

AERZEN

POSITIVE DISPLACEMENT BLOWERS

New Aerzen Positive Displacement Blower Units
Delta Blower Generation 5
Intake volume flows from 30 m³/h to 5.400 m³/h

**It's new and
individual!**



**AERZENER MASCHINENFABRIK
GMBH**

G1-068 | 02 | EN

2500

5.2010

It's new: *Delta Blower* 5 Generation

Stands for the new series of positive displacement blower units made by Aerzener Maschinenfabrik

Aerzener Maschinenfabrik began making positive displacement blowers in 1868 and is proud to be one of the oldest and largest manufacturers worldwide, with a market leading position in Europe. Technical competence, experienced staff and constant dialogue with our customers maintains the basis for the successful developments that originate from Aerzen. Our priority is that the customer benefits and because of these innovative products Aerzener Maschinenfabrik can guarantee that plant manufacturers and end users alike can secure their market success in the long and short term.



Customers Benefit from Technical Progress

The Delta Blower Generation 5 is the synthesis of the successful characteristics developed in previous generations combined with new technical innovations that already meet the market requirements of the future.

Why Generation 5?

Aerzener Maschinenfabrik was the first blower manufacturer to design a compact unit in 1960 and has developed this machine type continuously ever since.

Delta Blower Generation 5 is therefore the fifth generation of Aerzen blower units and represents the successful combination of tradition and innovation. However compared to other blower models this new series offers 5 main advantages for the customers. 5 main advantages which led to the name „Generation 5“.



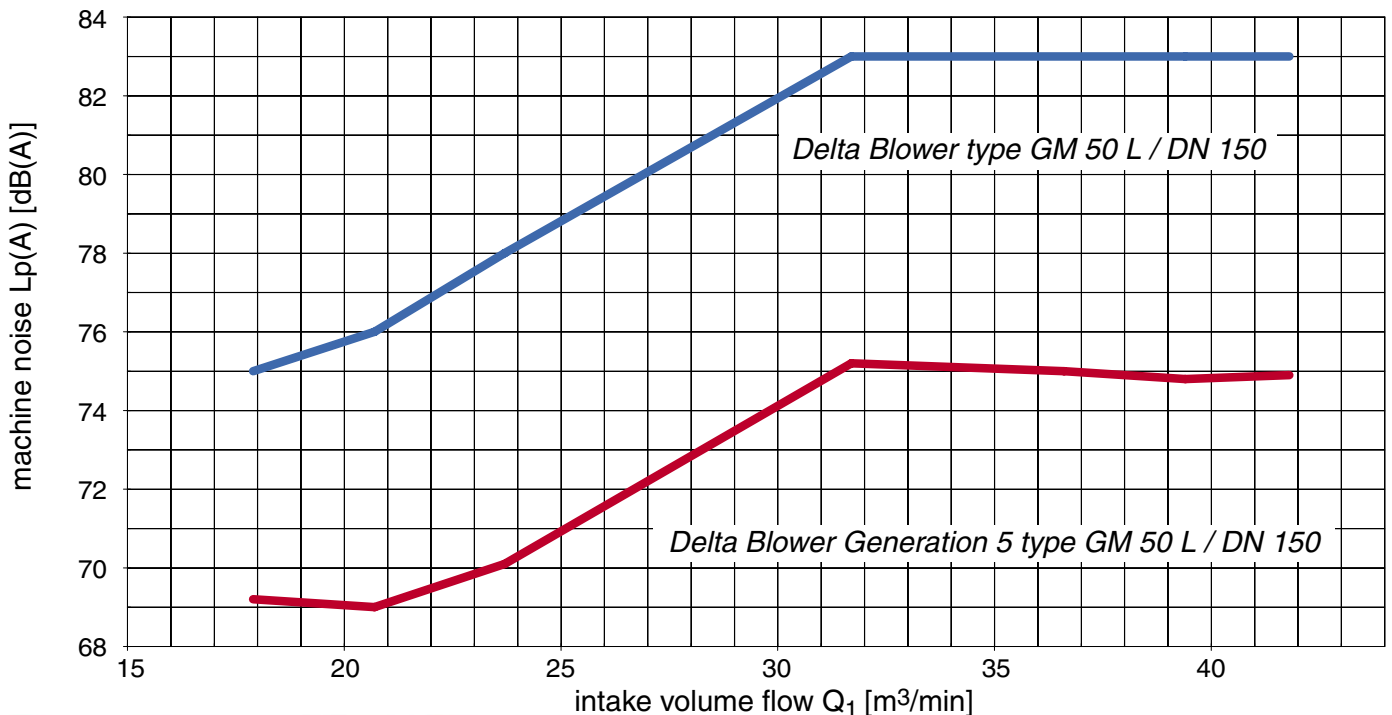
➤ Lower Sound Levels

Compared with the previous generation the sound levels of the Delta Blower Generation 5 series have been reduced by an average of 6 - 8 dB(A), in some single cases even lower sound levels have been achieved.

We still consistently and aware no longer used the absorption material in the discharge-sided silencer.

Due to these considerable sound reductions, expensive measures, such as special acoustic hoods are no longer required.

Comparison of sound pressure levels (700 mbar with acoustic hood)



Easy operation and maintenance:
Transport with fork lifters and lifting trucks, the maintenance work 'oil' and 'filter' are carried out from the front.

The oil level control can be viewed from the outside when blower is running.



➤ Simple Operation and Easy Maintenance

During development, special consideration was given to the ease of handling of the new units. The first consideration was easy positioning and installation: The units can be transported at site, by means of a suitable fork or (up to DN 125) pallet truck. They are delivered with a service pack that includes a lifting jack, oil funnel and an initial fill of oil, which also makes commissioning very easy. All service tasks and components that require maintenance are accessible from the front of the unit.

However, the important advantage is the new oil system. The oil level can be viewed and checked from the outside with the blower fully operational, this is possible without any problems. Therefore, blower shutdowns, process and production interruptions belong to the past. The most important advantage is however the new oil system. This makes a check of the oil level possible from the outside with the machine running. Necessary shutdowns of the machines and consequently interruptions of the process or the production thus belong to the past. Size DN 50 is the only exception. Due to the small dimensions the oil service can easily be carried out via the detachable acoustic hood roof.



➤ Mechanical Fan

A mechanical fan mounted on the blower drive shaft is used to ventilate the acoustic hood. Without the need for an electric fan additional electrical installation and energy costs are saved.

An additional advantage for this system is that it fully complies with all ATEX requirements. Expensive ex-proof fan motors are not required - a considerable cost saving.

➤ Absorption Material Eliminated

The base for the Generation 5 blower is also the discharge silencer in which the sound level is reduced by diverting the air flow. Absorption material which is subject to degradation has not been used in any part of the unit. The downstream system cannot become contaminated when it is used for pneumatic conveying of bulk food materials and the integrity of the foodstuff is guaranteed. In the sewage industry, the blockage of an aeration system can be avoided; costly maintenance expenditure is minimized and production losses are eliminated.

12 sizes in 7 nominal widths

Less room needed due to compact design and installation variant 'Side-by-Side'.



➤ Space Saving Design

Especially with the smaller size units the dimensions have been reduced, linked with the facility to install the units "side by side", the required floor space has also been considerably reduced. Providing further cost savings in designing the size of the blower room.

Due to the changed dimensions and type of design there is a better possibility of replacement regarding the previous Aerzen generations KI, KII and KIII.

Further advantages of the new series Delta Blower Generation 5 are the following:

- Aerzen base support certified as spark arrester for ATEX-applications (please also refer to brochure A1-020)
- Blower stage with patented procedure for pulsation reduction
- Standard application for energy-saving motors of class EFF1
- Compliant as per the PED guidelines (discharge silencer and pressure valve)
- Intake on the 'cold' side of the unit
- Automatic belt retention due to hinged motor mounting plate



Scope of supply:

Blower stage (1)

With patented procedure for pulsation reduction (see page 6)

Base support with integrated discharge silencer (2)

Sound dampening without using absorption material. Design of silencer acc. to PED-directive 97/23/EG. Furthermore the base support is certified as ATEX-spark arrester.

Intake system with filter and silencer (3)

The machine takes in as standard from the ambience. An intake via a pipe is possible (option).

Drive

By means of three-phase current AC – motor (4) via high-efficiency narrow V-belt drive (5). Use of energy efficient motors of class EFF1 (up to motor size 315) in series. Automatic belt tension via hinged motor mounting plate (6).

Connection housing (7)

With pressure relief valve (8) acc. to PED-directive 97/23/EG and with integrated non-return flap

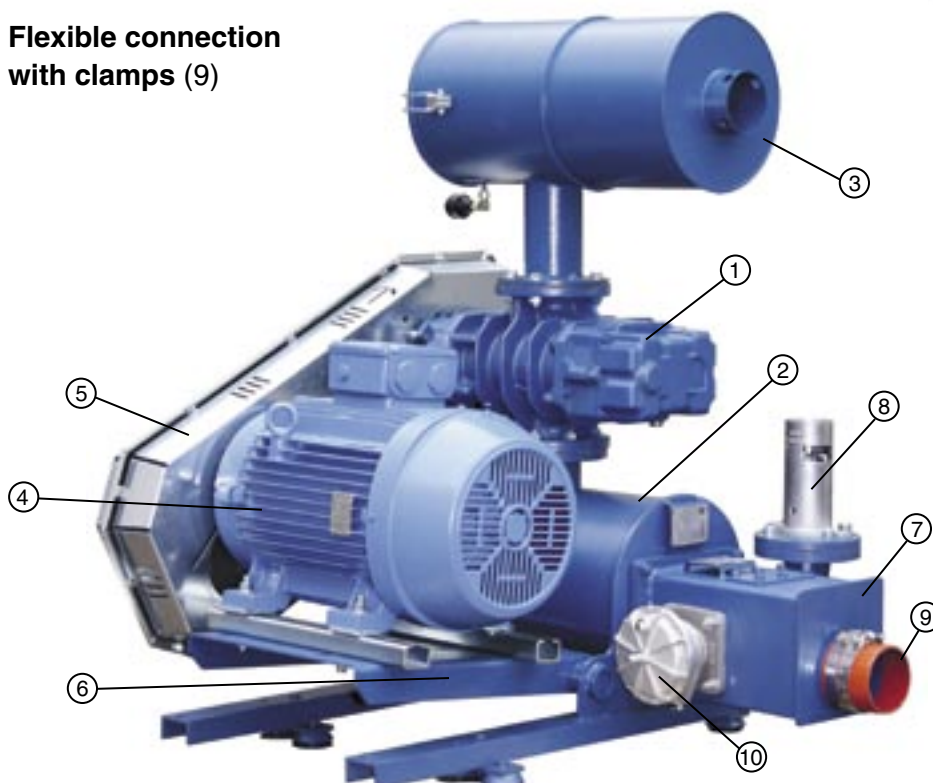
Flexible connection with clamps (9)

Accessories:

- Driving motor: type of construction B3, junction box on top
- Acoustic hood for indoor or outdoor installation, with forced ventilation via mechanical fan
- Start-up unloading device (10): necessary for star-delta starting of the motor
- Pressure gauge for indication of the conveying pressure
- Maintenance indication for monitoring of the intake filter
- Discharge-sided expansion joint instead of flexible connection
- Switch cabinet
- Aerzen blower control system AERtronic (For detailed information refer to leaflet AS 300)



Further accessories upon request!
Our Sales dept. will of course be prepared to give you advice!





Patented pulsation reduction at the “source of their origination”

Each of the new Delta Blower units feature a blower stage with internal pulsation cancellation.



Two-Lobe Blowers operating on the Roots principle produce conveying pulsations due to their design, which can be detrimental not only to the blower itself but also to the conveying pipework.



Using a patented development by Aerzener Maschinenfabrik, these pulsations are almost eliminated at source. To achieve this the three-lobe blower has two channels cast into the cylinder wall that control the backstream of gas into the cylinder. This backstream produces sound waves which by interference cancel most of those produced by the blower.



Rotors:

GM 3 S to GM 80 L: drop forged in one piece including the shafts (C 45 N).

GM 90 S and GM 130 L: rotors and shafts in one piece of EN-GJS-500-7.

GM 150 S to GM 240 S: made of EN-GJS-400-18-LT, shafts made of C 45 N.

Cooling

Convection cooling via the housing surface is adequate for blowers operating within their thermal range as shown in the performance tables.

Lubrication

Bearings and timing gears are splash lubricated.

Oilfree conveying (Sealing)

The conveying chamber (cylinder) is sealed from the gear case and the front cover by piston ring labyrinth seals. These seals have a central, neutral chamber which is open to the atmosphere.

