3M™ CT Series

Stainless steel housings for cartridge filters

The 3M™ CT series cartridge filter housings are three-piece, all-metal housings with ring nut closures. These housings are designed to meet general industrial filtration needs.

These CT models are available with a 316 stainless steel head and a 316L stainless steel sump in one-high (CT101) or two-high (CT102) designs. All CT model heads have tapped mounting pads for the customer's own mounting arrangements if needed.

The CT housings have liquid flow rates of up to 98.4 l/min and a maximum operating pressure and temperature of 20 bar g at 110 °C. For air and gas service, the CT models have a maximum operating pressure and temperature of 10 bar g at 110 °C.

Standard model specifications.

Table 4 lists standard model materials of construction and connection sizes. Table 2 lists dimensions and shipping weight. All dimensions are nominal and can be used for determining overall space requirements. To find a dimension, locate the model you want in the left column of Table 2 and the selected dimension symbol (A and H) in the top row. Where the column and row meet is the model's dimension.

Operating parameters.

Table 1 lists standard model operating parameters for the CT models. The maximum operating pressure mentioned in this table 1 is the rating for the housing only. The actual filter operating temperature is dependent on the temperature capability of the filter cartridge.

Cartridge requirements.

The CT101 models use a single 9 ¾" double open ended (DOE) filter cartridge whilst the CT102 models use a single 19 ½" DOE filter cartridge.

Flow rates.

The maximum recommended flow rates in liter per minute (l/min) for the CT101 and 102 models are listed in table 3. Use the data in this table 3 only as a guide in establishing housing flow capability; do not use it for filter sizing. Once you know the flow rate for a selected cartridge, then use table 3 to check whether the housing's flow rates fall within the recommended guidelines. When selecting a filter's size, make sure you consider the amount of contaminant you want removed as well as the flow requirements; this ensures the longest possible cartridge life.

Features and benefits

Rugged, three-piece, all metal construction	provides long service life and quick & easy cartridge change-out.
Design flexibility	Allows 1 or 2-high cartridge models for use with 9 ¾ or 19 ½" filter cartridges.
Drilled and tapped mounting holes	Ready for mounting bracket installation (bracket supplied with vessel).

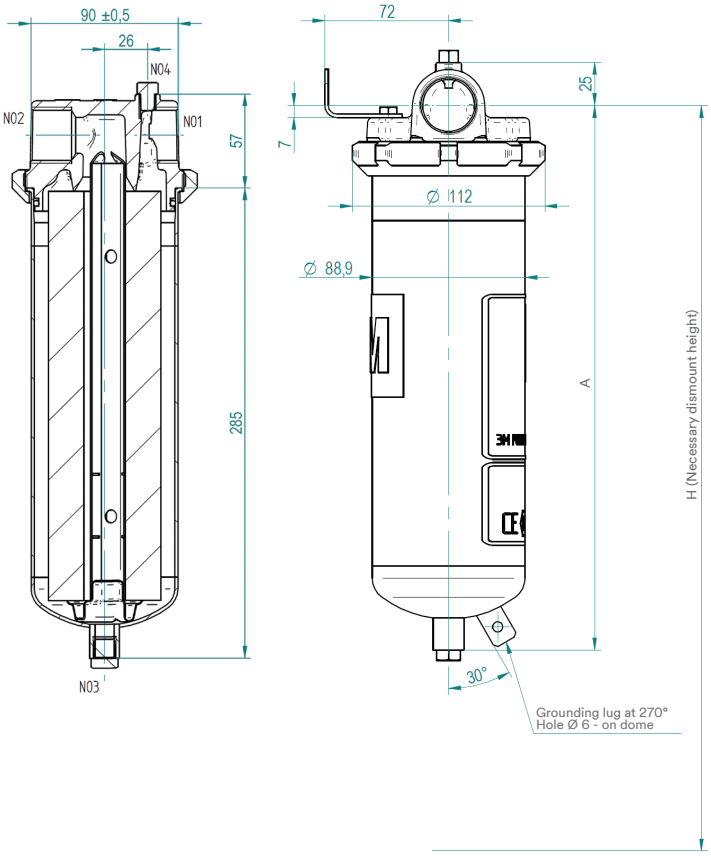
All-metal housing for general industrial filtration needs.

