

# SCREW COMPRESSORS

## DELTA SCREW

Direct Drive. Oil-free. Pressure range of up to 4.5 bar (a).  
Delivers volume flows from 350 m<sup>3</sup>/h to 15,000 m<sup>3</sup>/h.



**AERZEN**

# DELTA SCREW. A SINGLE SERIES FOR ALL VOLUME FLOWS.

- Uniquely broad range of applications
- Highly efficient
- Low life-cycle costs
- Extremely durable and robust
- Low maintenance needs
- Oil-free in accordance with ISO 8573-1, Class 0
- 100% free of absorption materials\*
- Made by AERZEN – made in Germany



They are among the world's best-selling compressors: the direct-drive units that bear the name Delta Screw. Why? Because there is probably no other compressor that so uncompromisingly fulfils even the most demanding client requirements. Because you can cover a very broad range of

volume flows with a single machine. Because these compressors are most efficient. Because they are legendary for their operational availability and longevity. And finally, because these amazing all-rounders enjoy a big advantage: they are "Made by AERZEN".

\* Delta Screw E-Compressor discharge silencer



*Delta Screw*

Delta



# COUNTLESS PROCESSES. NOT A SINGLE COMPROMISE.

When it comes to versatility, the compressors in the Delta Screw series exceed all expectations. The truth is that AERZEN's flexible and highly efficient units offer the widest variety of models available today. The largest number of possible modifications. And the broadest range of accessories. In other words: the right compressor for all process requirements. Right-sized. No compromises.

## 11 Models. All contingencies.

They operate reliably in all the world's temperature zones, indoors and out, in mobile or stationary deployment. What makes the Delta Screw so flexible? 11 direct-drive machines. 2 compressor groups (VM and VML) with the specialised AERZEN rotor profile. A choice of discharge port sizes in the cylinder for ideal internal

compression. And an almost unlimited spectrum of possible adaptations and accessories. Designed for the compression of air, nitrogen, and other neutral gases, the Delta Screw compressors are perfect for almost any possible application. The spectrum of the extended Delta Screw series also includes 7 belt-driven compressor models for volume flows (actual delivery depends on intake parameters) of from 120m<sup>3</sup>/h to 2,650m<sup>3</sup>/h.



Flow control  
from 30% to 100%



Volume flows  
from 350m<sup>3</sup>/h to  
15,000m<sup>3</sup>/h



Pressure range:  
positive pressure to  
4.5 bar (a), vacuum  
pressure to -850 mbar



Wind loads  
up to about 150km/h



Ambient temperatures  
-40 °C to +60 °C



*Refinery*



*Power generation*

## Compression under extreme conditions.

Regardless of where your production facilities are, Delta Screw put the pressure on. Under ambient temperatures of +60 °C just as reliably as at -40 °C. In the desert, in the Arctic,

in earthquake-prone areas, on board of ships, on trucks, for any other stationary or mobile application. Exceptions? None so far. We like a challenge.



#### **Applications**

- Conveyance and compression of neutral and special gas types
- Pneumatic transport (using air or nitrogen) of powder, pellets, ashes, etc.
- Homogenisation, loading, and unloading of cement, lime, etc.
- Vacuum generation for the production of glass containers
- Gas/air mixing systems
- Flue gas desulfurisation and oxidation air for power plants
- Truck transport applications (e.g. stationary unloading, combined vacuum/pressure operations)
- Blast air for nonwoven fabric manufacture
- Fermentation
- Instrument-grade air
- Booster applications



#### **Industrial sectors**

- Chemical and petrochemical industries
- Cement industry
- Food and beverage industries
- Power plant technology
- Glass industry
- Paper industry
- Plastics industry
- Steel and iron industries
- Textile industry
- Pharmaceutical and cosmetics industries
- Medical technology
- Mining and smelting technology
- Electronics industry, solar technology
- Oil and gas industries
- Biogas

#### **Shipping and port activities.**

- Loading and unloading of ships
- Anti-heeling systems
- Icebreaker operation (“duck walk”)
- Reducing ship propeller noise (cavitation interruption)
- Waste water treatment (e.g. on-board sewage treatment, cleaning ballast water)
- Precompression for sound tests in seismic applications
- Supercharging or precompression for compressed air production in submarines
- Air lubrication of ships hull (creation of surface air pockets (bubbles))
- Keeping lakes, harbours and locks free of ice (air bubbling)
- Deploying oil booms
- Aerating lakes
- Pneumatic conveying
- Creating air curtains while pile-driving foundations for the offshore industry

**Class 0. Oil-free for sensitive processes.**

Some processes do not allow tolerances. Those in the food or pharmaceutical industries, for example. 100% oil-free processes are a necessity here. The Delta Screw, with its sophisticated design can guarantee it. On a long-term basis. The closed loop

oil circulation system is an integral part of Delta Screw, as are the special rotor shaft seals, and the permanent vacuum in the oil chamber. Oil-free pressurised air delivery, certified ISO 8573-1, Class 0 by TÜV Rheinland.

**Guaranteed safety.**

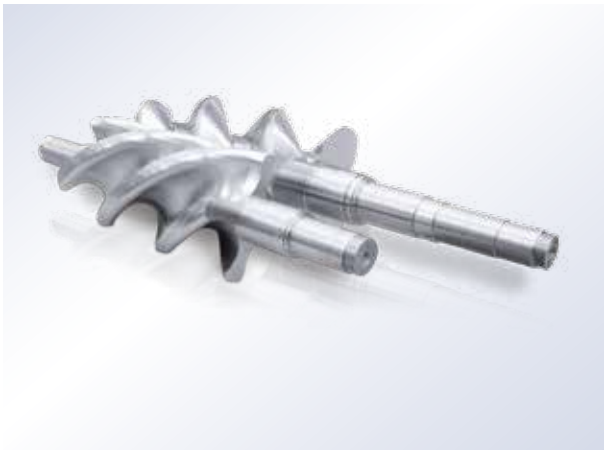
Abrasive absorption materials pose a risk in a production process. The best solution is not to use absorption material at all. In all Delta Screw E-Compressor models, discharge side silencing takes place completely free of absorption materials.

This innovative AERZEN design (European patent No. 1857682) is your assurance that a downstream process will not be contaminated. And that food safety is maintained during the pneumatic transport of bulk materials. Added to this are special filters (suction side) and food-grade lubricants.

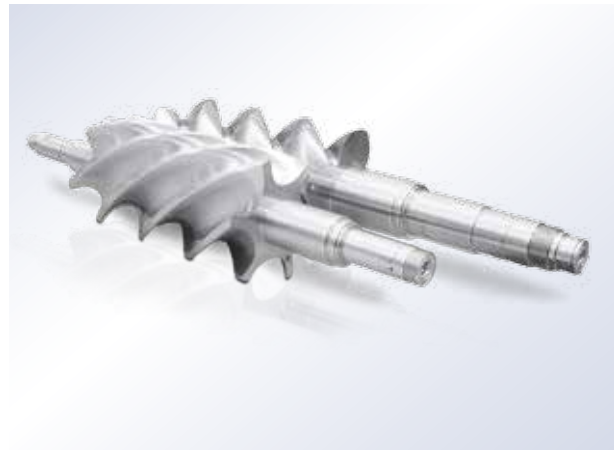
**Outstanding rotor geometries for added efficiency at both negative and positive pressures.**

Relying on years of successful deployment and constant improvement, the special AERZEN rotor profile can save up to 15% energy compared to conventional screw compressor

air-end rotor profiles. Specially developed low-pressure profiles are used in every AERZEN screw compressor block. With either a 3+4 or 4+6 profile, you have the chance to always operate your compressor in its optimal operating range – and at optimal efficiency.



*This compressor group is characterised by 3+4 rotors. VML for volume flows from 920 m<sup>3</sup>/h to 15,000 m<sup>3</sup>/h. Ideal for positive pressure applications up to compression ratio 3 (end to suction pressure), and outstanding for negative pressure operations up to a 70% vacuum (-700 mbar), or 85% vacuum (-850 mbar) in the pre-inlet version.*



*4+6 rotors are used in the AERZEN VM compressor stages. Tailor-made for positive-pressure ranges (up to a compression ratio of 4.5) and for volume flows from 350 m<sup>3</sup>/h to 9,220 m<sup>3</sup>/h.*

# ATEX APPLICATIONS. SAFETY IN ALL ZONES.

**AERZEN compressor units have been used in highly critical areas for a long time. The solutions that the AERZEN Delta Screw portfolio offers for practically all ATEX zones are unique in their breadth and effectiveness.**

## **Expertise. The AERZEN plus for safety.**

Do your processes fall under the special EU regulation known as ATEX Product Guideline 2014/34/EU? Not a problem, because now you have the solution at hand. Our experienced ATEX specialists are familiar with almost all potential problems. They will develop the optimal unit design for your process environment – including accessories and all necessary documentation.

## **Technology. Taking the lead.**

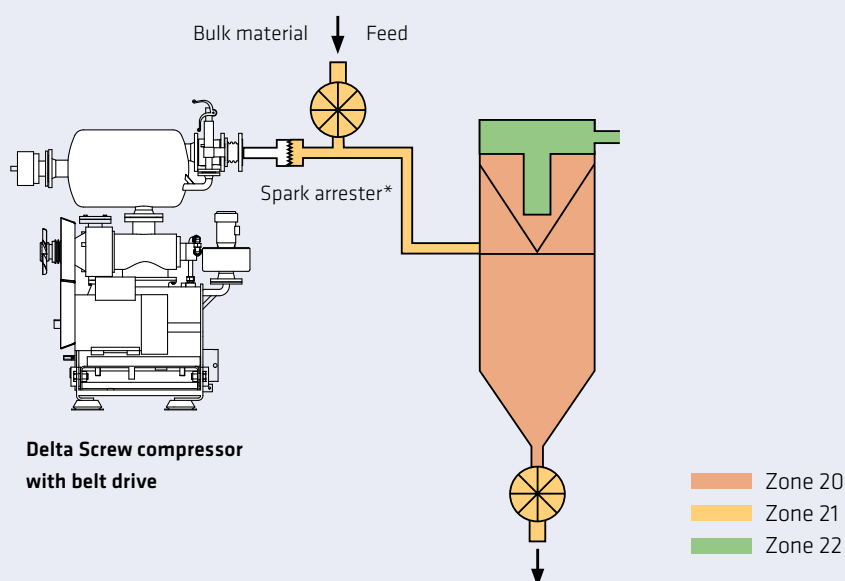
Units in the AERZEN Delta Screw series provide the solution for your ATEX zone. Tailor-made. And are of course TÜV-tested. Regardless of whether they will be used for positive or negative pressures. The technology will be designed on an individual basis. A function of zone and specification. The AERZEN portfolio for ATEX-compliant configuration for your facility:

## **Take a closer look.**

- Special documentation
- Specialised materials for parts coming in contact with media
- Ex instrumentation
- Specialised coupling
- Vibration monitoring
- Spark arrester
- Specialised motors (depending on the zone)
- Certification of conformity based on 2014/34/EU
- Filter monitoring
- Special paint for II C gases

## **Pressure conveying.**

AERZEN spark arrester



\* Machine-side spark arrester can be omitted with certain AERZEN compressors





# 5 x E. DISCOVER THE DELTA SCREW SUCCESS PRINCIPLE.

## Efficiency

### Plus points for energy efficiency

- Motors in the latest energy efficiency class
- Efficient acoustic hood ventilation
- Reduced pressure losses in both unit and accessories (e.g. aftercooler, cyclone separator)
- Internal compression selected according to system pressure, resulting in significant energy savings

### Lower TCO

- Up to 6% energy savings
- Low maintenance costs
- Flexible on-site service

### Cool external supply air (E-compressor)

- Compressor air intake from outside the acoustic hood
- Up to 10° Kelvin lower intake temperature
- Separate intakes for process and cooling air

## Essentials

### Just plug & play

- Completely pre-installed unit (all-in)
- Ready to run
- Includes initial Delta Lube 06 oil supply

### Easy to use

- Front-side access only
- Intelligent AERtronic controls
- Extensive interfaces for communicating with the process monitoring system

### Sophisticated oil system

- Unusually long oil change intervals of up to 16,000 operating hours
- No need for an oil change after 500 operating hours
- Oil instead of grease: oil-lubricated bearings for greater longevity

### Extremely robust compressor unit

- High degree of reliability under all environmental conditions
- Exceptional longevity
- AERZEN bearings for extremely long bearing service life (40,000 operating hours and more)

### Simplified maintenance requirements

- Large service doors on both control side and rear
- Safe, rapid access to service components
- Intelligent acoustic hood design for fast, problem-free motor exchange
- Option: vibration monitoring and analysis





## Efficiency. Essentials. Ecology. Elasticity. Evolution:

AERZEN's guiding principle for success is compressed into the 5 big "E"s. It's expressed in a number of intelligent details – and in a well thought out generation of compressors: the Delta Screw.



### Elasticity

#### AERZEN low pressure profiles

- Profile optimisation for significant energy savings
- Two profiles: 3+4 (for VML compressors) and 4+6 (for VM compressors)

#### Uniquely flexible.

- Out in front: the largest volume flows in a single machine
- A broad range of applications with a flow control range of between 30% and 100%
- Volume flows from 350 m<sup>3</sup>/h to 15,000 m<sup>3</sup>/h
- Expandable in the 120 m<sup>3</sup>/h to 2,650 m<sup>3</sup>/h range with belt-driven models
- Extensive possible modifications and accessories

#### Wide choice of models

- 11 direct-drive screw compressors to date (series is being expanded)
- VM, VML, and E-compressors G5-E

#### Special acoustic hoods for difficult environmental conditions

- For elevated noise control requirements
- For installation in deserts (with sand separators)
- For deployment on trucks, aboard ships, or in earthquake-prone areas
- Integrated heater and gravity louvers blinds available for operation in polar regions
- For wind loads of up to 150 km/h (special structural design)

### Evolution

#### Client-specific solutions

- Compressor, accessories and documentation in accordance with client requirements

#### Authorisation for use in compliance with current legal requirements

- Pressure Equipment Directive PED 2014/68/EU, or
- Any preferred local certification for use around the world
- ASME-compliant design of safety valve and pressure-side silencer
- Customer acceptance or receipt certificate in accordance with Lloyd's Register, DET Norske Veritas, Germanischer Lloyd and ABS

#### ATEX-certified

- Machine designs conform to ATEX Product Guideline 2014/34/EU

### Ecology

#### Oil-free in accordance with Class 0

- Integrated vacuum generator to guarantee oil-free conditions
- 100% oil-free in accordance with ISO 8573-1, TÜV-certified

#### Intelligently lowered noise levels

- Innovative, multifunctional acoustic hood design to keep machine noise low
- Breakthrough 3-chamber reactive silencer, free of absorption materials (European patent No. 1857682)

#### Very good for the environment

- Low emission levels
- Delta Screw compressors are almost entirely recyclable

# DELTA SCREW E-COMPRESSORS. THE SAVINGS WILL PAY FOR THE MACHINE.

**6% lower energy usage compared to conventional compressors – the AERZEN E-class is making a significant contribution to the realisation of legal and company energy savings programs. And with almost 90% of total costs taken up by energy, this means releasing serious potential that can be devoted to environmental protection, improved company liquidity, and reduced life-cycle costs.**

## **E as in Energy Savings.**

Up to 6% less energy usage: the Delta Screw E-class is the new standard when it comes to modern compressor technology. The basis for this is a series of intelligent ideas from our R&D

department that have a decisive effect on energy and maintenance costs. They make the difference between conventional compressors and E-compressors:

- Direct drive exclusively
- External intake for process air
- Intelligent cooling design: electric cooling fan instead of mechanically driven fan inside the acoustic hood. It provides perfect ventilation under the acoustic hood – with minimal energy consumption. Under normal conditions, you do not even need to use it. Outside cooling air for the oil cooler is also sent directly via an intake duct.
- Intelligently reduced pressure loss in both stages and accessories by means of:
  1. Outside air sent directly to the intake filter
  2. Optimised flow channels
  3. Flow cross-sections adjusted in package components
  4. The innovative noise silencer, flow-optimised and free of absorption materials. It is mounted vertically directly on top of the compressor stage and 100% power decoupled (two expansion joints). It reduces the noise pressure level in the piping by up to 35dB. The best thing: it does not need any absorption materials at all, which tend to disintegrate and contaminate downstream processes.



