



Atlas Copco



Industrial Air Motors

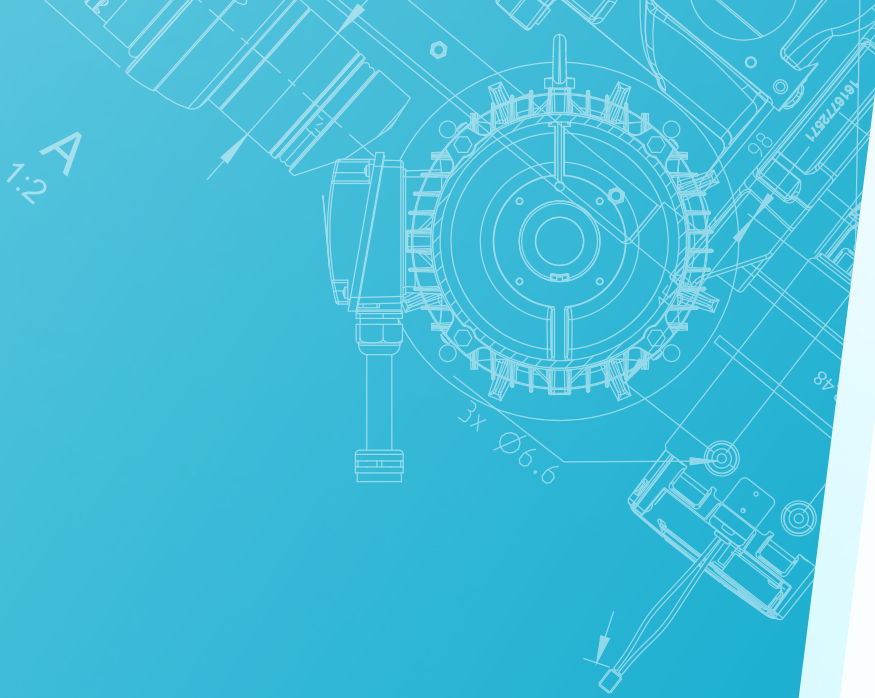
Drive solutions tailor-made for your designed machines in any industrial application

Atlas Copco Air motors and Drive Solutions – the choice for design engineers in the industries of today and tomorrow.

We offer one of the largest industrial motor ranges in the market, with industry-leading technology. Our pneumatic offer includes vane, piston, and turbine air motors, coupled with planetary and helical gear combinations.

- Leading the industry in development and innovation.
- Offering a comprehensive range of standard air motors.
- Customized air motors: A premier supplier of air motors engineered to meet customer requirements.
- Offering a truly worldwide service.





Introducing our Industrial Air Motor Range.

We bring the drive solutions to your designed machines in any industrial application

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**Our air motors are
ATEX certified,**

in our compliance with the European Union's ATEX directive 2014/34 EU.

For equipment used in potentially explosive environments.



Your ideal partner for success

We help you build your tomorrow's success TODAY



- ✓ Years of experience & extensive know-how
- ✓ Research & development
- ✓ Technical advice

- ✓ Broad catalog program: > 480 standard and > 400 customized solutions
- ✓ Reliability & high quality

- ✓ Worldwide presence with local support and service teams
- ✓ Sustainability - Certified ISO 14001:2015

Home of Industrial Ideas – More than 150 years of innovation

Atlas Copco has been developing industrial, sustainable solutions for a better future since 1873. For over five decades, we also represent technological progress when it comes to air motors.

As a long-standing strategic partner for the automotive industry, among others, where electrification and digitalization concepts relating to Industry 4.0 are already common practice, we have also continuously developed our industrial drive solutions accordingly.

Ultimately, Atlas Copco is committed to contributing to a better future. Sustainable operations therefore plays a central role. That is why we are committed to meeting science-based targets to reduce emissions in line with the Paris Climate Agreement.

We are acting accordingly to increase productivity and thus resource efficiency and drive forward more sustainable, circular manufacturing processes. These considerations are an essential part of the design and development of our products and solutions.

Together with our OEM partners we are bringing value to a broad array of applications and job requirements.



Despite constant developments in the field of drive solutions, the basic requirements remain the same: motors must operate safely, reliably and economically - regardless of whether they are powered by compressed air or electricity.

Our product portfolio is aimed precisely to meet these requirements.