Table 1: Operating parameters		
Maximum operating pressure	**Maximum operating temperature**	**Flow rate (l/min)**
20 bar g (Liquids)	110 °C	See table 3
10 bar g (Air/Gas)		

Table 2: Dimensions				
Housing model	**A (in mm)**	**H (in mm)**	**Shipping weight**	**Volume in Litre**
CT101	317	350	3 kg	1.50
CT102	568	600	4 kg	2.90

CT housing drawings

CT101 housing



CT102 housing

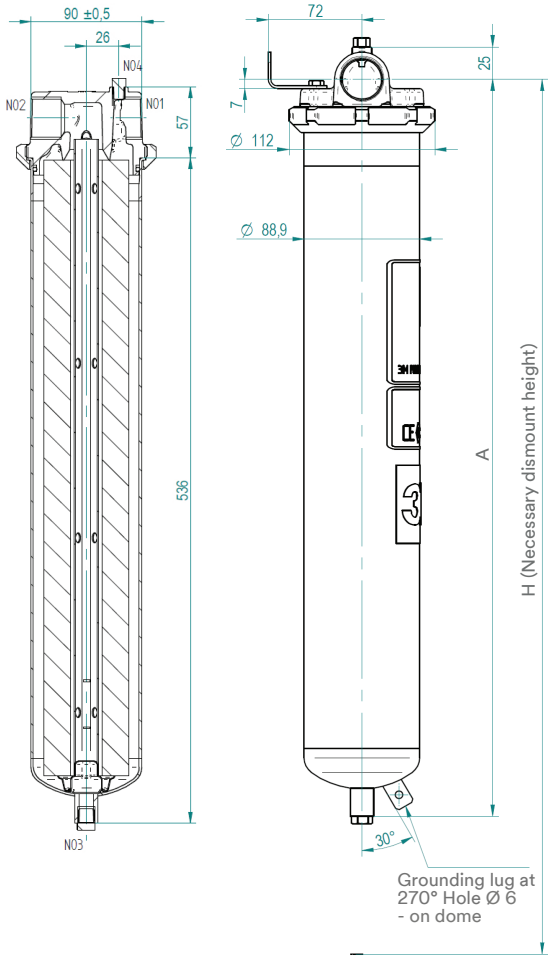


Table 3: Maximum recommended flow rates (l/min)						
Inlet/Outlet	**Water**	**80 SSU**	**150 SSU**	**300 SSU**	**600 SSU**	**1000 SSU**
Rp 1”	98.4	83.3	75.7	68.1	60.6	49.2

Table 4: Standard model connection sizes and materials of construction		
Connection sizes	**CT101**	**CT102**
Connection	Rp 1”	
Materials of construction	**CT101**	**CT102**
Head	316 stainless steel	
Head gasket	NB = nitrile (Contact your local 3M SPSD representative for other gasket materials)	
Ring nut	304L stainless steel	
Sump	316L stainless steel	
Centrepost with seal plate	316L stainless steel	
Vent - Rp 1/8”	316L stainless steel	
Drain and plug - Rp ¼”	316L stainless steel	
Mounting bracket	304L stainless steel	

Pressure Equipment Directive 2014/68/EU.

CT housings are in compliance with Non-Coded Article 4§3 “Sound Engineering Practice”.

In addition, CT housings must be used for the filtration of Liquid Groups 1 & 2 and Gas Group 2, only at reduced operating pressures (see table 1). Do not use CT housings with Group 1 (Hazardous) Gas or Vapour applications.

ATEX Directive 2014/34/EU.

These CT housings are approved for use in ATEX condition II 2 GD c IIC/IIIC.

The user of these housings must ensure that they are used in accordance with the requirements of these PED and ATEX directives at all times.

Food Contact Directive (EC) 1935/2004.

The housing are constructed from 316 and 316L stainless steel (wetted parts in contact) and delivered with O-rings that are compliant to FDA (there are no other non-316 parts in contact).

The 3M™ CT Series filter housings are food contact compliant.

In addition to the standard Coreline housing range described here, the 3M™ CT housing can be built upon request to a wide range of specifications and design and construction standards. These routinely include PED Category IV and for use with Hazardous (Group 1) liquids and Gas/Vapour. Design and constructions codes can include (but are not limited to) EN13445, AD Merkblatter, ASME Div VIII & U Stamp and CODAP. Materials can include in addition to 316 (but not limited to) 304 and Uranus B6 Super Duplex steels.

Please consult your local 3M SPSD representative for any other classification or further information.

Applicable Filter Cartridges

- Activated Carbon
- Betafine™ DP and XL Series
- Betafine™ PEG, PTG, PBG, PBP and PPG Series
- Betapure™ AU Series
- Betapure™ PK Series
- Betapure™ BK Series
- Betapure™ NT-TE Series
- Micro-Klean™ D Series
- LifeASSURE™ 045SA, 020SP, 045SP & 020ST Series
- LifeASSURE™ PFS and MFE Series

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v.6 - DOC10007
LITCTCT1.EU - 1118

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