Atlas Copco

Oil-free rotary screw compressors (air-cooled)
ZT 110-160 (132-160 kW / 177-215 hp) – Classic Line

Sustainable Productivity

Atlas Copco

100% certified oil-free air

Atlas Copco is renowned for designing and manufacturing the most reliable oil-free screw compressors. The ZT 110-160 is the latest rotary screw compressor to come out of this strong tradition. Ideal for harsh conditions, the ZT offers a robust design and low operating cost to industries where high-quality oil-free air is key.

FOOD & BEVERAGE

HIGH PRODUCT QUALITY

- 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

PLUG-AND-RUN

- Easy and quick installation.
- A complete, ready-to-use solution.

OIL & GAS

THE RELIABILITY AND SUPPORT YOU NEED

- 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.

PHARMACEUTICALS

PRODUCT PURITY AND INCREASED SAFETY

- 100% oil-free air is vital to prevent contamination of processes (e.g. fermentation, aeration, tablet coating, packing and bottling, automated production lines).
- CLASS 0 eliminates risk and maintains high product quality and professional brand reputation.

KEEPING YOUR PRODUCTION UP AND RUNNING

For over 50 years, Atlas Copco Z compressors have set the benchmark for durability. They are built using long-standing internal engineering practices, and are designed, manufactured and tested according to ISO 9001. The ZT 110-160 uses proven screw technology, cooling and pulsation dampers.

PROTECTING YOUR REPUTATION

The ZT 110-160 provide you with 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.

DRIVING DOWN ENERGY COSTS

The ZT 110-160's superior oil-free screw elements provide the optimum combination of high Free Air Delivery (FAD) with low energy consumption. Ample sized cooling, low pressure drops and an efficient drive train result in high compressor package efficiency.

EASY INSTALLATION

With the ZT 110-160 compressor, Atlas Copco provides a complete solution without hidden costs. The ready-to-use package includes internal piping, coolers, motor, lubrication and control system. Installation is fault-free, commissioning time is low and no external instrument air is required. You simply plug and run.

ASSURING YOUR PEACE OF MIND

From the factory to the field, Atlas Copco has the expertise and products, service and support to meet customer demands. We invest continuously to ensure a committed, competent service organization. Thanks to our presence in over 170 countries we offer timely, professional service worldwide with 24/7 availability.

Robust design for high reliability

1

Heavy duty inlet filter

- Two-stage dust removal
- Low pressure drop
- Efficient protection of compressor

2

Reliable and efficient air cooling

- Finned stainless steel pre-cooler for increased reliability
- Efficient aluminium brazed block cooler
- Easy access for cleaning

3

Load/unload valve

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

4

Time-proven Atlas Copco oil-free compression element

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

5

Totally enclosed fan cooled IP 55 motor

- Protected against dust and dirt
- High efficiency
- Designed for continuous duty in humid and dirty environments

6

Ventilation

- Large axial fan
- Driven by efficient main drive motor

7

Oil mist removal

- No fumes vented to atmosphere
- Keeps oil inside gearbox

8

Silenced canopy

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

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 processing, pharmaceutical manufacturing and packaging, chemical and petrochemical processing, semiconductor and electronics manufacturing, the medical sector, automotive paint spraying, textile manufacturing 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 ISO 8573-1 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. Thus Atlas Copco is not only the first compressor and blower manufacturer to receive CLASS 0 certification, but also exceeds ISO 8573-1 CLASS 0 specifications.

CLASS	Concentration total oil *(aerosol, liquid, vapor)* mg/m^3
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).

CLASS 0 MEANS:

- Zero risk of contamination.
- Zero risk of damaged or unsafe products.
- Zero risk of losses from operational downtime.
- Zero risk of damaging your company's hard-won professional reputation.