The air motor is one of the toughest and most versatile power units available to today's design engineer. It is easy to control over a wide speed range, and it produces maximum torque where it is often most needed – at start up.

We offer **three air motor technologies**, ranging in power from 0,1 kW to 6,5 kW:

- **Vanes - A wide power range with multiple planetary and helical gear options**
Our LZB and LZL vane air motors are compact, lightweight and available with a host of different configurations to meet a variety of speed and torque requirements.

Air motor values and characteristics

- Air motors are compact and lightweight. An air motor weighs only a quarter as much and occupies only one sixth of the space of an electric motor of equivalent output power. Air motors develop far more power relative to size and weight than most other motor types.
- Air motors can be stalled indefinitely without overheating or sustaining any other damage. They can be started and stopped repeatedly to an unlimited extent.
- Torque, speed and direction of rotation can be changed easily using simple control methods.
- Output inherently adjusts to match the applied load.
- Controllable over a wide speed range.
- Virtually unaffected by hostile environment.
- Smooth start-up to minimize "shock" loading on transmission components.

→ **Pistons – Energy efficiency with low-speed controllability**

The PZB piston motor is quiet, efficient and features low speed and high starting torque features.

→ **Turbine – Energy efficient with unmatched power to weight ratio**

The TZB turbine motor is designed for high torque applications. The TZB keeps the speed stable even under heavy load.

LZB

Vane motors

The most versatile range of
Atlas Copco vane air motors



- Compact design
- Stainless steel range
- ATEX certified
- IP rating 66-69
- High power-to-volume ratio
- Excellent reliability
- Low air consumption
- Smooth operation
- Long vane life
- Lubrication-free
- Brake available

LZB vane motors are designed to provide high performance and high standards of reliability.

They are characterized by high power output and small physical size. This gives several advantages, such as high power-to-volume-ratio, low air consumption and long vane life.

Atlas Copco's LZB standard and LZB stainless steel motors run with lubrication-free vanes as standard.

LZB Vane motor range

Power: 0,11 kW to 3,1 kW

Stall Torque: 0,3 Nm to 969 Nm

Speed: 5 r/min to 21.500 r/min

Industries served

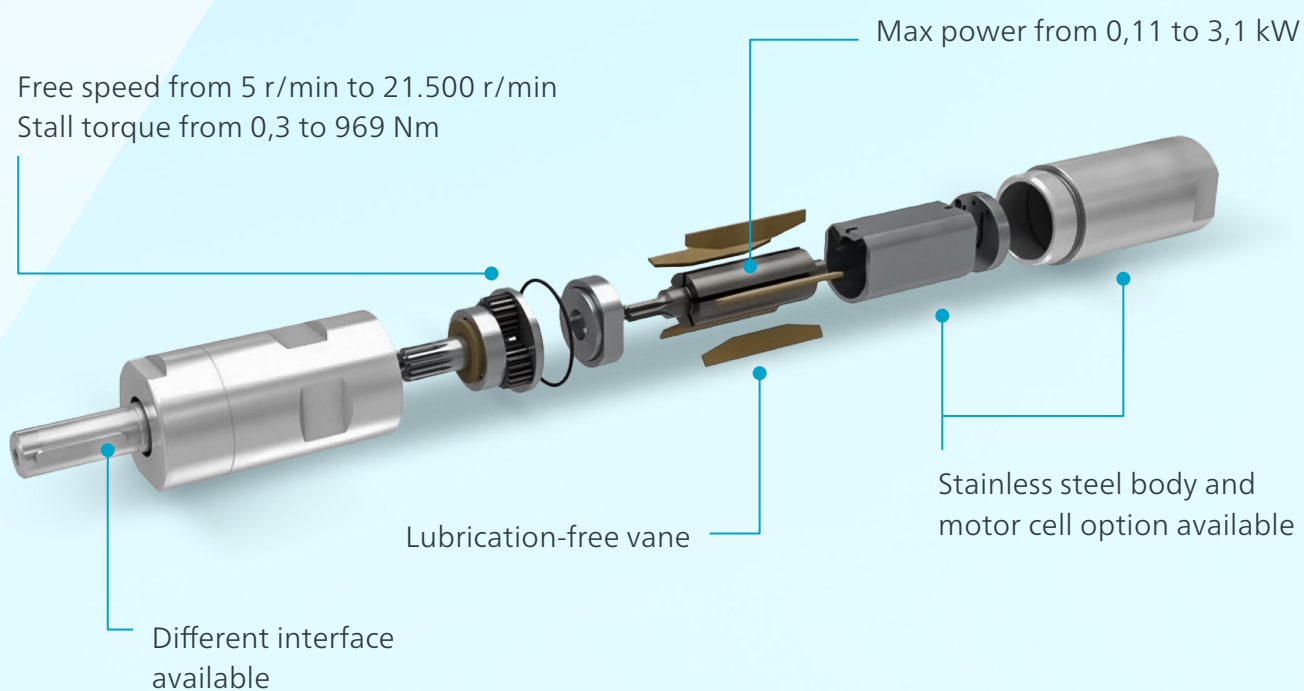
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- ✓ Machine tool builder ✓ Transport
- ✓ Food Processing ✓ Maintenance
- ✓ Chemical & Pharma ✓ Pipe Processing

