SCREW COMPRESSORS
DELTA SCREW GENERATION 5 *PLUS*

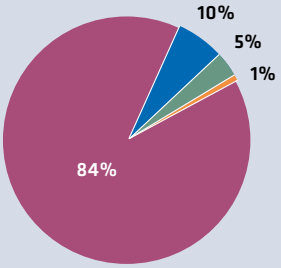
Oil-free compression in the pressure range up to 4,5 bar (a)
Volume flows of 120 m^3/h to 2,650 m^3/h

AERZEN

MAXIMIZING ENERGY EFFICIENCY.

The ongoing development of AERZEN's successful compressor generation makes the demands of tomorrow the principles of today.

The reference class:
Delta Screw Generation 5 *plus*
Today's processing industry's demands for increased performance and ever higher gas compression efficiency are among the greatest technological challenges.
For decades, the most successful solutions have been coming from AERZEN. And now the renowned compressor specialist has made its premium class even better. New developments in the successful belt-driven Delta Screw Generation 5 compressors are setting new standards for reliability, performance and low lifecycle costs (LCC).



„STATE-OF-THE-ART OF COMPRESSION TECHNOLOGY:
AERZEN Delta Screw GENERATION 5 *plus*“

INCREASING EFFECTIVENESS. TECHNICAL INNOVATIONS AND PERFECTION: THE NEW LOOK OF ECONOMY.

Significantly increasing energy efficiency was our goal in continuing to develop the Delta Screw series – together with reducing energy costs and CO_2 emissions consider-ably for their users. To do this, we took a close look at every detail in the entire series. The result: the perfect symbiosis of high-performance stages, a lot of innovations and flow-optimized unit components. Each and every component has been precision tuned to handle specific volume flows. A big advantage to the user when it comes to efficiency and economy.

IE3. The new generation of electric motors for maximized efficiency.
Although they won't become mandatory until 2015, AERZEN has decided to fit its Delta Screw Generation 5 *plus* packages with efficiency class IE3 motors.

These sophisticated motors are at the very top of the European "Premium Efficiency" class and have the potential for increased savings for you the user of the Generation 5 *plus* package.

IE3 motor used by AERZEN

The new IEC 60034-30 norm.
It defines and harmonizes the efficiency classes for low-voltage rotary current asynchronous motors between 50 and 60 Hz. Starting 1 January 2015, motors with an output range between 7.5 kW and 375 kW must conform to efficiency class IE3, or IE2 with frequency converter.

- IE1= previous efficiency class ("Standard Efficiency" – comparable to EFF2)
- IE2 = present efficiency class ("High Efficiency" – comparable to EFF1)
- IE3 = future efficiency class ("Premium Efficiency")

IEC 60034-30 efficiency classes for three-phase AC motors

All Aerzen screw compressors are fitted with energy efficiency class IE3 motors.

Optimizing inflow: increased performance.
The accessories are also an important factor in the extraordinary energy efficiency of the new Delta Screw Generation 5 *plus* compressor packages. They have been adapted exactly to achieve peak values. To reduce pressure loss within the package to an absolute minimum, we use generously dimensioned sizes and check valves with broad cross-sections. Optimizing the fluid dynamics of the intake and outlet openings, combined with a new silencer design, ensure ideal airflows within the compressor.

Innovative noise suppression design: less pressure loss, more efficiency.
The primary aim in developing this new generation of high-performance compressors was to significantly reduce pressure losses. We achieved this on the discharge side by eliminating the absorption material in the silencers while improving their fluid dynamics. The horizontally arranged, 5-chamber reflection silencer is the result of many years of research on the part of AERZEN's development team (patent applied for).
Thanks to optimized cross-sections along with ideal chamber and pipe lengths, the package's noise level was reduced to less than 80 dB(A), depending on operating parameters. And by the way: this discharge-sided silencer also serves as a spark suppressor in keeping with ATEX guideline 137 for explosion-protected systems. The best thing: it doesn't have any internal absorption material at all, material that tends to fall off and contaminate downstream processes. A KO criterion for the food and chemical industries.

Eliminating absorption material in the silencer provides many benefits

INCREASING FLEXIBILITY – PROFITABILITY STARTS WHEN COMPRESSOR SYSTEMS ARE TAILORED TO THE PROCESS.

Perfectly tailored to the myriad applications in power plant technology: Delta Screw Generation 5 plus

Leading companies in industries ranging from petrochemicals to cement have been relying on AERZEN for decades, and for good reason: The Delta Screw series is unrivalled in the assortment and flexibility of available models and how they can be adapted to a wide range of customer requirements. The Delta Screw Generation 5 *plus* series has set a whole new standard. The new benchmark class of dry-running screw compressors.

Power packs: The right model for your application.
Delta Screw Generation 5 *plus* compressor packages are designed for compressing air, nitrogen and other neutral gases. Its strengths aren't limited to this alone, however. With their extraordinary flexibility, these compressors are ideal for a host of other application areas: special gases, vacuum operations and booster applications. With 7 sizes in the 120 to 2,650 m^3/h volume flow range alone, AERZEN has by far the largest portfolio on the market. The direct-drive models can even extend that range up to 15,000 m^3/h.

OUTSTANDING ROTOR GEOMETRIES: ADDED PERFORMANCE AT POSITIVE AND NEGATIVE PRESSURES.

Another unique feature: the screw compressors in the Generation 5 *plus* series come with a choice of specially designed rotor profiles for added flexibility. VML compressors have a 3+4 profile and are ideal for applications up to pressure ratio 3 (final pressure over intake pressure). That means they are also perfect for negative pressure applications up to 70% vacuum (0.3 bar abs.).
A special pre-inlet version can achieve up to 85% vacuum (0.15 bar abs.).

3+4 screw profile (VML compressor)

4+6 screw profile (VM compressor)

VM compressors have a 4+6 profile. They are tailor-made for positive pressure ranges (up to pressure ratio 4.5) and for intake volume flows of around 120 m^3/h to 2,030 m^3/h.

- VML compressor up to max. p_e = 2 bar (g)
- VM compressor up to max. p_e = 3,5 bar (g)

π_i.– adaptable outlets for the perfect configuration.
The available outlet port choices enable the AERZEN compressor to be adapted for the process at hand. The various outlets in the cylinder, called πi, are a measure of internal compression. This flexibility is decisive. In every Delta Screw Generation 5 *plus* compressor, the choice of compressor type and πi can be optimized to best meet the desired pressure and volume flow. Over- and under-compression can be minimized, leading to maximizing the compressor's efficiency.

100% oil-free: The green light for sensitive applications.
Sensitive processes in, for example, the food or pharmaceutical industries require that compression be absolutely oil-free. The Delta Screw Generation 5 *plus* design meets this requirement 100%. A special oil chamber seal ensures that no oil enters the compression chamber. In addition, a vacuum generator evacuates oil vapor from the oil sump, separates the oil from the air and returns it to the oil circuit. This new design guarantees long-term oil-free operation. This has been confirmed according to ISO 8573-1, Class 0 by the TÜV Rheinland.

Wide range of applications in both indoor and outdoor installations

- Conveyance or compression of inert gases
- Pneumatic air or nitrogen transport of powders, bulk solids, ash, etc.
- Aeration of sewage tanks
- Blending of cement
- Vacuum forming for the glass industry
- Keeping waterways and ports ice-free
- Creating oil barriers
- Gas-air mixing installations
- Oxidation air for power plants
- Stationary unloading of tanker trucks
- Vacuum production for the paper industry
- Forced air for spun-bonded olefin production
- Aircraft turbine starters

The right choice for special gases in the petro-chemical industry: Delta Screw Generation 5 plus

"Achieving emptiness": Delta Screw Generation 5 plus and vacuum production for the glass container industry

COMFORT REDESIGNED: INTELLIGENCE IS EVIDENT IN MANY DETAILS.

User friendliness and reliability are not ends in themselves. They mean lower lifecycle costs (LCC) and added efficiency in energy-intensive compression processes. In the benchmark Delta Screw Generation 5 *plus* units, these advantages begin with the AERtronic controller and continue well beyond 16,000 hours of operation.

AERtronic: the new control system for even more operational efficiency.
The new AERZEN control system is standard with all belt-driven Generation 5 *plus* VM or VML compressors. It monitors and displays operational data, runs the OH counter, provides early notifications of operational events, and saves them together with related data for later traceability. The basic module contains all the functionalities necessary for running a compressor package. The input/output ports allow for almost unlimited modular expansion for sensors and communication devices. All visualization, navigation and control functions can be handled intuitively on a 4.3" TFT LCD color touchscreen display that is integrated into the front of the acoustic hood for easy access.

Digital advantages that pay for themselves

- Increased system efficiency, safety, and availability
- Powerful functionalities available even in the basic equipment
- Expandable with additional modules to meet changing needs
- Intuitive operation with the TFT LCD color touchscreen display
- Optional AERtronic master package for combining up to 12 machines into a powerful network, with energy savings of up to 30%
- For use in all AERZEN screw and rotary lobe compressors and positive displacement blowers
- Deployable regardless of manufacturer
- ATEX applications for multiple zones

Compact design, easy handling.
Reducing installation time and maintenance costs was something that Generation 5 *plus* developers focused on. They began with an extremely compact design: the packages are up to 50% smaller than conventional models. They can be easily moved on site with a pallet truck or forklift. Another plus of the design: the packages can be installed side by side while maintaining acces-sibility for later service and maintenance work. Reducing space requirements also means smaller machine rooms, and that in turn helps lower overall costs.

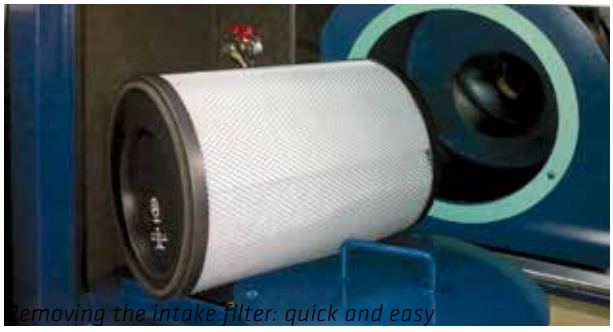
The operating and maintenance concept: intelligent, simple, head-on.
All controls are located on the front of the package. Any components needing regular maintenance can also be accessed from the front. About 0.8 m in front of the machine is the minimum access space needed. The packages come complete with an integrated service kit – motor lifting jack, filling funnel, and the first oil fill – to make commissioning and subsequent maintenance easier.

Compact design to minimize space requirements: side-by-side variant

Inspired: checking oil levels during operation.
The new oil system is one of the outstanding features of the Generation 5 *plus* machines. The AERtronic control can monitor the oil level even during operation. In practice, this means that shutting down the system to check the oil levels – and ongoing processes and production along with it – has become a thing of the past. In addition, the intervals between necessary oil changes can be doubled to 16,000 operating hours by using AERZEN's Delta Lube 06.

