

# AERZEN

## SCREW COMPRESSORS

Aerzen screw compressor packages DELTA SCREW as compact units,  
available in two pressure ranges with optimized power consumption

Pressure range 1 up to 3.0 bar (a) VML 18 R to VML 250

Pressure range 2 up to 4.5 bar (a) VM 8 R to VM 140  
with gearbox or belt drive



AERZENER MASCHINENFABRIK  
G M B H

# Technical progression

The Aerzener Maschinenfabrik GmbH has been manufacturing Screw Compressors since 1943. As the Market Leader in Europe, the company is one of the oldest and largest manufacturers of Roots Blowers and Screw Compressors. Technical expertise, experienced staff and a permanent dialogue with the customers all help to maintain the lead in technology now and for the future.

The further development and introduction of the new DELTA SCREW Packages is an answer to the rising demands of our customers and the increasing demands of the future market.

## Application fields and use

The units are specifically designed to match practical requirements in the field. They are the ideal solution for the dry, oil-free and clean compression of air and neutral gases as required e.g. in the following application fields:

- pneumatic conveying with air or nitrogen
- aeration of sewage basins
- homogenising of cement
- vacuum production in the glass industry
- prevention of ice build-up in harbours and lakes
- oil booms
- gas-air mixing plants
- oxidation air for power stations
- stationary unloading of silo vehicles
- vacuum production in the paper industry
- conveying and compression of neutral gases
- blast air for production of spunbonded web



All DELTA SCREW-units can be delivered with ATEX 100 A - certification on customers request.



# General

Single-stage Aerzen screw compressors are manufactured as air-cooled units for intake volumes from 200 to 15.000 m<sup>3</sup>/h. Discharge pressures of up to  $p_2 = 3.0$  bar and 4.5 bar abs., dry, oil-free compression, temperature limit  $t_2$  maximum 250 °C. Vacuum operation is possible with the standard VML-compressors to a maximum of 70% (0.3 bar abs.) and as a modified unit to 85% (0.15 bar abs.).

## Driving shaft

sealed by peak seals, working maintenance-free in combination with a well-aimed oil-chamber release.

## Energy consumption

Depending on the maximum discharge pressure 3+4 or 4+6 screw profiles are used. This results in an optimum use of energy despite other influences such as tolerances, pressure losses at accessories and deflections of the volume flow.

## Large or small performances

With all units of the DELTA SCREW series, rotor profile, internal compression ratio and accessories can be optimized to meet individual requirements.

## Technology

DELTA SCREW units are delivered complete with internal installation, piping and wiring, and are ready for connection to the customer's system.

By using a frequency converter the volume can be regulated over a large range with a ratio of approximately 1:4. Relatively small rotor diameters and low risk of internal contamination preclude any additional imbalances that could increase vibration.

Even under difficult operating conditions the calculated bearing lifetime is > 40.000 hours

## Adaptability

Depending on customer requirements the scope of supply can include for example:

- Driving motor
- Control - and power cabinet
- Acoustic hood
- Start-up unloading device
- Full load / idle running system.

## Simple operation

All operation and maintenance elements are accessible from one side, this includes instrument panel, oil filter, oil level sight glasses, air - and oil filters and therefore enable a simple operation and maintenance.

## Chassis

The base frame for the compressor stages with belt drive has several functions. It is base support for the compressor stage, suction-silencer and oil reservoir in one. That reduces costly installation surface.

## Ranges of pressure

In overpressure two discharge pressure ranges are available.

VML up to 3,0 bar (a) VM up to 4,5 bar (a)

In vacuum pressure:

VML up to 0,3 bar (a)  
up to 0,15 bar (a) with pre-inlet

## Efficiency

During the whole operating period of the compressor the efficiency remains virtually constant so that no reduction of the conveying capacity will occur.

## With belt drive

The belt drive of DELTA SCREW - units is designed so that v-belt tension is constant in all operating conditions. The weight of the motor mounted on a hinged support ensures that the tension of the v-belts is always as it should be.



# Compression process



## Suction

The gas enters through the inlet opening into the open thread of the rotors.



## Compression process

By progressing rotation of the rotors the inlet opening is closed, the volume reduced, the pressure increases.



## Discharge

The compression is finished, the discharge pressure achieved, the discharge starts.

## Installation

The packages are delivered completely assembled, allowing their prompt and trouble-free installation. Installation procedures at site are limited to the connection of the power supply and plant piping resp. filling-up of oil. The standard package designed for pressure mode operation sucks in ambient atmospheric air through a filter. In vacuum mode and nitrogen operation, the intake filter is substituted by a suction silencer or pipe connection. An additional expansion joint with tie-rods ensures stress-free intake connection to plant piping. The standard package is designed to accept motors having IP 55 type protection.

In the case of packages equipped with an acoustic hood, the electrical wiring as well as the motor starter and pushbuttons can be installed in the standard instrument panel. (only applies for machines with gearbox).

## Drive

The compressor is normally driven via an electric motor of B3 design. Other drive configurations (e.g. diesel motor, turbine) are available upon request. When installing an acoustic hood, the following must be considered: - The fan is designed to provide sufficient cooling to maintain a maximum temperature rise within the hood of 10 °C. - The amount of the heat radiated from the compressor package surfaces represents approx. 25 % of the drive power, depending on the particular operating conditions and compressor size. However, some higher heat radiation values can be reached where machines are equipped with an intake throttling regulation valve.

The internal pressure losses across the hood amount to max. 100 N/m<sup>2</sup>. - The ventilation of the acoustic hood is carried out by a mechanically driven fan, which is mounted to an extension of the driving shaft (VML 150/250 electrically driven).



## Unit

Concerning the Delta Screw units there is always a standardized concept for the package.

Two variants are possible:

1. **Drive** of the compressor stage directly via an integrated gearbox.

**Arrangement** of compressor stage and driving motor one behind the other, installed on a common base frame.

2. **Drive** of the compressor stage via belt drive.

**Arrangement** of compressor stage and driving motor side by side, hinged motor plate fixed laterally on the body of the compressor.

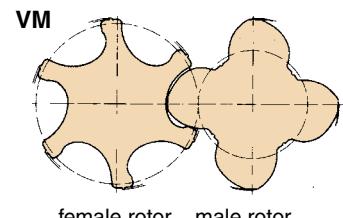
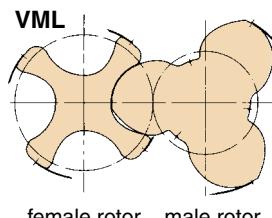
## Start-up, regulation

As an option the VML-compressors can be provided with a self-controlled start-up unloading device. Upon request, VM-compressors can be supplied with an idling / full load regulation system, e.g. to unload the compressor in the case of star-delta starting, or to reduce energy consumption during intermittent operation (for star-delta starting, please consult the manufacturer first).

## Construction and design (compressor stage)

### Rotors:

Profile VML: 3 + 4, VM: 4 + 6, asymmetric dynamically balanced according to DIN ISO 1940 T1, quality G = 2.5



### Sealings:

VM: conveying chamber: carbon ring labyrinth sealing at suction-and discharge side with chamber rings and neutral chamber.

Driving shaft: peak seal

VML: conveying chamber: piston rings at suction side, carbon ring labyrinth sealing at discharge side, each with neutral chamber.

Driving shaft: peak seal

### Materials:

housing: grey cast GG 25

rotors: steel C 45 N

sealings: Ek 305, steel / carbon

gear wheels: hardened steel

### Bearings:

Roller bearings with integrated forced-feed lubrication.



## Construction and design (Drive and oil system)

### Belt drive:

#### Drive

Heavy-duty narrow V-belt, continuous belt tension due to motor weight

### Oil system

- oil reservoir integrated in the base frame
- oil overflow valve
- oil pump driven by female rotor, accessible from the outside
- oil cooling as oil-/air cooler incl. oil temperature regulating valve (limited to 90 °C), aeration via mechanical fan on the driving shaft (applies starting from 40 °C intake temperature, cooler block installed on belt guard / hood ventilation)
- oil filter as screw-down filter
- oil chamber relief via oil demister, installed on the compressor stage



### Gearbox:

#### Drive

Step-up gearbox integrated on the intake side with closely stepped gear ratios

### Oil system

- oil reservoir integrated in the compressor housing
- oil overflow valve
- oil pump driven by female rotor, accessible from the outside
- oil cooling as oil-/air cooler incl. oil temperature regulating valve (limited to 90 °C), aeration via mechanical fan on the driving shaft (cooler block integrated in compressor stage)
- oil filter as screw-down filter
- oil chamber relief via oil demister, installed on the compressor stage



## Instrumentation and controls

The instrumentation panel indicates and controls the following functions:



### VML / VM

Visual maintenance indicator in case of contamination of the air intake filter with additional protection by means of electrical pressure switches for suction pressure, discharge pressure and oil pressure, discharge temperature and oil temperature.

The switches are wired internally on the terminal strip. Extension of instrumentation acc. to design VM is possible (option).

All sensing points are monitored by an electronic fault indication device featuring „first-out” indication. Instrumentation to meet special requirements (e.g. ex-proof) is available upon request.

### Alternatively for VM and VML:

Aerzen Universal Control Unit including instrumentation in analog technique with pressure transmitter for suction-, discharge- and oil pressure. Resistance thermometer for discharge- and oil temperature. Indications are optionally (multilingual) available in the display.



Control options for all possible cases of operation. Indication of the service intervals. Limit value recording

as fault indication archives. Serial interface (RS 485) for data transmission (e.g. telediagnostic service, linkage of several machines among each other). (Design not ex-proof).

## Scope of supply and performances

The scope of supply of a DELTA SCREW compressor unit made by Aerzener for air operation (basic unit) includes the following items:

### Belt drive

- Aerzen Screw compressor stage with reinforced bearing of the driving shaft (female rotor) suitable for belt drive. Forced-feed lubrication including oil pump, oil filter, oil return flow valve, turbo filter for oil chamber release.
- Base support as suction silencer with hinged motor plate (three-phase current motor)
- Intake filter (single-stage) integrated in the base frame
- Belt drive with guard

### Items also belonging to the basic unit: (applies for belt drive and gearbox)

- Discharge silencer
- Safety relief valve (type-tested)
- Non-return valve
- Expansion joint with tie-rod, discharge side
- Flexible machinery mountings with anchor bolts
- Instrument panel for protection of the machine with indication and monitoring for suction-, discharge- and oil pressure, discharge- and oil temperature, single-fault indication and operating hour meter

Extended scope of instrumentation same as for VM possible even for VML against extra price.

### Accessories: Options (belt drive and gearbox)

- Driving motor as three-phase current motor including assembly in Aerzen
- Acoustic hood for the complete compressor unit for indoor and outdoor installation
- Start-up unloading valve for VML-compressors (self-medium controlled)
- Constant-speed unloading device for VM-compressors including suction throttle, relief valve and pressure switch PSLH (self-medium controlled)
- switch cabinet with electrical interconnection (e.g. star-delta)
- Frequency converter, designed as separate cabinet (installation and external wiring at site)
- Overflow-regulating valve (self-medium controlled) for keeping the discharge pressure or vacuum constant, loose supply, for installation into the pipe provided at site
- separate after-cooler, loose supply, for installation into the pressure pipe provided at site, designed as air-air cooler or air-water cooler, in case of danger of condensation on request even with cyclone separator and automatic drain.

### Modifications: Options (belt drive and gearbox)

- Nitrogen design including suction silencer, starting strainer, expansion joint suction side, suction pressure gauge
- Ex-proof design with intrinsically safe instrumentation, main- and aux. drives in EEx e or EEx de
- Special instrumentation in co-ordination with the customer's specification
- Deviating finish
- ANSI-flanges at battery limit
- Vacuum design (even with pre-inlet) incl. suction silencer, starting strainer, expansion joint suction side, suction pressure gauge, suction valve, vacuum filter as option

### Gearbox

- Aerzen Screw compressor stage with integrated step-up gearbox, forced-feed lubrication including oil pump, oil filter, oil return flow valve, air/oil cooler, turbo filter for oil chamber release.
- Base support for compressor stage and driving motor (three-phase current motor)
- Intake filter (double-stage) with intake manifold
- Flexible coupling with guard

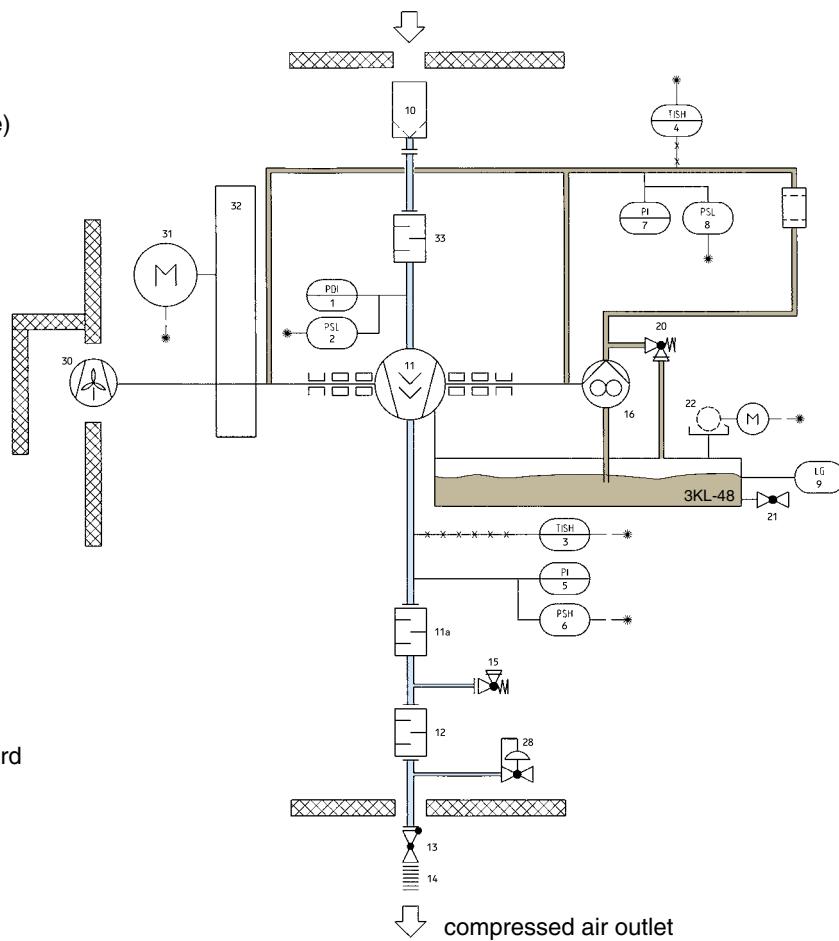


## Flow diagram VML-R (belt drive)

1. air filter monitoring
2. intake pressure switch
3. contact thermometer (discharge temperature)
4. contact thermometer (oil temperature)
5. discharge pressure gauge
6. discharge pressure switch
7. oil pressure gauge
8. oil pressure switch
9. oil level sight glass
10. intake filter
11. compressor stage
- 11a. sound-absorbing connection chamber
12. discharge silencer
13. check valve
14. expansion joint
15. safety relief valve
16. oil pump
19. oil filter
20. oil overflow valve
21. oil drain valve
22. oil demister
32. belt drive
33. suction silencer

The following items are not included in the standard scope of supply and are available at extra costs:

28. relief valve
30. acoustic hood with fan
31. electric motor

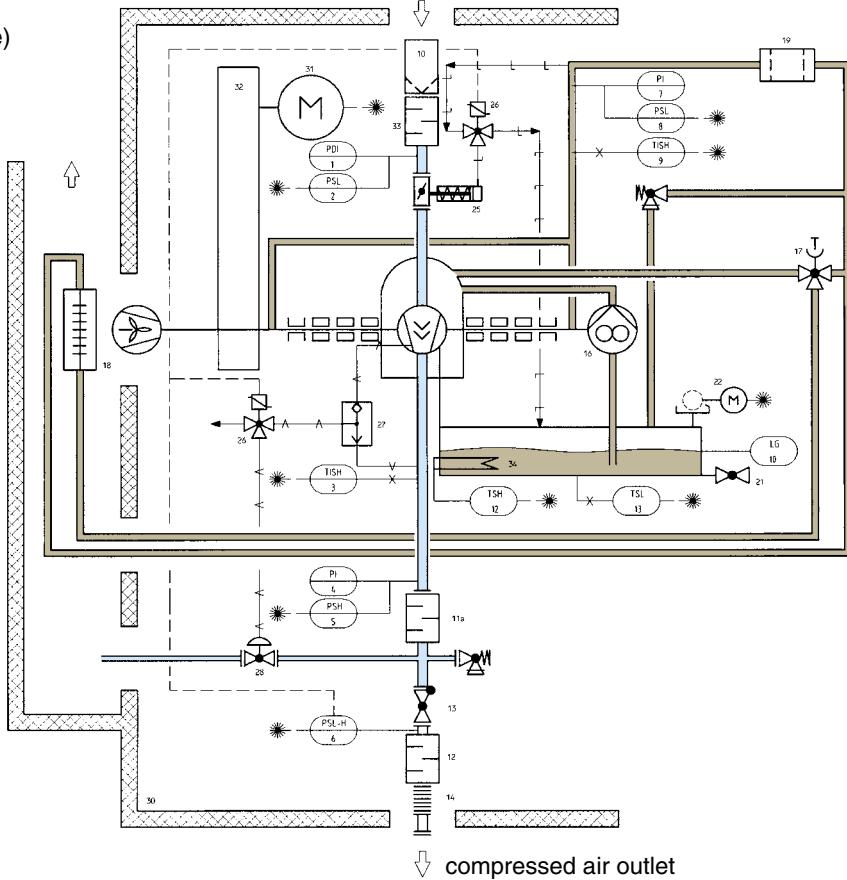


## Flow diagram VM-R (belt drive)

1. air filter monitoring
2. intake pressure switch
3. contact thermometer (discharge temperature)
4. contact thermometer (oil temperature)
5. discharge pressure gauge
6. discharge pressure switch
7. oil pressure gauge
8. oil pressure switch
9. oil level sight glass
10. intake filter
11. compressor stage
12. discharge silencer
13. check valve
14. expansion joint
15. safety relief valve
16. oil pump
17. oil temperature regulator
18. oil air cooler
19. oil filter
20. oil overflow valve
21. oil drain valve
22. oil demister
32. belt drive
33. suction silencer

The following items are not included in the standard scope of supply and are available at extra costs:

30. acoustic hood with fan
31. electric motor
23. intake pressure gauge
24. pressure switch
25. throttle flap regulation
26. 3-way solenoid valve
27. pressure selection relay
28. relief valve



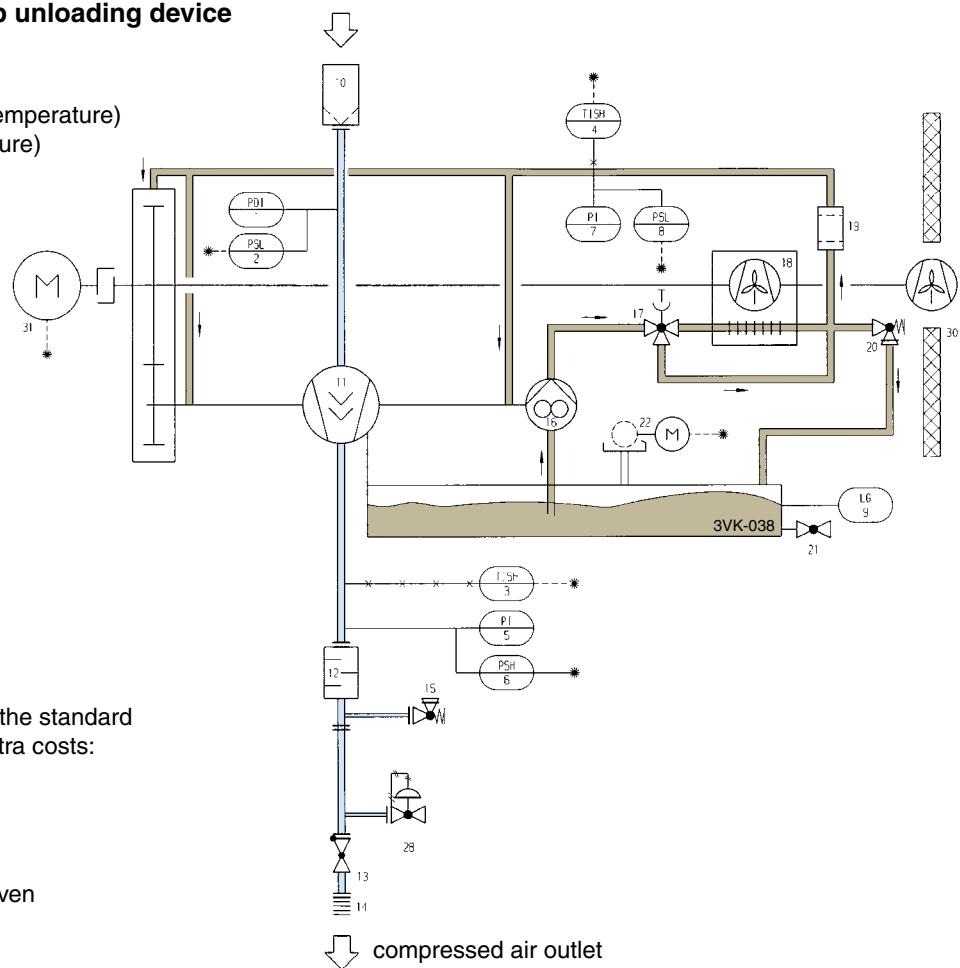
## Flow diagram VML... with start-up unloading device

