

**WALKER
FILTRATION**

The ultimate filtration & drying technology

SR
Gas Purification Solutions



PRO XF

Introducing PRO XF Compressed Air Filters

Innovative modular design. Exceptional engineering. Customer focus.



Where engineering excellence meets innovative filtration design

Established in 1983 and operating out of a 12000m² global manufacturing facility in Washington Tyne & Wear, UK, Walker Filtration is a specialist manufacturer of high efficiency compressed air filtration and drying equipment.

Our commitment to exceptional and innovative design, along with a proven record of accomplishment in engineering excellence, has enabled us to remain at the forefront of compressed air filtration and drying technology for over 30 years.

We pride ourselves in designing products that meet the many challenges faced by businesses today; from environmental impacts and operating efficiency, through to the health and safety of your people.

In today's world where 'time equals money' our engineering team set out to design products that deliver energy efficiency and are easy to service and maintain, resulting in reduced down time and total life cost.

Working to exacting manufacturing standards, Walker Filtration deliver high quality products and tailored solutions worldwide.





NEW PRO XF

Walker Filtration's PRO XF high efficiency compressed air filters feature an innovative modular design and provide a flexible, reliable, and compact compressed air filtration solution.

Designed for high flow applications and operating pressures up to 16 barg, PRO XF takes a revolutionary approach to the traditional fabricated flanged market – providing a compact and flexible modular design that is ideal for use in multi compressor installations and skid based packages. Available as individual threaded and flanged filters, by integrating a filter 'module' with slim-line connectors, the entire package is ideal for a multi-banked solution. PRO XF's space efficient design is up to 65% lighter and 45% smaller when compared to comparative fabricated models.

The range includes all coalescing, particulate, vapour and dust filtration grades, and Water Separator models, providing a comprehensive compressed air filtration solution for high flow applications with flow rates from 700 to 3000 scfm (1189 to 5097 Nm³/h).

Ease of installation and maintenance has been a prime consideration in the design of PRO XF, minimising system downtime associated with servicing and maintenance and providing hugely improved operating efficiencies. Through innovative design and lean manufacturing, Walker Filtration has been able to significantly reduced lead time when compared to conventional fabricated vessels, holding all components in stock.

PRO XF's modular design provides a flexible and compact solution for multi-banking filters.



Versatile compressed air
solutions for any industry



Compressed Air in Industry



Compressed air in industry is considered the 'fourth utility' and provides an essential power source for many manufacturing operations where other power sources are deemed unsafe or inappropriate.

Used as a motive force for powering tools and automated machinery, the requirement for a compressed air supply to be clean, dry and contaminate free is crucial to ensuring safe, efficient, and profitable operation and manufacturing. The presence of dust, oil, moisture, and particulates within a compressed air line can significantly reduce the performance and lifespan of end-use equipment and lead to damage of the finished goods being manufactured. Therefore, correct air filtration is essential to delivering high quality compressed air to the quality required for the end application.

PRO XF's robust, high quality design ensures that clean and oil free compressed air is delivered contaminant free, to the exacting specifications required for end use. Suitable for worldwide installation and ideally suited for multi-compressor installations and skid based packages, the new PRO XF range will meet and exceed the highest standards of air purity when tested in accordance with ISO8573-1: 2010 air quality classes.

**Maintenance
made easy
up to 80%
saving in service
time**



PRO XF Features & Benefits

New PRO XF Technology: Redefining compressed air filtration



Top Loading
Filter Element Design



Modular Construction



Externally Accessible Drain
Valve Supplied as Standard



Flexible Installation - Floor
and Wall Mounting Brackets
Available

The all new PRO XF combines innovative design with high efficiency filter elements to deliver a market leading filtration solution for high flow applications.

Available in 2", 2 1/2" and 3" BSPP and NPT threaded, and DN80 and DN100 flanged housings, the new PRO XF filter provides a robust and compact range of compressed air filters that is suitable for installation worldwide.

