ZM OIL-FREE MULTISTAGE CENTRIFUGAL PRESSURE AND VACUUM BLOWERS

100-40,000 cfm / 2-24 psi / 5-3,600 hp / 3-1160 m³/m / 100-1700 mbar / 4-2600 kW

Atlas Copco

A ZM for every application

Atlas Copco's ZM oil-free multistage centrifugal blowers are working successfully in thousands of installations around the world. These reliable blowers are ideal for applications ranging from air to gas and pressure to vacuum. The ZM can be equipped with all the necessary accessories such as motor, valves, filters and skid as well as local or networked control panels to ensure a complete working system. Ask our group to find a ZM blower system to meet your exact requirements.

ENVIRONMENTAL

RELIABILITY ENSURED

From water and wastewater applications to landfill gas recovery systems, Atlas Copco's years of experience, backed up by a strong global service network, ensure that ZM blowers meet all your environmental application requirements including basin aeration, digester gas, soil remediation, filter backwash systems and other processes

MINING

GLOBAL SERVICE

The ZM is a worldwide proven leader in mining applications such as reclaiming heavy metals from slurry in floatation cells, a leaching process or methane extraction. Our centrifugal blowers showcase their durability and reliability in the harshest of conditions with options to handle tough environments such as temperature, dust, high altitude, or long life with limited maintenance.

POWER INDUSTRY

READY-TO-USE

These innovative centrifugal blowers are ideal for applications such as flue gas desulphurization, oxidation air, and fluidized beds. When your application absolutely requires continuous operation the ZM is your preferred choice.

PETROCHEMICAL INDUSTRY

TOTALLY DEPENDABLE

Sulfur recovery, sour gas, thermal oxidation or refinery tail gas, the ZM's high reliability and low maintenance make it the perfect centrifugal blower for vital processes. ZM blowers meet the most exacting industry standards in the testing and documentation needs.

INDUSTRIAL

EXCEEDS YOUR EXPECTATIONS

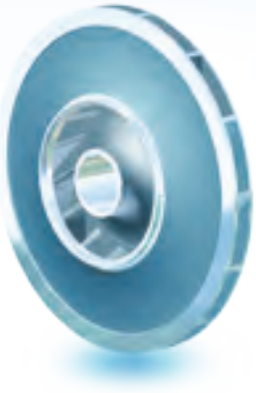
A wide variety manufacturing applications can be served by the ZM. Pulp and paper, carbon black, printing, or blow off systems are a few of many strong examples of ZM being the preferred technology that will outperformance your expectations.

VACUUM APPLICATIONS

CLEAN AND DUST FREE

Pharmaceutical, breweries, and other food production facilities need clean and oil free environments. Central vacuum systems serve a variety of applications. ZM has the power to achieve their requirements.

What makes the ZM special?



EFFICIENT

ZM oil-free multistage centrifugal blowers were developed using the most advanced technology available. Tools including 3D Modeling, Computational Fluid Dynamics and Finite Element Analysis were used at the design stage to pinpoint areas where we make improvements. The resulting modern and innovative design allows for increased efficiency, while the wide product range and configuration options ensure we can offer the best solution possible to meet your needs.

RELIABLE

The ZM blowers have earned the reputation of being “the most reliable blowers” in the industry. Even so, we still work to continually enhance the reliability of the ZM product line. In order to do this, we have made significant investments in the best people, facilities and equipment in the industry. Our commitment to Research and Development, Quality Control, and Product Testing, is driven by our desire to offer our customers the reliability they require in a variety of air and gas as well as pressure and vacuum applications.

LIMITED MAINTENANCE

You won’t suffer from lengthy downtimes or process interruptions when your ZM is maintained. Service intervals are reduced to a minimum and maintenance is quick and simple. Maintenance points are easily accessible and basic repairs can be conducted with a minimum of time and materials offering you a low cost of ownership.

GLOBAL SERVICE SUPPORT

At Atlas Copco we place high value on outstanding customer service and are on call at all times to help with urgent situations. We pride ourselves in responding quickly to your requests for information and quotations. Contact your local Atlas Copco representative and find out how we can make a difference in your next project.

ZM centrifugal blowers: durability and performance

Atlas Copco's ZM centrifugal blowers are built to last. Solidly constructed out of premium components, they will run and run, with minimum maintenance requirements and unbeatable cost-effectiveness.

