

# Atlas Copco Air Compressors

**ZR/ZT110-275-FF & ZR/ZT132-315 VSD-FF**

Oil-free rotary screw compressor series  
with Variable Speed Drive and Full Feature variants



MATCHING  
ALL NEEDS





# The Total Energy Saving concept...

The shortest route to maximizing your profitability, is to minimize operational cost. Because energy consumption is the major factor in a compressor's life cycle cost, the focus in the design of the new Atlas Copco Z compressors is on saving energy in every

conceivable way. This focus is the basis for a total product development concept that encompasses every stage of R&D, manufacturing, installation and after sales service.



## The thorough needs assessment

Real savings rely on facts. Atlas Copco consultants assess the air demand profile of your application and suggest the best compressor selection for the job.



## The right core technology

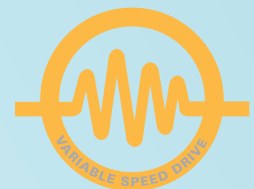
Atlas Copco masters every compression principle and provides the most energy efficient technology for the required pressure and flow.



## The best drive arrangement

Fixed speed machines are fine when they can run at full load most of the time. But when air demand fluctuates, the Variable Speed Drive can achieve substantial savings of up to 35 %.

# Energy Circle



# The lowest operating cost

## Energy recovery

Heat from the compression process can be recovered and put to good use in endothermic processes, heating of buildings etc.



## The fully optimized system

A multi-compressor installation can be centrally controlled to achieve a tight pressure band and the lowest overall energy cost.



## The innovative accessories

The integrated IMD adsorption dryer offers high quality dry air with the lowest pressure drop and uses the heat of the compressor for regeneration. These are two features that lead to significant energy savings..

# The highest reliability



## The professional follow-up

An Atlas Copco Service Contract will ensure you of comprehensive preventive maintenance. Immediate response and genuine spare parts... all over the globe.

## The trouble-free installation & commissioning

An Atlas Copco oil-free compressor is truly plug-and-play. No special field assembly is needed. Put the machine on a flat floor, connect the power line and the compressed air outlet.





# ... combined with the Total Reliability concept

An energy efficient machine saves money only if it runs reliably around the clock. And not just today, but day after day, year after year; with minimal service interventions, long overhaul intervals, an extended life

time of all moving parts, individually and thoroughly tested. For over a century, Atlas Copco has been building machines that stand the test of time. With the proven Z compressors, reliability has never been so timeless.



## Reliability Circle

### The experienced partner

Atlas Copco is the world leader in compressed air technology, with over 100 years of experience in air compression systems.

### The integrated design

Internal piping, integral air dryer, integrated Variable Speed Drive, 100 % matched components... the only way to ensure total reliability.



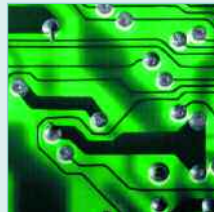
### The complete solution

Compressor, dryer, drive, filters, control system... they all carry the same mark of quality: the Atlas Copco logo.





Pushing the limits in  
energy efficiency



Pushing the limits in **reliability**

# Select the perfect match tailored to your needs

The redesigned new generation of Z compressors provides you with unprecedented freedom to select the features that add up to your perfect match. The wide range of choices allows you to tailor the compressor to

your specific needs. All options are perfectly compatible, safeguarding the lowest operational cost and the highest reliability.

**The compressor you want is the compressor we build.**

## Z Pressure

- 50 Hz: 7.5 bar
- 10 bar
- 60 Hz: 7 bar / 100 psi
- 8.6 bar / 125 psi
- 10.4 bar / 150 psi

## Z Capacity (power)

- 110 kW (fixed speed)
- 132 kW (fixed speed)
- 132 kW (VSD - Variable Speed Drive)
- 145 kW (fixed speed)
- 160 kW (fixed speed)
- 160 kW (VSD - Variable Speed Drive)
- 200 kW (fixed speed)
- 250 kW (fixed speed)
- 250 kW (VSD - Variable Speed Drive)
- 275 kW (fixed speed)
- 315 kW (VSD - Variable Speed Drive)

## Z Cooling

- ZR: water cooled
- ZT: air cooled



## Z Motor drive

- Fixed Speed Drive
- Variable Speed Drive (VSD) saving up to 35 % in energy costs

## Z Dryer

- Full Feature (FF) variant with integrated IMD dryer for lowest cost dry air
- Compressor without integrated dryer

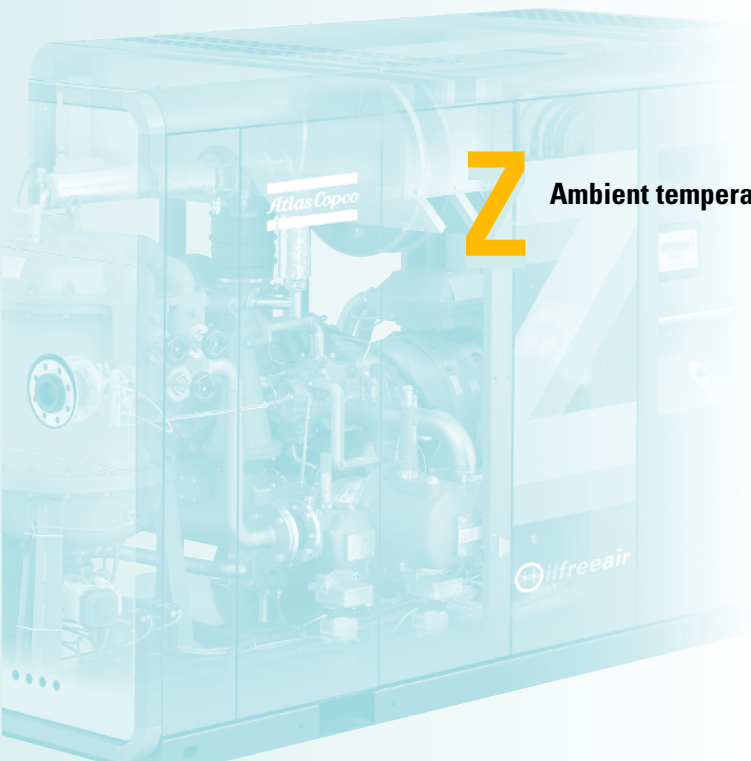
## Z In/outdoor

- Standard package for indoor use
- Outdoor variant mounted in a standard 20 ft container (10 ft for ZR without dryer)

## Z Ambient temperature

- Standard machine: operating range between 32 and 104 °F
- HAT (High Ambient Temperature) version: operating range between 32 and 122 °F
- Winterization option: temperatures to -4 °F

... Select additional options



# Proven Z technology in one package

The Total Energy Saving Concept takes solid form in the new ZR/ZT110-315-VSD-FF compressors. This range combines two of the biggest energy savers within the Full Feature VSD compressor package itself: the IMD dryer and the Variable Speed Drive.

