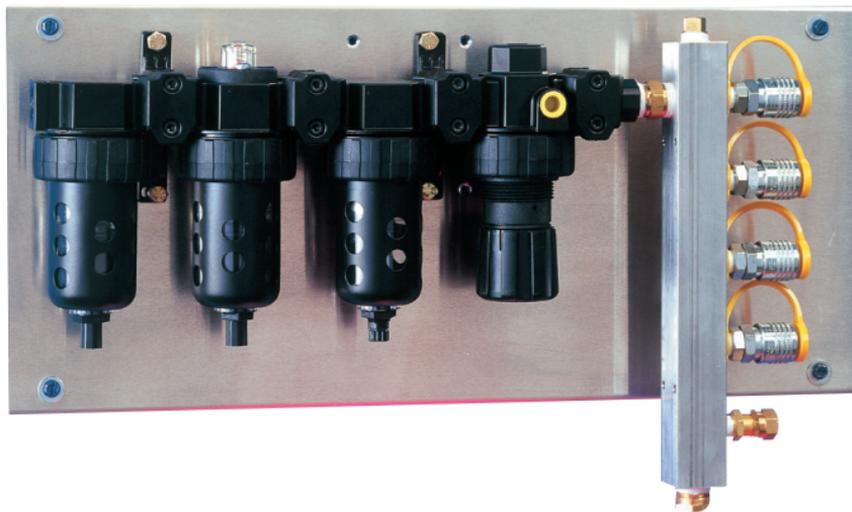


# D-System Filter Panel

## Operation Manual



**GfG Instrumentation**

Worldwide Manufacturer of Gas Detection Solutions



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## **For your safety**

Like any piece of complex equipment, the GfG D-Systems 8025/9025, 8050/9050, and 8100/9100 will do the job it was designed to do, only if it is used and serviced in accordance with the manufacturer's instructions. All individuals who have or will have the responsibility of servicing the equipment must carefully read this manual.

The warranties made by GfG-Instrumentation with regards to this instrument are voided, if the product is not used and serviced in accordance with the instructions in this manual. Please protect yourself and others who depend on this instrument by following these instructions. The above does not alter statements regarding GfG-Instrumentation warranties and conditions of sale and delivery.

## **Introduction**

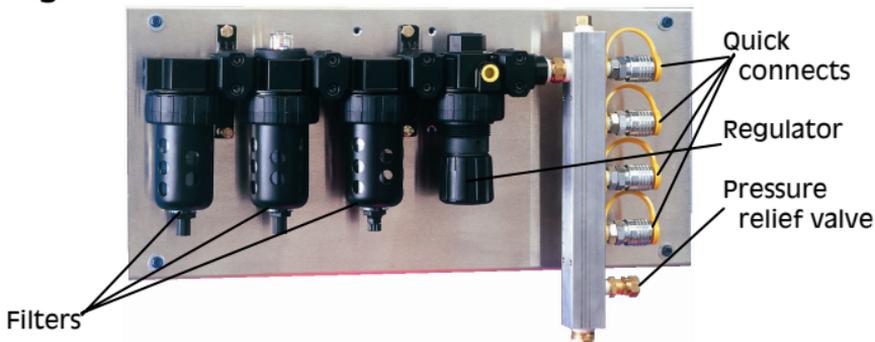
D-Systems models 8025/9025, 8050/9050, and 8100/9100 series of filtration systems have been specifically designed to purify compressor air so that it may be used in respiratory breathing systems. These systems will provide grade D breathable air as long as they are properly maintained. A number of workers can use the system, depending on the type of respirators used, as long as the combined air usage does not exceed the rated cfm of the filtration system. Consult respirator specifications for cfm requirements.

The D-Systems include a carbon monoxide monitor in order to comply with OSHA Respiratory Regulation 1910.134 (i)

## Overview

The basic D-System is comprised of a 3-stage filtering section, regulator, carbon monoxide monitor and a manifold for breathing line air taps with quick disconnects. **Be certain the quick disconnects are the appropriate type for the respiratory equipment to which it will be connected.** GfG stocks disconnects for most manufacturers of respiratory systems.

## Diagram



## Description

Compressor air enters the D-System and flows through the filter section, which consists of three filters. The first filter removes airborne particulates of 5 microns and traps moisture. An automatic float drain provides for water removal. The second filter removes 99.9% of liquid aerosols, both oil and water and sub micron particulate from the air by coalescent action. An automatic float drain provides for removal of oil and water. The third filter removes gaseous hydrocarbons, taste and odor from the air by use of activated charcoal to comply with OSHA Respiratory Standard 1910.134 (i)(1)(ii)(B)-(E).

Air leaving the third filter passes through a line regulator, carbon monoxide monitor and then into the breathing line manifold with the quick disconnects and pressure relief valve.

## **Installation**

Wall mount systems include mounting holes in each of the four corners of the mounting plate. The D-System must be securely mounted using all four mounting holes.

Attach the compressor air line to the threaded pre-filter inlet. Refer to the carbon monoxide monitor instruction manual for its power connection and operation.

## **Operation**

Place air on the system and set the manifold regulator to the pressure recommended by the manufacturer of the respirator device. Adjust pressure by rotating the knob on the regulator until the proper pressure is indicated on the gauge.

Connect the breathing line hoses to the manifold quick disconnects.

**It may be necessary to readjust the manifold pressure after the respiratory air equipment has been attached.**

Refer to the carbon monoxide monitor instruction manual for operation instruction.

## **Maintenance**

The D-System is equipped with a filter replacement indicator, which is located at the top of the second filter. This indicator will turn red when the filter is no longer operating efficiently. The expected filter life is 5,000 hours, however, the actual filter

life may vary, depending on the contaminant levels in the air supply.

**GfG Instrumentation recommends replacing the filters after 5,000 hours or sooner when indicated.**

**The GfG D-System is designed to provide high quality breathing air and therefore recommends replacing all three filter elements each time filters are replaced.**

Pressure drop is the early warning indicator that the filter is becoming clogged and its efficiency is becoming impaired. When a pressure drop of 8-10 psi is indicated, the filter should be replaced. Ignoring pressure drop can be costly, both in terms of reduced air quality and the power costs associated with forcing compressed air through obstructed filters.

### **Filter replacement**

1. Before replacing filters, shut the air off to the system and depressurize the unit using the manual drain cock located on the third filter bowl.
2. Unscrew threaded bowl.
3. Unscrew lower filter retainer and remove filter element.
4. Clean all internal parts and bowl before reassembling.
5. Install new filter element.
6. Screw on lower filter retainer and hand tighten firmly.
7. Screw bowl onto body.
8. Apply pressure and check for leaks. If leak occurs, shut off air supply, depressurize the unit and correct leaks.

**NOTE: To clean internal parts and bowl, use only mild soap and water. Never use cleaning agents such as acetone, benzene, carbon tetrachloride, gasoline, toluene, etc., which are damaging to this plastic.**

## Replacement parts

<b>Part number</b>	<b>Description</b>
2609-25P	Replacement filter kit (three filters) for models 8025 and 9025.
2609-50P	Replacement filter kit (three filters) for models 8050 and 9050.
2609-100P	Replacement filter kit (three filters) for models 8100 and 9100.









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