



FUSHENG

COMPRESSED AIR FILTERS

MODELS T5 TO T300

Installation, Operation and Maintenance Manual

This manual must be read by everyone who
installs, operates or maintains the equipment.



SAFETY WARNING: Failure to comply with the following safety guidelines may result in equipment failure, serious injury or death.

- All warnings, cautions, prohibitions and notes in this manual must be read before hand and observed during installation, operation and maintenance. The user must operate with care, observing all instructions concerning health and safety, when handling, operating or maintaining the filter.
- Compressed air is dangerous. Before performing any installation or maintenance on any components of a compressed air system, including filters, ensure that the system has been discharged or vented to atmospheric pressure. Ensure all safety regulations are observed and appropriate protection worn.
- Inspect the filter thoroughly upon receipt and before installation. If any components or part of the filter is damaged, do not install or repair the filter. Contact your dealer.
- Do not operate the filter at pressures or temperatures exceeding the maximum pressure and temperature of the filter.
- Avoid damaging the filter body when removing or tightening the filter body. Do not use a pipe wrench. If necessary, use a locking strap clamp/wrench. The filter body may be heavy. Caution should be taken when removing it.
- The use of replacement parts or elements other than those by Airfilter Engineering may cause failure of the filter, property damage, serious injury or even death. Hence, Airfilter Engineering bears no responsibility for the consequences of use of filters containing non-approved parts.
- This filter was not designed for oxygen service. Filtration of compressed gases or gas mixtures other than that of atmospheric air requires specialized filters.
- Activated carbon filters will not affect the levels of carbon monoxide, carbon dioxide or other toxic gases or fumes. Hence, the outlet air may not be suitable for breathing.
- Protect environment by recycling where possible and using only approved methods of disposal. Used filter elements typically hold contaminants.
- FuSheng cannot anticipate every possible circumstance that might lead to a potential hazard. Hence, the warnings in this manual are not all-inclusive.

DESCRIPTION

FuSheng compressed air filters will, when properly installed and maintained, remove oil and water liquids or mist, dirt and other particulates from compressed air. To obtain best results, read and follow the instructions in this manual for filter installation, operation and maintenance.

INSTALLATION

Inspect the filter immediately upon receipt of the filter for any damage that may have occurred during shipment. Do not install or attempt to repair the filter if there is damage. Purge all pipe work before installing the filter to thoroughly clean out any dirt or impurities within. Ensure that the weight of all pipes and filters are properly supported. Connections and fittings must be rated for the maximum operating temperature and pressure.

Install the filter in a vertical upright position, observing the correct direction of air flow as indicated by the flow indicator arrow. Allow sufficient clearance below the filter and working area for removal of the filter body and filter element.

Recommendations:

- Filters should be located downstream of aftercoolers and air receivers, or any other location in the system where the temperature does not exceed the recommended maximum and as close to the point of application as possible. A coalescing filter does not lower the dew point of compressed air. Temperature changes downstream of the filter may result in condensation of water and oil vapours. Installing close to the application minimizes the risk of pipe scale downstream of the filters contaminating filtered air.
- Care for the filter by not installing it downstream of quick opening valves and by protecting it from any possible reverse flow or other shock conditions.
- To facilitate maintenance without shutting the system down, a three-valve bypass system enabling the filter to be isolated, can be used. However, contamination will inevitably leak through valves bypassing the filter. For applications that cannot tolerate unfiltered air, have a second filter installed in the bypass loop.
- Install FuSheng differential pressure gauges to monitor pressure drop across filters.

MAINTENANCE

Filter Element

Schedule regular element changes to ensure optimum performance and quality of filtered air, keeping operating costs low. Increased pressure drop reduces system efficiency, which may damage some system components. The compressor will also have to work harder to overcome the pressure drop, increasing operating costs. Filter elements must be replaced at least once a year, or when the maximum recommended pressure drop (0.6 bar) has been exceeded. For activated carbon filters, replace the filter elements every three months or when odours, tastes or vapours are detected downstream of the filter.

Parts and Accessories

Inspect all filter parts and accessories during each element change and replace damaged or worn parts when necessary. Use only original FuSheng spares to ensure proper filter performance and to avoid compromising your filter warranty.

Automatic Condensate Drain (Where applicable)

Inspect the automatic condensate drain every two to three weeks for excessive oil and water by using the manual drain function to discharge the condensate until the compressed air blows through for a few seconds. If a significant amount of condensate is discharged, the condensate drain should be cleaned or replaced as required.