1. air filter monitoring
2. intake pressure switch
3. contact thermometer (discharge temperature)
4. contact thermometer (oil temperature)
5. discharge pressure gauge
6. discharge pressure switch
7. oil pressure gauge
8. oil pressure switch
9. oil level sight glass
10. intake filter
11. compressor stage
12. discharge silencer
13. check valve
14. expansion joint
15. safety relief valve
16. oil pump
17. oil temperature regulator
18. oil air cooler \*
19. oil filter
20. oil overflow valve
21. oil drain valve
22. oil demister

The following items are not included in the standard scope of supply and are available at extra costs:

25. electric motor
28. start-up unloading device
30. acoustic hood with fan \*

\* For VML 150/ 250 electrically driven

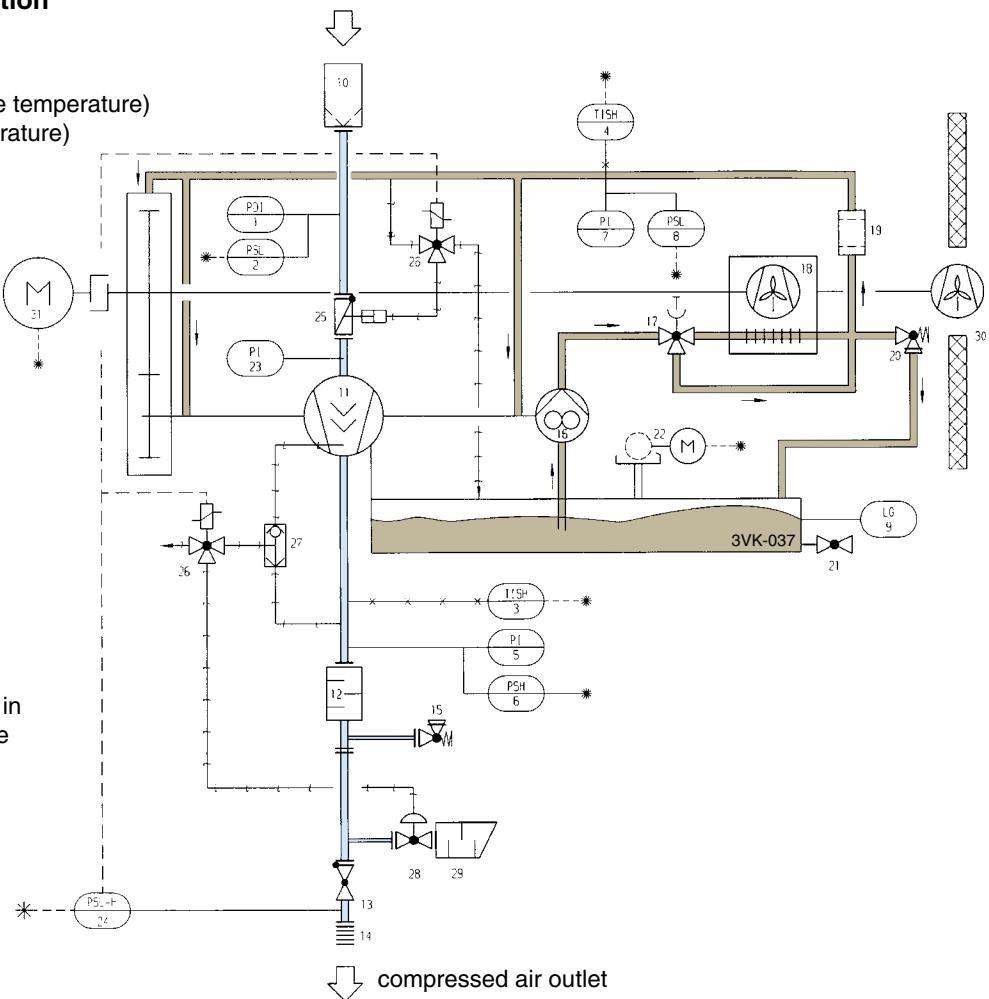


## Flow diagram VM... with regulation

1. air filter monitoring
2. intake pressure switch
3. contact thermometer (discharge temperature)
4. contact thermometer (oil temperature)
5. discharge pressure gauge
6. discharge pressure switch
7. oil pressure gauge
8. oil pressure switch
9. oil level sight glass
10. intake filter
11. compressor stage
12. discharge silencer
13. check valve
14. expansion joint
15. safety relief valve
16. oil pump
17. oil temperature regulator
18. oil air cooler
19. oil filter
20. oil overflow valve
21. oil drain valve
22. oil demister

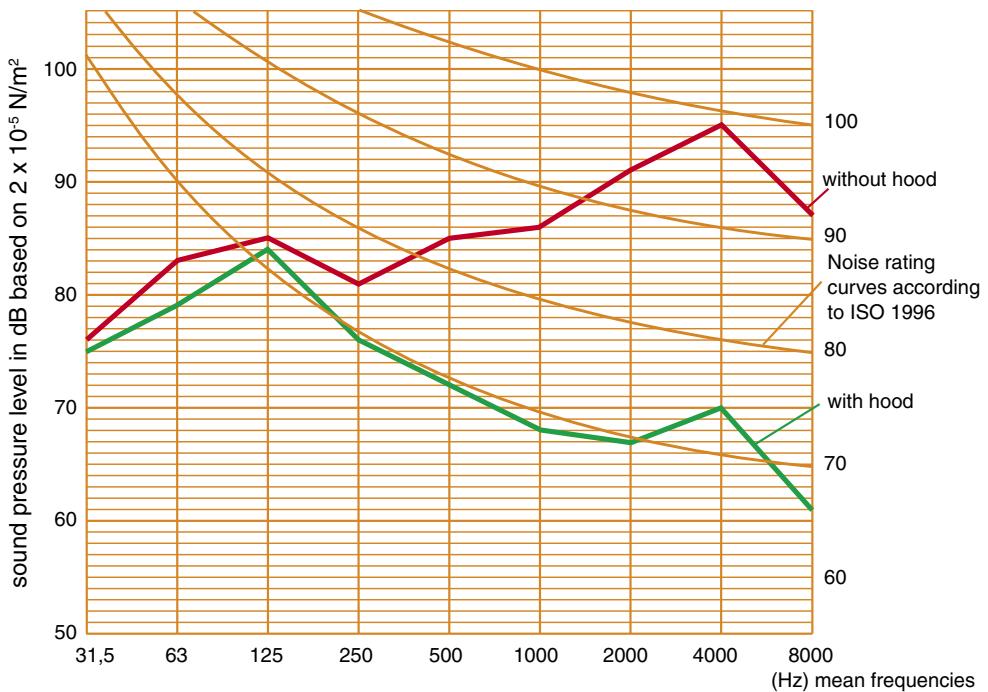
The following items are not included in the standard scope of supply and are available at extra costs:

30. acoustic hood with fan
31. electric motor
23. intake pressure gauge
24. pressure switch
25. throttle flap regulation
26. 3-way solenoid valve
27. pressure selection relay
28. relief valve
29. blow-off silencer



## Noise data

The sound frequency analysis in 1/1 octave bands was carried out on a VM 21 R package. Measurements in free field, at a distance = 1.0 m. Measuring height = 1.5 m  
Discharge pressure  
 $p_e = 3.5$  bar  
 $n_{mot} = 2950$  rpm  
Step-up gear ratio  $B_7$



## Using the performance charts

We always distinguish

1. in drive mode belt drive or gearbox
  2. in discharge pressure
- For performance data up to 2 bar overpressure  
 ⇒ VML-compressors  
 For performance data up to 3,5 bar overpressure  
 ⇒ VM-compressors

The performance charts are in chronological order according to compressor sizes. First it has to be decided which drive mode is preferred.

To distinguish the type designations the belt driven machines end with an "R" concerning their designation. The performance charts have the same structure. Depending on compressor type the possible performance data were entered in the corresponding chart (in the upper section up to 2 bar applicable for compressor types VML, in the lower section up to 3,5 bar applicable for compressor types VM).

The volume flow increases from the left to the right side. We are always trying to use the smallest-possible machine.

The applicable performance data of the corresponding case of operation result from "column" (referring to the volume flow) and "line" (referring to the requested discharge pressure).

### Explanations:

Sum of the individual moments of inertia of compressor, gearbox and coupling, based on the drive speed.

$$J \triangleq \frac{GD^2}{4}$$

$p_1$  intake pressure (abs.)

$t_1$  intake temperature

$p_e$  discharge pressure, gauge

$i_1$  to  $i_{14}$  standard gear ratios

In order to meet the requested volume flow even more closely, intermediate gear ratios are available between each standard ratio, e.g.  $i_{9/10}$  between  $i_9$  and  $i_{10}$ .

$L_p$  (A) o.H./m.H. sound pressure level as machine noise acc. to DIN 45635 - without hood / with hood.

The data applicable to intermediate step-up gear ratios can be interpolated, as in these ranges the operating data are of linear relationship and can be calculated proportionally.

The data shown are based on the compression of air at  $p_1 = 1,0$  bar and  $t_1 = 20$  °C. Data concerning deviating suction conditions, vacuum operation, compression of gas and multi-stage compression configurations are available on request.

The fan power for acoustic hood depends on the particular operating conditions.

Oil demister operating requirements:  
 0,37 kW  
 50 m³/h  
 3000 rpm.

**Our sales department** shall be at your disposal at any time concerning questions on the necessary equipment and possibilities of application.

**Performance data based on the compression of air ( $p_1 = 1.0$  bar,  $t_1 = 20^\circ\text{C}$ )**

Discharge pressure $p_e$ [bar gauge]	Compressor size		VM 8 R									
	belt drive ratio	B [-]	B <sub>6</sub>	B <sub>6/7</sub>	B <sub>7</sub>	B <sub>7/8</sub>	B <sub>8</sub>	B <sub>8/9</sub>	B <sub>9</sub>	B <sub>9/10</sub>	B <sub>10</sub>	
0,75	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]										
	compressor speed	nHR [ <sup>1</sup> / <sub>min</sub> ]										
	motor speed	nM [ <sup>1</sup> / <sub>min</sub> ]										
	discharge temperature	t <sub>2</sub> [°C]										
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]										
	power, idling p <sub>1</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]										
1,00	reduced moment of inertia	J [kgm <sup>2</sup> ]										
	Sound pressure level w/o.h./w.h.	Lp [dBA]										
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]										
	compressor speed	nHR [ <sup>1</sup> / <sub>min</sub> ]										
	motor speed	nM [ <sup>1</sup> / <sub>min</sub> ]										
	discharge temperature	t <sub>2</sub> [°C]										
1,25	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]										
	power, idling p <sub>1</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]										
	reduced moment of inertia	J [kgm <sup>2</sup> ]										
	Sound pressure level w/o.h./w.h.	Lp [dBA]										
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]										
	compressor speed	nHR [ <sup>1</sup> / <sub>min</sub> ]										
1,50	motor speed	nM [ <sup>1</sup> / <sub>min</sub> ]										
	discharge temperature	t <sub>2</sub> [°C]										
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]										
	power, idling p <sub>1</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]										
	reduced moment of inertia	J [kgm <sup>2</sup> ]										
	Sound pressure level w/o.h./w.h.	Lp [dBA]										
1,75	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]										
	compressor speed	nHR [ <sup>1</sup> / <sub>min</sub> ]										
	motor speed	nM [ <sup>1</sup> / <sub>min</sub> ]										
	discharge temperature	t <sub>2</sub> [°C]										
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]										
	power, idling p <sub>1</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]										
2,00	reduced moment of inertia	J [kgm <sup>2</sup> ]										
	Sound pressure level w/o.h./w.h.	Lp [dBA]										
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]	287	312	338	366	392	415	441	468	497	
	compressor speed	nHR [ <sup>1</sup> / <sub>min</sub> ]	14162	15002	15861	16802	17935	18999	20212	21448	22813	
	motor speed	nM [ <sup>1</sup> / <sub>min</sub> ]	2930	2930	2930	2930	2945	2945	2945	2950	2950	
	discharge temperature	t <sub>2</sub> [°C]	167	164	161	159	160	161	163	165	167	
2,25	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]	17,5 / 18,5	18,6 / 22	19,8 / 22	21,1 / 22	23,3 / 30	25,6 / 30	28,5 / 30	31,5 / 37	35,2 / 37	
	power, idling p <sub>1</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]	7,3	8,1	8,8	9,8	11,1	12,6	14,4	16,5	18,9	
	reduced moment of inertia	J [kgm <sup>2</sup> ]	0,199	0,215	0,254	0,271	0,334	0,356	0,433	0,461	0,579	
	Sound pressure level w/o.h./w.h.	Lp [dBA]	89/73	89/73	91/75	93/77	94/78	95/80	95/81	95/82	97/84	
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]	282	307	333	364	387	410	436	462	490	
	compressor speed	nHR [ <sup>1</sup> / <sub>min</sub> ]	14162	15002	15861	16888	17935	18999	20247	21448	22736	
2,50	motor speed	nM [ <sup>1</sup> / <sub>min</sub> ]	2930	2930	2930	2945	2945	2950	2950	2950	2950	
	discharge temperature	t <sub>2</sub> [°C]	183	180	177	174	174	175	177	178	180	
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]	19,1 / 22	20,3 / 22	21,6 / 22	23,1 / 30	25,4 / 30	27,8 / 30	30,9 / 37	34,1 / 37	37,8 / 45	
	power, idling p <sub>1</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]	7,3	8,1	8,8	9,8	11,1	12,6	14,4	16,5	18,9	
	reduced moment of inertia	J [kgm <sup>2</sup> ]	0,199	0,214	0,254	0,273	0,334	0,356	0,433	0,461	0,578	
	Sound pressure level w/o.h./w.h.	Lp [dBA]	89/73	89/73	91/75	93/78	94/80	95/80	95/81	95/82	97/84	
2,75	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]	280	307	333	361	382	405	431	456	485	
	compressor speed	nHR [ <sup>1</sup> / <sub>min</sub> ]	14162	15078	15942	16888	17935	19031	20247	21375	22736	
	motor speed	nM [ <sup>1</sup> / <sub>min</sub> ]	2930	2945	2945	2945	2945	2950	2950	2940	2940	
	discharge temperature	t <sub>2</sub> [°C]	198	194	191	189	189	190	191	192	194	
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]	20,7 / 22	22,2 / 30	23,6 / 30	25,2 / 30	27,4 / 30	30,2 / 37	33,4 / 37	36,5 / 45	40,6 / 45	
	power, idling p <sub>1</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]	10,9	11,9	13	14,5	11,1	12,6	14,4	16,5	18,9	
3,00	reduced moment of inertia	J [kgm <sup>2</sup> ]	0,199	0,214	0,256	0,273	0,334	0,356	0,433	0,494	0,636	
	Sound pressure level w/o.h./w.h.	Lp [dBA]	89/73	89/73	91/76	93/79	94/81	95/81	95/82	95/84	97/84	
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]	277	303	329	357	380	404	430	451	480	
	compressor speed	nHR [ <sup>1</sup> / <sub>min</sub> ]	14234	15078	15942	16888	17935	19031	20247	21375	22736	
	motor speed	nM [ <sup>1</sup> / <sub>min</sub> ]	2945	2945	2945	2945	2950	2950	2950	2940	2940	
	discharge temperature	t <sub>2</sub> [°C]	213	208	205	201	202	204	205	207	208	
3,25	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]	22,3 / 30	23,7 / 30	25,2 / 30	26,9 / 30	29,5 / 30	32,5 / 37	36,1 / 37	39,2 / 45	43,5 / 45	
	power, idling p <sub>1</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]	10,9	11,9	13	14,5	16,2	18,4	20,8	16,5	18,9	
	reduced moment of inertia	J [kgm <sup>2</sup> ]	0,201	0,214	0,256	0,273	0,334	0,356	0,433	0,494	0,636	
	Sound pressure level w/o.h./w.h.	Lp [dBA]	91/74	91/74	92/76	93/79	94/81	95/81	95/82	96/82	97/84	
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]	273	298	324	353	377	399	424	450	482	
	compressor speed	nHR [ <sup>1</sup> / <sub>min</sub> ]	14234	15078	15942	16888	17965	19031	20178	21375	22852	
3,50	motor speed	nM [ <sup>1</sup> / <sub>min</sub> ]	2945	2945	2945	2950	2950	2950	2940	2940	2955	
	discharge temperature	t <sub>2</sub> [°C]	229	223	219	215	215	216	218	219	221	
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]	23,7 / 30	25,2 / 30	26,8 / 30	28,5 / 30	31,3 / 37	34,4 / 37	37,9 / 45	41,7 / 45	46,8 / 55	
	power, idling p <sub>1</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]	10,9	11,9	13	14,5	16,2	18,4	20,8	23,8	27,1	
	reduced moment of inertia	J [kgm <sup>2</sup> ]	0,201	0,214	0,256	0,273	0,334	0,356	0,433	0,494	0,636	
	Sound pressure level w/o.h./w.h.	Lp [dBA]	92/75	93/75	93/77	93/79	94/81	95/81	95/82	96/82	97/84	
3,75	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]	269	294	320	349	372	395	420	446	478	
	compressor speed	nHR [ <sup>1</sup> / <sub>min</sub> ]	14234	15078	15942	16917	17965	18967	20178	21375	22852	
	motor speed	nM [ <sup>1</sup> / <sub>min</sub> ]	2945	2945	2945	2950	2950	2940	2940	2955	2955	
	discharge temperature	t <sub>2</sub> [°C]	245	238	233	228	229	230	231	233	233	
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]	25,2 / 30	26,7 / 30	28,4 / 30	30,2 / 37	33,1 / 37	36,3 / 37	39,9 / 45	43,9 / 45	49,2 / 55	
	power, idling p <sub>1</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]	10,9	11,9	13	14,5	16,2	18,4	20,8	23,8	27,1	
4,00	reduced moment of inertia	J [kgm <sup>2</sup> ]	0,201	0,214	0,256	0,273	0,334	0,356	0,433	0,494	0,636	
	Sound pressure level w/o.h./w.h.	Lp [dBA]	94/78	94/79	95/80	95/81	96/82	97/83	98/84	98/84	98/85	
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]	265	290	314	345	368	389	415	444	473	
	compressor speed	nHR [ <sup>1</sup> / <sub>min</sub> ]	14234	15078	15942	16917	17965	18967	20178	21375	22852	
	motor speed	nM [ <sup>1</sup> / <sub>min</sub> ]	2945	2945	2945	2950	2950	2940	2940	2955	2955	
	discharge temperature	t <sub>2</sub> [°C]	242	242	242	242	243	243	244	244	245	
4,25	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]	26,1 / 30	27,6 / 30	29,3 / 30	31,1 / 37	34,1 / 37	38 / 45	42 / 45	46,5 / 55	52 / 55	
	power, idling p <sub>1</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]	10,9	11,9	13	14,5	16,2	18,4	20,8	23,8	27,1	
	reduced moment of inertia	J [kgm <sup>2</sup> ]	0,201	0,214	0,256	0,273	0,334	0,356	0,433	0,494	0,636	
	Sound pressure level w/o.h./w.h.	Lp [dBA]	94/78	94/79	95/80	95/81	96/82	97/83	98/84	98/84	98/85	
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]	261	286	310	341	365	386	415	444	473	
	compressor speed	nHR [ <sup>1</sup> / <sub>min</sub> ]	14234	15078	15942	16917	17965	18967	20178	21375	22852	
4,50	motor speed	nM [ <sup>1</sup> / <sub>min</sub> ]	2945	2945	2945	2950	2950	2940	2940	2955	2955	
	discharge temperature	t <sub>2</sub> [°C]	240	240	240	242	242	243	244	244	245	
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]	26,1 / 30	27,6 / 30	29,3 / 30	31,1 / 37	34,1 / 37	38 / 45	42 / 45	46,5 / 55	52 / 55	
	power, idling p <sub>1</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]	10,9	11,9	13	14,5	16,2	18,4	20,8	23,8	27,1	
	reduced moment of inertia	J [kgm <sup>2</sup> ]	0,201	0,214	0,256	0,273	0,334	0,356	0,433	0,494	0,636	
	Sound pressure level w/o.h./w.h.	Lp [dBA]	94/78	94/79	95/80	95/81	96/82	97/83	98/84	98/84	98/85	

