

# 3M™ Series Filter Housing

## 3M™ CT Series Filter Housing



The 3M™ CT series filter housings are three-piece, all-metal housings with ring-nut closures. These housings are designed to meet general industrial filtration needs. The 3M CT Models offer you a choice in construction materials for wetted surfaces and are available with a 316 stainless steel head with 304 stainless steel sump or in all-316 stainless steel in one-high (CT101), two-high (CT102), or three-high (CT103) designs. Ring nuts for head to sump sealing are nickel plated brass to eliminate potential thread galling. A ring nut tightening tool is included. All 3M CT Model heads have tapped mounting pads; mounting brackets are available as an accessory.

The 3M CT Models have liquid

flow rates of up to 26 GPM, and a maximum operating pressure and temperature of 300 psig at 200 °F. For air and gas service, 3M CT Models have a maximum operating pressure and temperature of 180 psig at 200 °F.

### Design Features/Benefits

- Rugged, three-piece, all metal construction provides long service life and quick & easy cartridge change-out.
- Design flexibility: 1, 2 or 3-high cartridge models for use with 9 3/4", 19 1/2", or 29 1/4" filter cartridges.
- Drilled and tapped mounting holes: Ready for mounting bracket installation.

### Options

- Choice of gasket materials.
- Mounting bracket available as accessory equipment.

### Operating Parameters

Table 1 lists standard model operating parameters for the 3M CT series filter housings. In Table 1, the maximum operating pressure is the rating for the housing only. Actual filter operating temperature is dependent on the temperature capability of the filter cartridge.

Table 1. – Operating Parameters

Operating Data	
Operating Pressure and Temperature	300 psig @ 200 °F Liquid
	180 psig @ 200 °F Air/Gas
Flow Rate (GPM)	See Table 2

### Cartridge Requirements

The 3M CT101, 102 and 103 series filter housings can use one, two, or three 9 3/4" equivalent single-length filter cartridges, respectively. The 3M CT102 and 103 Models can also use one 19 1/2" filter cartridge and one 29 1/4" filter cartridge, respectively. A shorter version of the 3M CT101, that uses a 5" double open end cartridge, is also available.

### Applicable 3M Purification Inc. Filter Cartridges

Activated Carbon	Econo-Klean	Micro-Klean™ RT
Betafine™ DP & XL	LifeASSURE™	Betafine™ PEG
Betapure™ BK	Micro-Klean™ RB	Betapure™ AU
Micro-Klean™ D	Betapure™ PK	Micro-Klean™ CS

### Flow Rates

Table 2 lists the maximum recommended flow rates in Gallons Per Minute (GPM) for the 3M CT101 and 102 Models. Use the data on Table 2 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 2 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.

Table 2. – Maximum Recommended Flow Rates (GPM)

Inlet/Outlet	Water	80 SSU	150 SSU	300 SSU	600 SSU	1000 SSU
3/4"	16	14	13	12	10	8
1"	26	22	20	18	16	13

### Standard Model Specifications

Table 3 lists standard model materials of construction and connection sizes. Table 4 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 4 and the selected dimension symbol (A through C) in the top row. Where the column and row meet is the model's dimension.

