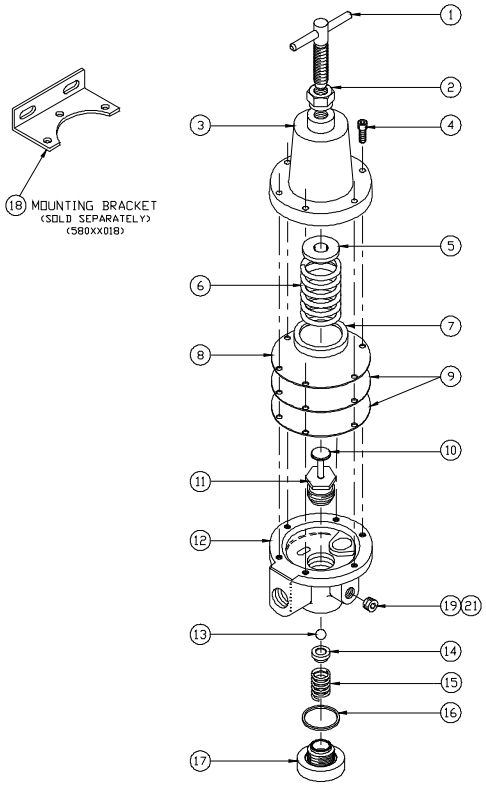
Glue Regulator Parts

Glue Regulator Assemblies

Part Number	Description
593xx036	Glue Regulator, Low Pressure (0-100 psi/1-8 bar)
593xx039	Glue Regulator, High Pressure (0-160 psi/1-12 bar)
593xx038	Regulator Repair Kit, Model 832
593xx120	Regulator with gauge and protector
593xx105	Regulator with Shock Arrestor
593xx104	Shock Arrestor
786xx043	Gauge and protector, 0-100 psi/1-8 bar
786xx044	Gauge & protector, 0-160 psi/1-12 bar
786xx004	Gauge, 0-100 psi/1-8 bar
786xx005	Gauge, 0-160 psi/1-12 bar
786xx020	Diaphragm kit (gauge protector)



Glue Regulator Parts

Item Number	Part Number	Description
1	593xx042	"T" Handle
2	593xx043	Locknut
3	593xx044	Regulator Housing – Top
4	798xx928	Screw, 12-24 x ¾
5	593xx045	Disc
6	593xx046 593xx061	Spring, 0-100 psi/1-8 bar (593xx036 assembly) Spring, 0-160 psi/1-12 bar (593xx039 assembly)
7	593xx047	Spring support
8	593xx048	Diaphragm (black)
9	593xx049	Diaphragm protector (white)
10	593xx050	Activator pin
11	593xx130	Ball seat
12	593xx052	Regulator Housing – Bottom
13	593xx053	Ball (ceramic)
14	593xx054	Ball support
15	593xx055	Spring
16	745xx080	O-ring
17	593xx057	Bottom plug
18	580xx018	Mounting Bracket (option)
19	799xx039	Socket Head Pipe Plug

Maintaining Fluid Regulators

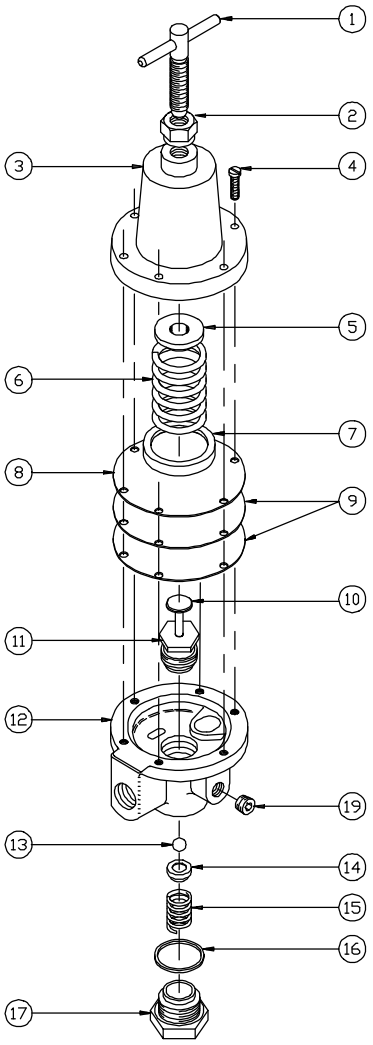
Disassembly

To inspect or repair the fluid regulator, follow these steps:

1. Reduce pressure in inlet and outlet lines to zero.
2. Turn the “T” handle (1) counterclockwise until all of the load is removed from the spring (6).

Note! The regulator can be disassembled without being removed from the glue line.

3. Remove the bonnet screws (4), bonnet (3), upper spring rest (5), spring (6), lower spring rest (7), diaphragm (8), and diaphragm protector (9).
4. Lift out the valve pin (10) and unscrew the valve seat (11), using a 7/8" socket wrench (older version regulators or a 24mm socket wrench (newer regulators).v
5. Remove the bottom plug (17), gasket (16), spring (15), ball seat (14), and ball valve (13).



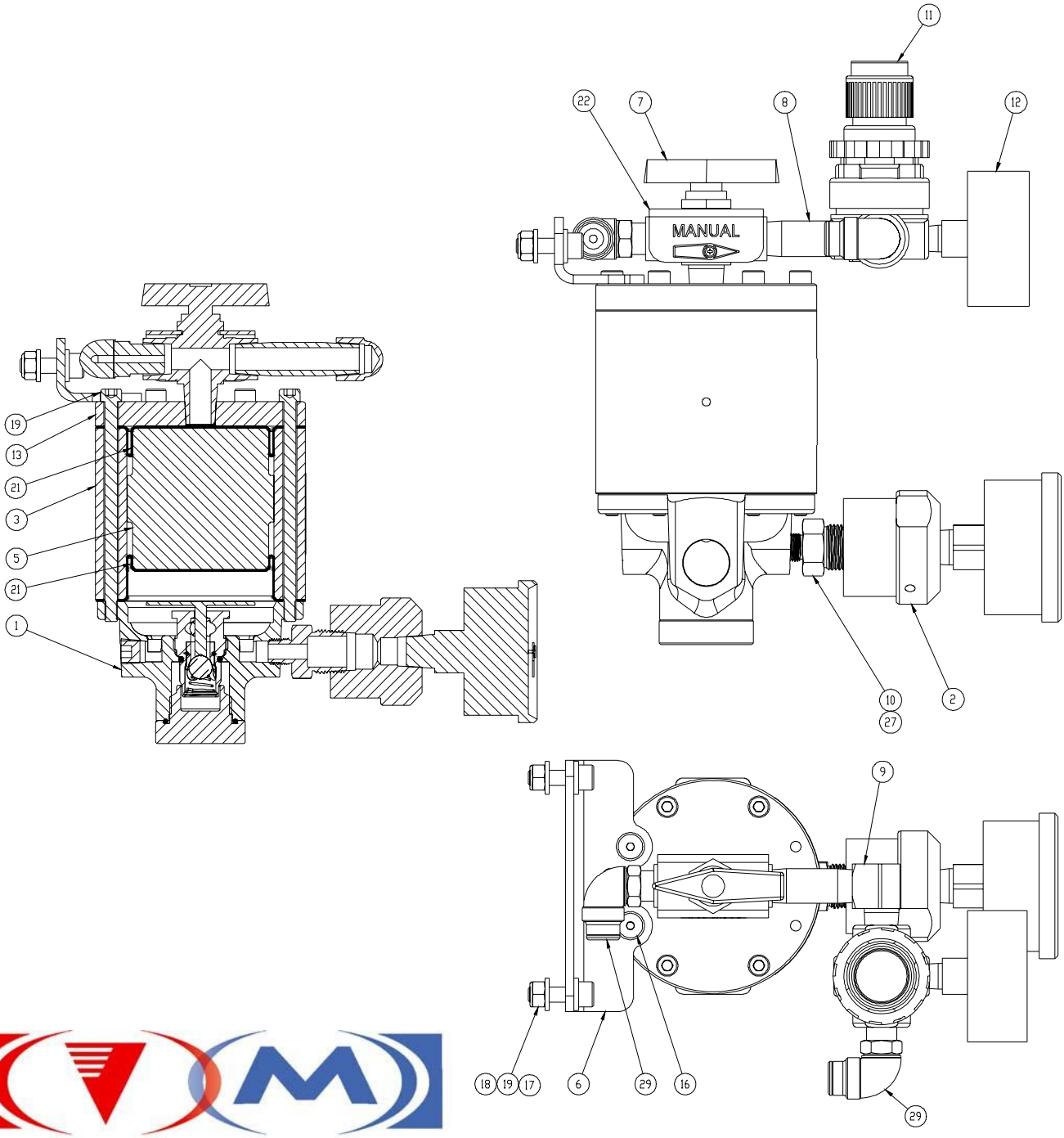
Reassembly

After inspection or repair, you can reassemble the fluid regulator by following these steps:

1. Reassemble parts in reverse order of the disassembly procedure described above.
2. Apply a small amount of lithium grease (or equivalent) evenly to the full length of the threads and tip of the “T” handle (1).
3. Torque the bonnet screws (4) to 60 inch-pounds.

The air-piloted, **pressure-balancing glue regulator** is used with Valco Cincinnati's variable-speed flow controls. The regulator relieves glue pressure during production stops to prevent pattern flooding as production resumes.

The air pressure-to-glue pressure ratio is approximately 1:1. A 3:1 & 6:1 ratio assembly is also available. The assemblies include a three-way shutoff valve and air pressure regulator that allow operators to bypass the flow control for system purge and testing.

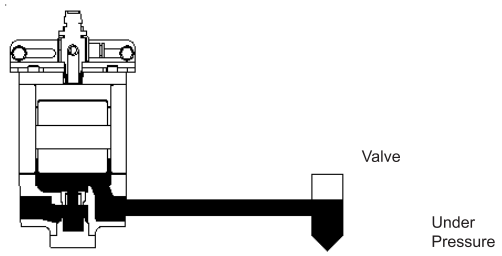


VALCO MELTON™

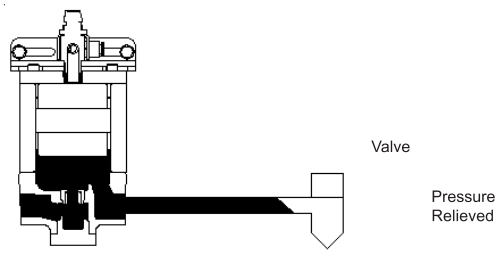
Pressure-Balancing Glue Regulator

for use with variable-speed flow controls (1:1 ratio)

DS066

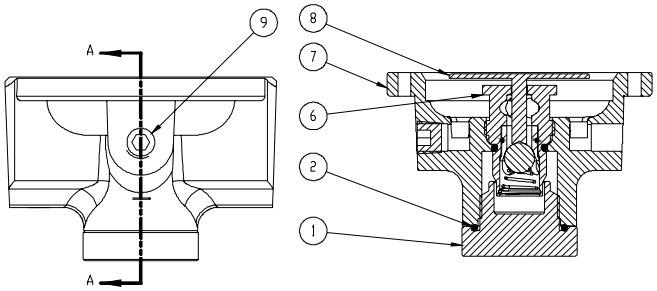


Under Pressure (Machine Running)



No Pressure (Machine Stopped)

When used with EPC, the glue pressure decreases as the machine speed decreases. When the machine is stopped, the glue pressure is relieved from the hose connected to the valve. If the valve needs to be purged or fired while the machine is stopped, air must be supplied to the dome of the regulator by a separate air line.



Bowl Assembly (see drawing above)

	Bowl Assembly, NPT	593xx411
	Bowl Assembly, BSPP	593xx410
1	Bottom Plug	593xx297
2	O-ring	745xx080
6	Ball/Seat Check Cartridge, Viton	593xx538
7A	Regulator Housing, NPT	593xx350
7B	Regulator Housing, BSPP	593xx351
8	Activator Pin	593xx262
9A	Pipe Plug, NPT	799xx039
9B	Pipe Plug, BSPP	799xx690

Glue Regulator Assemblies (see drawing on front)

	Glue Regulator, 1:1 ratio, 0–160 psi, NPT	593xx408
	Glue Regulator, 1:1 ratio, 0–12 bar, BSPP	593xx413
1A	Bowl Assy	593xx411
1B	Bowl Assy, Metric	593xx410
2A	Gauge and Protector Assy.	786xx066
2B	Gauge HP	786xx001
3	Cylinder	593xx415
4	Cap	593xx414
5	Piston	593xx412
6	Bracket	593xx416
7	3-way Ball Valve	704xx745
8	Nipple	797xx089
9	Street Elbow	797xx007
10A	Reducer	792xx330
10B	Adapter	792xx135
11	Regulator, Air	594xx114
12	Gauge	786xx001
15	Screw	784xx595
16	Screw	798xx296
17	Screw	784xx426
18	Hex Nut	798xx416
19	Flat Washer	784xx183
21	Diaphragm	746xx114
22	Label	781xx817
23	Adhesive Transfer Tape	781xx818
24	Tubing	755xx528
26	Label	794xx917
27	Washer	793xx470
29	Elbow, 90 degree	799xx821
30	8mm “Y” Fitting	799xx678
31	Tube End Expander	799xx478

Rebuild Kit

	Rebuild kit for 1:1 Regulator Assembly, EP	593xx530
	Rebuild kit for 1:1 Regulator Assembly, Viton	593xx418
1	Rolling Diaphragm	746xx114
2	Tape, adhesive transfer	781xx821
3	Fixture, rebuild kit	593xx417
4	O-ring*	746xx163
	O-ring**	745xx080
8	Ball/Seat Check Cartridge, epdm seals*	593xx539
	Ball/Seat Check Cartridge, Viton**	593xx538
9	Male Quick Disconnect	752xx004
10	Bushing Reducer 1/2 x 1/4	797xx049
11	Hex head pipe plug 1/2	797xx040
12	Activator pin, regulator	593xx262
13	Instruction Sheet 1:1 prop reg	IS0291

*Included in EP kits.
**Included in Viton kits

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BALANCING PROPORTIONAL REGULATOR REPAIR

1:1 Balancing Proportional Regulator

Disassembly procedure

1. Relieve pressure from the air and glue lines.

2. Remove the M5 x 90 Socket Head Cap Screws.

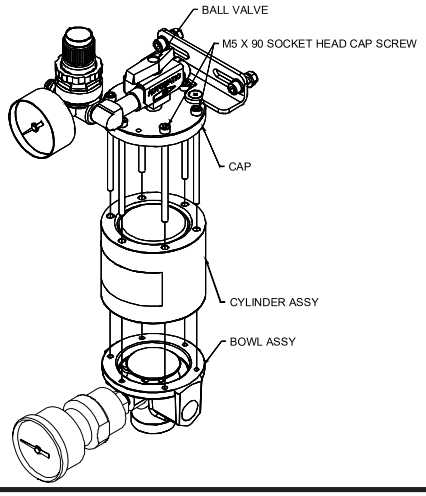
> The ball valve may need to be rotated to provide access to the screws.