Through combining revolutionary construction features and high quality materials, Walker Filtration has created a safe and reliable filter range that minimises system downtime associated with servicing and maintenance.

Experience up to a 80% saving in servicing and installation time with flanged PRO XF filters.

Approved to International Standards including PED and CRN directives.

CE CRN (Pending)





■ **Reduced Service Time** Top loading design for easy access to the filter element, PRO XF filters offer up to 80% savings in service and installation time*.

■ **Safe Handling** New 'Easy Grip' element handle for quick and clean element changeout and high efficiency filtration media for improved operating efficiencies.

■ **Energy Efficient Design** The PRO XF filter element features a unique air directing endcap and high efficiency filtration media for optimum filtration and air flow.

■ **Modular Construction** The PRO XF filter range is available in both Complete Filter and Modular Filter housings.

■ **Simple 'Slim-line' Housing Connectors** Filter housings can be installed individually or banked together using slim-line connectors, significantly reducing footprint.

■ **Compact Design** PRO XF's space efficient slim-line design is up to 65% lighter and 45% smaller than comparative fabricated models. When multi-banking product, even greater space savings can be made with the requirement of only one set of inlet and outlet ports.

■ **Corrosion Protection** Durable and hard wearing Electrophoretic (EP) coating on both internal and external faces of the filter housing and external powder coating prevents corrosion and contamination of upstream air supply.

■ **Externally Accessible Drain** Unique easy access drain can be removed externally and is supplied as standard on all models - eliminating the need to gain access to the internal of the filter bowl to remove the drain. Top loading element design eliminates the need for the drain to be removed during servicing allowing for quicker maintenance.

■ **Flexible Installation** Floor mounting and wall mounting brackets available.

**65% lighter and
45% smaller
than comparative
fabricated models**



**Threaded & flanged
connections available**

* When comparing PRO XF flanged filters with traditional fabricated vessels

Filter Elements

Walker Filtration's filter elements are designed using the highest quality materials, providing optimum performance, minimal pressure drop and reduced whole life costs.



Pleated construction
X1/RX1 (1 micron),
XA/RXA (0.01 micron) and
X5/RX5 (5 micron) grades



Wrapped construction
X25/RX25 (25 micron)
and AC/RAC (0.01 micron
Activated Carbon)

PRO XF is designed to deliver optimum performance in line with the highest standards of air purity, meeting quality standard ISO 8573-1:2010, providing a reliable compressed air filtration solution, for use in industrial applications.

Available in five filtration grades, from 25 micron to 0.01 micron, for both particulate, vapour and coalescing filters, PRO XF filter elements utilise either pleated or wrapped media. Walker Filtration's technical design engineers have selected the most appropriate method of construction for each element grade, ensuring PRO XF filter elements deliver optimum performance every time.

Features & Benefits

'Easy-Grip' element minimises risk of contact with contaminated filtration media and enables quick and clean servicing (Patent pending)

Engineered profiled seal prevents contamination bypass and allows for clean element change out

Flow directing endcap for enhanced air flow and reduced differential pressure

'Drop and lock' element design eliminates the need for tie rods, improving air flow through the filter element and simplifying element installation

Colour coded corrosion resistant endcaps for easy and accurate filtration grade identification

High efficiency hydrophobic and oleophobic custom engineered filter media for improved efficiencies and coalescence

Custom outer drainage layer prevents oil carryover

Pleated and wrapped media based on most efficient construction for filtration grade required. Wrapped construction for X25/RX25 and AC/RAC grades, pleated construction for high efficiency filtration