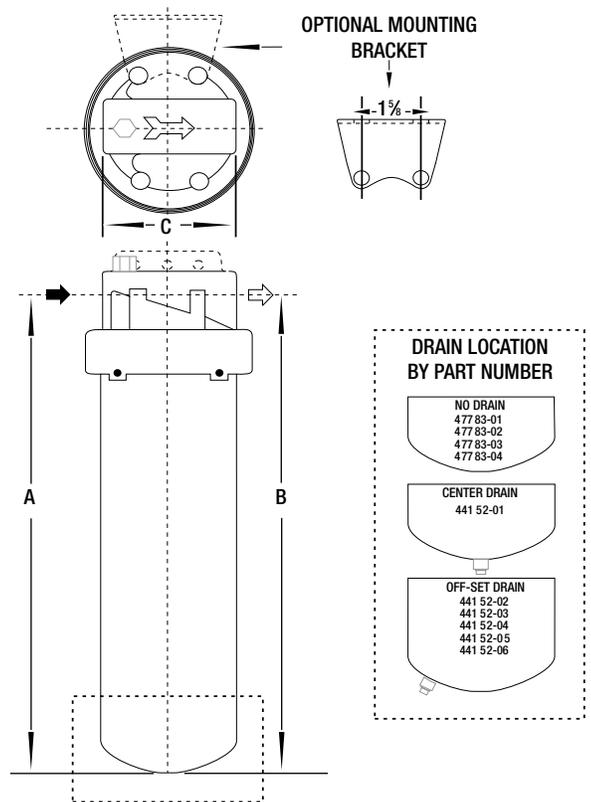


**Table 3 – Standard Model Connection Sizes and Materials of Construction**

Model	CT101	CT102	CT101	CT102	CT101	CT102	CT103	CT101	CT102	CT103
Part Number	47783-01	47783-02	47783-03	47783-04	44152-01	44152-02	44152-03	44152-04	44152-05	44152-06
Connecting Sizes	¾" NPT		1" NPT		¾" NPT			1" NPT		
<b>Materials of Construction</b>										
Head	316 SS									
Head Gasket	Nitrile (Optional Gasket material: fluorocarbon, neoprene, or EPR)									
Ring Nut	Nickel Plated Brass									
Sump	304 SS				316 SS					
Centerpost with Seal Plate	N/A	304 SS	N/A	304 SS	N/A	316 SS				
Seal Plate (in Sump)	304 SS	N/A	304 SS	N/A	316 SS	N/A				
Vent Plug – ¼" NPT	N/A				316 SS					
Vent Plug Gasket	N/A				Fiber					
Drain Plug – ¼" NPT	N/A				316 SS					
Optional Mounting Bracket	Zinc Plated Steel (order separately)									

**Table 4 – Dimensions**

Housing Model	Catalog Number	A	B	C
		(Inches)		
CT101	47783-01	11 3/8	21/16	3 1/2
	47783-03	11 9/16	12 13/32	3 1/2
	44152-01	11 9/16	12 9/16	2 15/16
	44152-04	11 13/16	12 7/8	3 1/2
CT102	47783-02	21 11/32	22 1/32	3 1/2
	47783-04	21 9/16	22 3/8	3 1/2
	44152-02	21 7/16	22 7/16	2 15/16
	44152-05	21 9/16	22 5/8	3 1/2
CT103	44152-03	31 3/16	32 3/16	2 15/16
	44152-06	31 5/16	32 3/8	3 1/2



## 3M™ CT Series Filter Housing Ordering Guide

Housing Model	Catalog Number	Cartridge Length	Housing Material	Mounting Bracket Kit	Ring Nut Tool	
CT101 CT102	47783-01 47783-02	¾"	316 SS Head and 304 SS Sump without Vent/ Drain	35581-01 (Order Separately)	63572-01 (included)	
CT101 CT102	47783-03 47783-04					1"
CT101 CT102 CT103	44152-01 44152-02 44152-03	¾"	All 316 SS (wetted parts) with Vent/Drain			
CT101 CT102 CT103	44152-04 44152-05 44152-06					1"

### Important Notice

The information described in this literature is accurate to the best of our knowledge. A variety of factors, however, can affect the performance of the Product(s) in a particular application, some of which are uniquely within your knowledge and control. **INFORMATION IS SUPPLIED UPON THE CONDITION THAT THE PERSONS RECEIVING THE SAME WILL MAKE THEIR OWN DETERMINATION AS TO ITS SUITABILITY FOR THEIR USE. IN NO EVENT WILL 3M PURIFICATION INC. BE RESPONSIBLE FOR DAMAGES OF ANY NATURE WHATSOEVER RESULTING FROM THE USE OF OR RELIANCE UPON INFORMATION.**

It is your responsibility to determine if additional testing or information is required and if this product is fit for a particular purpose and suitable in your specific application.

**3M PURIFICATION INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.**

### Limitation of Liability

3M Purification Inc. will not be liable for any loss or damage arising from the use of the Product(s), whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.



#### 3M Purification Inc.

400 Research Parkway  
Meriden, CT 06450  
U.S.A.

Phone (800) 243-6894

(203) 237-5541

Fax (203) 630-4530

[www.3mpurification.com](http://www.3mpurification.com)

Please recycle. Printed in U.S.A.  
3M is a trademark of 3M Company.  
Betafine, Betapure, LifeASSURE, and Micro-Klean are trademarks of  
3M Company used under license.  
© 3M 2011. All rights reserved.  
70-0201-8756-6 REV 1111b