



**GW Series  
ASME Filtration Products**

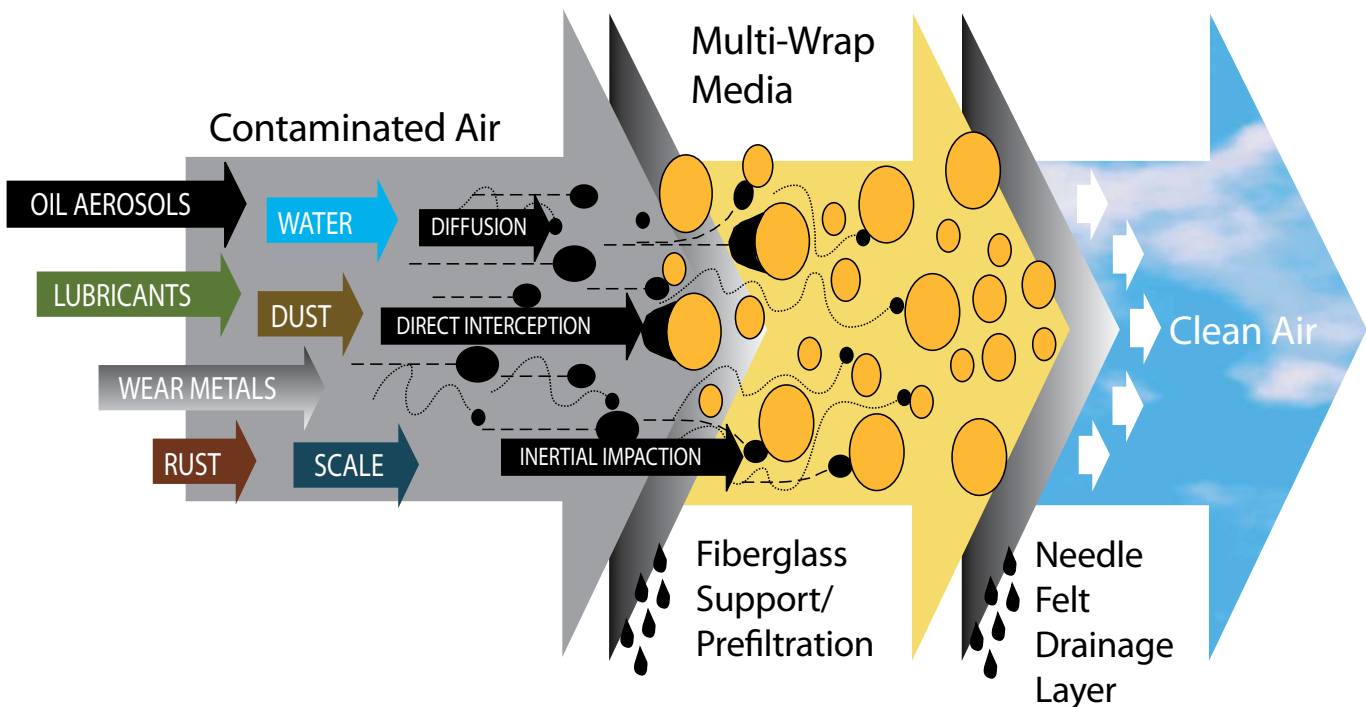
# Why is Filtration Required

In one cubic foot of atmospheric air, there are millions of particles that are potentially harmful to your machines and equipment. These particles are primarily made up of dust, bacteria, viruses, smoke, fumes, hydrocarbons, water, oil and other contaminants derived from human and industrial activities. Roughly 80% of the contaminants are so small that they will easily pass through your compressor's intake filter. When this air is drawn into the compressor intake and compressed to 100 PSIG the concentration of contamination is increased eight fold. The concentrated contaminants will easily find their way into your process lines, causing frequent and expensive downtime of your pneumatic equipment or adversely affecting the quality of your products. The incorporation of filtration into your compressed air system will produce benefits in both productivity and product quality.





