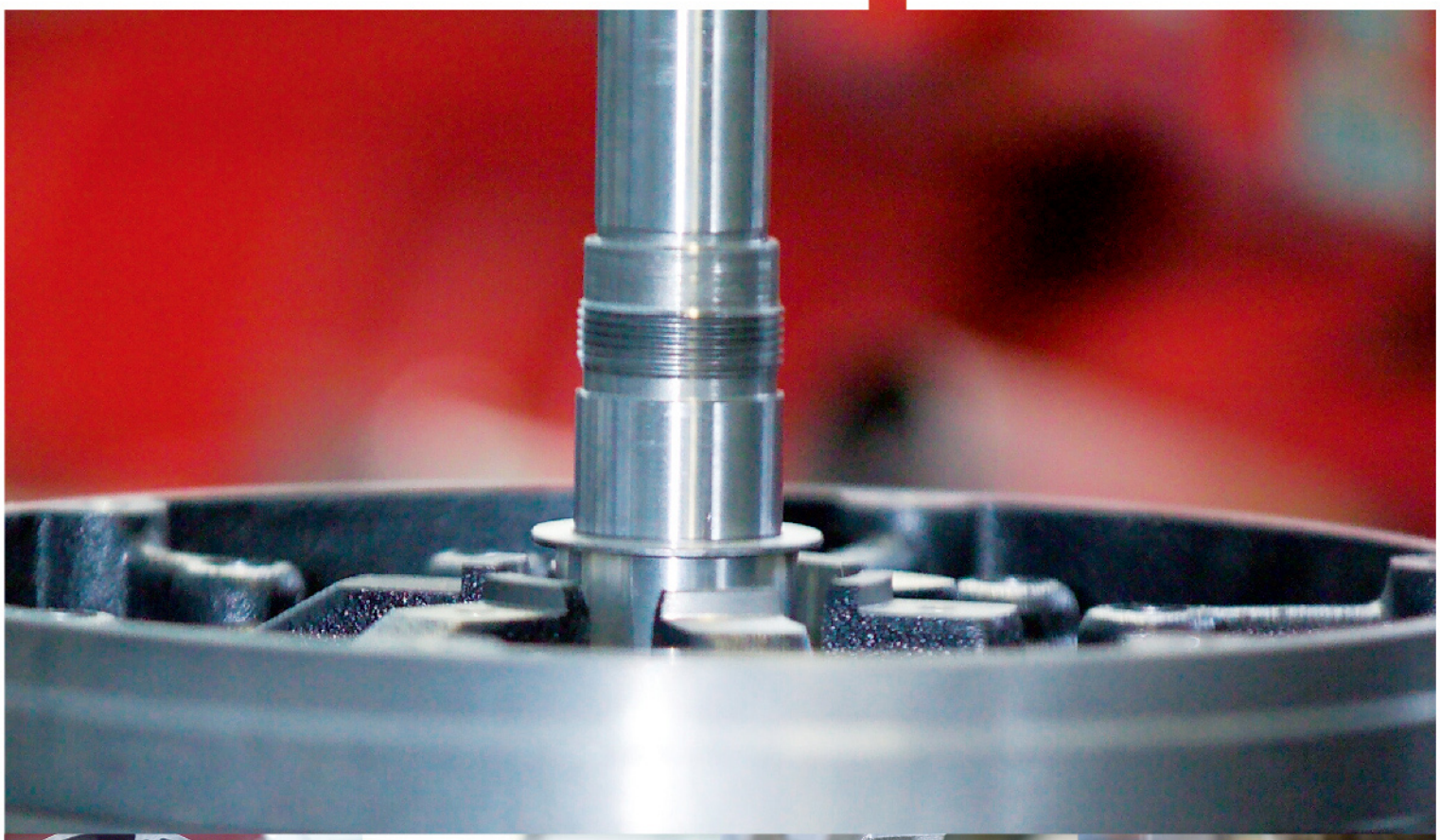
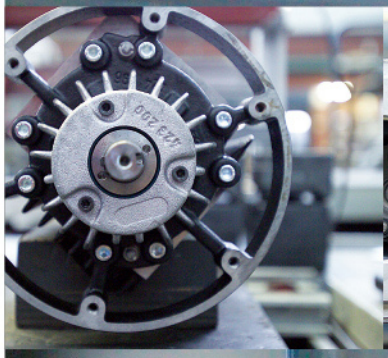
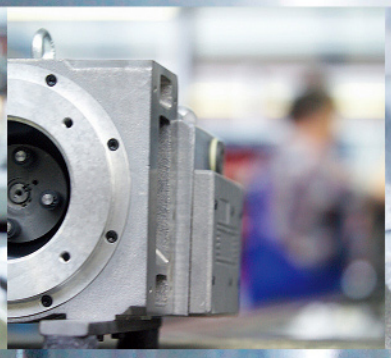
干式旋片泵 | 爪式泵 | 螺杆式真空泵

