Great Lakes Air

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COALESCERS

Filtration Products

Filtration M

GC SERIES COALESCERS

Separation of aerosol and solid contaminants from air is primarily dictated by gravity. Contaminants greater than 10 *mm* settle out in the air stream quickly. However, small aerosol particles remain suspended particularly in flowing air. Coalescing is the process of combining the smaller particles to create larger particles that are susceptible to the effects of gravity. The Great Lakes Coalescing filter is a unicast element that has no seams and utilizes all three mechanisms of the

Media Grade Designation	Filtration Description	General Filtration Rating	Coalescing Efficiency @ 0.3 to 0.6 *µm* *	Maximum Oil Carryover @ PPM w/w	Pressure Drop Rated Flow Dry	Wet**
F	Fine or Final	0.01 µm	99.995%	0.003	1.25	3-4
S	Standard Industrial	0.01 µm	99.97%	0.008	1.0	2-3
O	General Grade	0.01 µm	98.5%	0.20	0.5	1-1.5
L	Pre Coalescer	0.01 µm	95.0%	0.83	0.5	0.5 -1.0

NOTES: ** Tested per BCAS 860900 at 40 PPM inlet ** Add dry to wet for total pressure drop*

GA SERIES ADSORBER

The Adsorber filter is a high purity extended surface area activated charcoal filter. It will remove trace amounts of hydrocarbons usually 0.5 to 2 PPM in concentration. This filter is used primarily for breathing air and high quality painting applications. Pressure drop is 1 PSID at rated flows and efficiencies are over 99% of all vapors.

Media Types

GP SERIES PARTICULATE

The particulate filter is a pleated cellulose element with molded urethane end seals. The filter has an absolute rating of 3 *mm* and efficiently removes particles down to 0.01 *mm.* The particulate filter is ideal for removing particulate material prior to a Coalescer to extend element life, remove desiccant dust after a desiccant dryer, or remove pipe scale at a point of use application.

GM SERIES MIST ELIMINATORS

A Mist Eliminator is a type of coalescing filter but it is designed for very low pressure drop and extremely long element life. The Great Lakes Mist Eliminator utilizes pleated borosilicate glass fibers with a fluorocarbon binder to give the filter extremely high surface area and still maintain optimum 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.

Media Grade	Filtration Description	General Filtration Rating	Coalescing Efficiency @ 0.3 to 0.6 *µm* *	Maximum Oil Carryover @ PPM w/w	Pressure Drop @ Rated Flow	
					Dry	Wet **
GM	Mist Eliminator	0.1 *µm*	99.97%	0.2	0.25	0.5

Specifications

	* "S"	* "O"	* "L"	* "F"	Model #	Capacity	Model #	Capacity	Model #	Capacity
GC-15-*	15	20	25	11	GP-25	25	GA-15	15	N/A	N/A
GC-20-*	20	27	33	15	GP-30	30	GA-20	20	N/A	N/A
GC-25-*	25	34	42	19	GP-40	40	GA-25	25	N/A	N/A
GC-40-*	40	55	66	30	GP-65	65	GA-40	40	N/A	N/A
GC-50-*	50	68	83	38	GP-80	80	GA-50	50	N/A	N/A
GC-80-*	80	109	133	61	GP-130	130	GA-80	80	N/A	N/A
GC-100-*	100	136	166	76	GP-170	170	GA-100	100	N/A	N/A
GC-140-*	140	191	232	106	GP-230	230	GA-140	140	N/A	N/A
GC-255-*	255	330	415	190	GP-415	415	GA-255	255	GM-275	275
GC-350-*	350	465	600	260	GP-600	600	GA-350	350	GM-375	375
GC-450-*	450	600	750	340	GP-750	750	GA-450	450	GM-500	500
GC-625-*	625	830	1035	470	GP-1035	1035	GA-625	625	GM-675	675
GC-800-*	800	1060	1330	600	GP-1330	1330	GA-800	800	GM-1075	1075
GC-1000-*	1000	1330	1660	750	GP-1660	1660	GA-1000	1000	GM-1400	1400
GB-1500T3F-*	1500	1800	2500	1135	GP-2500	2500	GA-1500	1500	GM-1750T3F	1750
GB-1500F3F-*	1500	1800	2500	1135	GP-2500	2500	GA-1500	1500	GM-1750F3F	1750
GB-2000T4F-*	2000	2400	3330	1515	GP-3330	3330	GA-2000	2000	GM-2300T4F	2300
GB-2000F4F-*	2000	2400	3330	1515	GP-3330F4F	3330	GA-2000F4F	2000	GM-2300F4F	2300
GB-3000F6F-*	3000	3600	4980	2270	GP-5000F6F	4980	GA-3000F6F	3000	GM-3400F6F	3400
GB-4500F6F-*	4500	5400	7500	3405	GP-7500F6F	7470	GA-4500F6F	4500	GM-5250F6F	5250
GB-6000F8F-*	6000	7200	10000	4540	GP-10000 F8F	9960	GA-6000F8F	6000	GM-7000F8F	7000
GB-10500F10F-*	10500	12600	17500	7945	GP-1750010F	17430	GA-1050010F	10500	GM-12250F10F	12250
GB-16500F12F-*	16500	19800	27500	12485	GP-27000 F12F	27390	GA-16500 F12F	16500	GM-19250F12F	19250