## Performance data based on the compression of air ( $p_1 = 1.0$ bar, $t_1 = 20$ °C)

Discharge pressure $p_e$ [bar gauge]	Compressor size	VM 15 R									
		belt drive ratio	B [-]	B <sub>5/6</sub>	B <sub>6</sub>	B <sub>6/7</sub>	B <sub>7</sub>	B <sub>7/8</sub>	B <sub>8</sub>	B <sub>8/9</sub>	B <sub>9</sub>
0,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,00	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,25	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,50	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
2,00	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	561 12851 2950 2950 163 29,7 / 37 12,6 0,392 94/78	605 13570 2950 2950 161 31,6 / 37 13,9 0,456 94/79	655 14391 2940 2940 159 33,3 / 37 15,4 0,496 95/80	706 15215 2940 2940 160 36,1 / 45 17,2 0,588 96/81	749 16134 2955 2955 162 38,7 / 45 19,1 0,638 96/82	801 17236 2955 2955 163 41,9 / 55 21,5 0,764 97/83	850 18276 2955 2955 165 45,3 / 55 23,9 0,827 98/83	904 19418 2970 2970 168 49,2 / 55 26,8 1,013 98/84	966 20698 2970 2970 168 54 / 75 29,9 1,124 99/85
2,25	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	553 12807 2950 2950 179 32,5 / 37 12,6 0,392 94/78	597 13570 2940 2940 176 34,4 / 37 13,9 0,456 94/79	644 14342 2940 2940 174 36,6 / 45 15,4 0,496 95/80	698 15215 2955 2955 172 39,2 / 45 17,2 0,588 96/81	745 16216 2955 2955 173 42,2 / 55 19,1 0,668 96/82	793 17236 2955 2955 175 45,3 / 55 21,5 0,764 97/83	842 18276 2955 2955 176 48,9 / 55 23,9 0,827 98/83	901 19418 2970 2970 178 54 / 75 26,8 1,044 98/84	958 20698 2970 2970 180 58 / 75 29,9 1,124 99/85
2,50	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	546 12807 2940 2940 194 35,3 / 45 18,4 0,392 94/79	586 13524 2940 2940 192 37,2 / 45 18,9 0,456 95/80	636 14342 2940 2940 189 38,6 / 45 186 0,496 95/80	693 15292 2955 2955 186 42,5 / 55 187 0,588 96/81	736 16216 2955 2955 187 45,5 / 55 191 0,668 96/82	784 17236 2955 2955 188 48,8 / 55 190 0,764 97/83	838 18276 2955 2955 189 53 / 75 191 0,827 98/83	893 19418 2970 2970 191 58 / 75 193 1,044 98/84	949 20698 2970 2970 180 58 / 75 62 / 75 1,124 100/85
2,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	540 12807 2940 2940 208 37,6 / 45 18,4 0,392 94/79	583 13524 2940 2940 205 39,9 / 45 20,2 0,456 95/79	638 14415 2955 2955 202 42,9 / 55 22,3 0,515 95/80	691 15292 2955 2955 200 45,9 / 55 24,9 0,619 96/81	734 16216 2955 2955 201 49,2 / 55 24,9 0,668 96/82	780 172323 2955 2955 202 53 / 75 21,5 0,764 97/83	830 18369 2955 2955 203 57 / 75 23,9 0,822 98/84	884 19516 2970 2970 204 62 / 75 23,9 1,044 99/84	941 20698 2970 2970 206 66 / 75 62 / 75 1,198 100/85
3,00	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	533 12807 2940 2940 222 39,9 / 45 18,4 0,392 94/79	577 13524 2940 2940 218 42,3 / 45 20,2 0,456 95/79	631 14415 2955 2955 215 45,4 / 55 22,3 0,515 95/80	684 15292 2955 2955 212 48,5 / 55 24,9 0,619 96/81	731 16299 2955 2955 213 53 / 75 24,9 0,668 96/82	779 17323 2955 2955 214 57 / 75 27,6 0,764 97/83	829 18369 2955 2955 216 61 / 75 30,7 0,822 98/84	884 19516 2970 2970 218 66 / 75 34,1 0,862 99/84	933 20698 2970 2970 219 66 / 75 37,9 1,044 1,198 100/85
3,25	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	526 12807 2940 2940 236 42,2 / 45 18,4 0,392 94/79	574 13593 2955 2955 232 45 / 55 20,2 0,456 95/79	624 14415 2955 2955 228 48 / 55 22,3 0,515 95/80	681 15370 2970 2970 225 52 / 75 24,9 0,619 96/81	724 16299 2970 2970 226 55 / 75 27,6 0,668 96/82	772 17323 2970 2970 227 60 / 75 30,7 0,764 97/82	822 18369 2970 2970 229 64 / 75 34,1 0,822 98/84	877 19516 2970 2970 230 69 / 90 37,9 1,123 1,198 100/85	933 20698 2970 2970 230 74 / 90 42,1 1,123 1,198 100/85
3,50	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	517 12807 2940 2940 241 42,2 / 45 18,4 0,392 94/79	617 13593 2955 2955 238 48 / 55 20,2 0,456 95/79	674 14415 2955 2955 238 54 / 75 22,3 0,515 95/80	717 15370 2970 2970 238 58 / 75 24,9 0,619 96/81	766 16299 2970 2970 238 62 / 75 27,6 0,668 96/82	815 17323 2970 2970 239 67 / 75 30,7 0,764 97/82	870 18369 2970 2970 240 69 / 90 34,1 0,822 98/84	926 19516 2970 2970 241 72 / 90 37,9 1,123 1,198 100/85	933 20698 2970 2970 241 78 / 90 42,1 1,123 1,198 100/85

**Performance data based on the compression of air ( $p_1 = 1.0$  bar,  $t_1 = 20$  °C)**

Discharge pressure $p_0$ [bar gauge]	Compressor size	VML 18 R									
		belt drive ratio	$B$ [-]	$B_2$	$B_3$	$B_4$	$B_5$	$B_6$	$B_7$	$B_8$	$B_9$
0,75	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]	389	466	544	639	742	868	1008	1169	1252
	compressor speed	nHR [ $1/\min$ ]	5001	5626	6251	7001	7813	8796	9895	11171	11833
	motor speed	nM [ $1/\min$ ]	2930	2930	2930	2930	2945	2945	2950	2950	2950
	discharge temperature	$t_2$ [°C]	101	96	93	90	88	87	87	87	88
	power at shaft / motor rating	$P_{K/Mot}$ [kW]	11 / 15	12,5 / 15	13,9 / 18,5	15,7 / 18,5	17,7 / 22	20,4 / 30	23,5 / 30	27,9 / 37	30,4 / 37
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]	4,5	5,3	6,1	7,4	8,8	10,5	12,8	15,7	17,5
1,00	reduced moment of inertia	$J$ [ $kgm^2$ ]	0,118	0,156	0,203	0,27	0,34	0,48	0,67	0,8	0,93
	Sound pressure level w/o.h./w.h.	$L_p$ [dBA]	89/69	90/71	91/71	92/72	92/73	92/74	93/75	94/76	94/76
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]	380	457	535	629	733	854	996	1150	1232
	compressor speed	nHR [ $1/\min$ ]	5001	5626	6251	7037	7853	8796	9912	11133	11793
	motor speed	nM [ $1/\min$ ]	2930	2930	2945	2945	2945	2950	2950	2940	2940
	discharge temperature	$t_2$ [°C]	125	119	115	112	108	106	104	103	104
1,25	power at shaft / motor rating	$P_{K/Mot}$ [kW]	13,9 / 18,5	15,8 / 18,5	17,8 / 22	20,2 / 30	22,6 / 30	25,6 / 30	29,3 / 37	33,9 / 45	36,6 / 45
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]	6,6	7,9	9,3	7,4	8,8	10,5	12,8	15,7	17,5
	reduced moment of inertia	$J$ [ $kgm^2$ ]	0,118	0,156	0,21	0,28	0,38	0,48	0,67	0,8	1,03
	Sound pressure level w/o.h./w.h.	$L_p$ [dBA]	89/70	90/71	92/72	92/73	92/74	93/75	93/75	94/76	94/76
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]	370	446	528	623	729	849	977	1136	1225
	compressor speed	nHR [ $1/\min$ ]	5001	5626	6283	7037	7867	8811	9878	11133	11853
1,50	motor speed	nM [ $1/\min$ ]	2930	2930	2945	2945	2950	2950	2940	2940	2955
	discharge temperature	$t_2$ [°C]	149	140	134	130	126	124	122	120	120
	power at shaft / motor rating	$P_{K/Mot}$ [kW]	16,6 / 18,5	18,8 / 22	21,1 / 30	23,9 / 30	27,1 / 37	30,8 / 37	34,9 / 45	39,9 / 45	43,7 / 55
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]	6,6	7,9	9,3	11,0	13,1	15,7	18,2	15,7	17,5
	reduced moment of inertia	$J$ [ $kgm^2$ ]	0,123	0,164	0,21	0,28	0,38	0,48	0,72	0,87	1,13
	Sound pressure level w/o.h./w.h.	$L_p$ [dBA]	89/70	91/71	92/73	93/74	93/75	93/76	93/77	94/78	95/78
1,75	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]	359	439	517	614	718	834	981	1140	1219
	compressor speed	nHR [ $1/\min$ ]	5001	5654	6283	7049	7867	8781	9929	11190	11914
	motor speed	nM [ $1/\min$ ]	2930	2945	2950	2950	2940	2940	2955	2955	2970
	discharge temperature	$t_2$ [°C]	174	163	155	148	143	140	137	136	150
	power at shaft / motor rating	$P_{K/Mot}$ [kW]	19,3 / 22	21,9 / 30	24,4 / 30	27,5 / 37	30,9 / 37	34,9 / 45	40,2 / 45	46,3 / 55	51 / 75
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]	6,6	7,9	9,3	11,0	13,1	15,7	19,2	23,7	26,1
2,00	reduced moment of inertia	$J$ [ $kgm^2$ ]	0,123	0,164	0,21	0,28	0,38	0,52	0,72	0,88	1,2
	Sound pressure level w/o.h./w.h.	$L_p$ [dBA]	90/72	91/73	92/74	93/75	94/76	96/77	96/78	98/78	98/78
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]	351	428	508	603	703	823	969	1135	1218
	compressor speed	nHR [ $1/\min$ ]	5026	5654	6293	7049	7840	8781	9929	11246	11914
	motor speed	nM [ $1/\min$ ]	2945	2945	2950	2950	2940	2940	2955	2955	2970
	discharge temperature	$t_2$ [°C]	201	186	176	167	161	156	152	151	150
2,25	power at shaft / motor rating	$P_{K/Mot}$ [kW]	22,2 / 30	24,9 / 30	27,7 / 37	31,1 / 37	34,7 / 45	39,2 / 45	44,9 / 55	52 / 75	56 / 75
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]	6,6	7,9	9,3	11,0	13,1	15,7	19,2	23,7	26,1
	reduced moment of inertia	$J$ [ $kgm^2$ ]	0,123	0,164	0,22	0,3	0,4	0,52	0,72	0,88	1,2
	Sound pressure level w/o.h./w.h.	$L_p$ [dBA]	90/72	92/73	94/75	96/76	97/78	97/78	99/79	99/79	99/79
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]									
	compressor speed	nHR [ $1/\min$ ]									
2,50	motor speed	nM [ $1/\min$ ]									
	discharge temperature	$t_2$ [°C]									
	power at shaft / motor rating	$P_{K/Mot}$ [kW]									
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]									
	reduced moment of inertia	$J$ [ $kgm^2$ ]									
	Sound pressure level w/o.h./w.h.	$L_p$ [dBA]									
2,75	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]									
	compressor speed	nHR [ $1/\min$ ]									
	motor speed	nM [ $1/\min$ ]									
	discharge temperature	$t_2$ [°C]									
	power at shaft / motor rating	$P_{K/Mot}$ [kW]									
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]									
3,00	reduced moment of inertia	$J$ [ $kgm^2$ ]									
	Sound pressure level w/o.h./w.h.	$L_p$ [dBA]									
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]									
	compressor speed	nHR [ $1/\min$ ]									
	motor speed	nM [ $1/\min$ ]									
	discharge temperature	$t_2$ [°C]									
3,25	power at shaft / motor rating	$P_{K/Mot}$ [kW]									
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]									
	reduced moment of inertia	$J$ [ $kgm^2$ ]									
	Sound pressure level w/o.h./w.h.	$L_p$ [dBA]									
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]									
	compressor speed	nHR [ $1/\min$ ]									
3,50	motor speed	nM [ $1/\min$ ]									
	discharge temperature	$t_2$ [°C]									
	power at shaft / motor rating	$P_{K/Mot}$ [kW]									
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]									
	reduced moment of inertia	$J$ [ $kgm^2$ ]									
	Sound pressure level w/o.h./w.h.	$L_p$ [dBA]									

# Performance data based on the compression of air ( $p_1 = 1.0$ bar, $t_1 = 20$ °C)

Discharge pressure $p_e$ [bar gauge]	Compressor size	VM 21 R									
		belt drive ratio	B [ - ]	B <sub>5/6</sub>	B <sub>6</sub>	B <sub>6/7</sub>	B <sub>7</sub>	B <sub>7/8</sub>	B <sub>8</sub>	B <sub>8/9</sub>	B <sub>9</sub>
0,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,00	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,25	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,50	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
2,00	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	879 12872 2955 44,4 / 55 27,3 0,561 95/73	943 13593 2955 47,4 / 55 29,7 0,675 95/73	1016 14417 2955 52 / 55 32,9 0,721 96/74	1098 15370 2970 56 / 75 36,3 0,864 96/76	1160 16301 2970 61 / 75 40,3 0,925 98/78	1229 17321 2970 67 / 75 44,8 1,118 99/83	1300 18371 2970 72 / 75 50 1,195 101/84	1379 19517 2970 79 / 90 56 1,454 101/84	1461 20700 2970 86 / 90 63 1,637 102/85
2,25	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	870 12872 2955 47,7 / 55 27,3 0,561 96/73	934 13593 2955 51 / 55 29,7 0,675 96/73	1014 14490 2970 56 / 75 32,9 0,722 98/74	1089 15370 2970 60 / 75 36,3 0,864 99/77	1151 16301 2970 65 / 75 40,3 0,925 100/78	1220 17321 2970 71 / 75 44,8 1,118 100/84	1291 18371 2970 77 / 90 50 1,195 100/84	1370 19517 2970 84 / 90 56 1,454 102/85	1454 20735 2975 92 / 110 63 1,636 102/85
2,50	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	861 12872 2955 52 / 55 27,3 0,561 96/74	931 13662 2970 55 / 75 29,7 0,675 97/74	1005 14490 2970 59 / 75 32,9 0,722 98/75	1080 15370 2970 64 / 75 36,3 0,864 98/75	1142 16301 2970 65 / 75 40,3 0,925 100/78	1211 17321 2970 71 / 75 44,8 1,118 101/84	1282 18371 2970 75 / 90 50 1,195 101/84	1363 19550 2975 81 / 90 56 1,539 102/85	1445 20735 2975 89 / 110 63 1,637 102/85
2,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	858 12938 2970 55 / 75 27,3 0,561 96/74	922 13662 2970 59 / 75 29,7 0,675 97/74	996 14490 2970 63 / 75 32,9 0,722 98/75	1071 15370 2970 68 / 75 36,3 0,864 99/77	1133 16301 2970 73 / 75 40,3 0,925 101/78	1202 17321 2970 80 / 90 44,8 1,119 101/78	1273 18371 2970 86 / 90 50 1,257 101/84	1354 19550 2975 89 / 110 56 1,257 102/85	1436 20735 2975 97 / 110 63 1,637 102/85
3,00	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	857 12938 2970 59 / 75 27,3 0,561 96/74	921 13662 2970 62 / 75 29,7 0,675 97/75	995 14490 2970 67 / 75 44,6 0,722 98/75	1070 15370 2970 73 / 75 49 0,865 99/77	1124 16301 2970 78 / 90 40,3 0,925 101/78	1193 17321 2970 80 / 90 44,8 1,119 101/84	1267 18371 2970 86 / 90 50 1,257 101/85	1345 19550 2975 94 / 110 56 1,257 102/85	1427 20735 2975 94 / 110 63 1,257 102/85
3,25	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	849 12938 2970 61 / 75 41,1 0,561 98/75	913 13662 2970 65 / 75 44,6 0,675 98/75	987 14490 2970 70 / 75 49 0,722 99/76	1062 15370 2970 76 / 90 54,6 0,865 100/77	1125 16301 2970 81 / 90 59,6 0,963 101/79	1194 17321 2970 88 / 90 65,5 1,119 102/85	1267 18371 2970 96 / 110 72,9 1,257 102/85	1346 19550 2975 104 / 110 79,6 1,257 102/85	1428 20735 2975 112 / 132 87,7 1,257 102/85
3,50	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [°C] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	842 12938 2970 64 / 75 41,1 0,561 98/75	906 13662 2970 68 / 75 44,6 0,675 99/75	980 14490 2970 73 / 75 49 0,722 99/76	1055 15370 2970 79 / 90 54,6 0,865 100/77	1117 16301 2970 85 / 90 59,6 0,963 101/79	1188 17321 2970 88 / 90 65,5 1,119 102/85	1260 18371 2970 96 / 110 72,9 1,257 102/86	1338 19550 2975 107 / 110 79,6 1,257 102/86	1420 20735 2975 116 / 132 87,7 1,257 102/86

