

## 3 Design and operation

### 3.1 Overview of assemblies

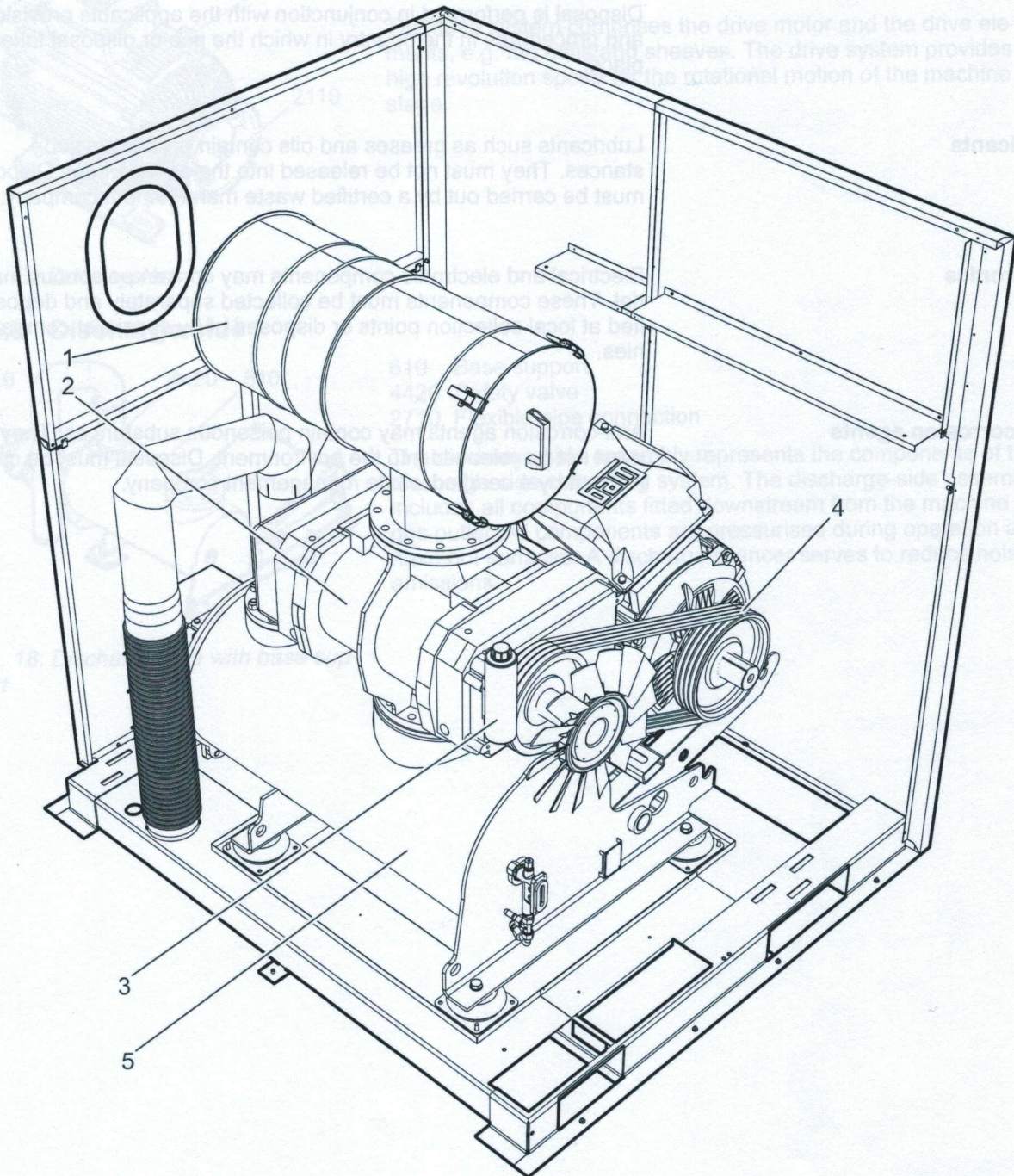
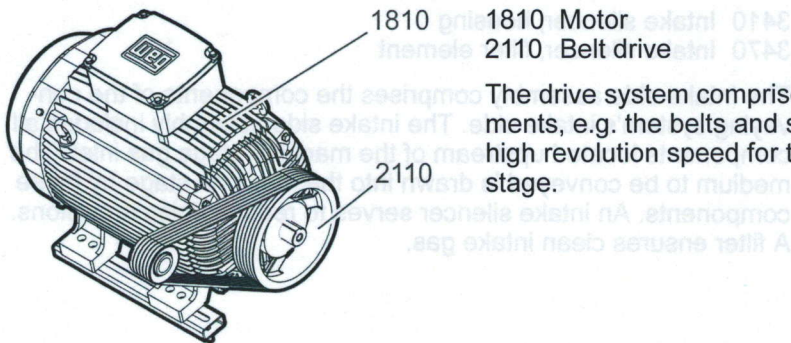


Fig. 13: Acoustic hood with oil system

- 1 Intake side
- 2 Machine stage
- 3 Oil system
- 4 Drive system
- 5 Discharge side

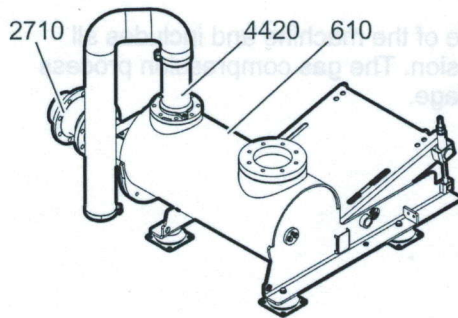
### 3.5.4 Drive system



The drive system comprises the drive motor and the drive elements, e.g. the belts and sheaves. The drive system provides a high revolution speed for the rotational motion of the machine stage.