Modular Construction Explained

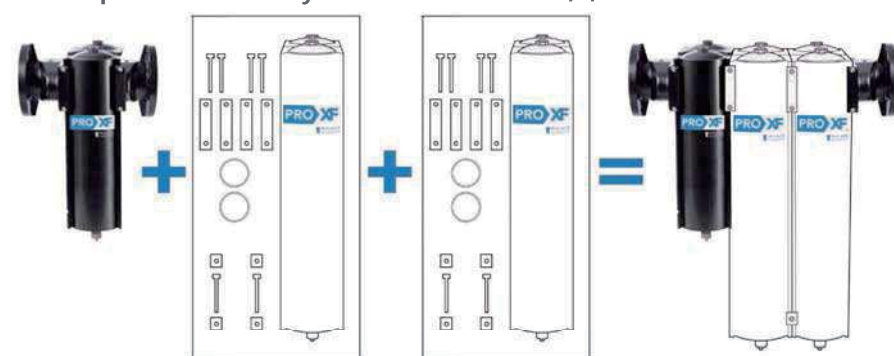
The PRO XF range is available in both Complete and Modular Filter housings which, when combined, deliver a compact and cost effective multi-banked filtration solution.

The PRO XF modular design always starts with a Complete Filter Vessel (Particulate Filter, Coalescing Filter, Vapour Filter or Water Separator) which includes either threaded or flanged inlet and outlet ports. Additional Filter Modules, which are supplied with slim-line connectors and no inlet and outlet ports, can then be added to create a compact and versatile multi-banked solution.

* Cost saving based on equivalent sized complete filter unit

Multi-banked filtration solutions:

Example: Air Purity Classification 1,-,1



Water Separator
eg. XF600FWS

Filter Module
eg. XFM600X5

Filter Module
eg. XFM600XA

Multi-banked
Filtration system

Compressed Air Purity Classes ISO 8573-1

The table below summarises the maximum contaminant levels specified in ISO 8573 Part 1 (2010) for the various compressed air quality classes. Each compressed air classification can be achieved by installing a specific filter grade or a combination of filter grades, depending upon required performance.

Purity class	Particle				Water		Oil
	Maximum number of particles per cubic metre as a function of particle size, d ^a				Vapour	Liquid ^a	Total oil ^a
	0.1µm < d ≤ 0.5µm	0.5µm < d ≤ 1.0µm	1.0µm < d ≤ 5.0µm	Mass concentration Cp mg/m ³	Pressure dewpoint °C	Concentration liquid water Cw g/m ³	Liquid, aerosol, vapour mg/m ³
0	As specified by the equipment user or supplier and more stringent than class 1						
1	≤ 20,000	≤ 400	≤ 10	-	≤ -70	-	≤ 0.01
2	≤ 400,000	≤ 6,000	≤ 100	-	≤ -40	-	≤ 0.1
3	-	≤ 90,000	≤ 1,000	-	≤ -20	-	≤ 1
4	-	-	≤ 10,000	-	≤ +3	-	≤ 5
5	-	-	≤ 100,000	-	≤ +7	-	-

Filter grade	Grade X25 25 micron	Grade X5 5 micron	Grade X1 1 micron	Grade XA 0.01 micron	Grade AC 0.01 micron
Maximum particle size class to ISO 8573-1:2010	-	Class 3	Class 2	Class 1	Class 1
Maximum oil content class to ISO 8573-1:2010	-	Class 4	Class 2	Class 1	Class 1