Timing Gears

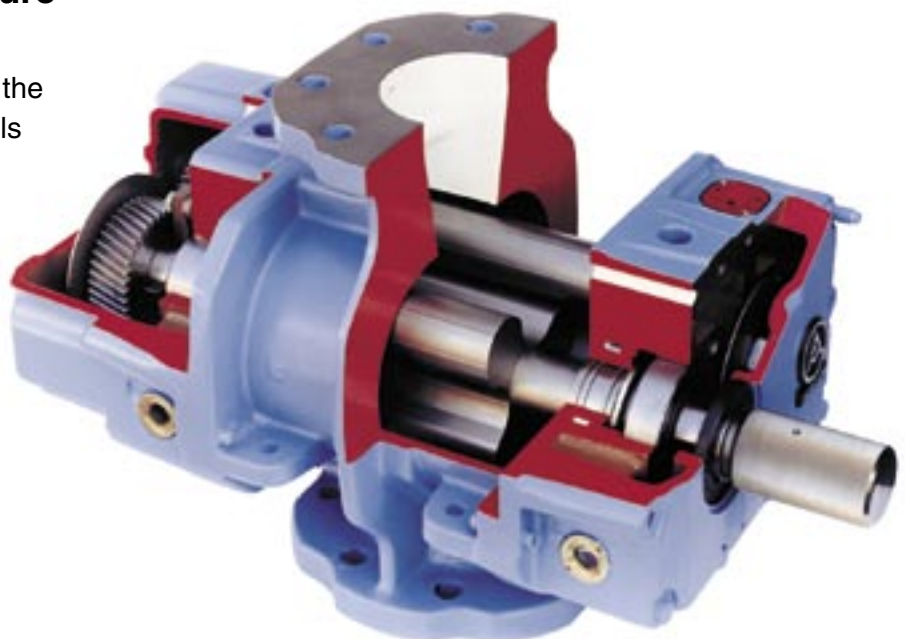
The helical timing gears are hardened and ground. They are fitted to the shafts by the oil expanded taper method.

Construction and Manufacture

Blower

The blower has three-lobe rotors and the cylinder housing has pre-inlet channels to reduce sound emissions through pulsation cancellation. The cylinder, end plates and covers are made of EN-GJL-200.

The blowers are cast with ribbed surfaces.



Fields of application and use

Aerzen blower units are designed for the conveying of air and neutral gases.

At present, the series Delta Blower Generation 5 is available for overpressure and vacuum applications with nominal widths of DN 50 to DN 250. Further designs (vacuum, nitrogen) are available. Using a flexible modular construction and a belt driven system makes it possible for all blowers and motor sizes to be installed, within a nominal range. Therefore, achieving an optimum adjustment to match the blower output and power consumption.

Future modifications are also possible. For the new series Generation 5, 12 sizes are available for intake volume flows from approximately 30 m³/h to 5.400 m³/h and overpressures up to 1000 mbar.

The entire series Delta Blower includes 16 sizes and volume flows up to 15.000 m³/h.

Examples for the various fields of application:

- Pneumatic conveying of bulk materials
- Sewage water purification
- Drinking water treatment
- Aeration of rivers and lakes
- Chemical and processing industry
- Glass and paper industry
- and many more

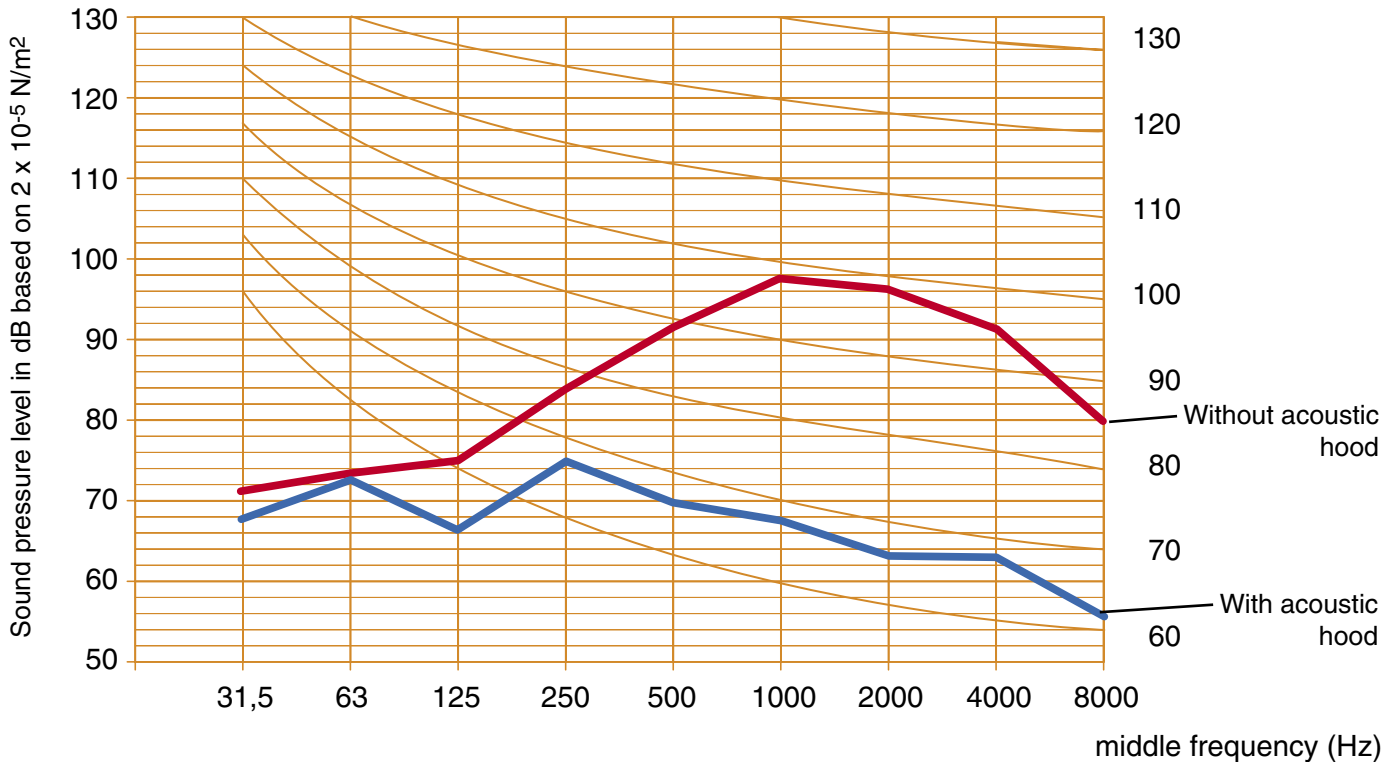


Noise rating

The sound frequency analysis was carried out in 1/1 Oktave Band on a GM 30 L - G 5

measured in free field conditions at one meter from the outline and a height of 1,5 meter.

$\Delta p = 600$ mbar,
Blower speed = 3800 rpm



Using the operating data sheets

Please refer to the data sheets for intake volume (\dot{V}_1), absorbed power (P_k), motor size and sound pressure levels $L_p(A)$.

The intake volumes shown correspond to operating speed increments of approximately 12% and are based on commonly available belt drive ratios.

Lower driving speeds are possible, depending on the final temperature.

Concerning data please refer to performance diagram.

Noise level guarantee

All noise data are based upon machine emitted noise pressure level $L_p(A)$ from each single blower unit. They refer to free field measurements (Tolerance ± 2 dB) as per DIN 45635, DIN EN ISO 3744 and DIN EN ISO 2151 at a distance of 1 m.

Data Legend

\dot{V}_1	[m ³ /min]	intake volume
p_1	[bar abs]	intake pressure
Δp	[mbar]	differential pressure
t_1	[°C]	intake temperature
t_2	[°C]	final temperature
n_G	[rpm]	blower speed
n_M	[rpm]	motor speed
P_k	[kW]	power at blower shaft
P_{mot}	[kW]	motor power rating
$L_p(A)$ w/o.H.	[dB]	sound pressure level for blower unit without hood
$L_p(A)$ w.H.	[dB]	sound pressure level for blower unit with hood

Δp mbar	Blower size		GM 3 S / DN 50										GM 4 S / DN 80									
	V_1 [m ³ /min]	t_2 [°C]	0,66	1,1	1,61	2,13	2,48	2,94	3,18	3,66	3,87	4,12	1,01	1,66	2,17	3	3,54	4,16	4,78	5,41	5,7	
300	t_2 [°C]		74	62	57	54	53	52	51	50	50	50	68	59	56	53	52	51	50	49	49	
	nG [rpm]		1400	1830	2330	2840	3190	3640	3880	4350	4560	4800	1400	1870	2240	2840	3230	3680	4130	4590	4800	
	nM [rpm]		2800	2800	2800	2840	2840	2840	2870	2870	2870	2890	2800	2800	2840	2840	2870	2870	2890	2890	2890	
	Pk [kW]		0,89	1,14	1,43	1,76	2,01	2,34	2,54	2,94	3,13	3,37	1,14	1,49	1,78	2,29	2,64	3,06	3,52	4,01	4,25	
	P _{mot} [kW]		1,5	1,5	2,2	3	3	3	4	4	4	5,5	1,5	2,2	3	3	4	4	5,5	5,5	5,5	
	Motor size		90 S	90 S	90 L	100 L	100 L	100 L	112 M	112 M	112 M	132 S	90 S	90 L	100 L	100 L	112 M	112 M	132 S	132 S	132 S	
	Lp(A)[dB] _{w/o.H./w.H.}		78/<65	80/<65	83/66	87/66	87/66	89/66	90/67	92/67	93/67	93/66	77/<65	78/<65	79/<65	79/<65	84/<65	86/<65	87/<65	88/<65	89/<65	
	400	V_1 [m ³ /min]		0,55	0,98	1,53	2,01	2,4	2,86	3,07	3,57	3,79	4	0,87	1,5	2,21	2,9	3,42	4,06	4,64	5,27	5,56
t_2 [°C]			107	83	73	68	66	64	63	62	61	61	94	77	70	66	64	62	61	60	60	
nG [rpm]			1400	1830	2370	2840	3220	3680	3880	4380	4590	4800	1400	1860	2370	2870	3250	3710	4130	4590	4800	
nM [rpm]			2800	2800	2840	2840	2870	2870	2870	2890	2890	2890	2800	2840	2840	2870	2890	2890	2890	2890	2890	
Pk [kW]			1,13	1,45	1,86	2,24	2,57	3	3,19	3,71	3,94	4,18	1,46	1,91	2,43	2,97	3,4	3,94	4,47	5,07	5,35	
P _{mot} [kW]			1,5	2,2	3	3	4	4	4	5,5	5,5	5,5	2,2	3	3	4	5,5	5,5	5,5	7,5	7,5	
Motor size			90 S	90 L	100 L	100 L	112 M	112 M	112 M	132 S	132 S	132 S	90 L	100 L	100 L	112 M	132 S	132 S	132 S	132 S	132 S	
Lp(A)[dB] _{w/o.H./w.H.}			80/<65	81/<65	84/66	87/66	87/67	90/67	91/67	93/67	94/67	94/67	77/<65	79/<65	81/<65	83/<65	85/<65	87/<65	88/<65	89/<65	89/<65	
500	V_1 [m ³ /min]		0,91	1,43	1,94	2,29	2,78	3,04	3,47	3,68	3,9	0,77	1,42	2,11	2,8	3,3	3,93	4,51	5,14	5,43		
	t_2 [°C]		107	91	83	80	77	75	74	73	72	126	97	85	80	77	75	73	72	71		
	nG [rpm]		1860	2370	2870	3220	3700	3960	4380	4590	4800	1420	1890	2390	2890	3250	3710	4130	4590	4800		
	nM [rpm]		2840	2840	2870	2870	2890	2890	2890	2890	2890	2840	2840	2870	2890	2890	2890	2890	2890	2890		
	Pk [kW]		1,78	2,26	2,76	3,12	3,64	3,94	4,45	4,72	4,99	1,81	2,38	3	3,66	4,15	4,8	5,42	6,12	6,45		
	P _{mot} [kW]		3	3	4	4	5,5	5,5	5,5	7,5	7,5	3	3	4	5,5	5,5	7,5	7,5	7,5	7,5		
	Motor size		100 L	100 L	112 M	112 M	132 S	132 S	132 S	132 S	132 S	100 L	100 L	112 M	132 S	132 S	132 S	132 S	132 S	132 S		
	Lp(A)[dB] _{w/o.H./w.H.}		83/65	85/66	88/67	88/67	91/68	93/68	95/67	95/67	95/68	77/<65	80/<65	82/<65	85/<65	86/<65	88/<65	90/<65	89/<65	89/66		
600	V_1 [m ³ /min]		1,36	1,84	2,26	2,69	2,95	3,38	3,59	3,8	1,33	2,02	2,69	3,39	3,82	4,4	5,11	5,32				
	t_2 [°C]		110	99	94	90	88	86	85	84	119	103	95	90	87	85	83	83				
	nG [rpm]		2390	2870	3280	3700	3960	4380	4590	4800	1910	2410	2890	3400	3710	4130	4650	4800				
	nM [rpm]		2870	2870	2890	2890	2890	2890	2890	2890	2870	2890	2890	2890	2890	2890	2930	2930				
	Pk [kW]		2,69	3,24	3,74	4,27	4,61	5,19	5,49	5,8	2,84	3,58	4,32	5,14	5,65	6,37	7,29	7,56				
	P _{mot} [kW]		4	4	5,5	5,5	7,5	7,5	7,5	7,5	4	5,5	5,5	7,5	7,5	7,5	11	11				
	Motor size		112 M	112 M	132 S	132 S	132 S	132 S	132 S	132 S	112 M	132 S	132 S	132 S	132 S	132 S	160 M	160 M				
	Lp(A)[dB] _{w/o.H./w.H.}		87/66	89/67	89/68	92/68	95/68	96/68	96/68	96/68	81/<65	84/<65	87/68	87/67	88/66	91/66	89/66	89/67				
700	V_1 [m ³ /min]		1,27	1,78	2,17	2,6	2,86	3,29	3,5	3,72	1,92	2,58	3,28	3,71	4,37	5,01	5,22					
	t_2 [°C]		132	117	110	105	102	99	98	97	122	111	104	101	97	95	94					
	nG [rpm]		2390	2890	3280	3700	3960	4380	4590	4800	2410	2890	3400	3710	4190	4650	4800					
	nM [rpm]		2870	2890	2890	2890	2890	2890	2890	2890	2890	2890	2890	2890	2930	2930	2930					
	Pk [kW]		3,09	3,76	4,29	4,9	5,28	5,93	6,27	6,62	4,14	4,99	5,92	6,5	7,43	8,35	8,66					
	P _{mot} [kW]		4	5,5	5,5	7,5	7,5	7,5	7,5	7,5	5,5	7,5	7,5	7,5	11	11	11					
	Motor size		112 M	132 S	132 S	132 S	132 S	132 S	132 S	132 S	132 S	132 S	132 S	132 S	160 M	160 M	160 M					
	Lp(A)[dB] _{w/o.H./w.H.}		87/67	90/67	90/68	93/69	94/69	95/69	95/69	96/68	85/<65	89/68	86/68	89/67	93/67	90/68	89/69					
800	V_1 [m ³ /min]		2,1	2,52	2,78	3,21	2,48	3,26	3,68	4,28	4,91	5,12										
	t_2 [°C]		126	120	117	113	128	118	114	111	107	107										
	nG [rpm]		3290	3700	3960	4380	2890	3450	3760	4190	4650	4800										
	nM [rpm]		2890	2890	2890	2890	2890	2930	2930	2930	2930	2930										
	Pk [kW]		4,86	5,52	5,95	6,68	5,65	6,81	7,46	8,4	9,42	9,77										
	P _{mot} [kW]		7,5	7,5	7,5	7,5	7,5	11	11	11	11	11										
	Motor size		132 S	132 S	132 S	132 S	132 S	160 M	160 M	160 M	160 M	160 M										
	Lp(A)[dB] _{w/o.H./w.H.}		91/68	94/69	93/69	94/70	91/69	87/68	91/68	95/68	91/70	90/70										
900	V_1 [m ³ /min]		2,71	3,17	3,59	4,19	4,82	5,03														
	t_2 [°C]		132	133	129	124	120	119														
	nG [rpm]		3960	3450	3760	4190	4650	4800														
	nM [rpm]		2890	2930	2930	2930	2930	2930														
	Pk [kW]		6,63	7,6	8,33	9,36	10,5	10,9														
	P _{mot} [kW]		7,5	11	11	11	15	15														
	Motor size		132 S	160 M	160 M	160 M	160 M	160 M														
	Lp(A)[dB] _{w/o.H./w.H.}		94/70	88/69	92/69	96/69	92/70	92/70														
1000	V_1 [m ³ /min]		4,74	4,94																		
	t_2 [°C]		133	132																		
	nG [rpm]		4650	4800																		
	nM [rpm]		2930	2930																		
	Pk [kW]		11,6	12																		
	P _{mot} [kW]		15	15																		
	Motor size		160 M	160 M																		
	Lp(A)[dB] _{w/o.H./w.H.}		94/70	94/70																		