**Performance data based on the compression of air ( $p_1 = 1.0$  bar,  $t_1 = 20$  °C)**

Discharge pressure $p_0$ [bar gauge]	Compressor size	VML 25 R									
		belt drive ratio	B [ - ]		B <sub>4</sub>	B <sub>4/5</sub>	B <sub>5</sub>	B <sub>5/6</sub>	B <sub>6</sub>	B <sub>6/7</sub>	B <sub>7</sub>
0,75	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]		1091	1171	1247	1336	1425	1520	1629	1754
	compressor speed	nHR [ $1/\text{min}$ ]		10566	11207	11815	12529	13230	13983	14834	15811
	motor speed	nM [ $1/\text{min}$ ]		2945	2945	2950	2950	2950	2940	2940	2955
	discharge temperature	t <sub>2</sub> [°C]		89	89	90	90	91	92	94	96
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]		26,2 / 30	28,3 / 37	30,3 / 37	32,9 / 37	35,5 / 45	38,5 / 45	42,1 / 45	46,5 / 55
	power, idling p <sub>i</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]		14,6	16,3	17,8	20,0	22,2	24,8	28,0	31,3
	reduced moment of inertia	J [kgm <sup>2</sup> ]		0,481	0,527	0,602	0,686	0,806	0,876	1,03	1,115
1,00	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]		93/76	93/76	93/77	94/77	94/77	94/78	95/78	95/79
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]		1079	1159	1227	1317	1405	1515	1624	1750
	compressor speed	nHR [ $1/\text{min}$ ]		10584	11226	11775	12487	13185	14055	14909	15891
	motor speed	nM [ $1/\text{min}$ ]		2950	2950	2940	2940	2955	2955	2970	2970
	discharge temperature	t <sub>2</sub> [°C]		106	106	106	106	107	108	109	110
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]		32,4 / 37	34,8 / 45	36,9 / 45	39,7 / 45	42,6 / 45	46,5 / 55	51 / 55	56 / 75
	power, idling p <sub>i</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]		14,6	16,3	17,8	20,0	22,2	24,8	28,0	31,3
1,25	reduced moment of inertia	J [kgm <sup>2</sup> ]		0,483	0,528	0,602	0,686	0,806	0,876	1,033	1,115
	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]		94/76	94/77	94/77	95/78	95/78	95/78	96/78	96/79
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]		1060	1162	1213	1310	1399	1510	1619	1735
	compressor speed	nHR [ $1/\text{min}$ ]		10548	11268	11775	12550	13253	14126	14985	15891
	motor speed	nM [ $1/\text{min}$ ]		2940	2965	2940	2955	2955	2970	2970	2970
	discharge temperature	t <sub>2</sub> [°C]		124	122	123	123	123	123	124	125
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]		38,4 / 45	41,1 / 45	43,6 / 45	47,1 / 55	51 / 55	55 / 75	59 / 75	64 / 75
1,50	power, idling p <sub>i</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]		14,6	16,3	17,8	20,0	22,2	24,8	28,0	31,3
	reduced moment of inertia	J [kgm <sup>2</sup> ]		0,483	0,528	0,602	0,686	0,806	0,876	1,03	1,115
	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]		94/77	95/78	95/78	96/79	96/79	97/79	97/79	97/79
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]		1063	1143	1217	1304	1393	1496	1605	1721
	compressor speed	nHR [ $1/\text{min}$ ]		10602	11245	11835	12614	13320	14126	14985	15891
	motor speed	nM [ $1/\text{min}$ ]		2955	2955	2970	2970	2970	2970	2970	2970
	discharge temperature	t <sub>2</sub> [°C]		140	140	140	140	140	140	140	141
1,75	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]		44,5 / 55	47,8 / 55	51 / 55	55 / 75	59 / 75	63 / 75	68 / 75	73 / 75
	power, idling p <sub>i</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]		22,0	24,3	26,6	29,0	32,2	36,0	40,1	44,6
	reduced moment of inertia	J [kgm <sup>2</sup> ]		0,483	0,53	0,604	0,688	0,809	0,876	1,033	1,118
	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]		96/78	96/79	97/79	97/79	98/80	98/80	98/80	98/80
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]		1052	1132	1214	1304	1393	1495	1605	1721
	compressor speed	nHR [ $1/\text{min}$ ]		10602	11245	11895	12614	13320	14126	14985	15891
	motor speed	nM [ $1/\text{min}$ ]		2955	2955	2970	2970	2970	2970	2970	2970
2,00	discharge temperature	t <sub>2</sub> [°C]		155	154	154	154	154	154	155	156
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]		49,6 / 55	54 / 55	57 / 75	61 / 75	66 / 75	71 / 75	76 / 90	82 / 90
	power, idling p <sub>i</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]		22,0	24,3	26,6	29,4	32,4	36,0	40,1	44,6
	reduced moment of inertia	J [kgm <sup>2</sup> ]		0,483	0,53	0,604	0,688	0,809	0,876	1,033	1,164
	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]		97/78	97/79	98/79	98/79	98/80	98/80	99/81	99/81
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]		1048	1128	1202	1293	1382	1484	1594	1713
	compressor speed	nHR [ $1/\text{min}$ ]		10656	11302	11895	12614	13320	14126	14985	15918
2,25	motor speed	nM [ $1/\text{min}$ ]		2970	2970	2970	2970	2970	2970	2970	2975
	discharge temperature	t <sub>2</sub> [°C]		170	169	168	168	167	168	168	169
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]		55 / 75	59 / 75	63 / 75	67 / 75	72 / 75	77 / 90	83 / 90	90 / 110
	power, idling p <sub>i</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]		22,0	24,3	26,6	29,4	32,4	36,0	40,1	44,6
	reduced moment of inertia	J [kgm <sup>2</sup> ]		0,483	0,53	0,604	0,688	0,809	0,876	1,033	1,164
	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]		99/80	99/81	100/81	100/81	100/81	100/81	100/82	101/82
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]									
2,50	compressor speed	nHR [ $1/\text{min}$ ]									
	motor speed	nM [ $1/\text{min}$ ]									
	discharge temperature	t <sub>2</sub> [°C]									
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]									
	power, idling p <sub>i</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]									
	reduced moment of inertia	J [kgm <sup>2</sup> ]									
	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]									
2,75	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]									
	compressor speed	nHR [ $1/\text{min}$ ]									
	motor speed	nM [ $1/\text{min}$ ]									
	discharge temperature	t <sub>2</sub> [°C]									
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]									
	power, idling p <sub>i</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]									
	reduced moment of inertia	J [kgm <sup>2</sup> ]									
3,00	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]									
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]									
	compressor speed	nHR [ $1/\text{min}$ ]									
	motor speed	nM [ $1/\text{min}$ ]									
	discharge temperature	t <sub>2</sub> [°C]									
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]									
	power, idling p <sub>i</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]									
3,25	reduced moment of inertia	J [kgm <sup>2</sup> ]									
	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]									
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]									
	compressor speed	nHR [ $1/\text{min}$ ]									
	motor speed	nM [ $1/\text{min}$ ]									
	discharge temperature	t <sub>2</sub> [°C]									
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]									
3,50	power, idling p <sub>i</sub> = p <sub>2</sub> = 1,0 bar	P <sub>Leer</sub> [kW]									
	reduced moment of inertia	J [kgm <sup>2</sup> ]									
	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]									

## Performance data based on the compression of air ( $p_1 = 1.0$ bar, $t_1 = 20$ °C)

Discharge pressure $p_e$ [bar gauge]	Compressor size	VM 37 R									
		belt drive ratio	B [ - ]	B <sub>4</sub>	B <sub>4/5</sub>	B <sub>5</sub>	B <sub>5/6</sub>	B <sub>6</sub>	B <sub>6/7</sub>	B <sub>7</sub>	B <sub>7/8</sub>
0,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,00	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,25	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,50	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
2,00	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	1334 10496 2975 68 / 75 39,7 0,946 94 / 77	1440 11186 2975 73 / 75 43,9 1,095 94 / 78	1529 11788 2970 78 / 90 47,7 1,212 95 / 79	1648 12586 2970 85 / 90 53 1,403 95 / 79	1756 13307 2975 91 / 110 100 / 110	1891 14205 2975 100 / 110 108 / 132	2006 14969 2970 120 / 132 120 / 132	2156 15954 2970 130 / 160 130 / 160	2292 16840 2970 168 168
2,25	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	1323 10496 2975 73 / 75 39,7 0,946 95 / 77	1426 11168 2970 78 / 90 43,8 1,095 95 / 78	1518 11788 2970 84 / 90 47,7 91 / 110 95 / 79	1639 12607 2975 91 / 110 54 97 / 110	1744 13307 2975 97 / 110 58 97 / 110	1879 14205 2975 106 / 110 106 / 110	1995 14969 2970 115 / 132 115 / 132	2145 15954 2970 127 / 132 127 / 132	2281 16840 2970 138 / 160 138 / 160
2,50	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	1308 10496 2970 78 / 90 78 / 90 39,6 96 / 77	1414 11168 2970 84 / 90 84 / 90 43,8 96 / 79	1509 11808 2975 89 / 110 89 / 110 182 96 / 79	1628 12607 2975 97 / 110 97 / 110 182 96 / 79	1733 13285 2975 103 / 110 103 / 110 182 96 / 80	1864 14181 2970 112 / 132 112 / 132	1984 14969 2970 122 / 132 122 / 132	2134 15954 2970 134 / 160 134 / 160	2270 16840 2970 145 / 160 145 / 160
2,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	1297 10478 2970 83 / 90 83 / 90 39,6 98 / 77	1406 11186 2975 89 / 110 89 / 110 43,9 99 / 79	1498 11808 2975 95 / 110 95 / 110 43,9 99 / 79	1617 12607 2975 102 / 110 102 / 110 54 99 / 80	1718 13285 2975 109 / 132 109 / 132 58 99 / 80	1853 14181 2970 119 / 132 119 / 132 65 99 / 80	1984 14969 2970 128 / 132 128 / 132 72 99 / 80	2122 15954 2970 141 / 160 141 / 160 81 100 / 80	2258 16840 2970 153 / 160 153 / 160 90 101 / 81
3,00	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	1286 10478 2970 88 / 90 88 / 90 39,6 100 / 78	1394 11186 2975 95 / 110 95 / 110 43,9 100 / 79	1486 11808 2975 101 / 110 101 / 110 47,9 100 / 80	1602 12607 2975 108 / 132 108 / 132 53 100 / 80	1707 13285 2975 115 / 132 115 / 132 58 100 / 80	1842 14181 2970 119 / 132 119 / 132 65 100 / 80	1961 14969 2970 125 / 132 125 / 132 72 101 / 81	2111 15954 2970 135 / 160 135 / 160 81 101 / 82	2256 16897 2970 148 / 160 148 / 160 91 102 / 83
3,25	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	1289 10496 2975 93 / 110 93 / 110 61 100 / 78	1395 11186 2975 100 / 110 100 / 110 67 100 / 79	1487 11808 2975 107 / 110 107 / 110 72 100 / 80	1603 12586 2975 115 / 132 115 / 132 79 100 / 80	1695 13285 2975 121 / 132 121 / 132 86 100 / 80	1830 14181 2970 132 / 160 132 / 160 96 101 / 81	1950 14969 2970 142 / 160 142 / 160 105 101 / 82	2100 15954 2970 156 / 160 156 / 160 117 102 / 83	2244 16897 2970 169 / 200 169 / 200 129 102 / 83
3,50	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/min$ ] nM [ $1/min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	1280 10496 2975 97 / 110 97 / 110 61 100 / 79	1385 11186 2975 104 / 110 104 / 110 67 100 / 79	1475 11788 2975 111 / 132 111 / 132 72 100 / 80	1593 12586 2975 119 / 132 119 / 132 79 100 / 80	1698 13285 2975 127 / 132 127 / 132 86 100 / 80	1833 14181 2970 138 / 160 138 / 160 96 101 / 81	1952 14969 2970 149 / 160 149 / 160 105 101 / 82	2110 15954 2970 164 / 200 164 / 200 117 102 / 83	2247 16897 2970 177 / 200 177 / 200 129 102 / 83

**Performance data based on the compression of air ( $p_1 = 1.0$  bar,  $t_1 = 20$  °C)**

Discharge pressure $p_0$ [bar gauge]	Compressor size	VML 40 R									
		belt drive ratio	B [ - ]	B <sub>2</sub>	B <sub>3</sub>	B <sub>4</sub>	B <sub>5</sub>	B <sub>6</sub>	B <sub>7</sub>	B <sub>8</sub>	B <sub>9</sub>
0,75	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]	891	1011	1167	1340	1531	1762	2011	2318	2592
	compressor speed	nHR [ $1/\text{min}$ ]	5050	5611	6283	7025	7840	8820	9992	11314	12727
	motor speed	nM [ $1/\text{min}$ ]	2945	2945	2945	2950	2940	2940	2955	2970	2970
	discharge temperature	t <sub>2</sub> [°C]	90	88	87	87	87	87	89	93	98
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]	21,8 / 30	24,5 / 30	27,9 / 30	31,9 / 37	36,7 / 45	43 / 45	52 / 55	63 / 75	77 / 90
	power, idling p <sub>i</sub> = p <sub>o</sub> = 1,0 bar	P <sub>Leer</sub> [kW]	9,4	11	13,2	15,8	19,5	24,2	30,7	39,9	53
1,00	reduced moment of inertia	J [kgm <sup>2</sup> ]	0,258	0,32	0,4	0,51	0,64	0,82	1,09	1,46	2,04
	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]	91/73	92/73	94/75	96/77	97/78	98/80	99/82	100/82	100/82
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]	868	993	1149	1324	1520	1753	2033	2298	2575
	compressor speed	nHR [ $1/\text{min}$ ]	5050	5621	6293	7001	7880	8865	10043	11314	12749
	motor speed	nM [ $1/\text{min}$ ]	2945	2950	2950	2955	2955	2970	2970	2970	2975
	discharge temperature	t <sub>2</sub> [°C]	111	109	106	105	104	104	104	107	113
1,25	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]	27,9 / 30	31,2 / 37	35,2 / 37	39,7 / 45	45,6 / 55	53 / 55	63 / 75	74 / 90	89 / 110
	power, idling p <sub>i</sub> = p <sub>o</sub> = 1,0 bar	P <sub>Leer</sub> [kW]	13,7	11	13,2	15,8	19,5	24,2	30,7	39,9	53
	reduced moment of inertia	J [kgm <sup>2</sup> ]	0,258	0,32	0,4	0,52	0,66	0,84	1,12	1,53	2,38
	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]	93/73	93/73	96/75	98/77	99/79	100/80	101/81	101/82	101/82
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]	854	979	1135	1313	1509	1743	2013	2277	2555
	compressor speed	nHR [ $1/\text{min}$ ]	5058	5602	6272	7037	7920	8910	10043	11314	12749
1,50	motor speed	nM [ $1/\text{min}$ ]	2950	2940	2940	2955	2970	2970	2970	2970	2975
	discharge temperature	t <sub>2</sub> [°C]	129	127	124	123	122	120	120	123	128
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]	32,9 / 37	36,8 / 45	41,9 / 45	48 / 55	55 / 75	63 / 75	73 / 75	86 / 90	102 / 110
	power, idling p <sub>i</sub> = p <sub>o</sub> = 1,0 bar	P <sub>Leer</sub> [kW]	13,7	16,3	19,5	23,6	19,5	24,2	30,7	39,9	53
	reduced moment of inertia	J [kgm <sup>2</sup> ]	0,258	0,33	0,42	0,52	0,68	0,87	1,18	1,53	2,38
	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]	95/74	95/74	97/76	99/78	100/79	100/80	102/81	102/82	103/83
1,75	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]	834	963	1126	1305	1504	1738	1993	2261	2535
	compressor speed	nHR [ $1/\text{min}$ ]	5041	5602	6304	7073	7920	8910	10043	11333	12749
	motor speed	nM [ $1/\text{min}$ ]	2940	2940	2955	2970	2970	2970	2970	2975	2975
	discharge temperature	t <sub>2</sub> [°C]	149	144	141	138	137	136	137	139	143
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]	37,8 / 45	42,2 / 45	48,1 / 55	55 / 75	63 / 75	73 / 75	84 / 90	98 / 110	111 / 132
	power, idling p <sub>i</sub> = p <sub>o</sub> = 1,0 bar	P <sub>Leer</sub> [kW]	13,7	16,3	19,5	23,6	28,7	35,7	30,7	39,9	53
2,00	reduced moment of inertia	J [kgm <sup>2</sup> ]	0,265	0,33	0,42	0,53	0,68	0,92	1,18	1,53	2,54
	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]	95/74	96/74	98/76	100/78	101/79	101/80	102/81	103/82	105/83
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]	808	945	1102	1273	1472	1710	1980	2244	
	compressor speed	nHR [ $1/\text{min}$ ]	5067	5659	6336	7073	7920	8910	10059	11333	
	motor speed	nM [ $1/\text{min}$ ]	2955	2970	2970	2970	2970	2975	2975	2975	
	discharge temperature	t <sub>2</sub> [°C]	191	183	177	173	169	167	166	169	
2,25	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]	48,6 / 55	55 / 75	62 / 75	69 / 75	78 / 90	90 / 110	104 / 110	120 / 132	
	power, idling p <sub>i</sub> = p <sub>o</sub> = 1,0 bar	P <sub>Leer</sub> [kW]	13,7	16,3	19,5	23,6	28,7	35,7	45,1	58,2	
	reduced moment of inertia	J [kgm <sup>2</sup> ]	0,283	0,34	0,42	0,53	0,71	1,08	1,35	1,92	
	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]	96/75	97/75	99/78	101/80	102/81	102/81	103/81	104/82	
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]									
	compressor speed	nHR [ $1/\text{min}$ ]									
2,50	motor speed	nM [ $1/\text{min}$ ]									
	discharge temperature	t <sub>2</sub> [°C]									
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]									
	power, idling p <sub>i</sub> = p <sub>o</sub> = 1,0 bar	P <sub>Leer</sub> [kW]									
	reduced moment of inertia	J [kgm <sup>2</sup> ]									
	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]									
2,75	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]									
	compressor speed	nHR [ $1/\text{min}$ ]									
	motor speed	nM [ $1/\text{min}$ ]									
	discharge temperature	t <sub>2</sub> [°C]									
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]									
	power, idling p <sub>i</sub> = p <sub>o</sub> = 1,0 bar	P <sub>Leer</sub> [kW]									
3,00	reduced moment of inertia	J [kgm <sup>2</sup> ]									
	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]									
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]									
	compressor speed	nHR [ $1/\text{min}$ ]									
	motor speed	nM [ $1/\text{min}$ ]									
	discharge temperature	t <sub>2</sub> [°C]									
3,25	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]									
	power, idling p <sub>i</sub> = p <sub>o</sub> = 1,0 bar	P <sub>Leer</sub> [kW]									
	reduced moment of inertia	J [kgm <sup>2</sup> ]									
	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]									
	flow at inlet	V <sub>1</sub> [m <sup>3</sup> /h]									
	compressor speed	nHR [ $1/\text{min}$ ]									
3,50	motor speed	nM [ $1/\text{min}$ ]									
	discharge temperature	t <sub>2</sub> [°C]									
	power at shaft / motor rating	P <sub>K/Mot</sub> [kW]									
	power, idling p <sub>i</sub> = p <sub>o</sub> = 1,0 bar	P <sub>Leer</sub> [kW]									
	reduced moment of inertia	J [kgm <sup>2</sup> ]									
	Sound pressure level w/o.h./w.h.	L <sub>p</sub> [dBA]									

### Performance data based on the compression of air ( $p_1 = 1.0$ bar, $t_1 = 20^\circ\text{C}$ )

**Performance data based on the compression of air ( $p_1 = 1.0$  bar,  $t_1 = 20$  °C)**

Discharge pressure $p_0$ [bar gauge]	Compressor size	VML 60									
		gear ratio	$i$ [-]	$i_3$	$i_4$	$i_5$	$i_6$	$i_7$	$i_8$	$i_9$	$i_{10}$
0,75	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]	1663	1905	2182	2504	2882	3287	3735	4313	4554
	compressor speed	nHR [ $1/\min$ ]	4180	4655	5198	5823	6555	7331	8183	9272	9723
	motor speed	nM [ $1/\min$ ]	2950	2950	2950	2950	2950	2950	2950	2950	2950
	discharge temperature	$t_2$ [°C]	85	84	83	83	84	85	86	89	91
	power at shaft / motor rating	$P_{K/Mot}$ [kW]	37,8 / 55	42,6 / 55	48,3 / 75	56 / 75	65 / 90	75 / 90	87 / 110	105 / 132	113 / 132
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]	19,1	22	25,6	30,1	35,9	42,9	52	69	76
1,00	reduced moment of inertia	J [ $kgm^2$ ]	1	1,2	1,4	1,8	2,2	2,6	3,2	3,9	4,4
	Sound pressure level w/o.h./w.h.	Lp [dBA]	93 / 75	94 / 76	96 / 76	97 / 81	99 / 81	100 / 82	101 / 84	102 / 85	103 / 85
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]	1631	1872	2150	2471	2850	3254	3703	4280	4521
	compressor speed	nHR [ $1/\min$ ]	4180	4655	5198	5823	6555	7331	8183	9272	9723
	motor speed	nM [ $1/\min$ ]	2950	2950	2950	2950	2950	2950	2950	2950	2950
	discharge temperature	$t_2$ [°C]	105	102	101	100	99	100	101	103	104
1,25	power at shaft / motor rating	$P_{K/Mot}$ [kW]	48,3 / 75	54 / 75	61 / 75	69 / 90	79 / 110	91 / 110	105 / 132	124 / 132	133 / 160
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]	19,1	22	25,6	30,1	35,9	42,9	52	69	76
	reduced moment of inertia	J [ $kgm^2$ ]	1	1,2	1,4	1,8	2,2	2,6	3,2	3,9	4,4
	Sound pressure level w/o.h./w.h.	Lp [dBA]	93 / 75	94 / 76	96 / 77	97 / 81	99 / 81	100 / 82	101 / 84	102 / 85	103 / 85
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]	1616	1858	2135	2439	2817	3222	3670	4248	4489
	compressor speed	nHR [ $1/\min$ ]	4180	4655	5198	5823	6555	7331	8183	9272	9723
1,50	motor speed	nM [ $1/\min$ ]	2950	2950	2950	2950	2950	2950	2950	2950	2950
	discharge temperature	$t_2$ [°C]	121	119	118	117	116	115	115	117	118
	power at shaft / motor rating	$P_{K/Mot}$ [kW]	58 / 75	65 / 90	73 / 90	83 / 110	95 / 132	108 / 132	123 / 160	144 / 160	154 / 200
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]	22,6	26,3	30,8	30,1	35,9	42,9	52	69	76
	reduced moment of inertia	J [ $kgm^2$ ]	1	1,2	1,4	1,8	2,2	2,6	3,2	3,9	4,4
	Sound pressure level w/o.h./w.h.	Lp [dBA]	94 / 77	95 / 78	97 / 79	98 / 81	98 / 81	100 / 82	101 / 83	102 / 84	103 / 85
1,75	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]	1591	1832	2110	2431	2810	3214	3638	4215	4457
	compressor speed	nHR [ $1/\min$ ]	4180	4655	5198	5823	6555	7331	8183	9272	9723
	motor speed	nM [ $1/\min$ ]	2950	2950	2950	2950	2950	2950	2950	2950	2950
	discharge temperature	$t_2$ [°C]	128	135	133	131	131	131	131	131	132
	power at shaft / motor rating	$P_{K/Mot}$ [kW]	66 / 90	74 / 90	84 / 110	95 / 132	109 / 132	125 / 160	141 / 200	164 / 200	175 / 200
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]	22,6	26,3	30,8	36,4	43,6	53	52	69	76
2,00	reduced moment of inertia	J [ $kgm^2$ ]	1	1,2	1,4	1,8	2,2	2,6	3,2	3,9	4,4
	Sound pressure level w/o.h./w.h.	Lp [dBA]	95 / 76	95 / 80	97 / 80	98 / 81	98 / 81	100 / 82	101 / 83	102 / 84	103 / 85
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]	1565	1807	2084	2406	2784	3189	3637	4215	4424
	compressor speed	nHR [ $1/\min$ ]	4180	4655	5198	5823	6555	7331	8183	9272	9723
	motor speed	nM [ $1/\min$ ]	2950	2950	2950	2950	2950	2950	2950	2950	2950
	discharge temperature	$t_2$ [°C]	156	152	149	146	145	144	145	146	147
2,25	power at shaft / motor rating	$P_{K/Mot}$ [kW]	75 / 90	83 / 110	94 / 132	106 / 132	121 / 160	138 / 160	158 / 200	186 / 200	196 / 250
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]	22,6	26,3	30,8	36,4	43,6	53	63	100	109
	reduced moment of inertia	J [ $kgm^2$ ]	1	1,2	1,4	1,8	2,2	2,6	3,2	3,9	4,4
	Sound pressure level w/o.h./w.h.	Lp [dBA]	96 / 78	96 / 81	98 / 81	99 / 82	101 / 83	102 / 84	103 / 84	104 / 85	105 / 86
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]	1540	1781	2059	2380	2759	3163	3612	4189	4430
	compressor speed	nHR [ $1/\min$ ]	4180	4655	5198	5823	6555	7331	8183	9272	9723
2,50	motor speed	nM [ $1/\min$ ]	2950	2950	2950	2950	2950	2950	2950	2950	2950
	discharge temperature	$t_2$ [°C]	176	170	165	162	159	158	158	159	160
	power at shaft / motor rating	$P_{K/Mot}$ [kW]	83 / 110	93 / 132	104 / 132	117 / 160	134 / 160	152 / 200	173 / 200	202 / 250	214 / 250
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]	22,6	26,3	30,8	36,4	43,6	53	63	100	109
	reduced moment of inertia	J [ $kgm^2$ ]	1	1,2	1,4	1,8	2,2	2,6	3,2	3,9	4,4
	Sound pressure level w/o.h./w.h.	Lp [dBA]	96 / 78	97 / 82	98 / 82	99 / 82	102 / 84	103 / 84	105 / 84	106 / 86	
2,75	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]									
	compressor speed	nHR [ $1/\min$ ]									
	motor speed	nM [ $1/\min$ ]									
	discharge temperature	$t_2$ [°C]									
	power at shaft / motor rating	$P_{K/Mot}$ [kW]									
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]									
3,00	reduced moment of inertia	J [ $kgm^2$ ]									
	Sound pressure level w/o.h./w.h.	Lp [dBA]									
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]									
	compressor speed	nHR [ $1/\min$ ]									
	motor speed	nM [ $1/\min$ ]									
	discharge temperature	$t_2$ [°C]									
3,25	power at shaft / motor rating	$P_{K/Mot}$ [kW]									
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]									
	reduced moment of inertia	J [ $kgm^2$ ]									
	Sound pressure level w/o.h./w.h.	Lp [dBA]									
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]									
	compressor speed	nHR [ $1/\min$ ]									
3,50	motor speed	nM [ $1/\min$ ]									
	discharge temperature	$t_2$ [°C]									
	power at shaft / motor rating	$P_{K/Mot}$ [kW]									
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]									
	reduced moment of inertia	J [ $kgm^2$ ]									
	Sound pressure level w/o.h./w.h.	Lp [dBA]									

