

E - Series Compressed Air Filters

Why we need to purify our compressed Air

In just one cubic meter of air, there are millions of particles potentially harmful to your machines and equipments. These are primarily made up of dust, bacteria, viruses, smoke, fumes, hydrocarbons, water, oil and other contaminants derived from human and industrial activities.

When this air is sucked into your compressor and compressed to 8 bar pressure, the concentration of particles will increase by eight times. This will make the air more contaminated by a factor of eight.

Approximately 80% of these particles are so small that they will easily pass through your compressor's intake filters and find their way to your process line to cause frequent expensive downtime of your pneumatic machines or affect the quality of your end products.

It makes economical sense to incorporate compressed air treatment into your compressed air system as the benefits outweigh the cost, it equates to only a fraction of your total investment.

Artic Driers provides a well engineered range of high quality filters, with essential parts being imported from renowned suppliers in Europe.

However, in the end, it is our highly efficient pleated filtration media that makes the difference.



Filter Grade	Particle Removal Down To	Oil Removal Down To *	Nominal Initial Pressure Drop
P	3 micron	—	0.03 bar g
U	1 micron	0.1 mg/m ³	0.05 bar g
H	0.01 micron	0.01 mg/m ³	0.09 bar g
S	0.01 micron	0.001 mg/m ³	0.10 bar g
C	—	0.003 mg/m ³	0.01 bar g

Filter Grades

Artic Driers provides a comprehensive range of filter grades to cater to the requirements of different applications. All our filter media are of pleated design to ensure higher filtration area. Filters and elements can also be custom-made to suit your needs.

E Series - Filter Grade

Filter Grade P

- For course pre-filtration
- Particle removal down to 3 micron

Filter Grade U

- For general filtration
- Particle removal down to 1 micron
- Oil content down to 0.1 mg/m³ at 20°C

Filter Grade H

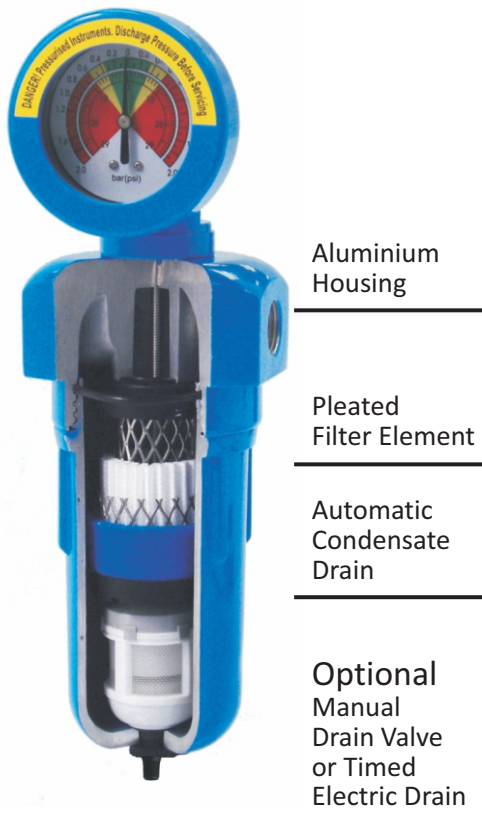
- For high performance filtration
- Particle removal down to 0.01 micron
- Oil content down to 0.01 mg/m³ at 20°C

Filter Grade S

- For high performance filtration
- Particle down to 0.01 micron
- Oil content down to 0.001 mg/m³ at 20°C in conjunction with filter grade H

Filter Grade C

- Activated carbon filter. For odour removal. Applicable in oil lubricated compressors.
- For removal of oil content down to 0.003 mg/m³ at 20 °C in conjunction with filter Grade H



Aluminium
Housing

Pleated
Filter Element

Automatic
Condensate
Drain

Optional
Manual
Drain Valve
or Timed
Electric Drain

**The benefits that we offer
with our pleated filter media are;**

- Higher effective filtration area
- Higher dirt holding capacity
- Lower pressure drop
- Possibility of higher air flow

