Compressed air filters

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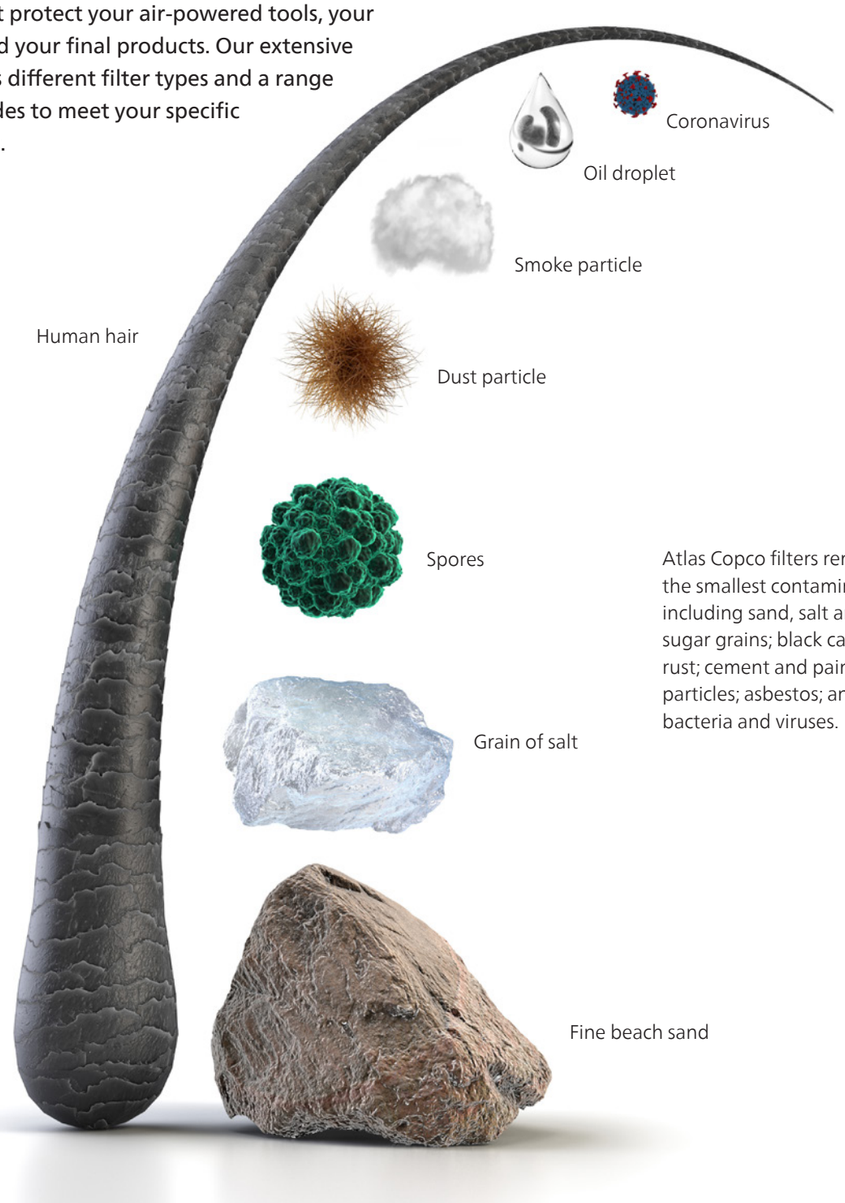
Committed to superior productivity

Untreated compressed air can be contaminated by dust, water and oil. This makes filtration a crucial component of your air system. Atlas Copco has developed filtration solutions that protect your air-powered tools, your processes, and your final products. Our extensive offer includes different filter types and a range of purity grades to meet your specific requirements.



Atlas Copco filters remove the smallest contaminants, including sand, salt and sugar grains; black carbon; rust; cement and paint particles; asbestos; and bacteria and viruses.

Unsurpassed filtration quality

In-house expertise

Because filtration is so important, Atlas Copco's dedicated engineering team works in close collaboration with universities, regulatory authorities and premium filter material suppliers. Our scientists and engineers are therefore knowledgeable on the latest advances and innovations in the industry. Every step of the engineering process is meticulously executed, from basic research to prototype designs and end-of-life analysis.

Rigorous quality control

To ensure top performance and reliability, all Atlas Copco filters are subjected to rigorous internal and external certification and quality control. Thanks to our testing facility, we conduct all certification in-house, including testing witnessed by independent parties. Capable of testing filters according to all relevant standards and under real-life conditions, our competence continues to grow with every new development in the filtration business.

Certified peace of mind

FILTER APPROVALS: CE, ASME, CRN

COMPANY CERTIFICATION

ACTIVE MEMBER OF: ISO, pneurop, CAGI, bcas, VDMA

Engineered and built in Europe

Our entire filter range is designed and produced in Atlas Copco's European facilities, using state-of-the art production lines and quality controls. This geographic proximity allows us to keep R&D, engineering, production, and testing close together and streamline their collaboration.

Atlas Copco's filters are certified to meet the following ISO standards:

- ISO 8573-1:2010: Compressed air - Contaminants and purity classes
- ISO 8573-2:2018: Compressed air - Test method for oil aerosol content
- ISO 8573-4:2019: Compressed air - Test method for particles
- 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

Advanced filtration technology

Filtration technology matters if you need constant air quality with low maintenance requirements. Over the years, Atlas Copco has innovated filter types, design, processes and media to give you best-in-class performance, reliability and lifetime.

Filtration technologies

Choose the best filtration technology for your application to improve your air system performance:

- **Wet particles: wrapped media**
  Wrapped media are known for their durability in wet and oil-contaminated environments. Our patented Nautilus technology combines multiple wrapped layers to offer constant air quality at the lowest pressure drop, even in the harshest working conditions.
- **Solid particles: pleated media**
  Pleating is the optimal technology for capturing dry particulates in compressed air. Pleated media have a large surface area and therefore ensure a longer filter service lifetime and lower pressure drop.
- **Oil vapors: macro-structured activated carbon**
  Macro-structured activated carbon has a larger surface compared to the typical carbon filter media, giving it a superior adsorption capacity and a steady performance over a longer time.
- **Water: cyclone**
  The use of centrifugal forces secures a proper separation of liquid water droplets in the air flow.

