

Refrigerant air dryers



Atlas Copco

FD series (6-4000 l/s, 13-8480 cfm)



A detailed view of an industrial air compressor system. The image shows a complex arrangement of copper pipes, black cylindrical tanks, and various mechanical components. The system is housed in a dark grey metal frame. In the background, there are large, circular, metallic components, possibly part of the compressor's internal mechanism. The overall scene is industrial and technical.

Why dry your compressed air?

Compressed air is used in a wide variety of industrial applications. Wherever it is used, compressed air must be clean and dry. Containing solid, liquid and gaseous contaminants, untreated compressed air poses a substantial risk as it can damage your air system and end product. Moisture, one of the main components of untreated air can cause corrosion in pipe work, premature failure of pneumatic equipment, product spoilage and more. An air dryer is therefore essential to protect your systems and processes.

Limit the risks of moisture

When the air that surrounds us is compressed, its water vapor and particle concentration increases dramatically. For example, compressing ambient room air to 7 bar(e)/ 100 psig increases the vapor content or humidity by a factor of around 8, and subsequent cooling forms liquid water. The amount of water depends on the specific application. Compressed air can actually contain three forms of water: liquid water, aerosol (mist) and vapor (gas). An efficient means of removing water from compressed air is therefore vital.

Moisture in the air can be particularly problematic, causing:

- Corrosion of compressed air piping.
- Damages & malfunction of air powered equipment.
- Compressed air leakages due to corroded pipes.
- Poor paint quality, deterioration of electrostatic painting processes.
- Deteriorated end product quality.



Protecting your reputation and production

Removing moisture from compressed air with a dewpoint as low as +3°C/+37.4°F, FD refrigerant dryers provide the clean, dry air you need to expand the life of your equipment and ensure the quality of your end product.

Keeping your production up and running

FD dryers are designed in-house, tested using the most stringent methods (at ambient temperatures up to 50°C/122°F) and manufactured on a very advanced production line. FD dryers meet or exceed the international standards for compressed air purity and are tested according to ISO 7183:2007.

Driving down energy costs

Our FD dryers incorporate a range of energy-saving features that will cut your carbon footprint and reduce costs. Incorporating unique heat exchanger technology and Saver Cycle Control, the FD ensures a low pressure drop of typically below 0.2 bar/2.9 psi and minimal energy consumption. The integrated Variable Speed Drive (VSD) technology offers extra energy savings by automatically tuning the energy input to the precise demand.

Easy installation and long maintenance intervals

FD dryers have a small footprint thanks to an innovative all-in-one design. Delivered ready for use, installation is straightforward, minimizing costly production downtime. FD dryers come as all-in-one packages including an electronic no-loss drain and spin-on DD/PD filters (optional).

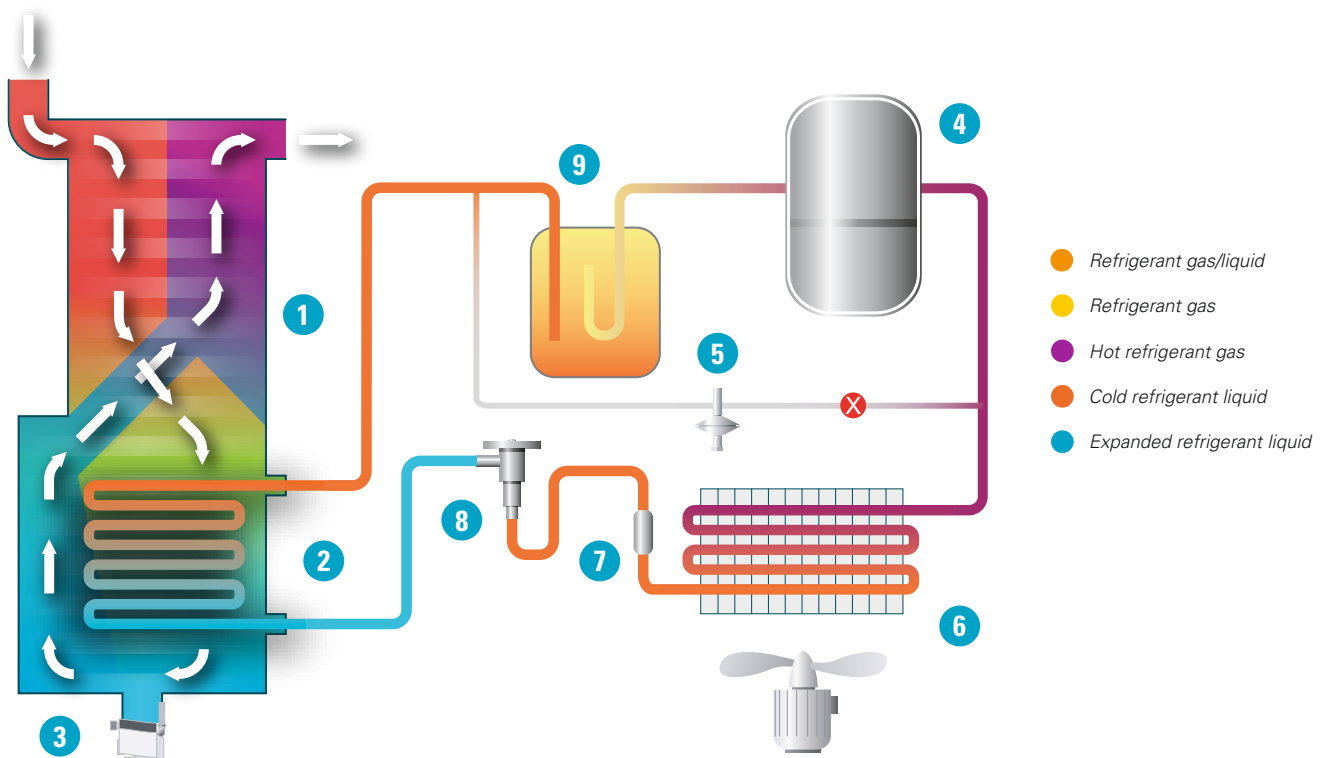
Low environmental impact

Fully compliant with ISO 14001 standards and Montreal Protocol regulations, FD dryers use CFC-free refrigerants (R134A, R410A, R404A) to prevent any damage to the earth's ozone layer. FD dryers have an ozone depletion potential (ODP) of zero and are enclosed in a sound suppression canopy to reduce the noise levels, making FD dryers among the most environmentally friendly and quietest in their class.

How does the FD dryer work?

A refrigerant dryer uses a refrigerant circuit and heat exchanger(s) to pre-cool air, refrigerate it to condense out moisture vapor, and then re-heat the air to prevent pipe sweating downstream. Refrigerant dryers can lead to a pressure dewpoint (PDP) as low as +3°C/+37.4°F for many applications where there is a need for dry air. They can be used at different pressures and consume no processed compressed air.

Typical working principle of direct expansion dryers



Air circuit

- 1 Air-to-air heat exchanger: Incoming air is cooled down by the outgoing dry cold air
- 2 Air-to-refrigerant heat exchanger: The air is cooled to the required dewpoint by the refrigerant circuit. The water vapor condenses into water droplets
- 3 Integrated water separator: The moisture is collected and evacuated by the electronic drain

Refrigerant circuit

The refrigerant removes the heat from the compressed air and cools down to the desired dewpoint.

- 4 Refrigerant compressor: Compresses the gaseous refrigerant to a higher pressure
- 5 Regulation device: The hot gas bypass valve regulates the dryer to prevent freezing at lower load conditions
- 6 Refrigerant condenser: Cools the refrigerant so that it changes from a gas to a liquid
- 7 Refrigerant filter: Protects the expansion device from harmful particles
- 8 Thermostatic expansion valve: The expansion process reduces the pressure and cools the refrigerant further
- 9 Liquid separator: Ensures that only refrigerant gas enters the compressor

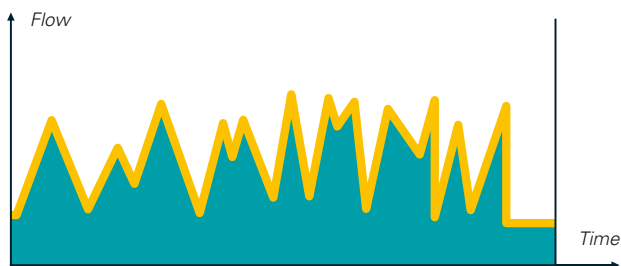
Atlas Copco's FD refrigerant dryers

Based on years of experience in the industry, we have chosen to incorporate direct expansion technology with cycling, non-cycling and Variable Speed variants in its range.



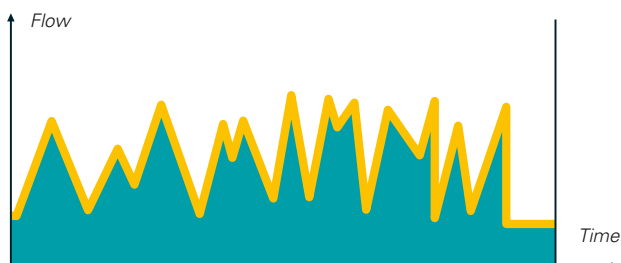
Direct expansion dryers without Saver Cycle Control (non-cycling)

- Applications: stable dewpoint, full load applications.
- Key advantage: fixed speed dryers run continuously to ensure a stable dewpoint by design (irrespective of varying load conditions).
- Range: FD 5-1010.



Direct expansion dryers with Saver Cycle Control (cycling)

- Applications: varying temperatures, varying flows.
- Key advantage: cycling dryers shut down the refrigerant compressor at lower load conditions which leads to significant energy savings.
- Range: FD 5-1010.



Variable speed dryers (VSD = Variable Speed Drive)

- Applications: varying temperatures, varying flows.
- Key advantage: VSD dryers match the energy consumed to the actual compressed air used. This ensures supreme energy savings as well as a stable dewpoint across the whole spectrum of temperature and flow.
- FD 760-4000 VSD.

Supreme energy efficiency

When purchasing a refrigerant dryer, the main focus is usually on the initial cost. What is mostly overseen is that this only represents approximately 10% of the lifecycle cost, the rest being taken up by energy, maintenance and installations costs. Of these, direct and indirect energy costs (pressure drop) are the most important.

Indirect energy costs

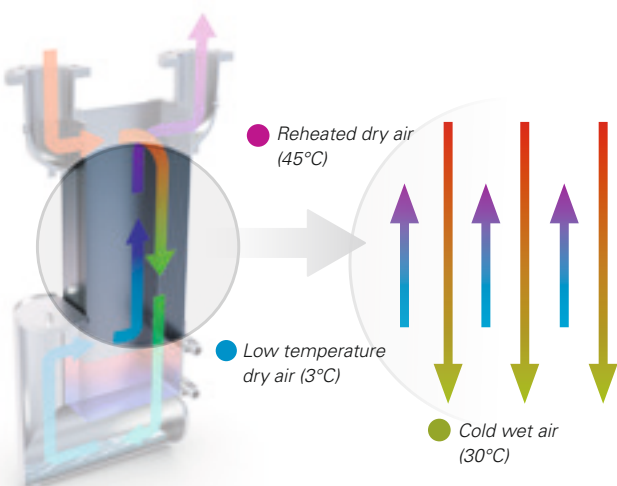
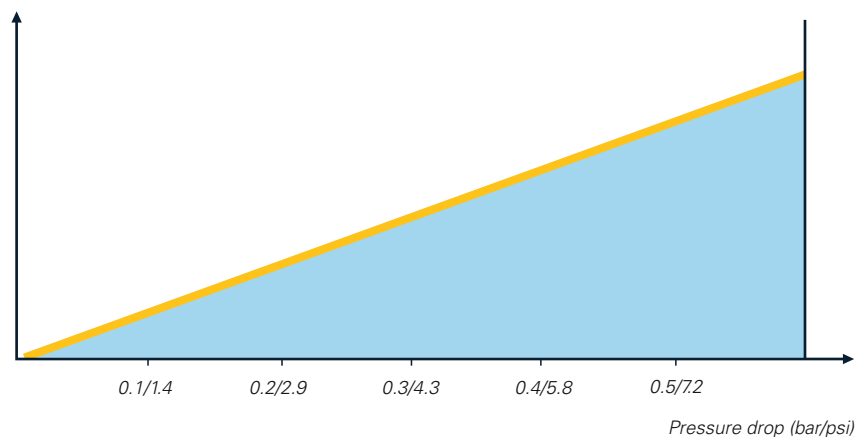
Indirect energy costs are related to the extra energy your air compressor will consume to overcome the pressure drop of the air dryer. By design, Atlas Copco FD refrigerant dryers offer a low pressure drop and efficient heat transfer – both of which contribute to a reduction of the indirect energy costs.

Low pressure drops

If a refrigerant dryer has a high internal pressure drop, the compressor needs to run at a higher pressure. As illustrated in the example, this wastes energy and increases operating costs. Atlas Copco has therefore put considerable efforts into minimizing pressure drops in its dryers. A low pressure drop of typically below 0.2 bar/2.9 psi at full flow is ensured by the heat exchanger technology, an integrated low velocity water separator, and generously sized components.

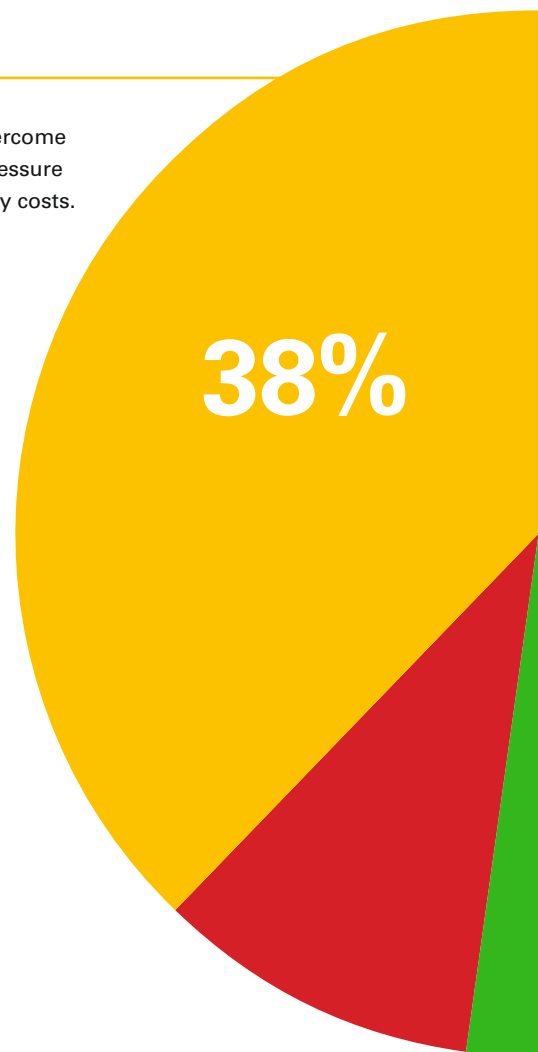
Example of the costs related to high pressure drop

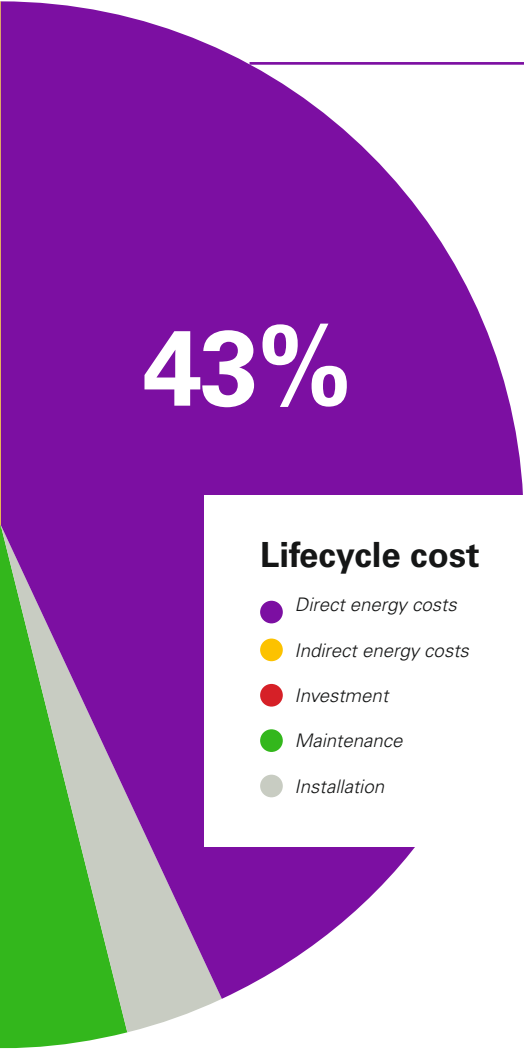
Annual energy cost



Efficient heat transfer through unique heat exchanger technology

The FD dryer uses a counter flow heat exchanger on both the air-to-air and air-to-refrigerant side. Compared to a cross flow heat exchanger, the counter flow design results in a more efficient heat transfer and stable temperatures. This significantly lowers energy consumption.





43%

Lifecycle cost

- Direct energy costs
- Indirect energy costs
- Investment
- Maintenance
- Installation

Direct energy costs

Direct energy costs are related to the power that the dryer consumes. Atlas Copco's FD dryers incorporate a variety of state-of-the-art technologies such as Saver Cycle Control and Variable Speed Drive. These features result in further savings on energy costs, depending on your air consumption profile.

Saver Cycle Control

To help you save energy, Atlas Copco FD dryers are able to adapt their working cycle to the real load by continuously monitoring and comparing the ambient temperature and the pressure dewpoint. When there is less heat load, the refrigerant compressor stops and power consumption is significantly reduced.

Variable Speed Drive (VSD)

The VSD controller incorporated in certain FD refrigerant dryers matches the energy consumed to the actual compressed air used. This significantly reduces energy consumption – by as much as 70% compared to conventional dryers. It works by varying the speed of the compressor and ensuring a stable dewpoint. In this way the speed of the refrigeration compressor can be matched to inlet conditions, resulting in lower energy consumption at reduced loads.

Flow switch

If the compressor is unloaded for some time, the flow switch shuts down the refrigerant compressor automatically, typically after ten minutes, saving energy.



Reduce your total lifecycle cost by up to

50% with Atlas Copco's
FD dryers

- Up to **50% savings** on indirect energy costs
- Up to **70% savings** on direct energy costs

FD 5-95 & FD 120-285: Superior productivity



Electronic no-loss condensate drain

- Level sensor senses the level of the condensate and opens the drain, preventing any loss of compressed air when condensate is drained.
- Equipped with backup manual drain as standard and drain alarm (FD 120-285).

High-efficiency heat exchanger

Counter-flow compact brazed plate (FD 5-50) or aluminum (FD 60-285) heat exchanger, with air-to-air side for optimum cooling efficiency.



Optimum performance and safety in all conditions

- Hot gas bypass valve prevents freezing at lower loads.
- R134A piston compressor with high coefficient of performance (FD 5-50) or extremely reliable R410A rotary compressor (FD 60-285) provide the best performance for each size while having minimum environmental impact. Capillary tubes cope with all conditions – no moving parts for extra reliability.
- FD 120-285 also offer condenser with louvered fin technology for improved performance in dusty environments.



Fan switch

Reduces energy consumption and optimizes the pressure dewpoint at very low temperatures.

Robust and compact design

- Forklift opening for easy transport.
- Easily removed front and side panels for full access.
- Optional: IP54, oil-coalescing filters (with pressure drop monitoring for FD 120-285)



**The type of controller may vary depending on the model.*

Advanced control and monitoring system

- The controller displays the pressure dewpoint (PDP) and relative humidity.
- Setting allows dryer to cycle or not (Saver Cycle Control algorithm) and restart or not after power failure.
- Remote alarm and start/stop control through voltage-free contact.
- The controller offers additional features such as energy-saving flow switch algorithm, alarm history, standard remote visualization (Ethernet plug) and communication extension possibility (FD 120-4000).

FD 310-4000: Superior productivity

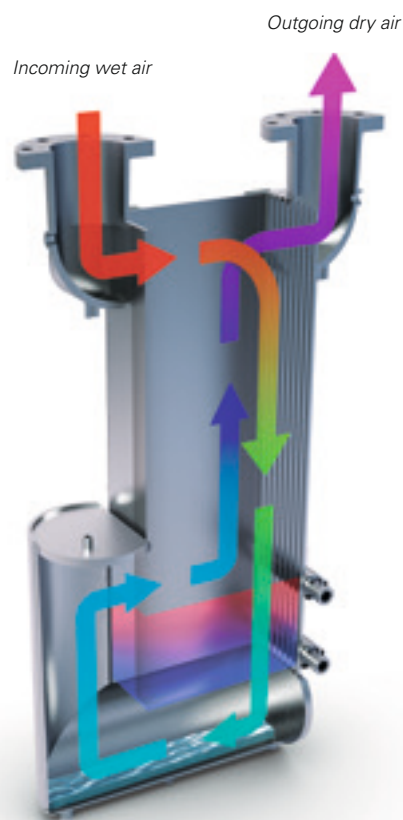
High-efficiency heat exchanger

- Counter-flow on both air-to-air and air-to-refrigerant sides for efficient heat transfer. As the outgoing air is reheated, it protects the outlet piping against pipe sweating.
- Unlike some other dryer designs, a separate pre-filter is not required. This results in a low pressure drop. The design ensures a smooth air flow which makes the dryer less sensitive to contamination.



Integrated water separator

- Low velocity condensate separator with high separation efficiency even in low flow conditions.
- Reliable and effective condensate evacuation from the separation chamber via the no-loss condensate drain.



Electronic no-loss condensate drain

Level sensor senses the level of the condensate and opens the drain, preventing any loss of compressed air when condensate is drained, which is the case with timer-based drains.





User-friendly state-of-the-art Elektronikon® controller

- Monitoring of all parameters to ensure maximum reliability for your installation.
- Fitted inside a real IP54 cubicle for easy cabling and safety.

Hot gas bypass valve

Prevents freezing at lower loads.

Filters

For processes requiring higher levels of filtration, Atlas Copco offers integrated DD and PD filters (optional on FD 310-510).



** The type of controller may vary depending on the model.*

A step ahead in monitoring and controls

Atlas Copco's Elektronikon® controls and monitors your FD refrigerant dryers to ensure optimal productivity and efficiency at your site.

User-friendly interface

Available in 32 languages, this graphical 3.5-inch high-definition color display with pictograms and LED indicators for key events is easy to use. The keyboard is durable to resist tough treatment in demanding environments.

Comprehensive maintenance display

Valuable items of information displayed include the ServicePlan indicator and preventive maintenance warnings.



Internet-based visualization*

The Elektronikon® system monitors and displays key parameters such as dewpoint and inlet temperature, etc. Internet-based visualization of your dryer is possible by using a simple Ethernet connection.

SMARTLINK*: Data Monitoring Program

- A remote monitoring system that helps you optimize your compressed air system and save you energy and cost.
- It offers you a complete insight in your compressed air network and anticipates on potential problems by warning you up-front.

* Please contact your local sales representative for more information.



Optimize your system

With the FD, Atlas Copco provides an all-in-one standard package incorporating the latest technology in a built-to-last design. To further optimize your FD's performance or to simply tailor it to your specific production environment, optional features are available.

Scope of supply

Avoid risk of corrosion and system leaks, and ensure the effective safe disposal of untreated condensate – all within ISO 14001 standards.

Cooling circuit	Integrated electronic no-loss drain
Electrical components	Elektronikon® control
	Voltage-free contacts for remote alarm signal
	Digital pressure dewpoint readout
Mechanical components	Counter-flow air-to-air heat exchanger
	Counter-flow air-to-refrigerant heat exchanger

Additional features & options

		FD 5-95	FD 120-285	FD 310-510	FD 610-1010	FD 4000 VSD
General	High efficiency coalescing filters	• (1)	• (2)	• (3)	-	-
	Anchor pads	✓	✓	•	•	•
Motor	VSD control	-	-	-	•(4)	✓
	Saver Cycle Control	✓	✓	✓	✓	✓
	Control panel protection to IP23	✓	✓	✓	-	-
	Control panel protection to IP54	•	•	•	✓	✓
	Flow switch	-	✓	✓	✓	✓
Other options	Pressure dewpoint alarm	✓	✓	✓	✓	✓
	Automatic hot gas bypass valve	✓	✓	✓	✓	✓
	Automatic thermostatic valve	-	-	✓	✓	✓

(1) FD 5-50: spin-on filters - FD 60-95: integrated filters

(2) Integrated filters

(3) Spin-on filters

(4) Except FD 610

✓ : Standard • : Optional - : Not available

Refrigerant content

Dryer type	Dryer version	Refrigerant type	Refrigerant quantity	CO ₂ equivalent
Air-cooled: 50Hz				
FD 310	40/50	R410A	2	4.2
	46/56		2	4.2
	50/60		2.2	4.6
FD 410	40/50		2.7	5.6
	46/56		2.8	5.8
	50/60		3.9	8.1
FD 510	40/50		3.05	6.4
	46/56		3.4	7.1
	50/60		3.05	6.4
FD 610	40/50		2.9	6.1
FD 760	40/50		3.9	8.1
FD 760 VSD	40/50		3.6	7.5
FD 870	40/50		4.4	9.2
FD 870 VSD	40/50		4.2	8.8
FD 1010	40/50		5.5	11.5
FD 1010 VSD	40/50		4.9	10.2
Water-cooled: 50Hz				
FD 310	50/60	R410A	1.85	3.9
FD 410	50/60		2	4.2
FD 510	50/60		2.9	6.1
FD 610	40/50		3	6.3
FD 760	40/50		3.25	6.8
FD 760 VSD	40/50		3.6	7.5
FD 870	40/50		4.7	9.8
FD 870 VSD	40/50		5.9	12.3
FD 1010	40/50		4.5	9.4
FD 1010 VSD	40/50		5.9	12.3
FD 4000 VSD	40/50	R404A	18	70.6

Dryer type	Dryer version	Refrigerant type	Refrigerant quantity	CO ₂ equivalent
Air-cooled: 60Hz				
FD 310	40/50	R410A	2	4.2
	46/56		2	4.2
	50/60		2.2	4.6
FD 410	40/50		2.7	5.6
	46/56		2.8	5.8
	50/60		3.9	8.1
FD 510	40/50		3.05	6.4
	46/56		3.4	7.1
	50/60		3.05	6.4
FD 610	40/50		2.9	6.1
FD 760	40/50		3.9	8.1
FD 760 VSD	40/50		3.6	7.5
FD 870	40/50		4.4	9.2
FD 870 VSD	40/50		4.2	8.8
FD 1010	40/50		5.5	11.5
FD 1010 VSD	40/50		4.9	10.2
Water-cooled: 60Hz				
FD 310	122/140	R410A	1.6	3.3
FD 410	122/140		1.9	4
FD 510	122/140		2.8	5.8
FD 610	104/122		2.8	5.8
FD 760	104/122		3.1	6.5
FD 760 VSD	104/122		3.6	7.5
FD 870	104/122		4.7	9.8
FD 870 VSD	104/122		5.9	12.3
FD 1010	104/122		4.2	8.8
FD 1010 VSD	104/122		5.9	12.3
FD 4000 VSD	104/122	R404A	18	70.6