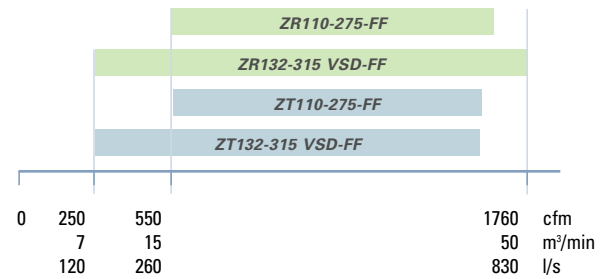
Excellence is achieved in all aspects of the design and manufacturing of the new oil-free Z compressors. The result is top quality and high reliability.

## Excellence by design

- Completely oil-free – no risk of oil-contaminated air
- No oil in the condensate
- Completely ready-to-use package
- Easy, low cost installation – no foundations
- Air and water cooled versions
- Low cooling water consumption with water cooled variant
- Proven reliability: 45,000+ installations
- True performance as per ISO 1217, Annex C, Ed. 3
- Flexible as a base load or a top load machine
- Consistent performance over the lifetime of the compressor
- Operator and service friendly
- Silenced package
- Very low vibration level
- Energy saving Variable Speed Drive & Full Feature versions available
- Integrated IMD dryer in FF version

ZR/ZT110-275-FF and ZR/ZT132-315 VSD-FF

Capacity range (50 & 60 Hz)

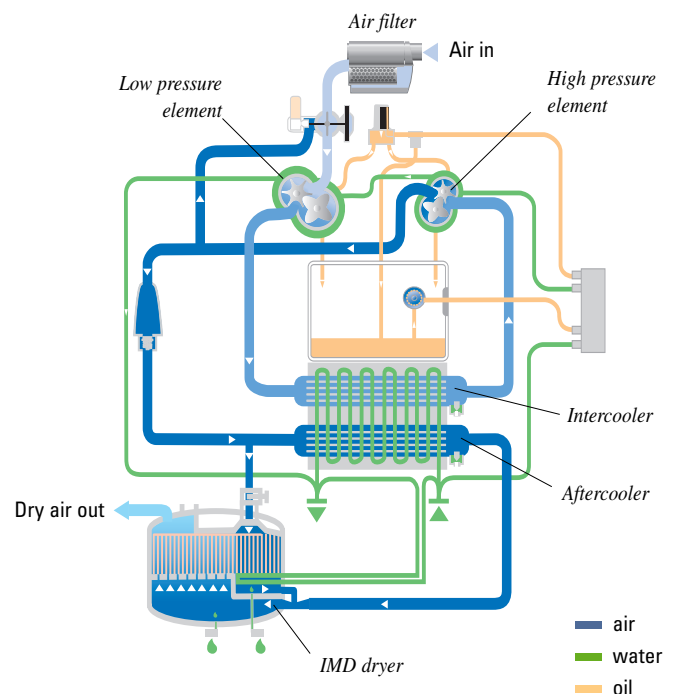


ZT: Air cooled / ZR: Water cooled / VSD: Variable Speed Drive / FF: Full Feature  
See data pages for range details

Water cooled ZR132-315 VSD-FF  
Integrated VSD, Full Feature version with IMD dryer



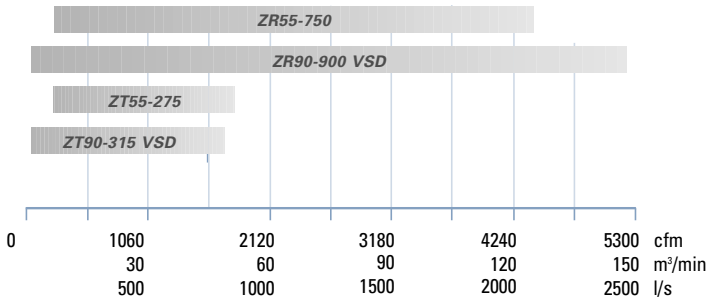
Water cooled ZR-FF: air/oil/coolant flow



# Complete scope suiting all needs

Many features are included as standard. Some applications may also need or benefit from additional options.

## Complete ZR/ZT range

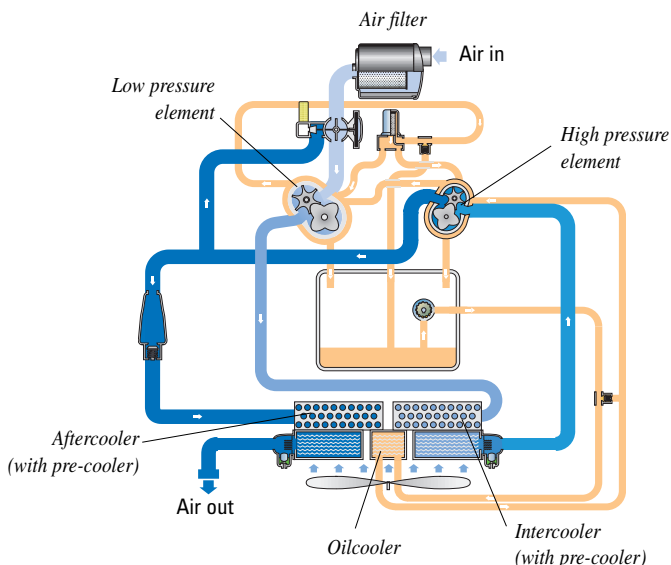


## Aircooled ZT 160 VSD-FF

Integrated VSD, Full Feature version with IMD dryer



## Air cooled ZT: air/oil/coolant flow



### Standard

- Air intake filter and silencer
- Air intake flexible
- Stainless steel inter- and aftercooler cores\*
- Inter and aftercooler water traps and electronic drains
- Outlet air silencer
- Six sided silencing canopy
- Terminal expansion joints – air and water side
- Outlet air flange
- Complete water circuit\*
- Single point inlet and outlet cooling water connection\*
- Back-flush arrangement for cooler cleaning\*
- Complete oil circuit pre-piped
- Built-in oil breather system
- AGMA Q13, DIN class 5 gears
- Electric IP 55 motors pre-mounted \*\*
- Starter \*\*
- Pre-mounted electrical and VSD cubicles
- Skid with no need for foundations
- Suppression of emissions/harmonic distortions in VSD

### Options

- Energy recovery\*
- Automatic water shut-off valve\*
- Anti-condensation heater for motor
- PT1000's in motor windings
- PT1000's in motor bearings
- Witness performance test
- Material certificates
- IT network for VSD
- Pre-filter for air inlet
- Separate air intake
- Oversized motor (no use of Service Factor)
- Thermostatic water valve for ZR VSD
- Bypass over IMD
- PDp filter after IMD
- Pressure dewpoint sensor after IMD
- SPM (shock pulse measurement) monitoring

\* Only for water cooled versions    \*\* standard on I.V. optional on MV



# Superior design in every detail

In every detail Atlas Copco Z-compressors are designed and manufactured to the highest standards of quality and reliability. There are no hidden extras or complicated installation requirements: every unit is delivered as a complete and integrated package, ready to run.