Anodized aluminum housing with powder coating to maximize corrosion protection

Element bottom cap (UD+, PD+ & DD+)

A patented drainage system facilitates the removal of oil from the filter element, eliminating the "wet band" at the bottom of the element that can compromise filter performance and lifetime.

Service indicator

To ensure constant air quality, the service indicator allows for an easy check of the filter's running hours, differential pressure, and maintenance status. It can even send a remote alert.

Element top cap

The top cap guides the air flow optimally into the cartridge and to the outlet to reduce pressure drop and the overall energy use of the filter.

inPASS™ bypass

Atlas Copco's revolutionary built-in bypass can be used to reroute the air during filter service to ensure an uninterrupted air flow. It's an invisible invention that will give you big investment and operational savings:

- Service your filters at any time, even during working hours.
- Secured air flow for your production during maintenance.
- Reduced maintenance time as your air system doesn't need to be shut down.
- Eliminates the huge cost of an external piping bypass.
- Lowers the risk of leakages, resulting in lower energy costs.

Strong and durable stainless-steel cylinders

Differently colored end caps to easily recognize the filtration grade

Easy-service float drain

Our non-stick float drain automatically expels all captured oil and water. To save you time and money, our drains can easily be serviced without removing the filter bowl. The threaded drain connection to the bowl also makes it easy to replace the float drain with an external manual or automatic drain.

Complete filtration

Dirt, water and oil are no match for Atlas Copco's filters. They are designed to remove one or more of the following contaminants:

- DIRT: dust, solid particles, rust particles, micro-organisms.
- WATER: condensed liquid water, water aerosols, acidic condensates.
- OIL: liquid oil, oil aerosol, hydrocarbon vapor.

Flanged design
14 sizes
480 → 9,000 l/s
1,000 → 19,000 cfm

Flanged twin filter design
3 sizes
860 → 1,260 l/s
1,820 → 2,670 cfm

Threaded design
14 sizes
7 → 630 l/s
14 → 1,335 cfm

Tower design
9 sizes
20 → 1,800 l/s
42 → 3,814 cfm

20 bar / 290 psi
50 bar / 725 psi
100 bar / 1,450 psi
350 bar / 5,075 psi

Threaded design
9 sizes
15 → 944 l/s
32 → 2,000 cfm

Flanged design
13 sizes
480 → 9,000 l/s
1,000 → 19,000 cfm

Threaded design
14 sizes
7 → 630 l/s
15 → 1,335 cfm

Name	DDp+	PDp+	DD+	PD+	UD+	QD+	QDT+	H High-pressure			SFA Silicone-free		
Grade	Rough	Fine	Rough	Fine	Ultimate	Basic	Optimal	Rough & fine	Rough & fine	Basic	Rough & fine	Rough & fine	Basic
Contaminant	Dry dust		Oil aerosol/wet dust			Oil vapor							
	General applications							Special applications					

Dry dust	Micro-organisms	Oil aerosol	Wet dust	Oil vapor	Water drops

A solution for every application

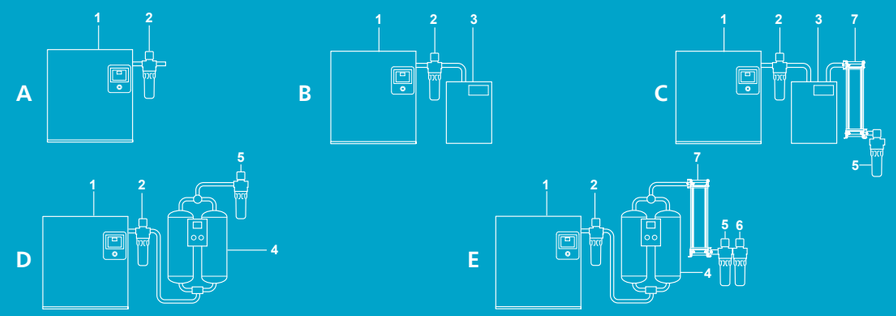
Depending on point of use and application, different compressed air purities might be needed. The table below shows the various ISO 8573-1:2010 air purity classes and the Atlas Copco filter and dryer-combinations that meet these classes.

ISO 8573-1:2010 class	Solid particles		Water	Oil (aerosol, liquid, vapor)	
	Wet conditions	Dry conditions			
0	SMT-G*		As specified by the customer**	Oil-free compressor	
1	DD+ & PD+	DDp+ & PDp+	Desiccant dryer	DD+ & PD+	& QD+/QDT
	UD+			UD+	& QD+/QDT
2	DD+	DDp+	Desiccant dryer, rotary drum dryer	DD+ & PD+	
				UD+	
3	DD+	DDp+	Desiccant dryer, membrane dryer, rotary drum dryer	DD+	
4	DD+	DDp+	Membrane dryer, refrigerant dryer	DD+	
5	DD+	DDp+	Membrane dryer, refrigerant dryer	-	
6	-	-	Membrane dryer, refrigerant dryer	-	

* For more details, please refer to the Atlas Copco process gas filtration brochure.
** Please contact your Atlas Copco sales representative.

Examples of typical installations

A	Compressor - UD+	Air purity class ISO 8573-1:2010 [1:-:2]
B	Compressor - UD+ - Refrigerant dryer	Air purity class ISO 8573-1:2010 [1:4:2]*
C	Compressor - UD+ - Refrigerant dryer - QDT - DDp+	Air purity class ISO 8573-1:2010 [2:4:1]
D	Compressor - UD+ - Desiccant dryer - DDp+	Air purity class ISO 8573-1:2010 [2:2:2]
E	Compressor - UD+ - Desiccant dryer - QDT - DDp+ - PDp+	Air purity class ISO 8573-1:2010 [1:2:1]



1. Compressor
2. UD+ filter
3. Refrigerant dryer
4. Desiccant dryer
5. DDp+ filter
6. PDp+ filter
7. QDT filter

* Particle class 1 is reached directly after UD+. As downstream piping & vessels can add particles, it is advised to install particle filters DDp+ and PDp+ just before the application to reach particle class 1 at point of use.

