

The Atlas Copco logo is positioned in the top right corner of the image. It consists of the brand name "Atlas Copco" in a white, serif font, centered between two horizontal white bars. The background of the logo is a solid teal color.A large, semi-transparent teal graphic is overlaid on the bottom left of the image. It features a technical drawing of a circular mechanical component, possibly a compressor or blower, with various dimensions and labels. The drawing is white and includes lines, circles, and text such as "13601 (24-3)", "16301 (24-2)", "C-C(1.3)", "Ø1.0", "Ø1.2", "Ø1.2", "10.8", "10.5", "30.8", and "4.18".

A perfect fit for your business

Oil-free air blowers & low pressure compressors

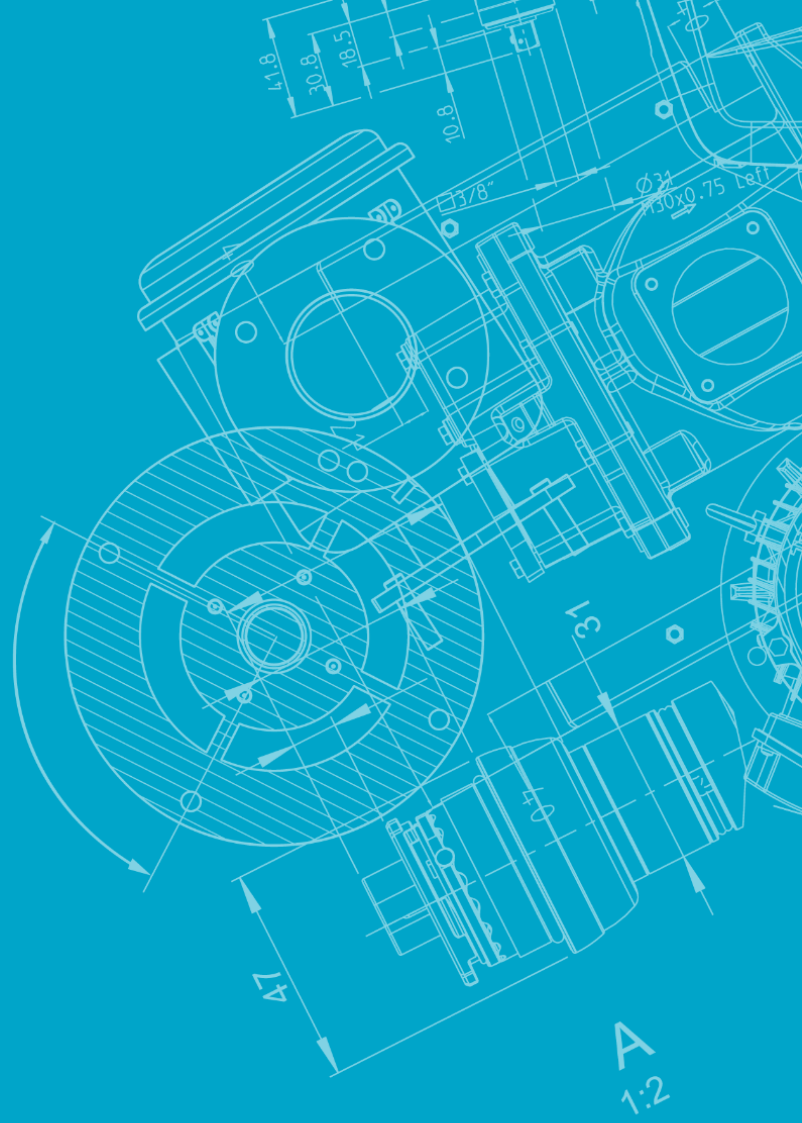


Table of content

1

01-Front cover

3

02-Introduction

5

03-Our portfolio

8

04-Applications

13

05-Monitoring &
control

15

06-Services

18

07-Back cover

Low pressure technologies for sustainable production

Did you know that you can make significant energy savings by choosing the right type and size of compressor for your needs? Many industries – including wastewater treatment, cement, food and beverage, mining, energy, oil and gas, aquaculture, and more – depend on pressures between 0.3 and 4 bar(g) and can benefit greatly from technologies that adapt to demand. Our low pressure range is engineered to match the exact pressure and flow requirements of your application, helping you to manage your energy costs and operate more sustainably.





Cost savings

Variable Speed Drive technology (VSD) adapts the system pressure to demand, effectively reducing the lifecycle cost of your blower or low pressure compressor by 22% through energy savings.