Δp mbar	Blower size	GM 7 L / DN 80										GM 10 S / DN 80						GM 10 S / DN 100		
300	\dot{V}_1 [m ³ /min]	1,54	2,56	3,59	4,63	5,35	6,35	7,19	7,71	8,21	2,59	3,96	5,36	6,7	7,68	9,03	10,3	11	11,6	
	t_2 [°C]	67	58	55	52	51	50	50	50	49	59	54	52	50	50	49	48	48	48	
	nG [rpm]	1400	1890	2390	2890	3240	3720	4130	4380	4620	1420	1910	2410	2890	3240	3720	4190	4440	4650	
	nM [rpm]	2800	2840	2870	2890	2890	2890	2890	2890	2890	2840	2870	2890	2890	2890	2890	2930	2930	2930	
	PK [kW]	1,64	2,19	2,78	3,42	3,89	4,59	5,25	5,67	6,1	2,29	3,06	3,88	4,72	5,37	6,36	7,43	8,05	8,61	
	P _{mot} [kW]	2,2	3	4	5,5	5,5	7,5	7,5	7,5	7,5	3	4	5,5	7,5	7,5	7,5	11	11	11	
	Motor size	90 L	100 L	112 M	132 S	132 S	132 S	132 S	132 S	132 S	100 L	112 M	132 S	132 S	132 S	132 S	160 M	160 M	160 M	
	Lp(A)[dB] _{w/o.H./w.H.}	80/<65	82/<65	83/<65	85/68	85/67	88/66	89/66	89/<65	89/66	76/<65	78/69	80/66	82/65	84/65	86/66	91/71	91/71	92/71	
400	\dot{V}_1 [m ³ /min]	1,38	2,39	3,42	4,42	5,14	6,14	7,11	7,63	8,14	2,41	3,8	5,14	6,49	7,58	8,95	10,1	10,8	11,4	
	t_2 [°C]	92	75	69	65	64	62	61	60	60	76	68	64	62	61	59	59	58	58	
	nG [rpm]	1420	1910	2410	2890	3240	3720	4190	4440	4690	1435	1930	2410	2890	3280	3770	4190	4440	4650	
	nM [rpm]	2840	2870	2890	2890	2890	2890	2930	2930	2930	2870	2890	2890	2890	2930	2930	2930	2930	2930	
	PK [kW]	2,16	2,87	3,64	4,41	5,01	5,88	6,79	7,31	7,85	2,99	3,99	5	6,07	6,98	8,23	9,39	10,1	10,8	
	P _{mot} [kW]	3	4	5,5	5,5	7,5	7,5	11	11	11	4	5,5	7,5	7,5	11	11	11	15	15	
	Motor size	100 L	112 M	132 S	132 S	132 S	132 S	160M	160M	160M	112 M	132 S	132 S	132 S	160 M	160 M	160 M	160 M	160 M	
	Lp(A)[dB] _{w/o.H./w.H.}	80/<65	82/<65	84/<65	86/68	86/68	89/67	90/67	90/67	91/68	77/<65	78/70	80/67	83/66	84/66	87/67	91/70	92/71	93/70	
500	\dot{V}_1 [m ³ /min]	1,22	2,18	3,24	4,23	5,31	6,05	6,92	7,44	7,96	2,25	3,61	4,95	6,41	7,39	8,76	9,94	10,6	11,2	
	t_2 [°C]	122	95	84	79	76	74	72	72	71	95	83	77	74	72	70	69	69	69	
	nG [rpm]	1435	1900	2410	2890	3410	3770	4190	4440	4690	1445	1930	2410	2930	3280	3770	4190	4440	4650	
	nM [rpm]	2870	2890	2890	2890	2890	2930	2930	2930	2930	2890	2890	2890	2930	2930	2930	2930	2930	2930	
	PK [kW]	2,67	3,51	4,47	5,41	6,49	7,27	8,24	8,84	9,46	3,68	4,89	6,13	7,52	8,51	9,99	11,3	12,2	12,9	
	P _{mot} [kW]	4	5,5	5,5	7,5	7,5	11	11	11	11	5,5	7,5	7,5	11	11	15	15	15	15	
	Motor size	112 M	132 S	132 S	132 S	132 S	160M	160M	160M	160M	132 S	132 S	132 S	160 M	160 M	160 M	160 M	160 M	160 M	
	Lp(A)[dB] _{w/o.H./w.H.}	80/<65	82/<65	84/<65	87/68	89/68	90/68	91/68	91/69	92/70	77/<65	78/70	80/67	83/66	84/67	87/68	88/67	92/70	93/70	
600	\dot{V}_1 [m ³ /min]	2,08	3,07	4,07	4,87	5,89	6,76	7,27	7,79	2,08	3,44	4,5	6,24	7,22	8,59	9,76	10,5	11,1		
	t_2 [°C]	116	102	94	90	87	84	83	83	118	99	92	86	84	82	80	80	79		
	nG [rpm]	1930	2410	2890	3280	3770	4190	4440	4690	1445	1930	2310	2930	3280	3770	4190	4440	4650		
	nM [rpm]	2890	2890	2890	2930	2930	2930	2930	2930	2890	2890	2930	2930	2930	2930	2930	2930	2930		
	PK [kW]	4,24	5,3	6,41	7,34	8,57	9,68	10,4	11,1	4,35	5,8	6,94	8,89	10	11,7	13,3	14,3	15,1		
	P _{mot} [kW]	5,5	7,5	7,5	11	11	11	15	15	5,5	7,5	11	11	15	15	15	18,5	18,5		
	Motor size	132 S	132 S	132 S	160M	160M	160M	160 M	160 M	132 S	132 S	160 M	160 M	160 M	160 M	160 M	160 L	160 L		
	Lp(A)[dB] _{w/o.H./w.H.}	84/<65	86/66	88/68	89/68	91/68	91/69	92/69	92/70	77/<65	78/71	80/68	84/67	85/68	87/69	88/68	92/70	94/70		
700	\dot{V}_1 [m ³ /min]	2,92	4,00	4,72	5,71	6,60	7,12	7,64	3,28	4,34	6,08	7,06	8,43	9,61	10,3	10,9				
	t_2 [°C]	120	109	104	100	97	96	94	117	107	99	96	93	92	91	90				
	nG [rpm]	2410	2930	3280	3760	4190	4440	4690	1930	2310	2930	3280	3770	4190	4440	4650				
	nM [rpm]	2890	2930	2930	2930	2930	2930	2930	2890	2930	2930	2930	2930	2930	2930	2930				
	PK [kW]	6,13	7,51	8,47	9,84	11,1	11,9	12,7	6,7	8,02	10,3	11,6	13,5	15,3	16,3	17,3				
	P _{mot} [kW]	7,5	11	11	11	15	15	15	7,5	11	15	15	18,5	18,5	18,5	22				
	Motor size	132 S	160M	160M	160M	160 M	160 M	160 M	132 S	160 M	160 M	160 M	160 L	160 L	160 L	180 M				
	Lp(A)[dB] _{w/o.H./w.H.}	88/67	89/68	90/68	92/69	92/70	92/70	92/70	79/71	80/69	84/67	84/68	88/69	89/69	92/68	94/69				
800	\dot{V}_1 [m ³ /min]									4,2	5,93	6,91	7,98	9,46	10,2	10,7				
	t_2 [°C]									123	113	109	106	103	102	101				
	nG [rpm]									2310	2930	3280	3660	4190	4440	4650				
	nM [rpm]									2930	2930	2930	2930	2930	2930	2930				
	PK [kW]									9,1	11,6	13,1	14,8	17,2	18,4	19,5				
	P _{mot} [kW]									11	15	15	18,5	22	22	22				
	Motor size									160 M	160 M	160 M	160 L	180 M	180 M	180 M				
	Lp(A)[dB] _{w/o.H./w.H.}									81/69	84/67	85/69	87/60	90/70	92/67	93/68				
900	\dot{V}_1 [m ³ /min]									6,77	7,84	9,32	10,1	10,7						
	t_2 [°C]									122	118	115	113	112						
	nG [rpm]									3280	3660	4190	4460	4680						
	nM [rpm]									2930	2930	2930	2945	2945						
	PK [kW]									14,6	16,5	19,2	20,6	21,8						
	P _{mot} [kW]									18,5	18,5	22	30	30						
	Motor size									160 L	160 L	180 M	200 L	200 L						
	Lp(A)[dB] _{w/o.H./w.H.}									85/69	88/70	89/70	92/69	93/69						
1000	\dot{V}_1 [m ³ /min]									7,71	8,72	9,95	10,6							
	t_2 [°C]									131	128	125	124							
	nG [rpm]									3660	4020	4460	4680							
	nM [rpm]									2930	2945	2945	2945							
	PK [kW]									18,2	20,2	22,7	24							
	P _{mot} [kW]									22	30	30	30							
	Motor size									180 M	200 L	200 L	200 L							
	Lp(A)[dB] _{w/o.H./w.H.}									89/70	89/70	92/70	93/72							