Dry Running | Claw | Screw

Elmo Rietschle
A Gardner Denver Product



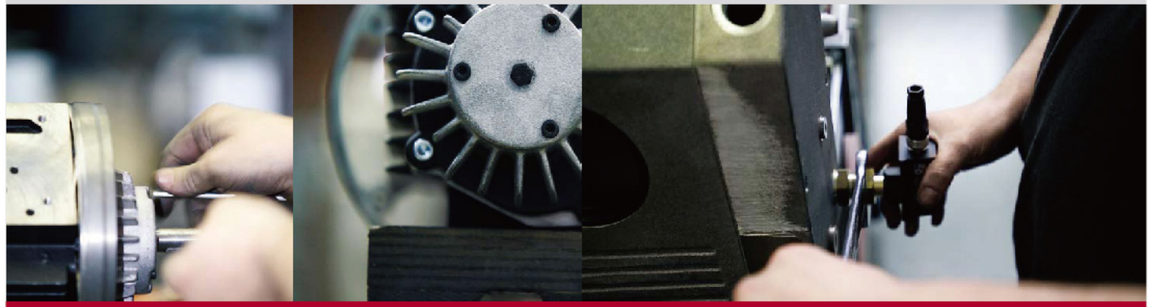












The globally reknown vacuum companies Elmo Technology and Rietschle have joined forces within Gardner Dencer. Elmo Rietschle stands for superior product portfolio, application experience and hnow-how in all vacuum and pressure technology areas. We make your process faster, safer and more cost-efficient.

Best quality

- All machines designed and produced nhouse
- Shortest response time
- Perfect logistics

全球著名的真空泵公司Elmo和Rietschle已与Gardner Denver共同携手。Elmo Rietschle代表着整个真空和压力技术领域的一流产品组合、应用经验和专业技术。拥有我们，您的生产过程将更快捷、更安全、更有效。

一流的品质

- 所有产品均在制造基地设计和生产
- 最短的响应时间
- 完善的物流系统

Elmo Rietschle
A Gardner Denver Product

目录
Contents

干式旋片泵 | 爪式泵 | 螺杆式真空泵
Dry Running | Claw | Screw

干式旋片泵 Dry Running

设计原理 2-3

真空 Vacuum

V-VTE 4-5
V-VTN 6-7
V-VTA 8-9
V-VTR 10-11

压力 Pressure

V-DTE 12-13
V-DTN 14-15
V-DTA 16-17
V-DTR 18-19

真空压力 Vacuum-Pressure

V-KTN 20-21
V-KTA 22-23
V-KTA 24-25
V-KTR 26-27
V-KTR 28-29

爪式泵 Claw

设计原理 30-31

真空 Vacuum

C-VLR 32-37

压力 Pressure

C-DLR 38-43

真空压力 Vacuum-Pressure

C-KLR 44-45

螺杆式真空泵 Screw

设计原理 46-47

真空 Vacuum

S-VSA 48-49
S-VSB 50-51
S-VSI 52-53

换算表 54-55
应用行业 56-57

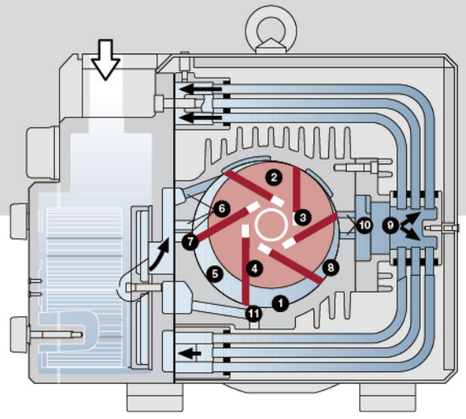


干式旋片泵
Dry Running

体积减少压力增加：静态压缩系统

体积少压力增加是旋片式运行的原理。这种静态设计可以在真空，压力和两者结合的应用中产生良好的效果。根据规格和构造，例如油润滑式和无油式，真空度可达0.1mbar，流量从3到1535m³/hr；压力达1.5bar，流量从3到155m³/hr。当同时应用于真空和压力时，可同时达到0.6bar的真空度和0.7bar的正压。

Pressure increase by volume reduction is the principle behind rotary vane operation. This static design offers excellent service in pressure, vacuum or a combination of both. Depending upon size and design - i.e. ail lubricated or dry running - vacuum up to 0.1 mbar abs with capacities ranging from 3 to 155 m³/hr can be reached. When used an a combined unit, 0.6 bar vacuum and 0.7 bar pressure can be achieved simultaneously.



