

# *Oil-free rotary screw compressors*



*Atlas Copco*

ZR/ZT 110-275 (FF) & ZR/ZT 132-315 VSD (FF)





*Atlas Copco*

## ***Setting the standard in energy efficiency, safety and reliability***

The shortest route to superior productivity is to minimize operational cost while maintaining an uninterrupted supply of the right quality of air. The Atlas Copco Z compressor series is focused on effectively saving energy, ensuring product safety –only oil-free machines exclude contamination risks for 100% – and guaranteeing the utmost reliability around the clock. And not just today, but day after day, year after year, with minimal maintenance cost, few service interventions and long overhaul intervals.



**Oil-free**  
ISO 8573-1 C



### **Highest reliability**

For 60 years, Atlas Copco Z compressors have set the benchmark for durability. They are built using long-standing internal engineering practices, and are designed and manufactured according to ISO 9001, ISO 14001, ISO 22000 & OHSAS 18001. The high-end ZR/ZT uses time-proven state-of-the-art screw technology, cooling and pulsation dampers and provides you with the highest reliability.

### **100% oil-free compressed air**

The ZR/ZT offers you 100% pure, clean air that complies with ISO 8573-1 CLASS 0 (2010) certification. This means zero risk of contamination; zero risk of damaged products; zero risk of losses from operational downtime; and zero risk of damaging your company's hard-won professional reputation.

### **Maximum energy efficiency**

The ZR/ZT's superior oil-free screw elements provide the optimum combination of high Free Air Delivery (FAD) with the lowest energy consumption. Ample sized cooling, low pressure drops and an extremely efficient drive train result in the highest compressor package efficiency.

### **The most complete package**

With the ZR/ZT compressor, Atlas Copco provides a superior solution without hidden costs. The totally integrated, ready-to-use package includes internal piping, coolers, motor, lubrication and control system. The Full Feature version even integrates an IMD adsorption dryer for an impeccable end product. Installation is fault-free, commissioning time is low and no external instrument air is required. You simply plug and run.

### **Global presence - local service**

Our aftermarket product portfolio is designed to add maximum value for our customers by ensuring the optimum availability and reliability of their compressed air equipment with the lowest possible operating costs. We deliver this complete service guarantee through our extensive service organization, maintaining our position as leader in compressed air.





## ***100% certified oil-free air***

Atlas Copco is renowned for designing and manufacturing some of the most durable oil-free screw compressors. The ZR/ZT high-end rotary screw compressor comes out of this strong tradition. Ideal for industries where high-quality oil-free air is key, the ZR/ZT offers the highest reliability and safety in combination with low energy costs.



### **Food & beverage**

- 100% pure, clean, oil-free air for all kinds of applications (e.g. fermentation, packaging, aeration, transportation, filling & capping, cleaning, instrument air).
- ISO 8573-1 CLASS 0 (2010) certification to avoid compromising the purity of your end product and ensure zero risk of contamination.

### **Textiles**

- Easy and quick installation.
- A completely, fully integrated, ready-to-use solution.

### **Oil & gas**

- Years of experience in providing compressed air for the oil & gas industry.
- 100% oil-free compressed air for control/instrument air or buffer air.
- Strong global support network to provide 24/7 assistance.

### **Power plants**

- Ideal for applications such as flue gas desulphurization, oxidation air, and fluidized beds.
- Continuous operation.

## Class 0: the industry standard

Oil-free air is used in all kinds of industries where air quality is paramount for the end product and production process. These applications include food and beverage, pharmaceutical, chemical and petrochemical, semiconductor and electronics, the medical sector, automotive paint spraying, textile and many more. In these critical environments, contamination by even the smallest quantities of oil can result in costly production downtime and product spoilage.

### First in oil-free air technology

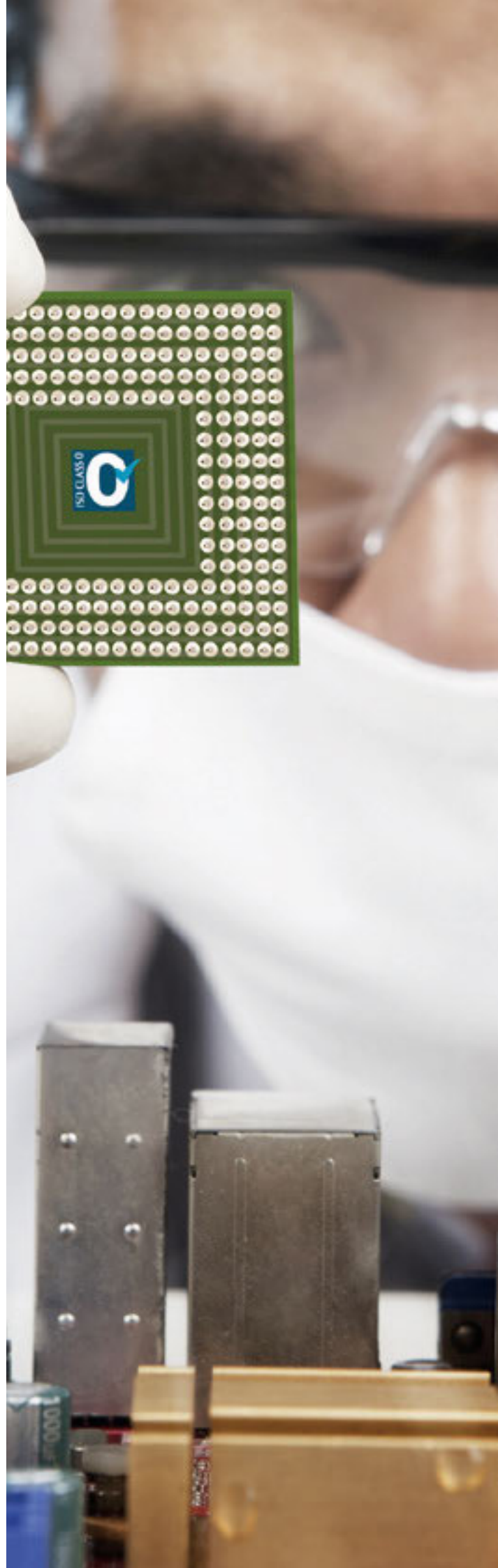
Over the past sixty years Atlas Copco has pioneered the development of oil-free air technology, resulting in a range of air compressors and blowers that provide 100% pure, clean air. Through continuous research and development, Atlas Copco achieved a new milestone, setting the standard for air purity as the first manufacturer to be awarded CLASS 0 certification.

