

The Atlas Copco logo is displayed in white text on a blue rectangular background in the top right corner of the image.A technical drawing of a compressor is overlaid on a blue triangular graphic in the bottom left corner. The drawing shows various components and dimensions, including labels like '12.201.000.1', 'C-C(1-3)', and several diameter and length measurements such as 'Ø70', 'Ø72', 'Ø78', '10.5', '18.5', '30.4', and '4.8'.

Oil-free tooth compressor

ZT 15-45 & ZT 18-55 VSD



Setting the standard in energy efficiency, safety and reliability

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

Pioneering the development of Oil-Free air technology

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. Through continuous research and development, we achieved a new milestone, setting the standard for air purity as the first manufacturer to be awarded ISO 8573-1 CLASS 0 certification. CLASS 0 certification means zero risk of oil contamination from our products.

First in ISO 8573-1 (2010) CLASS 0

With Atlas Copco, you eliminate the risk of oil contamination from the compressor. Why risk damaged or unsafe products, losses from operational downtime or jeopardizing your company's well-earned reputation? When tested across a range of temperatures and pressures, no traces of oil were found in the output air stream from our products, our compressors and blowers even surpassed TÜV's stringent standards. The ISO 8573-1 CLASS 0 certification means, zero risk of our products contaminating the compressed air. This means we won't damage your company's hard-won professional reputation due to oil contamination from our oil-free products.

Reduced energy costs

As energy accounts for more than 70% of a compressor's lifecycle costs (LCC), its importance is obvious. The most cost-effective compressed air solution optimizes the pressure, volume and air treatment equipment for each production process. Our ZT compressors provide you with the ultimate all-in-one package to decrease your electricity bill by an average of 35%. To help you save energy, regardless of whether you require a low or high-capacity compressor, our VSD range has been expanded with the ZT 18 VSD and the ZT 55 VSD.

Proven peace of mind

For sixty years, Atlas Copco has been leading the industry in oil-free compressed air technology, drawing on vast experience and continuous technological innovations. You can rest assured at all times: severe certification and testing procedures are conducted to ensure air is supplied to the highest standards of quality control. Backed by extensive know-how in the field of developing the most reliable quality air solutions, we are the only manufacturer that offers such a vast range of different technologies to match your exact needs. This ensures that you can always find the perfect solution for your specific application.



Applications

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



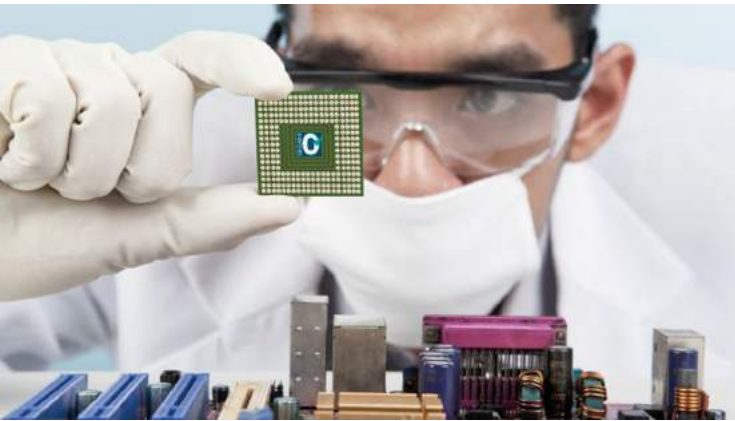
Pharmaceuticals

- 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 risks and maintains high product quality and professional brand reputation.

Food & beverage

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





— **Electronics**

- Clean, dry, high-quality air is essential, produced with optimal energy efficiency.
- Applications include the removal of microscopic debris from the surfaces of computer chips and computer boards.

— **Health care**

- Ideal for hospitals, dental practices, veterinary labs or clinical work environments where maximum reliability is the main priority.
- Ultra-clean air to successfully perform clinical work and make sure your equipment functions effectively.

