

ABRASIVE METERING AND AIR VALVES

Abrasive Metering Valves

Description	Stock No.
FSV	02427
LMV for Soft King & Pool Pal	99555
LPV for Lo-Pot	05680
MPV Pinch valve, manual ..	04321
MSV for 1028 and 1042 machines.....	01247
PVR grit	04319
Quantum	
AQV auto grit, 1-1/4"	24447
AQV H auto grit, 1-1/4" ..	27525
AQV auto grit, 1-1/2"	25281
MQV manual grit	22845

Description	Stock No.
Sentinel	
with ACS	20508
without ACS	20608
fine-mesh without ACS ..	21439

Air Valves for Pressure-Hold Remotes

ACE air valve, 1-1/4" with fitting	24044
(see drawing in Remote Controls section)	
ACE air valve, 1-1/2" with fitting	25289

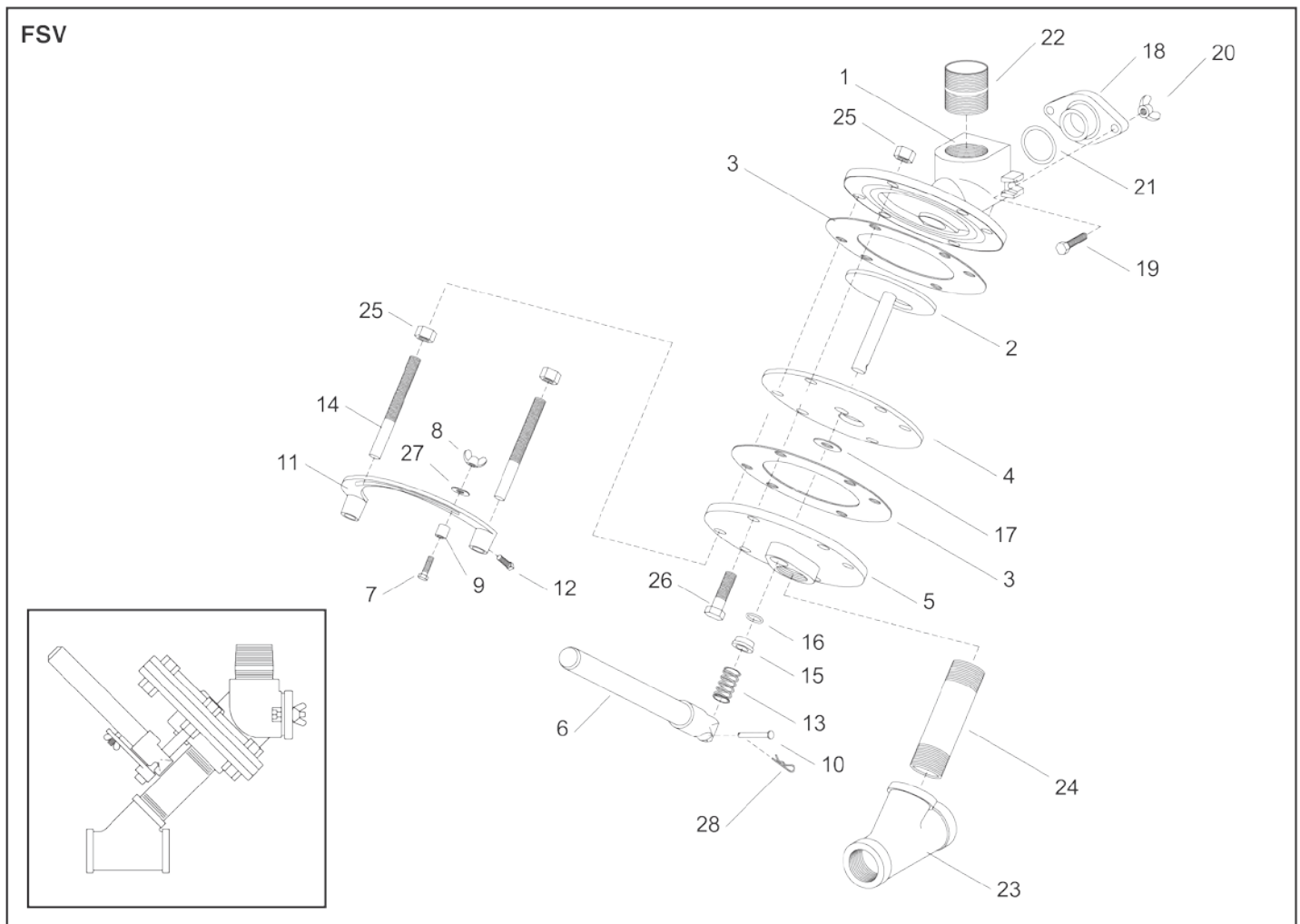
CLEMCO ABRASIVE METERING VALVES Application Guide

