

# COMPRESSED AIR FILTERS



*Atlas Copco*





## ***COMMITTED TO SUPERIOR PRODUCTIVITY***

### **In-house development & testing**

Since 1998, our dedicated filtration team is responsible for in-house development of cutting-edge filtration solutions. This results in expert know-how of filtration mechanisms, state-of-the-art test facilities and breakthrough innovations. For many years, our filtration team has cooperated closely with the University of Karlsruhe, a leading institute in research of filtration mechanisms.

### **Rigorous quality control**

To ensure the highest standards, all Atlas Copco products are subjected to rigorous quality control testing. The entire filter range is produced in-house, on the most advanced production lines, using the most stringent methods in the industry. You can rest assured at all times that strict certification and testing procedures are conducted to ensure our filtration products meet the highest standards.

# CERTIFIED PERFORMANCE

Atlas Copco filters are qualified according to the ISO 8573-1:2010 standard. This is the latest edition of the standard. Beware of filters that comply with earlier editions, such as ISO 8573-1:1991 or ISO 8573-1:2001. The difference is an inferior quality of delivered compressed air. This qualification is a result of our filters, being tested according to ISO 12500-1:2007, ISO 12500-2:2007, and ISO 12500-3:2009, which specify the test layout, test procedures and inlet conditions required for testing coalescing filters, vapor filters, and solid particle filters used in compressed air systems, to determine their effectiveness in removing oil aerosol, oil vapor and solid particles. The measurements of the air purity downstream the filter for each specific contaminant have been performed according to the test methods described in respectively ISO 8573-2:2007, ISO 8573-5:2001 and ISO 8573-4:2001. Tests have been conducted in-house as well as in external labs, and are independently validated by TÜV.

## ISO certification

Atlas Copco's filters have been fully tested and qualified according to the following ISO standards:

- ISO 8573-1:2010: Compressed air - Contaminants and purity classes
- ISO 8573-2:2007: Compressed air - Test method for oil aerosol content
- ISO 8573-4:2001: Compressed air - Test method for dust
- ISO 8573-5: 2001: Compressed air - Test method for oil vapor and organic solvent content
- ISO 12500-1:2007: Filters for compressed air - test methods - oil aerosols
- ISO 12500-2:2007: Filters for compressed air - test methods - oil vapors
- ISO 12500-3:2009: Filters for compressed air - test methods - particulates



## Certified peace of mind

<b>FILTER APPROVALS</b>	<b>COMPANY CERTIFICATION</b>
CE ASME CRN	® ® ®
<b>ACTIVE MEMBER OF</b>	
pneurop CAGI bcas VDMA	

# DD(+)/PD(+) SERIES

## High performance oil coalescing filters

DD(+) and PD(+) filters efficiently reduce oil aerosol, wet dust and water drops in your compressed air stream. These could come from the lubrication of the compressor element, the intake air, and the compressor installation itself. These innovative filtration solutions are engineered to cost-effectively provide the best air purity and meet today's increasing quality demands.



## YOUR BENEFITS

### Maximum oil aerosol, wet dust and water droplet filtration and drainage

High-efficient glass fiber and foam media.

### Significant energy savings & limited system operating costs

Optimal design and filter media allow low pressure losses.

### High reliability

High-performance stainless steel cores, double O-rings, epoxy sealed caps, and anti-corrosive coated filter housing.

### Easy maintenance

External ribs on the threaded housing, or a rotating bottom cover for the welded housings, and push-on elements.

### Monitoring of energy use

Differential pressure indication (indicator for sizes 10-35 l/s, gauge for sizes 50-8000 l/s) (optional for standard range).

## Performance

	DD	PD	DD+	PD+
Contaminant	Oil aerosol/wet dust			
Test method	ISO 8573-2:2007, ISO 12500-1:2007			
Maximum oil carry-over (mg/m <sup>3</sup> )*	0.1*	0.01*	0.07*	0.008*
Wet pressure drop (mbar)	245	280	180	215
Element service	After 4,000 operating hours or 1 year			
Precede with	Water separation	Water separation DD	Water separation	Water separation DD+

\* Inlet oil concentration = 10 mg/m<sup>3</sup>. Oil = oil aerosol and liquid.

