



domnick hunter

FILTRATION > the clear liquid or gas obtained after filtration.
verb (filtrated, filtrating) tr & intr to filter, filtration noun
ETYMOLOGY: 17c; from Latin filtrare to filter.

FILTRATION - PURIFICATION SEPARATION

PURIFICATION > 1. to make or become pure. 2. to cleanse
something of contaminating or harmful substances. 3. to rid
something of intrusive elements.
ETYMOLOGY: 14c; from Latin purificare, from purus pure.

SEPARATION > 1. the act of separating. 2. the act of being separated.
3. a division. 4. a division.
ETYMOLOGY: 15c; from Latin separare to separate.



OIL-Xplus Stainless Steel Compressed Air Filters

www.domnickhunter.com

Compressed air contamination - The Problem

Widely used throughout industry, compressed air is a safe, powerful and reliable utility which can be the most important part of the production process. All compressed air systems use atmospheric air, which is highly contaminated with dirt, water vapour, unburned hydrocarbons and bacteria. Additionally, the compressor can add wear particles and oil from its lubricating system which is now degraded, acidic and without lubricating properties. This can also apply to some types of oil free compressors. The compressed air distribution system can also add pipscale and rust.

This combination of dirt, oil and water contamination mixes to become an abrasive sludge. This sludge rapidly wears pneumatic machinery, blocks valves and corrodes piping systems leading to

- **Costly air leaks**
- **Breakdown of tools and machinery**
- **Production downtime**
- **Increased maintenance costs**
- **Product spoilage**
- **Compromised safety**



Compressed air systems are often located where the environment and prevailing atmospheric conditions are particularly corrosive. These applications include chemical and petro-chemical installations, offshore drilling platforms and ships, marine and process industries where problems concerning corrosion are increased.



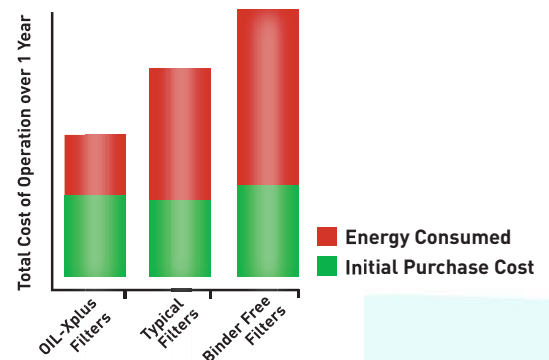
OIL-Xplus - The efficient solution

All of the costly problems associated with compressed air contamination can be avoided by installing domnick hunter OIL-Xplus high efficiency compressed air filters.

The OIL-Xplus stainless steel range is particularly ideal for those applications where an aggressive environment is an additional concern.

For 40 years domnick hunter filters have been meeting the needs of the compressed air user by providing the highest quality, clean air to international standards whilst maintaining the lowest running costs.

The economic benefit



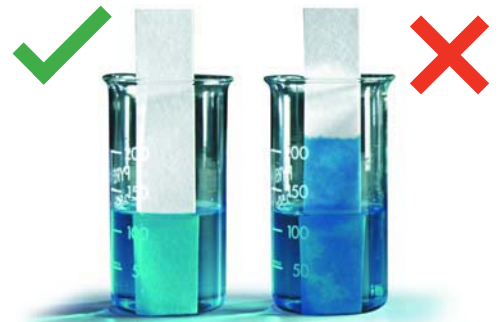
OIL-Xplus – High performance compressed air filtration

Oil Aerosol and particulate removal

Typical compressed air filters 'soak up' oil and water and are said to run in a 'wetted out' or saturated state. This temporarily blocks the path of compressed air through the normally open filter structure, and increases the operating pressure drop as the air flow has to force liquids through the fine matrix of the filtration media. This leads to significantly higher energy consumption.

Unlike typical filters, OIL-Xplus filter media does not soak up liquids, ensuring the available open area is kept to a maximum for dirt entrapment. Liquid aerosols coalesce within the anti re-entrainment barrier and fall into the filter bowl to be discharged via the drain.

Solid particulate is captured and held within the open area of the filter media, gradually increasing the differential pressure of the filter to a point where it is more economical to replace the element.



OIL-Xplus filters actively repel oil and water

Typical filters soak up oil and water

Oil vapour removal

Activated carbon with its high affinity for oil vapour is employed in OIL-Xplus grade ACS filters to remove gaseous contaminants such as oil vapours.

OIL-Xplus stainless steel filter housings



Flexible Installation

9 different port sizes (1/4" - 3")

Suitable for Aggressive Environments

Manufactured from 316L Stainless Steel

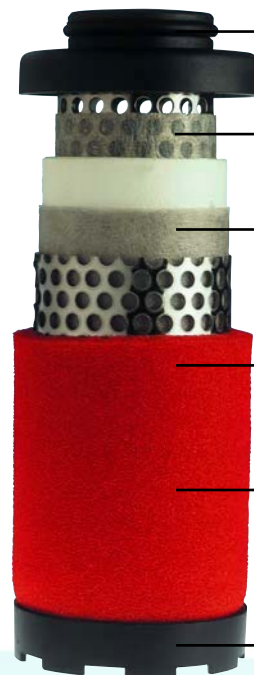
Safe

Rated to 20bar g (290 psi g)
(16bar g/232 psi g with automatic float drain)

Manual Ball Valve as standard

(External float drain option available)

OIL-Xplus high efficiency filter elements



Air tight positive 'O' ring seal
Prevents contamination by-pass.

