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Technical Specifications IMD

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.



Highest reliability

For over 60 years, Atlas Copco has pioneered the development of oil-free air technology resulting in the largest range of air compressors and blowers within our industry.



100% oil-free compressed air

The ZR/ZT offers you 100% pure, clean air that complies with ISO 8573-1 CLASS 0 (2010) certification.



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.



The most complete package

With the ZR/ZT compressor, Atlas Copco provides a totally integrated, ready-to-use package including internal piping, coolers, motor, lubrication and control system.



Global presence – local service

Our aftermarket product portfolio adds maximum value by ensuring optimum availability and reliability of compressed air equipment with the lowest possible operating costs.



SMARTLINK

Monitor your compressed air installation with SMARTLINK. Knowing the status of your compressed air equipment at all times is the surest way to achieve optimal efficiency and maximum availability.

Industries and Applications

ZR 160-315 (VSD) oil-free compressor meets the high demands of industries where clean, reliable air is essential. Its timeless design and uninterrupted operation make it a dependable choice wherever quality, consistency, and contamination-free performance are critical.



Food & beverage ¹



Electronics ²



Pharma ³



Automotive ⁴

¹ The food & beverage industry demands high air quality for packaging, conveying, fermentation, and cleaning. Oil-free air compressors help meet these standards by eliminating the risk of oil contamination.

² Most electronics companies use integrated monitoring systems to ensure maximum production uptime. Oil-free air compressors support this by delivering clean, reliable air that prevents contamination and equipment failure.

³ With strict regulations like ISO 8573-1 Class 0, the medical and pharmaceutical sectors can't afford compromised air quality. Oil-free compressors ensure sterile, oil-free air that supports cleanroom environments and product safety.

⁴ Engine and vehicle assembly, stamping, painting, and other pneumatic processes all rely heavily on compressed air in the automotive industry. Using oil-free compressors ensures that this air is clean, reducing the risk of defects, especially in paint applications, and improving overall product quality.

Optimum air quality

By using our compressors and air treatment equipment you will avoid dust, water or oil in your process. It's important to have the right air quality to maximize your efficiency.



The perfect installation for your requirements

You have to avoid 3 things: water, dust & oil contaminants.

Water

Water in compressed air creates corrosion and rust. It can damage your end product. We have twin, desiccant and rotary drum dryers to remove any level of water in your air.

Dust

Dust in your compressed air creates extra friction, which leads to extra wear & tear in e.g. pneumatics. Our wide range of filtration solutions can remove all levels of dust in your system.

Oil

Oil particles entering the compressed air system can create product contamination and damage your end products. With our oil-free products and filtration solutions, we can deliver Class-0 air for industries like food & beverage, medical & health care, textiles, and chemical.

Which air quality do you require?

CLASS 0 = As specified by the equipment user or supplier and more stringent than class 1

CLASS 1 = < 0.01

CLASS 2 = < 0.0

CLASS 3 = < 1

CLASS 4 = < 5

Current ISO 8573-1 (2010) classes (the five main classes and the associated maximum concentration in total oil content). Concentration total oil (aerosol, liquid, vapor) mg/m³. Contact your local Atlas Copco representative to decide the right air quality for your application needs.



Our air treatment portfolio



Refrigerant dryer

Refrigerant dryers are the most common and consist of an air-to-air heat exchanger and an air-to-Freon heat exchanger. They are used to avoid free water and corrosion in the system. A relative humidity of below 50% is enough to achieve this. Refrigerant dryers are available in water- & air-cooled variants.

Desiccant dryer

Adsorption dryers are used when the compressed air application requires a pressure dew point below 0°C. In most cases, the dryers consist of two pressure vessels next to each other. Both vessels are filled with desiccant. When one vessel is removing moisture, the other is regenerating and vice versa.

Drum dryer

A variant on the twin tower heat of compression adsorption dryer is the rotary drum adsorption dryer. A rotary drum dryer exists of one vessel with a drum. This drum is a honeycomb structure on which the adsorption material is impregnated. $\frac{3}{4}$ of the drum is used to dry the compressed air, while the other quarter is used for regeneration. The regeneration is done with hot compressed air.

Filters

We offer a wide selection of utility and process filtration solutions for compressed air and gas with different filter types and grades to remove any dust, micro organisms or oil from your compressed air system.

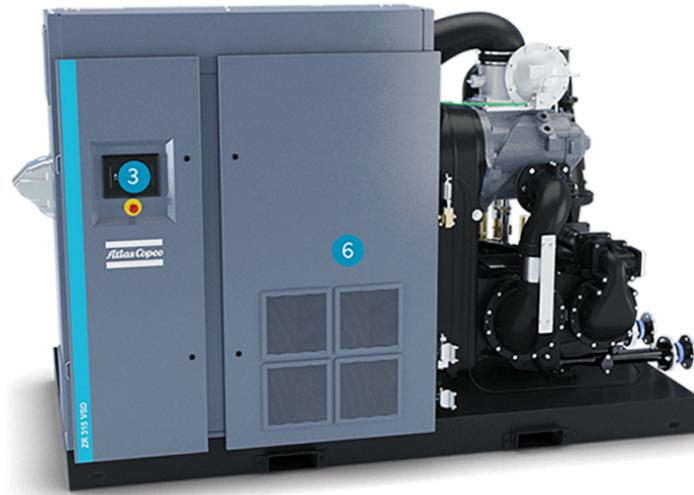
Reliability

Introducing the Atlas Copco ZR 160-315 (VSD), where efficiency meets reliability.