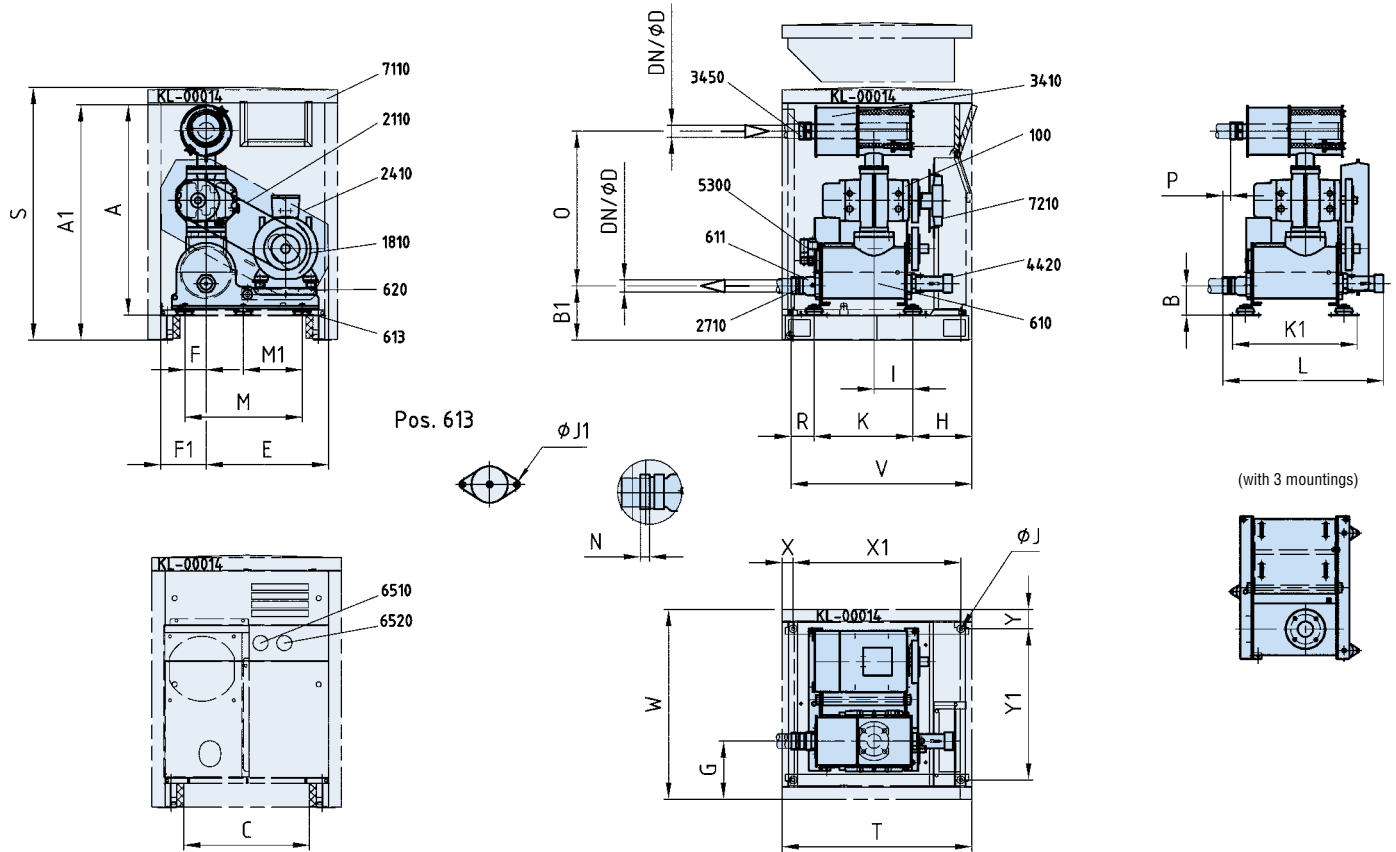
Δp mbar	Blower size	GM 15 L / DN 100										GM 25 S / DN 125									
300	\dot{V}_1 [m³/min]	3,95	5,84	7,99	10,1	11,6	13,6	15,4	16,4	17,3	6,18	8,69	11,1	14,5	16,6	18,7	20,6	22,7	24,2		
	t_2 [°C]	58	54	51	50	49	49	48	48	48	53	51	50	48	48	48	47	47	47		
	nG [rpm]	1435	1890	2410	2930	3290	3760	4190	4440	4650	1445	1890	2310	2930	3290	3660	4010	4370	4650		
	nM [rpm]	2870	2890	2890	2930	2930	2930	2930	2930	2930	2890	2890	2930	2930	2930	2930	2930	2930	2930		
	Pk [kW]	3,26	4,34	5,64	7,04	8,07	9,52	10,9	11,8	12,6	4,46	5,86	7,3	9,64	11,1	12,8	14,4	16,2	17,7		
	P _{mot} [kW]	4	5,5	7,5	11	11	11	15	15	15	5,5	7,5	11	11	15	15	18,5	18,5	22		
	Motor size	112 M	132 S	132 S	160 M	160 M	160 M	160 M	160 M	160 M	132 S	132 S	160 M	160 M	160 M	160 M	160 L	160 L	180 M		
	Lp(A)[dB] _{w/o.H./w.H.}	83/69	84/<65	86/<65	88/<65	87/65	89/66	91/67	91/68	91/69	81/66	85/66	87/70	92/69	92/69	93/69	92/69	94/71	96/72		
	400	\dot{V}_1 [m³/min]	3,69	5,53	7,27	9,84	11,3	13,3	15,1	16,1	17	5,88	8,56	10,8	14,2	16,3	18,4	20,3	22,5	24,1	
t_2 [°C]		74	67	64	61	60	59	59	58	58	66	62	60	59	58	58	57	57	57		
nG [rpm]		1445	1890	2310	2930	3290	3760	4190	4440	4650	1445	1920	2310	2930	3290	3660	4010	4400	4680		
nM [rpm]		2890	2890	2930	2930	2930	2930	2930	2930	2930	2890	2930	2930	2930	2930	2930	2930	2945	2950		
Pk [kW]		4,28	5,64	6,97	9,06	10,3	12,1	13,8	14,9	15,8	5,82	7,76	9,47	12,4	14,2	16,2	18,2	20,5	22,2		
P _{mot} [kW]		5,5	7,5	11	11	15	15	18,5	18,5	18,5	7,5	11	11	15	18,5	18,5	22	30	30		
Motor size		132 S	132 S	160 M	160 M	160 M	160 M	160 L	160 L	160 L	132 S	160 M	160 M	160 M	160 L	160 L	180 M	200 L	200 L		
Lp(A)[dB] _{w/o.H./w.H.}		83/68	85/<65	86/<65	88/<65	87/<65	88/67	92/67	92/69	94/71	83/67	86/67	87/71	92/69	93/69	93/70	93/70	95/71	98/72		
500		\dot{V}_1 [m³/min]	3,42	5,38	7	9,57	11,1	12,6	14	15,8	16,7	5,73	8,29	10,5	14	16	18,1	20,2	22,3	23,8	
	t_2 [°C]	93	82	77	73	72	70	69	69	68	80	75	72	69	68	68	67	67	66		
	nG [rpm]	1445	1920	2310	2930	3290	3660	4010	4440	4650	1465	1920	2310	2930	3290	3660	4030	4400	4680		
	nM [rpm]	2890	2930	2930	2930	2930	2930	2930	2930	2930	2930	2930	2930	2930	2930	2945	2945	2945	2950		
	Pk [kW]	5,28	7,06	8,57	11,1	12,6	14,3	15,9	18	19	7,27	9,56	11,6	15,1	17,3	19,6	22,1	24,6	26,6		
	P _{mot} [kW]	7,5	11	11	15	15	18,5	18,5	22	22	11	11	15	18,5	22	22	30	30	30		
	Motor size	132 S	160 M	160 M	160 M	160 M	160 L	160 L	180 M	180 M	160 M	160 M	160 M	160 L	180 M	180 M	200 L	200 L	200 L		
	Lp(A)[dB] _{w/o.H./w.H.}	84/67	87/<65	88/<65	90/<65	88/<65	88/67	91/68	94/70	96/72	85/67	88/68	88/71	93/69	93/70	94/71	94/71	97/72	99/72		
	600	\dot{V}_1 [m³/min]	3,17	5,14	6,75	9,32	10,8	12,3	14,5	15,7	16,6	5,49	8,05	10,2	13,7	15,9	18	19,9	22	23,6	
t_2 [°C]		115	98	91	85	83	82	80	79	79	95	87	84	80	79	78	77	77	76		
nG [rpm]		1445	1920	2310	2930	3290	3660	4190	4460	4680	1465	1920	2310	2930	3310	3680	4030	4400	4680		
nM [rpm]		2890	2930	2930	2930	2930	2930	2930	2945	2945	2930	2930	2930	2930	2945	2945	2945	2950	2950		
Pk [kW]		6,28	8,38	10,2	13,1	14,9	16,8	19,6	21,1	22,4	8,65	11,4	13,8	17,9	20,5	23,2	25,8	28,7	31		
P _{mot} [kW]		7,5	11	15	15	18,5	22	22	30	30	11	15	18,5	22	30	30	30	37	37		
Motor size		132 S	160 M	160 M	160 M	160 L	180 M	180 M	200 L	200 L	160 M	160 M	160 L	180 M	200 L	200 L	200 L	200 L	200 L		
Lp(A)[dB] _{w/o.H./w.H.}		86/68	88/<65	88/<65	89/<65	88/66	88/68	92/68	95/70	97/72	86/69	89/69	89/71	93/70	94/71	95/72	96/72	98/72	100/73		
700		\dot{V}_1 [m³/min]	4,91	6,53	9,1	10,6	12,1	13,6	15,4	16,3	5,27	7,83	10	13,6	15,7	17,7	20,1	21,8	23,3		
	t_2 [°C]	115	106	98	95	93	92	90	89	112	101	96	91	90	88	87	87	86			
	nG [rpm]	1920	2310	2930	3290	3660	4030	4460	4680	1465	1920	2310	2945	3310	3680	4100	4400	4670			
	nM [rpm]	2930	2930	2930	2930	2930	2945	2945	2945	2930	2930	2930	2945	2945	2945	2950	2950	2940			
	Pk [kW]	9,71	11,8	15,1	17,2	19,3	21,5	24,2	25,6	10	13,2	16	20,8	23,6	26,7	30,2	32,9	35,3			
	P _{mot} [kW]	11	15	18,5	22	22	30	30	30	15	15	18,5	30	30	30	37	37	45			
	Motor size	160 M	160 M	160 L	180 M	180 M	200 L	200 L	200 L	160 M	160 M	160 L	200 L	200 L	200 L	200 L	200 L	225 M			
	Lp(A)[dB] _{w/o.H./w.H.}	88/<65	88/<65	89/<65	89/67	89/70	90/68	96/70	99/72	87/69	90/69	91/72	93/70	94/70	96/71	97/71	98/72	100/73			
	800	\dot{V}_1 [m³/min]									5,06	7,68	9,8	13,4	15,4	17,6	19,8	21,5	23,1		
t_2 [°C]										129	115	109	103	101	99	98	97	96			
nG [rpm]										1465	1930	2310	2945	3310	3690	4080	4390	4670			
nM [rpm]										2930	2930	2930	2945	2945	2950	2940	2940	2940			
Pk [kW]										11,4	15	18,1	23,5	26,7	30,2	33,9	36,9	39,7			
P _{mot} [kW]										15	18,5	22	30	30	37	45	45	45			
Motor size										160 M	160 L	180 M	200 L	200 L	200 L	225 M	225 M	225 M			
Lp(A)[dB] _{w/o.H./w.H.}										88/70	91/70	92/73	94/71	95/70	96/70	97/70	99/71	101/73			
900		\dot{V}_1 [m³/min]									7,49	9,68	13,2	15,3	17,3	19,6	21,4	23			
	t_2 [°C]									129	122	115	112	110	108	107	106				
	nG [rpm]									1930	2320	2945	3320	3680	4080	4410	4690				
	nM [rpm]									2930	2945	2945	2950	2950	2940	2960	2960				
	Pk [kW]									16,9	20,4	26,3	30	33,6	37,7	41,2	44,3				
	P _{mot} [kW]									22	30	30	37	37	45	55	55				
	Motor size									180 M	200 L	200 L	200 L	200 L	225 M	250 M	250 M				
	Lp(A)[dB] _{w/o.H./w.H.}									92/70	94/73	95/71	96/71	97/71	97/72	99/72	101/73				
	1000	\dot{V}_1 [m³/min]												13	15,1	17,2	19,5	21,3	22,8		
t_2 [°C]													127	123	121	119	118	117			
nG [rpm]													2950	3320	3680	4100	4410	4690			
nM [rpm]													2950	2950	2940	2960	2960	2960			
Pk [kW]													29,1	33,1	37	41,8	45,4	48,7			
P _{mot} [kW]													37	37	45	55	55	55			
Motor size													200 L	200 L	225 M	250 M	250 M	250 M			
Lp(A)[dB] _{w/o.H./w.H.}													97/71	97/71	98/72	98/73	100/73	102/73			