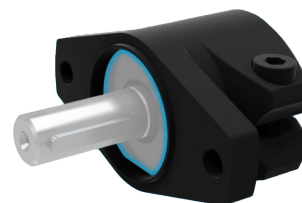
Product models &
accessories



Model	Number of references	Max output power [kW]	Free speed [r/min]	Stall torque [Nm]	Weight [kg]	Stainless steel model available	Brake option available
LZB14	30	0,11-0,16	490-19.500	0,3-9,6	0,3-0,4	✓	
LZB22	46	0,16-0,27	5-21.500	0,48-23,6	0,55-1,43	✓	
LZB33/LZB34	101	0,23-0,39	10-19.000	0,68-698	0,75-5,6	✓	✓
LZB42	24	0,5-0,71	33-19.000	1,3-544	1,2-4,9		
LZB46	68	0,59-0,84	35-20.000	1,42-598	1,2-4,9	✓	
LZB54	51	0,79-1,2	90-17.500	2,3-322	2,4-6,4	✓	✓
LZB66	40	1,41-1,87	90-16.000	3,8-616	2,8-8,3	✓	
LZB78	20	2,8-3,1	110-2.850	39-969	8-8,7		

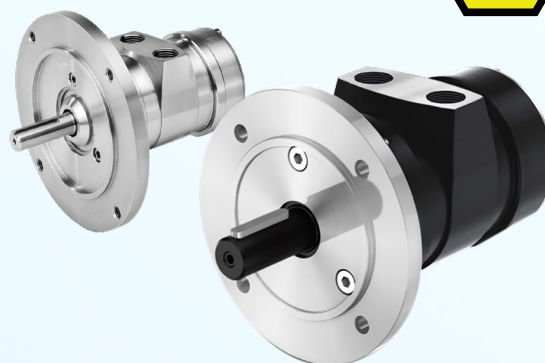


**Mounting
option**



LZL

Vane motors



High starting torque and stable at speed



- Low noise level
- High power-to-weight-ratio

- Lubrication-free
- Long service life
- ATEX certified

- Speed-sensor adaptation ready for LZL03 and LZL05
- Stainless steel available

LZL vane motors are available in five sizes, offering outputs from 0,41 kW to 6,5 kW. They are designed to give outstanding starting and low speed performance. This is achieved by using a six vane motor and by optimum vane/cylinder sealing – obtained through a combination of ‘vane air’ and interconnecting pins.

Featuring few components, these motors are ruggedly constructed and offer a long service life. The power motors are designed to give highest power and still maintain good low speed characteristics. These motors are delivered with lube-free vanes and can therefore operate without lubrication.

Stainless steel motors are available in the size LZL05 and LZL15.

Low to medium speed motors (M):

These motors are, among other applications, ideal for mixing.