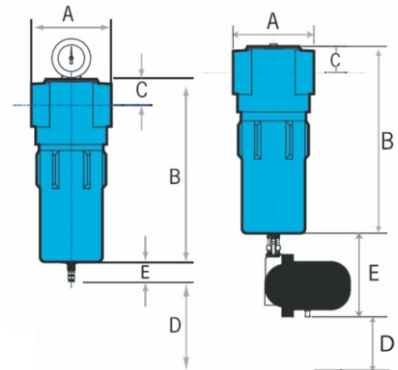


Model	16 Bar Filters (232 Psi)		Threaded Pipe Conn.	Dimensions (mm)					Weight (kg)	Replacement Element
	Capacity @7 bar g			A	B	C	D	E		
	m ³ /min	CFM								
E50-100	1.49	53	G ½	87	192	24	90	41	0.95	ERA 50
E90-180	2.49	88	G ¾	87	263	24	90	41	1.30	ERA 90
E130-290	3.73	132	G 1	130	285	43	135	41	3.60	ERA 130
E240-460	6.73	237	G 1½	130	380	43	235	41	4.10	ERA 240
E380-610	10.62	375	G 1½	130	482	43	335	41	4.60	ERA 380
E490-610	13.99	494	G 1½	130	692	43	525	41	6.70	ERA 490
E730-930	20.60	727	G 2	162	686	55	520	145	8.90	ERA 730
E1100-1050	30.87	1099	G 2½	162	937	55	770	145	11.00	ERA 1100
E625-2200	37.50	1324	G 3	252	910	79	610	145	26.20	ERA 625
E775-2796	46.62	1645	G 3	252	1060	79	760	145	27.70	ERA 775

Capacity Correction Factor For Various Operating Pressure																
Pressure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Factor	0.25	0.38	0.50	0.65	0.75	0.88	1.00	1.13	1.25	1.38	1.50	1.63	1.75	1.88	2.00	2.13

General Information

Filter housings comply to the PED 97/23/EC (Max 16 bar).
 Maximum recommended operating temperature of 60 °C (high temperature range also available).
 Minimum recommended operating temperature 1 °C.
 Maximum recommended operating pressure of 16 bar g.
 Maximum recommended pressure differential for element change is 0.6 bar g. (Except Grade C)
 Material for G-Type filters is aluminium. Material for F-Type filters is steel.
 Filters come complete with auto-drain (16 bar) or manual drain.
 The weights provided are approximate and do not include packaging and gauge.



ISO 8573-1 : 2010 - TABLE OF CONTAMINANTS AND PURITY CLASSES							
Purity Class	PARTICLES			HUMIDITY & LIQUID WATER		OIL	
	Maximum number of particles per cubic meter as a function of particle size, d			Mass Concentration C _p	Pressure Dewpoint	Concentration Of Liquid Water, C _w	Concentration of Total Oil (Liquid, Aerosol & Vapour)
	0.1 µm < d ≤ 0.5 µm	0.5 µm < d ≤ 1.0 µm	1.0 µm < d ≤ 5.0 µm	mg/m ³	°C	g/m ³	mg/m ³
0	As specified by the equipment user or supplier and more stringent than Class 1						
1	≤ 20 000	≤ 400	≤ 10	—	≤ -70	—	—
2	≤ 400 000	≤ 6000	≤ 100	—	≤ -40	—	—
3	Not Specified	≤ 90 000	≤ 1 000	—	≤ -20	—	—
4	Not Specified	Not Specified	≤ 10 000	—	≤ +3	—	—
5	Not Specified	Not Specified	≤ 100 000	—	≤ +74	—	—
6	—	—	—	0 < C _p ≤ 5	≤ +10	—	—
7	—	—	—	5 < C _p ≤ 10	—	C _w ≤ 0.5	—
8	—	—	—	—	—	0.5 < C _w ≤ 5	—

The ISO 8573-1 is a key element of the ISO 8573 series of documents and it specifies the various purity classes of compressed air with respect to particles, water and oil.

EXAMPLE OF DESIGNATION:

ISO 8573-1:210 (1:2:1) indicate,

- purity Class 1 for particles
- purity Class 2 for humidity and liquid water
- purity Class 1 for oil