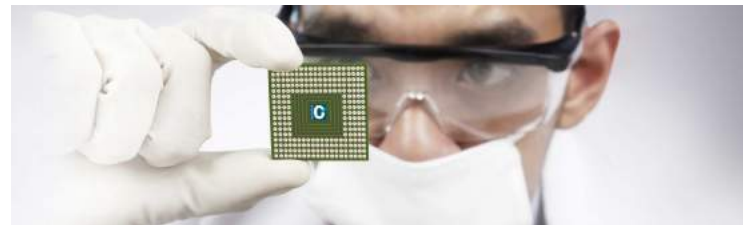


Air Quality

Quality of compressed air is paramount in many different segments: pharmaceutical manufacturing and packaging, medical sector, chemical and petrochemical processing, food and beverage, semiconductor and electronic manufacturing, textile manufacturing, automotive paint spraying, and many more. For all end products and production processes with high demands on compressed air quality, the international standard ISO8573:2010 has been developed. The 3 most used contaminants specified ISO8573:2010 are solid particles, humidity or pressure dew point and Volatile Organic Compounds or VOC, also referred to as total oil content.

Why quality air?

Contamination of a production process can be extremely costly, both in down time and scrap costs of products. Mitigating risks of contamination therefore directly impacts total cost of ownership. And it has a positive impact on the environment in the process.



Class 0: The Industry Standard

As the industry leader we are committed to meet the most stringent needs of our customers. That is why Atlas Copco has requested the renowned TÜV institute to type-test its range of oil free compressors. They have tested those machines for total oil content according to test methods specified in the standard ISO8573-1. This resulted in a TÜV ISO 8573-1 CLASS 0 certification for total oil content over the entire Atlas Copco Oil-free compressor.

ISO 22000

ISO 22000 is a management system for food safety. Atlas Copco is among a few compressor manufacturers to have their oil free compressors and related dryers and filters certified for ISO 22000 by Lloyds Register Quality Assurance.



A dryer for your air quality needs

Our range of air dryers protect your systems and processes in a reliable, energy-efficient and cost-effective way.

Protecting your systems and processes

Treated air helps prevent pipework corrosion, product spoilage and premature failure of pneumatic equipment.

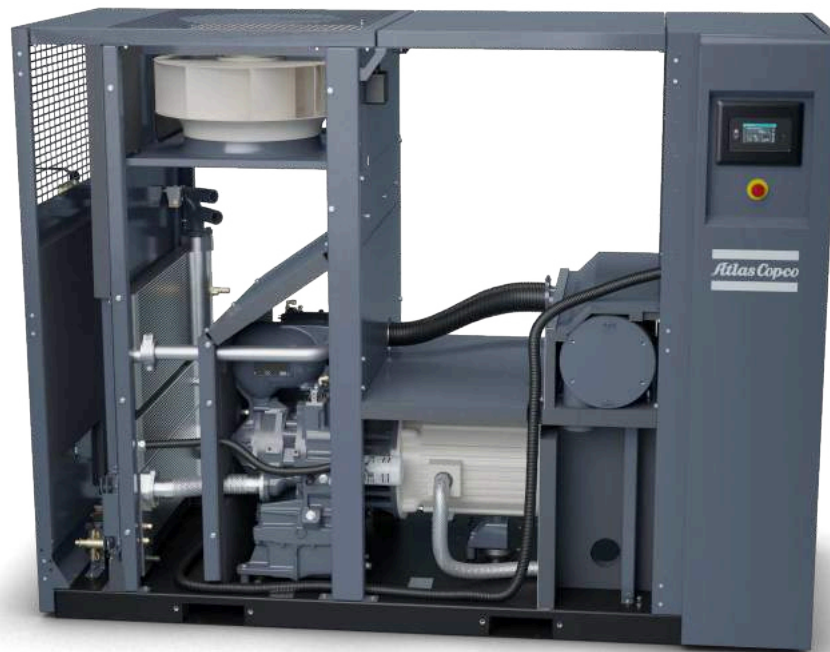
Maintaining the quality of your end product

A complete range of products with dew points from +3 to -70 °C to ensure the correct air quality for your application.