**Insert S, O, L or F to designate Media Grade*

1/4" through 3" Aluminum Inline Housings

Maximum Pressure: 500 PSIG
Maximum Temperature: 175°F Optional: 450°F
Seals: Nitrile Optional: Viton
Materials: Aluminum / 256 Sand Cast Heads / 6061 Drawn Bowls
Coatings: Chromated heads and bowls / Powder coated exterior

***Note**: Capacity*

Model Number Nomenclature

XX - XXXX XXX – X X

MODEL SERIES

GC	Coalescing
GB	Coalescing w/ Prefilter
GM	Mist Eliminator
GP	Particulate
GA	Adsorber

BASE FLOW RATING

FILTER OPTIONS

A	Auto Drain Installed
D	Delta Pressure Indicator
G	Delta Pressure Gauge
E	External Float Drain

HOUSING CONFIGURATION

Blank	Inline T-Type
T3N	ASME/ T-Type 3" NPT
T4F	ASME/ Floor Standing 4" NPT
F4N	ASME/ Floor Standing 4" NPT
F6F	ASME/ Floor Standing 6" Flange
F8F	ASME/ Floor Standing 8" Flange

MEDIA GRADE

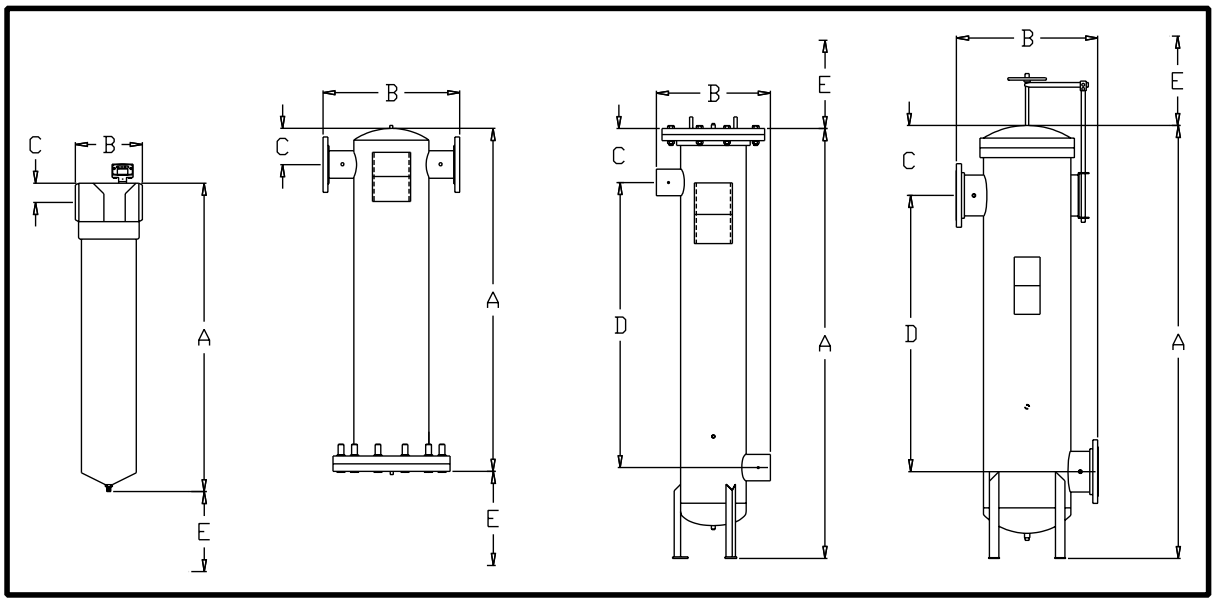
S	Standard Coalescing
O	Open Coalescing
L	Loose Coalescing
F	Fine Coalescing
Blank	GP Series Filters
Blank	GA Series Filters