1

Casing —
Cast iron, ductile iron available
For low vibration

2

Guide Vanes —
Stainless steel guide vanes
Improve efficiency

3

Seals —
Gas or Air Seals
To protect the environment

4

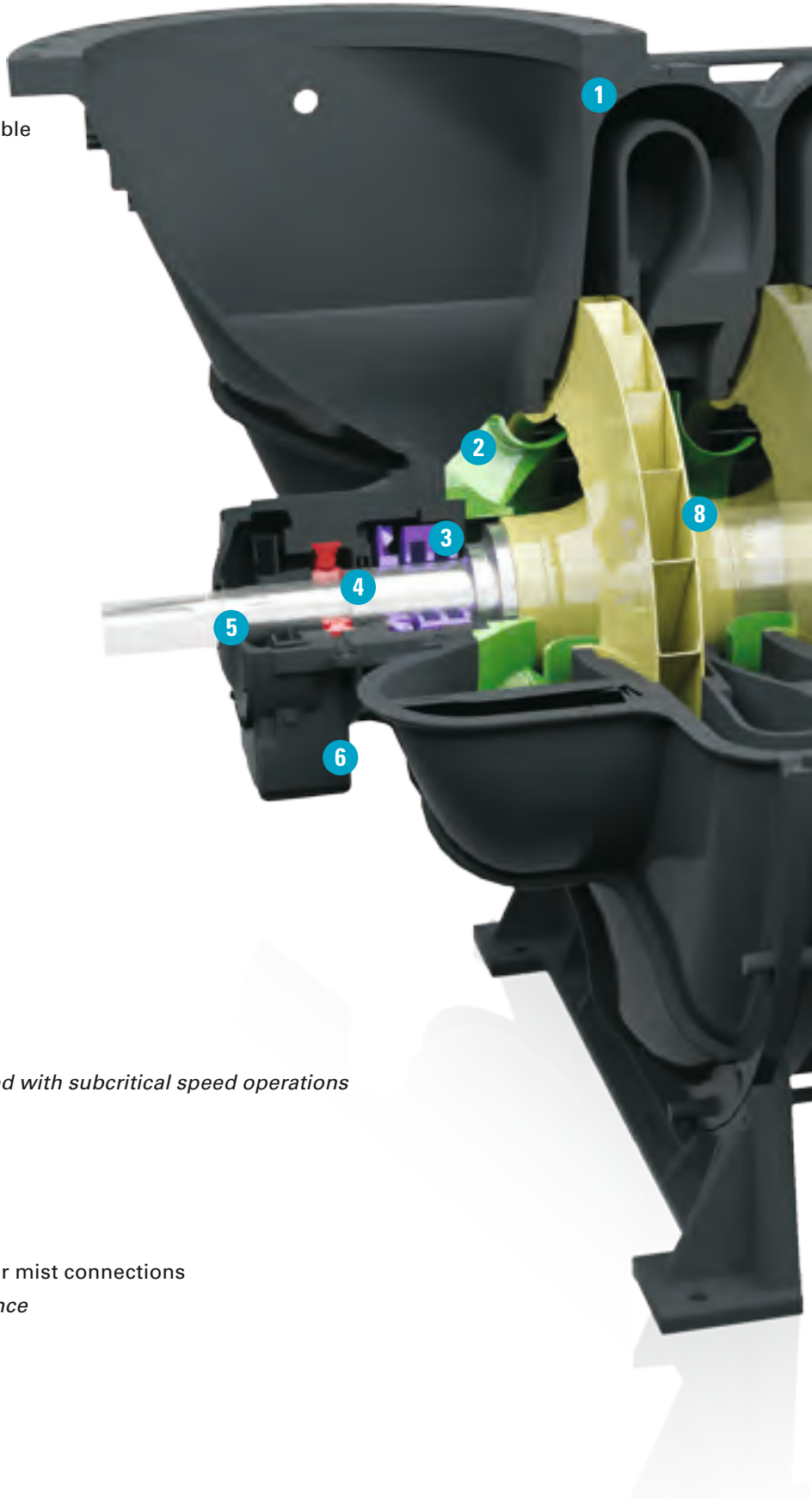
Bearings —
10 year L10 minimum life
Less maintenance