Energy-efficient air dryers

All our air dryers are designed to perform in the most energy-efficient and environmentally friendly way.

ZT 55 VSD



Oil-free Tooth Element

Our oil free tooth elements have a supreme track record of proven reliability and durability. Combined with competitive efficiencies, they make the ZT range the best choice in this power range of oil free compressors.

Advance touch screen monitoring system

The next-generation Elektronikon® operating system offers a great variety of control and monitoring features that allow you to increase your compressor's efficiency and reliability thanks to the many embedded advanced control algorithms.

Mechanical Drive System

Our recently introduced super premium efficiency IE3 class motor, combined with a gear box design that has proven its extreme reliability, this ZT range is equipped with a highly efficient and reliable mechanical drive system.

Optimal control

On our VSD variants, we are using our in-house designed highly efficient NEOS frequency converters. Neos frequency converters are built into a cubicle that ensures stable operation up to 50°C/122°F. We combine the NEOS frequency converter with electric motors that have been specifically designed for VSD use, also on low motor speeds with attention for motor and compressor cooling. All Atlas Copco VSD compressors are tested and certified for Electro Magnetic Compliance. Compressor operation does not influence external sources and vice versa. Our VSD compressors can range between 30-100% of the maximum capacity (turndown 70%). Between minimum and maximum motor speed, the motor can run on every speed (there are no resonance frequencies that need to be avoided), so that stable net pressure and energy savings are ensured.

Cooling

ZT VSD compressors are provided with an air-cooled oil cooler, an intercooler and an aftercooler. An electric motor driven fan generates the cooling air.

Plug & play package

Our ZT are designed for easy installation and maintenance. No unnecessary interlinking of extra components, so no extra risks for downtime.

Compact design

The ZT compressor is designed to have the smallest footprint possible. This way you save valuable space in your compressor room.

Soundproof design

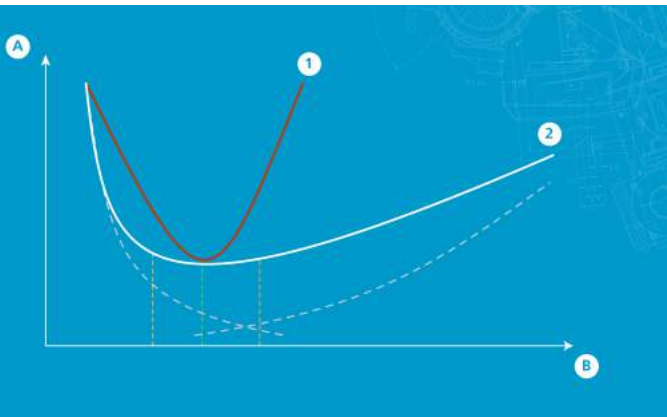
The ZT compressor comes with a sound insulated canopy. No separate compressor room is required. It allows for installation in most working environments.

Ease of maintenance

Components in the compressor are strategically placed for ease of access.

Efficiency

Typically, the investment and installation of a compressor represents about 15% of the total life cycle cost of a compressor, calculated over 10 years. Maintenance represents another 15%, while the energy consumption represents 70%. It is easy to understand that energy efficiency is important. Every percent that can be gained in efficiency will have a direct impact on the life cycle cost of your compressor. While being utterly reliable, our ZT 15-55 (VSD) and ZR 30-55 (VSD) are also competitive in terms of efficiency. These are the highest contributors to the efficiency of this machine range:



