



domnick hunter



OIL-Xplus

Filters for pure compressed air

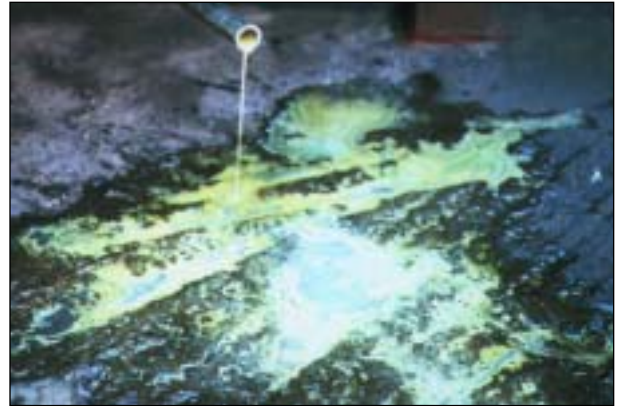
Contamination costs money

Compressed air contamination

Compressed air is an essential power source that is widely used throughout industry. This safe, powerful and reliable utility can be the most important part of your production process. However, your compressed air will contain water, dirt, wear particles, bacteria and even degraded lubricating oil which all mix together to form an unwanted abrasive sludge. This sludge, often acidic, rapidly wears pneumatic machinery, blocks valves and orifices causing high maintenance and costly air leaks.

It also corrodes piping systems and can bring your production process to an extremely expensive standstill!

All of these costly problems can be simply avoided by installing domnick hunter OIL-Xplus high efficiency compressed air filters. OIL-Xplus will remove the oil, water and dirt particles to eliminate the abrasive sludge in your compressed air.

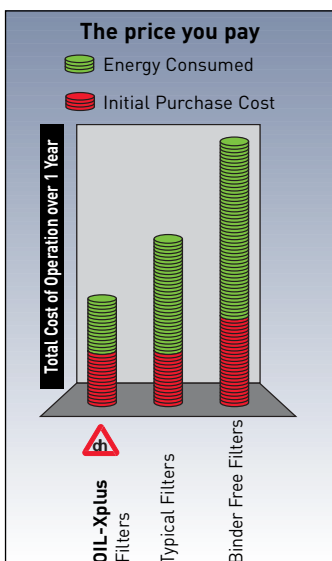


Unwanted abrasive sludge



Corrosion

Don't forget - cleaner compressed air means cheaper and more reliable production!



The price you pay

domnick hunter OIL-Xplus compressed air filters provide the highest standard ISO 8573.1 quality compressed air with the lowest running costs available.

Save more than 50% in energy costs with OIL-Xplus. When compared to typical filters, OIL-Xplus has the highest performance and quality - better than 99.9999% efficiency and particle retention down to 0.01 micron.



OIL-Xplus - designed for performance



The direct mounting differential pressure gauge is fitted as standard on filters $\frac{1}{2}$ " and larger (Except AC/ACS/AX filters). Highlighting the most economical time to change the filter element.



Differential pressure indicator (DPI) is fitted as standard on filters up to $\frac{1}{2}$ " port size (Except AC/ACS/AX filters).



Automatic drain valve is standard so collected condensate is always removed. (manual drain only on models AR, AAR, ACS).



Bleed valve for rapid depressurisation and autodrain function check.



Calibrated for accurate running cost measurement.



Pressure relief hole gives an audible warning if any attempt is made to remove filter bowl whilst under pressure.



A patented fixing kit connects two filters in series saving space.



Rapid maintenance.



Slight glass gives a visual check of liquid collection and drain function.

Alocrom aluminium treatment -

A special feature of all domnick hunter die-cast filter housings

Corrosion protected inside and out with Alocrom treatment then a tough epoxy paint finish is baked on to give extra long life. Note the convincing results of a 150 hour salt spray test.

