



**high efficiency compressed
air filters**



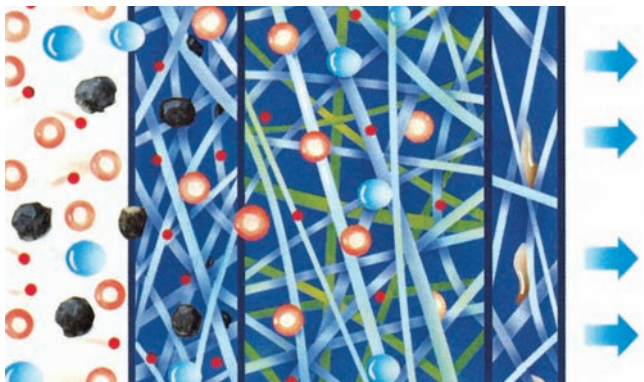
AIR VIP

THE REASONS FOR PURCHASING AIR VIP FILTERS

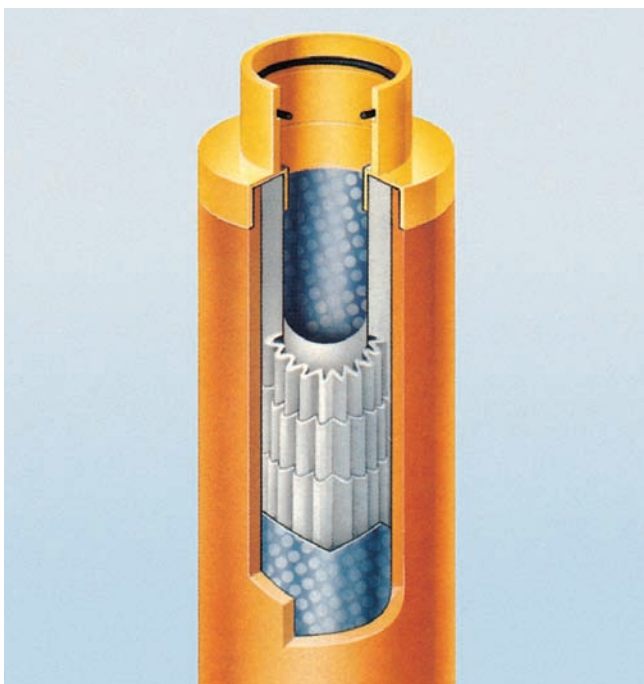
The usage of compressed gas in a manufacturing environment means to provide high quality of fluid which feed every single pneumatic tool. Compromising your compressed air supply can result in a reduction in product quality, affect site safety and can even result in a production line coming to a halt. A modest investment in the AIR VIP range of compressed air filters will pay for itself many times over.

The AIR VIP series meets both Pressure Equipment Directive PED 97/23 C E requirements and air purity ISO85731-1:2010 guidelines.

FILTRATION PRINCIPLES



- 1) Direct interception removes coarse particles which impact on the filtration surface.
- 2) Inertial impaction removes particles thanks to the tortuous path formed by the microfibrils.
- 3) Diffusion remove fine particles which adhere to the microfibrils thanks to "Brownian motion".



THOUSANDS OF HOURS WITH CONSISTENT

The ARS filter elements of AIR VIP series are manufactured using multiple media layers, each of which has a specific function.

The first layer is made by cellulose fibers impregnated with resins to provide strenghtnes and high performances even in presence of moisture; this layer retains solid particles greater than 5 micron.

The following filtration layer are made by borosilicate microfibrils able to retain particles with size down to 0,01 micron and to catch mosts wich are conveyed to the outer coalescing layer.

This outer barrier collects the separated droplets of water and oil, allowing them to run down to the bottom of the bowl of the housing, letting the purified air flowing out from the filter element.

The pleated construction of ARS range of filter elements provides a very high surface area for the retention of the solid particles (approx. 4-5 times when compared to the conventional rolled filter of most manufacturers); the result is an exceptionally long life & very low pressure drop for the element.

SAFETY SYSTEM

Any residual internal pressure is discharged through the safety device.

EASE OF INSTALLATION

The filter cartridge is retained using a positive seal O-ring. This design feature allows the quick and easy replacement of the filter element, eliminating the need for a tie rod.

SPACE REDUCTION

Only 6 cm of clearance under the filter bowl is required during element replacement.

COLOUR CODE

The element grade is clearly identified by the use of different coloured outer foam sleeves.

AUTOMATIC CONDENSATE DRAIN

The drain has three functions;
Automatic: activated by the compressed air during normal operation

Semi-automatic: operates under a no pressure condition

Manual



DIFFERENTIAL GAUGE

The differential gauge XAM-200 can be mounted facing either direction and accurately indicates when the filter element needs replacing.

O-RING SEAL

An O-ring seal ensures positive element location and eliminates the possibility of bypass.