Δp mbar	Blower size	GM 30 L / DN 150										GM 35 S / DN 150							
300	\dot{V}_1 [m³/min]	8,68	11,7	15,6	20,5	23,3	26,3	29,2	32,7	34,7	14	18,2	23,6	27,1	30,6	34,6	38,8	40,3	
	t_2 [°C]	53	51	50	49	48	48	48	47	47	50	49	48	48	47	47	47	47	
	nG [rpm]	1445	1830	2310	2930	3280	3660	4020	4460	4710	1490	1860	2330	2640	2945	3300	3670	3800	
	nM [rpm]	2890	2930	2930	2930	2930	2930	2945	2945	2945	2930	2930	2930	2930	2945	2945	2950	2950	
	Pk [kW]	6,38	8,13	10,5	13,7	15,7	17,9	20,2	23,1	24,8	9,56	12,2	15,8	18,4	21,2	24,9	29,1	30,7	
	P _{mot} [kW]	7,5	11	15	18,5	18,5	22	30	30	30	11	15	18,5	22	30	30	37	37	
	Motor size	132 S	160 M	160 M	160 M	160 L	180 M	200 L	200 L	200 L	160 M	160 M	160 L	180 M	200 L	200 L	200 L	200 L	
	Lp(A)[dB] _{w/o.H./w.H.}	84/71	86/70	88/73	91/72	93/73	95/74	96/74	97/74	97/75	86/67	90/68	92/72	92/71	91/71	92/71	96/71	99/71	
400	\dot{V}_1 [m³/min]	8,41	12	15,1	20,1	23	26	28,7	32,3	34,3	13,6	17,8	23,2	26,4	30,1	34,2	38,2	39,8	
	t_2 [°C]	66	63	61	59	58	58	57	57	57	62	60	58	58	57	57	56	56	
	nG [rpm]	1465	1920	2310	2930	3300	3680	4020	4470	4720	1490	1860	2340	2620	2945	3300	3660	3800	
	nM [rpm]	2930	2930	2930	2930	2945	2945	2945	2950	2950	2930	2930	2945	2945	2945	2950	2940	2940	
	Pk [kW]	8,41	11,1	13,5	17,6	20,2	22,9	25,5	29,1	31,2	12,4	15,7	20,3	23,2	26,8	31,1	35,9	37,9	
	P _{mot} [kW]	11	15	18,5	22	30	30	30	37	37	15	18,5	30	30	30	37	45	45	
	Motor size	160 M	160 M	160 L	180 M	200 L	200 L	200 L	200 L	200 L	160 M	160 L	200 L	200 L	200 L	200 L	225 M	225 M	
	Lp(A)[dB] _{w/o.H./w.H.}	85/71	88/71	89/74	91/72	93/72	95/73	96/73	98/74	99/75	87/68	90/69	93/73	92/72	92/71	94/71	97/72	99/72	
500	\dot{V}_1 [m³/min]	8,02	11,7	14,7	19,8	22,6	25,7	28,4	31,3	33,8	12,9	17,4	22,9	26	29,8	33,6	38,1	39,4	
	t_2 [°C]	81	75	72	70	69	68	67	67	66	74	71	69	68	67	66	66	66	
	nG [rpm]	1465	1930	2310	2945	3300	3690	4020	4390	4700	1465	1860	2340	2620	2950	3290	3680	3800	
	nM [rpm]	2930	2930	2930	2945	2945	2950	2950	2940	2940	2930	2930	2945	2950	2950	2940	2955	2955	
	Pk [kW]	10,4	13,7	16,6	21,6	24,6	27,9	30,9	34,3	37,2	14,9	19,2	24,7	28,2	32,5	37,2	43,2	45,1	
	P _{mot} [kW]	15	18,5	22	30	30	37	37	45	45	18,5	22	30	37	37	45	55	55	
	Motor size	160 M	160 L	180 M	200 L	200 L	200 L	200 L	225 M	225 M	160 L	180 M	200 L	200 L	200 L	225 M	250 M	250 M	
	Lp(A)[dB] _{w/o.H./w.H.}	86/72	90/72	90/75	91/73	93/72	95/72	97/72	99/73	100/75	87/69	91/70	94/73	93/72	93/72	97/72	98/73	100/73	
600	\dot{V}_1 [m³/min]	7,68	10,6	14,6	19,5	22,3	25,4	28,5	31	33,7	12,6	16,8	22,5	25,7	29,3	33,5	37,9	39,1	
	t_2 [°C]	96	89	84	81	79	78	77	77	76	87	82	79	78	77	76	76	75	
	nG [rpm]	1465	1830	2330	2945	3300	3690	4080	4390	4730	1465	1840	2340	2620	2940	3310	3700	3800	
	nM [rpm]	2930	2930	2950	2945	2950	2950	2940	2940	2960	2930	2945	2950	2950	2940	2955	2970	2970	
	Pk [kW]	12,3	15,4	19,8	25,5	28,9	32,8	36,8	40,1	43,8	17,7	22,5	29,2	33,1	37,9	43,8	50,5	52,3	
	P _{mot} [kW]	15	18,5	30	30	37	37	45	45	55	22	30	37	37	45	55	75	75	
	Motor size	160 M	160 L	200 L	200 L	200 L	200 L	225 M	225 M	250 M	180 M	200 L	200 L	200 L	225 M	250 M	280 S	280 S	
	Lp(A)[dB] _{w/o.H./w.H.}	86/72	88/72	90/75	92/73	94/73	97/73	99/74	99/74	100/75	88/71	91/70	95/73	94/72	93/72	99/73	99/74	100/74	
700	\dot{V}_1 [m³/min]	7,36	10,3	14,2	19,2	22	24,8	28,3	30,8	33,6	12,3	16,5	22,2	25,7	29,2	33,4	37,6	38,8	
	t_2 [°C]	113	103	96	92	90	89	87	87	86	100	94	90	89	87	86	85	85	
	nG [rpm]	1465	1830	2330	2950	3300	3660	4100	4410	4760	1475	1840	2340	2650	2955	3330	3700	3800	
	nM [rpm]	2930	2930	2945	2950	2950	2940	2955	2960	2970	2945	2945	2950	2940	2955	2970	2970	2970	
	Pk [kW]	14,2	17,8	22,9	29,5	33,3	37,4	42,5	46,2	50,5	20,6	26	33,6	38,6	43,7	50,4	57,5	59,5	
	P _{mot} [kW]	18,5	22	30	37	37	45	55	55	75	30	30	37	45	55	75	75	75	
	Motor size	160 L	180 M	200 L	200 L	200 L	225 M	250 M	250 M	280 S	200 L	200 L	200 L	225 M	250 M	280 S	280 S	280 S	
	Lp(A)[dB] _{w/o.H./w.H.}	86/73	89/72	90/75	94/73	96/73	101/74	102/75	99/75	100/75	88/71	91/71	94/74	95/73	96/72	100/72	100/73	101/73	
800	\dot{V}_1 [m³/min]										12	16,2	21,7	25,5	28,8	33,1	35,3	38,4	
	t_2 [°C]										113	106	101	99	98	97	96	95	
	nG [rpm]										1475	1840	2330	2660	2955	3330	3520	3800	
	nM [rpm]										2945	2950	2940	2960	2955	2970	2970	2970	
	Pk [kW]										23,4	29,4	37,8	43,8	49,3	56,7	60,7	66,7	
	P _{mot} [kW]										30	37	45	55	55	75	75	75	
	Motor size										200 L	200 L	225 M	250 M	250 M	280 S	280 S	280 S	
	Lp(A)[dB] _{w/o.H./w.H.}										89/72	91/72	94/75	96/73	99/73	101/72	101/72	102/72	
900	\dot{V}_1 [m³/min]										11,8	15,9	21,7	24,9	28,7	32,8	37	38,2	
	t_2 [°C]										127	119	113	110	108	107	106	105	
	nG [rpm]										1475	1840	2350	2630	2970	3330	3700	3800	
	nM [rpm]										2945	2950	2955	2955	2970	2970	2970	2970	
	Pk [kW]										26,2	32,9	42,6	48,2	55,2	63	71,5	73,9	
	P _{mot} [kW]										30	37	55	55	75	75	90	90	
	Motor size										200 L	200 L	250 M	250 M	280 S	280 S	280 M2	280 M2	
	Lp(A)[dB] _{w/o.H./w.H.}										89/72	92/72	95/75	96/73	99/73	101/73	102/73	103/73	
1000	\dot{V}_1 [m³/min]										15,6	21,4	24,7	28,5	30,3	36,8	37,9		
	t_2 [°C]										132	124	122	119	118	116	115		
	nG [rpm]										1840	2350	2640	2970	3130	3700	3800		
	nM [rpm]										2940	2955	2970	2970	2970	2970	2970		
	Pk [kW]										36,4	47,1	53,4	60,9	64,6	78,5	81,1		
	P _{mot} [kW]										45	55	75	75	75	90	90		
	Motor size										225 M	250 M	280 S	280 S	280 S	280 M2	280 M2		
	Lp(A)[dB] _{w/o.H./w.H.}										92/72	95/75	97/74	100/73	101/73	102/74	104/75		