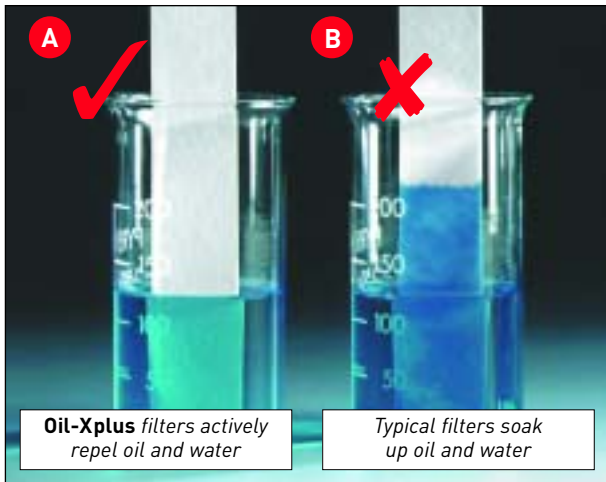


Rapid corrosion of untreated aluminium.



No corrosion with Alocrom treatment.

OIL-Xplus - the inside story

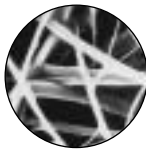


- A OIL-Xplus filters**
Use specially treated borosilicate glass microfibrils which actively repel oil and water to reduce pressure drop and running costs to an absolute minimum.
- B Typical filters**
Use regular glass microfibrils which soak up oil and water increasing pressure drop, reducing efficiency and giving higher running costs.

OIL-Xplus high-efficiency filter elements

AIR TIGHT - Positive 'O' ring seal prevents contamination by-pass.

CHEMICAL RESISTANT - Tough corrosion resistant end caps withstand the worst compressed air conditions.

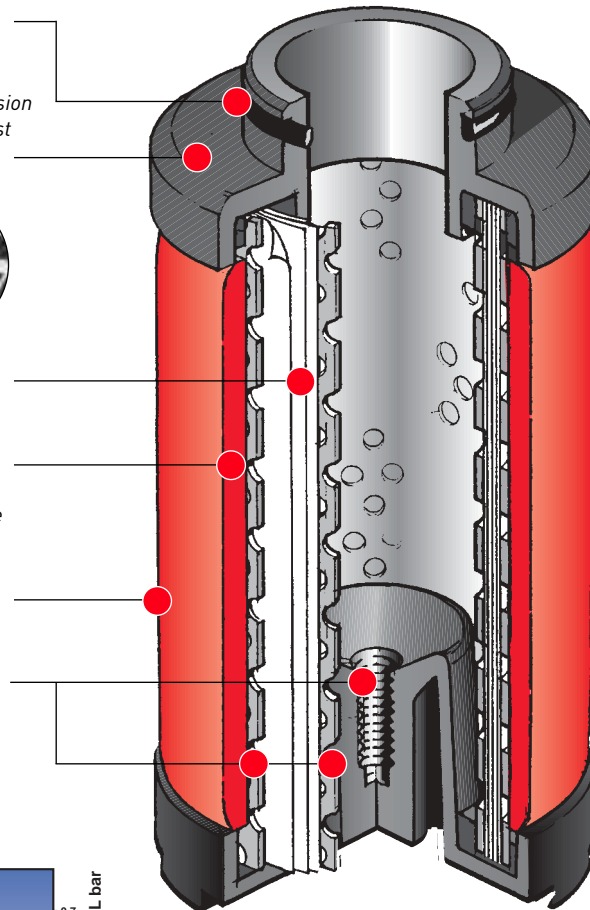


96% VOIDS VOLUME - gives long life with minimum energy costs.

HIGH EFFICIENCY - Anti re-entrainment barrier prevents oil/water carry over and is compatible with mineral or synthetic lubricants.

SILICONE FREE - For all critical applications.

MAXIMUM STRENGTH - Inner and outer stainless steel support screens and tie rod fixings gives up to 10 bar Δp .

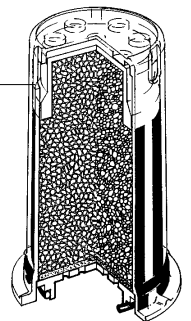
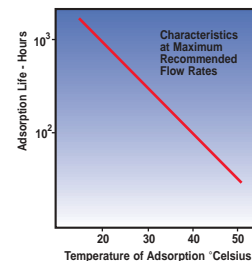


K003-K620 filter elements

High carbon content for long service life.