3. Remove the cap from the regulator assembly.

CAUTION! When removing the cap, be sure the diaphragm is not stuck to it.

4. Remove the cylinder assembly from the bowl assembly.

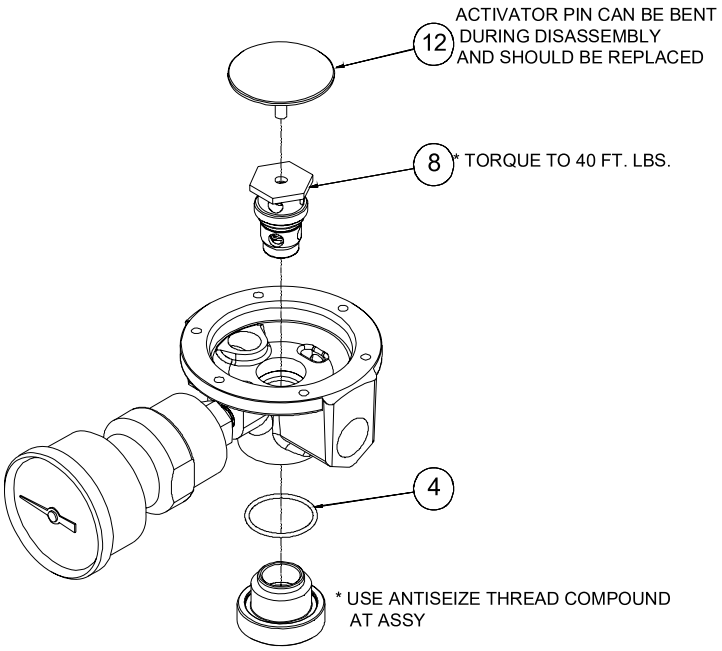
CAUTION! Be sure the diaphragm is not stuck to the bowl assembly.



Repair Kit (EP - 593xx530; Viton - 593XX418)

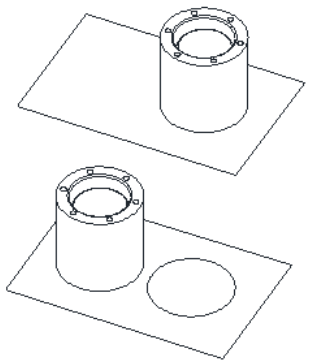
ITEM	DESCRIPTION	PART NUMBER	EP	VITON	QTY
1	ROLLING DIAPHRAGM	746XX114			2
2	TAPE,ADHESIVE TRANSFER	781XX821			1
3	FIXTURE,REBUILD KIT	593XX417			1
4	O-RING	746XX163	x		1
		745XX080		x	1
8	BALL SEAT ASSEMBLY	593XX539	x		1
		593XX538		x	1
9	MALE QUICK DISCONNECT	752XX004			1
10	BUSHING REDUCER 1/2 X 1/4	797XX049			1
11	HEX HEAD PIPE PLUG 1/2	797XX040			1
12	ACTIVATOR PIN; REGULATOR	593XX262			1
13	INSTRUCTION SHEET 1:1 PROP REG	IS0291			1

Bowl Assembly Repair

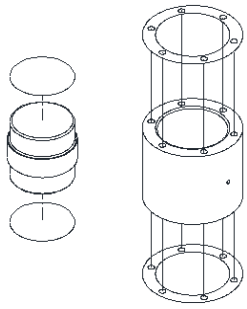


Diaphragm Repair

1. Remove the release liner from one side of the transfer tape.
2. Place the cylinder and piston on the transfer tape.
3. Flip the assembly over and hold the piston in place.
4. Punch holes for the screws.
5. Cut the tape around the outside and inside of the cylinder.
6. Cut the tape around the outside of the piston.
7. Repeat for the other side of the piston assembly.

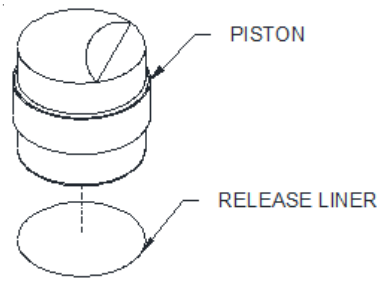


There should now be a piece of transfer tape on either side of the piston, and a piece of transfer tape (with matching holes) on either side of the cylinder, as shown in exploded view, below.

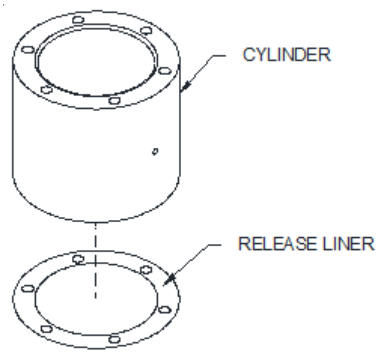


8. Fold back part of the transfer tape release liner on one side of the piston.

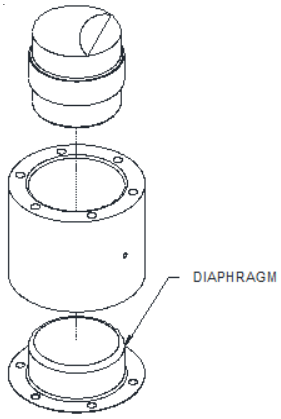
9. Remove the release liner from the other side.



10. Remove the tape release liner from one side of the cylinder.



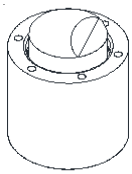
11. Insert the diaphragm into cylinder, so the flange contacts the adhesive surface.



CAUTION! Be sure to align the mounting holes.

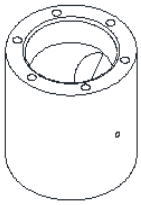
12. Insert the piston into the cylinder with the adhesive side down.

13. Place the assembly on a flat surface with the diaphragm face down.

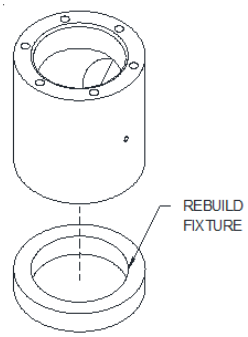


14. Push the piston down into the cylinder.

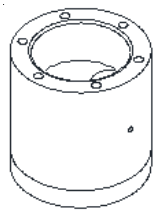
> The piston should be pushed down until it bottoms out. Air pressure from the bottom will 'form' the diaphragm.



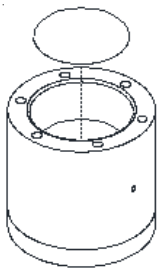
15. Place the rebuild fixture (Item 3) underneath the cylinder.



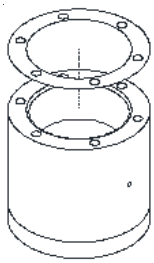
16. Push the piston down through the rebuild fixture until it bottoms out.



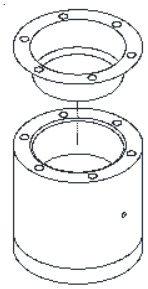
17. Remove the tape liner from the top surface of the piston.



18. Remove the tape liner from the top of the cylinder.



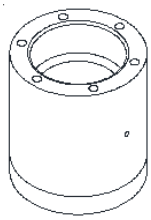
19. Insert the diaphragm into the cylinder so the flange contacts the adhesive.



CAUTION! Be sure to align the holes.

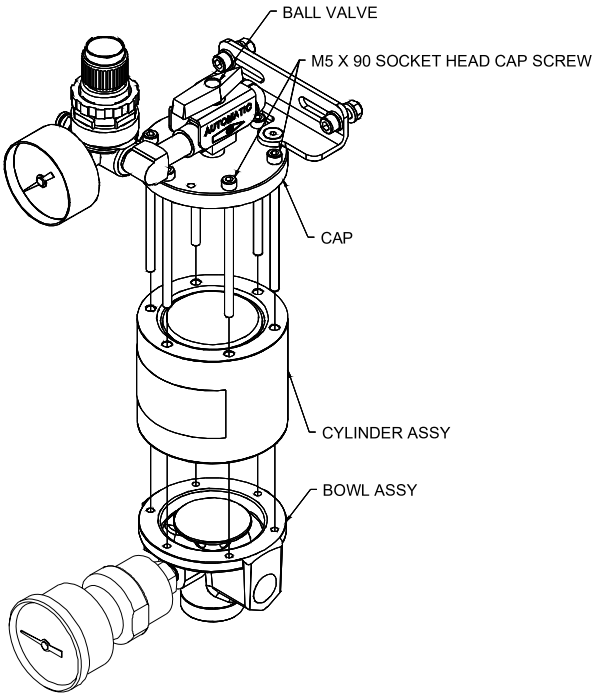
20. Push the diaphragm down.

21. Flip the assembly over and place the rebuild fixture on the bottom.



22. Push on the diaphragm, gently, to move the piston through the rebuild fixture until it bottoms out.

Reassembly Procedure



1. Place the cylinder on the bowl assembly. Be sure the screw holes are aligned.

2. Place cap on top of cylinder.

CAUTION! Be sure the screw holes are aligned.

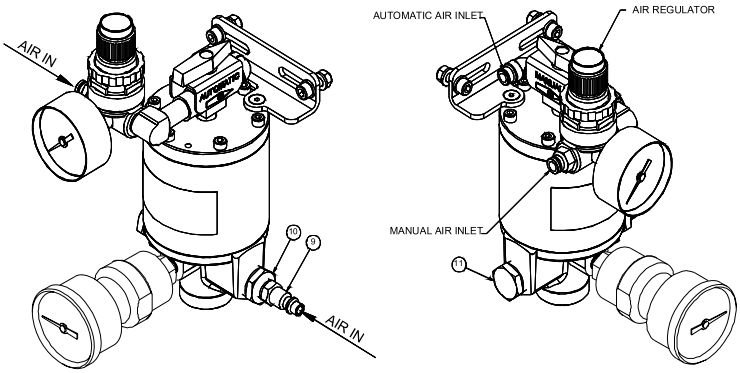
3. Use a wire brush to clean the remains of thread locker from the screw threads.

4. Apply a liberal amount of blue, medium-strength thread locker (710XX620) to the threads of the M5 x 90 Socket Head Cap Screws.

5. Tighten the screws to 30 in.-lbs.

CAUTION! Over-torqueing can damage the diaphragm.

Test Procedure



1. Attach items 9, 10, and 11 to the bowl regulator, as shown below.

2. Attach shop air to item 9 and to the manual air-inlet fitting.

   Leave the air tube off of the automatic air-inlet fitting.

3. Use the air regulator to regulate pressure to 80 PSI.

4. Check for air leaks around the diaphragm.

5. Turn the ball valve, from manual to automatic and back, several times.

   This helps to seat the diaphragm.

6. If there are no leaks, regulate the air back to 0 PSI and remove the plug (11).

7. Make sure no air is leaking from the outlet port.

8. If all tests pass, reattach to the machine.

If air leaks from weep hole, the diaphragm is punctured; a new one needs to be installed.