The compressor should be equipped with a liquid water separation system such as an aftercooler including a drain or a water separator (WSD). If this is not the case, install a water separator in front of a coalescence filter. For critical applications, install extra air treatment products at the point of use for the removal of pipeline contamination and condensation.

DD+/PD+/UD+ Series

Oil coalescence filters with patented Nautilus technology

Compressor element lubrication and your compressor installation itself can release oil aerosols and wet dust in your air system. DD+, PD+ and UD+ filters efficiently remove these contaminants to protect your equipment and your processes. These innovative filtration solutions are engineered to cost-effectively provide the best air purity and meet today's increasingly stringent quality requirements.

Your benefits:

- **Maximum oil aerosol, wet dust and water droplet filtration and drainage** - High-efficiency glass fiber Nautilus technology ensures a low pressure drop.
- **Patented drainage technology** - A coarse 3D-structured layer/barrier provides efficient oil drainage and prevents re-entry of oil droplets into the air stream.
- **Minimal operating costs** - Optimal design and filter technology allow for low pressure losses.
- **Cost-saving maintenance** - Ribbed housing ensures easy removal of the filter bowl. The push-in element and drain connection were designed for effortless replacement. The service indicator shows (preventive) maintenance alerts.

Certification

- ISO 8573-2:2018
- ISO 12500-1:2007

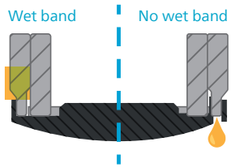
3 patented innovations

1. **Nautilus technology for energy savings**

   The Nautilus multi-wrap technology was specifically developed to improve the oil aerosol coalescing process. That means you get optimal filtration results at a lower pressure drop to minimize your operational costs.

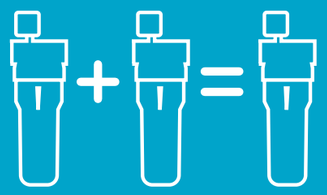
2. **Superior drainage technology for a strong performance & long lifetime**

   A unique coarse 3D-structured layer/barrier ensures efficient oil drainage and prevents re-entry of oil droplets into the air flow. The 3D structure also offers a service life of 8,000 hours.



3. **Enhanced drainage channels for pure air**

   The bottom cap of the filter is designed to increase the drainage rate of the oil from the barrier by optimizing the contact between the barrier and drainage routes. This ensures no wet band is formed in the barrier and the re-entrainment risk is significantly diminished, resulting in cleaner air.



UD+ 2-in-1 concept saves money and space

The UD+ combines two filtration steps (DD+ and PD+) into one, a unique technology to meet the quality requirements of diverse applications and offer superior energy savings. The UD+ filter provides the same air purity as a DD+-PD+ filter train with a lower pressure drop.

- Save up to 50% in space: The 2-in-1 concept is ideal for applications where space is at a premium, reducing your environmental footprint, system complexity, and installation space.
- Save money: Install UD+ filters to enjoy significant installation and maintenance (cost) savings compared to conventional filters.

Performance

	DD+	PD+	UD+
Contaminant	Oil aerosol/wet dust		
Filtration technology	Wrapped		
Test method	ISO 8573-2:2018, ISO 12500-1:2007		
Maximum oil carry-over (mg/m³)*	0.08*	0.008*	0.001
ISO class 8573-1	[2:-:3]	[1:-:2]	[1:-:2]
Average wet pressure drop (mbar)	119	132	220
Element service	After 8,000 operating hours or 1 year		
Precede with	Water separation	Water separation & DD+	Water separation

* Inlet oil concentration = 10 mg/m³. Oil = oil aerosol and liquid.

DDp+/PDp+ Series

Optimal dry dust filtration

DDp+ and PDp+ filters efficiently prevent dust, corrosion particles, micro-organisms, dirt and adsorption material from entering your compressed air stream. These innovative filtration solutions are engineered to cost-effectively provide the best air purity and meet today's strict quality demands.

Your benefits:

- **Maximum dirt, solid particle, micro-organism and rust particle removal**
  High-efficiency pleated glass fiber media with coarse pre-filter fleece ensure a high dust-holding capacity.
- **Minimal operating costs** - Optimal pleated design and filter technology allow for low pressure losses.
- **Cost-saving maintenance** - Ribbed housing ensures easy removal of the filter bowl. The push-in element and drain connection were designed for effortless replacement. The service indicator shows (preventive) maintenance alerts.

Performance

	DDp+	PDp+
Contaminant	Dry dust	
Filtration technology	Pleated	
Test method	ISO 8573-4:2001, ISO 12500-3:2009	
Particle removal efficiency (% at MPPS)	99.92	99.98
ISO class 8573-1	[2:-:3]	[1:-:2]
Average dry pressure drop (mbar)	50	55
Element service	After 8,000 operating hours or 1 year or 350 mbar pressure drop	
Precede with	Dryer	Dryer & DDp+

Certification

- ISO 8573-4:2019
- ISO 12500-3:2009

QD+ Series

High-performance oil vapor filters

QD+ filters efficiently reduce hydrocarbons, odors and oil vapor in your compressed air to protect your investment, equipment and processes. The macro-structured activated carbon will reduce the residual oil content through adsorption to less than 0.003 mg/m³. The pressure drop is low and remains constant during the lifetime of the filter.

Your benefits:

- **Maximum oil vapor removal**
  The macro-structured activated carbon is specifically designed to efficiently and completely remove oil vapors from compressed air with minimal dust release.
- **Minimal operating costs** - Low pressure losses thanks to an optimal flow design.
- **Low-cost maintenance** - Ribbed housing ensures easy removal of the filter bowl. The push-in element and drain connection were designed for effortless replacement. The service indicator shows (preventive) maintenance alerts.

Performance

	QD+
Contaminant	Oil vapor
Filtration technology	Macro-structured activated carbon
Test method	ISO 8573-5:2001
Maximum oil carry-over (mg/m³)*	0.003*
ISO class 8573-1	[-:-:1]
Average dry pressure drop (mbar)	75
Element service	After 2,000 operating hours or 1 year
Precede with	Water separation UD+ or DD+/PD+ Dryer
Filter train UD+ - QD+	[2:-:1]

* In a typical installation with refrigerant dryer and UD+ filter.

