Sealkleen™

FILTER HOUSINGS

In-line filter housings are suited for bench-top applications and processes that need minimal hold-up volumes to maximize product yields. Sealkleen™ filter housings meet this requirement with our patented sealing mechanism, an optimized production safety concept that ensures the downstream section of the filter is never contaminated with unfiltered fluid. Designed for GMP use, these housings are easy to use and installation and maintenance costs are low.

Sealkleen filter housings, specified for use with Sealkleen filter cartridges, are made from low carbon stainless steel grade AISI 316L. Advanced manufacturing technologies, including computer numerical control (CNC) machining and orbital welding, ensure a robust and highly sanitary design.

The benefits of using Sealkleen filter housings include:

- Aseptic design
  - High quality electropolished surfaces (typical internal Ra of < 0.4 µm/< 15 µin.)
  - Crevice-free
  - No deadlegs
- High product yields by low hold-up volumes
- Valve designed for easy operation, maintenance and filter integrity testing
- Variants for integration into automated systems
- Wide range of connection options
- Optimized design for cleaning in place (CIP) /steam-in-place (SIP)

Fig 1. Sealkleen filter housings.

Technical specifications

Operating parameters

Maximum operating pressure	-1* to 10 barg (-14.5 to 150 psig)
Maximum operating temperature	140°C

* Full vacuum.

Materials of construction

All product wetted parts	AISI 316L
V-clamp	AISI 316L, Nitronic 60
Seal options	Silicone (FDA listed) Ethylene propylene Fluorocarbon

Finish

Surface	All electropolished
Internal	Ra < 0.4 µm/< 15 µin. (typical)

Documentation

Certificate type 2.2 to EN10204

Configuration options

Inet and outlet connections	• 1½ in. sanitary clamp • Dairy fitting NW15 • Hose barb for 15 mm internal diameter (i.d.) tubing
Vent options	• ½ in. clamp coupling • Quick-release, Stäubli-compatible coupling • Sanitary valve with hose barb for 6 mm i.d. tubing • No vent
Drain options	• ½ in. clamp coupling • Quick-release, Stäubli-compatible coupling • Sanitary valve with hose barb for 6 mm i.d. tubing • No drain

Typical flow rates vs differential pressure

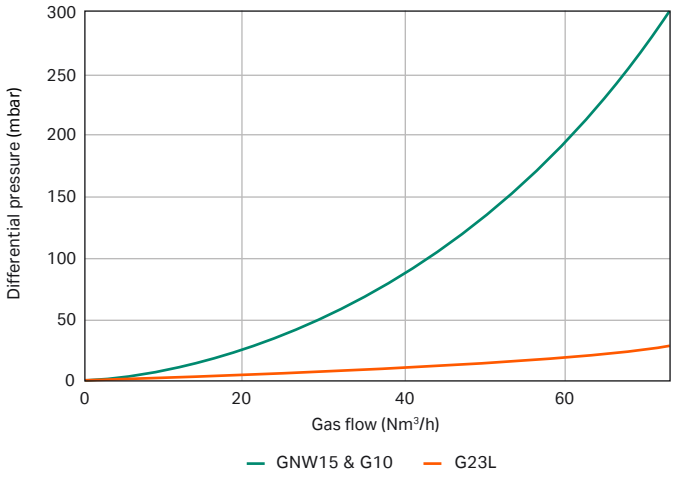

Fig 2. Typical initial clean differential pressure, air at 2 barg pressure and 20°C, empty housing only. Each inlet and outlet connection housing version shown.

Gas flow/differential pressure characteristics refer to the empty housing only, for air at 2 barg pressure and 20°C. Pressure drops for other pressure ratings may be obtained by multiplying the pressure drop at 2 barg by the factors shown in table below:

Working pressure (barg)	1	2	3	4	5	6
Factor to apply	1.50	1.00	0.75	0.60	0.50	0.42

To obtain the total pressure drop of a complete filter assembly, the cartridge pressure drop must be added. Please refer to the relevant filter cartridge literature or contact us.