LZL Vane motor range

Power: 0,41 kW to 6,5 kW

Stall Torque: 3,3 Nm to 40 Nm

Speed: 100 r/min to 11.000 r/min

LZL combined with helical gear

60 Nm to 3738 Nm

Industries served

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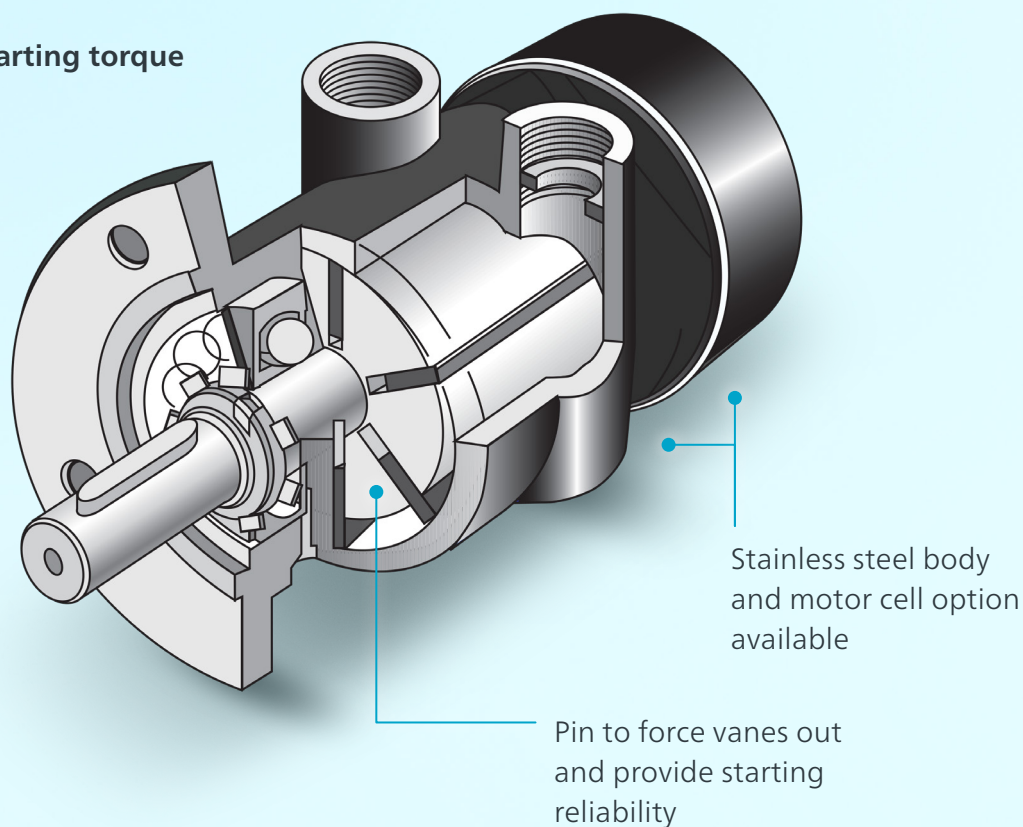
- ✓ Machine tool builder
- ✓ Food Processing
- ✓ Chemical & Pharma

Product models & accessories



Model	Number of references	Max output power [kW]	Max allowed speed [r/min]	Starting torque [Nm]	Stall torque [Nm]	Weight [kg]	Stainless steel model available	Speed-sensor adaptation possible
LZL03	3	1,05-1,7	11000	2,8	3,8	2,9 + 3,9		✓
LZL03-M	3	0,41-1,0	3000	2,8	3,3	2,9 + 3,9		
LZL05	4	1,3-2,1	9000	4,8	5,8	3,9-6,1	✓	✓
LZL05-M	3	0,63-1,7	3000	4,8	5,8	3,9 + 4,9		
LZL15	3	2,3-3,2	7000	10,9	13	7,1-8,3	✓	
LZL25	2	3,4-5,0	5800	18	23	11,3-15,2		
LZL35	2	5,2-6,5	5000	32	40	20		

**6 vanes for high starting torque
2,8 to 32 Nm**



Gear option

Combined with helical gear units, LZL vane air motors can be used over a very wide range of torque (60 to 3.738 Nm) and speed (512 to 17 r/min)



PZB

Piston air motors



Best control at low speed



- Compact design
- Different mounting options
- Easy to install
- Stainless steel version available
- Lubrication-free
- ATEX certified
- Speed-sensor adaptation ready
- Optimized for low speeds

The PZB range of piston air motors is energy efficient and has unique low speed and high starting torque features, adding value in many applications. The compact design and flange configurations make it easy to install. The PZB air motor is ATEX certified and operates without lubrication, making it ideal for white room and chemical, as well as automation and handling applications.

PZB motors offer a remarkable energy-saving advantage, consuming 25 % to 40% less energy compared to vane pneumatic motors and are available in three sizes, offering outputs from 90 W to 210 W.

