

**AERZEN**

**POSITIVE DISPLACEMENT BLOWERS**

New Aerzen Positive Displacement Blower Units  
Delta Blower Generation 5  
Intake volume flows from 30 m<sup>3</sup>/h to 9.000 m<sup>3</sup>/h

**It's new and individual!**



**AERZENER MASCHINENFABRIK  
GMBH**

# 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“



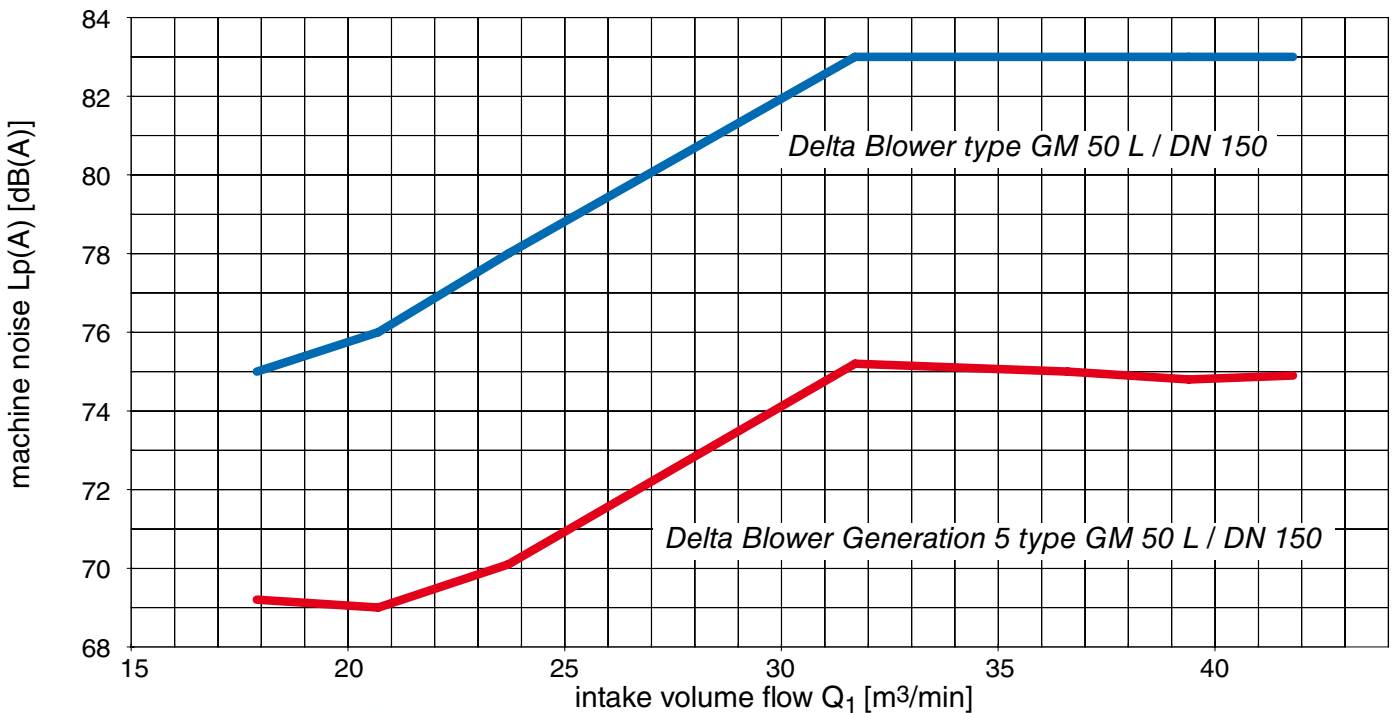
#### ➤ Lower Sound Levels

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.

### 14 sizes in 8 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 IE 3
- 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 IE 3 (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