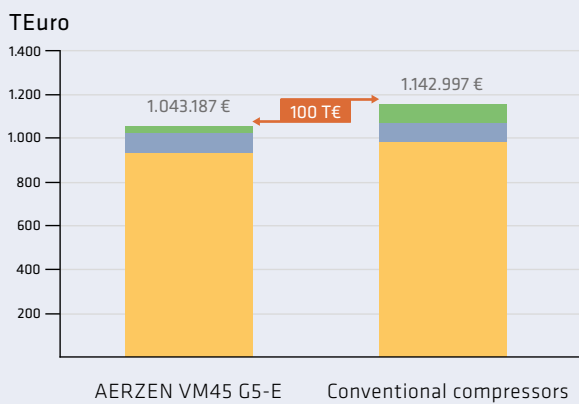
*Silo loading and unloading*



### E-compressors vs. conventional compressors: comparing life-cycle costs.

The calculations are for an operational lifespan of 10 years and are based on the following assumptions: operating hours per year: 6,000. Cost of electricity: 13 cents per kW/h. Differential pressure: 3.5 bar (g). Volume flow: 1,550 m<sup>3</sup>/h. Residual value of the machine after 10 years: 15%. Costs for insurance, buildings, and pipeline construction are not taken into account.

#### Life-cycle costs.



*Efficiency Plus: the AERZEN E-compressor will pay for itself.*

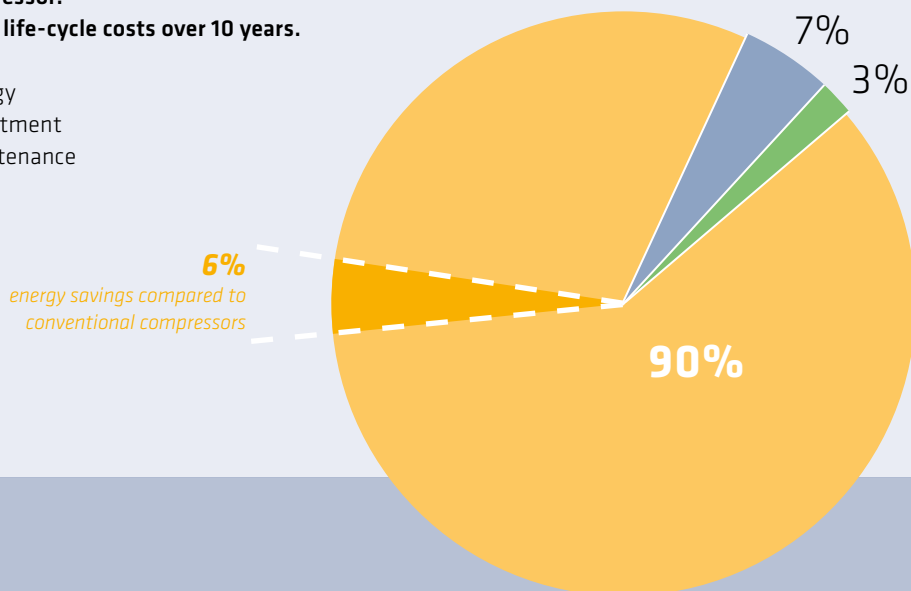
#### Results.

The calculations show that E-compressors have significant advantages over conventional (non-AERZEN) compressors. They save about €54,600 based on energy savings of around 6% over an operational life of 10 years. In the same time period, they reduce maintenance costs by about 61%. Because they can be serviced on site, E-compressors are much better when it comes to inspections. Unlike units from the competition, a complete replacement will not be necessary. Savings in terms of total costs: about €100,000. The takeaway: at about 7% of investment costs, the savings will practically pay for the unit.

#### E-compressor:

##### Average life-cycle costs over 10 years.

- Energy
- Investment
- Maintenance



# A LEGEND IN ITS OWN TIME: THE ALL-ROUNDER'S EXTREME RESILIENCE.

Their longevity is legendary, as is their reliability under extreme load conditions. No wonder that behind all Delta Screw compressors is the quality that the label “Made in Germany” promises. Added to that is the intelligent service and maintenance concept, as well as a seamless network of service teams the world over. Three of the many decision criteria that will steer you toward the All-Rounder from AERZEN.



*The AERZEN compressors: compact units that include oil cooler, oil pump, oil filter, oil circulation system, fan wheel, and transmission. AERZEN offers more than 20 stages for powerful high-performance packaged units.*

## **Quality “Made in Germany”.**

The Delta Screw is an AERZEN premium product. This means that behind each of these compressors are 150 years of experience in the research and design of high-performance compressed air machines. The knowhow of a global market leader. And the traditional commitment to quality of a German

family firm. This commitment extends to the engineering of our machines and core components, just as it does to the materials, workmanship and selection of our partners. It is also the basis for the exceptionally high value stability of our units.

### **Intelligently constructed.**

What do you get from the intelligent construction of our units? You save on resources. Starting with transportation. Delta Screw compressors can be moved by pallet truck, fork lift, or crane to the exact spot where they will be used. Furthermore: resource savings because the Delta Screw

takes up less room. Because the “plug and play” installation and startup are so simple. And the easy access to all parts subject to wear means that maintenance is simplified as well. The best thing of all: Our all-inclusive service can be done on site. Yet another advantage of premium quality.

### **Maintenance made easy.**

Let us start here: maintenance needs on AERZEN machines are lower than for any other compressor on the market today. That comes first of all from the modular hood design and the large access panels on the service and back sides. Motor, electronics, and compressor stages can be reached easily, or taken out if need be. With E-compressors, you don't even have to dismantle the acoustic hood. Secondly, from the many intelligent construction details. An example: the lubrication system. It stands for oil-lubricated bearings (they increase longevity significantly), for no oil change needed after 500 operating hours, and for very long oil change intervals of 16,000 operating hours. And should you indeed need a service team: all relevant parts are bundled into economic packages.



*AERZEN service kits – always a good choice*

### **Comfortable to operate.**

The operational concept of the Delta Screw is as simple as it is intelligent. It can be operated manually directly from the front of the machine. All control elements are located here for ease of access. The AERtronic control system takes care of running the unit. Intuitively. And above all safely. The intelligent AERZEN control system is your guarantee that your facility will always run at its optimal operating

point. This increases its efficiency and longevity. AERtronic can visualise and monitor all important parameters by virtue of numerous interfaces and communication paths. And finally: AERtronic can be adapted to any external power module. Due to the additional module „WebView“ the user can retrieve and monitor all operation and service data via smart device from everywhere in the world.

*AERtronic is a standard component in  
E-compressors*



# ANYTHING BUT ORDINARY. THE AERZEN SERVICE WORLD.

The long service life of AERZEN machines is legendary. So why is service an issue at all? Because for us it is about more than just availability and original OEM parts. AERZEN services safeguard investments and productivity and ensure you get ahead of the competition. And that is true throughout the world.

*Take advantage of AERZEN's OEM competence - any time wherever you are in the world.*



## **AERZEN on-site service.**

Our service teams work wherever our machines are: anywhere in the world; onshore or offshore; frequently under extreme conditions. How do we manage that? Because we are never far away. AERZEN has spread a thick net of service support centres and decentralised parts depots around the globe. There you will find over 200 well-trained service technicians ready to support you, whenever and wherever you need us.

## **About our rental and other services.**

The AERZEN service world has plenty to offer you. Specially tailored service kits for example. Replacement stages, machine diagnosis, acoustic optimisation. One of the most important services we offer is the AERZEN Rental Division, which boasts a large stock of rental machines: AERZEN blowers, turbos and compressors, in a wide range of performance classes; for all standard pressure ranges; for immediate use and delivered turnkey ready upon request. What does that mean for you? Even in the event of unanticipated need you are always well equipped.





#### **Contact around the world**

AERZEN employs 2,000 staff members across every continent. With six sales offices in Germany alone, we are always close at hand. And with 48 subsidiary companies spread across 100 different countries, we are never far away if you should need us. Call on:

**+49 5154 81-0**

#### **Service Hotline**

We are there for you, even when we are not actually there – outside of our normal business hours. Take advantage of a direct connection to AERZEN via our regional service hotlines:

**+49 171 3511834**

#### **Customer Net**

Where can you learn more about the company and about AERZEN leading compressor technology? It's quite simple: in our Customer Net and on our home page. Here we have made available everything you need to know:

**[www.aerzen.com](http://www.aerzen.com)**

# ALL-IN EVEN FOR BASIC UNITS. DELTA SCREW DELIVERABLES.

All-in is the name of the AERZEN delivery concept. It means that even basic units in the Delta Screw series have everything you will need for flawless operation as soon as you push the start button. With everything pre-installed, completely parameterised, and ready to run. And, if required, with motor starter, an extensive range of accessories, and oil fill.

**Just plug & play. Deliverables with all Delta Screw units.**

#### **VM and VML compressor stages**

- Pressurised oil lubrication, including shaft-driven oil pump, oil filter, oil pressure regulator valve, and air-flow oil cooler
- Completely piped oil circulation

#### **Torsion-resistant frame**

- For secure transport of the entire unit by forklift or crane
- For problem-free connections, even special three-phase motors

#### **Ventilated acoustic hood**

- For deployment indoors or out
- With integrated oil drip pan

#### **Electrical vacuum generator**

- For secure oil chamber venting
- Guaranteed 100% oil-free

#### **Intake filter**

- With integrated intake silencer

#### **Brand-name coupler for continuous operation**

- Highly flexible and low maintenance

#### **Pressure-side silencer**

- Significantly reduces pipe noise

#### **Safety valve (type tested)**

- Pipe connection possible

#### **Expansion joint(s)**

- PED or ASME design
- DIN or ANSI bolt pattern

#### **Flexible machine mountings**

- Vibration damped
- With negative restraint

#### **Double check valve**

- Needs minimal pressure to open

#### **Instrumentation or controls**

- Pressure and temperature sensors fully wired

#### **Initial oil fill**

- AERZEN Delta Lube 06

#### **Complete documentation**

**Modifications. For client-specific options.**

- Version available for nitrogen compressing with suction silencer, startup strainer, and (suction-side) expansion joint
- Vacuum version for VML units, also available with pre-inlet for vacuum operation down to -850 mbar
- Special paints
- AERtronic with profibus or profinet connection, frequency inverter modules, Modbus Gateway (Ethernet), WebView
- ANSI-compliant intake/pressure-side flange
- Compressor suitable for use on board of ships or on trucks
- Acoustic hood for increased noise attenuation or for use in extreme environments
- Gas-purged version for use with special gases
- Coatings for all parts in contact with media, including stainless-steel rotors for corrosive gases
- Stainless-steel for entire intake and discharge accessories
- Food-grade lubricants
- Water-cooled oil cooler
- Feature to allow oil or air filter to be changed while machine is running
- Piping connections modified to fit individual client requirements
- Potential air outlet connection for safety valve and air exhaust when used as vacuum pump
- Specialised power supply parts and transformers in case of different voltages for electrical components
- ATEX certification, including motors depending on ATEX zone, intrinsically safe control panel, and ATEX documentation
- Special instrumentation or controls based on client specifications
- Unit design/certification for use in compliance with:
  - PED 2014/68/EU (AD2000 and EN13445)
  - ASME Code VIII
  - Div.1, SELO (China License),
  - EAC (certification in Russia)
  - CRN (certification in Canada)
- API-compliant safety valves
- Customer acceptance or third party inspection in accordance with Lloyd's register, Det Norske Veritas, Germanischer Lloyd, and ABS
- Diesel engine with special coupling
- Special documentation, including balancing report, materials certificates, leakage testing, trial runs
- Extended warranty
- AERZEN service agreements

*The AERZEN idea: flexible Delta Screw stages, tailored to your application's needs*