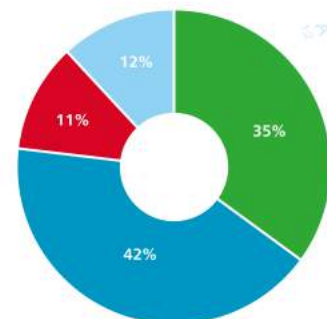
Variable Speed Drive

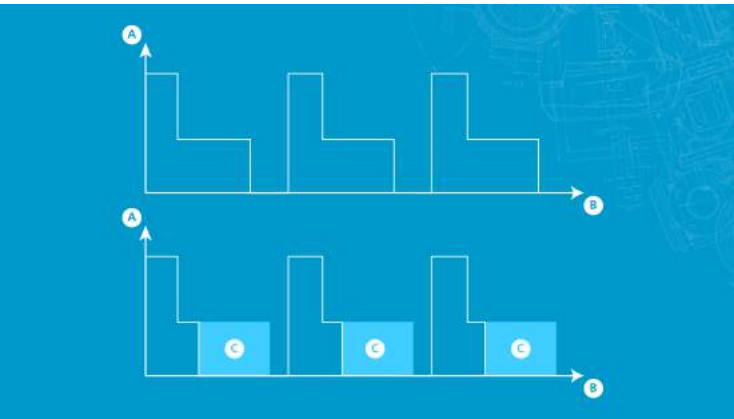
VSD

A Variable Speed Drive (VSD) compressor automatically adjusts its motor speed to the air demand. Applications have a varying air demand. That is why Atlas Copco pioneered the Variable Speed Drive (VSD) technology for compressors to make sure that your system gets the right amount of air.

Save energy with a VSD

Adding one or more VSD machines to your compressed air installation will greatly improve the energy efficiency of the complete system, with energy savings easily up to 35%.





Delayed Second Stop

DSS

The Elektronikon® compressor monitoring system saves energy by using delayed second stop to stop the compressor whenever possible. dual pressure band. Using either the standard or graphic Elektronikon® controller, you can manually or automatically create two different system pressure bands to optimize energy use and reduce costs at low use times. In addition, the sophisticated Delayed Second Stop (DSS) runs the drive motor only when needed.

Oil-free tooth element

Oil free tooth technology remains very competitive among the dry compression technologies for this power range in terms of efficiency. They make ZT 15-55 the best choice in this power range of oil free compressors.





Advanced Control Algorithms

The Elektronikon compressor monitoring system saves energy by using advanced control algorithms:

Delayed Second Stop (DSS): in traditional fixed speed machines (load/unload), when a compressor reaches the unload pressure, the machine will be kept running in unload for a fixed time, to prevent too frequent starting and causing the electrical motor to overheat. Our sophisticated Delayed Second Stop (DSS) will take the running conditions of the machine into account and will allow the machine to stop if no frequent motor starts preceded. This will generate major savings compared to traditional load/unload compressors.

Timer Functions: stop your machines when no air is needed. Often, machines are kept running over night and during weekends, even if there is no need for compressed air during these times. The timer function on our compressors can easily fix this.

Dual pressure band: even if compressed air is needed during nights and weekends, often, the required pressure is lower during these times. Implementing a dual pressure band with lower settings during nights and weekends will save loads of energy.

IE3 Motors

- Flange-mounted for perfect alignment.
- Available in two versions: IP55 for VSD models and IE for fixed speed models.
- The dry motor coupling requires no lubrication, eliminating service requirements.





Multiple Machine Control:

Any installation with 3 or more machines will benefit from a central controller. This can be our optional built in control algorithm EQ4i/EQ6i, our advanced sequencer, Equalizer 4.0 or our advanced controller, Optimizer 4.0. Each have their benefits for their typical target installations. But one thing they all have in common: they will control your installation in a more efficient way than the individual machines with individual settings can.



smart AIR solutions

Only a complete compressed air system is an energy efficient and reliable solution that delivers the correct compressed air quality. That is why we call our solutions smart AIR solutions.





1. Central controllers

A key component in a smart AIR solution is a central controller. They will control a multiple compressor installation in a more efficient way than the individual machines can with their local settings. But they also provide you with connectivity solutions, whether it is to disclose the controls to any device in your LAN, add advanced local visualization features, connect to your SCADA system or to our unique connectivity solution SMARTLINK, which will give you unique insights and provide you with suggestions and solutions for improved uptime or energy efficiency. A central controller is like a conductor of an orchestra: it will take the best of the individual components of your installation and makes sure everything stays in tune, while providing extra transparency that would otherwise take major efforts to be gained.



