

CUNO™ EF EG & EGS Series

CUNO™ EF EG & EGS Series Self Cleaning Metal Filter Systems



The CUNO™ EF EG and EGS series self cleaning filters are all metal cleanable edge filters that can be cleaned without interrupting flow. Designed for long service life, the filter sump is gasket sealed and attached to the filter head by a clamping ring and four bolts to allow reduction without disturbing inlet/outlet pipe connections. Mounting holes are drilled and tapped to permit installation on a vertical surface. A vent and sludge drain are provided for safe and easy system operation. CUNO™ EF EGU series self cleaning filter is the same as the model EG, but is listed by under writers' laboratory (UL File MP 485) as suitable for service on oil burner fuel supply lines with operating parameters up to 100 psi and 158 gallons per hour. Motorized versions, Models MEG and MEGS, are available. Consult your 3M Purification Inc. Representative for more information.

Applications

Coatings	Adhesives
Food & Beverage	Syrups
Oil & Gas	Lubricating oils, Bunker "C", Quenching oils, Cooling oils, Cutting oils, Diesel oils, Fuel oils, Tar, Wax, Grease

Theory of Operation

The CUNO™ EF series self cleaning metal filter cartridge is an assembled unit composed of a stack of alternating metal discs and spacers of uniform thickness on a rotatable metal shaft. The thickness of the spacer determines the degree of filtration. CUNO EF EG series self cleaning metal filter is available in spacings from 0.003" to 0.015", while Model EGS is available in 0.0015" spacing.

Cleaning blades are mounted on a stationary rod adjacent to the cartridge stack and extend into the openings between the discs. Turning the cartridge handle rotates the disc and spacer assembly past the fixed cleaner blades. By rotating the cartridge, in either direction, the particles lodged between the discs are positively reduced or "combed" from the surface without interruption of flow. Drain the sump as often as experience indicates is necessary.

The CUNO™ EF Super self cleaning metal filter refines the design of CUNO EF series for a higher degree of filtration while maintaining all the ease of use of the original design. By using discs of a smaller diameter as spacers, a second filtration area is formed. The first filtration area, like the CUNO EF series self cleaning metal filter, is between the larger or major discs, while the second area is between the inside diameter of the major disc and the outside diameter of the smaller or "minor" disc. The radial gap created by the major and minor discs determines the degree of filtration.

Features & Benefits

Cleanable design

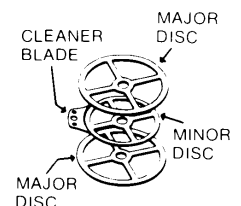
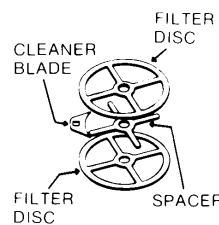
- Reduces used filter cartridge disposal

Positive cleaning action with no interruption of flow or service

- Maximizes process up-time

Rugged all metal construction for trouble-free operation

- Can handle highly viscous fluids
- Economical solution to long term filtration needs



Specifications

Table 1 provides the CUNO™ EF EG and EGS general specifications.

Table 1. – CUNO™ EF EG & EGS Specifications

	EG	EGS
General Filter Data		
Inlet/Outlet	1" or 1 ½" NPTF	
Max. Operating Pressure	200 psi @ 200 °F	
Sludge Capacity		
5" Ctg.	16.2 in ³	
8" Ctg.	11 in ³	
Cartridge Diameter	2 ¼"	
Cartridge Length	5" or 8"	
Spacings	0.003", 0.005", 0.008", 0.012", or 0.015"	0.0015"
Materials of Construction		
Head	Cast Iron	
Sump	Drawn Steel	
Head Gasket	Buna/Cork	
Gland Packing	Aramid Fiber	
Cartridge	Steel or 304 SS	Steel or 304 SS

Flow Capacity

Flow rates (Table 2), at various viscosities, for the CUNO EF EG and EGS filters are based on clean fluid with pressure drop of 3 psi. Flow rates for other viscosity fluids are approximately proportional. Select a filter model according to the nature and concentration of the contaminant to be reduced.