Benefits

- Energy efficient and stable at low-speeds
- Low air consumption
- Low noise levels
- Long service life

PZB piston motor range

Power: 0,09 kW to 0,21 kW

Stall Torque: 4,8 Nm to 16,5 Nm

Speed: < 50 r/min to 500 r/min

Industries served

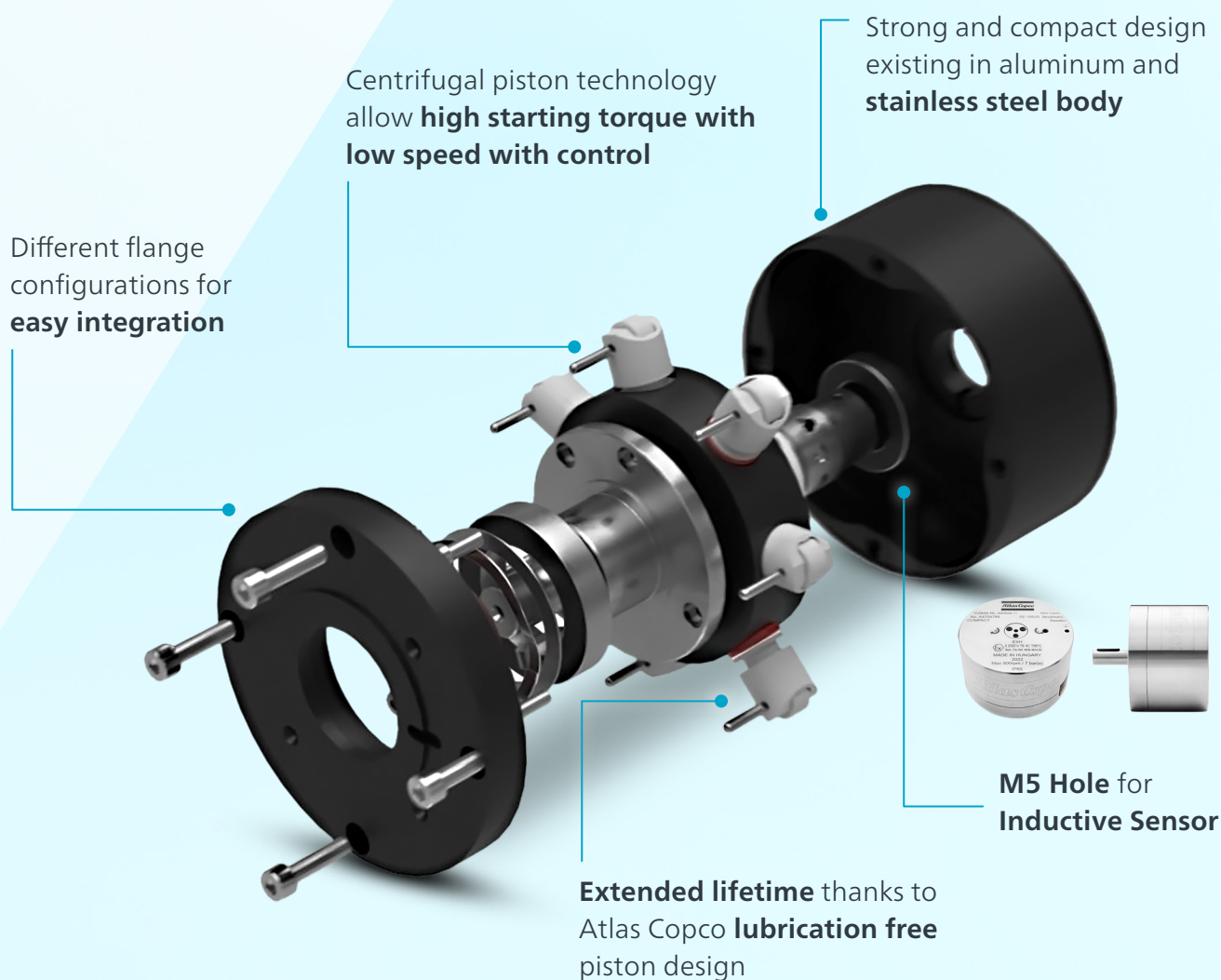
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- ✓ Machine tool builder ✓ Transport
- ✓ Food Processing ✓ Chemical & Pharma

Product models & accessories



Model	Numbre of references	Max output power [kW]	Max allowed speed [r/min]	Stall torque [Nm]	Weight [kg]	Stainless steel model available	Speed-sensor adaptation possible
PZB09	8	0,09	500	4,8	1,2-1,7	✓	✓
PZB15	8	0,12	500	7,6	1,4-1,9	✓	✓
PZB21	4	0,21	300	16,5	3,5-5,5		✓



Contributing to the SUSTAINABILITY - TOGETHER

Taking action for the planet has never been easier!