Fig. 17: Drive system

### 3.5.5 Discharge side



610 Base support  
4420 Safety valve  
2710 Flexible pipe connection

The discharge-side assembly represents the components of the discharge-side conveying system. The discharge-side assembly includes all components fitted downstream from the machine stage gas outlet. All components are pressurised during operation and have hot surfaces. A discharge silencer serves to reduce noise emissions.

Fig. 18: Discharge side with base support



## 11 Technical data

### 11.1 Dimensions and weights

#### General information

The following dimensions and weights relate to standard variants and can vary depending on the specific model.

Exact details can be found on the installation drawing.

Information on weight can be found on the packing note and the designation on the rating plate.

Dimensions, including packaging, are included in the forwarding order.

Tab. 3: Dimensions and weights

Positive pressure operation						
Size	Width (W) mm	Depth (D) mm	Height (H) mm	Nominal diameter DN	Weight without acoustic hood, without motor and without belt drive approx. kg	Weight with acoustic hood, without motor and without belt drive approx. kg
GM 3 S	800	800	1055	50	160	220
GM 4 S	925	1135	1280	80	210	320
GM 7 L	925	1135	1280	80	210	320
GM 10 S / DN80	925	1135	1280	80	240	350
GM 10 S / DN100	1250	1350	1500	100	350	510
GM 15 L	1250	1350	1500	100	360	530
GM 25 S	1250	1350	1500	125	420	580
GM 30 L	1500	1800	1900	150	660	980
GM 35 S	1500	1800	1900	150	760	1040
GM 50 L / DN150	1500	1800	1900	150	810	1130
GM 50 L / DN200	1700	2055	2111	200	840	1310
GM 60 S	1700	2055	2111	200	1000	1460

**These dimensions and weights refer to the standard model, and are approximate values. The information may vary depending on the order.**



Positive pressure operation

Size	Width (W) mm	Depth (D) mm	Height (H) mm	Nominal diameter DN	Weight without acoustic hood, without motor and without belt drive approx. kg	Weight with acoustic hood, without motor and without belt drive approx. kg
GM 80 L	1900	2200	2308	250	2720	3570
GM 90 S	1900	2200	2308	250	2780	3630
GM 130 L	2100	2850	2345	300	2265	3230
GM 150 S	2100	2850	2345	300	2510	3470

These dimensions and weights refer to the standard model, and are approximate values. The information may vary depending on the order.

11.2 Dimension specifications sheet

An accompanying dimension specifications sheet/installation drawing is provided with the product documentation.

These documents contain important dimensions for installation and set-up.

**11.3 Operating data**

<b>Order no.</b>		173743_10	
<b>Factory no.:</b>			
<b>Serial no.:</b>		4065637, 4065638, 4065639, 4065640	
<b>Item no.:</b>			
<b>Year of manufacture</b>		2018	
<b>Type</b>		GM60S	
<b>Nominal diameter</b>		200	
<b>Conveyor</b>		Luft/Air	
<b>Density</b>	$\rho$	1.204	kg/m <sup>3</sup>
<b>Conveyed quantity</b>	Q1	54.70	m <sup>3</sup> /min
<b>Intake temperature</b>	T <sub>1</sub>	20	°C
<b>Discharge temperature</b>	T <sub>2</sub>	91	°C
<b>Height above NN</b>		0	m
<b>Absolute pressure at input</b>	p1	1.013	bar
<b>Absolute pressure at output</b>	p2	1.763	bar
<b>Positive pressure at output</b>	p2e	0.750	bar
<b>Pressure difference</b>	$\Delta p$	750	mbar
<b>Power consumption</b>	P	88.05	kW
<b>Main piston speed</b>	n	2884	1/min
<b>Sound pressure level</b>		80	dB(A)
<b>Motor rating</b>	P <sub>MOT</sub>	110.00	kW
<b>Motor rotational speed</b>	n <sub>MOT</sub>	3038	1/min
<b>Safety valve, set pressure</b>	p	800	mbar
<b>Intake pressure valve, set pressure</b>	p	0	mbar
<b>Machine weight</b>	m	2562	kg
<b>Oil quantity</b>	V	7.50	ltr

## 11.4 Technical performance data

Tab. 4: Performance data and application limits

Positive pressure operation			
Size	Differential pressure max. mbar	Flow rate max. m <sup>3</sup> /h	Motor rating max. kW
GM 3 S	1000	247	7.5
GM 4 S	1000	282	15
GM 7 L	700	493	15
GM 10 S / DN80	1000	542	22
GM 10 S / DN100	1000	696	30
GM 15 L	700	1038	30
GM 25 S	1000	1452	55
GM 30 L	700	2082	75
GM 35 S	1000	2418	90
GM 50 L / DN150	700	2610	75
GM 50 L / DN200	700	3306	90
GM 60 S	1000	3540	132
GM 80 L	700	5034	160
GM 90 S	1000	5418	200
GM 130 L	700	8040	200
GM 150 S	1000	9120	355

**These operating limits are maximum values. Difficult operating conditions can adversely affect these data.**

### Maximum installation elevation

Data	Value	Unit
Maximum installation elevation above NN*	0	m

If installing at a different elevation, observe the order-specific design data sheets.

### Environmental limits

Data	Value	Unit
Temperature range	-10 to +40	°C
Mounting of acoustic hood heater	less than -10	°C
Relative humidity	0 to 80	%
Chemical-free atmosphere		