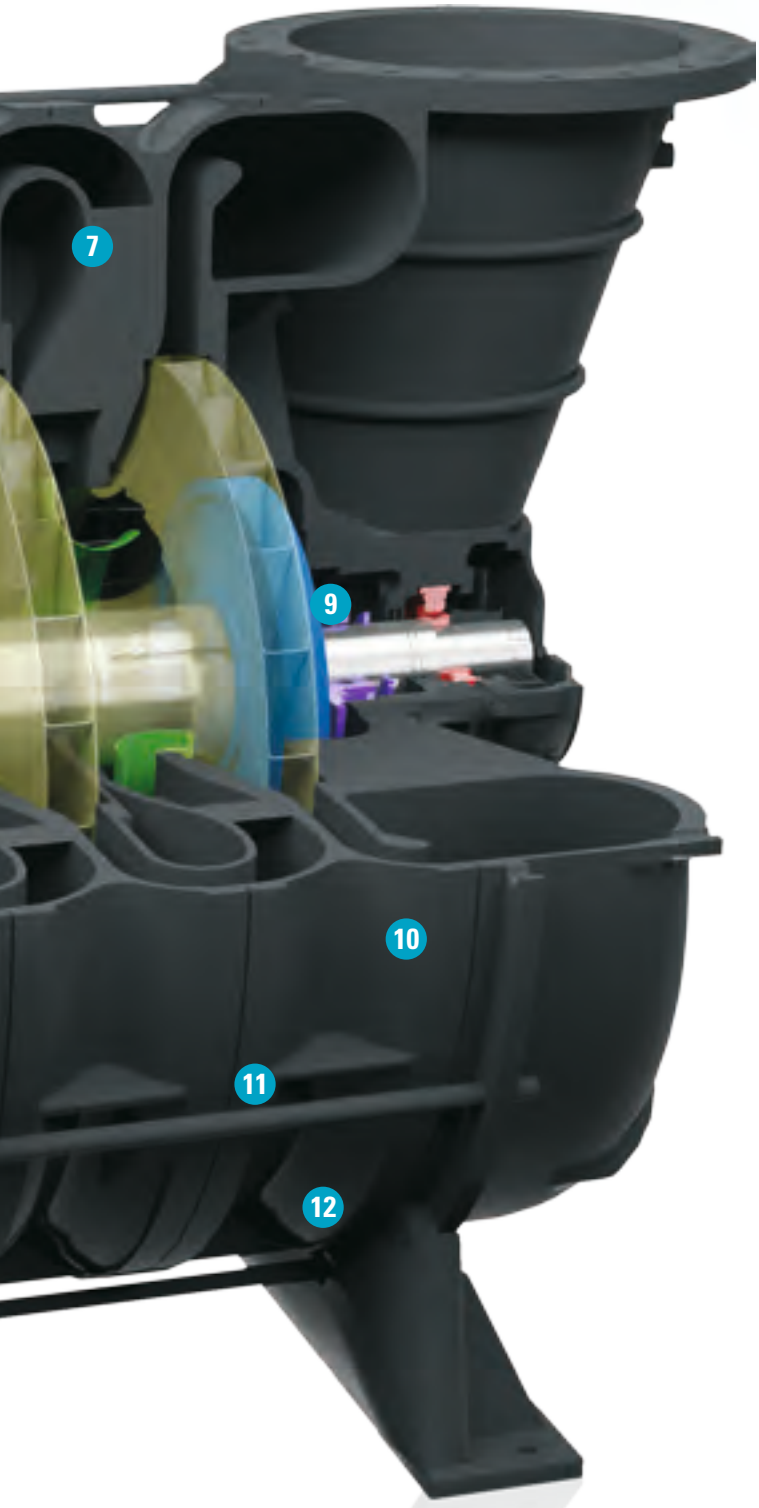
5

Shaft —
Carbon or stainless steel
Greater reliability is achieved with subcritical speed operations

6

Lubrication —
Self lubricated oil, grease, or mist connections
Low preventative maintenance





7

Turning Vanes —
Cast intermediate sections
Improved performance

8

Impellers —
Aluminum or stainless
Suitable for your application

9

Balance drum —
Improves bearing life

10

External coating —
Standard 2 coat epoxy
Custom available
Long life

11

Case Drains —
Optional
For harsh environments

12

Tie rods —
High strength steel

Engineered control solutions for all your needs

Atlas Copco understands that every application is different, which is why we offer controls that are easy to customize to your specific installation.

LOCAL CONTROL

The pre-engineered local controls for ZM blowers offer many options from standard analog controls to panels with full touch-screen interfaces. These panels protect the blower and motor from unexpected upsets in the system and can alarm or shut down the unit to prevent damage. They can also be programmed to communicate with almost any type of plant master control system.