**Performance data based on the compression of air ( $p_1 = 1.0$  bar,  $t_1 = 20$  °C)**

Discharge pressure $p_e$ [bar gauge]	Compressor size		VM 75										
	gear ratio	i	[ - ]	i <sub>3</sub>	i <sub>4</sub>	i <sub>5</sub>	i <sub>6</sub>	i <sub>7</sub>	i <sub>8</sub>	i <sub>9</sub>	i <sub>10</sub>	i <sub>11</sub>	
0,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$V_1$ nHR nM $t_2$ $P_2^{K/Mot}$ $P_{Leer}^{[kW]}$ $J$ $L_p$	[m <sup>3</sup> /h] ['/min] ['/min] [°C] [kW] [kW] [kgm <sup>2</sup> ] [dBA]										
1,00	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$V_1$ nHR nM $t_2$ $P_2^{K/Mot}$ $P_{Leer}^{[kW]}$ $J$ $L_p$	[m <sup>3</sup> /h] ['/min] ['/min] [°C] [kW] [kW] [kgm <sup>2</sup> ] [dBA]										
1,25	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$V_1$ nHR nM $t_2$ $P_2^{K/Mot}$ $P_{Leer}^{[kW]}$ $J$ $L_p$	[m <sup>3</sup> /h] ['/min] ['/min] [°C] [kW] [kW] [kgm <sup>2</sup> ] [dBA]										
1,50	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$V_1$ nHR nM $t_2$ $P_2^{K/Mot}$ $P_{Leer}^{[kW]}$ $J$ $L_p$	[m <sup>3</sup> /h] ['/min] ['/min] [°C] [kW] [kW] [kgm <sup>2</sup> ] [dBA]										
1,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$V_1$ nHR nM $t_2$ $P_2^{K/Mot}$ $P_{Leer}^{[kW]}$ $J$ $L_p$	[m <sup>3</sup> /h] ['/min] ['/min] [°C] [kW] [kW] [kgm <sup>2</sup> ] [dBA]										
2,00	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$V_1$ nHR nM $t_2$ $P_2^{K/Mot}$ $P_{Leer}^{[kW]}$ $J$ $L_p$	[m <sup>3</sup> /h] 1950 4175 2950 102 / 132 39,8 2,66 97 / 77	2235 4643 2950 115 / 132 46,6 3,05 98 / 78	2585 5215 2950 131 / 160 56 3,57 100 / 79	2973 5844 2950 149 / 200 67 4,18 101 / 80	3381 6502 2950 169 / 200 78 4,88 101 / 80	3866 7277 2950 194 / 250 94 5,76 102 / 81	4497 8274 2950 229 / 315 115 7,01 103 / 84	5027 9161 2950 262 / 315 136 8,41 104 / 84	5655 10199 2950 303 / 355 163 9,89 105 / 85		
2,25	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$V_1$ nHR nM $t_2$ $P_2^{K/Mot}$ $P_{Leer}^{[kW]}$ $J$ $L_p$	[m <sup>3</sup> /h] 4175 2950 175 111 / 132 39,8 2,66 97 / 77	1928 4643 2950 172 124 / 160 46,6 3,05 98 / 78	2213 5215 2950 169 141 / 200 56 3,57 100 / 79	2951 5844 2950 167 131 / 160 67 4,18 101 / 80	3360 6502 2950 167 149 / 200 78 4,88 101 / 80	3845 7277 2950 167 169 / 200 94 5,76 102 / 81	4475 8274 2950 243 / 315 115 7,01 103 / 84	5005 9161 2950 277 / 315 136 8,41 104 / 84	5634 10199 2950 320 / 355 163 9,89 105 / 85		
2,50	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$V_1$ nHR nM $t_2$ $P_2^{K/Mot}$ $P_{Leer}^{[kW]}$ $J$ $L_p$	[m <sup>3</sup> /h] 4175 2950 189 120 / 160 39,8 2,66 97 / 77	1907 4643 2950 185 134 / 160 46,6 3,05 98 / 78	2191 5215 2950 181 141 / 200 56 3,57 100 / 79	2542 5844 2950 179 151 / 200 67 4,18 101 / 80	2930 6502 2950 178 160 / 200 79 4,88 101 / 80	3338 6502 2950 177 181 / 250 94 5,76 102 / 81	3823 7277 2950 177 208 / 250 94 5,76 102 / 81	4453 8274 2950 243 / 315 115 7,01 104 / 84	4984 9161 2950 277 / 315 136 8,41 105 / 84	5612 10199 2950 329 / 355 163 9,89 105 / 85	
2,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$V_1$ nHR nM $t_2$ $P_2^{K/Mot}$ $P_{Leer}^{[kW]}$ $J$ $L_p$	[m <sup>3</sup> /h] 4175 2950 201 128 / 160 67 2,66 97 / 77	1901 4643 2950 198 144 / 200 78 3,05 98 / 78	2185 5215 2950 194 162 / 200 56 3,57 100 / 79	2520 5844 2950 191 183 / 250 67 4,18 102 / 81	2908 6502 2950 189 206 / 250 79 4,88 102 / 81	3317 6502 2950 188 234 / 315 94 5,76 103 / 81	3801 7277 2950 187 273 / 315 94 5,76 105 / 84	4432 8274 2950 273 / 315 115 7,01 105 / 84	4984 9161 2950 309 / 355 136 8,41 105 / 85	5591 10199 2950 355 / 400 163 9,89 106 / 85	
3,00	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$V_1$ nHR nM $t_2$ $P_2^{K/Mot}$ $P_{Leer}^{[kW]}$ $J$ $L_p$	[m <sup>3</sup> /h] 4175 2950 213 134 / 160 67 2,66 97 / 77	1883 4643 2950 208 151 / 200 78 3,05 98 / 78	2167 5215 2950 205 172 / 200 92 3,57 101 / 81	2518 5844 2950 202 195 / 250 108 4,18 102 / 81	2906 6502 2950 200 219 / 250 79 4,88 103 / 82	3295 6502 2950 198 248 / 315 94 5,76 103 / 82	3780 7277 2950 199 288 / 315 115 5,76 105 / 84	4410 8274 2950 273 / 315 115 7,01 105 / 84	4941 9161 2950 326 / 355 136 8,41 105 / 85	5569 10199 2950 372 / 500 163 9,89 106 / 85	
3,25	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$V_1$ nHR nM $t_2$ $P_2^{K/Mot}$ $P_{Leer}^{[kW]}$ $J$ $L_p$	[m <sup>3</sup> /h] 4175 2950 225 141 / 200 67 2,66 98 / 78	1865 4643 2950 219 158 / 200 78 3,05 99 / 79	2149 5215 2950 215 180 / 250 92 3,57 102 / 81	2500 5844 2950 211 204 / 250 108 4,18 102 / 81	2888 6502 2950 209 230 / 315 126 4,88 103 / 82	3296 6502 2950 208 262 / 315 149 5,76 104 / 82	3781 7277 2950 208 305 / 366 149 5,76 105 / 84	4411 8274 2950 272 / 315 115 7,01 105 / 84	4919 9161 2950 342 / 400 136 8,41 106 / 85	5547 10199 2950 390 / 500 163 9,89 106 / 86	
3,50	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$V_1$ nHR nM $t_2$ $P_2^{K/Mot}$ $P_{Leer}^{[kW]}$ $J$ $L_p$	[m <sup>3</sup> /h] 4175 2950 237 148 / 200 67 2,66 98 / 78	1847 4643 2950 230 166 / 200 78 3,05 99 / 79	2131 5215 2950 225 188 / 250 92 3,57 102 / 81	2482 5844 2950 221 213 / 250 108 4,18 102 / 81	2870 6502 2950 218 239 / 315 126 4,88 103 / 81	3278 6502 2950 216 272 / 315 149 5,76 104 / 82	3763 7277 2950 216 316 / 355 180 5,76 105 / 84	4393 8274 2950 272 / 315 115 7,01 105 / 84	4924 9161 2950 357 / 400 136 8,41 106 / 86	5552 10199 2950 407 / 500 163 9,89 107 / 86	

**Performance data based on the compression of air ( $p_1 = 1.0$  bar,  $t_1 = 20$  °C)**

Discharge pressure $p_0$ [bar gauge]	Compressor size	VM 85									
		gear ratio	$i$ [-]	$i_8$	$i_9$	$i_{10}$	$i_{11}$	$i_{12}$	$i_{13}$	$i_7$	$i_8$
0,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,00	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,25	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,50	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
2,00	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	2498 3626 1470 159 129 / 160 54 10,6 99 / 79	2949 4123 1470 155 147 / 200 62 13,1 101 / 81	3352 4564 1470 153 165 / 200 71 15,7 103 / 82	3827 5082 1470 152 186 / 250 83 18,9 104 / 82	4395 5696 1470 151 212 / 250 95 23,2 104 / 82	5039 6387 1470 151 243 / 315 111 28,6 106 / 85	5145 6502 1470 151 249 / 315 115 8,79 107 / 85	5834 7278 2950 153 287 / 315 138 10,6 109 / 86	6729 8275 2950 157 339 / 400 171 13,1 112 / 87
2,25	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	2468 3626 1470 174 141 / 200 54 10,6 99 / 79	2920 4123 1470 169 161 / 200 62 13,1 101 / 80	3322 4564 1470 167 180 / 250 71 15,7 103 / 82	3798 5082 1470 164 202 / 250 83 18,9 104 / 82	4366 5696 1470 163 230 / 315 95 23,2 104 / 82	5010 6387 1470 162 263 / 315 111 28,6 106 / 85	5116 6502 1470 163 268 / 315 115 8,79 107 / 85	5805 7278 2950 164 308 / 355 138 10,6 109 / 86	6700 8275 2950 167 363 / 400 171 13,1 112 / 87
2,50	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	2456 3626 1470 188 141 / 200 54 10,6 99 / 79	2907 4123 1470 183 161 / 200 62 13,1 101 / 80	3293 4564 1470 180 195 / 250 71 15,7 102 / 81	3768 5082 1470 177 218 / 250 83 18,9 104 / 82	4336 5696 1470 175 248 / 315 95 23,2 105 / 83	4980 5696 1470 174 282 / 315 111 28,6 106 / 85	5086 6387 1470 174 288 / 315 115 8,79 108 / 86	5775 6502 2950 174 329 / 355 138 10,6 112 / 87	6671 8275 2950 175 386 / 500 171 13,1 114 / 88
2,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	2456 3626 1470 188 153 / 200 68 10,6 99 / 79	2907 4123 1470 183 176 / 200 80 13,1 101 / 80	3285 4564 1470 180 195 / 250 71 15,7 102 / 81	3768 5082 1470 177 218 / 250 83 18,9 104 / 82	4336 5696 1470 175 248 / 315 95 23,2 105 / 83	4980 5696 1470 174 282 / 315 111 28,6 106 / 85	5086 6387 1470 174 288 / 315 115 8,79 108 / 86	5775 6502 2950 174 329 / 355 138 10,6 112 / 87	6641 8275 2950 188 386 / 500 171 13,1 114 / 88
3,00	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	2431 3626 1470 201 163 / 200 68 10,6 98 / 79	2882 4123 1470 196 187 / 250 80 13,1 101 / 81	3285 4564 1470 193 209 / 250 93 15,7 102 / 81	3768 5082 1470 188 236 / 315 108 18,9 104 / 82	4336 5696 1470 186 266 / 315 95 23,2 105 / 83	4951 5696 1470 186 302 / 355 111 28,6 106 / 85	5057 6387 1470 186 308 / 355 115 8,79 108 / 86	5746 6502 2950 186 351 / 400 138 10,6 112 / 87	6612 8275 2950 188 411 / 500 171 13,1 114 / 88
3,25	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	2407 3626 1470 215 174 / 200 68 10,6 100 / 80	2858 4123 1470 208 199 / 250 80 13,1 102 / 81	3261 4564 1470 204 222 / 250 93 15,7 104 / 82	3736 5082 1470 201 250 / 315 108 18,9 106 / 84	4304 5696 1470 199 266 / 315 127 23,2 106 / 84	4951 5696 1470 198 302 / 355 111 28,6 106 / 85	5057 6387 1470 197 329 / 355 115 8,79 108 / 86	5746 6502 2950 196 351 / 400 138 10,6 112 / 87	6612 8275 2950 199 435 / 500 171 13,1 114 / 88
3,50	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	2382 3626 1470 229 185 / 250 68 10,6 100 / 80	2833 4123 1470 221 211 / 250 80 13,1 103 / 82	3236 4564 1470 216 235 / 315 93 15,7 105 / 83	3711 5082 1470 213 264 / 315 108 18,9 106 / 84	4279 5696 1470 210 299 / 355 127 23,2 106 / 84	4923 5696 1470 208 341 / 400 151 28,6 107 / 85	5029 6387 1470 208 348 / 400 154 8,79 108 / 86	5687 6502 2950 209 396 / 500 138 10,6 110 / 87	6582 8275 2950 210 460 / 500 171 13,1 113 / 88
3,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1,0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	2357 3626 1470 244 196 / 250 68 10,6 102 / 81	2809 4123 1470 235 223 / 250 80 13,1 104 / 82	3211 4564 1470 229 248 / 315 93 15,7 105 / 84	3687 5082 1470 224 278 / 315 108 18,9 106 / 84	4255 5696 1470 220 314 / 355 127 23,2 107 / 85	4899 6387 1470 218 347 / 400 151 28,6 108 / 86	5005 6387 1470 218 365 / 400 154 8,79 108 / 86	5687 6502 2950 218 416 / 500 138 10,6 110 / 87	6589 8275 2950 220 485 / 630 171 13,1 113 / 88

