

TM'S GFC CLEANABLE GAS COALESCING ELEMENTS



PATENT NO. 7,332,010

COMPONENTS	MATERIAL	PURPOSE		
PLEATED MESH SCREEN	METALLIC SCREEN	RE- ENFORCEMENT, PARTICULATE RETENTION		
SUBSTRATE	SPUN BONDED POLYESTER	PARTICULATE FILTRATION		
FILTER MEDIA	MICRO BOROSILICATED GLASS	COALESCING, AEROSOL RETENTION		
INNER CORE	SINTERED POLYPROPYLENE TUBE	FINAL GAS POLISHING, LIQUID BARRIER		
END CAPS	POLYURETHANE	RIGIDITY, SEALING SURFACE		



ELEMENT NO	OD	ID	LENGTH	SURFACE AREA	
	IN / MM	IN / MM	IN / MM	FT^2/M^2	
991-GFC-03-00	3.56 / 90.4	1.50 / 38.1	12.0 /304.8	6.6 / 0.61	
991-GFC-03-0	4.50 / 114.3	2.25 / 57.1	12.0 /304.8	11.0 / 1.02	
991-GFC-03-1	5.53 / 140.5	3.53 / 89.7	12.0 /304.8	17.4 / 1.61	
991-GFC-03-4	9.56 / 243.0	6.65 / 169.0	18.0 / 457.2	60.8 / 5.64	
991-GFC-03-5	15.75 / 400.0	13.00 / 330.2	18.0 / 457.2	99.6 / 9.25	



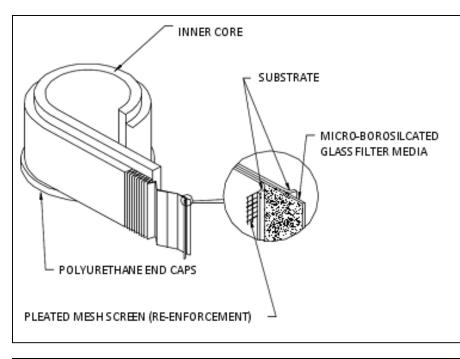
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EFFICIENCES OF ELEMENT (IN CONSTRUCTED FORM)				
Liquid Removal	99.99% (Greater than 3.0 μ), 99.5% (Less than 3.0 μ)			
Solid Removal	99.99% (Greater than 0.3 μ)			

MAXIMUM TEMP RATING (CONTACT FACTORY FOR OTHER HIGH TEMP OPTIONS)			
180° F (83° C)			



The outer layer of the element is a **Pleated Mesh Screen**, which acts as a re-enforcement.

The **Substrate** is a spun bond polyester, which acts as a solid particulate filter layer (3 micron).

The **Micro Borosilicate Glass** is the coalescing filtration layer (3 micron absolute).

The **Inner Core** is a polypropylene tube which is designed to polish the Gas to (3 Micron absolute) This also functions as a liquid barrier, that only allows gas to pass.

GLASS FILTER MEDIA ANALYSIS							
TYPICAL PROPERTIES	STANDARD UNITS		METRIC UNITS				
Caliper (Thickness measured at 8psi)	22	mils	0.56	mm			
Resistance	40	mm	391	Pa			
Frazier	3.7	cfm	1.8	cc/sec/cm²			
Mean Flow Pore	4	micron	4	micron			
Flat Sheet Multipass Efficiency – Beta 200	< 4	micron	< 4	micron			
Flat Sheet Multipass Efficiency – Beta 1000	< 4	micron	< 4	micron			
DOP Penetration	0.016	%	0.016	%			

NOTE: Caliper Test: The thickness measured at a specific pressure. Frazier Test: The column of air, in CFM, that can flow through 1 square foot of media 0.5 W.G. pressure drop. Mean Flow Pore: The average particle size. Flat Sheet Multipass Efficiency: Beta 200 or 1000: Size of contaminant that can be captured with a efficiency of 99.5% for Beta 200, and 99.95% for Beta 1000. DOP Penetration test: 0.3 micron particle @ 32 l/min/cm2