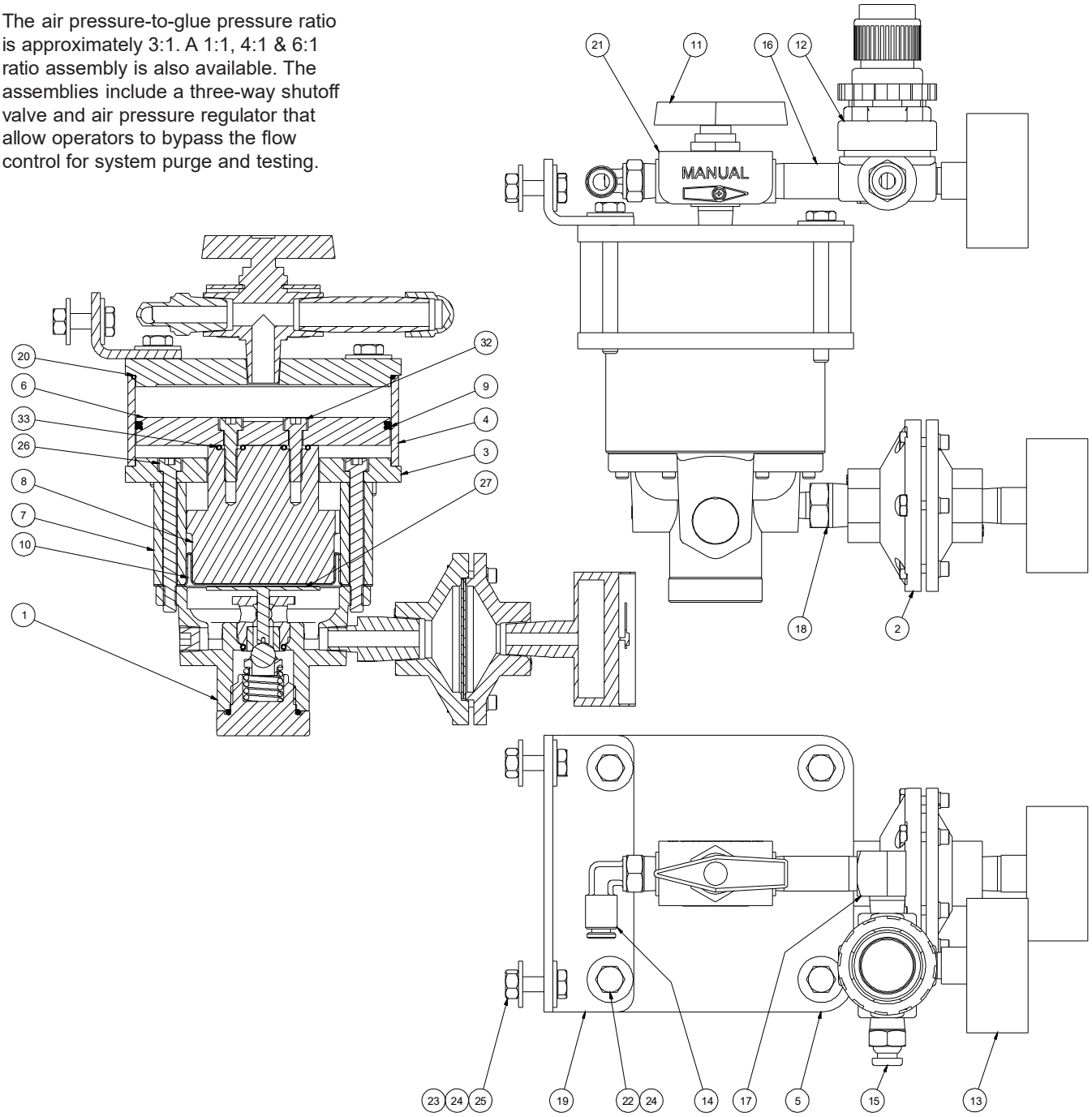
If air leaks from the diaphragm flange, check the screw torque.

If air still leaks, disassemble/clean the flange and reassemble.

If air leaks from the outlet port when the plug is removed, disassemble and replace items 7 and 8.

The air-piloted, pressure-balancing glue regulator is used with Valco Cincinnati's variable-speed flow controls. The regulator relieves glue pressure during production stops to prevent pattern flooding as production resumes.

The air pressure-to-glue pressure ratio is approximately 3:1. A 1:1, 4:1 & 6:1 ratio assembly is also available. The assemblies include a three-way shutoff valve and air pressure regulator that allow operators to bypass the flow control for system purge and testing.

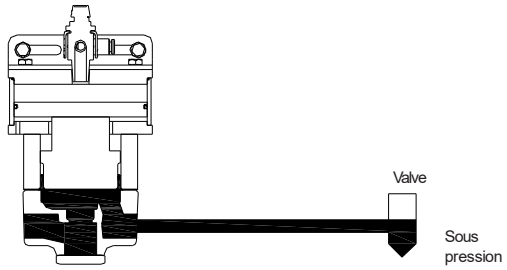


VALCO MELTON™

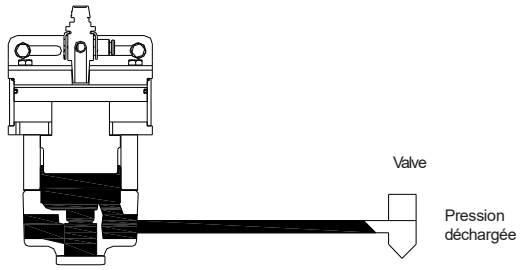
Pressure-Balancing Glue Regulator

for use with variable-speed flow controls (3:1 ratio)

DS070

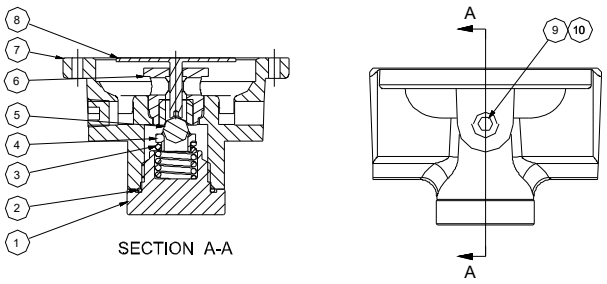


Sous pression (machine en marche)



Aucune pression (machine arrêtée)

When used with EPC, the glue pressure decreases as the machine speed decreases. When the machine is stopped, the glue pressure is relieved from the hose connected to the valve. If the valve needs to be purged or fired while the machine is stopped, air must be supplied to the dome of the regulator by a separate air line.



Bowl Assembly (see drawing above)

	Bowl assembly, NPT	593xx411
	Bowl assembly, BSPP	593xx410
1	Bottom plug - knurled	593xx297
2	O-ring	745xx080
3	Spring	593xx055
4	Ball support	593xx054
5	Ball, ceramic 3/8”	593xx053
6	Ball seat modification	593xx130
7A	Regulator housing, NPT	593xx350
7B	Regulator housing, BSPP	593xx351
8	Activator pin	593xx262
9A	Socket head pipe plug 1/8 NPT	799xx039
9B	Plug, 1/8 BSPP	799xx690

Glue Regulator Assemblies (see drawing on front)

	Glue regulator, 3:1 ratio, 0–300 psi, NPT	593xx442
	Glue regulator, 3:1 ratio, 0–25 bar, BSPP	593xx443
	Glue regulator, 3:1 ratio, Martin	593xx494
1A	Bowl Assy. Imp, Bal. Reg.	593xx411
1B	Bowl Assy. Metric	593xx410
2A	Gauge and Protector Assy. 0-300 psi	786xx112
2B	Gauge, Pressure	786xx110
3	Plate, Adapter Flange	593xx444
4	Cylinder, Upper Air	593xx445
5	Cap, Air Cylinder	593xx446
6	Piston, Upper 3:1 Bal Reg	593xx447
7	Cylinder, Lower Fluid	593xx448
8	Piston, Lower 3:1 Bal Reg	593xx449
9	Quad Ring	746xx122
10	Rolling Diaphragm, Mod	746xx114
11	3-Way Ball Valve	704xx745
12	Regulator, Air	594xx114
13	Gauge 960LP	786xx001
14A	Elbow-90, 1/4 NPT x 1/4 Tube	799xx169
14B	Elbow-90, 1/4 NPT x 5/16 Tube	799xx821
14C	Elbow, 1/4 NPT x 5/16 Tube	799xx821
15A	Male Connector 1/4I x 1/4 MNPT	799xx723
15B	Fitting, 1/4 NPT x 5/16 Tube	797xx395
15C	Fitting, 1/4 NPT x 5/16 Tube	797xx395
16	Long Nipple 1/4 x 2 Lg.	797xx089
17	Street Elbow-90 F-M 1/4 x 1/4	797xx007
18A	Reducer M-M 3/8 x 1/8	792xx330
18B	Coupling, 1/4 NPT-F x 1/8 BSPP-M	792xx137
19	Bracket, Mounting	593xx450
20	O-ring	745xx144
21	Label, Prop Bal Reg	781xx817
22	Screw, 55mm	784xx886
23	Screw, 20mm, SS	784xx426
24	Flat Washer, M6	784xx183
25	Locknut, M6, 0801.0205	798xx416
26	Screw, 55mm	784xx649
27	Tape, Adhesive Transfer	781xx818
28	Tubing	755xx007
29	Tee F-F-F 1/4	797xx023
30	Label, Logo	794xx917
32	Screw, 20mm	798xx047
33	O-ring	745xx103
34	Adhesive Transfer Tape	782xx043
37	Washer, copper	793xx470

Rebuild Kit

	Rebuild kit for 3:1 regulator assembly, EP	593xx529
	Rebuild kit for 3:1 regulator assembly, Viton	593xx453
1	Rolling diaphragm	746xx114
2	Tape,adhesive transfer	781xx821
3	Quad ring	746xx122
4	O-ring	745xx144
5	O-ring*	746xx163
	O-ring**	745xx080
6	Spring	593xx055
7	Ball support	593xx054
8	Ball	593xx053
9	Ball seat Assy, epdm seals*	593xx526
	Ball Seat Assembly**	593xx130
10	Male quick disconnect	752xx004
11	Bushing reducer 1/2 x 1/4	797xx049
12	Hex head pipe plug 1/2	797xx040
13	O-ring	745xx103
14	Activator pin; regulator	593xx262
15	Instruction sheet 1:1 prop reg	IS0291

*Included in EP kits.

**Included in Viton kits.

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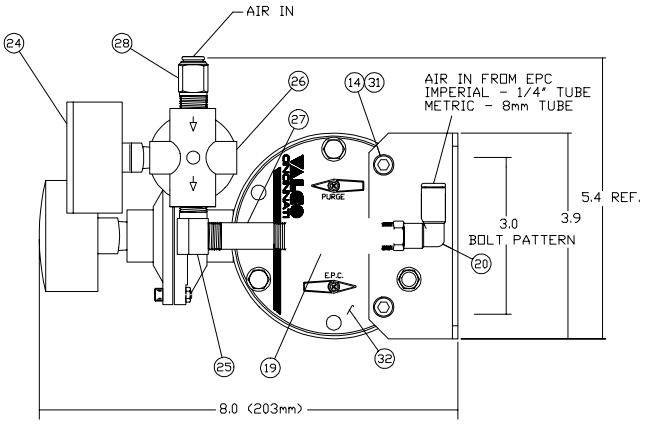
Worldwide Sales Network

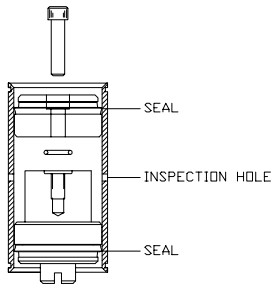
Pressure-Balancing Glue Regulator

for use with variable-speed flow controls (1:3 ratio)

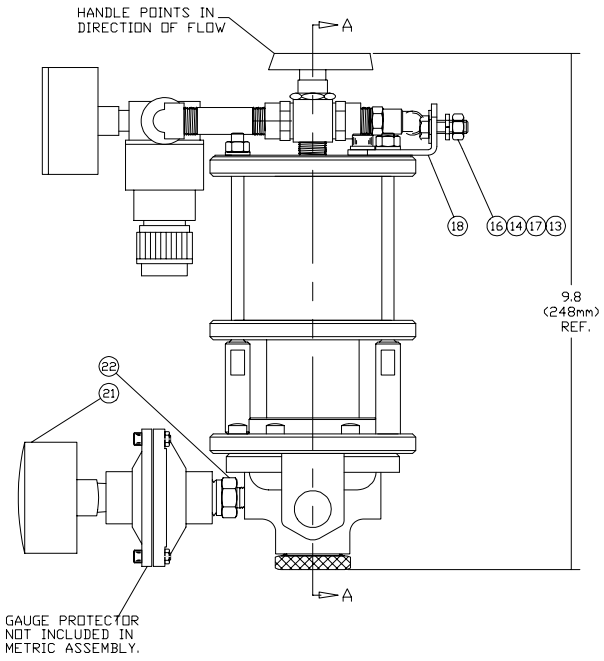
The air-piloted, **pressure-balancing glue regulator** is used with Valco Cincinnati's variable-speed flow controls. The regulator relieves glue pressure during production stops to prevent pattern flooding as production resumes.

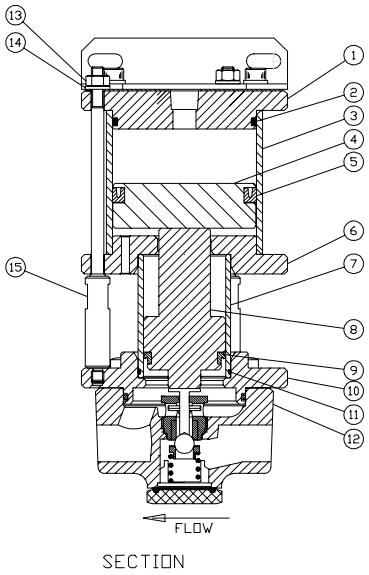
The air pressure-to-glue pressure ratio is approximately 1:3. A 1:1 ratio assembly is also available. The assemblies include a three-way shutoff valve and air pressure regulator that allow operators to bypass the flow control for system purge and testing.



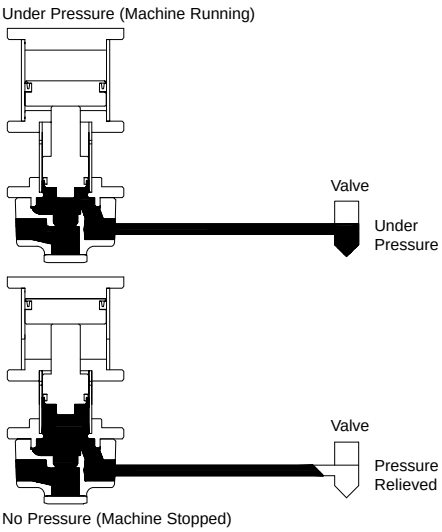


ASSEMBLE PISTONS INSIDE TUBE
FROM OPPOSITE ENDS TO KEEP SEALS
FROM BEING DAMAGED BY INSPECTION HOLE.

