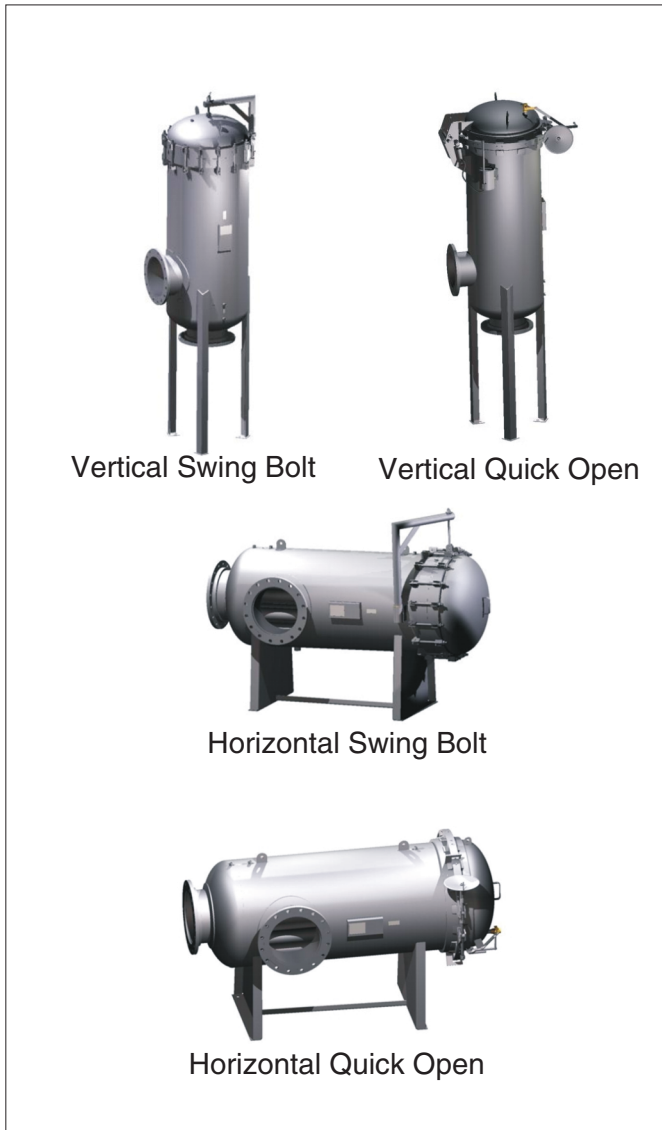
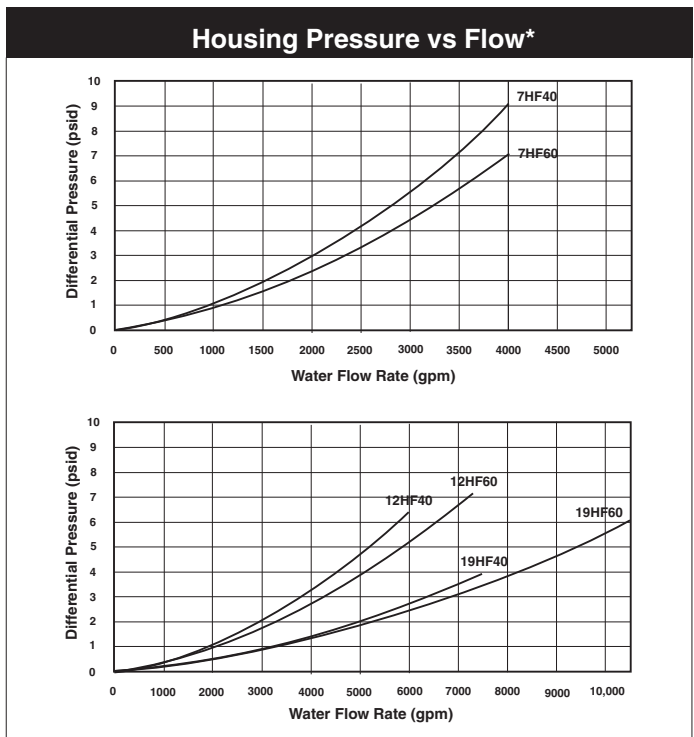


CUNO High Flow Filtration Systems



CUNO offers High Flow housings able to handle flow rates from 2450 to 9500 gpm through a single housing. These larger housings are available in carbon steel, 304 stainless, and 316L stainless steel. For flow rates below 2450 gpm, refer to CUNO literature LITCHF1.