在圆柱体的泵腔（1）内，转子（2）是偏心安装的，紧靠顶部几乎与缸体接触，转子叶片（4）安装在众多的转子槽（3）中。当转子开始转动，由于离心力的作用叶片抛出后沿缸体内部滑动。这样，两个叶片之间形成一个气室，其体积随着转动不断改变。当后面的叶片到达进气口（7）时，气体从进气口进入气室，在这时，气室（5）达到其最大的容积。当气室移动，其容积越来越小，气体被压缩，压强增加，直到气室（8）内的气体压强超过压力腔（9）内的压强时，气体从出气口（10）排出。有些型号安装了单向阀用于防止达到极限压强时排出的气体回流。

作为真空泵运行时，其过程相同，但气室（8）提供的是负压，腔体（9）内为大气压。

在真空压力复合泵中，进气口（6）底端往上移，这可以为气室提供二次进气（11）。为避免破坏真空，这个第二进气口离主进气口一个气室的距离，真空和压力的比率可受两个进气口（6）和（11）位置的影响。

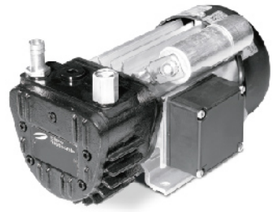
Pressure increase by volume reduction is the principle behind rotary vane operation. This design offers excellent service in pressure, vacuum or a combination of both. In a cylindrical casing (1) a rotor (2) is positioned eccentrically so that it is on the top almost touching the cylinder. Rotor blades or vanes (4) as they are called, are positioned inside rotor slots (3). When the rotor starts turning, due to centrifugal force the blades are thrown out and slide against the internal surface of the cylinder.

In this way a cell (5) is formed between two blades with a volume that changes constantly during rotation. Air enters from the inlet port (6) into a cell until the rear blade reaches the far end of the inlet port (7). At this point the cell (5) has achieved its maximum air volume. As the cell then moves away from the port its volume becomes smaller and smaller, the air is thus compressed and the pressure rises.

This continues until the pressure in the cell (8) exceeds that in the pressure chamber (9) and the compressed air then outlets through the outlet port (10).

Some models are fitted with exhaust valves which stop the backflow of this discharged air if the maximum pressure has been reached. In a vacuum pump the process is similar, but the cell (8) gives decreasing pressure, and the chamber (9) is at atmospheric pressure.

With pressure-vacuum pumps the lower end of the inlet port(s) (6) for the vacuum is moved forward. The cell can now be filled through second inlet (11). To avoid impairing the vacuum, this second inlet port is located about one cell segment away from the main suction port. The ratio between vacuum and pressure capacities can be influenced by the choice of inlet port (6 and/or 11).



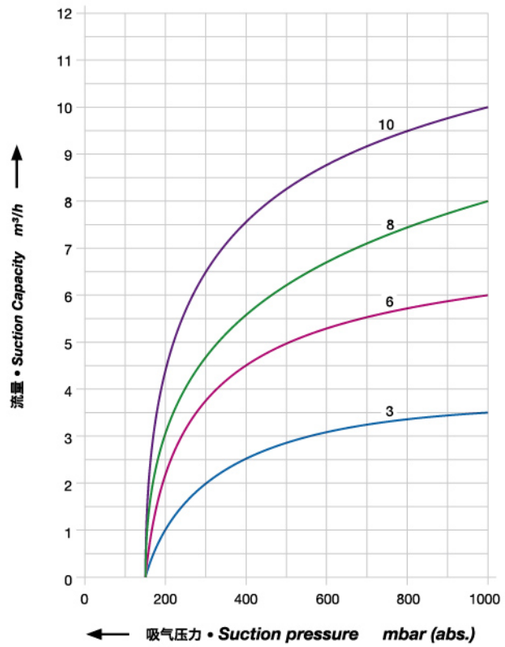
小型干式旋片真空泵，结构紧凑，易于装配在机器内。低噪音，抗腐蚀转子。软管接头和排气口消音器为标准设计。流量从3.5至12m³/hr，极限真空150 mbar(abs.)。