& Dimensions

	Housing Type	In/Out Ports	A	B	C	D	E	Gauge	Lbs.
	Inline	1/4" NPT	7.9	3.1	0.55	N/A	2.9	Optional	1.5
	Inline	3/8" NPT	7.9	3.1	0.55	N/A	2.9	Optional	1.5
	Inline	1/2" NPT	7.9	3.1	0.55	N/A	2.9	Optional	1.5
	Inline	3/8" NPT	10.4	3.1	0.55	N/A	5.5	Optional	2.0
	Inline	1/2" NPT	10.4	3.1	0.55	N/A	5.5	Optional	2.0
	Inline	3/4" NPT	11.6	4.7	0.98	N/A	6.5	Standard	4.0
	Inline	1" NPT	11.6	4.7	0.98	N/A	6.5	Standard	3.5
	Inline	1" NPT	15.0	4.7	0.98	N/A	10.0	Standard	4.5
	Inline	1-1/4" NPT	19.0	6.0	1.65	N/A	13.5	Standard	12.2
	Inline	1-1/2" NPT	19.0	6.0	1.65	N/A	13.5	Standard	12.0
	Inline	2" NPT	25.1	6.0	1.65	N/A	19.2	Standard	14.0
	Inline	2" NPT	30.1	6.0	1.65	N/A	24.0	Standard	16.0
	Inline	2-1/2" NPT	36.8	8.0	2.4	N/A	28.5	Standard	35.0
	Inline	3" NPT	36.8	8.0	2.4	N/A	28.5	Standard	35.0
	Inline ASME	3" FLG	43.1	15	7.7	N/A	28	Optional	190
	Floor ASME	3" FLG	59.0	15	9.4	37.5	28	Optional	190
	Inline ASME	4" FLG	42.7	20	9.7	N/A	25	Optional	380
	Floor ASME	4" FLG	63.3	20	12.3	35	25	Optional	370
	Floor ASME	6" FLG	75.3	26	12.3	47	36	Optional	410
	Large ASME	6" FLG	76.6	30	20.8	40.5	28	Optional	340
	Large ASME	8" FLG	87.3	34	25.8	42.5	28	Optional	550
	Large ASME	10" FLG	96.0	34	28.5	45.5	28	Optional	750
	Large ASME	12" FLG	101.0	44	27.5	47.5	28	Optional	1300

ASME Housings

Maximum Pressure:	Large ASME = 200 PSIG	Floor & Inline ASME = 150 PSIG
Maximum Temperature:	Large ASME = 225°F	Floor & Inline ASME = 500°F
Seals:	Large ASME = Inorganic Gasket	Floor & Inline ASME = Nitrile
Materials:	Carbon Steel	
Coatings:	Enamel	
Codes:	Meets ASME Section VIII, Division 1	