Oil soluble dye will indicate blue if bulk oil is present

Typical activated carbon life



K006/13/25/40AC

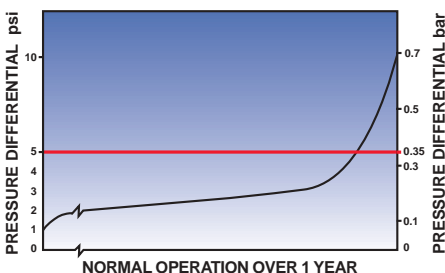
Filter element changes are essential

All OIL-Xplus coalescing filters are supplied with a maintenance sticker. It is essential to change the filter elements every year or earlier if the indicator/gauge changes to red.

Activated carbon filter elements (grades ACS and AC) should be changed every 1000 hours or earlier if odour is detected.



Typical AO/AA filter element life curve



Installation advice

GENERAL PURPOSE PROTECTION
[Air Quality to ISO 8573.1: Class 2.-.3]
 General Ring Main Protection
 Liquid and Solid - Bulk Contamination Removal
 Particle Removal Only in 'Dry Systems'
 Large Pneumatic Tools
 Low Cost Automation

Pre-Filtration for Refrigeration Type Air Dryers
 Pre-Filtration to High Efficiency Filters (Grade AA)
 Pre-Filtration to Adsorption Type Air Dryers in 'Oil Free' Systems
 Pre-Filtration to Air Sterilisation Filters in 'Oil-Free' Systems

OIL-LUBRICATED OR OIL-FREE COMPRESSOR
 AFTER COOLER
 WS WATER SEPARATOR
 AO GRADE FILTER

'OIL FREE' AIR
[Air Quality to ISO 8573.1: Class 1.-.2]
 'Oil-Free Air'
 Robotics
 Air Logistics
 Fine Pneumatic Tools
 Instrumentation
 Spray Painting
 Air Gauging
 Air Conveying
 Air Bearings
 Air Motors

Pipeline Purging
 Temperature Control Systems
 Pre-Filtration to Adsorption Type Air Dryers in Oil Contaminated Systems
 Pre-Filtration to Air Sterilisation Filters in Oil Contaminated Systems

OIL-LUBRICATED OR OIL-FREE COMPRESSOR
 AFTER COOLER
 WS WATER SEPARATOR
 AO GRADE FILTER
 AA or AX GRADE FILTER

CRITICAL APPLICATIONS
[Air Quality to ISO 8573.1: Class 1.-.1]
 Highest Quality - Clean, Oil and Odour Free Air
 Breathing Air (Not when CO/CO₂ removal required
 See our Breathing Air Purifiers)
 Blow Moulding of Plastics e.g. P.E.T. Bottles
 Film Processing
 Critical Instrumentation
 Advanced Pneumatics
 Air - Blast Circuit - Breakers

Decompression Chambers
 Cosmetic Production
 Foodstuffs Production/Packaging
 Dairies Production/Packaging/Transport
 Breweries Production/Packaging/Transport

OIL-LUBRICATED OR OIL-FREE COMPRESSOR
 AFTER COOLER
 WS WATER SEPARATOR
 AO GRADE FILTER
 AA GRADE FILTER
 ACS GRADE FILTERS

REDUCED DEWPOINT SYSTEM
[Air Quality to ISO 8573.1: Class 1.4.1]
 WHERE TOTALLY DRY COMPRESSED AIR IS NOT REQUIRED
 TO BE LESS THAN 3-10°C.

OIL-LUBRICATED OR OIL-FREE COMPRESSOR
 AFTER COOLER
 WS WATER SEPARATOR
 AO GRADE FILTER
 CIRRUS REFRIGERATION DRYER
 AA GRADE FILTER
 ACS GRADE FILTER FOR CRITICAL APPLICATIONS

EXTREMELY LOW DEWPOINT SYSTEM
[Air Quality to ISO 8573.1: Class 1.1.1 and 1.2.1]
 WHERE TOTALLY DRY COMPRESSED AIR IS REQUIRED DEWPOINT BETWEEN -40°C AND -70°C. TO STOP CORROSION FROM COMPRESSED AIR AT 20°C AND 7 BAR G. A -30°C D.P. IS THE MINIMUM REQUIREMENT.