### Eliminating any risk

As the industry leader committed to meeting the needs of the most demanding customers, Atlas Copco requested the renowned TÜV institute to type-test its range of oil-free compressors and blowers. Using the most rigorous testing methodologies available, all possible oil forms were measured across a range of temperatures and pressures. The TÜV found no traces of oil at all in the output air stream.

CLASS	Concentration total oil (aerosol, liquid, vapor) mg/m <sup>3</sup>
0	As specified by the equipment user or supplier and more stringent than class 1
1	< 0.01
2	< 0.1
3	< 1
4	< 5

Current ISO 8573-1 (2010) classes (the five main classes and the associated maximum concentration in total oil content).





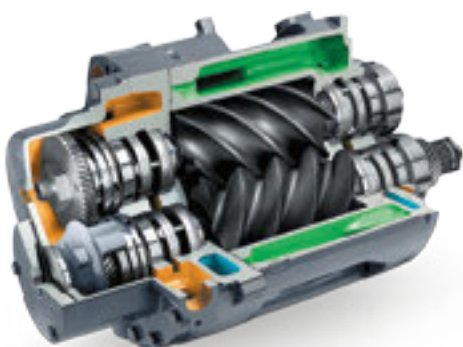
# Proven Z technology: ZR (water-cooled) version



1

## Throttle valve with load/unload regulation

- No external air supply required.
- Mechanical interlock of inlet and blow-off valve.
- Low unload power.



2

## World-class oil-free compression element

- Unique Z seal design guarantees 100% certified oil-free air.
- Atlas Copco superior rotor coating for high efficiency and durability.
- Cooling jackets.

3

## High efficiency coolers and water separator

- Corrosion resistant stainless steel tubing\*.
- Highly reliable robot welding; no leakages\*.
- Aluminium star insert increases heat transfer\*.
- Water separator with labyrinth design to efficiently separate the condensate from the compressed air.
- Low moisture carry-over protects downstream equipment.

\* Only for ZR water-cooled versions.



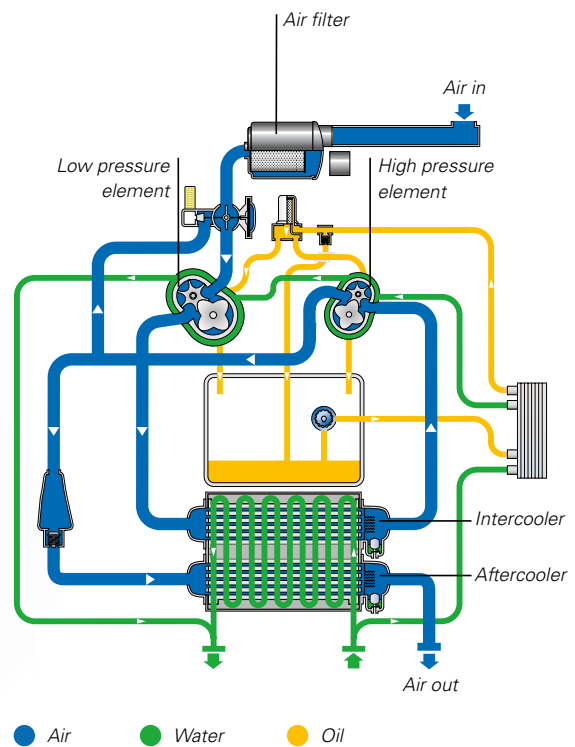


4

## Motor

- IP55TEFC protection against dust and humidity.
- High efficiency fixed speed IE3 motor (equal to NEMA Premium).

## Water-cooled ZR Pack



5

## Advanced Elektronikon®

- Large 5.7" sized color display available in 31 languages for optimal ease of use.
- Controls the main drive motor and regulates system pressure to maximize energy efficiency.



# A complete Full Feature package: ZT (air-cooled) version

1

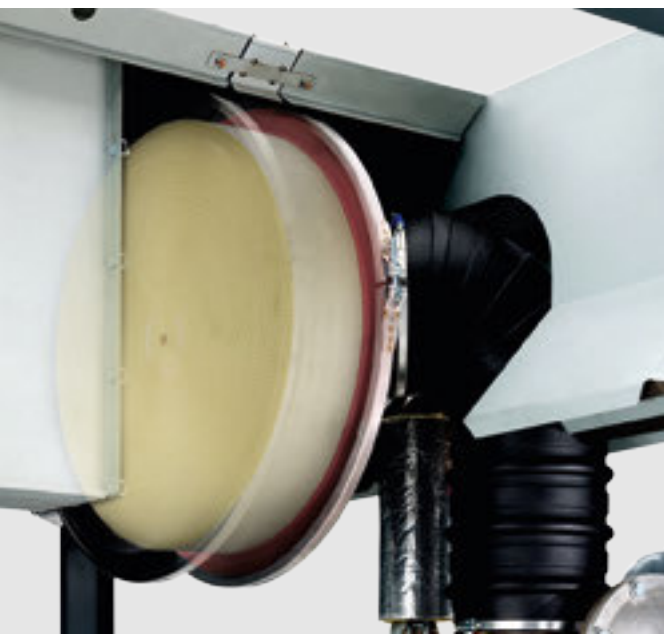
## Silenced canopy

- Base frame with forklift slot.
- Fully packaged, easy to install.
- Easy ducting.

2

## Efficient intake air filtration

- 2-stage dust removal system (99.9% for 3 micron).
- Low pressure drop.
- Efficient protection of the compressor.
- Minimum intake losses.