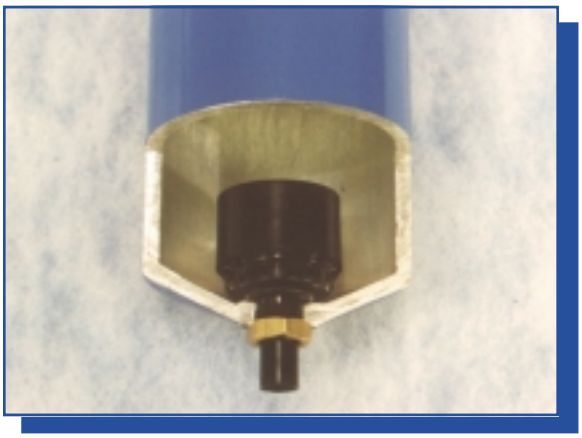


Optional Accessories

MS-50 External Float Drain
and 28-A0019 cleanable strainer
with shut off valve

Differential Pressure Indicator
Available 1/4” through 1/2” Housings

Differential Pressure Gauge
Standard on 3/4” through 3”
Inline Housings

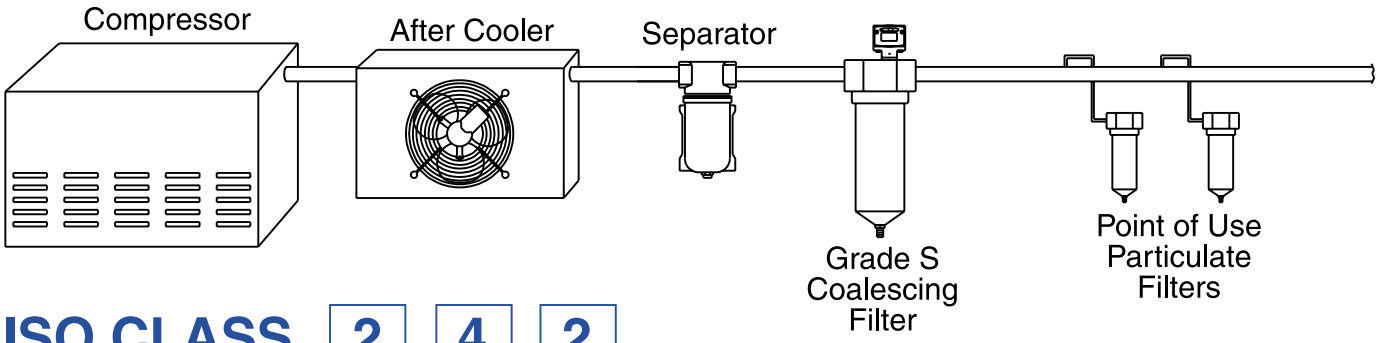


Automatic internal float drain
GFO-ADL

Differential Pressure Gauge
Optional on ASME Housings
GFO-DPG25

Recommended Installations

ISO CLASS 2 [ ] 2



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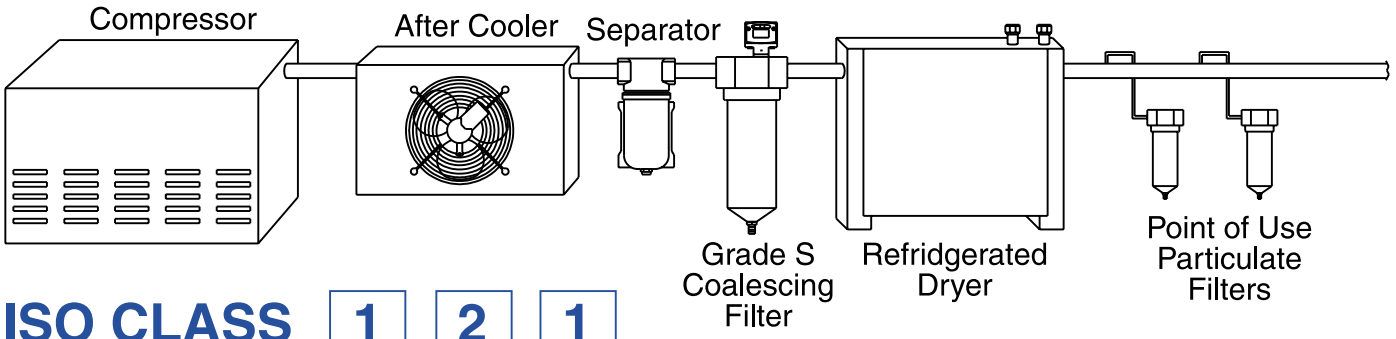