PLEATED FILTER ELEMENT

Offers a high filtration surface area, low differential pressure loss and long life.

DUAL LAYER PROTECTION OF BODY

The surface treatment of the interior and exterior of the housing assures excellent corrosion resistance.

LEVEL INDICATOR

Displays the presence of collected liquid.

“RM” grade

10 micron
15 ppm

“RF” grade

1 micron
8 ppm
replacement at: 0.6 bar

Compressed air pre-filtration:

Removal of condensate and solid particles to protect air receivers and refrigerant dryers.
Pre filter upstream RB & RA grades.
After filter to collect dust generated by desiccant media of dryers.



“RB” grade

1 micron
0.1 ppm

replacement at: 0.6 bar

Oil separation and compressed air filtration:

Pre filter upstream refrigeration driers.
Pre filter upstream RA & CA grades.
Vacuum pump inlet protection filter.
Air filtration for general purpose



“RA” grade

0.01 micron
0.01 ppm

replacement at: 0.6 bar

High efficiency oil separation and filtration of compressed air and gases:

Upstream to adsorption driers.
Protection of sophisticated instrumentation.
Air treatment on spray paint plants.
Electronics, food & textiles industries.



“CA” grade

0.003 ppm


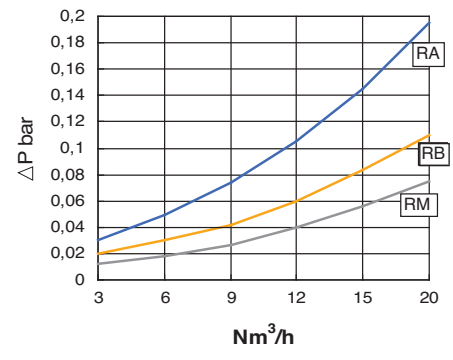

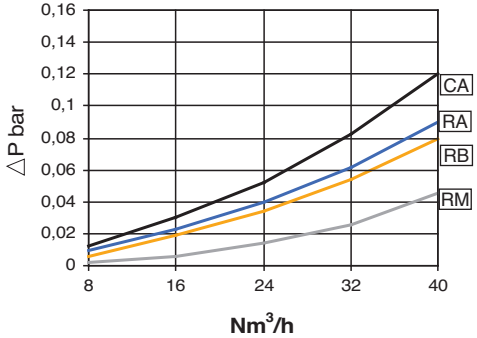

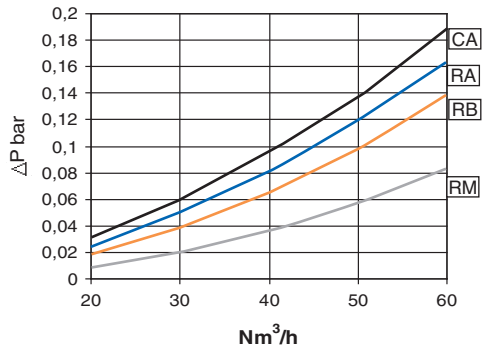
replacement at: 1000 hours


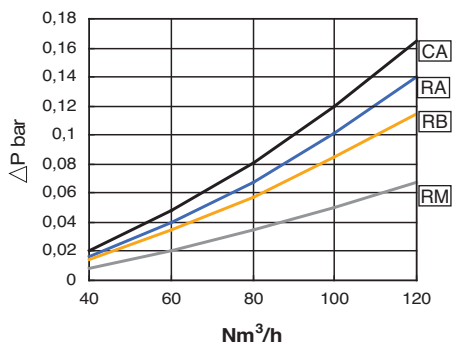
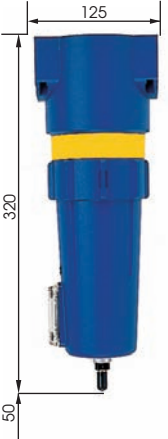
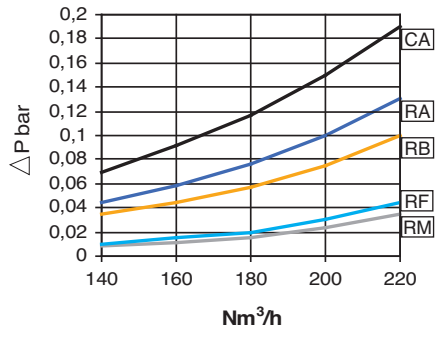

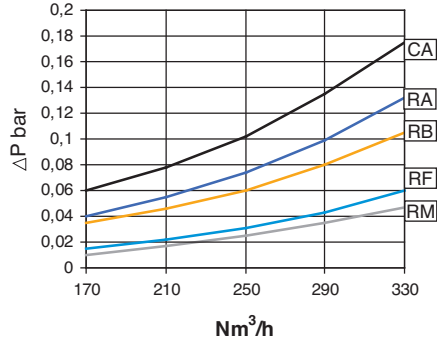
Elimination of odours and vapours from the compressed air:

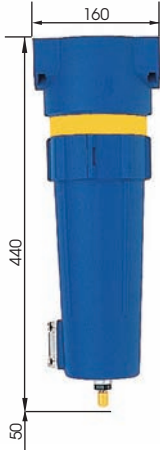
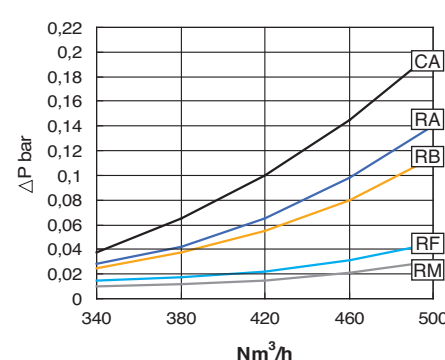
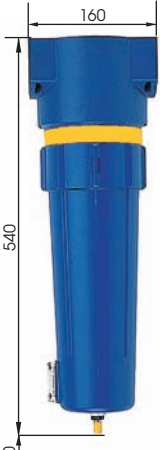
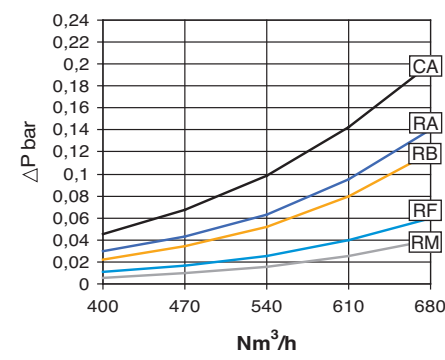
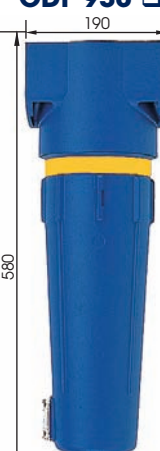
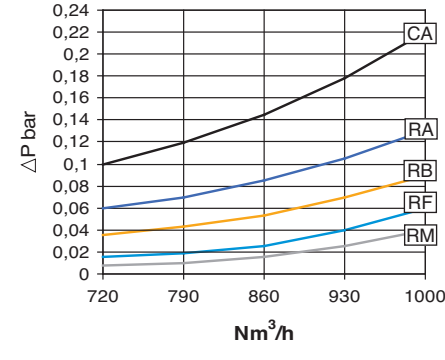
To be installed downstream “RA” grade.
Compressed air for:


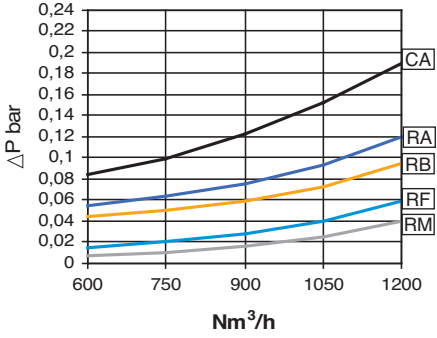

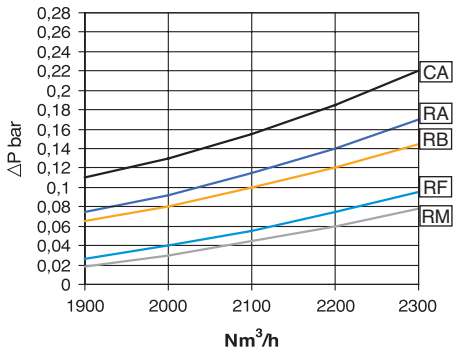

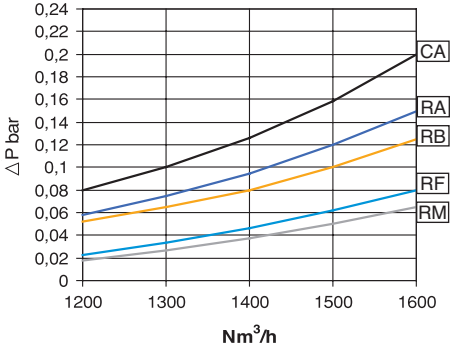
- food & beverage
- pharmaceutical
- process air
- textiles, electronics