Δp mbar	Blower size	GM 50 L / DN 150								GM 50 L / DN 200			GM 60 S / DN 200							
300	V_1 [m ³ /min]	19,7	22,5	26	33,7	38,2	41,1	43,5	49,1	52,2	55,1	20,1	26,9	30,9	35,7	40,1	45,9	52,4	55,7	59
	t_2 [°C]	50	49	49	48	48	47	47	47	47	47	51	50	49	49	48	48	47	47	47
	nG [rpm]	1465	1640	1860	2340	2620	2800	2950	3300	3490	3670	1150	1465	1650	1870	2070	2340	2640	2790	2940
	nM [rpm]	2930	2930	2930	2945	2945	2950	2950	2950	2940	2940	2930	2930	2945	2945	2945	2950	2940	2940	2940
	P _k [kW]	13,2	15	17,5	23,4	27,2	29,8	32,1	32,8	35,4	38	13,4	17,4	19,9	23	26	30,1	34,9	37,4	40
	P _{mot} [kW]	15	18,5	22	30	30	37	37	37	45	45	15	22	30	30	30	37	45	45	45
	Motor size	160 M	160 L	180 M	200 L	200 L	200 L	200 L	200 L	225 M	225 M	160 M	180 M	200 L	200 L	200 L	200 L	225 M	225 M	225 M
	Lp(A)[dB] _{w/o.H./w.H.}	87/71	87/70	90/70	92/70	91/70	92/69	92/70	98/71	98/72	100/74	86/73	89/73	93/73	97/74	96/74	97/75	98/75	99/76	99/76
400	V_1 [m ³ /min]	19,1	21,9	25,1	33,2	38,1	40,4	42,8	48,7	51,4	54,8	19,3	26,4	30,2	35	39,7	45	52,1	55,2	58,8
	t_2 [°C]	61	60	59	58	57	57	57	56	56	56	63	61	60	59	58	58	57	57	57
	nG [rpm]	1465	1640	1840	2340	2650	2790	2940	3310	3480	3690	1150	1475	1650	1870	2090	2330	2660	2800	2970
	nM [rpm]	2930	2930	2945	2950	2940	2940	2940	2955	2955	2960	2930	2945	2945	2950	2940	2940	2955	2955	2970
	P _k [kW]	17,1	19,4	22,2	29,6	34,7	37,2	39,8	41,8	44,6	48,1	17,5	22,9	25,9	29,8	33,9	38,4	44,9	47,7	51,2
	P _{mot} [kW]	22	22	30	37	45	45	45	55	55	55	22	30	30	37	45	45	55	55	75
	Motor size	180 M	180 M	200 L	200 L	225 M	225 M	225 M	250 M	250 M	250 M	180 M	200 L	200 L	200 L	225 M	225 M	250 M	250 M	280 S
	Lp(A)[dB] _{w/o.H./w.H.}	87/69	88/69	91/70	92/71	92/71	92/71	92/70	98/71	99/73	100/75	87/74	90/73	93/73	97/74	97/74	97/75	99/76	99/76	101/76
500	V_1 [m ³ /min]	18,8	21,6	24,6	32,5	37,8	40	42,5	48,4	51,2	54,6	18,9	25,7	29,5	34,3	39,3	44,5	51,5	54,9	58,2
	t_2 [°C]	73	71	70	68	67	67	67	66	66	66	76	72	71	70	69	68	67	67	66
	nG [rpm]	1475	1650	1840	2330	2660	2800	2955	3320	3500	3710	1160	1475	1650	1870	2100	2340	2660	2820	2970
	nM [rpm]	2945	2945	2945	2940	2955	2955	2955	2970	2970	2970	2945	2950	2950	2940	2955	2955	2970	2970	2970
	P _k [kW]	21,2	24	27,1	35,7	42	44,8	48	50,9	54,3	58,4	21,9	28,2	31,9	36,6	41,6	47,1	54,5	58,3	62
	P _{mot} [kW]	30	30	30	45	55	55	55	75	75	75	30	37	37	45	55	55	75	75	75
	Motor size	200 L	200 L	200 L	225 M	250 M	250 M	250 M	280 S	280 S	280 S	200 L	200 L	200 L	225 M	250 M	250 M	280 S	280 S	280 S
	Lp(A)[dB] _{w/o.H./w.H.}	88/68	90/69	92/70	93/74	92/74	92/72	93/71	99/72	99/73	101/76	88/74	91/74	93/74	97/74	97/74	97/75	100/76	100/76	102/77
600	V_1 [m ³ /min]	18,3	21,1	24,1	32,3	37,3	39,9	42,3	47,9	50,8	54,1	18,3	25,1	28,9	33,7	38,7	44,3	50,9	53,2	57,4
	t_2 [°C]	85	83	81	79	77	77	77	76	76	75	89	84	82	80	79	78	77	77	76
	nG [rpm]	1475	1650	1840	2350	2660	2820	2970	3320	3500	3710	1160	1475	1650	1870	2100	2360	2660	2770	2960
	nM [rpm]	2945	2950	2950	2955	2955	2970	2970	2970	2970	2970	2945	2950	2940	2955	2955	2970	2970	2970	1480
	P _k [kW]	25,2	28,4	32	42,3	49,1	52,8	56,3	59,7	63,6	68,3	26,1	33,6	37,8	43,3	49,2	56,1	64,1	67,2	72,5
	P _{mot} [kW]	30	37	37	55	55	75	75	75	75	90	30	37	45	55	55	75	75	75	90
	Motor size	200 L	200 L	200 L	250 M	250 M	280 S	280 S	280 S	280 S	280 M	200 L	200 L	225 M	250 M	250 M	280 S	280 S	280 S	280 M
	Lp(A)[dB] _{w/o.H./w.H.}	88/69	90/69	92/70	94/75	93/74	94/74	95/73	100/72	101/74	103/76	90/75	92/75	94/74	97/74	97/75	98/75	100/76	101/77	103/78
700	V_1 [m ³ /min]	17,9	20,7	23,7	31,7	36,6	39,4	41,8	44,7	50,3	53,7	17,7	24,5	28,2	33,4	38,4	43,8	49,9	52,5	57,2
	t_2 [°C]	98	95	93	89	88	87	87	86	85	85	103	96	94	92	90	89	87	87	86
	nG [rpm]	1475	1650	1840	2340	2640	2820	2970	3150	3500	3710	1160	1470	1640	1880	2110	2360	2640	2760	2980
	nM [rpm]	2950	2950	2940	2955	2970	2970	2970	2970	2970	2970	2950	2940	2955	2970	2970	2970	1480	1480	1485
	P _k [kW]	29,1	32,8	36,9	48,4	55,7	60,3	64,2	64,6	73	78,2	30,3	38,8	43,5	50,4	57,1	64,6	73,2	76,9	83,8
	P _{mot} [kW]	37	37	45	55	75	75	75	75	90	90	37	45	55	75	75	75	90	90	110
	Motor size	200 L	200 L	225 M	250 M	280 S	280 S	280 S	280 S	280 M	280 M	200 L	225 M	250 M	280 S	280 S	280 S	280 M	280 M	315 S
	Lp(A)[dB] _{w/o.H./w.H.}	89/69	91/69	92/70	95/75	95/75	95/75	97/75	99/75	102/74	105/76	91/75	94/74	95/74	98/75	98/75	99/77	100/77	102/77	103/78
800	V_1 [m ³ /min]											17,2	24,1	27,6	32,9	37,8	43,1	49,6	52,2	56,7
	t_2 [°C]											118	109	106	103	101	99	98	97	96
	nG [rpm]											1160	1475	1640	1880	2110	2350	2650	2770	2980
	nM [rpm]											2940	2955	2955	2970	2970	1480	1485	1485	1485
	P _k [kW]											34,5	44,2	49,5	57,2	64,8	72,8	83,1	87,2	94,6
	P _{mot} [kW]											45	55	55	75	75	90	110	110	110
	Motor size											225 M	250 M	250 M	280 S	280 S	280 M	315 S	315 S	315 S
	Lp(A)[dB] _{w/o.H./w.H.}											92/75	98/74	98/74	101/75	100/76	101/78	102/78	103/78	104/78
900	V_1 [m ³ /min]											16,7	23,6	27,4	32,4	37,4	42,4	49,1	51,7	56,2
	t_2 [°C]											133	122	119	115	112	110	108	108	107
	nG [rpm]											1160	1475	1650	1880	2110	2340	2650	2770	2980
	nM [rpm]											2940	2955	2970	2970	1480	1480	1485	1485	1485
	P _k [kW]											38,7	49,6	55,8	64	72,4	80,9	92,6	97,2	105
	P _{mot} [kW]											45	55	75	75	90	90	110	110	132
	Motor size											225 M	250 M	280 S	280 S	280 M	280 M	315 S	315 S	315 M
	Lp(A)[dB] _{w/o.H./w.H.}											92/75	97/74	99/75	101/75	101/76	100/77	102/78	103/78	104/78
1000	V_1 [m ³ /min]											23,3	26,9	31,9	36,3	42,1	48,6	51,2	55,8	
	t_2 [°C]											135	131	127	124	121	119	118	117	
	nG [rpm]											1485	1650	1880	2080	2350	2650	2770	2980	
	nM [rpm]											2970	2970	1480	1480	1485	1485	1485	1485	
	P _k [kW]											55,3	61,7	70,8	78,8	89,8	102	107	116	
	P _{mot} [kW]											75	75	90	90	110	132	132	132	
	Motor size											280 S	280 S	280 M	280 M	315 S	315 M	315 M	315 M	
	Lp(A)[dB] _{w/o.H./w.H.}											98/75	100/76	102/76	101/77	100/78	102/78	103/78	105/78	

Δp mbar	Blower size	GM 80 L / DN 250										GM 90 S / DN 250									
300	\dot{V}_1 [m ³ /min]	22,8	33,1	37,9	46,4	56,2	64,2	73,5	78,7	83,9	33,7	43,8	54,2	58,7	66,6	70,8	80,3	85,7	90,3		
	t_2 [°C]	53	51	50	49	48	48	48	47	47	50	49	48	48	48	48	47	47	47		
	nG [rpm]	975	1310	1465	1740	2060	2320	2620	2790	2960	978	1220	1470	1580	1770	1870	2100	2230	2340		
	nM [rpm]	1460	1465	1465	1470	1470	1475	1480	1480	1480	1465	1465	1470	1470	1475	1475	1480	1480	1480		
	P _k [kW]	15,8	21,7	24,5	29,9	36,7	42,8	50,5	55,2	60,3	21,3	27,1	33,7	36,8	42,6	45,8	53,7	58,4	62,7		
	P _{mot} [kW]	18,5	30	30	37	45	55	75	75	75	30	30	45	45	55	55	75	75	75		
	Motor size	180 M	200 L	200 L	225 S	225 M	250 M	280 S	280 S	280 S	200 L	200 L	225 M	225 M	250 M	250 M	280 S	280 S	280 S		
	Lp(A)[dB] _{w/o.H./w.H.}	86/73	89/75	90/75	94/73	97/75	96/76	97/78	98/78	101/79	88/73	91/74	94/75	94/74	100/75	101/76	100/79	99/78	100/78		
	400	\dot{V}_1 [m ³ /min]	21,7	32,0	36,9	45,2	56,0	63,4	72,7	77,6	82,8	32,8	43,1	53,3	57,7	64,7	70,1	79,3	84,7	89,2	
t_2 [°C]		66	62	61	60	58	58	57	57	57	62	60	58	58	58	57	57	57	56		
nG [rpm]		975	1310	1470	1740	2090	2330	2630	2790	2960	980	1230	1475	1580	1750	1880	2100	2230	2340		
nM [rpm]		1465	1470	1470	1470	1475	1480	1480	1480	1480	1470	1470	1475	1475	1480	1480	1480	1480	1480		
P _k [kW]		20,8	28,4	32,2	38,8	48,1	55,0	64,3	69,6	75,5	28,1	35,9	44,1	47,8	54,1	59,1	68,2	73,9	78,9		
P _{mot} [kW]		30	37	37	45	55	75	75	90	90	37	45	55	55	75	75	90	90	90		
Motor size		200 L	225 S	225 S	225 M	250 M	280 S	280 S	280 M	280 M	225 S	225 M	250 M	250 M	280 S	280 S	280 M	280 M	280 M		
Lp(A)[dB] _{w/o.H./w.H.}		86/73	90/75	92/75	95/74	96/75	96/77	98/78	99/79	102/80	89/74	92/75	95/76	97/75	100/76	101/76	100/79	100/78	100/77		
500		\dot{V}_1 [m ³ /min]	20,7	31,0	35,9	44,3	55,4	62,4	72,0	76,6	82,1	31,8	42,2	52,6	56,3	63,8	69,2	79,2	83,7	90,0	
	t_2 [°C]	81	74	73	71	69	68	67	67	67	74	71	69	68	68	67	67	66	66		
	nG [rpm]	975	1310	1470	1740	2100	2330	2640	2790	2970	980	1230	1480	1570	1750	1880	2120	2230	2380		
	nM [rpm]	1465	1470	1470	1475	1480	1480	1480	1485	1485	1470	1475	1480	1480	1480	1480	1485	1485	1485		
	P _k [kW]	25,8	35,1	39,7	47,8	59,2	67,0	78,2	83,9	91,1	34,9	44,4	54,5	58,3	66,2	72,1	83,7	89,3	97,2		
	P _{mot} [kW]	30	45	45	55	75	75	90	110	110	45	55	75	75	90	90	110	110	110		
	Motor size	200 L	225 M	225 M	250 M	280 S	280 S	280 M	315 S	315 S	225 M	250 M	280 S	280 S	280 S	280 M	315 S	315 S	315 S		
	Lp(A)[dB] _{w/o.H./w.H.}	87/74	92/75	93/75	95/74	95/76	96/77	99/78	101/79	103/80	89/74	92/76	96/77	97/76	101/76	102/76	101/79	100/78	101/77		
	600	\dot{V}_1 [m ³ /min]	20,0	30,1	35,2	43,7	54,5	61,9	72,0	75,7	81,3	31,1	41,4	51,7	55,5	63,0	68,4	78,3	82,9	89,5	
t_2 [°C]		96	87	85	82	80	79	77	77	77	86	82	80	79	78	77	76	76	76		
nG [rpm]		980	1310	1475	1750	2100	2340	2670	2790	2970	982	1230	1480	1570	1750	1880	2120	2230	2390		
nM [rpm]		1470	1475	1475	1480	1480	1480	1485	1485	1485	1475	1480	1480	1480	1480	1485	1485	1485	1485		
P _k [kW]		31,0	41,8	47,4	57,1	70,0	79,3	93,0	98,2	106	41,8	52,9	64,7	69,1	78,3	85,1	98,4	105	114		
P _{mot} [kW]		37	55	55	75	90	90	110	110	132	55	75	75	90	90	110	110	132	132		
Motor size		225 S	250 M	250 M	280 S	280 M	280 M	315 S	315 S	315 M	250 M	280 S	280 S	280 M	280 M	315 S	315 S	315 M	315 M		
Lp(A)[dB] _{w/o.H./w.H.}		89/74	91/75	93/75	95/75	95/76	96/78	99/78	101/79	103/80	90/74	93/77	97/78	98/77	102/76	103/76	101/79	101/78	102/77		
700		\dot{V}_1 [m ³ /min]	19,1	29,3	34,5	42,9	53,6	61,0	71,2	74,9	80,1	30,3	40,6	51,0	54,7	62,6	67,6	77,5	82,1	87,5	
	t_2 [°C]	112	101	97	94	91	89	88	87	87	99	94	91	90	88	88	87	86	86		
	nG [rpm]	980	1310	1480	1750	2100	2340	2670	2790	2960	982	1230	1480	1570	1760	1880	2120	2230	2360		
	nM [rpm]	1470	1475	1480	1480	1480	1485	1485	1485	1480	1475	1480	1480	1480	1485	1485	1485	1480	1480		
	P _k [kW]	36,0	48,6	55,2	66,1	80,8	91,4	107	113	121	48,6	61,4	75,0	80,0	91,0	98,2	113	120	129		
	P _{mot} [kW]	45	55	75	75	90	110	132	132	160	55	75	90	90	110	110	132	160	160		
	Motor size	225 M	250 M	280 S	280 S	280 M	315 S	315 M	315 M	315 M	250 M	280 S	280 M	280 M	315 S	315 S	315 M	315 M	315 M		
	Lp(A)[dB] _{w/o.H./w.H.}	88/75	91/75	93/75	95/76	95/77	97/78	101/79	102/79	104/80	91/75	94/77	98/78	99/77	103/77	104/76	102/78	102/78	103/79		
	800	\dot{V}_1 [m ³ /min]										29,7	39,9	50,4	54,0	61,9	67,3	76,8	81,0	86,8	
t_2 [°C]											112	106	102	101	99	98	97	96	96		
nG [rpm]											985	1230	1485	1570	1760	1890	2120	2220	2360		
nM [rpm]											1480	1480	1485	1485	1485	1485	1480	1480	1480		
P _k [kW]											55,6	69,9	85,5	90,9	103	112	128	135	145		
P _{mot} [kW]											75	90	110	110	132	132	160	160	160		
Motor size											280 S	280 M	315 S	315 S	315 M	315 M	315 M	315 M	315 M		
Lp(A)[dB] _{w/o.H./w.H.}											91/75	95/77	99/78	100/77	104/77	105/77	104/78	103/79	104/81		
900		\dot{V}_1 [m ³ /min]										29,0	39,2	49,8	53,3	61,2	66,6	76,1	80,3	86,1	
	t_2 [°C]										126	118	113	112	110	109	107	106	106		
	nG [rpm]										985	1230	1485	1570	1760	1890	2120	2220	2360		
	nM [rpm]										1480	1480	1485	1485	1485	1480	1480	1485	1485		
	P _k [kW]										62,4	78,4	95,8	102	115	125	142	150	161		
	P _{mot} [kW]										75	90	110	132	132	160	160	200	200		
	Motor size										280 S	280 M	315 S	315 M	315 M	315 M	315 M	315 M	315 M		
	Lp(A)[dB] _{w/o.H./w.H.}										91/75	95/77	98/79	100/78	104/79	105/78	104/78	103/80	104/81		
	1000	\dot{V}_1 [m ³ /min]										38,5	49,1	52,7	60,5	65,9	75,5	79,6	85,5		
t_2 [°C]											131	125	124	121	120	118	117	116			
nG [rpm]											1230	1485	1570	1760	1890	2120	2220	2360			
nM [rpm]											1485	1485	1485	1480	1480	1485	1485	1485			
P _k [kW]											86,9	106	113	128	138	157	166	178			
P _{mot} [kW]											110	132	132	160	160	200	200	200			
Motor size											315 S	315 M	315 M	315 M	315 M	315 M	315 M	315 M			
Lp(A)[dB] _{w/o.H./w.H.}											95/78	98/79	100/79	104/80	105/80	104/80	104/81	104/81			