Patented belt drive: for lower maintenance efforts and increased flexibility.
Belt drive is standard on Generation 5 *plus* screw compressors. This allows for a wide range of possible transmission ratios, simply by choosing the right sheave diameter. Even retroactive adaptation – as a result of new operating parameters, for example – can be done easily and economically. The drive motor is mounted on a hinged support, with its own weight providing optimal belt tension. No retightening of the belts is necessary.


Filling the compressor with lube oil: never a p
Filling the compressor with lube oil: never a problem

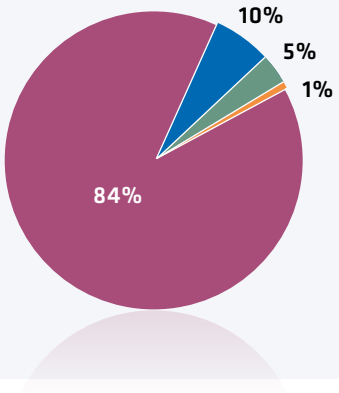

Removing the intake filter: quick and easy
Removing the intake filter: quick and easy

LIVING QUALITY. SUSTAINABILITY IS MORE THAN JUST A BUZZWORD AT AERZEN – IT'S A PRINCIPLE.

AERZEN is known the world over for premium quality and trailblazing development work. The main impetus behind this has always been the search for sustainable solutions with measurable added value. For both our clients and for the environment. No accident that our pioneering achievements since 1864 have had a decisive influence in advancing compressor technology.

Reducing lifecycle costs – where we focus our innovation energies.
At more than 80%, energy's share of total costs is by far the largest over the life of an installation. Far more than the initial investment or maintenance costs.

This is why the Generation 5 Delta Screw series was created: to measurably reduce energy costs. To help you secure your market lead so you can meet future requirements economically, safely, and sustainably.



Delta Screw Generation 5 *plus*: Life-Cycle-Costs

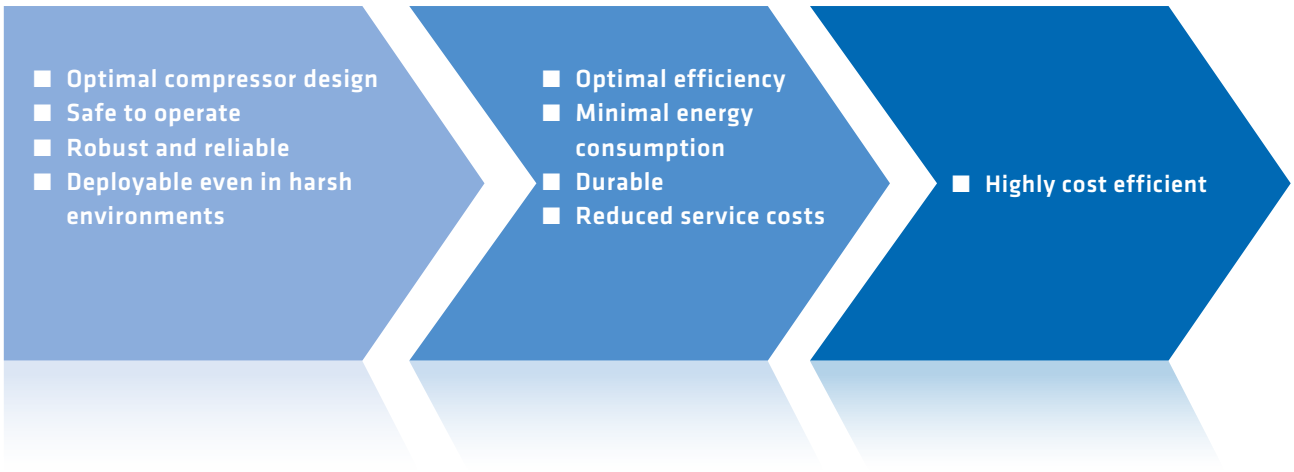
Average operational costs for a compressor over 10 years (max. operating duty):

- Energy
- Investment
- Maintenance
- Installation

High-end quality. For greater value retention and longevity.
With more than 70 years of experience in the manufacturing and deployment of screw compressors, and with its know-how as the world's market leader, AERZEN's compressors have a proven record of minimal downtime. Our high quality standards – whether applied to our own research and development efforts, to materials and workmanship, or to the precision components from reputable partners – lead to an impressively long service life. All this results in the high value retention and reliability of our products.

Sustainability: where economy meets ecology.
Sustainability and a responsible use of resources have always been a pillar of AERZEN's corporate philosophy. It goes without saying that they also apply to product design. Compressors from the Delta Screw Generation 5 *plus* series are almost completely recyclable. Noise pollution levels are among the lowest in the industry. Lube oil is kept out of the rotor chamber by means of a patented seal. It is not surprising that these new packages are certified for 100% oil-free compression (see page 8).

Delta Screw Generation 5 *plus*: The efficiency principle



Always there for you. World-wide.
Our systems are known for their long service life and minimal maintenance costs. In those rare cases where you need our help, we are there for you. With over 1,800 employees worldwide in over 40 affiliates, with representatives in more than 100 countries on all continents. That's how reliable we are.

DISCOVER DELTA SCREW GENERATION 5 *PLUS*. A COMPRESSOR SERIES WITH REMARKABLE CAPABILITIES.

- **Adaptable.** A broad range of specialized accessories and a large number of options
- **Efficient.** Lowest costs per m^3 of compressed gas or air
- **Quiet.** Silencer and acoustic hood combine to keep noise emissions to a minimum
- **Intelligent.** Failsafe electronics with numerous interfaces and communication options
- **Complete.** Fully integrated compressor package includes filter, silencer, oil system and controls
- **Ecological.** Energy efficiency class IE3 (premium efficiency) motors, long intervals between oil changes, low energy consumption

The reference class. A class of its own.

The single-stage, oil-free screw compressors in the Delta Screw Generation 5 *plus* series are universal tools. They bundle all the know-how of a world market leader in compressor technology to offer you 'the user' maximum efficiency. These innovative machines are belt-driven to provide air and nitrogen applications at positive pressure, negative pressure, and in a range of nominal sizes (see page 20 ff.). The flexible modular system allows for almost any combination of compressors and accessory components.

The belt drive allows for optimal adaptation of the system to the job at hand, as well as for any changes that may become necessary later. In addition, the belt drive allows for precise configuration – an important feature given that the greatest savings come from saving energy. This means, for example, that a 5% deviation in the volume stream means a 5% increase in energy consumption.

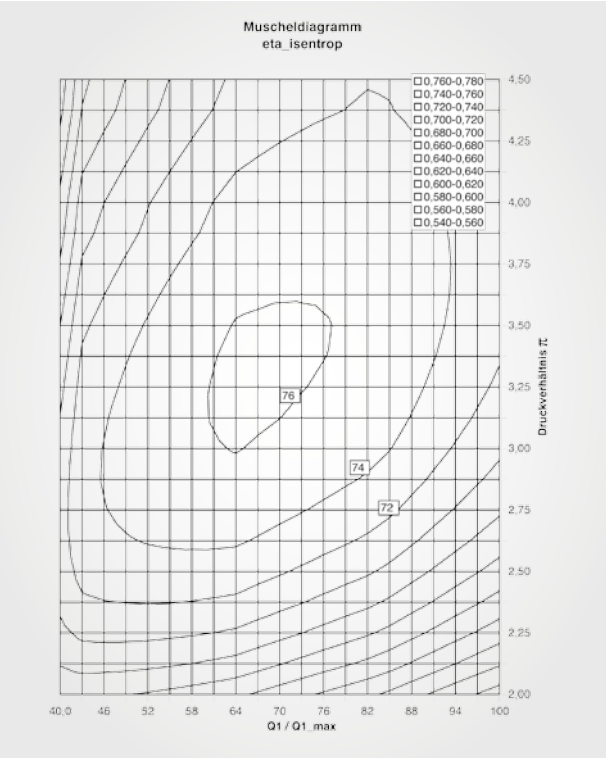
- **Oil-free.** 100% oil-free for sensitive processes
- **Premium technology.** High-quality materials for long service life regardless of demand
- **Process-safe.** Reflection silencer with no absorption material
- **Service friendly.** Compact package with easy access to all wearing parts
- **Ready to run.** Engineering and package from a single manufacturer
- **Universal.** Deployable even in hazardous ATEX areas and under difficult ambient conditions

Generation 5 *plus*. Five decisive advantages.
AERZEN has been producing oil-free screw compressors since 1943, making it one of the most experienced manufacturers in the world. Delta Screw Generation 5 *plus* is the fifth generation in AERZEN's most successful line of compressor packages and also comes with five main advantages:

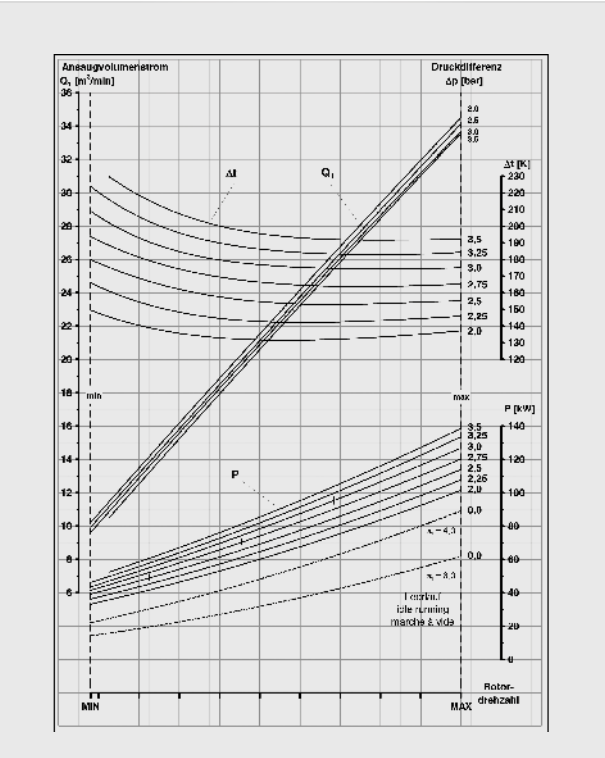
- Energy efficient, reduced life-cycle costs
- Significantly reduced noise levels
- ATEX certified for spark suppression
- Space-saving compact design
- User friendly and low-maintenance

EACH PROCESS HAS ITS SPECIAL FEATURES. IT HAS NEVER BEEN EASIER TO ADJUST ONE COMPRESSOR ACCORDINGLY.

As an AERZEN customer, you can be sure that you will always get the machine you need. We use specialized analytical tools to aid in the process. Individually produced energy consumption maps show the pressures and volume flows where the compressor is operating at peak isentropic efficiency. Every AERZEN machine is 100% tested against technical design data and subsequent operational data. Guaranteed.



As an AERZEN customer, you can be sure that you will always receive the machine that is optimal for your needs.Individually produced energy consumption maps show you the pressures and volume flows where the compressor is operating at peak isentropic efficiency.