Atlas Copco PZB piston pneumatic motors offer a remarkable energy-saving advantage, **consuming 25% to 40% less energy** compared to vane pneumatic motors. With improved energy efficiency and an extended lifespan and easiness of installation, choosing a PZB piston motor will contribute to the effective reduction of CO₂ emissions while optimizing your operational processes.

TZB

Turbine air motors



Save energy with constant speed application



- Low noise level
- Lubrication-free
- Long service life
- ATEX certified
- High power-to-weight-ratio
- Governor for speed control
- Stable speed under load
- High efficiency
- Energy saving

The TZB turbine air motor has a compact design with two mounting options for easy installation as standard.

The turbine air motor is 40% more efficient than a traditional type of air motor using vane technology.

Available in clockwise and counterclockwise direction. The TZB has the best power-to-weight-ratio and is geared for high torque applications and capable of maintaining stable speed under load.

It is geared for high torque applications and capable of maintaining stable speed under load.

Designed and built for tough applications, the TZB outlasts and outperforms. A turbine motor that brings innovation and efficiency in tough applications.

The turbine technology in the TZB range offer the most efficient use of compressed air. The motor also contains a speed governor that ensures stable speed even when the load increases.

TZB turbine motor range

Power: 2,7-2,8 kW

Stall Torque: 105 Nm-700 Nm

Speed: 70 r/min to 500 r/min

Industries served

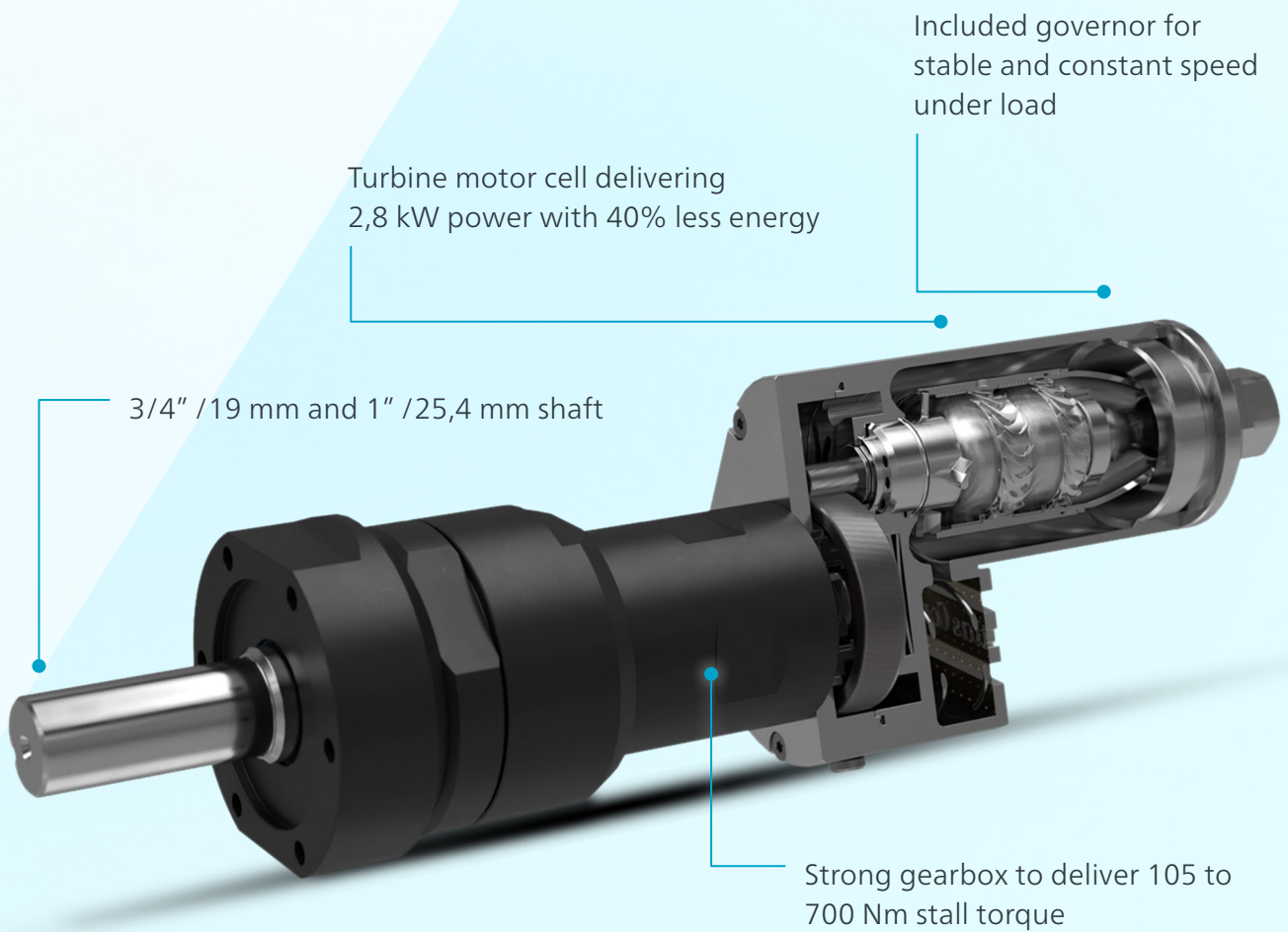
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- ✓ Maintenance
- ✓ Pipe Processing