Options
DD+/PD+/UD+/DDp+/PDp+/QD+

- Smart indicator
- External wiring for smart indicator
- Potential-free alarm for gauge
- Filter connection kit
- Wall mounting kit
- Mechanical drain WD 80
- Zero-loss electronic drain (IWD)

		DD+/ PD+/ UD+			DDp+/ PDp+/QD+		
		Threaded std	Threaded inPASS	Flanged	Threaded std	Threaded inPASS	Flanged
Standard							
Drain	Depressurizing valve (for DDp+/ PDp+/QD+)	x	x	x	x	x	x
	Floater drain (for DD+/PD+/UD+)	x	x				
	Electronic drain EWD (for DD+/ PD+/UD+)			x			
Indicator (excl. QD+)	Pop-up indicator	size 7-25			size 7-25		
	Gauge	size >25			size >25		
	Smart indicator		x	x		x	x
Bypass			x			x	
Options							
	Smart indicator	x			x		
	External wiring for smart indicator	x	x	x	x	x	x
	Potential-free alarm for gauge	size >25			size >25		
	Filter connection kit	x	x		x	x	
	Wall mounting kit	x	x		x	x	
	Mechanical drain WD 80			x			
	Electronic drain EWD	x	x				

Correction factors

When working with other pressures than the nominal pressure, the actual FAD capacity is calculated by multiplying the correction factor with the rated AML capacity. The calculated actual flow capacity corresponds to the AML-stated pressure drop.

Working pressure in bar(g)	1	2	3	4	5	6	**7**	8	10	12	14	16
Correction factor	0.38	0.53	0.65	0.75	0.83	0.92	**1**	1.06	1.20	1.31	1.41	1.50

Sizing & dimensions
DD+/PD+/UD+/DDp+/PDp+/QD+

Filter size with or without inPASS™	Nominal capacity		Reference pressure		Maximum pressure		Connections		Dimensions						Free space for cartridge replacement		Weight	
									A		B		C		D			
	l/s	cfm	bar(e)	psig	bar(e)	psig	G	NPT	mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs
7+	7	15	7	102	16	232	G 1/2	NPT 1/2	106	4.17	90	3.54	362.6	14.3	90	3.54	1.18	2.60
15+	15	32	7	102	16	232	G 1/2	NPT 1/2	106	4.17	90	3.54	362.6	14.3	90	3.54	1.24	2.73
25+	25	53	7	102	16	232	G 1/2	NPT 1/2	106	4.17	90	3.54	415.1	16.3	90.5	3.56	1.45	3.20
45+	45	95	7	102	16	232	G 3/4	NPT 3/4	135	5.31	110	4.33	442.6	17.4	110	4.33	2.35	5.18
75+	75	159	7	102	16	232	G 1	NPT 1	135	5.31	110	4.33	527.6	20.8	110	4.33	2.8	6.17
110+	110	233	7	102	16	232	G 1 1/2	NPT 1 1/2	175	6.89	143	5.63	559.1	22.0	130.5	5.14	5.4	11.91
145+	145	307	7	102	16	232	G 1 1/2	NPT 1 1/2	175	6.89	143	5.63	629.1	24.8	130.5	5.14	5.93	13.08
180+	180	381	7	102	16	232	G 1 1/2	NPT 1 1/2	175	6.89	143	5.63	699.1	27.5	130.5	5.14	6.45	14.22
240+	240	509	7	102	16	232	G 2	NPT 2	222	8.74	171	6.73	729.6	28.7	175	6.89	9.54	21.04
300+	300	636	7	102	16	232	G 2	NPT 2	222	8.74	171	6.73	822.6	32.4	175	6.89	10.71	23.62
							G 2 1/2	NPT 2 1/2									10.43	23.00
									Non-inPASS™ variant: height "C" decreases by 51 mm (2") for sizes 7-25 and by 10 mm (0.4") for sizes 45-300.									
With inPASS™																		
380+	380	805	7	102	14	203	G 3	NPT 3	250	9.84	191	7.52	927.1	36.5	200.5	7.89	13.6	29.99
425+	425	901	7	102	14	203	G 3	NPT 3	250	9.84	191	7.52	1043.1	41.1	200.5	7.89	14.95	32.96
510+	630	1081	7	102	14	203	G 3	NPT 3	250	9.84	191	7.52	1281.1	50.4	200.5	7.89	19.6	43.22
Without inPASS™																		
360+	360	763	7	102	16	232	G 2 1/2	NPT 2 1/2	222	8.74	171	6.73	812.7	32.0	175	6.89	10.2	22.49
430+	430	911	7	102	16	232	G 3	NPT 3	250	9.84	191	7.52	917.2	36.1	200.5	7.89	13.98	30.83
525+	525	1112	7	102	16	232	G 3	NPT 3	250	9.84	191	7.52	1033.2	40.7	200.5	7.89	15.32	33.78
630+	630	1335	7	102	16	232	G 3	NPT 3	250	9.84	191	7.52	1271.2	50.0	200.5	7.89	19.24	42.42
Flanged							Flanged connection											
480+	480	1017	7	102	16	232	DN 80		370	15	316	12	1295*	51*	1375	54	76	168
630+	630	1335	7	102	16	232	DN 80		370	15	316	12	1295*	51*	1375	54	78	172
860+ T	860	1822	7	102	16	232	DN 100		550	22	418	17	798	31	230	9	38	84
970+	970	2055	7	102	16	232	DN 100		510	20	451	18	1360*	54*	1500	59	141	311
1050+ T	1050	2225	7	102	16	232	DN 100		550	22	418	17	914	36	230	9	41	90
1260+	1260	2670	7	102	16	232	DN 100		510	20	451	18	1360*	54*	1500	59	143	315
1260+ T	1260	2670	7	102	16	232	DN 100		550	22	418	17	1152	45	230	9	49	107
1600+	1600	3390	7	102	16	232	DN 150		620	24	506	20	1480*	58*	1560	61	210	463
2100+	2100	4450	7	102	16	232	DN 150		640	25	541	21	1555*	61*	1640	65	176	388
2500+	2500	5297	7	102	16	232	DN 150		640	25	541	21	1555*	61*	1640	65	178	392
3000+	3000	6357	7	102	16	232	DN 200		820	32	701	28	1745*	69*	1710	67	420	926
3500+	3500	7416	7	102	16	232	DN 200		820	32	701	28	1745*	69*	1710	67	424	935
4000+	4000	8476	7	102	16	232	DN 200		820	32	701	28	1745*	69*	1710	67	428	944
5000+	5000	10594	7	102	16	232	DN 200		820	32	701	28	1745*	69*	1710	67	432	952
6000+	6000	12713	7	102	16	232	DN 250		920	36	815	32	2085*	82*	1625	64	671	1479
7000+	7000	14832	7	102	16	232	DN 250		920	36	815	32	2085*	82*	1625	64	679	1497
8000+	8000	16951	7	102	16	232	DN 300		1040	41	930	37	2070*	81*	1625	64	896	1975
9000+	9000	19070	7	102	16	232	DN 300		1040	41	930	37	2070*	81*	1625	64	900	1984