ZM-IB 1100

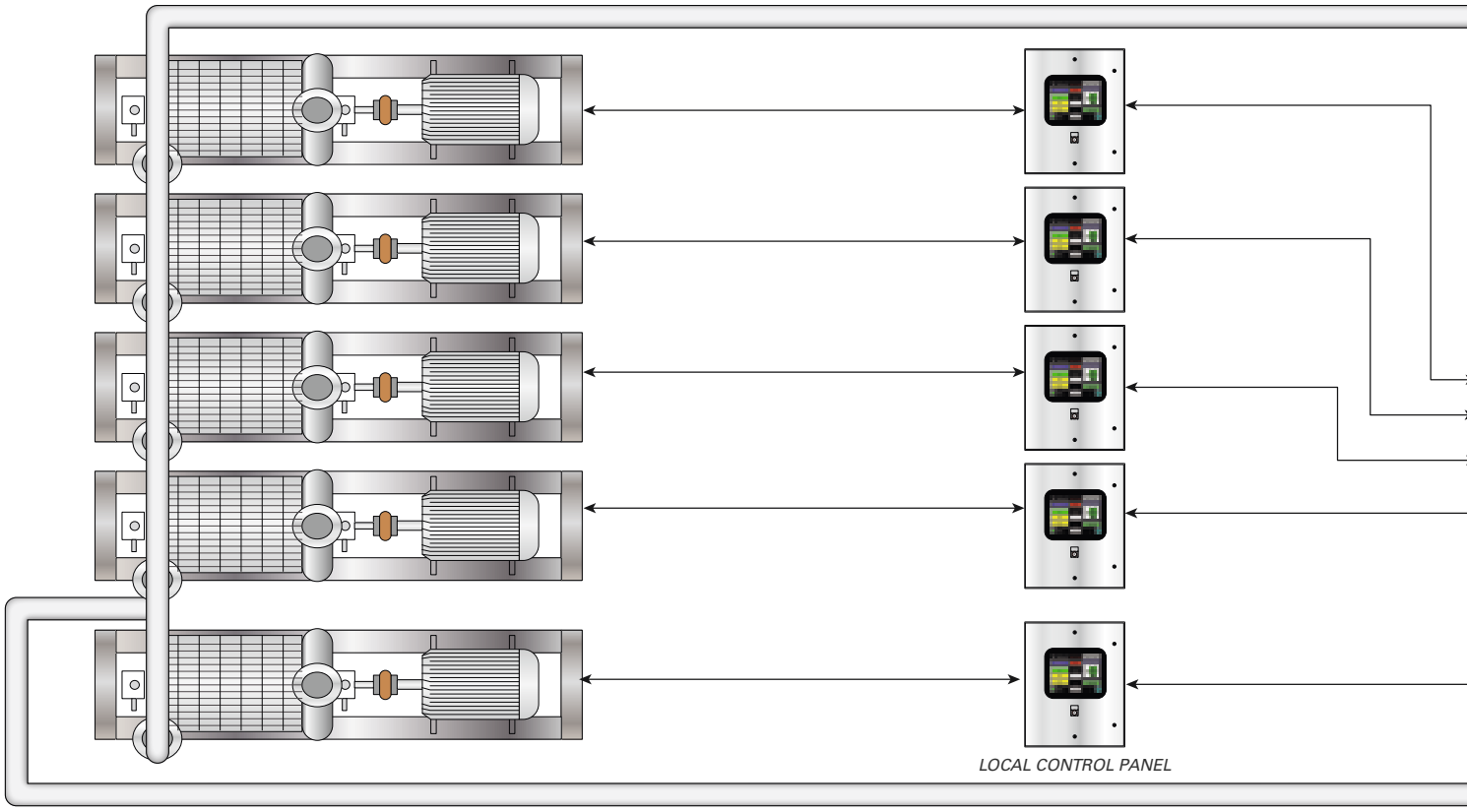
- PLC control
- Basic surge protection
- Bearing temperature and vibration monitoring

ZM-IB 2100

- PLC control with touch screen HMI
- Advanced surge protection
- Bearing temperature and vibration monitoring
- Flow regulation by:
  - inlet throttle valve
  - blow off valve
  - vacuum bleed valve
- Variable process input
  - flow/pressure
  - dissolved oxygen
  - user defined