Technical specifications

Model	Maximum inlet conditions at full flow (ambient/inlet)	Inlet flow with a pressure dew-point (PDP) of 3°C/37.4°F		Pressure drop at full flow		Power consumption		Max. working pressure		Compressed air connections	Dimensions						Weight	
	°C	l/s	cfm	bar	psi	kW	hp	bar	psi		mm	in	mm	in	mm	in	kg	lb
Air-cooled 50 Hz																		
FD 5	50/60	6	13	0.07	1.02	0.2	0.27	16 (1)	233 (1)	R 3/4	525.5	20.7	390	15.4	530	20.9	27	60
FD 10	50/60	10	21	0.11	1.6	0.2	0.27	16 (1)	233 (1)	R 3/4	525.5	20.7	390	15.4	530	20.9	27	60
FD 15	50/60	15	32	0.12	1.75	0.33	0.45	16 (1)	233 (1)	R 3/4	525.5	20.7	390	15.4	530	20.9	32	70
FD 20	50/60	20	42	0.12	1.75	0.41	0.56	16 (1)	233 (1)	R 3/4	525.5	20.7	390	15.4	530	20.9	34	75
FD 25	50/60	25	53	0.17	2.47	0.41	0.56	16 (1)	233 (1)	R 3/4	525.5	20.7	390	15.4	530	20.9	34	75
FD 30	50/60	30	64	0.25	3.64	0.41	0.56	16 (1)	233 (1)	R 3/4	525.5	20.7	390	15.4	530	20.9	34	75
FD 40	50/60	40	85	0.2	2.91	0.57	0.76	16 (1)	233 (1)	R 1	716	28.2	389	15.3	679	26.8	57	125
FD 50	50/60	50	106	0.2	2.91	0.54	0.72	16 (1)	233 (1)	R 1	716	28.2	389	15.3	679	26.8	58	128
FD 60	50/60	60	127	0.22	3.2	0.63	0.84	13	189	R 1	795	28.2	482	19.0	804	31.7	80	176
FD 70	50/60	70	148	0.22	3.2	0.87	1.17	13	189	R 1	795	28.2	482	19.0	804	31.7	81	178
FD 95	50/60	95	201	0.22	3.2	1.18	1.58	13	189	R 1	795	28.2	482	19.0	804	31.7	87	192
FD 120	50/60	120	254	0.11	1.6	1	1.3	14	203	1 1/2	1015	40	675	26.6	881	34.7	170	375
FD 150	50/60	150	318	0.15	2.18	1	1.3	14	203	1 1/2	1015	40	675	26.6	881	34.7	170	375
FD 185	50/60	185	392	0.22	3.19	1.4	1.9	14	203	2 1/2	1024	40.3	816	32.1	943	37.1	185	408
FD 220	50/60	220	466	0.12	1.74	1.9	2.5	14	203	2 1/2	1024	40.3	816	32.1	943	37.1	197	434
FD 245	50/60	245	519	0.18	2.61	2.1	2.8	14	203	2 1/2	1024	40.3	816	32.1	943	37.1	197	434
FD 285	50/60	285	604	0.22	3.19	2.2	2.9	14	203	2 1/2	1024	40.3	816	32.1	943	37.1	197	434
FD 310	40/50	310	657	0.23	3.3	2.8	3.75	14	203	G 3	986	38.8	850	33.5	1190	46.9	198	437
FD 310	46/56	310	657	0.23	3.3	2.8	3.75	14	203	G 3	986	38.8	850	33.5	1190	46.9	200	441
FD 310	50/60	310	657	0.23	3.3	2.9	3.89	14	203	G 3	986	38.8	850	33.5	1190	46.9	202	445
FD 410	40/50	410	869	0.21	3	3	4.02	14	203	G 3	986	38.8	850	33.5	1375	54.1	220	485
FD 410	46/56	410	869	0.21	3	4.6	6.17	14	203	G 3	1250	49.2	850	33.5	1375	54.1	240	529
FD 410	50/60	410	869	0.21	3	4.8	6.44	14	203	G 3	1525	60	850	33.5	1375	54.1	290	639
FD 510	40/50	510	1081	0.20	2.9	4.5	6.03	14	203	G 3	1250	49.2	850	33.5	1375	54.1	260	573
FD 510	46/56	510	1081	0.20	2.9	6.4	8.58	14	203	G 3	1525	60	850	33.5	1375	54.1	310	683
FD 510	50/60	510	1081	0.20	2.9	6.9	9.25	14	203	G 3	1525	60	850	33.5	1375	54.1	315	694
FD 610	40/50	610	1293	0.17	2.47	4.8	6.4	14	203	DIN100	1040	40.9	1060	41.7	1580	62.2	320	705
FD 760	40/50	760	1611	0.17	2.47	5.3	7.1	14	203	DIN100	1245	49	1060	41.7	1580	62.2	380	838
FD 760 VSD	40/50	760	1611	0.17	2.47	5.3	7.1	14	203	DIN100	1245	49	1060	41.7	1580	62.2	380	838
FD 870	40/50	870	1844	0.15	2.17	6.6	8.8	14	203	DIN150	1245	49	1060	41.7	1580	62.2	400	882
FD 870 VSD	40/50	870	1844	0.15	2.17	5.8	7.8	14	203	DIN150	1245	49	1060	41.7	1580	62.2	400	882
FD 1010	40/50	1010	2141	0.17	2.47	7.4	9.9	14	203	DIN150	1580	62.2	1060	41.7	1580	62.2	460	1014
FD 1010 VSD	40/50	1010	2141	0.17	2.47	6.6	8.8	14	203	DIN150	1580	62.2	1060	41.7	1580	62.2	460	1014
Water-cooled 50 Hz																		
FD 310	50/60	310	657	0.23	3.3	2	2.68	14	203	G 3	986	38.8	850	33.5	1190	46,9	180	397
FD 410	50/60	410	869	0.21	3	2.4	3.22	14	203	G 3	1250	49.2	850	33.5	1375	54,1	240	529
FD 510	50/60	510	1081	0.2	2.9	4.1	5.5	14	203	G 3	1250	49.2	850	33.5	1375	54,1	260	573
FD 610	40/50	610	1293	0.17	2.47	3.1	4.2	14	203	DIN100	1245	49	1060	41.7	1580	62.2	350	772
FD 760	40/50	760	1611	0.17	2.47	3.6	4.8	14	203	DIN100	1245	49	1060	41.7	1580	62.2	360	794
FD 760 VSD	40/50	760	1611	0.17	2.47	3.3	4.4	14	203	DIN100	1580	62.2	1060	41.7	1580	62.2	410	904
FD 870	40/50	870	1844	0.15	2.17	4.5	6	14	203	DIN150	1245	49	1060	41.7	1580	62.2	370	816
FD 870 VSD	40/50	870	1844	0.15	2.17	4.2	5.6	14	203	DIN150	1580	62.2	1060	41.7	1580	62.2	410	904
FD 1010	40/50	1010	2141	0.17	2.47	5.1	6.8	14	203	DIN150	1245	49	1060	41.7	1580	62.2	380	838
FD 1010 VSD	40/50	1010	2141	0.17	2.47	5.6	7.5	14	203	DIN150	1580	62.2	1060	41.7	1580	62.2	410	904
FD 4000 VSD	40/50	4000	8480	0.22	3.2	279	3741	13	189	DIN250	2200	86,6	2300	90,6	1910	75,2	2010	4431

(1) 20 bar(g)/290 psi(g) variant available

FD 5-95: R134A
FD 120-1010: R410A
FD 4000 VSD: R404A

Reference conditions:
Performance data per ISO 7183:2007
• Ambient temperature: 25°C, 77°F
• Inlet compressed air temperature: 35°C, 95°F
• Inlet pressure: 7 bar(e)/102 psig

Refrigerant types:

Technical specifications

Model	Maximum inlet conditions at full flow (ambient/inlet)	Inlet flow with a pressure dew-point (PDP) of 3°C/37.4°F		Pressure drop at full flow		Power consumption		Max. working pressure		Compressed air connections	Dimensions						Weight	
	°C	l/s	cfm	bar	psi	kW	hp	bar	psi		mm	in	mm	in	mm	in	kg	lb
Air-cooled 60 Hz																		
FD 5	122/140	6	13	0.07	1.02	0.23	0.31	16 (1)	233 (1)	NPT 3/4	496	19.5	377	14.8	461	18.1	27	60
FD 10	122/140	10	21	0.11	1.6	0.23	0.31	16 (1)	233 (1)	NPT 3/4	496	19.5	377	14.8	461	18.1	27	60
FD 15	122/140	15	32	0.12	1.75	0.34	0.46	16 (1)	233 (1)	NPT 3/4	496	19.5	377	14.8	461	18.1	32	70
FD 20	122/140	20	42	0.12	1.75	0.53	0.71	16 (1)	233 (1)	NPT 3/4	496	19.5	377	14.8	461	18.1	34	75
FD 25	122/140	25	53	0.17	2.47	0.53	0.71	16 (1)	233 (1)	NPT 3/4	496	19.5	377	14.8	461	18.1	34	75
FD 30	122/140	30	64	0.25	3.64	0.53	0.71	16 (1)	233 (1)	NPT 3/4	496	19.5	377	14.8	461	18.1	34	75
FD 40	122/140	40	85	0.2	2.91	0.73	0.98	16 (1)	233 (1)	NPT 1	688	27.1	389	15.3	604	23.8	57	125
FD 50	122/140	50	106	0.2	2.91	0.79	1.06	16 (1)	233 (1)	NPT 1	689	27.1	389	15.3	604	23.8	58	128
FD 60	122/140	60	127	0.22	3.2	0.63	0.84	13	189	NPT 1	726	28.6	482	19.0	804	31.7	80	176
FD 70	122/140	70	148	0.22	3.2	0.87	1.17	13	189	NPT 1	726	28.6	482	19.0	804	31.7	81	178
FD 95	122/140	95	201	0.22	3.2	1.18	1.58	13	189	NPT 1	726	28.6	482	19.0	804	31.7	87	192
FD 120	122/140	120	254.4	0.11	1.6	1.73	2.3	14	203	NPT 1 1/2	836	32.9	661	26.0	802	31.6	170	375
FD 150	122/140	140	296.8	0.14	2.03	2.35	3.2	14	203	NPT 1 1/2	836	32.9	661	26.0	802	31.6	170	375
FD 185	122/140	170	360.4	0.22	3.19	2.32	3.1	14	203	NPT 2 1/2	1024	40.3	816	32.1	943	37.1	185	408
FD 220	122/140	220	466.4	0.12	1.74	2.58	3.5	14	203	NPT 2 1/2	1024	40.3	816	32.1	943	37.1	197	434
FD 245	122/140	230	487.6	0.18	2.61	2.85	3.8	14	203	NPT 2 1/2	1024	40.3	816	32.1	943	37.1	197	434
FD 285	122/140	285	604.2	0.22	3.19	3.09	4.1	14	203	NPT 2 1/2	1024	40.3	816	32.1	943	37.1	197	434
FD 310	104/122	310	657	0.23	3.3	4.3	5.77	14	203	NPT 3	986	38.8	850	33.5	1190	46.9	198	437
FD 310	115/133	310	657	0.23	3.3	4.6	6.17	14	203	NPT 3	986	38.8	850	33.5	1190	46.9	200	441
FD 310	122/140	310	657	0.23	3.3	4.6	6.17	14	203	NPT 3	986	38.8	850	33.5	1190	46.9	202	445
FD 410	104/122	410	869	0.21	3	4.5	6.03	14	203	NPT 3	986	38.8	850	33.5	1375	54.1	220	485
FD 410	115/133	410	869	0.21	3	6.1	8.18	14	203	NPT 3	1250	49.2	850	33.5	1375	54.1	240	529
FD 410	122/140	410	869	0.21	3	7.3	9.79	14	203	NPT 3	1525	60	850	33.5	1375	54.1	290	639
FD 510	104/122	510	1081	0.2	2.9	7.3	9.79	14	203	NPT 3	1250	49.2	850	33.5	1375	54.1	260	573
FD 510	115/133	510	1081	0.2	2.9	9.1	12.2	14	203	NPT 3	1525	60	850	33.5	1375	54.1	310	683
FD 510	122/140	510	1081	0.2	2.9	10.4	13.95	14	203	NPT 3	1525	60	850	33.5	1375	54.1	315	694
FD 610	104/122	610	1293	0.17	2.47	7.6	10.2	14	203	ANSI 4	1040	40.9	1060	41.7	1580	62.2	320	705
FD 760	104/122	760	1611	0.17	2.47	8.1	10.9	14	203	ANSI 4	1245	49	1060	41.7	1580	62.2	380	838
FD 760 VSD	104/122	760	1611	0.17	2.47	9.1	12.2	14	203	ANSI 4	1245	49	1060	41.7	1580	62.2	380	838
FD 870	104/122	870	1844	0.15	2.17	10.2	13.7	14	203	ANSI 6	1245	49	1060	41.7	1580	62.2	400	882
FD 870 VSD	104/122	870	1844	0.15	2.17	11.1	14.9	14	203	ANSI 6	1580	62.2	1060	41.7	1580	62.2	450	992
FD 1010	104/122	1010	2141	0.17	2.47	11.9	16	14	203	ANSI 6	1580	62.2	1060	41.7	1580	62.2	460	1014
FD 1010 VSD	104/122	1010	2141	0.17	2.47	11.4	15.3	14	203	ANSI 6	1580	62.2	1060	41.7	1580	62.2	460	1014
Water-cooled 60 Hz																		
FD 310	122/140	310	657	0.23	3.3	2.5	3.35	14	203	NPT 3	986	38.8	850	33.5	1190	46.9	180	397
FD 410	122/140	410	869	0.21	3.0	3.2	4.29	14	203	NPT 3	1525	60.0	850	33.5	1375	54.1	240	529
FD 510	122/140	510	1081	0.20	2.9	5.0	6.71	14	203	NPT 3	1525	60.0	850	33.5	1375	54.1	260	573
FD 610	104/122	610	1293	0.17	2.47	3.9	5.2	14	203	ANSI 4	1245	49	1060	41.7	1580	62.2	350	772
FD 760	104/122	760	1611	0.17	2.47	4.5	6	14	203	ANSI 4	1245	49	1060	41.7	1580	62.2	360	794
FD 760 VSD	104/122	760	1611	0.17	2.47	4.3	5.8	14	203	ANSI 4	1580	62.2	1060	41.7	1580	62.2	410	904
FD 870	104/122	870	1844	0.15	2.17	5.8	7.8	14	203	ANSI 6	1245	49	1060	41.7	1580	62.2	370	816
FD 870 VSD	104/122	870	1844	0.15	2.17	5.6	7.5	14	203	ANSI 6	1580	62.2	1060	41.7	1580	62.2	410	904
FD 1010	104/122	1010	2141	0.17	2.47	6.2	8.3	14	203	ANSI 6	1245	49	1060	41.7	1580	62.2	380	838
FD 1010 VSD	104/122	1010	2141	0.17	2.47	6.1	8.2	14	203	ANSI 6	1580	62.2	1060	41.7	1580	62.2	410	904
FD 4000 VSD	104/122	4000	8480	0.22	3.2	13.2	17.7	13	189	ANSI 10	2200	86.6	2300	90.6	1910	75.2	2010	4431

(1) 20 bar(g)/290 psi(g) variant available

Reference conditions:

- Ambient temperature: 38°C, 100°F
- Inlet compressed air temperature: 38°C, 100°F
- Inlet pressure: 7 bar(e)/102 psig

Refrigerant types:

FD 5-95: R134A
FD 120-1010: R410A
FD 4000 VSD: R404A

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





Atlas Copco



On-site industrial gases

Nitrogen & oxygen generators

A secure supply of nitrogen and oxygen

Whether your company is specialized in chemical manufacturing, electronics, laser cutting or food and beverage, a dependable supply of industrial gas is crucial. Compared to the on-demand delivery of gas bottles or tanks, on-site production of gas offers a wealth of advantages ranging from cost savings to continuous availability. Atlas Copco's advanced nitrogen and oxygen generators offer you the ultimate solution: flexible on-site production of industrial gas at the lowest possible cost.

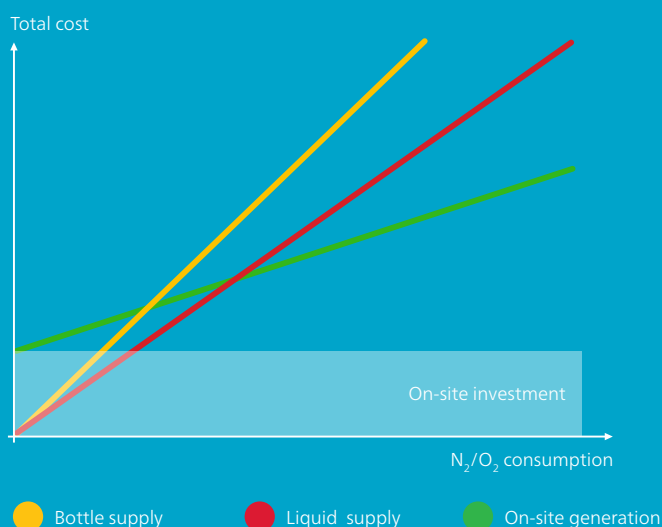


On-site vs. liquid or bottled gas

- Your own independent supply of industrial gas.
- Non-stop availability: 24 hours a day, 7 days a week.
- Significant economies of scale and lower operational costs: no rental charges, transport expenses and bulk user evaporation losses.
- No safety hazards when handling high pressure cylinders.
- Easy integration within existing compressed air installations.

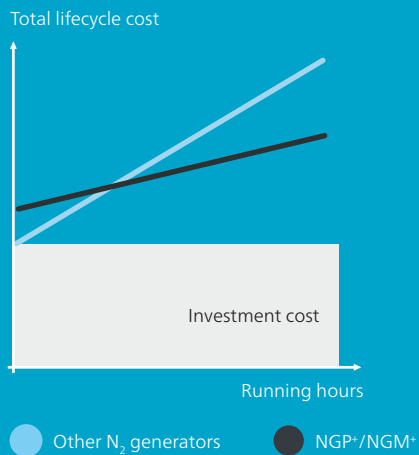
Liquid/bottled gas	On-site generation
Lease tank	Capital
N ₂	Energy
Transport	Maintenance
0.1-0.8 EUR/m ³ (*)	0.02-0.15 EUR/m ³ (**)
N ₂ : 99.999%	N ₂ : 95-99.999%

(*) Industry average, other price settings might apply.
 (**) Depending on purity and electricity cost.



High reliability

- Proven technology: simple, reliable and durable.
- The exact purity your application demands.
- Low operating costs for extra cost-efficiency.
- World-class expertise in a unique market offer from compressed air to gas.



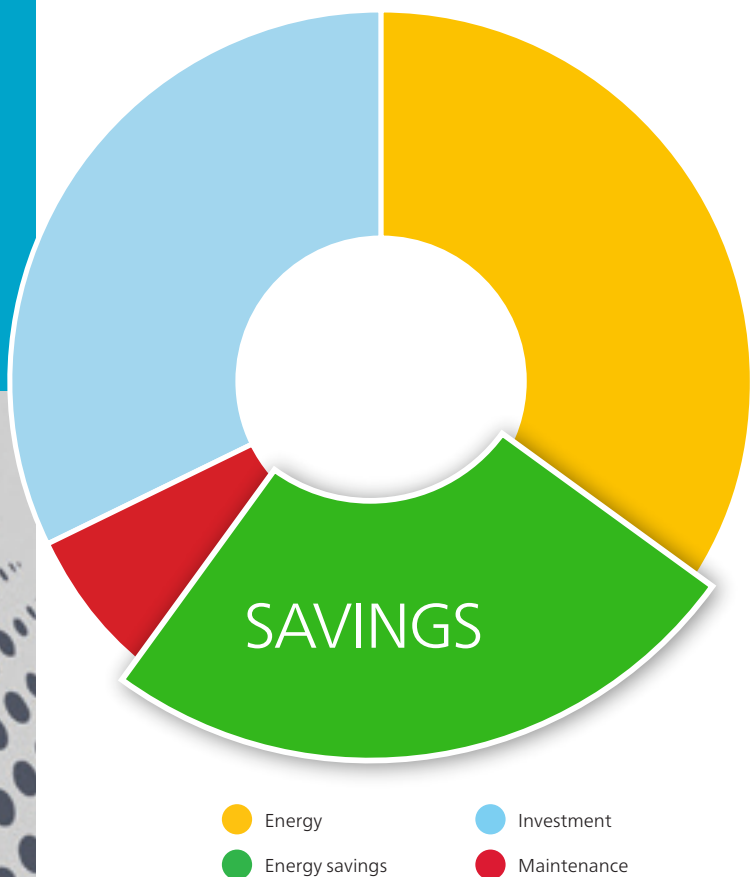
With an air factor* of 1.8 (at 95%) to 5.5 (at 99.999%) and a special cycle time modulation algorithm, the running cost of the new NGP+ can be reduced by 50%, compared to other N₂ generators.

* The air factor is calculated by dividing the inlet air your system needs by the amount of N₂ it produces. The lower the air factor, the more efficient your nitrogen generation.

New generation membrane & PSA generators will change the market

Atlas Copco's latest membrane and PSA generators extend the advantages of the current range. Total lifecycle cost consists of the initial investment cost of the on-site installation, the service cost, and the energy cost. The NGP/NGM range has the lowest investment cost.

However, with increasing running time, you are better advised to switch to the NGP+/NGM+ range to reduce energy costs.



Wide range of applications

- Food & beverage (storage & packaging).
- Pharmaceutical applications.
- Plastic injection molding.
- Electronics.
- Laser cutting.
- Semiconductor manufacturing.
- Chemical applications.
- Metal heat treatment.
- Cable & optical fiber industries.
- Glass industries.
- Fire prevention.
- Aquaculture.

Membrane: Compact all-in-one N₂ supply

Atlas Copco NGM/NGM⁺/NGMs nitrogen generators utilize proprietary membrane separation technology. The membrane separates compressed air into two streams: one is 95-99.9% pure nitrogen, and the other is oxygen enriched with carbon dioxide and other gases.



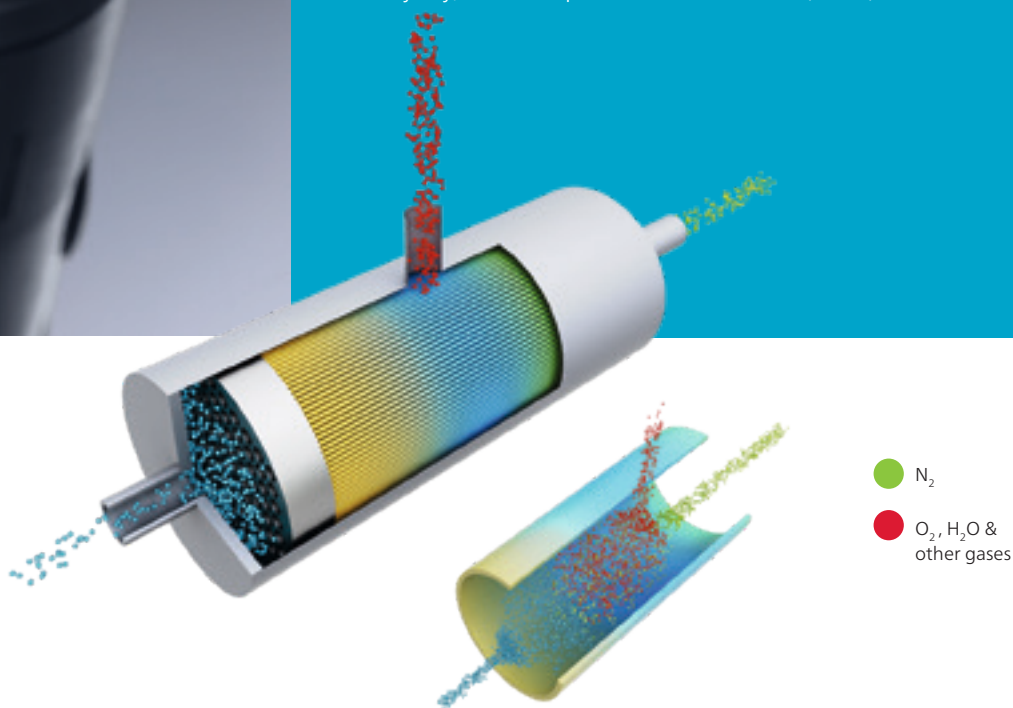
Instant supply of nitrogen between 95% and 99.9%

The generator separates air into component gases by passing inexpensive compressed air through semi-permeable membranes consisting of bundles of individual hollow fibers.

Each fiber has a perfectly circular cross-section and a uniform bore through its center. Because the fibers are so small, a large amount of fibers can be packed into a limited space, providing an extremely large membrane surface area that can produce a relatively high volume product stream.

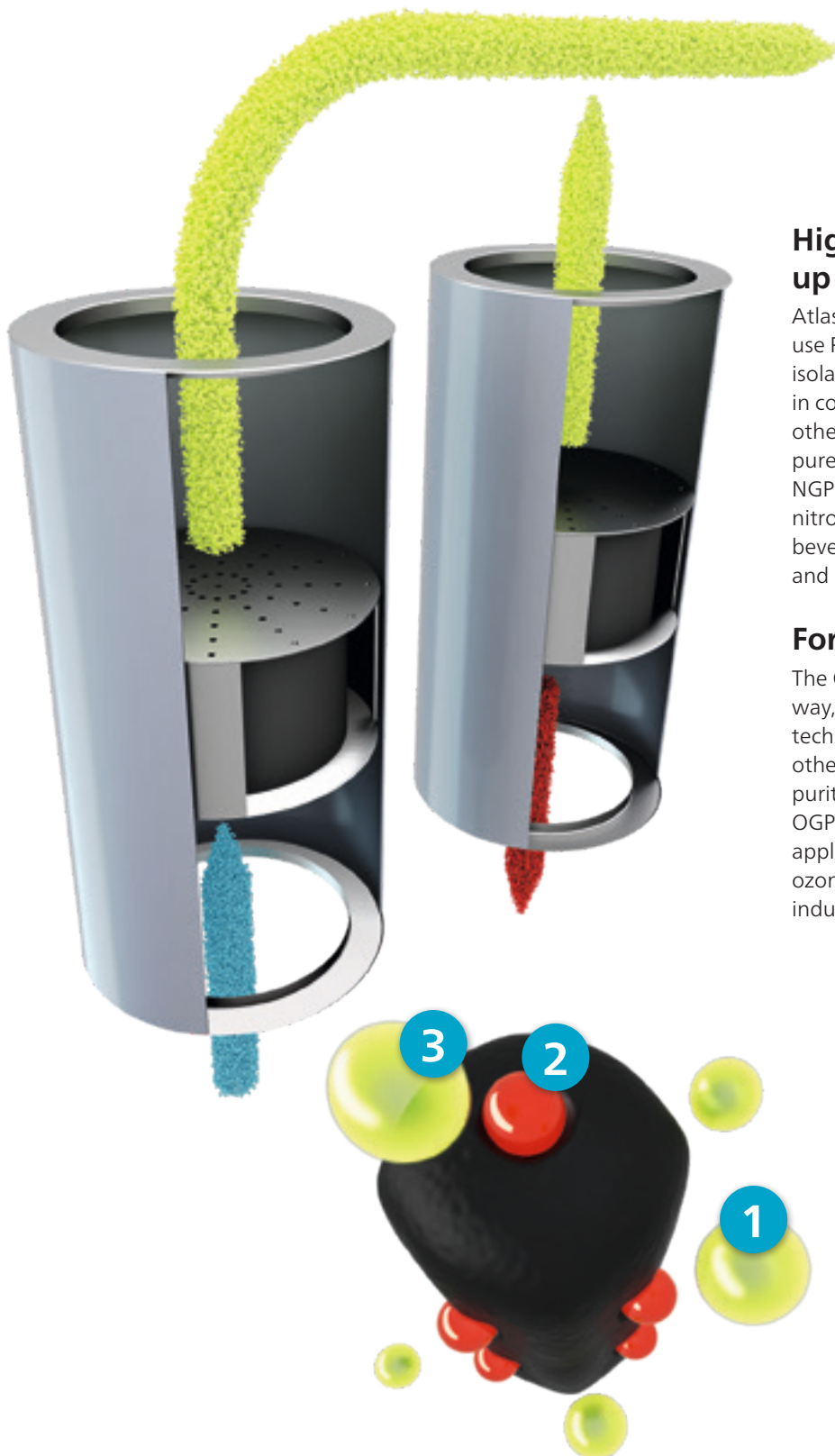
Outstandingly dry nitrogen

Compressed air is introduced into the center of the fibers at one end of the module and contacts the membrane as it flows through the fiber bores. Oxygen, water vapor and other trace gases easily permeate the membrane fiber and are discharged through a permeate port while the nitrogen is contained within the membrane and flows through the outlet port. Since water vapor permeates through the membrane as well, the nitrogen gas stream is very dry, with dewpoints as low as -50°C (-58°F).



PSA: Reliable and proven

Based on Pressure Swing Adsorption (PSA) technology, Atlas Copco's NGP/NGP⁺ nitrogen generators and OGP oxygen generators provide a continuous flow of nitrogen and oxygen at desired purity.



High purity nitrogen supply up to 99.999%

Atlas Copco's NGP/NGP⁺ nitrogen generators use Pressure Swing Adsorption technology to isolate nitrogen molecules from other molecules in compressed air. Oxygen, CO₂, water vapor and other gases are adsorbed. The result is virtually pure nitrogen at the outlet of the generator. The NGP/NGP⁺ Series is a very cost-efficient source of nitrogen used in various industries like food and beverage, metal processing, electronics, and many others.

For all your oxygen needs

The OGP oxygen generator works in a similar way, using Pressure Swing Adsorption technology to isolate oxygen molecules from other molecules in compressed air to leave high purity oxygen at the outlet of the generator. The OGP Series provides cost-efficient oxygen for applications such as waste water treatment, ozone production, health care, and the glass industry.

-  Clean and dry compressed air (pressurized)
-  Nitrogen gas (pressurized)
-  Oxygen exhaust (depressurized)
-  Adsorbent
-  1 Adsorbent
-  2 Nitrogen (or oxygen) molecules trapped in the adsorbent
-  3 Oxygen (or nitrogen) molecules passing through

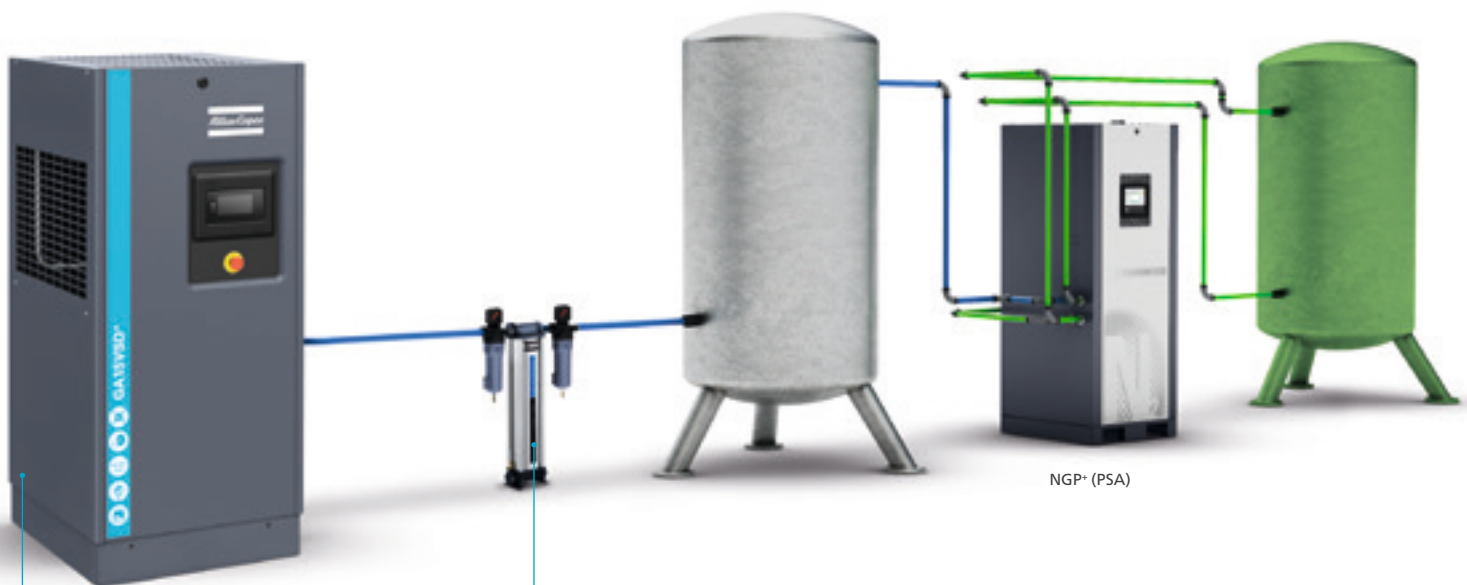
Total solutions from Atlas Copco

With a full range of nitrogen and oxygen generators to choose from, Atlas Copco brings you the right supply of nitrogen and oxygen to meet your specific needs and optimize your production process at the same time.

High quality compressed air

On-site nitrogen and oxygen generation requires the most reliable and efficient compressed air solution. Drawing on our vast experience, Atlas Copco has been leading the industry in compressed air technology for decades.

Typical installation: compressor with integrated dryer, pre-filter UD*, Active Carbon Tower QDT, dust filter, receiver, NGP* nitrogen PSA generator, receiver.