Easy monitoring and maintenance

Control and monitoring are optimized to help you minimize energy consumption and stay ahead of any maintenance requirements.



Reliable service

We maintain a worldwide service network so that there is always a technician nearby to help keep your installation running smoothly and prevent costly downtime.



Extensive portfolio

With a wide selection of low pressure equipment and experience in numerous industries, we can perfectly match the needs of your process.



Comprehensive services

To keep your operation running smoothly, we offer a range of service plans covering repairs, preventive maintenance, spare parts and more.



A comprehensive portfolio to match your needs

We offer a complete range of low pressure air technologies. This gives you the flexibility to choose the right compressor or blower size (depending on, among other things, pressure, and flow) and the right flow demand (constant or variable) for your specific application. To select the perfect fit for your business you may consider other aspects such as initial capital investment, return on investment and serviceability. We make sure that every single solution we offer helps you to achieve operational excellence.

Our portfolio of low pressure air technologies (metric)

Technology	Product	Pressure		Flow (FAD)		
		bar(g)		m ³ /h		
		Min.	Max.	Min.	Max.	
Lobe	Blower	ZL	0.3	1.0	30	9500
Screw	Blower	ZS	0.3	1.5	270	9100
	Compressor	ZE/ZA	1.0	4.0	240	10,800
Turbo	High speed blower	ZB VSD ⁺	0.3	1.4	1300	12,000
	Geared blower	ZHA	0.3	1.2	6000	30,000
	Geared compressor	ZHL/ZH	1.0	4.0	2400	60,000
	Multistage blower	ZM	0.1	1.4	350	70,000

Our portfolio of low pressure air technologies (imperial)

Technology	Product	Pressure		Flow (FAD)		
		psig		cfm		
		Min.	Max.	Min.	Max.	
Lobe	Blower	ZL	4.4	14.5	20	5600
Screw	Blower	ZS	4.4	22	160	5300
	Compressor	ZE/ZA	14.5	58	140	6362
Turbo	High speed blower	ZB VSD ⁺	4.4	20	750	7100
	Geared blower	ZHA	4.3	17	3500	17,600
	Geared compressor	ZHL/ZH	14.5	58	1400	35,200
	Multistage blower	ZM	1.5	20	200	41,000



ZL lobe blowers: high uptime with low capital costs

Our trusted tri-lobe technology with its simple, reliable design has been used for over 25 years in numerous applications. The low capital and maintenance costs make our ZL lobe blowers a cost-effective solution for any application requiring an air supply between 0.3 and 1 bar(g) / 4.4 and 14.5 psig. Thanks to their innovative design, our units need minimal floor space and are suitable for use in harsh environments such as those with ambient temperatures of +50°C / 120°F.

- Fixed speed or variable speed (VSD)
- Optional Elektronikon® controller
- Plug and Play solution

ZS screw blowers: high uptime with low lifecycle costs

Our ZS series combines Atlas Copco's trusted screw technology with our latest innovations to deliver you Class 0 certified oil-free air up to 1.5 bar(g) / 22 psig at the lowest lifecycle cost. These compact blower units can be installed anywhere side-by-side. Known for their energy efficiency, they are easy to maintain, fit perfectly into your existing blower room, and can be placed outside in the toughest environments, including those with an ambient temperature up to 50°C/120°F. They are an ideal solution for anyone looking for a replacement that will drastically reduce lifecycle costs.

- Fixed speed or variable speed (VSD)
- Class 0 certified oil-free air
- Plug & Play solution



ZE/ZA low pressure screw compressors: reliable product safety with cost efficiency

Only oil-free machines completely eliminate risk to your products. Our ZE/ZA range offers you a robust source of Class 0 certified oil-free air supply for all your applications between 1 and 4 bar(g) / 14.5 and 58 psig. These units are engineered to guarantee outstanding reliability and product safety along with high energy efficiency. They improve the productivity of your operation by delivering an uninterrupted supply of quality air at the minimum operational cost.

- Fixed speed or variable speed (VSD)
- Class 0 certified oil-free air
- Air or water cooled

ZB VSD⁺ turbo blowers: a unique high-speed design with proven efficiency

Our ZB VSD⁺ oil-free turbo blowers, featuring frictionless direct drive technology and magnetic bearings, are specifically designed for medium sized applications that require air at a variable volume flow and a low pressure. The ZB⁺ range brings you a premium, reliable solution for Class 0 certified oil-free air up to 1.4 bar(g) / 20.3 psig, at the lowest lifecycle cost.