Model/Description	For use with:	Stock No.	Manual or Pneumatic	Remote Control Type	Applications (abrasives/media)	Alternate Use
FSV Flat Sand Valve	Classic blast machine 2 cuft and larger	02427	Manual	Pressure Release	Use with expendable mineral & slag abrasives; plastic media, metallic media not recommended.	
MQV Manual Quantum Valve	Contractor & Classic machines	22845	Manual	Pressure Release	Use with all common abrasives; mineral, slag, or metallic .	
AQV Auto Quantum Valve	All blast machines with pressure-hold remotes or ACS. Job order blast machines (except Aerolyte)	24447	Pneumatic	Pressure-hold and Abrasive cut-off sys.	Use with most media; requires pressures above 80 psi. Not recommended for lightweight media.	
AQV-H Auto Quantum Valve Heavy-duty	All blast machines with pressure-hold remotes or ACS. Job order blast machines (except Aerolyte)	27525	Pneumatic	Pressure-hold and Abrasive cut-off sys.	Use with most media; requires pressures above 80 psi. Use for high production applications. Not recommended for lightweight media.	
LMV Valve	Soft King and Pool Pal machines	99555	Manual	Pressure Release	Use with baking soda, fine-mesh alumina silicate, kieserite, glass bead agricultural media or similar. Valve has 1/2" NPT connection.	
LPV Lo-Pot Valve	Lo-Pot machines	05680	Manual	Pressure Release	Use with expendable mineral and slag abrasives.	
MPV Pinch Tube Valve	Not standard on any machine	04321	Manual	Pressure Release	Use with coarse steel grit (G-25 & larger) and #10 and larger nozzles.	2 cuft and larger Classic machines
MSV Valve	0.5 & 1 cuft Classic machines	01247	Manual	Pressure Release	Use with expendable mineral and slag abrasives. Not recommended for use with fine mesh or glass.	Machines with 1/2" piping
Sentinel Valve	Blast machines with pressure release remotes or ACS; industrial blast machines	20508	Pneumatic	Pressure Release	ACS applications; all media. Use with abrasives coarser than 50 mesh; requires 50 to 70 psi to fully open plunger.	2 cuft and larger Classic machines
Sentinel Valve without ACS	Blast machines with pressure release remotes; industrial blast machines	20608	Pneumatic	Pressure Release	All media. Use with abrasives coarser than 50 mesh. Requires 50 to 70 psi to fully open plunger.	2 cuft and larger Classic machines
Sentinel Valve fine mesh	Pressure cabinets and Super Comet	21439	Pneumatic	Pressure Release and ACS	Only for abrasives 50 mesh or finer. Features a urethane covered metering plate.	

FSV ABRASIVE METERING VALVE

Description	Stock No.
(-) FSV metering valve, complete	.....02427
1. Upper body	.....02422
2. Valve	.....02423
3. Gasket, rubber, 2 required	.....02424
4. Disc-stainless	.....02425
5. Lower body	.....02426
6. Metering handle, heavy duty	.....20498
7. Cap screw, 1/4-NC x 1-1/4" hex head	....03054
8. Wing nut, 1/4-NC	.....03113
9. Handle bolt spacer	.....02431
10. Valve handle pin	.....20246
11. Gauge unit	.....02433
12. Set screw, 1/4-NC x 1/2" square head	..03080
13. Spring, compression	.....01982