Oil-injected compressors

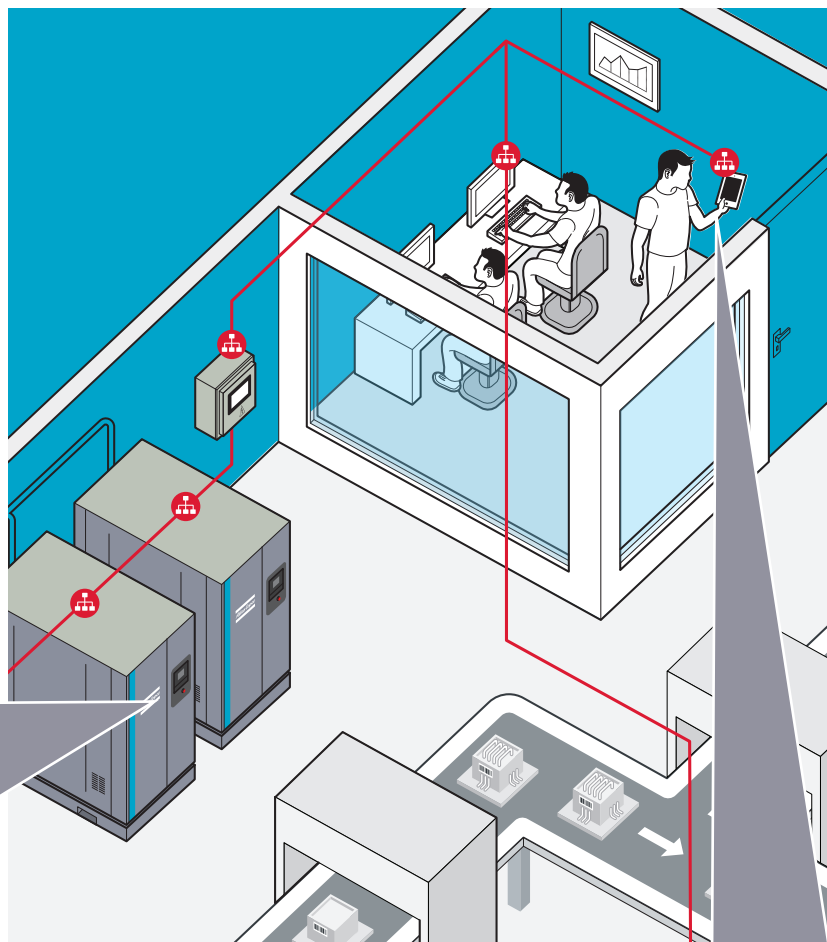
Integrated onto the production floor, Atlas Copco's oil-injected compressors provide a dependable flow of compressed air directly to the point of use. The GA range even comes with integrated dryer for high quality air. Built to perform in harsh environments, Atlas Copco compressors keep your production running smoothly and reliably: a very economical solution in combination with nitrogen and oxygen generators.

Air treatment

Atlas Copco has developed and improved air compression and drying techniques. Whatever your installation, application or quality requirements, Atlas Copco can offer the right air treatment solution, including dryers (desiccant, refrigerant, membrane) and filters (coalescing, particle, active carbon).

Advanced monitoring, control & connectivity

Do you operate a smart factory or Industry 4.0 production environment? Atlas Copco's nitrogen and oxygen generators will fit right in. Their advanced monitoring, control and connectivity features allow you to optimize performance and efficiency.



Control

The Elektronikon® operating system gives you numerous control and monitoring options to optimize compressor performance.

Always at your service

Atlas Copco is a truly global organization with support available in more than 160 countries. As a result, one of our 4850 field service engineers is never far away. We pride ourselves on the swift assistance that keeps your Atlas Copco nitrogen and oxygen system performing reliably and efficiently.

Service plan

Our service plans keep your Atlas Copco nitrogen and oxygen system in excellent shape.

Stand-by solutions

Atlas Copco help is available 24/7. We keep spare parts in stock so you are up and running again as quickly as possible.

Rental

Our specialty rental services meet your temporary compressed air needs. With Customer Centers strategically located around the globe, Atlas Copco Rental can provide a solution for virtually any application.

Connect SMARTLINK®: Data Monitoring Program

- Remote monitoring system that helps you optimize your compressed air system and save energy and costs.
- Provides a complete insight in your compressed air network.
- Anticipates potential problems by warning you upfront.

* Please contact your local sales representative for more information.

Membrane nitrogen generators (NGM, NGM+, NGMs)

Based on innovative membrane technology, Atlas Copco's membrane nitrogen generators are flexible enough to adapt to your specific applications. And with low operating costs they offer an excellent return on investment.

Ready to use

- Requires only a supply of dry compressed air.
- No specialist installation or commissioning.
- Fitted with pre-filtration, pressure gauges and flow meter to ensure accurate system monitoring at all times.

Cost savings

- Low operating expenses.
- No additional costs such as order processing, refills and delivery charges.
- Limited maintenance costs.

Exceptional convenience

- Continuous availability (24 hours a day, 7 days a week).
- Risk of production breakdown due to gas running out is eliminated.

Desired purity

- Nitrogen supply according to your need: from 5% to 0.1% oxygen content.
- Very easy to set up the device for other purity levels.

All-in-one

- Fully integrated package.
- Filters and oxygen sensor as standard.

High flow capacity

Ideal for applications such as fire prevention, tire inflation, oil & gas, marine, packaging and many more.

Long lifetime

- No aging.
- No heater.
- Lasting performance.



NGMs: efficiency in low flow nitrogen generation

If you don't need a generator with a high nitrogen flow and purity, the NGMs is your perfect solution. It meets your specific requirements with Atlas Copco quality, high efficiency, little maintenance and zero operational costs.



PSA nitrogen and oxygen generators (NGP, NGP⁺, OGP)

Atlas Copco's NGP, NGP⁺ and OGP nitrogen and oxygen generators are easy to install and use. They offer the required purity with a high flow capacity, making them suitable for a range of applications.

High flow capacity

The wide product range and gas flows exceeding 3,000 Nm³/h (NGP/NGP⁺) make these generators ideal for a variety of demanding applications.



Exceptional reliability

- Robust design.
- Continuous availability (24 hours a day, 7 days a week).
- Potential risk of production breakdown due to gas running out is eliminated.

Ready to use

- Only requires a supply of dry compressed air.
- Plug-and-play.
- No specialist installation or commissioning.
- Fully automated and monitored including oxygen sensor as standard.
- Service-friendly.



Desired purity

- NGP/NGP⁺: nitrogen concentrations from 95% to 99.999%.
- OGP: oxygen concentrations from 90% to 95%.

Cost savings

- Low operating expenses.
- No additional costs such as order processing, refills and delivery charges.
- Limited maintenance costs.

New generation NGP+ nitrogen generators



1

Self-protective monitoring of the feed air quality

- Temperature.
- Pressure.
- Pressure dewpoint.
- Automatic feed air blow-off in case of contamination.

2

Premium energy efficiency

Air factor (air-to-nitrogen ratio) from 1.8 (95% N₂) to 5.5 (99.999% N₂).

3

Automatic start-up

- Minimum pressure valve with bypass nozzle for fast start-up.
- Eliminates risk of overflow and CMS damage.



4

Highest quality CMS

- High density due to packed bed technology.
- Top/bottom equalization.
- Protected by dedicated pressure sensor.





9

The most complete scope of supply

- Nitrogen flow meter as standard.
- Zirconia oxygen sensor with a long lifetime.
- Outlet pressure reducing valve.
- Nitrogen pressure dewpoint sensor available as an option.

8

Self-regulation and stable purity

- Automatically regulates to the requested nitrogen pressure and purity.
- Extremely easy to change purity.
- Off-spec nitrogen flushing.



7

Control and monitoring

- Remote start-stop.
- Modbus, Profibus and Ethernet.
- SMARTLINK.

6

Back flow pressurization

- In the pressurization phase nitrogen is used instead of air.
- No oxygen contamination of the CMS before adsorption phase starts.

5

The ultimate energy saver

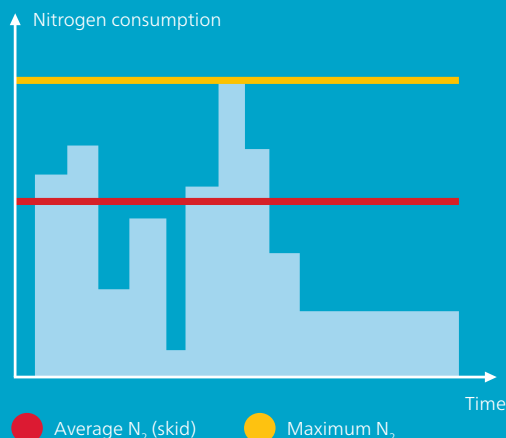
- Stand-by mode in case no nitrogen is consumed.
- Cycle time modulation algorithm = extended cycle time at low nitrogen demand = reduced air consumption at low nitrogen demand.

All-in-one high pressure nitrogen skid

The latest addition to Atlas Copco's specially developed equipment is the all-in-one high pressure nitrogen skid, a true alternative for liquid nitrogen or bottles. Combining a small footprint, easy installation, high reliability and supreme energy efficiency, this unique nitrogen skid truly stands out.

Ideal for a fluctuating nitrogen demand

This innovative nitrogen skid lets you store nitrogen at 40 bar for direct use or 300 bar for bottling. This allows you to base your production on your average nitrogen consumption rather than have your maximum capacity available at all times. This saves initial investment cost and drastically reduces your operating costs.



The all-in-one solution

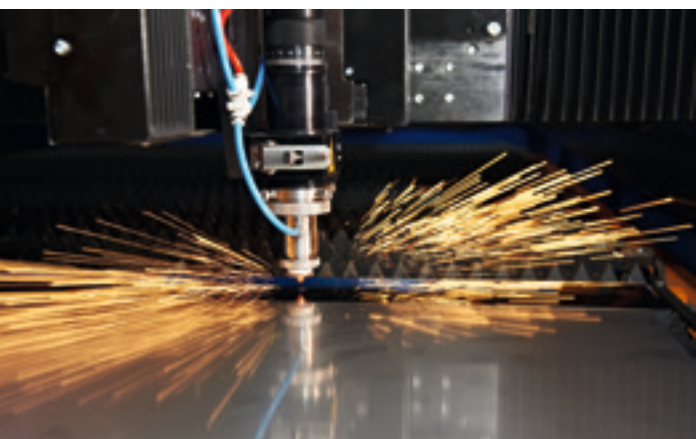
All nitrogen skid components are built to Atlas Copco quality and efficiency standards. They are tested for optimal performance and reliability.

NGP+ nitrogen generator

GA VSD+ compressor
reduces energy use
on average 50%

Nitrogen storage
(40-bar receiver or
300-bar cylinders)

Nitrogen booster
(40 or 300 bar)



Laser cutting

Laser cutting requires a reliable supply of high pressure nitrogen. With its energy efficiency, ease of use and small footprint, the Atlas Copco 300-bar nitrogen skid is the ideal solution.

Technical specifications NGM series

TYPE	Nitrogen purity				Dimensions (W x D x H)		Weight	
		95%	96%	97%	mm	in	kg	lbs
NGMs 1	FND Nm ³ /h	4.6	3.9	3.2	560 x 285 x 1150	22 x 11 x 45	56	123
	FND scfm	2.75	2.3	1.9				
	SCFH	165	140	115				
	Air factor	2	2.2	2.4				
NGMs 2	FND Nm ³ /h	9.6	7.9	6.5	560 x 285 x 1150	22 x 11 x 45	59	130
	FND scfm	5.7	4.7	3.9				
	SCFH	345	284	233.5				
	Air factor	2	2.2	2.4				
NGMs 3	FND Nm ³ /h	14	11.8	9.7	560 x 285 x 1150	22 x 11 x 45	62	136
	FND scfm	8.4	7.1	5.8				
	SCFH	503	424	348				
	Air factor	2	2.2	2.4				
NGM 1	FND Nm ³ /h	11.9	9.7	7.6	820 x 772 x 2090	32.3 x 30.4 x 82.3	259	571
	FND scfm	6.9	5.7	4.4				
	Air factor	2.6	3	3.5				
NGM 2	FND Nm ³ /h	24.1	19.4	15.1	820 x 772 x 2090	32.3 x 30.4 x 82.3	268	591
	FND scfm	14.1	11.3	8.8				
	Air factor	2.6	3	3.5				
NGM 3	FND Nm ³ /h	42.1	34.6	27.4	820 x 772 x 2090	32.3 x 30.4 x 82.3	285	628
	FND scfm	24.6	20.2	16.0				
	Air factor	2.6	3	3.5				
NGM 4	FND Nm ³ /h	83.9	69.5	54.7	820 x 1470 x 2090	32.3 x 57.9 x 82.3	445	981
	FND scfm	48.9	40.5	31.9				
	Air factor	2.6	3	3.5				
NGM 5	FND Nm ³ /h	126.0	104.0	82.1	820 x 1470 x 2090	32.3 x 57.9 x 82.3	497	1096
	FND scfm	73.5	60.7	47.9				
	Air factor	2.6	3	3.5				
NGM 6	FND Nm ³ /h	168.1	138.6	109.1	820 x 1470 x 2090	32.3 x 57.9 x 82.3	535	1179
	FND scfm	98.1	80.9	63.6				
	Air factor	2.6	3	3.5				
NGM 7	FND Nm ³ /h	209.9	173.2	136.4	820 x 1470 x 2090	32.3 x 57.9 x 82.3	571	1259
	FND scfm	122.4	101.0	79.6				
	Air factor	2.6	3	3.5				

Technical specifications NGM⁺ series

TYPE	Nitrogen purity				Dimensions (W x D x H)		Weight	
		95%	97%	99%	mm	in	kg	lbs
NGM 1 ⁺	FND Nm ³ /h	24.3	16.5	8.5	820 x 772 x 2090	32.3 x 30.4 x 82.3	259	571
	FND scfm	14.1	9.6	4.9				
	Air factor	2.2	2.7	4.2				
NGM 2 ⁺	FND Nm ³ /h	48.6	33.0	17.0	820 x 772 x 2090	32.3 x 30.4 x 82.3	268	591
	FND scfm	28.3	19.2	9.9				
	Air factor	2.2	2.7	4.2				
NGM 3 ⁺	FND Nm ³ /h	72.9	49.5	25.5	820 x 772 x 2090	32.3 x 30.4 x 82.3	285	628
	FND scfm	42.4	28.8	14.8				
	Air factor	2.2	2.7	4.2				
NGM 4 ⁺	FND Nm ³ /h	97.2	66.0	34.0	820 x 1470 x 2090	32.3 x 57.9 x 82.3	445	981
	FND scfm	56.5	38.4	19.8				
	Air factor	2.2	2.7	4.2				
NGM 5 ⁺	FND Nm ³ /h	145.8	99.0	51.0	820 x 1470 x 2090	32.3 x 57.9 x 82.3	497	1096
	FND scfm	84.8	57.6	29.7				
	Air factor	2.2	2.7	4.2				
NGM 6 ⁺	FND Nm ³ /h	194.4	132.0	68.0	820 x 1470 x 2090	32.3 x 57.9 x 82.3	535	1179
	FND scfm	113.0	76.7	39.5				
	Air factor	2.2	2.7	4.2				
NGM 7 ⁺	FND Nm ³ /h	243.0	165.0	85.0	820 x 1470 x 2090	32.3 x 57.9 x 82.3	571	1259
	FND scfm	141.3	65.9	49.4				
	Air factor	2.2	2.7	4.2				

FND: Free Nitrogen Delivery

Reference conditions

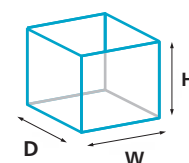
Compressed air effective inlet pressure: 8 bar(g)/116 psi(g).
 Nitrogen outlet pressure: 6.5 bar(g)/94 psi(g).
 Ambient air temperature: 20°C/68°F.
 Pressure dewpoint inlet air: 3°C/37°F.
 Pressure dewpoint nitrogen: -50°C/-58°F.
 Minimum refrigerant dryer required to precondition inlet air.
 Typical nitrogen quality 1.2.1 according to ISO 8573-1:2010.

Operating limits

Minimum ambient temperature: 5°C/41°F.
 Maximum ambient temperature: 50°C/122°F.
 Maximum compressed inlet air pressure 13 bar(g)/189 psi(g).

NGMs performance

is based on 20°C/7 bar at membrane (1000Mbar) +/-5%.



Technical specifications NGP+ series

TYPE	Nitrogen purity FND (Free Nitrogen Delivery)										Dimensions (W x D x H)		Weight	
		95%	97%	98%	99%	99.50%	99.90%	99.95%	99.99%	99.999%	mm	in	kg	lbs
NGP 8*	FND scfm	11	8.3	7.1	5.7	4.8	3.3	2.5	1.9	1.1	775 x 840 x 2015	30 x 33 x 79	276	609
	FND Nm³/h	18	14	12	9.6	8.1	5.7	4.3	3.1	1.9				
	Air factor	1.9	2.0	2.1	2.4	2.6	3.2	3.5	4.3	6.3				
NGP 10*	FND scfm	14	11	9.1	7.3	6.1	4.3	3.2	2.4	1.5	775 x 840 x 2015	30 x 33 x 79	289	637
	FND Nm³/h	23	18	15	12	10	7.3	5.5	4.0	2.5				
	Air factor	1.9	2.0	2.1	2.4	2.6	3.2	3.5	4.3	6.3				
NGP 12*	FND scfm	17	13	11	8.9	7.5	5.3	4.0	2.9	1.8	775 x 840 x 2015	30 x 33 x 79	312	688
	FND Nm³/h	29	22	19	15	13	8.9	6.7	4.9	3.0				
	Air factor	1.9	2.0	2.1	2.4	2.6	3.2	3.5	4.3	6.3				
NGP 15*	FND scfm	21	17	14	11	9.5	6.7	5.0	3.7	2.3	775 x 840 x 2015	30 x 33 x 79	335	739
	FND Nm³/h	36	28	24	19	16	11	8.5	6.3	3.8				
	Air factor	1.9	2.0	2.1	2.4	2.6	3.2	3.5	4.3	6.3				
NGP 20*	FND scfm	28	21	18	15	12	8.6	6.5	4.8	2.9	775 x 840 x 2015	30 x 33 x 79	367	809
	FND Nm³/h	47	36	31	25	21	15	11	8.1	4.9				
	Air factor	1.9	2.0	2.1	2.4	2.6	3.2	3.5	4.3	6.3				
NGP 25*	FND scfm	34	26	22	18	15	11	7.9	5.8	3.6	775 x 840 x 2015	30 x 33 x 79	410	904
	FND Nm³/h	57	44	38	30	25	18	13	9.9	6.0				
	Air factor	1.9	2.0	2.1	2.4	2.6	3.2	3.5	4.3	6.3				
NGP 30*	FND scfm	41	32	27	22	18	13	9.7	7.1	4.7	1400 x 840 x 2015	55 x 33 x 79	208	1341
	FND Nm³/h	70	54	46	37	31	22	16	12	8.0				
	Air factor	1.9	2.0	2.1	2.4	2.6	3.2	3.5	4.3	5.6				
NGP 35*	FND scfm	51	39	33	27	23	16	12	8.7	5.7	1400 x 840 x 2015	55 x 33 x 79	648	1429
	FND Nm³/h	86	66	57	46	38	27	20	15	9.7				
	Air factor	1.9	2.0	2.1	2.4	2.6	3.2	3.5	4.3	5.6				
NGP 40*	FND scfm	55	43	36	29	25	17	13	9.5	6.2	1400 x 840 x 2015	55 x 33 x 79	681	1502
	FND Nm³/h	94	72	62	50	42	29	22	16	11				
	Air factor	1.9	2.0	2.1	2.4	2.6	3.2	3.5	4.3	5.6				
NGP 50*	FND scfm	68	52	45	36	30	21	16	12	7.6	1400 x 840 x 2015	55 x 33 x 79	734	1618
	FND Nm³/h	115	89	76	61	51	36	27	20	13				
	Air factor	1.9	2.0	2.1	2.4	2.6	3.2	3.5	4.3	5.6				
NGP 60*	FND scfm	76	58	51	40	34	24	19	14	9.4	1400 x 970 x 2015	55 x 38 x 79	764	1685
	FND Nm³/h	129	99	86	68	57	41	33	24	16				
	Air factor	1.9	2.1	2.2	2.4	2.7	3.3	3.5	4.3	5.6				
NGP 70*	FND scfm	93	72	62	49	41	29	24	17	11	1400 x 970 x 2015	55 x 38 x 79	1039	2291
	FND Nm³/h	158	122	105	83	70	50	40	30	19				
	Air factor	1.9	2.1	2.2	2.4	2.7	3.3	3.5	4.3	5.6				
NGP 85*	FND scfm	-	91	72	59	51	36	29	21	13	1400 x 970 x 2015	55 x 38 x 79	1209	2666
	FND Nm³/h	-	154	122	100	87	62	49	36	23				
	Air factor	-	2.0	2.2	2.4	2.6	3.2	3.3	3.9	5.5				
NGP 100*	FND scfm	-	95	83	65	55	39	32	23	15	1400 x 970 x 2015	55 x 38 x 79	1209	2666
	FND Nm³/h	-	162	140	111	94	66	54	40	26				
	Air factor	-	2.1	2.2	2.4	2.7	3.3	3.5	4.3	5.6				
NGP 240*	FND scfm	306	248	215	176	149	106	81	62	40	2230 x 1800 x 2610	88 x 71 x 103	3200	7055
	FND Nm³/h	520	422	365	299	252	180	138	106	68				
	Air factor	1.8	2.0	2.1	2.3	2.6	3.1	3.3	4.0	5.3				
NGP 300*	FND scfm	394	320	277	227	192	137	105	80	51	2570 x 1800 x 2640	101 x 71 x 104	3800	8378
	FND Nm³/h	670	543	470	385	325	232	178	136	87				
	Air factor	1.8	2.0	2.1	2.3	2.6	3.1	3.3	4.0	5.3				
NGP 360*	FND scfm	479	388	336	275	233	166	127	97	63	2650 x 1800 x 2625	104 x 71 x 103	4800	10582
	FND Nm³/h	813	660	571	468	395	282	216	165	106				
	Air factor	1.8	2.0	2.1	2.3	2.6	3.1	3.3	4.0	5.3				
NGP 450*	FND scfm	564	458	396	324	274	196	150	115	74	2720 x 2300 x 3020	107 x 91 x 119	6400	14110
	FND Nm³/h	959	778	673	551	466	333	255	195	125				
	Air factor	1.8	2.0	2.1	2.3	2.6	3.1	3.3	4.0	5.3				
NGP 550*	FND scfm	694	563	487	399	337	241	184	141	91	2850 x 2300 x 3050	112 x 91 x 120	7000	15432
	FND Nm³/h	1178	956	827	677	572	409	313	240	154				
	Air factor	1.8	2.0	2.1	2.3	2.6	3.1	3.3	4.0	5.3				
NGP 650*	FND scfm	811	658	569	466	394	282	216	165	106	2900 x 2300 x 3040	114 x 91 x 120	7700	16976
	FND Nm³/h	1378	1118	967	792	670	478	366	280	180				
	Air factor	1.8	2.0	2.1	2.3	2.6	3.1	3.3	4.0	5.3				
NGP 800*	FND scfm	1048	850	735	602	509	364	278	213	137	3460 x 3120 x 3970	136 x 123 x 156	10300	22708
	FND Nm³/h	1780	1444	1249	1023	865	618	473	362	232				
	Air factor	1.8	2.0	2.2	2.4	2.6	3.2	3.4	4.1	5.4				
NGP 1000*	FND scfm	1329	1078	932	764	646	461	353	270	173	3660 x 3120 x 4175	144 x 123 x 164	12000	26455
	FND Nm³/h	2258	1831	1584	1298	1097	784	600	459	295				
	Air factor	1.8	2.0	2.2	2.4	2.6	3.2	3.4	4.1	5.4				
NGP 1300*	FND scfm	1690	1371	1186	971	821	586	449	344	221	3860 x 3120 x 4405	152 x 123 x 173	14200	31306
	FND Nm³/h	2871	2329	2014	1650	1395	996	762	584	375				
	Air factor	1.8	2.0	2.2	2.4	2.6	3.2	3.4	4.1	5.4				

FND: Free Nitrogen Delivery

Reference conditions

Compressed air effective inlet pressure: 7.5 bar(g)/108 psi(g) for NGP, 7 bar(g)/102 psi(g) for NGP*.

Nitrogen outlet pressure: 6 bar(g)/87 psi(g).

Ambient air temperature: 20°C/68°F.

Pressure dewpoint inlet air: 3°C/37°F.

Pressure dewpoint nitrogen: -50°C/-58°F.

Unit inlet air quality 1.4.1 according to ISO 8573-1:2010.

Minimum refrigerant dryer required to precondition inlet air.

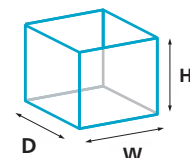
Typical nitrogen quality 1.2.1 according to ISO 8573-1:2010.

Operating limits

Minimum ambient temperature: 5°C/41°F.

Maximum ambient temperature: 45°C/113°F for NGP, 60°C/140°F for NGP*.

Maximum compressed inlet air pressure 10 bar(g)/145 psi(g) for NGP, 13 bar/189 psi(g) for NGP*.



Technical specifications NGP series

TYPE	Nitrogen purity FND (Free Nitrogen Delivery)										Dimensions (W x D x H)		Weight	
		95%	97%	98%	99%	99.50%	99.90%	99.95%	99.99%	99.999%	mm	in	kg	lbs
NGP 10	FND scfm	13.1	10.2	8.6	6.6	5.4	3.5	2.6	1.8	1.0	798 x 840 x 2022	31.4 x 33.1 x 79.6	244	538
	FND Nm ³ /h	22.3	17.4	14.6	11.3	9.1	5.9	4.4	3.1	1.7				
NGP 12	FND scfm	16.9	13.2	11.1	8.5	6.9	4.5	3.4	2.3	1.3	798 x 840 x 2022	31.4 x 33.1 x 79.6	257	567
	FND Nm ³ /h	28.8	22.4	18.8	14.5	11.7	7.6	5.7	3.9	2.2				
NGP 15	FND scfm	20.7	16.1	13.5	10.4	8.4	5.5	4.1	2.8	1.6	798 x 840 x 2022	31.4 x 33.1 x 79.6	270	595
	FND Nm ³ /h	35.2	27.4	23.0	17.7	14.3	9.3	7.0	4.8	2.7				
NGP 20	FND scfm	26.3	20.5	17.2	13.2	10.7	6.9	5.2	3.6	2.0	798 x 840 x 2022	31.4 x 33.1 x 79.6	306	675
	FND Nm ³ /h	44.7	34.9	29.3	22.5	18.2	11.8	8.9	6.1	3.4				
NGP 25	FND scfm	33.8	26.4	22.1	17.1	13.8	8.9	6.7	4.6	2.6	798 x 840 x 2022	31.4 x 33.1 x 79.6	339	747
	FND Nm ³ /h	57.5	44.9	37.6	29.0	23.4	15.2	11.4	7.9	4.4				
NGP 30	FND scfm	41.3	32.3	27.0	20.9	16.8	10.9	8.2	5.7	3.1	798 x 840 x 2022	31.4 x 33.1 x 79.6	360	794
	FND Nm ³ /h	70.3	54.9	46.0	35.5	28.6	18.6	14.0	9.7	5.3				
NGP 35	FND scfm	50.7	39.6	33.2	25.6	20.6	13.4	10.1	7.3	4.2	798 x 840 x 2022	31.4 x 33.1 x 79.6	599	1321
	FND Nm ³ /h	86.3	67.3	56.5	43.5	35.1	22.8	17.1	12.4	7.1				
NGP 40	FND scfm	62.0	48.4	40.6	31.3	25.2	16.4	12.3	8.9	5.1	798 x 840 x 2022	31.4 x 33.1 x 79.6	627	1382
	FND Nm ³ /h	105.5	82.3	69.1	53.2	42.9	27.9	20.9	15.2	8.7				
NGP 50	FND scfm	67.6	52.7	44.3	34.1	27.5	17.9	13.4	9.7	5.6	798 x 840 x 2022	31.4 x 33.1 x 79.6	663	1462
	FND Nm ³ /h	115.0	89.7	75.3	58.0	46.8	30.4	22.8	16.5	9.5				
NGP 60	FND scfm	82.7	52.7	44.3	34.1	27.5	17.9	13.4	9.7	5.6	798 x 840 x 2022	31.4 x 33.1 x 79.6	716	1579
	FND Nm ³ /h	140.7	109.8	92.1	70.9	57.2	37.2	27.9	20.2	11.6				
NGP 70	FND scfm	93.9	71.3	60.4	51.2	41.3	26.8	19.1	13.6	8.3	798 x 840 x 2022	31.4 x 33.1 x 79.6	805	1775
	FND Nm ³ /h	159.7	121.2	102.7	87.0	70.2	45.6	32.5	23.1	14.2				
NGP 85	FND scfm	-	71.3	60.4	51.2	41.3	26.8	19.1	13.6	8.3	798 x 840 x 2022	31.4 x 33.1 x 79.6	1018	2244
	FND Nm ³ /h	-	148.3	125.6	106.4	85.8	55.8	39.8	28.3	17.4				
NGP 100	FND scfm	-	-	73.9	62.6	50.5	32.8	23.4	16.6	10.2	798 x 840 x 2022	31.4 x 33.1 x 79.6	1191	2626
	FND Nm ³ /h	-	-	138.1	108.8	91.2	59.1	46.5	34.0	20.5				
NGP 115	FND scfm	-	-	-	64.0	53.6	34.8	27.3	20.0	12.1	798 x 840 x 2022	31.4 x 33.1 x 79.6	1191	2626
	FND Nm ³ /h	-	-	-	126.5	104.2	64.7	53.0	37.7	23.3				
NGP 420	FND scfm	580.5	454.9	371.1	311.3	251.4	167.5	122.6	83.9	36.4	1240 x 2520 x 3160	48.8 x 99.2 x 124.4	4200	9259
	FND Nm ³ /h	986.8	773.2	630.8	529.0	427.3	284.9	254.3	142.2	62.1				
NGP 550	FND scfm	748.1	592.6	493.9	413.0	326.2	227.5	173.7	115.0	48.5	1420 x 2880 x 3330	55.9 x 113.4 x 131.1	4900	10803
	FND Nm ³ /h	1271.7	1007.2	839.3	702.0	554.5	386.6	360.1	195.3	82.4				
NGP 900	FND scfm	1167.2	868.0	748.3	628.4	538.6	347.1	257.3	179.6	73.1	2480 x 2520 x 3160	97.6 x 99.2 x 124.4	8400	18519
	FND Nm ³ /h	1983.9	1475.2	1271.7	1068.2	915.6	590.1	534.1	305.2	124.1				
NGP 1100	FND scfm	1556.3	1197.1	957.8	808.0	658.5	418.9	305.2	227.5	77.7	2840 x 2880 x 3330	111.8 x 113.4 x 131.1	9800	21605
	FND Nm ³ /h	2645.1	2034.7	1627.8	1373.4	1119.1	712.2	632.8	386.6	132.3				