ZM-IB 3100

- PLC control with touch screen HMI
- Advanced dynamic surge protection
- Bearing temperature and vibration monitoring
- Flow regulation by variable speed drive control
- Variable process input
  - flow/pressure
  - dissolved oxygen
  - user defined
- SCADA interface



PROCESS CONTROL

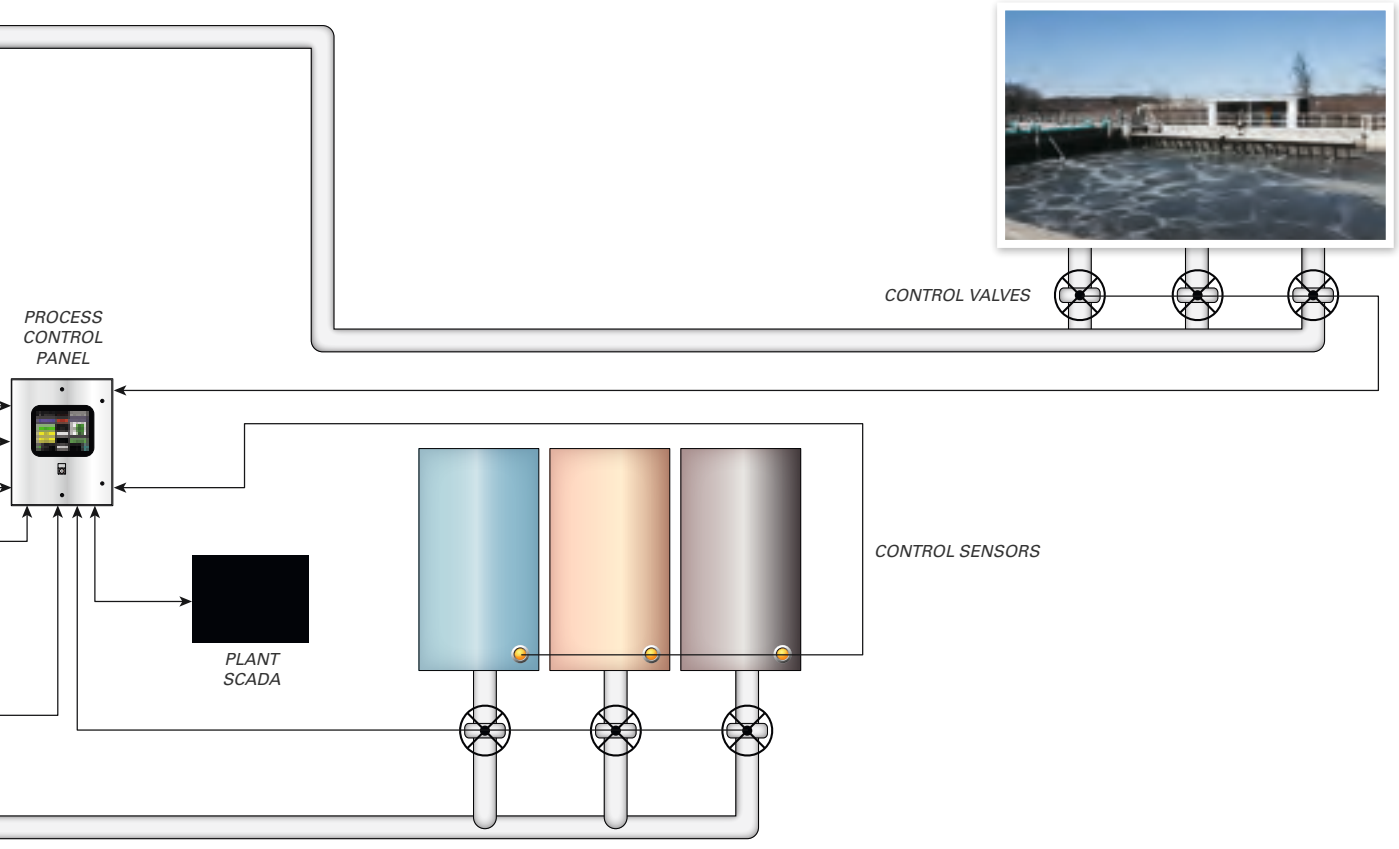
Atlas Copco has developed complete control systems to manage entire processes. Adding a smart sequencer to automate multiple units in operation will both save time in operating, but also improve the efficiency of your entire system. These smart systems are sufficiently advanced to monitor and control your entire process such as wastewater aeration, or virtually any application that requires flow to be matched to the process requirements.