* +60 mm/2.36 in for units with an electronic drain & +70 mm/2.76 in for a mechanical float.

Temperature correction factors QD+

At higher temperatures, more compressor oil evaporates. When the actual working air inlet temperature differs from the reference, divide the filter capacity by the corresponding correction factors to obtain the correct capacity.

Inlet temperature °C	20	25	30	35	40	45	50	55	60
Inlet temperature °F	68	77	96	95	104	113	122	131	140
Correction factor oil-free	1	1	1	1	1	1	**1**	1	1
Correction factor oil-lubricated	1	1	1	1.2	1.5	1.7	**2.1**	2.4	2.6

Some environmental or process aspects could cause a higher amount of hydrocarbons or other volatile organic compounds in the compressed air. Contact Atlas Copco when higher concentrations can be expected.

QDT Series

Activated carbon towers for optimal oil vapor filtration

The high-efficiency activated carbon tower is capable of removing hydrocarbons, odors and oil vapor from compressed air. The activated carbon will, through adsorption, reduce the residual oil content to lower than 0.003 mg/m³. The pressure drop is low and stays minimal during the filter's lifetime.

Your benefits:

- **Maximum oil vapor removal**
  Superb activated carbon material.
- **Low pressure drop** - Optimal internal flow path.
- **High reliability** - The QDT's robust design and rigorous quality control of the activated carbon optimize filter reliability.
- **Long service intervals** - The high volume of activated carbon material ensures a long lifetime, even in very harsh working conditions.

Options

- Oil indicator ensures pure air.
- Wall mounting kit for easy installation (20-185 l/s).
- Heavy-duty filling for extreme oil load (425-1800 l/s).
- PDp+ post-filter including interconnection pipe (425-1800 l/s).

Performance

	QDT
Contaminant	Oil vapor
Test method	ISO 8573-5:2001, ISO 12500-2:2007
Maximum oil carry-over (mg/m³)*	0.003
Average dry pressure drop (mbar)	125 (QDT 20-310) 72 (QDT 425-1800)
Element service	After 4,000 operating hours or 1 year (up to QDT 310) After 8,000 operating hours or 1 year (from QDT 425) After 12,000 operating hours or 1 year (heavy-duty option)
Precede with	Water separation UD+ or DD+/PD+ Dryer

* After UD+ or DD+/PD+.

QDT 20-310

QDT 425-1800

Certification

ISO 8573-5:2001

Sizing & dimensions

Filter size	Nominal capacity		Connections G or NPT	Dimensions						Weight	
				A		B		C			
	l/s	cfm	in	mm	in	mm	in	mm	in	kg	lbs
20	20	42	1/2	490	19	223	9	190	7	7	22
45	45	95	1	715	28	223	9	190	7	15	33
60	60	127	1	840	33	223	9	190	7	18	40
95	95	210	1	715	28	387	15	190	7	29	64
125	125	265	1 1/2	840	33	387	15	190	7	34	75
150	150	318	1 1/2	715	28	551	22	190	7	42	93
185	185	392	1 1/2	840	33	551	22	190	7	50	110
245	245	519	1 1/2	840	33	715	28	190	7	67	148
310	310	657	1 1/2	840	33	879	35	190	7	84	185
425	425	901	DN 80 3"	2148	85	710	28	600	24	264	581
550	550	1165	DN 80 3"	2190	86	710	28	670	26	302	664
850	850	1801	DN 100/4"	2320	91	724	29	805	32	391	860
1100	1100	2331	DN 100/4"	2450	97	934	37	820	32	602	1324
1800	1800	3814	DN 150/6"	2612	103	1046	41	980	39	882	1940

Correction factors

For other compressed air inlet temperatures, divide the filter capacity by the following correction factor (Kt):

Inlet temperature °C	10	15	20	25	30	35	40	45	50	55	60	65	70*	75*	80*
Inlet temperature °F	50	59	68	77	96	95	104	113	122	131	140	149	158	167	176
Correction factor oil-free	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Correction factor oil-lubricated	1	1	1	1	1	1	1.2	1.5	1.7	2.1	2.4	3	3.5	4.1	4.9

* For QDT flanged only.

For other compressed air inlet pressures, multiply the filter capacity by the following correction factor (Kp):

Inlet pressure bar	3	4	5	6	7	8	9	10	11	12	13
Inlet pressure psi	44	58	73	87	102	116	131	145	160	174	193
Correction factor	0.57	0.77	0.83	1	1	1	1	1.05	1.05	1.11	1.18

UD+ & QDT: the winning combination

The Atlas Copco UD+ - QDT filter train meets the requirements of air purity class 1 for total oil, according to ISO 8573-1:2010, in a typical compressed air installation:

UD+	QDT
Liquid oil & oil aerosol removal	Oil vapor removal
Guaranteed 0.0009 mg/m³ aerosol and liquid	Guaranteed 0.003 mg/m³ vapor
40% pressure drop reduction compared to DD+/PD+	65% pressure drop reduction compared to previous QDT
50% footprint reduction	Extremely compact compared to vessel designs

Certified filter trains

Filter train	Purity class according to ISO 8573-1:2010	Certified
UD+ - QDT - DDp+	[2:-:1]	yes
UD+ - QDT - DDp+ PDp+	[1:-:1]	yes

SFA Series

Silicone-free removal of oil aerosol, dust and oil vapor

Superb air purity is a prerequisite to safeguard your instruments and end products. Our silicone-free SFA filters efficiently prevent dry and wet dust, particulates, oil aerosol and water droplets from entering your compressed air system. The SFA series is manufactured and treated according to the high standards of silicone-free equipment, and certified by the Fraunhofer Institute as guaranteed silicone-free.