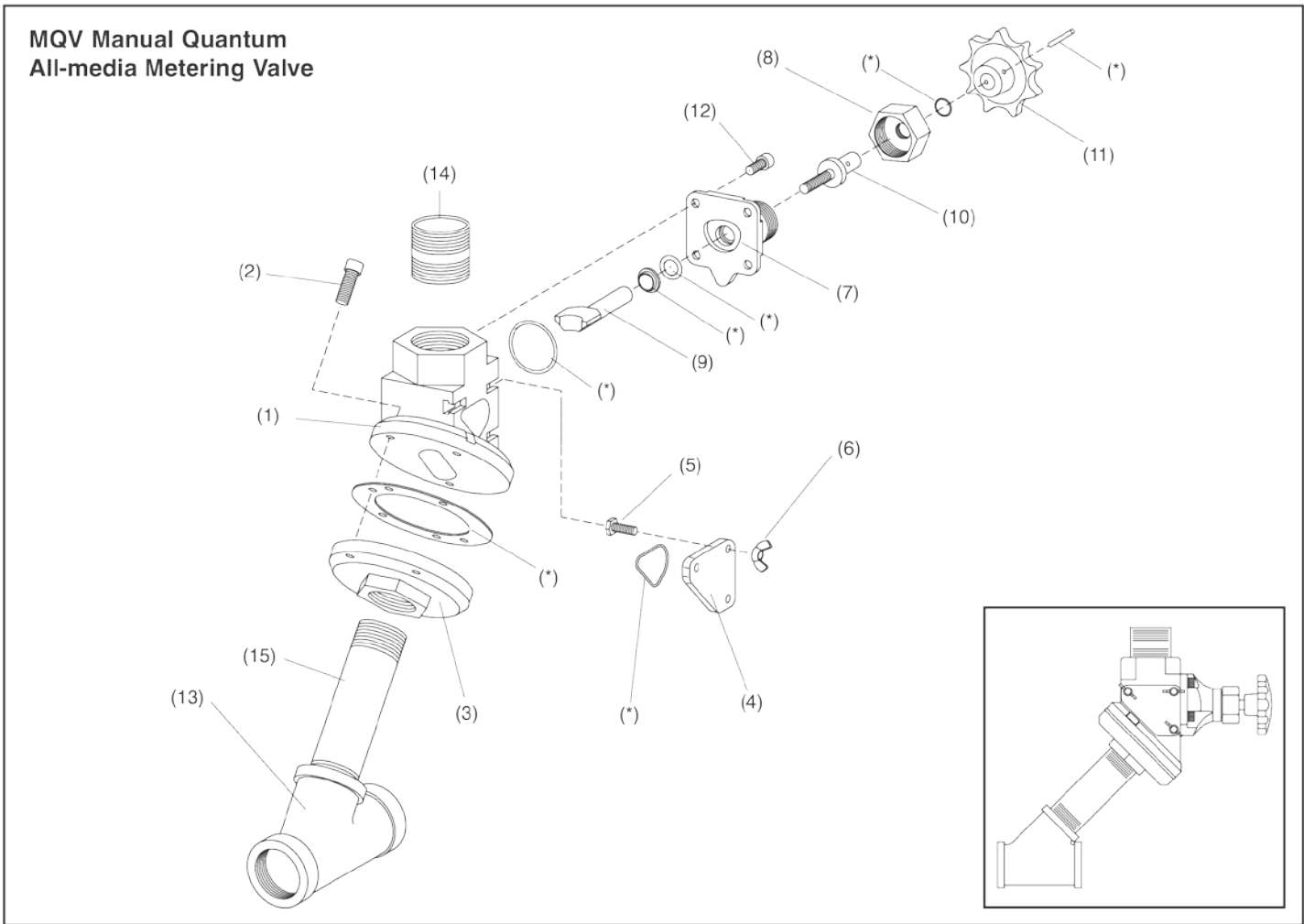
Description	Stock No.
14. Stud	.....02436
15. Packing gland	.....02437
16. O-ring, 7/8" OD	.....21165
17. Gasket, shaft	.....02439
18. Inspection plate	.....02440
19. Cap screw 5/16-NC x 1" hex head	.....03152
20. Wing nut, 5/16-NC	.....03213
21. O-ring	.....01990
22. Nipple, 1-1/2" x close	....01791
23. Wye, standard 1-1/4"	....01818
24. Nipple, 1-1/4" x 5"	.....01721
25. Nut, 1/2-NC hex	.....03511
26. Cap screw, 1/2-NC x 1-3/4" hex head	....03455
27. Washer, 1/4" flat	.....03116
28. Hitch pin	.....20245



METERING VALVES

OM 22565

MQV MANUAL QUANTUM ALL-MEDIA METERING VALVE



Description	Stock No.
(-) MQV manual Quantum metering valve complete	22845
(*) Service Kit Quantum Metering segment	22854
(see * on drawing)	
1. Adaptor flange w/insert	21314
2. Screw, 3/8-NC x 1" socket head	22655
3. Lower body	22621
4. Inspection plate	22620
5. Screw, 1/4-NC x 3/4" hex head cap,	03052
6. Wing nut, 1/4-NC	03113

Description	Stock No.
7. Housing, knob	22761
8. Nut, knob housing	22762
9. Metering plate and shaft	22763
10. Metering screw	22764
11. Knob, adjustment	22766
12. Screw, 5/16-NC x 3/4" socket head	22767
13. Wye, 1-1/4"	01818
14. Nipple, 1-1/2" x 2"	01840
15. Nipple, 1-1/4" x 5-1/2"	01874
(-) Conversion kit: Quantum rack & pinion to knob	22841