Total control, assured efficiency

The result of years of experience and innovations, Atlas Copco is able to offer you a complete solution including compressors, air treatment and control and monitoring systems. All based on in-house technologies, our solutions give you key benefits such as increased compressor efficiency, lower energy consumption, reduced maintenance time, and less stress on the entire air system.

ADVANCED CONTROL AND MONITORING

The large 5.7" sized color display gives you a clear and easy readout of the compressor running conditions. Clear icon indications and intuitive navigation give you fast access to all important compressor data. The Elektronikon® closely monitors the compressor running conditions and maintenance status for the highest reliability. To maximize energy efficiency, the Elektronikon® controls the main drive motor and regulates system pressure within a predefined and narrow pressure band. With a simple push of a button, users can remotely start and stop, load and unload the compressor. For optimal ease of use, the Elektronikon® display can be set to 31 different languages including character based languages.

ES – FULLY OPTIMIZED SYSTEM

A properly managed compressed air network will save energy, reduce maintenance, decrease downtime, increase production and improve product quality. Atlas Copco's ES central controllers are the most efficient way to monitor and control multiple compressors simultaneously as well as dryers and filters. An ES controller offers one central point of control for your whole compressed air network, ensuring all compressors provide optimum performance for your process. The result is a completely dependable and energy efficient network, giving you peace of mind and keeping your costs to a minimum.

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.

A DRYER SOLUTION FOR EVERY NEED

Rotary drum heat of compression dryers

MD PDP: -20°C/+3°C
PDP: -4°F/+37°F

- Robust design ensures ultra reliable operation
- Dessicant is dried by heat of compression
- No loss of compressed air ensures 100% capacity
- Extremely low pressure drop reduces compressor energy consumption
- No filtration required

Refrigerant dryer

FD PDP: +3°C/+20°C
PDP: +37°F/+68°F

- Use of cooling circuit for cooling down compressed air
- Guaranteed low pressure dewpoints
- Low energy consumption in all operating conditions

Heatless dessicant dryer

CD PDP: -40°C/-20°C
PDP: -40°F/-4°F

- Limited use of compressed air
- Limited maintenance
- Timer controlled valves

Heated purge dessicant dryer

AD PDP: -70°C/-40°C/-20°C
PDP: -94°F/-40°F/-4°F

- Minimum use of compressed air
- Low watt heaters
- Optional PDP control (dewpoint dependent switching)

