



# CF5AR380 Installation and Maintenance

MASTER PNEUMATIC

6701 -18 Mile Rd. | Sterling Heights, MI 48314 | Phone: (586) 254-1000 | Fax: (586) 254-6055 | Email: mp@masterpneumatic.com

## PRODUCT NUMBERS:

CF5AR380-3  
BCF6AR380-4  
BCF6AR380-6

For integrals with manual or automatic internal drain options see STU-4016.

## THANK YOU!

You have just purchased a quality Integral Filter-Regulator from Master Pneumatic.

With care in its installation and maintenance, you can expect it to have a long and economical service life. Before you go any further, please take a few minutes to look over this information, then save it for future reference and for the useful service information it contains.

## Installation & Operation Procedures

**NOTE:** Before proceeding Read Warning Stuffer STU-A019 included in box with polycarbonate products.

### INSTALLATION:

1. Depressurize and lockout air pressure.
2. Upstream pipes must be free of excessive dirt and liquids.
3. Install the Filter-Regulator as near as possible to the device it is to serve.
4. Install the Filter-Regulator so that air flows in direction of arrow on head.
5. The Filter-Regulator must be installed vertically with drain mechanism at the bottom.
6. The Filter-Regulator has gauge ports on both sides of the head. It is necessary to install a pressure gauge or pipe plugs into each port before operating.
7. Filter-Regulators should be installed upstream of any Lubricators in the airline.
8. If installing using modular clamp connections A118-105 or A118-105M, torque screws 30-40 in-lbs.

### OPERATION:

1. When adjusting pressure setting, always reset from a pressure lower than the final desired setting. For example, lowering pressure from 100 psi to 50 psi should be done by decreasing pressure to 30 psi then increasing to 50 psi.
2. To increase pressure turn Adjusting Knob (2) clockwise, to lower pressure turn counter-clockwise.
3. Pull out Adjusting Key (1) for non-adjustment or remove for tamper proof.
4. Filter may be drained manually by turning Drain Knob (31) clockwise until bowl drains. Return to full counter-clockwise position for automatic drain position. To install 3/16 flexible tubing, push Drain Knob (31) up to expose the Drain Clip (32). Remove the Drain Clip (32) and Drain Knob (31). Push tubing on Drain Stem (33). A tube clamp should be used to retain tubing on drain stem (33).
5. Replace Plastic Bowls with Metal if any signs of crazing or cracking are observed.
6. Replace Element when dirty. If pressure differential reaches 8 psid, element MUST be replaced.

### TO CLEAN OR REPAIR:

1. Depressurize and lockout air pressure.
2. Remove bowl Retaining Ring (21) and Bowl (27), including shatterguard (22) with plastic bowl, by turning counter-clockwise.
3. Remove Lower Baffle (28) by turning counter-clockwise.
4. The Filter Element (25) can now be removed. Do NOT clean elements, they must be replaced. Sintered Bronze elements may be cleaned by soaking several hours in soap and water, then blowing them out in reverse direction to normal flow with compressed air.
5. Remove Valve Cap (23) by turning counter-clockwise.
6. Valve Spring (18) and Valve (17) can now be removed. Visually inspect for defects, replace if needed.
7. To service Float Drain (29), turn Drain Knob (31) counter-clockwise until it stops. Then push Drain Knob (31) up to expose Drain Clip (32). Remove Drain Clip (32) and pull off Drain Knob (31).
8. Remove Drain Nut (30) by turning counter-clockwise. Float Drain (29) can now be removed from Bowl (27) & disassembled.
9. The Float Drain (29) and Bowl (27) can now be cleaned. *(For Float Drain repair instructions see A802-42 or A802-49 installation and Maintenance sheets)*
10. To service Regulator side, reduce spring load to zero by turning Adjusting Knob (2) counter-clockwise.
11. Remove Dome (10) by turning counter-clockwise.
12. Diaphragm Assembly (11) can now be removed. Visually inspect for defects, replace if needed.
13. When re-assembling, be sure all o-rings are correctly located. Lubricate o-rings with Lithium grease. Torque Lower Baffle (28) maximum 5 in-lbs. Torque Valve Cap (23) 55-65 in-lbs. Washer (12) MUST be between Diaphragm Assembly (11) and Dome (10). Torque Dome (10) 190-210 in-lbs. Torque Drain Nut (30) 5-15 in-lbs. Torque bowl Retaining Ring (21) 30-50 in-lbs. When bowl Retaining Ring (21) is fully in place, there should be a gap between the bowl Retaining Ring (21) and Head (13) of 0.020"-0.040". *See sectional on Parts Listing.*
14. If the Filter-Regulator cannot be repaired by cleaning with soap and water, the parts should be replaced.