A Quick Open and Close mechanism is available as an option for the 316L stainless steel 7HF, 12HF, and 19HF housings, in both horizontal and vertical configurations, to allow even easier cartridge change-outs.



* Pressure drop for standard housings without filters installed.

| Features | |
|--|---|
| Horizontal | Vertical |
| ■ ASME Code design | |
| ■ Robust cartridge center-post design eliminates bulky support plates providing easy access to housing internals | ■ User-friendly cover lifting device for easy element change-outs |
| ■ Hinged cover for easy element change-outs | ■ User-friendly cover lifting device for easy element change-outs |
| ■ Handles liquid at pressures and temperatures of up to 150 psig and 250°F | |
| ■ Manufactured from carbon steel, 304, or 316L stainless steel for excellent corrosion protection. | |
| ■ Available for 40" and 60" element lengths | ■ Available for 40" element lengths |
| ■ Upstream and downstream gauge ports and drains | |
| Options | |
| ■ Corrosion allowance for carbon steel housing – consult factory | |
| ■ Choice of inlet/outlet flange size | |

CUNO High Flow Housing Specifications

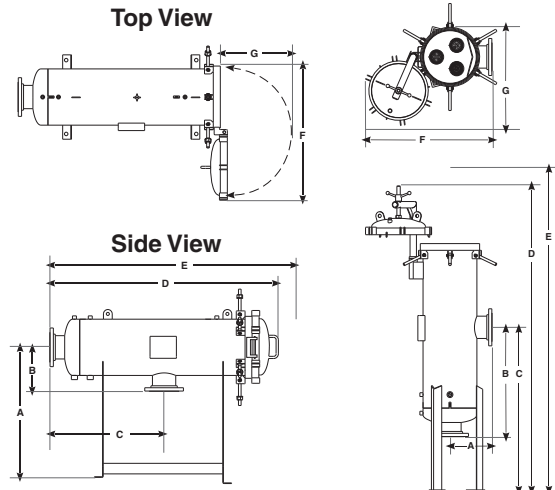
| Model | Outside Diameter (Inches) | Number of Filter Elements | Material | Connection size (inches) | Drain Size Inches (NPT) | Vent/Gauge Size Inches (NPT) | Maximum flow (gpm/lpm)* | Maximum Operating Pressure & Temperature | Approximate Housing Weight (lbs. / kgs) | |
|------------|---------------------------|---------------------------|--|--------------------------|-------------------------|------------------------------|-------------------------|--|---|------------------|
| | | | | | | | | | Swing Bolt Closure | Quick Open/Close |
| 7HF40VQ | 24 | 7 | Carbon Steel, 304, or 316L Stainless Steel | 10 | 1 1/2 | 1/2 | 2450 / 9274 | 150 psi @250°F (10 bar @121 °C) | See LITCHF1 for standard model | 1350 / 612 |
| 7HF40HQ | 24 | 7 | | 10 | | | 2450 / 9274 | | | 1500 / 680 |
| 7HF60HQ | 24 | 7 | | 12 | | | 3500 / 13249 | | | 1700 / 771 |
| 12HF40V(Q) | 30 | 12 | | 14 | | | 4200 / 15898 | | | 1900 / 862 |
| 19HF40V(Q) | 36 | 19 | | 18 | | | 6650 / 25173 | | | 3100 / 1406 |
| 12HF40H(Q) | 30 | 12 | | 14 | | | 4200 / 15898 | | | 2200 / 998 |
| 12HF60H(Q) | 30 | 12 | | 16 | | | 6000 / 22712 | | | 2400 / 1089 |
| 19HF40H(Q) | 36 | 19 | | 18 | | | 6650 / 25173 | | | 3100 / 1406 |
| 19HF60H(Q) | 36 | 19 | | 20 | | | 9500 / 35961 | | | 3300 / 1497 |
| | | | | | | | | | | |

* When determining vessel flow rates, the type of filter element to be used needs to be taken into account. The total filtration system pressure drop is the sum of the housing and filter element pressure drops.