*Advanced  
Elektronik® control  
and monitoring system*

*Oil-free screw  
compression element*

*IMD dryer*

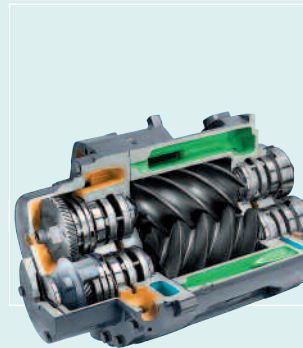


*Coolers &  
Water separator*

*Inlet compensators  
standard on all piping  
connections*

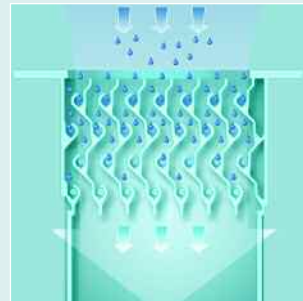
## Proven Z-technology

- ▶ 100% oil-free rotary screw compression
- ▶ operation far below critical speed
- ▶ high overall efficiency
- ▶ no oil 'clean up' problems



## Superior element bearings

- ▶ high stability under varying load conditions
- ▶ easily adapts to changing loads
- ▶ no need for pre-lubrication/stabilization time



## Water separator

- ▶ the labyrinth design efficiently separates the condensate from the compressed air
- ▶ electronic drains are offered as standard
- ▶ low moisture carry-over protects downstream equipment
- ▶ better dryer performance
- ▶ field proven design

**High precision gears according to AGMA Q13/DIN Class 5**

- ▶ long lifetime
- ▶ low transmission losses
- ▶ low noise and vibration



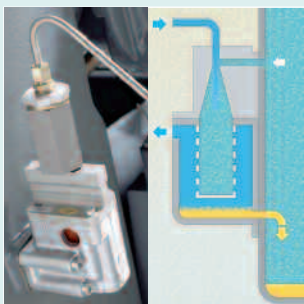
**Efficient filtration of the intake air**

- ▶ machine mounted, easy to maintain
- ▶ minimum intake losses



**Advanced Elektronikon® control and monitoring system**

- ▶ overall system performance status with pro-active service indications, alarms for malfunctions and safety shutdowns
- ▶ multi-language selectable display
- ▶ all monitoring and control functions via one interface
- ▶ wide communication possibilities
- ▶ integration possible in many process control systems (field bus system)



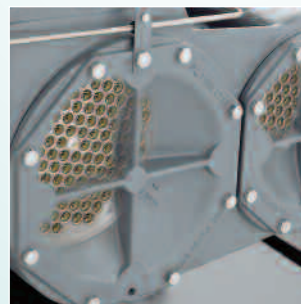
**Gearbox breathing system**

- ▶ efficient filter combined with venturi system
- ▶ keeps the oil inside the gearbox
- ▶ no oil fumes in the atmosphere



**Inlet valve**

- ▶ air-operated diaphragm
- ▶ lowest unloaded power
- ▶ positive interlock with unload valve



**High efficiency cooling (water cooled ZR compressor)**

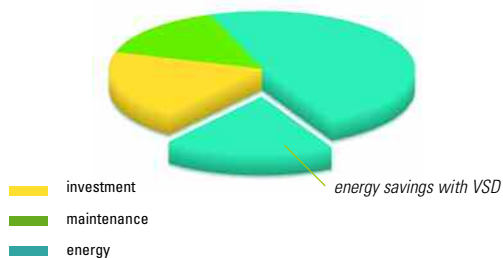
- ▶ coolers with tubes of special corrosion resistant stainless steel (R249)
- ▶ star profile increases heat transfer
- ▶ very low approach temperatures
  - nearly perfect intercooling – saves energy
  - nearly perfect aftercooling – enhances dryer performance



# Why Variable Speed Drive (VSD) compressors ?

Because a VSD compressor precisely follows the varying air demand that is typical in most production facilities, it dramatically reduces the energy bill and provides many additional benefits. The result is a fast payback of the investment and yearly savings long after that.

Because energy constitutes the biggest portion of the life cycle cost of a compressor, these savings have a significant impact on the operational costs of your plant air system.



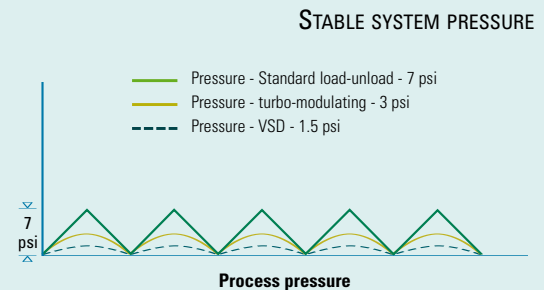
## Predicting your savings

Call upon the expertise of Atlas Copco specialists and have an assessment carried out in your factory. A detailed report will show your current operation and the achievable savings when adding a VSD solution to your plant air system.



## Direct energy savings of 15 to 35 %

- ▶ Unload losses are reduced to a minimum
- ▶ No blow-off of compressed air to the atmosphere
- ▶ Load/no load transition losses are eliminated
- ▶ The precise pressure control of the VSD compressor allows for a tighter pressure band and a lower average working pressure, resulting in reduced energy consumption

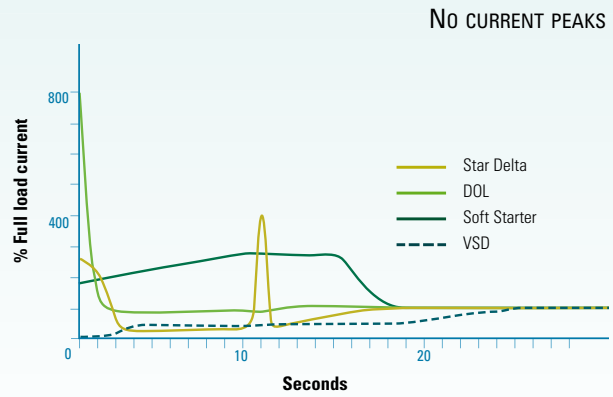


## Indirect savings

- ▶ The **lowered system pressure** obtained by the VSD compressor provides additional yearly savings:
  - other base-load compressors will consume less energy
  - leak losses - always present in compressed air systems - are significantly reduced: e.g. leakage at 90 psig is 13 % less than at 100 psig
  - most compressed air applications consume less air at a reduced pressure

### Additional VSD benefits

- ▶ The **stable system pressure** provides stability for all processes using compressed air.
- ▶ **Current peaks during start-up are eliminated**
  - VSD compressors can be started and stopped without limitation
  - starting the compressor no longer leads to current peak penalties
- ▶ Often, smaller transformers, breakers, fuses and cables can be used, saving on the electrical installation costs.