DESCRIPTION

The Fusheng Industrial Co. Ltd pressure gauge, with its easy-to-read display, has been designed to facilitate quick and accurate monitoring of pressure drop across a filter. Installation of the gauge is easy and flexible as the gauge is bi-directional. The differential pressure gauge offers practical and economical condition monitoring of filter elements and hence allows efficient maintenance of your compressed air system, reducing maintenance and operational costs.

INSTALLATION

Ensure that the filter has been completely discharged to atmospheric pressure before proceeding with the installation. Failure to do so may result in equipment failure, injury or death.

Remove the two pairs of brass nuts and PE washers from the filter head. Install the differential pressure gauge vertically, ensuring that the two O-rings are properly seated and the two locking screws securely fastened. (Refer to diagram on the page behind).

RECOMMENDATIONS

Lightly grease the O-rings so that they adhere to the gauge during installation.

Store the two pairs of brass nuts and PE washers in a safe place as they will be needed should the differential pressure gauge be removed.

OPERATION

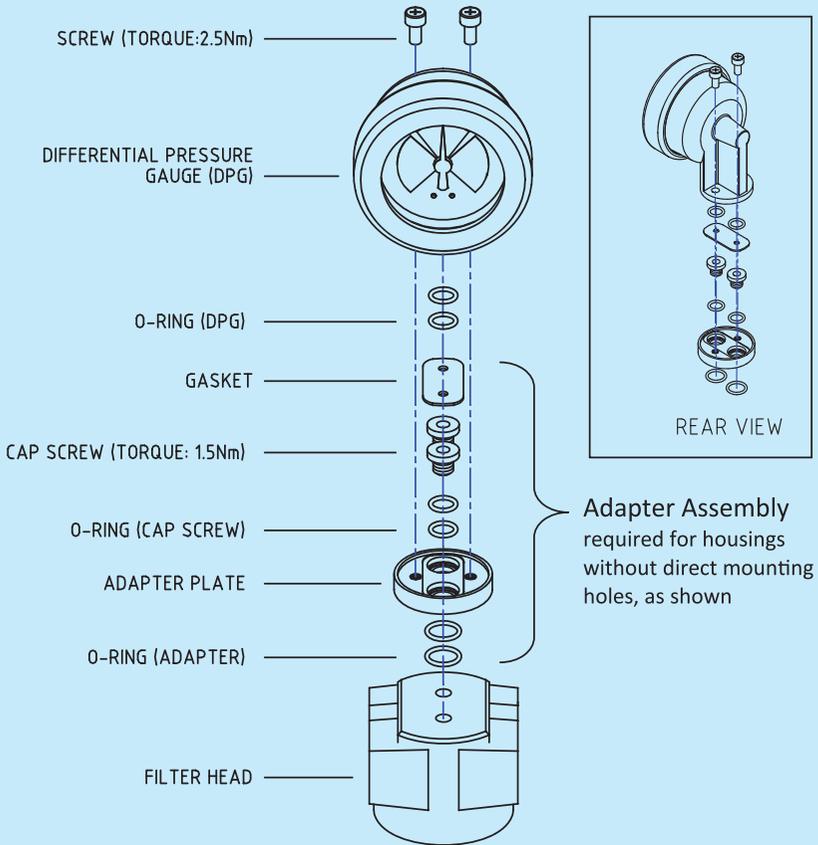
| Indicated Zone | Differential Pressure (bar) | Condition of Element |
|----------------|-----------------------------|---|
| Green | 0 to 0.35 | Element is still in good condition and useable. |
| Yellow | 0.35 to 0.6 | Element is clogged and needs to be replaced. |
| Red | 0.6 to 2.0 | DANGER, REPLACE ELEMENT IMMEDIATELY. |

