

# COMPRESSED AIR LINE FILTERS

EXCEPTIONAL ENGINEERING  
FOR SUPERIOR AIR SYSTEM  
PERFORMANCE & EFFICIENCY



# ALUP NEXT GENERATION OF COMPRESSED AIR LINE FILTERS: BUILT TO BOOST YOUR INDUSTRIAL AIR APPLICATIONS.



Untreated compressed air contains dirt and particles that must be filtered out to protect your air-powered equipment as well as your final products. However, filters also affect your air system performance and efficiency. That is why Alup set out to create an innovative filter range that is:

- Comprehensive and dynamic to meet the wide variety of industrial applications.
- In line with ISO 8573-1 2010 to offer the highest air purity.
- Energy-efficient with the lowest possible cost of ownership.
- Of low-maintenance with easy access for service.

With this new design, our new series surpasses all conventional filters in the market, proving to be Alup most advanced filter yet. The housing and element have been redesigned to improve air flow and performance. The series also features the latest in filtration technology, incorporating particle, coalescing and oil vapor filters as well as water separators, all of which are available in a wide range of port sizes to ensure seamless integration with your compressor, other air treatment equipment and pipework (AIRnet).



# INTRODUCING BEST-IN-CLASS FILTRATION PERFORMANCE

Alup new filter series features next-generation engineering to safeguard your air-powered equipment with maximum efficiency, reliability and ease of use.



## AN ALL-INCLUSIVE OFFER

Why compromise your Alup air system performance with third party filters? Alup filters have been designed, built and tested to integrate seamlessly with our compressors, air treatment equipment and pipework to deliver quality air with the highest efficiency and reliability.



## Features & Benefits

### LOW COST OF OWNERSHIP

Advanced filter design to optimize flow capabilities, significantly reducing differential pressure and thus increasing energy efficiency. The result is the lowest possible total cost of ownership.

### MARKET-LEADING MEDIA TECHNOLOGY

Introducing new deep pleated media technology across the elements, combined with a custom-engineered anti re-entrainment layer for exceptional oil coalescence.

### RELIABLE FILTRATION

A dynamic proprietary design secures air quality, as well as an extremely reliable and efficient filtration process.

### CERTIFIED PERFORMANCE

Tested and validated in accordance with ISO12500-1 & ISO 8573-1 2010, both housings and elements are manufactured using only the highest quality materials to provide optimum performance and improved efficiencies.

### IMPROVED OPERATING CONDITIONS

With a maximum operating temperature of 120°C (248°F) and a maximum operating pressure of up to 20.7 bar (300 psig), we have a solution for all your filtration requirements.

### PRODUCT SAFETY

Guaranteed safe housing closure with single-start thread and fixed thread engagement stop and lock indication arrows to prevent over tightening and ensure effective sealing.

### ROBUST DESIGN & CORROSION PROTECTION

Durable and hard-wearing electrophoretic coating on both internal and external surfaces.

### UNDEMANDING MAINTENANCE

Unique, externally accessible automatic drain supplied as standard with a drain shield cover.

### USER-FRIENDLY

Differential pressure indicators and gauges available.

### FLEXIBLE INSTALLATION

Available in 1/8" to 3" threaded BSP and NPT port sizes and flow rates from 10-2550 m3/h (6 - 1500 scfm.)

### MODULAR FILTER

Low-cost connecting kits, wall mounting brackets and new filter head design enable easy and simple installation to cover most applications.

### EASY DIFFERENTIATION

Corrosion resistant color-coded end caps for easy and accurate filtration grade differentiation.



# UNRIVALLED PERFORMANCE

Alup filters were designed to deliver on performance and energy savings. Their coalescing grades provide a saturated differential pressure of less than 0.125 bar across the range.

## MARKET-LEADING FILTRATION PERFORMANCE

The series features deep-pleated media to deliver exceptional oil aerosol removal and particulate retention; significantly reducing differential pressure and energy consumption for low operational lifetime costs. The new element optimizes filtration efficiency and produces compressed air in line with the highest standards of air purity as defined by ISO 8573-1: 2010.

To ensure optimal performance and low cost, filter elements should be replaced with original parts every 12 months/8000 hours (whichever comes first). Activated carbon filter elements should be replaced every 6 months/1000 hours (whichever comes first).



