Deg.	Black	Stock Size
AV1112	Intake	4.98mm	31.00mm	3.600" (91.44mm)	19 Deg.	Black	+ 1.00mm oversize

**IMPORTANT:** Those two valves must be used with AV&V upgraded springs, kit #VSK1116 or VSK1116-i (intake springs only)

\*\*Those two valves do not fit Prairie 650 (2002-2003) and Prairie 700 (2004) models\*\*

# SUZUKI

## RMZ 250 (2004-2006)

Part No.	Type	Stem Dia.	Head Dia.	Overall Length	Back Angle	Coating	Note
AV1101Δ	Exhaust	4.47mm	25.00mm	3.125" (79.51mm)	20 Deg.	Black	Stock size
AV1102Δ	Exhaust	4.47mm	26.00mm	3.125" (79.51mm)	20 Deg.	Black	+1.00mm oversize
AV1103Δ	Intake	4.48mm	31.00mm	3.115" (79.51mm)	19 Deg.	Black	Stock size
AV1104Δ	Intake	4.48mm	32.00mm	3.115" (79.51mm)	19 Deg.	Black	+1.00mm oversize

## RMZ 250 (2007-2010)

Part No.	Type	Stem Dia.	Head Dia.	Overall Length	Back Angle	Coating	Note
AV1201Δ	Exhaust	4.47mm	25.00mm	3.185" (80.90mm)	20 Deg.	Black	Stock size
AV1202Δ	Exhaust	4.47mm	26.00mm	3.190" (81.02mm)	20 Deg.	Black	+1.00mm oversize
AV1203Δ	Intake	4.48mm	31.00mm	3.175" (80.64mm)	19 Deg.	Black	Stock size
AV1204Δ	Intake	4.48mm	32.00mm	3.180" (80.76mm)	19 Deg.	Black	+1.00mm oversize

## LTR 450/450Z (2005-2007)

Part No.	Type	Stem Dia.	Head Dia.	Overall Length	Back Angle	Coating	Note
AV1205Δ	Exhaust	5.47mm	29.00mm	3.190" (81.03mm)	20 Deg.	Black	Stock size
AV1207Δ	Intake	5.48mm	36.00mm	3.225" (81.91mm)	19 Deg.	Black	Stock size
AV1208Δ	Intake	5.48mm	37.00mm	3.225" (81.91mm)	19 Deg.	Black	+1.00mm oversize

**YZ 450F (2010-2011)**

Part No.	Type	Stem Dia.	Head Dia.	Overall Length	Back Angle	Coating	Note
AV1307	Exhaust	5.47mm	30.00mm	3.290" (83.58mm)	20 Deg.	Black	Stock size
AV1308	Exhaust	5.47mm	31.00mm	3.290" (83.58mm)	20 Deg.	Black	+1.00mm oversize
AV1309	Intake	5.48mm	36.00mm	3.385" (85.98mm)	19 Deg.	Black	Stock size
AV1310	Intake	5.48mm	37.00mm	3.385" (85.98mm)	19 Deg.	Black	+1.00mm oversize

**YZ 450F & YZF 450/450R (2003-2009)**

Part No.	Type	Stem Dia.	Head Dia.	Overall Length	Back Angle	Coating	Note
AV1301	Exhaust	4.97mm	28.00mm	2.955" (75.05mm)	20 Deg.	Black	Stock size
AV1302	Exhaust	4.97mm	29.00mm	2.955" (75.05mm)	20 Deg.	Black	+1.00mm oversize
AV1303	Intake	4.48mm	27.00mm	3.039" (77.20mm)	19 Deg.	Black	Stock size (outer valve, 2 required)
AV1304	Intake	4.48mm	28.00mm	3.039" (77.20mm)	19 Deg.	Black	+1.00mm oversize (outer valve, 2 required)
AV1305	Intake	4.48mm	27.00mm	3.000" (76.20mm)	19 Deg.	Black	Stock size (center valve, 1 required)
AV1306	Intake	4.48mm	28.00mm	3.000" (76.20mm)	19 Deg.	Black	+1.00mm oversize (center valve, 1 required)