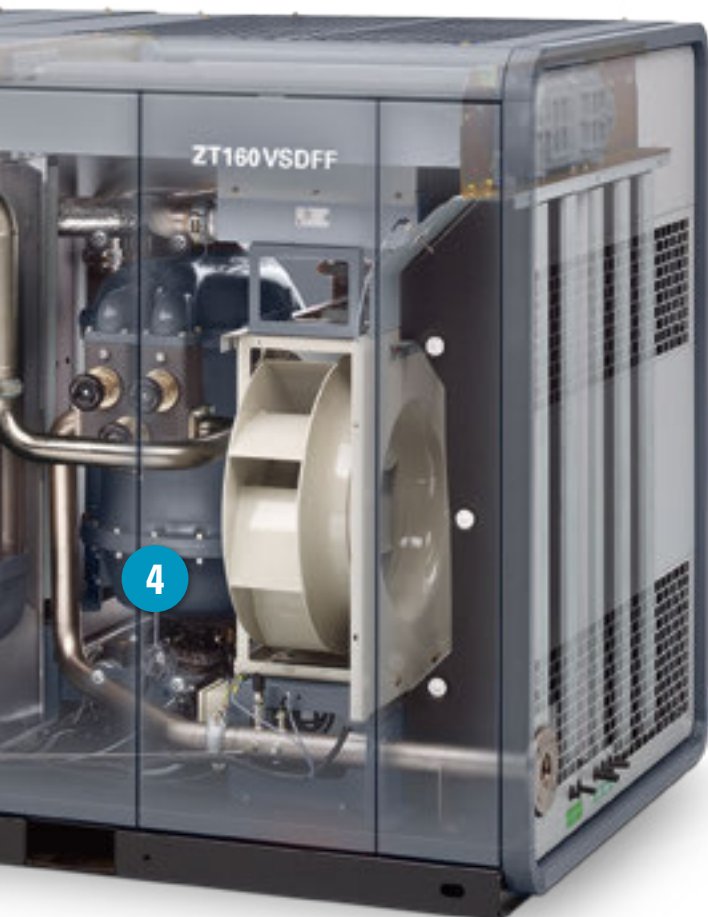


3

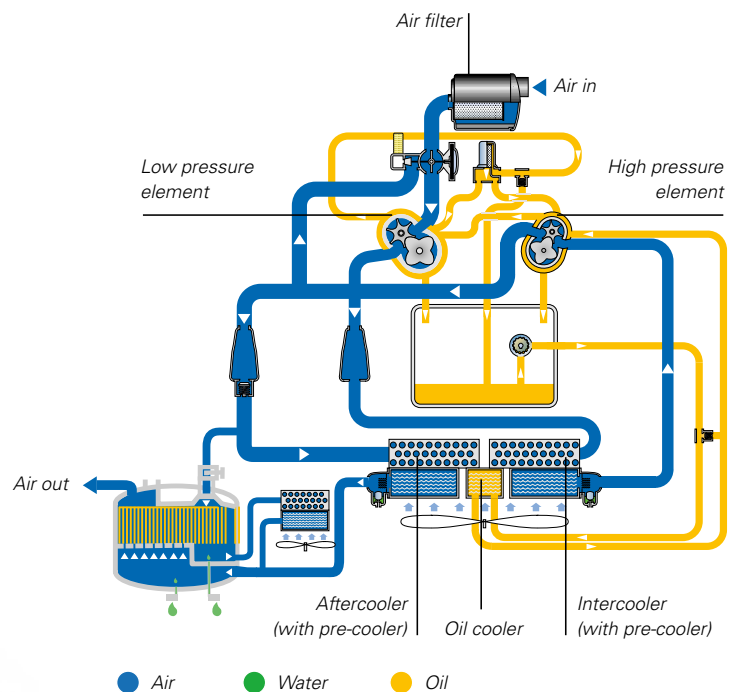
## High-efficiency motor + VSD

- TEFC IP55 motor protects against dust and chemicals.
- Continuous operation under severe ambient temperature conditions.
- Full regulation between 30 to 100% of the maximum capacity.





## Air-cooled ZT Full Feature



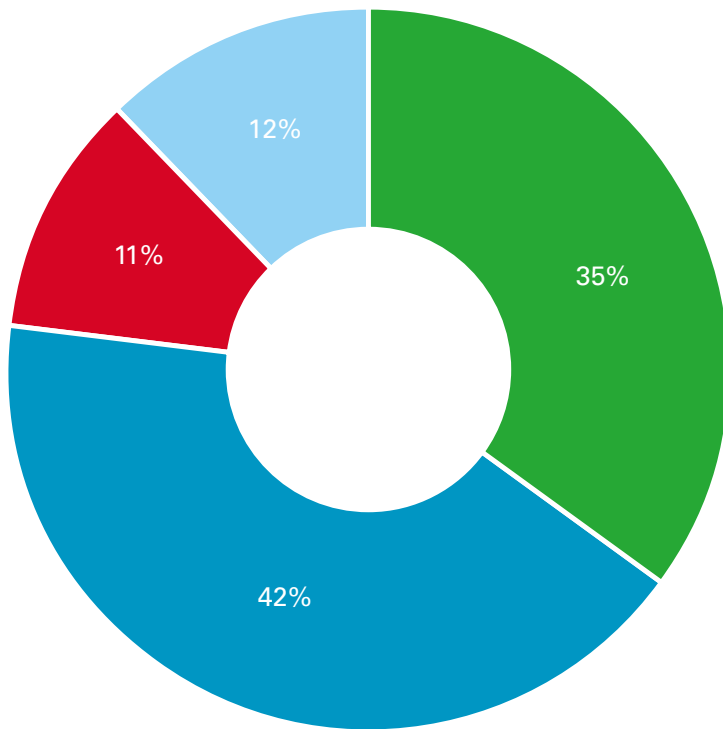
4

### Full Feature: IMD adsorption dryer

- Eliminates the moisture before it enters the air net.
- Ensuring a reliable process and a top quality end product.
- No external energy is needed to dry the air, resulting in high energy savings and no compressed air losses.
- Minimal pressure drop.