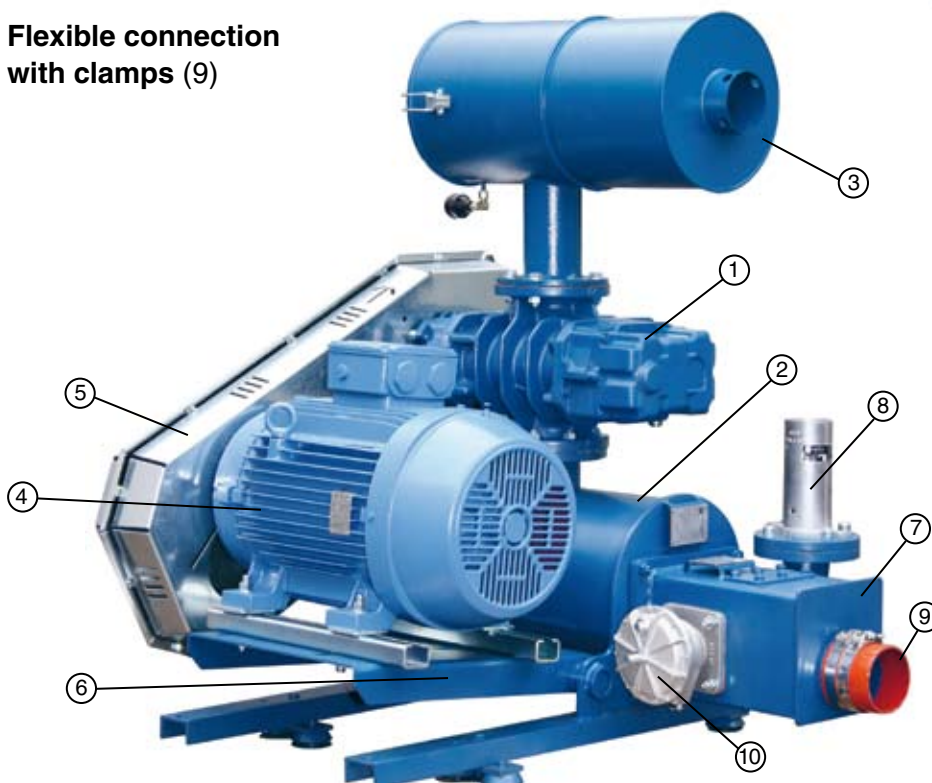
**Flexible connection with clamps (9)**

**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

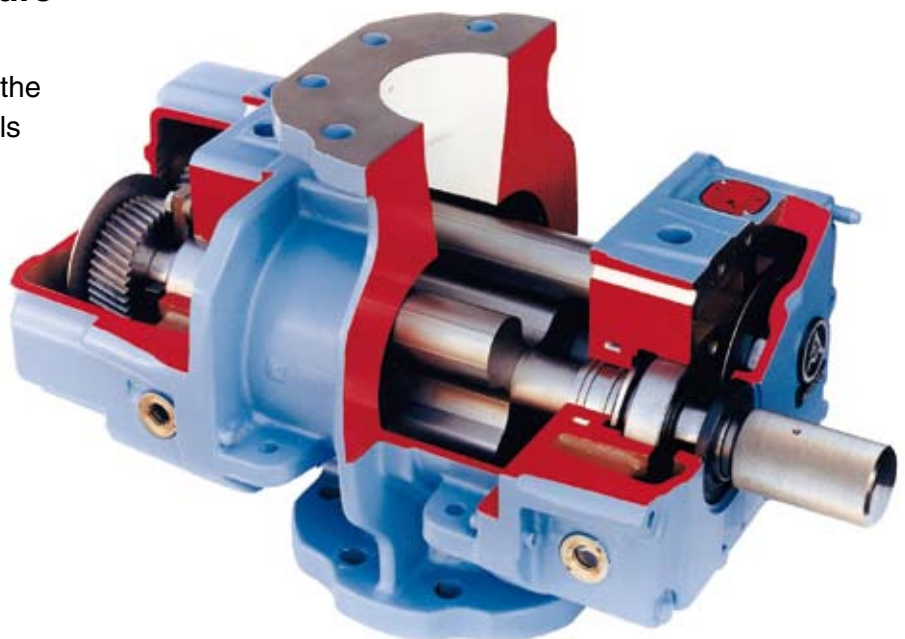
The helical timing gears are hardened and ground. They are fitted to the shafts by the oil expanded taper method.

## 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 300. 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, 14 sizes are available for intake volume flows from approximately 30 m<sup>3</sup>/h to 9.000 m<sup>3</sup>/h and overpressures up to 1000 mbar.

The entire series Delta Blower includes 16 sizes and volume flows up to 15.000 m<sup>3</sup>/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



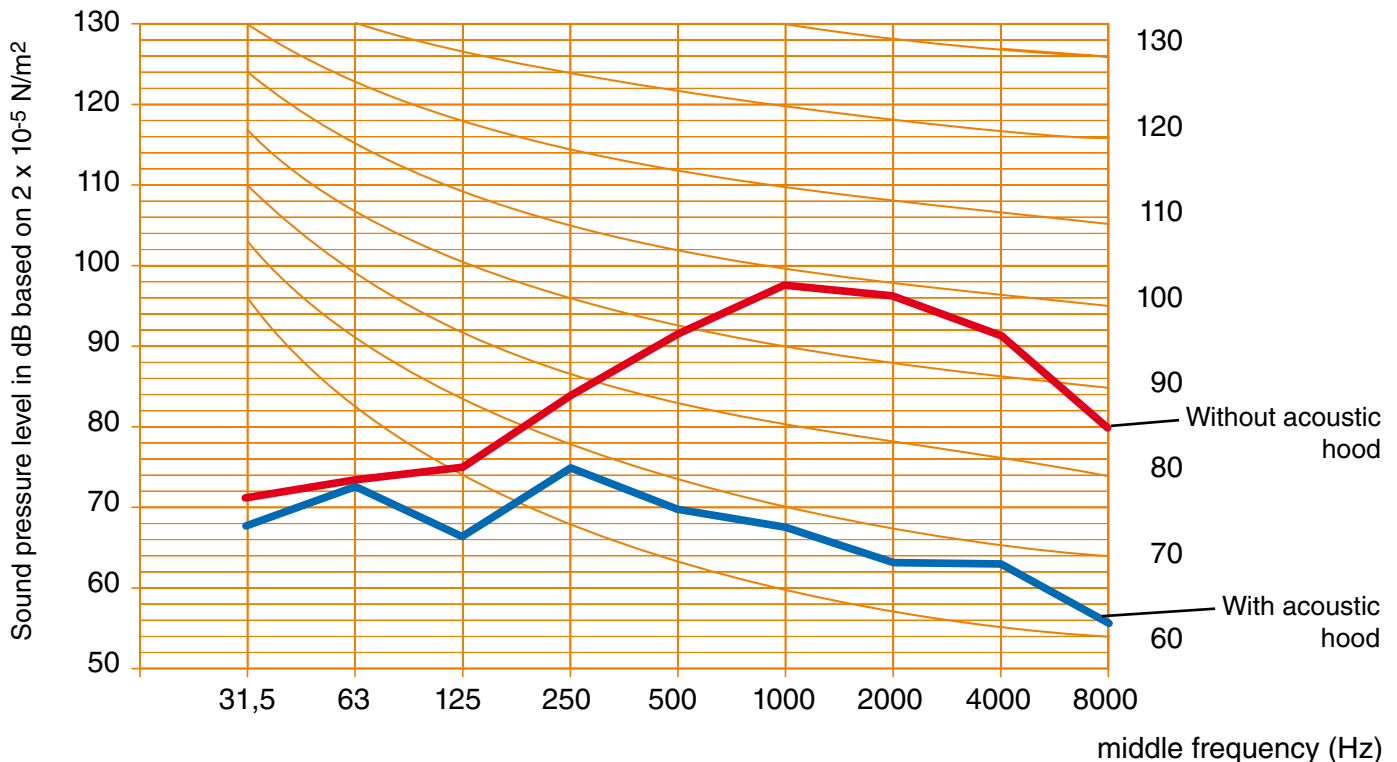
## Noise rating

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  $\pm 2$  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 <sup>3</sup> /min]	intake volume
$p_1$	[bar abs]	intake pressure
$\Delta p$	[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