Molecular Particle Range	Macro Molecular Particle Range	Micro Particle Range	Macro Particle Range
Carbon		Milled Flour	
	Paint Pigment	Water Mist	Beach Sand
Colloidal Silica Particles	Oil Vapors		Human Hair
		Coal Dust	
Viruses		Bacteria	
	Tobacco Smoke		Pollen
0.01	0.1	1.0	10
			100
			1000

Micrometers = Microns =  $\mu\text{m}$

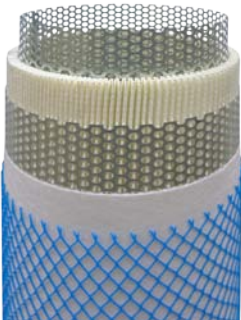
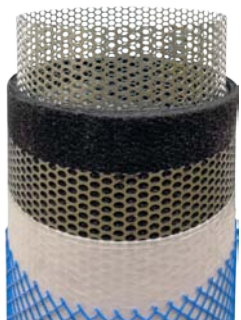
# Principals of Filtration



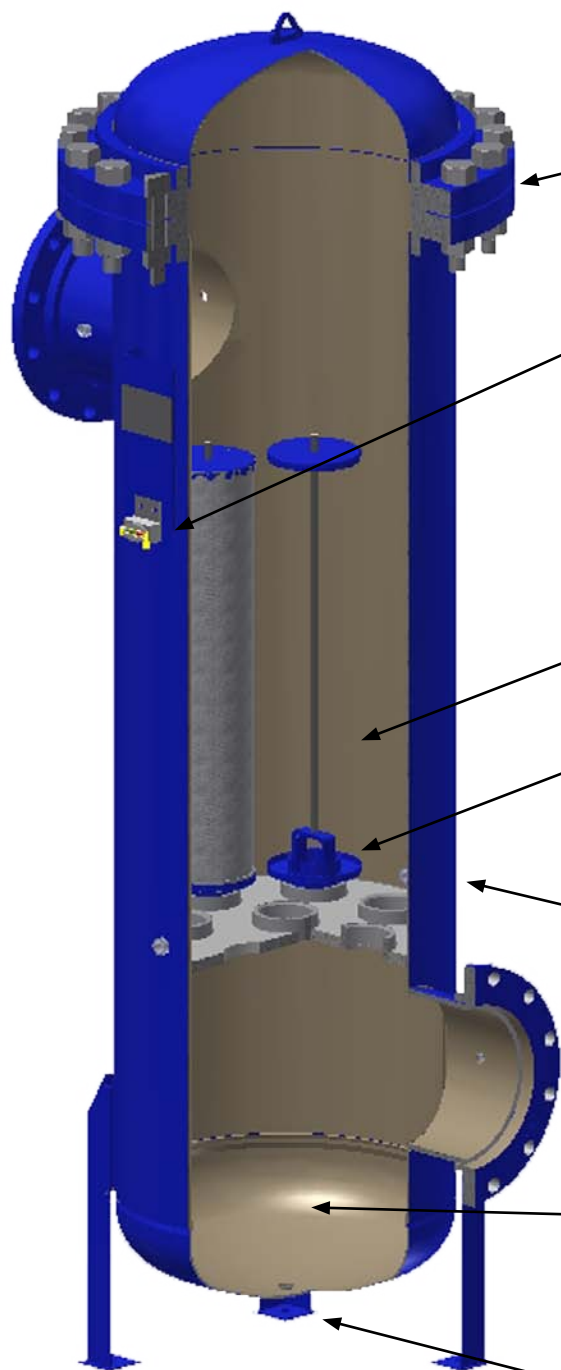
## Filtration Grades Coalescing

<i>High Efficiency Coalescing Filtration - H</i>		<i>Prefiltered High Efficiency Coalescing Filtration - HQ</i>	
<b>Particle Removal</b> Down to 0.01 Micron		<b>Particle Removal</b> Down to 0.01 Micron	
<b>Max. Oil Carryover</b> 0.008 PPM w/w		<b>Max. Oil Carryover</b> 0.008 PPM w/w	
<b>Clean Dry Pressure Drop</b> 1.5 PSID		<b>Clean Dry Pressure Drop</b> 1.5 PSID	
<b>Saturated Pressure Drop</b> 4.0 PSID		<b>Saturated Pressure Drop</b> 4.0 PSID	
<b>ISO 8573</b> (Class 1)		<b>ISO 8573</b> (Class 1)	
<b>End Seal Material</b> Urethane		<b>End Seal Material</b> Urethane	
<b>Element Flow</b> Inside/Out		<b>Element Flow</b> Inside/Out	
<i>Utility Coalescing Filtration - PC</i>		<i>Prefiltered Utility Coalescing Filtration - PQ</i>	
<b>Particle Removal</b> Down to 1.0 Micron		<b>Particle Removal</b> Down to 1.0 Micron	
<b>Max. Oil Carryover</b> 0.85 PPM w/w		<b>Max. Oil Carryover</b> 0.85 PPM w/w	
<b>Clean Dry Pressure Drop</b> 0.75 PSID		<b>Clean Dry Pressure Drop</b> 0.75 PSID	
<b>Saturated Pressure Drop</b> 2.5 PSID		<b>Saturated Pressure Drop</b> 2.5 PSID	
<b>ISO 8573</b> (Class 2)		<b>ISO 8573</b> (Class 2)	
<b>End Seal Material</b> Urethane		<b>End Seal Material</b> Urethane	
<b>Element Flow</b> Inside/Out		<b>Element Flow</b> Inside/Out	

## Filtration Grade Particulate - Dust / Adsorber

<i>Particulate / Dust Filtration - PP</i>		<i>Prefiltered High Quality Coalescing Filtration</i>	