# VSD: driving down 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.



## Energy savings of up to 35%

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

## Total compressor lifecycle cost



## What is unique about the integrated Atlas Copco VSD?

- 1 The Elektronikon® controls both the compressor and the integrated converter, ensuring maximum machine safety within parameters.
- 2 Flexible pressure selection from 4 to 10.4 bar with VSD reduces electricity costs.
- 3 Specific converter and motor design (with protected bearings) for the highest efficiency across the speed range.
- 4 Electric motor specifically designed for low operating speeds with clear attention to motor cooling and compressor cooling requirements.
- 5 All Atlas Copco VSD compressors are EMC tested and certified. Compressor operation does not influence external sources and vice versa.
- 6 Mechanical enhancements ensure that all components operate below critical vibration levels throughout the entire compressor speed range.
- 7 A highly efficient frequency converter in a cubicle ensures stable operation in high ambient temperatures up to 50°C/122°F (standard up to 40°C/104°F).
- 8 No 'speed windows' that can jeopardize the energy savings and the stable net pressure. Turndown capability of the compressor is maximized to 70-75%.
- 9 Net pressure band is maintained within 0.10 bar, 1.5 psi.

# Monitoring and control: how to get the most from the least

The Elektronikon® unit controller is specially designed to maximize the performance of your compressors and air treatment equipment under a variety of conditions. Our solutions provide you with key benefits such as increased energy efficiency, lower energy consumption, reduced maintenance times and less stress... less stress for both you and your entire air system.

## Intelligence is part of the package

- High resolution color display gives you an easy to understand readout of the equipment's running conditions.
- Clear icons and intuitive navigation provides you fast access to all of the important settings and data.
- Monitoring of the equipment running conditions and maintenance status; bringing this information to your attention when needed.
- Operation of the equipment to deliver specifically and reliably to your compressed air needs.
- Built-in remote control and notifications functions provided as standard, including simple to use Ethernet based communication.
- Support for 31 different languages, including character based languages.



## Online & mobile monitoring

Monitor your compressors over the Ethernet with the new Elektronikon® controller. Monitoring features include warning indications, compressor shut-down and maintenance scheduling. An Atlas Copco App is available for iPhone/Android phones as well as iPad and Android tablets. It allows fingertip monitoring of your compressed air system through your own secured network.



## 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.*



# *Protecting your production*

Untreated compressed air contains moisture and possibly dirt particles that can damage your air system and contaminate your end product. The resulting maintenance costs far exceed air treatment costs. Atlas Copco believes in effective prevention and provides a complete range of air treatment solutions to protect investments, equipment, production processes and end products.

## **Increase production reliability**

Low quality air heightens the risk of corrosion, which can lower the life span of production equipment. The air treatment solutions produce clean air that enhances your system's reliability, avoiding costly downtime and production delays.

## **Safeguard production quality**

Compressed air coming into contact with your final products should not affect their quality. Atlas Copco provides clean, dry air to protect your production and reputation in the market.

## **Supreme energy and cost savings**

Atlas Copco's quality air solutions stand for substantial energy savings all day, every day. Taking technology to a new level, these products achieve maximum cost savings.

## **Proven peace of mind**

Building on know-how and years of experience, the entire Atlas Copco quality air range is produced in-house and tested using the most stringent methods in the industry.



# A dryer solution for every need

Untreated compressed air contains moisture and possibly dirt particles that can damage your air system and contaminate your end product. The resulting maintenance costs far exceed air treatment costs. Atlas Copco believes in effective prevention and provides a complete range of air treatment solutions to protect investments, equipment, production processes and end products.

## Rotary drum heat of compression dryers

### MDG

-40°C/-20°C  
-40°F/-4°F

### MD

-20°C/+3°C  
-4°F/+37°F

### ND

-40°C/-20°C  
-40°F/-4°F

- Use of freely available heat of compression
- Negligible power consumption
- Variants with extra heat augmentation for lower dew points



## Heat reactivated adsorption dryer

### BD/BD+

-70°C/-40°C/-20°C  
-94°F/-40°F/-4°F

- Use of electrical heaters for regenerating the desiccant
- Limited pressure drop
- Variants without loss of compressed air