2. Energy efficient and reliable compressors

All smart AIR solutions start with picking the correct components in the correct combination. Choosing energy efficient compressors, paying special attention to the mix of compressors will be a major contributor to a smart AIR solution.

Our sound proof design contributes to a better working environment around the compressors.

Our compressors have been designed with maintenance in mind, reducing the downtime of machines and improving availability of compressed air.



3. Variable Speed Drive (VSD) compressors

Compressed air demand of most applications varies widely. Adding one or multiple VSD compressors to the installation will greatly help to improve energy efficiency of the total installation, stability of compressed air pressure and reliability, thanks to more stable regime of each machine.

4. Ventilation

Compressors generate heat. Adequate evacuation of this heat will ensure favorable working conditions for compressors and dryers alike.

5. Air receiver

Even with a Variable Speed Drive compressor, having an appropriately sized buffer tank for compressed air will help smoothing the variation in demand and allow compressors to work in more stable operating conditions, thus helping both energy efficiency and reliability.



6. Compressed air dryers

The correct choice of dryer technology corresponding to the compressed air quality requirements is detrimental to a reliable and energy efficient compressed air installation. The choice for integrated dryers – our full feature concept – will have 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. And look at the major space saving full feature machines can bring. Smart AIR solutions have impact on every aspect of your compressed air installation.

7. Compressed air filters

Also the correct filter grade in correspondence with air quality requirements will be an important contributor in a smart AIR solution. This goes hand in hand with correct maintenance of the filters, as incorrectly maintained filters will jeopardize both the reliability of your installation as the energy efficiency.



8. Air Distribution Net

Most factories grow organically over time. With every extension, there is an increasing risk introduced in the air distribution net: undersized and heavily corroded pipes, restrictions, massive leakages. Whenever a compressed air system is audited, it is common to find massive opportunities there.

Atlas Copco's unique AIRNET pipe system will deal with all of these: our sizing tools and assistance from our engineering team will help to size the distribution net correctly. And with a choice of aluminum, plastic and stainless steel components, there's no need to fear for corrosion over time. And there is no need to worry about leakages, as all couplings have proven leak tight over time. AIRNET comes with a guarantee of 10 years, that is how much we believe in our solution.

Optimize your system

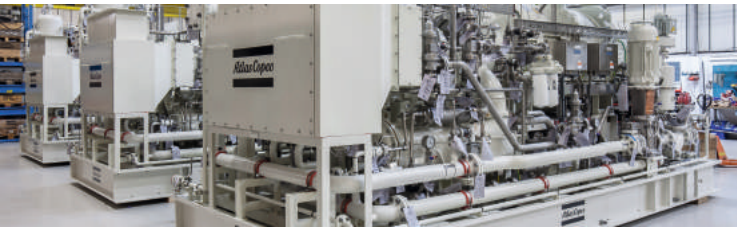
With the ZT, Atlas Copco provides an all-in-one standard package incorporating the latest technology in a built-to-last design. To further optimize your ZT's performance or to simply tailor it to your specific production environment, optional features are available.

Options

Witness test	•
Test certificate	•

Please note the availability of the option depends on the chosen configuration

Engineered solutions



Engineered solutions

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

Innovative technology

All equipment is covered by our manufacturer warranty. The reliability, longevity and performance of our equipment will not be compromised. A global aftermarket operation employing 3600 field service engineers in 160 countries ensures reliable maintenance by Atlas Copco as part of a local service operation.



Innovative engineering

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



Service



Total solutions provider

Atlas Copco is more than a manufacturer of compressors. Whether you're looking to buy equipment or for installation of equipment, adaptation of installations, auditing your installation, delivery spare parts, performing maintenance, have your installation covered under any level of service plan or further optimize your installation, Atlas Copco is your one stop shop for all of it. Without the risk of ending up between two discussing suppliers about responsibility, without you having to worry about planning all the different activities.