# THE DECISION IS YOURS: THE STANDARD DELTA SCREW, OR THE E-COMPRESSOR.



## The standard Delta Screw design.

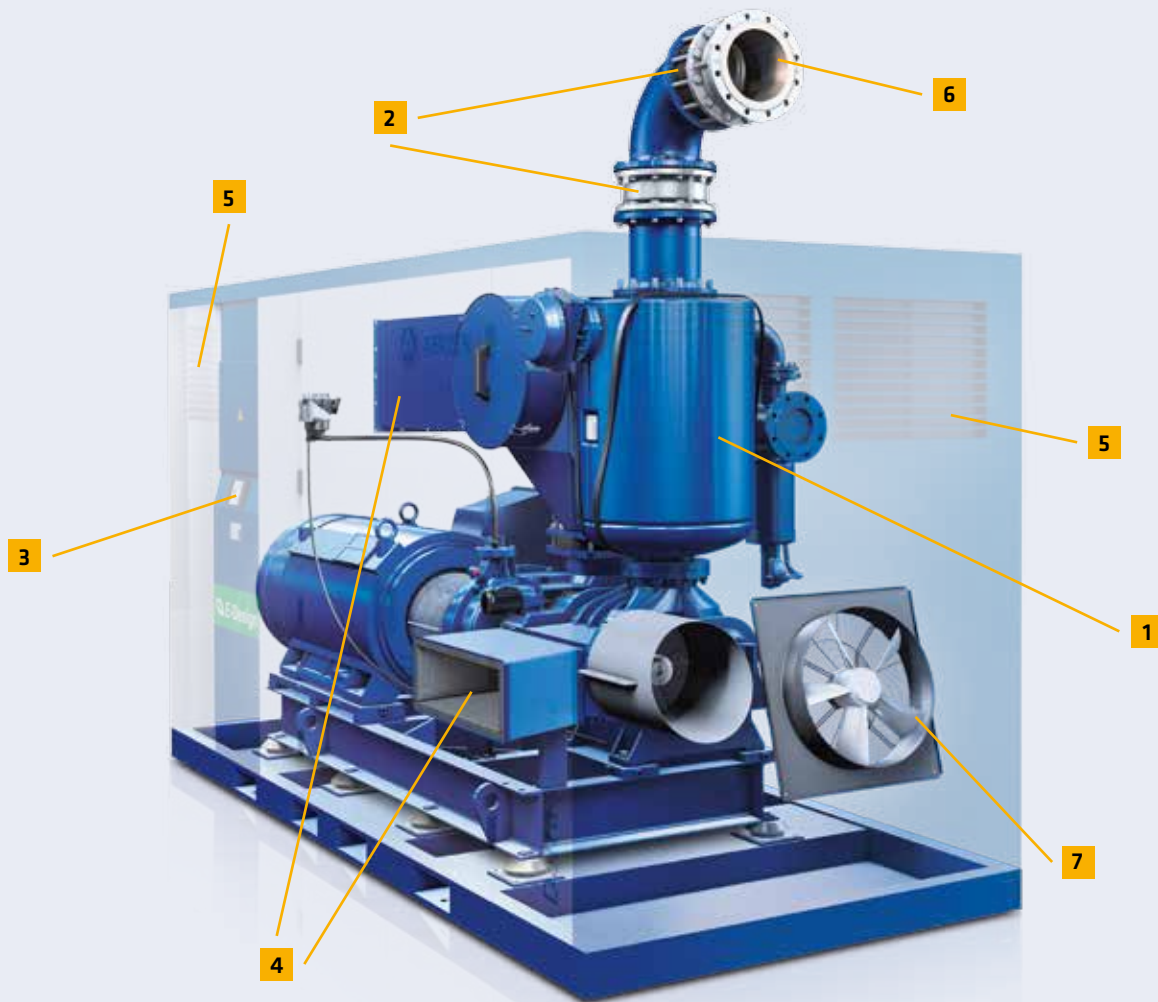
- 1 Horizontally positioned discharge silencer**
  - With connection chamber for pulsation reduction
- 2 Expansion joint**
  - For stress-free connection to the pressure line
- 3 Accommodates almost all commercially available motors**
  - Frame and acoustic hood can be rapidly adjusted

- 4 Discharge-side connection**
  - Can be positioned either vertically or horizontally
- 5 Ventilation inside the acoustic hood**
  - With shaft-driven cooling fan

### Not illustrated:

- Gauges
- Air intake and outlet silencers of the acoustic hood





### The Delta Screw E-compressor Design.

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>1 Vertically positioned discharge silencer</b></p> <ul style="list-style-type: none"> <li>• 3-chamber reactive silencer</li> <li>• Free of absorption material</li> </ul> <p><b>2 Two expansion joints</b></p> <ul style="list-style-type: none"> <li>• Installed vertically and horizontally</li> <li>• For stress-free connection to the pressure line</li> </ul> <p><b>3 AERtronic controls</b></p> <ul style="list-style-type: none"> <li>• Transmitter technology</li> <li>• For safe and efficient operation</li> <li>• With display and monitoring of intake pressure, discharge pressure, and oil pressure, as well discharge temperature and oil temperature</li> <li>• Power module control</li> </ul> | <p><b>4 Flow-optimised intake ducts</b></p> <ul style="list-style-type: none"> <li>• For process and cooling air</li> </ul> <p><b>5 Air intake and outlet hood silencers</b></p> <ul style="list-style-type: none"> <li>• Integrated into the acoustic hood to save space</li> </ul> <p><b>6 Discharge-side connection</b></p> <ul style="list-style-type: none"> <li>• Above the acoustic hood</li> </ul> <p><b>7 Ventilation inside the acoustic hood</b></p> <ul style="list-style-type: none"> <li>• Under normal conditions, no additional fan needed</li> <li>• Optional electrically driven fan</li> </ul> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

# INDIVIDUAL COMPONENTS OR TURNKEY UNIT? AERZEN IN ANY CASE.

**A flexible stage design combined with an almost limitless range of options and accessories: Delta Screw offers the world's most extensive compression design. Regardless of whether you install these all-rounders at the core of your system, or use a turnkey and perfectly integrated unit directly in your production processes.**

## **First class. AERZEN and its partners.**

AERZEN engineers all the core components. For the rest, we have selected partners who share in our quest for excellence and who are specialists in their field and renowned for their products. This is how we guarantee our high level of quality – something you can depend on with AERZEN.

## **Always a good fit. The connections.**

The large number of possible accessory components is anything but ordinary. Almost unique – and certainly a real advantage compared to other compressors – is the design of the Delta Screw connectors. It allows almost any external component to be integrated – without any large pressure loss and resultant loss of efficiency. You will have to look elsewhere to find section diameters that are too small, or poorly defined drive trains.

## **Vibration sensors. Machine monitoring and vibration analysis.**

Identify possible defects early and take the appropriate measures at the right time. AERZEN provides you with the tools you need. Whether permanent on-site vibration monitoring and analysis, or remotely with AERZEN specialists – we have the right solution for you.

## **Power elements. For the perfect start.**

The external or integrated performance parts for the machine start-up:

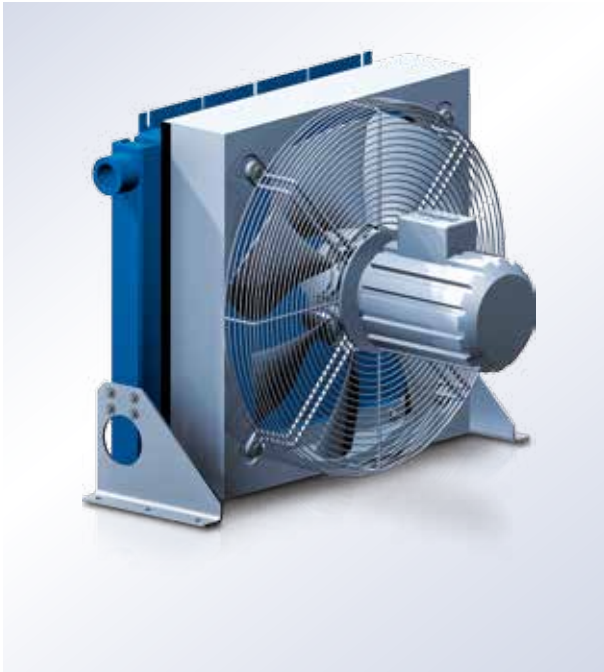
- Wye-Delta start
- Frequency inverter
- Soft start
- Direct across the line

Each element comes fully preparameterised and tuned to its respective Delta Screw unit.



*Power elements from AERZEN – for the perfect motor start.  
Both standard and client-specific designs.*





*The perfectly sized air/air aftercooler*

**Aftercooler. Proven at extreme discharge temperatures of up to 280 °C.**

The aftercoolers for the Delta Screw are setting new standards when it comes to minimising pressure loss. The portfolio offers you a broad spectrum of possible choices, including air/air aftercoolers. With cyclone separator and condensation drains. Always the most efficient solution for temperature-critical downstream processes.

- Completely independent series of air/air aftercoolers especially designed for the Delta Screw compressor series
- AERZEN highlight: choice of ventilator speed control depending on final air temperature
- Numerous options for the air/air aftercoolers: special paints and coatings, special fan motors, etc.
- Included in the standard model: aluminum cooler, motor, motor mount, fan housing, protective screen, fan
- Above 250 °C with integrated stainless steel pre-cooler
- Delta Screw aftercoolers also available in a water/air version



*Overflow regulators and pressure control valves ensure stable conditions*

**Minimum back pressure and pressure control valves. To ensure constant pressures.**

AERZEN provides premium pressure valves for its Delta Screw series. They provide the necessary countermeasures when pressure within the machine begins to fluctuate. This helps protect your system and significantly lengthens the useful life of your compressor.

Are there times when you need less pressurised air? The excess can be easily discharged with a pressure control valve – without having to stop the compressor all the time.





*AERZEN uses the IE3 motor*

#### **Motors. Class IE3 energy efficiency and more.**

Premium motors from renowned manufacturers are standard in all Delta Screw units. This series is open to practically all models and brands that can run the compression process:

- Three-phase motors that conform to IEC, NEMA or China GB 18613-2012
  - Motors for 50/60 Hz networks and differing voltage levels
  - Medium and high voltage motors
  - ATEX-compliant motors
  - Motors produced locally or supplied by the client
- Diesel engines, etc.

P.S.: AERZEN delivers all motors with the appropriate coupling, of course.

This spectrum is unique. As there are many motor options. Take for example the re-lubrication device, frequency inverter drive, temperature monitoring in the coils and bearings, stand-still heating, SPM nipples (vibration detectors), or special protection classes. As you would expect, this all includes complete assembly at AERZEN.



*AERZEN start unloading*

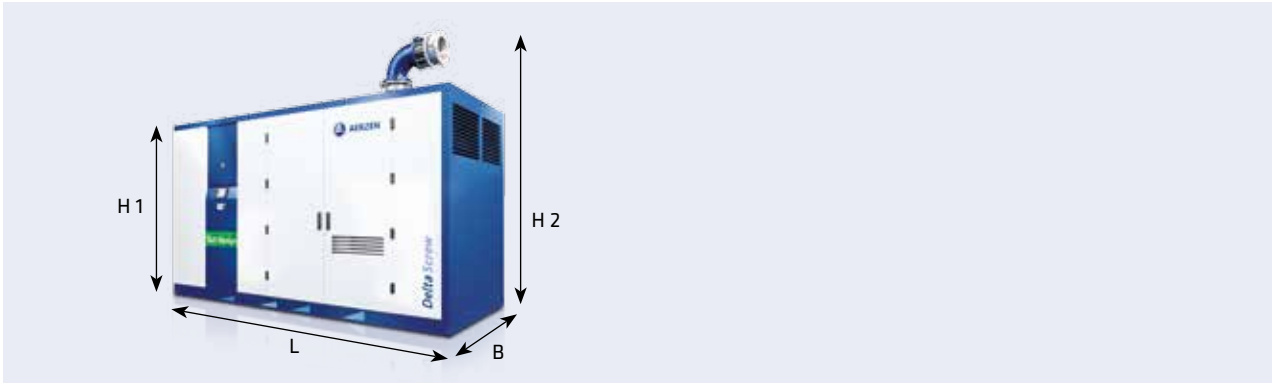
#### **Additional accessories. Start unloading.**

Depending on the compressor model: start unloading valve for VML compressors (self-actuated), idle/full load regulation for VM compressors. Includes balance suction throttling, relief valve, and pressure switch.

#### **Maintenance and inspection kits.**

For 1-year, 2-year, or 5-year operation. The maintenance and services kits contain all necessary service and wear parts so as to make later maintenance or inspection work on the compressor easier.

# COMPACT LINE. DELTA SCREW IN MM AND KG.



## Dimensions and weights of units with acoustic hood.

Compressor model	Length	Width	Height 1	Height 2	DN Pres- sure side	PN	Oil filling  l	Position of pressure port	Weight (without motor, with acoustic hood) kg
	mm	mm	mm	mm					
VM 30 G5-E	2900	1450	1900	2357	150	16	12	top	1950
VML 35 G5-E	2900	1450	1900	2357	150	16	12	top	2000
VM 45 G5-E	3200	1650	2200	2681	150	16	28	top	3000
VML 60 G5-E	3200	1650	2200	2741	200	10	28	top	3100
VM 75 G5-E	4100	1780	2375	2944	200	10	30	top	4300
VM 85	4500	1800	2320	2750	200	10	50	at the side or top	6000
VML 95 G5-E	4100	1780	2375	3051	250	10	30	top	4400
VM 100	4570	1960	2375	-	250	10	70	at the side	6550
VM 140	5250	2200	2870	3400	250	10	65	at the side or top	8500
VML 150	5300	2300	2500	3000	300	10	50	at the side or top	9000
VML 250	5500	2600	3000	3500	400	10	90	at the side or top	11600

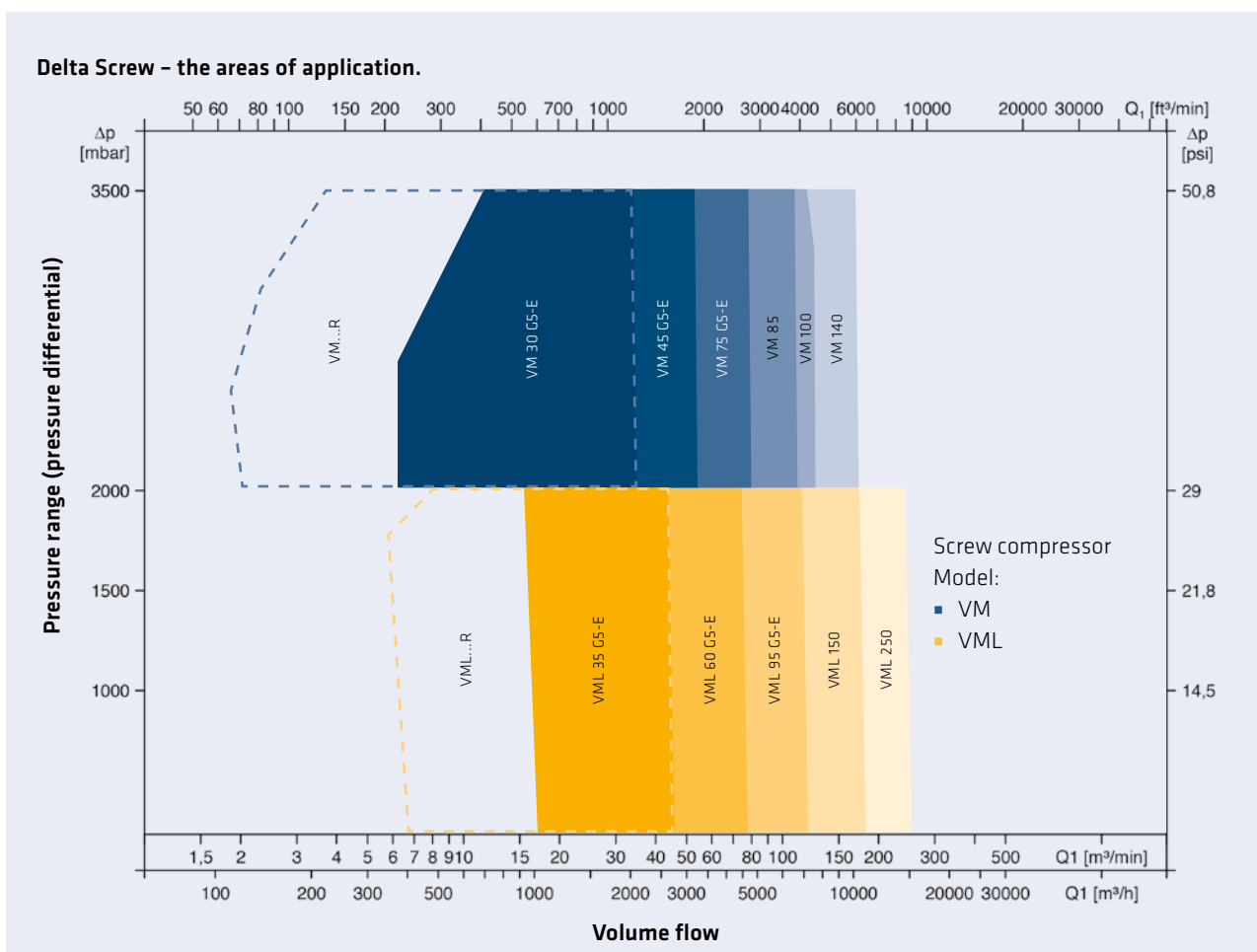
## Dimensions and weights of units without acoustic hood.