电机标准符合 DIN EN 60034，保护标准IP 54，绝缘等级F。

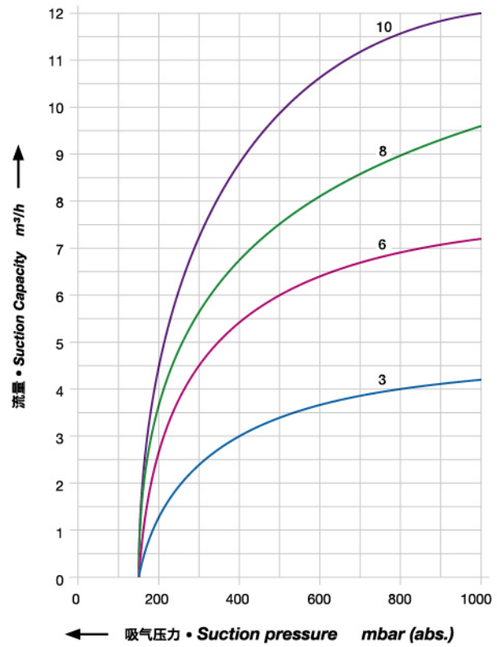
可带24V直流电机，数据根据需要调整。

Small, dry running rotary vane vacuum pump. Compact, easy to install. Very low noise level. Corrosion proof rotors. Hose connection and exhaust silencer as standard. Capacities ranging from 3.5 to 12 m³/h.
Ultimate vacuum 150 mbar (abs.). Motors comply with DIN EN 60034, have IP 55 protection and insulation class F. Version with 24 V DC motor is available.

50 Hz 选型图 • *Selection diagram*



60 Hz 选型图 • *Selection diagram*

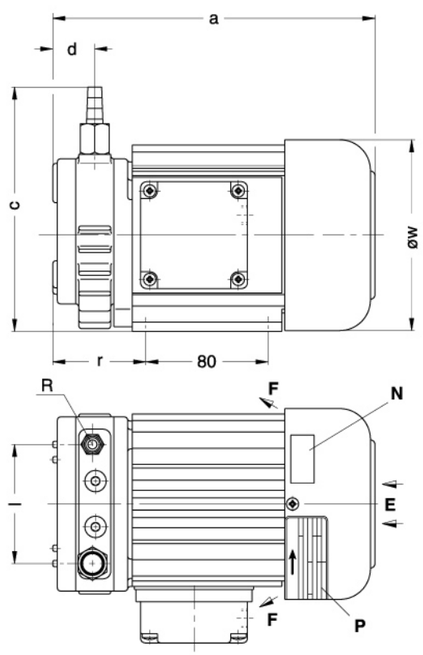


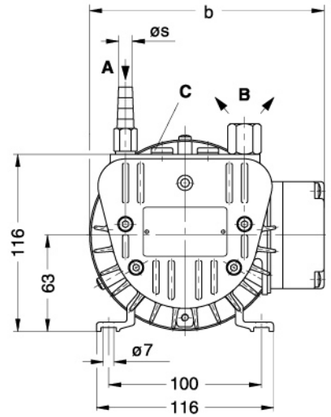
V-VTE			3	6	8	10
流量 Capacity	m³/h	50 Hz	3,5	6,0	8,0	10
		60 Hz	4,2	7,2	9,6	12
极限真空 Ultimate vacuum	mbar (abs.)		150			
电机类型 Motor version	3~		200 – 255 / 346 – 440 V (50 Hz) / 200 – 277 / 346 – 480 V (60 Hz)			
	1~		230 V ± 10 % (50/60 Hz)			
电机功率 Motor rating	kW (3~)	50 Hz	0,120	0,25	0,37	0,37
		60 Hz	0,145	0,30	0,44	0,44
	kW (1~)	50 Hz	0,120	0,25	0,35	0,35
		60 Hz	0,145	0,30	0,42	0,42
电流 Current drawn	A (3~)	50 Hz	1,12 / 0,71	1,40 / 0,81	2,77 / 1,6	2,77 / 1,6
		60 Hz	1,02 / 0,62	1,6 / 0,9	2,25 / 1,3	2,25 / 1,3
	A (1~)	50 Hz	1,3	2,3	3,4	3,4
		60 Hz	1,4	2,5	3,9	3,9
转速 Speed	min^{-1}	50 Hz	2700 – 2860			
		60 Hz	3150 – 3380			
平均噪音 Average noise level	dB(A) →DIN45635	50 Hz	55	57	59	60
		60 Hz	57	59	61	62
最大重量 Maximum weight	kg		6,5	7,5	8,0	10,3

