



domnick hunter

oil-X EVOLUTION

**The most energy efficient
compressed air filters
in the world**

www.domnickhunter.com

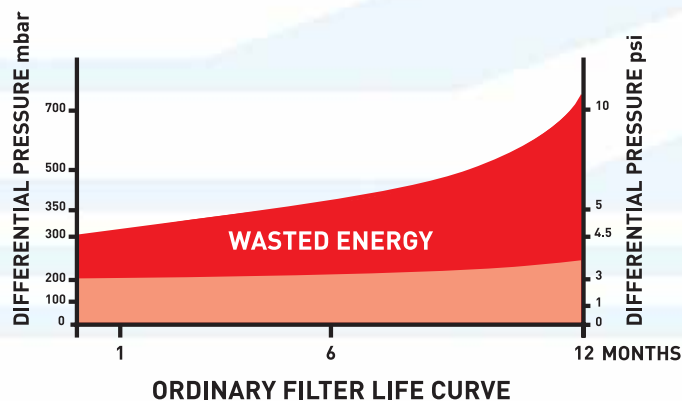
OIL-X EVOLUTION

The most en compressed air f

Don't drive your compr

Old filtration technology

Ordinary compressed air filters can consume too much energy, as any filter by design is a restriction to air flow. During their working life, this restriction increases dramatically, and typically over one year can consume more energy than it costs to replace the element. Historically, service life has been dependent on differential pressure and manufacturers have recommended a replacement filter element at between 7 psi and 10 psi differential. This will cost you a significant 5% increase in compressor energy. In fact you are driving your compressor with the brakes on!



NEW filtration technology

OIL-X EVOLUTION compressed air filters use very little energy as they have a low resistance to air flow.

Advancements such as deep bed pleating, graded density media and an oleophobic coating have led to a high performance filter element with low initial energy costs.

Differential pressure starts low and stays low throughout its life thus the element service life no longer depends exclusively on pressure drop. The optional incident indicator is valuable for indicating premature blockage of an element. However, since element media breaks down over an element's life, changing the element at regular intervals is critical to maintain downstream air quality.



Energy efficient filters in the world

Processor with the brakes on!

Guaranteed Quality

All domnick hunter
OIL-X EVOLUTION filters
have two guarantees.

The first is a one year compressed
air quality and element life
guarantee. This ensures that the
solid particle, oil aerosol, and
vapor content selected conforms
to the ISO 8573.1 international
standard. This guarantee is automatically
extended when service recommendations are
followed.

The second guarantees the filter housing for ten years
under recommended operating conditions.

Further details of these quality guarantees are available
to download free of charge from www.domnickhunter.com



Independently tested

The performance of OIL-X EVOLUTION filters
exceeds the latest International ISO 8573.1 air
quality standard. This new range of compressed
air filters is not only tried and tested by
domnick hunter, but is independently verified by:



Copies of independent test certificates are
available to download free of charge from
www.domnickhunter.com



domnick hunter

ISO 9001:2000 ISO 14001



INTERNATIONAL
APPROVALS



CRN



AS1210



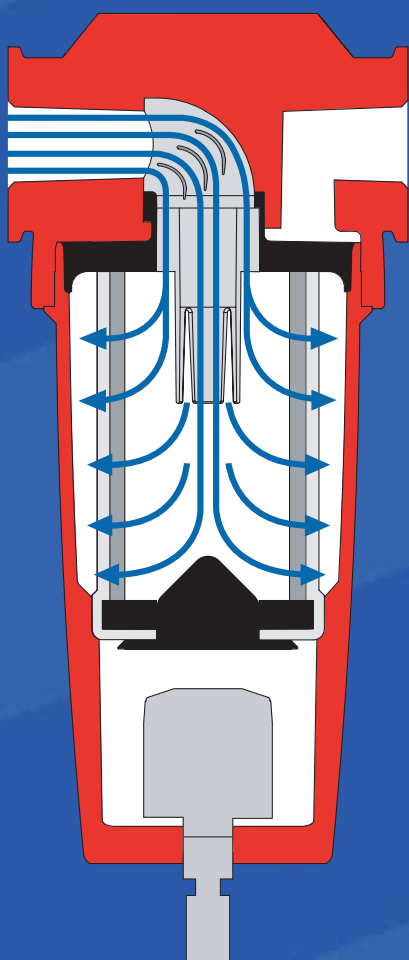
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OIL-X EVOLUTION