## HIGH QUALITY COMPONENTS

**Push Fit Elements** ensure perfect sealing within the filter housing and assist with easy removal

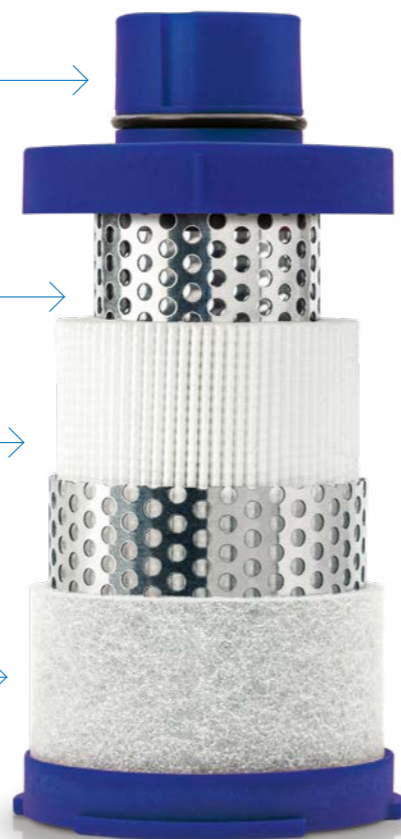
**Corrosion resistant end caps** Injection molded from glass-filled nylon for added durability

**High quality stainless steel cylinders** provide corrosion resistance and deliver strength and stability to the element

**Custom engineered** hydrophobic & oleophobic borosilicate media specifically developed to deliver consistently low pressure drop, combined with pleated material for high dust retention and capacity and an increased filtration surface area

**Custom outer drainage layer** prevents oil carryover and improves coalescence performance

**Unique Element end cap** color-coded system for quick and simple grade identification



# EXTENSIVE FILTER RANGE FOR YOUR INDUSTRY

## COMPRESSED AIR FILTERS

Our range of coalescent, dust and oil vapor compressed air filters come in six filtration grades, with several options and certifications.

## WATER SEPARATORS

Integrated in the air filtration range, the new water separators combine proven centrifugal technology with a new innovative housing design to eliminate 99% of bulk water while guaranteeing continuously low differential pressure.

The custom-engineered centrifugal module features unique vans to eliminate points of low efficiency and a vortex arrestor to stop entrainment.

This ensures minimal operating pressure drop and maintains excellent liquid removal even at low velocities.



## OPTIMIZED FLOW

- New deep-pleated media
- Improved air flow characteristics
- Reduced energy consumption
- Reduced cost of ownership

## INCREASED PERFORMANCE

- Exceptional aerosol and particle removal
- Extremely low pressure drop (< 125 mbar)
- Operating temperature of up to 120°C (248°F)
- Operating pressure of up to 20.7 bar (300 psig)

## IMPROVED SERVICEABILITY

- Dead-stop head to bowl connection
- Push-fit filter elements
- Profiled bowl design and hexagonal spanner locator
- New externally accessible drain



# PERFORMANCE ASSURED

## FILTER HOUSING DESIGN

The ISO 8573 group of International Standards is used for the classification of compressed air.

- 1000 hour neutral salt spray test for corrosion to ISO 9227: 2006
- Burst pressure tested in excess of 100 barg for a 5:1 safety factor
- Housings are pressure decay tested before despatch. Fine filters are 100% aerosol integrity tested

## ELEMENT TECHNOLOGY

The new series is available in a complete range of contaminant removal grades designed to meet the compressed air purity requirements throughout industry.

- ISO 8573-1: 2010  
Compressed air purity standard
- ISO 12500 Series  
International standard  
for compressed air filter testing

## INDEPENDENT VALIDATION

Housings are approved to international standards including:

- Pressure Equipment Directive 2014/68/EU – Lloyd’s Register EMEA – Notified Body No. 0038
- ISO 9001 Quality Systems – LRQ0930553 – Lloyd’s Register EMEA – Notified Body No. 0038
- CRN Approved - CRN0E19418  
For use within Canada

In any compressed air system, impurities are inevitable. Dust, dirt, water and oil contaminants can reduce air quality and significantly affect system efficiency. However, inadequate or incorrect filtration can negatively impact performance and end user equipment, and cause potential costly system downtime. With over 30 years of experience, Alup has the know-how to support the individual demands of our customers.