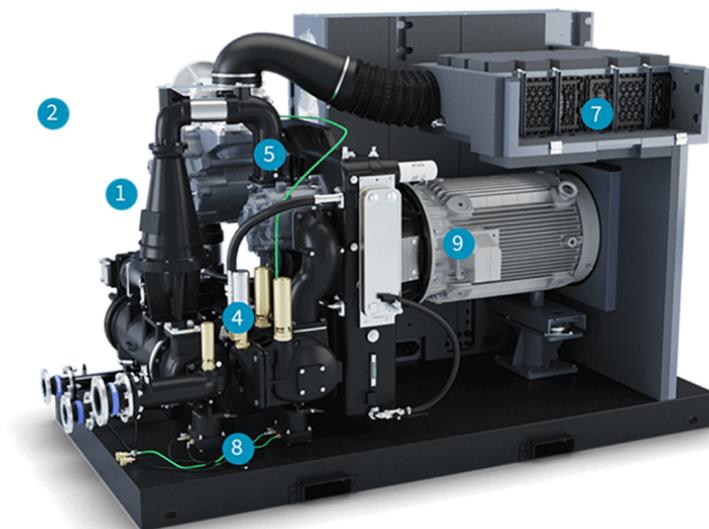


ZR 160-315 (VSD) Pack

LEFT VIEW



RIGHT VIEW



1 Soundproof design

- Silenced canopy ensures optimal working conditions for everyone in the immediate environment.
- Optimized internal ducting and integrated pulsation damper to reduce the noise level.
- High quality coated canopy to prevent dust.

2 Grouped service

- Minimal service time because service parts are grouped together for ease of access.
- All components are designed for serviceability and long lasting lifetime.

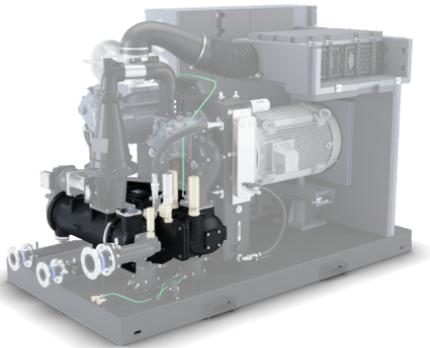
3 Advanced touch screen monitoring system

- User-friendly Elektronikon® Touch, with enhanced connectivity potential.
- Included warning indications, maintenance scheduling and online visualization of the machine's condition for increased reliability.



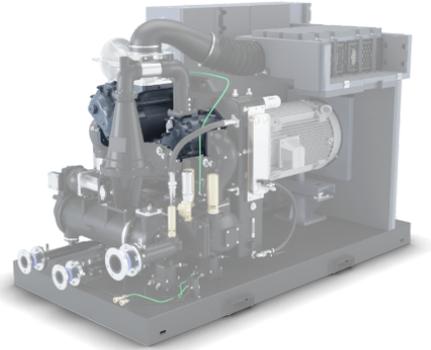
4 Reliable cooling

- Cooler with highly efficient water separator for higher reliability.
- Stainless steel enlarged surface coolers to ensure top performance over a long lifetime.
- Pipes with star profile form bi-anodised aluminium for preventing corrosion
- Easily removable for quick, cost-efficient maintenance.



5 High performance elements

- Next generation world class compression element.
- Atlas Copco superior rotor coating for high durability.
- Thermal efficiency reduces the expansion leading to reduced wear and increased reliability.
- More compact, improved rotor profiles and cooling jackets for maximum durability.



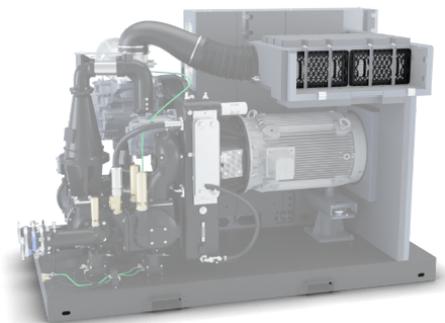
6 Drive and cubicle design

- Fully optimized drive and motor performance to achieve lower power losses
- High cubicle cooling performance
- Robust cubicle designed for IP54 rating



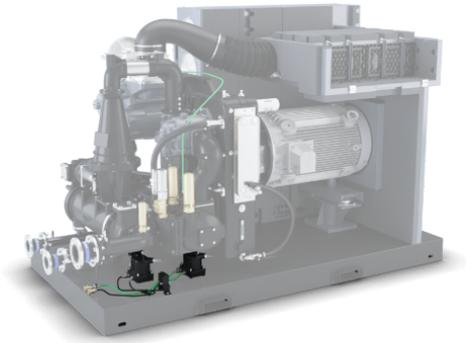
7 Air filter

- Ensures minimal effort, tool-free maintenance
- Optimized for both pressure drop and noise reduction
- Extended service life



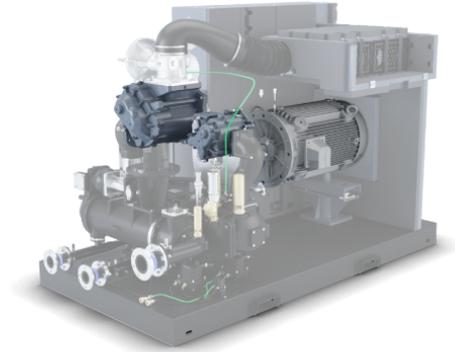
8 Zero loss drains

- Clearance of all water & contamination
- Increasing both product & system reliability



9 Bearing life monitor

- Compressor speed independent
- Hardware and software specifically developed for compressor applications
- Self-learning system

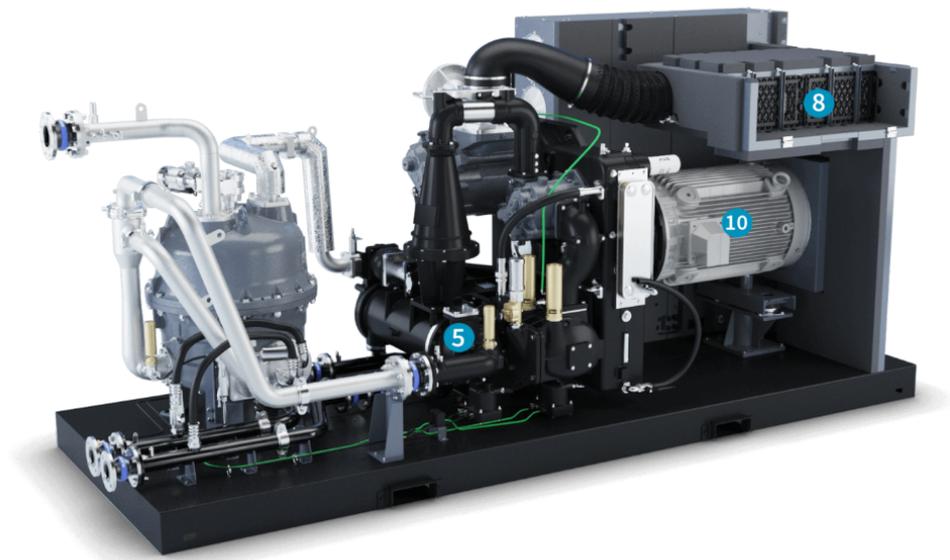


ZR 160-315 (VSD) FF (iMD)