Table 2. – CUNO™ EF EG & EGS Flow Rates

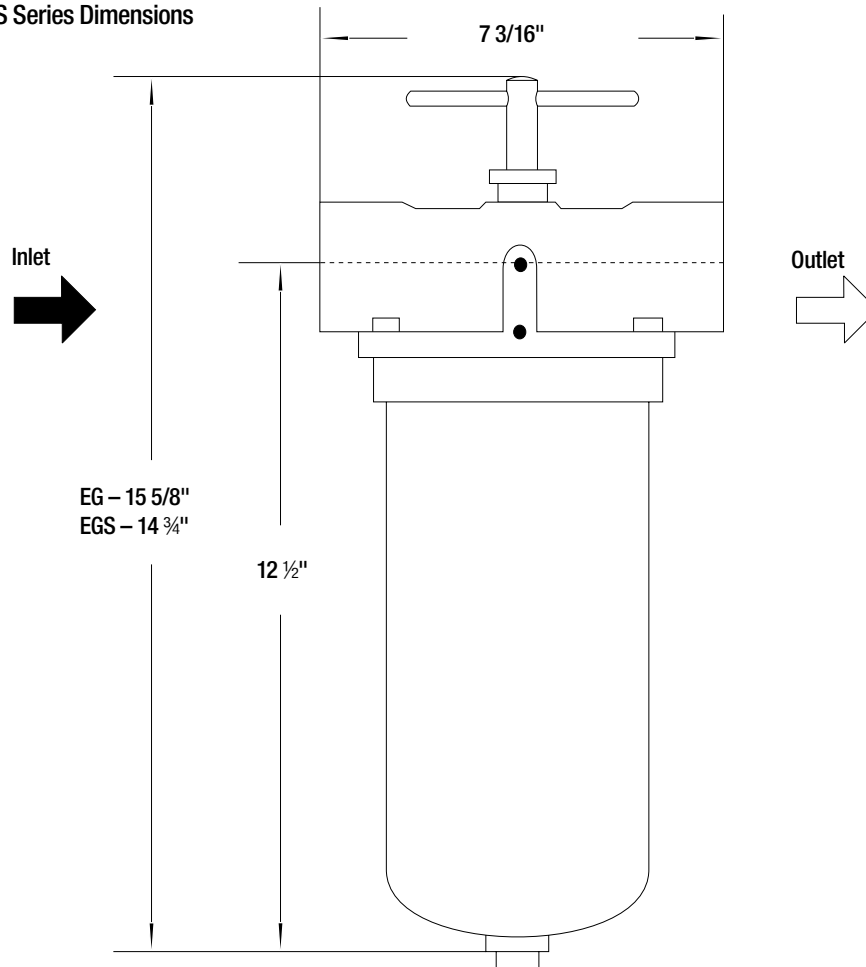
Spacing (in.)	Screen Mesh Equiv.	Free Area (in ²)	Viscosity in SSU			
			100	300	700	2000
Flow in gpm						
CUNO™ EF Super Series 5" Cartridge						
0.0015	400	2.6	34	21	11	4.6
CUNO™ EF Series 5" Cartridge						
0.003	200	6.2	18	12	6.5	2.9
0.005	120	8.7	25	16	9	4.2
0.008	70	12.2	30	21	12	5.9
0.012	50	16.2	30	23	13	6.1
0.015	40	15.1	30	26	15	7.5
CUNO™ EF Super Series 8" Cartridge						
0.0015	400	4.2	45	32	17	7
CUNO™ EF Series 8" Cartridge						
0.003	200	9.8	24	16	9.5	4.7
0.005	120	13.9	29	20	12	6.1
0.008	70	19.5	30	25	16	8.3
0.012	50	25.9	30	27	17	8.7
0.015	40	24.1	30	30	18	9.4

Catalog Numbers

Model	Inlet Outlet NPT	Cartridge		Filter Catalog Number	Replacement Cartridge Number
		Material	Length		
EG	1"	Steel	5"	12318-25-50-XXXX	14145-08-50-XXXX
	1"	Steel	8"	12320-29-50-XXXX	14145-17-50-XXXX
	1 ½"	Steel	8"	11076-29-50-XXXX	14145-17-50-XXXX
	1 ½"	SS	8"	11076-29-40-XXXX	14145-17-40-XXXX
EGS	1"	Steel	5"	12838-21-50-0015	12840-03-50-0015
	1"	Steel	8"	12838-22-50-0015	12840-04-50-0015
	1 ½"	Steel	8"	12907-16-50-0015	12840-04-50-0015
	1 ½"	SS	8"	12907-16-40-0015	12840-04-40-0015
Model EG Spacings (XXXX)				0.003" = 0030 0.008" = 0080 0.005" = 0050 0.012" = 0120 0.015" = 0150	

For replacement parts, contact your 3M Purification Representative.

CUNO™ EF EG & EGS Series Dimensions



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

Please recycle. Printed in U.S.A.
3M is a trademark of 3M Company.
CUNO is a trademark of
3M Company used under license.
© 3M 2011. All rights reserved.
70-0201-8750-9 REV 1011b