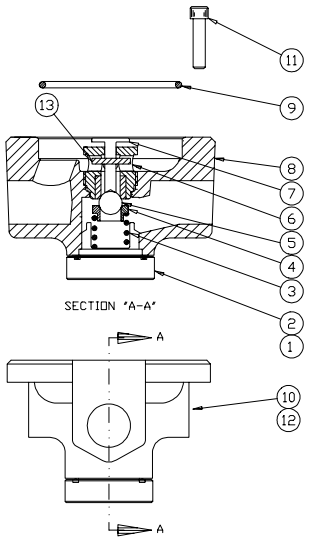




SECTION



When used with EPC, the glue pressure decreases as the machine speed decreases. When the machine is stopped, the glue pressure is relieved from the hose connected to the valve. If the valve needs to be purged or fired while the machine is stopped, air must be supplied to the dome of the regulator by a separate air line.



Bowl Assembly (see drawing above)

	Bowl assembly, NPT	593xx286
	Bowl assembly, BSPP	593xx272
1	Bottom plug	593xx297
2	O-ring	745xx080
3	Spring	593xx055
4	Ball support	593xx054
5	Ball	593xx053
6	Ball seat	593xx130
7	Activator pin	593xx285
8	Regulator housing, NPT	593xx350
	Regulator housing, BSPP	593xx351
9	O-ring	745xx398
10	Plug, 1/8 NPT	799xx039
	Plug, 1/8 BSPP	793xx520
11	Socket-head cap screw, M5	798xx047
12	Washer	793xx470
13	Spring pin	091xx444

Glue Regulator Assemblies (see drawing on front)

	Glue regulator, 1:3 ratio, 0–160 psi, NPT	593xx284
	Glue regulator, 1:3 ratio, 0–12 bar, BSPP	593xx283
1	Flange adapter, air cylinder	593xx292
2	O-ring	745xx528
3	Air cylinder	593xx287
4	Piston	593xx291
5	Piston seal	746xx018
6	Flange adapter, fluid cylinder	593xx289
7	Fluid cylinder	593xx288
8	Shaft	791xx309
9	Piston seal	746xx017
10	Flange adapter, regulator	593xx290
11	O-ring	745xx529
12	Bowl assembly, NPT	593xx286
	Bowl assembly, BSPP	593xx272
13	Lock nut	798xx416
14	Flat washer	798xx348
15	Tie rod	791xx308
16	Hex-head screw	798xx645
17	Lock washer	784xx024
18	Bracket	581xx832
19	Three-way ball valve	704xx745
20	Elbow, 1/4 x 1/4 NPT	797xx354
	Elbow, 1/4 x 8 mm	787xx483
21	Gauge and protector, 0–300 psi	786xx112
	Gauge, 25 bar	786xx079
22	Reducer	797xx070
	Coupling, 1/4 BSPP-F x 1/8 BSPP-M	797xx459
24	Gauge, 0–60 psi	786xx001
25	Elbow, 1/4 NPT M-F	797xx007
26	Air regulator	594xx114
27	Nipple, 1/4 NPT	797xx089
28	Fitting, 1/4 x 1/4 NPT	799xx162
	Fitting, 8 mm x 1/4 UNI	799xx492
29	Female tee, 1/4 NPT (not shown)	797xx023
30	Tubing, 72-in. length (not shown)	755xx007
31	Socket-head cap screw	798xx069

(Items 29 and 30 not included with metric assembly)

Repair Kit

Repair kit for 1:3 regulator assembly	593xx294
O-ring	745xx080
Spring	593xx055
Ball support	593xx054
Ball	593xx053
Ball seat assembly, includes:	593xx364
ball seat, activator pin and spring pin	
O-ring	745xx398
O-ring	745xx528
Piston seal	746xx018
Piston seal	746xx017
O-ring	745xx529
Washer	793xx470

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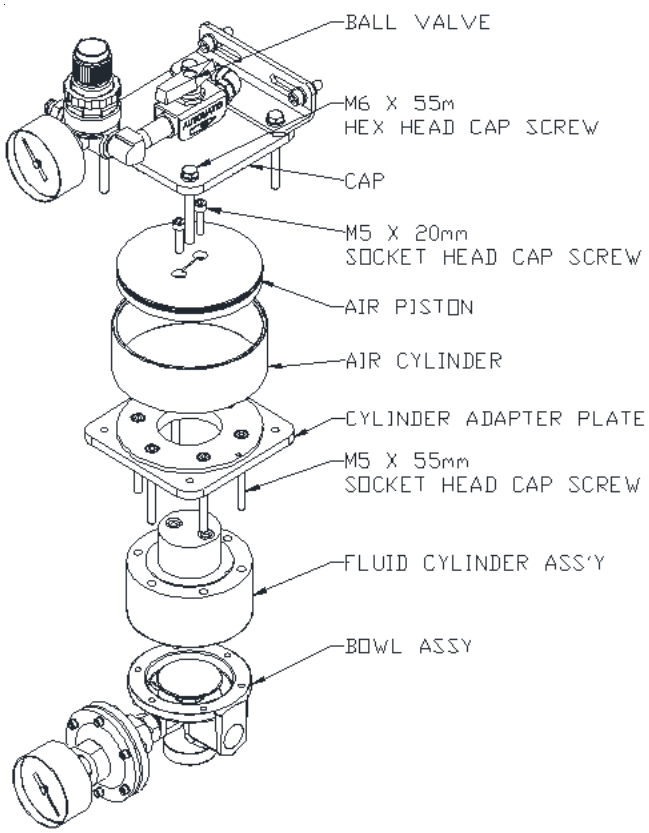
3:1 Balancing Proportional Regulator (Old Version)

Disassembly procedure



1. Relieve pressure from air and glue lines.

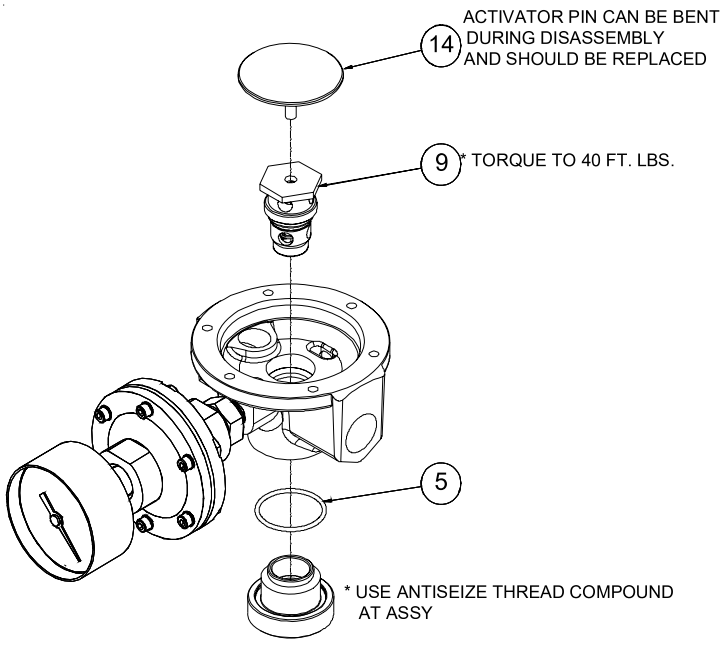
2. Remove (4) M6 x 55mm HHCS. Remove cap from regulator assembly. Remove (2) M5 x 20mm SHCS. Remove air cylinder assembly.

3. Remove (6) M5 x 55mm SHCS. Remove cylinder adapter plate. Remove fluid cylinder assembly. Be sure the diaphragm is not stuck to bowl assembly.

Repair Kit (EP - 593XX529; Viton - 593XX453)

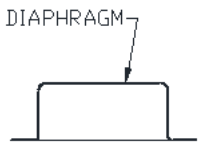
ITEM	DESCRIPTION	PART NUMBER	EP	VITON	QTY
1	ROLLING DIAPHRAGM	746XX114			1
2	TAPE,ADHESIVE TRANSFER	781XX821			1
3	QUAD RING	746XX122			1
4	O-RING	745XX144			1
5	O-RING	746XX163	x		1
		745XX080		x	1
9	BALL SEAT ASSEMBLY	593XX539	x		1
		593XX538		x	1
10	MALE QUICK DISCONNECT	752XX004			1
11	BUSHING REDUCER 1/2 X 1/4	797XX049			1
12	HEX HEAD PIPE PLUG 1/2	797XX040			1
13	O-RING	745XX103			2
14	ACTIVATOR PIN; REGULATOR	593XX262			1
15	INSTRUCTION SHEET 1:1 PROP REG	IS0291			1

Bowl Assembly Repair

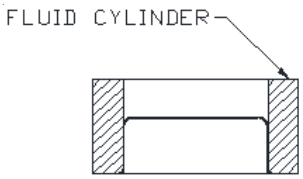


Diaphragm Repair

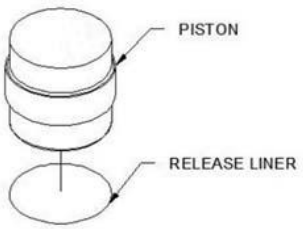
1. Place the diaphragm (Item #1) face down, on a smooth, clean surface.



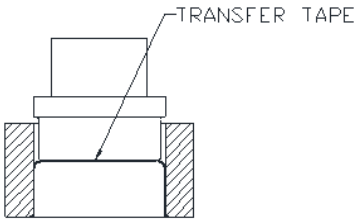
2. Place the fluid cylinder over the diaphragm, so the diaphragm flange sits in the fluid cylinder groove . Be sure the screw holes in the diaphragm align with the holes in the fluid cylinder.



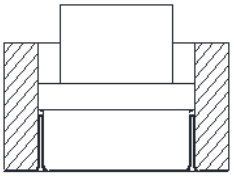
3. Place a piece of transfer tape on the bottom of the piston. Cut away the excess. Remove release liner from transfer tape.



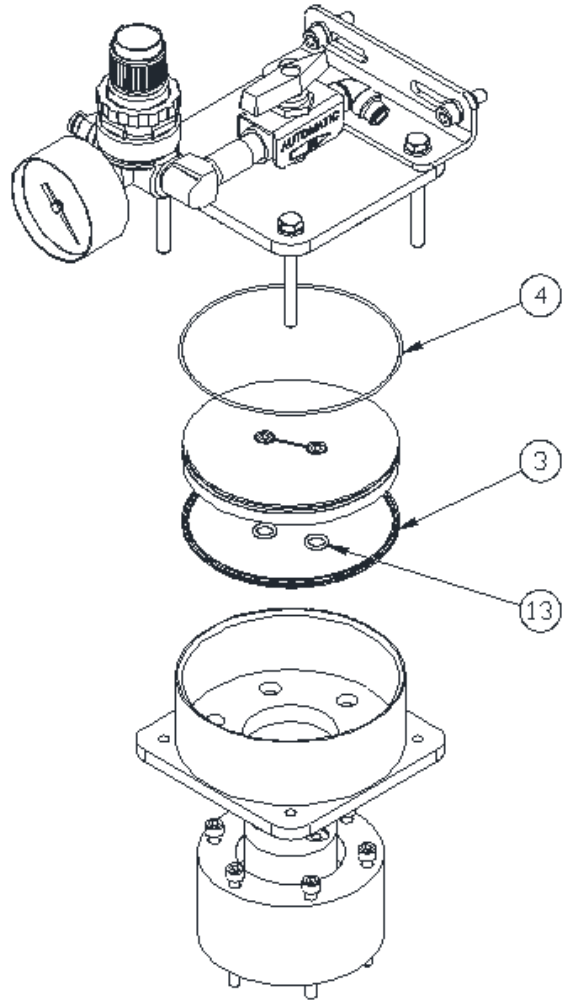
4. Place the piston, adhesive side down, into the fluid cylinder so the adhesive contacts the diaphragm.



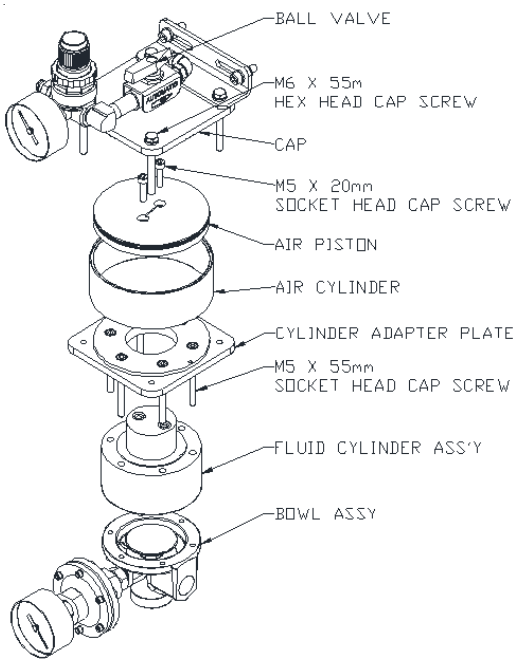
5. Push piston down. Diaphragm will surround piston.



Seal Replacement



Reassembly Procedure



1. Place the fluid cylinder assembly on the bowl assembly.

C **!** **!** Be sure the screw holes are aligned.

2. Place the cylinder adapter plate on top of the fluid cylinder.

3. Use a wire brush to clean remains of thread locker from the screw threads.

4. Apply a liberal amount of blue medium strength thread locker (710XX620) to the M5 x 55mm socket-head cap screw threads.

5. Tighten the screws to 30 in lbs.

CAUTION! Over torqueing can damage the diaphragm.