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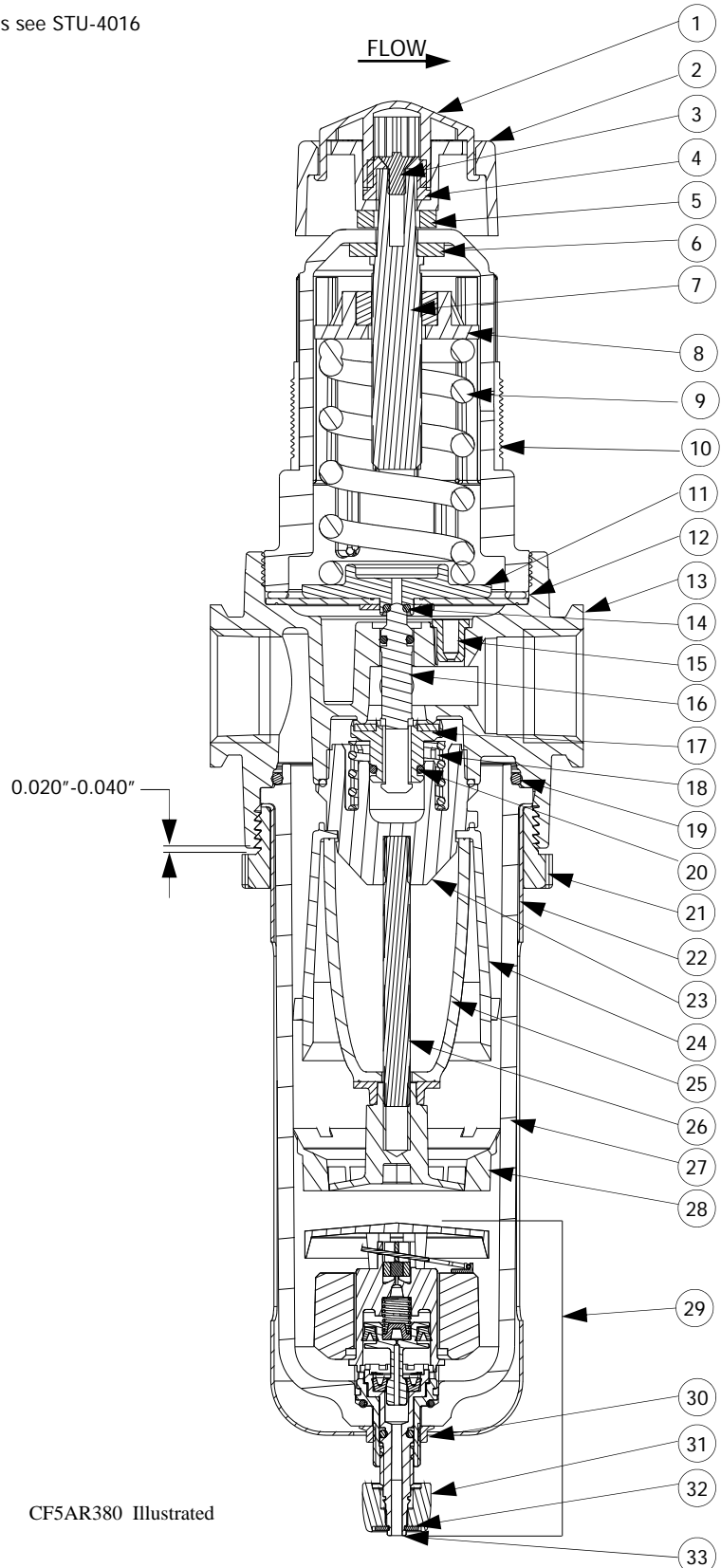
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## Parts Listing

For integrals with manual or automatic internal drain options see STU-4016

KEY	DESCRIPTION
1	Adjusting Key
2	Adjusting Knob
3	Screw
4	Drive Nut
5	Spacer
6	Adjusting Washer
7	Adjusting Screw
8	Spring Rest
9	Main Spring
10	Dome
11	Diaphragm Assembly
12	Washer
13	Head
14	O-Ring
15	Pitot Tube
16	Valve Stem
17	Valve
18	Valve Spring
19	O-Ring
20	O-Ring
21	Retaining Ring
22	Shatterguard
23	Valve Cap
24	Upper Baffle
25	Filter Element
26	Stud
27	Bowl
28	Lower Baffle
29	Float Drain Assembly
30	Drain Nut
31	Drain Knob
32	Drain Clip
33	Drain Stem



CF5AR380 Illustrated



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5. Replace Plastic Bowls with Metal if any signs of crazing or cracking are observed.
6. Replace Element when dirty. If pressure differential reaches 8 psid, element MUST be replaced.