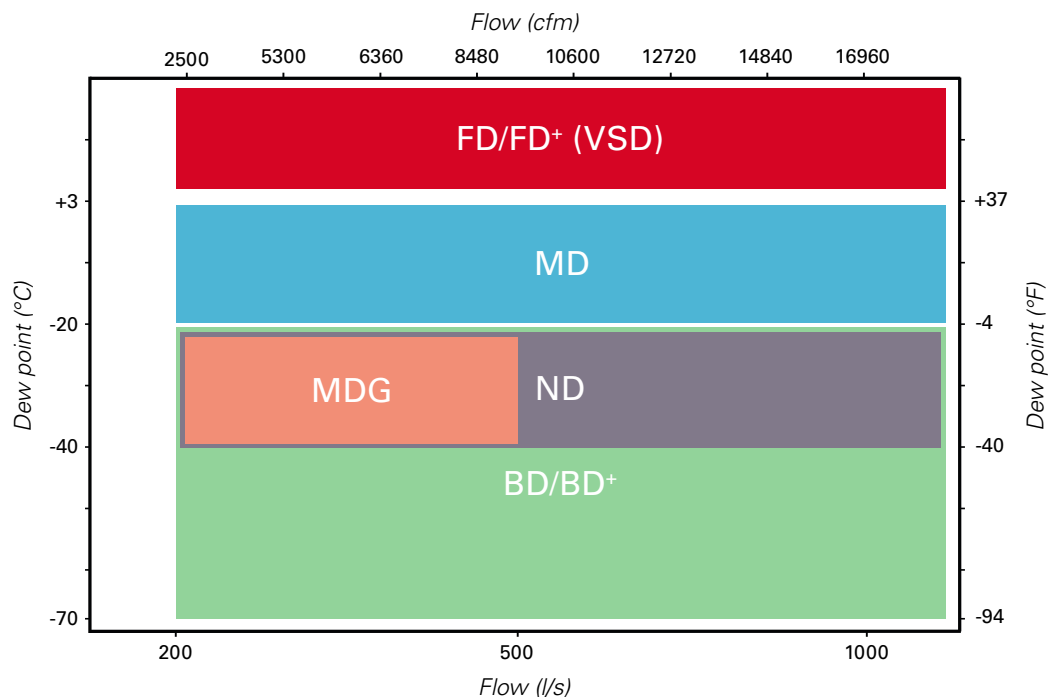
## Refrigerant dryer

### FD/FD+ (VSD)

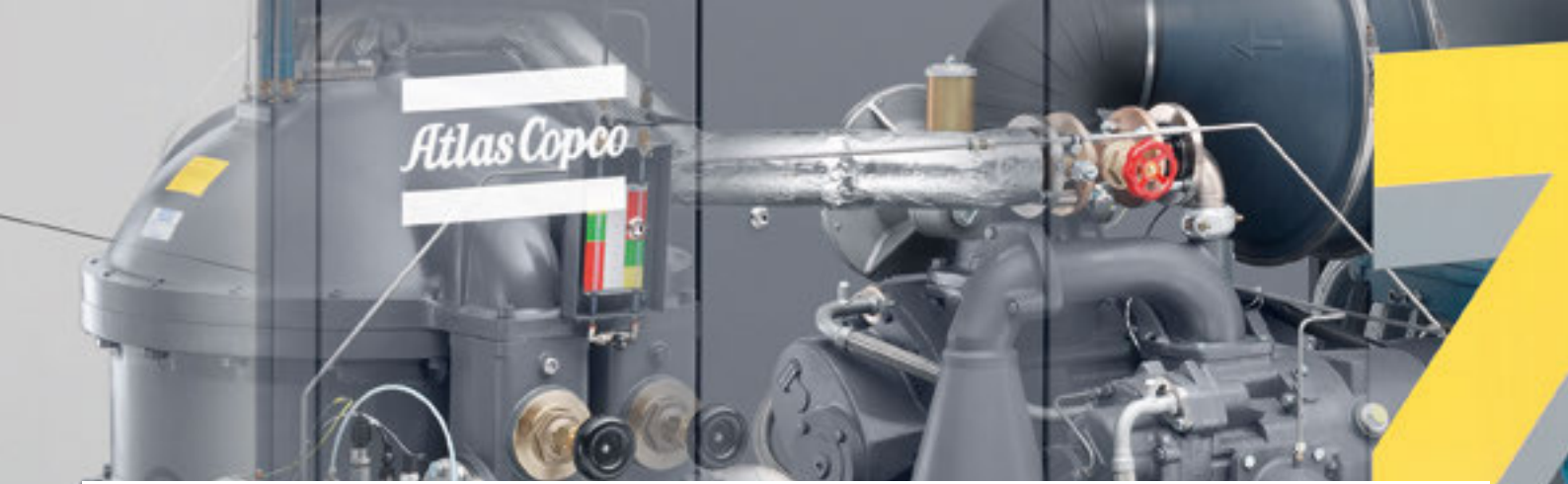
+3°C/+20°C  
+37°F/+68°F

- Use of cooling circuit for cooling down compressed air
- Guaranteed pressure dew points
- Lowest energy consumption in all operating conditions
- Air and water cooled variants

## Dryers overview



To further protect your investment, equipment and processes, Atlas Copco presents a full line-up of innovative quality air solutions to suit the high quality requirements of your specific application.



## A complete Full Feature package

Atlas Copco's Full Feature concept stands for a compact, all-in-one quality air solution. Integrating the IMD dryer and its Variable Speed Drive on VSD models, this integrated package offers the highest quality air at the lowest possible cost.

### Protect your compressed air system

A dry compressed air system is essential to maintain the reliability of production processes and the quality of the end products. Untreated air can cause corrosion in the pipe work, premature failure of pneumatic equipment and product spoilage.



### The IMD drying principle

- 1 Hot unsaturated air
- 2 Hot saturated air
- 3 Cold saturated air
- 4 Dry air
- 5 Drying section

### IMD adsorption dryer

The IMD adsorption dryer eliminates the moisture before it enters the air net, ensuring a reliable process and an impeccable end product. As no external energy is needed to dry the air, large savings are obtained. The pressure drop through the dryer is minimal, which again cuts down the operating cost.



# Optimize your system

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

## Options

	ZR 110 - 275	ZT 110 - 275	ZR 132 - 315 VSD	ZT 132 - 315 VSD
Monitoring & Protection bundle (Anti-Condensation heaters / SPM equipment / PT 1000 in the windings & bearings)	•	•	•	•
<b>SMARTLINK</b>	•	•	•	•
Kit for purge of dry air during standstill (for tropical environment)	•	•	•	•
Dryer by-pass	•	•	•	•
Low load compensator for integrated dryer	•	•	•	•
PDP sensor	•	•	•	•
Silicone-free rotor	•	•	•	•
Anchor pads	•	•	•	•
ANSI flange(s) for air (and water) connections	•	•	•	•
Wooden case protection packaging	•	•	•	•
Duplex oil filter	•	•	•	•
Prefilter kit	•	•	•	•
Separate air intake	•	•	•	•
Teflon-free elements	•	•	•	•
HAT (High ambient temperature) version (*)	•	•	•	•
Hot air variant (= without aftercooler)	•	•	•	•
Material certificates	•	•	•	•
Test certificate	•	•	•	•
Witnessed performance test	•	•	•	•
Energy recovery	•	-	•	-
Water shut-off valve	•	-	•	-
Oversized motor	•	•	-	-
PT 100 in the windings (only for medium voltage motor)	•	•	-	-
Earthing system, IT, TT or TN network	-	-	•	•

(\*) Maximum intake/cooling air temperature is 50°C/122 °F for HAT versions.  
Please note the availability of the option depends on the chosen configuration.

•: Optional - : Not available

# Engineered solutions

Atlas Copco recognizes the need to combine our serially produced compressors and dryers with the specifications and standards applied by major companies for equipment purchases. Strategically located departments within the Atlas Copco Group take care of the design and manufacturing of customized equipment to operate at extreme temperatures, often in remote locations.

## Innovative technology

All equipment is covered by our manufacturer warranty. The reliability, longevity and performance of our equipment will not be compromised. A global aftermarket operation employing 360 field service engineers in 160 countries ensures reliable maintenance by Atlas Copco as part of a local service operation.

## Innovative engineering

Each project is unique and by entering into partnership with our customers, we can appreciate the challenge at hand, ask the relevant questions and design the best engineered solution for all your needs.