The new domnick hunter OIL-X EVOLUTION range of compressed air filters has been designed from the outset to meet current and forthcoming requirements for compressed air quality. Using aerospace technology, domnick hunter has optimized the flow path through the housing and element, significantly reducing air turbulence and pressure losses. Providing an optimal flow path is key to reducing system operating costs.



The most energy efficient filter element in the world

Full Flow Inlet

Inlet conduit matches inlet diameter, reducing pressure drop and running costs.



Even Flow Distribution

Air flow is distributed evenly throughout the filter element using a flow distributor.



Deep Bed Pleating

For particle and aerosol removal, deep bed pleating provides 4.5 x more filter media than an ordinary element.

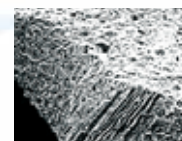


Graded density nanofiber
filter media

This allows for a larger filtration surface area, lower flow velocities, increased dirt holding capacity, lower running costs and a more compact filter element. Graded density further improves filter life and overall performance.

Oil Vapor Removal

While mechanical filtration is capable of removing extremely fine liquids and solid particles, it cannot remove gaseous contaminants such as oil vapor or odors. To efficiently remove these vapors, OIL-X EVOLUTION ACS/OVR filters employ adsorption techniques using a deep bed of activated carbon.