Water flow versus differential pressure

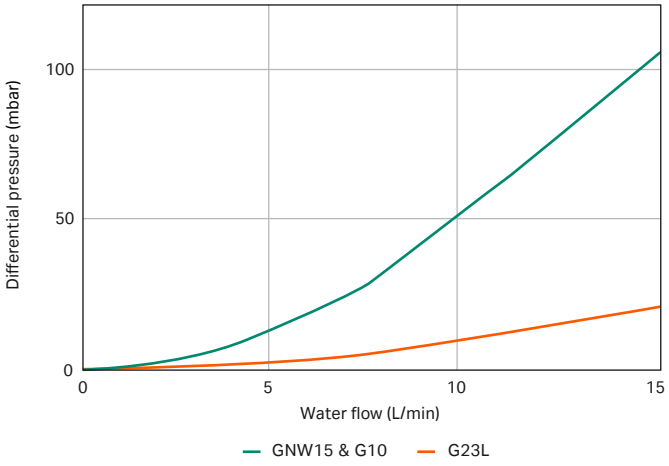

Fig 3. Typical initial clean differential pressure, water (1 Cp) at 20°C, empty housing only. Each inlet and outlet connection housing version shown.

Water flow/differential pressure characteristics refer to the empty housing only, for water at 20°C. For other liquids, multiply the pressure drop by specific gravity.

To obtain the total pressure drop of a complete filter assembly, the cartridge pressure drop must be added. Please refer to the relevant filter cartridge datafile or contact us.

Dimensions

Code	Cartridge type	Cartridge nominal length	Dimension A (mm)	Dimension B (mm)	Capacity (L)	Housing dry weight (kg)
1	SLK7001	66 mm	142.0	78.5	0.4	0.9
2	SLK7002	133 mm	203.0	134.5	0.4	1.1

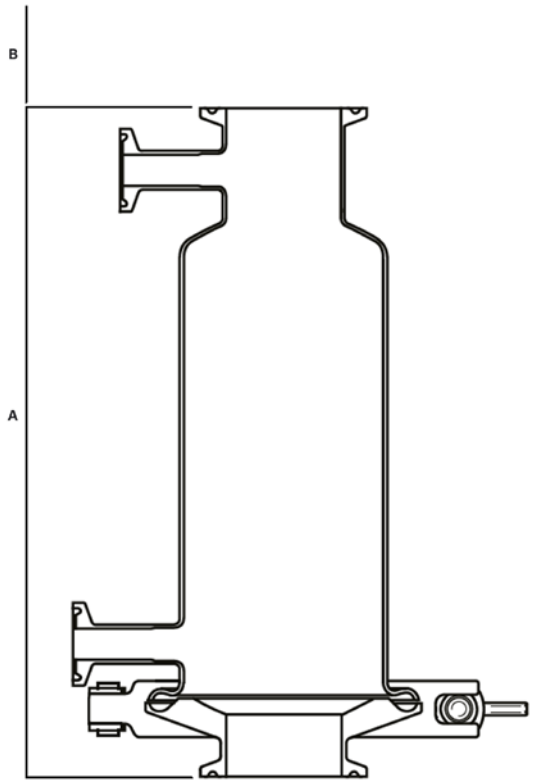

Fig 4. Illustration of Sealkleen housing showing housing height measurement (dimension A) and clearance distance for housing bowl removal (dimension B).

Documentation

Each housing comes with the following standard documentation package.

- ATEX declaration of conformity
- Certificate of conformity to quality standards including proof of hydrotest
- Final inspection certificate
- Instruction and operating manuals

The enhanced documentation package, provided with the D-option in the product code, also includes.

- General assembly drawing
- Actual material list
- Certificate of surface conditioning

Ordering information

ZLK [ ] **70** [ ] **G** [ ] [ ] [ ] [ ]

Code	Documentation
None	Standard package
D	Enhanced package

Code	Cartridge type	Nominal length
1	SLK7001	66 mm
2	SLK7002	133 mm

Code	Inlet and outlet connection
23L	1½ in. clamp coupling
10	½ in. clamp coupling
NW15	DIN11851 NW15 thread-15 mm

Code	Vent connection
D	½ in. clamp coupling
H	Quick release style valve
K	Hosetail release style valve
N	None

Code	Drain connection
D	½ in. clamp coupling
H	Quick release style valve
K	Hosetail release style valve
N	None

Code	Seal material
H4	Silicone
J	Ethylene propylene
H	Fluorocarbon

Main accessories and spares

Product	Product code
Diaphragm valve for ½ in. sanitary clamp compatible connections (including clamp and silicone gasket)	ACS0598CM
Housing gasket kit (silicone)	ACS0272EU
Downstream gasket (silicone)	SLK1VG23H4
Housing valve gasket (silicone)	ACS0718EU
Housing closure gasket (silicone)	ORH4P-335

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For local office contact information, visit cytiva.com/contact

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