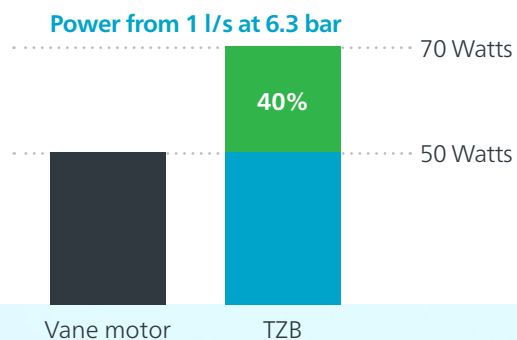
Product models & accessories



Model	Numbre of references	Max output power [kW]	Free speed [r/min]	Stall torque [Nm]	Weight [kg]	Output Shaft
TZB25	8	2,7-2,8	80-530	105-700	3,5-5,3	3/4"
TZB25	8	2,7-2,8	80-530	105-700	3,5-5,6	1"



Efficiency gain



Our Industrial Drive Solutions serve customers in various industries and applications



Food processing

Maintain health and safety standards in food processing with our high-quality stainless steel, rust-free motors. Atlas Copco air motors are ATEX certified, equipped with food-grade grease, and feature lubrication-free technology. Built to withstand corrosive cleaning detergents, our stainless steel range ensures durability and compliance with industry needs.

Application examples:

- | | | |
|-------------|------------|-------------|
| → Mixing | → Slicing | → Filling |
| → Blending | → Shaving | → Metering |
| → Agitating | → Cleaning | → Actuating |



Chemical and Pharmaceutical

The air motors used in chemical and pharmaceutical applications need to be resistant to excessive moisture and chemical exposure, and a high level of controllability is also required. We offer flange mounting options in foot, flange, IEC and Nema as standard.

Application examples:

- | | | |
|------------|-------------------|-----------|
| → Mixing | → Agitating | → Skimmer |
| → Blending | → Valve actuation | → Pumping |



Maintenance industry

The tools and machinery used in the maintenance industry need to be durable and reliable with applications including high pressure water blasting robots, pipe rehabilitation robots, chemical spray systems, etc., even in wet and rough environments.

Application examples:

- | | | |
|------------|---------------------|--|
| → Blasting | → Magnetic drilling | → Machining, e.g. cement spraying machines |
| → Cleaning | → Washing | |
| → Dressing | | |



Transportation industry

In transport applications, our air motors are used to transport material in a factory or production line. This includes material handling, carriages, trolleys, rollers, conveyors, hose reels, and many other applications.

Application examples:

- Manipulator arm
- Transaction trolley
- Reel
- Conveyor
- Tensioners



Pipe processing

Get the most out of your pipe preparation tools: All Atlas Copco air motors are specifically designed with IP classification and ATEX certification for the demand of the energy industry. Our durable and extensive motor range offers class-leading performance in any challenging job. They can be customized to have twist wring or lever for portable or handheld operations.

