

# FINE CONTROLS (UK) LTD



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## Model 2306 Air Filter

### DESCRIPTION

The Siemens Model 2306 instrument air filter is used to remove dirt, oil, water, and other impurities from an instrument air supply. This highly efficient instrument air filter employs the principle of coalescence to trap fine particles in a dripwell.

Air enters the filter through the inlet which is connected to a cylindrical filter cartridge. Air is filtered as it passes down through the filter cartridge. Filtered air flows up between the cartridge and outer housing to the outlet.

As air flows downward through the lamb's wool filtering medium, oil and water particles tend to coalesce. The steady blow-down action of the incoming air maintains high filtering efficiency by cleaning the filter cartridge continuously. The natural force of gravity makes the coalesced materials collect at the bottom of the dripwell.

### IMPORTANT

To prevent personal injury or damage to the equipment, save this publication and make it available when installing or servicing the air filter.

### MATERIALS OF CONSTRUCTION

Brass, aluminum (filter cartridges since 2009), lamb's wool, and neoprene

### OPERATING CHARACTERISTICS

Recommended flow for optimum efficiency\*: 0.5 scfm at 75 psig (14 dm<sup>3</sup>/m at 520 kPa)

Maximum supply pressure: 1000 psig (69 barg)

Pressure drop through filter: approximately 1/4 psi (2 kPa) with 75 psig supply pressure and 0.5 scfm flow

\* Flow capacities at higher or lower supply pressures will vary in direct proportion to the absolute pressure.

### INSTRUMENT AIR REQUIREMENTS

Connect the instrument to a source of clean, dry, oil-free instrument air. Failure to do so will increase the possibility of a malfunction or deviation from specified performance.



### CAUTION



Use of process fluids other than instrument air is not recommended. No claim is made as to the suitability of this product for use with other process fluids, such as hazardous gases, except as listed on an appropriate certificate. Non-approved instruments are suitable for use with instrument air only. Optional features and modifications do not imply suitability for use with hazardous gases except as listed on an approval certificate.

There are many types of synthetic compressor lubricants. Some may not be compatible with the materials used in construction of the instrument. Wetting of these materials by such an oil mist or vapor, etc., may cause them to deteriorate. This may ultimately result in failure of the instrument.

**CAUTION**

Synthetic compressor lubricants in the instrument air may cause deterioration of some components resulting in instrument failure.

The requirements for a quality instrument air supply can be found in the Instrument Society of America's "Quality Standard for Instrument Air" (ISA-S7.3). Basically, this standard calls for the following:

**Particle Size** — The maximum particle size in the air stream at the instrument should be no larger than 3 microns.

**Dew Point** — The dew point, at line pressure, should be at least 10°C (18°F) below the minimum temperature to which any part of the instrument air system is exposed at any season of the year. Under no circumstances should the dew point, at line pressure, exceed 2°C (35.6°F).

**Oil Content** — The maximum total oil or hydrocarbon content, exclusive of non-condensable, should not exceed 1 ppm under normal operating conditions.

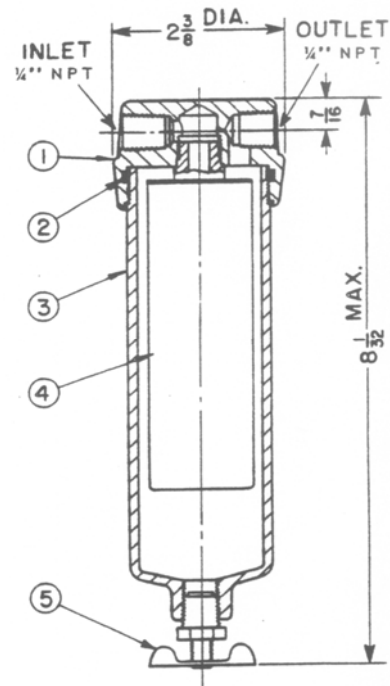
**INSTALLATION**

Install the Air Filter in the supply air line as indicated by the arrow on the top cap and the adjacent figure. Blow out all piping before connections are made to prevent the possibility of dirt or chips entering the filter. Use pipe sealant sparingly, and then only on the male threads. A non-hardening sealant is strongly recommended.

**SERVICING**

A petcock permits the filter to be blown down periodically. Blow down the Air Filter as often as necessary to prevent liquid build-up from saturating the filter cartridge. If accumulated dirt and scale make it necessary to replace the filter cartridge, the replacement can be installed without disturbing inlet and outlet connections. To replace the filter cartridge:

1. Turn off supply air to the Air Filter.
2. Unscrew the filter housing from the top cap.
3. Unscrew the filter cartridge assembly from top cap. Examine the O-ring in the top cap and replace if necessary.
4. Firmly screw the replacement cartridge into the top cap.
5. Screw the filter housing firmly into the top cap.
6. Turn on supply air.

**PARTS LIST**

Item	Part Number	Description	Qty
1	2306-12	Top Cap	1
2*	2938-6	O-Ring	1
3	2306-42	Housing	1
4*	2306-17	Kit of 4 Filter Cartridges with lamb's wool filter material	1
5	10963-53	Petcock	1
*Recommended on-hand spare part			

## CUSTOMER/PRODUCT SUPPORT

For support and the location of your local Siemens representative, refer to the table below for the URL of the Process Instrumentation (PI) portion of the Siemens public Internet site. Once at the site, click **Support** in the right column and then **Product Support**. Next select the type of support desired: sales, technical (see the table below), documentation, or software.

Online Support Request	<a href="http://www.siemens.com/automation/support-request">http://www.siemens.com/automation/support-request</a>
Technical Support	1-800-333-7421; 8 a.m. to 4:45 p.m. eastern time, Monday through Friday (except holidays)
Customer Service & Returns	1-800-365-8766 (warranty and non-warranty)
Public Internet Site	<a href="http://www.usa.siemens.com/pi">http://www.usa.siemens.com/pi</a>
Technical Publications in PDF	Click the above link to go to the Siemens Internet site and then click <b>Process Instrumentation</b> . In the column to the right, click <b>Support &gt; Manuals</b> . In the column to the left, select the product line (e.g. Pressure or Temperature or Controllers) to open navigation and search panes. Note: Navigation may change as the site evolves.

### Warranty

The sales contract contains the entire obligation of Siemens. The warranty contained in the contract between the parties is the sole warranty of Siemens. Any statements continued herein do not create new warranties or modify the existing warranty.

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