6. Apply Super Lube, food-grade lubricant (782XX557) to the inside of the air cylinder.

7. Place the air cylinder onto the cylinder adapter plate.

8. Use a flat-head screwdriver to prevent the piston from rotating.

9. Insert the M5 x 20mm socket-head cap screws.

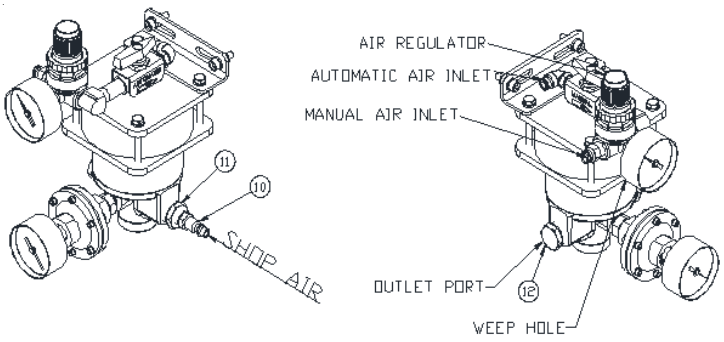
10. Tighten the screws to 30 in lbs.

CAUTION! Do not allow the piston to rotate.

11. Place the cap onto the air cylinder.

12. Tighten the M6 x 55mm hex-head cap screws.

Test Procedure



1. Attach items #10, #11, and #12 to the bowl regulator, as shown above.

2. Attach shop air to item #10, and to the manual air-inlet fitting.

3. Use the air regulator to adjust the pressure to 80 psi.

4. Turn the ball valve from manual to automatic several times, to help seat the diaphragm.

    a. Leave the valve in the manual position.

5. Check for leaks around the diaphragm.

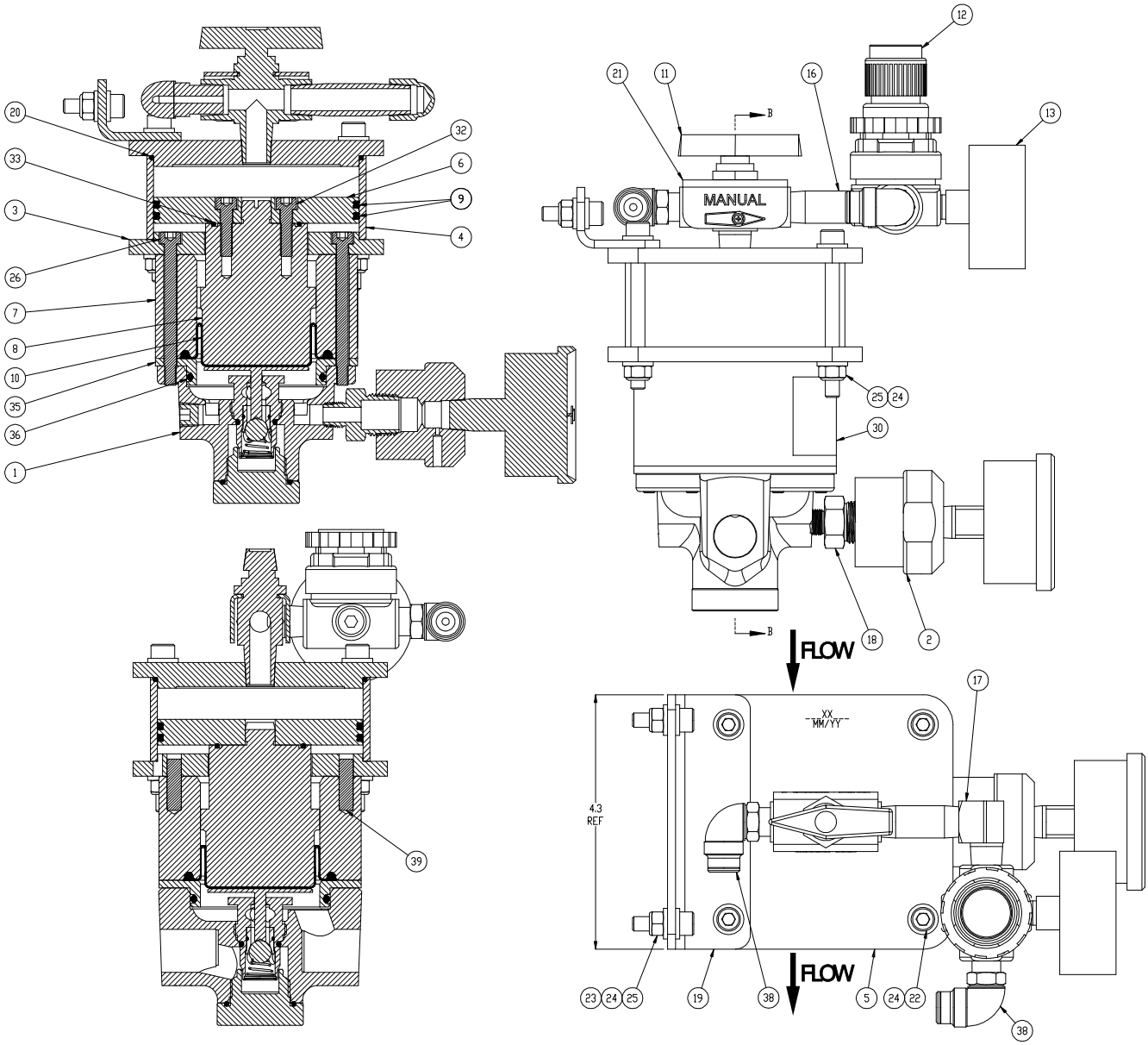
6. If there are no leaks, regulate the air back to 0 psi, and remove item #12 (plug).

7. Check for air leaks around the outlet port.

8. If all tests pass, reattach to the machine.

The air-piloted, **pressure-balancing glue regulator** is used with Valco Cincinnati's variable-speed flow controls. The regulator relieves glue pressure during production stops to prevent pattern flooding as production resumes. The air pressure-to-glue pressure ratio is approximately 3:1. A 1:1 ratio and 6:1 ratio assembly are also available.

The assemblies include a three-way shutoff valve and air pressure regulator that allow operators to bypass the flow control for system purge and testing.

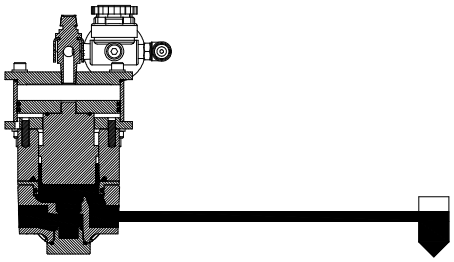


VALCO MELTON™

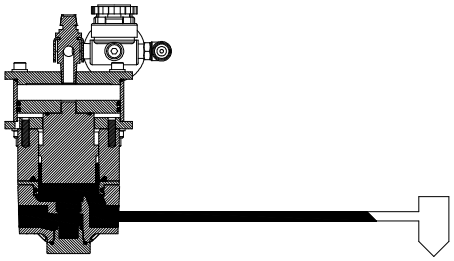
Pressure-Balancing Glue Regulator

DS113

for use with variable-speed flow controls

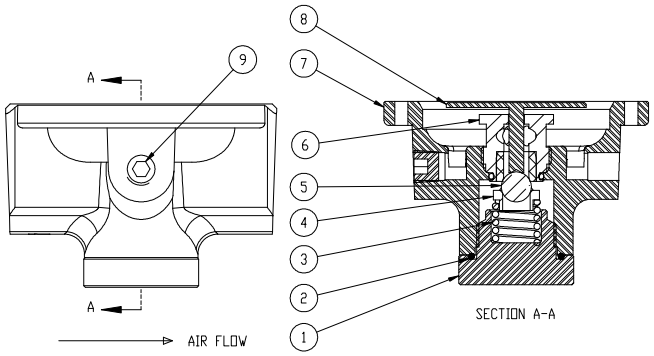


Under Pressure (machine running)



No Pressure (machine stopped)

When used with EPC, the glue pressure decreases as the machine speed decreases. When the machine is stopped, the glue pressure is relieved from the hose connected to the valve. If the valve needs to be purged or fired while the machine is stopped, air must be supplied to the dome of the regulator by a separate air line.



Bowl Assembly (see drawing above)

	Bowl Assembly, NPT	593xx411
	Bowl Assembly, BSPP	593xx410
1	Bottom Plug	593xx297
2	O-ring	745xx080
3	Spring	593xx055
4	Ball Support	593xx054
5	Ball, 3/8	593xx053
6	Ball Seat Modification	593xx130
7A	Regulator Housing, NPT	593xx350
7B	Regulator Housing, BSPP	593xx351
8	Activator Pin	593xx262
9A	Pipe Plug, NPT	799xx039
9B	Pipe Plug, BSPP	799xx690

Glue Regulator Assemblies (see drawing on front)

	Glue Regulator, 3:1 ratio, NPT	593xx521
	Glue Regulator, 3:1 ratio, BSPP Metric	593xx522
1A	Bowl Assy, 1:1 Imp, Bal Reg	593xx411
1B	Bowl Assy, Metric	593xx410
2A	Gauge and Protector Assy.	786xx112
2B	Gauge, HP	786xx110
3	Flange Adapter, Fluid Cylinder	593xx517
4	Air Cylinder	593xx520
5	Cap, Air Cylinder	593xx518
6	Piston, Upper	593xx519
7	Cylinder, Lower Fluid Bonnet	593xx510
8	Piston, Lower	593xx514
9	Quad Ring	746xx285
10	Rolling Diaphragm	746xx155
11	3-way Ball Valve	704xx745
12	Regulator	594xx114
13	Gauge 960LP	786xx001
16	Nipple, 1/4 NPT	797xx089
17	Street Elbow 90 F-M 1/4 X 1/4	797xx007
18A	Reducer M-M 3/8 X 1/8	792xx330
18B	Adapter 1/4 NPT-F X1/8 BSPP-M	792xx137
19	Mounting Bracket	593xx450
20	O-ring	745xx307
21	Label	781xx817
22	Screw, M6 X 65mm	884xx346
23	Screw, M6 X 20mm	784xx426
24	Flat Washer M6	784xx183
25	Hex Nut M6	798xx416
26	Screw, M5 X 60mm	884xx545
27	Adhesive Transfer Tape	781xx818
28	1/4" Tubing	755xx528
30	Label, Logo	794xx917
31	Data Sheet, Bal Reg 6:1 Air	DS113
32	Screw M5 X 20mm	798xx047
33	O-ring	745xx142
35	Plate, Adapter Flange	593xx475
36	O-ring	745xx398
38	Male Elbow, 5/16I x 1/4NPT	799xx821
39	Pin,Dowel-6MM x 20MM	784xx635
40	8mm “Y” Fitting	799xx678
41	Copper Washer	793xx470
42	Tube Expander	799xx478

Rebuild Kit

	Rebuild Kit for 3:1 Regulator Assembly, EP	593xx528
	Rebuild Kit for 3:1 Regulator Assembly, Viton	593xx523
1	Diaphragm, rolling	746xx155
2	Tape,adhesive transfer	781xx821
3	Ring quad 3.237" nitrile	746xx285
4	O-ring	745xx307
5	O-ring*	746xx163
	O-ring**	745xx080
6	Spring	593xx055
7	Ball Support	593xx054
8	Ball, 3/8	593xx053
9	Ball Seat Assembly, epdm seals*	593xx526
	Ball Seat Modification**	593xx130
10	Male quick disconnect	752xx004
11	Bushing reducer 1/2 x 1/4	797xx049
12	Hex head pipe plug 1/2	797xx040
13	O-ring	745xx142
14	O-ring*	746xx162
	O-ring**	745xx398
15	Activator pin; regulator	593xx262
16	Instruction sheet 1:1 prop reg	IS0291
17	Fixture - piston alignment	593xx524

*Included in EP kits.
**Included in Viton kits.

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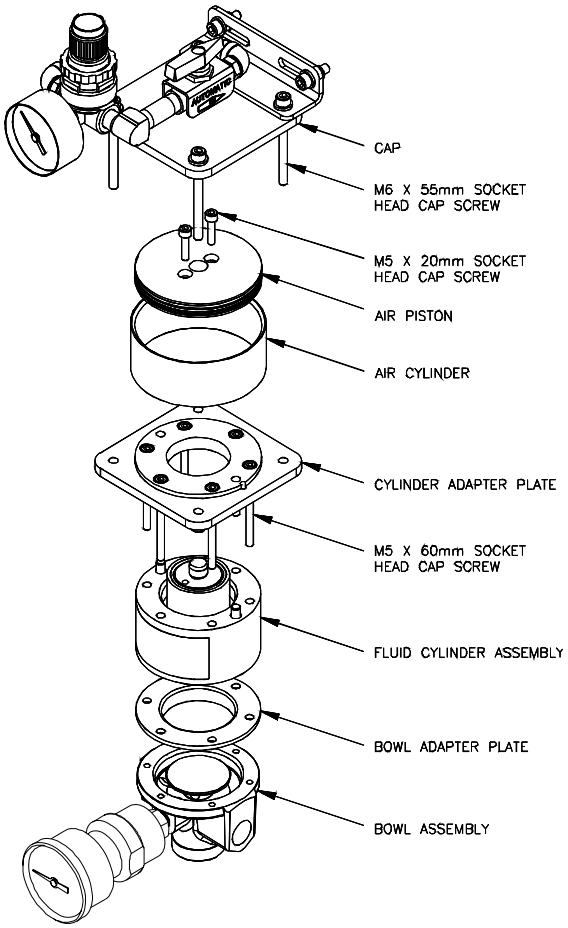
3:1 Balancing Proportional Regulator (New Version)



1. Relieve pressure from the air and glue lines.
2. Remove the (4) M6 x 55mm hex-head cap screws.
3. Remove the cap from the regulator assembly.
4. Remove the (2) M5 x 20mm socket-head cap screws.