OIL-LUBRICATED OR OIL-FREE COMPRESSOR
 AFTER COOLER
 WS WATER SEPARATOR
 AO GRADE FILTER
 AA GRADE FILTER
 PNEUDRI ADSORPTION DRYER
 AA/AR GRADE FILTER

TERMINAL FILTRATION
 SPRAY PAINTING BOOTHS
 BREATHING AIR
 ADVANCED PNEUMATICS
 INSTRUMENTATION
 BLOW GUNS
 MEASURING EQUIPMENT
 GAUGING EQUIPMENT
 HAND TOOLS

*Where no main line filters are fitted or where the length of the pipe from the main filters is excessive. Grade AO pre-filters should be installed before the filters shown.

FROM MAIN LINE
 FILTER HEATER
 TO INSTRUMENTATION
 TO INSTALLATION OR PNEUMATIC GAUGING
 PNEUMATIC BLOW GUN FOR SWarf REMOVAL
 *HEATER FOR WATER SUPPLY
 TO BREATHING AIR

ISO 8573.1 QUALITY CLASSES

QUALITY CLASS	DIRT Particle size in Micron	WATER Pressure Dewpoint °C (ppm. vol.) at 7 bar g	OIL (Including vapour) mg/m ³
1	0.1	-70 (0.3)	0.01
2	1	-40 (16)	0.1
3	5	-20 (128)	1.0
4	15	+3 (940)	5
5	40	+7 (1240)	25
6	-	+10 (1500)	-

GRADE PF

Coarse Pre-Filtration

Particle removal down to 25 microns.

GRADE AO

High Efficiency General Purpose Protection

For the removal of particles down to 1 micron including coalesced liquid water and oil, providing a maximum remaining oil aerosol content of 0.5 mg/m³ @ 21°C.

GRADE AA

High Efficiency Oil Removal Filtration

For the removal of particles down to 0.01 micron including water and oil aerosols, providing a maximum remaining oil aerosol content of 0.01 mg/m³ @ 21°C. (Precede with Grade AO filter).

GRADE AX

Ultra High Efficiency Filtration

For the removal of particles down to 0.01 micron including water and oil aerosols, providing a maximum remaining oil aerosol content of 0.001 mg/m³ @ 21°C. (Precede with Grade AO filter).

GRADE AC & ACS

Activated Carbon Filtration

For the removal of oil vapour and hydrocarbon odours giving a maximum remaining oil content of <0.003 mg/m³ (<0.003 ppm) (excluding methane) @21°C. (Precede Grade ACS with Grade AA filter). (AC filter combines AA and AC Grades).

GRADE AR

General Purpose Dust Filtration

For the removal of dust particles down to 1 micron.

