



COMPONENTS AND DESIGN

Donaldson Sterile Air Manifolds provide a ready-to-install air filtration solution with housings, condensate traps, isolation and throttling valves, upstream and downstream pressure gauges, a sanitary check valve, and a steam inlet leg for sterilization-in-place (SIP) of the manifold. This manifold is recommended to be paired with the Donaldson Steam Manifold for integrated steam sterilization. The Sterile Air Manifold includes an isolation valve to sterilize either the sterile air filter or any downstream equipment.

A height adjustable mounting stand with leveling feet is available as an optional accessory to support both the Donaldson Sterile Air Manifold and Donaldson Steam Manifold together. An optional SIP Connection accessory is also available to connect between the Air and Steam Manifolds.

The manifold and all accessories are washdown compatible.

SERVICE

For highest standards of quality and safety in food and beverage processes, the Donaldson field service team is available for:

- manifolds troubleshooting
- repairs
- annual maintenance (replacing elements and other common spare parts)

FEATURES AND BENEFITS

- Minimal site assembly
- Compact design
- Minimal installation downtime
- Ergonomic housing heights
- Low differential pressure drop
- High flow rate capabilities
- Optional integrated steam sterilization

INDUSTRIES

The Sterile Air Manifold is used to protect products and processes from particulate, organic, or microbial contamination. The sterile air steam is free of particulate and bacterial contaminants and is suitable for use in direct contact with food products or product contact surfaces.



- Bottled Water



- Dairy



- Breweries



- Wineries

ASSOCIATED FILTER ELEMENTS

The Donaldson Sterile Air Manifold is designed to fit any combination of compatible Donaldson Process or Compressed Air elements, however we recommend the below configuration:

Stage 1

Donaldson DF-V filter element acting as a particulate/coalescence filter

Stage 2

Donaldson DF-S filter element acting as a particulate/coalescence filter

Stage 3

Donaldson DF-A filter element acting as an oil/vapor filter

Stage 4

Donaldson LifeTec™ P-SRF C filter element acting as a particulate filter

PRODUCT SPECIFICATIONS

Features	Specifications
Max. Operating Temperature	65 °C (150 °C for Stage 4, Final Filter)
Max. Operating Pressure	10,3 barg
Max. Differential Pressure	Refer to element datasheets
Components	Donaldson housings Steam trap Manometers from ASHCROFT Isolation and throttling ball valves Optional SIP connection Optional support stand
Internal surface finish [Ra]	Ra < 0,8 µm after final filter
Materials	All product contact surfaces Stainless Steel 1.4301 or 1.4401 Elastomers are made of EPDM or PTFE

Donaldson's Sterile Air Manifolds are designed for the filtration of industrial and culinary air and yield low differential pressure at high flow rates. See estimated manifold capacities below. Detailed sizing curve is also provided on the following pages.

APPLICATIONS

The Sterile Air Manifolds are designed and developed for the following applications:

- Filtration and purification of compressed air and technical gases
- Any application where sterile compressed air is required
- Static or Dynamic Tank Venting
- Aseptic Storage or Packaging
- Product Push
- Cooling or Conveying Air

QUALITY TESTING

All products have been inspected and meet the following requirements by Quality Assurance:

- Sterile Air Manifold roughness Ra < 0,8µm downstream of final filter.
- All components downstream of final filter use materials meeting regulatory requirements for food contact as detailed in European Regulation (EC) 1935/2004 and subsequent amendments, as well as FDA Code of Federal Regulations Title 21.
- Pneumatic leak test per EN 13480-5.
Documentation available upon request

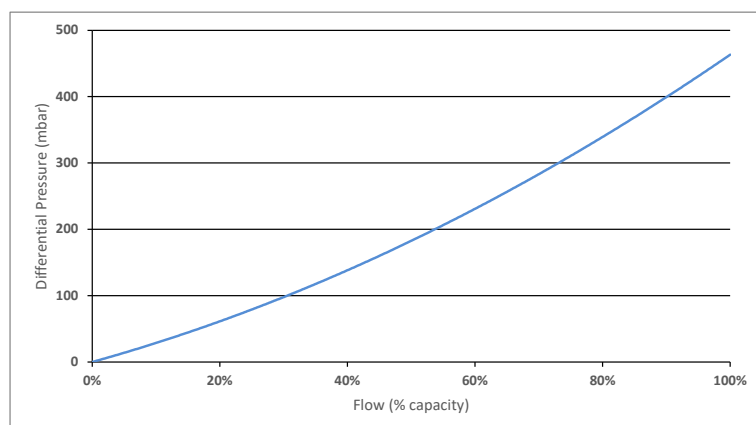
MANIFOLD CAPACITIES

Line Size	Flow (m³/h)
DN20	180
DN25	320
DN50	720

FLOW CHARACTERISTICS

Estimated flow characteristics using Donaldson housings and typical filter element configuration with 7 barg compressed air.