METERING VALVES



AQV AUTO QUANTUM ALL MEDIA METERING VALVE

OM 22565

Description	Stock No.
(-) AQV - Auto Quantum grit valve with metering assembly and installation fittings includes 01718, 01791, 01818, 01993, and 02513 ....24447	
1. Cover, cylinder	21317
2. Stop, piston	21323
3. Piston, rubber piston-cup w/bushing	21329
4. Body	21349
5. Plunger, for grit valve	21326
6. Wear sleeve	21342
7. *Seat, urethane	21344
8. *Gasket, flange	21322
9. Flange, thrd outlet	21319
10. *Felt disc.	22820
11. Screw, 3/8-NC x 1" socket head	22655
12. Screw, 5/16-NC x 1-3/4" socket head	21321
13. Screw, 5/16-NC x 1" socket head	21318
14. Spring	20600

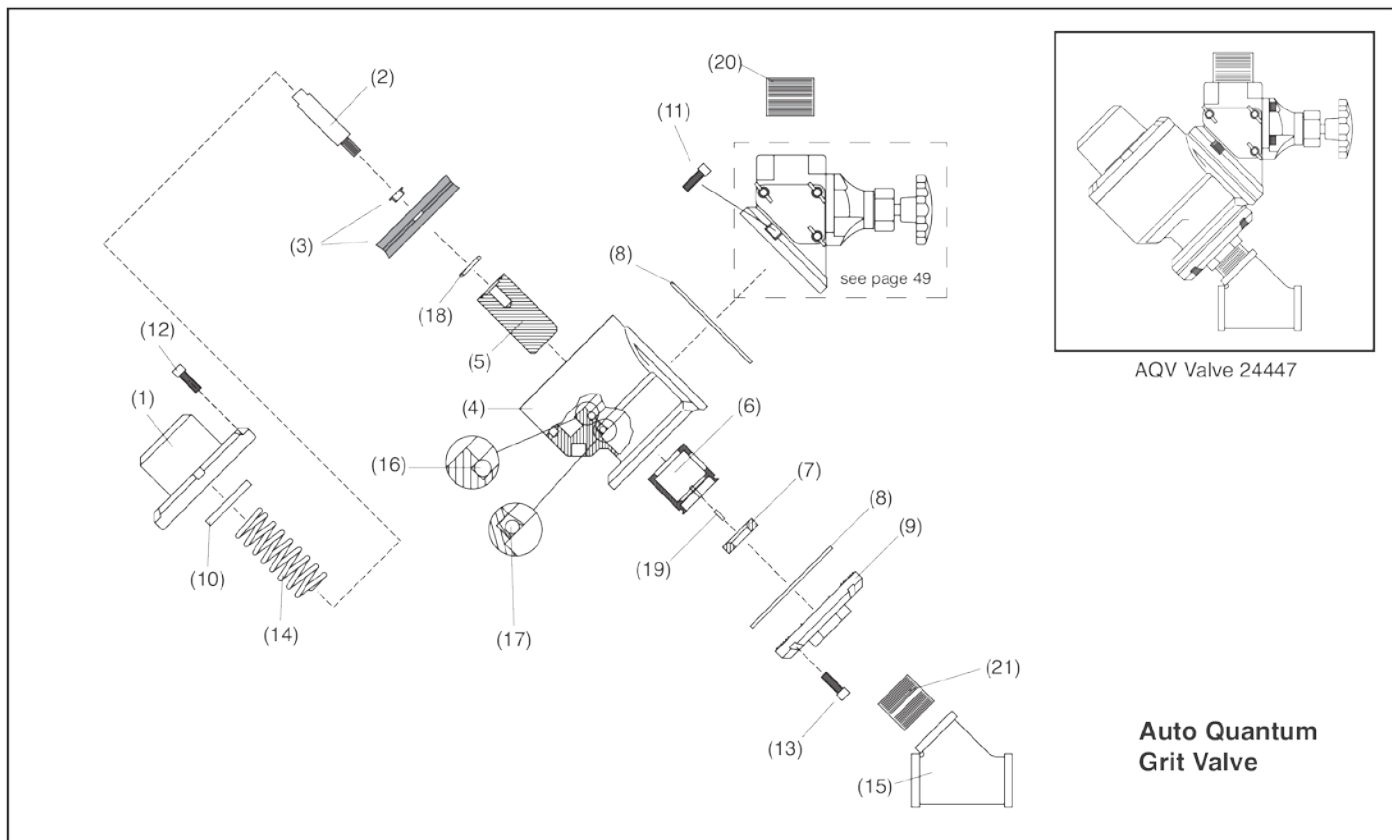
Description	Stock No.
15. Wye, 1-1/4"	01818
16. *O-ring, 1-1/2" ID	20267
17. *Wiper, plunger	20268
18. *O-ring, 3-1/64" ID	22609
19. *Roll pin, 1/8" x 1/2"	21164
20. Nipple, 1-1/2" x close	01791
21. Nipple, 1-1/4" x 2"	01718

Note: following parts not needed with new flange (21319)

(-) Quantum valve actuator
service kit.....24446
(see page 51 for contents of service kit)

(-) *U-seal, 3-1/2" ID
(used w/ alum piston)22606

Note: Rubber piston cup with bushing (21329) replaces aluminum piston (21329) with u-seal. U-seal (22606) is still available.



