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OIL-X EVOLUTION

High Efficiency Compressed Air Filters



OIL-X EVOLUTION

Coalescing & Dry Particulate Filters – Grades AO/AA/AR/AAR

Filtration Grades

Filtration Grade	Filter Type	Particle removal (inc water & oil aerosols)	Max Remaining Oil Content at 21°C (70°F)	Filtration Efficiency	Initial Dry Differential Pressure	Initial Saturated Differential Pressure	Change Element Every	Precede with Filtration Grade
AO	Coalescing	Down to 1 micron	0.6 mg/m ³ 0.5 ppm(w)	99.925%	<70 mbar (1psi)	<140 mbar (2psi)	12 months	WS (for bulk liquid)
AA	Coalescing	Down to 0.01 micron	0.01 mg/m ³ 0.01 ppm(w)	99.9999%	<140 mbar (2psi)	<200 mbar (3psi)	12 months	AO
AR	Dry Particulate	Down to 1 micron	N/A	99.925%	<70 mbar (1psi)	N/A	12 months	N/A
AAR	Dry Particulate	Down to 0.01 micron	N/A	99.9999%	<140 mbar (2psi)	N/A	12 months	AR

Product Selection

Stated flows are for operation at 7 bar g (100 psi g) with reference to 20°C, 1 bar a, 0% relative water vapour pressure. For flows at other pressures apply the correction factors shown.

Correction Factors

	Model	Pipe Size	L/S	m ³ /min	m ³ /hr	cfm	Replacement Element kit	No.	Line Pressure		Correction Factor pressure (CFP)
									bar g	psi g	
Cast Aluminum Filters	grade 005A <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	1/4"	6	0.4	22	13	005 grade	1	1	15	2.65
	grade 005B <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	3/8"	6	0.4	22	13	005 grade	1	1.5	22	2.16
	grade 005C <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	1/2"	6	0.4	22	13	005 grade	1	2	29	1.87
	grade 010A <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	1/4"	10	0.6	36	21	010 grade	1	2.5	37	1.67
	grade 010B <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	3/8"	10	0.6	36	21	010 grade	1	3	44	1.53
	grade 010C <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	1/2"	10	0.6	36	21	010 grade	1	3.5	51	1.41
	grade 015B <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	3/8"	20	1.2	72	42	015 grade	1	4	58	1.32
	grade 015C <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	1/2"	20	1.2	72	42	015 grade	1	4.5	66	1.25
	grade 020C <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	1/2"	30	1.8	108	64	020 grade	1	5	73	1.18
	grade 020D <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	3/4"	30	1.8	108	64	020 grade	1	5.5	80	1.13
	grade 020E <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	1"	30	1.8	108	64	020 grade	1	6	87	1.08
	grade 025D <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	3/4"	60	3.6	216	127	025 grade	1	6.5	95	1.04
	grade 025E <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	1"	60	3.6	216	127	025 grade	1	7	100	1.00
	grade 030E <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	1"	110	6.6	396	233	030 grade	1	7.5	110	0.97
	grade 030F <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	1 1/4"	110	6.6	396	233	030 grade	1	8	116	0.94
	grade 030G <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	1 1/2"	110	6.6	396	233	030 grade	1	8.5	124	0.91
	grade 035F <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	1 1/4"	160	9.6	576	339	035 grade	1	9	131	0.88
	grade 035G <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	1 1/2"	160	9.6	576	339	035 grade	1	9.5	139	0.86
	grade 040G <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	1 1/2"	220	13.2	792	466	040 grade	1	10	145	0.84
	grade 040H <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	2"	220	13.2	792	466	040 grade	1	10.5	153	0.82
	grade 045H <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	2"	330	19.8	1188	699	045 grade	1	11	160	0.80
	grade 050I <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	2 1/2"	430	25.9	1548	911	050 grade	1	11.5	168	0.78
grade 050J <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	3"	430	25.9	1548	911	050 grade	1	12	174	0.76	
grade 055I <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	2 1/2"	620	37.3	2232	1314	055 grade	1	12.5	183	0.75	
grade 055J <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	3"	620	37.3	2232	1314	055 grade	1	13	189	0.73	
grade 060K <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	4"	1000	60	3600	2119	060 grade	3	13.5	197	0.72	
grade 065ND <input type="checkbox"/> <input checked="" type="checkbox"/>	DN80	620	37.2	2232	1312	200 grade	1	14	203	0.71	
grade 070OD <input type="checkbox"/> <input checked="" type="checkbox"/>	DN100	1240	74.4	4464	2625	200 grade	2	14.5	212	0.69	
grade 075PD <input type="checkbox"/> <input checked="" type="checkbox"/>	DN150	1860	111.6	6696	3938	200 grade	3	15	218	0.68	
grade 080PD <input type="checkbox"/> <input checked="" type="checkbox"/>	DN150	2480	148.8	8928	5251	200 grade	4	15.5	226	0.67	
grade 085QD <input type="checkbox"/> <input checked="" type="checkbox"/>	DN200	3720	223.2	13392	7877	200 grade	6	16	232	0.66	
grade 090RD <input type="checkbox"/> <input checked="" type="checkbox"/>	DN250	6200	372	22320	13129	200 grade	10	When ordering an AO/AA filter for pressures above 16 bar g (232 psi g), use manual drain. Replace F with M in product code. e.g. 015BBFX becomes 015BBMX. Models 150 - 500 not suitable for pressures above 16 bar g (232 psi g)			
grade 095SD <input type="checkbox"/> <input checked="" type="checkbox"/>	DN300	8680	520.8	31248	18380	200 grade	14				