**Grizzly/Raptor 700 (2006-2009)\***

Part No.	Type	Stem Dia.	Head Dia.	Overall Length	Back Angle	Coating	Note
AV1312	Exhaust	5.97mm	32.00mm	3.825" (96.90mm)	20 Deg.	Chrome	Stock size
AV1313	Exhaust	5.97mm	33.00mm	3.825" (96.90mm)	20 Deg.	Chrome	+1.00mm oversize
AV1314	Exhaust	5.97mm	34.00mm	3.825" (96.90mm)	20 Deg.	Chrome	+2.00mm oversize
AV1315	Intake	5.98mm	38.00mm	4.067" (103.04mm)	19 Deg.	Chrome	Stock size
AV1316	Intake	5.98mm	39.00mm	4.067" (103.04mm)	19 Deg.	Chrome	+1.00mm oversize
AV1317	Intake	5.98mm	40.00mm	4.067" (103.04mm)	19 Deg.	Chrome	+2.00mm oversize

\*These Raptor/Grizzly valves are .040" longer to correct the rocker arms geometry.  
 The stock springs must be shimmed with AV&V shims to get back to the stock pressure. (part number VSS1310-20).  
 You must use AV&V spring kit # VSK1318 when using aftermarket camshafts with higher lift.

**Blank Valves (no tip, no groove) Lash cap required for rocker arm application**

Part No.	Type	Stem Dia.	Head Dia.	Overall length.	Back Angle	Coating	Note
AV022	Exhaust	4.47mm	25mm	5"	20 Deg	Black	-
AV008	Exhaust	4.47mm	26mm	5"	20 Deg	Black	-
AV015	Intake	4.48mm	27mm	5"	19 Deg	Black	-
AV019	Intake	4.48mm	28mm	5"	19 Deg	Black	-
AV001	Intake	4.48mm	31mm	5"	19 Deg	Black	-
AV002	Intake	4.48mm	32mm	5"	19 Deg	Black	-
AV010	Exhaust	4.97mm	27mm	5"	20 Deg	Black	-
AV009	Exhaust	4.97mm	28mm	5"	20 Deg	Black	-
AV018	Exhaust	4.97mm	29mm	5"	20 Deg	Black	-
AV004	Intake	4.98mm	29mm	5"	19 Deg	Black	-
AV003	Intake	4.98mm	31mm	5"	19 Deg	Black	-
AV017	Intake	4.98mm	32mm	5"	19 Deg	Black	-
AV021	Intake	4.98mm	36mm	5"	19 Deg	Black	-
AV011	Exhaust	5.47mm	29mm	5"	20 Deg	Black	-
AV020	Exhaust	5.47mm	31mm	5"	20 Deg	Black	-
AV005	Intake	5.48mm	36mm	5"	19 Deg	Black	-
AV006	Intake	5.48mm	37mm	5"	19 Deg	Black	-
AV012	Exhaust	5.97mm	32mm	4.300"	20 Deg	Chrome	-
AV013	Exhaust	5.97mm	35.4mm	4.300"	20 Deg	Chrome	-
AV007	Intake	5.98mm	38mm	5"	19 Deg	Chrome	-
AV014	Intake	5.98mm	40mm	4.300"	19 Deg	Chrome	-
AV016	Intake	5.98mm	41mm	4.300"	19Deg	Chrome	-

# AV&V Extreme Duty Manganese bronze valve guides for Off-Road Bikes and ATV's

- AV&V's Manganese bronze alloy allows you to fit the valve at a tighter clearance for better heat dissipation and longer life.
- Tapered & radiused nose for easier installation and better air flow seals.
- CNC machined
- Unfinished I.D. ready to be reamed with AV&V's exclusive reamers after installation (see reamers section for more details)



## CAN AM DS 450

**Exhaust & Intake**

Exhaust & Intake		
Part No.	Inner Dia.	Outer Dia.
VG1910-00	6mm	.4358"