<b>Particle Removal</b> Down to 0.1 Micron		<b>High purity extended surface activated carbon</b> Removes hydrocarbon mist and vapor.	
<b>Max. Oil Carryover</b> 0.09 PPM w/w		<b>Max. Oil Carryover</b> 0.003 PPM w/w	
<b>Clean Dry Pressure Drop</b> 1.0 PSID		<b>Clean Dry Pressure Drop</b> 1.0 PSID	
<b>Saturated Pressure Drop</b> 2.0 PSID		<b>Saturated Pressure Drop</b> 4.0 PSID	
<b>ISO 8573</b> (Class 3)		<b>ISO 8573</b> (Class 3)	
<b>Element Flow</b> Outside/In		<b>Element Flow</b> Outside/In	

# Cleaver & Efficient Housing Design



**Heavy Steel Construction**

ASME section VIII construction for pressure vessels

**Delta Pressure Gauge**

The delta pressure gauge displays differential pressure from 0-15 PSID



**Internal Surface**

Heavy Duty Epoxy coating

**Element Hanger**

Heavy duty removeable element hanger with powder coated steel and galvanized components

**Dual Side Condensate Drain Ports**

This allows external drain connections with easy access regardless of filter orientation.

**Connection Ports**

ANSI 150# RF Flange

**Primary Separation Sump**

Inlet separation removes gross liquids from the inlet stream reducing element loads. It also acts as a reservoir to protect against gross lubricant discharge in a separator fault.

**Lower Drain**

External auto or manual drain to remove primary separated condensate.

**GW Series Housing Specifications:**

Housing Material:	Steel
Maximum Pressure:	165 PSIG
Maximum Temperature:	450 °F

# Mist Eliminator Filtration

Throughout the late 20th century there were calls for the reduction of pressure drops throughout compressed air systems in an effort to increase energy efficiency. Coalescing filtration was identified as a substantial contributor to total system pressure drop and the Mist Eliminator was developed to reduce the addition of pressure drop through filtration.