Compressor model	Length	Width	Height 2	Weight (without motor, without acoustic hood) kg
	mm	mm	mm	
VM 30 G5-E	2700	696	1921	1000
VML 35 G5-E	2700	696	1921	1100
VM 45 G5-E	2412	1508	2223	1870
VML 60 G5-E	2412	1508	2273	1970
VM 75 G5-E	2778	1734	2476	2500
VM 85	3000	1550	2530	3220
VML 95 G5-E	2778	1734	2583	2600
VM 100	3100	1700	2150	4750
VM 140	4000	1800	3200	5250
VML 150	4900	1800	3000	5000
VML 250	5100	2100	3500	7100

Subject to technical modifications - products subject to technical changes.

# RIGHT-SIZED. FOR EVERY PRESSURE AND VOLUME FLOW.

The Delta Screw compressors from AERZEN are the most multi-faceted machines in pressure technology. That is what makes them so superior in the efficient customisation for a broad range of process requirements. The flexible modular design of the units with direct drive already includes 9 models – with 7 more if you include belt-driven models (VM...R / VML...R). Can it get any more flexible?



## Explanation of model names.

VM 45 G5-E

- E-compressor (= energy-efficient unit design)
- 5th generation
- Volume flow in  $\text{m}^3/\text{min}$
- Compressor groups:

VM compressors with max. differential pressure  $\Delta p=3.5$  bar

VML compressors with max. differential pressure  $\Delta p=2.0$  bar

# PERFORMANCE DATA.

## Performance data.

The tables on the following pages will provide you with an overview of the performance data for all 9 VM and VML compressors with direct drive in the Delta Screw series. The following operating conditions were used to determine the data:

- Medium to be compressed: air
- Relative humidity: 0%
- Air intake temperature: 20 °C
- Intake pressure: 1 bar (absolute)

## Noise levels.

The sound pressure levels of machine noise shown here (Lp (A)) are based on a single unit with acoustic hood, insulated piping, and free field installation (tolerance +/- 2 dB). Measurements were taken 1 m from the perimeter of the machine. Noise levels were measured in accordance with DIN ISO 3744 and DIN EN ISO 2151.

## Model names:

VM compressors with short 4+6 rotor profile; differential pressure to max.  $\Delta p=3,5$  bar

VML compressors with long 3+4 rotor profiles; differential pressure to max.  $\Delta p=2,0$  bar

Positive pressure					
Compressor size	Max. allowable intake pressure [bar a]	Differential pressure $\Delta p$ [bar]	Volume flow	Motor performance	Noise level
			[m <sup>3</sup> /h]**	[kW]	[dB (A)]*
VM 30 G5-E	1,5	up to 3,5	350 to 2040	30 to 160 kW	74
VML 35 G5-E	1,2	up to 2,0	920 to 2600	30 to 160 kW	73
VM 45 G5-E	1,5	up to 3,5	770 to 3250	55 to 250 kW	75
VML 60 G5-E	1,2	up to 2	1140 to 4550	45 to 250 kW	79
VM 75 G5-E	1,5	up to 3,5	1070 to 4780	110 to 400 kW	76
VM 85	4,5	up to 3,5	1150 to 6760	90 to 560 kW	82
VML 95 G5-E	1,2	up to 2	1770 to 7000	75 to 355 kW	79
VM 100	1,5	up to 3,5	1500 to 7620	200 to 630 kW	87
VM 140	1,5	up to 3,5	2080 to 10700	160 to 800 kW	83
VML 150	1,2	up to 2	2300 to 10630	90 to 560 kW	84
VML 250	1,2	up to 2	5300 to 15000	160 to 800 kW	83

Negative pressure		
Compressor size	Max. negative pressure [bar]	Max. Volume flow [m <sup>3</sup> /h]
VML 35 G5-E	-0,7	2520
	-0,85	1710
VML 60 G5-E	-0,7	4410
	-0,85**	3690
VML 95 G5-E	-0,7	6800
	-0,85**	6000
VML 150	-0,7	10320
	-0,85**	8220
VML 250	-0,7	14360
	-0,85**	12000

Performance data not binding! Products subject to technical changes!

\* Machine noise with acoustic hood and attached, insulated piping. Tolerance +/- 2 dB(A) at mid-range speeds and pressures

\*\* With pre-inlet

\*\*\* Intake conditions: 20 °C and minimum differential pressure of 1 bar (VML) or 2 bar (VM)

VM 30 G5-E											
Discharge pressure $p_e$ [bar]			Transmission ratio designations								
			6	7	8	9	10	11	12	13	14
<b>2</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>623</b>	<b>737</b>	<b>855</b>	<b>998</b>	<b>1161</b>	<b>1332</b>	<b>1530</b>	<b>1766</b>	<b>2025</b>
	Coupling power	[kW]	33,3	37,8	42,4	48,3	55,2	62,8	72	84,5	99,4
	Discharge temperature	[°C]	175	169	164	161	159	158	157	158	160
	Motor speed	[1/min]	2965	2970	2965	2965	2980	2980	2980	2980	2980
	Motor power rating	[kW]	37	45	55	55	75	75	90	110	110
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	13,9	16,5	19,4	23,1	27,6	32,7	39,1	47,8	59
	Reduced moment of inertia	[kgm <sup>2</sup> ]	0,42	0,44	0,51	0,61	0,73	0,88	1,06	1,31	1,61
	Sound pressure level with hood	[dBA]	75	77	73	73	72	74	72	76	75
	Sound pressure level without hood	[dBA]	94	96	93	96	95	97	96	97	99
	<b>2,25</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>613</b>	<b>724</b>	<b>844</b>	<b>993</b>	<b>1150</b>	<b>1320</b>	<b>1519</b>	<b>1754</b>
Coupling power		[kW]	36,4	41	46	52,5	59,5	67,4	77,1	90,1	105,5
Discharge temperature		[°C]	192	184	179	174	171	169	168	168	170
Motor speed		[1/min]	2970	2965	2965	2980	2980	2980	2980	2980	2980
Motor power rating		[kW]	45	55	55	75	75	90	110	132	132
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	13,9	16,5	19,4	23,3	27,6	32,7	39,1	47,8	59
Reduced moment of inertia		[kgm <sup>2</sup> ]	0,42	0,44	0,51	0,61	0,73	0,88	1,06	1,31	1,61
Sound pressure level with hood		[dBA]	74	77	72	71	71	72	73	76	75
Sound pressure level without hood		[dBA]	93	95	92	93	94	95	96	97	99
<b>2,5</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>608</b>	<b>719</b>	<b>832</b>	<b>982</b>	<b>1138</b>	<b>1309</b>	<b>1507</b>	<b>1742</b>
	Coupling power	[kW]	39,2	44,4	49,6	56,5	63,8	72,1	82,2	95,7	111,8
	Discharge temperature	[°C]	207	199	194	188	184	181	179	179	180
	Motor speed	[1/min]	2970	2965	2965	2980	2980	2980	2980	2980	2980
	Motor power rating	[kW]	45	55	55	75	75	90	110	132	132
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	21,7	25,6	19,4	23,3	27,6	32,7	39,1	47,8	59
	Reduced moment of inertia	[kgm <sup>2</sup> ]	0,42	0,44	0,51	0,61	0,73	0,88	1,06	1,31	1,61
	Sound pressure level with hood	[dBA]	74	77	71	70	72	71	73	76	75
	Sound pressure level without hood	[dBA]	93	95	91	90	93	95	97	97	99
	<b>2,75</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>597</b>	<b>709</b>	<b>835</b>	<b>979</b>	<b>1135</b>	<b>1297</b>	<b>1495</b>	<b>1731</b>
Coupling power		[kW]	41,5	46,9	53,1	60,5	68,7	77	87,5	101,6	118,2
Discharge temperature		[°C]	221	212	205	200	196	193	191	190	190
Motor speed		[1/min]	2965	2965	2980	2980	2980	2980	2980	2980	2980
Motor power rating		[kW]	55	55	75	75	90	90	110	132	132
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	21,7	25,6	30,2	35,7	42,1	32,7	39,1	47,8	59
Reduced moment of inertia		[kgm <sup>2</sup> ]	0,42	0,44	0,51	0,61	0,73	0,88	1,06	1,31	1,61
Sound pressure level with hood		[dBA]	74	76	71	70	71	71	74	75	76
Sound pressure level without hood		[dBA]	93	94	92	90	93	94	98	97	101
<b>3</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>587</b>	<b>700</b>	<b>825</b>	<b>968</b>	<b>1125</b>	<b>1296</b>	<b>1495</b>	<b>1719</b>
	Coupling power	[kW]	43,9	49,5	56	63,5	72	81,6	93	107,4	124,6
	Discharge temperature	[°C]	236	225	217	211	207	204	202	200	200
	Motor speed	[1/min]	2965	2965	2980	2980	2980	2980	2980	2980	2980
	Motor power rating	[kW]	55	55	75	75	90	90	110	132	160
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	21,7	25,6	30,2	35,7	42,1	49,4	59	47,8	59
	Reduced moment of inertia	[kgm <sup>2</sup> ]	0,42	0,44	0,51	0,61	0,73	0,88	1,06	1,31	1,61
	Sound pressure level with hood	[dBA]	75	75	72	69	71	71	75	75	78
	Sound pressure level without hood	[dBA]	94	94	93	90	93	93	99	97	103
	<b>3,25</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>		<b>695</b>	<b>815</b>	<b>959</b>	<b>1115</b>	<b>1286</b>	<b>1485</b>	<b>1720</b>
Coupling power		[kW]		52,5	58,8	66,6	75,3	85,1	96,8	112,4	130,5
Discharge temperature		[°C]		239	230	222	217	213	210	209	208
Motor speed		[1/min]		2980	2980	2980	2980	2980	2980	2980	2980
Motor power rating		[kW]		75	75	75	90	110	132	160	160
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]		25,8	30,2	35,7	42,1	49,4	59	71	85
Reduced moment of inertia		[kgm <sup>2</sup> ]		0,44	0,51	0,61	0,73	0,88	1,06	1,31	1,61
Sound pressure level with hood		[dBA]		75	72	69	71	70	74	74	77
Sound pressure level without hood		[dBA]		94	91	91	93	93	98	96	102
<b>3,5</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>			<b>805</b>		<b>1106</b>	<b>1277</b>	<b>1475</b>	<b>1711</b>
	Coupling power	[kW]			61,7		69,7	78,7	88,8	100,8	116,8
	Discharge temperature	[°C]			242		234	228	223	220	217
	Motor speed	[1/min]			2980		2980	2980	2980	2980	2980
	Motor power rating	[kW]			75		90	90	110	132	160
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]			30,2		35,7	42,1	49,4	59	71
	Reduced moment of inertia	[kgm <sup>2</sup> ]			0,51		0,61	0,73	0,88	1,06	1,31
	Sound pressure level with hood	[dBA]			72		70	71	70	74	74
	Sound pressure level without hood	[dBA]			90		91	93	94	99	95

Performance data for intake pressure  $p_1=1.0$  bar (a) and air intake temperature  $t_1=20$  °C. Measured in accordance with ISO 1217. Volume flow corresponds to delivery volume flow based on intake conditions. (Performance data not binding. Products subject to technical changes.)