Ap mbar	Blower size	GM 3 S / DN 50										GM 4 S / DN 80									
300	V <sub>1</sub> [m <sup>3</sup> /min]	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	
	t <sub>2</sub> [°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	
	P <sub>k</sub> [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 <sub>mot</sub> [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] <sub>w/o.H./w.H.</sub>	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 <sub>1</sub> [m <sup>3</sup> /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 <sub>2</sub> [°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	
P <sub>k</sub> [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 <sub>mot</sub> [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] <sub>w/o.H./w.H.</sub>		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 <sub>1</sub> [m <sup>3</sup> /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 <sub>2</sub> [°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		
	P <sub>k</sub> [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 <sub>mot</sub> [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] <sub>w/o.H./w.H.</sub>	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 <sub>1</sub> [m <sup>3</sup> /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 <sub>2</sub> [°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	2890	2890	2890	2890	2890	2890	2890	2870	2890	2890	2890	2890	2890	2930	2930				
P <sub>k</sub> [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 <sub>mot</sub> [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] <sub>w/o.H./w.H.</sub>		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 <sub>1</sub> [m <sup>3</sup> /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 <sub>2</sub> [°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					
	P <sub>k</sub> [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 <sub>mot</sub> [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] <sub>w/o.H./w.H.</sub>	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 <sub>1</sub> [m <sup>3</sup> /min]	2,1	2,52	2,78	3,21	2,48	3,26	3,68	4,28	4,91	5,12									
t <sub>2</sub> [°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										
P <sub>k</sub> [kW]		4,86	5,52	5,95	6,68	5,65	6,81	7,46	8,4	9,42	9,77										
P <sub>mot</sub> [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] <sub>w/o.H./w.H.</sub>		91/68	94/69	93/69	94/70	91/69	87/68	91/68	95/68	91/70	90/70										
900		V <sub>1</sub> [m <sup>3</sup> /min]	2,71	3,17	3,59	4,19	4,82	5,03													
	t <sub>2</sub> [°C]	132	133	129	124	120	119														
	nG [rpm]	3960	3450	3760	4190	4650	4800														
	nM [rpm]	2890	2930	2930	2930	2930	2930														
	P <sub>k</sub> [kW]	6,63	7,6	8,33	9,36	10,5	10,9														
	P <sub>mot</sub> [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] <sub>w/o.H./w.H.</sub>	94/70	88/69	92/69	96/69	92/70	92/70														
	1000	V <sub>1</sub> [m <sup>3</sup> /min]	4,74	4,94																	
t <sub>2</sub> [°C]		133	132																		
nG [rpm]		4650	4800																		
nM [rpm]		2930	2930																		
P <sub>k</sub> [kW]		11,6	12																		
P <sub>mot</sub> [kW]		15	15																		
Motor size		160 M	160 M																		
Lp(A)[dB] <sub>w/o.H./w.H.</sub>		94/70	94/70																		







Ap mbar	Blower size	GM 30 L / DN 150										GM 35 S / DN 150							
300	V <sub>1</sub> [m <sup>3</sup> /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 <sub>2</sub> [°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	
	P <sub>k</sub> [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 <sub>mot</sub> [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] <sub>w/o.H./w.H.</sub>	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	V <sub>1</sub> [m <sup>3</sup> /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 <sub>2</sub> [°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	
	P <sub>k</sub> [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 <sub>mot</sub> [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] <sub>w/o.H./w.H.</sub>	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	V <sub>1</sub> [m <sup>3</sup> /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 <sub>2</sub> [°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	
	P <sub>k</sub> [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 <sub>mot</sub> [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] <sub>w/o.H./w.H.</sub>	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	V <sub>1</sub> [m <sup>3</sup> /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 <sub>2</sub> [°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	
	P <sub>k</sub> [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 <sub>mot</sub> [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] <sub>w/o.H./w.H.</sub>	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	V <sub>1</sub> [m <sup>3</sup> /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 <sub>2</sub> [°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	
	P <sub>k</sub> [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 <sub>mot</sub> [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] <sub>w/o.H./w.H.</sub>	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	V <sub>1</sub> [m <sup>3</sup> /min]										12	16,2	21,7	25,5	28,8	33,1	35,3	38,4	
	t <sub>2</sub> [°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	
	P <sub>k</sub> [kW]										23,4	29,4	37,8	43,8	49,3	56,7	60,7	66,7	
	P <sub>mot</sub> [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] <sub>w/o.H./w.H.</sub>										89/72	91/72	94/75	96/73	99/73	101/72	101/72	102/72	
900	V <sub>1</sub> [m <sup>3</sup> /min]										11,8	15,9	21,7	24,9	28,7	32,8	37	38,2	
	t <sub>2</sub> [°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	
	P <sub>k</sub> [kW]										26,2	32,9	42,6	48,2	55,2	63	71,5	73,9	
	P <sub>mot</sub> [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] <sub>w/o.H./w.H.</sub>										89/72	92/72	95/75	96/73	99/73	101/73	102/73	103/73	
1000	V <sub>1</sub> [m <sup>3</sup> /min]										15,6	21,4	24,7	28,5	30,3	36,8	37,9		
	t <sub>2</sub> [°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		
	P <sub>k</sub> [kW]										36,4	47,1	53,4	60,9	64,6	78,5	81,1		
	P <sub>mot</sub> [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] <sub>w/o.H./w.H.</sub>										92/72	95/75	97/74	100/73	101/73	102/74	104/75		

Performance data exemplary and not binding!