Technical specifications OGP series

TYPE	Oxygen purity FOD (Free Oxygen Delivery)				Dimensions (W x D x H)		Weight	
		90%	93%	95%	mm	in	kg	lbs
OGP 2	FOD Nm ³ /h	2.1	1.6	1.5	600 x 600 x 1550	23.6 x 23.6 x 61.0	100	220
	FOD scfm	1.3	1.1	0.8				
OGP 3	FOD Nm ³ /h	3.2	2.5	2.5	600 x 600 x 1600	23.6 x 23.6 x 63.0	150	331
	FOD scfm	1.9	1.5	1.5				
OGP 4	FOD Nm ³ /h	4.0	3.6	3.2	600 x 600 x 1650	23.6 x 23.6 x 65.0	180	397
	FOD scfm	2.3	2.1	1.9				
OGP 5	FOD Nm ³ /h	4.7	4.3	4.0	700 x 700 x 1900	27.6 x 27.6 x 74.8	230	507
	FOD scfm	2.8	2.5	2.3				
OGP 6	FOD Nm ³ /h	6.5	5.8	5.4	800 x 900 x 1750	31.5 x 35.4 x 68.9	400	882
	FOD scfm	3.8	3.4	3.2				
OGP 8	FOD Nm ³ /h	7.9	7.2	6.8	800 x 900 x 1750	31.5 x 35.4 x 68.9	700	1543
	FOD scfm	4.7	4.2	4.0				
OGP 10	FOD Nm ³ /h	9.7	9.0	8.3	900 x 1200 x 2100	35.4 x 47.2 x 82.7	950	2094
	FOD scfm	5.7	5.3	4.9				
OGP 14	FOD Nm ³ /h	14.4	13.3	12.2	900 x 1200 x 2100	35.4 x 47.2 x 82.7	950	2094
	FOD scfm	8.5	7.8	7.2				
OGP 18	FOD Nm ³ /h	15.5	18.4	18.4	900 x 1300 x 2400	35.4 x 51.1 x 94.5	1150	2535
	FOD scfm	9.1	10.8	10.8				
OGP 20	FOD Nm ³ /h	20.5	19.4	18.4	1000 x 1300 x 2400	39.4 x 51.1 x 94.5	1150	2535
	FOD scfm	12.1	11.4	10.8				
OGP 23	FOD Nm ³ /h	23.4	21.2	20.5	1000 x 1300 x 3200	39.4 x 51.1 x 126.0	1350	2976
	FOD scfm	13.8	12.5	12.1				
OGP 29	FOD Nm ³ /h	29.2	27.7	26.3	1000 x 2000 x 2500	39.4 x 78.7 x 98.4	1850	4079
	FOD scfm	17.2	16.3	15.5				
OGP 35	FOD Nm ³ /h	35.3	33.1	31.7	1000 x 2000 x 2500	39.4 x 78.7 x 98.4	2150	4740
	FOD scfm	20.8	19.5	18.6				
OGP 45	FOD Nm ³ /h	45.4	42.8	39.2	1000 x 2000 x 3400	39.4 x 78.7 x 134.0	3500	7716
	FOD scfm	26.7	25.2	23.1				
OGP 55	FOD Nm ³ /h	55.8	51.8	49.0	1000 x 2000 x 3400	39.4 x 78.7 x 134.0	3500	7716
	FOD scfm	32.8	30.5	28.8				
OGP 65	FOD Nm ³ /h	66.2	64.1	56.9	1000 x 2000 x 3400	39.4 x 78.7 x 134.0	3500	7716
	FOD scfm	39.0	37.7	33.5				
OGP 84	FOD Nm ³ /h	85.3	79.2	74.2	2400 x 2200 x 3200	94.5 x 86.6 x 126.0	4200	9259
	FOD scfm	50.2	46.6	43.6				
OGP 105	FOD Nm ³ /h	106.9	101.9	93.6	2400 x 2400 x 3300	94.5 x 94.5 x 130.0	4900	10803
	FOD scfm	62.9	59.9	55.1				
OGP 160	FOD Nm ³ /h	157.7	154.8	143.6	4000 x 4000 x 3200	157.5 x 157.5 x 126.0	8000	17637
	FOD scfm	92.8	91.1	84.5				
OGP 200	FOD Nm ³ /h	203.8	188.3	175.0	4000 x 4000 x 3300	157.5 x 157.5 x 130.0	9400	20723
	FOD scfm	119.9	110.8	102.9				

FOD: Free Oxygen Delivery

Reference conditions

Compressed air effective inlet pressure: 7.5 bar(g)/108 psi(g).

Oxygen outlet pressure: 5 bar(g)/72 psi(g).

Ambient air temperature: 20°C/68°F.

Pressure dewpoint inlet air: 3°C/37°F.

Pressure dewpoint oxygen: -50°C/-58°F.

Unit inlet air quality 1.4.1 according to ISO 8573-1:2010.

Minimum refrigerant dryer

Certificate of Training

It is hereby certified, that

Mr. Valeriu Nastasiu
Data Control SRL, Republic of Moldova

*has been trained in January 2018
at company DataControl SRL
in Chisinau, Republic of Moldova*

Training Subjects :

- * *Medical Oxygen Plants (OGP);*
- * *Oil-injected, oil-free compressors (GA, ZT);*
- * *Refrigerant air dryers (FX, FD);*
- * *Compressed air filters (DD, PD, QD, QDT).*

*Installation, assembling, function, maintenance
and spare parts.*

Country Manager
Compressor Technique Equipment

Liviu Chelaru



A handwritten signature in blue ink, likely belonging to Liviu Chelaru.



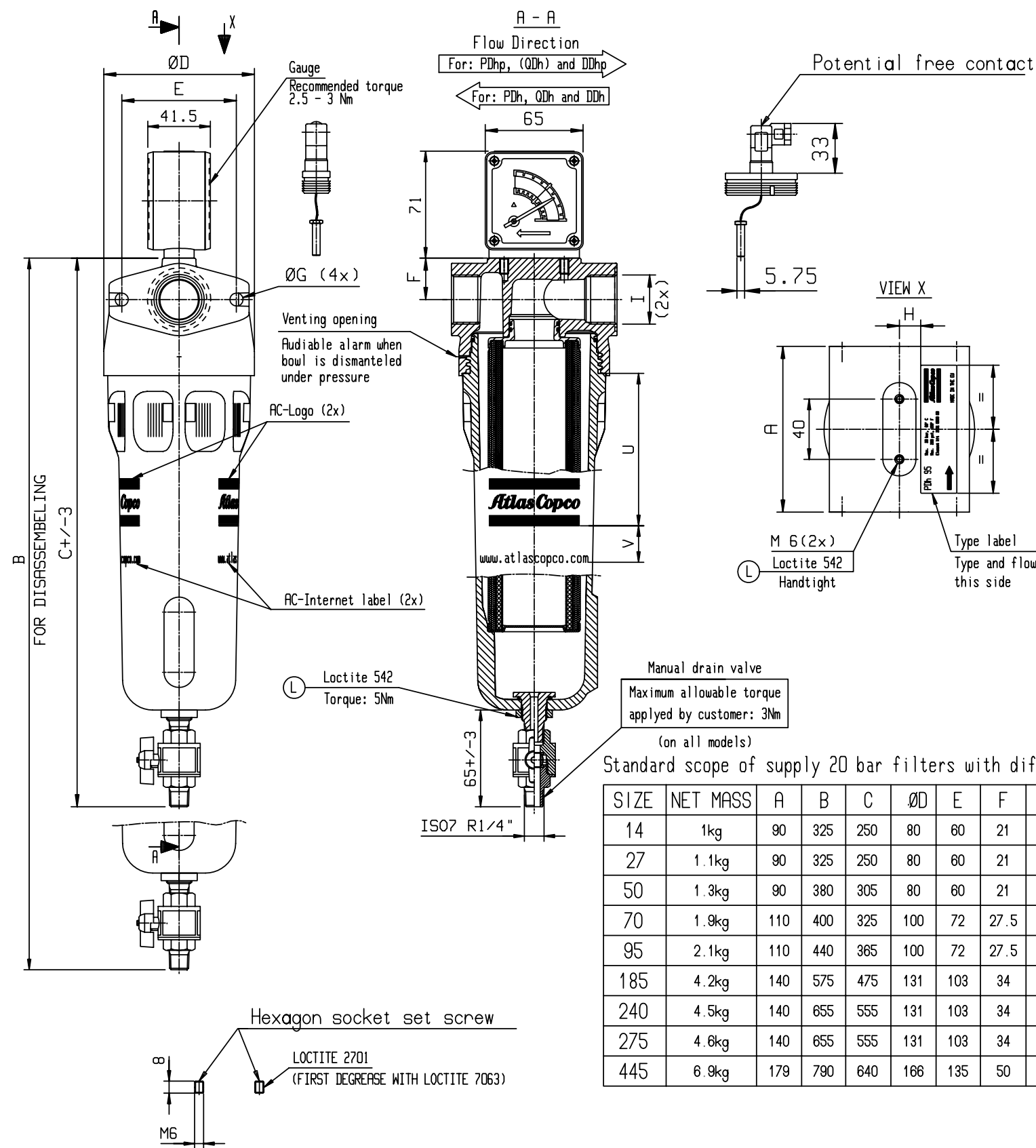


Registration code
APC Filters
19
2933 3732 02

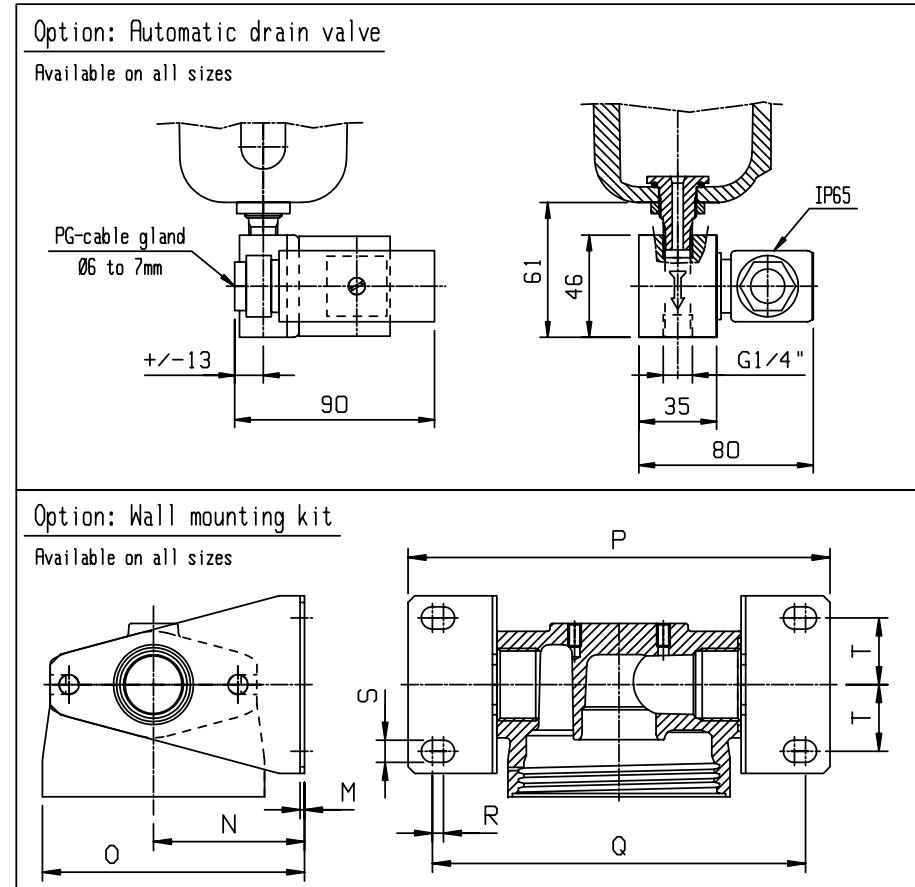
Filters: DDh, PDh, DDhp, PDhp, QDh
AHB: Dimension drawing (9827 7176 00 ed. 00)

2004-09

See overleaf



Ⓛ = Loctite nr.: 542 (threadlock glue)
 Handtight after 15min. of application
 Full functional strenght after 45 min.



Depicted size: 95

Standard scope of supply 20 bar filters with differential pressure gauge and manual drain, except QDh: only manual drain

SIZE	NET MASS	A	B	C	ØD	E	F	ØG	H	I	M	N	O	P	Q	R	S	T	U	V
14	1kg	90	325	250	80	60	21	6.6	14	G3/8 NPT3/8	2	52	92	158	136	8	7	20	65	52
27	1.1kg	90	325	250	80	60	21	6.6	14	G3/8 NPT3/8	2	52	92	158	136	8	7	20	65	52
50	1.3kg	90	380	305	80	60	21	6.6	14	G1/2 NPT1/2	2	52	92	158	136	8	7	20	65	52
70	1.9kg	110	400	325	100	72	27.5	9	15	G3/4 NPT3/4	2	68	118	190	168	5	10	30	70	56
95	2.1kg	110	440	365	100	72	27.5	9	15	G3/4 NPT3/4	2	68	118	190	168	5	10	30	70	56
185	4.2kg	140	575	475	131	103	34	9	20	G1 1/2 NPT1 1/2	2.5	92	157.5	240	218	5	10	42	98	78
240	4.5kg	140	655	555	131	103	34	9	20	G1 1/2 NPT1 1/2	2.5	92	157.5	240	218	5	10	42	100	80
275	4.6kg	140	655	555	131	103	34	9	20	G1 1/2 NPT1 1/2	2.5	92	157.5	240	218	5	10	42	100	80
445	6.9kg	179	790	640	166	135	50	11	24	G2 NPT2	2.5	100	183	279	251	8	12	42	159	128

All dimensions are in Millimeters

Filters: DDh, PDh, DDhp, PDhp, QDh
AHB: Dimension drawing (9827 7176 00 ed. 00)

Evaluation of the solid particle removal efficiency of Atlas Copco DD+/DDp+ or PD+/PDp+ filter According to ISO12500-3:2009

Test report IBR JN: 12828A & 12828C

Report prepared for: Atlas Copco Airpower n.v.

Issue date of certificate: 26^h October, 2012

PN for DD+/DDp+: 1 624 1829 09

PN for PD+/PDp+: 1 624 1829 07

	0.01 µm	0.1µm	0.5 µm	1 µm	5µm
DD+/DDp+	99.93%	99.92%	99.95%	99.998%	>99.999%
PD+/PDp+	99.995%	99.992%	99.997%	>99.999%	>99.999%

	MPPS	Efficiency at MPPS
DD+/DDp+	0.1 µm	99.92%
PD+/PDp+	0.06 µm	99.98%

Report Authorized By:



Susan H Goldsmith Managing Director

Note: Full report available upon request

TÜV Rheinland LGA Products GmbH • 51105 Cologne • Germany

Atlas Copco Airpower n.v.
P.O. Box 104
Boomsesteenweg 957
2610 Wilrijk
Belgium

Your correspondence
Dr. Norbert Horlemann

Order-No.: 3047714

Phone +49 (0)221-806-1896
Fax +49 (0)221-806-1461
Mail horlema@de.tuv.com

Customer Service Center
for Products
Phone +49 911 655-5225

Mail service@de.tuv.com

Cologne, 05th March 2012

Type Test certificate
Evaluation of the residual aerosol oil content after an
Atlas Copco DD+ filter
Test report No.: 3047714

The Atlas Copco DD+ filters are measured under the test conditions according to ISO 12500-1:2007, the compressed air samples are analyzed according to the ISO 8573-2:2007 test method.

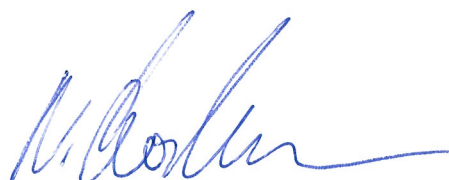
	Maximum residual aerosol oil content	Average wet pressure drop
DD+-filter	0.07 mg/m ³	< 180 mbar

i. V.



Björn Koch

i. A.



Dr. rer. nat. Norbert Horlemann

TÜV Rheinland
LGA Products GmbH

Am Grauen Stein 29
51105 Cologne
Germany

Headquarter

TÜV Rheinland
LGA Products GmbH

Tillystraße 2
90431 Nuremberg
Germany

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Fax +49 911 655 5226
service@de.tuv.com
www.tuv.com/safety

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Jörg Mähler, Spokesman

Dipl.-Kfm.
Dr. Jörg Schlösser

Nuremberg HRB 26013
VAT No.: DE811835490

TÜV Rheinland Energie und Umwelt GmbH
51101 Köln

Atlas Copco Airpower n.v.
P.O. Box 104
Boomsesteenweg 957
2610 Wilrijk
Belgium

931 / 21229599/01
Dr. Norbert Horlemann
Tel: 0221 806-1896
Fax: 0221 806-1461
horlema@de.tuv.com
17 August 2015

Validation Certificate
Evaluation of the air purity class for total oil
after an Atlas Copco DD+ PD+ QDT filter train
Test report no.: 931 / 21229599/01

The Atlas Copco DD+ PD+ 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.

Details can be found in the full test report no.: 931/21229599/01

i. V.



Dr. Walter Dormagen

i. A.



Dr. Norbert Horlemann

TÜV Rheinland
Energie und Umwelt GmbH

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Fax +49-221-806-1349
Mail enertest@de.tuv.com
Web www.umwelt-tuv.de

Managing Director
Marcus Staude

District Court
Cologne HRB 56171

TÜV Rheinland Energie und Umwelt GmbH
51101 Köln

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2610 Wilrijk
Belgium

931 / 21229599/01
Dr. Norbert Horlemann
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horlema@de.tuv.com
17 August 2015

Validation Certificate
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Mail enertest@de.tuv.com
Web www.umwelt-tuv.de

Managing Director
Marcus Staude

District Court
Cologne HRB 56171

Declaratie de Conformitate

Noi Atlas Copco Romania SRL
Sos. Bucuresti - Ploiesti, Nr. 135, Corp 2, Parter
Sector 1, 013686, Bucuresti, Romania

Declarăm pe propria răspundere ca produsele la care declaratia face referire sunt proiectate, produse si testate in conformitate cu prevederile aplicabile ale directivelor si standardelor:

1. Directive

89/392/EEC/,91/368/EEC,93/44/EEC,93/68/EEC:	echipamente
87/404/EEC,90/488/EEC,93/68/EEC:	echipamente sub presiune
89/336/EEC,89/68/EEC:	compatibilitate electro-magnetica
73/23/EEC,89/68/EEC:	joasa tensiune

2. Standarde EN

EN 292:	Siguranta echipamentelor
EN 1012-1	Compresoare si pompe de vid: masuri de siguranta
EN 60 204-1	Instalatiile electrice ale echipamentelor
EN 60439-1	Aparatura comanda pentru tensiune joasa
EN 286-1	Vase sub presiune simple
Pr EN 294	Siguranta echipamentelor; distanta de siguranta
Pr EN 1034	Siguranta echipamentelor; izolatia si pierderea de energie
Pr EN 1050	Siguranta echipamentelor; evaluarea riscului
Pr EN 983	Cerintele de siguranta pentru sisteme hidraulice si componentele lor pneumatice
Pr En 12189-1	Evaluarea si reducerea riscului rezultat in urma emisiei de radiatii a echipamentului

3. Standarde internationale

IEC 34, IEC 38, IEC 72, IEC 85	Motoare electrice
IEC 364-4	Instalatii electrice
IEC 364-5-523	Cablaje



Produse:

Nr. Crt.	Cod articol	Descriere
1.	2901200658	PREV MAINTANANCE KIT FF
2.	1630114600	OIL RIF NDURANCE 5L

Oana Salabina
Marketing&Sales Suport



SC ATLAS COPCO ROMANIA SRL
Sos. Bucuresti - Ploiesti, Nr. 135, Corp 2, Parter,
Sector 1, 013686, Bucuresti.

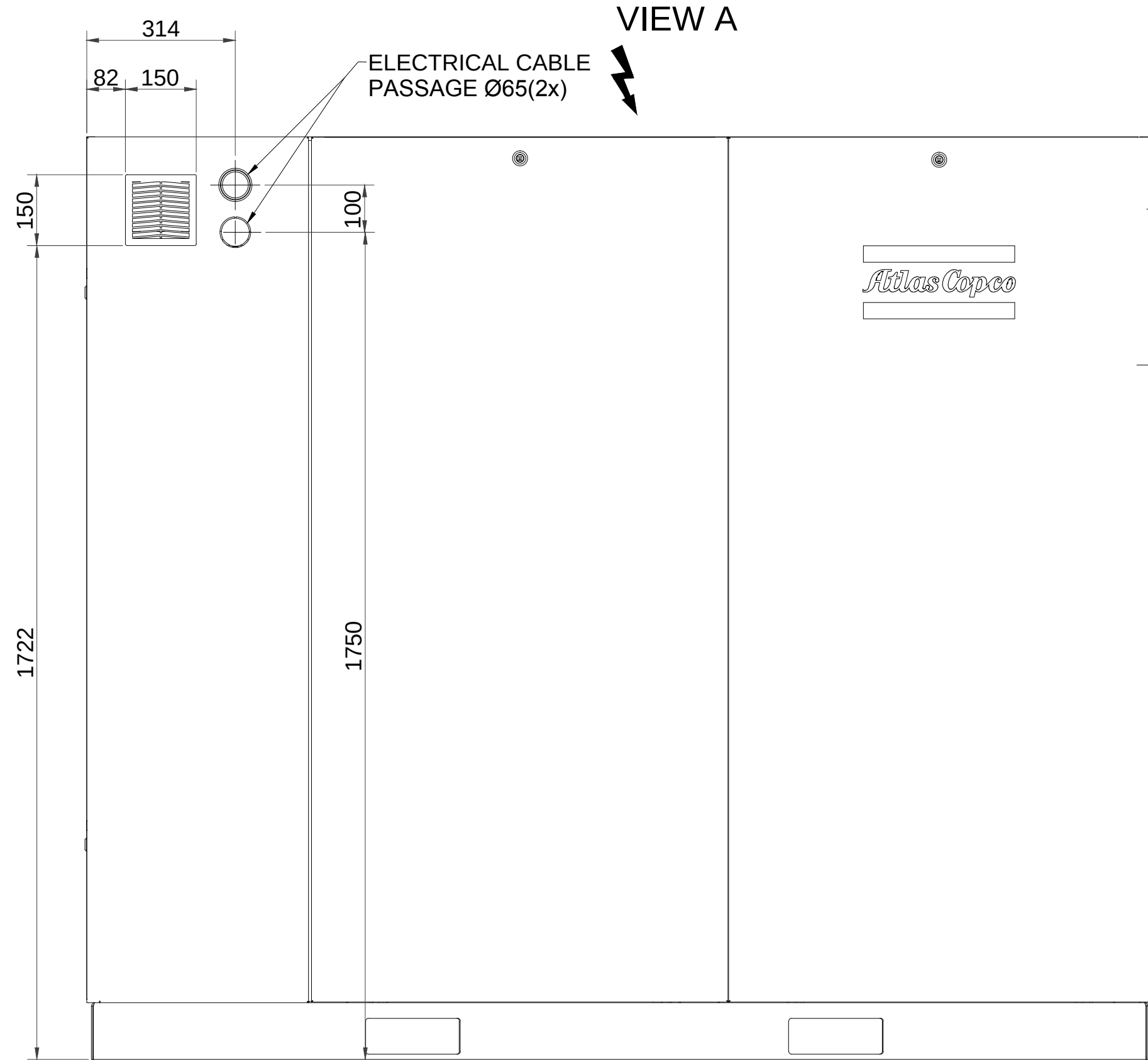
J40/8495/2010
RO 17479588
ING Bank Bucuresti – Centrala
RO14 INGB 0001 0081 6504 8910

Tel.: 021 351 37 62
021 352 36 22
Fax: 021 351 37 64
office.ro@atlascopco.com

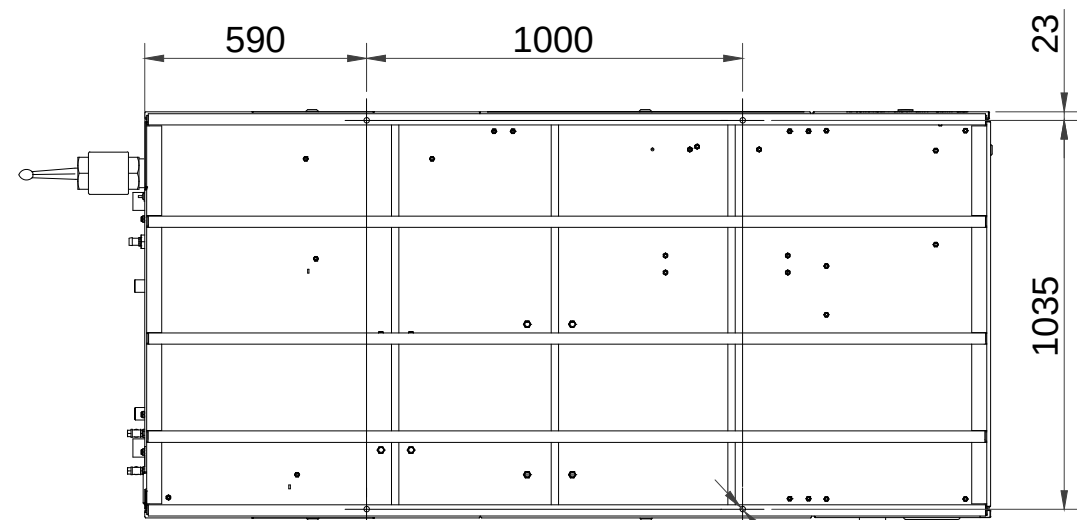
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01	Text adapted	2012-07-19		
Note	Position	Modified from	Date	Intr./Appd.