- High speed permanent magnet motor with VSD
- Class 0 certified oil-free air
- Plug & Play solution





ZHA turbo blowers: high flow solution with low lifecycle costs

Building on more than 40 years of experience in geared turbo blowers, Atlas Copco further completes its low pressure portfolio with a reliable and energy-efficient solution specifically manufactured for applications that require air flows above 7,000m³/hr. The new ZHA geared turbo blower is an ideal fit for customers dealing with low pressure applications that require a high flow and want to minimize the lifecycle costs of their blower solution.

- Modulating IGV & DGV & BOV
- Class 0 certified oil-free air
- Compact footprint and flexibility installation

ZHL/ZH turbo compressors: high efficiency product with proven reliability

Engineered using innovative in-house technology, our ZHL/ZH range captures years of experience in advanced compressed air solutions to save energy and guarantee reliability of oil-free air supply in multiple environments.

- Modulating IGV & BOV
- Class 0 certified oil-free air
- Modular platform concept



ZM multistage centrifugal blowers: quality solutions adapted to your needs

Whether you need air, gas, pressure, or vacuum, our ZM multistage centrifugal blowers and exhausters provide you with the quality you need. In thousands of installations around the world, our oil-free multistage centrifugal blowers and exhausters are a reliable compressed air source for all applications up to 1.4 bar(g) / 20.3 psig.

- Fixed speed or variable speed (VSD)
- Air, gas, pressure, and vacuum applications

OEM solutions: tailored for robust performance and peace of mind

To meet the needs of OEM customers we offer standard configurations with customized modification.

- Outdoor installation
- Adapted for harsh environmental conditions
- Digital Customer Service
- ITP and customized documentation



Engineered for your process

Blowers and low pressure compressors are essential equipment for production processes in a diverse range of industries around the world. Our experts are always available to help you define the best solution for your application and your business.



Municipal & industrial wastewater treatment

Most applications in wastewater treatment require a continuous air flow with variable volume. To operate sustainably, you need a solution that can maintain uninterrupted uptime while keeping energy consumption low. Engineered to meet the highest standards of reliability and energy efficiency, our blower units ensure that your process gets the air supply it needs.

We also offer a range of service plans and ways to monitor, control and optimize your equipment so that it runs constantly in optimal condition.



Process	Lobe	Screw		Turbo			
	Blowers (ZL)	Blowers (ZS)	Compressors (ZE/ZA)	High speed blowers (ZB VSD ⁺)	Geared blower (ZHA)	Geared compressors (ZH/ZHL)	Multistage blowers (ZM)
Filter backwash	✓	✓					✓
Aerated lagoon		✓		✓	✓		✓
Oxidation ditch		✓		✓	✓		✓
Activated sludge	✓	✓		✓	✓		✓
Sequencing batch reactor	✓	✓					✓
Membrane bioreactor	✓	✓		✓	✓		✓
Bio aerated filters		✓		✓	✓		✓
Channel aeration	✓	✓		✓	✓		✓
Digesters	✓	✓					

Cement manufacturing

In a cement factory, compressed air is an integral part of the operation. It is used as an energy source for multiple applications in the cement making process. It can be used for pneumatic conveying, which includes loading- & unloading of trucks. Next to this compressed air is used for combustion air of the kiln, fluidization, ...

We offer you a comprehensive range of oil-free air blower and low pressure compressor technologies that are suitable for harsh conditions and environments, making them ideal for use in cement plants anywhere in the world.



Process	Lobe	Screw		Turbo		
	Blowers (ZL)	Blowers (ZS)	Compressors (ZE/ZA)	High speed blowers (ZB VSD ⁺)	Geared compressors (ZH/ZHL)	Multistage blowers (ZM)
Pneumatic conveying (pressure)	✓	✓	✓	✓	✓	
Pneumatic conveying (vacuum)	✓					✓
Truck, train and bulk unloading	✓	✓	✓	✓		
Airlift system	✓	✓	✓			
Silo fluidization	✓	✓				✓
Combustion air for kilns	✓	✓		✓		✓

Food & beverage processing

With strict quality and safety standards to meet, you need equipment you can trust in your production process to ensure compliance and protect the reputation of your business. Our oil-free compressors deliver ISO 8573-1 (2010) Class 0 oil free air and are also compliant with the ISO 22000 food safety management system.

For applications where the demand for compressed air fluctuates, such as fermentation and wastewater treatment, we offer Variable Speed Drive (VSD) packages that constantly match the air supply to the exact demand of your process.