Compressor performance data can be displayed in different ways. Industry-standard performance diagrams show all performance values (motor rating, temperature difference, volume flow) as a function of primary rotor rpm and pressure difference.

The AERZEN service package – Complete set of original parts

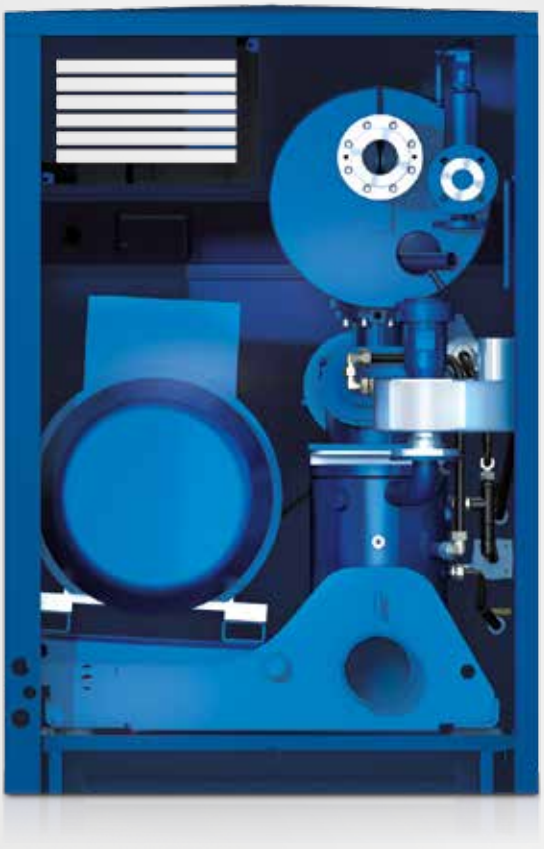
Sealing gas regulator for exhaust compression

Deliverables. All important components are included in the basic package.

- Proven VM and VML screw compressor stages from AERZEN with pressurized oil lubrication, including shaftdriven oil pump, oil filter, oil pressure regulator, oil cooler, complete oil circuit piping
- Torsion-resistant base frame with integrated oil pan for safe forklift or crane transport
- Electrical negative pressure generator for safe oil chamber ventilation
- Base support with hinged mount for three-phase AC motor
- Suction intake filter and suction silencer integrated into base support to save space
- Optimized, self-tightening belt-drive
- Pressure-side reflex silencer (with no absorption material); includes certification as spark suppressor
- Safety valve (prototype tested) with possible pipe connections
- Split disc check valve
- Axial expansion joint for connecting to the discharge piping
- Vibration isolating mounts
- Pressure and temperature sensors fully connected and wired
- AERZEN AERtronic management system for controlling, protecting, and maintaining the machine. Monitoring and display of suction intake pressure, final pressure, oil pressure, and oil level, as well as final temperature and oil temperature
- Initial oil fill and commissioning kit
- Complete documentation

The accessories. A *plus* for efficiency.

- Driving motors (three-phase AC motors) from well-known manufacturers (customer motors if preferred); also motors that meet NEMA standards
- Acoustic hood for the entire compressor package – for use indoors and out
- Start unloading systems (depending on compressor type): discharge start unloading valve for VML compressor (process con-trolled), or idle/full load governor for the VM compressor including suction throttle, relief valve, and pressure switch
- Motor starter (e.g. direct or star-delta startup)
- Separate frequency inverter cabinet
- Overflow control valve (process controlled) to keep end pressure (or vacuum) at a constant level
- Aftercooler (also available as integrated solution), available as air/air cooler or air/water cooler, also available with centrifugal separator and automatic drainage
- 2-year and 5-year service packages



ACCESSORIES AND OPTIONS: THE SKY IS THE LIMIT.

The modular system. For client-specific options.

- Nitrogen compression model, with suction silencer, temporary inlet strainer, and suction-side expansion joint
- Special paint
- AERtronic control system with profibus connection
- ANSI suction-side/discharge-side flanges
- Pressure vessel model conforms to ASME Code VIII
- Compressor suitable for maritime use
- Acoustic hood for increased noise control requirements or extreme ambient conditions:
  - Desert locations (with special sediment collecting tank)
  - Cold environments (with integrated heating and gravity-activated blinds)
  - Earthquake-resistant setup
- Seal gas version
- Coating for all parts that come in contact with the gas
- Food-safe lubricants
- Vibration monitoring
- Twin oil filter (enabling switching filter during operation)
- Possible outlet pipe for safety valve and vacuum oil sump demister
- Impedance corrector for divergent voltages in electric components
- ATEX certification e.g. for motors operating in certain ATEX zones, intrinsically safe instrument panel, ATEX documentation
- Instrumentation to meet client specifications
- Vacuum variant
- API valves
- Design / approval in conformance with PED 97/23/EG (AD2000 and EN13445), ASME Code VIII Div.1, SELO (China License), TR (certification in Russia)
- Client acceptance tests / acceptance certificates in conformance with to LLOYD'S, Det Norske Veritas, Germanischer Lloyd, and ABS

Example:

VM 8 R G5

- G5: Generation 5
- R: Belt drive
- 8: Volume flow output in m^3/min
- VM: Compressor Type:
  VM compressor, max. pressure difference pe=3.5 bar (g)
  VML compressor, max. pressure difference pe=2.0 bar (g)

Sealing gas regulator for exhaust compression

Pressure and temperature transmitter for monitoring argon compressors

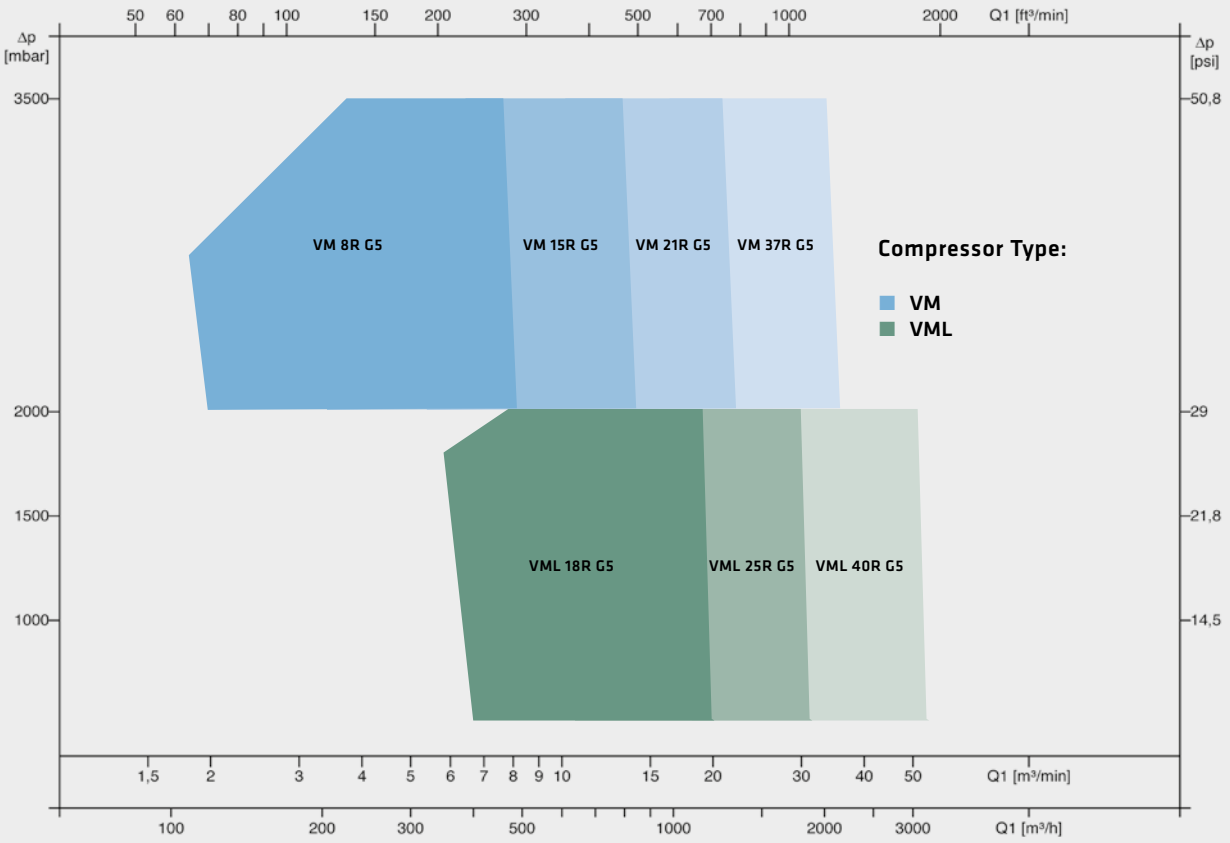
Intrinsically safe, specialized transmitter instrumentation – for use in hazardous zones

Particularly in the bulk material industry the application ranges are widened considerably by means of the ATEX-certification.

PRODUCT DIVERSITY. THE RIGHT MODEL FOR OPTIMAL EFFICIENCY. THE MANUFACTURER'S REPUTATION FOR SAFETY.

There are 7 belt-driven, oil-free Delta Screw Generation 5 *plus* compressors alone for volumes flows of up to 2,650 m³/h. And with the second series – direct drive compressors – the application range extends to 15,000 m³/h.

Delta Screw Generation 5 *plus* – fields of application



AERZEN has the largest selection of screw compressors on the market today. This means that clients can almost always find a compressor that will perfectly match their specific applications. Facilities where compressors had to run below the minimum speed because they were too small for the job, or whose accessories had insufficient cross-sections – these are now a thing of the past.

Being a leader in technolog
individual components and

Services from AERZEN – safety *Plus* for you.

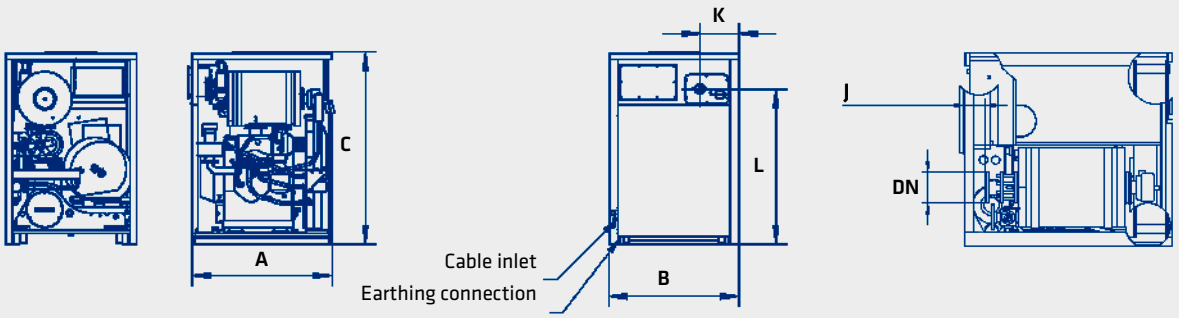
- Commissioning done by the experts
- Individualized training for your personnel
- Client-specific service and maintenance contracts
- Delta real-time monitoring of your compressor
- On-site inspections possible
- Rental machines are available worldwide through our subsidiary company Aerzen International Rental

3 examples of the Aerzen product portfolio: With positive displacement blowers, rotary lobe compressors and screw compressors high-efficient compound solutions result.

y means offering powerful
perfectly integrated overall solutions.

