

Grade AO General Purpose Coalescing Filter

Filtration Performance

Filtration Grade	Filter Type	Particle Reduction (inc water & oil aerosols)	Max Remaining Oil Content at 21°C (70°F)	Filtration Efficiency	Change Element Every	Precede with Filtration Grade
AO	Coalescing	Down to 1 micron	0.5 mg/m³ 0.5 ppm(w)	99.925%	12 months	WS (for bulk liquid)

Technical Data

Filtration Grade	Filter Models	Min Operating Pressure		Max Operating Pressure		Min Operating Temperature		Max Operating Temperature	
		bar g	psi g	bar g	psi g	°C	°F	°C	°F
AO	PX010 - PX055 (Float Drain)	1.5	22	16	232	2	35	65	149
AO	PX010 - PX055 (Manual Drain)	1	15	20	290	2	35	80	176
AO	PX060 (Float Drain)	1	15	16	232	2	35	66	150
AO	PX060 (Manual Drain)	1	15	20	290	2	35	100	212

Flow Rates Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure.

Model	Pipe Size	L/S	m³/min	m³/hr	cfm	Replacement Element	No.	Initial Saturated Differential Pressure							
								100% Flow		75% Flow		50% Flow		25% Flow	
								mbar	psi	mbar	psi	mbar	psi	mbar	psi
AOPX010A ☐ FX	¼"	10	0.6	36	21	P010AO	1	123	1.8	84	1.2	53	0.8	27	0.4
AOPX010B ☐ FX	⅜"	10	0.6	36	21	P010AO	1	124	1.8	85	1.2	55	0.8	30	0.4
AOPX010C ☐ FX	½"	10	0.6	36	21	P010AO	1	121	1.8	82	1.2	44	0.6	15	0.2
AOPX015B ☐ FX	⅜"	20	1.2	72	42	P015AO	1	122	1.8	84	1.2	46	0.7	20	0.3
AOPX015C ☐ FX	½"	20	1.2	72	42	P015AO	1	91	1.3	53	0.8	31	0.4	13	0.2
AOPX020C ☐ FX	½"	30	1.8	108	64	P020AO	1	124	1.8	82	1.2	45	0.7	20	0.3
AOPX020D ☐ FX	¾"	30	1.8	108	64	P020AO	1	113	1.6	72	1.0	34	0.5	10	0.1
AOPX025D ☐ FX	¾"	60	3.6	216	127	P025AO	1	125	1.8	80	1.2	43	0.6	21	0.3
AOPX025E ☐ FX	1"	60	3.6	216	127	P025AO	1	80	1.2	50	0.7	27	0.4	11	0.2
AOPX030E ☐ FX	1"	110	6.6	396	233	P030AO	1	125	1.8	80	1.2	42	0.6	30	0.4
AOPX030G ☐ FX	1 ½"	110	6.6	396	233	P030AO	1	90	1.3	49	0.7	27	0.4	9	0.1
AOPX035G ☐ FX	1 ½"	160	9.6	576	339	P035AO	1	81	1.2	44	0.6	18	0.3	5	0.1
AOPX040H ☐ FX	2"	220	13.2	792	466	P040AO	1	113	1.6	69	1.0	40	0.6	20	0.3
AOPX045H ☐ FX	2"	330	19.8	1188	699	P045AO	1	123	1.8	81	1.2	44	0.6	21	0.3
AOPX045I ☐ FX	2 ½"	330	19.8	1188	699	P045AO	1	95	1.4	64	0.9	35	0.5	15	0.2
AOPX050I ☐ FX	2 ½"	430	25.9	1548	911	P050AO	1	116	1.7	75	1.1	42	0.6	17	0.2
AOPX055I ☐ FX	2 ½"	620	37.3	2232	1314	P055AO	1	123	1.8	81	1.2	45	0.7	24	0.3
AOPX055J ☐ FX	3"	620	37.3	2232	1314	P055AO	1	112	1.6	55	0.8	32	0.5	17	0.2
AOPX060K ☐ FX	4"	1000	60	3600	2119	P060AO	3	154	2.2	115	1.7	54	0.8	29	0.4

Select ☐ for BSPP Threads / Select ☐ for NPT Threads
When selecting a coalescing filter for pressures above 16 bar g (232 psi g), use manual drain version and fit an external automatic drain.

Product Selection & Correction Factors

- To correctly select a filter model, the flow rate of the filter must be adjusted for the minimum operating (inlet) pressure at the point of installation.
1. Obtain the minimum operating (inlet) pressure and maximum compressed air flow rate at the inlet of the filter.
 2. Select the correction factor for minimum inlet pressure from the CFMIP 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 CFMIP
 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).