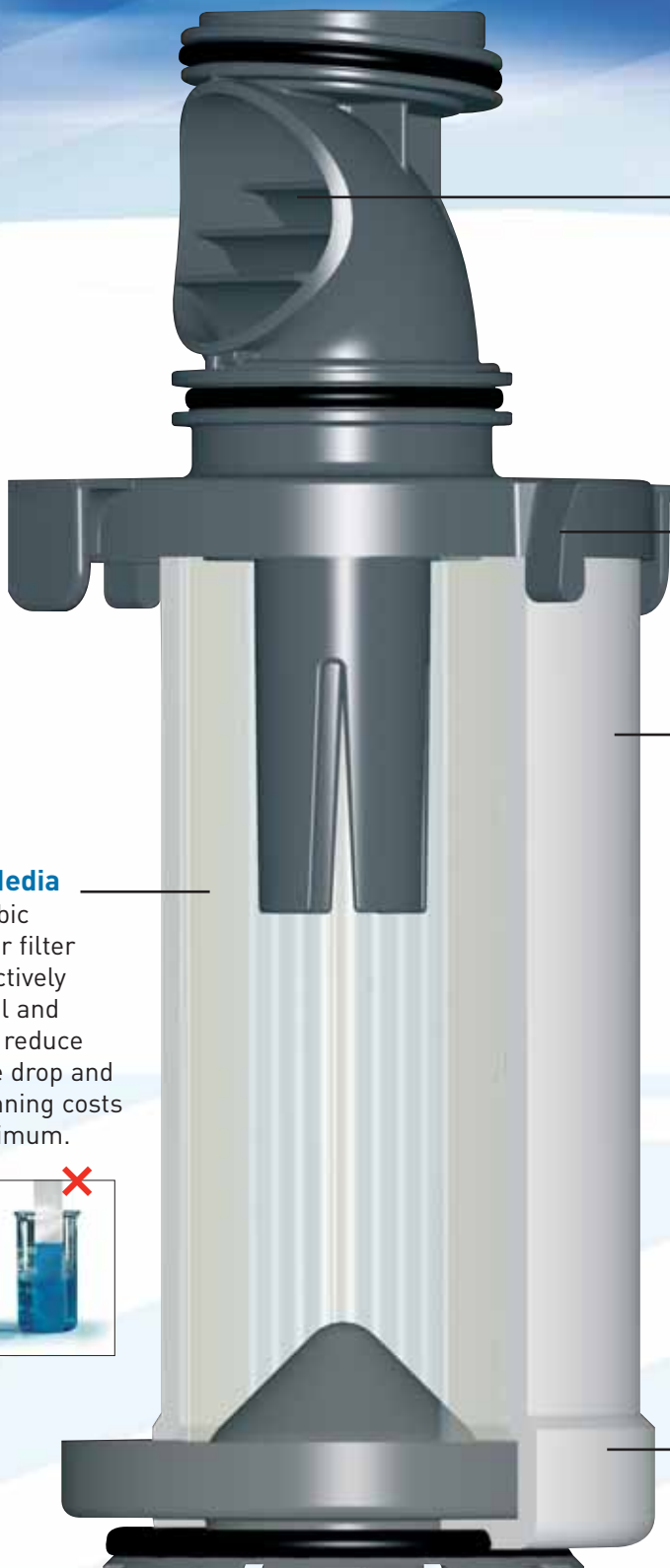


Activated carbon

Conical Air Diffuser

Air flow distribution is further improved by elimination of turbulence.





Special Filter Media

Oleophobic nanofiber filter media actively repels oil and water to reduce pressure drop and keep running costs to a minimum.



Aerospace Turning Vanes

Turning vanes minimize turbulence by effectively directing air flow into the filter element resulting in lower pressure drop.



Air Stabilizers

Provides smooth outlet air flow.

High Efficiency Drainage Layer

Advanced drainage layer provides improved chemical compatibility and high temperature capability while ensuring coalesced liquids are removed quickly and efficiently.

Drainage Ribs

Filter housing and element integrate to provide capillary action which greatly improves liquid drainage. Interaction between housing and element also ensures maximum coalescing performance is achieved at all times.



No Wet Band Formation

Elimination of wet band increases effective flow area by up to 40%.

OIL-X EVOLUTION

Advanced filter housings



Filter Connections

Multiple port sizes are available to match both pipe size and system flow rate providing greater flexibility.



'Clean Change' Filter Element

Element changes no longer require the service technician to touch the contaminated part of the element during annual service.

Minimal Service Clearance

Elimination of tie-rod minimizes service clearance and allows for installation in confined spaces.



No corrosion with Alocrom treatment.



Rapid corrosion of untreated aluminum.

Fully Corrosion Protected

Alocrom & dry powder epoxy coated for full corrosion protection

**10 YEAR
GUARANTEE**



Fits Virtually Anywhere

Advanced housing and element design allows for a more compact and lightweight filtration system.



Mounting Bracket

Enables the filter to be wall or panel mounted.



Fixing Clamp

Joins two filters in series.



Incident Monitor (Optional)

Used to indicate premature high differential pressure. Indicator can be retrofitted to existing housings without depressurizing the system.



Float drain



Zero air loss drain

Choice of Drains

Manual, float and zero air loss drain options available. Easy connection via 1/2" NPT drain port.

OIL-X EVOLUTION

Fabricated filters

Differential Pressure Gauge (Optional)

Used to indicate premature high differential pressure.

International Design Standards

Designed in accordance with ASME and CRN. For other pressure vessel codes, consult domnick hunter.



Drain Option

ED2000 series electronic level sensing drain



Connection Sizes

2" - 12"
flanged connections

Corrosion Protection

Acrylic polyurethane coating includes UV stabilizers and anti-corrosive additives to provide years of corrosion protection.



Simple Maintenance

Hinged lower flange makes maintenance by one person easy. Our 'easy fit' elements do not utilize a tie rod.

Standard Drain

Heavy duty automatic drain provides reliable discharge of collected condensate.

OIL-X EVOLUTION

Annual filter element changes are essential

The replacement of OIL-X EVOLUTION filter elements does not depend upon differential pressure, but a one year air quality guarantee. By replacing your filter elements each year with genuine domnick hunter parts, you will automatically extend the valuable one year air quality guarantee. The guarantee will provide you with the added peace of mind of high quality compressed air and low cost of ownership.