Your benefits:

- **Maximum contaminant removal** - Removal of dry and wet dust, particulates, oil aerosol and water droplets with high-efficiency glass fiber and fleece media.
- **Significant energy savings & limited system operating costs** - Optimal design and filter media allow for a low pressure drop.
- **High reliability** - Stainless-steel cores, double O-rings, epoxy-sealed caps and filter housing with anti-corrosive coating.
- **Easy maintenance** - External ribbing on the threaded housing and push-on elements.
- **Monitoring of energy use** - Differential pressure indication (indicator for sizes 7-25 l/s, gauge for sizes 45-630 l/s – optional).

Options

Filter connection kit (7-630 l/s).
Wall mounting kit (7-630 l/s).
Quick coupling (DD+ & PD+ only).
EWD no-loss electronic drain (DD+ & PD+ only).
Voltage-free contact mounted in the differential gauge (not for QD+).

Certification

Paint compatibility certificate (Fraunhofer Institute).

IPA

Fraunhofer TESTED® DEVICE
Atlas Copco Airpower n.v.
DD, PDp, QD, SFA Element
Report No. AT 2203-1307

Sizing & dimensions

UD+, DDp+, PDp+, QD+	Nominal capacity		Reference pressure		Maximum pressure		Connections		Dimensions						Free space for cartridge replacement		Weight	
									A		B		C		D			
	l/s	cfm	bar(e)	psig	bar(e)	psig	G	NPT	mm	in	mm	in	mm	in	mm	in	kg	lbs
7+	7	15	7	102	16	232	G 1/2	NPT 1/2	106	4.17	90	3.54	311.6	12.3	90	3.54	1.18	2.60
15+	15	32	7	102	16	232	G 1/2	NPT 1/2	106	4.17	90	3.54	311.6	12.3	90	3.54	1.24	2.73
25+	25	53	7	102	16	232	G 1/2	NPT 1/2	106	4.17	90	3.54	364.1	14.3	90.5	3.56	1.45	3.20
45+	45	95	7	102	16	232	G 3/4	NPT 3/4	135	5.31	110	4.33	432.6	17.0	110	4.33	2.35	5.18
75+	75	159	7	102	16	232	G 1	NPT 1	135	5.31	110	4.33	517.6	20.4	110	4.33	2.8	6.17
110+	110	233	7	102	16	232	G 1 1/2	NPT 1 1/2	175	6.89	143	5.63	549.1	21.6	130.5	5.14	5.4	11.91
145+	145	307	7	102	16	232	G 1 1/2	NPT 1 1/2	175	6.89	143	5.63	619.1	24.4	130.5	5.14	5.93	13.08
180+	180	381	7	102	16	232	G 1 1/2	NPT 1 1/2	175	6.89	143	5.63	689.1	27.1	130.5	5.14	6.45	14.22
240+	240	509	7	102	16	232	G 2	NPT 2	222	8.74	171	6.73	719.6	28.3	175	6.89	9.54	21.04
300+	300	636	7	102	16	232	G 2	NPT 2	222	8.74	171	6.73	812.6	32.0	175	6.89	10.71	23.62
							G 2 1/2	NPT 2 1/2									10.43	23.00
360+	360	763	7	102	16	232	G 2 1/2	NPT 2 1/2	222	8.74	171	6.73	812.7	32.0	175	6.89	10.2	22.49
430+	430	911	7	102	16	232	G 3	NPT 3	250	9.84	191	7.52	917.2	36.1	200.5	7.89	13.98	30.83
525+	525	1112	7	102	16	232	G 3	NPT 3	250	9.84	191	7.52	1033.2	40.7	200.5	7.89	15.32	33.78
630+	630	1335	7	102	16	232	G 3	NPT 3	250	9.84	191	7.52	1271.2	50.0	200.5	7.89	19.24	42.42

* Nominal pressure: 7 bar(e)/102 psig; temperature: 20°C/68°F. ** No inPASS model available for the SFA range.

Filter size	Nominal capacity		Reference pressure		Maximum pressure		Connections	Dimensions						Weight	
								A		B		C*			
Flanged	l/s	cfm	bar(g)	psig	bar(e)	psig		mm	inch	mm	inch	mm	inch	kg	lbs
480+	480	1017	7	102	16	232	DN 80	370	15	316	12	1295	51	76	168
630+	630	1335	7	102	16	232	DN 80	370	15	316	12	1295	51	78	172
970+	970	2055	7	102	16	232	DN 100	510	20	451	18	1360	54	141	311
1260+	1260	2670	7	102	16	232	DN 100	510	20	451	18	1360	54	143	315
1600+	1600	3390	7	102	16	232	DN 150	620	24	506	20	1480	58	210	463
2100+	2100	4450	7	102	16	232	DN 150	640	25	541	21	1555	61	176	388
2500+	2500	5297	7	102	16	232	DN 150	640	25	541	21	1555	61	178	392
3000+	3000	6357	7	102	16	232	DN 200	820	32	701	28	1745	69	420	926
3500+	3500	7416	7	102	16	232	DN 200	820	32	701	28	1745	69	424	935
4000+	4000	8476	7	102	16	232	DN 200	820	32	701	28	1745	69	428	944
5000+	5000	10594	7	102	16	232	DN 200	820	32	701	28	1745	69	432	952
6000+	6000	12713	7	102	16	232	DN 250	920	36	815	32	2085	82	671	1479
7000+	7000	14832	7	102	16	232	DN 250	920	36	815	32	2085	82	679	1497
8000+	8000	16951	7	102	16	232	DN 300	1040	41	930	37	2070	81	896	1975
9000+	9000	19070	7	102	16	232	DN 300	1040	41	930	37	2070	81	900	1984

* +60 mm/2.36 in for units with an electronic drain & +70 mm/2.76 in for a mechanical float.