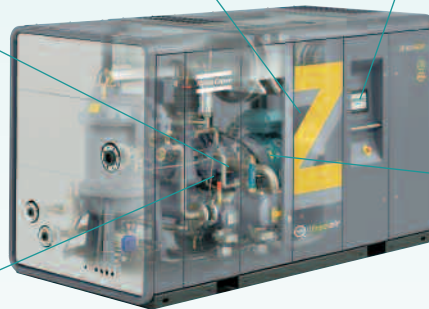


### Integrated VSD - The only way

All Atlas Copco VSD compressors are EMC tested and certified. External sources do not influence the compressor operation, nor does the compressor disturb other equipment via emission or via the power supply line.

Mechanical enhancements are made to ensure that gears and bearings receive proper lubrication at all speeds and that all components operate well below critical vibrations.

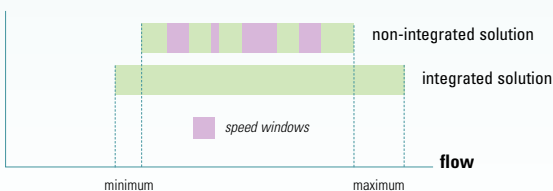
The machine is tested for the complete speed range to eliminate all "speed windows" that can jeopardize the energy savings and the stable system pressure.



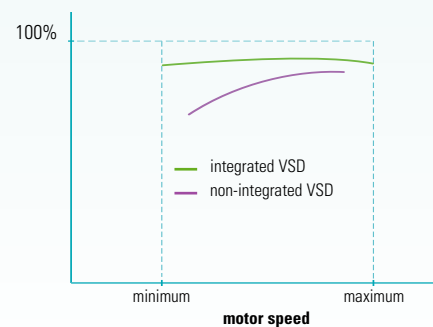
The Elektronikon® system controls the compressor and the integrated converter; this ensures maximum machine safety and allows for easy networking of the compressor.

The electric motor is specifically designed for VSD operation. Bearings are protected against induced bearing currents and both motor and converter are perfectly tuned to obtain the best efficiency over the entire speed range. Cooling air flow to the motor is optimized over the complete range.

### OPERATING RANGE



### COMBINED MOTOR/CONVERTER EFFICIENCY

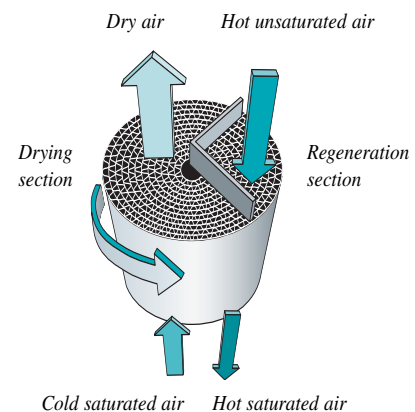


# The Full Feature compressor – a compact, all-in-one quality air solution

The Full Feature concept is a total installation, providing dry compressed air out of the box. Integrating the IMD dryer and the Variable Speed Drive results in a compact package that offers high quality air at the lowest cost with the highest reliability.

- ▶ The IMD adsorption dryer eliminates the moisture before it even enters the air net, ensuring a reliable process and an impeccable end product. No external energy is needed for the IMD, resulting in large savings over the lifetime of the compressor.
- ▶ The pressure drop through the dryer is minimal, which again cuts down the operating cost.
- ▶ Reduced floor space thanks to the efficient integration of the dryer into the compressor canopy.
- ▶ The Full Feature compressor is a pre-wired and pre-piped solution, ready to use.

## The IMD drying principle





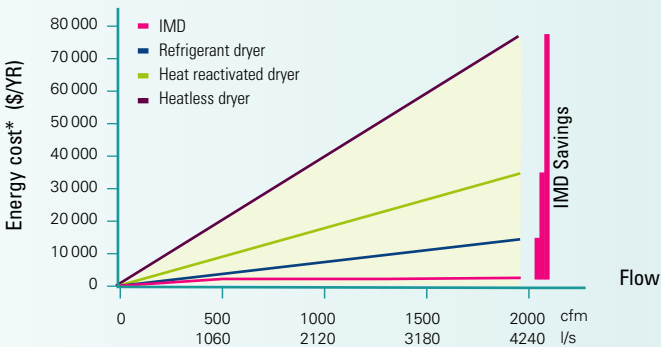
## Energy savings with Full Feature

### Advanced control and monitoring

- One integrated control system for compressor and dryer
- Monitoring of the IMD dryer includes:
  - ▶ Temperature readings of
    - IMD dryer inlet and outlet
    - regeneration air inlet and outlet
    - mix air inlet
  - ▶ Pressure dewpoint after the IMD (option)
  - ▶ Loading reporting of dryer

### Direct Savings

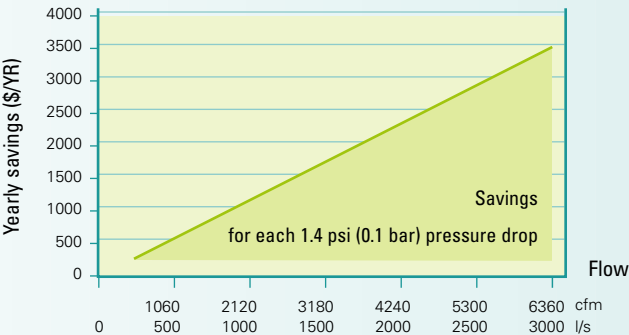
The IMD drying process requires no external energy; over time this results in large savings.



\* Assumption – 1kWh = \$ 0.05

### Indirect Savings

Other than direct energy input, the pressure drop in dryers causes indirect energy consumption as well. IMD dryers have a very low pressure drop, which leads to a further reduction in energy cost.





# Reliable technology for tough conditions



## ContainAIR is out there

**B**e it for a temporary need or simply because there is no room inside your factory, Atlas Copco ContainAIR delivers air wherever you need it. Installed in a 20 ft. container, the ContainAIR Z110-160 has all the features of its stationary oil-free relatives, but adds flexibility and mobility. ContainAIR is available for **all** compressor configurations, VSD and FF versions. Totally self-contained and rugged, it runs around the clock. Winterized versions are optional. When the going gets tough, ContainAIR gets going.

## HAT version keeps cool in hot spots

**O**perating air compressors in very hot environments has been a challenge to plant engineers for many years. Often, the only solution was to order custom built units, at high additional expense and with long and unpredictable delivery times.

### Standard solution

With the new High Ambient Temperature (HAT) compressors, Atlas Copco offers an off-the-shelf standard solution. HAT compressors operate comfortably at high intake and cooling air/water temperatures of up to 122 °F.

Reliable operation is ensured by...

- ▶ enhanced mechanical design
- ▶ optimized cooling
- ▶ proper motor sizing

The HAT is a thoroughly tested package to prevent any uncertainties and surprises.