Throughout its life, the filter element is constantly under bombardment from oily, acidic condensate and high velocity dirt particles, which it has to remove and retain to protect your compressed air system. Over time, this can weaken the filter media and reduce filtration performance. This potential but critical reduction in filtration performance cannot be detected by simple differential pressure monitoring techniques.

Annual filter element changes are therefore essential and failure to replace every year could result in reduced production performance, degrading air quality and increased operational costs.

Annual filter element changes ensure :

- **Optimal performance is maintained**
- **Air quality continues to meet international standards**
- **Performance guarantee is extended for a further 12 months**
- **Low operational costs**
- **Continued protection of downstream equipment & processes**
- **Peace of mind**

After sales support

Let domnick hunter help you manage your compressed air quality and guarantee future performance with worldwide after sales support.

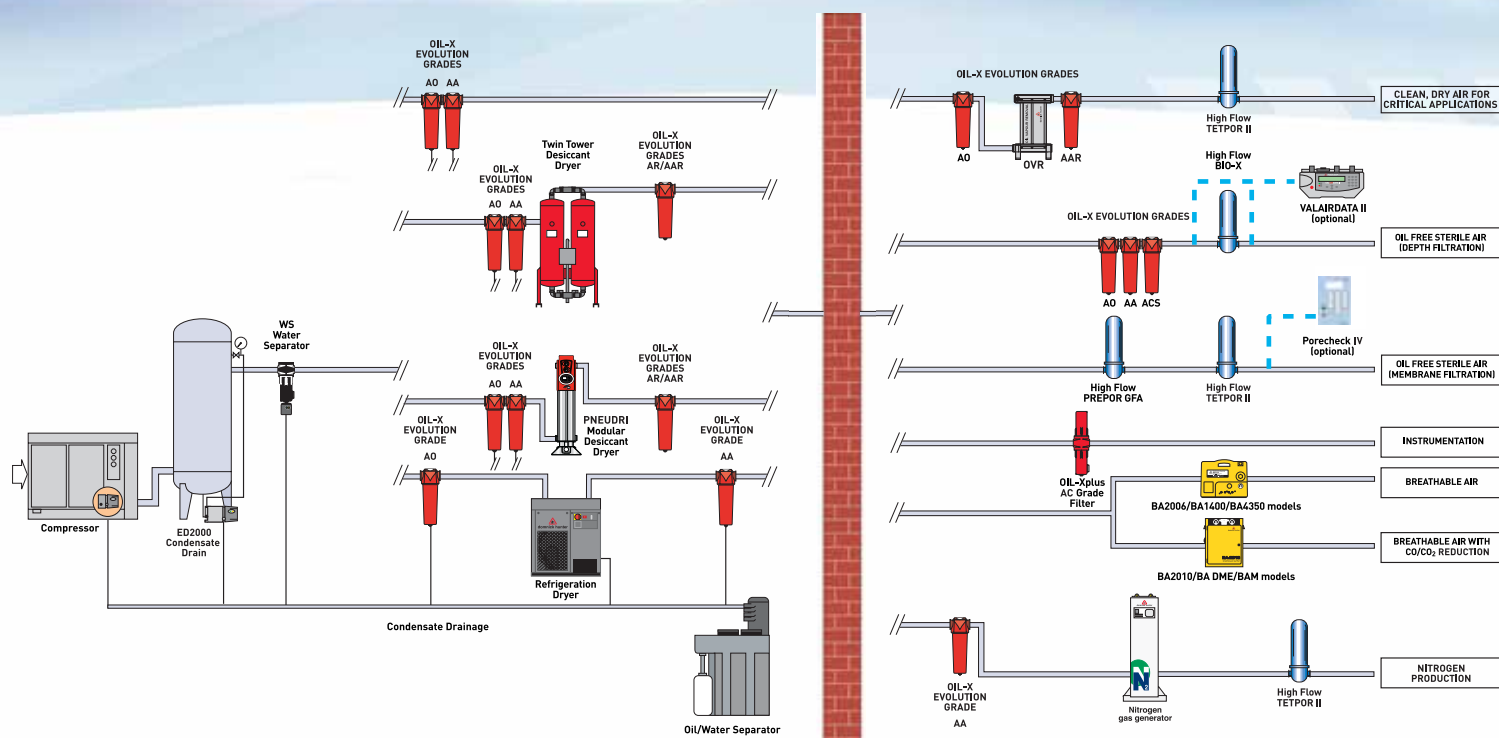


To help manage your preventative maintenance program, go to www.servicereminder.com where you can register to receive notifications of when maintenance is due (including parts required and equipment locations).



Filter element service kit

High quality compressed air from generation to application



GRADE WS

Water Separators

For the removal of up to 99% of bulk liquid contamination.

GRADE AO

High Efficiency General Purpose Protection