LEFT VIEW

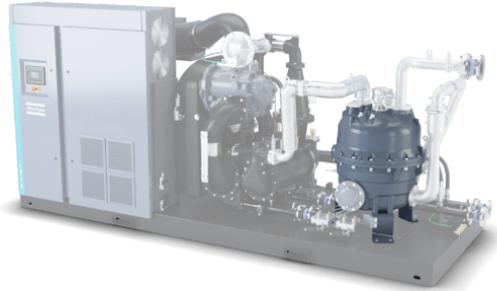


RIGHT VIEW



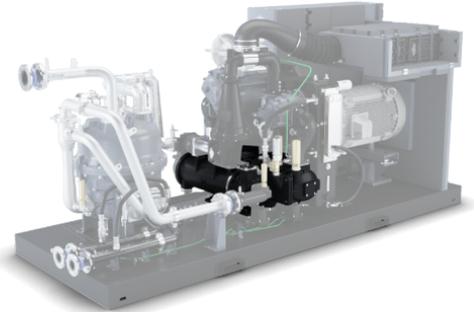
1 Integrated dryer

- Having an integrated dryer helps for easier installation, less pressure drop because of more efficient connections
- On top of that it also saves a lot of space in your compressor room.



5 Reliable cooling

- Cooler with highly efficient water separator for higher reliability.
- Stainless steel enlarged surface coolers to ensure top performance over a long lifetime.
- Pipes with star profile form bi-anodised aluminium for preventing corrosion
- Easily removable for quick, cost-efficient maintenance.



2 Soundproof design

- Silenced canopy ensures optimal working conditions for everyone in the immediate environment.
- Optimized internal ducting and integrated pulsation damper to reduce the noise level.
- High quality coated canopy to prevent dust.

3 Grouped service items

- Minimal service time because service parts are grouped together for ease of access.
- All components are designed for serviceability and long lasting lifetime.

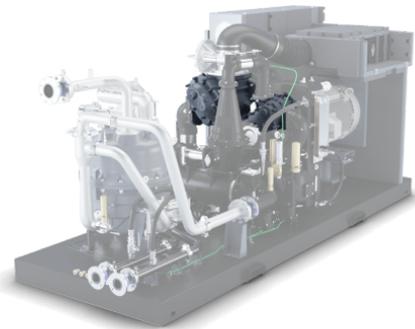
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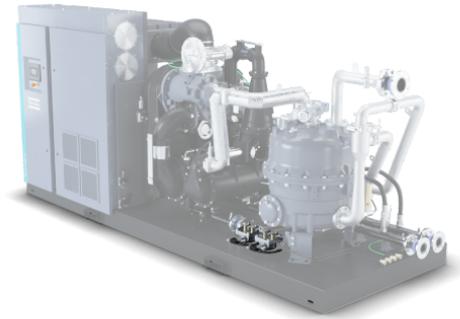
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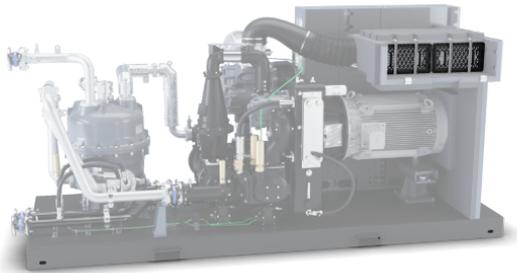
9 Zero loss drains

- Clearance of all water & contamination
- Increasing both product & system reliability



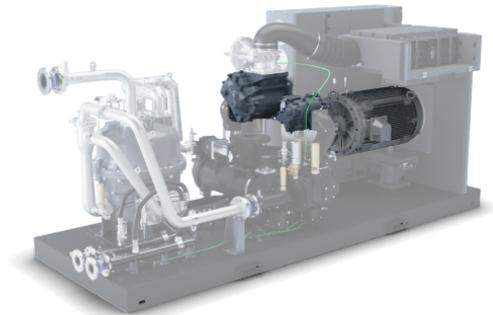
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10 Bearing life monitor

- Compressor speed independent
- Hardware and software specifically developed for compressor applications
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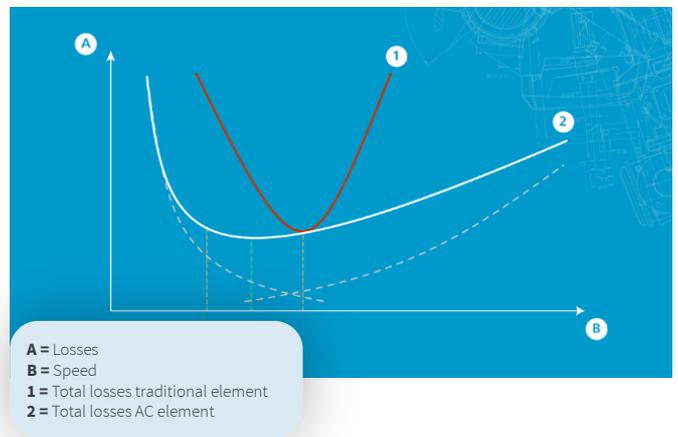
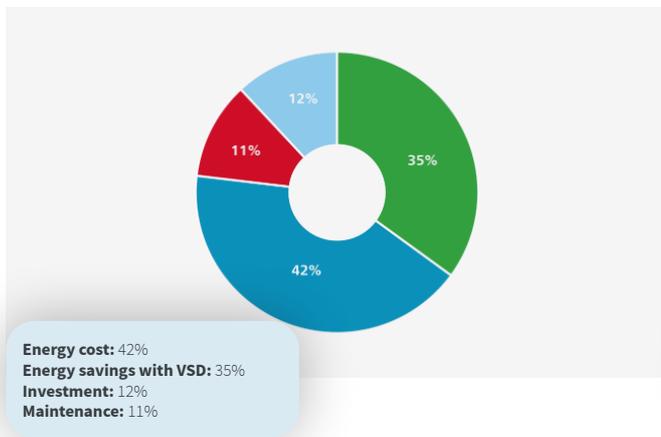