## Performance data based on the compression of air ( $p_1 = 1.0$ bar, $t_1 = 20$ °C)

Discharge pressure $p_e$ [bar gauge]	Compressor size	VML 95									
		gear ratio	$i$ [-]	$i_8$	$i_9$	$i_{10}$	$i_{11}$	$i_{12}$	$i_{13}$	$i_7$	$i_8$
<b>0,75</b>	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]	2941	3440	3885	4411	5040	5752	5871	6679	7150
	compressor speed	nHR [ $1/min$ ]	3626	4123	4564	5082	5696	6387	6502	7278	7726
	motor speed	nM [ $1/min$ ]	1470	1470	1470	1470	1470	1470	2950	2950	2950
	discharge temperature	$t_2$ [°C]	83	83	83	83	84	86	88	90	90
	power at shaft / motor rating	$P_{K/Mot}$ [kW]	65 / 90	76 / 110	85 / 110	97 / 132	113 / 132	132 / 160	136 / 160	160 / 200	176 / 200
	power, idling $p_1 = p_2 = 1.0$ bar	$P_{Leer}$ [kW]	33,8	40	46,4	55,6	66,3	79,6	81	106	119
<b>1,00</b>	reduced moment of inertia	J [ $kgm^2$ ]	7,3	8,5	9,6	11	12,7	14,9	6,6	7,3	8,0
	Sound pressure level w/o.h./w.h.	Lp [dBA]	96 / 75	97 / 78	98 / 79	99 / 80	100 / 81	100 / 83	101 / 83	102 / 83	103 / 84
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]	2894	3393	3838	4364	4992	5705	5824	6632	7103
	compressor speed	nHR [ $1/min$ ]	3626	4123	4564	5082	5696	6387	6502	7278	7726
	motor speed	nM [ $1/min$ ]	1470	1470	1470	1470	1470	1470	2950	2950	2950
	discharge temperature	$t_2$ [°C]	101	100	99	98	99	100	100	102	103
<b>1,25</b>	power at shaft / motor rating	$P_{K/Mot}$ [kW]	83 / 110	95 / 132	106 / 132	120 / 160	138 / 160	159 / 200	163 / 200	190 / 250	207 / 250
	power, idling $p_1 = p_2 = 1.0$ bar	$P_{Leer}$ [kW]	33,8	40	46,4	55,6	66,3	79,6	81	106	119
	reduced moment of inertia	J [ $kgm^2$ ]	7,3	8,5	9,6	11	12,7	14,9	6,6	7,3	8,0
	Sound pressure level w/o.h./w.h.	Lp [dBA]	97 / 76	97 / 78	98 / 79	100 / 80	101 / 81	102 / 84	102 / 84	103 / 84	104 / 84
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]	2873	3371	3790	4316	4945	5657	5776	6584	7055
	compressor speed	nHR [ $1/min$ ]	3626	4123	4564	5082	5696	6387	6502	7278	7726
<b>1,50</b>	motor speed	nM [ $1/min$ ]	1470	1470	1470	1470	1470	1470	2950	2950	2950
	discharge temperature	$t_2$ [°C]	118	117	116	115	114	114	115	116	117
	power at shaft / motor rating	$P_{K/Mot}$ [kW]	99 / 132	114 / 132	127 / 160	143 / 200	163 / 200	187 / 250	191 / 250	221 / 250	240 / 315
	power, idling $p_1 = p_2 = 1.0$ bar	$P_{Leer}$ [kW]	40,4	48,3	46,4	55,6	66,3	79,6	81	106	119
	reduced moment of inertia	J [ $kgm^2$ ]	7,3	8,5	9,6	11	12,7	14,9	6,6	7,3	8,0
	Sound pressure level w/o.h./w.h.	Lp [dBA]	98 / 76	99 / 79	100 / 80	100 / 80	101 / 81	102 / 84	103 / 84	104 / 84	105 / 85
<b>1,75</b>	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]	2835	3334	3779	4305	4934	5610	5729	6537	7008
	compressor speed	nHR [ $1/min$ ]	3626	4123	4564	5082	5696	6387	6502	7278	7726
	motor speed	nM [ $1/min$ ]	1470	1470	1470	1470	1470	1470	2950	2950	2950
	discharge temperature	$t_2$ [°C]	134	131	130	129	130	129	130	130	131
	power at shaft / motor rating	$P_{K/Mot}$ [kW]	113 / 132	130 / 160	146 / 200	165 / 200	189 / 250	215 / 250	220 / 250	252 / 315	272 / 315
	power, idling $p_1 = p_2 = 1.0$ bar	$P_{Leer}$ [kW]	40,4	48,3	57	67,3	80	79,6	81	106	119
<b>2,00</b>	reduced moment of inertia	J [ $kgm^2$ ]	7,3	8,5	9,6	11	12,7	14,9	6,6	7,3	8,0
	Sound pressure level w/o.h./w.h.	Lp [dBA]	98 / 77	100 / 80	100 / 80	101 / 81	102 / 82	103 / 84	103 / 84	104 / 84	105 / 85
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]	2798	3297	3742	4268	4896	5609	5728	6536	6960
	compressor speed	nHR [ $1/min$ ]	3626	4123	4564	5082	5696	6387	6502	7278	7726
	motor speed	nM [ $1/min$ ]	1470	1470	1470	1470	1470	1470	2950	2950	2950
	discharge temperature	$t_2$ [°C]	150	147	145	1443	143	143	143	145	146
<b>2,25</b>	power at shaft / motor rating	$P_{K/Mot}$ [kW]	127 / 160	146 / 160	163 / 200	184 / 250	210 / 250	241 / 315	246 / 315	285 / 315	305 / 355
	power, idling $p_1 = p_2 = 1.0$ bar	$P_{Leer}$ [kW]	40,4	48,3	57	67,3	80	96,3	98	152	119
	reduced moment of inertia	J [ $kgm^2$ ]	7,3	8,5	9,6	11	12,7	14,9	6,6	7,3	8,0
	Sound pressure level w/o.h./w.h.	Lp [dBA]	99 / 79	101 / 81	101 / 81	102 / 83	103 / 83	104 / 84	104 / 84	105 / 85	106 / 85
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]	2760	3259	3705	4230	4859	5571	5690	6499	6969
	compressor speed	nHR [ $1/min$ ]	3626	4123	4564	5082	5696	6387	6502	7278	7726
<b>2,50</b>	motor speed	nM [ $1/min$ ]	1470	1470	1470	1470	1470	1470	2950	2950	2950
	discharge temperature	$t_2$ [°C]	167	163	160	158	156	156	156	157	158
	power at shaft / motor rating	$P_{K/Mot}$ [kW]	142 / 200	162 / 200	180 / 250	202 / 250	230 / 315	263 / 315	269 / 315	309 / 355	334 / 400
	power, idling $p_1 = p_2 = 1.0$ bar	$P_{Leer}$ [kW]	40,4	48,3	57	67,3	80,3	96,3	98	152	170
	reduced moment of inertia	J [ $kgm^2$ ]	7,3	8,5	9,6	11	12,7	14,9	6,6	7,3	8,0
	Sound pressure level w/o.h./w.h.	Lp [dBA]	99 / 79	101 / 81	102 / 82	102 / 83	103 / 83	104 / 84	105 / 84	106 / 85	107 / 85
<b>2,75</b>	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]									
	compressor speed	nHR [ $1/min$ ]									
	motor speed	nM [ $1/min$ ]									
	discharge temperature	$t_2$ [°C]									
	power at shaft / motor rating	$P_{K/Mot}$ [kW]									
	power, idling $p_1 = p_2 = 1.0$ bar	$P_{Leer}$ [kW]									
<b>3,00</b>	reduced moment of inertia	J [ $kgm^2$ ]									
	Sound pressure level w/o.h./w.h.	Lp [dBA]									
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]									
	compressor speed	nHR [ $1/min$ ]									
	motor speed	nM [ $1/min$ ]									
	discharge temperature	$t_2$ [°C]									
<b>3,25</b>	power at shaft / motor rating	$P_{K/Mot}$ [kW]									
	power, idling $p_1 = p_2 = 1.0$ bar	$P_{Leer}$ [kW]									
	reduced moment of inertia	J [ $kgm^2$ ]									
	Sound pressure level w/o.h./w.h.	Lp [dBA]									
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]									
	compressor speed	nHR [ $1/min$ ]									
<b>3,50</b>	motor speed	nM [ $1/min$ ]									
	discharge temperature	$t_2$ [°C]									
	power at shaft / motor rating	$P_{K/Mot}$ [kW]									
	power, idling $p_1 = p_2 = 1.0$ bar	$P_{Leer}$ [kW]									
	reduced moment of inertia	J [ $kgm^2$ ]									
	Sound pressure level w/o.h./w.h.	Lp [dBA]									

**Performance data based on the compression of air ( $p_1 = 1.0$  bar,  $t_1 = 20$  °C)**

Discharge pressure $p_0$ [bar gauge]	Compressor size	VM 140									
		gear ratio	$i$ [-]	$i_6$	$i_7$	$i_8$	$i_9$	$i_{10}$	$i_{11}$	$i_5$	$i_6$
0,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,00	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,25	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,50	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
1,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]									
2,00	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	4321 2886 1470 149 205 / 250 73 24,4 98 / 79	4984 3234 1470 147 233 / 315 88 29,3 100 / 80	5706 3612 1470 146 265 / 315 108 35,1 101 / 81	6452 4000 1470 146 299 / 355 129 35,1 102 / 82	7466 4523 1470 147 349 / 400 160 41,6 104 / 84	8593 5104 1470 149 408 / 500 196 51,4 106 / 85	8737 5189 150 155 418 / 500 236 63,5 106 / 85	9754 5791 155 161 485 / 560 288 20,7 106 / 85	10949 6490 2950 2950 572 / 630 357 24,4 108 / 85
2,25	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	4279 2886 1470 162 224 / 250 73 24,4 98 / 79	4941 3234 1470 160 254 / 315 88 29,3 100 / 80	5664 3612 1470 159 288 / 315 108 35,1 101 / 81	6410 4000 1470 158 325 / 355 129 35,1 102 / 82	7423 4523 1470 158 377 / 500 160 51,4 105 / 84	8551 5104 1470 160 440 / 500 196 51,4 106 / 85	8694 5189 160 161 450 / 500 236 63,5 106 / 85	9711 5791 166 161 521 / 560 288 20,7 107 / 85	10906 6490 2950 172 611 / 700 357 24,4 108 / 85
2,50	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	4261 2886 1470 175 243 / 315 104 24,4 99 / 80	4923 3234 1470 173 278 / 315 125 29,3 101 / 81	5621 3612 1470 171 312 / 355 108 35,1 101 / 81	6368 4000 1470 170 351 / 400 129 35,1 103 / 83	7381 4523 1470 173 406 / 500 170 51,4 106 / 84	8509 5104 1470 171 472 / 560 196 51,4 107 / 85	8652 5189 172 172 482 / 560 236 63,5 107 / 85	9669 5791 176 172 556 / 630 288 20,7 108 / 85	10864 6490 2950 182 650 / 700 357 24,4 109 / 85
2,75	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	4225 2886 1470 175 243 / 315 104 24,4 99 / 80	4923 3234 1470 173 278 / 315 125 29,3 101 / 81	5610 3612 1470 171 312 / 355 108 35,1 101 / 81	6325 4000 1470 170 351 / 400 129 35,1 103 / 83	7339 4523 1470 173 406 / 500 170 51,4 106 / 84	8467 5104 1470 171 472 / 560 196 51,4 107 / 85	8610 5189 182 182 482 / 560 236 63,5 107 / 85	9627 5791 182 182 556 / 630 288 20,7 108 / 85	10822 6490 2950 153 690 / 800 357 24,4 109 / 85
3,00	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	4190 2886 1470 187 277 / 315 104 24,4 100 / 80	4852 3234 1470 184 314 / 355 125 29,3 101 / 81	5575 3612 1470 183 337 / 400 125 35,1 102 / 82	6321 4000 1470 182 378 / 500 129 35,1 103 / 83	7334 4523 1470 182 436 / 500 129 51,4 106 / 84	8424 5104 1470 182 505 / 560 196 51,4 107 / 85	8567 5189 183 183 515 / 560 236 63,5 107 / 85	9584 5791 187 187 593 / 630 288 20,7 108 / 85	10779 6490 2950 153 690 / 800 357 24,4 109 / 86
3,25	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	4154 2886 1470 212 294 / 355 104 24,4 100 / 80	4817 3234 1470 208 333 / 400 125 29,3 102 / 82	5539 3612 1470 205 377 / 500 125 35,1 103 / 83	6285 4000 1470 204 424 / 500 170 41,6 104 / 83	7299 4523 1470 203 491 / 560 220 51,4 106 / 84	8427 5104 1470 204 571 / 630 220 51,4 108 / 85	8570 5189 205 205 583 / 630 343 63,5 108 / 86	9542 5791 210 210 667 / 800 288 20,7 108 / 86	10737 6490 2950 215 772 / 900 357 24,4 109 / 86
3,50	flow at inlet compressor speed motor speed discharge temperature power at shaft / motor rating power, idling $p_1 = p_2 = 1.0$ bar reduced moment of inertia Sound pressure level w/o.h./w.h.	$\dot{V}_1$ [ $m^3/h$ ] nHR [ $1/\min$ ] nM [ $1/\min$ ] $t_2$ [ $^\circ C$ ] $P_{K/Mot}$ [kW] $P_{Leer}$ [kW] $J$ [ $kgm^2$ ] $L_p$ [dBA]	4119 2886 1470 225 311 / 355 104 24,4 101 / 81	4781 3234 1470 220 352 / 400 125 29,3 102 / 83	5504 3612 1470 216 377 / 500 125 35,1 103 / 83	6250 4000 1470 214 446 / 500 170 41,6 104 / 83	7263 4523 1470 213 516 / 630 220 51,4 106 / 84	8391 5104 1470 214 598 / 630 270 51,4 108 / 85	8534 5189 214 214 610 / 700 343 63,5 108 / 85	9551 5791 219 219 702 / 800 414 20,7 108 / 86	10746 6490 2950 226 816 / 900 357 24,4 109 / 86

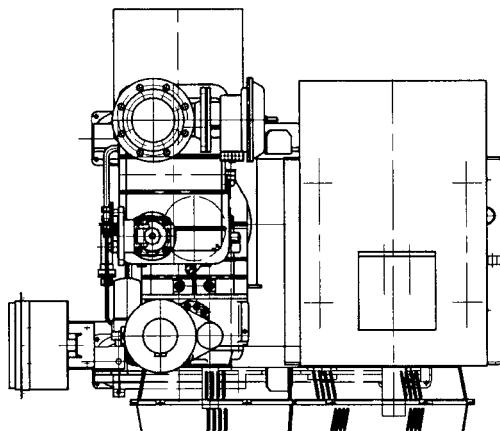
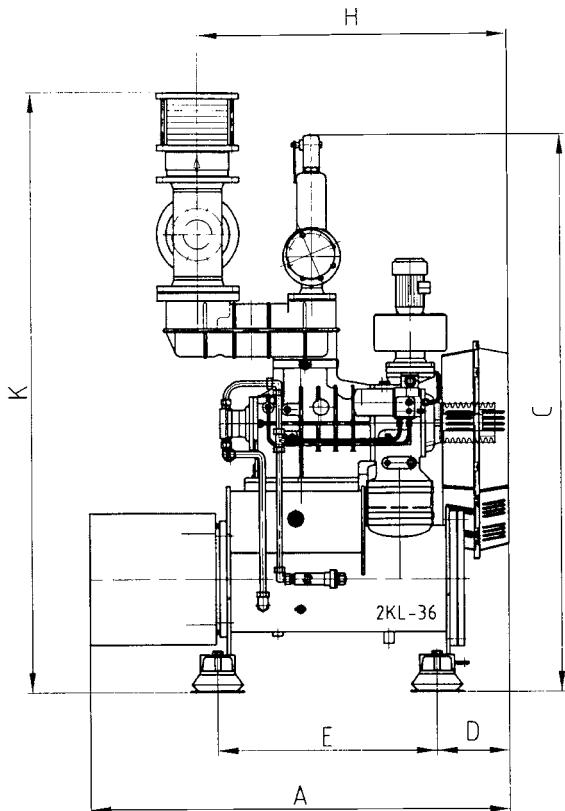
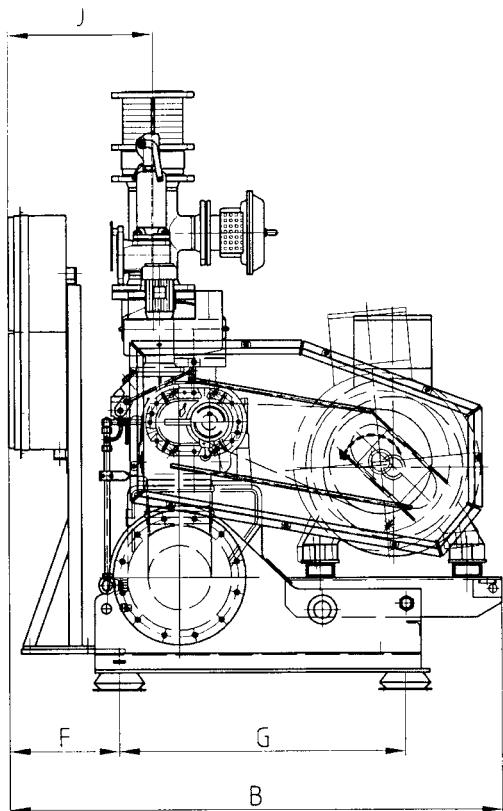
## Performance data based on the compression of air ( $p_1 = 1.0$ bar, $t_1 = 20$ °C)

Discharge pressure $p_0$ [bar gauge]	Compressor size	VML 150										
		gear ratio	i	[ - ]	i <sub>5</sub>	i <sub>6</sub>	i <sub>7</sub>	i <sub>8</sub>	i <sub>9</sub>	i <sub>10</sub>	i <sub>11</sub>	i <sub>5</sub>
0,75	flow at inlet	$\dot{V}_1$	[m <sup>3</sup> /h]	3980	4586	5224	5981	6960	7836	8870	9139	10408
	compressor speed	nHR	[1/min]	2599	2912	3240	3626	4123	4564	5082	5216	5844
	motor speed	nM	[1/min]	1470	1470	1470	1470	1470	1470	1470	2950	2950
	discharge temperature	t <sub>2</sub>	[°C]	84	83	83	82	83	84	85	86	88
	power at shaft / motor rating	P <sub>K/Mot</sub>	[kW]	90 / 110	102 / 132	115 / 132	131 / 160	153 / 200	175 / 200	202 / 250	210 / 250	248 / 315
	power, idling $p_1 = p_2 = 1.0$ bar	P <sub>Leer</sub>	[kW]	37,9	44,8	53	63	78	93	112	131	163
	reduced moment of inertia	J	[kgm <sup>2</sup> ]	10,07	12,55	15,58	19,13	24	29,83	36,74	10,07	12,55
1,00	Sound pressure level w/o.h./w.h.	L <sub>p</sub>	[dBA]	97 / 78	99 / 80	100 / 80	101 / 81	103 / 82	104 / 83	104 / 83	105 / 84	106 / 85
	flow at inlet	$\dot{V}_1$	[m <sup>3</sup> /h]	3906	4513	5151	5907	6887	7762	8796	9065	10335
	compressor speed	nHR	[1/min]	2599	2912	3240	3626	4123	4564	5082	5216	5844
	motor speed	nM	[1/min]	1470	1470	1470	1470	1470	1470	1470	2950	2950
	discharge temperature	t <sub>2</sub>	[°C]	104	101	100	99	98	99	99	100	102
	power at shaft / motor rating	P <sub>K/Mot</sub>	[kW]	115 / 132	129 / 160	144 / 200	163 / 200	189 / 250	214 / 250	245 / 315	253 / 315	295 / 355
	power, idling $p_1 = p_2 = 1.0$ bar	P <sub>Leer</sub>	[kW]	37,9	44,8	53	63	78	93	112	131	163
1,25	reduced moment of inertia	J	[kgm <sup>2</sup> ]	10,07	12,55	15,58	19,13	24	29,83	36,74	10,07	12,55
	Sound pressure level w/o.h./w.h.	L <sub>p</sub>	[dBA]	98 / 79	100 / 80	102 / 81	103 / 82	104 / 83	105 / 84	105 / 84	106 / 85	107 / 85
	flow at inlet	$\dot{V}_1$	[m <sup>3</sup> /h]	3873	4480	5118	5834	6813	7688	8722	8991	10261
	compressor speed	nHR	[1/min]	2599	2912	3240	3626	4123	4564	5082	5216	5844
	motor speed	nM	[1/min]	1470	1470	1470	1470	1470	1470	1470	2950	2950
	discharge temperature	t <sub>2</sub>	[°C]	120	118	117	116	114	114	114	114	116
	power at shaft / motor rating	P <sub>K/Mot</sub>	[kW]	136 / 160	153 / 200	173 / 200	196 / 250	225 / 250	253 / 315	287 / 315	297 / 355	343 / 400
1,50	power, idling $p_1 = p_2 = 1.0$ bar	P <sub>Leer</sub>	[kW]	59	70	82	63	78	93	112	131	163
	reduced moment of inertia	J	[kgm <sup>2</sup> ]	10,07	12,55	15,58	19,13	24	29,83	36,74	10,07	12,55
	Sound pressure level w/o.h./w.h.	L <sub>p</sub>	[dBA]	99 / 80	101 / 81	103 / 82	104 / 83	105 / 84	106 / 85	106 / 85	107 / 85	108 / 86
	flow at inlet	$\dot{V}_1$	[m <sup>3</sup> /h]	3815	4422	5060	5816	6796	7671	8649	8917	10187
	compressor speed	nHR	[1/min]	2599	2912	3240	3626	4123	4564	5082	5216	5844
	motor speed	nM	[1/min]	1470	1470	1470	1470	1470	1470	1470	2950	2950
	discharge temperature	t <sub>2</sub>	[°C]	137	133	131	130	129	129	129	130	130
1,75	power at shaft / motor rating	P <sub>K/Mot</sub>	[kW]	156 / 200	176 / 200	197 / 250	224 / 250	260 / 315	293 / 355	331 / 400	341 / 400	392 / 500
	power, idling $p_1 = p_2 = 1.0$ bar	P <sub>Leer</sub>	[kW]	59	70	82	98	120	142	112	131	163
	reduced moment of inertia	J	[kgm <sup>2</sup> ]	10,07	12,55	15,58	19,13	24	29,83	36,74	10,07	12,55
	Sound pressure level w/o.h./w.h.	L <sub>p</sub>	[dBA]	103 / 83	104 / 83	105 / 83	105 / 83	105 / 84	106 / 85	107 / 85	108 / 85	109 / 86
	flow at inlet	$\dot{V}_1$	[m <sup>3</sup> /h]	3757	4364	5002	5758	6738	7613	8647	8916	10186
	compressor speed	nHR	[1/min]	2599	2912	3240	3626	4123	4564	5082	5216	5844
	motor speed	nM	[1/min]	1470	1470	1470	1470	1470	1470	1470	2950	2950
2,00	discharge temperature	t <sub>2</sub>	[°C]	154	150	146	144	143	142	142	143	144
	power at shaft / motor rating	P <sub>K/Mot</sub>	[kW]	176 / 200	198 / 250	221 / 250	250 / 315	289 / 315	325 / 355	370 / 400	382 / 500	442 / 500
	power, idling $p_1 = p_2 = 1.0$ bar	P <sub>Leer</sub>	[kW]	59	70	82	98	120	142	170	192	235
	reduced moment of inertia	J	[kgm <sup>2</sup> ]	10,07	12,55	15,58	19,13	24	29,83	36,74	10,07	12,55
	Sound pressure level w/o.h./w.h.	L <sub>p</sub>	[dBA]	103 / 82	104 / 83	105 / 83	106 / 85	106 / 85	107 / 85	108 / 86	109 / 87	111 / 87
	flow at inlet	$\dot{V}_1$	[m <sup>3</sup> /h]	3699	4305	4944	5700	6679	7555	8589	8858	10127
	compressor speed	nHR	[1/min]	2599	2912	3240	3626	4123	4564	5082	5216	5844
2,25	motor speed	nM	[1/min]	1470	1470	1470	1470	1470	1470	1470	2950	2950
	discharge temperature	t <sub>2</sub>	[°C]	172	166	162	159	156	155	155	155	156
	power at shaft / motor rating	P <sub>K/Mot</sub>	[kW]	197 / 250	220 / 250	246 / 315	277 / 315	318 / 355	357 / 400	405 / 500	418 / 500	480 / 560
	power, idling $p_1 = p_2 = 1.0$ bar	P <sub>Leer</sub>	[kW]	59	70	82	98	120	142	170	192	235
	reduced moment of inertia	J	[kgm <sup>2</sup> ]	10,07	12,55	15,58	19,13	24	29,83	36,74	10,07	12,55
	Sound pressure level w/o.h./w.h.	L <sub>p</sub>	[dBA]	103 / 82	104 / 83	105 / 83	106 / 85	107 / 85	108 / 86	109 / 87	111 / 87	
	flow at inlet	$\dot{V}_1$	[m <sup>3</sup> /h]									
2,50	compressor speed	nHR	[1/min]									
	motor speed	nM	[1/min]									
	discharge temperature	t <sub>2</sub>	[°C]									
	power at shaft / motor rating	P <sub>K/Mot</sub>	[kW]									
	power, idling $p_1 = p_2 = 1.0$ bar	P <sub>Leer</sub>	[kW]									
	reduced moment of inertia	J	[kgm <sup>2</sup> ]									
	Sound pressure level w/o.h./w.h.	L <sub>p</sub>	[dBA]									
2,75	flow at inlet	$\dot{V}_1$	[m <sup>3</sup> /h]									
	compressor speed	nHR	[1/min]									
	motor speed	nM	[1/min]									
	discharge temperature	t <sub>2</sub>	[°C]									
	power at shaft / motor rating	P <sub>K/Mot</sub>	[kW]									
	power, idling $p_1 = p_2 = 1.0$ bar	P <sub>Leer</sub>	[kW]									
	reduced moment of inertia	J	[kgm <sup>2</sup> ]									
3,00	Sound pressure level w/o.h./w.h.	L <sub>p</sub>	[dBA]									
	flow at inlet	$\dot{V}_1$	[m <sup>3</sup> /h]									
	compressor speed	nHR	[1/min]									
	motor speed	nM	[1/min]									
	discharge temperature	t <sub>2</sub>	[°C]									
	power at shaft / motor rating	P <sub>K/Mot</sub>	[kW]									
	power, idling $p_1 = p_2 = 1.0$ bar	P <sub>Leer</sub>	[kW]									
3,25	reduced moment of inertia	J	[kgm <sup>2</sup> ]									
	Sound pressure level w/o.h./w.h.	L <sub>p</sub>	[dBA]									
	flow at inlet	$\dot{V}_1$	[m <sup>3</sup> /h]									
	compressor speed	nHR	[1/min]									
	motor speed	nM	[1/min]									
	discharge temperature	t <sub>2</sub>	[°C]									
	power at shaft / motor rating	P <sub>K/Mot</sub>	[kW]									
3,50	power, idling $p_1 = p_2 = 1.0$ bar	P <sub>Leer</sub>	[kW]									
	reduced moment of inertia	J	[kgm <sup>2</sup> ]									
	Sound pressure level w/o.h./w.h.	L <sub>p</sub>	[dBA]									