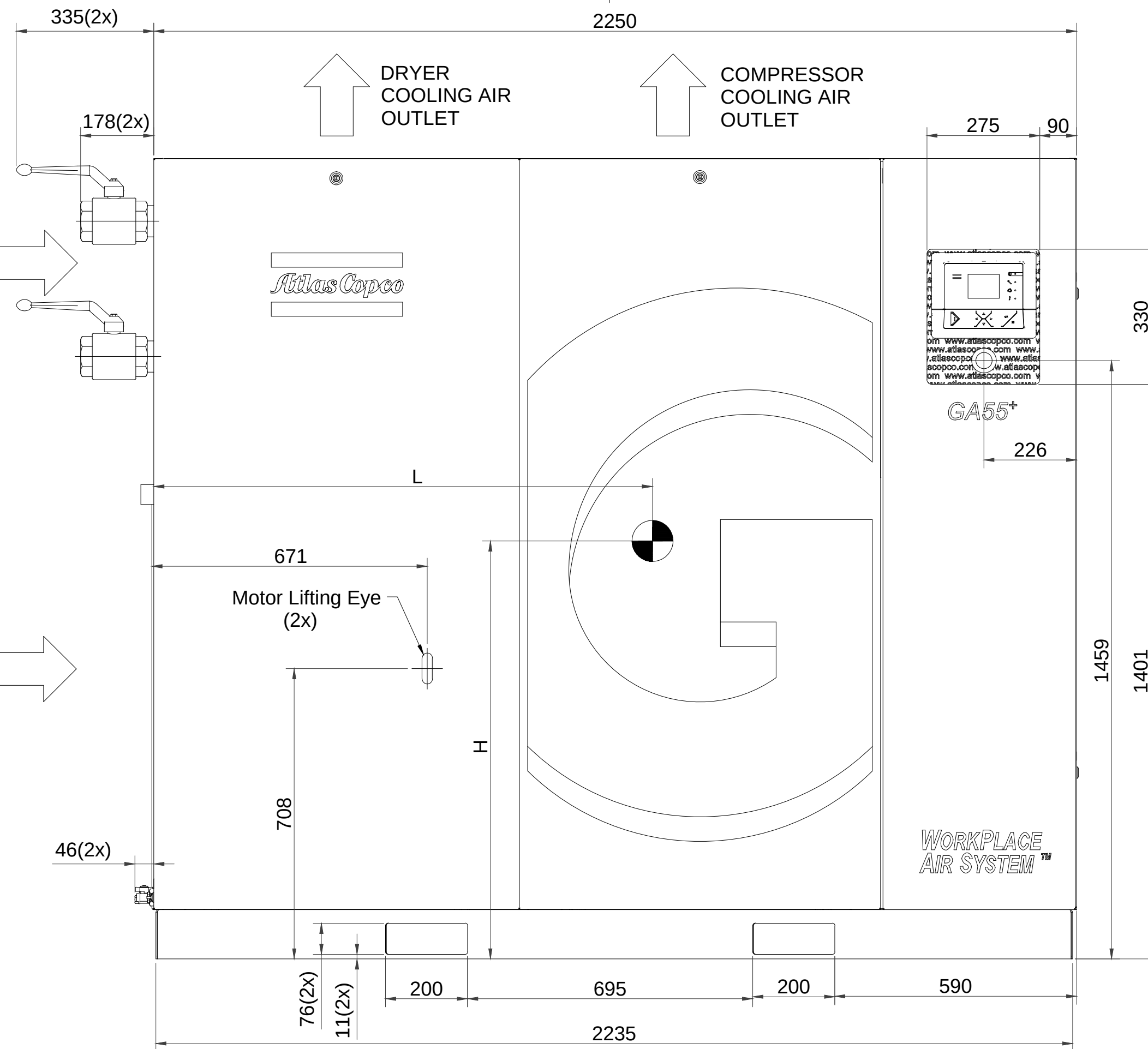
VIEW E (1 : 20)



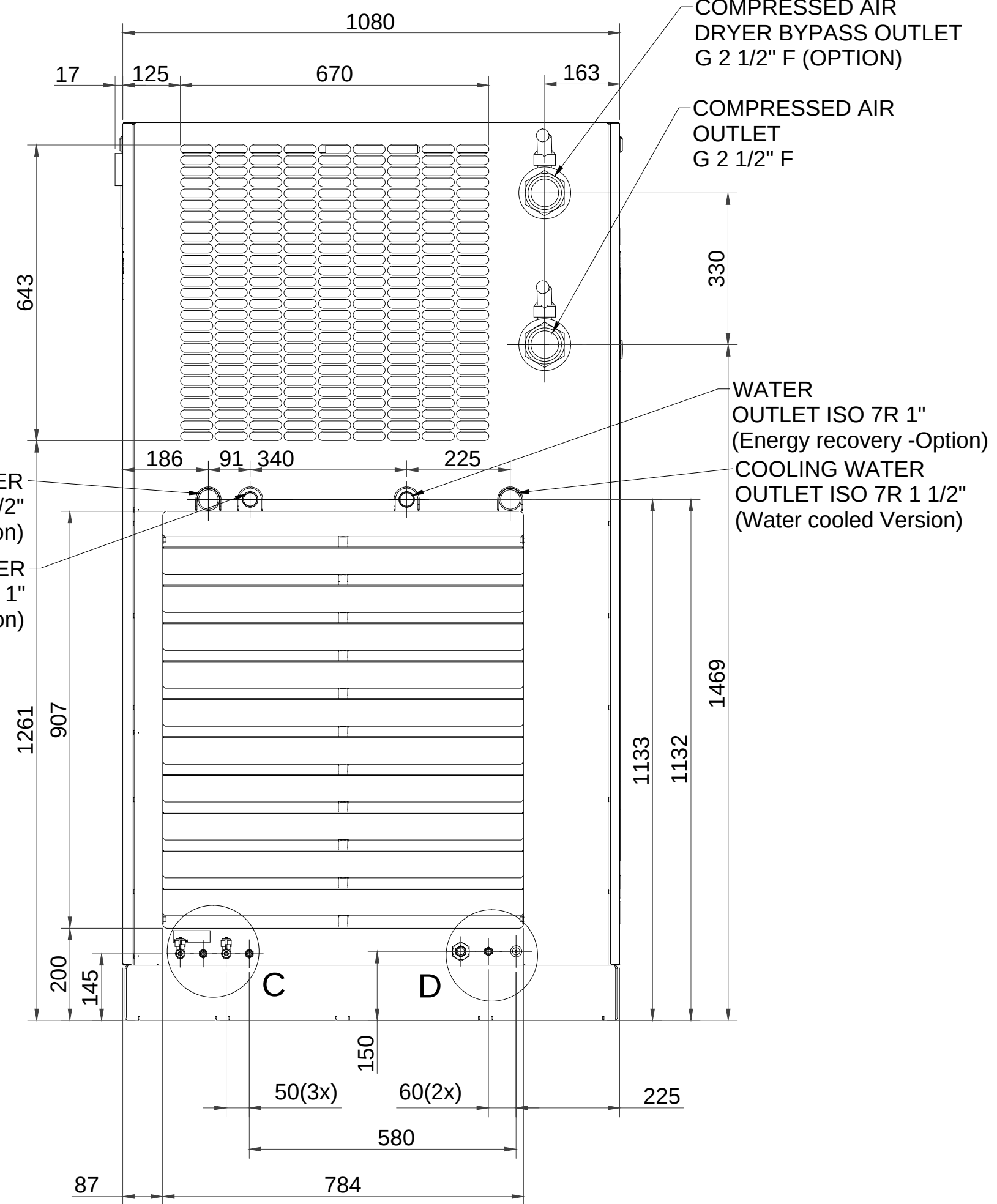
COMPRESSOR MOUNTING HOLES Ø15(4x)

A

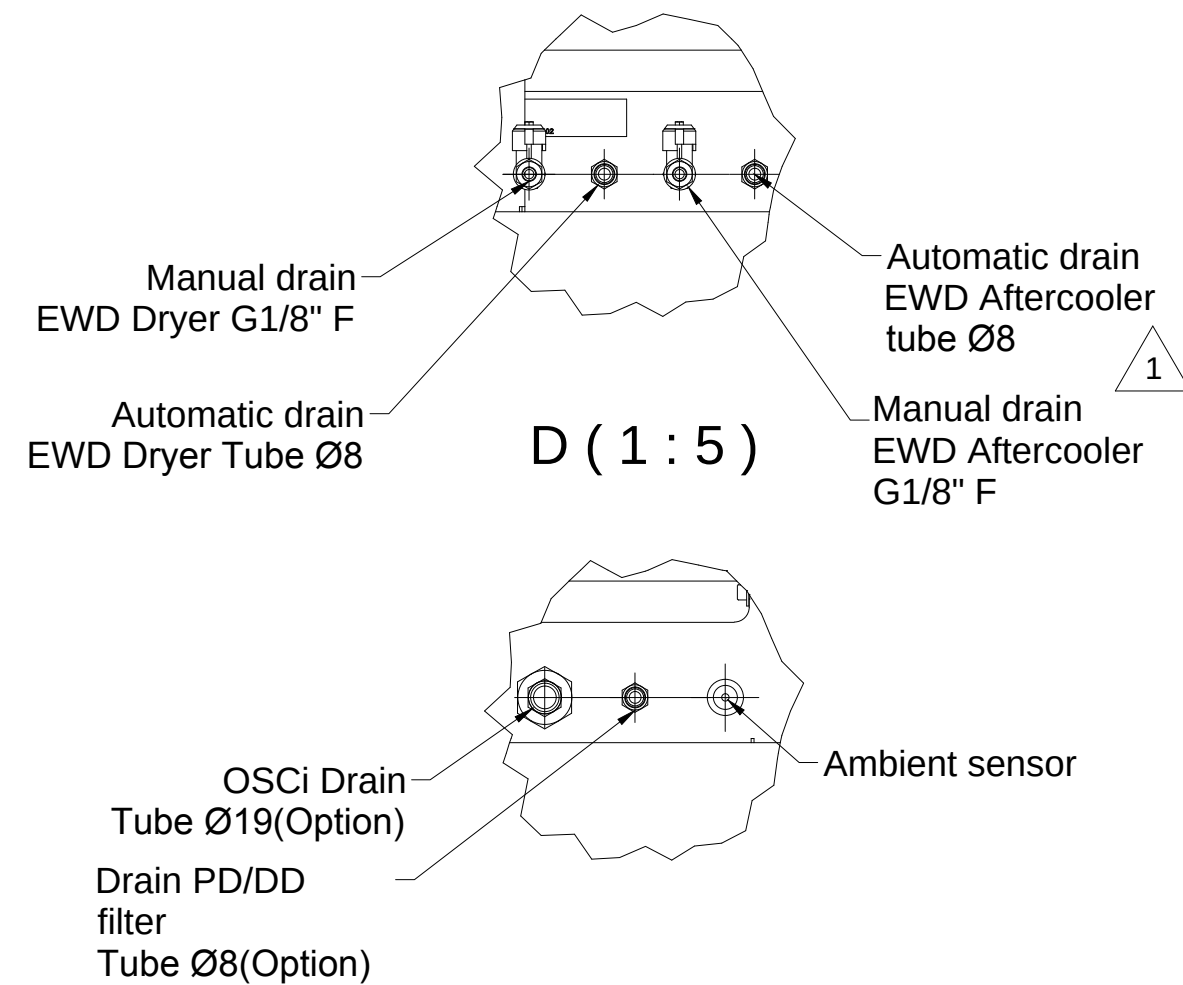
E



COOLING WATER INLET ISO 7R 1 1/2" (Water cooled Version)
WATER INLET ISO 7R 1" (Energy recovery -Option)



C (1 : 5)



D (1 : 5)

AIR COOLED UNIT								
CENTER OF GRAVITY							MASS	
	WITH DRYER			WITHOUT DRYER			WITH DRYER	WITHOUT DRYER
TYPE	W	L	H	W	L	H		
GA55	458	1055	757	451	1109	693	1329	1229
GA55+	454	1065	743	449	1115	684	1458	1358
GA75	468	1051	780	461	1114	707	1391	1271
GA75+	454	1046	752	448	1101	685	1545	1425
GA90	454	1046	752	446	1100	685	1545	1425
Dimensions in mm: +/- 50 mm							MASS in Kg(Oil included): +/-50 Kg	
WATERCOOLED UNIT								
CENTER OF GRAVITY							MASS	
	WITH DRYER			WITHOUT DRYER			WITH DRYER	WITHOUT DRYER
TYPE	W	L	H	W	L	H		
GA55	452	1029	678	444	1086	600	1209,2	1109,2
GA55+	449	1042	671	442	1095	599	1338,2	1238,2
GA75	452	1023	690	444	1089	599	1256,2	1136,2
GA75+	448	1020	678	440	1079	597	1410,2	1290,2
GA90	448	1020	678	440	1080	597	1410,2	1290,2
Dimensions in mm: +/- 50 mm							MASS in Kg(Oil included): +/-50 Kg	

* DOOR FULLY OPEN

Parent 3D Model	Ed. Version 3D
-----------------	----------------

Tolerances if not indicated, according to:									
ATLAS COPCO STANDARD/Klasse/Class									
Name	DIMENS. DRWG				GA55-90 FS			Secrecy Class	
Material	NOT APPLICABLE				1102 K/ 3				
Treatment	Not Applicable				ACD				
Scale		1:10		Family		A1		Compare	
Version		Drwg 01		Blank wt. 0		Kg		Fire wt. 308.135	Kg
Des checked.		Prod checked.		Approved.		Date		2012-04-18	
STATUS		Approved		Designation		Sheet () 03		01	
Parent 3D Model		Ed. Version 3D		Drawing owner		All		9820 9466 00	

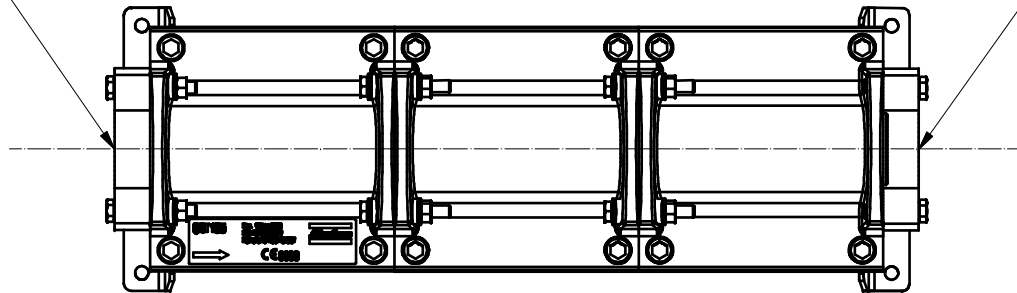
All materials supplied are in compliance with the requirements of the List of Prohibited Substances

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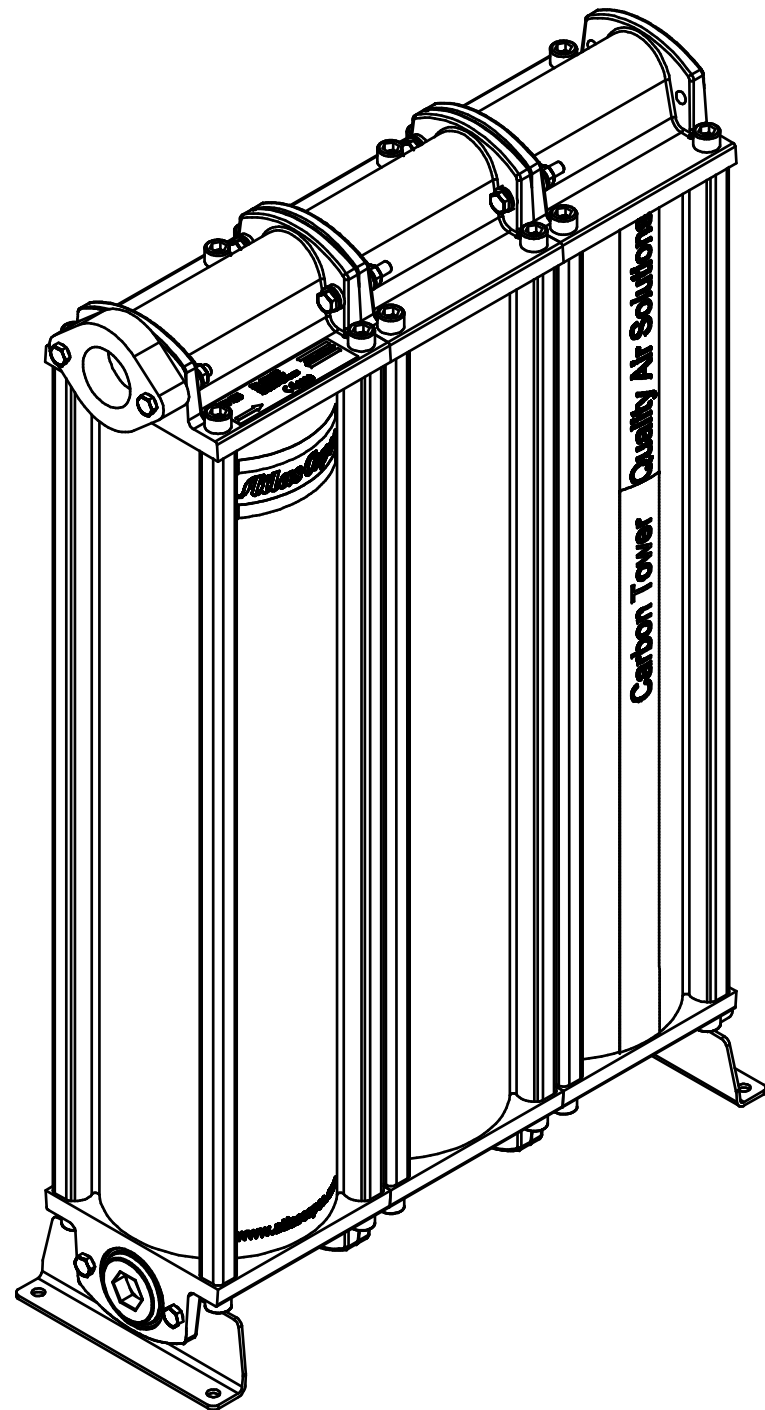
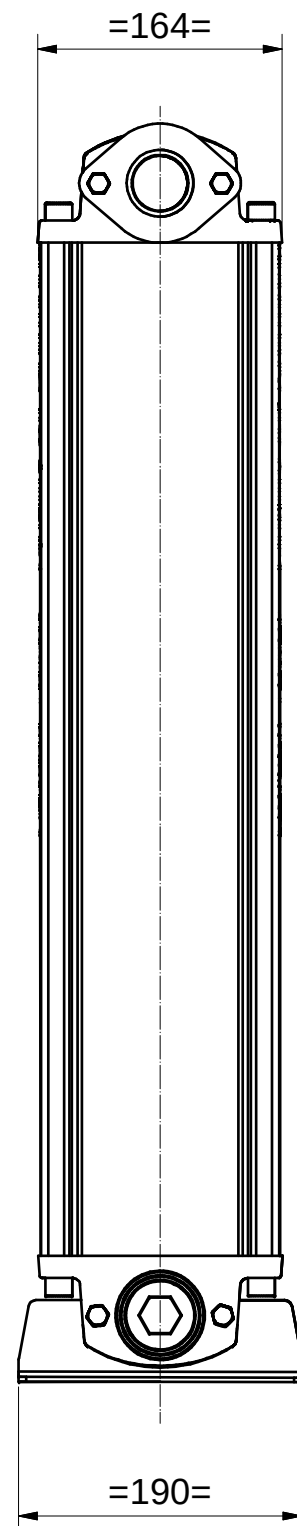
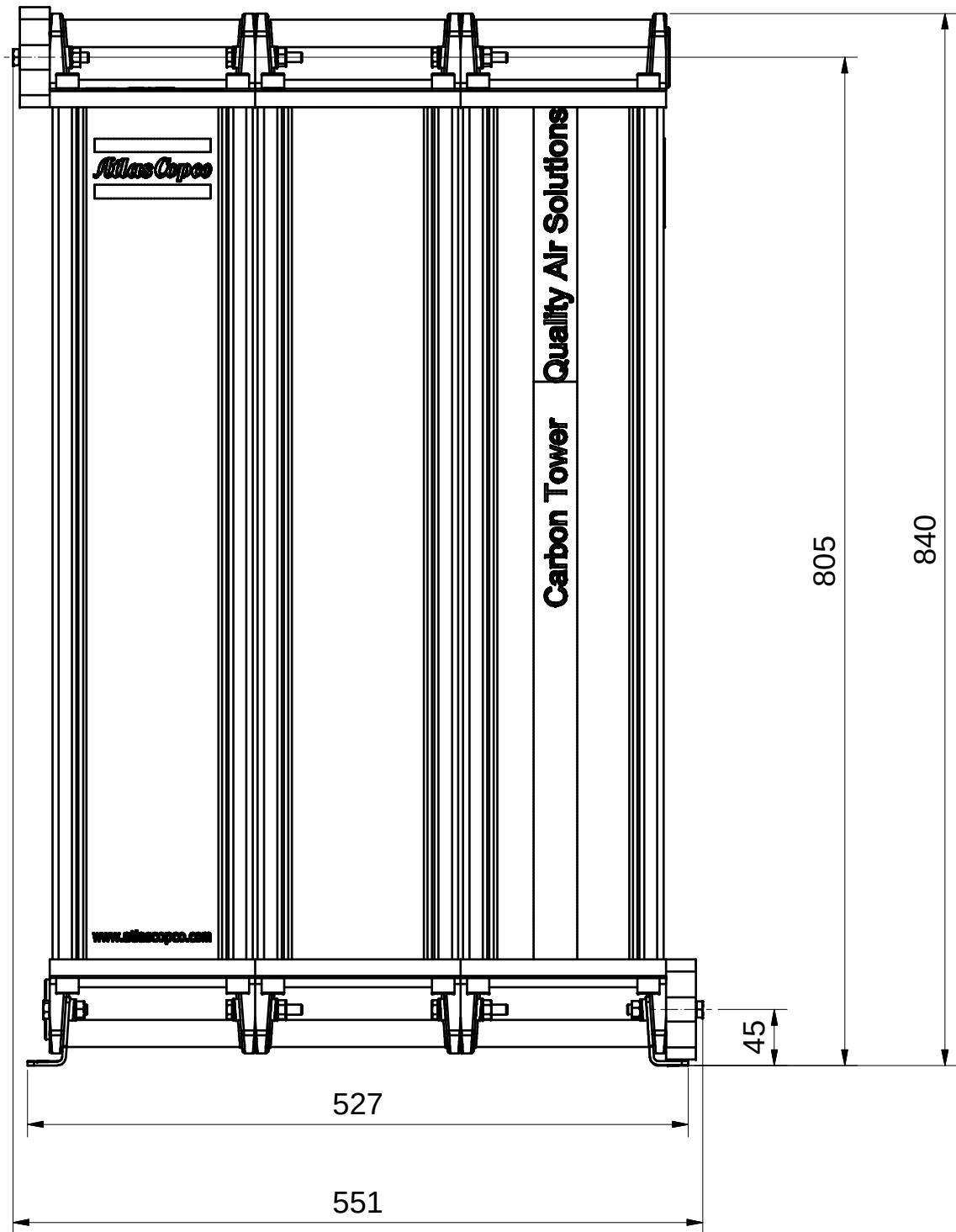
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00				2009-06-29	
Ed	Posi- tion	Gewijzigd van Modified from		Datum Date	Ingev./Goedg Intr./Appd.

Inlet 1 1/2"



Outlet 1 1/2"

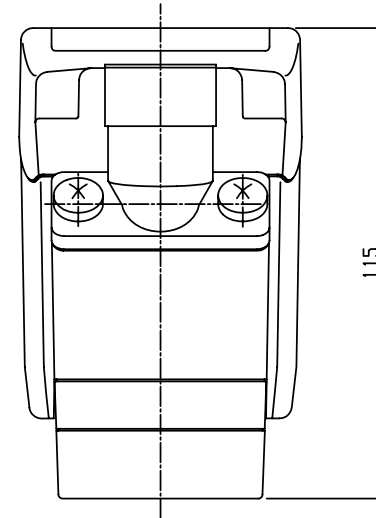
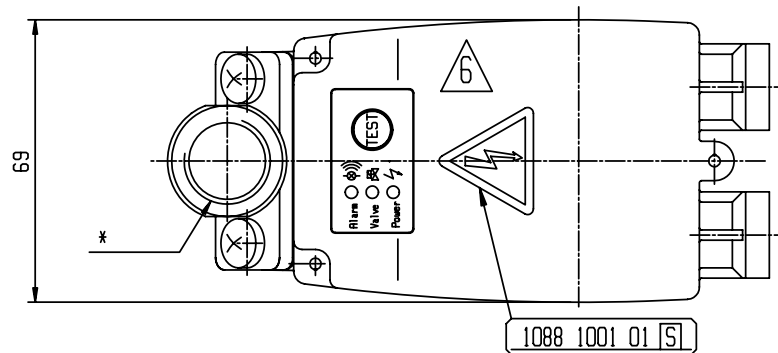
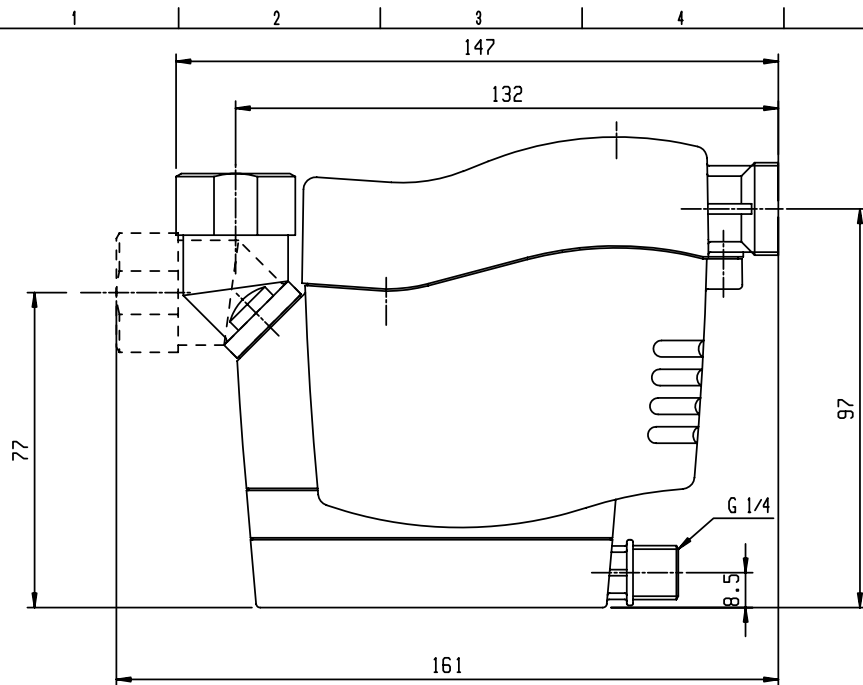


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9827805100	00.06
Parent 3D model	Ed . Version 3D

Tolerances, if not indicated, according to:					
ATLAS COPCO STANDARD CLASS					
Name	ASSEMBLY FOR QDT 185			Secrecy Class	
Material	SEE DRAWING			1102 K / 2	
Treatment	See Drawing			INV	
	Scale	1:5	Family	A2 Compare	Drawing owner All
	Drawn by	AIR14685	Blank nr.	Replaces	
	Version Drwg 00.00	Blank wt 0 Kg	Finis wt. 41.161 Kg	Designation	
STATUS		Des checked.	Prod checked.	Approved.	Date 2009-02-02
Approved		9827805100			Sheet 1 / 1

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			ATLAS COPCO			COMMENT
			PRODUCT NO.	DRAWING NO.	*	
EWD 50	230 V	(50 - 60 Hz)	8102 0431 74	1613 8913 01	G 1/2	
EWD 50	110 V	(50 - 60 Hz)	8102 0431 82	1613 8913 02	G 1/2	
EWD 50	24 V	(50 - 60 Hz)	--	--		
EWD 50	110 V NPT	(50 - 60 Hz)	8102 0431 90	1613 8913 04	1/2 14 NPT	
EWD 50 A	230 V	(50 - 60 Hz)	8102 0432 08	1613 8913 05	G 1/2	pot. free contact
EWD 50 A	110 V	(50 - 60 Hz)	8102 0432 16	1613 8913 06	G 1/2	pot. free contact
EWD 50 A	24 V	(50 - 60 Hz)	8102 0432 24	1613 8913 07	G 1/2	pot. free contact
EWD 50 A	110 V NPT	(50 - 60 Hz)	8102 0432 32	1613 8913 08	1/2 14 NPT	pot. free contact
EWD 50 B	230 V	(50 - 60 Hz)	8102 0434 89	1613 8913 09	G 1/2	pot. free contact
EWD 50 B	110 V	(50 - 60 Hz)	8102 0434 97	1613 8913 10	G 1/2	pot. free contact
EWD 50 B	24 V	(50 - 60 Hz)	8102 0435 05	1613 8913 11	G 1/2	pot. free contact
EWD 50 B	110 V NPT	(50 - 60 Hz)	8102 0435 13	1613 8913 12	1/2 14 NPT	pot. free contact
EWD 50 L	230 V	(50 - 60 Hz)	8102 0436 20	1613 8913 13		DRAIN OIL
EWD 50 L	110 V	(50 - 60 Hz)	8102 0436 38	1613 8913 14		DRAIN OIL
EWD 50 L	124 V	(50 - 60 Hz)	8102 0436 46	1613 8913 15		DRAIN OIL