Highest efficiency

Over **80% of a compressor's cost** comes from energy use, with compressed air making up **40% of a plant's electricity bill**. The ZR/ZT ensures reliability and efficiency, featuring patented elements for maximum performance and 100% certified oil-free air.

Designed for VSD

Compressors don't always run at full load, because your application often has a varying air demand. 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 elements of the ZR/ZT are designed for VSD machines to run efficiently at the broadest possible range. For this unit, we also designed our own NEOS inverter to constantly optimize the motor speed and our own Permanent Magnet Motor for class-leading efficiency.



Optimized air flow in the machine

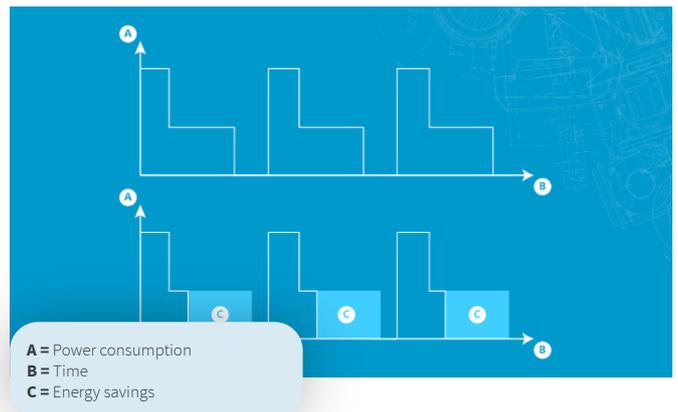
The ZR/ZT 160-315 (VSD) brings cool dense air into the package for optimal compression efficiency. The piping and components are strategically placed to minimize the pressure drop in the package, leading to optimal efficiency. The coolers have been carefully designed to keep the pressure drop at bare minimum.

Elektronikon® Mk5 Touch control

80% of your costs with a compressor come from energy consumption.

The Elektronikon® compressor monitoring system saves energy by using:

- **Delayed second stop**, to stop the compressor whenever possible.
- **Dual pressure band** for lower pressure in the systems during weekends and nights.
- **Automatic main motor speed adjustments** depending on air demand.
- **Adapting dryer speed** according to your needs.





SMARTLINK

- **Monitor your compressed air installation with SMARTLINK:** Knowing the status of your compressed air equipment at all times is the surest way to achieve optimal efficiency and maximum availability.
- **Go for energy efficiency:** customized reports on the energy efficiency of your compressor room.
- **Increase uptime:** all components are replaced on time, ensuring maximum uptime.
- **Save money:** early warnings avoid breakdowns and production loss.

Energy Recovery: turn your compressor into an energy source

Compressed air is a vital utility for many industries. It is also one of the largest consumers of energy. Our ZR compressors equipped with Energy Recovery can help you reduce energy bills and your carbon footprint. In a typical process, up to 94% of the electrical energy is converted into compression heat, which is lost into the atmosphere via the cooling system and radiation. With Energy Recovery, you can recuperate this energy as hot water for sanitary purposes, space heating or, even more effectively, process applications. By using the hot water as boiler pre-feed or directly in processes requiring temperatures of 70 to 90°C, you will reduce your consumption of more costly, carbon-based energy sources such as natural gas and heating oil.



Dual set-point and automatic stop

Most production processes create fluctuating levels of demand which can lead to energy waste in low use periods. Using the Elektronikon® unit controller, you can switch manually or automatically between two different setpoints to optimize energy use and reduce costs at low use times. In addition, the sophisticated algorithm runs the drive motor only when needed. As the desired setpoint is maintained while the drive motor's run time is minimized, energy consumption is kept to a minimum.

A look at your installation

A compressor is only one component in the bigger picture of a smart AIR solution which is the most efficient and reliable combination of a compressor with our air and gas equipment. This solution can include dryers, filters, controllers, energy recovery systems, nitrogen or oxygen generators, air receivers, coolers or boosters specified to your needs.

ZR 160-315 (VSD) Compressor Room Installation



1 Compressors

Often people buy the same size compressor, but to optimize the system it's better to make a combination of different size compressors, technologies and controls.

2 Central controller

Having a central controller reduces the average pressure band. It also reduces the operating pressure of your machines.

- By reducing the pressure by 1 bar (or 14.5 psi), your energy usage lowers by 7%.
- By reducing the pressure by 1 bar (or 14.5 psi) decreases air leakages by 13%.

Multiple embedded functions in the Optimizer 4.0 in which pressure, capacity and speed can be regulated.



3 Integrated dryers

Our full feature concept offers an integrated dryer in the compressor. This has additional benefits, reducing installation cost, time and complexity, having dryers controlled together with the compressors, reducing connecting pipes, hence the chance of leakages and extra pressure drops. Another key benefit is the space savings that a full feature machine brings.



4 Air receiver

A correctly sized air receiver brings both energy efficiency and system reliability. It allows a narrow pressure band and limits the un-& offload cycles to reduce stress on element bearings and other internal components.