CLEAR, SPACE-SAVING DESIGN MAKES THE GENERATION 5 *PLUS* THE RIGHT CHOICE.

Simple, compact: dimensions for the Delta Screw Generation 5 *plus* with acoustic hood.



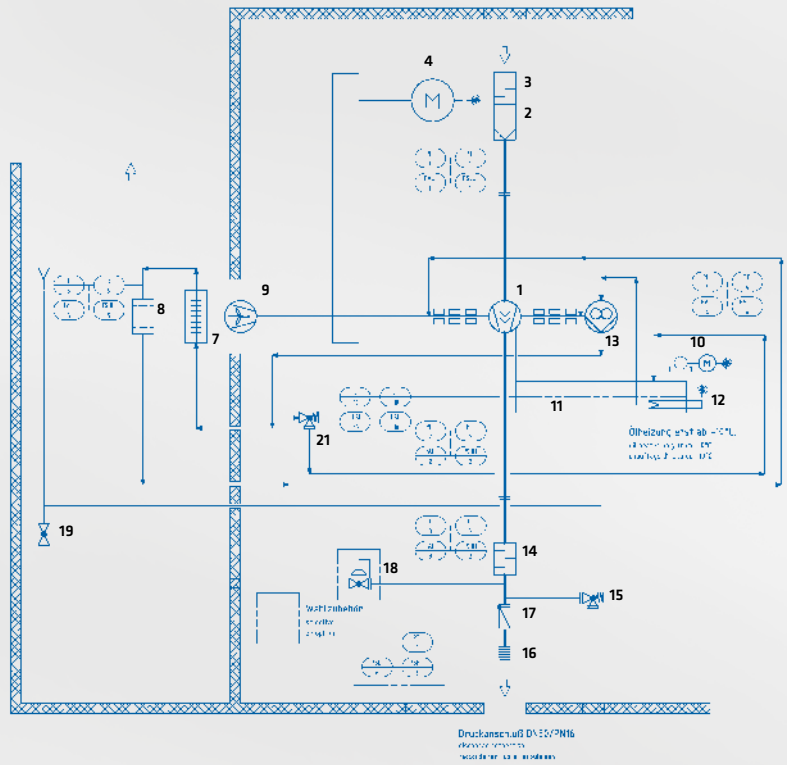
Model	A mm	B mm	C mm	J mm	K mm	L mm	DN DS	PN	Oil fill l	Weight (without motor, with acoustic hood) kg
VML 18R G5	1,350	1,250	1,847	132	376	1,491	80	16	20	840
VML 25R G5	1,800	1,500	1,973	299	440	1,652	125	16	20	1,100
VML 40R G5	2,055	1,700	2,111	140	483	1,769	150	16	30	2,100
VM 8R G5	1,350	1,250	1,776	203	374	1,492	65	16	20	770
VM 15R G5	1,350	1,250	1,776	188	376	1,491	65	16	20	900
VM 21R G5	1,800	1,500	1,973	485	440	1,579	80	16	20	1,100
VM 37R G5	2,055	1,700	2,111	140	483	1,771	150	16	30	2,100

Package dimensions and weight without acoustic hood:

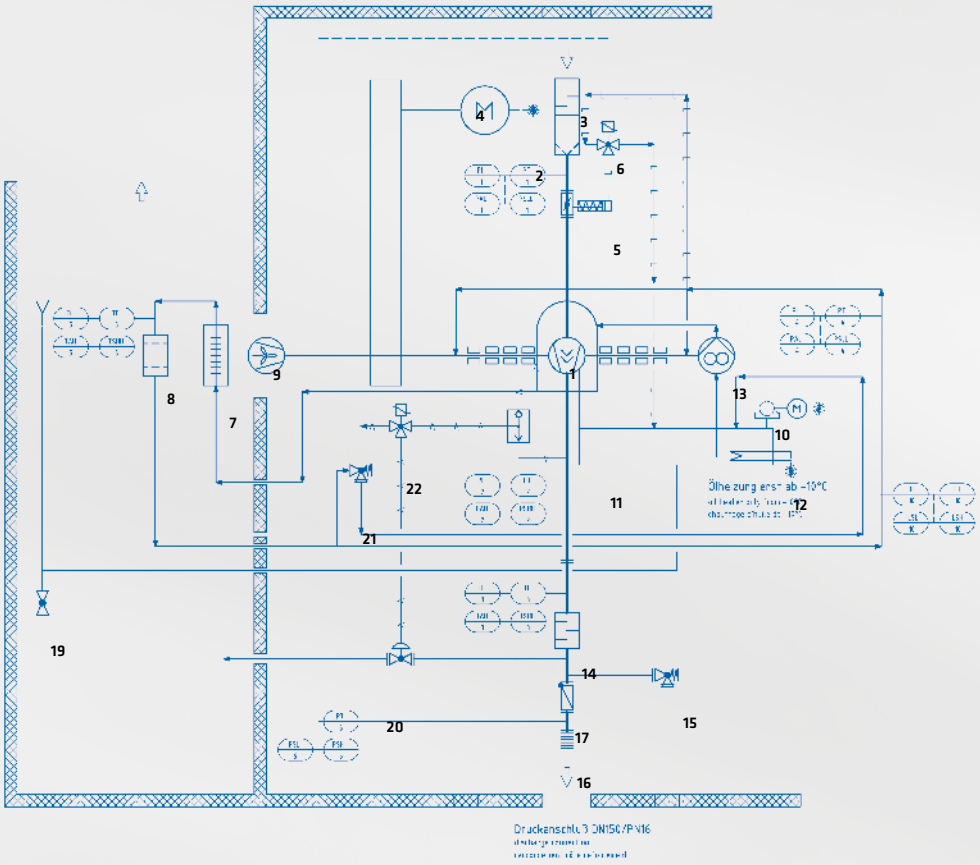
Model	Length mm	Width mm	Height mm	Weight (without motor/ acoustic hood) kg
VML 18R G5	1,217	1,684	1,663	700
VML 25R G5	1,345	1,782	1,736	750
VML 40R G5	1,666	1,998	1,888	1,400
VM 8R G5	1,118	1,582	1,667	700
VM 15R G5	1,180	1,711	1,667	725
VM 21R G5	1,302	1,802	1,714	750
VM 37R G5	1,666	1,871	1,890	1,300

(Dimensions are non-binding. Technical data subject to change.)

Sample flow diagram:
VML 18R G5 with filter suction and governor (discharge start unloading valve)



Sample flow diagram:
VM 37R G5 with filter suction and governor (idle/full load)



1 Compressor stage
2 Suction filter
3 Suction silencer
4 Electric motor
5 Throttle valve control
6 3-way solenoid valve
7 Oil cooler
8 Oil filter
9 Acoustic hood with ventilator
10 Negative pressure generator
11 Oil sump
12 Oil heater
13 Oil pump
14 Discharge-sided silencer
15 Safety valve
16 Axial compensator
17 Check valve
18 Start unloading
19 Oil drain
20 Relief valve
21 Pressure adjustment valve
22 3/2 way valve

PROVEN PERFORMANCE: FROM MINIMUM TO MAXIMUM VOLUME FLOWS.

Anyone looking for low LCC or quick amortization will want to get a VM or VML package because investing in the Generation 5 *plus* makes sense from a business viewpoint. We're happy to assist you in choosing just the right combination. Our advisors are at your service for any and all questions about configuration and applications. Anywhere in the world.

Success by the numbers, black on white.
The following pages show performance data for all 7 belt-driven VM and VML compressors. They are based on the following process criteria:

- Compression medium: air
- Moisture: 0%
- Air intake temperature: 20 °C
- Intake pressure: 1 bar (absolute)

Equipment designation:
VM compressor, short rotor profile, pressure differences up to max. p_e = 3.5 bar (g)
VML compressor, long rotor profile, pressure differences up to max. p_e = 2 bar (g)

Positive pressure					
Compressor model	Max. allowable inlet press. [bar abs]	Differential pressure p_e [bar]	Volume flow [m³/h]***	Motor output [kW]	Max. noise pressure level [dB (A)]****
VM 8R G5	5.0	up to 3.5	120 to 500	18.5 to 55 kW	74
VM 15R G5	5.0	up to 3.5	220 to 810	18.5 to 90 kW	77
VML 18R G5	1.2	up to 2	380 to 1,190	18.5 to 75 kW	80
VM 21R G5	2.0	up to 3.5	320 to 1,250	18.5 to 132 kW	76
VML 25R G5	1.2	up to 2	420 to 1,700	18.5 to 110 kW	78
VM 37R G5	2.0	up to 3.5	610 to 2,030	55 to 200 kW	77
VML 40R G5	1.2	up to 2	910 to 2,650	30 to 132 kW	78

Negative pressure		
Compressor model	Max. neg. pressure [bar g]	Max. volume flow [m³/h]***
VML 18R G5	-0.7	1,130
	-0.85**	840
VML 25R G5	-0.7	1,610
	-0.85**	1,270
VML 40R G5	-0.7	2,570
	-0.85**	2,210

Performance data non-binding.
Products subject to technical changes.