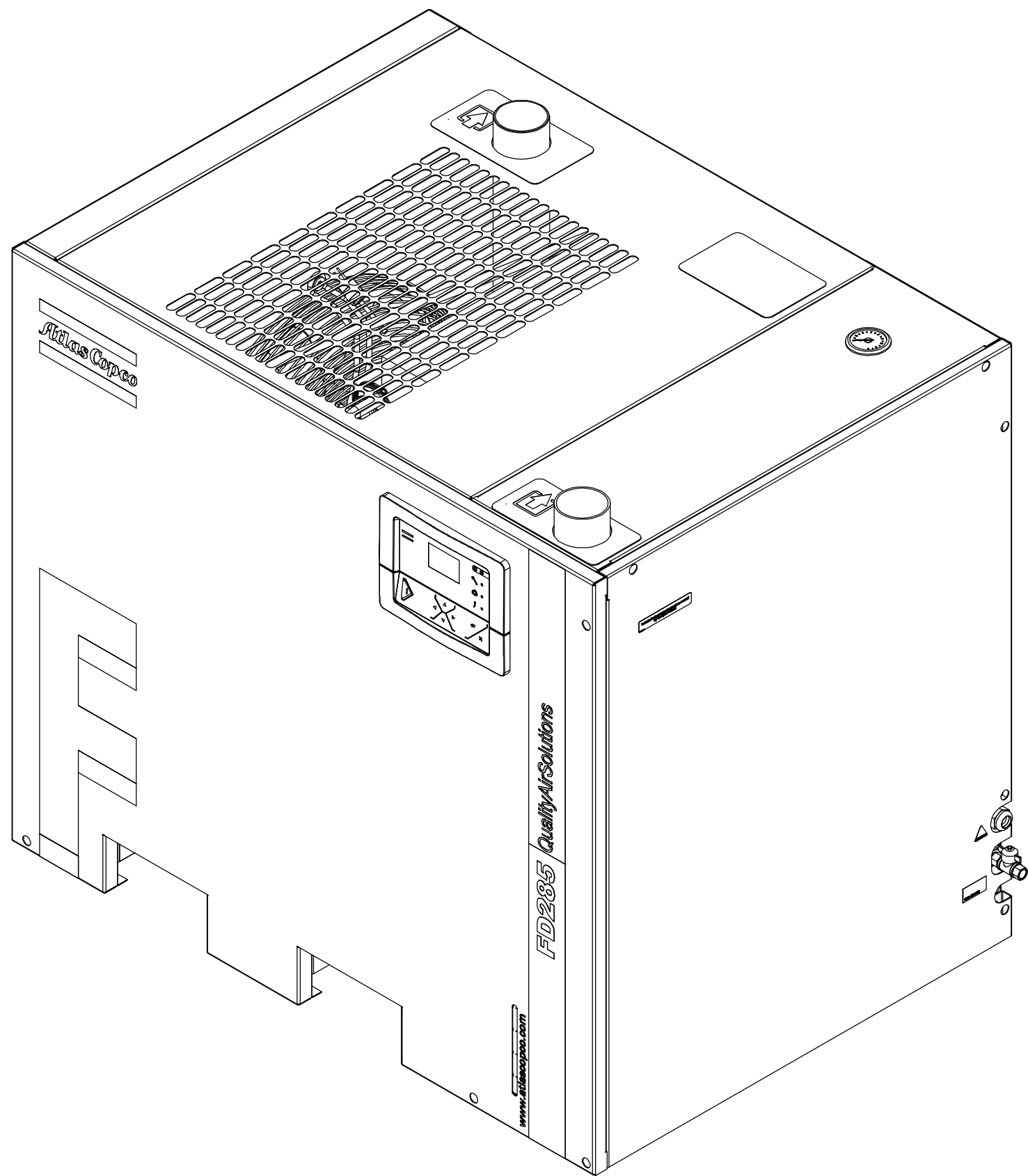
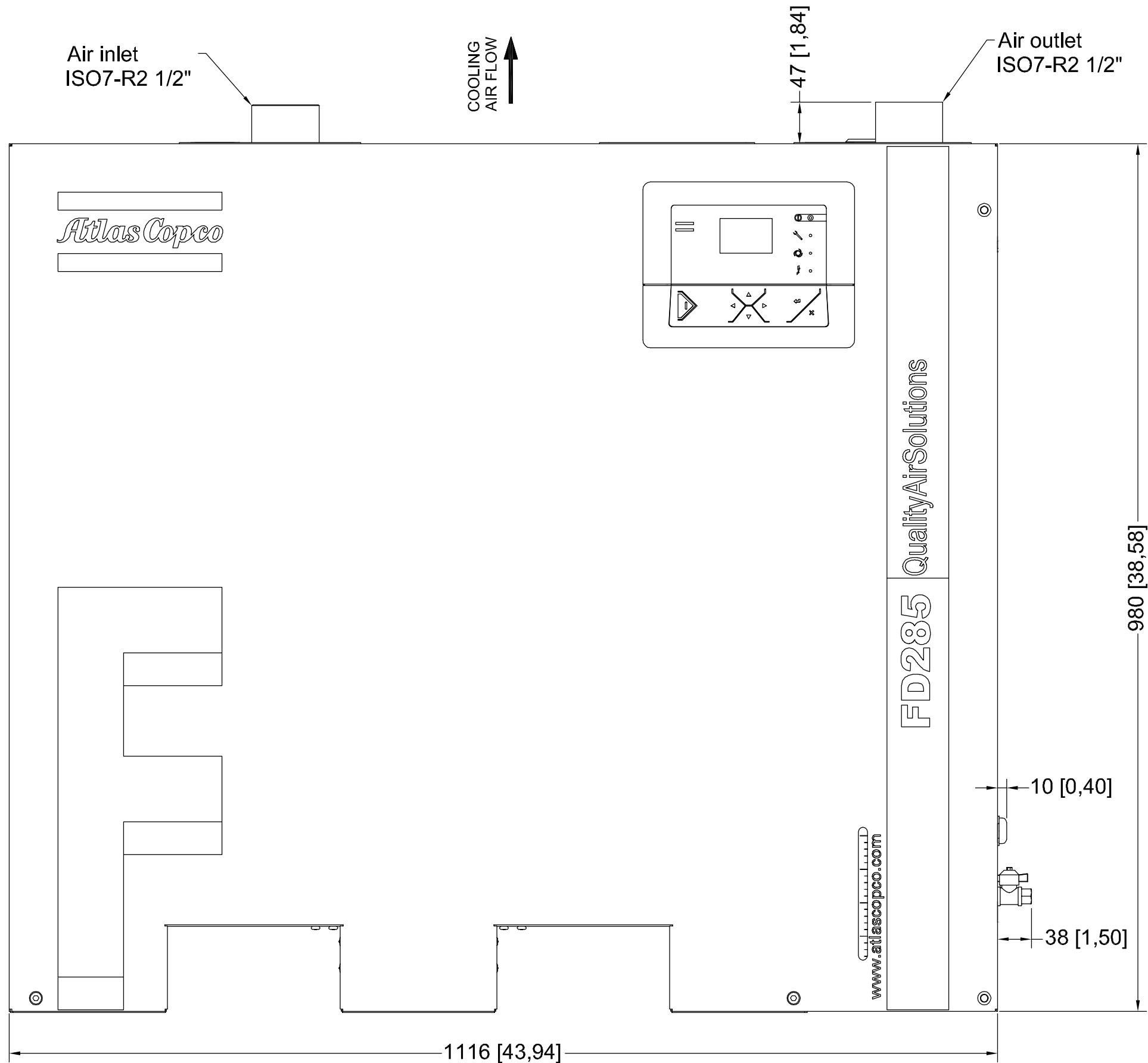
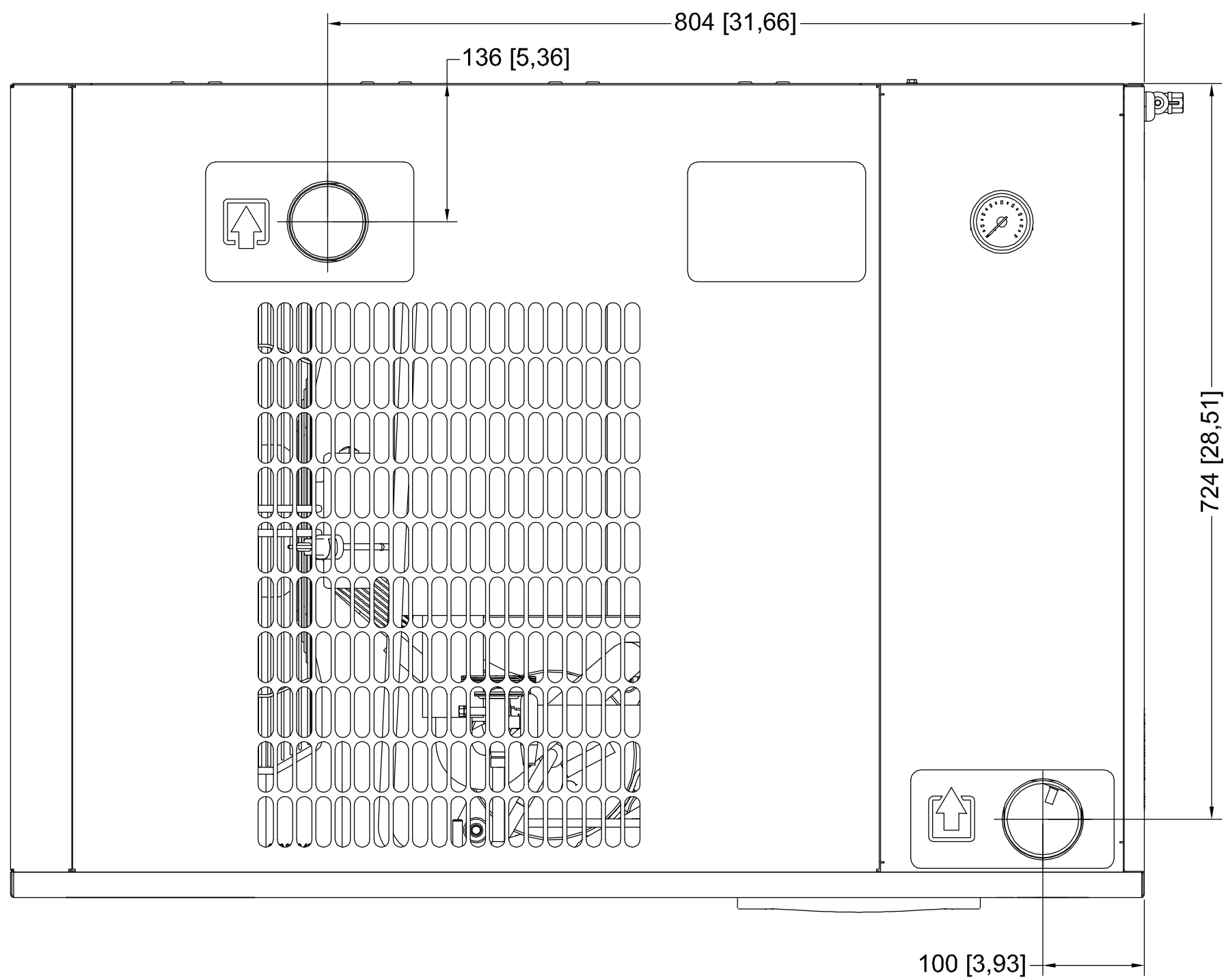
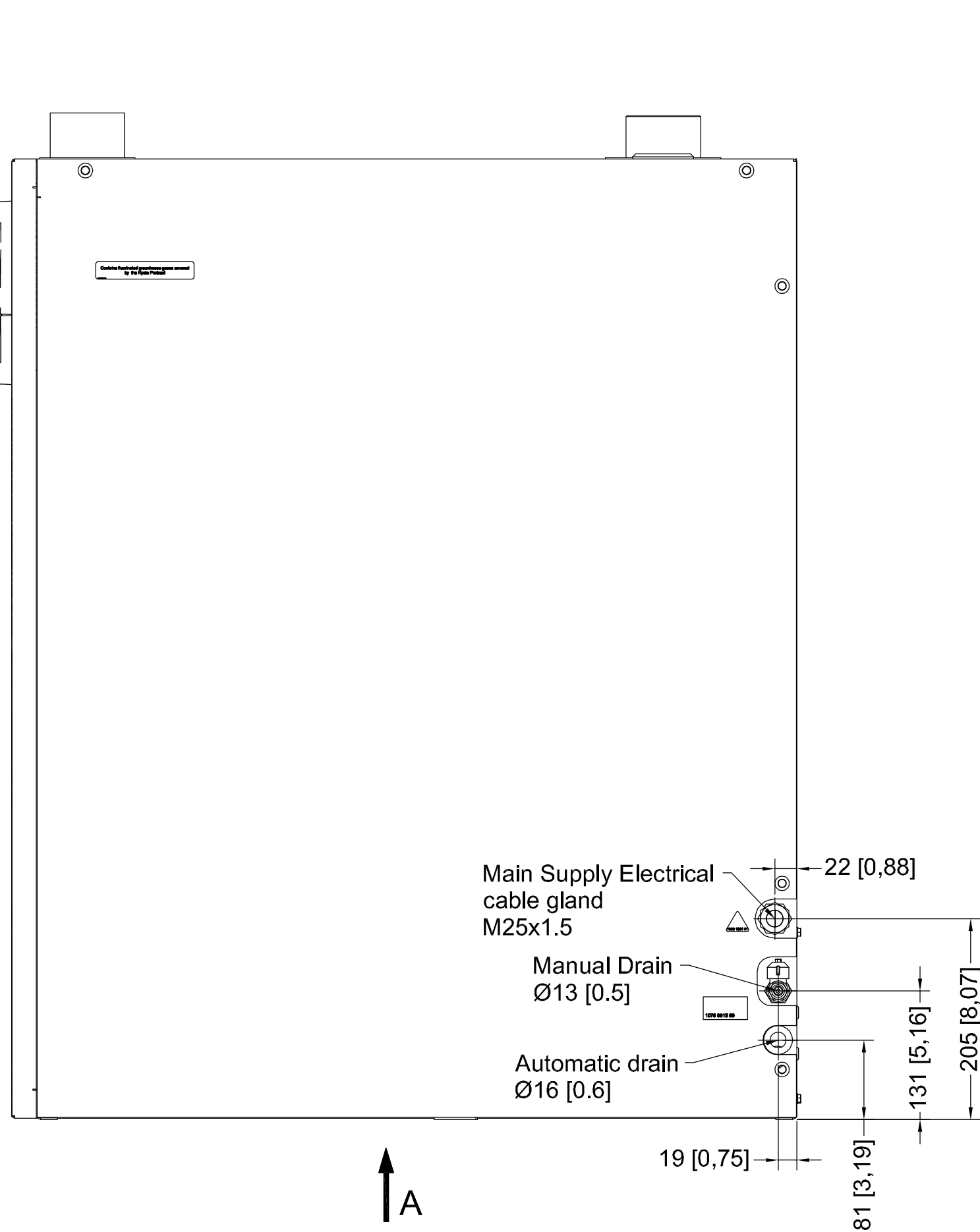
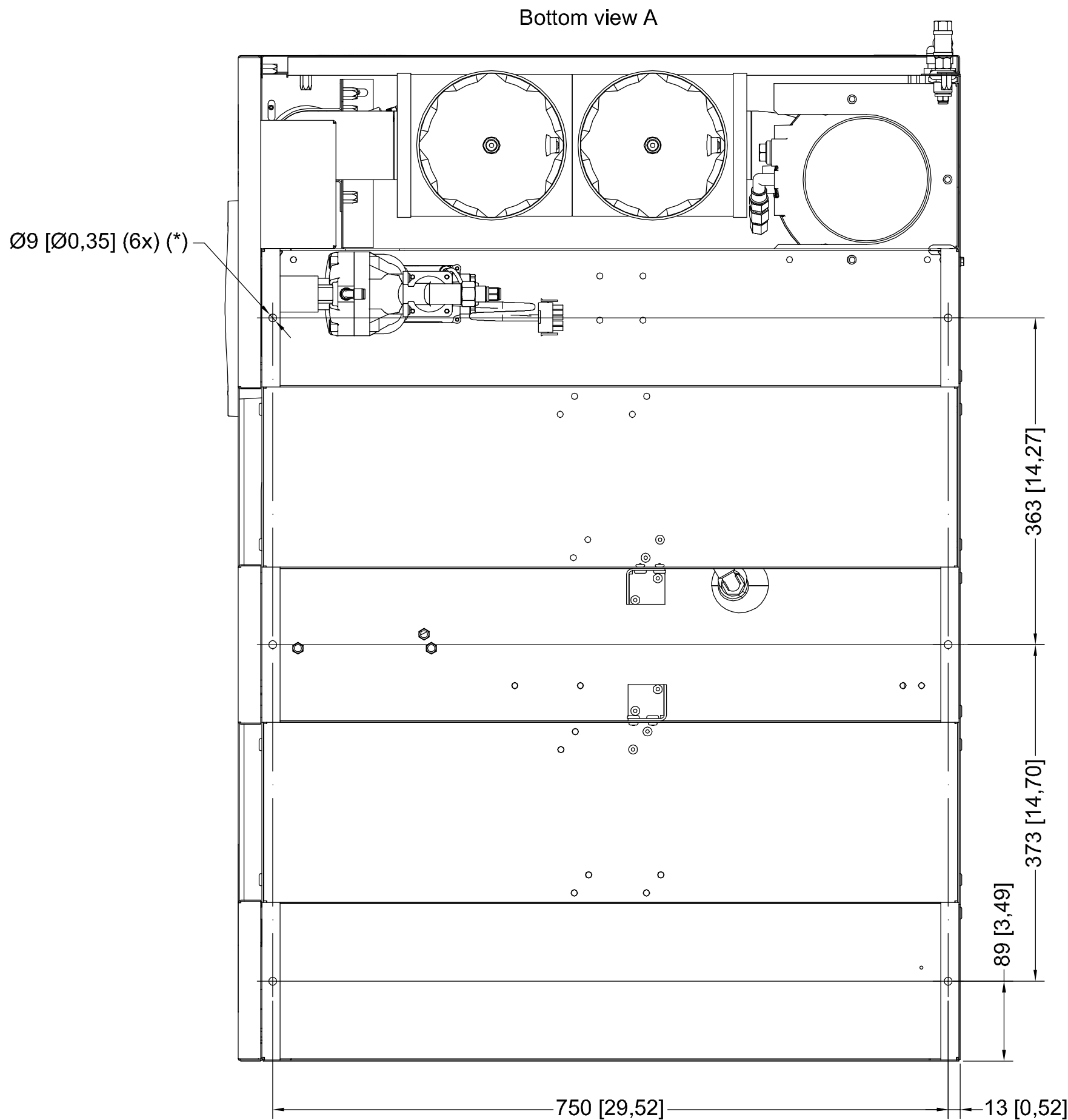
06		added label 1088 1001 01	2006-06-13				
Nota Note	Posi- tion	Gewijzigd van Modified from	Datum Date	Ingev./Goedg. Intr./Appd.	Bijhorende tekeningen en documenten Appurtenant drawings and documents		

Approved

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Note	Position	Modified from	Date	Int./Appd.
02			2011-11-18	



Shipping mass: 237Kg
For 60Hz NPT 0605 8350 28
are supplied for in- and outlet.

All materials supplied are in compliance with the requirements of the List of Prohibited Substances

Tolerances if not indicated according to:											
ATLAS COPCO STANDARD Class											
Name		DIMENS. DRWG				FD185-285		Secretary Class			
Material		NOT APPLICABLE				1102 K/ 2					
Treatment		Not Applicable				ACD					
		Scale 1:1		Family		A1	Compare		Drawing owner Alli		
		Drawn by AIR14652		Blank nr.			Replaces				
Version Drawg 02		Blank wt. 0		kg		First wt. 313.707	kg	Designation		Sheet () 04 01	
STATUS		Des checked		Prod checked		Approved		Date 2010-03-25		9827 9824 00	
Approved											



Compressed air filters



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.

THE ATLAS COPCO SOLUTION

Compressed air can be contaminated by dirt, water and oil, which can be further divided as follows:

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

Atlas Copco offers a wide selection of filtration solutions and application knowledge. Different product types and grades are available to meet your every demand. Only genuine spare cartridges guarantee the Atlas Copco filter performance.



Welded design

6 grades
12 sizes
550 → 8,000 l/s
1,200 → 17,000 cfm

Tower design

1 grade
14 sizes
20 → 1800 l/s
42 → 3814 cfm

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

Threaded design

5 grades
9 sizes
15 → 944 l/s
32 → 2,000 cfm

Threaded design

5 grades
11 sizes
9 → 520 l/s
19 → 1,102 cfm

Threaded design

1grade
10 sizes
400 → 6,700 l/min
14 → 237 cfm



Cast design

6 grades
13 sizes
9 → 550 l/s
19 → 1,200 cfm



850 → 1,100 l/s
1,801 → 2,331 cfm



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



Dry dust



Micro-organisms



Oil aerosol



Wet dust



Oil vapor



Water drops

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 inferior quality of the 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. These 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

FILTER APPROVALS			COMPANY CERTIFICATION		
CE	ASME	CRN	®	®	®
ACTIVE MEMBER OF					
pneurop	CAGI	bcas	VDMA		

A SOLUTION FOR EVERY APPLICATION

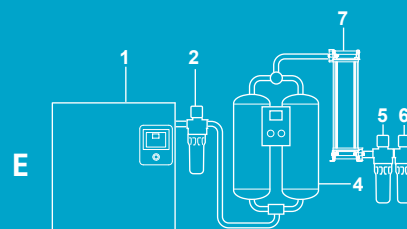
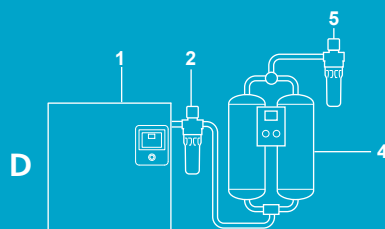
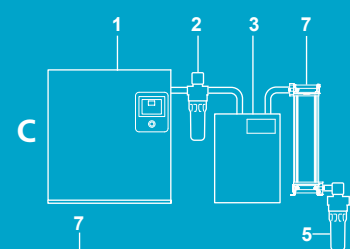
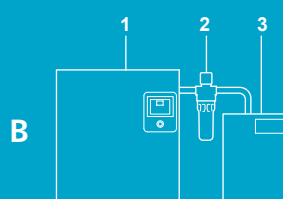
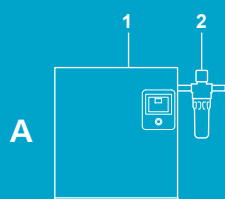
At different points of use, different compressed air purities might be needed, depending on the application. The various air purity classes are provided in the table below, which clearly shows the various Atlas Copco filters and dryers that meet all the different classes.

ISO 8573-1:2010 CLASS	Solid particles		Water	Oil (= aerosol, liquid, vapor)		
	Wet conditions	Dry conditions				
0	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	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	-		

* 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 after cooler including a drain or a water separator (WSD). Always install a water separator in front of a coalescence filter. In case of critical applications, install extra air treatment products at point of use for the removal of pipeline contamination and condensation.

UD+ SERIES

Two-in-one oil coalescing filters with supreme energy savings

UD+ filters efficiently reduce oil aerosol, wet dust and water drops in your compressed air stream to protect your investment, equipment and processes. The UD+ combines two filtration steps (DD+ and PD+) into one, a unique technology to meet the high-quality requirements of diverse applications and provide ultimate energy savings.



YOUR BENEFITS

40% energy savings

A 40% lower pressure drop than the conventional filter combination results in 40% higher energy efficiency.

Pure air

Air purity is equal to that obtained using two filters in line, thanks to the thick filter package of UD+ filters.

Save space

The two-in-one filtration concept reduces installation space and complexity, making UD+ filters particularly suitable for applications where space is at a premium.

Save money

Install UD+ filters to enjoy significant cost savings compared to conventional filters.

Performance

	UD+
Contaminant	Oil aerosol/wet dust
Test method	ISO 8573-2:2007, ISO 12500-1:2007
Maximum oil carry-over (mg/m ³)*	0.0009
Wet pressure drop (mbar)	245
Element service	After 4,000 operating hours or 1 year
Precede with	Water separation

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

Sizing & dimensions

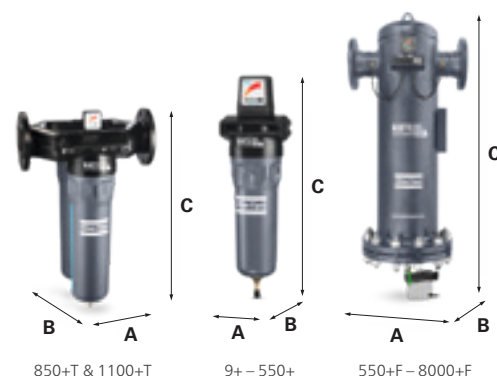
FILTER SIZE UD+	Nominal capacity		Reference pressure		Maximum pressure		Connections	Dimensions						Free space for cartridge replacement		Weight	
								A		B		C					
	l/s	cfm	bar(e)	psig	bar(e)	psig		in	mm	in	mm	in	mm	in	mm	in	kg
9+	9	19	7	102	16	232	3/8	90	3.5	61	2.4	268	10.6	75	2.9	1.0	2.2
15+	15	32	7	102	16	232	1/2	90	3.5	61	2.4	268	10.6	75	2.9	1.1	2.4
25+	25	53	7	102	16	232	1/2	90	3.5	61	2.4	323	12.8	75	2.9	1.3	2.9
45+	45	95	7	102	16	232	3/4 & 1	110	4.3	99	3.9	374	14.7	75	2.9	1.6	4.2
60+	60	127	7	102	16	232	1	110	4.3	99	3.9	414	16.3	75	2.9	2.1	4.6
100+	100	212	7	102	16	232	1	140	5.5	105	4.0	425	16.7	100	3.9	3.7	8.2
140+	140	297	7	102	16	232	1-1/2	140	5.5	105	4.1	520	20.5	100	3.9	4.2	9.3
180+	180	381	7	102	16	232	1-1/2	140	5.5	105	4.1	603	23.7	100	3.9	4.5	9.9
220+	220	466	7	102	16	232	1-1/2	140	5.5	105	4.1	603	23.7	100	3.9	4.6	10.1
310+	310	657	7	102	16	232	2 & 2-1/2	179	7.1	121	4.8	689	27.1	150	5.9	6.9	15.2
425+	425	901	7	102	16	232	3	210	8.3	128	5.1	791	31.1	200	7.9	11.0	24.2
550+	550	1165	7	102	16	232	3	210	8.3	128	5.1	961	37.8	200	7.9	12.6	27.8
550+F	550	1165	7	102	16	232	DN80	370	14.6	280	11.0	1295	51.0	1375	54.1	76.0	167.6
850+T	850	1.801	7	102	16	232	DN100	510	20.1	418	16.5	796	31.3	200	7.9	35.2	77.6
850+F	850	1801	7	102	16	232	DN100	510	20.1	410	16.1	1360	53.5	1500	59.1	141.0	310.9
1100+T	1.100	2.331	7	102	16	232	DN100	510	20.1	418	16.5	966	38.0	200	7.9	37.4	82.4
1100+F	1100	2331	7	102	16	232	DN100	510	20.1	410	16.1	1360	53.5	1500	59.1	143.0	315.3
1400+F	1400	2967	7	102	16	232	DN150	620	24.4	485	19.1	1480	58.3	1560	61.4	210.0	463.0
1800+F	1800	3814	7	102	16	232	DN150	640	25.2	490	19.3	1555	61.2	1640	64.6	176.0	388.0
2200+F	2200	4662	7	102	16	232	DN150	640	25.2	490	19.3	1555	61.2	1640	64.6	178.0	392.4
3000+F	3000	6357	7	102	16	232	DN200	820	32.3	650	17.7	1745	68.7	1710	67.3	420.0	925.9
4000+F	4000	8476	7	102	16	232	DN200	820	32.3	650	17.7	1745	68.7	1710	67.3	428.0	943.6
5000+F	5000	10595	7	102	16	232	DN200	820	32.3	650	17.7	1745	68.7	1710	67.3	432.0	952.4
6000+F	6000	12714	7	102	16	232	DN250	920	36.2	815	32.1	2085	82.1	1625	64.0	671.0	1479.3
7000+F	7000	14833	7	102	16	232	DN250	920	36.2	815	32.1	2085	82.1	1625	64.0	675.0	1488.1
8000+F	8000	16952	7	102	16	232	DN300	1040	40.9	930	36.6	2070	81.5	1625	64.0	900.0	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 45+: 45 l/s * 0.65 = 29 l/s => the 45+ filter size is not large enough.
 - Size 60+: 60 l/s * 0.65 = 39 l/s => the 60+ filter size is the size to select.



Options

- Filter connection kit for easy mounting in series (9-550 l/s).
- Wall mounting kit simplifies installation (9-550 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 size 9+ - 550+, 850+T and 1100+T; standard on size 550+F and larger).

Certification

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



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 ³)*	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/m³. Oil = oil aerosol and liquid.

Sizing & dimensions

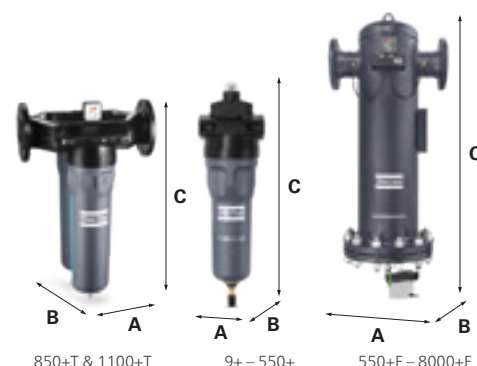
Filter Size DD/PD		Nominal capacity				Reference pressure		Maximum pressure		Connections	Dimensions						Free space for cartridge replacement		Weight	
											Standard		+		A					
Standard	+	l/s	cfm	l/s	cfm	bar(e)	psig	bar(e)	psig	in	mm	in	mm	in	mm	in	mm	in	kg	lbs
12	10+	12	25	10	21	7	102	16	232	3/8	90	3.5	61	2.4	268	10.6	75	2.9	1.0	2.2
25	20+	25	53	20	42	7	102	16	232	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	16	232	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	16	232	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	16	232	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	16	232	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	16	232	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	16	232	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	16	232	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	280	11	1295	51.0	1375	54.1	76.0	167.6
-	850+T	-	-	850	1801	7	102	16	232	DN100	510	20.1	418	16.5	796	31.3	200	7.9	35.2	77.6
970F	850+F	970	2055	850	1801	7	102	16	232	DN100	510	20.1	410	16.1	1360	53.5	1500	59.1	141.0	310.9
-	1100+T	-	-	1100	2331	7	102	16	232	DN100	510	20.1	418	16.5	966	38.0	200	7.9	37.4	82.4
1260F	1100+F	1260	2670	1100	2331	7	102	16	232	DN100	510	20.1	410	16.1	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	485	19.1	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	490	19.3	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	490	19.3	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	650	25.6	1745	68.7	1710	67.3	420.0	925.9
-	4000+F	-	-	4000	8476	7	102	16	232	DN200	820	32.3	650	25.6	1745	68.7	1710	67.3	428.0	943.6
-	5000+F	-	-	5000	10595	7	102	16	232	DN200	820	32.3	650	25.6	1745	68.7	1710	67.3	432.0	952.4
-	6000+F	-	-	6000	12714	7	102	16	232	DN250	920	32.3	815	32.1	2085	80.3	1625	64	671.0	1479.3
-	7000+F	-	-	7000	14833	7	102	16	232	DN250	920	36.2	815	32.1	2085	82.1	1625	64	675.0	1488.1
-	8000+F	-	-	8000	16952	7	102	16	232	DN300	1040	40.9	930	36.6	2070	81.5	1625	64	900.0	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

DDp(+)/PDp(+) SERIES

Optimal dry dust filtration

DDp(+) and PDp(+) filters efficiently prevent dust, particulates and micro-organisms arising from corrosion, 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 increasing quality demands.



YOUR BENEFITS

Maximum dirt, solid particles, micro-organisms and rust particles removal

High-efficient glass fiber and foam media.

Significant energy savings & limited system operating costs

Optimal design and filter media allow for 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 45-8000 l/s) (optional for standard range).

Performance

	DDp	PDp	DDp+	PDp+
Contaminant	Dry dust			
Test method	ISO 8573-4:2001, ISO 12500-3:2009			
Particle removal efficiency (% at MPPS)	99.81	99.97	99.92	99.98
Dry pressure drop (mbar)	135	150	85	100
Element service	After 4,000 operating hours or 1 year or 350 mbar pressure drop			
Precede with	Dryer	Dryer DDp	Dryer	Dryer DDp+

Sizing & dimensions

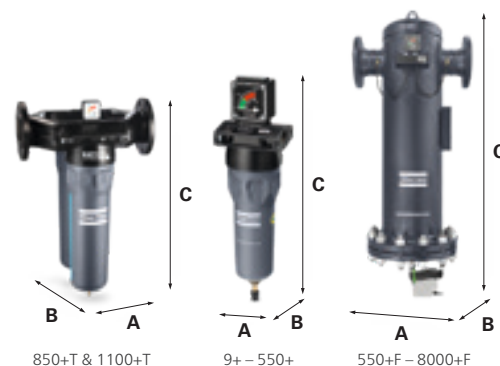
FILTER SIZE DDp/PDp		Nominal capacity				Reference pressure		Maximum pressure		Connections	Dimensions						Free space for cartridge replacement		Weight	
											Standard		+		A					
Standard	+	l/s	cfm	l/s	cfm	bar(e)	psig	bar(e)	psig	in	mm	in	mm	in	mm	in	mm	in	kg	lbs
12	10+	12	25	10	21	7	102	16	232	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	16	232	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	16	232	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	16	232	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	16	232	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	16	232	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	16	232	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	16	232	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	16	232	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	280	11	1295	51.0	1375	54.1	76.0	167.6
-	850+T	-	-	850	1801	7	102	16	232	DN100	510	20.1	418	16.5	796	31.3	200	7.9	35.2	77.6
970F	850+F	970	2055	850	1801	7	102	16	232	DN100	510	20.1	410	16.1	1360	53.5	1500	59.1	141.0	310.9
-	1100+T	-	-	1100	2331	7	102	16	232	DN100	510	20.1	418	16.5	966	38.0	200	7.9	37.4	82.4
1260F	1100+F	1260	2670	1100	2331	7	102	16	232	DN100	510	20.1	410	16.1	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	485	19.1	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	490	19.3	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	490	19.3	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	650	25.6	1745	68.7	1710	67.3	420.0	925.9
-	4000+F	-	-	4000	8476	7	102	16	232	DN200	820	32.3	650	25.6	1745	68.7	1710	67.3	428.0	943.6
-	5000+F	-	-	5000	10595	7	102	16	232	DN250	820	32.3	650	25.6	1745	68.7	1710	67.3	432.0	952.4
-	6000+F	-	-	6000	12714	7	102	16	232	DN250	920	32.3	815	32.1	2085	80.3	1625	64	671.0	1479.3
-	7000+F	-	-	7000	14833	7	102	16	232	DN300	920	36.2	815	32.1	2085	82.1	1625	64	675.0	1488.1
-	8000+F	-	-	8000	16952	7	102	16	232	DN300	1040	40.9	930	36.6	2070	81.5	1625	64	900.0	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).
- Voltage-free contact mounted in the differential pressure gauge, to give remote indication of cartridge replacement.