# True performance

When specifying the true performance of an air compressor, at least three parameters must be considered:

## Capacity

The standard to which the capacity is measured

## Working pressure

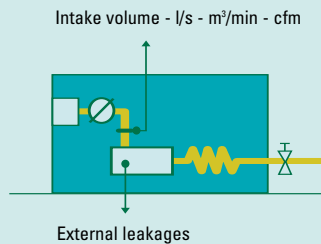
The point where the delivery pressure is measured

## Power consumption

The compressor package power required at an effective working pressure (including all internal losses from inlet to outlet) and the drive motor efficiency

### Intake volume

Inlet flow referred to compressor element inlet conditions. Seal leakages and inlet losses should not deprive you the air you paid for.

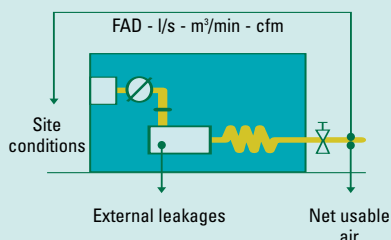


Atlas Copco Z-compressors are measured according to ISO 1217, Annex C, Edition 3, stipulating the FAD measurement at the end of the package, net of all losses.

Atlas Copco specifications correspond to the capacity and pressure which the customer receives, not to what the compressor draws in. Differences can be substantial.

### Delivered volume

FAD according to ISO 1217, Annex C, Edition 3. A Z-compressor truly gives what is promised.



# Global presence Local service



Atlas Copco's Aftersales Service operation is unrivalled in the compressed air industry.

- ▶ An Atlas Copco's Service network in 150 countries worldwide. A sophisticated logistics concept delivers genuine Atlas Copco spare parts to your doorstep in record time, across the globe.
- ▶ Our service plans perfectly meet the requirements of your business and ensure a constant productivity at peak level.
- ▶ Consultancy services and on-site measurements help optimize the complete air net, minimizing leak losses and maximizing energy savings.



Caring for  
the environment

- ▶ VSD technology and two-stage compression realize impressive energy savings.
- ▶ Reduced internal pressure drops save power.
- ▶ Provisions are made for energy recovery.
- ▶ The produced air is 100 % oil-free, there is no oil in the condensate nor in the process.

# Technical data

## ZR 110-275 and ZR 132-315 VSD compressors - 50 Hz

	ZR watercooled	Free air delivery <sup>(1)</sup>			Installed motor	Pressure dewpoint <sup>(2)</sup>	Sound pressure level <sup>(3)</sup>		Weight	Dimensions		
		cfm	m <sup>3</sup> /min	l/s			kW	°F		w/o duct dB(A)	with duct dB(A)	lb
	<b>50 Hz - 7.5 bar(e)</b>											
Full Feature with IMD Dryer	ZR 110 FF-IMD	674	19.1	318	110	-18	72	69	7200	135	79	65
	ZR 132 FF-IMD	778	22.0	367	132	-20	72	69	7510	135	79	65
	ZR 132 VSD FF-IMD <sup>(4)</sup>	771	21.8	364	132	-18/-26	68-72	66-69	7720	135	79	65
	ZR 145 FF-IMD	835	23.6	394	160	-22	73	70	7780	135	79	65
	ZR 160 FF-IMD	998	28.3	471	160	-13	67	66	10370	171	79	65
	ZR 160 VSD FF-IMD <sup>(4)</sup>	913	25.9	431	160	-18/-26	68-74	66-71	7720	135	79	65
	ZR 200 FF-IMD	1286	36.4	607	200	-13	67	66	11830	171	79	65
	ZR 250 FF-IMD	1538	43.6	726	250	-18	67	66	11830	171	79	65
	ZR 250 VSD FF-IMD <sup>(4)</sup>	1528	43.3	721	250	-13/-22	63-73	62-71	13400	171	79	65
	ZR 275 FF-IMD	1653	46.8	780	275	-22	67	66	12260	171	79	65
ZR 315 VSD FF-IMD <sup>(4)</sup>	1771	50.2	836	315	-13/-22	63-73	62-71	13400	171	79	65	
Pack w/o IMD Dryer	ZR 110	674	19.1	318	110	-	67	65	5860	100	79	65
	ZR 132	778	22.0	367	132	-	67	65	6080	100	79	65
	ZR 132 VSD <sup>(4)</sup>	782	22.1	369	132	-	62-68	61-66	6330	100	79	65
	ZR 145	835	23.6	394	160	-	68	66	6380	100	79	65
	ZR 160	998	28.3	471	160	-	67	66	8380	124	79	65
	ZR 160 VSD <sup>(4)</sup>	920	26.0	434	160	-	62-70	61-66	6330	100	79	65
	ZR 200	1286	36.4	607	200	-	67	66	8810	124	79	65
	ZR 250	1538	43.6	726	250	-	67	66	8810	124	79	65
	ZR 250 VSD <sup>(4)</sup>	1528	43.3	721	250	-	63-73	62-71	10380	124	79	65
	ZR 275	1653	46.8	780	275	-	67	66	9240	124	79	65
ZR 315 VSD <sup>(4)</sup>	1771	50.2	836	315	-	63-73	62-71	10380	124	79	65	
	<b>50 Hz - 10 bar(e)</b>											
Full Feature with IMD Dryer	ZR 110 FF-IMD	562	15.9	265	110	-18	72	69	7200	135	79	65
	ZR 132 FF-IMD	663	18.8	313	132	-20	72	69	7470	135	79	65
	ZR 132 VSD FF-IMD <sup>(5)</sup>	699	19.8	330	132	-18/-26	68-72	66-69	7720	135	79	65
	ZR 145 FF-IMD	708	20.0	334	160	-22	73	70	7780	135	79	65
	ZR 160 FF-IMD	852	24.1	402	160	-13	67	66	10370	171	79	65
	ZR 160 VSD FF-IMD <sup>(5)</sup>	831	23.5	392	160	-18/-26	68-74	66-71	7720	135	79	65
	ZR 200 FF-IMD	1068	30.2	504	200	-13	67	66	10830	171	79	65
	ZR 250 FF-IMD	1333	37.7	629	250	-18	67	66	11830	171	79	65
	ZR 250 VSD FF-IMD <sup>(5)</sup>	1373	38.9	648	250	-13/-22	67-73	65-71	13400	171	79	65
	ZR 275 FF-IMD	1460	41.3	689	315	-22	67	66	12200	171	79	65
ZR 315 VSD FF-IMD <sup>(5)</sup>	1581	44.8	746	315	-13/-22	67-73	65-71	13400	171	79	65	
Pack w/o IMD Dryer	ZR 110	562	15.9	265	110	-	67	65	5250	100	79	65
	ZR 132	663	18.8	313	132	-	67	65	5380	100	79	65
	ZR 132 VSD <sup>(5)</sup>	706	20.0	333	132	-	62-68	61-66	5710	100	79	65
	ZR 145	708	20.0	334	160	-	68	66	5700	100	79	65
	ZR 160	852	24.1	402	160	-	67	66	8380	124	79	65
	ZR 160 VSD <sup>(5)</sup>	835	23.6	394	160	-	62-70	61-66	5710	100	79	65
	ZR 200	1068	30.2	504	200	-	67	66	8810	124	79	65
	ZR 250	1333	37.7	629	250	-	67	66	8810	124	79	65
	ZR 250 VSD <sup>(5)</sup>	1373	38.9	648	250	-	64-70	65-68	10380	124	79	65
	ZR 275	1460	41.3	689	315	-	67	66	9240	124	79	65
ZR 315 VSD <sup>(5)</sup>	1581	44.8	746	315	-	64-73	65-71	10380	124	79	65	