# Technical specifications

## ZR 110-275 (FF)

Type	Free air delivery <sup>(1)</sup>			Installed motor		Noise level <sup>(2)</sup>	Weight			
	l/s	m <sup>3</sup> /min	cfm	kW	hp		Standard		Full Feature	
							kg	lb	kg	lb
<b>50 Hz</b>										
ZR 110 - 7.5	318.2	19.1	674	110	150	69	2635	5809	2880	6349
ZR 110 - 8.6	286.1	17.2	606	110	150	69	2635	5809	2880	6349
ZR 110 - 10	266.5	16.0	565	110	150	69	2635	5809	2880	6349
ZR 132 - 7.5	365.6	21.9	775	132	150	69	2760	6085	2940	6482
ZR 132 - 8.6	326.4	19.6	692	132	150	69	2760	6085	2940	6482
ZR 132 - 10	314.2	18.9	666	132	150	69	2760	6085	2940	6482
ZR 145 - 7.5	391.6	23.5	830	145	200	70	2900	6393	3080	6790
ZR 145 - 8.6	361.7	21.7	766	145	200	70	2900	6393	3080	6790
ZR 145 - 10	334.5	20.1	709	145	200	69	2900	6393	3080	6790
ZR 145 - 13	304.0	18.2	644	145	200	73	2900	6393	3080	6790
ZR 160 - 7.5	472.2	28.3	1001	160	200	69	3850	8488	5650	12456
ZR 160 - 8.6	435.9	26.2	924	160	200	69	3850	8488	5650	12456
ZR 160 - 10	402.6	24.2	853	160	200	69	3850	8488	5650	12456
ZR 200 - 7.5	602.1	36.1	1276	200	250	67	4000	8818	5800	12787
ZR 200 - 8.6	551.6	33.1	1169	200	250	67	4000	8818	5800	12787
ZR 200 - 10	506.2	30.4	1073	200	250	69	4000	8818	5800	12787
ZR 250 - 7.5	717.6	43.1	1521	250	300	67	4100	9039	5900	13007
ZR 250 - 8.6	683.8	41.0	1449	250	300	67	4100	9039	5900	13007
ZR 250 - 10	622.5	37.4	1319	250	300	67	4100	9039	5900	13007
ZR 250 - 13 <sup>(3)</sup>	514.9	30.9	1091	250	300	70	4100	9039		
ZR 275 - 7.5	774.1	46.4	1640	275	350	67	4300	9480	6100	13448
ZR 275 - 8.6	717.6	43.1	1521	275	350	67	4300	9480	6100	13448
ZR 275 - 10	683.5	41.0	1448	275	350	67	4300	9480	6100	13448
ZR 275 - 13 <sup>(3)</sup>	561.8	33.7	1190	275	350	70	4300	9480		
<b>60 Hz</b>										
ZR 110 - 7	347.7	20.9	737	110	150	69	2635	5809	2880	6349
ZR 110 - 8.6	318.2	19.1	674	110	150	69	2635	5809	2880	6349
ZR 110 - 10.4	288.7	17.3	612	110	150	69	2635	5809	2880	6349
ZR 145 - 8.6	395.7	23.7	838	145	200	68	2900	6393	3080	6790
ZR 145 - 10.4	335.9	20.2	712	145	200	69	2900	6393	3080	6790
ZR 145 - 13	315.2	18.9	668	145	200	73	2900	6393	3080	6790
ZR 160 - 7	465.4	27.9	986	160	200	69	3850	8488	5650	12456
ZR 160 - 8.6	423.5	25.4	897	160	200	69	3850	8488	5650	12456
ZR 160 - 10.4	375.5	22.5	796	160	200	69	3850	8488	5650	12456
ZR 200 - 7	575.1	34.5	1219	200	250	67	4000	8818	5800	12787
ZR 200 - 8.6	519.1	31.1	1100	200	250	69	4000	8818	5800	12787
ZR 200 - 10.4	459.6	27.6	974	200	250	69	4000	8818	5800	12787
ZR 250 - 7	667.0	40.0	1413	250	300	67	4100	9039	5900	13007
ZR 250 - 8.6	621.7	37.3	1317	250	300	67	4100	9039	5900	13007
ZR 250 - 10.4	546.9	32.8	1159	250	300	69	4100	9039	5900	13007
ZR 250 - 13 <sup>(3)</sup>	500.6	30.0	1061	250	300	70	4100	9039		
ZR 275 - 7	749.9	45.0	1589	275	350	67	4300	9480	6100	13448
ZR 275 - 8.6	725.3	43.5	1537	275	350	67	4300	9480	6100	13448
ZR 275 - 10.4	640.0	38.4	1356	275	350	67	4300	9480	6100	13448
ZR 275 - 13 <sup>(3)</sup>	561.5	33.7	1190	275	350	70	4300	9480		

(1) Unit performance measured according to ISO 1217, Annex C & E, Edition 4 (2009).

Reference conditions:

- Relative humidity 0%.
- Absolute inlet pressure: 1 bar (14.5 psi).
- Intake air temperature: 20°C/68°F.

FAD is measured at the following working pressures:

Fixed speed:

- 7/7.5/8.6 bar versions at 7 bar.
- 10/10.4 bar versions at 9 bar.
- 13 bar version at 12 bar.

For VSD: at their maximum working pressure.

(2) A-weighted emission sound pressure level at the work station (LpWSAd).

Measured according to ISO 2151: 2004 using ISO 9614/2 (sound intensity scanning method).

The added correction factor (+/- 3 dB(A)) is the total uncertainty value (KpAd) conform with the test code.

(3) Not available as FF variant.