Application examples:

- Orbital cutter
- Split frame
- Flange facer
- Beveler
- Hot tapping
- Boiler gun
- Valve exerciser
- Valve actuator
- Saw
- Line boring



Machine tool builders

Air motors are a reliable choice for machine tool builders, offering a high power-to-weight ratio, durability, and versatility. With smooth operation even in hazardous environments and minimal maintenance requirements, they enhance productivity and efficiency.

Application examples:

- Fan
- Windows assembly
- Carpet cutter
- Tire machine
- Foil winding
- Sewing machine
- Textile cutting
- Textile Machine
- Handheld Tools
- Automatic Blanket washer
- Printing Machine
- Paper maker

How we can Tailor for Your Success?

If you cannot find what you need in the market?
We can make one just for you!



We are proposing tailored and customized motors to offer the best efficiency for integration into various equipment.

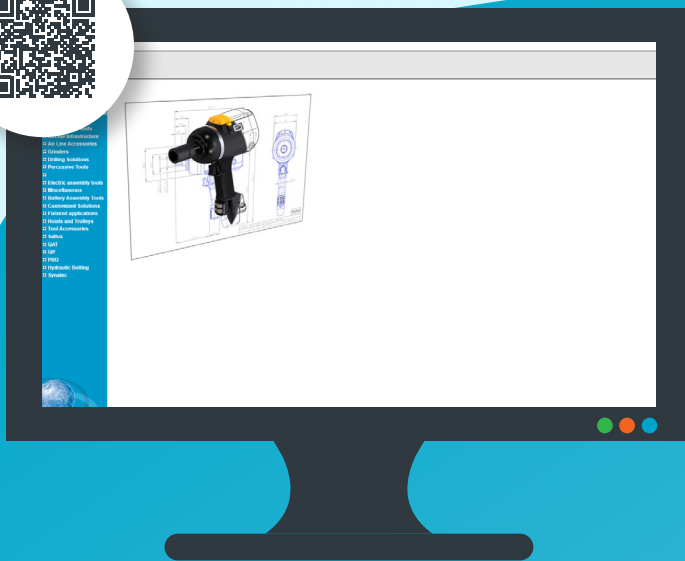
Our expert sales and engineering teams will assist you in specifying and realizing your project.

Atlas Copco is committed to working with customer to find the best solutions for their unique demands and offers ATEX-certified options for improved safety and functionality.



How we can Support MORE?

- ✓ Customised solution
- ✓ ATEX safety and sustainability
- ✓ 2D and 3D drawing library
- ✓ Online air motor selector



Select the right motor and download your required drawings

Download the dimensional drawings in 2D or 3D available at:

 webbox.atlascopco.com/webbox/dimdrw

Available formats:

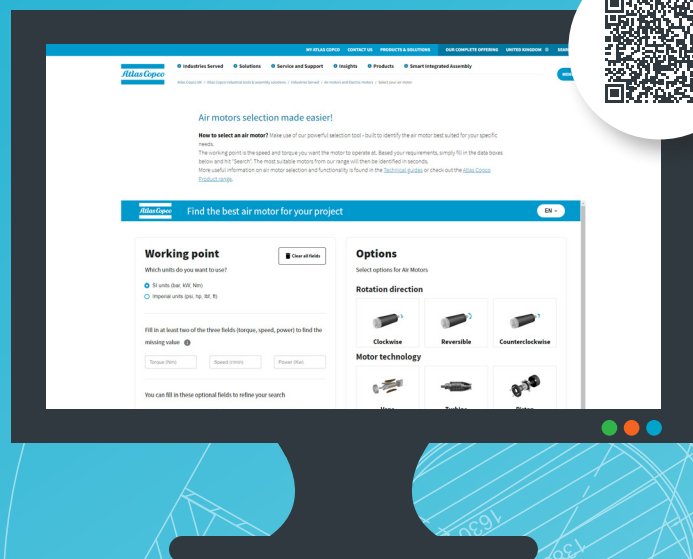


Selecting the right motor has never been easier!

Just enter the required working point for the application and the most suitable motor will automatically be selected.

Our air motor selection program is available at:

 www.atlascopco.com/en-uk/itba/industry-solutions/airmotors/air-motor-selection-tool



Need an air motor? Leave it to us!
Atlas Copco air motor experts will help you find
the best air motor solution for your application.



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