Dimensions – DELTA BLOWER – GM 3 S



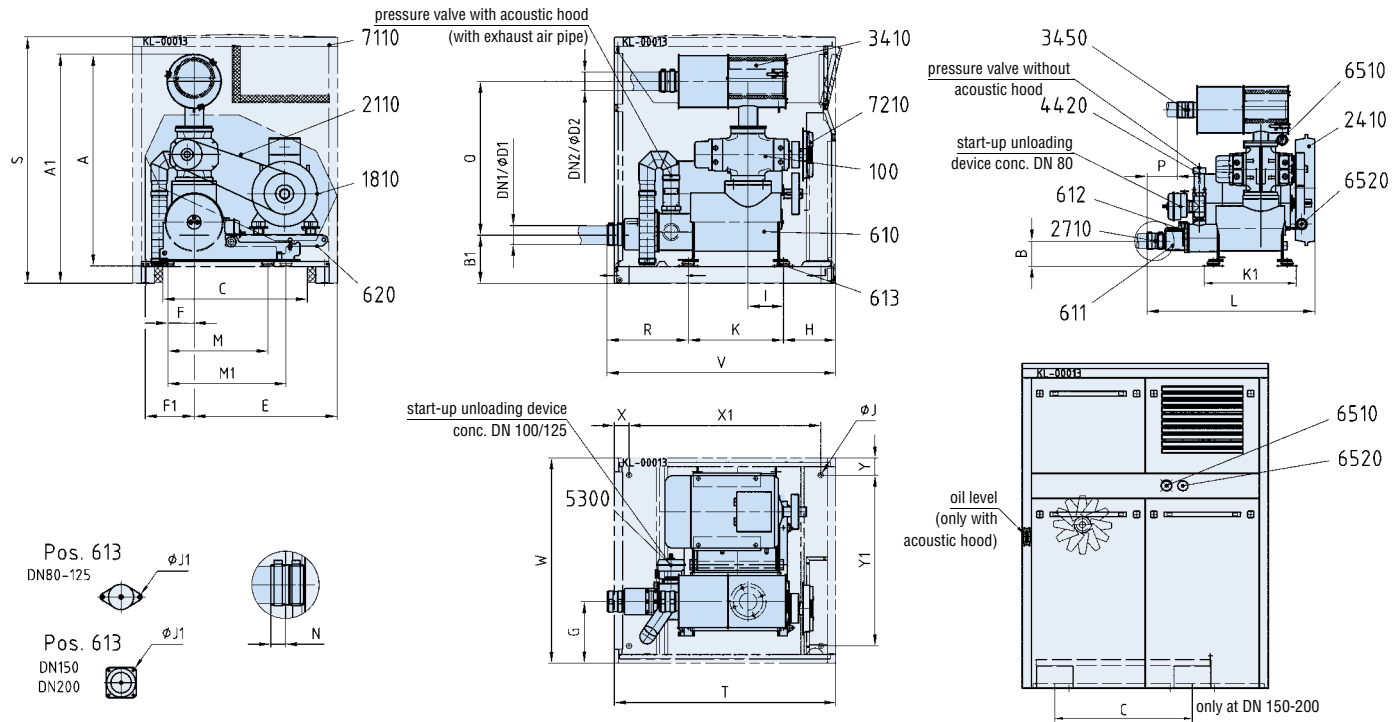
- 100 positive displacement blower
- 610 base frame
- 611 connection housing DS with integrated non-return flap
- 613 anti-vibration mountings
- 620 hinged motor plate
- 1810 electric motor
- 2110 belt drive
- 2410 belt guard (only in case of installation without acoustic hood)
- 2710 flexible pipe connection DS
- 3410 filter silencer
- 3450 flexible pipe connection SS (accessory)
- 4420 pressure relief valve
- 5300 start-up unloading device (accessory)
- 6510 maintenance indicator (accessory)
- 6520 pressure gauge (accessory)
- 7110 acoustic hood
- 7210 fan

type	A	A ₁	B	B ₁	C	DN ₁ / ø D ₁	E	F	F ₁	G	I	H	K	K ₁	L	M	M ₁	N	O	P	R	S	T	V	W	X	X ₁	Y	Y ₁	J	J ₁	Weight without acoustic hood	Weight with acoustic hood
3 S	886	991	123	228	530	DN 50 / 60,3	606	90	192	245	163	249	416	426	678	495	247,5	20	650	34	96	1055	800	761	800	46	707	82	636	15	9	156 kg	220 kg

Dimensions expressed (in mm), not binding

Weight without motor

Dimensions – DELTA BLOWER – GM 4 S to GM 15 L



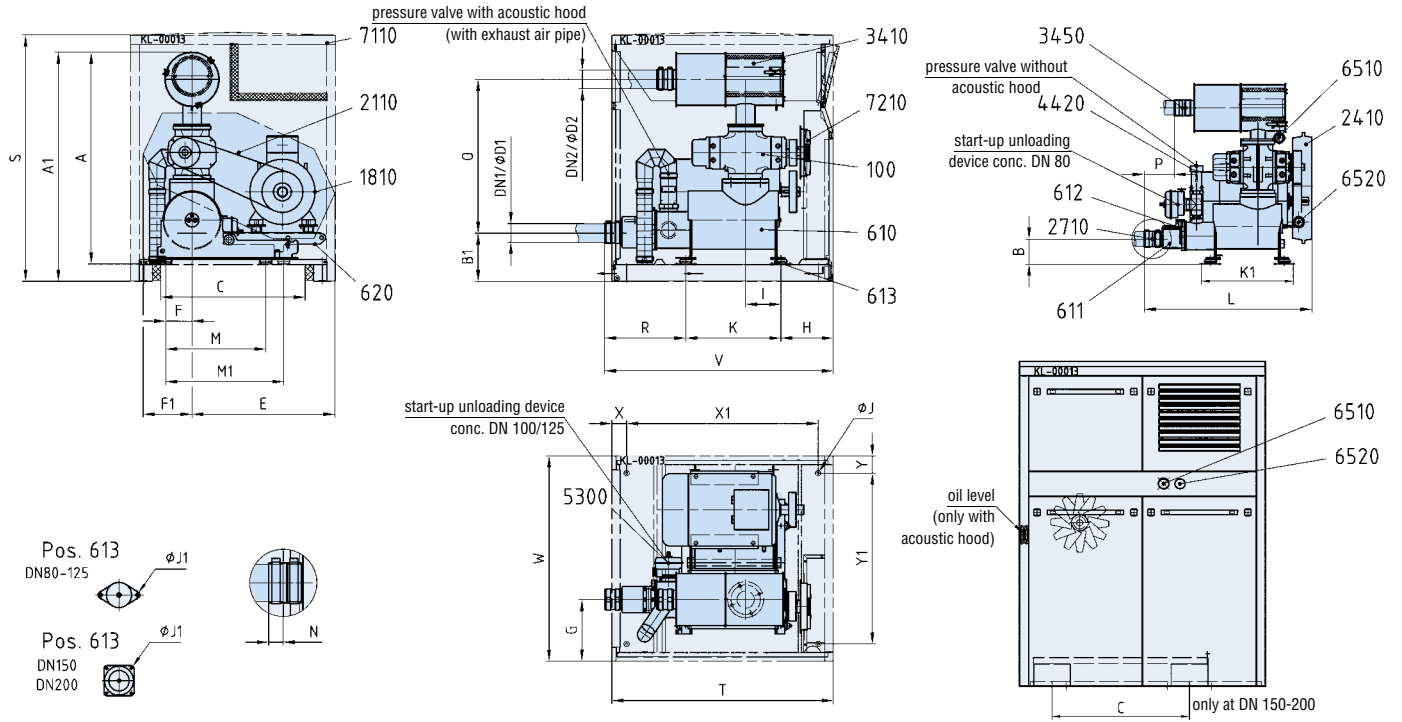
- 100 positive displacement blower
- 610 base frame
- 611 connection housing DS
- 612 integrated non-return flap
- 613 anti-vibration mountings
- 620 hinged motor plate
- 1810 electric motor
- 2110 belt drive
- 2410 belt guard (only in case of installation without acoustic hood)
- 2710 flexible pipe connection DS
- 3410 filter silencer
- 3450 flexible pipe connection SS (accessory)
- 4420 pressure relief valve
- 5300 start-up unloading device (accessory)
- 6510 maintenance indicator (accessory)
- 6520 pressure gauge (accessory)
- 7110 acoustic hood
- 7210 fan

type	A	A ₁	B	B ₁	C	DN ₁ / ø D ₁	DN ₂ / ø D ₂	E	F	F ₁	G	H	I	K	K ₁	L	M	M ₁	N	O	P	R	S	T	V	W	X	X ₁	Y	Y ₁	J	J ₁	Weight without acoustic hood	Weight with acoustic hood
4 S	1101	1206	153	258	555	DN 80 / 88,9	DN 80 / 88,9	637	142	255	258	329	160	450	560	990	558	-	45	800	183	399	1280	1135	1178	925	75	985	105	715	15	9	203 kg	315 kg
7 L	1101	1206	153	258	555	DN 80 / 88,9	DN 80 / 88,9	637	142	255	258	329	160	450	560	1020	558	-	45	800	183	399	1280	1135	1178	925	75	985	105	715	15	9	208 kg	320 kg
10 S	1101	1206	153	258	555	DN 80 / 88,9	DN 80 / 88,9	637	142	255	258	329	160	450	560	1020	558	468	45	800	183	399	1280	1135	1178	925	75	985	105	715	15	9	232 kg	344 kg
10 S	1291	1396	189	294	880	DN 100 / 114,3	DN 100 / 114,3	875	160	295	375	319	215	580	690	1225	610	720	45	936	320	495	1500	1350	1355	1250	90	1170	105	1040	15	9	342 kg	508 kg
15 L	1291	1396	189	294	880	DN 100 / 114,3	DN 100 / 114,3	875	160	295	375	319	215	580	690	1265	610	720	45	936	320	495	1500	1350	1355	1250	90	1170	105	1040	15	9	357 kg	523 kg