VM 45 G5-E											
Discharge pressure $p_e$ [bar]			Transmission ratio designations								
			4	5	6	7	8	9	10	11	12
<b>2</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1055</b>	<b>1228</b>	<b>1428</b>	<b>1662</b>	<b>1912</b>	<b>2188</b>	<b>2542</b>	<b>2848</b>	<b>3224</b>
	Coupling power	[kW]	57	64	72	83	94	107	126	143	167
	Discharge temperature	[°C]	172	167	164	161	160	159	160	161	164
	Motor speed	[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
	Motor power rating	[kW]	75	75	90	110	110	132	160	160	200
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	25.3	29.8	35.3	42.2	51	60	73	86	105
	Reduced moment of inertia	[kgm <sup>2</sup> ]	0.86	1.004	1.19	1.424	1.704	2.034	2.501	2.95	3.57
	Sound pressure level with hood	[dBA]	74	76	81	76	75	76	77	79	80
	Sound pressure level without hood	[dBA]	93	99	100	95	100	100	102	103	103
	<b>2.25</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1039</b>	<b>1211</b>	<b>1412</b>	<b>1646</b>	<b>1896</b>	<b>2172</b>	<b>2525</b>	<b>2832</b>
Coupling power		[kW]	62	69	78	89	101	115	134	152	177
Discharge temperature		[°C]	188	182	177	174	172	170	170	171	174
Motor speed		[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
Motor power rating		[kW]	75	90	90	110	132	132	160	200	200
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	25.3	29.8	35.3	42.2	51	60	73	86	105
Reduced moment of inertia		[kgm <sup>2</sup> ]	0.86	1.004	1.19	1.424	1.704	2.034	2.501	2.95	3.57
Sound pressure level with hood		[dBA]	73	76	81	74	75	76	77	78	79
Sound pressure level without hood		[dBA]	93	99	97	97	99	100	102	103	103
<b>2.5</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1032</b>	<b>1205</b>	<b>1396</b>	<b>1630</b>	<b>1880</b>	<b>2156</b>	<b>2510</b>	<b>2816</b>
	Coupling power	[kW]	67	75	84	96	108	123	143	162	188
	Discharge temperature	[°C]	202	197	191	187	184	182	181	181	184
	Motor speed	[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
	Motor power rating	[kW]	75	90	110	110	132	160	160	200	250
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	35.5	41.6	35.3	42.2	51	60	73	86	105
	Reduced moment of inertia	[kgm <sup>2</sup> ]	0.86	1.004	1.19	1.424	1.704	2.034	2.501	2.95	3.57
	Sound pressure level with hood	[dBA]	71	75	81	73	75	76	77	77	78
	Sound pressure level without hood	[dBA]	94	99	94	99	98	100	101	103	103
	<b>2.75</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1018</b>	<b>1191</b>	<b>1391</b>	<b>1625</b>	<b>1864</b>	<b>2140</b>	<b>2494</b>	<b>2800</b>
Coupling power		[kW]	70	79	90	103	116	131	152	171	198
Discharge temperature		[°C]	216	209	203	200	197	194	192	192	194
Motor speed		[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
Motor power rating		[kW]	90	90	110	132	132	160	200	200	250
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	35.5	41.6	49.1	59	51	60	73	86	105
Reduced moment of inertia		[kgm <sup>2</sup> ]	0.86	1.004	1.19	1.424	1.704	2.034	2.501	2.95	3.57
Sound pressure level with hood		[dBA]	71	74	81	73	75	75	77	77	78
Sound pressure level without hood		[dBA]	94	99	94	96	96	99	102	103	103
<b>3</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1005</b>	<b>1178</b>	<b>1378</b>	<b>1613</b>	<b>1862</b>	<b>2138</b>	<b>2477</b>	<b>2784</b>
	Coupling power	[kW]	74	84	95	108	122	139	160	181	209
	Discharge temperature	[°C]	229	221	215	210	207	205	203	203	204
	Motor speed	[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
	Motor power rating	[kW]	90	110	110	132	160	160	200	200	250
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	35.5	41.6	49.1	59	69	81	73	86	105
	Reduced moment of inertia	[kgm <sup>2</sup> ]	0.86	1.004	1.19	1.424	1.704	2.034	2.501	2.95	3.57
	Sound pressure level with hood	[dBA]	70	73	81	73	75	75	76	77	78
	Sound pressure level without hood	[dBA]	94	99	95	94	95	99	103	103	103
	<b>3.25</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>992</b>	<b>1164</b>	<b>1364</b>	<b>1599</b>	<b>1849</b>	<b>2125</b>	<b>2479</b>	<b>2785</b>
Coupling power		[kW]	79	88	99	113	128	145	168	190	219
Discharge temperature		[°C]	244	234	227	221	217	214	212	211	213
Motor speed		[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
Motor power rating		[kW]	90	110	110	132	160	160	200	250	250
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	35.5	41.6	49.1	59	69	81	98	114	136
Reduced moment of inertia		[kgm <sup>2</sup> ]	0.86	1.004	1.19	1.424	1.704	2.034	2.501	2.95	3.57
Sound pressure level with hood		[dBA]	70	72	81	73	75	75	76	77	79
Sound pressure level without hood		[dBA]	94	97	96	93	95	99	100	103	103
<b>3.5</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	-	<b>1151</b>	<b>1351</b>	<b>1585</b>	<b>1835</b>	<b>2112</b>	<b>2466</b>	<b>2772</b>
	Coupling power	[kW]	-	92	104	118	133	151	175	197	227
	Discharge temperature	[°C]	-	247	238	232	227	223	221	220	221
	Motor speed	[1/min]	-	2980	2980	2980	2980	2980	2980	2980	2980
	Motor power rating	[kW]	-	110	132	132	160	200	200	250	250
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	-	41.6	49.1	59	69	81	98	114	136
	Reduced moment of inertia	[kgm <sup>2</sup> ]	-	1.004	1.19	1.424	1.704	2.034	2.501	2.95	3.57
	Sound pressure level with hood	[dBA]	-	71	81	73	75	76	75	77	80
	Sound pressure level without hood	[dBA]	-	97	96	92	95	98	99	103	103

Performance data for intake pressure  $p_1=1.0$  bar (a) and air intake temperature  $t_1=20$  °C. Measured in accordance with ISO 1217. Volume flow corresponds to delivery volume flow based on intake conditions. (Performance data not binding. Products subject to technical changes.)

VM 75 G5-E											
Discharge pressure $p_e$ [bar]			Transmission ratio designations								
			2	3	4	5	6	7	8	9	9/10
<b>2</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1687</b>	<b>1970</b>	<b>2256</b>	<b>2606</b>	<b>2993</b>	<b>3400</b>	<b>3879</b>	<b>4495</b>	<b>4742</b>
	Coupling power	[kW]	90	102	115	130	148	167	191	223	237
	Discharge temperature	[°C]	175	171	168	166	165	165	166	169	170
	Motor speed	[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
	Motor power rating	[kW]	110	132	132	160	200	200	250	250	315
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	35.9	42.8	51	60	71	83	98	120	130
	Reduced moment of inertia	[kgm <sup>2</sup> ]	2.32	2.66	3.05	3.57	4.18	4.88	5.76	7.01	7.7
	Sound pressure level with hood	[dBA]	73	76	76	75	76	79	81	82	81
	Sound pressure level without hood	[dBA]	101	102	101	102	103	105	105	105	105
	<b>2.25</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1665</b>	<b>1949</b>	<b>2234</b>	<b>2585</b>	<b>2972</b>	<b>3378</b>	<b>3858</b>	<b>4474</b>
Coupling power		[kW]	98	111	124	140	159	179	203	237	251
Discharge temperature		[°C]	191	185	182	179	177	176	177	179	180
Motor speed		[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
Motor power rating		[kW]	110	132	160	160	200	200	250	315	315
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	35.9	42.8	51	60	71	83	98	120	130
Reduced moment of inertia		[kgm <sup>2</sup> ]	2.32	2.66	3.05	3.57	4.18	4.88	5.76	7.01	7.7
Sound pressure level with hood		[dBA]	74	76	76	75	76	79	80	82	81
Sound pressure level without hood		[dBA]	103	104	103	103	104	106	106	106	106
<b>2.5</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1643</b>	<b>1928</b>	<b>2213</b>	<b>2564</b>	<b>2951</b>	<b>3357</b>	<b>3836</b>	<b>4453</b>
	Coupling power	[kW]	106	120	134	151	170	191	216	251	266
	Discharge temperature	[°C]	208	201	196	192	189	188	188	189	190
	Motor speed	[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
	Motor power rating	[kW]	132	132	160	200	200	250	250	315	315
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	35.9	42.8	51	60	71	83	98	120	130
	Reduced moment of inertia	[kgm <sup>2</sup> ]	2.32	2.66	3.05	3.57	4.18	4.88	5.76	7.01	7.7
	Sound pressure level with hood	[dBA]	74	77	76	75	76	81	79	82	82
	Sound pressure level without hood	[dBA]	105	106	105	104	105	107	107	107	107
	<b>2.75</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1629</b>	<b>1912</b>	<b>2192</b>	<b>2543</b>	<b>2930</b>	<b>3336</b>	<b>3815</b>	<b>4431</b>
Coupling power		[kW]	113	128	144	161	182	203	230	266	281
Discharge temperature		[°C]	221	214	211	206	202	200	199	200	201
Motor speed		[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
Motor power rating		[kW]	132	160	160	200	200	250	315	315	315
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	57	67	51	60	71	83	98	120	130
Reduced moment of inertia		[kgm <sup>2</sup> ]	2.32	2.66	3.05	3.57	4.18	4.88	5.76	7.01	7.7
Sound pressure level with hood		[dBA]	73	77	76	76	76	80	79	82	82
Sound pressure level without hood		[dBA]	105	106	105	104	105	107	107	107	107
<b>3</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1612</b>	<b>1894</b>	<b>2178</b>	<b>2527</b>	<b>2908</b>	<b>3314</b>	<b>3794</b>	<b>4410</b>
	Coupling power	[kW]	119	135	151	171	193	216	243	280	296
	Discharge temperature	[°C]	235	227	222	218	215	212	211	210	211
	Motor speed	[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
	Motor power rating	[kW]	132	160	200	200	250	250	315	315	355
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	57	67	78	92	71	83	98	120	130
	Reduced moment of inertia	[kgm <sup>2</sup> ]	2.32	2.66	3.05	3.57	4.18	4.88	5.76	7.01	7.7
	Sound pressure level with hood	[dBA]	72	77	75	76	76	79	78	82	82
	Sound pressure level without hood	[dBA]	105	106	105	104	105	107	107	107	107
	<b>3.25</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1594</b>	<b>1876</b>	<b>2161</b>	<b>2509</b>	<b>2894</b>	<b>3298</b>	<b>3776</b>	<b>4390</b>
Coupling power		[kW]	126	142	159	179	203	227	257	295	312
Discharge temperature		[°C]	249	240	233	228	225	222	221	222	223
Motor speed		[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
Motor power rating		[kW]	160	160	200	200	250	250	315	355	355
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	57	67	78	92	108	126	147	120	130
Reduced moment of inertia		[kgm <sup>2</sup> ]	2.32	2.66	3.05	3.57	4.18	4.88	5.76	7.01	7.7
Sound pressure level with hood		[dBA]	73	77	76	77	76	79	79	83	82
Sound pressure level without hood		[dBA]	105	106	105	104	105	107	107	107	107
<b>3.5</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	-	-	<b>2142</b>	<b>2492</b>	<b>2877</b>	<b>3281</b>	<b>3758</b>	<b>4372</b>
	Coupling power	[kW]	-	-	166	188	211	237	267	308	325
	Discharge temperature	[°C]	-	-	245	239	235	232	230	230	231
	Motor speed	[1/min]	-	-	2980	2980	2980	2980	2980	2980	2980
	Motor power rating	[kW]	-	-	200	250	250	315	315	355	400
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	-	-	78	92	108	126	147	176	189
	Reduced moment of inertia	[kgm <sup>2</sup> ]	-	-	3.05	3.57	4.18	4.88	5.76	7.01	7.7
	Sound pressure level with hood	[dBA]	-	-	77	77	76	78	79	83	82
	Sound pressure level without hood	[dBA]	-	-	105	104	105	107	107	107	107

Performance data for intake pressure  $p_1=1.0$  bar (a) and air intake temperature  $t_1=20$  °C. Measured in accordance with ISO 1217. Volume flow corresponds to delivery volume flow based on intake conditions. (Performance data not binding. Products subject to technical changes.)

VM 85											
Discharge pressure $p_e$ [bar]			Transmission ratio designations								
			8	9	10	11	12	13	7/8	8	8/9
<b>2</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2592</b>	<b>3044</b>	<b>3447</b>	<b>3922</b>	<b>4488</b>	<b>5129</b>	<b>5563</b>	<b>5891</b>	<b>6288</b>
	Coupling power	[kW]	129	149	166	188	215	247	271	290	313
	Discharge temperature	[°C]	160	157	155	154	154	155	156	158	160
	Motor speed	[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
	Motor power rating	[kW]	160	200	200	250	250	315	315	355	355
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	55	67	79	94	113	137	155	170	189
	Reduced moment of inertia	[kgm <sup>2</sup> ]	10.6	13.1	15.7	18.9	23.2	28.6	9.9	10.6	11.9
	Sound pressure level with hood	[dBA]	79	81	81	82	82	85	85	86	87
	Sound pressure level without hood	[dBA]	109	110	110	111	112	113	114	114	115
	<b>2.25</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2590</b>	<b>3018</b>	<b>3421</b>	<b>3896</b>	<b>4462</b>	<b>5103</b>	<b>5537</b>	<b>5865</b>
Coupling power		[kW]	142	162	181	204	232	266	291	311	335
Discharge temperature		[°C]	175	171	168	167	166	166	167	169	170
Motor speed		[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
Motor power rating		[kW]	160	200	200	250	315	315	355	355	400
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	80	67	79	94	113	137	155	170	189
Reduced moment of inertia		[kgm <sup>2</sup> ]	10.6	13.1	15.7	18.9	23.2	28.6	9.9	10.6	11.9
Sound pressure level with hood		[dBA]	79	80	81	82	82	85	85	86	87
Sound pressure level without hood		[dBA]	110	111	111	112	113	114	115	115	115
<b>2.5</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2568</b>	<b>3022</b>	<b>3428</b>	<b>3871</b>	<b>4437</b>	<b>5078</b>	<b>5512</b>	<b>5840</b>
	Coupling power	[kW]	152	175	196	220	250	285	312	332	358
	Discharge temperature	[°C]	188	184	182	179	178	177	178	179	181
	Motor speed	[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
	Motor power rating	[kW]	200	200	250	250	315	315	355	400	400
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	80	98	115	94	113	137	155	170	189
	Reduced moment of inertia	[kgm <sup>2</sup> ]	10.6	13.1	15.7	18.9	23.2	28.6	9.9	10.6	11.9
	Sound pressure level with hood	[dBA]	79	80	81	82	83	85	86	87	88
	Sound pressure level without hood	[dBA]	111	112	112	112	114	115	116	116	116
	<b>2.75</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2546</b>	<b>3001</b>	<b>3406</b>	<b>3883</b>	<b>4453</b>	<b>5052</b>	<b>5486</b>	<b>5814</b>
Coupling power		[kW]	163	187	209	236	269	305	333	354	381
Discharge temperature		[°C]	201	196	194	192	191	189	190	191	192
Motor speed		[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
Motor power rating		[kW]	200	250	250	315	315	355	400	400	500
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	80	98	115	137	164	137	155	170	189
Reduced moment of inertia		[kgm <sup>2</sup> ]	10.6	13.1	15.7	18.9	23.2	28.6	9.9	10.6	11.9
Sound pressure level with hood		[dBA]	79	81	81	82	83	85	86	87	88
Sound pressure level without hood		[dBA]	112	112	112	113	115	116	116	116	117
<b>3</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2525</b>	<b>2979</b>	<b>3384</b>	<b>3861</b>	<b>4431</b>	<b>5075</b>	<b>5512</b>	<b>5842</b>
	Coupling power	[kW]	173	198	221	249	283	324	354	378	403
	Discharge temperature	[°C]	214	208	205	203	201	201	202	203	203
	Motor speed	[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
	Motor power rating	[kW]	200	250	250	315	315	400	400	500	500
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	80	98	115	137	164	197	222	242	189
	Reduced moment of inertia	[kgm <sup>2</sup> ]	10.6	13.1	15.7	18.9	23.2	28.6	9.9	10.6	11.9
	Sound pressure level with hood	[dBA]	80	81	82	84	84	85	86	87	88
	Sound pressure level without hood	[dBA]	112	113	113	114	115	116	117	117	117
	<b>3.25</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2503</b>	<b>2957</b>	<b>3363</b>	<b>3840</b>	<b>4409</b>	<b>5053</b>	<b>5491</b>	<b>5820</b>
Coupling power		[kW]	184	210	234	263	299	340	371	396	425
Discharge temperature		[°C]	229	221	217	214	212	211	212	213	214
Motor speed		[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
Motor power rating		[kW]	250	250	315	315	355	400	500	500	500
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	80	98	115	137	164	197	222	242	267
Reduced moment of inertia		[kgm <sup>2</sup> ]	10.6	13.1	15.7	18.9	23.2	28.6	9.9	10.6	11.9
Sound pressure level with hood		[dBA]	80	82	83	84	85	85	86	87	88
Sound pressure level without hood		[dBA]	113	113	114	114	116	117	117	118	118
<b>3.5</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2482</b>	<b>2936</b>	<b>3341</b>	<b>3818</b>	<b>4388</b>	<b>5032</b>	<b>5470</b>	<b>5798</b>
	Coupling power	[kW]	194	222	246	276	313	356	388	413	443
	Discharge temperature	[°C]	242	234	229	225	222	221	221	222	223
	Motor speed	[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
	Motor power rating	[kW]	250	250	315	315	355	400	500	500	500
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	80	98	115	137	164	197	222	242	267
	Reduced moment of inertia	[kgm <sup>2</sup> ]	10.6	13.1	15.7	18.9	23.2	28.6	9.9	10.6	11.9
	Sound pressure level with hood	[dBA]	81	82	84	84	85	85	86	87	88
	Sound pressure level without hood	[dBA]	113	114	114	115	116	117	118	118	119

Performance data for intake pressure  $p_1=1.0$  bar (a) and air intake temperature  $t_1=20$  °C. Measured in accordance with ISO 1217. Volume flow corresponds to delivery volume flow based on intake conditions. (Performance data not binding. Products subject to technical changes.)