CUNO High Flow Housing Dimensions (inches)*

| Housing Model | Dimensions (inches) | | | | | | |
|---------------|---------------------|--------|--------|---------|-----|--------|--------|
| | A | B | C | D | E | F | G |
| 7HF40VQ | 16 1/2 | 22 3/4 | 54 | 120 | 156 | N/A | NA |
| 7HF40HQ | 47 1/2 | 16 1/2 | 22 3/4 | 88 | 124 | 54 | 27 |
| 7HF60HQ | 47 1/2 | 16 1/2 | 24 3/4 | 110 | 165 | 54 | 27 |
| 12HF40V | 22 | 27 1/2 | 67 1/2 | 144 1/2 | 168 | 69 1/2 | 49 1/2 |
| 19HF40V | 25 | 31 1/2 | 78 1/2 | 160 | 172 | 80 1/2 | 57 1/4 |
| 12HF40VQ | 22 | 27 1/2 | 67 1/2 | 137 | 168 | N/A | NA |
| 19HF40VQ | 25 | 31 1/2 | 78 1/2 | 151 | 172 | 170 | NA |
| 12HF40H | 38 1/2 | N/A | 27 1/2 | 97 | 132 | 72 | 36 |
| 12HF60H | | | 28 1/2 | 119 | 170 | 72 | 36 |
| 12HF40HQ | | | 27 1/2 | 97 | 132 | 71 | 35 1/2 |
| 12HF60HQ | | | 28 1/2 | 119 | 170 | 71 | 35 1/2 |
| 19HF40H | | | 31 1/2 | 106 | 138 | 82 | 41 |
| 19HF60H | N/A | N/A | 32 1/2 | 128 | 180 | 82 | 41 |
| 19HF40HQ | | | 31 1/2 | 106 | 138 | 85 | 42 1/2 |
| 19HF60HQ | | | 32 1/2 | 128 | 180 | 85 | 42 1/2 |

* Dimensions are for overall space requirements only. For all other uses, request a certified drawing



CUNO High Flow Housing Ordering Guide

| Number of Filter Elements | Model | Size | Configuration | Housing Material | Gasket Material | Closure Type |
|---------------------------|-------|-----------------------------|----------------------------------|---|--|------------------------|
| 7 12 19 | HF | 40 – 40 in. 60 – 60 in.* | H – Horizontal V – Vertical * | A – Carbon Steel B – 304 SS C – 316L SS | GA – Silicone GB – Fluorocarbon GC – EPR GD – Nitrile | Q - Quick Open Close** |

* Available for only horizontal housings

**Q option available for 316L SS only

LIMITED WARRANTY

Seller warrants its equipment against defects in workmanship and material for a period of 12 months from date of shipment from the factory under normal use and service and otherwise when such equipment is used in accordance with instructions furnished by Seller and for purposes disclosed in writing at the time of purchase, if any. Any unauthorized alteration or modification of the equipment by Buyer will void this warranty. Seller's liability under this warranty shall be limited to the replacement or repair, F.O.B. point of manufacture, of any defective equipment or part which, having been returned to the factory, transportation charges prepaid, has been inspected and determined by the Seller to be defective. THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EITHER EXPRESSED OR IMPLIED, AS TO DESCRIPTION, QUALITY, MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE OR USE, OR ANY OTHER MATTER. Under no circumstances shall Seller be liable to Buyer or any third party for any loss of profits or other direct or indirect costs, expenses, losses or consequential damages arising out of or as a result of any defects in or failure of its products or any part or parts thereof or arising out of or as a result of parts or components incorporated in Seller's equipment but not supplied by the Seller.

Important Notice

CUNO MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Since a variety of factors can affect the use and performance of a CUNO product in a particular application, some of which are uniquely within the user's knowledge and control, user is responsible for determining whether or not the CUNO product is fit for a particular purpose and suitable for user's method of application.

Limitation of Remedies and Liability

If the CUNO product is proved to be defective, THE EXCLUSIVE REMEDY, AT CUNO'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OR TO REPAIR OR REPLACE THE DEFECTIVE PRODUCT. CUNO shall not otherwise be liable for loss or damages, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including, but not limited to, contract, negligence, warranty or strict liability.



a 3M company

CUNO Incorporated

400 Research Parkway
Meriden, CT 06450, U.S.A.
Tel: (800) 243-6894
(203) 237-5541
Fax: (203) 630-4530
www.cuno.com

3M is a trademark of 3M Company. All other product names are trademarks of their respective holders.

70020208198

© 2008 3M Company. All Rights Reserved

LITCHFADM1.0608