

## INSTALLATION / OPERATION / MAINTENANCE MANUAL FOR TYPE 30, 30A, 30S FLOWGRID™ FILTER

### SCOPE

This manual provides installation, operation and maintenance instructions for the **TYPE 30 / 30A / 30S FLOWGRID™ FILTERS**. Instructions for the FLOWGRID™ VALVE and PILOT will be found in separate manuals.

### PRODUCT DESCRIPTION

The **TYPE 30 / 30A / 30S FLOWGRID™ FILTER** is designed to remove dirt and other particulates in the pilot supply that could affect the restrictor or variable orifice in the pilot. The Filter can be used in a variety of other gas and liquid applications.

### INSTALLATION

The following instructions apply to mounting the **TYPE 30 / 30A / 30S FLOWGRID™ FILTER** on the FLOWGRID™ VALVE and connecting to the pilot system. Refer to the FLOWGRID™ VALVE and PILOT I/O/M manuals for installation instructions and start up procedures.

### WARNING

**Personal injury, equipment damage, or leakage due to explosion of accumulated gas or bursting of pressure containing parts may result if this FILTER is overpressured or is installed where service conditions could exceed the limits given in the specification of this manual or on the nameplate, or where conditions exceed any ratings of the adjacent piping or piping connections. Verify the limitations of both valve and pilot to ensure neither device is overpressured. To avoid such injury or damage, provide pressure relieving or pressure limiting devices (as required by Title 49, Part 192, of the U.S. code of Federal Regulations, by the National Fire Codes of the National Fire Protection Association, or by other applicable codes) to prevent service conditions from exceeding those limits. Additionally, physical damage to the valve/regulator could break the pilot or filter off the main valve, causing personal injury and/or property damage due to explosion of accumulated gas. To avoid such injury and damage, install the filter in a safe location.**

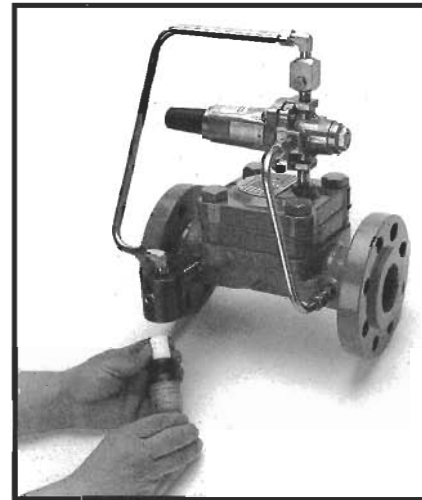


Figure 1. **TYPE 30A FLOWGRID™ FILTER** with Filter Housing removed to allow easy inspection of the element. Mounted on a 2" Large Single Port FLOWGRID™ Valve with Series 20 Pilot and Type 24 Restrictor.

**1. PERSONNEL:** Installation of the Filter should be made by qualified personnel familiar with high pressure piping and pilot operated regulators.

**2. PRIOR INSPECTION:** Inspect the Filter for any damage that might have occurred in shipping. Make sure the body, pilot lines, and inlet piping are clear and free of foreign material.

**3. ORIENTATION:** The **TYPE 30 / 30A / 30S FLOWGRID™ FILTER** should be installed with the Drain Plug down to allow drainage of liquids that may accumulate in the Filter Housing (Refer to Figure 2, page 2).

**3. FILTER MOUNTING:** Apply pipe dope to a 1/4-inch NPT Schedule 80 seamless pipe nipple and mount filter by connecting the INLET connection on the filter to the body tap on the FLOWGRID™ VALVE.

**4. FILTER OUTLET:** Run 3/8 inch tubing or 1/4-inch pipe from the filter OUTLET port to the INLET side of the the restrictor in the pilot system of the regulator. The **TYPE 30 / 30A / 30S FILTER** has two OUTLET ports for ease of tubing. Block the other port with the plug provided.

**NOTE:** To avoid galling when stainless steel to stainless steel connections are made use a lubricant (such as NEVER SEEZ by Bostik<sub>1</sub>). For best results LIGHTLY lubricate the *female* threads. Mixing the lubricant with pipe dope is also acceptable. Do not exceed more than 1/4 turn past the point the threads start to bind.