Lower differential pressures on request





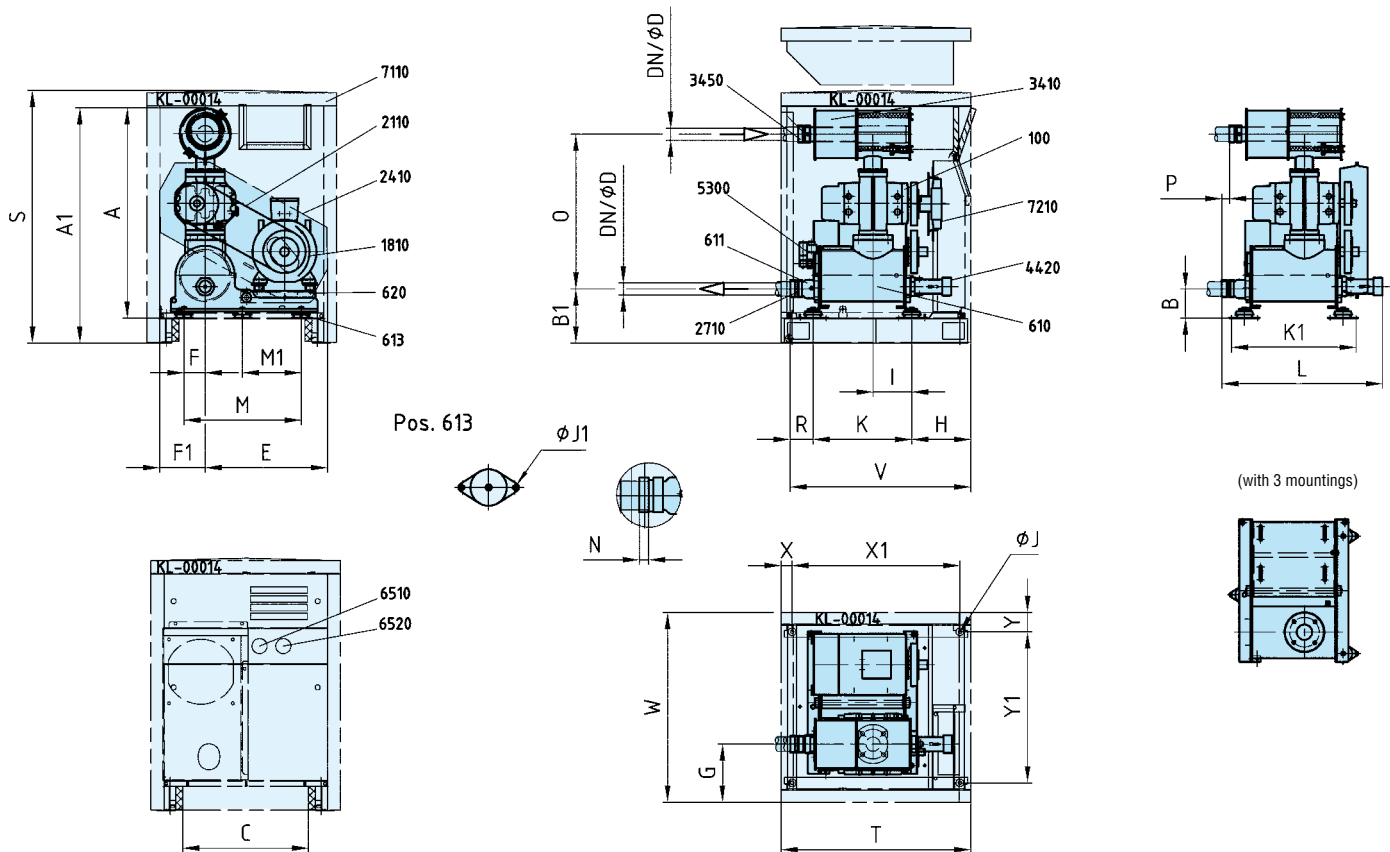


Ap mbar	Blower size	GM 130 L / DN 300									GM 150 S / DN 300							
300	V <sub>1</sub> [m <sup>3</sup> /min]	47,8	62,9	78,0	82,2	94,3	102	115	131	134	77,3	94,4	102	116	122	132	147	152
	t <sub>2</sub> [°C]	51	50	49	49	48	48	48	47	47	49	48	48	48	48	47	47	47
	nG [rpm]	980	1230	1480	1550	1750	1880	2100	2350	2400	982	1170	1250	1410	1480	1580	1750	1800
	nM [rpm]	1470	1470	1480	1480	1480	1480	1480	1485	1485	1475	1480	1480	1480	1480	1485	1485	1485
	P <sub>k</sub> [kW]	32,0	40,8	50,5	53,3	61,9	67,9	78,7	92,1	95,0	48,4	59,4	64,5	75,3	80,3	87,8	102	106
	P <sub>mot</sub> [kW]	37	45	75	75	75	75	90	110	110	55	75	75	90	90	110	132	132
	Motor size	225 S	225 M	280 S	280 S	280 S	280 S	280 M	315 S	315 S	250 M	280 S	280 S	280 M	280 M	315 S	315 M	315 M
	Lp(A)[dB] <sub>w/o.H./w.H.</sub>	93/75	95/77	101/79	100/79	101/80	101/80	103/81	104/82	104/82	95/79	97/79	97/79	97/80	98/80	99/80	101/81	101/81
	400	V <sub>1</sub> [m <sup>3</sup> /min]	46,2	61,2	76,3	80,5	93,2	100	115	130	132	75,8	92,6	101	114	121	130	146
t <sub>2</sub> [°C]		63	61	59	59	58	58	57	57	57	59	58	58	57	57	57	57	57
nG [rpm]		982	1230	1480	1550	1760	1880	2120	2370	2400	985	1170	1260	1410	1485	1580	1760	1800
nM [rpm]		1475	1480	1480	1480	1480	1485	1485	1485	1485	1480	1480	1485	1485	1485	1485	1480	1480
P <sub>k</sub> [kW]		41,9	53,2	65,4	68,9	80,1	86,8	101	117	119	63,4	77,1	84,2	96,6	103	112	129	133
P <sub>mot</sub> [kW]		55	75	75	90	90	110	132	132	132	75	90	110	110	132	132	160	160
Motor size		250 M	280 S	280 S	280 M	280 M	315 S	315 M	315 M	315 M	280 S	280 M	315 S	315 S	315 M	315 M	315 M	315 M
Lp(A)[dB] <sub>w/o.H./w.H.</sub>		93/76	96/78	102/80	101/79	102/80	103/81	103/81	105/83	106/83	96/79	97/79	98/79	98/80	98/80	99/80	101/81	102/82
500		V <sub>1</sub> [m <sup>3</sup> /min]	44,8	60,8	74,7	86,2	91,6	98,9	113	128	130	74,2	91	100	113	120	127	144
	t <sub>2</sub> [°C]	76	72	70	69	69	68	67	67	67	70	69	68	67	67	67	66	66
	nG [rpm]	985	1250	1480	1670	1760	1880	2120	2370	2400	985	1170	1270	1410	1485	1570	1760	1800
	nM [rpm]	1480	1480	1480	1485	1485	1485	1480	1480	1480	1480	1485	1485	1485	1480	1480	1485	1485
	P <sub>k</sub> [kW]	52,0	66,8	80,3	92,0	97,8	106	122	141	143	78,3	94,8	104	118	126	135	156	160
	P <sub>mot</sub> [kW]	75	75	90	110	110	132	160	160	160	90	110	132	132	160	160	200	200
	Motor size	280 S	280 S	280 M	315 S	315 S	315 M	315 M	315 M	315 M	280 M	315 S	315 M	315 M	315 M	315 M	315 M	315 M
	Lp(A)[dB] <sub>w/o.H./w.H.</sub>	92/77	97/79	102/80	101/80	103/81	104/81	104/81	107/83	107/83	97/79	97/79	98/79	98/79	98/80	99/81	101/82	102/82
	600	V <sub>1</sub> [m <sup>3</sup> /min]	43,4	59,4	73,6	84,8	90,2	97,5	112	119	126	72,7	89,5	101	110	118	126	143
t <sub>2</sub> [°C]		89	84	81	80	79	79	77	77	77	82	80	78	78	77	77	76	76
nG [rpm]		985	1250	1485	1670	1760	1880	2120	2230	2360	985	1170	1300	1400	1485	1570	1760	1800