(1) Reference Conditions:

- Dry air
- Absolute inlet pressure 14.5 psig
- Cooling and air intake temperature 68 °F
- Nominal working pressure
- Capacity of the compressor package measured according to ISO1217, Third Edition, Annex C

(2) Pressure dewpoint is specified for

- 68 °F cooling air/water temperature
- relative humidity of 60 %
- nominal working pressure
- load level of minimum 50 %

(3) ± 3 dB(A) according to Pneurol PN8NTC.2.2 test code measured at a distance of 1 m

- (4) ZR VSD: capacity at 100 psig
- (5) ZR VSD: capacity at 130 psig



# Technical data

## ZT 110-275 and ZT 132-315 VSD compressors - 50 Hz

	ZT aircooled	Free air delivery <sup>(1)</sup>			Installed motor	Installed fan motor	Pressure dewpoint <sup>(2)</sup>	Sound pressure level <sup>(3)</sup>		Weight	Dimensions		
		cfm	m <sup>3</sup> /min	l/s				°F	w/o duct dB(A)		with duct dB(A)	lb	L in
	<b>Type</b> <b>50 Hz - 7.5 bar(e)</b>												
Full Feature with IMD Dryer	ZT 110 FF-IMD	661	18.7	661	110	4.8	-18	72	70	9030	159	79	65
	ZT 132 FF-IMD	763	21.6	763	132	4.8	-20	73	70	9300	159	79	65
	ZT 132 VSD FF-IMD <sup>(4)</sup>	739	20.9	739	132	4.8	-13/-22	67-71	66-70	9550	159	79	65
	ZT 145 FF-IMD	818	23.2	818	160	4.8	-22	73	71	9580	159	79	65
	ZT 160 FF-IMD	968	27.4	968	160	8.8	-22	77	75	12380	198	83	65
	ZT 160 VSD FF-IMD <sup>(4)</sup>	856	24.2	856	160	4.8	-13/-22	67-74	66-71	9550	159	79	65
	ZT 200 FF-IMD	1180	33.4	1180	200	8.8	-13	77	75	13860	198	83	65
	ZT 250 FF-IMD	1473	41.7	1473	250	8.8	-18	77	75	13860	198	83	65
	ZT 250 VSD FF-IMD <sup>(4)</sup>	1462	41.4	1462	250	18.5	-13/-22	70-77	68-75	14680	198	83	65
	ZT 275 FF-IMD	1545	43.7	1545	275	18.5	-22	77	75	14620	198	83	1650
ZT 315 VSD FF-IMD <sup>(4)</sup>	1648	46.7	1648	315	18.5	-13/-22	70-78	68-76	14680	198	83	1650	
Pack w/o IMD Dryer	ZT 110	665	18.8	665	110	4.8	-	71	70	7900	159	79	1650
	ZT 132	767	21.7	767	132	4.8	-	72	70	8160	159	79	1650
	ZT 132 VSD <sup>(4)</sup>	750	21.2	750	132	4.8	-	67-74	66-71	8420	159	79	1650
	ZT 145	822	23.3	822	160	4.8	-	72	70	8490	159	79	1650
	ZT 160	968	27.4	968	160	8.8	-	77	75	11410	198	83	1650
	ZT 160 VSD <sup>(4)</sup>	869	24.6	869	160	4.8	-	67-74	66-71	8420	159	79	1650
	ZT 200	1180	33.4	1180	200	8.8	-	77	75	11870	198	83	1650
	ZT 250	1473	41.7	1473	250	8.8	-	77	75	11870	198	83	1650
	ZT 250 VSD <sup>(4)</sup>	1462	41.4	1462	250	8.8	-	70-77	68-75	13510	198	83	1650
	ZT 275	1545	43.7	1545	275	8.8	-	77	75	12300	198	83	1650
ZT 315 VSD <sup>(4)</sup>	1648	46.7	1648	315	8.8	-	70-78	68-76	13510	198	83	1650	
	<b>50 Hz - 10 bar(e)</b>												
Full Feature with IMD Dryer	ZT 110 FF-IMD	551	15.6	551	110	4.8	-18	72	70	7030	159	79	1650
	ZT 132 FF-IMD	650	18.4	650	132	4.8	-20	73	70	9300	159	79	1650
	ZT 132 VSD FF-IMD <sup>(5)</sup>	670	19.0	670	132	4.8	-13/-22	67-71	66-70	9550	159	79	1650
	ZT 145 FF-IMD	693	19.6	693	160	4.8	-22	73	70	9580	159	79	1650
	ZT 160 FF-IMD	812	23.0	812	160	8.8	-30	78	76	12380	198	83	1650
	ZT 160 VSD FF-IMD <sup>(5)</sup>	784	22.2	784	160	4.8	-13/-22	67-74	66-71	9550	159	79	1650
	ZT 200 FF-IMD	1028	29.1	1028	200	8.8	-13	78	76	12840	198	83	1650
	ZT 250 FF-IMD	1282	36.3	1282	250	8.8	-18	78	76	13860	198	83	1650
	ZT 250 VSD FF-IMD <sup>(5)</sup>	1293	36.6	1293	250	18.5	-13/-22	71-78	69-76	14680	198	83	1650
	ZT 275 FF-IMD	1413	40.0	1413	315	18.5	-22	78	76	14620	198	83	1650
ZT 315 VSD FF-IMD <sup>(5)</sup>	1487	42.1	1487	315	18.5	-13/-22	71-79	69-77	14680	198	83	1650	
Pack w/o IMD Dryer	ZT 110	553	15.7	553	110	4.8	-	71	70	7900	159	79	1650
	ZT 132	655	18.5	655	132	4.8	-	72	70	8160	159	79	1650
	ZT 132 VSD <sup>(5)</sup>	814	23.0	814	132	4.8	-	67-71	66-70	8930	159	79	1650
	ZT 145	697	19.7	697	160	4.8	-	72	70	7900	159	79	1650
	ZT 160	812	23.0	812	160	8.8	-	78	76	11410	198	83	1650
	ZT 160 VSD <sup>(5)</sup>	814	23.0	814	160	4.8	-	67-74	66-71	8930	159	79	1650
	ZT 200	1028	29.1	1028	200	8.8	-	78	76	11870	198	83	1650
	ZT 250	1282	36.3	1282	250	8.8	-	78	76	11870	198	83	1650
	ZT 250 VSD <sup>(5)</sup>	1293	36.6	1293	250	8.8	-	71-78	69-76	13510	198	83	1650
	ZT 275	1413	40.0	1413	315	8.8	-	78	76	12300	198	83	1650
ZT 315 VSD <sup>(5)</sup>	1487	42.1	1487	315	8.8	-	71-79	69-77	13510	198	83	1650	