WSD Series

High-performance water separators

Atlas Copco's WSD prevents condensed water from building up in your air system. The water separator comes as standard with Atlas Copco's aftercoolers and can also be installed at any point in your system.

Your benefits:

- **A reliable air system** - The corrosion-proof drain prevents condensed water from building up in your air system.
- **Minimal maintenance** - The water separator does not have moving parts and is thus maintenance-free. It comes with an automatic and a manual drain.
- **Energy savings** - The intelligent drain function monitors condensate build-up with liquid level sensors. It drains the condensate only when required to avoid using compressed air inefficiently.
- **Flexible installation** - WSD water separators can be installed at any point in your air net.

Sizing & dimensions

Type	Capacity range		Reference pressure		Maximum pressure		Connections		Dimensions						Weight	
									A		B		C			
	l/s	cfm	bar(e)	psi	bar(e)	psi	G	NPT	mm	inch	mm	inch	mm	inch	kg	lbs
WSD 25+	7-25	15-53	7	102	16	232	G 1/2	NPT 1/2	106	4.2	90	3.5	353	13.9	1.1	2.4
WSD 75+	26-75	54-159	7	102	16	232	G 1	NPT 1	135	5.3	110	4.3	453	17.8	2.1	4.6
WSD 180+	76-180	160-381	7	102	16	232	G 1 1/2	NPT 1 1/2	175	6.9	143	5.6	592	23.3	4.32	9.5
WSD 300+	181-300	382-636	7	102	16	232	G 2	NPT 2	222	8.7	171	6.7	805	31.7	7.74	17.1
WSD 360+	181-360	382-763	7	102	16	232	G 2	NPT 2	222	8.7	171	6.7	805	31.7	7.74	17.1
WSD 800+	361-800	764-1695	7	102	16	232	G 3	NPT 3	250	9.8	191	7.5	1028	40.5	11.3	24.9

* Blind flange to be machined up to this diameter.

H Series

Guaranteed air purity up to 350 bar

High-pressure filters efficiently reduce oil aerosol, dust and wet dust, particulates, water droplets and oil vapor in your compressed air stream to protect your investment, equipment and processes. Our innovative high-pressure filtration solutions are engineered to cost-effectively provide the best air purity and meet today's increasing quality demands for working pressures of up to 350 bar. All high-pressure filter housings are hydraulically tested to ensure safe and reliable operation at all times. A pressure test certificate accompanies each filter.

Your benefits:

- **Maximum contaminant removal (dry & wet dust, particulates, oil aerosol and water droplets)** - High-efficiency glass fiber and fleece media.
- **Significant energy savings & limited system operation costs** Optimal design and filter media allow for low pressure losses.
- **High reliability** - Strong and durable stainless-steel cores, double O-rings, epoxy-sealed caps and filter housing with anti-corrosive coating.

Applications

- Chemical
- Food & beverage
- Manufacturing
- Military
- Oil & gas

Performance

	DDHp+	PDHp+	DDH+	PDH+	QDH+
Contaminant	Dry dust		Oil aerosol/wet dust		Oil vapor
Test method	ISO 8573-4:2019 ISO 12500-3:2009		ISO 8573-2:2018 ISO 12500-1:2007		ISO 8573-5:2001
Maximum oil carry-over (mg/m³)	-	-	0.08*	0.007*	0.003**
Particle removal efficiency (% at MPPS)	99.92 (0.1)	99.98 (0.06)	N/A	N/A	N/A
ISO class 8573-1	[2:-:-]	[1:-:-]	[2:-:3]	[1:-:2]	[3:-:1]
Dry pressure drop (mbar)	85	100	N/A	N/A	140
Wet pressure drop (mbar)	N/A	N/A	180	215	N/A
Element service	After 4,000 operating hours or 1 year or 350 mbar pressure drop		After 4,000 operating hours or 1 year		After 1,000 operating hours or 1 year
Precede with	N/A	DDHp+	N/A	DDH+	DDH+/PDH+

Always install a liquid water separation system in front of a filter. Water separation is not needed in the high-pressure line if there is a sufficiently low PDP in the low-pressure line (e.g. nitrogen skid, low-pressure line with adsorption dryer).

* Inlet oil concentration = 10 mg/m³. Oil = oil aerosol and liquid.
** After DD+/PD+ with inlet oil concentration of 10 mg/m³.