nM [rpm]		1480	1480	1485	1485	1485	1480	1480	1485	1485	1485	1485	1480	1480	1485	1485	1485	1485
P <sub>k</sub> [kW]		61,9	79,3	95,5	109	116	125	144	153	164	93,2	113	127	138	148	158	182	188
P <sub>mot</sub> [kW]		75	90	110	132	132	160	160	200	200	110	132	160	160	200	200	250	250
Motor size		280 S	280 M	315 S	315 M	315 M	315 M	315 M	315 M	315 M	315 S	315 M	315 M	315 M	315 M	315 M	315 L	315 L
Lp(A)[dB] <sub>w/o.H./w.H.</sub>		94/78	97/80	104/82	102/82	104/83	105/83	107/83	107/83	107/84	99/79	99/79	99/79	99/80	100/80	100/82	102/83	102/83
700		V <sub>1</sub> [m <sup>3</sup> /min]										71,4	88,2	96,3	109	117	125	142
	t <sub>2</sub> [°C]										93	91	89	88	88	87	86	86
	nG [rpm]										985	1170	1260	1400	1485	1580	1760	1800
	nM [rpm]										1485	1480	1480	1485	1485	1485	1485	1485
	P <sub>k</sub> [kW]										108	130	141	159	170	183	209	215
	P <sub>mot</sub> [kW]										132	160	160	200	200	250	250	250
	Motor size										315 M	315 M	315 M	315 M	315 M	315 L	315 L	315 L
	Lp(A)[dB] <sub>w/o.H./w.H.</sub>										100/80	100/80	100/80	100/80	101/81	101/82	102/83	102/83
	800	V <sub>1</sub> [m <sup>3</sup> /min]										70,2	88,8	96,0	108	116	124	140
t <sub>2</sub> [°C]											105	101	100	99	98	97	96	96
nG [rpm]											985	1190	1270	1400	1488	1580	1760	1800
nM [rpm]											1480	1485	1485	1485	1485	1485	1490	1490
P <sub>k</sub> [kW]											123	151	162	180	193	207	235	242
P <sub>mot</sub> [kW]											160	200	200	200	250	250	315	315
Motor size											315 M	315 M	315 M	315 M	315 L	315 L	315 L	315 L
Lp(A)[dB] <sub>w/o.H./w.H.</sub>											101/80	100/80	100/80	100/80	102/82	102/83	102/83	103/84
900		V <sub>1</sub> [m <sup>3</sup> /min]										69	87,6	94,9	107	115	123	139
	t <sub>2</sub> [°C]										118	113	111	110	109	108	106	106
	nG [rpm]										985	1190	1270	1400	1488	1580	1760	1800
	nM [rpm]										1480	1485	1485	1485	1485	1490	1490	1490
	P <sub>k</sub> [kW]										138	169	181	202	216	231	262	269
	P <sub>mot</sub> [kW]										160	200	200	250	250	315	315	315
	Motor size										315 M	315 M	315 M	315 L	315 L	315 L	315 L	315 L
	Lp(A)[dB] <sub>w/o.H./w.H.</sub>										102/81	101/80	101/80	101/81	102/83	103/84	103/84	103/84
	1000	V <sub>1</sub> [m <sup>3</sup> /min]										68,4	86,5	93,8	106	114	122	138
t <sub>2</sub> [°C]											130	124	123	121	120	118	117	116
nG [rpm]											990	1190	1270	1400	1488	1580	1760	1800
nM [rpm]											1485	1485	1485	1485	1490	1490	1490	1490
P <sub>k</sub> [kW]											154	187	200	223	238	255	289	296
P <sub>mot</sub> [kW]											200	250	250	250	315	315	355	355
Motor size											315 M	315 L	315 L	315 L	315 L	315 L	355 M	355 M
Lp(A)[dB] <sub>w/o.H./w.H.</sub>											103/82	102/81	102/80	102/81	103/84	104/84	103/84	104/84

Lower differential pressures on request  
Higher intake volume flows on request

Performance data exemplary and not binding!