Note: Connection options (005 - 060) G = BSPP / N = NPT / (065 - 095) DN = flanged.
Drain options (005 - 060) F = Float / M = Manual / (065 - 095) E = Electronic drain / M = Manual.

To correctly select a filter model, the flow rate of the filter must be adjusted for the minimum operating pressure of the system

1. Obtain the minimum operating pressure and maximum compressed air flow rate at the inlet of the filter.
2. Select the correction factor for minimum operating pressure from the CFP table (always round down e.g. for 5.3 bar, use 5 bar correction factor)
3. Calculate the minimum filtration capacity : Minimum Filtration Capacity = Compressed Air Flow Rate x CFP
4. Using the minimum filtration capacity, select a filter model from the flow rate tables above (filter selected must have a flow rate equal to or greater than the minimum filtration capacity)

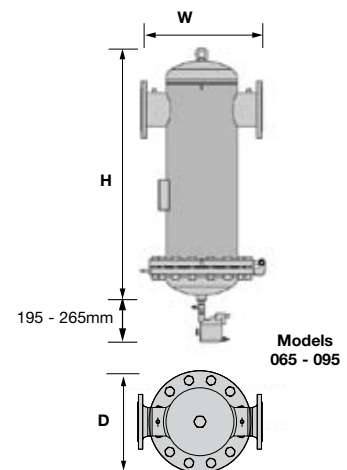
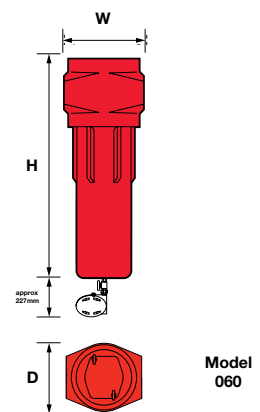
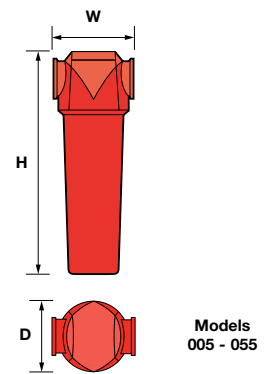
Line Pressure		Correction Factor pressure (CFP)
bar g	psi g	
1	15	2.65
1.5	22	2.16
2	29	1.87
2.5	37	1.67
3	44	1.53
3.5	51	1.41
4	58	1.32
4.5	66	1.25
5	73	1.18
5.5	80	1.13
6	87	1.08
6.5	95	1.04
7	100	1.00
7.5	110	0.97
8	116	0.94
8.5	124	0.91
9	131	0.88
9.5	139	0.86
10	145	0.84
10.5	153	0.82
11	160	0.80
11.5	168	0.78
12	174	0.76
12.5	183	0.75
13	189	0.73
13.5	197	0.72
14	203	0.71
14.5	212	0.69
15	218	0.68
15.5	226	0.67
16	232	0.66
16.5	241	0.65
17	248	0.64
17.5	256	0.63
18	263	0.62
18.5	270	0.62
19	277	0.61
19.5	285	0.60
20	290	0.59

