

TURBOGUARD® RF

High Performance Water Treatment for Power Generation

Aegis® TurboGuard® RF Pre-Filters Large Geometry Pleated Filters for High Dirt Loading

Graver TurboGuard® RF Series filter is another in the series of larger geometry filters to handle higher volume applications with fewer filter elements. The result is much faster, easier filter changeouts. In addition, the multi-layer media construction allows for excellent dirt holding capacity, extending the time between filter changeouts. Filter housings are also available and because of the filter's high dirt holding capacity, smaller systems are possible, reducing upfront capital costs.



Filter Specifications	
Media	Pleated Proprietary Multi-Layer Polypropylene
End Caps	Polypropylene
Cage	Polypropylene
O-Rings	EPDM, Quad Seal, Buna, Silicone, Viton
Core (if required)	Polypropylene
DIMENSIONS	
Outside Diameter	6.5" (165 mm)
Nominal Lengths	20" (508 mm) 40" (1,016 mm) 60" (1,524 mm)
OPERATING CONDITIONS	
Max. Operating Temperature	176°F (80°C)
Maximum Forward Operating Differential Pressure	60 psid @ 70°F (5.2bar @ 21°C) 30 psid @ 176°F (2.0bar @ 80°C)
Recommended Maximum Changeout Differential Pressure	35 psid (2.4 bar)
Maximum Flow Rates	Up to 80 gpm (3oz lpm) for P2 Up to 500 gpm (1890 lpm) for P30

Aegis TurboGuard RF Pre-Filters deliver revolutionary features and benefits in easy-to-use formulations

FEATURES

- > 6.5" diameter, large geometry for high flow rates
- > Capable of flow rates up to 80 gpm in the P2 configuration and 500 gpm in the P30 configuration
- > Multi-layer pleated construction with optimized surface area
- > Thermally bonded construction

BENEFITS

- > Absolute retention ratings from 1 to 100 microns
- > Retrofits competitive large diameter filter housings utilizing the "740" design or the large diameter 338 o-ring designs
- > All polypropylene construction provides for a high level of chemical compatibility
- > TurboGuard's one-piece extruded outer cage allows for easier maintenance and removal

Aegis® TurboGuard® RF Pre-Filters

TurboGuard RF Nomenclature Information					
Product Series	Retention Rating (Microns)		Length (Inches)	End Configuration	Gasket or O-Ring
TBG RF Series	1	40	-40	P2 226/Flat Single Open End*	B Buna-N
	3	60	-60	P30 338/Flat Single Open End	E EPDM
	5	75			S Silicone
	10	100			T Teflon encap. Viton
	20				V Viton
Example: TBG RF 5-40P2E					
TBG RF	5		-40	P2	E

*Available only as 40" nominal length.

TurboGuard RF Pressure Values									
Clean Pressure Drop Versus Flow At Ambient Temperature — PSID (mbar)									
Flow (LPM)	1 µm	3 µm	5 µm	10 µm	20 µm	40 µm	60 µm	75 µm	100 µm
20 GPM (75.7)	0.6 (41)	0.3 (20)	0.2 (13)	0.2 (13)	0.2 (13)	0.2 (13)	0.2 (13)	0.2 (13)	0.1 (7)
40 GPM (151.4)	0.9 (62)	0.6 (41)	0.5 (34)	0.5 (34)	0.5 (34)	0.4 (27)	0.4 (27)	0.35 (24)	0.2 (13)
60 GPM (227.1)	1.6 (110)	1.1 (75)	0.9 (62)	0.9 (62)	0.9 (62)	0.75 (51)	0.75 (51)	0.6 (42)	0.5 (34)
80 GPM (302.8)	2.2 (151)	1.4 (96)	1.2 (82)	1.2 (82)	1.2 (82)	0.9 (62)	0.9 (62)	0.85 (58)	0.75 (51)

Removal Efficiency			
Beta Ratio Efficiency	Beta 1,000 99.9%	Beta 100 99%	Beta 10 90%
1 µm	1.0	0.6	0.2
3 µm	3.0	2.0	1.5
5 µm	5.0	4.0	3.0
10 µm	10.0	8.5	6.5
20 µm	22.0	19.0	14.0
40 µm	38.0	18.0	15.0
60 µm	60.0	35.0	20.0
75 µm	75.0	48.0	35.0
100 µm	100.0	75.0	45.0

Upstream Particle Counts

$$\text{Beta Ratio} = \frac{\text{Upstream Particle Counts}}{\text{Downstream Particle Counts}}$$

The micron ratings shown at various efficiency and beta ratio value levels were determined through laboratory testing, and can be used as a guide for selecting cartridges and estimating their performance. Under actual field conditions, results may vary somewhat from the values shown due to the variability of filtration parameters.

Testing was conducted using the single-pass test method, water at 3 gpm/10" cartridge. Contaminants included latex beads, coarse and fine test dust. Removal efficiencies were determined using dual laser source particle counters.



Graver Technologies

All information and recommendations appearing in this bulletin concerning the use of products described herein are based on tests believed to be reliable. However, it is the user's responsibility to determine the suitability for his own use of such products. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by Graver Technologies as to the effects of such use or the results to be obtained. Graver Technologies assumes no liability arising out of the use by others of such products. Nor is the information herein to be construed as absolutely complete, since additional information may be necessary or desirable when particular exceptional conditions or circumstances exist or because of applicable laws or governing regulations. Aegis and TurboGuard are registered trademarks of Graver Technologies. © 2020 Graver Technologies, LLC. All rights reserved.

Graver Technologies, LLC

200 Lake Drive, Glasgow, DE 19702
T 800.533.6623
T 302.731.1700
F 302.731.1707
 info@gravertech.com
 gravertech.com

China

RM 16D, Building B
 No. 1118, Changshou Road
 Shanghai, China 200042
T +(86) 21.5238.6576
F +(86) 21.5238.6579

Europe

T +33 (6) 1933.1110

India

T +(91) 9212.722.691

United States

Quality Management System
 ISO 9001
 FM 38860



A Marmon Water/Berkshire Hathaway Company

GTX509 04/2020