### Laser cutting



### Packaging and bottling



### Optical industry



### Automotive



### Energy



### Electronic component manufacturing



### Glass / crystal



### Gas generation



### Nuclear plants



## FILTRATION GRADES

	P	G	S	C	D	V
Particle removal (micron) ■	5	-	1	-	0.01	-
Outlet oil aerosol concentration (mg/m <sup>3</sup> ) ■	1	0.3	-	0.01	-	0.003
Total mass efficiency (%)	>90	>99.25	-	>99.9	-	-
Quality class of air at outlet (particles / oil) ▲	4 / 3	- / 3	3 / -	- / 2	1 / -	- / 1
Initial pressure drop over filter in dry applications (bar)	0.05	0.055	0.055	0.085	0.085	0.115
Initial pressure drop over filter in wet applications (bar) ★	0.08	0.125	-	0.125	-	-

■ Referred to an absolute pressure of 1 bar and temperature of 20° C

▲ According to ISO 8573-1:2010 in a typical installation

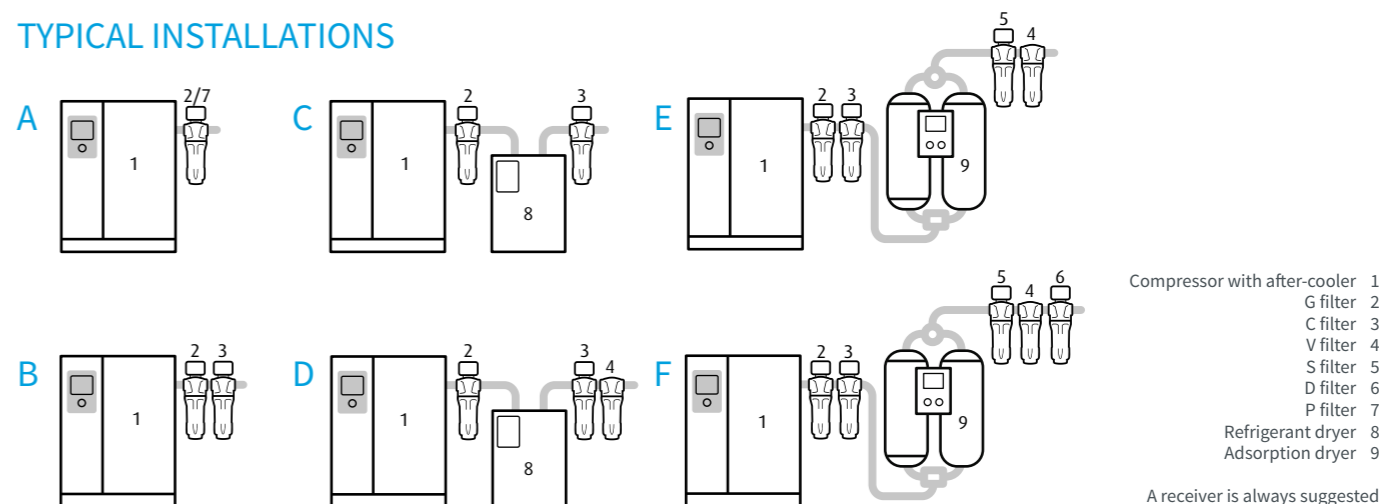
★ According to ISO 12500-1 at oil concentration upstream of the filter of 10 mg/m<sup>3</sup> (Grade G = 40 mg/m<sup>3</sup>)

## 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)
Correction factor	0.76	0.84	0.92	1.00	1.07	1.19	1.31	1.41	1.51	1.6

## TYPICAL INSTALLATIONS



**A.** General purpose protection air purity to ISO 8573-1:2010  
 G filter [ 3 : - : 3 ]  
 P filter [ 4 : - : 3 ]

**C.** High quality air with reduced dew point air purity to ISO 8573-1:2010 [ 1 : 4 : 2 ]

**E.** High quality air with extremely low dew point air purity to ISO 8573-1:2010 [ 2 : 2 : 1 ]

**B.** General purpose protection and reduced oil concentration air purity to ISO 8573-1:2010 [ 1 : - : 2 ]

**D.** High quality air with reduced dew point and oil concentration air purity to ISO 8573-1:2010 [ 1 : 4 : 1 ]

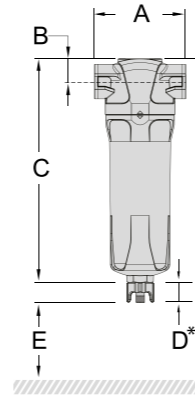
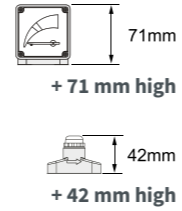
**F.** High quality air with extremely low dew point air purity to ISO 8573-1:2010 [ 1 : 2 : 1 ]