ES 4100 BLOWER SEQUENCER PANEL

- Multiple blower control
- PLC control with touch screen HMI
- Optimizes efficiencies
- Variable process input
  - flow/pressure
  - dissolved oxygen
  - user defined
- Auto sequencing
- System integration
- SCADA interface

ES 5100 PROCESS CONTROL AND BLOWER SEQUENTIAL PANEL

- All ES 4100 functions
- Flow matched to process requirements
- Auxiliary equipment control
- Single point responsibility
- Direct process control
  - automated valves
  - pressure sensors
  - flow meters



ZM Design and Standards

At Atlas Copco we have made a commitment to be the technical leader in our industry. We have achieved our strong position in this area through continued investment in engineering personnel, the latest design tools, advanced inspection and testing technology, and ongoing R&D projects.

ENGINEERED SOLUTIONS

EXPERIENCE COUNTS

With a global competency center focused on research and development of centrifugal blower technology we are able to provide custom engineered solutions for the ZM product for the most demanding applications. This often includes special materials and testing to accomplish the toughest tasks.

TESTING

PROVING GROUNDS

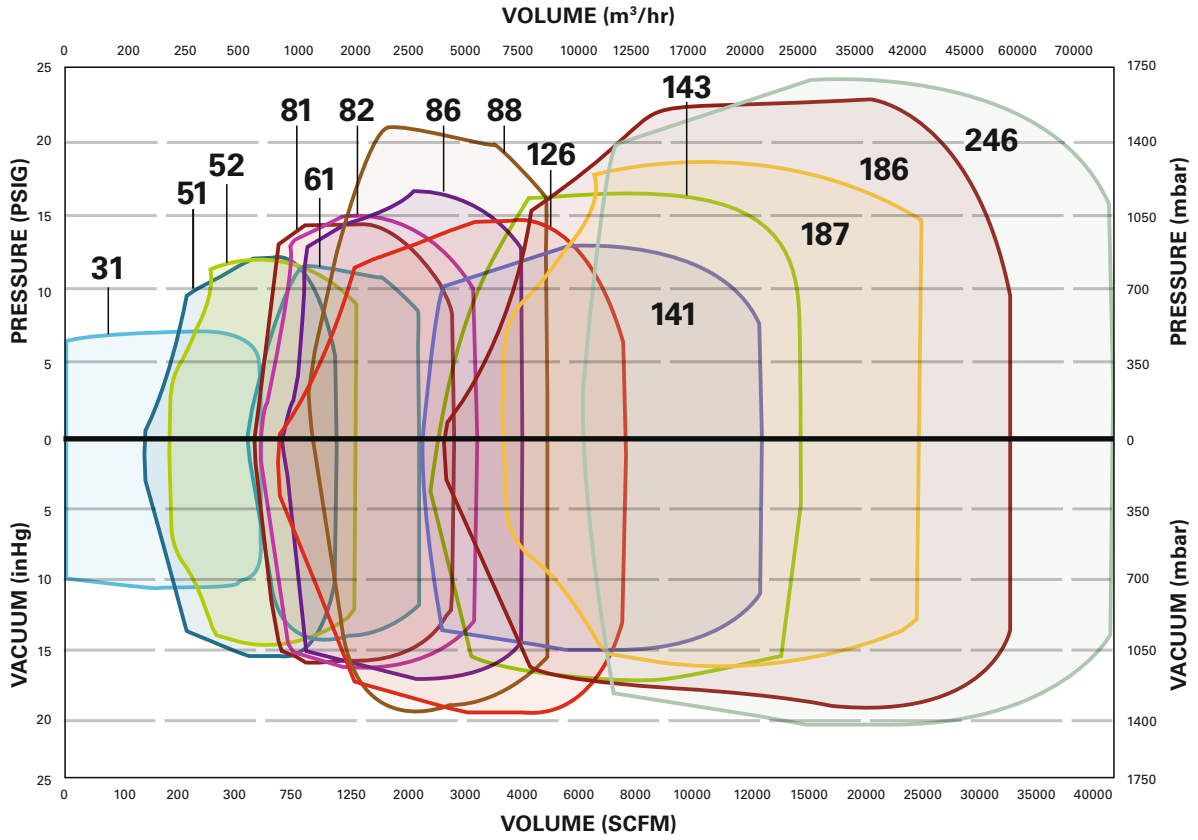
With a world class test facility, we are able to offer comprehensive testing according to industry and customer standards. Every ZM is tested to ensure quality and to make way for a successful start up. We are able to simulate site conditions to ensure that the complete system is tested and ready to go.