Support media
For added strength and integral pre-filtration.

96% Voids volume
Gives high dirt holding capacity and provides 12 months life with lowest available energy costs.

Stainless steel inner and outer support cylinders
Provides maximum strength.

Anti re-entrainment barrier Prevents oil / water carryover and is compatible with a wide range of lubricants.

Chemical resistant
Tough corrosion resistant end caps withstand the worst compressed air conditions.

Selection Criteria & Technical Specification

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

Filter Type	Port Size	Flow rates			Replacement Element Kit	No.
		Nm ³ /min	Nm ³ /hr	scfm		
[grade] 0009GSS	G ¹ / ₄	0.53	32	19	K009 [grade]	1
[grade] 0017GSS	G ³ / ₈	1.02	61	36	K017 [grade]	1
[grade] 0030GSS	G ¹ / ₂	1.80	108	64	K030 [grade]	1
[grade] 0058GSS	G ³ / ₄	3.60	216	127	K058 [grade]	1
[grade] 0080GSS	G1	4.80	288	170	K145 [grade]	1
[grade] 0145GSS	G1 ¹ / ₂	8.70	522	307	K145 [grade]	1
[grade] 0220GSS	G2	13	792	466	K220 [grade]	1
[grade] 0330GSS	G2	20	1188	699	K330 [grade]	1
[grade] 0405GSS	G2 ¹ / ₂	24	1440	848	K430 [grade]	1
[grade] 0430GSS	G3	26	1548	911	K430 [grade]	1

Filtration Grades

GRADE AO

High Efficiency General Purpose Protection

Particle removal down to : 1 micron, including water and oil aerosols. Maximum remaining oil aerosol content: 0.6 mg/m³ at 21°C / 0.5 ppm(w) at 70°F.

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 mg/m³ at 21°C / 0.01 ppm(w) at 70°F.

GRADE ACS

Oil Vapour & Odour Removal

(Precede Grade ACS with Grade AA filter)

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

GRADE AR

General Purpose Dust Filtration

Dry Particle removal down to : 1 micron

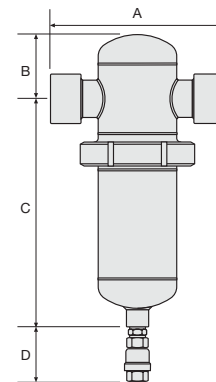
To find the correction factors for pressures other than 7bar g (100 psi g), use the following equation

$$\text{e.g. Correction factor for 8.5 bar g} = \sqrt{\frac{\text{System Operating Pressure}}{\text{(Nominal pressure)}}} = \sqrt{\frac{8.5 \text{ bar g}}{7 \text{ bar g}}} = 1.10$$

Therefore, for 8.5 bar g multiply nominal flow rate by 1.10

Line 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	247	261	275	290
Correction Factor		0.38	0.53	0.65	0.76	0.85	0.93	1.00	1.07	1.13	1.19	1.25	1.31	1.36	1.41	1.46	1.51	1.56	1.60	11.65	1.70

Filter Type	Port Size	A		B		C		D		Weight	
		mm	ins	mm	ins	mm	ins	mm	ins	kg	lbs
[grade] 0009GSS	G ¹ / ₄	145	5.7	50.5	2	210	8.3	270	10.6	2.5	5.5
[grade] 0017GSS	G ³ / ₈	145	5.7	50.5	2.0	236	9.3	296	11.7	2.5	5.5
[grade] 0030GSS	G ¹ / ₂	154	6.1	50.5	2.0	270	10.6	330	13.0	2.5	5.5
[grade] 0058GSS	G ³ / ₄	190	7.5	86	3.4	382	15.0	457	18.0	4.5	9.9
[grade] 0080GSS	G1	200	7.9	86	3.4	506	19.9	581	22.9	5.0	11.0
[grade] 0145GSS	G1 ¹ / ₂	225	8.9	86	3.4	506	19.9	581	22.9	5.0	11.0
[grade] 0220GSS	G2	280	11.0	102	4.0	628	24.7	703	27.7	10.0	22.0
[grade] 0330GSS	G2	280	11.0	102	4.0	938	36.9	1013	39.9	12.0	26.5
[grade] 0405GSS	G2 ¹ / ₂	290	11.4	102	4.0	698	27.5	773	30.4	12.0	26.5
[grade] 0430GSS	G3	300	11.8	102	4.0	698	27.5	773	30.4	12.0	26.5



Housing constructed from Stainless Steel : Grade 316L

Max Pressure	16 bar g (232 psi g) with automatic drain 20 bar g (290 psi g) with manual drain	Initial 'dry' differential pressure		Initial 'wet' differential pressure	
Max Temp Grade AO, AA, AR	66°C (150°F)	Grade AO/AR	70 mbar 1.0 psi	Grade AO	140 mbar 2.0 psi
Max Temp Grade ACS	30°C (86°F)	Grade AA	100 mbar 1.5 psi	Grade AA	200 mbar 3.0 psi
Min Temp	1.5°C (35°F)	Grade AC	200 mbar 3.0 psi	Grade ACS	N/A
		Grade ACS	70 mbar 1.0 psi	Grade AR	N/A

Optional Accessories



Automatic float drain model SDD1
16 barg, External Float Drain



ED2000 Series Electronic Sensing Drain

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