TECHNICAL SPECIFICATIONS

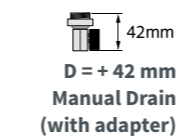
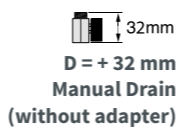
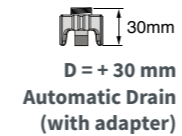
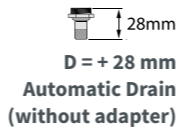
	Filter Size	Flow Rate / Size ●			Conn. Size	Dimensions (mm)				Weight (KG) Approx.	Element Model
		m <sup>3</sup> /h	lt/min.	SCFM		A	B	C	E		
Coalescing & Particulate	1	10	168	6	(G1/8)	50	17	157	60	0.25	F (Grade) 1
	2	25	414	15	(G1/4)	50	17	157	60	0.25	F (Grade) 2
	3	42	702	25	(G1/4)	70	24	231	70	0.6	F (Grade) 3
	4	54	900	32	(G3/8)	70	24	231	70	0.6	F (Grade) 4
	5	85	1,416	50	(G1/2)	70	24	231	70	0.6	F (Grade) 5
	6	119	1,986	70	(G1/2)	127	32	285	80	1.7	F (Grade) 6
	7	144	2,400	85	(G3/4)	127	32	285	80	1.7	F (Grade) 7
	8	178	2,964	105	(G1)	127	32	285	80	1.7	F (Grade) 8
	9	212	3,534	125	(G3/4)	127	32	371	80	2	F (Grade) 9
	10	297	4,950	175	(G1)	127	32	371	80	2	F (Grade) 10
	11	476	7,932	280	(G1 1/4)	140	40	475	80	3	F (Grade) 11
	12	545	9,084	321	(G1 1/2)	140	40	475	80	3	F (Grade) 12
	13	765	12,750	450	(G2)	170	53	508	100	4.9	F (Grade) 13
	14	1189	19,818	700	(G2)	170	53	708	100	5.5	F (Grade) 14
	15	1444	24,066	850	(G2 1/2)	220	70	736	100	10.5	F (Grade) 15
	16	1529	25,482	900	(G3)	220	70	736	100	10.5	F (Grade) 16
	17	2125	35,418	1250	(G3)	220	70	857	100	11.5	F (Grade) 17
	18	2550	42,498	1500	(G3)	220	70	1005	100	12.5	F (Grade) 18
Water Separators	1	10	168	6	(G1/8)	50	17	157	60	0.25	NA
	2	25	414	15	(G1/4)	50	17	157	60	0.25	NA
	3	42	702	25	(G1/4)	70	24	231	70	0.6	NA
	4	59	984	35	(G3/8)	70	24	231	70	0.6	NA
	5	85	1,416	50	(G1/2)	70	24	231	70	0.6	NA
	6	119	1,986	70	(G1/2)	127	32	285	80	1.7	NA
	7	212	3,534	125	(G3/4)	127	32	285	80	1.7	NA
	8	297	4,950	175	(G1)	127	32	285	80	1.7	NA
	9	476	7,932	280	(G1 1/4)	140	40	475	80	3	NA
	10	545	9,084	321	(G1 1/2)	140	40	475	80	3	NA
	11	1189	19,818	700	(G2)	170	53	508	100	4.9	NA
	12	1444	24,066	850	(G2 1/2)	220	70	420	100	8	NA
	13	2550	42,498	1500	(G3)	220	70	420	100	8	NA

● At reference conditions, unless otherwise stated and according to ISO 1217, third edition, annex C.

DIFFERENTIAL PRESSURE EQUIPMENT



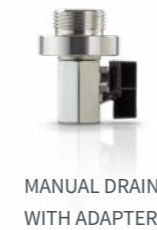
\*DRAINS



See data sheet for standard scope of delivery

ACCESSORIES

DIFFERENTIAL PRESSURE EQUIPMENT



INSTALLATION KITS



SERIAL CONNECTING AND WALL-MOUNTING KITS



Contact your local Alup kompressoren representative



### Care

Care is what service is all about: professional service by knowledgeable people, using high-quality original parts.

### Trust

Trust is earned by delivering on our promises of reliable, uninterrupted performance and long equipment lifetime.

### Efficiency

Equipment efficiency is ensured by regular maintenance. Efficiency of the service organization is how Original Parts and Service make the difference.



[www.alup.com](http://www.alup.com)

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