GRADE AAR

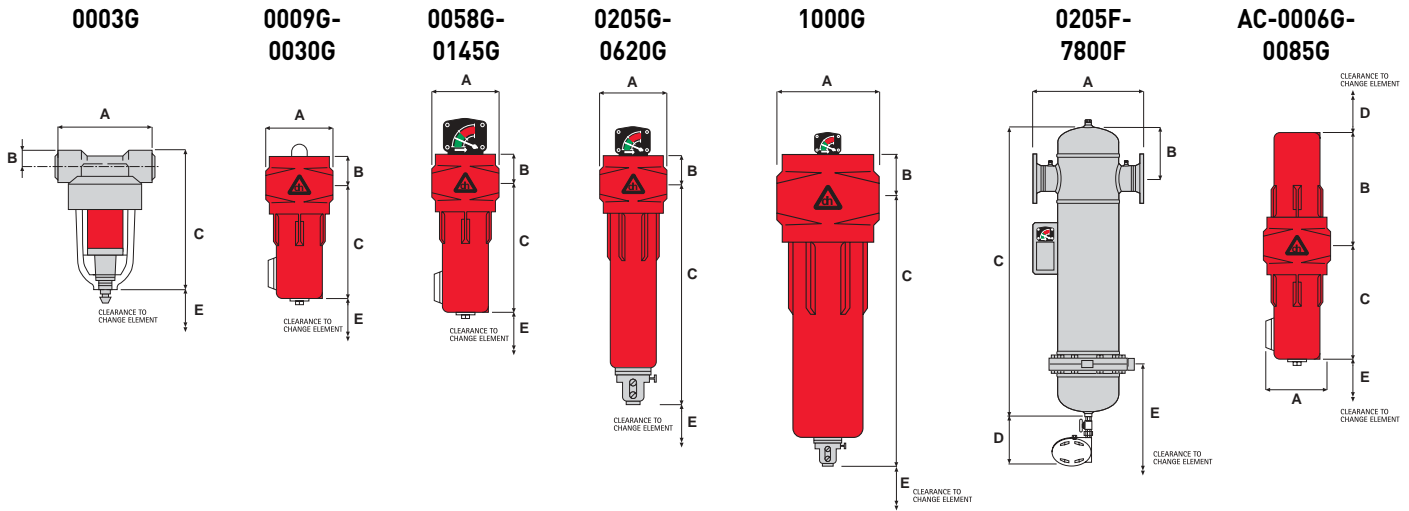
High Efficiency Dust Filtration

For the removal of dust particles down to 0.01 micron.

INSTALLATION HINTS

- Generally install filters downstream of aftercoolers and air receivers at the lowest installation temperature and as close to the point of application as possible. This ensures that in wet systems as much water and oil vapour has condensed out as possible which can be removed by the coalescing filters. Installing close to the application reduces the risk of pipe scale downstream or the filters contaminating the filtered air. Please refer to above installation hints.
- Filters should not be installed downstream of quick opening valves and should be protected from possible reverse flow or other shock conditions.
- It may be necessary to install a combination of main line filtration near the compressor installation before entry to the ring main and install terminal filtration at the critical points. Remember especially in existing installations the contamination already in the pipe system downstream of the filters will take a long time to disappear and probably never will completely.
- Purge all lines leading to the filters before installation and connection to the final application to be protected.
- Install filters in a vertical position ensuring that there is sufficient room below the filters to facilitate element change.
- Avoid by-pass lines whenever possible as contamination may leak through valves and by-pass the filters.
- Provide a facility to drain away collected liquids where applicable from the filter drains via suitable tubing taking care that no restrictions are caused.
- Install donnick hunter differential pressure gauges and kits to indicate the pressure drop across the filters. This will give an idea of the filter element condition (except Grade AC or ACS).
- donnick hunter mounting kits are available for filter sizes up to 0620G. Care should be taken with larger filters to see that they are properly supported in the pipe line.
- If you have a problem on filter selection or installation please contact the donnick hunter Technical Sales Department or our representatives. We will be pleased to help you in selecting the installation for your requirements.

Technical specifications



FILTER TYPE	PIPE SIZE	FLOW RATES (@ 7 bar g (100 psi g))			DIMENSIONS (mm)					WEIGHT (Kg)	REPLACEMENT ELEMENT KIT	
		L/S	cfm	m ³ /hr	A	B	C	D	E		Type	No
(grade) 0003G	8mm Push Fit*	3	6	11	58	9.75	89	-	45	0.1	K003 (grade)	1
(grade) 0009G	G½	9	19	32	76	34.5	133	-	70	0.5	K009 (grade)	1
(grade) 0017G	G¾	17	36	61	89	42	158	-	95	1.0	K017 (grade)	1
(grade) 0030G	G1	30	64	108	89	42	194	-	130	1.1	K030 (grade)	1
(grade) 0058G	G1½	60	127	216	120	58	251	-	172	2.4	K058 (grade)	1
(grade) 0080G	G1	80	170	288	120	58	351	-	272	2.9	K145 (grade)	1
(grade) 0125G	G1½	120	254	432	120	58	351	-	272	2.9	K145 (grade)	1
(grade) 0145G	G1½	145	307	522	120	58	351	-	272	2.9	K145 (grade)	1
(grade) 0205G	G1½	200	424	720	160	66.5	511	-	320	9.1	K220 (grade)	1
(grade) 0220G	G2	220	466	792	160	66.5	511	-	320	9.1	K220 (grade)	1
(grade) 0330G	G2	330	699	1188	160	66.5	816	-	625	12.9	K330 (grade)	1
(grade) 0405G	G2½	400	848	1440	202	79	602	-	400	12.1	K430 (grade)	1
(grade) 0430G	G3	430	911	1548	202	79	602	-	400	11.9	K430 (grade)	1
(grade) 0620G	G3	620	1314	2232	202	79	844	-	625	20.9	K620 (grade)	1
(grade) 1000G	G4	1000	2119	3600	420	82	1095	-	570	44.5	K330 (grade)	3
(grade) 0205F	DN40	200	424	720	304	172	727	170	350	32	K220 (grade)	1
(grade) 0330F	DN50	330	669	1188	304	180	1040	170	650	40	K330 (grade)	1
(grade) 0620F	DN80	620	1314	2232	370	225	1199	170	650	70	K620 (grade)	1
(grade) 1000F	DN100	1000	2119	3600	450	248	1241	170	650	105	K330 (grade)	3
(grade) 1300F	DN100	1300	2755	4680	500	273	1325	170	650	150	K330 (grade)	4
(grade) 1950F	DN150	1950	4132	7020	580	334	1424	170	650	200	K330 (grade)	6
(grade) 3250F	DN200	3250	6886	11700	750	410	1687	170	650	400	K330 (grade)	10
(grade) 5200F	DN250	5200	11018	18720	862	469	1821	170	800	540	K330 (grade)	16
(grade) 7800F	DN300	7800	16527	28080	1000	533	1910	170	850	700	K330 (grade)	24
AC-0006G+	G¾	6	13	22	76	133	133	70	70	1.0	K009AA & K006AC	1**
AC-0013G+	G1	13	27	47	89	158	158	95	95	1.2	K017AA & K013AC	1**
AC-0025G+	G1½	25	53	90	89	194	194	95	130	1.4	K030AA & K025AC	1**
AC-0040G+	G2	40	84	144	120	251	251	125	172	3.2	K058AA & K040AC	1**
AC-0065G+	G2½	65	136	234	120	251	351	125	272	3.7	K145AA & K065AC	1**
AC-0085G+	G3	85	178	306	120	351	351	225	272	3.8	K145AA & K085AC	1**