(1) Reference Conditions:

- Dry air
- Absolute inlet pressure 14.5 psig
- Cooling and air intake temperature 68 °F
- Nominal working pressure
- Capacity of the compressor package measured according to ISO1217, Third Edition, Annex C

(2) Pressure dewpoint is specified for

- 68 °F cooling air/water temperature
- relative humidity of 60 %
- nominal working pressure
- load level of minimum 50 %

(3) ± 3 dB(A) according to Pneurop PN8NTC2.2 test code measured at a distance of 1 m

(4) ZR VSD: capacity at 100 psig

(5) ZR VSD: capacity at 130 psig

# Technical data

## ZR 110-275 and ZR 132-315 VSD compressors - 60 Hz

	ZR watercooled	Free air delivery <sup>(1)</sup>			Installed motor	Pressure dewpoint <sup>(2)</sup>	Sound pressure level <sup>(3)</sup>		Weight	Dimensions		
		cfm	m <sup>3</sup> /min	l/s			HP	°F		w/o duct dB(A)	with duct dB(A)	lb
	<b>60 Hz - 100 psig</b>											
FF with IMD	ZR 110 FF-IMD	746	21.1	352	150	-18	72	69	7200	135	79	65
	ZR 160 FF-IMD	981	27.8	463	200	-13	67	66	10380	171	79	65
	ZR 200 FF-IMD	1216	34.4	574	250	-13	67	66	11700	171	79	65
	ZR 250 FF-IMD	1413	40.0	667	300	-18	67	66	12160	171	79	65
	ZR 275 FF-IMD	1593	45.1	752	350	-22	67	66	11830	171	79	65
Pack w/o IMD	ZR 110	746	21.1	352	150	-	67	65	5810	100	79	65
	ZR 160	981	27.8	463	200	-	67	66	8340	124	79	65
	ZR 200	1216	34.4	574	250	-	67	66	8680	124	79	65
	ZR 250	1413	40.0	667	300	-	67	66	9140	124	79	65
	ZR 275	1593	45.1	752	350	-	67	66	9400	124	79	65
	<b>60 Hz - 125 psig</b>											
Full Feature with IMD Dryer	ZR 110 FF-IMD	674	19.1	318	150	-18	72	69	7200	135	79	65
	ZR 132 VSD FF-IMD <sup>(5)</sup>	771	21.8	364	175	-18/-26	68-72	66-69	7720	135	79	65
	ZR 145 FF-IMD	843	23.9	398	200	-22	73	70	7780	135	79	65
	ZR 160 FF-IMD	888	25.1	419	200	-13	67	66	10380	171	79	65
	ZR 160 VSD FF-IMD <sup>(5)</sup>	913	25.9	431	215	-18/-26	68-74	66-71	7720	135	79	65
	ZR 200 FF-IMD	1093	31.0	516	250	-13	67	66	11700	171	79	65
	ZR 250 FF-IMD	1312	37.1	619	300	-18	67	66	12160	171	79	65
	ZR 250 VSD FF-IMD <sup>(5)</sup>	1528	43.3	721	335	-13/-22	63-73	62-71	13900	171	79	65
	ZR 275 FF-IMD	1538	43.6	726	350	-22	67	66	11830	171	79	65
	ZR 315 VSD FF-IMD <sup>(5)</sup>	1771	50.2	836	423	-13/-22	63-73	62-71	13400	171	79	65
Pack w/o IMD Dryer	ZR 110	674	19.1	318	150	-	67	65	5810	100	79	65
	ZR 132 VSD <sup>(5)</sup>	782	22.1	369	175	-	62-68	61-66	6330	100	79	65
	ZR 145	843	23.9	398	200	-	68	66	6390	100	79	65
	ZR 160	888	25.1	419	200	-	67	66	8340	124	79	65
	ZR 160 VSD <sup>(5)</sup>	920	26.0	434	215	-	62-70	61-66	6330	100	79	65
	ZR 200	1093	31.0	516	250	-	67	66	8682	124	79	65
	ZR 250	1312	37.1	619	300	-	67	66	9140	124	79	65
	ZR 250 VSD <sup>(5)</sup>	1528	43.3	721	335	-	63-73	62-71	10380	124	79	65
	ZR 275	1538	43.6	726	350	-	67	66	9400	124	79	65
	ZR 315 VSD <sup>(5)</sup>	1771	50.2	836	423	-	63-73	62-71	10380	124	79	65
	<b>60 Hz - 150 psig</b>											
Full Feature with IMD Dryer	ZR 110 FF-IMD	608	17.2	287	150	-18	72	69	7200	135	79	65
	ZR 132 VSD FF-IMD <sup>(5)</sup>	699	19.8	330	175	-18/-26	68-72	66-69	7720	135	79	65
	ZR 145 FF-IMD	712	20.2	336	200	-22	73	70	7790	135	79	65
	ZR 160 FF-IMD	795	22.5	375	200	-13	67	66	10380	171	79	65
	ZR 160 VSD FF-IMD <sup>(5)</sup>	831	23.5	392	215	-18/-26	68-74	66-71	7720	135	79	65
	ZR 200 FF-IMD	973	27.5	459	250	-13	67	66	10680	171	79	65
	ZR 250 FF-IMD	1161	32.9	548	300	-18	67	66	12160	171	79	65
	ZR 250 VSD FF-IMD <sup>(5)</sup>	1373	38.9	648	335	-13/-22	67-73	65-71	13400	171	79	65
Pack w/o IMD Dryer	ZR 110	608	17.2	287	150	-	67	65	5810	100	79	65
	ZR 132 VSD <sup>(5)</sup>	706	20.0	333	214	-	62-68	61-66	5710	100	79	65
	ZR 145	712	20.2	336	200	-	68	66	6340	100	79	65
	ZR 160	795	22.5	375	200	-	67	66	8340	124	79	65
	ZR 160 VSD <sup>(5)</sup>	835	23.6	394	215	-	62-70	61-66	5710	100	79	65
	ZR 200	973	27.5	459	250	-	67	66	8680	124	79	65
	ZR 250	1161	32.9	548	300	-	67	66	9140	124	79	65
	ZR 250 VSD <sup>(5)</sup>	1373	38.9	648	335	-	64-70	65-68	10380	124	79	65
	ZR 275	1358	38.5	641	350	-	67	66	9400	124	79	65
	ZR 315VSD <sup>(5)</sup>	1581	44.8	746	423	-	64-73	65-71	10380	124	79	65