## HONDA CRF 150R (2007-2008)

**Exhaust**

Exhaust		
Part No.	Inner Dia.	Outer Dia.
VG1021-00	4.5mm	.3564"

**Intake**

Intake		
Part No.	Inner Dia.	Outer Dia.
VG1020-00	4.5mm	.3564"

## HONDA CRF 250X (2004-2007)

**Exhaust**


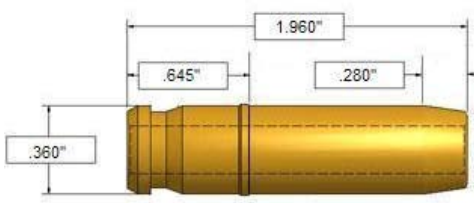
Exhaust		
Part No.	Inner Dia.	Outer Dia.
VG1025-00	5mm	.3962"

**Intake**

Intake		
Part No.	Inner Dia.	Outer Dia.
VG1024-00	5mm	.3962"

## HONDA TRX 400EX (1999-2007)


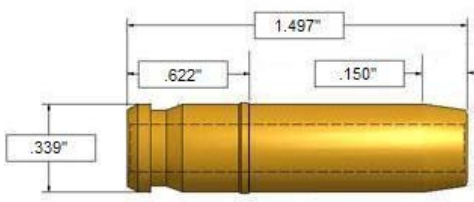
### Exhaust & Intake

Exhaust & Intake		
Part No.	Inner Dia.	Outer Dia.
VG1040-00	5.5mm	.4352" (STD)
VG1040-01	5.5mm	.4362" (+.001")


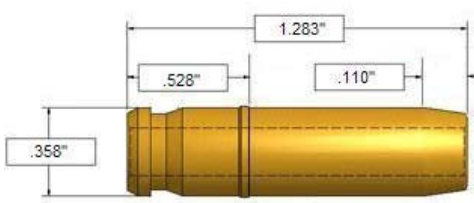
## HONDA CRF 450 (2002-2008) & Honda TRX 450R (2006-2009)

### Exhaust

Exhaust		
Part No.	Inner Dia.	Outer Dia.
VG1051-00	5mm	.4356"

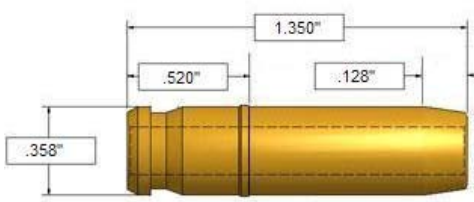
### Intake

Intake		
Part No.	Inner Dia.	Outer Dia.
VG1050-00	5.5mm	.4358"


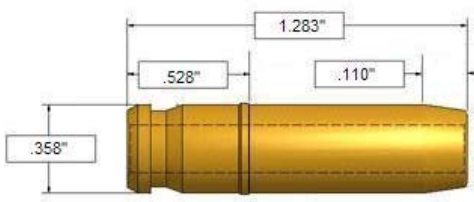
## HONDA TRX 450R (2004-2005)

### Exhaust

Exhaust		
Part No.	Inner Dia.	Outer Dia.
VG1055-00	5.5mm	.4356"


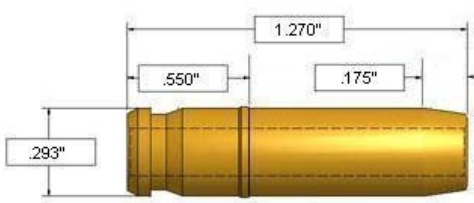
### Intake

Intake		
Part No.	Inner Dia.	Outer Dia.
VG1050-00	5.5mm	.4356"

## KAWASAKI KX 250F (2003-2009)


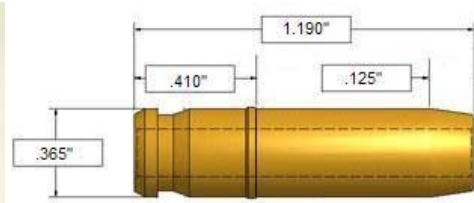
### Exhaust & Intake

Exhaust & Intake		
Part No.	Inner Dia.	Outer Dia.
VG1110-00	4.5mm	.3766"