Technical Data

Filter Grade	Filter Models	Min Operating Pressure		Max Operating Pressure		Min Operating Temp		Max Operating Temp	
		bar g	psi g	bar g	psi g	°C	°F	°C	°F
AO/AA	005 □□ FX - 055 □□ FX	1	15	16	232	2	35	80	176
AO/AA	005 □□ MX - 055 □□ MX	1	15	20	290	2	35	100	212
AO/AA	060 K □ FX	1	15	16	232	2	35	66	150
AO/AA	060 K □ MX	1	15	20	290	2	35	100	212
AO/AA	065 NDEX - 095 SDEX	1	15	16	232	2	35	60	140
AO/AA	065 NDMX - 095 SDMX	1	15	16	232	2	35	100	212
AO/AA	065 NDEI - 095 SDEI	1	15	16	232	2	35	60	140
AO/AA	065 NDMI - 095 SDMI	1	15	16	232	2	35	80	176
AR/AAR	005 □□ MX - 055 □□ MX	1	15	20	290	2	35	100	212
AR/AAR	060 K □ MX	1	15	20	290	2	35	100	212
AR/AAR	065 NDMX - 095 SDMX	1	15	16	232	2	35	100	212
AR/AAR	065 NDMI - 095 SDMI	1	15	16	232	2	35	80	176

Weights and Dimensions

Model	Pipe Size	Height (H)		Width (W)		Depth (D)		Weight	
		mm	ins	mm	ins	mm	ins	kg	lbs
005A	1/4"	154	6.1	76	3.0	64	2.5	0.5	1.1
005B	3/8"	154	6.1	76	3.0	64	2.5	0.5	1.1
005C	1/2"	154	6.1	76	3.0	64	2.5	0.5	1.1
010A	1/4"	181	7.2	76	3.0	64	2.5	0.6	1.3
010B	3/8"	181	7.2	76	3.0	64	2.5	0.6	1.3
010C	1/2"	181	7.2	76	3.0	64	2.5	0.6	1.3
015B	3/8"	235	9.3	97	3.8	84	3.3	1.1	2.4
015C	1/2"	235	9.3	97	3.8	84	3.3	1.1	2.4
020C	1/2"	235	9.3	97	3.8	84	3.3	1.1	2.4
020D	3/4"	235	9.3	97	3.8	84	3.3	1.1	2.4
020E	1"	235	9.3	97	3.8	84	3.3	1.1	2.4
025D	3/4"	275	10.8	129	5.1	115	4.5	2.2	4.8
025E	1"	275	10.8	129	5.1	115	4.5	2.2	4.8
030E	1"	364	14.3	129	5.1	115	4.5	2.7	5.9
030F	1 1/4"	364	14.3	129	5.1	115	4.5	2.7	5.9
030G	1 1/2"	364	14.3	129	5.1	115	4.5	2.7	5.9
035F	1 1/4"	432	17.0	170	6.7	156	6.1	5.1	11.2
035G	1 1/2"	432	17.0	170	6.7	156	6.1	5.1	11.2
040G	1 1/2"	524	20.6	170	6.7	156	6.1	5.7	12.5
040H	2"	524	20.6	170	6.7	156	6.1	5.7	12.5
045H	2"	524	20.6	170	6.7	156	6.1	5.7	12.5
050I	2 1/2"	641	25.3	205	8.1	181	7.1	11.1	24.4
050J	3"	641	25.3	205	8.1	181	7.1	11.1	24.4
055I	2 1/2"	832	32.8	205	8.1	181	7.1	13.9	30.6
055J	3"	832	32.8	205	8.1	181	7.1	13.9	30.6
060K	4"	847	33.3	420	16.5	282	11.1	44.5	98.1
065ND	DN80	1065	42	440	17.3	340	13.4	70	154
070OD	DN100	1152	45.4	500	19.7	405	16	97	214
075PD	DN150	1256	49.5	600	23.6	520	20.5	148	326
080PD	DN150	1332	52.4	650	25.6	580	22.8	187	412
085QD	DN200	1415	55.7	750	29.5	640	25.2	240	529
090RD	DN250	1603	63.1	1000	39.4	840	33	470	1036
095SD	DN300	1706	67.2	1050	41.3	910	35.8	580	1279