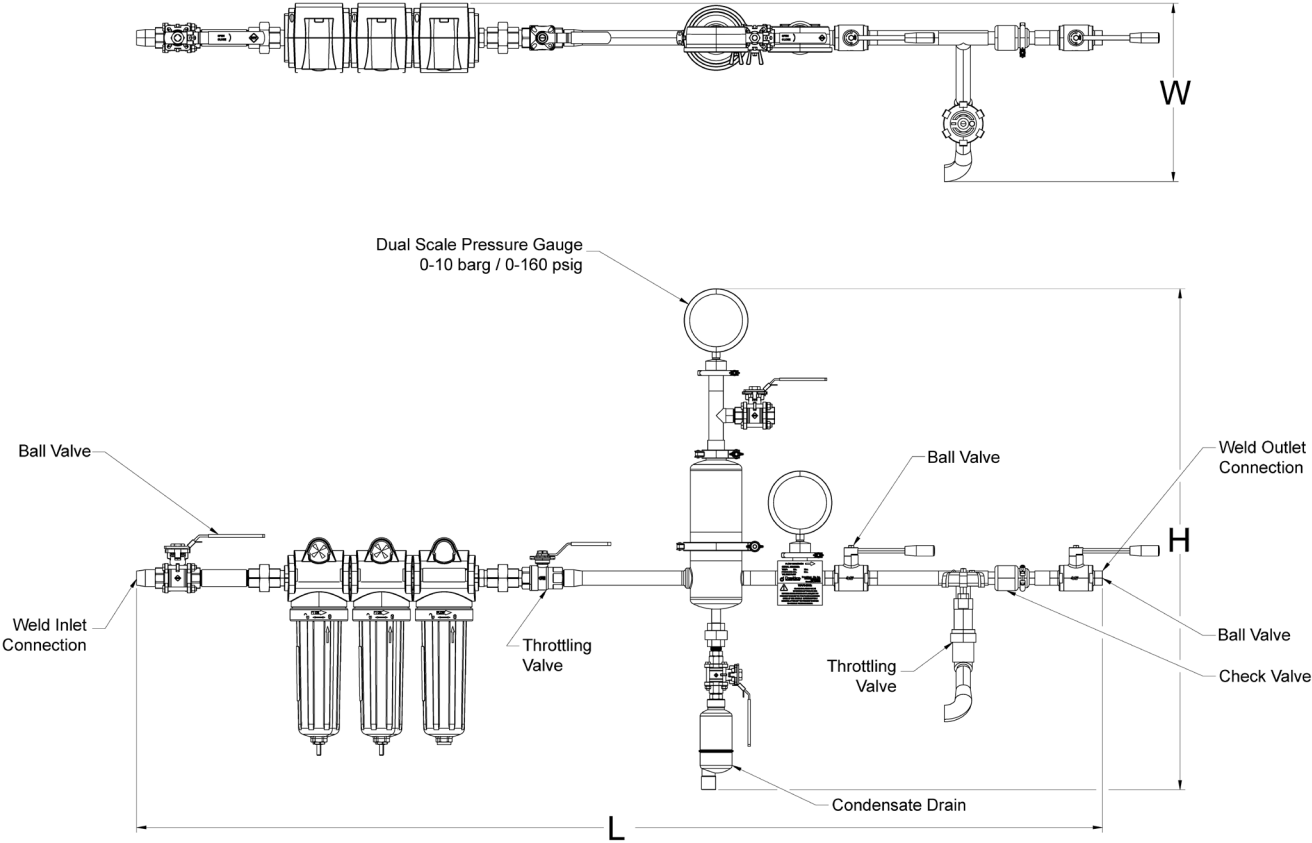
Typical Element Configuration				
Manifold	Stage 1	Stage 2	Stage 3	Stage 4
DN20-DN50	DF-V	DF-S	DF-A	P-SRF C



*Flow is modeled as a percentage of the maximum volumetric flow rate capacity as shown in table. Curve is representative of all line sizes.

