

December 2009

P590 Series Filters

Introduction

Scope of the Manual

This manual provides instructions for installation, maintenance and parts information for P590 Series filters.

Product Description

P590 Series filters are designed to remove dirt, scale or other solid substances from gases just upstream from pilot supply lines for air or gas pressure regulators.

P590 Series filters come with either aluminum or brass bodies and cellulose or aluminum/brass filter elements. Type P593-1 is also available with a NACE option.

The brass body filters (Types P595 and P594-1) are capable of handling up to 1400 psig (96,5 bar) working pressure, while the aluminum-bodied (Type P593-1) can withstand 600 psig (41,4 bar) maximum working pressure.

Installation

WARNING

Personal injury, equipment damage, or leakage due to escaping gas or bursting of pressure-containing parts may result if the filter is installed where its capabilities can be exceeded or where conditions exceed any ratings of the adjacent piping or piping connections. To avoid this, install a filter where:

- **Service conditions are within unit capabilities.**
- **Service conditions are within applicable codes, regulations, or standards.**

Using good piping practices, make sure that all tubing and piping are clean and unobstructed. Apply a good grade of pipe compound to the male pipeline threads. Install the filter in the line with the flow in the direction of the arrow shown in Figure 1.

Maintenance

Filter parts are subject to normal wear and must be inspected periodically and replaced as necessary. The frequency of inspection and replacement depends upon the severity of service conditions and upon applicable codes and government regulations.

Due to the care Fisher® takes in meeting all manufacturing requirements (heat treating, dimensional tolerances, etc.), use only replacement parts manufactured or furnished by Fisher.

WARNING

To avoid personal injury resulting from sudden release of pressure, isolate the regulator/filter from all pressure and cautiously release trapped pressure from the regulator/filter before attempting disassembly.

Perform this procedure to clean or replace filter parts in a P590 Series filter assembly. Key numbers are referenced in Figure 1.

Remove the following parts: filter body (key 1), machine screw (key 4), spring washer (key 6), gasket (key 7), two flat washers (key 5), and filter element (key 2).

Upon reassembly, one of the flat washers (key 5) must go between the filter element and the filter head (key 3) and the other must go between the filter element and gasket. Use a good grade of pipe thread sealant on the filter head pipe threads as shown by P.T.S. in Figure 1.

Parts Ordering

When corresponding with your local Sales Office about this filter, always reference the FS number.

When ordering replacement parts, specify the complete 11-character part number from the following parts list.



P590 Series

Parts List

Note

In this parts list, parts marked NACE are intended for corrosion-resistant service as detailed in the NACE International standard MR0175.

Key	Description	Part Number
1	Filter Body Types P595, P594-1, Brass Type P593-1, Aluminum Aluminum (NACE)	1E312414012 1E3124X0022 1E3124X0013
2*	Filter Element, Cellulose Cellulose (NACE)	1E312606992 1E312606992
3	Filter Head Types P595, P594-1, Brass Type P593-1, Aluminum Aluminum (NACE)	1E312514012 1E3125X0022vv 1E312509012
4	Machine Screw Types P595, P594-1, Brass Type P593-1, Aluminum Aluminum (NACE)	1J500218992 1J500209012 1J500209012
5	Washer (2 required) Types P595, P594-1, Brass Type P593-1, Aluminum Aluminum (NACE)	1J500018992 1J500010062 1J500010062

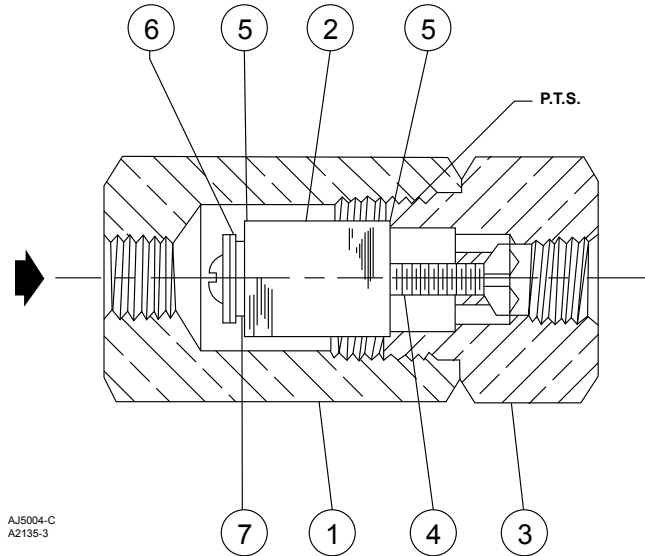


Figure 1. Typical P590 Filter Assembly

Key	Description	Part Number
6	Spring Washer, Steel	1H885128982
7*	Gasket, Composition Types P594-1, P593-1	1F826804022
11	NACE Tag (Type P593-1 NACE only) 18-8 Stainless steel (not shown)	19A6034X012
12	Tag Wire (Type P593-1 NACE only) 303 Stainless steel (NACE)	1U7581X0022

*Recommended Spare Parts

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