# Technical data

## ZT 110-275 and ZT 132-315 VSD compressors - 60 Hz

	ZT aircooled	Free air delivery <sup>(1)</sup>			Installed motor	Installed fan motor	Pressure dewpoint <sup>(2)</sup>	Sound pressure level <sup>(3)</sup>		Weight	Dimensions		
		cfm	m <sup>3</sup> /min	l/s				HP	HP		°F	w/o duct dB(A)	with duct dB(A)
	<b>60 Hz - 125 psig</b>												
Full Feature with IMD Dryer	ZT 110 FF-IMD	661	18.7	312	150	6.5	-18	72	70	9030	159	79	65
	ZT 132 VSD FF-IMD <sup>(4)</sup>	717	20.3	338	175	6.5	-13/-22	67-73	66-70	9300	159	79	65
	ZT 145 FF-IMD	828	23.5	391	200	6.5	-22	73	70	9580	159	79	65
	ZT 160 FF-IMD	869	24.6	410	200	12.3	-22	77	75	12380	198	83	65
	ZT 160 VSD FF-IMD <sup>(4)</sup>	869	24.6	410	215	6.5	-13/-22	67-74	66-71	10050	159	79	65
	ZT 200 FF-IMD	1059	30.0	500	250	12.3	-13	77	75	13720	198	83	65
	ZT 250 FF-IMD	1263	35.8	596	300	12.3	-18	77	75	14190	198	83	65
	ZT 250 VSD FF-IMD <sup>(4)</sup>	1462	41.4	690	335	24.8	-13/-22	70-77	68-75	14680	198	83	65
	ZT 275 FF-IMD	1481	41.9	699	350	24.8	-22	77	75	14780	198	83	65
	ZT 315 VSD FF-IMD <sup>(4)</sup>	1648	46.7	778	423	24.8	-13/-22	70-78	68-76	14680	198	83	65
Pack w/o IMD Dryer	ZT 110	665	18.8	314	150	6.5	-	71	70	7900	159	79	65
	ZT 132 VSD <sup>(4)</sup>	750	21.2	354	175	6.5	-	67-74	66-71	8420	159	79	65
	ZT 145	831	23.5	392	200	6.5	-	72	70	8490	159	79	65
	ZT 160	869	24.6	410	200	12.3	-	77	75	11410	198	83	65
	ZT 160 VSD <sup>(4)</sup>	869	24.6	410	215	6.5	-	67-74	66-71	8420	159	79	65
	ZT 200	1059	30.0	500	250	12.3	-	77	75	11740	198	83	65
	ZT 250	1263	35.8	596	300	12.3	-	77	75	12200	198	83	65
	ZT 250 VSD <sup>(4)</sup>	1462	41.4	690	335	12.3	-	70-77	68-75	13510	198	83	65
	ZT 275	1481	41.9	699	350	12.3	-	77	75	12470	198	83	65
	ZT 315 VSD <sup>(4)</sup>	1648	46.7	778	423	12.3	-	70-78	68-76	13510	198	83	65
	<b>60 Hz - 150 psig</b>												
Full Feature with IMD Dryer	ZT 110 FF-IMD	598	16.9	282	150	6.5	-18	72	70	9030	159	79	65
	ZT 132 VSD FF-IMD <sup>(5)</sup>	670	19.0	316	175	6.5	-13/-22	67-71	66-70	9300	159	79	65
	ZT 145 FF-IMD	697	19.7	329	200	6.5	-22	73	70	9580	159	79	65
	ZT 160 FF-IMD	761	21.5	359	200	12.3	-22	78	76	12380	198	83	65
	ZT 160 VSD FF-IMD <sup>(5)</sup>	784	22.2	370	215	6.5	-13/-22	67-74	66-71	9550	159	79	65
	ZT 200 FF-IMD	928	26.3	438	250	12.3	-22	78	76	12710	198	83	65
	ZT 250 FF-IMD	1115	31.6	526	300	12.3	-18	78	76	14190	198	83	65
	ZT 250 VSD FF-IMD <sup>(5)</sup>	1293	36.6	610	335	24.8	-13/-22	71-78	69-76	14680	198	83	65
	ZT 275 FF-IMD	1305	37.0	616	350	24.8	-22	78	76	14780	198	83	65
	ZT 315 VSD FF-IMD <sup>(5)</sup>	1487	42.1	702	423	24.8	-13/-22	71-79	69-77	14680	198	83	65
Pack w/o IMD Dryer	ZT 110	600	17.0	283	150	6.5	-	71	70	7900	159	79	65
	ZT 132 VSD <sup>(5)</sup>	814	23.0	384	175	6.5	-	67-71	66-70	8930	159	79	65
	ZT 145	701	19.9	331	200	6.5	-	72	70	7900	159	79	65
	ZT 160	761	21.5	359	200	12.3	-	78	76	11410	198	83	65
	ZT 160 VSD <sup>(5)</sup>	814	23.0	384	215	6.5	-	67-74	66-71	8930	159	79	65
	ZT 200	928	26.3	438	250	12.3	-	78	76	11740	198	83	65
	ZT 250	1115	31.6	526	300	12.3	-	78	76	12200	198	83	65
	ZT 250 VSD <sup>(5)</sup>	1293	36.6	610	335	12.3	-	71-78	69-76	13510	198	83	65
	ZT 275	1305	37.0	616	350	12.3	-	78	76	12470	198	83	65
	ZT 315 VSD <sup>(5)</sup>	1487	42.1	702	423	12.3	-	71-79	69-77	13510	198	83	65

(1) Reference Conditions:

- Dry air
- Absolute inlet pressure 14.5 psig
- Cooling and air intake temperature 68 °F
- Nominal working pressure
- Capacity of the compressor package measured according to ISO1217, Third Edition, Annex C

(2) Pressure dewpoint is specified for

- 68 °F cooling air/water temperature
- relative humidity of 60 %
- nominal working pressure
- load level of minimum 50 %

(3) ± 3 dB(A) according to Pneuport PN8NTC2.2 test code measured at a distance of 1 m

- (4) ZR VSD: capacity at 100 psig
- (5) ZR VSD: capacity at 130 psig





The face of interaction

What sets Atlas Copco apart? Our belief that, to excel, we must provide the best possible know-how and technology in ways that our customers value. Whether we're fully supporting existing products or advancing technology through innovation, we constantly focus on customer needs.

The Atlas Copco way of doing business grows from ongoing interaction, long-term relationships, and a commitment to understanding each customer's process and objectives. As a result, every compressed air solution we create helps a customer operate with greater efficiency, economy, and productivity.

Satisfying customer needs effectively has made Atlas Copco the number one compressor manufacturer in the world. We will continue to attract new business through our unwavering conviction to creating products and ideas that help our customers succeed.

Member:



Danger: Compressed air should never be supplied as breathing air unless air is properly purified for breathing. Atlas Copco assumes no responsibility or liability related to the purchaser's/user's breathing air system.

The information contained herein is general in nature and is not intended for specific construction, installation or application purposes



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