5. Remove the air cylinder assembly.

6. Remove the (6) M5 x 60mm socket-head cap screws.

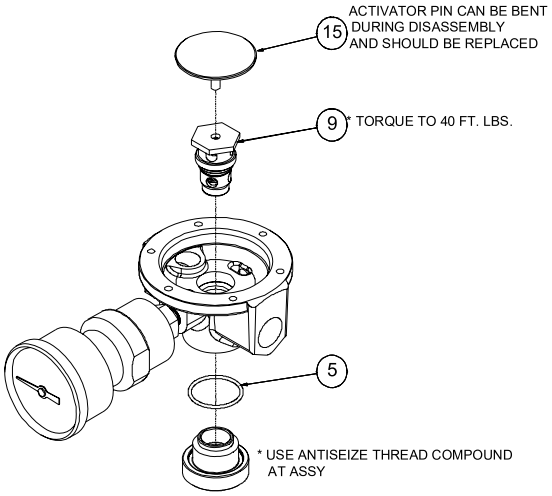
7. Remove the cylinder adapter plate.

8. Remove the fluid cylinder assembly and bowl adapter plate.

Repair Kit (EP - 593XX528; Viton - 593XX523)

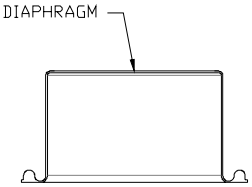
ITEM	DESCRIPTION	PART NUMBER	EP	VITON	QTY
1	DIAPHRAGM, ROLLING	746XX155			1
2	TAPE,ADHESIVE TRANSFER	781XX821			1
3	RING QUAD 3.237" NITRILE	746XX285			2
4	O-RING	745XX307			1
5	O-RING	746XX163	x		1
		745XX080		x	1
9	BALL SEAT ASSEMBLY	593XX539	x		1
		593XX538		x	1
10	MALE QUICK DISCONNECT	752XX004			1
11	BUSHING REDUCER 1/2 X 1/4	797XX049			1
12	HEX HEAD PIPE PLUG 1/2	797XX040			1
13	O-RING	745XX142			1
14	O-RING	746XX162	x		1
		745XX398		x	1
15	ACTIVATOR PIN; REGULATOR	593XX262			1
16	INSTRUCTION SHEET 1:1 PROP REG	IS0291			1
17	FIXTURE - PISTON ALIGNMENT	593XX524			1

Bowl Assembly Repair

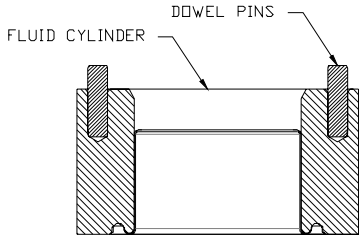


Diaphragm Repair

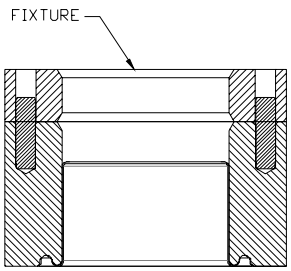
1. Place the diaphragm (Item #1) face down on a smooth, clean surface.



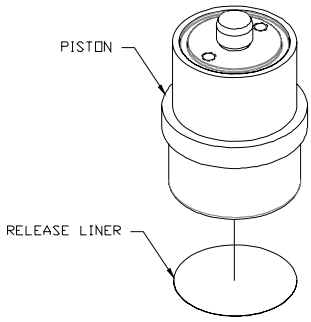
2. Place the fluid cylinder with the dowel pins over the diaphragm, so that the diaphragm sits in the fluid cylinder groove.



3. Place the alignment fixture (Item #17) over the dowel pins.



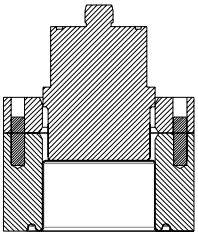
4. Place a piece of transfer tape on the bottom of the piston.



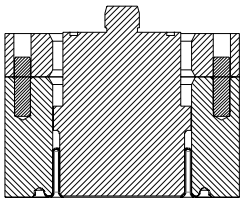
5. Cut away the excess.

6. Remove the release liner from the transfer tape.

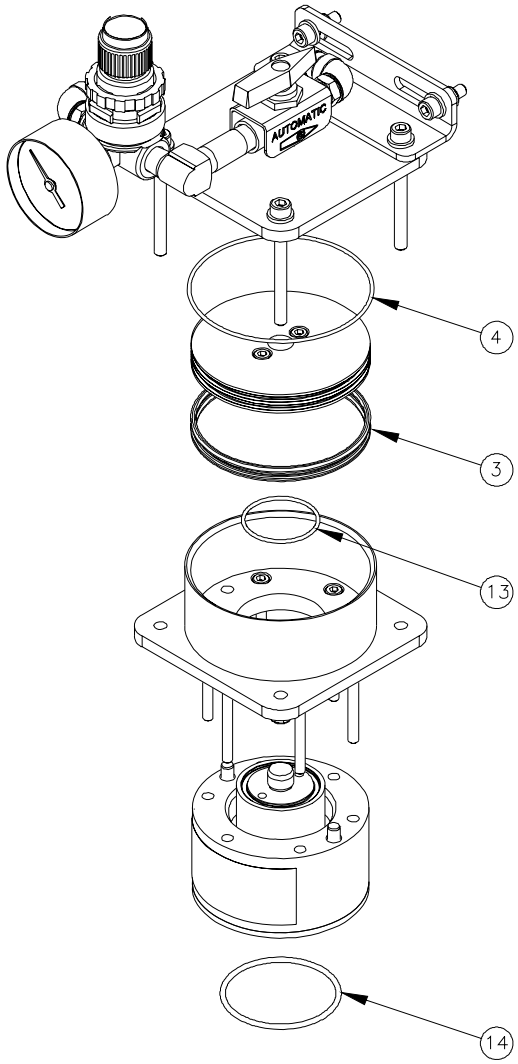
7. Place the piston, adhesive side down, into the fluid cylinder, so the adhesive contacts the diaphragm.



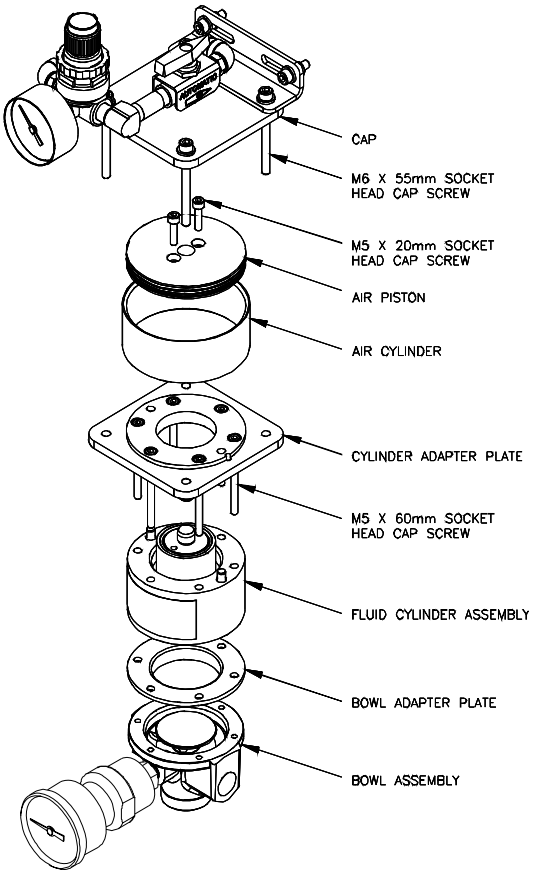
8. Push the piston down. The diaphragm will surround the piston.



Seal Replacement



Reassembly Procedure



1. Place the bowl adapter plate into the bowl assembly.

2. Place the fluid cylinder assembly on top of bowl adapter plate.

CAUTION! Make sure the screw holes are aligned.

3. Place the cylinder adapter plate on top of the fluid cylinder assembly.

4. Install the (6) M5 x 60mm socket-head cap screws.

5. Apply Super Lube, food grade lubricant (782XX557) to the inside of the air cylinder.

6. Place the air cylinder onto the cylinder adapter plate.

7. Insert the air piston into the air cylinder.

8. Use a flat-head screwdriver to prevent the piston from rotating.

9. Insert the (2) M5 x 20mm socket-head cap screws.

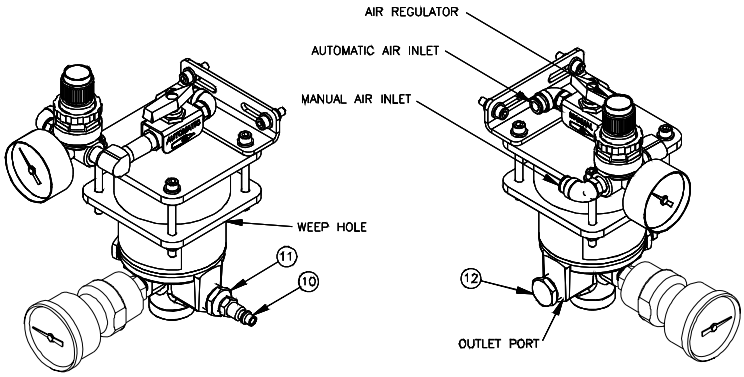
10. Tighten the screws to 30 in-lbs.

CAUTION! Do not allow piston to rotate.

11. Place the cap onto the air cylinder.

12. Tighten the (4) M6 x 55mm hex-head cap screws.

Test Procedure



1. Attach the test fittings (items #10, #11, and #12) to the bowl regulator, as shown above.

2. Attach shop air to item #10, and to the manual air-inlet fitting.

3. Use the air regulator to adjust the pressure to 60 psi.

4. Turn the ball valve from manual to automatic several times, to help seat the diaphragm.

    a. Leave the valve in the manual postion.

5. Check for leaks around the diaphragm.

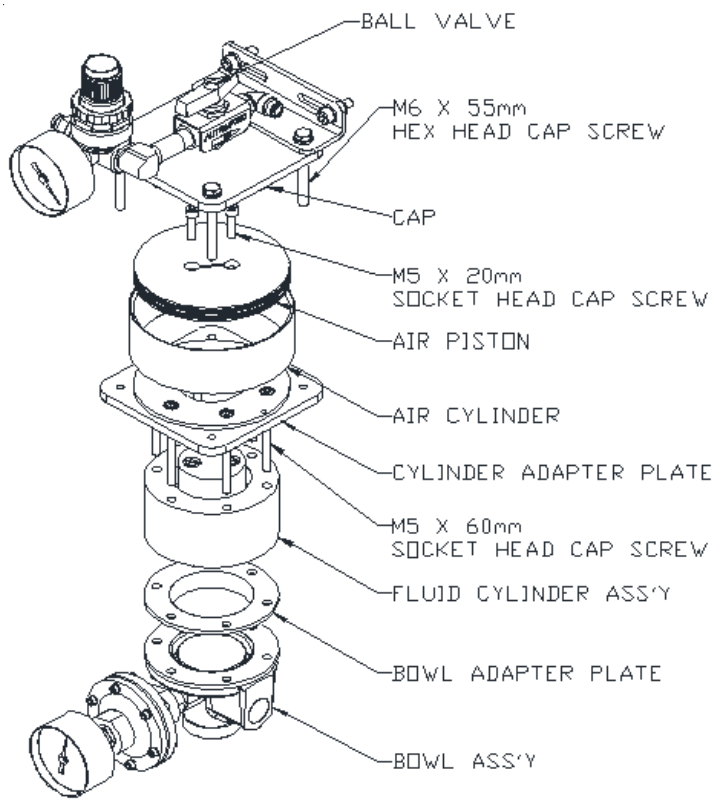
6. If there are no leaks, regulate the air back to 0 psi, and remove item #12 (plug).

7. Check for air leaks around the outlet port, to test for ball check seal leaks.

8. If all tests pass, reattach to the machine.

4:1 Balancing Proportional Regulator Repair

Disassembly Procedure



1. Relieve pressure from the air and glue lines.
2. Remove the (4) M6 x 55mm hex-head cap screws.
3. Remove the cap from the regulator assembly.
4. Remove the (2) M5 x 20mm socket-head cap screws.

5. Remove the air cylinder assembly.

6. Remove the (6) M5 x 55mm socket-head cap screws.

7. Remove the cylinder adapter plate.

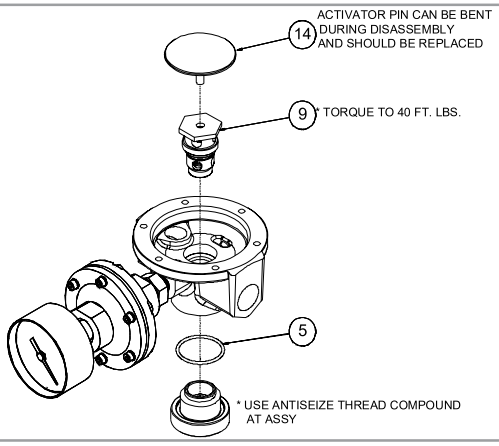
8. Remove the fluid cylinder assembly and the cylinder adapter plate.

CAUTION!  Make sure the diaphragm is not stuck to the bowl assembly.

Repair Kit (593XX476)

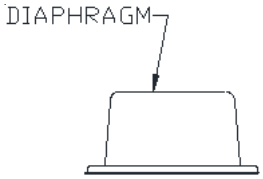
ITEM	DESCRIPTION	PART NUMBER	QTY
1	ROLLING DIAPHRAGM	746XX155	1
2	ADHESIVE TRANSFER TAPE	781XX821	2”
3	QUAD RING	746XX122	2
4	O-RING	745XX144	1
5	O-RING	745XX080	1
9	BALL SEAT ASSEMBLY	593XX538	1
10	MALE QUICK DISCONNECT	752XX004	1
11	BUSHING M-F 1/2 X 1/4	797XX049	1
12	HEX HEAD PIPE PLUG 1/2	797XX040	1
13	O-RING	745XX103	2
14	O-RING	745XX398	1
15	ACTUATOR PIN	593XX262	1
16	INSTRUCTION SHEET	IS0291	1

Bowl Assembly Repair

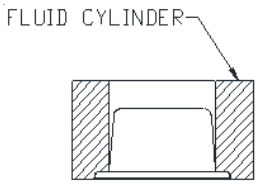


Diaphragm Repair

1. Place the diaphragm (Item #1) face down on smooth, clean surface.



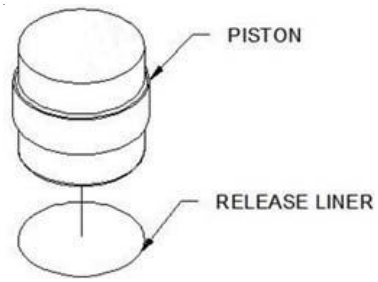
2. Place the fluid cylinder over the diaphragm, so the diaphragm flange sits in the fluid cylinder groove.