* Noise from machine with acoustic hood and attached, isolated piping. Tolerances: +/- 2 dB(A) at max. rpm and max. pressure

** with pre-intake

*** Intake conditions: 1 bar, 20 °C, VML with 1 bar positive pressure; for VM with 2 bar positive pressure

Discharge pressure p_e [bar]			VM 8R G5 Belt drive transmission index								
			5/6	6	6/7	7	7/8	8	8/9	9	9/10
2	Intake volume	[m³/h]	269	287	309	331	355	382	409	440	471
	Discharge temperature	[°C]	160	159	158	157	157	156	156	157	157
	Motor speed	[1/min]	2950	2950	2955	2955	2965	2965	2965	2965	2965
	Coupling power	[kW]	15,4	16,4	17,6	18,9	20,5	22,2	24	26,1	28,3
	Motor power rating	[kW]	18,5	18,5	22	22	30	30	30	30	37
	Power, idling p1=p2=1.0 bar (abs)	[kW]	6	6,5	7,2	7,9	8,8	9,9	10,9	12,3	13,6
	Reduced moment of inertia	[kgm²]	0,168	0,199	0,215	0,254	0,271	0,334	0,356	0,433	0,461
	Sound pressure level with hood	[dBA]	67	67	68	68	70	71	72	73	73
	Sound pressure level without hood	[dBA]	89	90	90	91	93	95	95	95	95
2,25	Intake volume	[m³/h]	263	281	302	328	352	378	406	437	467
	Discharge temperature	[°C]	175	174	173	171	170	169	169	169	169
	Motor speed	[1/min]	2955	2955	2955	2965	2965	2965	2965	2965	2965
	Coupling power	[kW]	16,5	17,6	19	20,7	22,3	24,1	25,9	28,2	30,5
	Motor power rating	[kW]	22	22	22	30	30	30	30	37	37
	Power, idling p1=p2=1.0 bar (abs)	[kW]	8,5	9,3	10,3	8	8,8	9,9	10,9	12,3	13,6
	Reduced moment of inertia	[kgm²]	0,168	0,199	0,214	0,254	0,273	0,334	0,356	0,433	0,461
	Sound pressure level with hood	[dBA]	69	68	69	69	72	73	73	73	73
	Sound pressure level without hood	[dBA]	89	89	90	91	93	95	95	95	95
2,5	Intake volume	[m³/h]	260	278	300	322	346	371	398	433	463
	Discharge temperature	[°C]	188	187	185	184	184	183	183	182	181
	Motor speed	[1/min]	2955	2955	2965	2965	2965	2965	2965	2965	2965
	Coupling power	[kW]	17,7	18,9	20,4	21,9	23,6	25,5	27,6	30,3	32,8
	Motor power rating	[kW]	22	22	30	30	30	30	37	37	37
	Power, idling p1=p2=1.0 bar (abs)	[kW]	8,5	9,3	10,3	11,4	12,5	13,9	15,4	12,3	13,6
	Reduced moment of inertia	[kgm²]	0,168	0,199	0,214	0,256	0,273	0,334	0,356	0,433	0,494
	Sound pressure level with hood	[dBA]	70	69	71	71	74	75	75	74	74
	Sound pressure level without hood	[dBA]	89	89	90	91	93	95	95	95	95
2,75	Intake volume	[m³/h]	257	275	297	319	343	368	395	426	457
	Discharge temperature	[°C]	202	200	198	197	195	195	194	194	194
	Motor speed	[1/min]	2955	2965	2965	2965	2965	2965	2965	2965	2970
	Coupling power	[kW]	18,9	20,3	21,7	23,3	25,1	27,1	29,2	31,8	34,5
	Motor power rating	[kW]	22	30	30	30	30	30	37	37	45
	Power, idling p1=p2=1.0 bar (abs)	[kW]	8,5	9,4	10,3	11,4	12,5	13,9	15,4	17,2	19,1
	Reduced moment of inertia	[kgm²]	0,168	0,201	0,214	0,256	0,273	0,334	0,356	0,433	0,494
	Sound pressure level with hood	[dBA]	70	70	70	71	73	74	74	73	74
	Sound pressure level without hood	[dBA]	90	91	91	92	93	94	94	94	95
3	Intake volume	[m³/h]	255	272	294	316	339	365	392	423	454
	Discharge temperature	[°C]	215	213	211	209	207	206	205	204	204
	Motor speed	[1/min]	2965	2965	2965	2965	2965	2965	2965	2965	2970
	Coupling power	[kW]	20,2	21,5	23	24,7	26,5	28,6	30,8	33,5	36,3
	Motor power rating	[kW]	30	30	30	30	30	37	37	37	45
	Power, idling p1=p2=1.0 bar (abs)	[kW]	8,6	9,4	10,3	11,4	12,5	13,9	15,4	17,2	19,1
	Reduced moment of inertia	[kgm²]	0,169	0,201	0,214	0,256	0,273	0,334	0,356	0,466	0,494
	Sound pressure level with hood	[dBA]	69	70	70	71	72	74	74	73	73
	Sound pressure level without hood	[dBA]	93	93	93	93	93	93	94	94	96
3,25	Intake volume	[m³/h]	251	269	291	312	336	362	389	421	451
	Discharge temperature	[°C]	230	227	224	222	220	218	217	216	215
	Motor speed	[1/min]	2965	2965	2965	2965	2965	2965	2965	2970	2970
	Coupling power	[kW]	21,5	22,9	24,5	26,2	28,1	30,3	32,6	35,4	38,2
	Motor power rating	[kW]	30	30	30	30	37	37	37	45	45
	Power, idling p1=p2=1.0 bar (abs)	[kW]	8,6	9,4	10,3	11,4	12,5	13,9	15,4	17,3	19,1
	Reduced moment of inertia	[kgm²]	0,169	0,201	0,214	0,256	0,273	0,334	0,356	0,466	0,494
	Sound pressure level with hood	[dBA]	71	72	72	72	73	75	75	74	74
	Sound pressure level without hood	[dBA]	94	94	94	94	94	94	95	95	97
3,5	Intake volume	[m³/h]	248	266	287	309	333	359	387	418	448
	Discharge temperature	[°C]	244	241	237	235	232	230	228	226	225
	Motor speed	[1/min]	2965	2965	2965	2965	2965	2965	2970	2970	2970
	Coupling power	[kW]	22,7	24,1	25,8	27,5	29,5	31,8	34,2	37,1	40
	Motor power rating	[kW]	30	30	30	37	37	37	45	45	45
	Power, idling p1=p2=1.0 bar (abs)	[kW]	8,6	9,4	10,3	11,4	12,5	13,9	15,5	17,3	19,1
	Reduced moment of inertia	[kgm²]	0,169	0,201	0,214	0,256	0,273	0,334	0,375	0,466	0,494
	Sound pressure level with hood	[dBA]	72	73	73	73	75	76	76	75	75
	Sound pressure level without hood	[dBA]	95	95	95	95	95	95	96	96	98

Performance data for intake pressure p1=1.0 bar (abs) and air intake temperature t1 = 20° C (Performance data non-binding. Products subject to technical changes.)

Discharge pressure p_e [bar]			VM 15R G5 Belt drive transmission index								
			4	4/5	5	5/6	6	6/7	7	7/8	8
2	Intake volume	[m³/h]	455	487	518	555	592	633	679	727	777
	Discharge temperature	[°C]	143	142	142	142	142	142	142	143	144
	Motor speed	[1/min]	2965	2965	2965	2965	2965	2965	2970	2970	2965
	Coupling power	[kW]	22,8	24,6	26,4	28,6	30,8	33,5	36,6	39,9	43,6
	Motor power rating	[kW]	30	30	30	37	37	37	45	45	55
	Power, idling p1=p2=1.0 bar (abs)	[kW]	10,5	11,6	12,7	14,1	15,6	17,4	19,5	21,8	24,5
	Reduced moment of inertia	[kgm²]	0,276	0,302	0,361	0,392	0,456	0,496	0,588	0,638	0,764
	Sound pressure level with hood	[dBA]	72	74	72	72	72	73	74	75	76
	Sound pressure level without hood	[dBA]	92	92	93	93	94	94	95	95	96
2,25	Intake volume	[m³/h]	451	484	515	551	589	631	676	722	774
	Discharge temperature	[°C]	155	154	154	153	153	153	153	153	154
	Motor speed	[1/min]	2965	2965	2965	2965	2965	2970	2970	2965	2965
	Coupling power	[kW]	24,9	26,8	28,7	31	33,4	36,3	39,4	42,8	46,9
	Motor power rating	[kW]	30	30	37	37	37	45	45	55	55
	Power, idling p1=p2=1.0 bar (abs)	[kW]	10,5	11,6	12,7	14,1	15,6	17,5	19,5	21,8	24,5
	Reduced moment of inertia	[kgm²]	0,276	0,311	0,361	0,392	0,456	0,496	0,588	0,668	0,764
	Sound pressure level with hood	[dBA]	72	73	72	72	72	73	74	75	76
	Sound pressure level without hood	[dBA]	93	93	93	93	94	94	95	95	96
2,5	Intake volume	[m³/h]	450	481	512	548	586	628	671	719	770
	Discharge temperature	[°C]	167	166	165	164	164	163	163	163	164
	Motor speed	[1/min]	2965	2965	2965	2965	2970	2970	2965	2965	2965
	Coupling power	[kW]	27,1	29,1	31	33,5	36,1	39	42,3	45,9	50
	Motor power rating	[kW]	30	37	37	37	45	45	55	55	75
	Power, idling p1=p2=1.0 bar (abs)	[kW]	15,5	11,6	12,7	14,1	15,7	17,5	19,5	21,8	24,5
	Reduced moment of inertia	[kgm²]	0,286	0,311	0,361	0,392	0,456	0,496	0,619	0,668	0,764
	Sound pressure level with hood	[dBA]	71	72	72	71	72	73	73	75	76
	Sound pressure level without hood	[dBA]	94	94	94	94	94	94	95	95	97
2,75	Intake volume	[m³/h]	447	480	511	549	586	623	668	716	767
	Discharge temperature	[°C]	178	177	176	176	175	175	174	174	174
	Motor speed	[1/min]	2965	2965	2965	2970	2970	2965	2965	2965	2965
	Coupling power	[kW]	28,9	31,2	33,3	36,1	38,9	41,8	45,3	49,2	54
	Motor power rating	[kW]	37	37	37	45	45	55	55	55	75
	Power, idling p1=p2=1.0 bar (abs)	[kW]	15,5	17,1	18,7	20,9	23	17,4	19,5	21,8	24,5
	Reduced moment of inertia	[kgm²]	0,286	0,311	0,361	0,392	0,456	0,515	0,619	0,668	0,8
	Sound pressure level with hood	[dBA]	70	73	72	71	72	73	73	75	76
	Sound pressure level without hood	[dBA]	92	93	93	93	93	93	94	95	96
3	Intake volume	[m³/h]	445	477	509	546	582	623	668	716	764
	Discharge temperature	[°C]	188	187	186	185	185	184	184	184	184
	Motor speed	[1/min]	2965	2965	2970	2970	2965	2965	2965	2965	2965
	Coupling power	[kW]	30,6	33	35,3	38,2	41	44,4	48,3	53	57
	Motor power rating	[kW]	37	37	45	45	55	55	55	75	75
	Power, idling p1=p2=1.0 bar (abs)	[kW]	15,5	17,1	18,8	20,9	22,9	25,5	28,4	31,7	24,5
	Reduced moment of inertia	[kgm²]	0,286	0,311	0,361	0,392	0,456	0,515	0,619	0,668	0,8
	Sound pressure level with hood	[dBA]	70	73	72	71	73	72	73	74	76
	Sound pressure level without hood	[dBA]	91	92	92	92	92	93	95	95	96
3,25	Intake volume	[m³/h]	442	476	506	544	579	620	665	713	764
	Discharge temperature	[°C]	200	198	197	195	195	194	193	193	193
	Motor speed	[1/min]	2965	2970	2970	2970	2965	2965	2965	2965	2965
	Coupling power	[kW]	32,5	35	37,4	40,3	43,2	46,8	51	55	60
	Motor power rating	[kW]	37	45	45	45	55	55	75	75	75
	Power, idling p1=p2=1.0 bar (abs)	[kW]	15,5	17,2	18,8	20,9	22,9	25,5	28,4	31,7	35,4
	Reduced moment of inertia	[kgm²]	0,286	0,311	0,361	0,392	0,456	0,515	0,619	0,668	0,8
	Sound pressure level with hood	[dBA]	71	73	72	71	72	73	74	75	76
	Sound pressure level without hood	[dBA]	92	92	92	93	93	94	95	95	96
3,5	Intake volume	[m³/h]	440	473	503	540	576	618	662	710	762
	Discharge temperature	[°C]	210	208	207	205	204	203	202	202	202
	Motor speed	[1/min]	2970	2970	2970	2965	2965	2965	2965	2965	2965
	Coupling power	[kW]	34,3	36,8	39,3	42,3	45,4	49,1	53	58	63
	Motor power rating	[kW]	45	45	45	55	55	55	75	75	75
	Power, idling p1=p2=1.0 bar (abs)	[kW]	15,5	17,2	18,8	20,8	22,9	25,5	28,4	31,7	35,4
	Reduced moment of inertia	[kgm²]	0,286	0,311	0,361	0,392	0,456	0,515	0,619	0,668	0,8
	Sound pressure level with hood	[dBA]	71	72	73	72	72	73	74	75	76
	Sound pressure level without hood	[dBA]	94	94	94	94	94	94	95	96	96

Performance data for intake pressure p1=1.0 bar (abs) and air intake temperature t1 = 20° C (Performance data non-binding. Products subject to technical changes.)