Dimensions expressed (in mm), not binding

Weight without motor

Dimensions – DELTA BLOWER – GM 25 S to GM 50 L



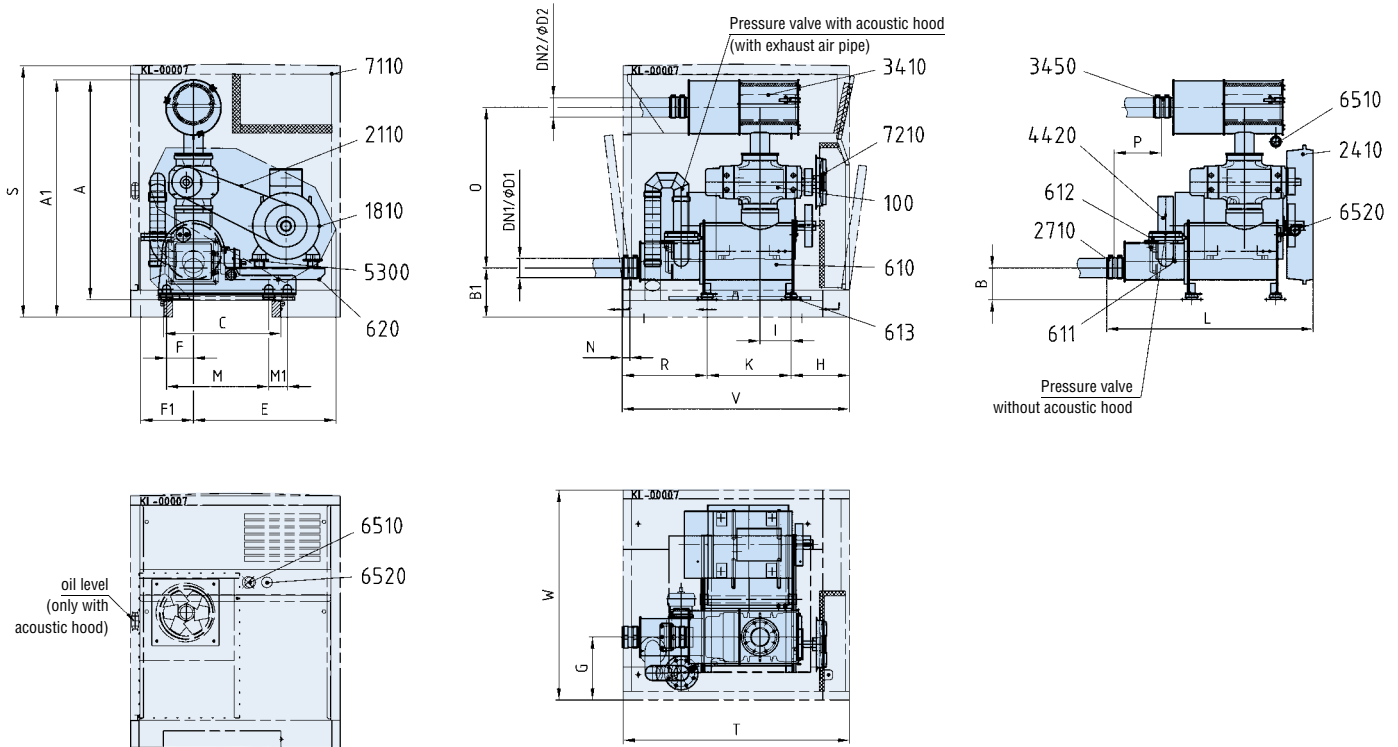
- | | |
|--|--|
| 100 positive displacement blower | 2710 flexible pipe connection DS |
| 610 base frame | 3410 filter silencer |
| 611 connection housing DS | 3450 flexible pipe connection SS (accessory) |
| 612 integrated non-return flap | 4420 pressure relief valve |
| 613 anti-vibration mountings | 5300 start-up unloading device (accessory) |
| 620 hinged motor plate | 6510 maintenance indicator (accessory) |
| 1810 electric motor | 6520 pressure gauge (accessory) |
| 2110 belt drive | 7110 acoustic hood |
| 2410 belt guard (only in case of installation without acoustic hood) | 7210 fan |

type	A	A ₁	B	B ₁	C	DN ₁ / ø D ₁	DN ₂ / ø D ₂	E	F	F ₁	G	H	I	K	K ₁	L	M	M ₁	N	O	P	R	S	T	V	W	X	X ₁	Y	Y ₁	J	J ₁	Weight without acoustic hood	Weight with acoustic hood
25 S	1311	1416	189	294	880	DN 125 / 139,7	DN 125 / 139,7	875	160	295	375	319	215	580	690	1305	610	720	70	956	327	547	1500	1350	1444	1250	90	1170	105	1040	15	9	414 kg	580 kg
30 L	1625	1765	216	356	840	DN 150 / 168,3	DN 150 / 168,3	1065	180	210	435	477	316	761	893	1688	780	-	70	1242	434	728	1900	1800	1956	1500	300	1240	328	887	15	13	660 kg	980 kg
35 S	1665	1805	216	356	840	DN 150 / 168,3	DN 150 / 168,3	1065	180	210	435	477	316	761	893	1688	780	-	70	1242	434	728	1900	1800	1956	1500	300	1240	328	887	15	13	760 kg	1040 kg
50 L	1716	1856	216	356	840	DN 150 / 168,3	DN 200 / 219,1	1065	180	210	435	477	316	761	893	1688	780	-	70	1242	366	728	1900	1800	1956	1500	300	1240	328	887	15	13	810 kg	1130 kg

Dimensions expressed (in mm), not binding

Weight without motor

Dimensions – DELTA BLOWER – GM 50 L to GM 90 S



- 100 positive displacement blower
- 610 base frame
- 611 connection housing DS
- 612 integrated non-return flap
- 613 anti-vibration mountings
- 620 hinged motor plate
- 1810 electric motor
- 2110 belt drive
- 2410 belt guard (only in case of installation without acoustic hood)
- 2710 flexible pipe connection DS
- 3410 filter silencer
- 3450 flexible pipe connection SS (accessory)
- 4420 pressure relief valve
- 5300 start-up unloading device (accessory)
- 6510 maintenance indicator (accessory)
- 6520 pressure gauge (accessory)
- 7110 acoustic hood
- 7210 fan

type	A	A ₁	B	B ₁	C	DN ₁ / ø D ₁	DN ₂ / ø D ₂	E	F	F ₁	G	H	I	K	K ₁	L	M	M ₁	N	O	P	R	S	T	V	W	X	X ₁	Y	Y ₁	J	J ₁	Weight without acoustic hood	Weight with acoustic hood	
50 L	1730	1860	227	357	930	DN 200 / 219,1	DN 200 / 219,1	1175	180	247	525	484	316	761	911	1652	780	-	70	1242	300	663	2111	2055	1907	1700	276	1538	282	1268	15	13	840 kg	1310 kg	
60 S	1830	1960	227	357	930	DN 200 / 219,1	DN 200 / 219,1	1175	180	247	525	484	316	761	911	1652	780	-	70	1242	300	663	2111	2055	1907	1700	276	1538	282	1268	15	13	1000 kg	1460 kg	
80 L	1958	1860	326	456	1340	DN 250 / 273	DN 250 / 273	1118	315	497	600	631	350	760		2087	1000	-	100	1354	487	1032	2308	2200	2423	1900							2720 kg	3570 kg	
90 S	2088	2216	326	456	1340	DN 250 / 273	DN 250 / 273	1118	315	497	600	631	350	760		2087	1000	-	100	1484	487	1032	2308	2200	2423	1900								2780 kg	3630 kg

Dimensions expressed (in mm), not binding

Weight without motor

A good address - everywhere

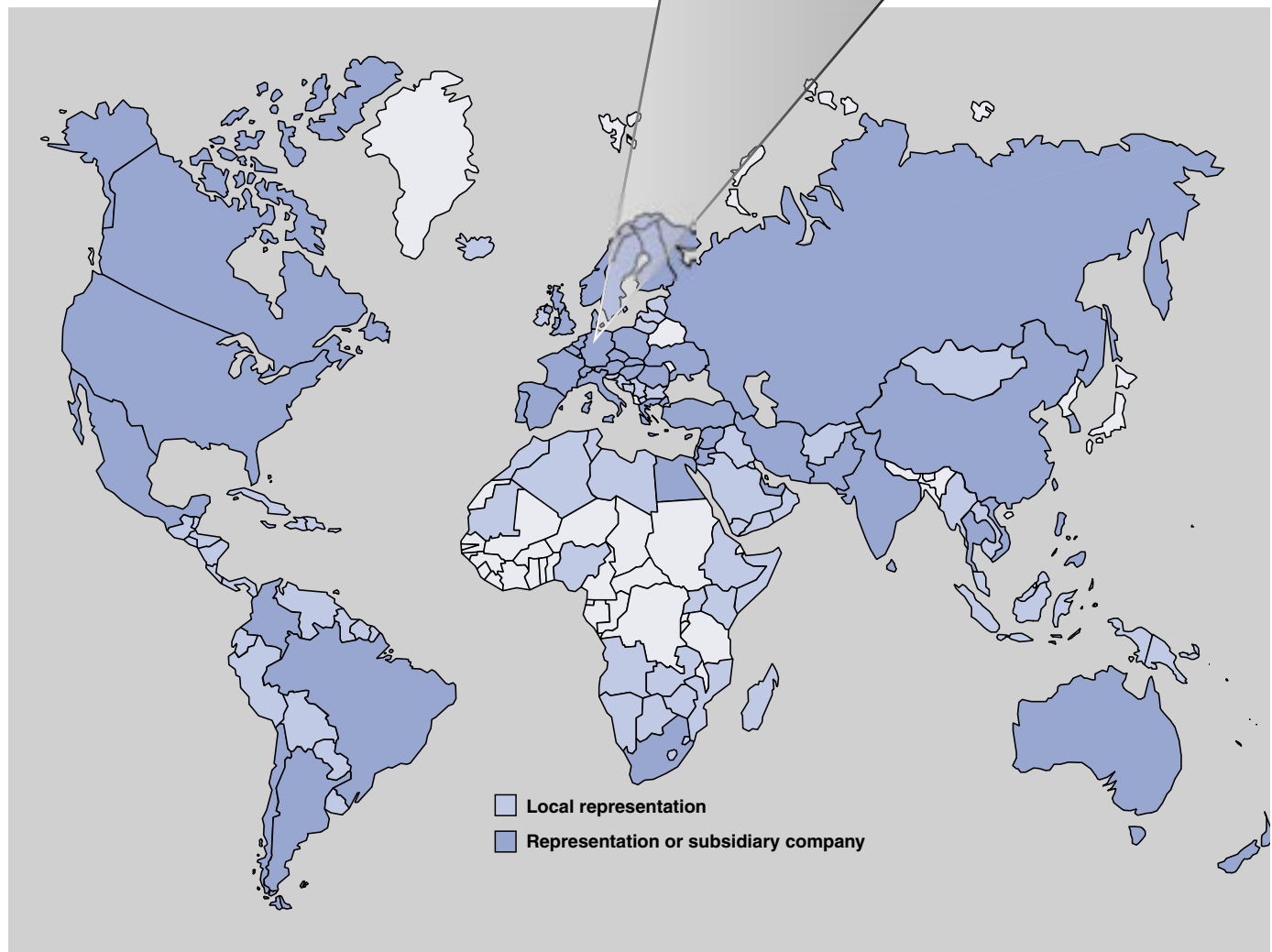
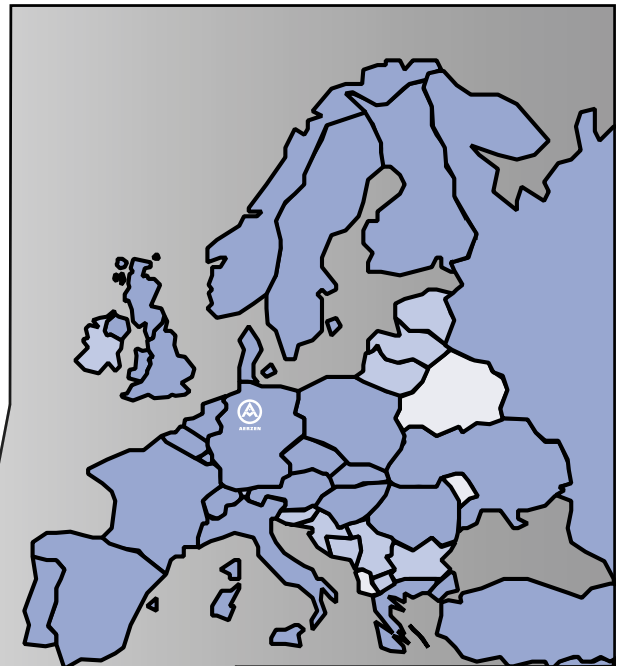
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- 1700 employees worldwide
- more than 30 international subsidiary companies
- representations for more than 100 countries
- more than 100 service technicians on all continents

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