WEIGHTS AND DIMENSIONS

Sterile Air Manifold Weights and Dimensions												
Line Size	Part Number	Element Size Qty.				Inlet Conn.	Outlet Conn.	Length [mm]	Width [mm]	Height [mm]	Weight [kg]	Associated Steam Manifold
		Stage 1	Stage 2	Stage 3	Stage 4							
DN20	AG1423301	DF 0210 Qty 1	DF 0210 Qty 1	DF 0210 Qty 1	UF 05/20 QTY 1	DIN EN 10357-A weld	DIN EN 10357-A weld	1899	361	944	12	AG1398201 DN25 CULINARY
DN25	AG1423401	DF 0320 Qty 1	DF 0320 Qty 1	DF 0320 Qty 1	UF 05/30 QTY 1	DIN EN 10357-A weld	DIN EN 10357-A weld	1944	361	1016	14	AG1398201 DN25 CULINARY
DN50	AG1423501	DF 0750 Qty 1	DF 0750 Qty 1	DF 0750 Qty 1	UF 10/30 QTY 1	DIN EN 10357-A weld	DIN EN 10357-A weld	2064	393	1192	29	AG1398201 DN25 CULINARY

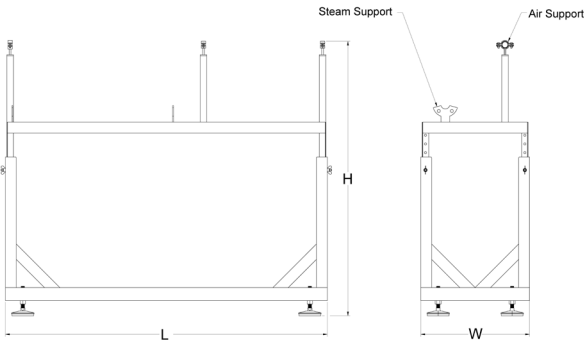


STAND

An optional stand accessory can be used to support the Donaldson Sterile Air Manifold. The stand has height adjustment intervals of 40 mm and is equipped with leveling feet for finer adjustment up to 40 mm. It is designed to support both Donaldson Sterile Air Manifold and Donaldson Steam Manifold together, minimizing footprint.



Stand Weights and Dimensions					
Line Size	Part Number	Length [mm]	Width [mm]	Height [mm]	Weight [kg]
DN20	AG1445401	1480	500	1104-1264	39
DN25	AG1445501	1480	500	1106-1266	39
DN50	AG1445601	1480	500	1122-1282	39

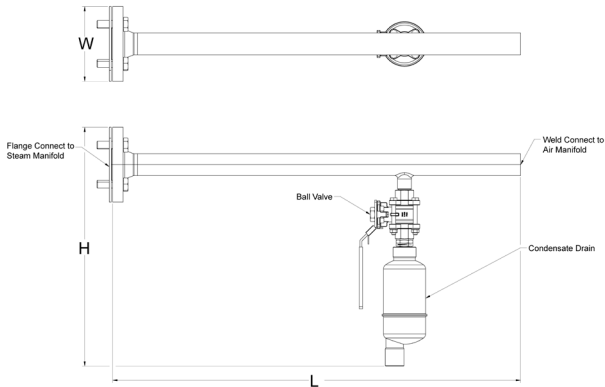


SIP CONNECTION

An optional SIP Connection can be used to connect between the Donaldson Sterile Air Manifold and Donaldson Steam Manifold for sterilization-in-place of the sterile element within the final filter of the Sterile Air Manifold. This SIP connection includes a steam trap, with EN 1092-01 flange connection on the steam side and EN 10357-A weld connection on the air side.



SIP Connection Weights and Dimensions					
Line Size	Part Number	Length [mm]	Width [mm]	Height [mm]	Weight [kg]
DN20 – DN50	AG1423601	622	115	367	5



SPARE PARTS

Donaldson can provide spare parts for all common service components including pressure gauges, gaskets and clamps. Service kits consist of every process and housing gasket used with each manifold. The SIP connection only consists of one DN25 EN1092-01 flange gasket, so the individual gasket is offered instead of a service kit for this part. For ordering filter elements, refer to Process Filtration catalog.

Part Number	Description
AG1464601	ACC, PRESSURE GAUGE, 1 1/2 IN TC, 316LSS, DUAL SCALE 0-160 PSIG / 0-10 BARG
1C311910	ACC, CLAMP, DN 10 - DN20 CLAMP, 304 SS
1C311916-AS	ACC, CLAMP, DN25 - DN40 CLAMP, 304SS
AG1477501	ACC, GASKET, DN25, EN1092-01 FLANGE, XP41
AG1478301	SERVICE KIT, MANIFOLD, AIR, DN20, WELD
AG1478401	SERVICE KIT, MANIFOLD, AIR, DN25 - DN50, WELD



donaldson.com

Donaldson Company, Inc.
Minneapolis, MN

Contact us



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