Particle removal down to 1 micron, including water and oil aerosols.

Maximum remaining oil aerosol content : 0.5 ppm(w) at 70°F / 0.6 mg/m³ at 21°C.

GRADE AA

High Efficiency Oil Removal Filtration

(Precede with Grade AO filter)

Particle removal down to 0.01 micron, including water and oil aerosols.

Maximum remaining oil aerosol content : 0.01 ppm(w) at 70°F / 0.01 mg/m³ at 21°C.

GRADE AR

General Purpose Dust Filtration

Dry particle removal down to 1 micron.

GRADE AAR

High Efficiency Dust Filtration

Dry particle removal down to 0.01 micron.

GRADE ACS & OVR

Oil Vapor & Odor Removal

(Precede Grade ACS with Grade AA filter)

Maximum remaining oil vapor content : 0.003 ppm(w) at 70°F / 0.003 mg/m³ at 21°C.

Compressed Air Quality & Product Selection

COMPRESSED AIR QUALITY TO ISO 8573.1

The international standard for compressed air quality provides a simple system of classification for the three main contaminants present in any compressed air system - DIRT, WATER and OIL. To specify the quality class required for a particular application, simply list the class for each contaminant in turn.

Class	Solid Particle Maximum number of particles per m ³			Water Pressure Dewpoint °F (°C)	Oil (incl. vapor) mg/m ³
	0.1-0.5micron	0.5-1 micron	1.0-5micron		
1	100	1	0	-94 [-70]	0.01
2	100,000	1,000	10	-40 [-40]	0.1
3	-	10,000	500	-4 [-20]	1
4	-	-	1,000	37.4 [3]	5
5	-	-	20,000	44.6 [7]	-
6	-	-	-	50 [10]	-

Product selection

Stated flows are at 100 psi g (7 bar g) ANR conditions. For flows at other pressures apply the correction factors shown.