Discharge pressure p_e [bar]			VM 21R G5 Belt drive transmission index								
			4	4/5	5	5/6	6	6/7	7	7/8	8
2	Intake volume	[m³/h]	691	743	790	847	904	970	1039	1113	1195
	Discharge temperature	[°C]	159	158	158	158	159	159	160	161	162
	Motor speed	[1/min]	2970	2970	2970	2965	2965	2965	2965	2965	2965
	Coupling power	[kW]	34,7	37,2	39,6	42,4	45,3	48,9	53	57	62
	Motor power rating	[kW]	45	45	45	55	55	55	75	75	75
	Power, idling p1=p2=1.0 bar (abs)	[kW]	16,9	18,5	20	21,9	23,9	26,3	28,9	31,8	35,2
	Reduced moment of inertia	[kgm²]	0,415	0,445	0,523	0,561	0,675	0,721	0,864	0,925	1,118
	Sound pressure level with hood	[dBA]	70	72	71	70	71	72	73	77	74
	Sound pressure level without hood	[dBA]	91	92	93	94	95	97	97	98	99
2,25	Intake volume	[m³/h]	683	735	781	839	896	962	1031	1105	1186
	Discharge temperature	[°C]	172	171	170	170	170	170	170	171	172
	Motor speed	[1/min]	2970	2970	2965	2965	2965	2965	2965	2965	2965
	Coupling power	[kW]	37,5	40,1	42,4	45,5	48,5	52	56	61	66
	Motor power rating	[kW]	45	45	55	55	55	75	75	75	75
	Power, idling p1=p2=1.0 bar (abs)	[kW]	16,9	18,5	20	21,9	23,9	26,3	28,9	31,8	35,2
	Reduced moment of inertia	[kgm²]	0,415	0,445	0,523	0,561	0,675	0,722	0,864	0,925	1,118
	Sound pressure level with hood	[dBA]	70	72	71	70	71	72	73	77	74
	Sound pressure level without hood	[dBA]	91	92	93	94	95	97	98	98	99
2,5	Intake volume	[m³/h]	675	725	773	831	889	954	1024	1097	1185
	Discharge temperature	[°C]	185	183	182	182	181	181	181	181	182
	Motor speed	[1/min]	2970	2965	2965	2965	2965	2965	2965	2965	2980
	Coupling power	[kW]	40,2	42,9	45,4	48,6	52	56	60	64	70
	Motor power rating	[kW]	45	55	55	55	75	75	75	75	90
	Power, idling p1=p2=1.0 bar (abs)	[kW]	16,9	18,5	20	21,9	23,9	26,3	28,9	31,8	35,5
	Reduced moment of inertia	[kgm²]	0,415	0,446	0,523	0,561	0,675	0,722	0,864	0,925	1,119
	Sound pressure level with hood	[dBA]	69	71	71	71	72	72	73	77	74
	Sound pressure level without hood	[dBA]	91	92	92	94	95	97	99	99	99
2,75	Intake volume	[m³/h]	671	723	771	823	880	946	1016	1096	1178
	Discharge temperature	[°C]	197	196	195	194	193	193	192	192	193
	Motor speed	[1/min]	2965	2965	2965	2965	2965	2965	2965	2980	2980
	Coupling power	[kW]	43	46	48,8	52	55	59	64	69	74
	Motor power rating	[kW]	55	55	55	75	75	75	75	90	90
	Power, idling p1=p2=1.0 bar (abs)	[kW]	25,8	28,1	30,3	21,9	23,9	26,3	28,9	32,1	35,5
	Reduced moment of inertia	[kgm²]	0,416	0,446	0,523	0,561	0,675	0,722	0,864	0,925	1,119
	Sound pressure level with hood	[dBA]	70	72	71	71	72	72	73	77	74
	Sound pressure level without hood	[dBA]	91	92	93	94	95	97	98	98	99
3	Intake volume	[m³/h]	665	716	764	823	880	946	1015	1096	1177
	Discharge temperature	[°C]	207	206	205	204	203	203	203	203	203
	Motor speed	[1/min]	2965	2965	2965	2965	2965	2965	2965	2980	2980
	Coupling power	[kW]	45,2	48,3	51	55	58	63	67	73	79
	Motor power rating	[kW]	55	55	75	75	75	75	75	90	90
	Power, idling p1=p2=1.0 bar (abs)	[kW]	25,8	28,1	30,3	33	35,8	39,1	42,7	47,1	52
	Reduced moment of inertia	[kgm²]	0,416	0,446	0,523	0,561	0,675	0,722	0,865	0,925	1,119
	Sound pressure level with hood	[dBA]	70	72	72	72	72	72	73	77	75
	Sound pressure level without hood	[dBA]	91	92	93	94	95	97	98	98	99
3,25	Intake volume	[m³/h]	658	710	758	815	873	939	1015	1089	1171
	Discharge temperature	[°C]	218	216	215	213	212	212	211	211	211
	Motor speed	[1/min]	2965	2965	2965	2965	2965	2965	2980	2980	2980
	Coupling power	[kW]	47,3	51	53	57	61	65	70	76	81
	Motor power rating	[kW]	55	75	75	75	75	75	90	90	90
	Power, idling p1=p2=1.0 bar (abs)	[kW]	25,8	28,1	30,3	33	35,8	39,1	43	47,1	52
	Reduced moment of inertia	[kgm²]	0,416	0,446	0,523	0,561	0,675	0,722	0,865	0,963	1,119
	Sound pressure level with hood	[dBA]	70	72	72	72	72	72	73	76	75
	Sound pressure level without hood	[dBA]	92	93	93	94	95	96	97	98	99
3,5	Intake volume	[m³/h]	651	703	751	809	866	938	1008	1082	1164
	Discharge temperature	[°C]	229	227	225	223	222	221	220	220	219
	Motor speed	[1/min]	2965	2965	2965	2965	2965	2980	2980	2980	2980
	Coupling power	[kW]	49,4	53	56	60	63	68	73	79	85
	Motor power rating	[kW]	55	75	75	75	75	90	90	90	110
	Power, idling p1=p2=1.0 bar (abs)	[kW]	25,8	28,1	30,3	33	35,8	39,4	43	47,1	52
	Reduced moment of inertia	[kgm²]	0,416	0,446	0,523	0,561	0,675	0,722	0,865	0,963	1,18
	Sound pressure level with hood	[dBA]	70	72	72	72	73	72	73	76	75
	Sound pressure level without hood	[dBA]	93	93	94	94	95	96	97	98	99

Performance data for intake pressure p1=1.0 bar (abs) and air intake temperature t1 = 20° C (Performance data non-binding. Products subject to technical changes.)