5 Air treatment portfolio

Atlas Copco has a wide air treatment portfolio that matches your needs. Our portfolio ranges from removing water, oil and dust from your compressed air to generating Oxygen and Nitrogen on site.

6 AIRnet

AIRnet is a piping solution that guarantees operational excellence for compressed air, vacuum, nitrogen and other inert gas applications. Available in aluminium and stainless steel. AIRnet Aluminium is the most effective solution for your air or gas network. Its fast and easy installation gets your operations up and running in record time. AIRnet is leak-proof and corrosion-free. Its pipes and fittings come with a 10-year warranty.

7 Energy recovery

Our Energy Recovery-equipped ZR compressors transform wasted compression heat into valuable hot water, reducing both **energy costs**. Capturing up to **94% of the electrical energy**, this system repurposes heat for **sanitary use, space heating, or industrial processes**, significantly cutting reliance on traditional carbon-based fuels like natural gas and heating oil.

Optimize your system

With the ZR 160-315 (VSD) , Atlas Copco provides an all-in-one standard package incorporating the latest technology -in a built-to-last design. To further optimize your ZR's performance or to simply tailor it to your specific production environment, optional features are available.

	ZR 160-315 (VSD)
Anchor pads	•
Energy recovery	•
Silicone-free rotor	•
High ambient temperature version	•
Kit for purge of dry air during standstill	•
IT network	•
Wooden case protection packaging	•
Test certificate	•
Witnessed performance test	•

*Please note that the availability of the option depends on the chosen configuration.
With a dedicated customization team, we can further tailor our units to your requirements.*

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 technologies

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. 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.

Top quality services

Properly caring for your air compressor helps you to lower your operating costs and minimizes the risk for unplanned breakdowns or production stops. Atlas Copco offers energy efficiency checks, service, repairs, spare parts and maintenance plans for all air compressors. Entrust your servicing to our expert professionals and ensure your business continues to run efficiently.

Total Responsibility Plan

Complete compressor care with our Total Responsibility Plan

We take care of all your compressor maintenance, upgrades, repairs and even breakdowns for an all-inclusive price.

Complete compressor care

On-time maintenance by expert service engineers, genuine parts, proactive upgrades and compressor overhauls.

Total risk coverage

We take care of all your compressor repairs and even breakdowns, without extra charges.

Ultimate efficiency

Fitting the latest drive line components gives you as-new levels of compressor efficiency and reliability.



Total Care Plan

Energy efficiency

Energy consumption is the biggest part of the total cost of ownership for compressed air equipment. Without proper maintenance, pressure drops may occur, decreasing the system's efficiency. With TotalCare Plan, all consumables are replaced on time using genuine parts.

Greater uptime

Compressed air is a vital part of your production process. A small disturbance could lead to a production stop, lost business, wasted materials, product contamination... As a TotalCare Plan customer, you are given top priority for urgent repairs.

Fixed budget

In 7 years, maintenance costs may fluctuate considerably. If an expensive repair comes up, this could seriously disrupt your budget. TotalCare Plan covers all repairs and comes with a fixed annual cost.

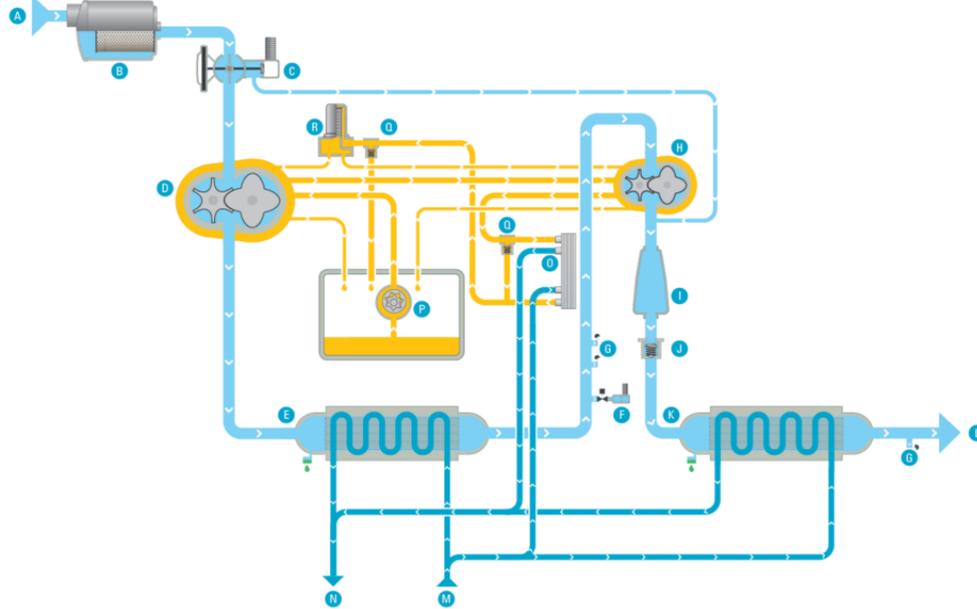
AIRScan

As an energy conscious buyer, you have bought one of the energy efficient equipment in the market. But in time, how sure are you that your equipment is still running in the most optimal and energy efficient conditions? If that is the case, it is time to ask Atlas Copco to audit your installation.



Oil and air flows: your step-by-step guide

ZR 160-315 (VSD) Pack



Atlas Copco

- A Air inlet
- B Air filter
- C Throttle valve
- D Low pressure element
- E Intercooler
- F Blow off valve
- G Safety valves
- H High pressure element
- I Pulsation dampener
- J Check valve
- K Aftercooler
- L Air outlet
- M Water inlet
- N Water outlet
- O Oil cooler
- P Oil pump
- U Oil bypass
- R Oil filter

- Air
- Water
- Dry compressed air
- Oil
- Condensate

Filtration & 1st stage compression

The air is drawn into the compressor through the inlet filter where it is cleaned. Then, it continues to the first compression stage. There, it is compressed to an intermediate pressure.