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	psi g	15	29	44	58	73	87	100	116	131	145	160	174	189	203	218	232	248	263	277	290
Correction Factor		2.65	1.87	1.53	1.32	1.18	1.08	1.00	0.94	0.88	0.84	0.80	0.76	0.73	0.71	0.68	0.66	0.64	0.62	0.61	0.59

Grade AO General Purpose Dry Particulate Filter

Filtration Performance

Filtration Grade	Filter Type	Particle Reduction (inc water & oil aerosols)	Max Remaining Oil Content at 21°C (70°F)	Filtration Efficiency	Change Element Every	Precede with Filtration Grade
AO	Dry Particulate	Down to 1 micron	Not Applicable	99.925%	12 months	Not Applicable

Technical Data

Filtration Grade	Filter Models	Min Operating Pressure		Max Operating Pressure		Min Operating Temperature		Max Operating Temperature	
		bar g	psi g	bar g	psi g	°C	°F	°C	°F
AO	PX010 - PX055 (Float Drain)	1.5	22	16	232	2	35	65	149
AO	PX010 - PX055 (Manual Drain)	1	15	20	290	2	35	80	176
AO	PX060 (Float Drain)	1	15	16	232	2	35	66	150
AO	PX060 (Manual Drain)	1	15	20	290	2	35	100	212

Flow Rates Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure.

Model	Pipe Size	L/S	m³/min	m³/hr	cfm	Replacement Element	No.	Initial Dry Differential Pressure								
								100% Flow		75% Flow		50% Flow		25% Flow		
								mbar	psi	mbar	psi	mbar	psi	mbar	psi	
AOPX010A	G MX	¼"	10	0.6	36	21	P010AO	1	61	0.9	40	0.6	20	0.3	9	0.1
AOPX010B	G MX	⅜"	10	0.6	36	21	P010AO	1	63	0.9	43	0.6	22	0.3	11	0.2
AOPX010C	G MX	½"	10	0.6	36	21	P010AO	1	58	0.8	35	0.5	20	0.3	11	0.2
AOPX015B	G MX	⅜"	20	1.2	72	42	P015AO	1	60	0.9	38	0.6	23	0.3	12	0.2
AOPX015C	G MX	½"	20	1.2	72	42	P015AO	1	27	0.4	15	0.2	10	0.1	5	0.1
AOPX020C	G MX	½"	30	1.8	108	64	P020AO	1	58	0.8	35	0.5	15	0.2	8	0.1
AOPX020D	G MX	¾"	30	1.8	108	64	P020AO	1	38	0.6	20	0.3	10	0.1	5	0.1
AOPX025D	G MX	¾"	60	3.6	216	127	P025AO	1	54	0.8	39	0.6	21	0.3	8	0.1
AOPX025E	G MX	1"	60	3.6	216	127	P025AO	1	22	0.3	15	0.2	9	0.1	5	0.1
AOPX030E	G MX	1"	110	6.6	396	233	P030AO	1	56	0.8	38	0.6	20	0.3	7	0.1
AOPX030G	G MX	1 ½"	110	6.6	396	233	P030AO	1	42	0.6	26	0.4	12	0.2	6	0.1
AOPX035G	G MX	1 ½"	160	9.6	576	339	P035AO	1	19	0.3	9	0.1	5	0.1	2	0.0
AOPX040H	G MX	2"	220	13.2	792	466	P040AO	1	31	0.4	19	0.3	16	0.2	7	0.1
AOPX045H	G MX	2"	330	19.8	1188	699	P045AO	1	51	0.7	36	0.5	18	0.3	8	0.1
AOPX045I	G MX	2 ½"	330	19.8	1188	699	P045AO	1	40	0.6	27	0.4	12	0.2	6	0.1
AOPX050I	G MX	2 ½"	430	25.9	1548	911	P050AO	1	36	0.5	23	0.3	16	0.2	7	0.1
AOPX055I	G MX	2 ½"	620	37.3	2232	1314	P055AO	1	38	0.6	25	0.4	17	0.2	10	0.1
AOPX055J	G MX	3"	620	37.3	2232	1314	P055AO	1	51	0.7	32	0.5	17	0.2	8	0.1
AOPX060K	G MX	4"	1000	60	3600	2119	P060AO	3	65	0.9	51	0.7	19	0.3	11	0.2

Select **G** for BSPP Threads / Select **N** for NPT Threads
When selecting a coalescing filter for pressures above 16 bar g (232 psi g), use manual drain version and fit an external automatic drain.

Product Selection & Correction Factors

- To correctly select a filter model, the flow rate of the filter must be adjusted for the minimum operating (inlet) pressure at the point of installation.
1. Obtain the minimum operating (inlet) pressure and maximum compressed air flow rate at the inlet of the filter.
 2. Select the correction factor for minimum inlet pressure from the CFMIP 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 CFMIP
 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).

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	psi g	15	29	44	58	73	87	100	116	131	145	160	174	189	203	218	232	248	263	277	290
Correction Factor		2.65	1.87	1.53	1.32	1.18	1.08	1.00	0.94	0.88	0.84	0.80	0.76	0.73	0.71	0.68	0.66	0.64	0.62	0.61	0.59