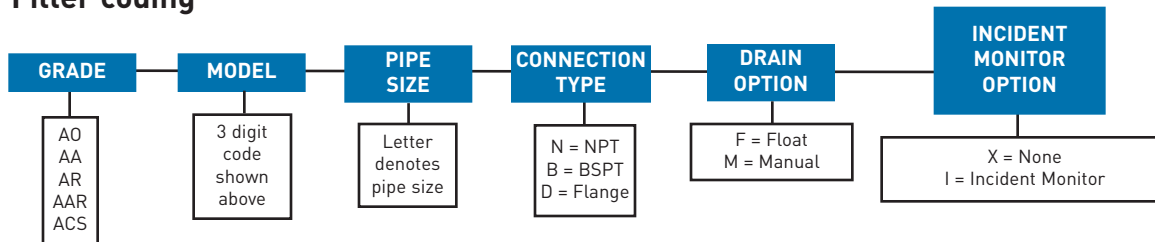
Model	Pipe Size	scfm	Nm ³ /hr	L/s	Replacement Element Kit	No.
(grade) 010AN□X	¼" NPT	21	36	10	010 (grade)	1
(grade) 010BN□X	¾" NPT	21	36	10	010 (grade)	1
(grade) 010CN□X	½" NPT	21	36	10	010 (grade)	1
(grade) 015BN□□	¾" NPT	42	72	20	015 (grade)	1
(grade) 015CN□□	½" NPT	42	72	20	015 (grade)	1
(grade) 020CN□□	½" NPT	64	108	30	020 (grade)	1
(grade) 020DN□□	¾" NPT	64	108	30	020 (grade)	1
(grade) 020EN□□	1" NPT	64	108	30	020 (grade)	1
(grade) 025DN□□	¾" NPT	127	216	60	025 (grade)	1
(grade) 025EN□□	1" NPT	127	216	60	025 (grade)	1
(grade) 030EN□□	1" NPT	233	396	110	030 (grade)	1
(grade) 030FN□□	1½" NPT	233	396	110	030 (grade)	1
(grade) 030GN□□	1½" NPT	233	396	110	030 (grade)	1
(grade) 035FN□□	1½" NPT	339	576	160	035 (grade)	1
(grade) 035GN□□	1½" NPT	339	576	160	035 (grade)	1
(grade) 040GN□□	1½" NPT	466	792	220	040 (grade)	1
(grade) 040HN□□	2" NPT	466	792	220	040 (grade)	1
(grade) 045HN□□	2" NPT	699	1188	330	045 (grade)	1
(grade) 050IN□□	2½" NPT	911	1548	430	050 (grade)	1
(grade) 050JN□□	3" NPT	911	1548	430	050 (grade)	1
(grade) 055IN□□	2½" NPT	1314	2232	620	055 (grade)	1
(grade) 055JN□□	3" NPT	1314	2232	620	055 (grade)	1
(grade) 060KN□□	4" NPT	2119	3600	1000	060 (grade)	1
(grade) 100MD□□	2" Flg	466	792	220	100 (grade)	1
(grade) 150ND□□	3" Flg	911	1548	430	150 (grade)	1
(grade) 200ND□□	3" Flg	1314	2232	620	200 (grade)	1
(grade) 250OD□□	4" Flg	2119	3600	1000	250 (grade)	1
(grade) 300OD□□	4" Flg	2755	4680	1300	300 (grade)	1
(grade) 350PD□□	6" Flg	4132	7020	1950	350 (grade)	1
(grade) 400QD□□	8" Flg	6886	11700	3250	400 (grade)	1
(grade) 450RD□□	10" Flg	11018	18720	5200	450 (grade)	1
(grade) 500SD□□	12" Flg	16527	28080	7800	500 (grade)	1

Line Pressure		Correction Factor
psi g	bar g	
15	1	0.38
29	2	0.53
44	3	0.65
58	4	0.76
73	5	0.85
87	6	0.93
100	7	1.00
116	8	1.07
131	9	1.13
145	10	1.19
160	11	1.25
174	12	1.31
189	13	1.36
203	14	1.41
218	15	1.46
232	16	1.51
When ordering an AO/AA filter for pressures above 232 psi g (16 bar g), use manual drain. Replace F with M in product code. e.g. 015B8FX now 015B8MX		
247	17	1.56
261	18	1.60
275	19	1.65
290	20	1.70

To find the Correction factor for 122 psi g (8.5 bar g) =

$$= \sqrt{\frac{\text{System Operating Pressure}}{\text{Nominal pressure}}} = \sqrt{\frac{122 \text{ psi g (8.5 bar g)}}{100 \text{ psi g (7 bar g)}}} = 1.10$$

Filter coding



Ordering Example: To order a grade AO filter, model 040 with 2" connection, NPT threaded, float drain with incident monitor, your nomenclature would be A0040HNFI.

1. Incident monitor is not available on model 010.
2. AC/AAR/AC must be ordered with manual drain.
3. AA/AO available only with manual drain for pressures above 232 psi g.