VM 100											
Discharge pressure $p_e$ [bar]			Transmission ratio designations								
			7	8	9	10	11	11/12	6	7	8
<b>2</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2987</b>	<b>3440</b>	<b>4025</b>	<b>4544</b>	<b>5153</b>	<b>5514</b>	<b>5995</b>	<b>6718</b>	<b>7567</b>
	Coupling power	[kW]	150	170	196	221	251	270	297	340	395
	Discharge temperature	[°C]	159	156	155	155	155	155	157	160	164
	Motor speed	[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
	Motor power rating	[kW]	200	200	250	250	315	315	355	400	500
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	80	94	114	133	157	172	194	231	277
	Reduced moment of inertia	[kgm <sup>2</sup> ]	8.9	11.0	14.0	16.9	20.8	23.2	7.3	8.9	11.0
	Sound pressure level with hood	[dBA]	82	84	85	86	88	88	88	88	88
	Sound pressure level without hood	[dBA]	100	101	104	106	107	108	108	108	108
	<b>2.25</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2956</b>	<b>3409</b>	<b>3994</b>	<b>4514</b>	<b>5122</b>	<b>5484</b>	<b>5965</b>	<b>6689</b>
Coupling power		[kW]	163	184	212	237	269	288	317	362	418
Discharge temperature		[°C]	172	169	167	166	165	166	167	170	173
Motor speed		[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
Motor power rating		[kW]	200	250	250	315	315	355	355	400	500
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	80	94	114	133	157	172	194	231	277
Reduced moment of inertia		[kgm <sup>2</sup> ]	8.9	11.0	14.0	16.9	20.8	23.2	7.3	8.9	11.0
Sound pressure level with hood		[dBA]	82	84	86	87	88	89	89	89	89
Sound pressure level without hood		[dBA]	100	102	105	106	107	108	108	108	108
<b>2.5</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2925</b>	<b>3379</b>	<b>3963</b>	<b>4483</b>	<b>5092</b>	<b>5453</b>	<b>5935</b>	<b>6659</b>
	Coupling power	[kW]	176	198	227	254	287	308	337	383	441
	Discharge temperature	[°C]	186	182	179	177	176	176	177	179	183
	Motor speed	[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
	Motor power rating	[kW]	200	250	250	315	355	355	400	500	500
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	80	94	114	133	157	172	194	231	277
	Reduced moment of inertia	[kgm <sup>2</sup> ]	8.9	11.0	14.0	16.9	20.8	23.2	7.3	8.9	11.0
	Sound pressure level with hood	[dBA]	83	84	87	88	89	89	89	89	89
	Sound pressure level without hood	[dBA]	100	102	106	106	107	108	108	108	108
	<b>2.75</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2902</b>	<b>3353</b>	<b>3932</b>	<b>4453</b>	<b>5062</b>	<b>5423</b>	<b>5905</b>	<b>6629</b>
Coupling power		[kW]	187	211	243	272	306	327	358	406	466
Discharge temperature		[°C]	197	194	191	189	187	187	188	189	192
Motor speed		[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
Motor power rating		[kW]	250	250	315	315	355	400	400	500	560
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	124	146	114	133	157	172	194	231	277
Reduced moment of inertia		[kgm <sup>2</sup> ]	8.9	11.0	14.0	16.9	20.8	23.2	7.3	8.9	11.0
Sound pressure level with hood		[dBA]	83	84	87	88	89	89	89	89	89
Sound pressure level without hood		[dBA]	100	102	106	106	107	108	108	108	108
<b>3</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2876</b>	<b>3328</b>	<b>3910</b>	<b>4428</b>	<b>5031</b>	<b>5393</b>	<b>5874</b>	<b>6599</b>
	Coupling power	[kW]	197	222	256	287	325	346	378	428	490
	Discharge temperature	[°C]	209	204	201	199	198	198	198	200	202
	Motor speed	[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
	Motor power rating	[kW]	250	250	315	355	400	400	500	500	560
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	124	146	175	203	157	172	194	231	277
	Reduced moment of inertia	[kgm <sup>2</sup> ]	8.9	11.0	14.0	16.9	20.8	23.2	7.3	8.9	11.0
	Sound pressure level with hood	[dBA]	83	84	87	88	89	89	89	89	89
	Sound pressure level without hood	[dBA]	100	102	106	106	107	108	108	108	108
	<b>3.25</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2851</b>	<b>3302</b>	<b>3884</b>	<b>4403</b>	<b>5009</b>	<b>5369</b>	<b>5848</b>	<b>6570</b>
Coupling power		[kW]	207	233	268	300	339	362	396	449	513
Discharge temperature		[°C]	220	215	211	208	207	207	207	209	211
Motor speed		[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
Motor power rating		[kW]	250	315	315	355	400	400	500	500	630
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	124	146	175	203	237	259	290	339	401
Reduced moment of inertia		[kgm <sup>2</sup> ]	8.9	11.0	14.0	16.9	20.8	23.2	7.3	8.9	11.0
Sound pressure level with hood		[dBA]	83	84	87	88	89	89	89	89	89
Sound pressure level without hood		[dBA]	100	102	106	106	107	108	108	108	108
<b>3.5</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2825</b>	<b>3277</b>	<b>3859</b>	<b>4377</b>	<b>4984</b>	<b>5344</b>	<b>5823</b>	<b>6545</b>
	Coupling power	[kW]	217	244	280	313	353	377	412	466	532
	Discharge temperature	[°C]	232	226	221	218	216	215	216	217	219
	Motor speed	[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
	Motor power rating	[kW]	250	315	315	355	400	500	500	560	630
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	124	146	175	203	237	259	290	339	401
	Reduced moment of inertia	[kgm <sup>2</sup> ]	8.9	11.0	14.0	16.9	20.8	23.2	7.3	8.9	11.0
	Sound pressure level with hood	[dBA]	83	84	87	88	89	89	89	89	89
	Sound pressure level without hood	[dBA]	100	102	106	106	107	108	108	108	108

Performance data for intake pressure  $p_1=1.0$  bar (a) and air intake temperature  $t_1=20$  °C. Measured in accordance with ISO 1217. Volume flow corresponds to delivery volume flow based on intake conditions. (Performance data not binding. Products subject to technical changes.)

VM 140											
Discharge pressure $p_e$ [bar]			Transmission ratio designations								
			6	7	8	9	10	11	5/6	6	6/7
<b>2</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>4207</b>	<b>4847</b>	<b>5542</b>	<b>6260</b>	<b>7230</b>	<b>8310</b>	<b>9058</b>	<b>9553</b>	<b>10284</b>
	Coupling power	[kW]	205	231	262	294	340	394	432	458	498
	Discharge temperature	[°C]	161	158	157	156	156	157	158	160	161
	Motor speed	[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
	Motor power rating	[kW]	250	315	315	355	400	500	500	560	560
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	78	93	111	131	160	196	223	241	270
	Reduced moment of inertia	[kgm <sup>2</sup> ]	24,4	29,3	35,1	41,6	51,4	63,5	22,7	24,4	27,7
	Sound pressure level with hood	[dBA]	79	80	81	82	84	85	85	85	85
	Sound pressure level without hood	[dBA]	98	99	101	103	105	108	111	112	112
	<b>2.25</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>4167</b>	<b>4807</b>	<b>5501</b>	<b>6220</b>	<b>7190</b>	<b>8271</b>	<b>9019</b>	<b>9514</b>
Coupling power		[kW]	224	253	285	319	367	424	464	491	532
Discharge temperature		[°C]	176	172	170	168	168	168	169	170	172
Motor speed		[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
Motor power rating		[kW]	250	315	315	355	500	500	560	560	630
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	78	93	111	131	160	196	223	241	270
Reduced moment of inertia		[kgm <sup>2</sup> ]	24,4	29,3	35,1	41,6	51,4	63,5	22,7	24,4	27,7
Sound pressure level with hood		[dBA]	79	80	81	82	84	85	85	85	85
Sound pressure level without hood		[dBA]	99	99	101	104	106	109	112	112	112
<b>2.5</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>4106</b>	<b>4740</b>	<b>5461</b>	<b>6179</b>	<b>7150</b>	<b>8231</b>	<b>8979</b>	<b>9475</b>
	Coupling power	[kW]	239	271	308	344	395	455	497	525	567
	Discharge temperature	[°C]	198	195	183	181	180	180	180	181	182
	Motor speed	[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
	Motor power rating	[kW]	315	315	355	400	500	500	560	630	630
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	116	139	111	131	160	196	223	241	270
	Reduced moment of inertia	[kgm <sup>2</sup> ]	24,4	29,3	35,1	41,6	51,4	63,5	22,7	24,4	27,7
	Sound pressure level with hood	[dBA]	80	81	81	83	84	85	85	85	85
	Sound pressure level without hood	[dBA]	101	99	101	104	107	110	112	113	113
	<b>2.75</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>4073</b>	<b>4706</b>	<b>5395</b>	<b>6106</b>	<b>7110</b>	<b>8191</b>	<b>8940</b>	<b>9434</b>
Coupling power		[kW]	256	289	327	367	424	487	530	560	604
Discharge temperature		[°C]	213	208	205	204	193	192	192	192	193
Motor speed		[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
Motor power rating		[kW]	315	355	400	500	500	560	630	630	710
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	116	139	165	194	160	196	223	241	270
Reduced moment of inertia		[kgm <sup>2</sup> ]	24,4	29,3	35,1	41,6	51,4	63,5	22,7	24,4	27,7
Sound pressure level with hood		[dBA]	80	81	82	83	84	85	85	85	85
Sound pressure level without hood		[dBA]	102	100	103	106	109	112	114	114	114
<b>3</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>4040</b>	<b>4673</b>	<b>5361</b>	<b>6073</b>	<b>7033</b>	<b>8104</b>	<b>8900</b>	<b>9395</b>
	Coupling power	[kW]	272	307	346	387	446	514	563	593	639
	Discharge temperature	[°C]	227	221	217	215	214	214	203	204	204
	Motor speed	[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
	Motor power rating	[kW]	315	355	400	500	500	630	630	710	710
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	116	139	165	194	236	287	223	241	270
	Reduced moment of inertia	[kgm <sup>2</sup> ]	24,4	29,3	35,1	41,6	51,4	63,5	22,7	24,4	27,7
	Sound pressure level with hood	[dBA]	80	82	82	83	84	85	85	85	85
	Sound pressure level without hood	[dBA]	103	102	104	107	110	113	115	116	116
	<b>3.25</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>4006</b>	<b>4640</b>	<b>5328</b>	<b>6040</b>	<b>7001</b>	<b>8071</b>	<b>8813</b>	<b>9304</b>
Coupling power		[kW]	290	326	366	409	469	539	590	624	677
Discharge temperature		[°C]	242	235	231	227	225	224	225	225	216
Motor speed		[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
Motor power rating		[kW]	355	400	500	500	560	630	710	710	800
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	116	139	165	194	236	287	324	350	270
Reduced moment of inertia		[kgm <sup>2</sup> ]	24,4	29,3	35,1	41,6	51,4	63,5	22,7	24,4	27,7
Sound pressure level with hood		[dBA]	80	82	83	83	84	85	86	86	86
Sound pressure level without hood		[dBA]	105	103	105	108	111	114	116	117	117
<b>3.5</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	-	<b>4606</b>	<b>5294</b>	<b>6006</b>	<b>6967</b>	<b>8038</b>	<b>8780</b>	<b>9271</b>
	Coupling power	[kW]	-	343	385	430	492	564	616	651	704
	Discharge temperature	[°C]	-	249	243	239	236	235	235	235	236
	Motor speed	[1/min]	-	1490	1490	1490	1490	1490	2980	2980	2980
	Motor power rating	[kW]	-	400	500	500	560	630	710	800	800
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	-	139	165	194	236	287	324	350	390
	Reduced moment of inertia	[kgm <sup>2</sup> ]	-	29,3	35,1	41,6	51,4	63,5	22,7	24,4	27,7
	Sound pressure level with hood	[dBA]	-	83	83	84	84	85	86	86	86
	Sound pressure level without hood	[dBA]	-	104	106	109	112	115	117	118	118

Performance data for intake pressure  $p_1=1.0$  bar (a) and air intake temperature  $t_1=20$  °C. Measured in accordance with ISO 1217. Volume flow corresponds to delivery volume flow based on intake conditions. (Performance data not binding. Products subject to technical changes.)