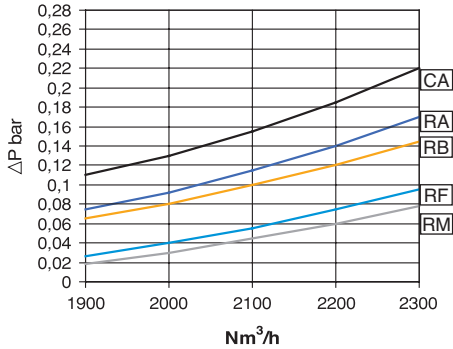


Type	Filter element	RM	RB	RA	CA	RF
	Filtration grade □					
	Residual oil (ppm)	15	0.1	0.01	0.003	-
	Particulate removal (micron)	10	1	0.01	-	1
P.max: 16 bar	Residual oil (ppm)	4.-.5	2.-.2	1.-.1	1.-.1	2.-.4
T.max: 60°C	Particulate removal (micron)					
T.max: 60°C	Air purity ISO 8573/1					
CDF 15 □ 	Connections G 1/4" Material Aluminium Volume 0.15 L Weight 0.4 Kg	Releted to 7 bar Nm³/h* Scfm				
	Available versions □ 00 = manual valve Filter element 1 off ARS-15 □	Nominal flow rate 15 9				
		Max flow rate 20 12				
						
CDF 30 □ 	Connections G 1/4" Material Aluminium Volume 0.3 L Weight 0.7 Kg	Releted to 7 bar Nm³/h* Scfm				
	Available versions □ 00 = manual valve XAD-300 □ 0D = Automatic inner condensate drain XAD-251 □ MD = 0D + differential gauge XAM-100 □ GD = 0D + differential gauge XAM-200 Accessories available upon request Mounting bracket: XAS-1 Housing connection kit: XAK-1 O-ring seal kit (No. 8 O-rings): XAG-1 Filter element 1 off ARS-30 □	Nominal flow rate 30 18				
		Max flow rate 40 24				
						
CDF 55 □ 	Connections G 1/2" Material Aluminium Volume 0.3 L Weight 0.7 Kg	Releted to 7 bar Nm³/h* Scfm				
	Available versions □ 00 = manual valve XAD-300 □ 0D = Automatic inner condensate drain XAD-251 □ MD = 0D + differential gauge XAM-100 □ GD = 0D + differential gauge XAM-200 Accessories available upon request Mounting bracket: XAS-1 Housing connection kit: XAK-1 O-ring seal kit (No. 8 O-rings): XAG-1 Filter element 1 off ARS-30 □	Nominal flow rate 55 33				
		Max flow rate 60 36				
						

Type	Filter element	RM	RB	RA	CA	RF
	Filtration grade <input type="checkbox"/>					
	Residual oil (ppm)	15	0.1	0.01	0.003	-
	Particulate removal (micron)	10	1	0.01	-	1
R.max: 16 bar T.max: 60°C	Air purity ISO 8573/1	4.-.5	2.-.2	1.-.1	1.-.1	2.-.4
CDF 100 <input type="checkbox"/> 	Connections G 1/2" Material Aluminium Volume 0.5 L Weight 0.8 Kg Available versions <input type="checkbox"/> 00 = manual valve XAD-300 <input type="checkbox"/> 0D = Automatic inner condensate drain XAD-251 <input type="checkbox"/> MD = 0D + differential gauge XAM-100 <input type="checkbox"/> GD = 0D + differential gauge XAM-200 Accessories available upon request Mounting bracket: XAS-1 Housing connection kit: XAK-1 O-ring seal kit (No. 8 O-rings): XAG-1 Filter element 1 off ARS-100 <input type="checkbox"/>	Releted to 7 bar Nm³/h* Scfm Nominal flow rate 100 60 Max flow rate 120 72				
	CDF 180 <input type="checkbox"/> 	Connections G 3/4" Material Aluminium Volume 1.2 L Weight 1.7 Kg Available versions <input type="checkbox"/> 00 = manual valve XAD-300 <input type="checkbox"/> 0D = Automatic inner condensate drain XAD-251 <input type="checkbox"/> MD = 0D + differential gauge XAM-100 <input type="checkbox"/> GD = 0D + differential gauge XAM-200 Accessories available upon request Mounting bracket: XAS-2 Housing connection kit: XAK-2 O-ring seal kit (No. 8 O-rings): XAG-2 Filter element 1 off ARS-180 <input type="checkbox"/>	Releted to 7 bar Nm³/h* Scfm Nominal flow rate 180 110 Max flow rate 220 132			
		CDF 290 <input type="checkbox"/> 	Connections G 1" Material Aluminium Volume 1.6 L Weight 1.9 Kg Available versions <input type="checkbox"/> 00 = manual valve XAD-300 <input type="checkbox"/> 0D = Automatic inner condensate drain XAD-251 <input type="checkbox"/> MD = 0D + differential gauge XAM-100 <input type="checkbox"/> GD = 0D + differential gauge XAM-200 Accessories available upon request Mounting bracket: XAS-2 Housing connection kit: XAK-2 O-ring seal kit (No. 8 O-rings): XAG-2 Filter element 1 off ARS-290 <input type="checkbox"/>	Releted to 7 bar Nm³/h* Scfm Nominal flow rate 290 170 Max flow rate 330 198		