## SUZUKI LTR 450/450Z (2006-2009)

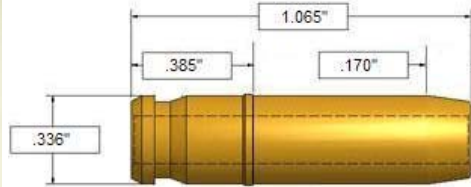
### Exhaust & Intake

Exhaust & Intake		
Part No.	Inner Dia.	Outer Dia.
VG1210-00	5.5mm	.4166"

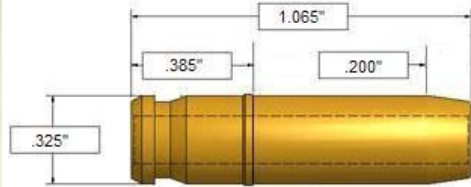
## YAMAHA YFZ 450R (2003-2009) 5-valves

### Exhaust



Exhaust		
Part No.	Inner Dia.	Outer Dia.
VG1311-00	5mm	.4356"

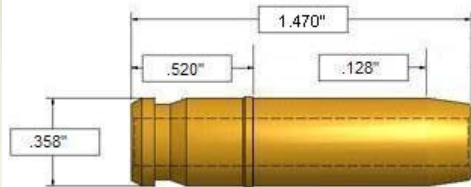
### Intake



Intake		
Part No.	Inner Dia.	Outer Dia.
VG1310-00	5.5mm	.4356"

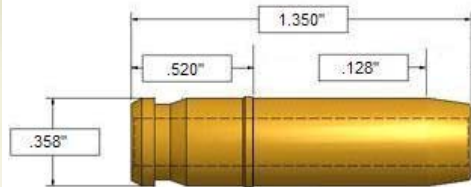
## YAMAHA YFZ 450R (2010-2011) 4-valves

### Exhaust



Exhaust		
Part No.	Inner Dia.	Outer Dia.
VG1315-00	5.5mm	.4356"

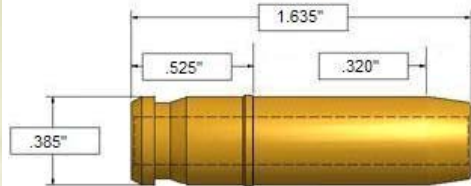
### Intake



Intake		
Part No.	Inner Dia.	Outer Dia.
VG1055-00	5.5mm	.4356"

## YAMAHA Grizzly/Raptor 700 (2006-2009)

### Exhaust & Intake



Exhaust & Intake		
Part No.	Inner Dia.	Outer Dia.
VG1330-00	6mm	.4550"

## Universal Repair Guides

- Ready to be machined on lathe as custom guide.
- Unfinished I.D. ready to be reamed with AV&Vs exclusive reamers
- Manganese bronze



O.D.	I.D.	Length	Intake & Exhaust
.620"	4.5mm	2.000"	UVG4.5MM
.620"	5.0mm	2.225"	UVG5MM
.620"	5.5mm	2.375"	UVG5.5MM
.620"	6.0mm	2.375"	UVG6MM
.740"	7.0mm	2.700"	UVG7MM

# AV&V Extreme Duty Valve Spring Kits



Manufactured from ultra clean high silicon Kobe alloy wire then micro shot peened and nitrided, these springs have been designed to be used with high performance cams and/or Steel conversion valves that replace Titanium valves.

When changing OEM titanium valves for AV&Vs Extreme Duty Stainless Steel Valves, you must also upgrade your springs for AV&Vs Extreme Duty Springs due to the need for higher pressure and toughness. **To order Intake Springs only, choose kits VSKXXXX-i.**

## CAN AM DS450 (2008-2010)

Spring model	Seat Pressure	Open pressure	coil bind	Retainers	Lower collars	O.D.	I.D.	Max Lift	Complete Kit for Steel valves VSK1410
In. / Ex.	45 @1.450"	195 @0.950"	0.880"	R1410	LSC51	1.105"	0.742"	.460" *	

This kit comes with AV&Vs exclusive hard anodized ALU-Ti top retainers. Use OEM valve keepers.