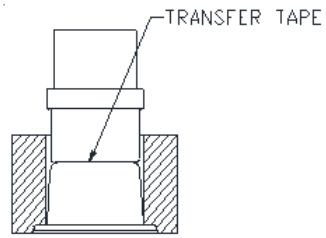
3. Place a piece of transfer tape on the bottom of the piston.

4. Cut away the excess.

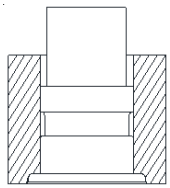
5. Remove the release liner from the transfer tape.



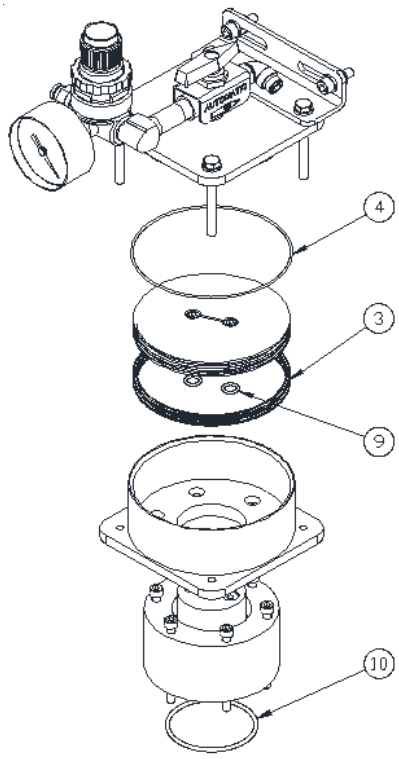
6. Place the piston, adhesive side down, into the fluid cylinder, so the adhesive contacts the diaphragm.



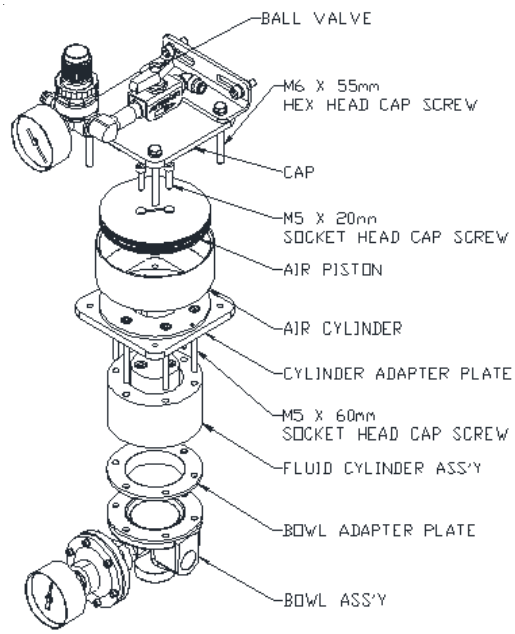
7. Push the piston down. The diaphragm will surround the piston.



Seal Replacement



Reassembly Procedure



1. Place the bowl adapter plate into the bowl assembly.

2. Place the fluid cylinder assembly, on top of bowl adapter plate.

CAUTION! Be sure the screw holes are aligned.

3. Place the cylinder adapter plate on top of the fluid cylinder assembly.

4. Install the (6) M5 x 60mm socket-head cap screws.

5. Apply Super Lube, food grade lubricant (782XX557) to the inside of the air cylinder.

6. Place the air cylinder onto the adapter plate.

7. Insert the air piston into the air cylinder.

8. Use a flat-head screwdriver to prevent the piston from rotating.

9. Insert the (2) M5 x 20mm socket-head cap screws.

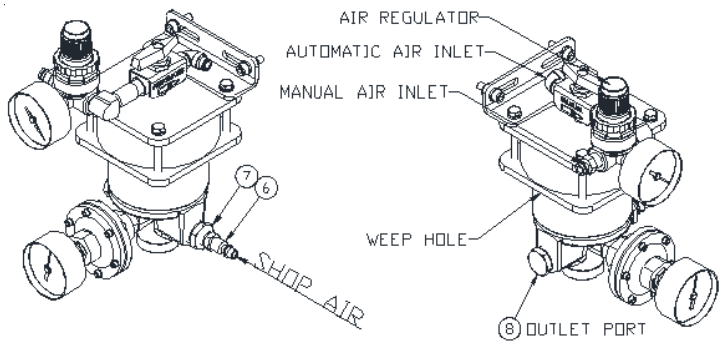
10. Tighten the screws to 30 in-lbs.

CAUTION! Do not allow the piston to rotate.

11. Place the cap onto the air cylinder.

12. Tighten the (4) M6 x 55mm hex-head cap screws.

Test Procedure



1. Attach items #6, #7 and #8 to the bowl regulator, as shown above.

2. Attach shop air to item #6, and to the manual air inlet fitting.

3. Use the air regulator to adjust the pressure to 60 psi.

4. Turn the ball valve from manual to automatic several times, to help seat the diaphragm.

5. Leave the valve in the manual postion.

6. Check for leaks around the diaphragm.

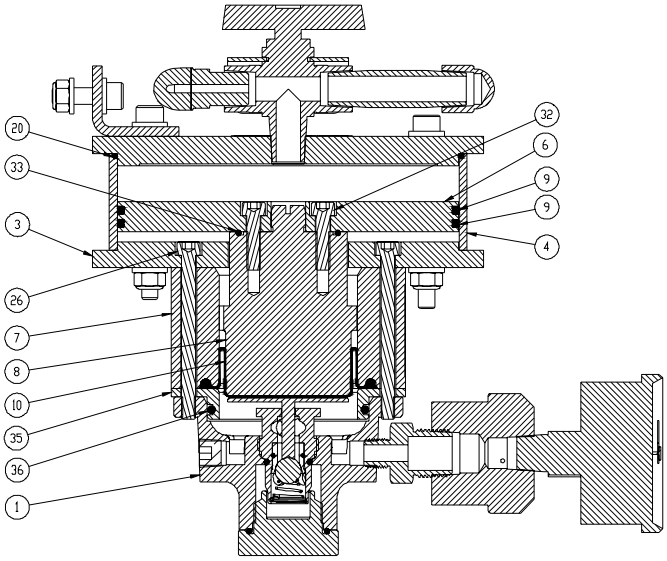
7. If there are no leaks, regulate the air back to 0 psi, and remove item #8 (plug).

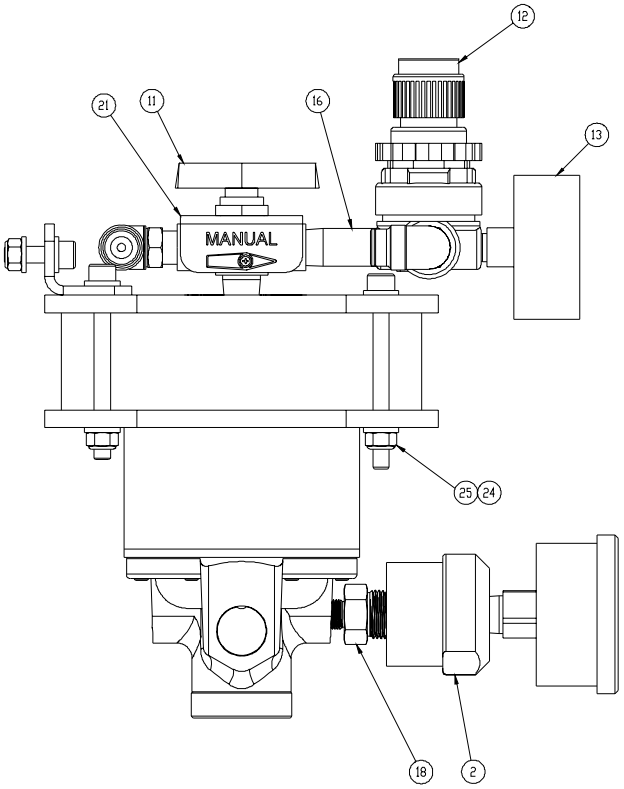
8. Check for air leaks around the outlet port.

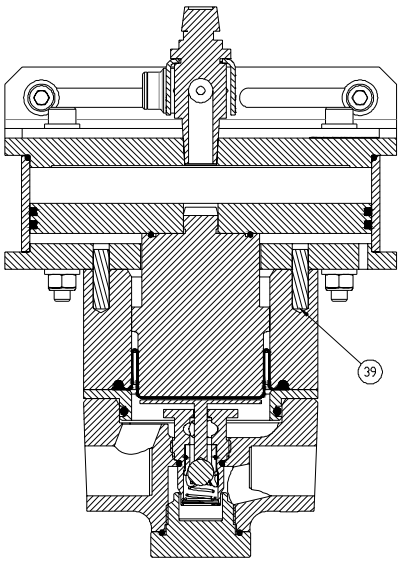
9. If all tests pass, reattach to the machine.

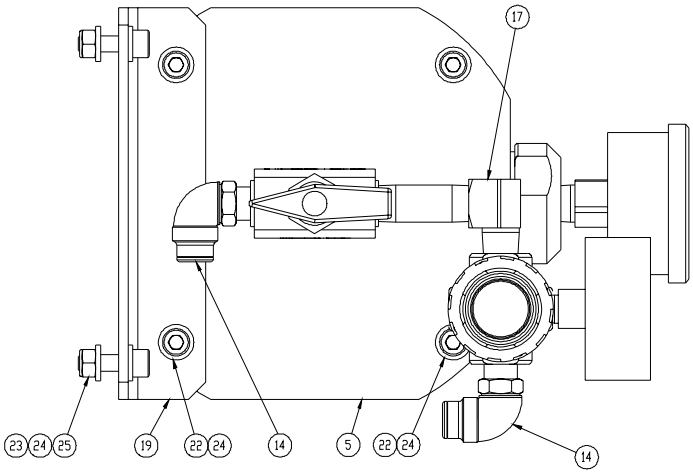
The air-piloted, **pressure-balancing glue regulator** is used with Valco Cincinnati's variable-speed flow controls. The regulator relieves glue pressure during production stops to prevent pattern flooding as production resumes. The air pressure-to-glue pressure ratio is approximately 6:1. A 1:1 ratio and 3:1 assemblyies are also available.

The assemblies include a three-way shutoff valve and air pressure regulator that allow operators to bypass the flow control for system purge and testing.









VALCO MELTON™

Pressure-Balancing Glue Regulator

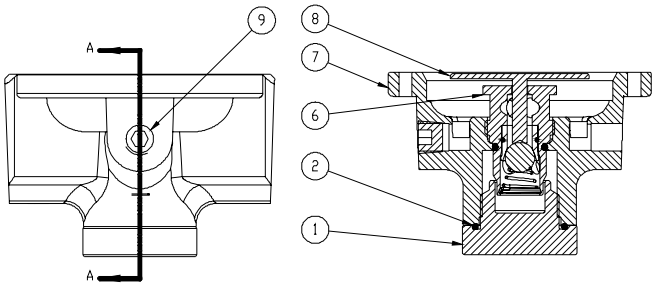
DS094

for use with variable-speed flow controls

Under Pressure (Machine Running)

No Pressure (Machine Stopped)

When used with EPC, the glue pressure decreases as the machine speed decreases. When the machine is stopped, the glue pressure is relieved from the hose connected to the valve. If the valve needs to be purged or fired while the machine is stopped, air must be supplied to the dome of the regulator by a separate air line.