PROJECT MANAGEMENT

TEAMWORK

People make the difference. A project management staff is assigned to larger capital projects that require detailed documentation and testing to ensure the entire project goes smoothly and on time.

ZM complete line of centrifugal blowers and exhausters

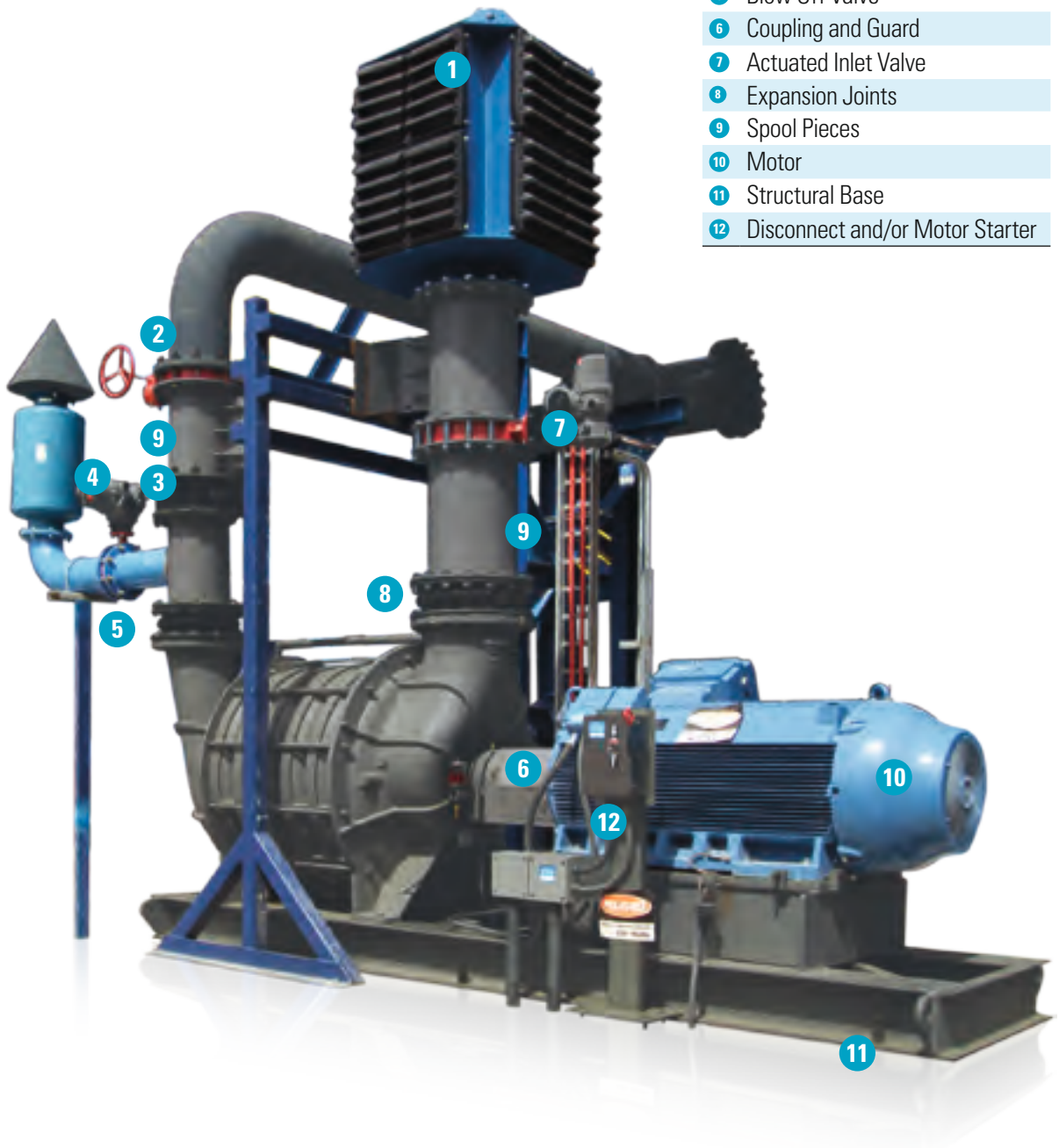


MODEL	NUMBER OF STAGES	INLET FLANGE	DISCHARGE FLANGE	FLOW RANGE	MAXIMUM PRESSURE	MAXIMUM VACUUM	MOTOR POWER
ZM 31	1 to 11	DN80 / 3"	DN80 / 3"	0 – 300 cfm (0 – 510 m³/hr)	7 psi (480 mbar)	10″ hg (339 mbar)	1 – 20 (1 – 15kW)
ZM 51	1 to 10	DN150 / 5"	DN150 / 5"	200-1,100 cfm (340 – 1,869 m³/hr)	12 psi (830 mbar)	11″ hg (372 mbar)	5-100 (4 – 75 kW)
ZM 52	1 to 10	DN175 / 6"	DN175 / 5"	300-1,300 cfm (510 – 2209 m³/hr)	12 psi (830 mbar)	11″ hg (372 mbar)	5-100 (4 – 75 kW)
ZM 61	1 to 9	DN175 / 6"	DN175 / 6"	400-2,200 cfm (680 – 3378 m³/hr)	11 psi (760 mbar)	10″ hg (339 mbar)	5-200 (4 – 149 kW)
ZM 81	1 to 9	DN200 / 8"	DN200 / 8"	600-3,000 cfm (1,019 – 5,097 m³/hr)	14 psi (970 mbar)	12″ hg (407 mbar)	5-250 (4 – 186 kW)
ZM 82	1 to 9	DN200/ 8"	DN200/ 8"	750-3,500 cfm (1274 – 5,946 m³/hr)	15 psi (1030 mbar)	19″ hg (644 mbar)	5-250 (4 – 186 kW)
ZM 86	1 to 10	DN200 / 8"	DN200 / 8"	500-4,400 cfm (849 – 7,476 m³/hr)	16 psi (1100 mbar)	15″ hg (508 mbar)	10-350 (7 – 261 kW)
ZM 88	1 to 12	DN250 / 10"	DN250 / 8"	500-4,500 cfm (849 – 7,645 m³/hr)	21psi (1450 mbar)	18″ hg (609 mbar)	10-400 (7 – 298 kW)
ZM 126	1 to 9	DN300 / 12"	DN300 / 12"	1,000 - 8,250 cfm (1,699 – 14,017 m³/hr)	14 psi (970 mbar)	14″ hg (475 mbar)	25-500 (19 – 373 kW)