Heat reactivated dessicant dryer

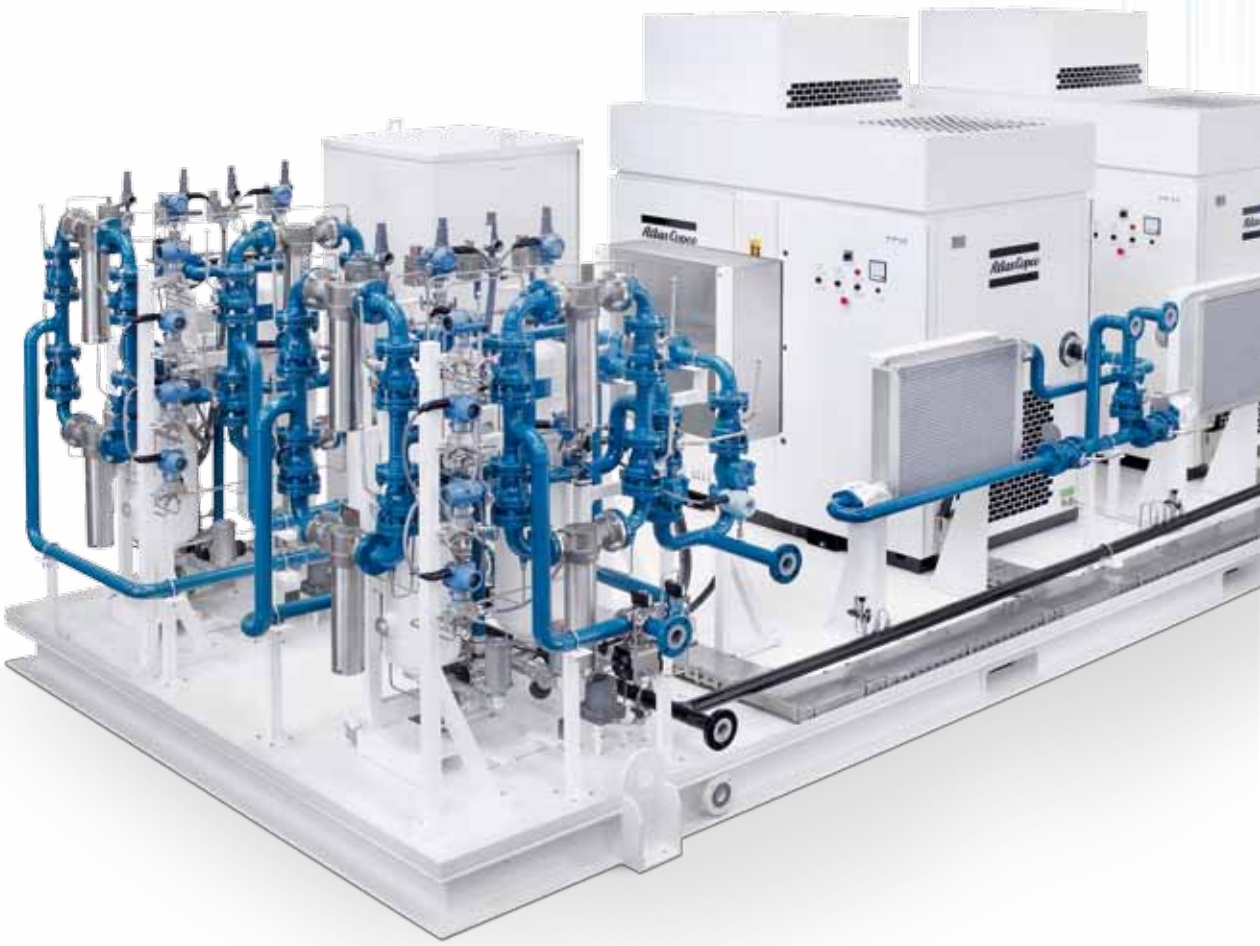
BD PDP: -40°C/-20°C
PDP: -40°F/-4°F

- Use of heaters for regeneration
- Limited pressure drop
- Optional PDP control (dewpoint dependent switching)

PDP: Pressure Dew Point

Engineered solutions for all your needs

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

As original manufacturer of the equipment, Atlas Copco understands all performance capabilities and ensures that the equipment operates within them. 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 SYSTEMS

We are fully aware that project management can be complex. We have developed an Internet based application called IC³ which is shared by all Atlas Copco sites worldwide, to give a transparent view of data and drawings and to easily contribute to the project if required.

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.

Scope of supply

Air circuit	Load/unload regulating valve
	Teflon coated oil-free screw stage
	Air intake filter
	Flexible air intake pipe
	Discharge pulsation damper
	Discharge non return valve
Cooling circuit	Aluminium brazed plate heat exchangers
	Stainless steel pre-coolers
Oil system	Positive displacement oil pump
	High efficiency oil filter
	Brazed plate oil cooler
	Pressure regulating valve
	Built in gearbox breather system
Electrical components	IP55 main drive motors
	Fully pre–wired control cabinet
	Y-D starter
Additional features	Base frame with forklift slots
	Completely silenced canopy
	No loss condensate drains

OPTIONS	
Anti-condensation heaters	√
PT1000 in windings & bearings	√
Anchor pads	√
Duplex oil filter	√
Teflon-free rotor coatings	√
DIN / ANSI connections	√
Material certificates	√
Test certificate	√
Witness performance test (factory acceptance test)	√
High ambient version (ZT 110/132/145)	√
Purge air during standstill	√
Wooden case	√

Please consult Atlas Copco for further info on performance and applications of the options.