Type	Filter element	RM	RB	RA	CA	RF
	Filtration grade <input type="checkbox"/>					
P.max: 16 bar T.max: 60°C	Residual oil (ppm)	15	0.1	0.01	0.003	-
	Particulate removal (micron)	10	1	0.01	-	1
	Air purity ISO 8573/1	4.-.5	2.-.2	1.-.1	1.-.1	2.-.4
CDF 460 <input type="checkbox"/> 	Connections G 1 - 1/4" Material Aluminium Volume 2.6 L Weight 3.6 Kg Available versions <input type="checkbox"/> 00 = manual valve XAD-300 <input type="checkbox"/> 0D = Automatic inner condensate drain XAD-251 <input type="checkbox"/> MD = 0D + differential gauge XAM-100 <input type="checkbox"/> GD = 0D + differential gauge XAM-200 Accessories available upon request Mounting bracket: XAS-3 Housing connection kit: XAK-3 O-ring seal kit (No. 8 O-rings): XAG-3 Filter element 1 off ARS-460 <input type="checkbox"/>	Releted to 7 bar Nm³/h* Scfm Nominal flow rate 460 270 Max flow rate 500 300				
	CDF 610 <input type="checkbox"/> 	Connections G 1-1/2" Material Aluminium Volume 3.5 L Weight 3.9 Kg Available versions <input type="checkbox"/> 00 = manual valve XAD-300 <input type="checkbox"/> 0D = Automatic inner condensate drain XAD-251 <input type="checkbox"/> MD = 0D + differential gauge XAM-100 <input type="checkbox"/> GD = 0D + differential gauge XAM-200 Accessories available upon request Mounting bracket: XAS-3 Housing connection kit: XAK-3 O-ring seal kit (No. 8 O-rings): XAG-3 Filter element 1 off ARS-610 <input type="checkbox"/>	Releted to 7 bar Nm³/h* Scfm Nominal flow rate 610 360 Max flow rate 680 408			
CDF 930 <input type="checkbox"/> 		Connections G 2" Material Aluminium Volume 4.5 L Weight 5.4 Kg Available versions <input type="checkbox"/> 00 = manual valve XAD-300 <input type="checkbox"/> 0D = Automatic inner condensate drain XAD-251 <input type="checkbox"/> MD = 0D + differential gauge XAM-100 <input type="checkbox"/> GD = 0D + differential gauge XAM-200 Accessories available upon request Mounting bracket XAS-4 O-ring seal kit (No. 8 O-rings) XAG-4 Filter element 1 off ARS-930 <input type="checkbox"/>	Releted to 7 bar Nm³/h* Scfm Nominal flow rate 930 550 Max flow rate 1,000 600			