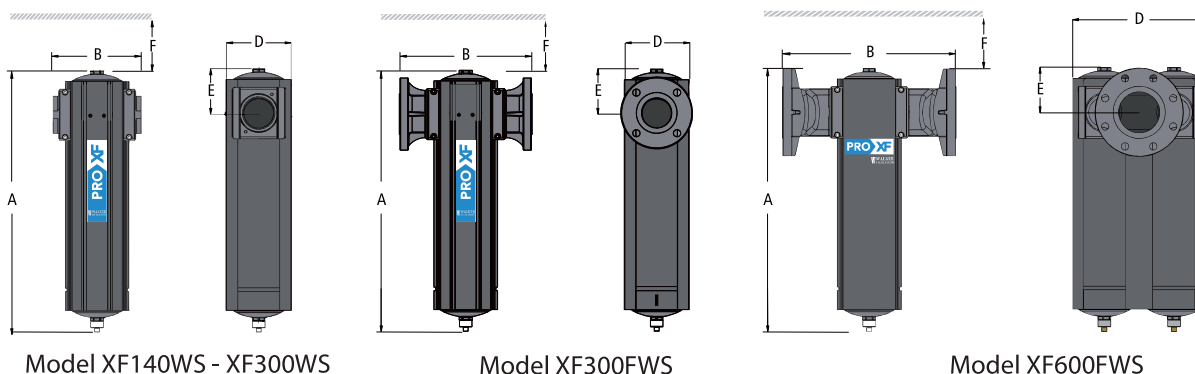
Achieve a 30% saving on each Filter Module when multi-banking with a Complete Filter*



Technical Specification

PRO XF Water Separators

Filter model	Pipe Size	Inlet flow rate		Dimensions mm						Weight Kg
		Nm ³ /hr	SCFM	A	B	C	D	E	F	
XF140WS	2"	1189	700	650	232	N/A	171	116	300	11.8
XF170WS	2 1/2"	1444	850	650	232	N/A	171	116	300	11.8
XF300WS	3"	2549	1500	650	232	N/A	171	116	300	11.8
XF300FWS	DN80 / 3"	2459	1500	650	352	N/A	171	116	300	15.7
XF600FWS	DN100 / 4"	5097	3000	650	457	N/A	343	116	300	29.3