Certification

- ISO 8573-4:2001
- ISO 12500-3:2009

Voltage-free contact



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, by the use of 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

Robust design and optimal filter material.

Options

- Oil indicator ensures pure air.
- Wall mounting kit for easy installation (20 – 185 l/s).



Certification

ISO 8573-5:2001

Performance

	QDT
Contaminant	Oil vapor
Test method	ISO 8573-5:2001, ISO 12500-2:2007
Maximum oil carry-over (mg/m ³)*	0.003
Dry pressure drop (mbar)	125 (QDT 20-310) 72 (QDT 425-1800)
Element service	After 4,000 operating hours or 1 year
Precede with	Water separation UD+ or DD+/PD+ Dryer

* After UD+ or DD+/PD+ with inlet oil concentration of 10 mg/m³.

Sizing & dimensions

FILTER SIZE QDT	Nominal capacity		Connections G or NPT threaded	Dimensions						Weight	
				A		B		C			
	l/s	cfm	DIN or ANSI flanged	mm	in	mm	in	mm	in	kg	lbs
20	20	42	1/2"	490	19	223	9	190	7	10	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	DN80 / 3"	2148	85	710	28	600	24	264	581
550	550	1165	DN80 / 3"	2190	86	710	28	670	26	302	664
850	850	1801	DN100 / 4"	2320	91	724	29	805	32	391	860
1100	1100	2331	DN100 / 4"	2450	97	934	37	820	32	602	1324
1800	1800	3814	DN150 / 6"	2612	103	1046	41	980	39	882	1940

Correction factors

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

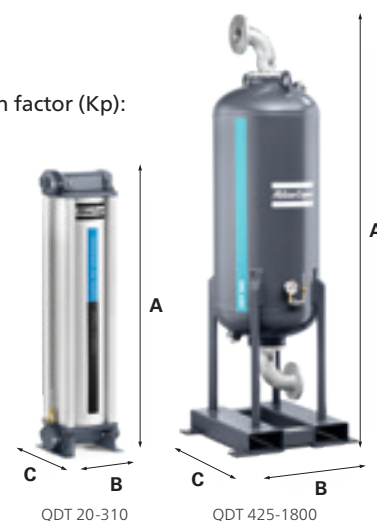
Inlet temperature °C	20	25	30	35	40	45	50	55	60
Inlet temperature °F	68	77	96	95	104	113	122	131	140
Correction factor	1	1	1	1	0.85	0.67	0.59	0.48	0.42

For other compressed air inlet pressures, please 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

Example

- Working temperature 50°C, pressure 12 bar(g), compressed air flow 120 l/s.
- Multiply the nominal capacity of the selected filter with the corresponding correction factors at the required working temperature and pressure to obtain the capacity at operating condition
 - QDT 150: $150\text{ l/s} \times 0.59 \times 1.11 = 98\text{ l/s} \Rightarrow$ A QDT 150 filter is not large enough
 - QDT 195: $195\text{ l/s} \times 0.59 \times 1.11 = 128\text{ l/s} \Rightarrow$ A QDT 195 filter is the correct size



UD+ & QDT: the winning combination



CLASS 1: Total oil, according ISO 8573-1:2010

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/m ³ aerosol and liquid	Guaranteed 0.003 mg/m ³ 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

QD(+) SERIES

High performance oil vapor filters

QD(+) filters efficiently reduce hydrocarbons, odors and oil vapor in your compressed air stream to protect your investment, equipment and processes. The activated carbon layers will, by the use of adsorption, reduce the residual oil content to less than 0.003 mg/m³. The pressure drop is low and stays minimal during the lifetime of the filter.



YOUR BENEFITS

Maximum oil vapor removal

Highly efficient activated carbon layers.

Significant energy savings & limited system operating costs

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.

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).

For sizing and dimensions, please refer to the product pages of the DD(+) & PD(+) Series.

Performance

	QD	QD+
Contaminant	Oil vapor	
Test method	ISO 8573-5:2001	
Maximum oil carry-over (mg/m ³)*	0.003*	
Dry pressure drop (mbar)	190	140
Element service	After 1,000 operating hours or 1 year. Service life is decreased when inlet temperature exceeds 35°C, 95°F	
Precede with	Water separation DD/PD Dryer	Water separation UD+ or DD+/PD+ Dryer

* After UD+ or DD(+)/PD(+) with inlet oil concentration of 10 mg/m³.

SFA SERIES

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

Superb air purity is a prerequisite to safeguard your instruments and end product. Our silicone-free SFA filters efficiently prevent dry and wet dust, particulates, oil aerosol and water drops 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. High-efficiency glass fiber and fleece media.

Significant energy savings & limited system operating costs

Optimal design and filter media allow for low pressure drops.

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 and push-on elements.

Monitoring of energy use

Differential pressure indication (indicator for sizes 9-32 l/s, gauge for sizes 44-520 l/s) (optional).

Applications

- Painting
- Automotive

Options

- Filter connection kit (9-520 l/s).
- Wall-mounting kit (9-520 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)



The performance of the SFA filters is comparable to the performance of the + range filters (please refer to pages 8, 10 and 14).

Sizing & dimensions

FILTER SIZE	Nominal capacity*		Maximal capacity*		Connections G or NPT	Dimensions						Free space for cartridge replacement		Weight	
						A		B		C		D			
DD, DDp, PD, PDp, QD	l/s	cfm	l/s	cfm	in	mm	in	mm	in	mm	in	mm	in	kg	lbs
9	9	19	11	23	3/8	90	3.54	61	2.40	268	10.55	75	2.95	1	2.2
17	17	36	21	45	1/2	90	3.54	61	2.40	268	10.55	75	2.95	1.1	2.4
32	32	68	40	85	1/2	90	3.54	61	2.40	323	12.72	75	2.95	1.3	2.9
44	44	93	55	117	3/4 & 1	110	4.33	98.5	3.88	374	14.72	75	2.95	1.9	4.19
60	60	127	75	159	1	110	4.33	98.5	3.88	414	16.3	75	2.95	2.1	4.6
120	120	254	150	318	1-1/2	140	5.51	105	4.13	520	20.47	100	3.94	4.2	9.3
150	150	318	188	399	1-1/2	140	5.51	105	4.13	603	23.47	100	3.94	4.5	9.9
175	175	371	219	464	1-1/2	140	5.51	105	4.13	603	23.47	100	3.94	4.6	10.1
280	280	594	350	742	2 & 2-1/2	179	7.05	121	4.76	689	27.13	150	5.91	6.9	15.2
390	390	827	488	1035	3	210	8.27	128	5.04	791	31.14	200	7.87	11	24.2
520	520	1102	650	1378	3	210	8.27	128	5.04	961	37.83	200	7.87	12.6	27.8

* Nominal pressure: 7 bar(e)/102 psig; temperature: 20°C, 68°F.



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 up to working pressures of 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-efficient glass fiber and fleece media.

Significant energy savings & limited system operation cost

Optimal design and filter media allow for low pressure losses.

High reliability

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

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 8573-4:2001 ISO 12500-3:2009		ISO 8573-2:2007 ISO 12500-1:2007		ISO 8573-5:2001
Maximum oil carry-over (mg/m ³)	-	-	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
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												
15+	54	15	32	3/8	90	3.5	61	2.4	268	10.6	1.0	2.2
32+	115	32	68	1/2	90	3.5	61	2.4	268	10.6	1.1	2.4
55+	198	55	117	1/2	90	3.5	61	2.4	323	12.7	1.3	2.9
80+	288	80	170	3/4 & 1	110	4.3	99	3.9	374	14.7	1.6	3.5
110+	396	110	233	1	110	4.3	99	3.9	414	16.3	2.1	4.6
200+	720	200	424	1 1/2	140	5.5	105	4.1	520	20.5	4.2	9.3
270+	972	270	572	1 1/2	140	5.5	105	4.1	603	23.7	4.5	9.9
330+	1188	330	699	1 1/2	140	5.5	105	4.1	603	23.7	4.6	10.1
490+	1764	490	1038	2 & 2 1/2	179	7.0	121	4.8	689	27.1	6.9	15.2
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	7.4	0.3	0.7
450+	450	125	265	1/2	114	4.4	114	4.4	305	11.9	2.6	5.7
550+	550	153	324	3/4	114	4.4	114	4.4	305	11.9	2.6	5.7
835+	835	232	491	1	114	4.4	114	4.4	395	15.4	3.3	7.3
1250+	1250	347	736	1 1/2	146	5.7	146	5.7	435	17.0	7.5	16.5
1725+	1725	479	1015	1 1/2	146	5.7	146	5.7	435	17.0	7.5	16.5
1925+	1925	535	1133	2	146	5.7	146	5.7	435	17.0	7.5	16.5
3200+	3200	889	1883	2	146	5.7	146	5.7	635	24.8	10	22.0
50 bar Stainless Steel												
100+	100	28	59	1/4	85	3.3	85	3.3	202	7.9	1.7	3.7
200+	200	56	118	3/8	85	3.3	85	3.3	227	8.9	2	4.4
340+	340	94	200	1/2	85	3.3	85	3.3	257	10.0	2.2	4.8
500+	500	139	294	3/4	110	4.3	110	4.3	270	10.5	4	8.8
1000+	1000	278	589	1	110	4.3	110	4.3	422	16.5	5	11.0
1700+	1700	472	1000	1 1/2	150	5.9	150	5.9	517	20.2	15	33.1
2040+	2040	567	1200	2	150	5.9	150	5.9	517	20.2	15	33.1
3400+	3400	944	2000	2	150	5.9	150	5.9	817	31.9	21	46.3
100 bar Stainless Steel												
100+	100	28	59	1/4	65	2.5	65	2.5	135	5.3	3.2	7.1
315+	315	88	185	1/2	65	2.5	65	2.5	250	9.8	5.6	12.3
460+	460	128	271	3/4	88	3.4	88	3.4	275	10.7	6.1	13.4
680+	680	189	400	1	135	5.3	135	5.3	265	10.3	10.5	23.1
1200+	1200	333	706	1	135	5.3	135	5.3	480	18.7	14.7	32.4
1700+	1700	472	1000	1 1/2	150	5.9	150	5.9	525	20.5	22	48.5
3400+	3400	944	2000	2	150	5.9	150	5.9	815	31.8	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	2.5	65	2.5	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	-	-	-	-	-	14	16	18	20
	psig	-	-	-	-	-	203	232	261	290
Correction factor							0.9	0.95	1	1.05
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



Example

- Working pressure 300 bar(g), compressed air flow 500 m³/h.
- 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 510+: 510 m³/h * 0.96 = 490 m³/h => the 510+ filter size is not large enough.
 - Size 750+: 750 m³/h * 0.96 = 720 m³/h => the 750+ filter size is the size to select.

MV SERIES

Medical vacuum filters for optimal protection of man and machine

Medical vacuum filters are installed at the inlet of the vacuum pump to remove any liquid, solid or bacterial contamination which could damage the vacuum pump and biologically infect the downstream air.

Our innovative medical vacuum filtration solutions comply with HTM medical standards.



YOUR BENEFITS

Maximum contaminant removal

Removal of dry and wet dust, particulates, oil aerosol and water droplets.
High-efficiency glass fiber and fleece media.

Significant energy savings & limited system operation cost

Optimal design and filter media allow for 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 and push-on elements.

Monitoring of energy use

Differential pressure indication show the pressure loss.



Applications

- Medical
- Dental
- Veterinary

Performance

	MV
Contaminant	Dry dust
Maximum temperature	60°C/140°F
Maximum working vacuum	Full vacuum
Test method	Sodium flame test BS 3928:1969, based on requirements of HTM2022
Particle removal efficiency (%)*	99.995
Dry pressure drop (mbar)	30
Element service	After 2,000 operating hours or 1 year or 100 mbar pressure drop

* In accordance with BS 3928-1969.

Sizing & dimensions

FILTER SIZE MV	Nominal Capacity	Connections	Dimensions						Weight	
			A		B		C			
	l/min	in	mm	in	mm	in	mm	in	kg	lbs
10	400	1/2	60	2	90	4	240	9	1.3	2.9
20	800	1	76	3	110	4	300	12	2.1	4.6
60	2400	1 1/2	103	4	140	5	489	19	4.6	10.1
80	3400	2	135	5	179	7	575	22	6.9	15.2
120	4900	3	155	6	210	8	677	26	11.0	24.2
160	6700	3	155	6	210	8	847	33	12.6	27.8

Correction factors

Operating pressure	bar(a)	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
	Psig	1	3	4	6	7	9	10	12	13	15
	Torr = mm Hg	75	150	225	300	375	450	525	600	675	750
Correction factor		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1

Example

- Working vacuum 300 mbar(a), capacity 1,000 l/min.
- Multiply the nominal capacity of the selected filter with the corresponding correction factor at the required working vacuum to obtain the correct capacity:
 - Size 60: 2,400 l/min * 0.3 = 720 l/min => the 60 filter size is not large enough.
 - Size 80: 3,400 l/min * 0.3 = 1,020 l/min => the 80 filter size is the size to select.



Options

- Wall mounting kit.
- Drain flask.



Drain flask



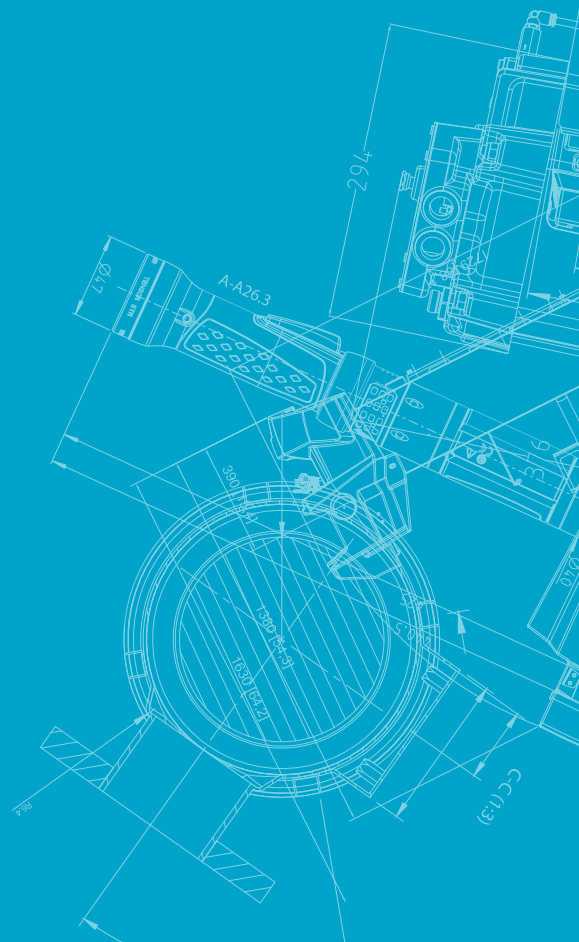
Certification

BS 3928 Sodium flame test certificate based on requirements of HTM2022.



Atlas Copco

atlascopco.com



OIL-INJECTED ROTARY SCREW COMPRESSORS



GA 30+-90/GA 37-90 VSD (30-90 kW/40-125 hp)

Atlas Copco





THE ULTIMATE SMART SOLUTION, DRIVEN BY EFFICIENCY

Atlas Copco's GA 30+90 compressors bring you outstanding sustainability, reliability and performance, while minimizing the total cost of ownership. A choice of three premium compressor types (GA VSD, GA+ and GA) provides you with the compressed air solution that perfectly matches your requirements with clear value propositions. Built to perform even in the harshest environments, these compressors keep your production running efficiently.



GA

PREMIUM COMPRESSOR

- High performance Free Air Delivery.
- Premium quality at the lowest initial investment.
- Integrated refrigerant dryer.
- Standard Elektronikon® controller.

GA+

INDUSTRY-LEADING PERFORMANCE

- Industry-leading Free Air Delivery.
- Lowest energy consumption for applications with a stable air demand.
- Low noise emission suitable for workplace installation.
- Integrated refrigerant dryer.
- Smart Elektronikon® graphic compressor controller (optional graphic controller).

GA VSD

ULTIMATE ENERGY SAVER

- On average up to 35% energy savings.
- Industry-leading operating turndown range.
- Wide pressure selection: 4-13 bar.
- Start under system pressure, no blow off.
- Integrated refrigerant dryer.
- In-house designed NEOS inverter.
- Smart Elektronikon® graphic compressor controller.

HIGH RELIABILITY AND SMART ENERGY

GA 37+/45+/55+/75+ & GA 45/75/90

1

Maintenance-free drive system

- 100% maintenance-free; totally enclosed and protected against dirt and dust.
- Suitable for harsh environments.
- High-efficiency drive arrangement; no coupling or slippage losses.
- Standard up to 46°C/115°F and for high ambient version 55°C/131°F.



2

IE3 / NEMA Premium Efficiency electrical motors

- IP55, insulation Class F, B rise.
- Non-drive side bearing greased for life.
- Designed for continuous operation in harsh environments.

3

Robust spin-on oil filter

- High-efficiency, removing 300% smaller particles than a conventional filter.
- Integrated bypass valve with the oil filter.

4

SIL Smart inlet lock system for GA VSD compressors

- Superior designed vacuum and air pressure controlled valve with minimal pressure drop and no springs.
- Smart stop/start which eliminates back-pressure oil vapor.

9

10

1



5

Separate oversized oil cooler and aftercooler

- Low element outlet temperatures, ensuring long oil lifetime.
- Removal of nearly 100% condensate by mechanical separator.
- No consumables.
- Eliminates possibility of thermal shocks in coolers.





11

Integrated highly efficient R410A dryer

- Excellence in air quality.
- 50% reduction in energy consumption compared to traditional dryers.
- Zero ozone depletion.
- Incorporates optional DD and PD filters according to Class 1.4.1.

10

NEOS drive

- Atlas Copco's in-house designed inverter for GA VSD compressors.
- IP5X protection degree.
- A robust, aluminum enclosure for trouble-free operation in the harshest conditions.
- Fewer components: compact, simple and user-friendly.



9

Cubicle cooling booster

- Cubicle in overpressure minimizes ingress of conductive dust.
- Electrical components remain cool, enhancing lifetime of components.

8

Elektronikon® for remote monitoring

- Integrated smart algorithms reduce system pressure and energy consumption.
- Monitoring features include warning indications, maintenance scheduling and online visualization of machine's condition.

7

Heavy-duty air intake filter

- Protects the compressor components by removing 99.9% of dirt particles down to 3 microns.
- Differential inlet pressure for proactive maintenance while minimizing pressure drop.



6

Electronic no-loss water drain

- Ensures constant removal of condensate.
- Manual integrated bypass for effective condensate removal in case of power failure.
- Integrated with compressor's Elektronikon® with warning/alarm features.



HIGH RELIABILITY AND SMART ENERGY

GA 30+ & GA 37/45



1

Maintenance-free drive system

- 100% maintenance-free; totally enclosed and protected against dirt and dust.
- Suitable for harsh environments.
- High-efficiency drive arrangement; no coupling or slippage losses.
- Standard up to 46°C/115°F and for high ambient version 55°C/131°F.

2

IE3 / NEMA Premium Efficiency electrical motors

- IP55, insulation Class F, B rise.
- Non-drive side bearing greased for life.
- Oil lubricated drive side bearings.

3

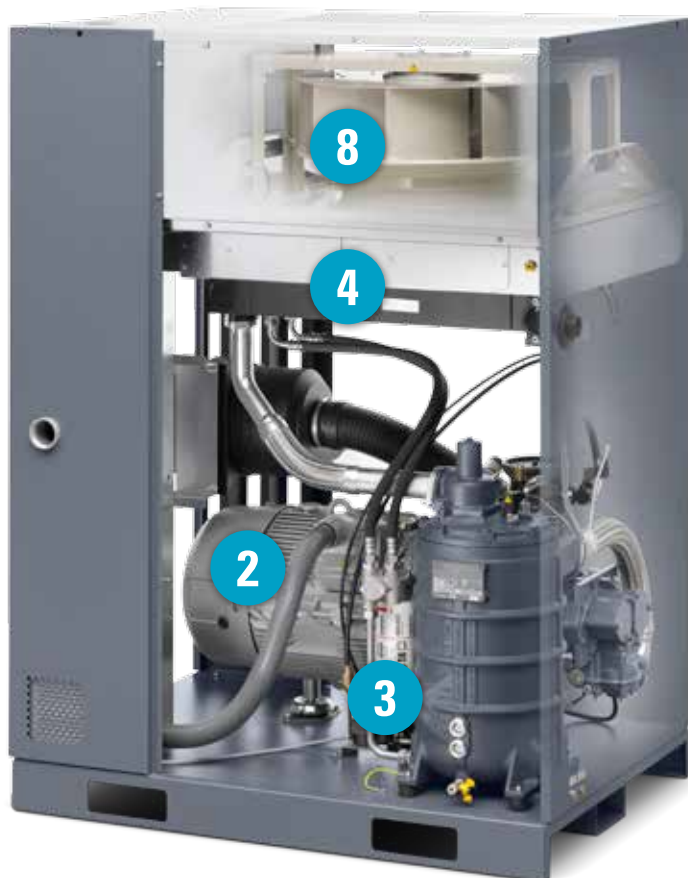
Robust spin-on oil filter

- High-efficiency, removing 300% smaller particles than a conventional filter.
- Integrated bypass valve with the oil filter.

4

Separate oversized oil cooler and aftercooler

- Low element outlet temperatures, ensuring long oil lifetime:
 - Removal of nearly 100% condensate by mechanical separator.
 - No consumables.
 - Eliminates possibility of thermal shocks in coolers.





8

Radial fan

- Low noise level.
- High flows.
- Compact design.

5

Advanced control & monitoring via Elektronikon®

- Integrated smart algorithms reduce system pressure and energy consumption.
- Monitoring features include warning indications, maintenance scheduling and online visualization of machine's condition.

6

Heavy-duty air intake filter

- Protects the compressor components by removing 99.9% of dirt particles down to 3 microns.
- Differential inlet pressure for proactive maintenance while minimizing pressure drop.

7

Electronic no-loss water drain (for + versions)

- Ensures constant removal of condensate.
- Manual integrated bypass for effective condensate removal in case of power failure.
- Integrated with compressor's Elektronikon® with warning/ alarm features.



A STEP AHEAD IN MONITORING AND CONTROLS

The next-generation Elektronikon® operating system offers a wide variety of control and monitoring features that allow you to increase your compressor's efficiency and reliability. To maximize energy efficiency, the Elektronikon® controls the main drive motor and regulates system pressure within a predefined and narrow pressure band.



User-friendly

- 3.5-inch high-definition color display.
- Extra 4th LED indicator for service.
- Graphical display of key parameters (day, week, month) and 32 language settings.
- Graphical indication Serviceplan, remote control and connectivity functions.

Optional integrated compressor controller

Install, with a simple license, the optional integrated compressor controller and get simple, central control to reduce system pressure and energy consumption in installations of up to 4 (ES4i) or 6 (ES6i) compressors.



SMARTLINK* Data Monitoring Program

- A remote monitoring system that helps you optimize your compressed air system and save you energy and cost.
- It offers you a complete insight in your compressed air network and anticipates on potential problems by warning you up-front.

* Please contact your local sales representative for more information.



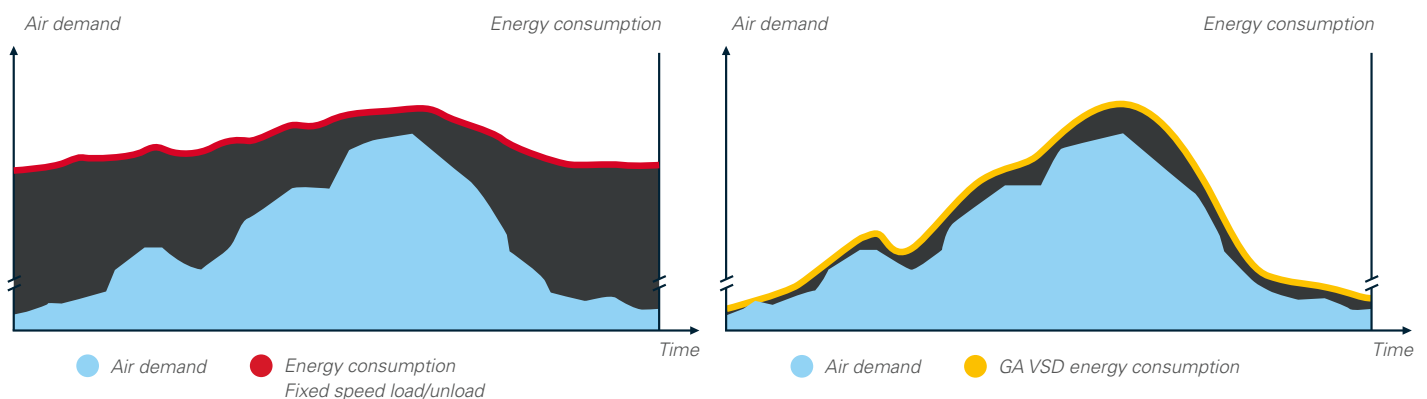
VSD: DRIVING DOWN YOUR ENERGY COSTS

Over 80% of a compressor's lifecycle cost is taken up by the energy it consumes. Moreover, the generation of compressed air can account for more than 40% of a plant's total electricity bill. To cut your energy costs, Atlas Copco pioneered Variable Speed Drive (VSD) technology in the compressed air industry. VSD leads to major energy savings, while protecting the environment for future generations. Thanks to continual investments in this technology, Atlas Copco offers the widest range of integrated VSD compressors on the market.

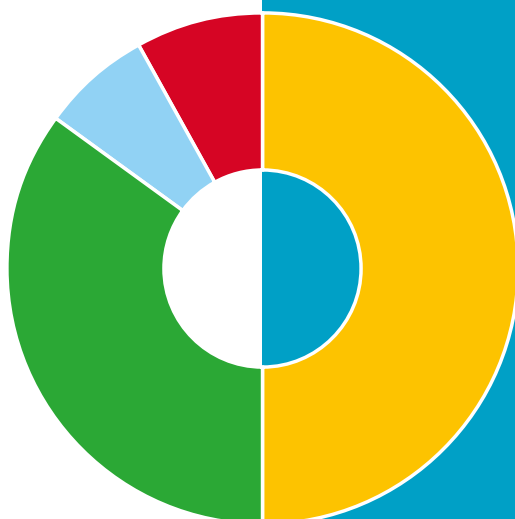
Why Atlas Copco Variable Speed Drive technology?

- On average 35% energy savings during fluctuations in production demand with an extensive turndown range.
- Integrated Elektronikon Graphic controller controls the motor speed and high efficiency frequency inverter.
- No wasted idling times or blow-off losses in normal operation.
- Compressor can start/stop under full system pressure without the need to unload with special VSD motor.
- Eliminates peak current penalty during start-up.
- Minimizes system leakage due to a lower system pressure.
- EMC Compliance to directives (2004/108/EG).

NO IDLING TIME



In almost every production environment, air demand fluctuates depending on different factors such as the time of the day, week or even month. Extensive measurements and studies of compressed air demand profiles show that many compressors have substantial variations in air demand. Only 8% of all installations have a more stable air demand.



On average 35% energy savings

Atlas Copco's GA VSD technology closely follows the air demand by automatically adjusting the motor speed. This results in on average 35% energy savings. The lifecycle cost of a compressor can be cut by an average of 22%. In addition, lowered system pressure with GA VSD dramatically minimizes energy use across your production.

Total compressor lifecycle cost

- Energy
- Energy savings with VSD
- Investment
- Maintenance

WHY DRY YOUR COMPRESSED AIR?

Untreated compressed air contains moisture, aerosols and dirt particles that can damage your air system and contaminate your end product, resulting in risk of corrosion and compressed air system leaks. Maintenance costs can far exceed air treatment costs. An air dryer is therefore essential to protect your systems and processes. The GA, GA+ and GA VSD compressors have an integrated dryer option to secure your peace of mind.

Integrated dry air

- Optimized sizing for the compressor, avoiding excessive energy consumption.
- Fit for your application.
- Controlled and monitored by the Elektronikon®.
- Space-saving all-in-one solution with low installation costs.



Lowest lifecycle costs and peace of mind

- No extra installation costs.
- Saving floor space.
- Use of energy-efficient, environmentally friendly refrigerant R410A reduces operating costs and stands for zero ozone depletion.
- Heat exchanger cross-flow technology with low pressure drop, saving energy and costs.
- Zero waste of compressed air thanks to no-loss condensate drain.
- Advanced control functions ensure dry air under all circumstances and prevent freezing at low load.
- Pressure dew point of 3°C (100% relative humidity at 20°C).

Integrated purity

The optional UD+ filter and integrated refrigerant air dryer (IFD) efficiently remove moisture, aerosols and dirt particles to protect your investment. The UD+ filter has a 40% lower pressure drop

than the conventional DD+/PD+ filter combination. It saves space and reduces energy costs. Using only 1 single filter it is possible to reach quality class 1.4.2 according to ISO 8573-1:2010.

	ISO quality class*	Dirt particle size	Water pressure dew point**	Oil concentration
Pack compressor	3..4	5 microns	-	3 ppm
Integrated refrigerant dryer	3.4.4	5 microns	+3°C/37°F	3 ppm
DD+	2.4.2	1 micron	+3°C/37°F	0.1 ppm
UD+	1.4.2	0.5 micron	+3°C/37°F	0.01 ppm

*The table values reflect the maximum limits according to the ISO quality air standard (ISO 8573-1:2010).

** Water pressure dew point based on 100% RH at 20°C/68°F



WORKPLACE: COMPRESSED AIR AT THE POINT OF USE

With the industry-leading low noise operation and integration of air and condensate treatment equipment, the GA⁺ offers complete versatility for your production. The compressor's integrated design allows it to be placed on the production floor, creating substantial energy savings for your business.



Low installation costs

- The GA⁺ can operate close to the point of use – eliminating the need for a dedicated compressor room.
- The GA⁺ is delivered ready for use – minimizing production downtime and reducing installation costs.
- Filtration equipment is integrated – reducing the need for costly external piping and minimizing pressure drops.
- Low noise enables the above to be a reality.

Reduced energy and maintenance costs

- With less external piping, the GA⁺ minimizes pressure drop across the system which can reduce energy costs.
- The filtration system produces clean air to prevent network corrosion – minimizing energy, repair and maintenance costs.
- The GA⁺ operates at the lowest possible system pressure to reduce energy costs thanks to the Elektronikon® advanced monitoring system.