## Dimensions – DELTA BLOWER – GM 3 S



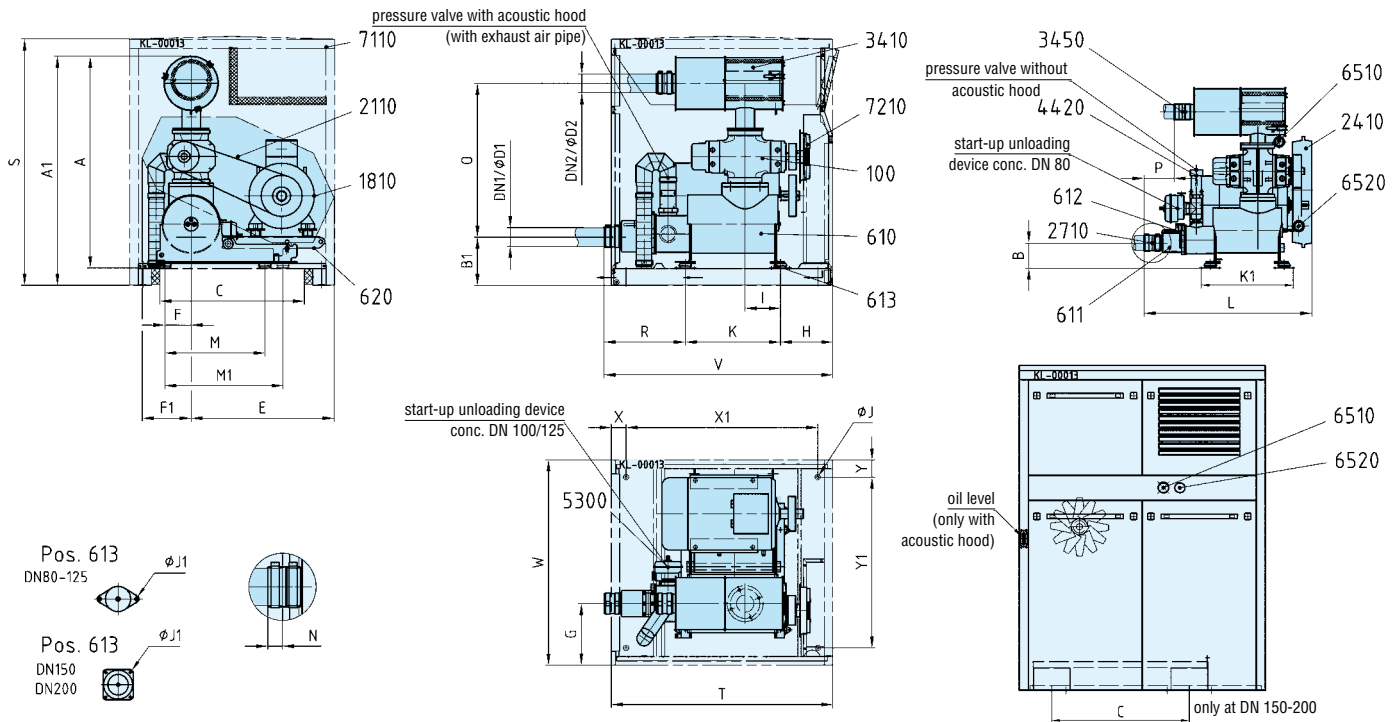
- 100 positive displacement blower
- 610 base frame
- 611 connection housing DS with integrated non-return flap
- 613 anti-vibration mountings
- 620 hinged motor plate
- 1810 electric motor
- 2110 belt drive
- 2410 belt guard (only in case of installation without acoustic hood)
- 2710 flexible pipe connection 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 <sub>1</sub>	B	B <sub>1</sub>	C	DN <sub>1</sub> / ø D <sub>1</sub>	E	F	F <sub>1</sub>	G	I	H	K	K <sub>1</sub>	L	M	M <sub>1</sub>	N	O	P	R	S	T	V	W	X	X <sub>1</sub>	Y	Y <sub>1</sub>	J	J <sub>1</sub>	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 (in mm) and weights exemplary and 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