**Auto Quantum
Grit Valve**

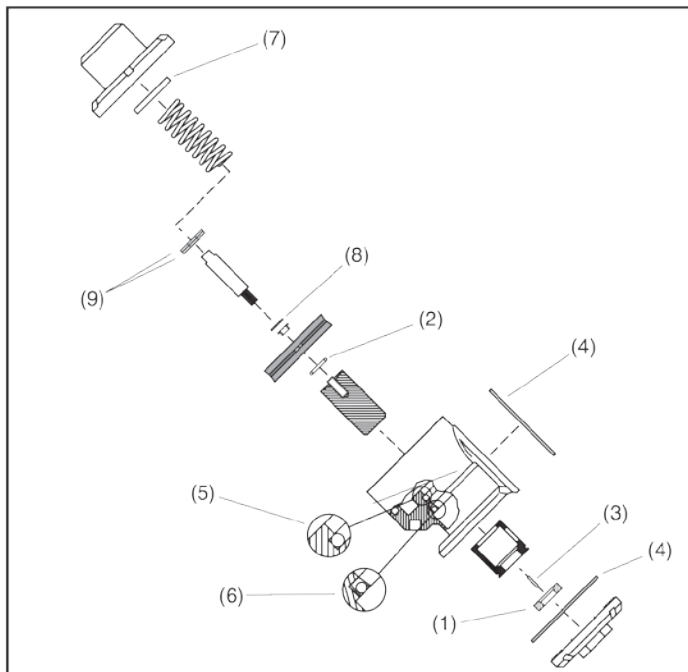
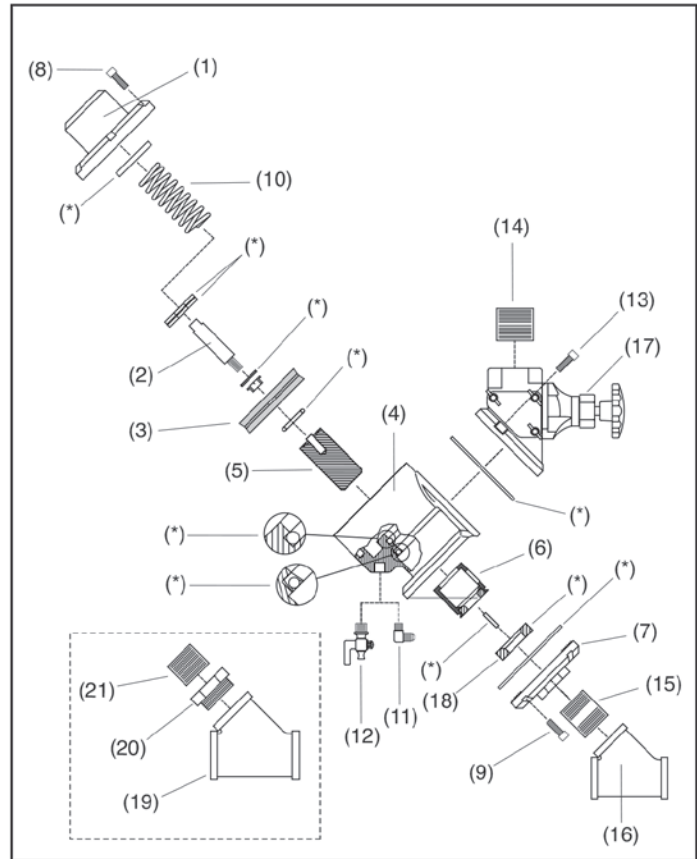
AQV-H AUTO QUANTUM ABRASIVE METERING VALVE