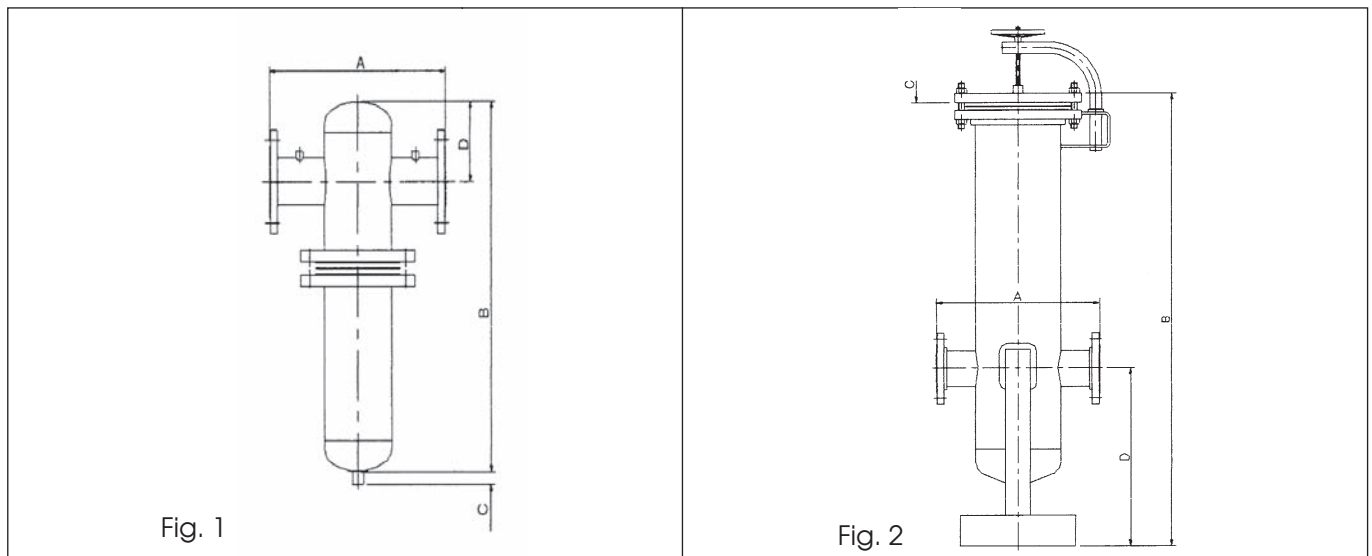
Type	Filter element	RM	RB	RA	CA	RF									
	Filtration grade <input type="checkbox"/>														
	Residual oil (ppm)	15	0.1	0.01	0.003	-									
	Particulate removal (micron)	10	1	0.01	-	1									
Air purity ISO 8573/1		4.-.5	2.-.2	1.-.1	1.-.1	2.-.4									
CDF 1050 <input type="checkbox"/> 	Connections G 2-1/2" Material Aluminium Volume 5.5 L Weight 6.1 Kg Available versions <input type="checkbox"/> 00 = manual valve XAD-300 <input type="checkbox"/> 0D = Automatic inner condensate drain XAD-251 <input type="checkbox"/> MD = 0D + differential gauge XAM-100 <input type="checkbox"/> GD = 0D + differential gauge XAM-200 Accessories available upon request Mounting bracket XAS-4 O-ring seal kit (No. 8 O-rings) XAG-4 Filter element 1 off ARS-1050 <input type="checkbox"/>	<table border="1"> <tr> <td>Related to 7 bar</td> <td>Nm³/h*</td> <td>Scfm</td> </tr> <tr> <td>Nominal flow rate</td> <td>1,050</td> <td>620</td> </tr> <tr> <td>Max flow rate</td> <td>1,200</td> <td>720</td> </tr> </table>		Related to 7 bar	Nm³/h*	Scfm	Nominal flow rate	1,050	620	Max flow rate	1,200	720			
	Related to 7 bar	Nm³/h*	Scfm												
	Nominal flow rate	1,050	620												
	Max flow rate	1,200	720												
CDF 2300 <input type="checkbox"/> 	Connections G 3" Material Aluminium Volume 20 L Weight 15 Kg Available versions <input type="checkbox"/> 00 = manual valve G 1/2" <input type="checkbox"/> 0D = Automatic outer condensate drain XAD-651 <input type="checkbox"/> MD = 0D + differential gauge XAM-100 <input type="checkbox"/> GD = 0D + differential gauge XAM-200 Filter element 1 off ARS-2300 <input type="checkbox"/>	<table border="1"> <tr> <td>Related to 7 barr</td> <td>Nm³/h*</td> <td>Scfm</td> </tr> <tr> <td>Nominal flow rate</td> <td>2,200</td> <td>1,320</td> </tr> <tr> <td>Max flow rate</td> <td>2,300</td> <td>1,380</td> </tr> </table>		Related to 7 barr	Nm³/h*	Scfm	Nominal flow rate	2,200	1,320	Max flow rate	2,300	1,380			
	Related to 7 barr	Nm³/h*	Scfm												
	Nominal flow rate	2,200	1,320												
	Max flow rate	2,300	1,380												
CDF 1500 <input type="checkbox"/> 	Connections DN 80 Material Aluminium Volume 8 L Weight 22 Kg Available versions <input type="checkbox"/> 00 = Manual valve G 1/2" <input type="checkbox"/> 0D = Automatic outer condensate drain XAD-651 <input type="checkbox"/> MD = 0D + differential gauge XAM-100 <input type="checkbox"/> GD = 0D + differential gauge XAM-200 Filter element 1 off ARS-1400 <input type="checkbox"/>	<table border="1"> <tr> <td>Related to 7 bar</td> <td>Nm³/h*</td> <td>Scfm</td> </tr> <tr> <td>Nominal flow rate</td> <td>1,500</td> <td>900</td> </tr> <tr> <td>Max flow rate</td> <td>1,600</td> <td>960</td> </tr> </table>		Related to 7 bar	Nm³/h*	Scfm	Nominal flow rate	1,500	900	Max flow rate	1,600	960			
	Related to 7 bar	Nm³/h*	Scfm												
	Nominal flow rate	1,500	900												
	Max flow rate	1,600	960												

Type	Filter element	RM	RB	RA	CA	RF
	Filtration grade □					
P.max: 16 bar T.max: 60°C	Residual oil (ppm)	15	0.1	0.01	0.003	-
	Particulate removal (micron)	10	1	0.01	-	1
	Air purity ISO 8573/1	4.-.5	2.-.2	1.-.1	1.-.1	2.-.4
CDF 2200 □ 	Connections DN 80	Related to 7 bar		Nm³/h*	Scfm	
	Material Aluminium Volume 15 L Weight 28 Kg	Nominal flow rate		2,200	1,320	
		Max flow rate		2,300	1,380	
	Available versions □ 00 = Manual valve G 1/2" □ 0D = Automatic outer condensate drain XAD-651 □ MD = 0D + differential gauge XAM-100 □ GD = 0D + differential gauge XAM-200					
	Filter element 2 off ARS-1400 □					