SAFETY

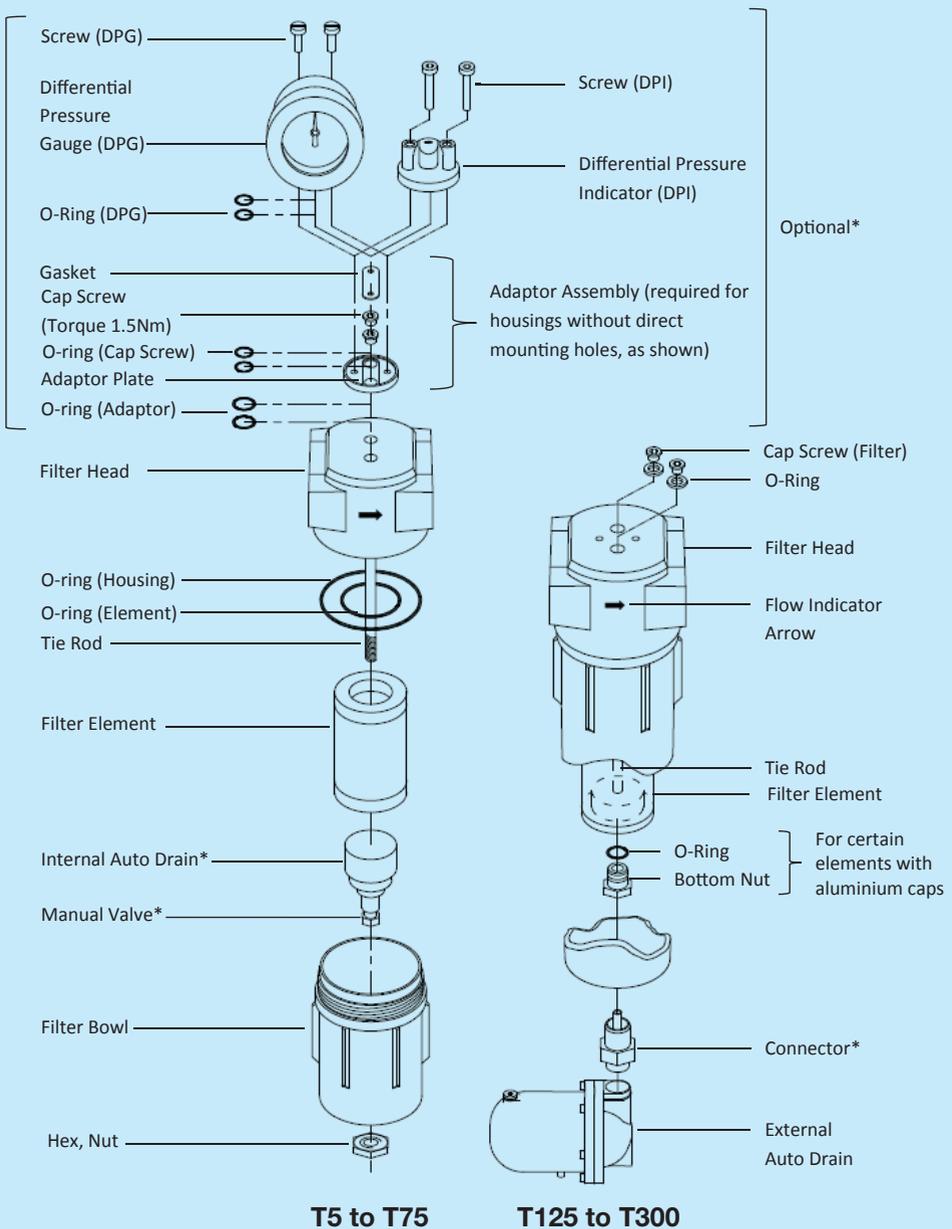
- Compressed air is dangerous. Before performing any installation or maintenance on any component of a compressed air system, including filters, ensure that the system has been discharged or vented to atmospheric pressure. Ensure all safety regulations are observed and appropriate protection worn.
- When cleaning the clear plastic lens of the differential pressure gauge, do not use solvents that may corrode or dissolve the plastic. Use a clean cloth soaked with warm water to wipe any dirt or dust away.
- The differential pressure gauge can only be serviced by trained technicians authorized by Fusheng Industrial Co. Ltd (the company). Should the differential pressure gauge need servicing or repair, contact your FS Curtis dealer. Hence FS Curtis bears no responsibility for the consequences of unauthorised servicing of the differential pressure gauge.
- The company cannot anticipate every possible circumstance that might lead to a potential hazard. Hence, warnings in this manual are not all-inclusive.
- Protect the environment by recycling where possible and using only approved methods of disposal.

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DIFFERENTIAL PRESSURE GAUGE INSTALLATION, OPERATION AND MAINTENANCE



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*May vary, depending on filter series, models or specific requirements



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