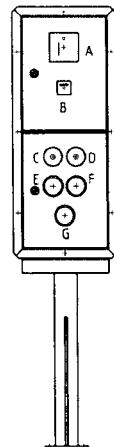
**Performance data based on the compression of air ( $p_1 = 1.0$  bar,  $t_1 = 20$  °C)**

Discharge pressure $p_0$ [bar gauge]	Compressor size	VML 250										
		gear ratio	$i$ [-]		$i_2$	$i_3$	$i_4$	$i_5$	$i_6$	$i_7$	$i_8$	$i_9$
0,75	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]			5761	6677	7698	8761	9985	11417	12980	14598
	compressor speed	nHR [ $1/\min$ ]			1843	2071	2324	2586	2886	3234	3612	4000
	motor speed	nM [ $1/\min$ ]			1470	1470	1470	1470	1470	1470	1470	1470
	discharge temperature	$t_2$ [°C]			85	84	83	82	82	83	84	85
	power at shaft / motor rating	$P_{K/Mot}$ [kW]		132 / 160	149 / 200	169 / 200	191 / 250	217 / 250	250 / 315	289 / 315	333 / 400	
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]			51	61	73	87	104	126	153	185
	reduced moment of inertia	J [kgm²]			15,61	19,27	23,68	29,02	35,84	44,69	54,96	68,75
	Sound pressure level w/o.h./w.h.	Lp [dBA]			97 / 79	98 / 80	100 / 82	102 / 83	104 / 84	105 / 85	106 / 85	107 / 85
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]			5683	6559	7581	8643	9868	11299	12863	14481
1,00	compressor speed	nHR [ $1/\min$ ]			1843	2071	2324	2586	2886	3234	3612	4000
	motor speed	nM [ $1/\min$ ]			1470	1470	1470	1470	1470	1470	1470	1470
	discharge temperature	$t_2$ [°C]			105	103	101	99	98	98	98	99
	power at shaft / motor rating	$P_{K/Mot}$ [kW]		168 / 200	190 / 250	214 / 250	240 / 315	271 / 315	309 / 355	353 / 400	402 / 500	
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]			80	61	73	87	104	126	153	185
	reduced moment of inertia	J [kgm²]			15,61	19,27	23,68	29,02	35,84	44,69	54,96	68,75
	Sound pressure level w/o.h./w.h.	Lp [dBA]			98 / 80	99 / 80	100 / 82	103 / 83	105 / 84	106 / 85	108 / 86	109 / 86
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]			5591	6507	7528	8591	9750	11182	12745	14363
	compressor speed	nHR [ $1/\min$ ]			1843	2071	2324	2586	2886	3234	3612	4000
1,25	motor speed	nM [ $1/\min$ ]			1470	1470	1470	1470	1470	1470	1470	1470
	discharge temperature	$t_2$ [°C]			121	119	117	116	115	114	114	114
	power at shaft / motor rating	$P_{K/Mot}$ [kW]		199 / 250	225 / 250	256 / 315	288 / 315	325 / 355	368 / 400	417 / 500	472 / 630	
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]			80	96	115	137	104	126	153	185
	reduced moment of inertia	J [kgm²]			15,61	19,27	23,68	29,02	35,84	44,69	54,96	68,75
	Sound pressure level w/o.h./w.h.	Lp [dBA]			98 / 80	99 / 81	101 / 82	103 / 83	105 / 84	106 / 85	108 / 85	110 / 86
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]			5498	6414	7436	8498	9723	11154	12718	14245
	compressor speed	nHR [ $1/\min$ ]			1843	2071	2324	2586	2886	3234	3612	4000
1,50	motor speed	nM [ $1/\min$ ]			1470	1470	1470	1470	1470	1470	1470	1470
	discharge temperature	$t_2$ [°C]			139	135	132	130	129	129	129	129
	power at shaft / motor rating	$P_{K/Mot}$ [kW]		229 / 315	259 / 315	292 / 315	328 / 355	371 / 500	424 / 500	485 / 630	542 / 630	
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]			80	96	115	137	163	196	235	185
	reduced moment of inertia	J [kgm²]			15,61	19,27	23,68	29,02	35,84	44,69	54,96	68,75
	Sound pressure level w/o.h./w.h.	Lp [dBA]			99 / 81	100 / 82	102 / 83	103 / 83	105 / 84	106 / 85	108 / 85	110 / 87
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]			5405	6322	7343	8406	9630	11062	12625	14243
	compressor speed	nHR [ $1/\min$ ]			1843	2071	2324	2586	2886	3234	3612	4000
1,75	motor speed	nM [ $1/\min$ ]			1470	1470	1470	1470	1470	1470	1470	1470
	discharge temperature	$t_2$ [°C]			157	152	148	145	143	142	142	142
	power at shaft / motor rating	$P_{K/Mot}$ [kW]		260 / 315	292 / 315	329 / 355	368 / 400	415 / 500	472 / 630	537 / 630	607 / 710	
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]			80	96	115	137	163	196	235	280
	reduced moment of inertia	J [kgm²]			15,61	19,27	23,68	29,02	35,84	44,69	54,96	68,75
	Sound pressure level w/o.h./w.h.	Lp [dBA]			100 / 82	101 / 83	102 / 84	104 / 84	106 / 85	107 / 85	109 / 87	110 / 87
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]			5313	6229	7251	8313	9538	10969	12533	14150
	compressor speed	nHR [ $1/\min$ ]			1843	2071	2324	2586	2886	3234	3612	4000
2,00	motor speed	nM [ $1/\min$ ]			1470	1470	1470	1470	1470	1470	1470	1470
	discharge temperature	$t_2$ [°C]			176	170	164	161	158	156	154	154
	power at shaft / motor rating	$P_{K/Mot}$ [kW]		291 / 315	326 / 355	366 / 400	409 / 500	459 / 500	520 / 630	589 / 630	664 / 710	
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]			80	96	115	137	163	196	235	280
	reduced moment of inertia	J [kgm²]			15,61	19,27	23,68	29,02	35,84	44,69	54,96	68,75
	Sound pressure level w/o.h./w.h.	Lp [dBA]			101 / 83	102 / 84	103 / 85	104 / 84	107 / 85	108 / 86	109 / 87	109 / 87
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]										
	compressor speed	nHR [ $1/\min$ ]										
2,25	motor speed	nM [ $1/\min$ ]										
	discharge temperature	$t_2$ [°C]										
	power at shaft / motor rating	$P_{K/Mot}$ [kW]										
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]										
	reduced moment of inertia	J [kgm²]										
	Sound pressure level w/o.h./w.h.	Lp [dBA]										
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]										
	compressor speed	nHR [ $1/\min$ ]										
2,50	motor speed	nM [ $1/\min$ ]										
	discharge temperature	$t_2$ [°C]										
	power at shaft / motor rating	$P_{K/Mot}$ [kW]										
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]										
	reduced moment of inertia	J [kgm²]										
	Sound pressure level w/o.h./w.h.	Lp [dBA]										
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]										
	compressor speed	nHR [ $1/\min$ ]										
2,75	motor speed	nM [ $1/\min$ ]										
	discharge temperature	$t_2$ [°C]										
	power at shaft / motor rating	$P_{K/Mot}$ [kW]										
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]										
	reduced moment of inertia	J [kgm²]										
	Sound pressure level w/o.h./w.h.	Lp [dBA]										
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]										
	compressor speed	nHR [ $1/\min$ ]										
3,00	motor speed	nM [ $1/\min$ ]										
	discharge temperature	$t_2$ [°C]										
	power at shaft / motor rating	$P_{K/Mot}$ [kW]										
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]										
	reduced moment of inertia	J [kgm²]										
	Sound pressure level w/o.h./w.h.	Lp [dBA]										
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]										
	compressor speed	nHR [ $1/\min$ ]										
3,25	motor speed	nM [ $1/\min$ ]										
	discharge temperature	$t_2$ [°C]										
	power at shaft / motor rating	$P_{K/Mot}$ [kW]										
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]										
	reduced moment of inertia	J [kgm²]										
	Sound pressure level w/o.h./w.h.	Lp [dBA]										
	flow at inlet	$\dot{V}_1$ [ $m^3/h$ ]										
	compressor speed	nHR [ $1/\min$ ]										
3,50	motor speed	nM [ $1/\min$ ]										
	discharge temperature	$t_2$ [°C]										
	power at shaft / motor rating	$P_{K/Mot}$ [kW]										
	power, idling $p_1 = p_2 = 1,0$ bar	$P_{Leer}$ [kW]										
	reduced moment of inertia	J [kgm²]										
	Sound pressure level w/o.h./w.h.	Lp [dBA]										

**Sizes - DELTA SCREW - VML 18 R - VML 40 R  
VM 8 R - VM 37 R**



Instrument panel VMR  
 A fault indicator  
 B operating hour meter  
 C discharge temperature  
 D oil temperature  
 E discharge pressure  
 F oil pressure  
 G maintenance indicator air filter

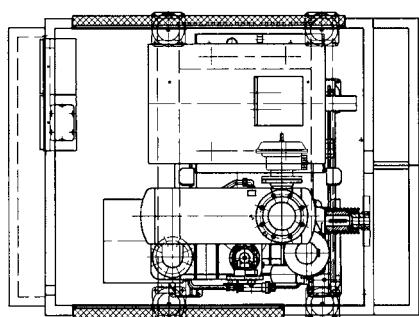
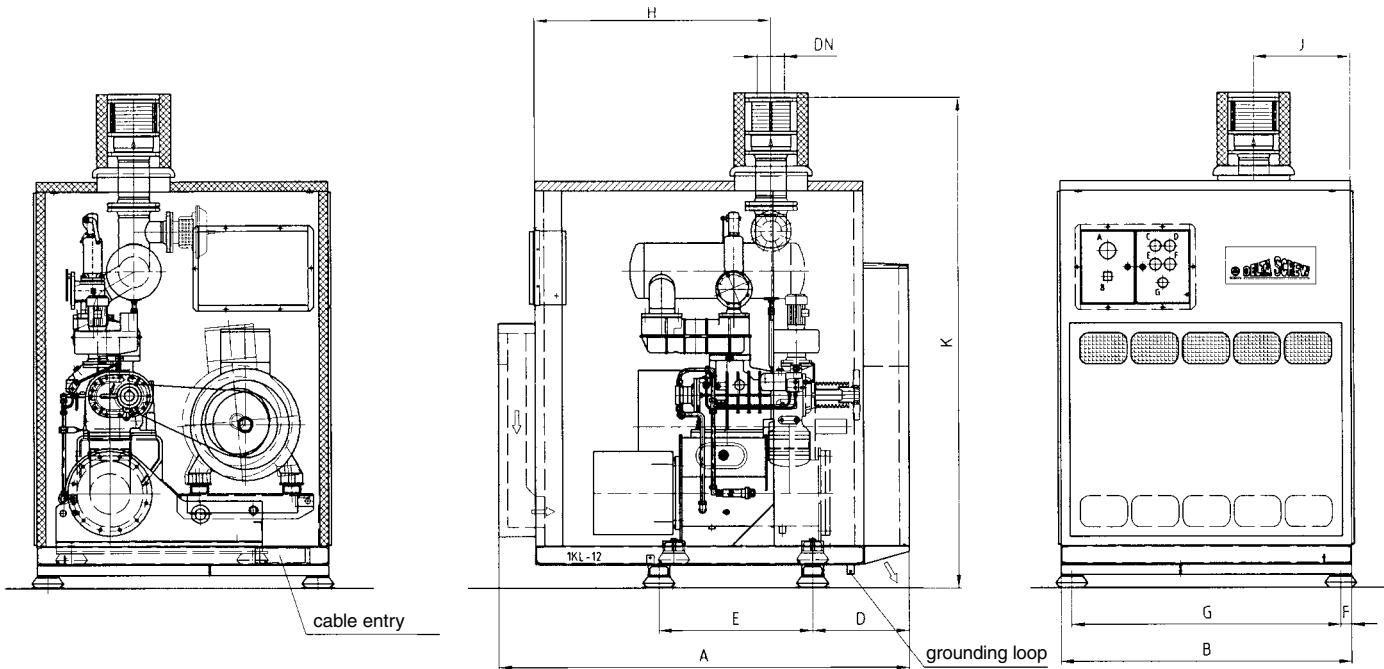


Dimensions without engagement !

size	A	B	C	D	E	F	G	H	J	K	DN DS	PN	oil filling in litres	weight in kg without motor
VML 18 R	990	1430	1542	320	500	382	750	679	863	1743	80	16	8	600
VML 25 R	1274	1610	1802	357	654	380	750	1086	392	2112	125	16	21	800
VML 40 R	1579	1756	2084	325	759	380	990	1170	572	2199	150	16	32	950
VM 8 R	1175	1375	1368	337	525	335	850	861	480	1242	65	16	20	620
VM 15 R	1222	1610	1678	375	584	380	750	950	412	1368 1659*	65	16	26	650
VM 21 R	1292	1610	1678	375	654	380	750	1000	412	1403 1728*	80	16	30	850
VM 37 R	1551	1705	1905	250	759	380	990	1170	572	1876 2335*	150	16	38	1000

\* with start-up unloading device

**Sizes - DELTA SCREW - VML 18 R - VML 40 R  
VM 8 R - VM 37 R**



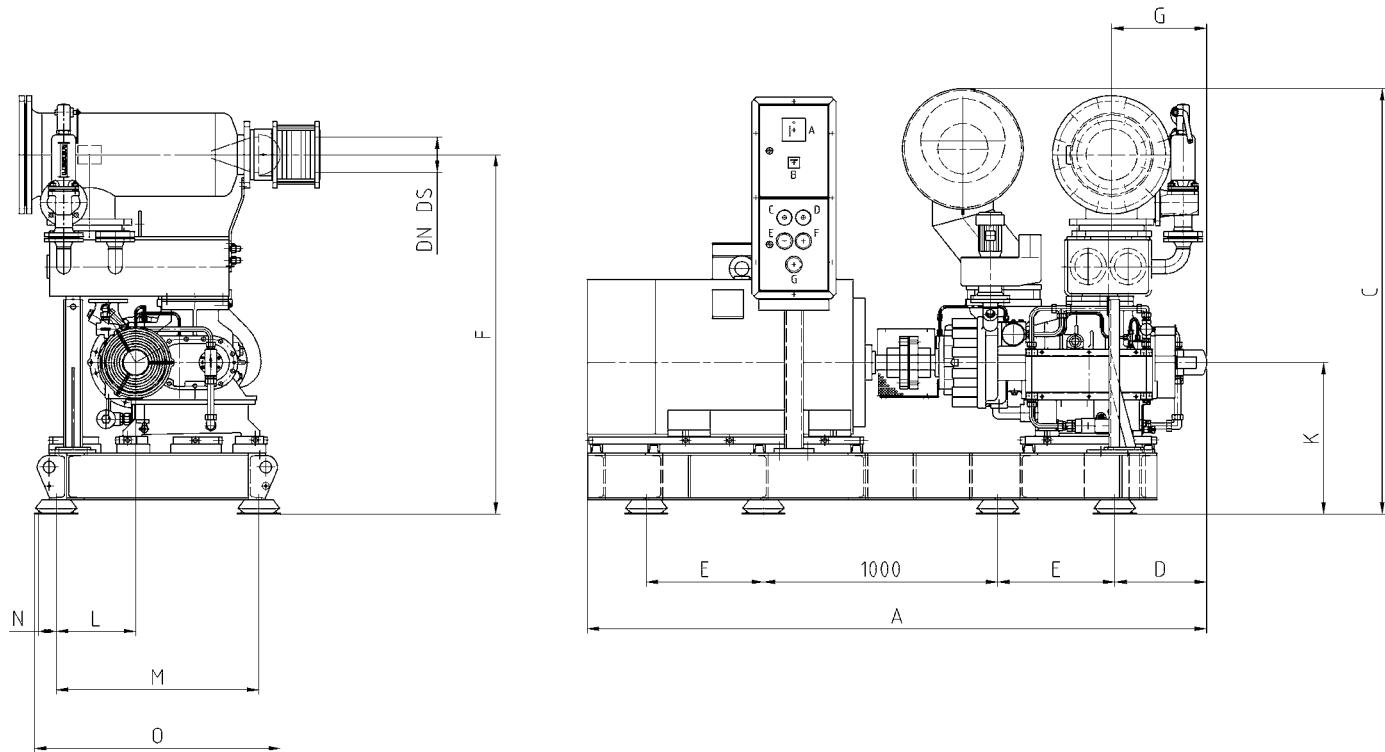
Instrument panel VMR  
 A fault indicator  
 B operating hour meter  
 C discharge temperature  
 D oil temperature  
 E discharge pressure  
 F oil pressure  
 G maintenance indicator air filter

Dimensions without engagement !