HOUSINGS IN CARBON STEEL

Type	Referred to 7 bar		Conn. size	Dimensions				Fig.	Weight Kg.	Filter element	
	Nm ³ /h	Scfm		A	B	C	D			Type	N°
ACF-1500-00	1,500	900	DN 80	440	693	350	155	1	45	ARS-1400 □	1
ACF-2200-00	2,200	1,299	DN 80	440	1020	700	155		60	ARS-1400 □	2
ACF-3750-00	3,600	2,150	DN 100	600	1340	800	260		95	ARS-1250 □	3
ACF-5800-00	5,800	3,400	DN 150	600	1650	500	520	2	190	ARS-1400 □	6
ACF-8600-00	8,600	5,100	DN 150	700	1800	500	540		230	ARS-1400 □	8
ACF-14000-00	14,000	8,250	DN 200	750	1900	500	580		300	ARS-1400 □	12
ACF-19200-00	19,200	11,300	DN 250	800	1950	500	630		380	ARS-1400 □	16
ACF-22000-00	22,000	12,950	DN 250	850	2000	500	650		430	ARS-1400 □	20
ACF-33000-00	33,000	19,400	DN 300	950	2150	500	700	560	ARS-1400 □	30	

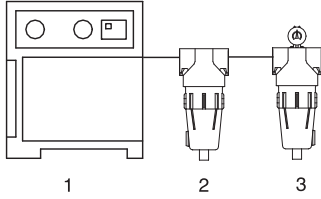
* Flow rate values are related to 7 bar, for different line pressures, use the below correction factors.



TYPICAL APPLICATIONS

GENERAL USE

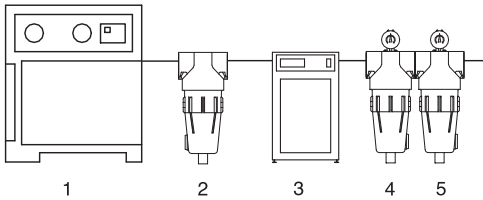
Air purity ISO 8573-1 : class 2.-.2



- 1- Compressor 2- Prefilter grade **RM**
3- Filter grade **RB**

WITH DEW POINT AT +3°C

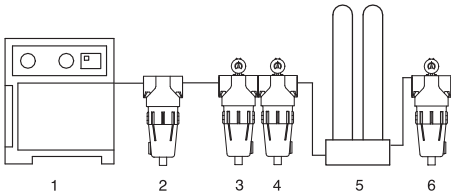
Air purity ISO 8573-1 : class 1.4.1



- 1- Compressor 2- Prefilter grade **RM**
3- **DRY- VIP** drier 4- Filter grade **RB**
5- Filter grade **RA**

WITH DEW POINT FROM -20°C to -40°C

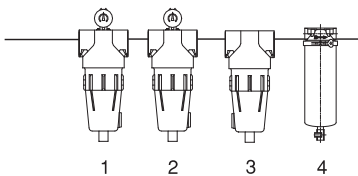
Air purity ISO 8573-1 : class 1.2.1 or 1.1.1



- 1- Compressor 2- Prefilter grade **RM**
3- Filter grade **RB** 4- Filter grade **RA**
5- **DRY PLUS** adsorption drier 6- After filter grade **RF**

PURE AND STERILE AIR – POINT OF USE

Air purity ISO 8573-1 : class 1.-.1



- 1- Filter grade **RB** 2- Filter grade **RA**
3- Filter grade **CA** 4- Sterile filter grade **SL**

MODULAR SYSTEM

INSTALLATION IN SERIES



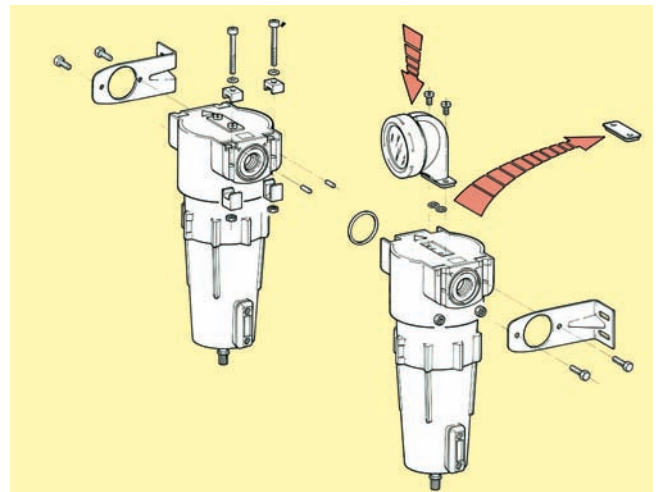
Mounting kits are available to enable the installation of filters in series. The compact design allows the use of a multi stage system where minimal space is available.

DESIGN OF EACH DETAIL



EASY INSTALLATION

All the accessories, mounting brackets, clamps and differential gauges are designed for an easily assembling.