AQV-H Auto Quantum Actuator

Description	Stock No.
(-) AQV-H valve	
w/fittings	27525
without fittings	27520
(-) Actuator assembly	27620
(*) Service kit, Quantum actuator	24446
(-) Conversion kit, AQV to AQV-H	27621
1. Cover, cylinder	21317
2. Stop, piston	21323
3. Piston cup, AQV-H	20515
4. Valve body, actuator	21349
5. Plunger	27523
6. Wear sleeve, urethane	27521
7. Flange, threaded outlet w/retaining ridge	21319
8. Screw, 5/16-NC x 1-3/4" socket head	21321
9. Screw, 5/16-NC x 1" socket head	21318
10. Spring, 4"	27524
11. Adaptor, 1/4" NPT elbow	02513
12. Petcock, 1/4" NPT	01993
13. Screw, 3/8-NC x 1" socket head	22655
14. Nipple, 1-1/2" x close, schedule 80	01791
15. Nipple, 1-1/4" x 2"	01718
16. Wye, 1-1/4" NPT	01818
17. Metering assembly	24587
18. Seat, urethane AQV	21344

Description Stock No.

19. Wye, 1-1/2" NPT	01819
20. Bushing, 1-1/2" NPT x 1-1/4" NPT	01805
21. Nipple, 1-1/4" x close HD	01854



Quantum Actuator Assembly, Service Kit 24446

Item	Description	Stock No.	AQV	AQV-H
1.	Seat, urethane 1ea.	21344	x	
2.	O-ring, AQV 1 ea.	22623	x	
3.	Roll pin, 1 ea.	21164	x	
4.	Flange gasket 2 ea.	21322	x	xx
5.	O-ring, 1-1/2" ID 1 ea.	20267	x	xx
6.	Wiper plunger 1 ea.	20268	x	xx
7.	Felt disc 1 ea.	22820	x	xx
8.	Washer, neoprene back 1 ea.	20196		xx
9.	Washer, 3/4" flat 2 ea.	03815		xx
(-)	O-ring, 3-1/64" ID MLNM/AQV	22609		
	(Used with obsolete retaining ring)			
(-)	U-seal, 3-1/2" ID	22606		
	(Used only with obsolete aluminum piston)			

SENTINEL METERING VALVE

OM 20951

Description Stock No.

For abrasives coarser than 50 mesh:

- (-) Sentinel valve with attached ACS20508
- (-) Sentinel valve without attached ACS20608

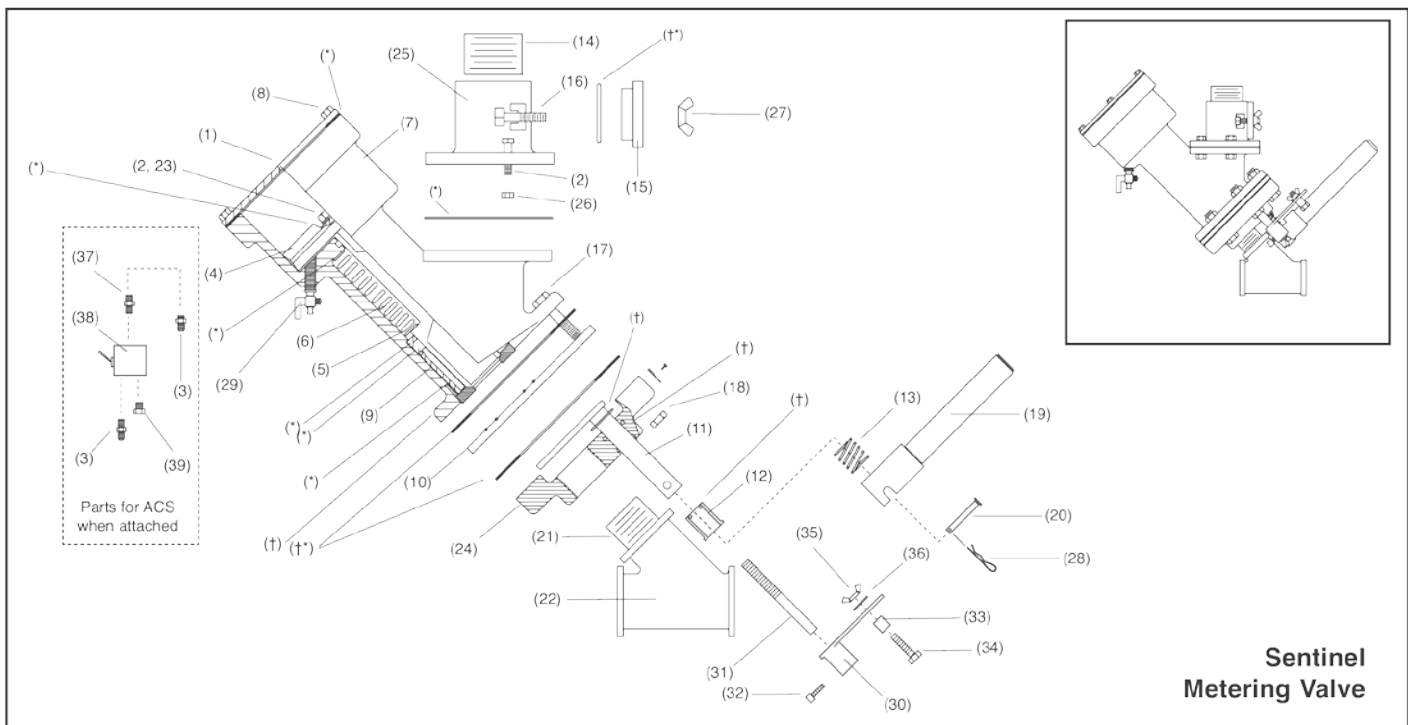
For abrasives 50 mesh or finer:

- (-) Sentinel valve without ACS21439
- 1. Cylinder cap20512
- 2. Cap screw, 3/8-NC x 1-1/2" 03269
- 3. Adaptor, 1/8" NPS01940
- 4. Rubber piston-cup20515
- 5. Piston, shut-off20494
- 6. Spring, 2" OD x 4-1/2"20600
- 7. Upper body20514
- 8. Cap screw, 5/16-NC x 3/4"03151
- 9. Wear sleeve20495
- 10. Seat plate20497
- 11. Metering plate & stem
 - coarse abrasive20499
 - fine abrasive21438
- 12. Packing gland21021
- 13. Spring, 5/8" ID x 1-11/16"....01982
- 14. Close nipple, 1-1/2"01791
- 15. Inspection plate02440
- 16. Cap screw, 5/16-NC19509
- 17. Cap screw 1/2-NC03457

Description Stock No.

- 18. Nut, 1/2-NC hex head.....03511
- 19. Handle, metering20498
- 20. Pin, valve handle20246
- 21. Close nipple, 1-1/4"01717
- 22. Wye, 1-1/4" standard01818
- 23. Washer, 5/16 flat.....03216
- 24. Lower body20511
- 25. Flanged adaptor w/ inspection opening20513
- 26. Nut, 3/8-NC hex head.....03311
- 27. Nut, 5/16-NC wing03213
- 28. Hitch pin20245
- 29. Petcock.....01993
- 30. Gauge unit02433
- 31. Stud, gauge unit02436
- 32. Set screw, 1/4-NC,03080
- 33. Spacer, handle bolt.....02431
- 34. Cap screw, 1/4-NC x 1-1/4" ..03054
- 35. Nut, 1/4-NC wing03113
- 36. Washer, 1/4 flat.....03116
- 37. Connector, 1/8 brass01962
- 38. Valve, 3-way, ACS07658
- 39. Breather muffler07657

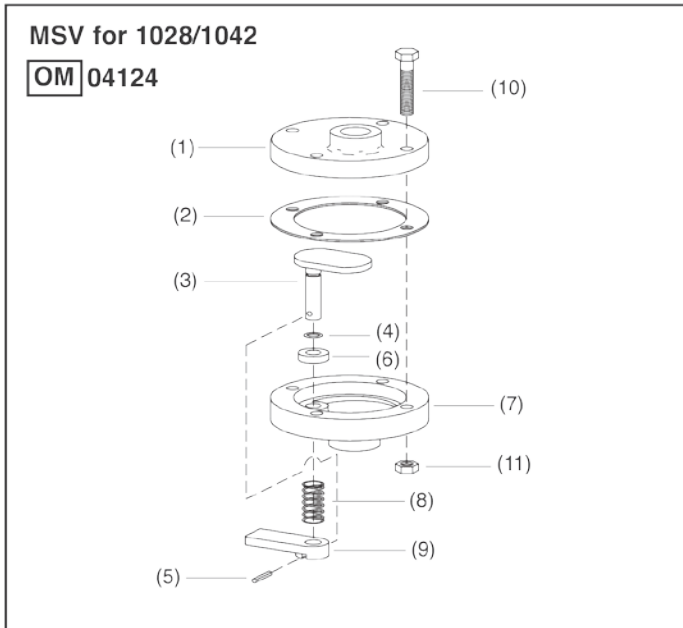
- (*) Upper service kit.....22388
- (†) Lower service kit.....22389