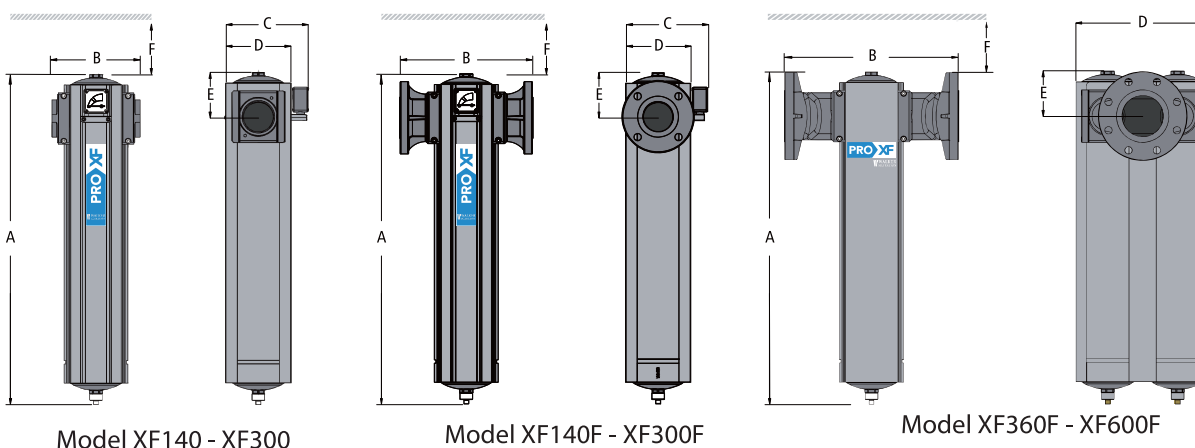


PRO XF Complete Filter

Filter model	Pipe Size	Inlet flow rate*		Dimensions mm						Weight Kg	Element model	No. of elements
		Nm ³ /hr	SCFM	A	B	C	D	E	F			
XF140 (grade)	2"	1189	700	650	232	217	171	116	550	12.8	EW1800 (grade)	1
XF170(grade)	2 1/2"	1444	850	650	232	217	171	116	550	12.8	EW1800 (grade)	1
XF180 (grade)	3"	1529	900	650	232	217	171	116	550	12.8	EW1800 (grade)	1
XF250 (grade)	3"	2124	1250	870	232	217	171	116	750	16.5	EW2500 (grade)	1
XF300 (grade)	3"	2549	1500	1027	232	217	171	116	950	19	EW3000 (grade)	1
XF180F (grade)	DN80 / 3"	1529	900	650	352	217	171	116	550	16.7	EW1800 (grade)	1
XF250F (grade)	DN80 / 3"	2124	1250	870	352	217	171	116	750	20.4	EW2500 (grade)	1
XF300F (grade)	DN80 / 3"	2459	1500	1027	352	217	171	116	950	22.9	EW3000 (grade)	1
XF360F (grade)	DN100 / 4"	3058	1800	650	457	N/A	343	116	550	30.8	EW1800 (grade)	2
XF500F (grade)	DN100 / 4"	4248	2500	870	457	N/A	343	116	750	37.7	EW2500 (grade)	2
XF600F (grade)	DN100 / 4"	5097	3000	1027	457	N/A	343	116	950	42.3	EW3000 (grade)	2

*Rated flow at 7 barg, referenced conditions 1 barg (a) 20°C

Pressure correction factors	for maximum flow rate, multiply model flow rate by the correction factor corresponding to the minimum operating pressure									
Operating pressure barg (psig)	4 (58)	5 (72)	6 (87)	7 (100)	8 (115)	10 (145)	12 (174)	14 (203)	16 (232)	20 (290)
7 barg - correction factor	0.76	0.84	0.92	1	1.07	1.19	1.31	1.41	1.51	1.6



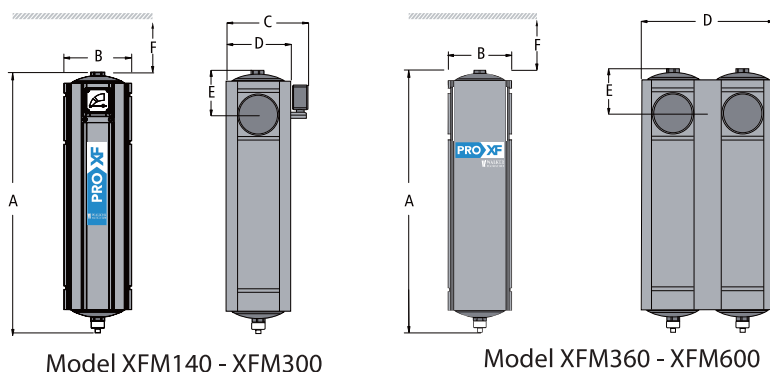
Modular Specification

PRO XF Filter Module



Filter module	Inlet flow rate*		Dimensions mm						Weight Kg	Element model	No. of elements
	Nm³/hr	SCFM	A	B	C	D	E	F			
XFM180 (grade)	1529	900	650	168	217	171	116	550	12.8	EW1800 (grade)	1
XFM250 (grade)	2124	1250	870	168	217	171	116	750	16.5	EW2500(grade)	1
XFM300(grade)	2549	1500	1027	168	217	171	116	950	19	EW3000 (grade)	1
XFM360 (grade)	3058	1800	650	168	N/A	343	116	550	30.8	EW1800 (grade)	2
XFM500(grade)	4248	2500	870	168	N/A	343	116	750	37.7	EW2500 (grade)	2
XFM600 (grade)	5097	3000	1027	168	N/A	343	116	950	42.3	EW3000 (grade)	2