VML 35 G5-E											
Discharge pressure $p_e$ [bar]			Transmission ratio designations								
			5/6	6/7	7/8	8/9	9/10	10/11	11/12	12	12/13
<b>0,75</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1052</b>	<b>1198</b>	<b>1384</b>	<b>1577</b>	<b>1786</b>	<b>2021</b>	<b>2302</b>	<b>2435</b>	<b>2609</b>
	Coupling power	[kW]	23,2	26,1	30	34,5	39,9	47	56,6	61,7	68,8
	Discharge temperature	[°C]	86	85	85	85	87	89	91	93	95
	Motor speed	[1/min]	2965	2965	2965	2970	2970	2965	2980	2980	2980
	Motor power rating	[kW]	30	30	37	45	45	55	75	75	90
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	9,6	11,3	13,6	16,5	19,9	24,7	31,3	34,8	39,9
	Reduced moment of inertia	[kgm <sup>2</sup> ]	0,57	0,66	0,73	0,87	1,18	1,74	2,57	3,05	3,7
	Sound pressure level with hood	[dBA]	66	67	71	75	73	75	76	79	82
	Sound pressure level without hood	[dBA]	90	92	94	100	99	100	102	105	108
	<b>1</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1030</b>	<b>1177</b>	<b>1364</b>	<b>1552</b>	<b>1762</b>	<b>2012</b>	<b>2281</b>	<b>2414</b>
Coupling power		[kW]	29,4	32,8	37,5	42,6	48,6	57,2	67,6	73,1	81
Discharge temperature		[°C]	105	103	102	102	102	104	106	107	109
Motor speed		[1/min]	2965	2965	2970	2965	2965	2980	2980	2980	2980
Motor power rating		[kW]	37	37	45	55	55	75	75	90	90
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	9,6	11,3	13,7	16,4	19,9	24,9	31,3	34,8	39,9
Reduced moment of inertia		[kgm <sup>2</sup> ]	0,57	0,66	0,73	0,87	1,18	1,74	2,57	3,05	3,7
Sound pressure level with hood		[dBA]	66	66	70	76	73	72	75	78	81
Sound pressure level without hood		[dBA]	90	90	94	101	98	97	100	104	106
<b>1,25</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1024</b>	<b>1170</b>	<b>1353</b>	<b>1553</b>	<b>1750</b>	<b>1991</b>	<b>2260</b>	<b>2393</b>
	Coupling power	[kW]	34,8	39	44,7	51,5	57,9	67,2	78,6	84,8	93,3
	Discharge temperature	[°C]	121	120	119	119	119	119	121	122	124
	Motor speed	[1/min]	2970	2970	2965	2980	2980	2980	2980	2980	2980
	Motor power rating	[kW]	45	45	55	75	75	75	90	110	110
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	14,4	16,9	20,4	24,7	20,1	24,9	31,3	34,8	39,9
	Reduced moment of inertia	[kgm <sup>2</sup> ]	0,57	0,66	0,73	0,87	1,18	1,74	2,57	3,05	3,7
	Sound pressure level with hood	[dBA]	67	66	70	76	72	72	74	76	78
	Sound pressure level without hood	[dBA]	91	90	93	100	97	98	99	101	103
	<b>1,5</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1007</b>	<b>1151</b>	<b>1345</b>	<b>1537</b>	<b>1747</b>	<b>1987</b>	<b>2240</b>	<b>2373</b>
Coupling power		[kW]	39,9	44,5	51,1	58,2	66,4	77,4	89,8	96,5	105,7
Discharge temperature		[°C]	138	135	133	133	134	135	136	137	138
Motor speed		[1/min]	2970	2965	2980	2980	2980	2980	2980	2980	2980
Motor power rating		[kW]	45	55	75	75	75	90	110	110	132
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	14,4	16,8	20,5	24,7	29,7	36,6	31,3	34,8	39,9
Reduced moment of inertia		[kgm <sup>2</sup> ]	0,57	0,66	0,73	0,87	1,18	1,74	2,57	3,05	3,7
Sound pressure level with hood		[dBA]	68	67	70	76	72	73	74	74	77
Sound pressure level without hood		[dBA]	91	91	93	101	97	98	99	99	102
<b>1,75</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>988</b>	<b>1142</b>	<b>1328</b>	<b>1520</b>	<b>1730</b>	<b>1970</b>	<b>2240</b>	<b>2374</b>
	Coupling power	[kW]	44,9	50,3	57,2	64,9	73,7	85,5	100	107,6	118,2
	Discharge temperature	[°C]	156	152	149	147	147	148	150	151	152
	Motor speed	[1/min]	2965	2980	2980	2980	2980	2980	2980	2980	2980
	Motor power rating	[kW]	55	75	75	75	90	110	110	132	132
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	14,3	17	20,5	24,7	29,7	36,6	45,4	51	57
	Reduced moment of inertia	[kgm <sup>2</sup> ]	0,57	0,66	0,73	0,87	1,18	1,74	2,57	3,05	3,7
	Sound pressure level with hood	[dBA]	69	68	71	77	72	73	75	75	77
	Sound pressure level without hood	[dBA]	93	93	94	101	97	99	100	100	102
	<b>2</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>977</b>	<b>1126</b>	<b>1311</b>	<b>1503</b>	<b>1713</b>	<b>1954</b>	<b>2224</b>	<b>2357</b>
Coupling power		[kW]	50,3	55,9	63,3	71,6	81	93,7	109	117,1	128,2
Discharge temperature		[°C]	174	168	164	162	161	161	162	163	164
Motor speed		[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
Motor power rating		[kW]	75	75	75	90	90	110	132	132	160
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	14,4	17	20,5	24,7	29,7	36,6	45,4	51	57
Reduced moment of inertia		[kgm <sup>2</sup> ]	0,57	0,66	0,73	0,87	1,18	1,74	2,57	3,05	3,7
Sound pressure level with hood		[dBA]	70	70	72	77	73	74	75	75	77
Sound pressure level without hood		[dBA]	94	96	96	102	98	99	101	100	102

Performance data for intake pressure  $p_1=1.0$  bar (a) and air intake temperature  $t_1=20$  °C. Measured in accordance with ISO 1217. Volume flow corresponds to delivery volume flow based on intake conditions. (Performance data not binding. Products subject to technical changes.)

VML 60 G5-E											
Discharge pressure $p_e$ [bar]			Transmission ratio designations								
			3	4	5	6	7	8	9	10	10/11
<b>0.75</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1710</b>	<b>1953</b>	<b>2235</b>	<b>2577</b>	<b>2960</b>	<b>3366</b>	<b>3814</b>	<b>4337</b>	<b>4555</b>
	Coupling power	[kW]	38.2	43.1	49	57	66	77	90	110	118
	Discharge temperature	[°C]	84	84	83	83	84	86	88	93	95
	Motor speed	[1/min]	2970	2965	2965	2980	2980	2980	2980	2980	2980
	Motor power rating	[kW]	45	55	55	75	75	90	110	132	132
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	17.3	20.4	24.2	29.4	36	43.9	54	69	76
	Reduced moment of inertia	[kgm <sup>2</sup> ]	1.0	1.2	1.4	1.8	2.2	2.6	3.2	3.9	4.4
	Sound pressure level with hood	[dBA]	69	67	73	76	79	78	77	77	77
	Sound pressure level without hood	[dBA]	95	94	97	97	103	108	107	108	107
	<b>1</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1686</b>	<b>1932</b>	<b>2216</b>	<b>2544</b>	<b>2927</b>	<b>3334</b>	<b>3782</b>	<b>4306</b>
Coupling power		[kW]	48.6	54	61	70	81	93	107	129	138
Discharge temperature		[°C]	103	101	100	99	99	100	102	106	108
Motor speed		[1/min]	2965	2980	2980	2980	2980	2980	2980	2980	2980
Motor power rating		[kW]	55	75	75	90	90	110	132	160	160
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	25.8	20.5	24.4	29.4	36	43.9	54	69	76
Reduced moment of inertia		[kgm <sup>2</sup> ]	1.0	1.2	1.4	1.8	2.2	2.6	3.2	3.9	4.4
Sound pressure level with hood		[dBA]	70	67	70	77	79	77	78	77	77
Sound pressure level without hood		[dBA]	96	94	98	97	102	106	107	107	108
<b>1.25</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1670</b>	<b>1919</b>	<b>2203</b>	<b>2531</b>	<b>2895</b>	<b>3302</b>	<b>3750</b>	<b>4274</b>
	Coupling power	[kW]	57	65	73	84	95	109	125	148	158
	Discharge temperature	[°C]	119	117	116	115	115	115	116	119	121
	Motor speed	[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
	Motor power rating	[kW]	75	75	90	110	110	132	160	200	200
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	26	30.8	36.6	44	36	43.9	54	69	76
	Reduced moment of inertia	[kgm <sup>2</sup> ]	1.0	1.2	1.4	1.8	2.2	2.6	3.2	3.9	4.4
	Sound pressure level with hood	[dBA]	70	67	71	75	79	78	79	77	78
	Sound pressure level without hood	[dBA]	96	95	98	99	103	105	104	108	107
	<b>1.5</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1645</b>	<b>1893</b>	<b>2177</b>	<b>2505</b>	<b>2889</b>	<b>3296</b>	<b>3718</b>	<b>4243</b>
Coupling power		[kW]	66	74	83	95	109	125	143	167	178
Discharge temperature		[°C]	135	132	130	129	129	129	130	133	135
Motor speed		[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
Motor power rating		[kW]	75	90	110	110	132	160	160	200	200
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	26	30.8	36.6	44	54	65	54	69	76
Reduced moment of inertia		[kgm <sup>2</sup> ]	1.0	1.2	1.4	1.8	2.2	2.6	3.2	3.9	4.4
Sound pressure level with hood		[dBA]	70	67	72	73	79	78	80	78	79
Sound pressure level without hood		[dBA]	97	96	98	102	104	106	104	109	107
<b>1.75</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1619</b>	<b>1867</b>	<b>2151</b>	<b>2479</b>	<b>2863</b>	<b>3271</b>	<b>3719</b>	<b>4244</b>
	Coupling power	[kW]	74	83	93	106	121	138	158	187	199
	Discharge temperature	[°C]	152	148	145	143	142	142	143	146	148
	Motor speed	[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
	Motor power rating	[kW]	90	110	110	132	160	160	200	250	250
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	26	30.8	36.6	44	54	65	79	99	108
	Reduced moment of inertia	[kgm <sup>2</sup> ]	1.0	1.2	1.4	1.8	2.2	2.6	3.2	3.9	4.4
	Sound pressure level with hood	[dBA]	71	70	74	73	79	79	80	78	79
	Sound pressure level without hood	[dBA]	98	99	99	104	104	106	106	110	108
	<b>2</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>1593</b>	<b>1841</b>	<b>2125</b>	<b>2453</b>	<b>2838</b>	<b>3245</b>	<b>3694</b>	<b>4219</b>
Coupling power		[kW]	82	92	103	117	133	151	173	202	216
Discharge temperature		[°C]	169	164	160	157	155	154	155	158	159
Motor speed		[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
Motor power rating		[kW]	110	110	132	132	160	200	200	250	250
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	26	30.8	36.6	44	54	65	79	99	108
Reduced moment of inertia		[kgm <sup>2</sup> ]	1.0	1.2	1.4	1.8	2.2	2.6	3.2	3.9	4.4
Sound pressure level with hood		[dBA]	73	73	75	74	80	80	80	79	80
Sound pressure level without hood		[dBA]	99	102	101	106	105	105	108	111	109

Performance data for intake pressure  $p_1=1.0$  bar (a) and air intake temperature  $t_1=20$  °C. Measured in accordance with ISO 1217. Volume flow corresponds to delivery volume flow based on intake conditions. (Performance data not binding. Products subject to technical changes.)

VML 95 G5-E											
Discharge pressure $p_e$ [bar]			Transmission ratio designations								
			8	9	10	11	12	13	7	8	8/9
<b>0.75</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>3017</b>	<b>3523</b>	<b>3987</b>	<b>4514</b>	<b>5139</b>	<b>5840</b>	<b>5934</b>	<b>6603</b>	<b>6981</b>
	Coupling power	[kW]	64	75	84	97	112	131	134	158	173
	Discharge temperature	[°C]	85	85	85	86	87	90	90	95	98
	Motor speed	[1/min]	1485	1485	1490	1490	1490	1490	2980	2980	2980
	Motor power rating	[kW]	75	90	110	110	132	160	160	200	200
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	31.3	38.1	45.3	55	66	80	82	100	112
	Reduced moment of inertia	[kgm <sup>2</sup> ]	7.3	8.5	9.6	11	12.7	14.9	6.6	7.3	8.0
	Sound pressure level with hood	[dBA]	72	71	73	81	78	79	78	79	82
	Sound pressure level without hood	[dBA]	99	100	102	103	106	106	106	107	107
	<b>1</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2969</b>	<b>3489</b>	<b>3940</b>	<b>4467</b>	<b>5092</b>	<b>5794</b>	<b>5888</b>	<b>6557</b>
Coupling power		[kW]	81	93	104	118	136	157	160	186	202
Discharge temperature		[°C]	103	102	101	102	102	104	104	109	111
Motor speed		[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
Motor power rating		[kW]	110	110	132	160	160	200	200	250	250
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	31.3	38.3	45.3	55	66	80	82	100	112
Reduced moment of inertia		[kgm <sup>2</sup> ]	7.3	8.5	9.6	11	12.7	14.9	6.6	7.3	8.0
Sound pressure level with hood		[dBA]	72	72	72	80	77	79	79	79	82
Sound pressure level without hood		[dBA]	99	100	102	103	106	106	106	107	107
<b>1.25</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2962</b>	<b>3469</b>	<b>3920</b>	<b>4420</b>	<b>5046</b>	<b>5747</b>	<b>5842</b>	<b>6511</b>
	Coupling power	[kW]	97	112	125	140	160	183	186	215	232
	Discharge temperature	[°C]	120	119	118	118	118	119	119	123	126
	Motor speed	[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
	Motor power rating	[kW]	110	132	160	160	200	250	250	250	315
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	47	58	68	55	66	80	82	100	112
	Reduced moment of inertia	[kgm <sup>2</sup> ]	7.3	8.5	9.6	11	12.7	14.9	6.6	7.3	8.0
	Sound pressure level with hood	[dBA]	72	72	72	79	78	79	79	79	82
	Sound pressure level without hood	[dBA]	100	101	102	103	104	106	106	107	108
	<b>1.5</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2924</b>	<b>3431</b>	<b>3883</b>	<b>4411</b>	<b>5036</b>	<b>5701</b>	<b>5795</b>	<b>6466</b>
Coupling power		[kW]	110	127	142	160	184	209	213	244	263
Discharge temperature		[°C]	135	133	132	132	133	134	134	138	140
Motor speed		[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
Motor power rating		[kW]	132	160	160	200	250	250	250	315	315
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	47	58	68	81	98	80	82	100	112
Reduced moment of inertia		[kgm <sup>2</sup> ]	7.3	8.5	9.6	11	12.7	14.9	6.6	7.3	8.0
Sound pressure level with hood		[dBA]	72	72	74	79	79	78	79	79	82
Sound pressure level without hood		[dBA]	102	102	102	103	104	107	107	108	108
<b>1.75</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2887</b>	<b>3394</b>	<b>3845</b>	<b>4373</b>	<b>5000</b>	<b>5702</b>	<b>5797</b>	<b>6467</b>
	Coupling power	[kW]	124	142	158	178	203	233	237	272	294
	Discharge temperature	[°C]	151	148	146	146	146	147	147	151	154
	Motor speed	[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
	Motor power rating	[kW]	160	160	200	250	250	315	315	315	355
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	47	58	68	81	98	118	120	144	160
	Reduced moment of inertia	[kgm <sup>2</sup> ]	7.3	8.5	9.6	11	12.7	14.9	6.6	7.3	8.0
	Sound pressure level with hood	[dBA]	72	73	74	79	79	79	79	80	84
	Sound pressure level without hood	[dBA]	103	102	103	104	106	105	106	109	111
	<b>2</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>2849</b>	<b>3356</b>	<b>3808</b>	<b>4336</b>	<b>4963</b>	<b>5666</b>	<b>5760</b>	<b>6431</b>
Coupling power		[kW]	138	157	175	196	223	254	258	295	318
Discharge temperature		[°C]	168	163	161	159	159	159	159	164	166
Motor speed		[1/min]	1490	1490	1490	1490	1490	1490	2980	2980	2980
Motor power rating		[kW]	160	200	200	250	315	315	315	355	355
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	47	58	68	81	98	118	120	144	160
Reduced moment of inertia		[kgm <sup>2</sup> ]	7.3	8.5	9.6	11	12.7	14.9	6.6	7.3	8.0
Sound pressure level with hood		[dBA]	73	74	75	80	80	80	80	81	85
Sound pressure level without hood		[dBA]	104	103	104	105	108	107	107	110	111

Performance data for intake pressure  $p_1=1.0$  bar (a) and air intake temperature  $t_1=20$  °C. Measured in accordance with ISO 1217. Volume flow corresponds to delivery volume flow based on intake conditions. (Performance data not binding. Products subject to technical changes.)