Cooling – 1st stage

The compressed air flows through the pulsation dampener to the intercooler. After the intercooler, it passes through a moisture separation system with automated drains to remove the condensate before entering the high-pressure stage. The blow off valve and two pressure relief valves located after the moisture separator. They safeguard the system from accidents.

2nd stage compression

After the intercooler, the air is compressed in the high-pressure stage to the final pressure. Then, the high pressure compressed air flows through pulsation dampener and check valve.

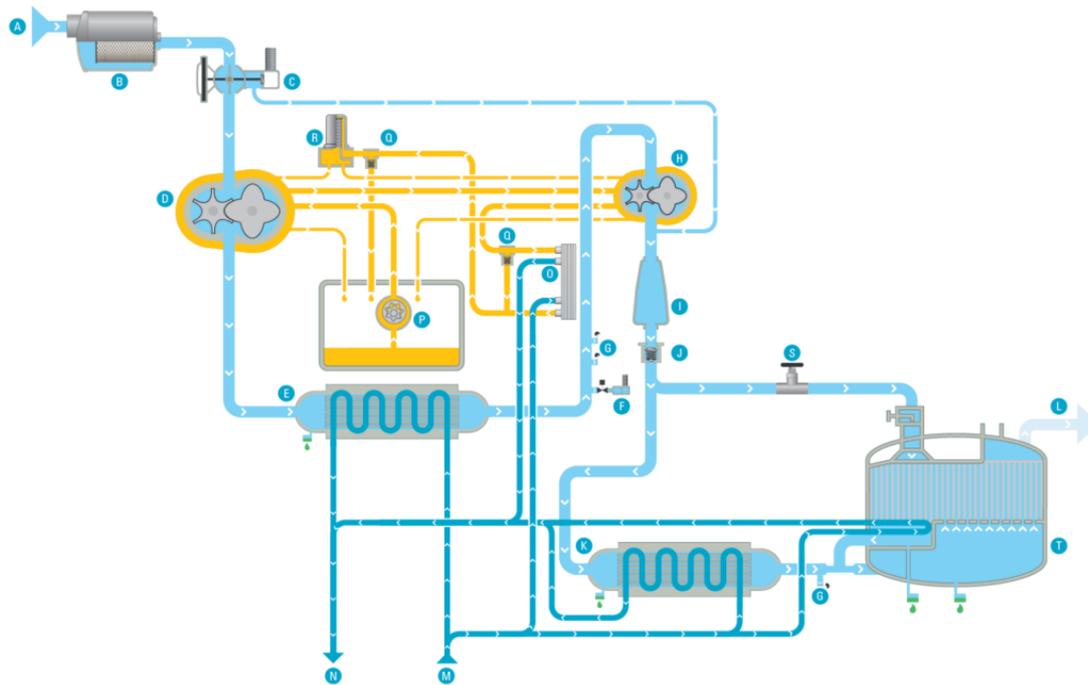
Cooling – 2nd stage

Compressed air flows through aftercooler, and the free water is evacuated. Then, it moves to the outlet of the machine.

Oil

The yellow flow is the oil path within the compressor where the oil pump sucks oil from the oil sump and pumps it through the oil cooler. The cooled oil from oil cooler splits into two flows. The first oil flow line is directed towards element jacket to remove heat from elements. The second flow line moves through a high efficiency filter to give cool and clean oil to the gears for lubrication. Then, the oil flows back to the oil sump. The oil bypass valves present in the oil circuit protect the oil filter and oil cooler from high oil pressure and make sure sufficient oil pressure is maintained in the oil circuit.

ZR 160-315 (VSD) FF



Atlas Copco

- A Air inlet
- B Air filter
- C Throttle valve
- D Low pressure element
- E Intercooler
- F Blow off valve
- G Safety valves
- H High pressure element
- I Pulsation dampener
- J Check valve
- K Aftercooler
- L Air outlet
- M Water inlet
- N Water outlet
- U Oil cooler
- P Oil pump
- I Oil bypass
- R Oil filter
- S Regeneration flow control valve
- T Rotary drum dryer (integrated MD)

- Air
- Water
- Dry compressed air
- Oil
- Condensate

Filtration & 1st stage compression

The air is drawn into the compressor through the inlet filter where it is cleaned. Then, it continues to the first compression stage. There, it is compressed to an intermediate pressure.

Cooling - 1st stage

The compressed air flows through the pulsation dampener to the intercooler. It is cooled down there. After the intercooler, it passes through a moisture separation system with automated drains to remove the condensate before entering the high-pressure stage. The blow off valve and two pressure relief valves located after the moisture separator. They safeguard the system from accidents.

2nd stage compression

After the intercooler, the air is compressed in the high-pressure stage to the final pressure. Then, the high pressure compressed air flows through pulsation dampener and check valve.

Cooling - 2nd stage

For a machine with an integrated dryer, the compressor air flow splits into two parts. The first part which is approximately 60% of the total flow goes through aftercooler. There, moisture is separated and evacuated. The second part goes directly to the regeneration area of the heat of compression MD dryer.

Integrated dryer

The flow to regeneration side of the dryer can be controlled through the flow control valve present in the circuit. In the regeneration area of the dryer, the hot air regenerates the adsorption drum after which it passes through the regeneration cooler where it is cooled down and moisture is separated and evacuated. Then, the cold air coming from the regeneration section is mixed with the cold air from the aftercooler in the nozzle before passing through the drying section of the adsorption drum where the moisture is removed. Dry air leaves the compressor through the outlet connection flange.

Oil

The yellow flow is the oil path within the compressor where the oil pump sucks oil from the oil sump and pumps it through the oil cooler. The cooled oil splits into two flows. The first oil flow line is directed towards element jacket to remove heat from elements. The second flow line moves through a high efficiency filter to give cool and clean oil to the gears for lubrication. Then, the oil flows back to the oil sump. The oil bypass valves present in the oil circuit protect the oil filter and oil cooler from high oil pressure and make sure sufficient oil pressure is maintained in the oil circuit.