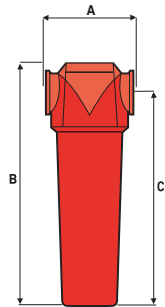
OIL-X EVOLUTION Grade AC Combination Filters

Model	Pipe Size	scfm	Nm ³ /hr	L/s	Replacement Elements
AC010AN□I	¼" NPT	13	22	6	010AA & 010AC
AC010BN□I	¾" NPT	13	22	6	010AA & 010AC
AC010CN□I	½" NPT	13	22	6	010AA & 010AC
AC015BN□I	¾" NPT	27	46	13	015AA & 015AC
AC015CN□I	½" NPT	27	46	13	015AA & 015AC
AC020CN□I	½" NPT	53	90	25	020AA & 020AC
AC020DN□I	¾" NPT	53	90	25	020AA & 020AC
AC020EN□I	1" NPT	53	90	25	020AA & 020AC
AC025DN□I	¾" NPT	84	143	40	025AA & 025DAC
AC025EN□I	1" NPT	136	231	65	025AA & 025EAC
AC030EN□I	1" NPT	180	305	85	030AA & 030AC
AC030FN□I	1½" NPT	180	305	85	030AA & 030AC
AC030GN□I	1½" NPT	180	305	85	030AA & 030AC

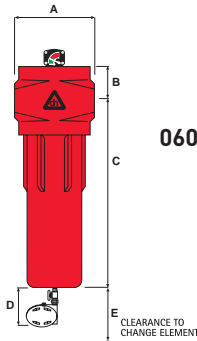
* Grade AA and AC elements required for double stage filter. **AC combination filter includes automatic float drain.

Technical specifications

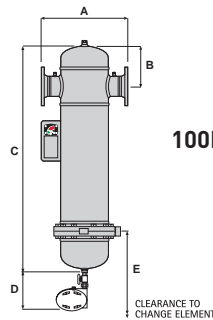
Model	Drain Option	Maximum Operating Pressure	Maximum Recommended Operating Temperature	Minimum Recommended Operating Temperature
AO/AA 010 - 060	Float	232 psi g (16 bar g)	212°F (100°C)	35°F (1.5°C)
AO/AA/AR/AAR 010 - 060	Manual	290 psi g (20 bar g)	212°F (100°C)	35°F (1.5°C)
ACS 010 - 060	Manual	290 psi g (20 bar g)	86°F (30°C)	35°F (1.5°C)
AC	Automatic	250 psi g (17 bar g)	86°F (30°C)	35°F (1.5°C)
AO/AA/AR/AAR/ACS 100M - 500S	Manual & Float	232 psi g (16 bar g)	212°F (100°C)	35°F (1.5°C)