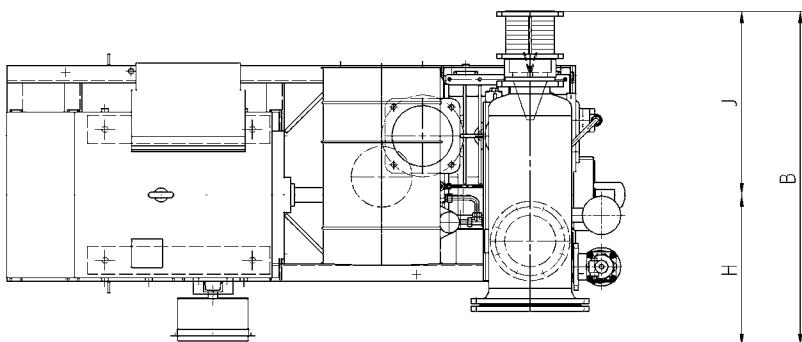
size	A	B	C	D	E	F	G	H	J	K	DN DS	PN	oil filling in litres	weight in kg without motor
VML 18 R**	1605	1250	1570	330	1090	130	845	531	661	1908	80	16	8	850
VML 25 R	1910	1600	2100	529	741	60	1480	430	320	2261	125	16	21	1300
VML 40 R	2350	1700	2350	579	841	60	1580	667	358	2516	150	16	32	1500
VM 8 R	1605	1250	1575	330	1090	200	850	746	483	1675	65	16	20	1120
VM 15 R	1825	1500	1900	537	700	60	1380	1019	523	2027	65	16	26	1150
VM 21 R	1910	1600	2100	529	741	60	1480	1055	540	2270	80	16	30	1350
VM 37 R	2350	1700	2350	579	841	60	1580	1297	663	2516	150	16	38	1550

\*\* second silencer outside the acoustic hood

**Sizes - DELTA SCREW - VML 60 - VML 95  
VM 45 - VM 75**



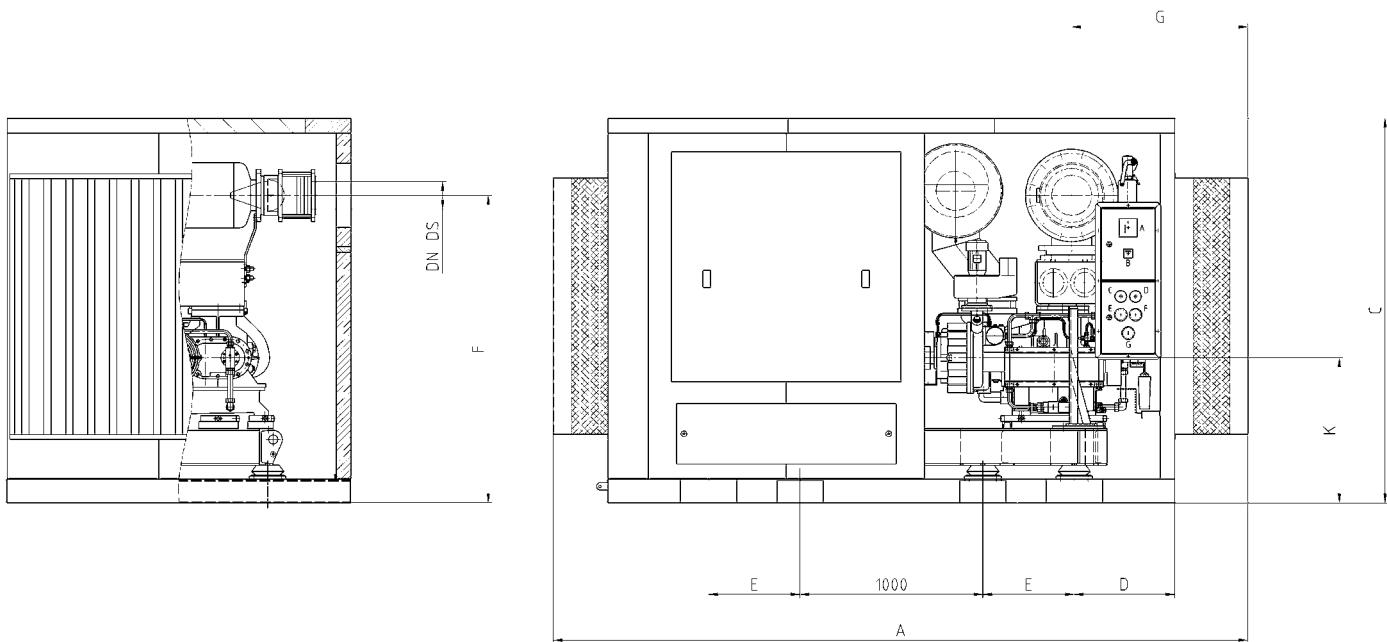
Instrument panel VMR  
 A fault indicator  
 B operating hour meter  
 C discharge temperature  
 D oil temperature  
 E discharge pressure  
 F oil pressure  
 G maintenance indicator air filter



Dimensions without engagement !

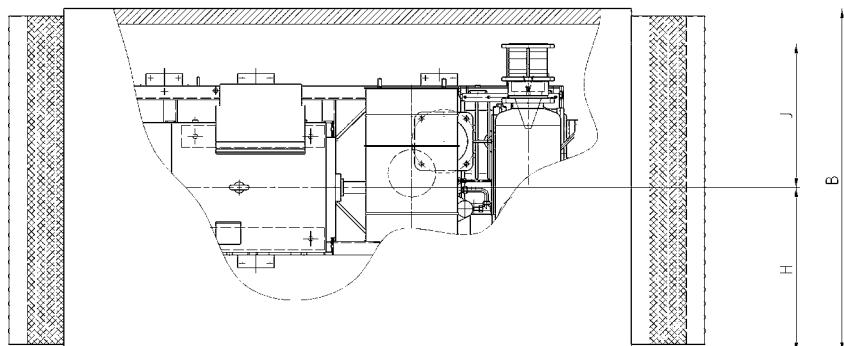
size	A	B	C	D	E	F	G	H	J	K	L	M	N	O	DN DS	PN	weight in kg without motor
VM 45	2643	1432	1817	391	500	1534	405	645	787	647	340	865	75	1049	150	16	1490
VML 60	2643	1452	1817	391	500	1534	405	645	807	647	340	865	75	1049	200	10	1470
VM 75	3098	1804	2130	433	700	1768	428	701	1103	730	391	1040	75	1224	200	10	2550
VML 95	3098	1827	2130	433	700	1768	428	701	1126	730	391	1040	75	1224	250	10	2520

**Sizes - DELTA SCREW - VML 60 - VML 95  
VM 45 - VM 75**



Instrument panel VMR

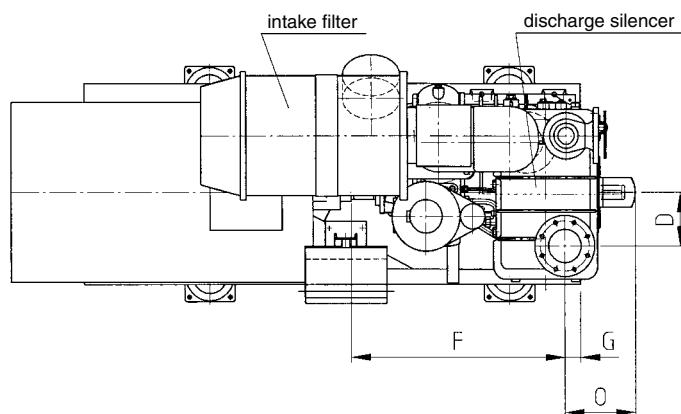
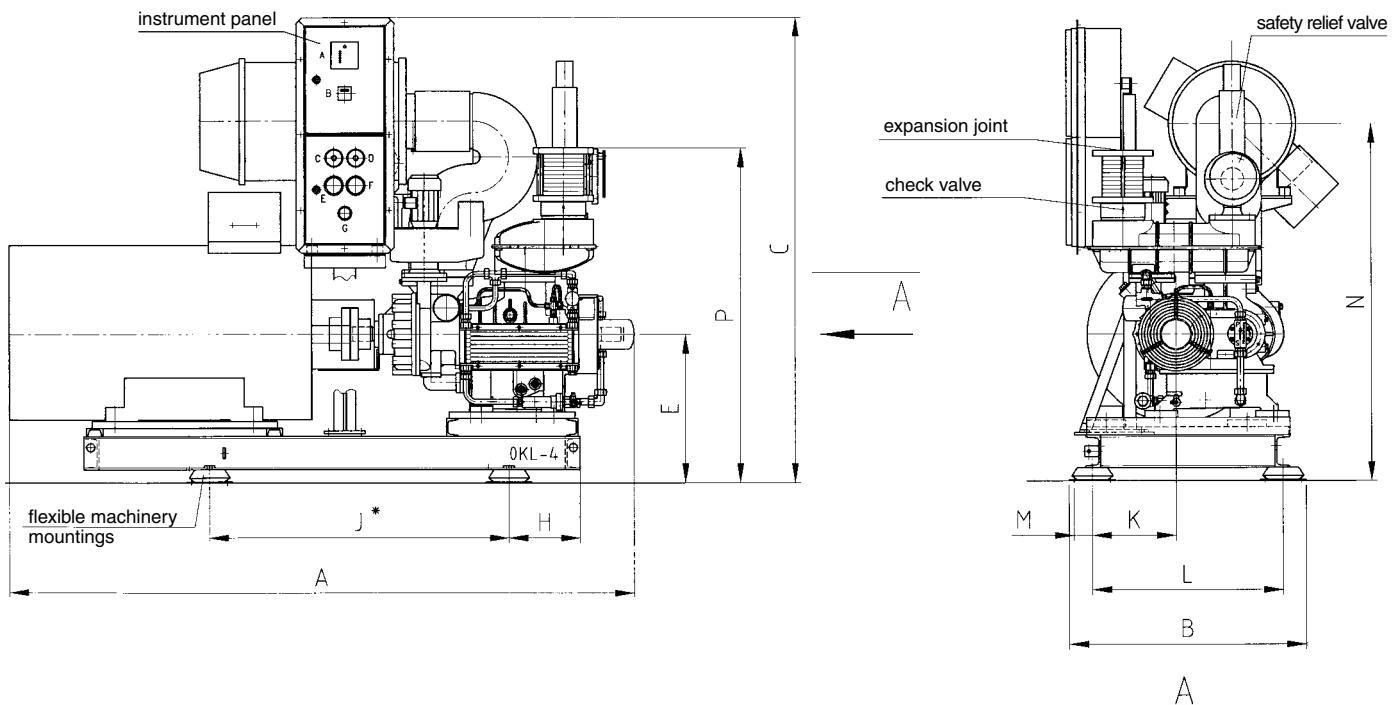
- A fault indicator
- B operating hour meter
- C discharge temperature
- D oil temperature
- E discharge pressure
- F oil pressure
- G maintenance indicator air filter



Dimensions without engagement !

size	A	B	C	D	E	F	G	H	J	K	DN DS	PN	weight in kg without motor
VM 45	3800	1880	2100	550	500	1680	964	900	787	793	150	16	2820
VML 60	3800	1880	2100	550	500	1680	964	900	807	793	200	10	2850
VM 75	4350	1960	2375	720	700	1914	1117	891	1374	876	200	10	4020
VML 95	4350	1960	2375	720	700	1914	1117	891	1367	876	250	10	4000

## Sizes - DELTA SCREW - VM 85 and VM 140



Instrument panel VMR  
 A fault indicator  
 B operating hour meter  
 C discharge temperature  
 D oil temperature  
 E discharge pressure  
 F oil pressure  
 G maintenance indicator air filter

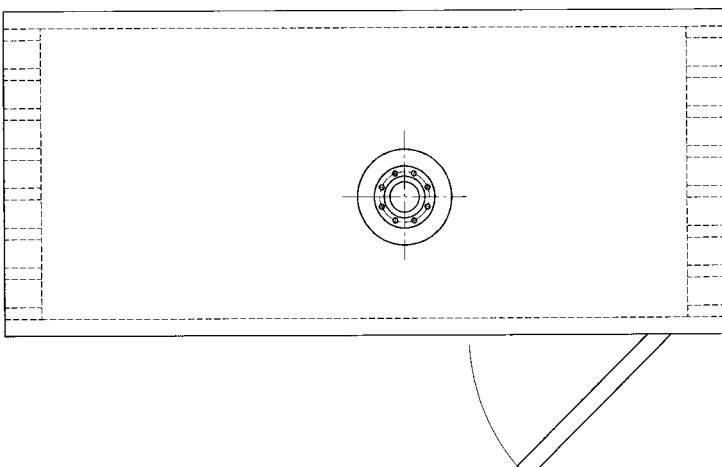
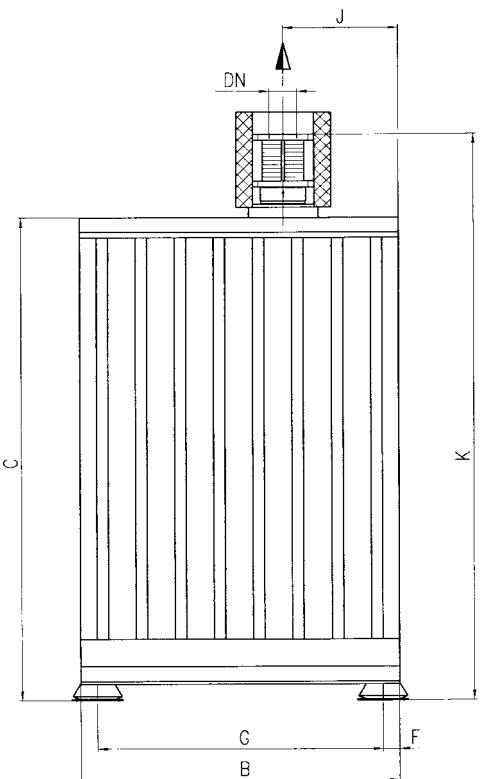
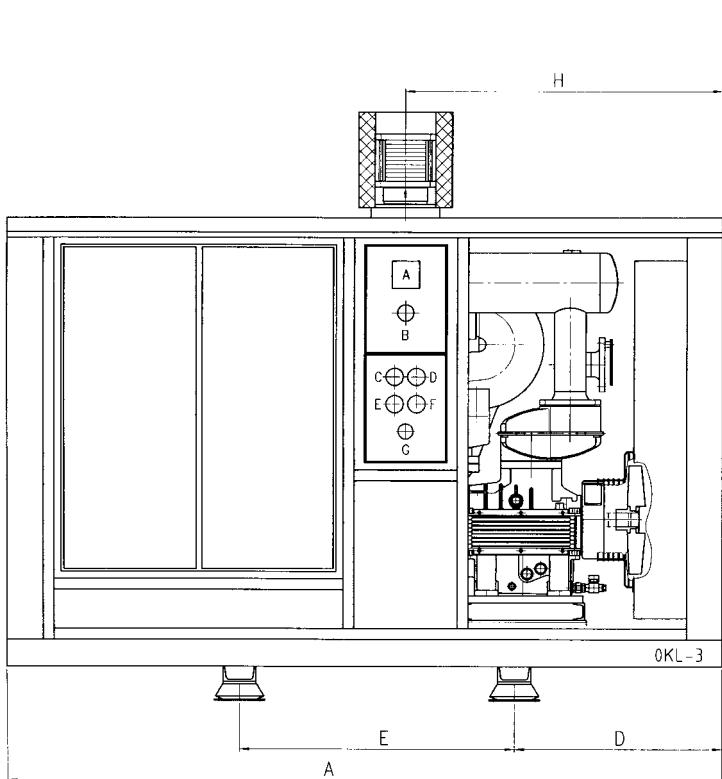
Dimensions without engagement !

size	A*	B	C	D	E	F	G	H	J*	K	L	M	N	O	P	DN DS	PN	DN** DS	PN	weight in kg without motor
VM 85	3265	1485	2010	267	735	1203	86	150	2x1000	415	1130	75	1750	558	2123	200	10	300	10	3220
VM 140	3720	1730	3050	195	950	1384	151	150	3x950	400	1300	75	1990	455	2802	250	10	350	10	5250

\* size depending on driving motor (in chart: max. motor)

\*\* nominal width of bare shaft compressor

## Sizes - DELTA SCREW - VM 85 and VM 140



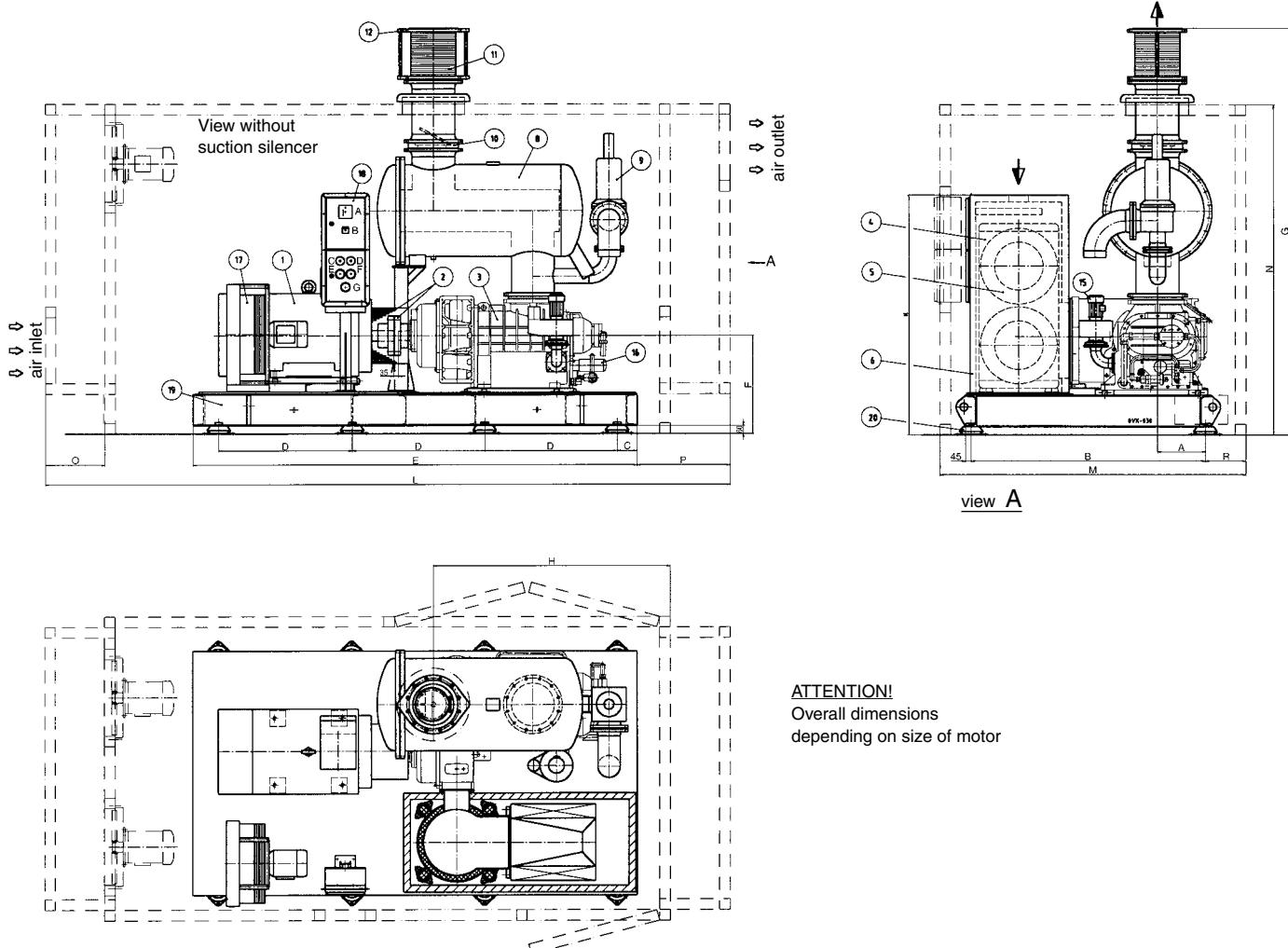
- Instrument panel VMR
- A fault indicator
- B operating hour meter
- C discharge temperature
- D oil temperature
- E discharge pressure
- F oil pressure
- G maintenance indicator air filter

Dimensions without engagement !

size	A*	B	C	D	E	F	G	H	J	K	DN DS	PN	oil filling in litres	weight in kg without motor	swivelling range of the doors
VM 85	4000	1775	2310	875	2x1000*	60	1655	981	534	2650	200	10	50	6000	1000
VM 140	4350	2000	2650	900	3x850*	70	1860	901	605	3500	250	10	65	8500	900

\* size depending on driving motor (in chart: max. motor)

## Sizes VML 150 - VML 250



Instrument panel  
 A fault indicator \*  
 B operating hour meter \*  
 C discharge temperature \*  
 D oil temperature \*  
 E discharge pressure  
 F oil pressure  
 G air intake filter maintenance

1. driving motor
2. coupling and coupling guard
3. compressor
4. intake silencer
5. air filter
6. sound dampening
8. discharge silencer
9. safety relief valve
10. non-return valve

11. axial compensator
12. connection flange discharge side
13. connection flange safety relief valve
15. oil mist separator
16. oil filter
17. oil cooler
18. instrument cabinet
19. base frame
20. flexible machinery mountings

\* only upon request

Dimensions without engagement !

size	A	B	C	D	E	F	G	H	K	L	M	N	O	P	R	DN	oil filling in litres	weight approx. kg without motor and acoustic hood
VML 150	360	1760	150	1000	3340	740	x 2693 2923	1785	1815	5150	2300	2500	450	700	305	300	45	5000
VML 250	455	2020	200	1000	4000	950	x 3000 3500	1950	2500	5500	2600	3000	450	700	290	400	90	7100

x Dimensions without acoustic hood



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