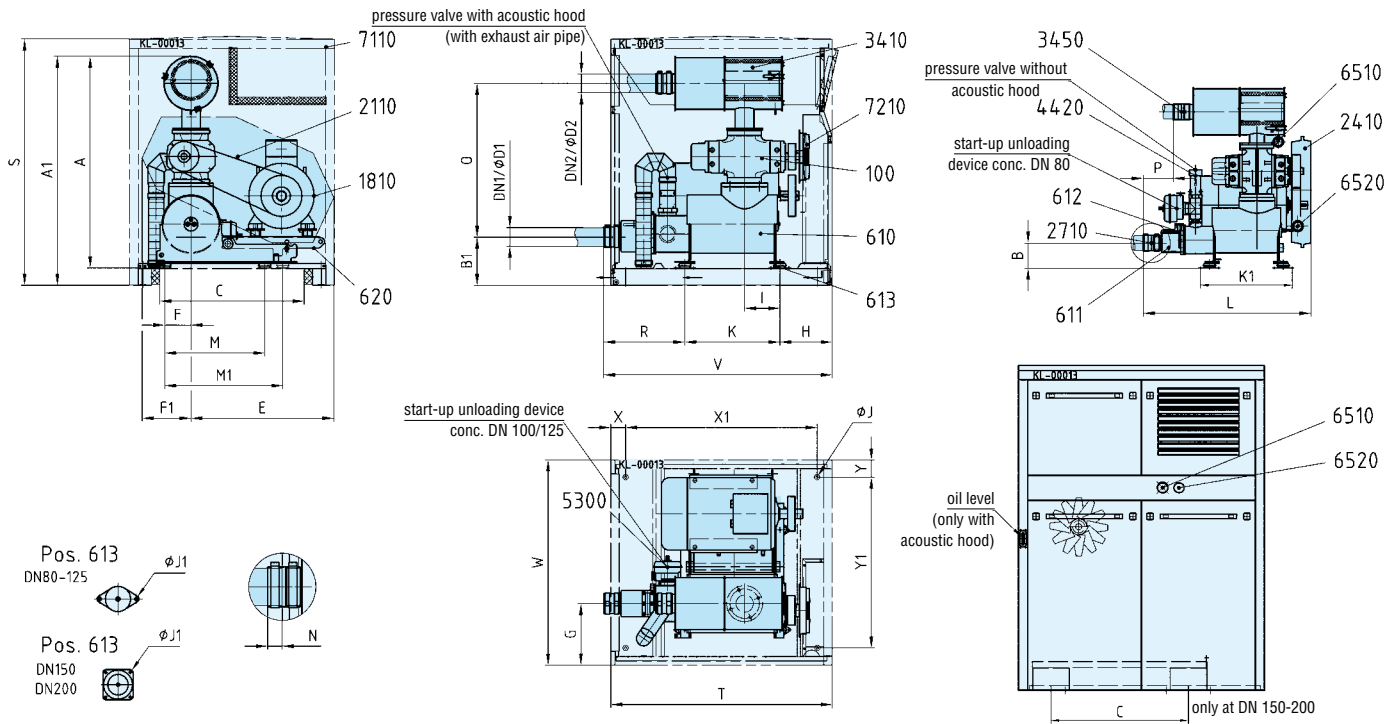
type	A	A <sub>1</sub>	B	B <sub>1</sub>	C	DN <sub>1</sub> / ø D <sub>1</sub>	DN <sub>2</sub> / ø D <sub>2</sub>	E	F	F <sub>1</sub>	G	H	I	K	K <sub>1</sub>	L	M	M <sub>1</sub>	N	O	P	R	S	T	V	W	X	X <sub>1</sub>	Y	Y <sub>1</sub>	J	J <sub>1</sub>	Weight without acoustic hood	Weight with acoustic hood
4 S	1101	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 (in mm) and weights exemplary and not binding!

Weight without motor



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



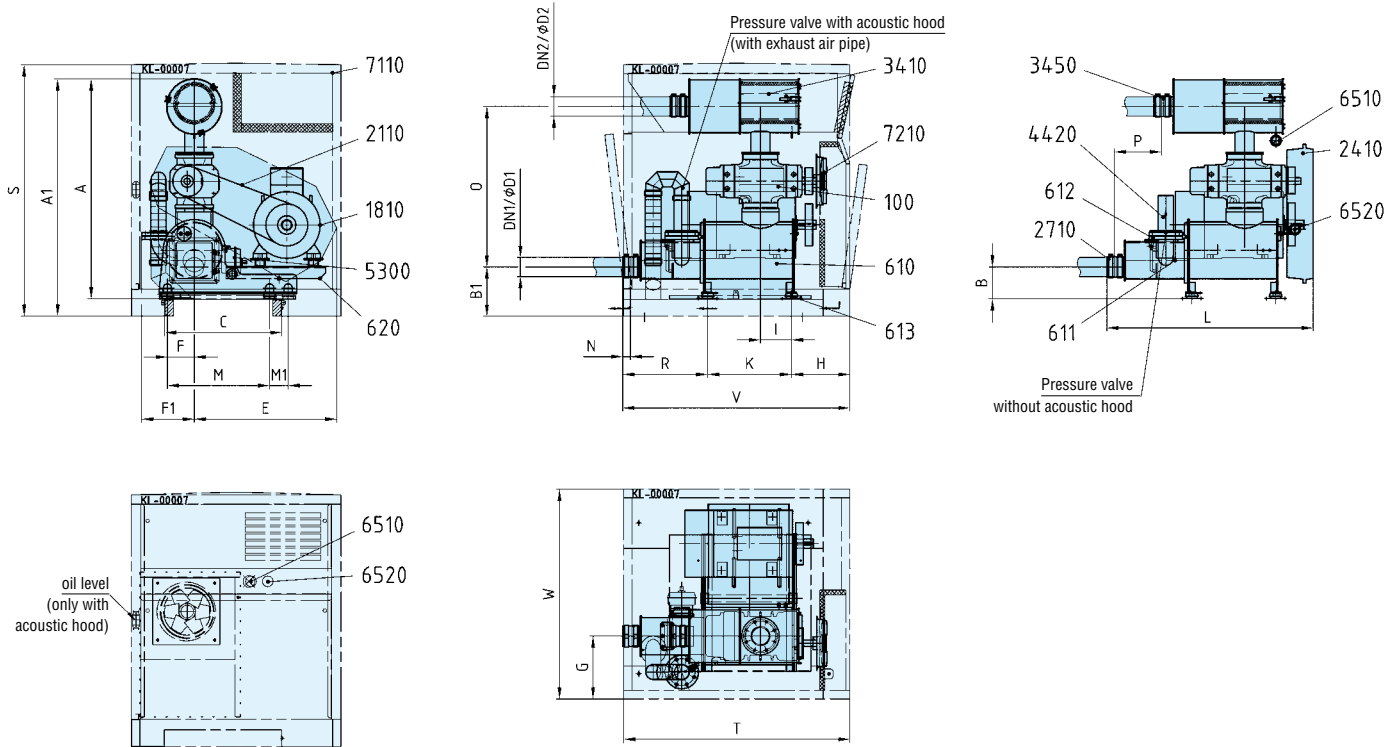
- 100 positive displacement blower
- 610 base frame
- 611 connection housing DS
- 612 integrated non-return flap
- 613 anti-vibration mountings
- 620 hinged motor plate
- 1810 electric motor
- 2110 belt drive
- 2410 belt guard (only in case of installation without acoustic hood)
- 2710 flexible pipe 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 <sub>1</sub>	B	B <sub>1</sub>	C	DN <sub>1</sub> / ø D <sub>1</sub>	DN <sub>2</sub> / ø D <sub>2</sub>	E	F	F <sub>1</sub>	G	H	I	K	K <sub>1</sub>	L	M	M <sub>1</sub>	N	O	P	R	S	T	V	W	X	X <sub>1</sub>	Y	Y <sub>1</sub>	J	J <sub>1</sub>	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 (in mm) and weights exemplary and not binding!