Valve shims available for the above. Part number VSS1310-20 OD: 1.090" ID: .460" Thickness: .020" (Package of 20 shims)

\*Max lift with OEM valve guides: .460" ----- Max lift with AV&V shorter valve guides: .500"

## HONDA CRF 250R/X (2004-2009)

Spring model	Seat pressure	Open pressure	coil bind	Retainers	Lower collars	O.D.	I.D.	Max Lift	Complete Kit for Steel valves VSK1006
Intake	38 @1.309"	116 @0.929"	0.870"	Use the stock units	use the stock units	0.760"	0.514"	.380"	Intake Only Kit for Steel valves VSK1006-i
Exhaust	43 @1.525"	168 @1.124"	1.045"	Use the stock units	use the stock units	0.780"	0.510"	.401"	

Valve shims available for the above. Part number VSS1010-20 OD: .740" ID: .440" Thickness: .020" (Package of 20 shims)

## HONDA CRF 450/TRX 450 (2002-2009)

Spring model	Seat Pressure	Open pressure	coil bind	Retainers	Lower collars	O.D.	I.D.	Max Lift	Complete Kit for Steel valves VSK1015*
Intake (For Steel Valves)	51 @1.337"	179 @0.902"	0.850"	Use the stock units	LSC1010	0.934"	0.650"	.435"	Intake Only Kit for Steel valves VSK1015-i*
Exhaust	52 @1.416"	179 @1.031"	0.960"	Use the stock units	LSC1010	0.934"	0.650"	.385"	

\*These kits come with lower collars included.

Valve shims available for the above. Part number VSS1015-20 OD: .930" ID: .478" Thickness .020" (Package of 20 shims)

Spring model	Seat Pressure	Open pressure	coil bind	Retainers	Lower collars	O.D.	I.D.	Max Lift	Complete Kit for Titanium valves VSK1015-T*
Intake (For titanium valves)	42 @1.337"	170 @0.902"	0.850"	Use the stock units	LSC1010	0.934"	0.650"	.435"	Complete Kit for Titanium valves VSK1015-T*
Exhaust	52 @1.416"	179 @1.031"	0.960"	Use the stock units	LSC1010	0.934"	0.650"	.385"	

\*These kits come with lower collars included.

Valve shims available for the above. Part number VSS1015-20 OD: .930" ID: .478" Thickness .020" (Package of 20 shims)

## KAWASAKI KX 250F (2004-2006)

Spring model	Seat Pressure	Open pressure	coil bind	Retainers	Lower collars	O.D.	I.D.	Max Lift	Complete Kit for Steel valves VSK1110
In. / Ex.	38 @1.317	130 @.920"	0.835"	Use the stock units	use the stock units	0.800"	0.560"	.397"	

## KAWASAKI KX 250F (2007-2010)

Spring model	Seat Pressure	Open pressure	coil bind	Retainers	Lower collars	O.D.	I.D.	Max Lift	Complete Kit for Steel valves VSK1111
<b>In. / Ex.</b>	38 @1.317"	130 @.920"	0.835"	R1150	LSC1150	0.800"	0.560"	.397"	

This kit comes with AV&Vs exclusive hard anodized ALU-Ti top retainers for the intake springs.