Technical specifications

Specifications ZR 160-315 (VSD) Pack Metric

Model	Working pressure		Free Air Delivery		Installed Power	Noise level	Weight
		bar(e)	l/s	m ³ /min			
ZR 200 VSD STD- 8.6	Minimum	4	287 – 644	17.2 – 38.6	200	70	5740
	Effective	7	285 – 643	17.1 – 38.6			
	Maximum	8.6	284 – 570	17 – 34.2			
ZR 250 VSD STD – 8.6	Minimum	4	287 – 774	17.2 – 46.4	250	71	
	Effective	7	285 – 773	17.1 – 46.4			
	Maximum	8.6	284 – 720	17 – 43.2			
ZR 315 VSD STD – 8.6	Minimum	4	287 – 951	17.2 – 57.1	315	74	
	Effective	7	285 – 950	17.1 – 57			
	Maximum	8.6	284 – 897	17.1 – 53.8			
ZR 200 VSD STD – 10.4	Minimum	6	270 – 568	16.2 – 34.1	200	70	
	Effective	9	268 – 567	16.1 – 34			
	Maximum	10.4	267 – 512	16 – 30.7			
ZR 250 VSD STD – 10.4	Minimum	6	269 – 705	16.2 – 42.3	250	71	
	Effective	9	267 – 704	16 – 42.2			
	Maximum	10.4	266 – 652	16 – 39.1			
ZR 315 VSD STD – 10.4	Minimum	6	269 – 892	16.1 – 53.5	315	74	
	Effective	9	267 – 891	16 – 53.5			
	Maximum	10.4	266 – 818	16 – 49.1			

Specifications ZR 160-315 (VSD) Pack Imperial

Model	Working pressure		Free Air Delivery		Installed Power	Noise level	Weight
		psi(e)	l/s	cfm			
ZR 200 VSD STD- 8.6	Minimum	58	287 – 644	607 – 1364	268	70	12654
	Effective	102	285 – 643	604 – 1362			
	Maximum	125	284 – 570	602 – 1208			
ZR 250 VSD STD – 8.6	Minimum	58	287 – 774	608 – 1640	335	71	
	Effective	102	285 – 773	604 – 1638			
	Maximum	125	284 – 720	602 – 1525			
ZR 315 VSD STD – 8.6	Minimum	58	287 – 951	608 – 2015	422	74	
	Effective	102	285 – 950	604 – 2014			
	Maximum	125	284 – 897	602 – 1901			
ZR 200 VSD STD – 10.4	Minimum	87	270 – 568	571 – 1203	268	70	
	Effective	131	268 – 567	568 – 1201			
	Maximum	151	267 – 512	566 – 1085			
ZR 250 VSD STD – 10.4	Minimum	87	269 – 705	570 – 1494	335	71	
	Effective	131	267 – 704	566 – 1492			
	Maximum	151	266 – 652	564 – 1382			
ZR 315 VSD STD – 10.4	Minimum	87	269 – 892	570 – 1889	422	74	
	Effective	131	267 – 891	566 – 1888			
	Maximum	151	266 – 818	564 – 1734			

Dimensions ZR 160-315 (VSD) Pack Metric

Model	Length	Width	Height
	mm		
ZR 160-315 (VSD) Pack	3116	1757	2152

Dimensions ZR 160-315 (VSD) Pack Imperial

Model	Length	Width	Height
	inches		
ZR 160-315 (VSD) Pack	122.7	69.2	84.7

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

Reference conditions:

- Relative humidity 0%
- Absolute inlet pressure 1 bar (14,5 psi)
- Intake air temperature 20°C (68°F)

Free Air Delivery (FAD) is measured at effective working pressure.

(2) A-weighted emission sound pressure level at the work station (LpWSAd). Measured according to ISO 2151:2008 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.

Specifications ZR 160-315 Pack

	Type	Frequency (Hz)	Working pressure		Free Air Delivery			Installed motor power		Noise level dB
			bar(g)	psi(g)	l/s	m ³ /min	cfm	kW	hp	
ZR 160	ZR 160 7.5	50	7.5	109	505	30,3	1070	160	215	-
	ZR 160 8.6	50	8.6	125	466	28,0	987			-
	ZR 160 8.6	60	8.6	125	458	27,5	971			-
	ZR 160 10	50	10	145	414	24,9	878			-
	ZR 160 10.4	60	10.4	151	407	24,4	863			-
ZR 200	ZR 200 7.5	50	7.5	109	644	38,6	1364	200	268	-
	ZR 200 8.6	50	8.6	125	591	35,4	1251			-
	ZR 200 8.6	60	8.6	125	586	35,2	1242			-
	ZR 200 10	50	10	145	531	31,9	1126			-
	ZR 200 10.4	60	10.4	151	505	30,3	1071			-
ZR 250	ZR 250 7.5	50	7.5	109	794	47,6	1682	250	335	-
	ZR 250 8.6	50	8.6	125	748	44,9	1585			-
	ZR 250 8.6	60	8.6	125	697	41,8	1478			-
	ZR 250 10	50	10	145	694	41,7	1471			-
	ZR 250 10.4	60	10.4	151	620	37,2	1313			-
ZR 275	ZR 275 8.6	60	8.6	125	781	46,8	1655	275	369	-
	ZR 275 10.4	60	10.4	151	681	40,8	1442			-
ZR 300	ZR 300 7.5	50	7.5	109	856	51,4	1814	300	400	-
	ZR 300 8.6	50	8.6	125	828	49,7	1755			-
	ZR 300 8.6	60	8.6	125	848	50,9	1797			-
	ZR 300 10	50	10	145	779	46,8	1652			-
	ZR 300 10.4	60	10.4	151	778	46,7	1649			-
ZR 315	ZR 315 7.5	50	7.5	109	935	56,1	1982	315	425	-
	ZR 315 8.6	50	8.6	125	880	52,8	1864			-
	ZR 315 8.6	60	8.6	125	896	53,8	1899			-
	ZR 315 10	50	10	145	828	49,7	1754			-
	ZR 315 10.4	60	10.4	151	822	49,3	1743			-