Technical specifications

COMPRESSOR TYPE	Max. working pressure		Capacity FAD[1]			Installed motor power	Noise level[2]		Weight	
	bar(g)	psig	l/s	m³/min	cfm	kW	w/o duct dB(A)	with duct dB(A)	kg	lbs
50 Hz VERSION										
ZT 110 HAT	8.6	125	259.6	15.6	550	132	85	81	3160	6967
ZT 132	7.5	109	351	21.1	744	132	85	81	3160	6967
ZT 132	8.6	125	314	18.8	666	132	85	81	3160	6967
ZT 132	10	145	305	18.3	647	132	85	81	3160	6967
ZT 145	7.5	109	376	22.6	797	145	85	81	3160	6967
ZT 145	8.6	125	351	21.1	744	145	85	81	3160	6967
ZT 145	10	145	325	19.5	689	145	85	81	3160	6967
ZT 160	7.5	109	407	24.4	863	160	85	81	3160	6967
ZT 160	8.6	125	390	23.4	827	160	85	81	3160	6967
ZT 160	10	145	363	21.8	770	160	85	81	3160	6967
60 Hz VERSION										
ZT 110 HAT	8.6	125	263.5	15.8	559	132	85	81	3160	6967
ZT 132	7	102	349	20.9	740	132	85	81	3160	6967
ZT 132	8.6	125	326	19.6	691	132	85	81	3160	6967
ZT 132	10.4	151	298	17.9	632	132	85	81	3160	6967
ZT 145	7	102	386	23.2	818	145	85	81	3160	6967
ZT 145	8.6	125	369	22.1	782	145	85	81	3160	6967
ZT 145	10.4	151	325	19.5	689	145	85	81	3160	6967
ZT 160	7	102	416	25.0	882	160	85	81	3160	6967
ZT 160	8.6	125	395	23.7	837	160	85	81	3160	6967
ZT 160	10.4	151	358	21.5	759	160	85	81	3160	6967

(1) Unit performance: Measured according to ISO1217, ed3, Annex C

(2) Measured according to ISO 2151: 2004 using ISO 9614/2
A total correction factor for uncertainties of 3 dB has to be added conform the test code.

Reference conditions:
- *Dry air*
- *Absolute inlet pressure 1 bar (14.5 psi)*
- *Cooling and intake air temperature 20°C (68°F)*

Nominal working pressure:
- *7,7.5 and 8.6 bar(e)versions: 7 bar(e)*
- *10 and 10.4 bar(e) versions: 9 bar(e)*
- *102, 109 and 125 psig versions: 102 psig*
- *145 and 151 psig versions: 131 psig*

ZT 110 HAT
ZT 132
ZT 145
ZT 160

Width 3000 mm, 118"
Depth 1650 mm, 65"
Height 2000 mm, 79"

Driven by innovation

With more than 135 years of innovation and experience, Atlas Copco will deliver the products and services to help maximize your company's efficiency and productivity. As an industry leader, we are dedicated to offering high air quality at the lowest possible cost of ownership. Through continuous innovation, we strive to safeguard your bottom line and bring you peace of mind.

Building on interaction

As part of our long-term relationship with our customers, we have accumulated extensive knowledge of a wide diversity of processes, needs and objectives. This gives us the flexibility to adapt and efficiently produce customized compressed air solutions that meet and exceed your expectations.

A committed business partner

With a presence in over 170 countries, we will deliver high-quality customer service anywhere, anytime. Our highly skilled technicians are available 24/7 and are supported by an efficient logistics organization, ensuring fast delivery of genuine spare parts when you need them. We are committed to providing the best possible know-how and technology to help your company produce, grow, and succeed. With Atlas Copco you can rest assured that your superior productivity is our first concern!

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Atlas Copco

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