Bowl Assembly (see drawing above)

	Bowl Assembly, NPT	593xx411
	Bowl Assembly, BSPP	593xx410
1	Bottom Plug - Knurled	593xx297
2	O-ring	745xx080
6	Ball/Seat check cartridg, Viton	593xx538
7A	Regulator Housing, NPT	593xx350
7B	Regulator Housing, BSPP	593xx351
8	Activator Pin	593xx262
9A	Socket Head Pipe Plug 1/8 NPT	799xx039
9B	Plug, 1/8 BSPP	799xx690
10	Washer, Copper	793xx470

Glue Regulator Assemblies (see drawing on front)

	Glue Regulator, 6:1 ratio, NPT	593xx504
	Glue Regulator, 6:1 ratio, BSPP Metric	593xx505
1A	Bowl Assy, 1:1 Imp, Bal Reg	593xx411
1B	Bowl Assy, Metric	593xx410
2A	Gauge and Protector Assy.	786xx083
2B	Gauge, HP	786xx082
3	Flange Adapter, Fluid Cylinder	593xx503
4	Air Cylinder	593xx506
5	Cap, Air Cylinder	593xx507
6	Piston, Upper	593xx508
7	Cylinder, Lower Fluid Bonnet	593xx510
8	Piston, Lower	593xx514
9	Quad Ring	746xx246
10	Rolling Diaphragm	746xx155
11	3-way Ball Valve	704xx745
12	Regulator	594xx114
13	Gauge 960LP	786xx001
14	Elbow 90, 1/4 NPT X 5/16 Tube	799xx821
16	Nipple, 1/4 NPT	797xx089
17	Street Elbow 90 F-M 1/4 X 1/4	797xx007
18A	Reducer M-M 3/8 X 1/8	792xx330
18B	Adapter 1/4 NPT-F X1/8 BSPP-M	792xx137
19	Mounting Bracket	593xx509
20	O-ring	746xx214
21	Label	781xx817
22	Screw, M6 X 65mm	884xx346
23	Screw, M6 X 20mm	784xx426
24	Flat Washer M6	784xx183
25	Hex Nut M6	798xx416
26	Screw, M5 X 60mm	884xx545
27	Adhesive Transfer Tape	781xx818
28	8mm Tubing	755xx528
30	Label, Logo	794xx917
31	Data Sheet, Bal Reg 6:1 Air	DS094
32	Screw M5 X 20mm	798xx047
33	O-ring	745xx142
35	Plate, Adapter Flange	593xx475
36	O-ring	745xx398
38	Male Elbow, 5/16I x 1/4NPT	799xx821
39	Pin,Dowel-6MM x 20MM	784xx635
40	Label Stock, silver	781xx780
41	8mm “Y” Fitting	799xx678
42	Tube End Expander	799xx478

Rebuild Kit

	Rebuild Kit for 6:1 Regulator Assembly, EP	593xx527
	Rebuild Kit for 6:1 Regulator Assembly, Viton	593xx511
1	Diaphragm, rolling	746xx155
2	Tape,adhesive transfer	781xx821
3	Quad ring	746xx215
4	O-ring	746xx214
5	O-ring*	746xx163
	O-ring**	745xx080
9	Ball seat assy, epdm seals*	593xx526
	Ball/Seat check cartridg, Viton**	593xx538
10	Male quick disconnect	752xx004
11	Bushing reducer 1/2 x 1/4	797xx049
12	Hex head pipe plug 1/2	797xx040
13	O-ring*	745xx142
	O-ring**	745xx103
14	O-ring*	746xx162
	O-ring**	745xx398
15	Activator pin; regulator	593xx262
16	Instruction sheet 1:1 prop reg	IS0291
17	Fixture - piston alignment	593xx524

*Included in EP kits.
**Included in Viton kits.

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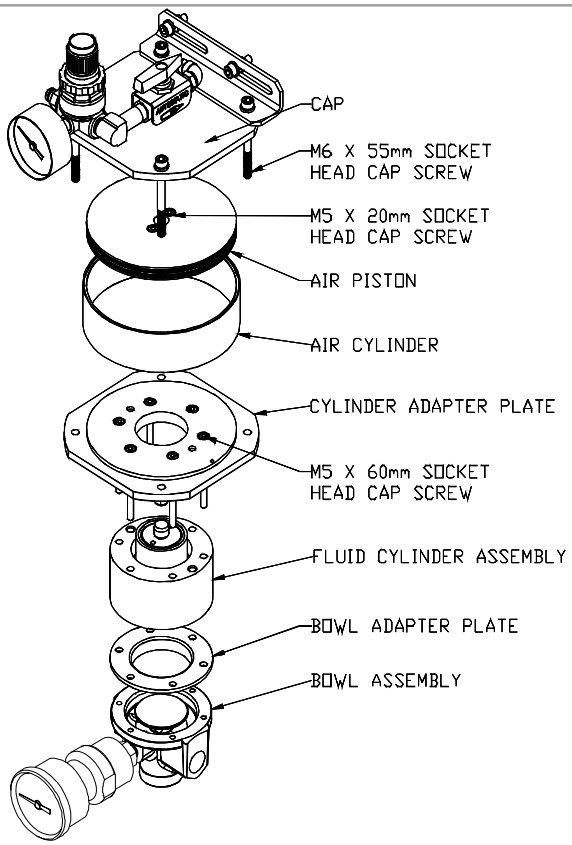
Fax: +33 (0)4 75 55 74 20

6:1 Balancing Proportional Regulator Repair

Disassembly procedure



1. Relieve pressure from the air and glue lines.
2. Remove the (4) M6 x 55mm hex-head cap screws.
3. Remove the cap from the regulator assembly.
4. Remove the (2) M5 x 20mm socket-head cap screws.

5. Remove the air cylinder assembly.

6. Remove the (6) M5 x 60mm socket-head cap screws.

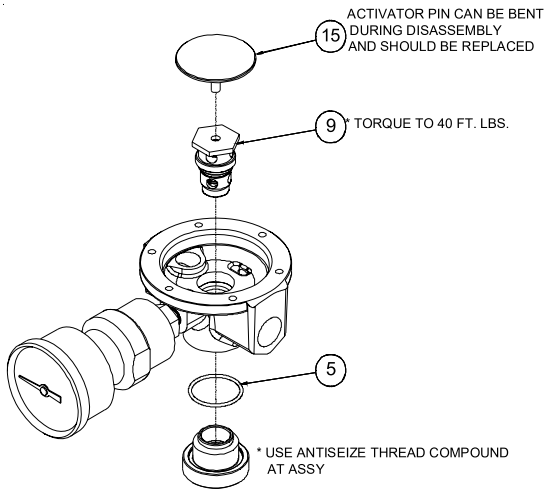
7. Remove the cylinder adapter plate.

8. Remove the fluid cylinder assembly and bowl adapter plate.

Repair Kit (EP - 593XX527; Viton - 593XX511)

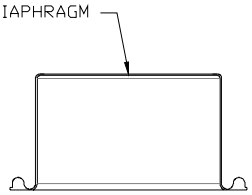
ITEM	DESCRIPTION	PART NUMBER	EP	VITON	QTY
1	DIAPHRAGM, ROLLING	746XX155			1
2	TAPE,ADHESIVE TRANSFER	781XX821			1
3	QUAD RING	746XX215			2
4	O-RING	746XX214			1
5	O-RING	746XX163	x		1
		745XX080		x	1
9	BALL SEAT ASSEMBLY	593XX539	x		1
		593XX538		x	1
10	MALE QUICK DISCONNECT	752XX004			1
11	BUSHING REDUCER 1/2 X 1/4	797XX049			1
12	HEX HEAD PIPE PLUG 1/2	797XX040			1
13	O-RING	745XX142	x		1
		745XX103		x	1
14	O-RING	746XX162	x		1
		745XX398		x	1
15	ACTIVATOR PIN; REGULATOR	593XX262			1
16	INSTRUCTION SHEET 1:1 PROP REG	IS0291			1
17	FIXTURE - PISTON ALIGNMENT	593XX524			1

Bowl Assembly Repair

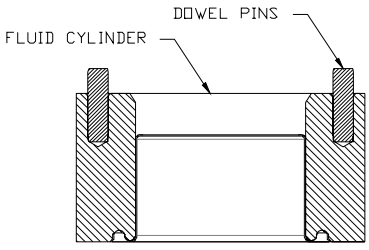


Diaphragm Repair

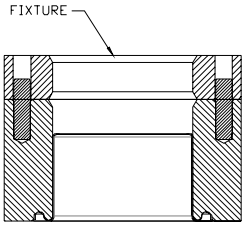
1. Place the diaphragm (Item #1) face down on a smooth, clean surface.



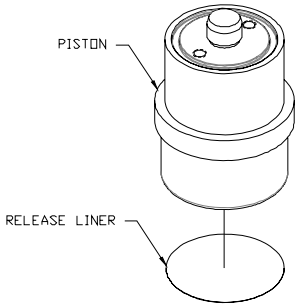
2. Place the fluid cylinder over the diaphragm, so the diaphragm flange sits in the fluid cylinder groove.



3. Place the alignment fixture (Item #17) over the dowel pins.



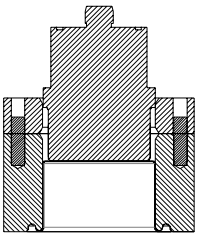
4. Place a piece of transfer tape on the bottom of the piston.



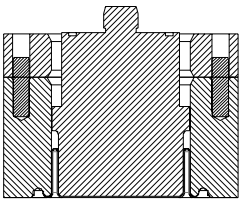
5. Cut away the excess.

6. Remove the release liner from the transfer tape.

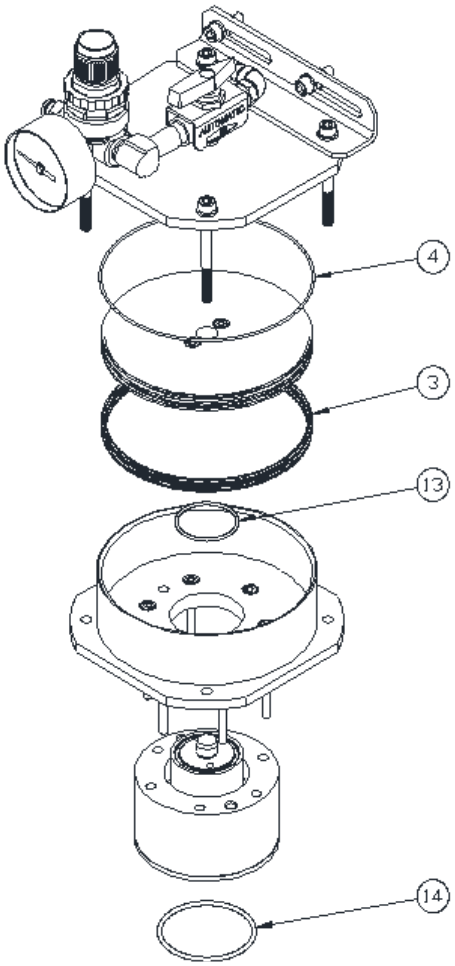
7. Place the piston, adhesive side down, into the fluid cylinder, so the adhesive contacts the diaphragm.



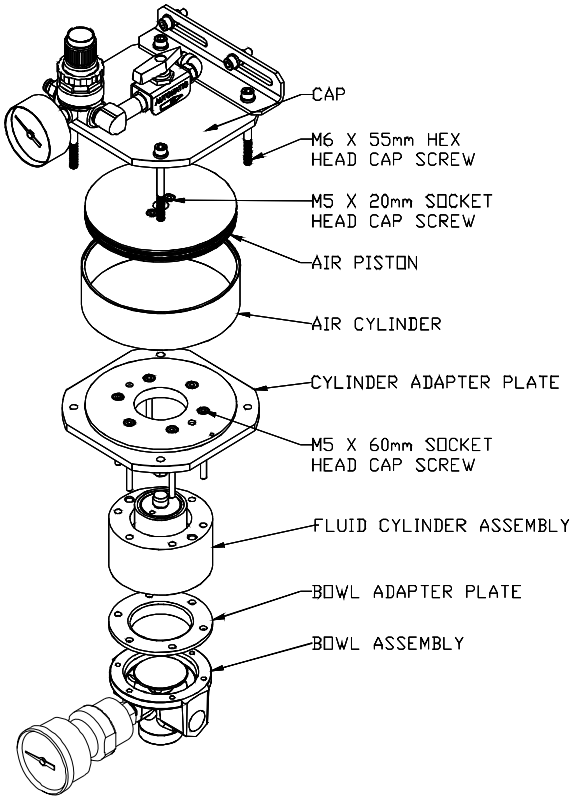
8. Push the piston down. The diaphragm will surround the piston.



Seal Replacement



Reassembly Procedure



1. Place the bowl adapter plate into the bowl assembly.

2. Place the fluid cylinder assembly on top of bowl adapter plate.

CAUTION! Make sure the screw holes are aligned.

3. Place the cylinder adapter plate on top of the fluid cylinder assembly.

4. Reassembly Procedure1. Place the bowl adapter plate into the bowl assembly.

5. Place the fluid cylinder assembly on top of bowl adapter plate.

CAUTION! Make sure the screw holes are aligned.

6. Place the cylinder adapter plate on top of the fluid cylinder assembly.

7. Install the (6) M5 x 60mm socket-head cap screws.

8. Apply Super Lube, food grade lubricant (782XX557) to the inside of the air cylinder.

9. Place the air cylinder onto the cylinder adapter plate.

10. Insert the air piston into the air cylinder.

11. Use a flat-head screwdriver to prevent the piston from rotating.

12. Insert the (2) M5 x 20mm socket-head cap screws.

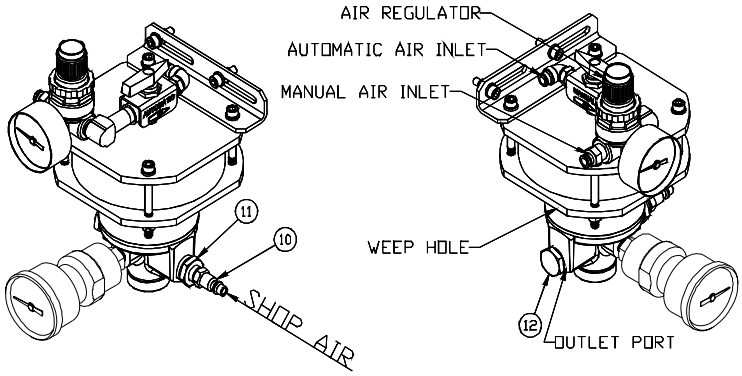
13. Tighten the screws to 30 in-lbs.

CAUTION! Do not allow piston to rotate.

14. Place the cap onto the air cylinder.

15. Tighten the (4) M6 x 55mm hex-head cap screws.

Test Procedure



1. Attach the test fittings (items #10, #11, and #12) to the bowl regulator, as shown above.

2. Attach shop air to item #10, and to the manual air-inlet fitting.

3. Use the air regulator to adjust the pressure to 60 psi.

4. Turn the ball valve from manual to automatic several times, to help seat the diaphragm.

    a. Leave the valve in the manual postion.

5. Check for leaks around the diaphragm.

6. If there are no leaks, regulate the air back to 0 psi, and remove item #12 (plug).

7. Check for air leaks around the outlet port, to test for ball check seal leaks.

8. If all tests pass, reattach to the machine.