## KAWASAKI KFX 650/700/750 (2005-2009) Prairie - Brute Force - Teryx

Spring model	Seat Pressure	Open pressure	coil bind	Retainers	Lower collars	O.D.	I.D.	Max Lift	Complete Kit for Steel valves VSK1116
<b>In. / Ex.</b>	48 @1.364	145 @.990"	0.870"	Use the stock units	use the stock units	0.990"	0.690"	.444"	Intake Only Kit for Steel valves VSK1116-i

\*\*This spring kit does not fit Prairie 650 (2002-2003) and Prairie 700 (2004) models\*\*

## SUZUKI RMZ 250 (2004-2006)

Spring model	Seat Pressure	Open pressure	coil bind	Retainers	Lower collars	O.D.	I.D.	Max Lift	Complete Kit for Steel valves VSK1110
<b>In. / Ex.</b>	38 @1.317	130 @.920"	0.835"	Use the stock units	use the stock units	0.800"	0.560"	.397"	

## SUZUKI RMZ 450/LTR 450 (2006-2009)

Spring model	Seat Pressure	Open pressure	coil bind	Retainers	Lower collars	O.D.	I.D.	Max Lift	Complete Kit for Steel valves VSK1217
<b>Intake</b> <small>(For Steel Valves)</small>	44 @1.160"	141 @.760"	0.710"	Use the stock units	use the stock units	1.000"	0.730"	.400"	Complete Kit for Steel valves VSK1217
<b>Exhaust</b>	34 @1.160"	111 @.760"	0.705"	Use the stock units	use the stock units	0.910"	0.670"	.400"	

Intake valve shims available for the above. Part number VSS1210-20 OD: .942" ID: .460" Thickness: .020" (Package of 20 shims)

Exhaust valve shims available for the above. Part number VSS1211-20 OD: .862" ID: .460" Thickness .020" (Package of 20 shims)

Spring model	Seat Pressure	Open pressure	coil bind	Retainers	Lower collars	O.D.	I.D.	Max Lift	Complete kit for Titanium valves VSK1217-T
<b>Intake</b> <small>(For titanium valves)</small>	37 @1.160"	134 @.760"	0.710"	Use the stock units	use the stock units	1.000"	0.730"	.400"	Complete kit for Titanium valves VSK1217-T
<b>Exhaust</b>	34 @1.160"	111 @.760"	0.705"	Use the stock units	use the stock units	0.910"	0.670"	.400"	

Intake valve shims available for the above. Part number VSS1210-20 OD: .942" ID: .460" Thickness: .020" (Package of 20 shims)

Exhaust valve shims available for the above. Part number VSS1211-20 OD: .862" ID: .460" Thickness .020" (Package of 20 shims)

## YAMAHA YFZ 450 (2003-2009)

Spring model	Seat Pressure	Open pressure	coil bind	Retainers	Lower collars	O.D.	I.D.	Max Lift	Complete Kit for Steel valves VSK1317
<b>In. / Ex.</b> <small>(For steel valves)</small>	38 @1.060"	81 @0.680"	0.625"	Use the stock units	use the stock units	0.756"	0.560"	.380"	

Valve shims available for the above. Part number VSS1010-20 OD: .740" ID: .440" Thickness .020" (Package of 20 shims)

Spring model	Seat Pressure	Open pressure	coil bind	Retainers	Lower collars	O.D.	I.D.	Max Lift	Complete Kit for Titanium valves VSK1317-T
<b>In. / Ex.</b> <small>(For titanium valves)</small>	32 @1.060"	75 @0.680"	0.625"	Use the stock units	use the stock units	0.756"	0.560"	.380"	

Valve shims available for the above. Part number VSS1010-20 OD: .740" ID: .440" Thickness .020" (Package of 20 shims)

## YAMAHA RAPTOR/GRIZZLY 700 (2006-2009)

Spring model	Seat Pressure	Open pressure	coil bind	Retainers	Lower collars	O.D.	I.D.	Max Lift	Complete Kit for Steel valves VSK1318
<b>In. / Ex.</b>	45 @1.450"	195 @0.950"	0.880"	R1318	LSC51	1.105"	0.742"	.460" *	

This kit comes with AV&Vs exclusive hard anodized ALU-Ti top retainers and Jumbo valve keepers.

Valve shims available for the above. Part number VSS1310-20 OD: 1.090" ID: .460" Thickness: .020" (Package of 20 shims)

\*Max lift with AV&V Valves is .500", otherwise it is .460" with stock valves.