Atlas Copco can take care of it all, so that you can focus on your core business.

Installation

With our Full Feature concept, you buy simplified installation: not only the compressor, but also dryer and many of the options can be built into one package. This not only saves you valuable floor space, it drastically simplifies installation, saving time and money for contractors to execute work for connecting different components mechanically and electrically.





Total Responsibility Plan

What does it take to keep your equipment running in the most optimal conditions? As compressed air experts we know. All that knowledge, we have put into a comprehensive service plan called Total Responsibility. As the name suggests, Total Responsibility takes care of it all, from preventative maintenance, covering the risk of breakdowns and solving the problem if a breakdown occurs up to performing complete overhauls if and when needed.

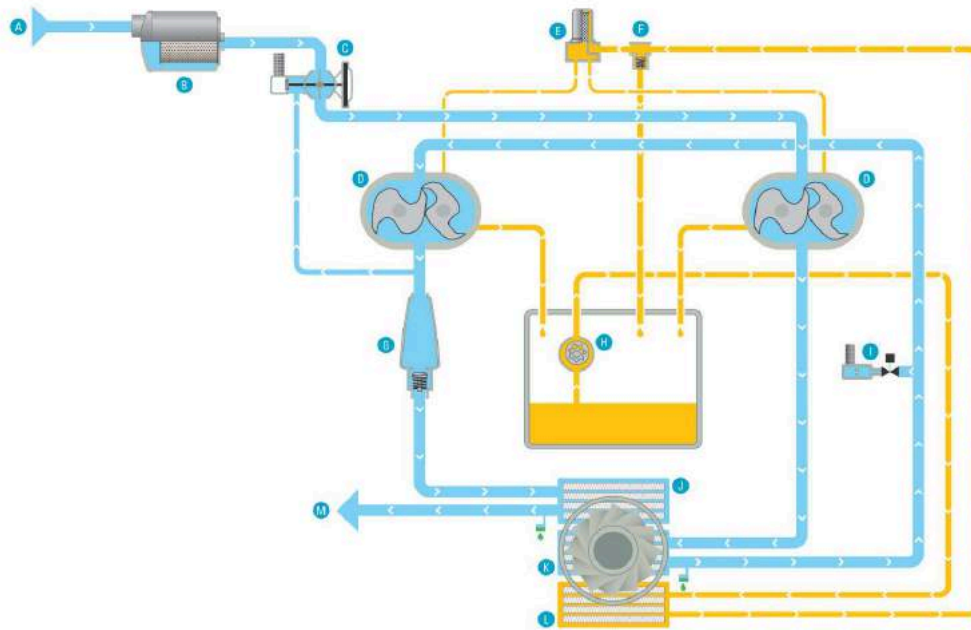
AIRScan

As an energy conscious buyer, you have bought the most 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. Atlas Copco has a world-wide network of trained employees to do measurements, analyze the results and propose improvements. What sets Atlas Copco apart from most of their competitors, is that we have put our knowledge and experience as compressed air specialists in the development of a simulation software called AIRchitect. Thanks to this software, the recommendations we make from an AIRScan audit are not just ball park figures, they are realistic simulations of how your installation will perform after improvement. These tangible savings you will get as energy savings, money saved, and CO2 emissions decreased.



Flowcharts

ZT 15-55 (VSD)