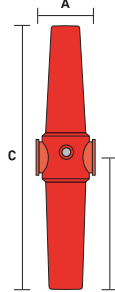
010A - 055J



060K



100M - 500S



AC010AN - AC030GN

Weights and dimensions

Model	Pipe Size	A		B		C		D		E		Weight	
		ins	mm	ins	mm	ins	mm	ins	mm	ins	mm	lbs	kg
010A	¼" NPT	3.0	76	7.2	181.5	6.0	153.2	-	-	-	-	0.88	0.4
010B	¾" NPT	3.0	76	7.2	181.5	6.0	153.2	-	-	-	-	0.88	0.4
010C	½" NPT	3.0	76	7.2	181.5	6.0	153.2	-	-	-	-	0.88	0.4
015B	¾" NPT	3.8	97.5	9.3	235	7.9	201	-	-	-	-	2.2	1
015C	½" NPT	3.8	97.5	9.3	235	7.9	201	-	-	-	-	2.2	1
020C	½" NPT	3.8	97.5	9.3	235	7.9	201	-	-	-	-	2.2	1
020D	¾" NPT	3.8	97.5	9.3	235	7.9	201	-	-	-	-	2.2	1
020E	1" NPT	3.8	97.5	9.3	235	7.9	201	-	-	-	-	2.2	1
025D	¾" NPT	5.1	129	10.8	274.8	9.2	232.5	-	-	-	-	4.84	2.2
025E	1" NPT	5.1	129	10.8	274.8	9.2	232.5	-	-	-	-	4.84	2.2
030E	1" NPT	5.1	129	14.3	364.3	12.7	322	-	-	-	-	5.72	2.6
030F	1½" NPT	5.1	129	14.3	364.3	12.7	322	-	-	-	-	5.72	2.6
030G	1½" NPT	5.1	129	14.3	364.3	12.7	322	-	-	-	-	5.72	2.6
035F	1½" NPT	6.7	170	17.0	432.5	15.1	382.5	-	-	-	-	9.9	4.5
035G	1½" NPT	6.7	170	17.0	432.5	15.1	382.5	-	-	-	-	9.9	4.5
040G	1½" NPT	6.7	170	20.6	524.5	18.7	474.5	-	-	-	-	11.55	5.25
040H	2" NPT	6.7	170	20.6	524.5	18.7	474.5	-	-	-	-	11.55	5.25
045H	2" NPT	6.7	170	20.6	524.5	18.7	474.5	-	-	-	-	11.55	5.25
050I	2½" NPT	8.1	204.8	25.3	641.6	22.9	581.6	-	-	-	-	22	10
050J	3" NPT	8.1	204.8	25.3	641.6	22.9	581.6	-	-	-	-	22	10
055I	2½" NPT	8.1	204.8	32.8	832.1	30.4	772.1	-	-	-	-	26.4	12
055J	3" NPT	8.1	204.8	32.8	832.1	30.4	772.1	-	-	-	-	26.4	12
060K	4" NPT	16.5	420	3.2	82	43.1	1095	13.2	335	22.4	570	98	44.5
100M	2" Flg	12	305	7	178	29	737	21	534	20	508	64	29
150N	3" Flg	14.6	371	8	203	36	915	21	534	20	508	81	37
200N	3" Flg	14.6	371	10	254	43.8	1112	26	661	26	660	141	64
2500	4" Flg	19.7	500	11.8	299	50.8	1290	21	534	26	660	209	95
3000	4" Flg	19.7	500	11.8	299	50.8	1290	21	534	26	660	297	135
350P	6" Flg	22.8	578	14	356	55.8	1417	21	534	26	660	389	177
400Q	8" Flg	29.5	750	15.5	394	57	1448	21	534	26	660	810	368
450R	10" Flg	34	864	16	407	60.5	1537	26	661	30	762	1133	515
500S	12" Flg	39.4	1001	18.5	470	66.6	1693	28	712	32	813	1505	684
AC010AN	¼" NPT	3	76	6	153.5	12.3	311.5	-	-	-	-	1.79	0.81
AC010BN	¾" NPT	3	76	6	153.5	12.3	311.5	-	-	-	-	1.79	0.81
AC010CN	½" NPT	3	76	6	153.5	12.3	311.5	-	-	-	-	1.79	0.81
AC015BN	¾" NPT	3.8	97.5	9.3	235	18.7	474.5	-	-	-	-	3.53	1.60
AC015CN	½" NPT	3.8	97.5	9.3	235	18.7	474.5	-	-	-	-	3.53	1.60
AC020CN	½" NPT	3.8	97.5	9.3	235	18.7	474.5	-	-	-	-	3.20	1.45
AC020DN	¾" NPT	3.8	97.5	9.3	235	18.7	474.5	-	-	-	-	3.20	1.45
AC020EN	1" NPT	3.8	97.5	9.3	235	18.7	474.5	-	-	-	-	3.20	1.45
AC025DN	¾" NPT	5.1	129	10.8	275	21.8	554	-	-	-	-	7.80	3.54
AC025EN	1" NPT	5.1	129	10.8	275	21.8	554	-	-	-	-	7.60	3.43
AC030EN	1" NPT	5.1	129	14.3	364	28.9	733	-	-	-	-	9.04	4.10
AC030FN	1½" NPT	5.1	129	14.3	364	28.9	733	-	-	-	-	9.04	4.10
AC030GN	1½" NPT	5.1	129	14.3	364	28.9	733	-	-	-	-	9.04	4.10

1963

1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 19

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