The Mist Eliminator is a type of coalescing filter that is specifically designed to operate at low pressure drops making the filter significantly more energy efficient. The filter design relies on the three standard collection mechanisms of coalescing: Direct Impact, Interception, and Diffusion. The reduced pressure drop is a benefit of the filtration substrate which is a pleated borosilicate glass with a fluorocarbon binder that give the filter extremely high surface area and exceptional drainage ability, while still maintaining coalescing efficiencies. This design offers the benefits of the most efficient coalescing material available and still maintains low pressure drops while offering greatly reduced physical size as compared to competitive products.

<i>Mist Eliminator Coalescing Filtration</i>	
Particle Removal	Down to 0.5 Micron @
Max. Oil Carryover	0.09 PPM w/w
Clean Dry Pressure Drop	0.25 PSID
Saturated Pressure Drop	0.5 PSID
ISO 8573	(Class 2)
Element Flow	Inside/Out



## Model Nomenclature

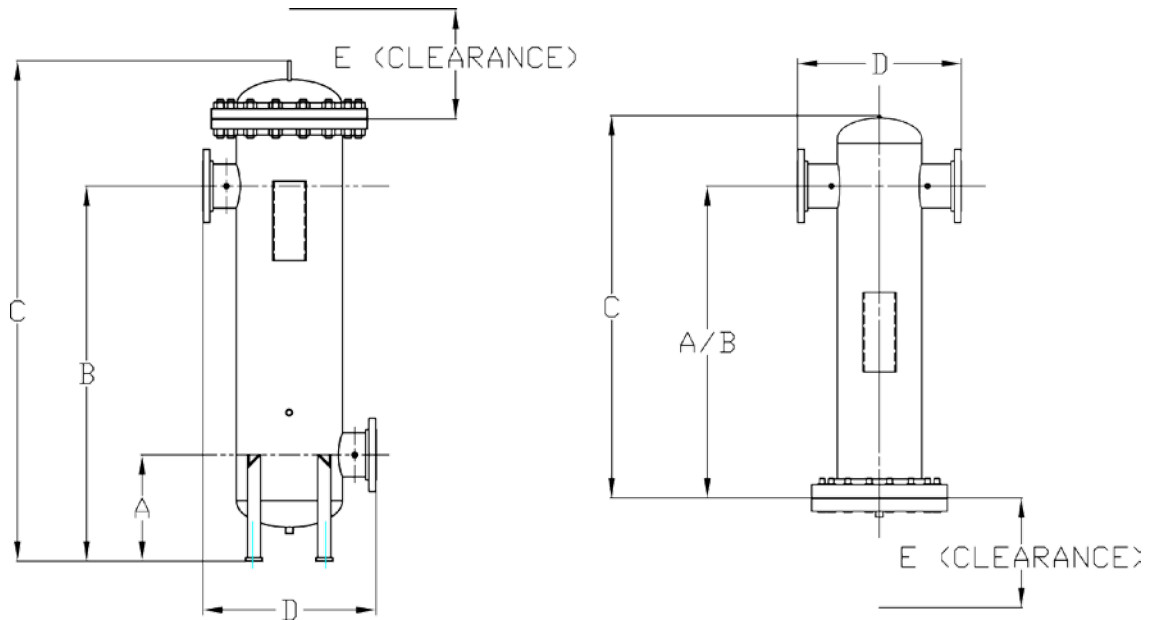
	Model #	Housing Type	Capacity In SCFM		Max. Pressure	Max. Temp.	Port	Replacement Element/Set
			@					
			100 PSIG	125 PSIG				
High Efficiency Coalescing	GWT3F-1500-GA-H	T-Type	1500	1827	185 psig	175°F	3" Flg.	EGW-1500-H
	GWT4F-2000-GA-H	T-Type	2000	2436	185 psig	175°F	4" Flg.	EGW-2000-H
	GWT6F-3000-GA-H	T-Type	3000	3654	185 psig	175°F	6" Flg.	EGW-3000-H
	GWF3F-1500-GA-H	Floor	1500	1827	185 psig	175°F	3" Flg.	EGW-1500-H
	GWF4F-2000-GA-H	Floor	2000	2436	185 psig	175°F	4" Flg.	EGW-2000-H
	GWF4F-2300-GA-H	Floor	2300	2801	185 psig	175°F	4" Flg.	EGW-2300-H
	GWF6F-3000-GA-H	Floor	3000	3654	185 psig	175°F	6" Flg.	EGW-3000-H
	GWF6F-4500-GA-H	Floor	4500	5481	185 psig	175°F	6" Flg.	EGW-4500-H
	GWF8F-6000-GA-H	Floor	6000	7308	185 psig	175°F	8" Flg.	EGW-6000-H
	GWF10F-10500-GA-H	Floor	10500	12789	185 psig	175°F	10" Flg.	EGW-10500-H
	GWF12F-16500-GA-H	Floor	16500	20097	185 psig	175°F	12" Flg.	EGW-16500-H