## Valve Seat Inserts

AV&V valve seats are made from a highly alloyed material and feature the following :

- Easy to machine with cutter and stone
- Resists severe pounding and dissipates heat better
- Work-hardens during running-in
- Radiused for easier installation
- Custom repair valve seats ready to be machined on lathe before installation.



### Oversize Valve Seats (Machining required)

For all cylinder head models

O.D.	I.D.	Thickness	Note	Part No.
28mm	20mm	8mm (.315")	-	VS14
29mm	21mm	8.5mm (.335")	-	VS18
30mm	22mm	8.5mm (.335")	-	VS22
31mm	23mm	8.5mm (.335")	-	VS26
1.255"	.750"	.437"	-	VS30
32mm	24mm	8.5mm (.335")	-	VS34
33mm	25mm	8.5mm (.335")	-	VS38
34mm	26mm	8.5mm (.335")	-	VS42
1.381"	.875"	.437"	-	VS46
1.505"	1.060"	.375"	-	VS50
1.630"	1.180"	.385"	-	VS54
1.692"	1.315"	.375"	-	VS58

## AV&V's Solid Carbide Valve Guide Reamers

For Manganese bronze only; Do not use with cast iron guides

**Tired of loosing your time honing and fitting valve guides?**

**Here is why AV&V reamers are now used by the top cylinder head shops in the industry**

- Specially designed by AV&V for use with manganese bronze material, these unique reamers feature a unique design and a longer pilot for a perfect alignment with the valve guide while reaming.
- You will ream a valve guide to exact dimension without any taper in 4 to 5 seconds only.
- Guides will last longer than with the honing method because there is no crosshatch left after reaming.

	<b>Diameter</b>	<b>Application</b>	<b>Part No.</b>
	4.0MM	4.0MM guides	VGRC4MM
	4.5MM	4.5MM guides	VGRC4.5MM
	5.0MM	5.0MM guides	VGRC5MM
	5.5MM	5.5MM guides	VGRC5.5MM
	6.0MM	6.0MM guides	VGRC6MM
	7.0MM	7.0MM guides	VGRC7MM
	8.0MM	8.0MM guides	VGRC8MM
	9.0MM	9.0MM guides	VGRC9MM

Made from a special Viton compound, these seals can resist higher temperatures than regular viton seals.  
Use with AV&V "Valve seal drivers" for better efficiency.



**CAN AM**

Application	Qty per package	Part No.
DS 450 (08')	2 intake, 2 exhaust	V4050

**HONDA**

Application	Qty per package	Part No.
CRF 150R (07'-08')	2 intake, 2 exhaust	V1050
CRF 250R (04'-07')	2 intake, 2 exhaust	V1055
TRX400EX (99'-07')	2 intake, 2 exhaust	V1060
CRF 450R (02'-08')	2 intake, 2 exhaust	V1065
TRX 450R (06'-09')	2 intake, 2 exhaust	V1070
TRX 450R (04'-05')	2 intake, 2 exhaust	V1075
CRF 450R (09'-11')	2 intake, 2 exhaust	V1075

**KAWASAKI**

Application	Qty per package	Part No.
KX 250F (03'-09')	2 intake, 2 exhaust	V1155

**SUZUKI**

Application	Qty per package	Part No.
LTR 450 Intake (06'-09')	2 intake, 2 exhaust	V1250

**YAMAHA**

Application	Qty per package	Part No.
YFZ 450 Intake (03'-09')	3 intake, 2 exhaust	V1350

AV&V's valve seal drivers are CNC made from aluminium alloy in our own factory to provide a perfect fit with the seals we use.

Installation of the seals on the guide is made easier and they are installed perfectly square for a tight and sealing fit.



Application	Part No.
4.5mm Valve stems	VSD4.5MM
5mm Valve stems	VSD5MM
5.5mm Valve stems	VSD5.5MM
6mm Valve stems	VSD6MM