# Technical specifications

## ZT 110-275 (FF)

Type	Free air delivery <sup>(1)</sup>			Installed motor		Noise level <sup>(2)</sup>	Weight			
	l/s	m <sup>3</sup> /min	cfm	kW	hp		Standard		Full Feature	
							kg	lb	kg	lb
<b>50 Hz</b>										
ZT 110 - 7.5	306.9	18.4	650	110	150	71	3560	7848	4070	8973
ZT 110 - 8.6	286.2	17.2	606	110	150	71	3560	7848	4070	8973
ZT 110 - 10	266.9	16.0	566	110	150	71	3560	7848	4070	8973
ZT 132 - 7.5	363.1	21.8	769	132	150	72	3700	8157	4210	9281
ZT 132 - 8.6	325.2	19.5	689	132	150	72	3700	8157	4210	9281
ZT 132 - 10	313.3	18.8	664	132	150	72	3700	8157	4210	9281
ZT 145 - 7.5	387.3	23.2	821	145	200	72	3850	8488	4360	9612
ZT 145 - 8.6	358.4	21.5	759	145	200	72	3850	8488	4360	9612
ZT 145 - 10	332.3	19.9	704	145	200	72	3850	8488	4360	9612
ZT 160 - 7.5	465.5	27.9	986	160	200	77	5150	11354	6350	13999
ZT 160 - 8.6	429.4	25.8	910	160	200	77	5150	11354	6350	13999
ZT 160 - 10	396.3	23.8	840	160	200	78	5150	11354	6350	13999
ZT 200 - 7.5	568.4	34.1	1204	200	250	78	5250	11574	6450	14220
ZT 200 - 8.6	521.7	31.3	1105	200	250	78	5250	11574	6450	14220
ZT 200 - 10	499.6	30.0	1059	200	250	78	5250	11574	6450	14220
ZT 250 - 7.5	706.3	42.4	1497	250	300	77	5300	11684	6500	14330
ZT 250 - 8.6	673.5	40.4	1427	250	300	78	5300	11684	6500	14330
ZT 250 - 10	613.9	36.8	1301	250	300	78	5300	11684	6500	14330
ZT 275 - 7.5	738.1	44.3	1564	275	350	77	5400	11905	6600	14550
ZT 275 - 8.6	706.3	42.4	1497	275	350	78	5400	11905	6600	14550
ZT 275 - 10	673.1	40.4	1426	275	350	78	5400	11905	6600	14550
<b>60 Hz</b>										
ZT 110 - 8.6	317.7	19.1	673	110	150	71	3560	7848	4070	8973
ZT 110 - 10.4	288.6	17.3	612	110	150	71	3560	7848	4070	8973
ZT 145 - 8.6	391.2	23.5	829	145	200	72	3850	8488	4360	9612
ZT 145 - 10.4	334.1	20.0	708	145	200	72	3850	8488	4360	9612
ZT 160 - 8.6	416.9	25.0	883	160	200	77	5150	11354	6350	13999
ZT 160 - 10.4	371.0	22.3	786	160	200	78	5150	11354	6350	13999
ZT 200 - 8.6	512.1	30.7	1085	200	250	77	5150	11354	6350	13999
ZT 200 - 10.4	453.2	27.2	960	200	250	78	5150	11354	6350	13999
ZT 250 - 8.6	613.0	36.8	1299	250	300	78	5300	11684	6500	14330
ZT 250 - 10.4	540.1	32.4	1144	250	300	78	5300	11684	6500	14330
ZT 275 - 8.6	713.7	42.8	1512	275	350	78	5400	11905	6600	14550
ZT 275 - 10.4	630.9	37.9	1337	275	350	78	5400	11905	6600	14550

(1) Unit performance measured according to ISO 1217, Annex C & E, Edition 4 (2009).

Reference conditions:

- Relative humidity 0%.
- Absolute inlet pressure: 1 bar (14.5 psi).
- Intake air temperature: 20°C/68°F.

FAD is measured at the following working pressures:

Fixed speed:

- 7/7.5/8.6 bar versions at 7 bar.
- 10/10.4 bar versions at 9 bar.
- 13 bar version at 12 bar.

For VSD: at their maximum working pressure.

(2) A-weighted emission sound pressure level at the work station (LpWSAd).

Measured according to ISO 2151: 2004 using ISO 9614/2 (sound intensity scanning method).

The added correction factor (+/- 3 dB(A)) is the total uncertainty value (KpAd) conform with the test code.

## Dimensions

Type	Standard						Full Feature					
	A (Length)		B (Width)		C (Height)		A (Length)		B (Width)		C (Height)	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
ZR 110-145	2540	100.0	1650	65.0	2000	78.7	3440	135.4	1650	65.0	2000	78.7
ZR 160-275	3140	123.0	1650	65.0	2000	78.7	4340	170.9	1650	65.0	2000	78.7
ZT 110-145	4040	159.1	1650	65.0	2000	78.7	4040	159.1	1650	65.0	2000	78.7
ZT 160-275	5040	198.4	1650	65.0	2100	82.7	5040	198.4	1650	65.0	2100	82.7





# Technical specifications

## ZR 132-315 VSD (FF) (50/60 Hz)

Type	Working pressure <sup>(1)</sup>		Free air delivery <sup>(2)</sup>			Noise level <sup>(3)</sup>	Weight			
		bar(e)	l/s	m <sup>3</sup> /min	cfm		Standard		Full Feature	
						kg	lb	kg	lb	
ZR 132 VSD - 8.6 bar(e)	Minimum	3.5	130 - 440	78 - 26.4	276 - 932	74	2870	6327	3500	7716
	Effective	7	129 - 374	7.7 - 22.4	273 - 792					
	Maximum	8.6	128 - 343	7.7 - 20.6	272 - 727					
ZR 132 VSD - 10.4 bar(e)	Minimum	6	119 - 373	7.1 - 22.4	252 - 789	74	2870	6327	3500	7716
	Effective	9	122 - 337	7.3 - 20.2	258 - 715					
	Maximum	10.4	137 - 313	8.2 - 18.8	291 - 663					
ZR 160 VSD - 8.6 bar(e)	Minimum	3.5	130 - 440	78 - 26.4	276 - 931	74	2870	6327	3500	7716
	Effective	7	129 - 431	7.7 - 25.9	273 - 914					
	Maximum	8.6	128 - 398	7.7 - 23.9	272 - 843					
ZR 160 VSD - 10.4 bar(e)	Minimum	6	119 - 412	7.1 - 24.7	252 - 872	74	2870	6327	3500	7716
	Effective	9	122 - 392	7.3 - 23.5	258 - 831					
	Maximum	10.4	137 - 366	8.2 - 21.9	291 - 774					
ZR 250 VSD - 8.6 bar(e)	Minimum	3.5	244 - 831	14.7 - 49.8	518 - 1760	73	4600	10141	6400	14109
	Effective	7	243 - 714	14.6 - 42.9	514 - 1514					
	Maximum	8.6	242 - 660	14.5 - 39.6	513 - 1399					
ZR 250 VSD - 10.4 bar(e)	Minimum	6	211 - 742	12.7 - 44.5	447 - 1572	73	4600	10141	6400	14109
	Effective	9	234 - 640	14.0 - 38.4	496 - 1357					
	Maximum	10.4	322 - 592	19.3 - 35.5	682 - 1254					
ZR 315 VSD - 8.6 bar(e)	Minimum	3.5	244 - 831	14.7 - 49.8	518 - 1760	73	4600	10141	6400	14109
	Effective	7	243 - 830	14.6 - 49.8	514 - 1759					
	Maximum	8.6	242 - 775	14.5 - 46.5	513 - 1642					
ZR 315 VSD - 10.4 bar(e)	Minimum	6	211 - 749	12.7 - 44.9	447 - 1587	73	4600	10141	6400	14109
	Effective	9	234 - 737	14.0 - 44.2	496 - 1563					
	Maximum	10.4	322 - 698	19.3 - 41.9	682 - 1478					