*G½ option available

TECHNICAL DATA

Maximum operating pressure (0003G only)	10.5 bar g (150 psi g)	Maximum recommended operating temperature (Grade PF/AO/AA/AX/AR/AAR)***	66°C (150°F)	Initial 'dry' differential pressure	Initial 'wet' differential pressure
Maximum operating pressure (0009G to 7800F) with Autodrain	16 bar g (232 psi g)	Maximum recommended operating temperature (Grade AC/ACS)	30°C (86°F)	Grade PF ~70 m bar (1.0 psi)	Grade PF ~100 m bar (1.5 psi)
Maximum operating pressure (0009G to 1000G) with manual drain	20 bar g (290 psi g)	Minimum recommended operating temperature	1.5°C (35°F)	Grade AO/AR ~70 m bar (1.0 psi)	Grade AO ~140 m bar (2.0 psi)
				Grade AA/AAR ~100 m bar (1.5 psi)	Grade AA ~200 m bar (3.0 psi)
				Grade AX ~200 m bar (3.0 psi)	Grade AX ~400 m bar (6.0 psi)
				Grade AC ~200 m bar (3.0 psi)	Grade AC ~300 m bar (4.5 psi)
				Grade ACS ~70 m bar (1.0 psi)	Grade ACS N/A
				Grade AR/AAR N/A	Grade AR/AAR N/A

***Special TS Grade filter elements are available for higher filtration temperatures

Maximum recommended pressure differential for element change: (PF, AO, AA, AR and AAR filters only) ~340 m bar (AX filter only) ~700 m bar (10 psi)

For flowrates at other pressures, apply the factor shown:

Line	bar g	1	2	3	5	7	9	11	13	15	17	20
Pressure	psi g	15	29	44	73	100	131	160	189	218	247	290
Correction Factor		0.38	0.53	0.65	0.85	1.0	1.13	1.25	1.36	1.46	1.56	1.7

Ordering Example:

To order a 0.01 micron filter flowing 60 L/s at 7 bar g specify type **AA-0058G**. Replacement element is **K058AA**.

+ Refers to OIL-X Grade AC double-stage filters only. **Grade AA and Grade AC required for double stage filter. (The grade AC and ACS filters WILL NOT remove CO/CO₂ or other toxic gases or fumes).

Why domnick hunter?

- A complete product range offering compressed air and gas purification for every application - all your filtration needs from one reliable supplier.
- Competitively priced solutions to your compressed air and gas problems.
- Technically trained worldwide support and service network.
- Worldwide stock availability.
- On-site testing and service.

Manufacturing to the highest standards



INTERNATIONAL PRESSURE VESSEL APPROVAL



CRN AS1210-199

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