Filter coding examples

Cast aluminium filters 005 - 060

Grade	Model	Pipe Size	Connection Type	Drain Option	Incident Monitor Option
AO, AA, AR, AAR	3 digit code denotes filter housing size	Letter denotes pipe size	G = BSPP N = NPT	F = Float M = Manual	X = None
Example code					
AA	010	A	G	F	X

Carbon steel filters 065 - 095

Grade	Model	Pipe Size	Connection Type	Drain Option	Incident Monitor Option
AO, AA, AR, AAR	3 digit code denotes filter housing size	Letter denotes Flange Connection	D = DN	E = Electronic Drain M = Manual	X = None I = Incident Monitor
Example code					
A0	065	N	D	E	X

Optional accessories 005 - 060



Incident monitor

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

Filter model	
015 - 055	DPM
060	DPM - 060



Filter fixing kits

Fixing clamp allows quick and simple connection of multiple filter housings.

Filter model	
005 - 010	FXKE1
015 - 020	FXKE2
025 - 030	FXKE3
035 - 045	FXKE4
050 - 055	FXKE5



Filter mounting brackets

Mounting brackets provide additional support to filters installed in flexible piping systems or OEM equipment.

Filter model	
005 - 010	GMBKE1
015 - 020	GMBKE2
025 - 030	GMBKE3
035 - 045	GMBKE4
050 - 055	GMBKE5



Oil Indicator

Filter Models	
AC010 - AC030	605009902

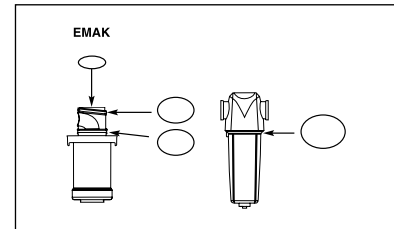


Replacement Drains

EF1 Float Drain	
WS/AO/AA Grade filters fitted with float drains as standard.	



EM1 Manual Drain	
AR/AAR/ACS Grade filters fitted with a manual drain.	



Filter Models	
005 - 010	EMA1
015 - 020	EMA2
025 - 030	EMA3
035 - 045	EMA4
050 - 055	EMA5

Replacement items and optional accessories 065 - 095

Condensate drains

Order no.	Description
ED3007-G230	electronic drain for 065
ED3030-G230	electronic drain for 070 - 085
ED3100-G230	electronic drain for 090 - 095
398H473471	1/2" manual drain kit for 065
398H473472	1" manual drain kit for 070 - 095
SKED3000	Annual ED maintenance kit

Other drains available as loose accessories.

Differential pressure gauge (DPG) - mounted

Order no.	Factory fit option I = Incident Monitor
ZD95FL	calibrated analogue DPG
Non factory fit options	
ZDE95FL	calibrated analogue DPG with Reed contact
ZDE125FL	electronic DPG

All DP gauges suitable for 065 - 095

Replacement body gasket

Model	Order no.
Gasket DN200 for model 065	398H240245
Gasket DN250 for model 070	398H240270
Gasket DN350 for model 075	398H240292
Gasket DN400 for model 080	398H240293
Gasket DN450 for model 085	398H240295
Gasket DN600 for model 090	398H240296
Gasket DN700 for model 095	398H240297