## START UP AND OPERATION

The TYPE 30 /30A / 30S FLOWGRID™ FILTER does **NOT** require any special start up procedures. Start up of the FLOWGRID™ FILTER should be made by qualified personnel familiar with high pressure systems and pilot operated regulators. Consult the instruction manual for the valve and pilot being used. Some valves and pilots can be damaged if not installed and put into operation correctly.

## MAINTENANCE

Filter element is subject to plugging and must be inspected and replaced as necessary. The frequency of inspection and replacement of the filter element depends on severity of service conditions and the length of time in service.

### WARNING

**Before disassembly make sure the regulator and filter have been isolated from the process by closing block valves on the inlet and outlet sides of the regulator. Safely release pressure and process fluid from body and pilot system. Failure to properly complete these steps may result in personal injury and property damage.**

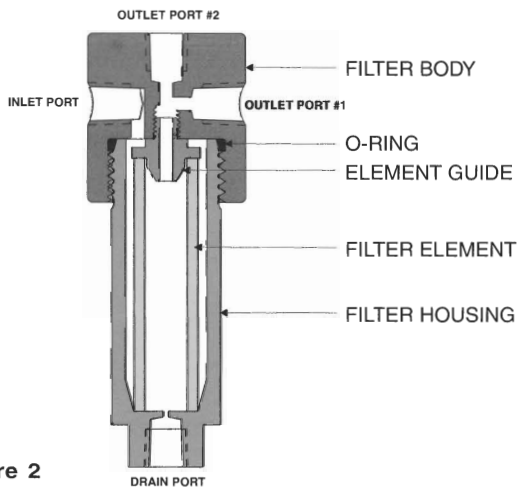


Figure 2

## DISASSEMBLY

1. After depressurizing main valve and filter unscrew and remove Filter Housing from the Filter Body.
2. Inspect Filter Element and replace if necessary.
3. Remove Filter O-Ring. A paper clip or other suitable tool can be used. Inspect for defects and replace if necessary.

## ASSEMBLY

1. Lubricate O-Ring with Parker O-Lube<sub>1</sub> (or equivalent Petroleum based lubricant) and place back in the Filter Body.
2. If the Filter Guide is removed, apply a small quantity of Lock-Tight<sub>1</sub> (or equivalent) to the threaded area and screw hand tight into Filter Body.
3. Lubricate the threads of the Filter Housing with Lubraplate<sub>1</sub> (or equivalent Petroleum based lubricant).
4. Place Filter Element in Filter Housing and screw Housing into Filter Body snugly (overtightening an O-Ring joint will not improve the seal). The element will guide itself into place regardless of the orientation of the Filter.

Table 1

FLOWGRID TYPE 30, 30A, 30S FILTER PARTS LIST				
ITEM	DESCRIPTION	MATERIAL	PART NUMBER	QTY
1	BODY	ALUMINUM	301-006-01	1
		STAINLESS STEEL	301-006-02	
		STEEL	301-006-03	
2	HOUSING	ALUMINUM	301-004-01	1
		STAINLESS STEEL	301-004-02	
		STEEL	301-004-03	
3	ELEMENT GUIDE	STAINLESS STEEL	301-007-01	1
4	ELEMENT	POLYETHYLENE	301-005-01	1
5	O-RING	NITRILE	021-217-01	1
6	PLUG	STEEL	010-017-01	2
		STAINLESS STEEL	010-017-02	

<sup>1</sup>-Registered Trade Mark

## WARRANTY

**LIMITED WARRANTY:** Seller warrants title and that the goods manufactured by the Seller will be free from defects in materials and workmanship under normal use and service until the expiration of the earlier of twelve (12) months from the date of initial operation or eighteen (18) months from the date of shipment by Seller. Resale goods shall carry only the warranty extended by the original manufacturer to the original purchaser. If, within thirty (30) days after Buyer's discovery of any warranty defects, Buyer notifies Seller in writing, Seller shall, at its option, promptly repair or replace F.O.B. point of manufacture, that portion of the goods found by Seller to be defective. Goods repaired

and parts replaced during the warranty period shall be in warranty for the remainder of the original warranty period. This warranty is the only warranty made by Seller and can only be amended by a written instrument signed by an officer of Seller. Subject to this warranty and **EXCEPT AS EXPRESSLY PROVIDED IN SALES LITERATURE, MOONEY CONTROLS, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, OR ANY OTHER MATTER WITH RESPECT TO ANY OF THE PRODUCTS.**

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