*Rated flow at 7 barg, referenced conditions 1 barg (a) 20°C



	X25		X5		X1		XA		AC	
Particle removal	25 micron		5 micron		1 micron		0.01 micron		0.01 micron	
Maximum particle size class***	-		3		2		1		1	
Maximum oil content	-		4		2		1		1	
Maximum oil carryover at 20°C (68°F)	10 mg/m³		5 mg/m³		0.1 mg/m³		0.01 mg/m³		0.003 mg/m³	
Pressure loss: clean and dry	30 mbar	0.4 psi	40 mbar	0.6 psi	75 mbar	1.1 psi	100 mbar	1.5 psi	75 mbar	1.1 psi
Pressure loss: saturated	50 mbar	0.7 psi	75 mbar	1.1 psi	150 mbar	2.2 psi	300 mbar	4.4 psi	-	
Pressure loss: element change	400 mbar	6 psi	400 mbar	6 psi	400 mbar	6 psi	400 mbar	6 psi	6 months	1000 hours
Maximum temperature	120°C	248°F	120°C	248°F	120°C	248°F	120°C	248°F	50°C**	122°F**
Maximum working pressure	16 barg	232 psig	16 barg	232 psig	16 barg	232 psig	16 barg	232 psig	16 barg	232 psig
Element end cap colour	black		green		red		blue		black	

	RX25		RX5		RX1		RXA		RAC	
Particle removal	25 micron		5 micron		1 micron		0.01 micron		0.01 micron	
Maximum particle size class***	-		3		2		1		1	
Maximum temperature	120°C	248°F	120°C	248°F	120°C	248°F	120°C	248°F	50°C**	122°F**
Pressure loss: clean & dry	30 mbar	0.4 psi	40 mbar	0.6 psi	75 mbar	1.1 psi	100 mbar	1.5 psi	75 mbar	1.1 psi
Pressure loss: element change	400 mbar	6 psi	400 mbar	6 psi	400 mbar	6 psi	400 mbar	6 psi	at least every 6 months	
Maximum working pressure	16 barg	232 psig	16 barg	232 psig	16 barg	232 psig	16 barg	232 psig	16 barg	232 psig
Element end cap colour	black		green		red		blue		black	

** Recommended operating temperature 25°C (122°F)

***To ISO 8573-1:2010(E)

Technical notes

- Direction of air flow is inside to out through the filter element for Coalescing Filter grades X25, X5, X1, XA, AC.
- Direction of air flow is outside to in through the filter element for Particulate Filter grades RX25, RX5, RX1, RXA and RAC.
- Differential pressure indicators (65DPIG) fitted as standard to Complete Filters XF140 to XF300F and Filter Modules XFM180 to XFM300. AC filters do not include differential pressure equipment.
- Activated Carbon Filters must not operate in oil saturated conditions and will not remove certain types of gases including carbon monoxide (CO) and carbon dioxide CO₂.
- Flanged connections are DN80 PN16 (3") and DN100 PN16 flanged (4"), or ANSI B16.5 class 150 (3") and 300lb (4"). Filters supplied as standard, i.e. XF180F, will be supplied with DN type flanges. For 3" ANSI 150lb and 4" ANSI 300lb flanges add the suffix 'P' to the part number e.g. XF180FPXA.
- Threaded connections are Rp (BSP parallel) to ISO 7/1 or NPT to ANSI B2.1 if supplied within North America. For NPT connections add the suffix 'N' e.g. XF140NXA.
- Filter elements should be changed every 12 months/ 8000 hours (whichever comes first). Activated Carbon Filter elements should be changed every 6 months/ 1000 hours (whichever comes first).
- Water Separators and Coalescing Filters are fitted with float operated automatic external drain valves. When high quantities of liquids are anticipated, Walker Filtration recommends the use of electronic drain valves. Particulate Filters and Activated Carbon Filters are fitted with manual external drain valves as standard.
- Filter Modules are supplied without threaded or flanged connection ports and include one set of slim-line connectors to allow multi-banking of filter housings. A Complete Filter or Water Separator must be purchased alongside Filter Module Units for multi-banking.
- Floor mounting brackets available for all models (XFMBK2 and XFMBK3). Wall mounting brackets (XFMBK1) available for Complete Filters XF140 to XF300, and Water Separators XF140WS to XF300WS. See price guide for further information.



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