Process	Lobe	Screw		Turbo			Multistage blowers (ZM)
	Blowers (ZL)	Blowers (ZS)	Compressors (ZE/ZA)	High speed blowers (ZB VSD ⁺)	Geared blowers (ZHA)	Geared compressors (ZH/ZHL)	
Pneumatic conveying (pressure)	✓	✓	✓	✓	✓	✓	
Pneumatic conveying (vacuum)	✓						✓
Fermentation	✓	✓	✓	✓	✓	✓	
Packaging (vacuum)							✓
Truck unloading	✓	✓	✓	✓	✓		
Wastewater treatment	✓	✓		✓	✓		✓
Canning			✓				
Air knife			✓				

Mining & mineral extraction

Whether deep within the mine, at the bustling processing plant, or within the fiery heart of the refinery, **compressed air** is an omnipresent force. Here's how it shapes the mining and refining landscape: In processing plants, low pressure air performs a multitude of tasks. It increases concentration during flotation, aids in leaching processes, facilitates pneumatic conveying, and ensures efficient filtration. During the refining stage, compressed air is equally indispensable. Refineries and smelters rely on it. Kilns, roasters, and fluidized beds demand high volumes of air to ignite their processes. Without this unmissable companion, the heart of refining would remain cold and dormant.



Process	Lobe	Screw		Turbo			Multistage blowers (ZM)
	Blowers (ZL)	Blowers (ZS)	Compressors (ZE/ZA)	High speed blowers (ZB VSD ⁺)	Geared blowers (ZHA)	Geared compressors (ZH/ZHL)	
Leaching	✓	✓	✓	✓	✓		✓
Pneumatic conveying (pressure)	✓	✓	✓	✓		✓	
Pneumatic conveying (vacuum)	✓						✓
Flotation cells		✓	✓	✓	✓		✓

Process	Lobe	Screw		Turbo			
	Blowers (ZL)	Blowers (ZS)	Compressors (ZE/ZA)	High speed blowers (ZB VSD ⁺)	Geared blowers (ZHA)	Geared compressors (ZH/ZHL)	Multistage blowers (ZM)
Combustion air for kilns, roasters & fluidized bed	✓	✓		✓	✓	✓	✓
Wastewater treatment	✓	✓		✓	✓		✓

Energy generation

Electricity that's available at the push of a button is crucial for our modern lives. But behind this convenience lies the complex and challenging world of power generation, transmission and distribution. It's a world Atlas Copco has reliably served for over a century with its air and gas compressor solutions. No matter your power generation needs, you'll find, you'll find we offer end-to-end compressed air and gas solutions for every power generation application.



Process	Lobe	Screw		Turbo			
	Blowers (ZL)	Blowers (ZS)	Compressors (ZE/ZA)	High speed blowers (ZB VSD ⁺)	Geared blowers (ZHA)	Geared compressors (ZH/ZHL)	Multistage blowers (ZM)
Oxidation air	✓	✓		✓	✓	✓	✓
LFG extraction	✓	✓					✓
CO ₂ recovery system		✓					✓
Combustion air	✓	✓	✓	✓	✓	✓	✓
Fluidization air	✓	✓	✓				✓
Pneumatic conveying (pressure)	✓	✓	✓	✓	✓	✓	
Pneumatic conveying (vacuum)	✓	✓					✓
Wastewater treatment	✓	✓		✓	✓		✓

Oil & gas refinery

Atlas Copco provides specialized oil-free compressors for the oil and gas industry, ensuring that compressed air used in refineries is free from oil contamination. These compressors are crucial in maintaining the purity of the air, which is essential for sensitive processes and equipment in the refinery environment.

By eliminating the risk of oil contamination, Atlas Copco's oil-free compressors help protect the integrity of end products, reduce maintenance costs, and enhance operational safety. The compressors are also designed to be energy-efficient and reliable, supporting the demanding needs of refineries while minimizing environmental impact.