Technical specifications

Specifications ZR 160-315 (VSD) FF (iMD) Metric

Model	Working pressure		Free Air Delivery		Installed Power	Noise level	Weight
		bar(e)	l/s	m ³ /min			
ZR 200 VSD STD- 8.6	Minimum	6	286 – 630	17.1 – 37.8	200	70	6988
	Effective	7	285 – 629				
	Maximum	8.6	284 – 570	17 – 34.2			
ZR 250 VSD STD – 8.6	Minimum	6	286 – 773	17.1 – 46.4	250	71	
	Effective	7	285 – 773				
	Maximum	8.6	284 – 716	17 – 43			
ZR 315 VSD STD – 8.6	Minimum	6	317 – 951	19 – 57	315	74	
	Effective	7	317 – 950				
	Maximum	8.6	316 – 890	19 – 53.4			
ZR 200 VSD STD – 10.4	Minimum	6	270 – 568	16.2 – 34.1	200	70	
	Effective	9	268 – 567				
	Maximum	10.4	267 – 505	16 – 30.3			
ZR 250 VSD STD – 10.4	Minimum	6	269 – 702	16.1 – 42.1	250	71	
	Effective	9	267 – 701				
	Maximum	10.4	266 – 646	16 – 38.8			
ZR 315 VSD STD – 10.4	Minimum	6	299 – 892	17.9 – 53.5	315	74	
	Effective	9	297 – 891				
	Maximum	10.4	296 – 815	17.8 – 48.9			

Specifications ZR 160-315 (VSD) FF (iMD) Imperial

Model	Working pressure		Free Air Delivery		Installed Power	Noise level	Weight
		psi(e)	l/s	cfm			
ZR 200 VSD STD- 8.6	Minimum	87	286 – 630	605 – 1334	268	70	15405
	Effective	102	285 – 629	604 – 1334			
	Maximum	125	284 – 570	602 – 1208			
ZR 250 VSD STD – 8.6	Minimum	87	286 – 773	605 – 1638	335	71	
	Effective	102	285 – 773	604 – 1638			
	Maximum	125	284 – 716	602 – 1518			
ZR 315 VSD STD – 8.6	Minimum	87	317 – 951	672 – 2014	422	74	
	Effective	102	317 – 950	671 – 2014			
	Maximum	125	316 – 890	669 – 1885			
ZR 200 VSD STD – 10.4	Minimum	87	270 – 568	571 – 1203	268	70	
	Effective	131	268 – 567	567 – 1201			
	Maximum	151	267 – 505	566 – 1069			
ZR 250 VSD STD – 10.4	Minimum	87	269 – 702	570 – 1488	335	71	
	Effective	131	267 – 701	566 – 1485			
	Maximum	151	266 – 646	564 – 1369			
ZR 315 VSD STD – 10.4	Minimum	87	299 – 892	633 – 1890	422	74	
	Effective	131	297 – 891	629 – 1888			
	Maximum	151	296 – 815	627 – 1726			

Dimensions ZR 160-315 (VSD) FF (iMD) Metric

Model	Length	Width	Height
	mm		
ZR 160-315 (VSD) FF (iMD)	4486	1757	2152

Dimensions ZR 160-315 (VSD) FF (iMD) Imperial

Model	Length	Width	Height
	inches		
ZR 160-315 (VSD) FF (iMD)	176,6	69,2	84,7

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

Reference conditions:

- Relative humidity 0%
- Absolute inlet pressure 1 bar (14,5 psi)
- Intake air temperature 20°C (68°F)

Free Air Delivery (FAD) is measured at effective working pressure.

(2) A-weighted emission sound pressure level at the work station (LpWSAd). Measured according to ISO 2151:2008 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.

Specifications ZR 160-315 iMD

	Type	Frequency (Hz)	Working pressure		Free Air Delivery			Installed motor power		Noise level dB
			bar(g)	psi(g)	l/s	m ³ /min	cfm	kW	hp	
ZR 160	ZR 160 7.5	50	7.5	109	505	30,3	1070	160	215	-
	ZR 160 8.6	50	8.6	125	466	28,0	987			-
	ZR 160 8.6	60	8.6	125	458	27,5	971			-
	ZR 160 10	50	10	145	414	24,9	878			-
	ZR 160 10.4	60	10.4	151	407	24,4	863			-
ZR 200	ZR 200 7.5	50	7.5	109	644	38,6	1364	200	268	-
	ZR 200 8.6	50	8.6	125	591	35,4	1251			-
	ZR 200 8.6	60	8.6	125	586	35,2	1242			-
	ZR 200 10	50	10	145	531	31,9	1126			-
	ZR 200 10.4	60	10.4	151	505	30,3	1071			-
ZR 250	ZR 250 7.5	50	7.5	109	794	47,6	1682	250	335	-
	ZR 250 8.6	50	8.6	125	748	44,9	1585			-
	ZR 250 8.6	60	8.6	125	697	41,8	1478			-
	ZR 250 10	50	10	145	694	41,7	1471			-
	ZR 250 10.4	60	10.4	151	620	37,2	1313			-
ZR 275	ZR 275 8.6	60	8.6	125	781	46,8	1655	275	369	-
	ZR 275 10.4	60	10.4	151	681	40,8	1442			-
ZR 300	ZR 300 7.5	50	7.5	109	856	51,4	1814	300	400	-
	ZR 300 8.6	50	8.6	125	828	49,7	1755			-
	ZR 300 8.6	60	8.6	125	848	50,9	1797			-
	ZR 300 10	50	10	145	779	46,8	1652			-
	ZR 300 10.4	60	10.4	151	778	46,7	1649			-
ZR 315	ZR 315 7.5	50	7.5	109	935	56,1	1982	315	425	-
	ZR 315 8.6	50	8.6	125	880	52,8	1864			-
	ZR 315 8.6	60	8.6	125	896	53,8	1899			-
	ZR 315 10	50	10	145	828	49,7	1754			-
	ZR 315 10.4	60	10.4	151	822	49,3	1743			-



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