Utility Grade Coalescing	GWT3F-1500-GA-PC	T-Type	1500	1827	185 psig	175°F	3" Flg.	EGW-1500-PC
	GWT4F-2000-GA-PC	T-Type	2000	2436	185 psig	175°F	4" Flg.	EGW-2000-PC
	GWT6F-3000-GA-PC	T-Type	3000	3654	185 psig	175°F	6" Flg.	EGW-3000-PC
	GWF3F-1500-GA-PC	T-Type	1500	1827	185 psig	175°F	3" Flg.	EGW-1500-PC
	GWF4F-2000-GA-PC	Floor	2000	2436	185 psig	175°F	4" Flg.	EGW-2000-PC
	GWF4F-2300-GA-PC	Floor	2300	2801	185 psig	175°F	4" Flg.	EGW-2300-PC
	GWF6F-3000-GA-PC	Floor	3000	3654	185 psig	175°F	6" Flg.	EGW-3000-PC
	GWF6F-4500-GA-PC	Floor	4500	5481	185 psig	175°F	6" Flg.	EGW-4500-PC
	GWF8F-6000-GA-PC	Floor	6000	7308	185 psig	175°F	8" Flg.	EGW-6000-PC
	GWF10F-10500-GA-PC	Floor	10500	12789	185 psig	175°F	10" Flg.	EGW-10500-PC
	GWF12F-16500-GA-PC	Floor	16500	20097	185 psig	175°F	12" Flg.	EGW-16500-PC

Particulate	GWT3F-1500-GM-PP	T-Type	1500	1827	185 psig	175°F	3" Flg.	EGW-1500-PP
	GWT4F-2000-GM-PP	T-Type	2000	2436	185 psig	175°F	4" Flg.	EGW-2000-PP
	GWT6F-3000-GM-PP	T-Type	3000	3654	185 psig	175°F	4" Flg.	EGW-3000-PP
	GWF3F-1500-GM-PP	Floor	1500	1827	185 psig	175°F	6" Flg.	EGW-1500-PP
	GWF4F-2000-GM-PP	Floor	2000	2436	185 psig	175°F	4" Flg.	EGW-2000-PP
	GWF4F-2300-GM-PP	Floor	2300	2801	185 psig	175°F	4" Flg.	EGW-2300-PP
	GWF6F-3000-GM-PP	Floor	3000	3654	185 psig	175°F	6" Flg.	EGW-3000-PP
	GWF6F-4500-GM-PP	Floor	4500	5481	185 psig	175°F	6" Flg.	EGW-4500-PP
	GWF8F-6000-GM-PP	Floor	6000	7308	185 psig	175°F	8" Flg.	EGW-6000-PP
	GWF10F-10500-GM-PP	Floor	10500	12789	185 psig	175°F	10" Flg.	EGW-10500-PP
	GWF12F-16500-GM-PP	Floor	16500	20097	185 psig	175°F	12" Flg.	EGW-16500-PP