Process	Lobe	Screw		Turbo			
	Blowers (ZL)	Blowers (ZS)	Compressors (ZE/ZA)	High speed blowers (ZB VSD ⁺)	Gearred blowers (ZHA)	Gearred compressors (ZH/ZHL)	Multistage blowers (ZM)
Sulphur recovery	✓			✓	✓		✓
Thermal incineration/oxidation (tail gas)				✓	✓		✓
Carbon black			✓		✓	✓	✓
Sour gas							✓
Gas boosters	✓						✓
Offload gas recovery	✓						✓
Vapor control	✓						✓
Conveying	✓	✓	✓	✓	✓	✓	✓
Wastewater treatment	✓	✓		✓	✓		✓

Aquaculture & fish farming

Atlas Copco offers oil-free compressors tailored to the aquaculture and fish farming sector, ensuring that the air used in various processes is completely free from oil contamination. This is crucial for maintaining water quality and the health of aquatic life, as even trace amounts of oil can be harmful to fish and other organisms. The oil-free compressors provide clean, dry air for aeration, oxygenation, and water treatment processes, helping to optimize fish growth and overall farm productivity. Additionally, these compressors are designed for energy efficiency and reliability, making them an ideal choice for sustainable and eco-friendly operations in the aquaculture industry.



Process	Lobe	Screw		Turbo			
	Blowers (ZL)	Blowers (ZS)	Compressors (ZE/ZA)	High speed blowers (ZB VSD ⁺)	Gearred blowers (ZHA)	Gearred compressors (ZH/ZHL)	Multistage blowers (ZM)
Basin aeration	✓	✓	✓	✓	✓	✓	✓
Feeding systems (pneumatic conveying)	✓	✓	✓	✓	✓		
Bubble curtain	✓	✓	✓	✓	✓	✓	✓
Live fish handling	✓	✓					
Dead fish removal		✓	✓				

Connectivity and control for an optimized installation

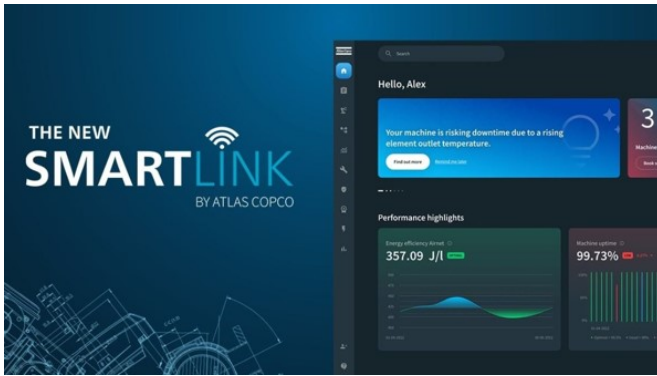
To ensure you get the most out of your equipment, we have simplified monitoring and maintenance and developed a range of control systems to support performance. These user-friendly technologies will enhance the efficiency of your process by helping you to reduce energy consumption, monitor running conditions, stay ahead of maintenance requirements, and prevent production downtime. The Elektronikon® unit controller is specially designed to maximize the performance of your blowers under a variety of conditions. It enhances your system with increased energy efficiency, longer maintenance intervals, and less stress on the entire installation.



Elektronikon® MK5 Touch – built-in intelligence

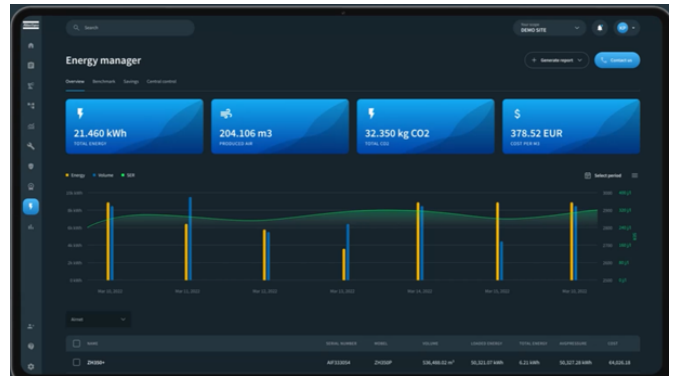
This full color touch display provides an easy-to-understand readout of the equipment's running conditions.

- Clear icons and intuitive navigation give you fast access to all the important settings and data.
- Equipment running conditions and maintenance status are constantly monitored and you are notified of any issues requiring attention.
- Equipment is operated to deliver specifically and reliably to your compressed air needs.
- Built-in remote control and notification functions are provided as standard, including a user-friendly integrated webpage.
- Support is provided in 31 different languages, including character-based languages.