Discharge pressure p_e [bar]			VM 37R G5 Belt drive transmission index								
			3	3/4	4	4/5	5	5/6	6	6/7	7
2	Intake volume	[m³/h]	1176	1268	1355	1470	1562	1681	1785	1919	2036
	Discharge temperature	[°C]	154	154	153	153	154	155	157	158	160
	Motor speed	[1/min]	2965	2965	2965	2980	2980	2980	2980	2980	2980
	Coupling power	[kW]	56	60	64	69	74	81	86	95	103
	Motor power rating	[kW]	75	75	75	90	90	90	110	110	132
	Power, idling p1=p2=1.0 bar (abs)	[kW]	28,7	31,5	34,2	38,2	41,6	46,2	51	57	63
	Reduced moment of inertia	[kgm²]	0,763	0,86	0,946	1,095	1,212	1,403	1,612	1,882	2,486
	Sound pressure level with hood	[dBA]	73	74	74	75	75	77	77	77	77
	Sound pressure level without hood	[dBA]	90	90	91	92	92	94	95	95	96
2,25	Intake volume	[m³/h]	1165	1256	1352	1459	1551	1670	1774	1907	2024
	Discharge temperature	[°C]	166	165	164	164	165	166	166	168	169
	Motor speed	[1/min]	2965	2965	2980	2980	2980	2980	2980	2980	2980
	Coupling power	[kW]	60	64	69	74	79	86	92	101	109
	Motor power rating	[kW]	75	75	90	90	90	110	110	132	132
	Power, idling p1=p2=1.0 bar (abs)	[kW]	28,7	31,5	34,5	38,2	41,6	46,2	51	57	63
	Reduced moment of inertia	[kgm²]	0,763	0,86	0,946	1,095	1,212	1,457	1,612	2,353	2,486
	Sound pressure level with hood	[dBA]	73	74	75	75	76	77	77	77	77
	Sound pressure level without hood	[dBA]	90	91	91	92	93	94	95	96	97
2,5	Intake volume	[m³/h]	1153	1252	1341	1447	1539	1658	1763	1896	2014
	Discharge temperature	[°C]	178	176	175	175	175	176	177	178	179
	Motor speed	[1/min]	2965	2980	2980	2980	2980	2980	2980	2980	2980
	Coupling power	[kW]	65	69	74	79	85	92	98	107	116
	Motor power rating	[kW]	75	90	90	90	110	110	110	132	132
	Power, idling p1=p2=1.0 bar (abs)	[kW]	28,7	31,7	34,5	38,2	41,6	46,2	51	57	63
	Reduced moment of inertia	[kgm²]	0,763	0,876	0,946	1,095	1,258	1,457	1,747	2,353	2,487
	Sound pressure level with hood	[dBA]	73	76	76	76	76	78	78	78	78
	Sound pressure level without hood	[dBA]	90	91	91	92	93	94	95	96	97
2,75	Intake volume	[m³/h]	1158	1241	1329	1436	1528	1647	1751	1885	2002
	Discharge temperature	[°C]	190	189	187	186	186	187	187	188	189
	Motor speed	[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
	Coupling power	[kW]	70	74	79	85	90	97	104	113	122
	Motor power rating	[kW]	90	90	90	110	110	110	132	132	160
	Power, idling p1=p2=1.0 bar (abs)	[kW]	44	31,7	34,5	38,2	41,6	46,2	51	57	63
	Reduced moment of inertia	[kgm²]	0,763	0,876	0,946	1,132	1,258	1,457	1,747	2,353	2,487
	Sound pressure level with hood	[dBA]	73	76	76	76	76	77	77	77	77
	Sound pressure level without hood	[dBA]	95	95	95	95	96	96	97	98	98
3	Intake volume	[m³/h]	1148	1240	1328	1435	1527	1646	1740	1874	1991
	Discharge temperature	[°C]	200	198	197	197	197	197	198	198	199
	Motor speed	[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
	Coupling power	[kW]	73	78	83	90	96	103	109	119	129
	Motor power rating	[kW]	90	90	110	110	110	132	132	132	160
	Power, idling p1=p2=1.0 bar (abs)	[kW]	44	48	52	58	62	69	51	57	63
	Reduced moment of inertia	[kgm²]	0,763	0,876	0,986	1,132	1,258	1,642	1,747	2,354	2,412
	Sound pressure level with hood	[dBA]	74	76	76	76	76	77	77	77	77
	Sound pressure level without hood	[dBA]	99	99	99	99	99	99	99	99	100
3,25	Intake volume	[m³/h]	1139	1230	1319	1425	1517	1636	1741	1874	1992
	Discharge temperature	[°C]	210	208	206	205	205	205	206	206	207
	Motor speed	[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
	Coupling power	[kW]	77	82	87	94	100	107	114	125	134
	Motor power rating	[kW]	90	90	110	110	110	132	132	160	160
	Power, idling p1=p2=1.0 bar (abs)	[kW]	44	48	52	58	62	69	74	83	90
	Reduced moment of inertia	[kgm²]	0,763	0,876	0,986	1,132	1,388	1,642	1,748	2,354	2,412
	Sound pressure level with hood	[dBA]	74	76	76	76	77	77	77	77	77
	Sound pressure level without hood	[dBA]	99	99	99	99	99	98	98	99	100
3,5	Intake volume	[m³/h]	1129	1220	1309	1415	1508	1627	1731	1865	1982
	Discharge temperature	[°C]	220	217	216	214	214	214	214	214	215
	Motor speed	[1/min]	2980	2980	2980	2980	2980	2980	2980	2980	2980
	Coupling power	[kW]	80	85	91	97	104	112	119	129	139
	Motor power rating	[kW]	90	110	110	110	132	132	132	160	160
	Power, idling p1=p2=1.0 bar (abs)	[kW]	44	48	52	58	62	69	74	83	90
	Reduced moment of inertia	[kgm²]	0,763	0,876	0,986	1,132	1,388	1,642	1,748	2,354	2,412
	Sound pressure level with hood	[dBA]	74	76	76	76	77	77	77	77	77
	Sound pressure level without hood	[dBA]	99	99	100	99	99	98	98	99	100

Performance data for intake pressure p1=1.0 bar (abs) and air intake temperature t1 = 20° C (Performance data non-binding. Products subject to technical changes.)

VML 18R G5											
Discharge pressure p_e [bar]			Belt drive transmission index								
			2	3	4	5	6	7	8	9	9/10
0,75	Intake volume	[m³/h]	397	470	543	630	727	840	968	1110	1183
	Discharge temperature	[°C]	100	97	95	93	93	93	94	97	99
	Motor speed	[1/min]	2950	2950	2950	2950	2955	2965	2965	2965	2965
	Coupling power	[kW]	10,5	11,9	13,4	15,3	17,6	20,6	24,4	29,3	32,2
	Motor power rating	[kW]	15	15	18,5	18,5	22	30	30	37	37
	Power, idling p1=p2=1.0 bar (abs)	[kW]	4	4,7	5,5	6,5	7,8	9,5	11,6	14,5	16,2
	Reduced moment of inertia	[kgm²]	0,118	0,156	0,203	0,27	0,34	0,48	0,67	0,8	0,93
	Sound pressure level with hood	[dBA]	68	67	68	68	69	70	73	73	74
	Sound pressure level without hood	[dBA]	88	89	90	90	93	93	93	93	93
1	Intake volume	[m³/h]	389	461	535	623	716	827	955	1099	1172
	Discharge temperature	[°C]	122	118	116	114	112	111	112	113	115
	Motor speed	[1/min]	2950	2950	2955	2955	2965	2965	2965	2970	2970
	Coupling power	[kW]	13,1	15	16,9	19,3	22	25,3	29,6	35,2	38,3
	Motor power rating	[kW]	15	18,5	22	22	30	30	37	45	45
	Power, idling p1=p2=1.0 bar (abs)	[kW]	5,4	6,4	7,5	8,9	7,8	9,5	11,6	14,5	16,2
	Reduced moment of inertia	[kgm²]	0,118	0,156	0,21	0,28	0,38	0,48	0,67	0,8	1,03
	Sound pressure level with hood	[dBA]	67	67	69	69	69	70	73	74	76
	Sound pressure level without hood	[dBA]	89	91	91	91	93	94	94	94	94
1,25	Intake volume	[m³/h]	378	452	527	615	711	821	953	1084	1157
	Discharge temperature	[°C]	145	139	135	132	130	129	129	130	131
	Motor speed	[1/min]	2950	2955	2965	2965	2965	2965	2970	2965	2965
	Coupling power	[kW]	15,6	17,7	19,9	22,6	25,9	29,9	35,1	41	44,4
	Motor power rating	[kW]	18,5	22	30	30	30	37	45	55	55
	Power, idling p1=p2=1.0 bar (abs)	[kW]	5,4	6,4	7,5	9	10,7	13	15,9	14,5	16,2
	Reduced moment of inertia	[kgm²]	0,123	0,164	0,21	0,28	0,38	0,48	0,72	0,87	1,13
	Sound pressure level with hood	[dBA]	68	68	70	71	70	71	73	74	77
	Sound pressure level without hood	[dBA]	90	92	92	91	92	93	93	93	93
1,5	Intake volume	[m³/h]	368	443	517	605	700	812	943	1082	1156
	Discharge temperature	[°C]	169	160	155	150	147	145	144	145	146
	Motor speed	[1/min]	2955	2965	2965	2965	2965	2970	2970	2965	2965
	Coupling power	[kW]	18,2	20,5	22,9	25,9	29,4	33,9	39,4	46,2	50
	Motor power rating	[kW]	22	30	30	30	37	45	45	55	75
	Power, idling p1=p2=1.0 bar (abs)	[kW]	5,4	6,4	7,5	9	10,7	13	15,9	19,6	21,8
	Reduced moment of inertia	[kgm²]	0,123	0,164	0,21	0,28	0,38	0,52	0,72	0,88	1,2
	Sound pressure level with hood	[dBA]	69	69	71	73	71	72	73	75	78
	Sound pressure level without hood	[dBA]	89	92	92	92	94	95	95	95	95
1,75	Intake volume	[m³/h]	359	432	506	594	690	802	930	1072	1146
	Discharge temperature	[°C]	195	183	175	169	164	161	159	159	160
	Motor speed	[1/min]	2965	2965	2965	2965	2965	2970	2965	2965	2965
	Coupling power	[kW]	20,7	23,3	25,9	29,2	33	37,8	43,7	51	55
	Motor power rating	[kW]	30	30	30	37	37	45	55	75	75
	Power, idling p1=p2=1.0 bar (abs)	[kW]	5,4	6,4	7,5	9	10,7	13	15,9	19,6	21,8
	Reduced moment of inertia	[kgm²]	0,123	0,164	0,22	0,3	0,4	0,52	0,72	0,88	1,2
	Sound pressure level with hood	[dBA]	70	69	71	73	73	72	74	75	78
	Sound pressure level without hood	[dBA]	89	92	92	92	94	95	95	95	95
2	Intake volume	[m³/h]			495	583	681	790	920	1061	1135
	Discharge temperature	[°C]			197	189	182	178	175	174	174
	Motor speed	[1/min]			2965	2965	2970	2965	2965	2965	2965
	Coupling power	[kW]			28,9	32,5	36,7	41,7	48,1	56	60
	Motor power rating	[kW]			37	37	45	55	55	75	75
	Power, idling p1=p2=1.0 bar (abs)	[kW]			7,5	9	10,7	13	15,9	19,6	21,8
	Reduced moment of inertia	[kgm²]			0,22	0,3	0,4	0,52	0,72	0,94	1,2
	Sound pressure level with hood	[dBA]			70	74	75	72	75	75	79
	Sound pressure level without hood	[dBA]			92	92	94	95	95	95	95

Performance data for intake pressure p1=1.0 bar (abs) and air intake temperature t1 = 20° C (Performance data non-binding. Products subject to technical changes.)