Weight without motor

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



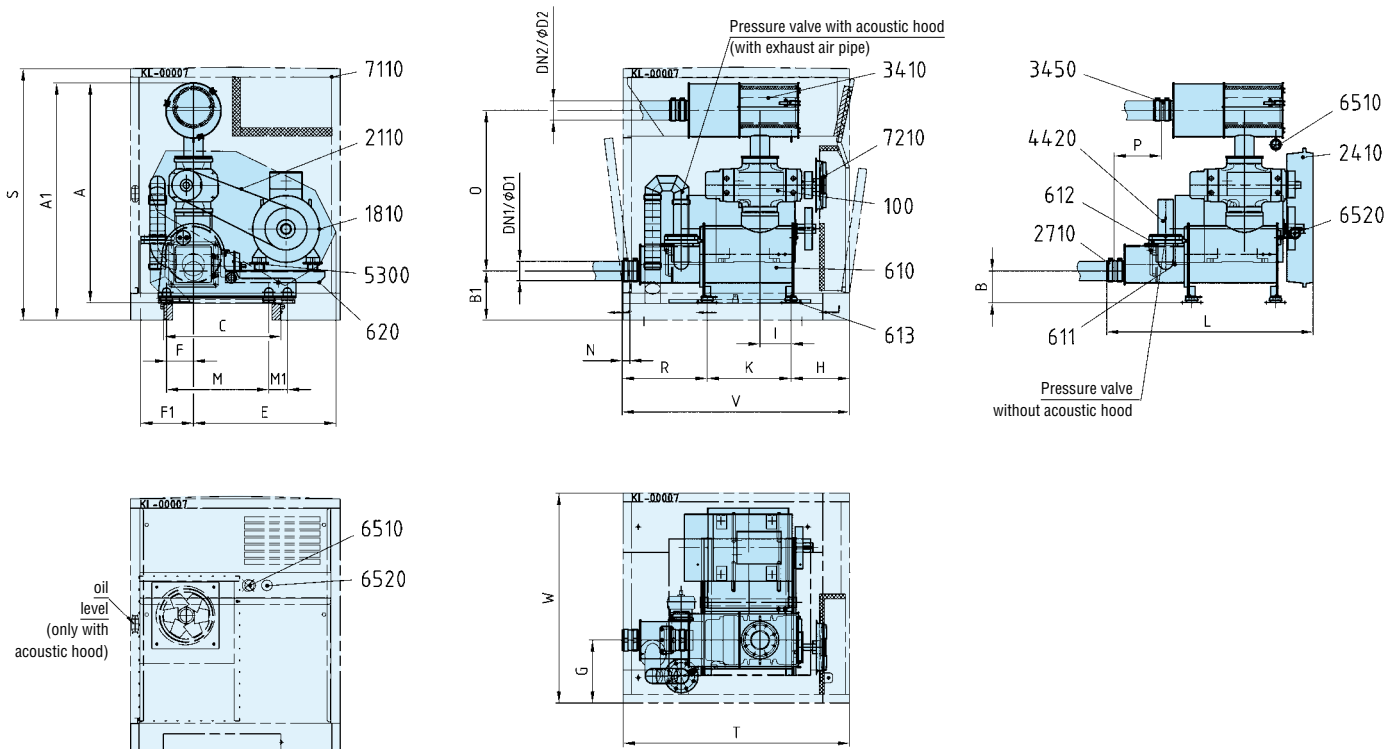
- |  |  |
|--|--|
| 100 positive displacement blower                                     | 2710 flexible pipe connection DS             |
| 610 base frame   | 3410 filter silencer                         |
| 611 connection housing DS  | 3450 flexible pipe connection SS (accessory) |
| 612 integrated 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 <sub>1</sub>	B	B <sub>1</sub>	C	DN <sub>1</sub> / ø D <sub>1</sub>	DN <sub>2</sub> / ø D <sub>2</sub>	E	F	F <sub>1</sub>	G	H	I	K	K <sub>1</sub>	L	M	M <sub>1</sub>	N	O	P	R	S	T	V	W	X	X <sub>1</sub>	Y	Y <sub>1</sub>	J	J <sub>1</sub>	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 (in mm) and weights exemplary and not binding!

Weight without motor

# Dimensions – DELTA BLOWER – GM 130 L to GM 150 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 <sub>1</sub>	B	B <sub>1</sub>	C	DN <sub>1</sub> / ø D <sub>1</sub>	DN <sub>2</sub> / ø D <sub>2</sub>	E	F	F <sub>1</sub>	G	H	I	K	L	M	M <sub>1</sub>	N	O	P	R	S	T	V	W	Weight without acoustic hood	Weight with acoustic hood
130 L	2201	2218	393	410	1727	DN 300 / 323	DN 300 / 323	1495	315	555	635	683	471	1165	2762	780	697	136	1548	625	1002	2345	2850	3090	2100	2265 kg	3225 kg
150 S	2201	2216	393	410	1727	DN 300 / 323	DN 300 / 323	1495	315	555	635	683	471	1165	2762	780	697	136	1548	625	1002	2345	2850	3090	2100	2510 kg	3470 kg

Dimensions (in mm) and weights exemplary and not binding!

Weight without motor



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