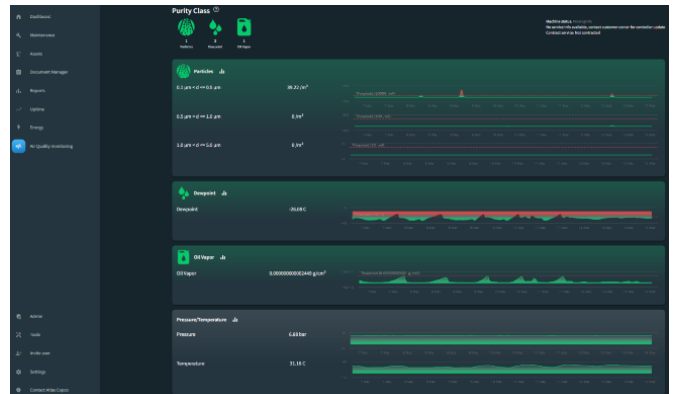


SMARTLINK – the power of connectivity

Monitor your machines over the ethernet with the Elektronikon® unit controller and the SMARTLINK service. Monitoring features include warning indications, compressor shut-down, sensor trending and maintenance scheduling. Offering enhanced insights into energy consumption, the system also generates customized reports on the efficiency of your blower room, in compliance with the ISO 50001 energy management standard.



Energy Manager – Monitor constantly your Energy consumption & CO2 production to achieve ISO50001 standards



Air Quality Monitor – Continuously measure your air quality status and be ready for action in case of deviations



Optimizer 4.0 – simple, centralized control

Proper management of your compressed air network will save energy, reduce maintenance, decrease downtime, increase production, and improve product quality. Our Optimizer 4.0 controller optimizes the performance of your compressed air and blower system by controlling multiple blowers simultaneously. The result is a completely autonomous and energy-efficient network, giving you peace of mind and keeping your costs minimized.

Service Plans to cover every need

Taking good care of your equipment will reduce your operating costs and minimize the risk of unplanned downtime. We support our customers with a range of service plans covering energy efficiency checks, servicing, repairs, spare parts, and maintenance plans. Our experts are on hand to help you optimize the performance of your blowers and compressors, manage your resources optimally and protect your investment.



Parts Plan: the parts you need delivered to your door

Atlas Copco Genuine Parts, designed and produced to the exact specifications of your compressors, delivered right where and when you need them.

- **All the parts** you need in one package, ready for your service intervention.
- **Great value** – a Service Kit costs less than the total price of its components if ordered separately.
- **Less administration** – a Service Kit has a single part number, simplifying purchase order creation and follow-up.



Total Responsibility Plan: complete care for your compressor

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

- **On-time maintenance** by expert service engineers, Genuine Parts, proactive upgrades, and compressor overhauls. With **Diagnostic license** – we constantly monitor the unit to tackle immediately any breakdown risk or deviation in performances.
- **Total risk coverage** – we take care of all repairs as well as any breakdowns, at no extra charge. With **Uptime guaranteed** we grant highest availability level is reached.
- **Ultimate efficiency** – the latest driveline components are fitted for high standards of compressor efficiency and reliability.

Preventive Maintenance Plan: fast and proactive for optimized uptime

Rely on trained Atlas Copco technicians and the unrivalled quality of our Genuine Parts.

- **Service reports** keep you up to date on the status of your system and help you achieve maximum energy efficiency.
- **Preventive assistance** – our technicians spot any issues early and proactively propose solutions.
- **Emergency call-out system** – if an urgent repair is needed, you get priority assistance.



Fixed Price Service Plans: premium compressor parts and professional maintenance

Avoid financial surprises. Our Fixed Price Services combine the expertise of factory-trained technicians with the unrivalled quality of our Genuine Parts.

- **The best parts** for optimal uptime, energy consumption and reliability.
- **Support** from experienced Atlas Copco technicians who know how to adjust equipment settings for your application to achieve maximal energy efficiency.
- **Clear and customized** – every Fixed Price Service Plan is tailored for the installation, site conditions, and production planning, with a clear scope and price from the outset.

AIRPlan – All-inclusive contract for compressed air delivery

Reduce your risk

AIRPlan is our most flexible and riskfree solution to provide a steady flow of quality compressed air, perfectly adapted to your production needs. We ensure optimal reliability while keeping your energy bill down, by our expert choice of equipment, professional service and updates with the latest technology.

Enjoy maximum flexibility

Big changes in your production process, such as up- or downscaling, new investments, methods or technologies, could mean the compressed air installation you invested in is no longer ideally suited for your needs.

AIRPlan offers you the unique flexibility of having your equipment adapted quickly to the new requirements. Again, this is done without the need for investments or lengthy approval processes, increasing efficiency and saving time and money.



WWW.ATLASCOPCO.COM

Atlas Copco