ACCESSORIES

XAC -21-230

Standard voltage: 230V-50/60
Operating pressure: 0.8-16 bar
Operating temperature: 1/60°C
Weight: 700 g

The automatic drain XAC-21-230 is used for the removal of condensate & oil emulsion from the compressed air system, without needlessly wasting expensive energy. The XAC-21 uses a capacitive level sensor which prevents the venting of compressed air during operation.



XAM-100

Max operating pressure: 16 bar
Max operat. temperature: 60°C
Scale: 0-1.4 bar

XAM-200

Max operative pressure: 16 bar
Max operat. Temperature: 70°C
Scale: 0-0,7 bar

XAM differential pressure gauges identify the more convenient time for cartridge change out.

XAM-100 adopts Bourdon tube as sensing element; the scale with central "0" consent the mounting on both side of the filter; the metallic casing with tempered glass window allows indoor and outdoor installation.

XAM-200, adopts membrane as sensing element; the dial is on both sides of the gauge; the casing is made with tecnopolymer; no pressure behind the window grants a great safety. **XAM-200EC** series includes the remote control interface.



XAD-251

Operating pressure: 0.6-16 bar
Operating temperature: 5/80°C
Weight: 65 g

The automatic float condensate drain is specified from models CDF -30 to the CDF-1050. The drain can run in 3 different ways:

Automatic: the elevation of the float opens the pilot valve, then the compressed air opens the shutter to allow the liquid to discharge.

Semi-automatic: to avoid liquid stagnations, the drain valve opens when the pressure drops below 0.6 bar.

Manual: the liquid is discharged by rotating the brass ratchet anti-clockwise.



XAD-651

Operating pressure: 0-16 bar
Operating temperature: 5/80°C
Weight: 0.6 Kg

Automatic float condensate drain with aluminium body for installation where large amounts of condensate need to be discharged. The float mechanism is made in stainless steel.



TECHNICAL FEATURES

Type	Max. flow rate		Nominal flow rate		Conn.	Pressure Max bar	Q.ty	Replacement elements
	Nm ³ /h	Scfm	Nm ³ /h	Scfm				
CDF-15-00	20	12	15	9	1/4" GAS	16	1	ARS-15
CDF-30-MD	40	24	30	18	1/4" GAS	16	1	ARS-30
CDF-60-MD	70	42	60	36	3/8" GAS	16	1	ARS-100
CDF-100-MD	120	72	100	60	1/2" GAS	16	1	ARS-100
CDF-180-MD	220	132	180	110	3/4" GAS	16	1	ARS-180
CDF-290-MD	330	198	290	170	1" GAS	16	1	ARS-290
CDF-460-MD	500	300	460	270	1 1/4" GAS	16	1	ARS-460
CDF-610-MD	680	408	610	360	1 1/2" GAS	16	1	ARS-610
CDF-930-MD	1,000	600	930	550	2" GAS	16	1	ARS-930
CDF-1050-MD	1,300	780	1,050	620	2 1/2" GAS	16	1	ARS-1050
CDF-2300-MD	2,300	1,380	2,200	1,320	3" GAS	16	1	ARS-2300
CDF-1500-MD	1,600	960	1500	900	DN80 PN16	16	1	ARS-1400
CDF-2200-MD	2,300	1,380	2200	1,320	DN80 PN16	16	2	ARS-1400
ACF-1500-00	1,600	960	1,500	900	DN 80	16	1	ARS-1400
ACF-2200-00	2,300	1,380	2,200	1,320	DN 80	16	2	ARS-1400
ACF-3750-00	3,750	2,250	3,600	2,160	DN 100	10	3	ARS-1250
ACF-5800-00	6,000	3,600	5,800	3,480	DN 150	10	6	ARS-1400
ACF-8600-00	8,800	5,280	8,600	5,160	DN 150	10	8	ARS-1400
ACF-14000-00	14,500	8,700	14,000	8,400	DN 200	10	12	ARS-1400
ACF-19200-00	19,500	11,700	19,200	11,520	DN 250	10	16	ARS-1400
ACF-22000-00	22,500	13,500	22,000	13,200	DN 250	10	20	ARS-1400
ACF-33000-00	33,600	20,160	33,000	19,800	DN 300	10	30	ARS-1400

* Flow rate values are related to 7 bar; for specific line pressures, multiply the above flow rates by the corresponding correction factor below

CORRECTION FACTOR

Pressure on line bar g	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Correction factor	0.38	0.53	0.65	0.75	0.80	0.90	1	1.10	1.15	1.20	1.25	1.30	1.35	1.40	1.45	1.50

Data contained in this bulletin are informative and subject to change without notice.

User is responsible for determining whether the product is fit for particular purpose and suitable for User's method of application.



Bea Technologies SpA

Via Newton, 4 I-20016 Pero (Milano) Italy

Tel: +39-02339271 Fax: +39-023390713 info@bea-italy.com