### TO CLEAN OR REPAIR:

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6. Valve Spring (18) and Valve (17) can now be removed. Visually inspect for defects, replace if needed.
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11. Remove Dome (10) by turning counter-clockwise.
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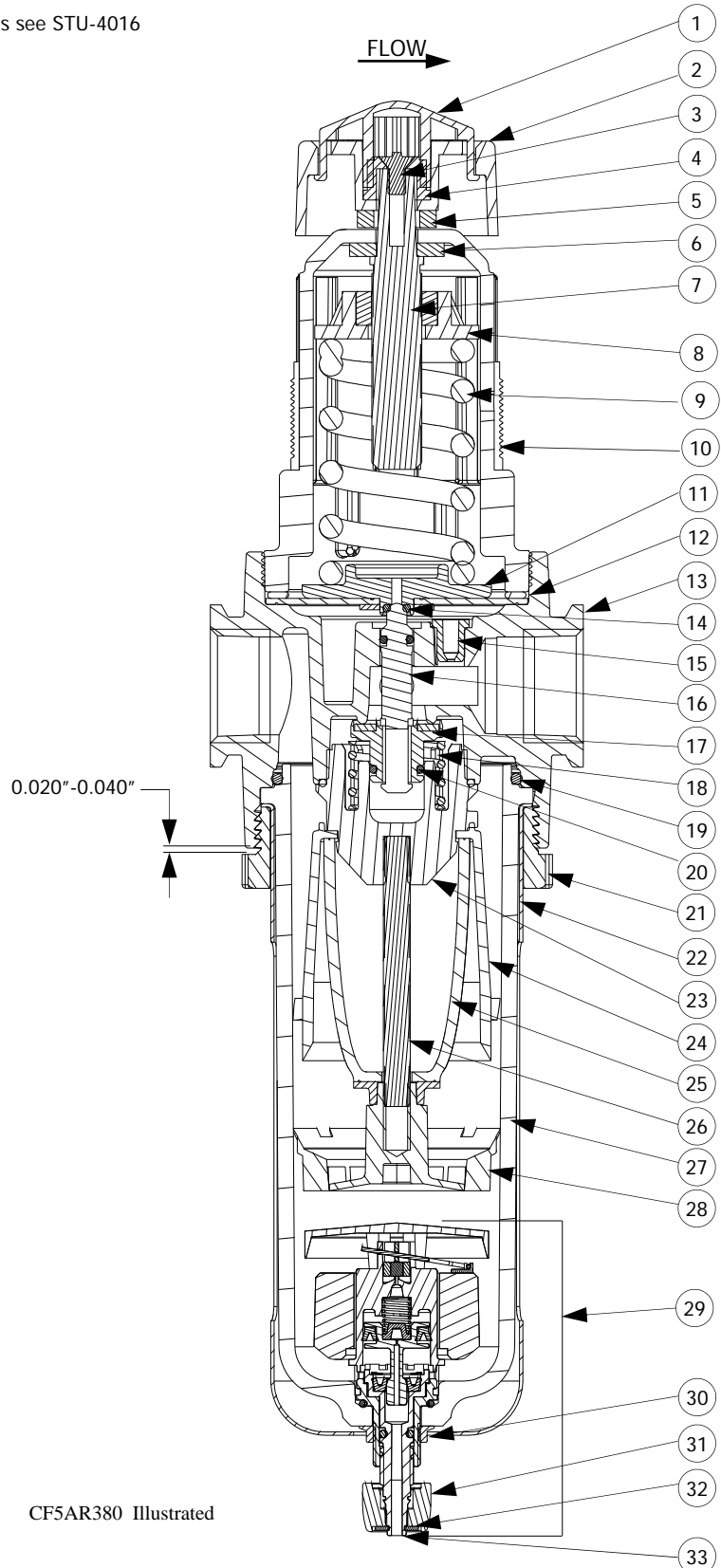
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