Technical specifications

Technical specifications

ZT 15-22, ZT 30-45

Type	Free air delivery (1)			Installed motor		Noise level dB(A) (2)	Weight without dryer (3)	
	l/s	m ³ /min	cfm	kW	hp		kg	lbs
Air-cooled								
ZT 15 - 7.5	38.1	2.3	80.7					
ZT 15 - 8.6	35.5	2.1	75.2	15	20	68	1025	2260
ZT 15 - 10	30.4	1.8	64.4					
ZT 18 - 7,5	48.6	2.9	103.0					
ZT 18 - 8,6	46.4	2.8	98.3	18	24	70	1050	2315
ZT 18 - 10	36.7	2.2	77.8					
ZT 22 - 7,5	59.6	3.6	126.3					
ZT 22 - 8,6	54.0	3.2	114.4	22	30	72	1065	2348
ZT 22 - 10	45.6	2.7	96.6					
ZT 30 - 7,5	78.8	4.7	167.0					
ZT 30 - 8,6	73.9	4.4	156.6	30	40	69	1280	2822
ZT 37 - 7,5	96.6	5.8	204.7					
ZT 37 - 8.6	92.3	5.5	196.6	37	50	71	1355	2897
ZT 45 - 7,5	114.3	6.9	242.2					
ZT 45 - 8,6	108.9	6.5	230.7	45	60	73	1385	3053

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

Reference conditions:

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

FAD is measured at the following working pressures:

- 7.5 bar versions at 7 bar.
- 8.6 bar versions at 8 bar.
- 10 bar versions at 9,5 bar.

For VSD at 7 bar

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

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

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

(3) Integrated dryers will increase the weight.

Technical specifications

Technical specifications

ZT 18-22 VSD, ZT 30-55 VSD

Type	Working pressure		Free air delivery (1)			Installed motor		Noise level dB(A) (3)	Weigh without dryer (3)	
		bar(e)	l/s	m ³ /min	cfm	kW	hp		kg	lbs
Air-cooled										
ZT 18 VSD - 10	Minimum	4	21.5-41.7	1.3-2.5	45.6-88.3	18	24	72	1127	2484
	Effective	7	20.6-40.7	1.2-2.4	43.7-86.2					
	Maximum	10	19.7-38.2	1.2-2.3	41.8-80.9					
ZT 22 VSD - 10	Minimum	4	21.5 - 57.3	1.3 - 3.4	45.6 - 121.4	22	30	72	1120	2469
	Effective	7	20.6 - 56.4	1.2 - 3.4	43.6 - 119.5					
	Maximum	10	19.7 - 47.4	1.2 - 2.8	41.7 - 100.4					
ZT 30 VSD - 8.6	Minimum	4	42.4-81.1	2.5-4.9	89.9-171.8	30	40	74	1400	3086
	Effective	7	41.3-79.8	2.5-4.8	87.4-169.2					
	Maximum	10	41.2-79.1	2.5-4.6	87.2-161.3					
ZT 37 VSD - 8,6	Minimum	4	42.4 - 102.3	2.5 - 6.1	8.9 - 216.8	37	50	74	1430	3153
	Effective	7	41.3 - 101.2	2.5 - 6.1	87.5 - 214.4					
	Maximum	8,6	41.2 - 95.1	2.5 - 5.7	87.3 - 201.5					
ZT 45 VSD - 8.6	Minimum	4	42.4-119.8	2.5-7.2	89.9-253.7	45	60	75	1481	3265
	Effective	7	41.3-118.4	2.5-7.1	87.4-250.9					
	Maximum	8.6	41.1-112.7	2.5-7.1	87.2-238.8					
ZT 55 VSD - 8,6	Minimum	4	42.4 - 143.7	2.5 - 8.6	89.8 - 304.5	55	75	75	1485	3274
	Effective	7	41.3 - 142.5	2,5 - 8,3	87.5 - 301.9					
	Maximum	8,6	41.4 - 138.8	2.5 - 8.3	87.1 - 294.1					

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

Reference conditions:

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(3) Integrated dryers will increase the weight.

Technical specifications

Technical specifications

Dimensions

Type	Workplace					
	Length		Width		Height	
	mm	inch	mm	inch	mm	inch
ZT 15-22	1760	69.3	1026	40.4	1621	63.8
ZT 30-45	2005	78.9	1026	40.4	1880	74.0
ZT 18-22 VSD	2195	86.4	1026	40.4	1621	63.8
ZT 37-55 VSD	2440	96.1	1026	40.4	1880	74.0