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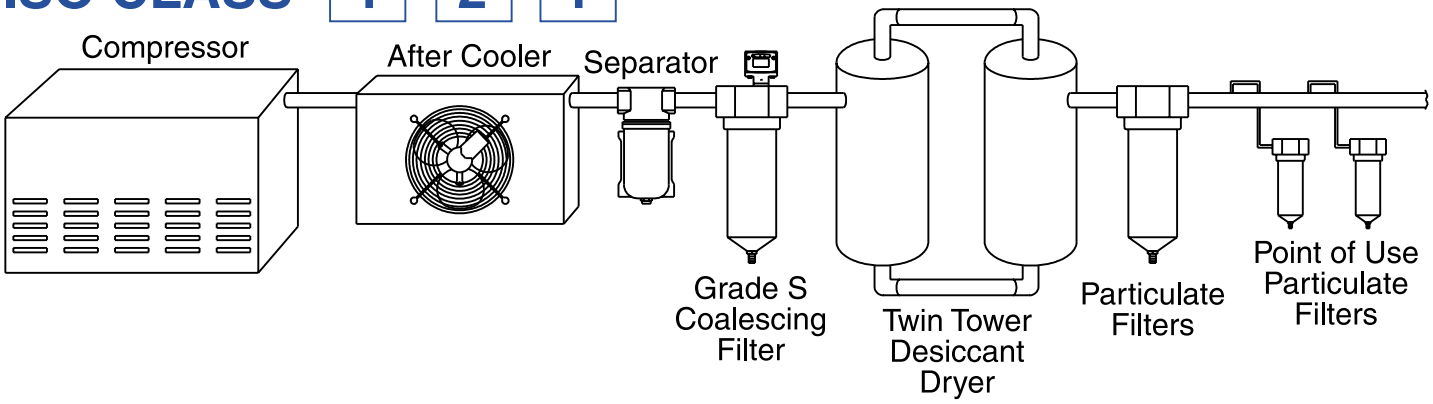

International ISO Standards

Notification as specified in ISO8573 - 1

Class	Solid			Water		Oil	
	Maximum Particle Size* (μm)	Maximum Concentration** ppm	(mg/m³)	Maximum Pressure Dewpoint °F	(°C)	Maximum Concentration** ppm	(mg/m³)
1	0.1	.08	(0.1)	-94	(-70)	.008	(0.01)
2	1	.8	(1)	-40	(-40)	.08	(0.1)
3	5	4.2	(5)	-4	(-20)	.83	(1)
4	15	6.7	(8)	37	(+3)	4.2	(5)
5	40	8.3	(10)	45	(+7)	21	(25)
6	-	-	-	50	(+10)	-	-

*Particle size is based on a filtration ratio β=20. The minimum accuracy of the measuring method used is 20% of the limiting value of the class.

**At 14.7 psi (1 bar) absolute pressure, +70°F (+20°C) and a relative humidity of 60%. It should be noted that at pressures above atmospheric, the contaminant concentration is higher.

Other Great Lakes Products

Conversion Elements
To Fit Competitors' Housing

ZLD Series
Zero Loss Electronic
Float Drain

ZLCBD-1
Zero Loss Electronic
Float Drain

GCS Series
Condensate Oil and
Water Seperator

GAR Series
Aluminum Bar & Plate
Air Cooled Aftercooler

Great Lakes Air Products
Family of
Refrigerated Air Dryers

EDR Series
High Temperature
Refrigerated Air Dryer

GMR Fluid Power Series
Heatless Regenerative
Air Dryer

Great Lakes Air Products
Regenerative Air Dryer

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