(1) For the working pressure of the FF variant, please consult Atlas Copco.

(2) Unit performance measured according to ISO 1217, Annex C & E, Edition 4 (2009).

Reference conditions:

- Relative humidity 0%.

- Absolute inlet pressure: 1 bar (14.5 psi).

- Intake air temperature: 20°C/68°F.

FAD is measured at the following working pressures:

Fixed speed:

- 7/7.5/8.6 bar versions at 7 bar.

- 10/10.4 bar versions at 9 bar.

- 13 bar version at 12 bar.

For VSD: at their maximum working pressure.

(3) A-weighted emission sound pressure level at the work station (LpWSAd).

Measured according to ISO 2151: 2004 using ISO 9614/2 (sound intensity scanning method).

The added correction factor (± 3 dB(A)) is the total uncertainty value (KpAd) conform with the test code.



# Technical specifications

## ZT 132-315 VSD (FF) (50/60 Hz)

Type	Working pressure <sup>(1)</sup>		Free air delivery <sup>(2)</sup>			Noise level <sup>(3)</sup>	Weight			
		bar(e)	l/s	m <sup>3</sup> /min	cfm		Standard		Full Feature	
						kg	lb	kg	lb	
ZT 132 VSD - 8.6 bar(e)	Minimum	3.5	128 - 419	7.7 - 25.1	272 - 888	76	3820	8422	4330	9546
	Effective	7	127 - 363	7.6 - 21.8	269 - 768					
	Maximum	8.6	127 - 335	7.6 - 20.1	268 - 711					
ZT 132 VSD - 10.4 bar(e)	Minimum	6	148 - 362	8.9 - 21.7	315 - 768	76	3820	8422	4330	9546
	Effective	9	178 - 330	10.7 - 19.8	377 - 699					
	Maximum	10.4	199 - 307	11.9 - 18.4	421 - 651					
ZT 160 VSD - 8.6 bar(e)	Minimum	3.5	128 - 419	7.7 - 25.1	272 - 888	76	3820	8422	4330	9546
	Effective	7	127 - 409	7.6 - 24.6	269 - 868					
	Maximum	8.6	127 - 380	7.6 - 22.8	268 - 806					
ZT 160 VSD - 10.4 bar(e)	Minimum	6	148 - 392	8.9 - 23.5	315 - 831	76	3820	8422	4330	9546
	Effective	9	178 - 375	10.7 - 22.5	377 - 795					
	Maximum	10.4	199 - 352	11.9 - 21.1	421 - 746					
ZT 250 VSD - 8.6 bar(e)	Minimum	3.5	240 - 824	14.4 - 49.4	508 - 1746	78	5750	12676	6950	15322
	Effective	7	238 - 697	14.3 - 41.8	504 - 1477					
	Maximum	8.6	237 - 645	14.2 - 38.7	502 - 1367					
ZT 250 VSD - 10.4 bar(e)	Minimum	6	216 - 727	13.0 - 43.6	458 - 1540	78	5750	12676	6950	15322
	Effective	9	214 - 638	12.9 - 38.3	454 - 1352					
	Maximum	10.4	416 - 596	25.0 - 35.7	881 - 1262					
ZT 315 VSD - 8.6 bar(e)	Minimum	3.5	240 - 833	14.4 - 50.0	508 - 1765	78	5750	12676	6950	15322
	Effective	7	238 - 788	14.3 - 47.3	504 - 1670					
	Maximum	8.6	237 - 735	14.2 - 44.1	502 - 1557					
ZT 315 VSD - 10.4 bar(e)	Minimum	6	216 - 763	13.0 - 45.8	458 - 1616	78	5750	12676	6950	15322
	Effective	9	214 - 725	12.9 - 43.5	454 - 1535					
	Maximum	10.4	416 - 681	25.0 - 40.9	881 - 1444					

(1) For the working pressure of the FF variant, please consult Atlas Copco.

(3) A-weighted emission sound pressure level at the work station (LpWSAd).

(2) Unit performance measured according to ISO 1217, Annex C & E, Edition 4 (2009).

Reference conditions:

- Relative humidity 0%.

- Absolute inlet pressure: 1 bar (14.5 psi).

- Intake air temperature: 20°C/68°F.

FAD is measured at the following working pressures:

Fixed speed:

- 7/7.5/8.6 bar versions at 7 bar.

- 10/10.4 bar versions at 9 bar.

- 13 bar version at 12 bar.

For VSD: at their maximum working pressure.

Measured according to ISO 2151: 2004 using ISO 9614/2 (sound intensity scanning method).

The added correction factor (+/- 3 dB(A)) is the total uncertainty value (KpAd) conform with the test code.

## Dimensions

Type	Standard						Full Feature					
	A (Length)		B (Width)		C (Height)		A (Length)		B (Width)		C (Height)	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
ZR 132-160 VSD	2540	100.0	1650	65.0	2000	78.7	3440	135.4	1650	65.0	2000	78.7
ZR 250-315 VSD	3140	123.6	1650	65.0	2000	78.7	4340	170.9	1650	65.0	2000	78.7
ZT 132-160 VSD	4040	159.1	1650	65.0	2000	78.7	4040	159.1	1650	65.0	2000	78.7
ZT 250-315 VSD	5040	198.4	1650	65.0	2100	82.7	5040	198.4	1650	65.0	2100	82.7



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