## Sizing & dimensions

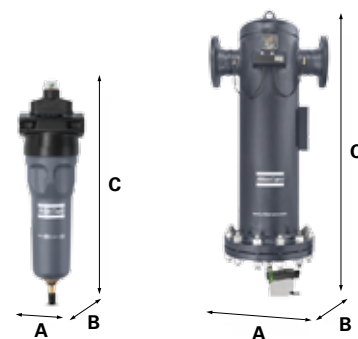
FILTER SIZE DD/PD		Nominal capacity				Reference pressure		Maximum pressure		Connections	Dimensions						Free space for cartridge replacement		Weight	
		Standard		+							A		B		C		D			
Standard	+	l/s	cfm	l/s	cfm	bar(e)	psig	bar(e)	psig	in	mm	in	mm	in	mm	in	mm	in	kg	lbs
12	10+	12	25	10	21	7	102	20	290	3/8	90	3.5	61	2.4	268	10.6	75	2.9	1.0	2.2
25	20+	25	53	20	42	7	102	20	290	1/2	90	3.5	61	2.4	268	10.6	75	2.9	1.1	2.4
45	35+	45	95	35	74	7	102	20	290	1/2	90	3.5	61	2.4	323	12.7	75	2.9	1.3	2.9
65	50+	65	138	50	106	7	102	20	290	3/4 & 1	110	4.3	99	3.9	374	14.7	75	2.9	1.6	4.2
90	70+	90	191	70	148	7	102	20	290	1	110	4.3	99	3.9	414	16.3	75	2.9	2.1	4.6
160	130+	160	339	130	275	7	102	20	290	1-1/2	140	5.5	105	4.1	520	20.5	100	3.9	4.2	9.3
215	170+	215	456	170	360	7	102	20	290	1-1/2	140	5.5	105	4.1	603	23.7	100	3.9	4.5	9.9
265	210+	265	562	210	445	7	102	20	290	1-1/2	140	5.5	105	4.1	603	23.7	100	3.9	4.6	10.1
360	310+	360	763	310	657	7	102	20	290	2 & 2-1/2	179	7.0	121	4.8	689	27.1	150	5.9	6.9	15.2
525	425+	525	1112	425	901	7	102	16	232	3	210	8.3	128	5.0	791	31.1	200	7.9	11.0	24.2
690	550+	690	1462	550	1165	7	102	16	232	3	210	8.3	128	5.0	961	37.9	200	7.9	12.6	27.8
630F	550+F	630	1335	550	1165	7	102	16	232	DN80	370	14.6	190	7.5	1295	51.0	1375	54.1	76.0	167.6
970F	850+F	970	2055	850	1801	7	102	16	232	DN100	510	20.1	230	9.1	1360	53.5	1500	59.1	141.0	310.9
1260F	1100+F	1260	2670	1100	2331	7	102	16	232	DN100	510	20.1	230	9.1	1360	53.5	1500	59.1	143.0	415.3
1600F	1400+F	1600	3390	1400	2967	7	102	16	232	DN150	620	24.4	290	11.4	1480	58.3	1560	61.4	210.0	463.0
2200F	1800+F	2200	4662	1800	3814	7	102	16	232	DN150	640	25.2	285	11.2	1555	61.2	1640	64.6	176.0	388.0
2400F	2200+F	2400	5086	2200	4662	7	102	16	232	DN150	640	25.2	285	11.2	1555	61.2	1640	64.6	178.0	392.4
3600F	3000+F	3600	7628	3000	6357	7	102	16	232	DN200	820	32.3	400	15.7	1745	68.7	1710	67.3	420.0	925.9
-	4000+F	-	-	4000	8476	7	102	16	232	DN200	820	32.3	400	15.7	1745	68.7	1710	67.3	428.0	943.6
-	5000+F	-	-	5000	10595	7	102	16	232	DN250	820	32.3	400	15.7	1745	68.7	1710	67.3	432.0	952.4
-	6000+F	-	-	6000	12714	7	102	16	232	DN250	920	32.3	550	18.9	2085	80.3	1625	64	594.0	1034.0
-	7000+F	-	-	7000	14833	7	102	16	232	DN300	920	36.2	550	21.7	2085	82.1	1625	64	597.0	1479.3
-	8000+F	-	-	8000	16952	7	102	16	232	DN300	1040	40.9	525	20.7	2070	81.5	1625	64	1140.0	1984.2

## Correction factors

Inlet pressure (bar)	1	2	3	4	5	6	7	8	10	12	14	16
Inlet pressure (psig)	15	29	44	58	72.5	87	102	116	145	174	203	232
Correction factor	0.38	0.53	0.65	0.75	0.83	0.92	1.00	1.06	1.20	1.31	1.41	1.50

### Example

- Working pressure 3 bar(g), compressed air flow 35 l/s.
- Multiply the nominal capacity of the selected filter with the corresponding correction factor at the required working pressure to obtain the capacity at working pressure:
  - Size 50+: 50 l/s \* 0.65 = 33 l/s => the 50+ filter size is not large enough.
  - Size 70+: 70 l/s \* 0.65 = 46 l/s => the 70+ filter size is the size to select.



## Options

- Filter connection kit for easy mounting in series (10+ - 550+ l/s and 12-690 l/s).
- Wall-mounting kit simplifies installation (10+ - 550+ l/s and 12-690 l/s).
- Quick coupling connects the filter with a drain or oil/water separator.
- Voltage-free contact mounted in the differential pressure gauge, to give remote indication of cartridge replacement.
- EWD electronic drain with no loss of compressed air and an alarm function (EWD is optional on sizes 10+ - 550+ l/s and 12-690 l/s; standard on sizes ≥550F).



## Certification

- ISO 8573-2:2007
- ISO 12500-1:2007

EWD electronic drain

## ***COMMITTED TO SUSTAINABLE PRODUCTIVITY***

We stand by our responsibilities towards our customers, towards the environment and the people around us. We make performance stand the test of time. This is what we call – Sustainable Productivity.



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