Sizing & dimensions

Filter size	Nominal capacity			Connections	Dimensions						Weight	
					A		B		C			
DDH, DDHp, PDH, PDHp, QDH	m³/h	l/s	cfm	in	mm	in	mm	in	mm	in	kg	lbs
20 bar aluminum												
10+	36	10	21	1/2	106	4.2	90	3.5	312	12.3	1.2	2.6
25+	90	25	53	1/2	106	4.2	90	3.5	312	12.3	1.3	2.8
40+	144	40	85	1/2	106	4.2	90	3.5	364	14.3	1.4	3.2
75+	270	75	159	3/4	135	5.3	110	4.3	433	17	2.4	5.4
125+	450	125	265	1	135	5.3	110	4.3	518	20.4	2.9	6.3
185+	666	185	392	1 1/2	175	6.9	143	5.6	549	21.6	5.1	11.2
245+	882	245	519	1 1/2	175	6.9	143	5.6	619	24.4	5.6	12.3
305+	1098	305	646	1 1/2	175	6.9	143	5.6	689	27.1	6.1	13.5
405+	1458	405	858	2	222	8.7	171	6.7	720	28.3	9.3	20.6
505+	1818	505	1070	2	222	8.7	171	6.7	813	32	10.4	22.9
605+	2178	605	1282	2 1/2	222	8.7	171	6.7	813	32	10.2	22.5
50 bar aluminum												
160+	160	44	94	1/4	63	2.5	63	2.5	150	5.9	0.3	0.7
250+	250	69	147	3/8	63	2.5	63	2.5	190	7.5	0.3	0.7
450+	450	125	265	1/2	114	4.5	114	4.5	305	12.0	2.6	5.7
550+	550	153	324	3/4	114	4.5	114	4.5	305	12.0	2.6	5.7
835+	835	232	491	1	114	4.5	114	4.5	395	15.6	3.3	7.3
1250+	1250	347	736	1 1/2	146	5.8	146	5.8	435	17.1	7.5	16.5
1725+	1725	479	1015	1 1/2	146	5.8	146	5.8	435	17.1	7.5	16.5
1925+	1925	535	1133	2	146	5.8	146	5.8	435	17.1	7.5	16.5
3200+	3200	889	1883	2	146	5.8	146	5.8	635	25.0	10	22.0
50 bar stainless steel												
100+	100	28	59	1/4	85	3.4	85	3.4	202	8.0	1.7	3.7
200+	200	56	118	3/8	85	3.4	85	3.4	227	8.9	2	4.4
340+	340	94	200	1/2	85	3.4	85	3.4	257	10.1	2.2	4.8
500+	500	139	294	3/4	110	4.3	110	4.3	270	10.6	4	8.8
1000+	1000	278	589	1	110	4.3	110	4.3	422	16.6	5	11.0
1700+	1700	472	1000	1 1/2	150	5.9	150	5.9	517	20.4	15	33.1
2040+	2040	567	1200	2	150	5.9	150	5.9	517	20.4	15	33.1
3400+	3400	944	2000	2	150	5.9	150	5.9	817	32.2	21	46.3
100 bar stainless steel												
100+	100	28	59	1/4	65	2.6	65	2.6	135	5.3	3.2	7.1
315+	315	88	185	1/2	65	2.6	65	2.6	250	9.8	5.6	12.3
460+	460	128	271	3/4	88	3.5	88	3.5	275	10.8	6.1	13.4
680+	680	189	400	1	135	5.3	135	5.3	265	10.4	10.5	23.1
1200+	1200	333	706	1	135	5.3	135	5.3	480	18.9	14.7	32.4
1700+	1700	472	1000	1 1/2	150	5.9	150	5.9	525	20.7	22	48.5
3400+	3400	944	2000	2	150	5.9	150	5.9	815	32.1	28	61.7
350 bar stainless steel												
48+	48	13	28	1/4	41	1.6	41	1.6	103	4.0	1.6	3.5
111+	111	31	65	1/4	65	2.6	65	2.6	135	5.3	3.2	7.1
255+	255	71	150	1/2	88.5	3.5	88.5	3.5	210	8.2	5.6	12.3
510+	510	142	300	3/4	88.5	3.5	88.5	3.5	280	10.9	6.1	13.4
750+	750	208	441	1	150	5.9	150	5.9	330	12.9	14.5	32.0
1330+	1330	369	783	1	150	5.9	150	5.9	480	18.7	17.4	38.3

Correction factors

20 bar aluminum										
Operating pressure	barg	-	7	8	10	12	14	16	18	20
	psig	-	102	116	145	174	203	232	261	290
Correction factor			0.59	0.63	0.71	0.78	0.84	0.9	0.95	1

50 bar aluminum & stainless steel										
Operating pressure	barg	4	6	8	10	15	20	30	40	50
	psig	58	87	116	145	218	290	435	581	726
Correction factor		0.14	0.22	0.28	0.34	0.47	0.56	0.7	0.85	1

100 bar stainless steel										
Operating pressure	barg	20	30	40	50	60	70	80	90	100
	psig	290	435	581	726	871	1016	1161	1306	1451
Correction factor		0.45	0.57	0.68	0.8	0.84	0.88	0.92	0.96	1

350 bar stainless steel										
Operating pressure	barg	-	-	50	100	150	200	250	300	350
	psig	-	-	726	1451	2177	2903	3628	4354	5080
Correction factor				0.73	0.78	0.82	0.87	0.91	0.96	1

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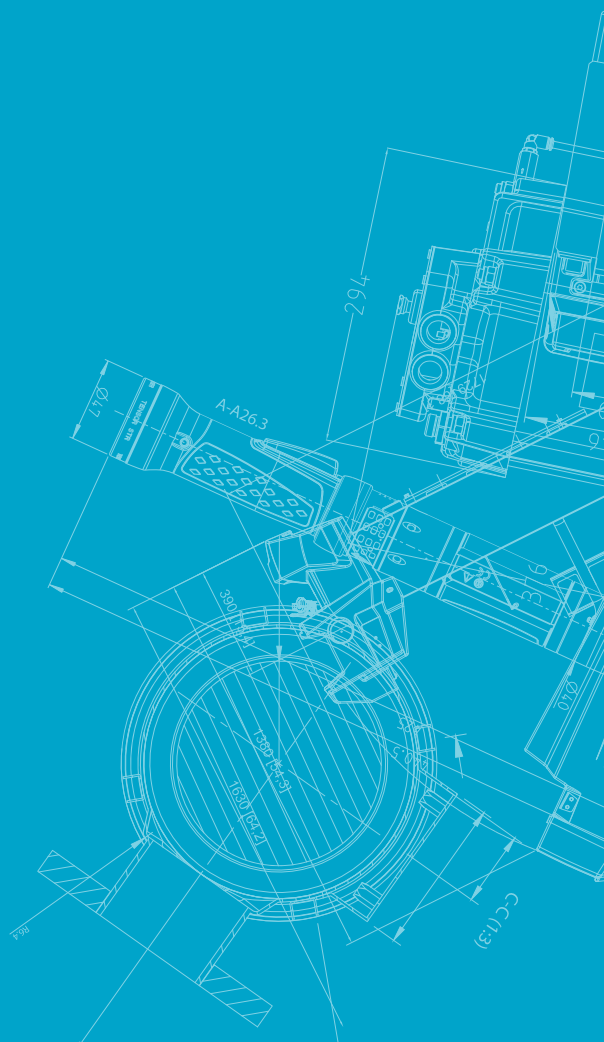

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