VML 150											
Discharge pressure $p_e$ [bar]			Transmission ratio designations								
			6	7	8	9	10	4/5	5	5/6	6
<b>0.75</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>4737</b>	<b>5390</b>	<b>6162</b>	<b>7159</b>	<b>8045</b>	<b>8720</b>	<b>9319</b>	<b>9926</b>	<b>10582</b>
	Coupling power	[kW]	103	116	133	156	179	197	215	233	255
	Discharge temperature	[°C]	84	83	83	84	85	86	87	89	90
	Motor speed	[1/min]	1490	1490	1490	1490	1490	2980	2980	2980	2980
	Motor power rating	[kW]	132	132	160	200	200	250	250	315	315
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	48.9	58	70	87	103	117	131	146	163
	Reduced moment of inertia	[kgm <sup>2</sup> ]	12.6	15.6	19.1	24.0	29.8	9.1	10.1	11.3	12.6
	Sound pressure level with hood	[dBA]	80	80	81	82	83	83	84	85	85
	Sound pressure level without hood	[dBA]	100	101	103	104	105	105	106	107	107
	<b>1</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>4663</b>	<b>5316</b>	<b>6088</b>	<b>7084</b>	<b>7972</b>	<b>8647</b>	<b>9246</b>	<b>9853</b>
Coupling power		[kW]	130	145	165	192	217	238	257	278	301
Discharge temperature		[°C]	101	100	99	99	100	100	101	102	104
Motor speed		[1/min]	1490	1490	1490	1490	1490	2980	2980	2980	2980
Motor power rating		[kW]	160	160	200	250	250	315	315	315	355
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	48.9	58	70	87	103	117	131	146	163
Reduced moment of inertia		[kgm <sup>2</sup> ]	12.6	15.6	19.1	24.0	29.8	9.1	10.1	11.3	12.6
Sound pressure level with hood		[dBA]	80	81	82	83	84	84	84	85	85
Sound pressure level without hood		[dBA]	100	101	103	104	105	105	106	107	107
<b>1.25</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>4631</b>	<b>5285</b>	<b>6056</b>	<b>7010</b>	<b>7898</b>	<b>8573</b>	<b>9173</b>	<b>9780</b>
	Coupling power	[kW]	154	174	198	227	256	279	300	322	348
	Discharge temperature	[°C]	117	116	116	115	115	115	116	116	117
	Motor speed	[1/min]	1490	1490	1490	1490	1490	2980	2980	2980	2980
	Motor power rating	[kW]	200	200	250	315	315	315	355	355	400
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	74	87	104	87	103	117	131	146	163
	Reduced moment of inertia	[kgm <sup>2</sup> ]	12.6	15.6	19.1	24.0	29.8	9.1	10.1	11.3	12.6
	Sound pressure level with hood	[dBA]	81	82	83	84	85	85	85	86	86
	Sound pressure level without hood	[dBA]	101	102	104	105	106	107	107	108	108
	<b>1.5</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>4571</b>	<b>5225</b>	<b>5998</b>	<b>6995</b>	<b>7883</b>	<b>8558</b>	<b>9100</b>	<b>9707</b>
Coupling power		[kW]	176	198	224	261	295	322	343	368	395
Discharge temperature		[°C]	132	131	129	129	129	130	130	131	132
Motor speed		[1/min]	1490	1490	1490	1490	1490	2980	2980	2980	2980
Motor power rating		[kW]	200	250	250	315	355	355	400	500	500
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	74	87	104	129	153	172	131	146	163
Reduced moment of inertia		[kgm <sup>2</sup> ]	12.6	15.6	19.1	24.0	29.8	9.1	10.1	11.3	12.6
Sound pressure level with hood		[dBA]	83	83	83	84	85	85	85	86	86
Sound pressure level without hood		[dBA]	104	105	106	107	108	108	108	109	109
<b>1.75</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>4513</b>	<b>5167</b>	<b>5939</b>	<b>6937</b>	<b>7825</b>	<b>8501</b>	<b>9101</b>	<b>9709</b>
	Coupling power	[kW]	198	222	251	290	326	355	382	411	442
	Discharge temperature	[°C]	148	145	143	142	142	142	143	144	145
	Motor speed	[1/min]	1490	1490	1490	1490	1490	2980	2980	2980	2980
	Motor power rating	[kW]	250	250	315	355	400	400	500	500	500
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	74	87	104	129	153	172	191	211	234
	Reduced moment of inertia	[kgm <sup>2</sup> ]	12.6	15.6	19.1	24.0	29.8	9.1	10.1	11.3	12.6
	Sound pressure level with hood	[dBA]	83	83	85	85	85	86	86	87	87
	Sound pressure level without hood	[dBA]	104	105	106	107	108	109	109	110	110
	<b>2</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>4454</b>	<b>5108</b>	<b>5881</b>	<b>6878</b>	<b>7767</b>	<b>8443</b>	<b>9043</b>	<b>9651</b>
Coupling power		[kW]	220	246	277	319	358	389	417	447	481
Discharge temperature		[°C]	164	161	158	156	155	155	155	155	156
Motor speed		[1/min]	1490	1490	1490	1490	1490	2980	2980	2980	2980
Motor power rating		[kW]	250	315	315	355	400	500	500	500	560
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	74	87	104	129	153	172	191	211	234
Reduced moment of inertia		[kgm <sup>2</sup> ]	12.6	15.6	19.1	24.0	29.8	9.1	10.1	11.3	12.6
Sound pressure level with hood		[dBA]	83	83	85	85	86	86	87	87	87
Sound pressure level without hood		[dBA]	105	106	108	109	110	110	111	111	112

Performance data for intake pressure  $p_1=1.0$  bar (a) and air intake temperature  $t_1=20$  °C. Measured in accordance with ISO 1217. Volume flow corresponds to delivery volume flow based on intake conditions. (Performance data not binding. Products subject to technical changes.)



VML 250											
Discharge pressure $p_e$ [bar]			Transmission ratio designations								
			2	3	4	5	6	7	8	8/9	9
<b>0,75</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>5951</b>	<b>6893</b>	<b>7933</b>	<b>9014</b>	<b>10142</b>	<b>11695</b>	<b>13252</b>	<b>14205</b>	<b>14855</b>
	Coupling power	[kW]	133	150	171	194	219	256	297	323	343
	Discharge temperature	[°C]	85	84	83	83	84	84	85	87	87
	Motor speed	[1/min]	1490	1490	1490	1490	1490	1490	1490	1490	1490
	Motor power rating	[kW]	160	200	200	250	250	315	355	400	400
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	39.5	47	56	67	78	96	117	131	141
	Reduced moment of inertia	[kgm <sup>2</sup> ]	15.61	19.27	23.68	29.02	35.84	44.69	54.96	63.02	68.75
	Sound pressure level with hood	[dBA]	79	80	82	83	84	85	85	85	85
	Sound pressure level without hood	[dBA]	98	98	100	100	101	103	105	106	107
	<b>1</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>5875</b>	<b>6775</b>	<b>7814</b>	<b>8896</b>	<b>10025</b>	<b>11578</b>	<b>13136</b>	<b>14090</b>
Coupling power		[kW]	169	191	215	242	271	313	359	389	411
Discharge temperature		[°C]	104	102	101	100	99	99	100	101	101
Motor speed		[1/min]	1490	1490	1490	1490	1490	1490	1490	1490	1490
Motor power rating		[kW]	200	250	250	315	315	355	400	500	500
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	59	47	56	67	78	96	117	131	141
Reduced moment of inertia		[kgm <sup>2</sup> ]	15.61	19.27	23.68	29.02	35.84	44.69	54.96	63.02	68.75
Sound pressure level with hood		[dBA]	80	80	82	83	84	85	86	86	86
Sound pressure level without hood		[dBA]	98	98	100	100	101	103	105	106	107
<b>1,25</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>5782</b>	<b>6724</b>	<b>7764</b>	<b>8845</b>	<b>9976</b>	<b>11461</b>	<b>13020</b>	<b>13974</b>
	Coupling power	[kW]	199	225	256	289	326	372	423	456	479
	Discharge temperature	[°C]	120	118	116	116	115	115	115	115	116
	Motor speed	[1/min]	1490	1490	1490	1490	1490	1490	1490	1490	1490
	Motor power rating	[kW]	250	250	315	355	400	500	500	560	560
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	59	71	84	100	117	96	117	131	141
	Reduced moment of inertia	[kgm <sup>2</sup> ]	15.61	19.27	23.68	29.02	35.84	44.69	54.96	63.02	68.75
	Sound pressure level with hood	[dBA]	80	81	82	83	84	85	85	86	86
	Sound pressure level without hood	[dBA]	98	99	100	101	102	104	106	107	108
	<b>1,5</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>5687</b>	<b>6629</b>	<b>7670</b>	<b>8753</b>	<b>9883</b>	<b>11438</b>	<b>12998</b>	<b>13952</b>
Coupling power		[kW]	229	259	292	329	368	426	487	527	549
Discharge temperature		[°C]	138	134	131	130	129	129	130	130	131
Motor speed		[1/min]	1490	1490	1490	1490	1490	1490	1490	1490	1490
Motor power rating		[kW]	315	315	355	400	500	500	560	630	630
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	59	71	84	100	117	143	173	192	141
Reduced moment of inertia		[kgm <sup>2</sup> ]	15.61	19.27	23.68	29.02	35.84	44.69	54.96	63.02	68.75
Sound pressure level with hood		[dBA]	81	82	83	83	84	85	85	86	87
Sound pressure level without hood		[dBA]	99	100	101	102	103	105	107	108	109
<b>1,75</b>		<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>5594</b>	<b>6536</b>	<b>7577</b>	<b>8659</b>	<b>9790</b>	<b>11345</b>	<b>12906</b>	<b>13861</b>
	Coupling power	[kW]	259	292	329	368	411	473	539	581	610
	Discharge temperature	[°C]	155	151	147	144	143	142	142	143	143
	Motor speed	[1/min]	1490	1490	1490	1490	1490	1490	1490	1490	1490
	Motor power rating	[kW]	315	355	400	500	500	560	630	710	710
	Power, idling $p_1=p_2=1.0$ bar (abs)	[kW]	59	71	84	100	117	143	173	192	206
	Reduced moment of inertia	[kgm <sup>2</sup> ]	15.61	19.27	23.68	29.02	35.84	44.69	54.96	63.02	68.75
	Sound pressure level with hood	[dBA]	82	83	84	84	85	85	87	87	87
	Sound pressure level without hood	[dBA]	101	102	103	104	105	107	109	109	110
	<b>2</b>	<b>Intake volume flow</b>	<b>[m<sup>3</sup>/h]</b>	<b>5500</b>	<b>6442</b>	<b>7484</b>	<b>8566</b>	<b>9697</b>	<b>11253</b>	<b>12815</b>	<b>13770</b>
Coupling power		[kW]	290	325	365	408	454	521	590	635	666
Discharge temperature		[°C]	174	168	163	159	157	155	155	155	155
Motor speed		[1/min]	1490	1490	1490	1490	1490	1490	1490	1490	1490
Motor power rating		[kW]	355	400	500	500	500	630	710	710	800
Power, idling $p_1=p_2=1.0$ bar (abs)		[kW]	59	71	84	100	117	143	173	192	206
Reduced moment of inertia		[kgm <sup>2</sup> ]	15.61	19.27	23.68	29.02	35.84	44.69	54.96	63.02	68.75
Sound pressure level with hood		[dBA]	83	84	85	84	85	86	87	87	87
Sound pressure level without hood		[dBA]	103	104	105	106	107	108	110	111	111

Performance data for intake pressure  $p_1=1.0$  bar (a) and air intake temperature  $t_1=20$  °C. Measured in accordance with ISO 1217. Volume flow corresponds to delivery volume flow based on intake conditions. (Performance data not binding. Products subject to technical changes.)



**AERZEN. Compression as success principle.**

AERZEN was founded in 1864 as Aerzener Maschinenfabrik. In 1868 we built Europe's first rotary lobe blower. The first Turbo compressors followed in 1911, the first screw compressor in 1943, and in 2010 the world's first rotary lobe compressor unit. Innovations "made by AERZEN" keep driving the development of compressor technology. Today, AERZEN is among the world's oldest and most significant manufacturers of rotary lobe blowers, rotary lobe compressors, rotary lobe meters, screw compressors, and Turbo blowers. And among the undisputed market leaders in many areas of applications.

More than 2,000 experienced employees in over 40 subsidiaries the world over are fully engaged in the advancement of the compressor technology. Their technological expertise, our international network of experts, and constant feedback from our clients form the basis for our success. Products and services from AERZEN are setting standards when it comes to reliability, lasting value, and efficiency. Go ahead: challenge us!

Aerzener Maschinenfabrik GmbH  
Reherweg 28 – 31855 Aerzen / Germany  
Telephone: +49 5154 81-0 – Fax: +49 5154 81-9191  
info@aerzener.de – www.aerzen.com



**AERZEN**  
EXPECT PERFORMANCE