Mist Eliminator	GWT3F-1700-GA-M	T-Type	1700	2070	185 psig	175°F	3" Flg.	EGW-1700-M
	GWT4F-2300-GA-M	T-Type	2300	2801	185 psig	175°F	4" Flg.	EGW-2300-M
	GWT6F-3400-GA-M	T-Type	3400	4141	185 psig	175°F	6" Flg.	EGW-3400-M
	GWF3F-1700-GA-M	Floor	1700	2070	185 psig	175°F	3" Flg.	EGW-1700-M
	GWF4F-2300-GA-M	Floor	2300	2801	185 psig	175°F	4" Flg.	EGW-2300-M
	GWF6F-3400-GA-M	Floor	3400	4141	185 psig	175°F	6" Flg.	EGW-3400-M
	GWF6F-5200-GA-M	Floor	5200	6333	185 psig	175°F	6" Flg.	EGW-5200-M
	GWF8F-7000-GA-M	Floor	7000	8526	185 psig	175°F	8" Flg.	EGW-7000-M
	GWF10F-12500-GA-M	Floor	12500	15225	185 psig	175°F	10" Flg.	EGW-12500-M
	GWF12F-19250-GA-M	Floor	19250	23446	185 psig	175°F	12" Flg.	EGW-19250-M

# Dimensions & Specifications



Model #	Housing Type	In/Out Connections	Drain Connections		Weight Lbs	Dimensions			
			Bottom	Side		A	B	C	D
GWT3F-1500	T-Type	3" Flg.	1/4"	N/A	157	-	44	52	16
GWT4F-2000	T-Type	4" Flg.	1/4"	N/A	353	-	47	58	22
GWT6F-3000	T-Type	6" Flg.	1/4"	N/A	400	-	48	58	20
GWF4F-1500	Floor Stand	3" Flg.	1/2"	1/2"	192	12	50	59	15
GWF4F-2000	Floor Stand	4" Flg.	1/2"	1/2"	400	16	63	74	20
GWF4F-2300	Floor Stand	4" Flg.	1/2"	1/2"	404	16	63	74	20
GWF6F-3000	Floor Stand	6" Flg.	1/2"	1/2"	419	16	63	74	20
GWF6F-4500	Floor Stand	6" Flg.	1/2"	1/2"	546	16	57	74	26
GWF8F-6000	Floor Stand	8" Flg.	1/2"	1/2"	927	19	61	83	30
GWF10F-10500	Floor Stand	10" Flg.	1/2"	1/2"	977	22	68	90	34
GWF12F-16500	Floor Stand	12" Flg.	1/2"	1/2"	1,068	28	77	99	46

Notes: All Dimensions are in Inches / Weight is in Pounds / Connections are in Inches NPT unless otherwise noted

## Model Nomenclature

Series	Type	Conn Size		Accessories		Element Grade		
GW	X	XX		X or XX -		X or XX		
GW	T	Inline T-Type	3F	3" Flange	A	Auto Float Drain	H	High Efficiency Coalescing
			4F	4" Flange	GA	Delta Pressure Gauge w/ Auto Float Drain		
	F	Floor Stand	6F	6" Flange	M	Manual Drain	PC	Utility Grade Coalescing
			8F	8" Flange	GM	Delta Pressure Gauge w/ Manual Drain		
			10F	10" Flange	GM	Delta Pressure Indicator w/ Auto Float Drain	PQ	Prefiltered High Efficiency Coalescing
			12F	12" Flange				
					DA		PP	Particulate / Dust Removal
						V	Activated Carbon Adsorber	
						M	Mist Eliminator	

## Other Products from Great Lakes Air Products



**GMNX Series High Capacity  
Cycling Air Dryer**



**GRN Series  
Refrigerated Air Dryer**



**Regenerative  
Desiccant Air Dryers**



**Nitrogen  
Generators**



**Compressed Air  
Filtration**

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