Discharge pressure p_e [bar]			VML 25R G5 Belt drive transmission index								
			3/4	4	4/5	5	5/6	6	6/7	7	7/8
0,75	Intake volume	[m³/h]	1031	1095	1165	1229	1309	1385	1472	1562	1658
	Discharge temperature	[°C]	85	86	87	88	90	92	94	96	99
	Motor speed	[1/min]	2965	2965	2965	2965	2970	2970	2970	2965	2965
	Coupling power	[kW]	25,3	27,1	29,3	31,3	34,1	36,8	40,1	43,7	47,9
	Motor power rating	[kW]	30	30	37	37	45	45	45	55	55
	Power, idling p1=p2=1.0 bar (abs)	[kW]	12	13,1	14,5	15,9	17,7	19,6	21,8	24,4	27,4
	Reduced moment of inertia	[kgm²]	0,415	0,481	0,527	0,602	0,686	0,806	0,876	1,033	1,115
	Sound pressure level with hood	[dBA]	67	68	70	73	76	72	74	75	76
	Sound pressure level without hood	[dBA]	90	90	93	91	91	95	95	96	95
1	Intake volume	[m³/h]	1018	1081	1153	1217	1295	1369	1456	1548	1645
	Discharge temperature	[°C]	101	102	103	104	105	106	108	110	113
	Motor speed	[1/min]	2965	2965	2970	2970	2970	2965	2965	2965	2965
	Coupling power	[kW]	31	33,1	35,6	37,9	40,9	43,8	47,4	51,4	56
	Motor power rating	[kW]	37	37	45	45	45	55	55	75	75
	Power, idling p1=p2=1.0 bar (abs)	[kW]	12	13,1	14,6	15,9	17,7	19,5	21,8	24,4	27,4
	Reduced moment of inertia	[kgm²]	0,415	0,483	0,528	0,602	0,686	0,806	0,876	1,033	1,115
	Sound pressure level with hood	[dBA]	68	69	70	74	74	73	74	76	75
	Sound pressure level without hood	[dBA]	93	93	96	95	99	93	95	97	95
1,25	Intake volume	[m³/h]	1014	1069	1137	1201	1279	1355	1442	1534	1632
	Discharge temperature	[°C]	118	118	119	119	120	121	123	125	127
	Motor speed	[1/min]	2970	2970	2965	2965	2965	2965	2965	2965	2965
	Coupling power	[kW]	37,2	39,3	41,9	44,5	47,7	51	54,9	59,3	64,1
	Motor power rating	[kW]	45	45	55	55	55	75	75	75	75
	Power, idling p1=p2=1.0 bar (abs)	[kW]	17,9	13,2	14,5	15,9	17,7	19,5	21,8	24,4	27,4
	Reduced moment of inertia	[kgm²]	0,422	0,483	0,528	0,602	0,688	0,809	0,876	1,033	1,115
	Sound pressure level with hood	[dBA]	69	69	70	75	75	73	74	77	76
	Sound pressure level without hood	[dBA]	95	95	97	98	100	98	97	97	99
1,5	Intake volume	[m³/h]	1001	1065	1135	1199	1277	1353	1429	1520	1627
	Discharge temperature	[°C]	132	132	133	134	135	137	138	140	142
	Motor speed	[1/min]	2965	2965	2965	2965	2965	2965	2965	2965	2980
	Coupling power	[kW]	41,9	44,6	47,9	50,9	54,7	58,5	62,5	67,2	72,8
	Motor power rating	[kW]	55	55	55	75	75	75	75	75	90
	Power, idling p1=p2=1.0 bar (abs)	[kW]	17,8	19,5	21,5	23,4	25,9	28,4	21,8	24,4	27,6
	Reduced moment of inertia	[kgm²]	0,422	0,483	0,53	0,604	0,688	0,809	0,876	1,033	1,118
	Sound pressure level with hood	[dBA]	70	70	70	76	75	73	74	77	78
	Sound pressure level without hood	[dBA]	95	95	97	96	99	102	99	95	99
1,75	Intake volume	[m³/h]	989	1054	1123	1187	1266	1342	1438	1530	1628
	Discharge temperature	[°C]	146	146	146	147	148	149	151	153	155
	Motor speed	[1/min]	2965	2965	2965	2965	2965	2965	2980	2980	2980
	Coupling power	[kW]	46,6	49,6	53	56,3	60,3	64,4	69,7	75	80,9
	Motor power rating	[kW]	55	55	75	75	75	75	90	90	90
	Power, idling p1=p2=1.0 bar (abs)	[kW]	17,8	19,5	21,5	23,4	25,9	28,4	31,8	35,3	39,3
	Reduced moment of inertia	[kgm²]	0,422	0,483	0,53	0,604	0,688	0,809	0,876	1,033	1,118
	Sound pressure level with hood	[dBA]	71	71	71	77	76	74	75	77	78
	Sound pressure level without hood	[dBA]	100	100	100	100	100	104	101	100	99
2	Intake volume	[m³/h]	979	1043	1113	1177	1255	1339	1426	1519	1618
	Discharge temperature	[°C]	160	160	160	161	161	162	164	165	167
	Motor speed	[1/min]	2965	2965	2965	2965	2965	2980	2980	2980	2980
	Coupling power	[kW]	51,4	54,6	58,2	61,6	65,9	70,7	75,8	81,4	87,6
	Motor power rating	[kW]	75	75	75	75	75	90	90	90	110
	Power, idling p1=p2=1.0 bar (abs)	[kW]	17,8	19,5	21,5	23,4	25,9	28,7	31,8	35,3	39,3
	Reduced moment of inertia	[kgm²]	0,43	0,483	0,53	0,604	0,688	0,809	0,876	1,033	1,164
	Sound pressure level with hood	[dBA]	71	71	72	77	77	75	76	76	78
	Sound pressure level without hood	[dBA]	99	99	99	99	100	103	101	102	97

Performance data for intake pressure p1=1.0 bar (abs) and air intake temperature t1 = 20° C (Performance data non-binding. Products subject to technical changes.)

VML 40R G5										
Discharge pressure p_e [bar]			Belt drive transmission index							
			2	3	4	5	6	7	8	9	10
0,75	Intake volume	[m³/h]	953	1091	1257	1437	1633	1831	2061	2318	2617
	Discharge temperature	[°C]	83	82	82	81	83	85	88	93	98
	Motor speed	[1/min]	2965	2965	2965	2965	2970	2965	2965	2965	2980
	Coupling power	[kW]	21,2	23,8	27,1	31	35,9	41,8	49,5	59	72
	Motor power rating	[kW]	30	30	30	37	45	55	55	75	90
	Power, idling p1=p2=1.0 bar (abs)	[kW]	8,4	9,9	11,8	14	17	20,8	25,8	32,3	41,3
	Reduced moment of inertia	[kgm²]	0,258	0,32	0,4	0,51	0,64	0,82	1,09	1,46	2,04
	Sound pressure level with hood	[dBA]	66	67	67	69	70	73	73	74	76
	Sound pressure level without hood	[dBA]	87	88	90	91	93	96	98	100	101
1	Intake volume	[m³/h]	939	1070	1238	1418	1609	1810	2040	2310	2596
	Discharge temperature	[°C]	102	100	98	98	98	100	103	107	112
	Motor speed	[1/min]	2965	2965	2970	2970	2965	2965	2965	2980	2980
	Coupling power	[kW]	26,9	30,1	34,1	38,6	44	51	59	71	84
	Motor power rating	[kW]	30	37	45	45	55	75	75	90	110
	Power, idling p1=p2=1.0 bar (abs)	[kW]	12,6	9,9	11,8	14,1	17	20,8	25,8	32,7	41,3
	Reduced moment of inertia	[kgm²]	0,258	0,32	0,4	0,52	0,66	0,84	1,12	1,53	2,38
	Sound pressure level with hood	[dBA]	66	67	67	68	69	72	73	75	76
	Sound pressure level without hood	[dBA]	87	89	90	91	93	94	97	101	101
1,25	Intake volume	[m³/h]	922	1063	1229	1407	1601	1789	2030	2289	2576
	Discharge temperature	[°C]	118	115	114	113	114	115	118	121	126
	Motor speed	[1/min]	2965	2970	2970	2965	2965	2965	2980	2980	2980
	Coupling power	[kW]	31,6	35,6	40,5	45,9	53	60	70	82	96
	Motor power rating	[kW]	37	45	45	55	75	75	90	90	110
	Power, idling p1=p2=1.0 bar (abs)	[kW]	12,6	14,8	17,7	21	25,3	20,8	26	32,7	41,3
	Reduced moment of inertia	[kgm²]	0,258	0,33	0,42	0,52	0,68	0,87	1,18	1,53	2,38
	Sound pressure level with hood	[dBA]	66	68	67	67	70	74	73	75	77
	Sound pressure level without hood	[dBA]	88	91	90	93	95	95	98	101	102
1,5	Intake volume	[m³/h]	907	1046	1210	1390	1584	1795	2026	2269	2556
	Discharge temperature	[°C]	135	131	128	127	127	129	133	136	140
	Motor speed	[1/min]	2970	2970	2965	2965	2965	2980	2980	2980	2980
	Coupling power	[kW]	36,5	40,8	46	52	59	69	80	93	108
	Motor power rating	[kW]	45	45	55	75	75	90	90	110	132
	Power, idling p1=p2=1.0 bar (abs)	[kW]	12,6	14,8	17,6	21	25,3	31,1	38,2	32,7	41,3
	Reduced moment of inertia	[kgm²]	0,265	0,33	0,42	0,53	0,68	0,92	1,18	1,99	2,54
	Sound pressure level with hood	[dBA]	66	69	68	66	72	76	73	76	77
	Sound pressure level without hood	[dBA]	89	93	89	96	98	96	100	102	103
1,75	Intake volume	[m³/h]	888	1026	1193	1373	1568	1778	2010	2270	2558
	Discharge temperature	[°C]	152	147	144	141	140	142	145	149	154
	Motor speed	[1/min]	2965	2965	2965	2965	2965	2980	2980	2980	2980
	Coupling power	[kW]	41,2	45,9	52	58	66	76	88	103	120
	Motor power rating	[kW]	55	55	75	75	75	90	110	132	160
	Power, idling p1=p2=1.0 bar (abs)	[kW]	12,6	14,8	17,6	21	25,3	31,1	38,2	47,2	59
	Reduced moment of inertia	[kgm²]	0,265	0,34	0,42	0,53	0,68	0,92	1,35	1,99	2,54
	Sound pressure level with hood	[dBA]	66	70	69	68	72	76	74	77	78
	Sound pressure level without hood	[dBA]	92	94	91	94	98	98	100	103	103
2	Intake volume	[m³/h]	871	1010	1176	1357	1559	1762	1993	2254	2542
	Discharge temperature	[°C]	170	164	159	155	154	156	158	161	166
	Motor speed	[1/min]	2965	2965	2965	2965	2980	2980	2980	2980	2980
	Coupling power	[kW]	46	51	57	65	73	84	96	112	130
	Motor power rating	[kW]	55	75	75	75	90	110	110	132	160
	Power, idling p1=p2=1.0 bar (abs)	[kW]	12,6	14,8	17,6	21	25,5	31,1	38,2	47,2	59
	Reduced moment of inertia	[kgm²]	0,283	0,34	0,42	0,53	0,71	1,08	1,35	1,92	2,54
	Sound pressure level with hood	[dBA]	67	71	71	69	73	77	75	78	78
	Sound pressure level without hood	[dBA]	95	96	93	93	98	100	101	104	104

Performance data for intake pressure p1=1.0 bar (abs) and air intake temperature t1 = 20° C (Performance data non-binding. Products subject to technical changes.)

AERZEN. Compression the key to success.

AERZEN was founded in 1864 as Aerzener Maschinenfabrik. In 1868 we manufactured the first positive displacement blower in Europe. In 1911 the first turbo blowers followed, in 1943 the first screw compressors and in 2010 the first rotary lobe compressor packaged unit of the world. Innovations made by Aerzen accelerate the development of the compressor technology more and more. Nowadays AERZEN counts among the oldest and most important manufacturers of positive displacement blowers, rotary lobe compressors, rotary piston gas meters, screw compressors and turbo blowers. And in many fields of application AERZEN counts among the uncontested market leaders.

In over 40 affiliates around the world and with more than 2,000 employees, we put our experience to work on constantly improving compressor and blower technologies. Our technical competence and the ongoing dialogue with customers form the foundation on which AERZEN's intelligent and successful products are built. Solutions that constantly set new standards for energy efficiency, performance and quality, and that meet constantly changing regulations – with post-sales service available all around the world. Challenge us!

Aerzener Maschinenfabrik GmbH
Reherweg 28 – 31855 Aerzen / Germany
Telephone: 05154 81-0 – Fax: 05154 81-9191
info@aerzener.de – www.aerzen.com

AERZEN
EXPECT PERFORMANCE

V1-019 – 04 – EN – 2000 – 05.2015