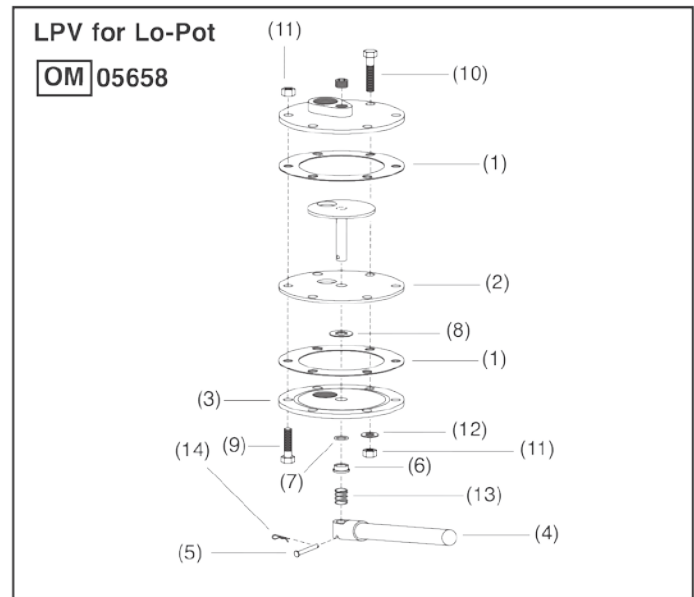
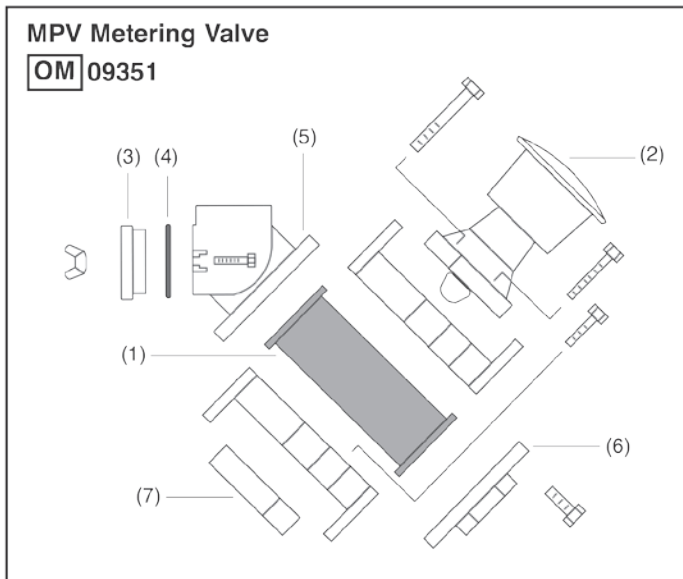
Sentinel Metering Valve

METERING VALVES

OTHER MANUAL ABRASIVE METERING VALVES



- | Description | Stock No. |
|--|-----------|
| (-) MSV Metering Valve .....01247 | |
| 1. MSV top casting .....01258 | |
| 2. Gasket, valve body .....01260 | |
| 3. Metering plate & stem ....01261 | |
| 4. O-ring .....00794 | |
| 5. Pin, spring .....01263 | |
| 6. Washer, nylon .....01266 | |
| 7. MSV bottom casting .....01259 | |
| 8. Spring, 17/32" OD X 1"....02178 | |
| 9. MSV Handle.....01262 | |
| 10. Cap screw,
5/16-NC x 1-3/4"purchase locally | |
| 11. Nut, 5/16-NC hex....purchase locally | |



- | Description | Stock No. |
|---|-----------|
| (-) LPV Metering Valve .....05680 | |
| 1. Rubber gasket,
2 required02424 | |
| 2. Disc, stainless.....02425 | |
| 3. Lower body .....02426 | |
| 4. Handle, abr mtrg, hvy dty .20498 | |
| 5. Pin, clevis 1/4 x 1-3/8" ....20246 | |
| 6. Packing gland .....02437 | |
| 7. O-ring, 7/8" OD x 5/8" ID...21165 | |
| 8. Gasket, shaft abr valve...02439 | |
| 9. Screw, 1/2" x 1-3/4",
hex head, 4 required03455 | |
| 10. Screw, 1/2" x 2-1/2",
hex head, 2 required03457 | |
| 11. Nut, 1/2" hex, 6 required....03511 | |
| 12. Washer, 1/2" SAE flat,
2 required.....03515 | |
| 13. Spring.....05633 | |
| 14. Pin, hitch, cotter,
1/4"-5/16"20245 | |

- | Description | Stock No. |
|--|-----------|
| (-) MPV Metering Valve .....04321 | |
| (-) Wye, 1-1/4" pipe .....01818 | |
| 1. Tube, pinch valve.....04635 | |
| 2. Metering knob assem. ....05072 | |
| 3. Inspection plate.....02440 | |
| 4. O-ring, 1-3/4" OD.....01990 | |
| 5. 45° adaptor flange .....05672 | |
| 6. Flange adaptor.....05673 | |
| 7. Cover plate .....05674 | |