OPTIMIZE YOUR SYSTEM

Some applications may need or may benefit from additional options and more refined control/air treatment systems. To meet these needs, Atlas Copco has developed options and easily integrated compatible equipment.

		GA 30*/37/45	GA 37*/45*/55*/75*/55/75/90	GA 37-90 VSD
Air treatment	Integrated filter kit class 1*	•	•	•
	Integrated filter kit class 2*	•	•	•
	Dryer bypass*	-	•	•
Condensate	OSCi	•	•	•
Protection	Oil retaining frame	-	•	•
	Motor space heater	-	-	•
	Motor space heater + thermistors	-	•	-
	Water shut-off valve**	-	•	•
	Phase sequence relay (GA 55-90)	-	•	-
	Tropical thermostat	•	•	-
	Freeze protection	-	•	•
	NEMA 4 cubicle	-	•	-
	NEMA 4X cubicle	-	•	-
	Pre-filter	•	•	•
	Advanced monitoring	-	•	•
	ANSI flange outlet	•	•	•
	DIN flange outlet	•	•	•
Public works	Rain protection	•	•	-
	Main power isolator switch	-	•	•
	Lifting device	•	•	•
	Oversized motor (except GA 45* & GA 90)	-	•	-
Communication	ES 100 relays***	-	•	•
	Elektronikon® Graphic upgrade (only for GA 37 to GA 75)	•	•	-
	ES4/ES6i (for Elektronikon® Graphic)	•	•	•
	Digital I/O expansion module	•	•	•
Oils	Food grade oil	•	•	•
	Roto - Xtend duty oil (8000 hours)	•	•	•
General options	Witness performance test	•	•	•
	Energy recovery	•	•	•
	Power duct fan	•	•	•
	Modulating control	-	•	-
	High-ambient temperature version (HAV 55°C, 131°F)****	•	•	•
	IT/TT ancillaries	-	-	•

*FF units only.

** Water-cooled units.

*** Includes potential-free contacts: motor running, compressor load/unload.

**** FF units max 50°C, 122°F.

• : Optional - : Not available

Integrated Energy Recovery

As much as 90% of the electrical energy used by a compressed air system is converted into heat. Using Atlas Copco's integrated energy recovery systems, it is feasible to recover up to 75% of that power input as hot air or hot water without any influence

on the compressor's performance. Through efficient usage of the recovered energy, you bring about important energy cost savings and obtain a high return on investment.

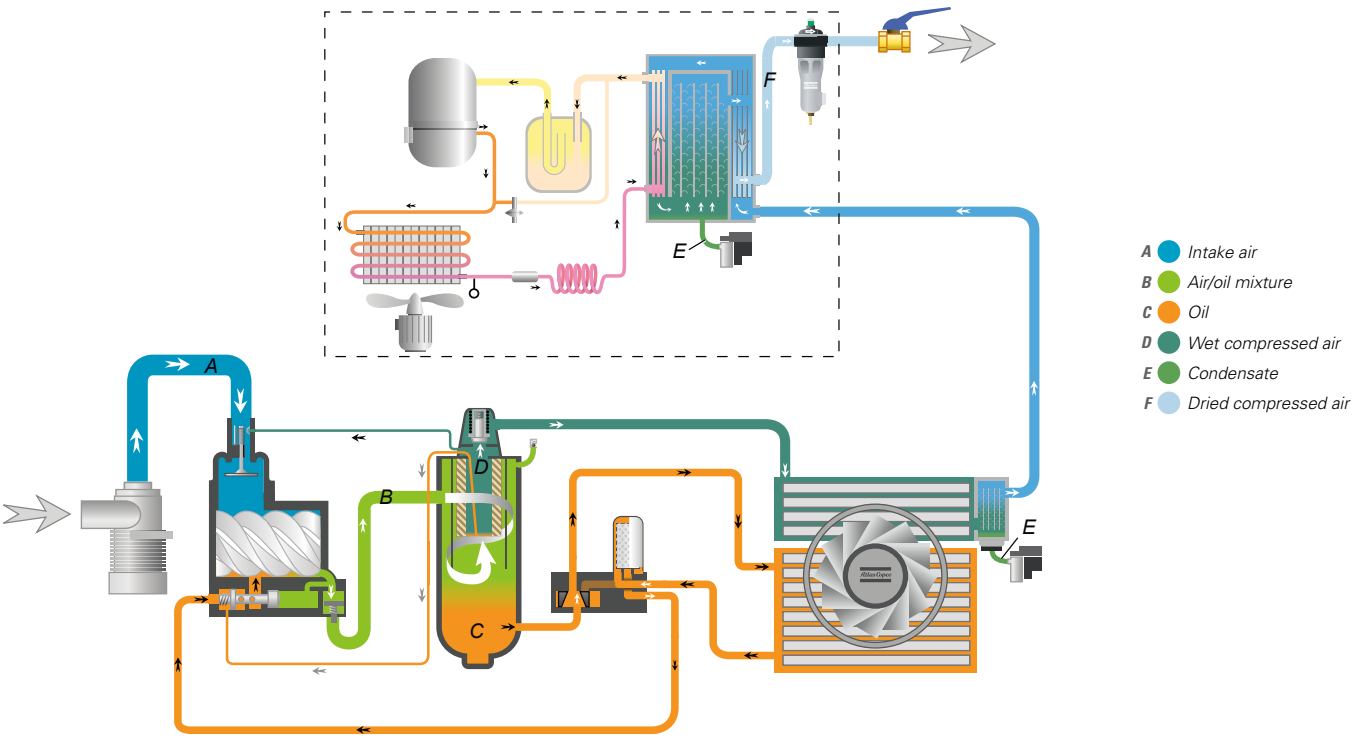


Energy Recovery applications

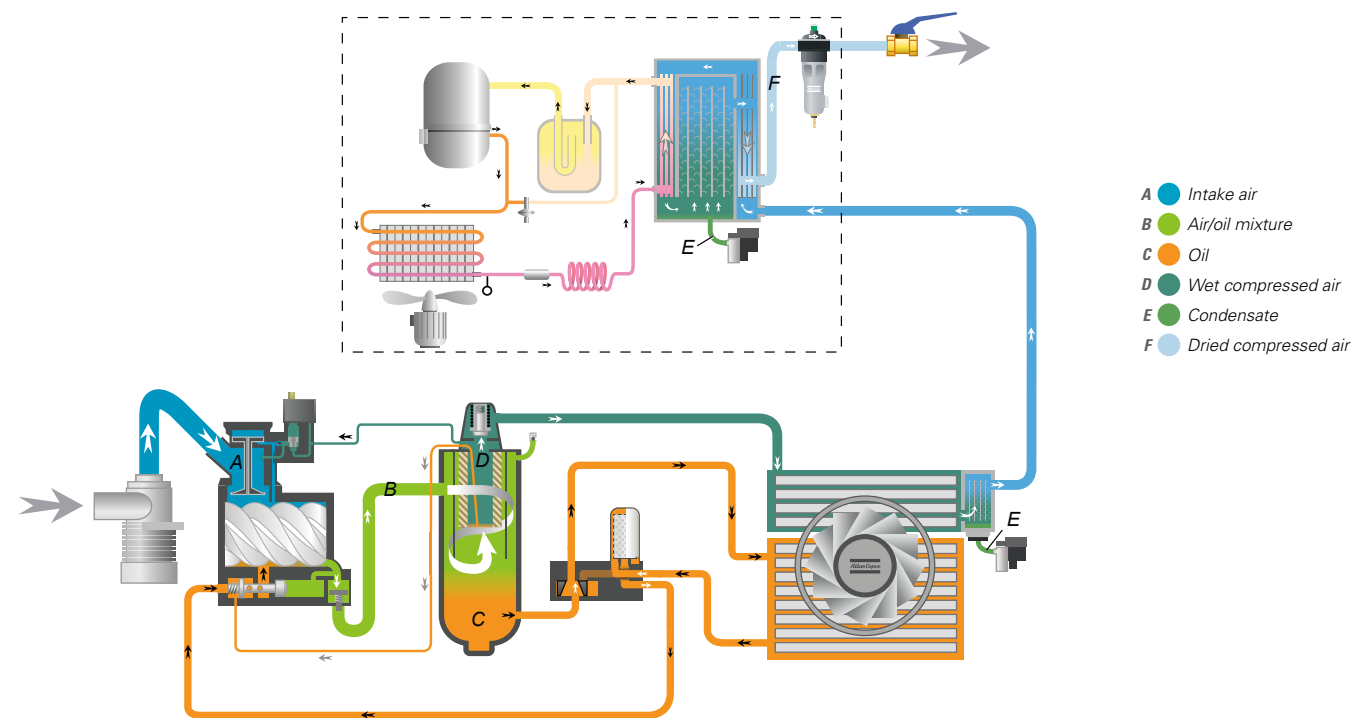
- Auxiliary or main heating of warehouses, workshops etc.
- Industrial process heating.
- Water heating for laundries, industrial cleaning and sanitary facilities.
- Canteens and large kitchens.
- Food industry.
- Chemical and pharmaceutical industries.
- Drying processes.

FLOW CHARTS

Variable Speed Drive: GA VSD



Fixed speed: GA⁺ & GA



TECHNICAL SPECIFICATIONS

GA 30⁺-90 (50 HZ VERSIONS)

COMPRESSOR TYPE	Pressure variant	Max. working pressure WorkPlace		Capacity FAD*			Installed motor power		Noise level**	Weight WorkPlace		Weight WorkPlace Full Feature	
		bar(e)	psig	l/s	m ³ /hr	cfm	kW	hp		kg	lbs	kg	lbs
GA 30 ⁺	7.5	7.5	109	99	357	210	30	50	65	626	1380	796	1755
	8.5	8.5	123	91	327	193	30	50	65	626	1380	796	1755
	10	10	145	82	294	173	30	50	65	626	1380	796	1755
	13	13	189	71	254	150	30	50	65	626	1380	796	1755
GA 37	7.5	7.5	109	116	419	247	37	60	67	683	1506	853	1881
	8.5	8.5	123	108	390	229	37	60	67	683	1506	853	1881
	10	10	145	102	367	216	37	60	67	683	1506	853	1881
	13	13	189	89	319	188	37	60	67	683	1506	853	1881
GA 37 ⁺	7.5	7.5	109	122	438	258	37	50	65	902	1989	987	2176
	8.5	8.5	123	118	426	250	37	50	65	902	1989	987	2176
	10	10	145	102	366	216	37	50	65	902	1989	987	2176
	13	13	189	85	306	180	37	50	65	902	1989	987	2176
GA 45	7.5	7.5	109	137	493	290	45	75	68	692	1526	900	1984
	8.5	8.5	123	129	464	273	45	75	68	692	1526	900	1984
	10	10	145	119	428	252	45	75	68	692	1526	900	1984
	13	13	189	104	373	220	45	75	68	692	1526	900	1984
GA 45 ⁺	7.5	7.5	109	149	534	315	45	60	66	970	2138	1060	2337
	8.5	8.5	123	139	498	295	45	60	66	970	2138	1060	2337
	10	10	145	128	462	270	45	60	66	970	2138	1060	2337
	13	13	189	106	384	225	45	60	66	970	2138	1060	2337
GA 55	7.5	7.5	109	169	612	359	55	75	69	1229	2709	1329	2930
	8.5	8.5	123	159	570	336	55	75	69	1229	2709	1329	2930
	10	10	145	148	534	313	55	75	69	1229	2709	1329	2930
	13	13	189	126	456	267	55	75	69	1229	2709	1329	2930
GA 55 ⁺	7.5	7.5	109	184	666	390	55	75	66	1358	2994	1458	3214
	8.5	8.5	123	174	624	369	55	75	66	1358	2994	1458	3214
	10	10	145	156	570	331	55	75	66	1358	2994	1458	3214
	13	13	189	126	456	267	55	75	69	1229	2709	1329	2930
GA 75	7.5	7.5	109	226	810	478	75	100	73	1259	2776	1379	3040
	8.5	8.5	123	209	756	444	75	100	73	1259	2776	1379	3040
	10	10	145	189	684	401	75	100	73	1259	2776	1379	3040
	13	13	189	162	582	344	75	100	73	1259	2776	1379	3040
GA 75 ⁺	7.5	7.5	109	248	894	526	75	100	68	1413	3115	1533	3380
	8.5	8.5	123	235	846	497	75	100	68	1413	3115	1533	3380
	10	10	145	210	756	445	75	100	68	1413	3115	1533	3380
	13	13	189	177	636	375	75	100	68	1413	3115	1533	3380
GA 90	7.5	7.5	109	281	1014	596	90	125	73	1425	3142	1545	3406
	8.5	8.5	123	275	990	582	90	125	73	1425	3142	1545	3406
	10	10	145	250	900	529	90	125	73	1425	3142	1545	3406
	13	13	189	216	780	458	90	125	73	1425	3142	1545	3406

* Unit performance measured according to ISO 1217, Annex C, Edition 4:2009.

Reference conditions:

- Absolute inlet pressure 1 bar (14.5 psi)
- Intake air temperature 20°C, 68°F

FAD is measured at the following working pressures:

- 7.5 bar versions at 7 bar
- 8.5 bar versions at 8 bar
- 10 bar versions at 9.5 bar
- 13 bar versions at 12.5 bar

** A-weighted emission sound pressure level at the work station, Lp WSA (re 20 µPa) dB (with uncertainty 3 dB).

Values determined according to noise level test code ISO 2151 and noise measurement standard ISO 9614.

Pressure dew point of integrated refrigerant dryer at reference conditions: 2°C to 3°C, 36°F to 37°F.



GA 30⁺/37/45 PACK

Width 1,310 mm, 51.5"
Depth 890 mm, 35.0"
Height 1,790 mm, 70.5"



GA 30⁺/37/45 FULL FEATURE

Width 1,810 mm, 71.6"
Depth 890 mm, 35.0"
Height 1,790 mm, 70.5"



GA 37/45 VSD

Width 1,766 mm, 69.5"
Depth 970 mm, 38.2"
Height 1,800 mm, 70.9"



GA 55/75/90 VSD

Width 2,248 mm, 88.5"
Depth 1,080 mm, 42.5"
Height 1,955 mm, 76.9"

TECHNICAL SPECIFICATIONS

GA 30+-90 (60 HZ VERSIONS)

COMPRESSOR TYPE	Pressure variant	Max. working pressure WorkPlace		Capacity FAD*			Installed motor power		Noise level**	Weight WorkPlace		Weight WorkPlace Full Feature	
		bar(e)	psig	l/s	m³/hr	cfm	kW	hp		kg	lbs	kg	lbs
GA 30+	100	7.4	107	100	360	212	30	40	65	817	1801	898	1980
	125	9.1	132	91	326	192	30	40	65	817	1801	898	1980
	150	10.8	157	82	296	174	30	40	65	817	1801	898	1980
	175	12.5	181	75	269	158	30	40	65	817	1801	898	1980
GA 37	100	7.4	107	116	418	246	37	50	69	905	1995	820	1808
	125	9.1	132	108	389	229	37	50	69	905	1995	820	1808
	150	10.8	157	96	347	204	37	50	69	905	1995	820	1808
	175	12.5	181	87	314	185	37	50	69	905	1995	820	1808
GA 37+	100	7.4	107	120	433	255	37	50	65	905	1995	987	2176
	125	9.1	132	111	398	234	37	50	65	905	1995	987	2176
	150	10.8	157	100	361	212	37	50	65	905	1995	987	2176
	175	12.5	181	91	327	192	37	50	65	905	1995	987	2176
GA 45	100	7.4	107	139	500	294	45	60	72	894	1971	979	2158
	125	9.1	132	128	461	271	45	60	72	894	1971	979	2158
	150	10.8	157	118	425	250	45	60	72	894	1971	979	2158
	175	12.5	181	105	378	222	45	60	72	894	1971	979	2158
GA 45+	100	7.4	107	146	527	310	45	60	66	970	2138	1060	2337
	125	9.1	132	134	483	284	45	60	66	970	2138	1060	2337
	150	10.8	157	126	453	266	45	60	66	970	2138	1060	2337
	175	12.5	181	111	401	236	45	60	66	970	2138	1060	2337
GA 55	100	7.4	107	174	627	369	55	75	69	1229	2709	1329	2930
	125	9.1	132	154	556	327	55	75	69	1229	2709	1329	2930
	150	10.8	157	142	510	300	55	75	69	1229	2709	1329	2930
	175	12.5	181	128	462	272	55	75	69	1229	2709	1329	2930
GA 55+	100	7.4	107	184	663	390	55	75	67	1358	2994	1458	3214
	125	9.1	132	166	598	352	55	75	67	1358	2994	1458	3214
	150	10.8	157	141	508	299	55	75	67	1358	2994	1458	3214
	175	12.5	181	129	462	272	55	75	69	1229	2709	1329	2930
GA 75	100	7.4	107	229	825	485	75	100	73	1259	2776	1359	2996
	125	9.1	132	200	721	424	75	100	73	1259	2776	1359	2996
	150	10.8	157	189	681	401	75	100	73	1259	2776	1359	2996
	175	12.5	181	169	608	358	75	100	73	1259	2776	1359	2996
GA 75+	100	7.4	107	248	892	525	75	100	69	1413	3115	1533	3380
	125	9.1	132	227	818	481	75	100	69	1413	3115	1533	3380
	150	10.8	157	204	735	433	75	100	69	1413	3115	1533	3380
	175	12.5	181	182	653	385	75	100	69	1413	3115	1533	3380
GA 90	100	7.4	107	289	1042	613	90	125	74	1425	3142	1545	3406
	125	9.1	132	267	960	565	90	125	74	1425	3142	1545	3406
	150	10.8	157	250	900	530	90	125	74	1425	3142	1545	3406
	175	12.5	181	228	822	484	90	125	74	1425	3142	1545	3406

Please refer to the footnotes, reference conditions and FAD details of the 50 Hz versions.

TECHNICAL SPECIFICATIONS

GA 37-90 VSD (50/60 HZ VERSIONS)

COMPRESSOR TYPE	Working pressure		Capacity FAD*						Installed motor power		Noise level**	Weight WorkPlace		Weight WorkPlace Full Feature	
			l/s		m³/hr		cfm								
	bar(e)	psig	min	max	min	max	min	max	kW	hp		dB(A)	kg	lbs	kg
GA 37 VSD	4	58	26.0	124	94	7.4	55	263	37	50	66/67	1042	2297	1127	2485
	7	102	26.0	123	93	7.4	55	260	37	50	66/67	1042	2297	1127	2485
	10	145	25.8	107	93	6.4	55	226	37	50	66/67	1042	2297	1127	2485
	13	189	40.3	87	145	5.2	85	185	37	50	66/67	1042	2297	1127	2485
GA 45 VSD	4	58	26.0	146	94	8.8	55	310	45	60	69/72	1100	2425	1190	2624
	7	102	26.0	145	93	8.7	55	307	45	60	69/72	1100	2425	1190	2624
	10	145	25.8	128	93	7.7	55	271	45	60	69/72	1100	2425	1190	2624
	13	189	40.3	107	145	6.4	85	226	45	60	69/72	1100	2425	1190	2624
GA 55 VSD	4	58	32.4	197	116	11.8	69	418	55	75	69/72	1380	3042	1480	3263
	7	102	26.0	175	94	10.5	55	371	55	75	69/72	1380	3042	1480	3263
	10	145	25.4	155	92	9.3	54	328	55	75	69/72	1380	3042	1480	3263
	13	189	37.0	129	133	7.7	78	273	55	75	69/72	1380	3042	1480	3263
GA 75 VSD	4	58	37.8	250	136	15.0	80	529	75	100	69/70	1534	3382	1654	3646
	7	102	37.4	250	135	15.0	79	530	75	100	69/70	1534	3382	1654	3646
	10	145	48.1	219	173	13.2	102	465	75	100	69/70	1534	3382	1654	3646
	13	189	58.3	182	210	10.9	124	386	75	100	69/70	1534	3382	1654	3646
GA 90 VSD	4	58	37.0	293	133	17.6	78	621	90	125	73/74	1534	3382	1654	3646
	7	102	39.4	292	142	17.5	84	619	90	125	73/74	1534	3382	1654	3646
	10	145	48.3	257	174	15.4	102	545	90	125	73/74	1534	3382	1654	3646
	13	189	59.4	214	214	12.9	126	454	90	125	73/74	1534	3382	1654	3646

* Unit performance measured according to ISO 1217, Annex E, Edition 4:2009. Maximum working pressure for VSD machines: 13 bar(e) (188 psig).

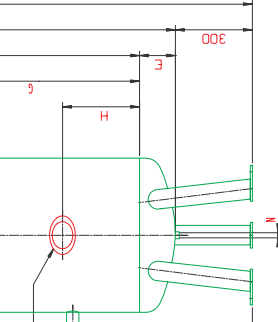
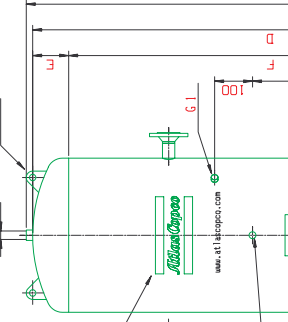
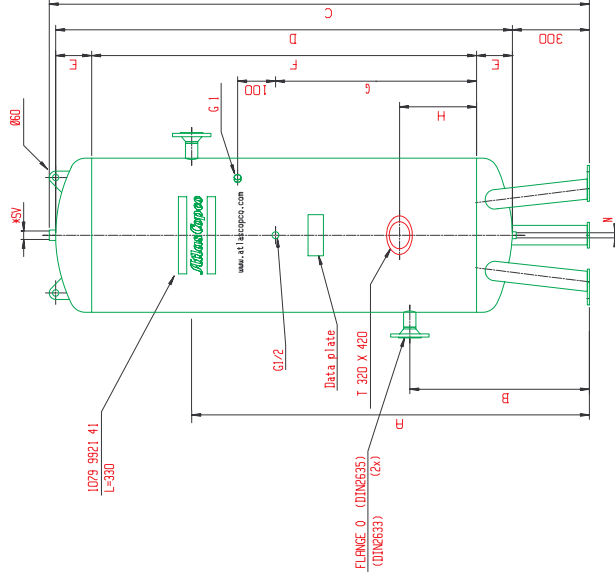
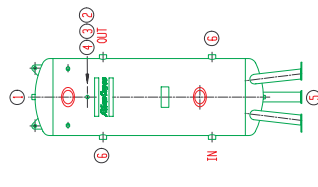
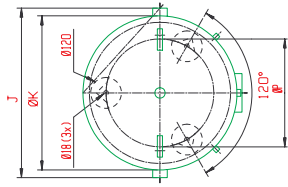
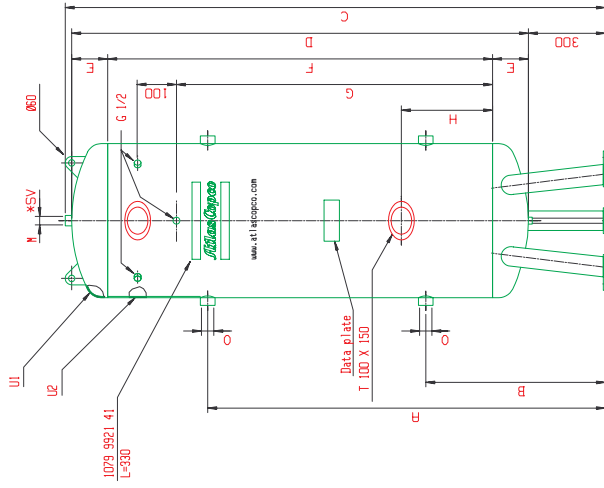
COMMITTED TO SUSTAINABLE PRODUCTIVITY

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





CE

- CONSTRUCTION AND TEST ACCORDING CE
- SURFACE TREATMENT : HOT DIP GALVANISED (In- and outside 70 µm.)
- DESIGN TEMPERATURE : -10°C + 120°C (Δ)
- AFTER GALVANISED , ALL SOCKETS TO BE ADJUSTED AND FITTED WITH PLASTIC PLUGS.
- PRODUCT NUMBER ON DATA PLATE

[illegible]

VOLUME (l)	METHOD (kg)	DICTION PRESSURE (bar)	TEST PRESSURE (bar)	SAFETY VALUE kN
1000	304	11	15.73	6 1/2
1500	445	11	15.73	6 1/2
2000	557	11	15.73	6 1
3000	780	11	15.73	6 1
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
4000	1270	11	15.73	6 1/2
5000	1470	11	15.73	6 1/2
6000	1857	11	15.73	6 2
8000	2284	11	15.73	6 2
10000	2660	11	15.73	6 2
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.

VESSEL SUPPLIED WITH	
SAFETY VALVE	
MANOMETER	
TEST FLANGE	
DRAIN VALVE	
2 X PLUG FOR O BY TYPE I	
SET DRWG. 9820 2655 00	

[illegible]



Certificate of Filtration Efficiencies

Evaluation of Filtration Efficiencies Against Bacterial and Viral Aerosol Challenges

Report No. 79-10

Report prepared for: Atlas Copco Airpower n.v.
Issue Date of Certificate: 25th July 2011

Test Summary

The efficiencies of four Atlas Copco Airpower n.v. PDp filters were determined against aerosols of micro-organisms at 240 litres min⁻¹. Two filters were challenged with bacterial aerosols of *Bacillus atrophaeus* and two filters were challenged with viral aerosols of MS-2 coliphage.

Challenge aerosol	Average Challenge	Average Removal Efficiency	Average Titre Reduction
Bacteria <i>Bacillus atrophaeus</i>	4.91 x 10 ⁸ cfu	99.966675 %	3.15 x 10 ³
Virus MS-2 Coliphage	3.75 x 10 ⁸ pfu	99.99335 %	1.51 x 10 ⁴

cfu = colony forming units, pfu = plaque forming units

Report Written By

Anna May

Report Authorised By

[Signature]

TÜV Rheinland LGA Products GmbH • 51105 Cologne • Germany

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for Products
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Cologne, 05th March 2012

Type Test certificate
Evaluation of the residual aerosol oil content after an
Atlas Copco PD+ filter
Test report No.: 3047714

The Atlas Copco PD+ filters are measured under the test conditions according to ISO 12500-1:2007, the compressed air samples are analyzed according to the ISO 8573-2:2007 test method.

	Maximum residual aerosol oil content	Average wet pressure drop
PD+-filter	0.008 mg/m ³	< 215 mbar

i. V.



Björn Koch

i. A.



Dr. rer. nat. Norbert Horlemann

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13		Changed glue	2009-08-31	
Ed	Posi- tion	Gewijzigd van Modified from	Datum Date	Ingev./Goedg Intr./Appd.

Parent 3D model	Ed . Version 3D

Tolerances, if not indicated, according to:					
ATLAS COPCO STANDARD /Klasse/CLASS					
Benaming Name		DIMENSION DRWG		SIZE 9-520	Gehets/Klasse Secrecy Class
Materiaal Material				1102 K / 3	
Behandeling Treatment		See Drawing		INV	
		Schaal Scale	1:2	Familie Family	A2
Getekend Drawn by		AIR14685		Ruw nr. Blank nr.	Vergelijk Compare
Version Dwg 13.00		Ruw gew. Blank wt.	0 Kg	Alg gew. Total wt.	0,023 Kg
Uitg. getek. Prod. gecht.		Goedg./Appd.	Datum/Date	2007-03-09	
STATUS		Approved		Identificatie/Designation	
				Blad/Sheet 2 / 2	
				9827700100	

Table																								
TYPE	NET MASS	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	U	V	W	X
9	1kg	158	136	90	8	303	228	21	7	20	92	80	2	52	60	6.6	14	65	40	G 3/8	3/8-18 NPT	60	40	20
14	1.1kg	158	136	90	8	303	228	21	7	20	92	80	2	52	60	6.6	14	65	52	G 1/2	1/2-14 NPT	60	40	20
32	1.3kg	158	136	90	8	358	283	21	7	20	92	80	2	52	60	6.6	14	65	52	G 1/2	1/2-14 NPT	60	40	20
	1.9kg	190	168	110	5	378	303	27.5	10	30	118	100	2	68	76	9	15	70	56	G 3/4	3/4-14 NPT	60	40	20
44	1.9kg	190	168	110	5	378	303	27.5	10	30	118	100	2	68	76	9	15	70	56	G 1	1-11 1/2 NPT	80	60	30
60	2.1kg	190	168	110	5	418	343	27.5	10	30	118	100	2	68	76	9	15	70	56	G 1	1-11 1/2 NPT	80	60	30
120	4.2kg	240	218	150	5	549	449	34	10	42	157.5	131	2.5	92	103	9	20	98	78	G 1 1/2	1 1/2-11 1/2 NPT	110	84	42
150	4.5kg	240	218	150	5	632	532	34	10	42	157.5	131	2.5	92	103	9	20	100	80	G 1 1/2	1 1/2-11 1/2 NPT	110	84	42
175	4.6kg	240	218	150	5	632	532	34	10	42	157.5	131	2.5	92	103	9	20	100	80	G 1 1/2	1 1/2-11 1/2 NPT	110	84	42
	6.9kg	279	251	179	8	768	618	50	12	42	183	166	2.5	100	135	11	24	159	128	G 2	2-11 1/2 NPT	110	84	42
280	6.9kg	279	251	179	8	768	618	50	12	42	183	166	2.5	100	135	11	24	159	128	G 2 1/2	2 1/2-8 NPT	110	84	42
390	11kg	320	288	210	9	920	720	57	15	50	230.5	191	4	135	155	11	30	162	130	G 3	3-8 NPT	130	100	50
520	12.6kg	320	288	210	9	1090	890	57	15	50	230.5	191	4	135	155	11	30	150	120	G 3	3-8 NPT	130	100	50

All dimensions are in Millimeters

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17 August 2015

Type Test Certificate
Evaluation of the residual oil vapour content
after an Atlas Copco QDT filter
Test report no.: 931 / 21229599/03

The Atlas Copco QDT filters have been validated, and the compressed air samples are analyzed according to the ISO 8573-5:2001 test method (by means of adsorption on Tenax tubes with thermal desorption for analysis).

	Declared maximal downstream oil vapour content (VOC C ₆ – C ₁₆ as defined by ISO 16000-6)
QDT-filter	0.003 mg/m ³

Details can be found in the full test report no. : 931/21229599/03

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17 August 2015

Validation Certificate
Evaluation of the air purity class for total oil
after an Atlas Copco UD+ QDT filter train
Test report no.: 931 / 21229599/02

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.

Details can be found in the full test report no.: 931/21229599/02

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