ZM 141	1 to 9	DN450 / 18"	DN450 / 14"	3,500-12,000 cfm (5,946 – 20,388 m³/hr)	13 psi (900 mbar)	12″ hg (407 mbar)	40 – 700 (30 – 522 kW)
ZM 143	1 to 8	DN450 / 18"	DN450 / 14"	3,500- 13,500 cfm (5,946 – 22,936 m³/hr)	20 psi (1380 mbar)	17″ hg (576 mbar)	40 – 700 (30 – 522 kW)
ZM 186	1 to 6	DN600 / 24"	DN600 / 18"	2,500-30,000 cfm (4,247 – 50,970 m³/hr)	21psi (1450 mbar)	17″ hg (576 mbar)	200 - 2,500 (149 – 1,864 kW)
ZM 187	1 to 8	DN500 / 20"	DN500 / 18"	2,000-22,000 cfm (3,398 – 37,378 m³/hr)	18 psi (1240 mbar)	17″ hg (576 mbar)	150-1,750 (112 -1305 kW)
ZM 246	1 to 6	DN800 / 30"	DN800 / 24"	3,000-40,000 cfm (5,097 – 67,960 m³/hr)	24 psi (1650 mbar)	19″ hg (644 mbar)	250-3,000 (186 – 2,237 kW)

ZM Optional Packaging and Accessories

Let Atlas Copco engineer a complete packaged option to suit your application. Below is a common air blower installation but the accessories and configurations can vary greatly depending on the type of system needed.

Standard
1 Inlet Filter
2 Isolation Valve
3 Check Valve
4 Blow Off Silencer
5 Blow Off Valve
6 Coupling and Guard
7 Actuated Inlet Valve
8 Expansion Joints
9 Spool Pieces
10 Motor
11 Structural Base
12 Disconnect and/or Motor Starter



COMMITTED TO SUSTAINABLE PRODUCTIVITY

We stand by our responsibilities towards our customers, towards the environment and the people around us. We make performance stand the test of time. This is what we call – Sustainable Productivity.

LLOYD'S REGISTER · LRQA
ISO 9001 · ISO 14001
OHSAS 18001

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