附件 • *Accessories*

V-VTE			3	6	8	10
真空调节阀 Vacuum regulating valve	ZRV		6 / 0	6 / 0	12 / 0	12 / 0
逆止阀 Non-return valve	ZRK		6 (03)	12 (03)	12 (03)	12 (03)
电机启动器 Motor starter	ZMS (3~)	50 Hz	16 / 10	16 / 10	40 / 25	40 / 25
		60 Hz	16 / 10	16 / 10	25 / 16	25 / 16
	ZMS (1~)	50 Hz	16	25	40	40
		60 Hz	16	40	40	40

尺寸 • *Dimensions [mm]*





V-VTE	3	6	8	10
a	209	224	249	264
b	156	156	156	156
c	151	156	156	148
d	24	28	27	27
l	78	82	82	82
r	60	75	80	95
ø s	8-10	10-12	10-12	11-13
ø w	125	125	125	125
R	G 1/8	G 3/8	G 3/8	G 3/8

A	真空联接处 Vacuum connection
B	排气口 Exhaust
C	真空调节阀预留接口 Connection possibility for vacuum regulating valve
E	冷却空气入口 Cooling air inlet
F	冷却空气出口 Cooling air outlet
N	数据牌 Data plate
O	旋转方向 Direction of rotation
P	电机铭牌 Motor name plate

* 与进气口吸气状态有关，工作曲线和数据表（公差±10%）所示为真空泵在正常温度下运行。

* *refers to suction conditions at inlet connection. Curves, table content (tolerance ±10 %) refer to vacuum pump at normal operating temperature.*

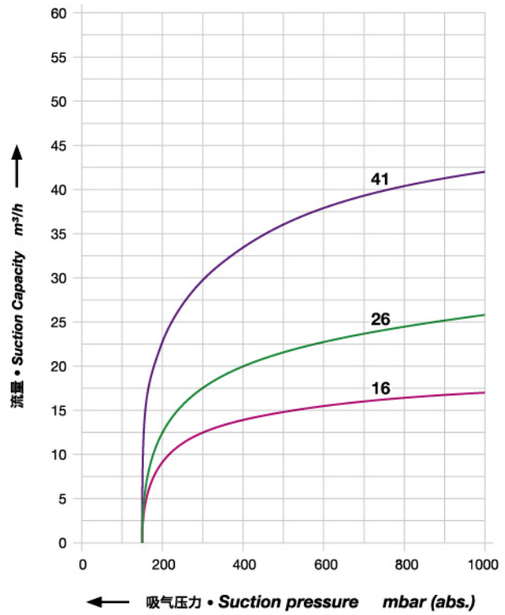


干式旋片真空泵，吸气口带纸质过滤器，隔音罩降低噪音水平，增强散热效果，有效保护操作者由于不慎触碰到热表面。灵活性的连接，无振动，易操作、维护和安装。流量从11.7至50.4m³/h，极限真空150mbar(abs.)。

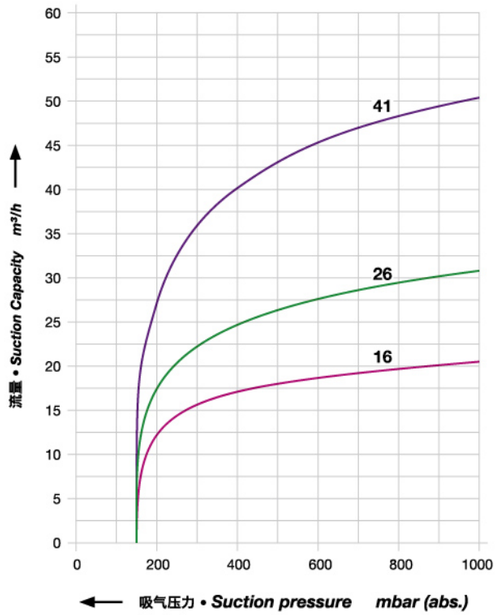
电机标准符合DIN EN 60034，保护标准IP54，绝缘等级F。

Dry running rotary vane vacuum pump with integral suction paper filter. Sound cover reduces noise level, enhances cooling and protects operator from mistakenly touching hot surfaces. Flexible connections possible. Vibration free, easy to operate, maintain and install. Capacities ranging from 11.7 to 50.4 m³/h, ultimate vacuum 150 mbar (abs.). Motors comply with DIN EN 60034, have IP 55 protection and insulation class F.

50 Hz 选型图 • *Selection diagram*



60 Hz 选型图 • *Selection diagram*

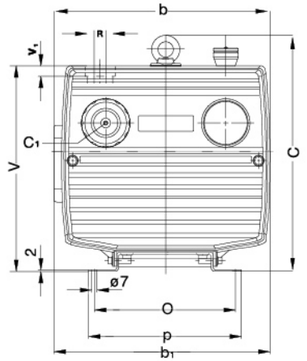


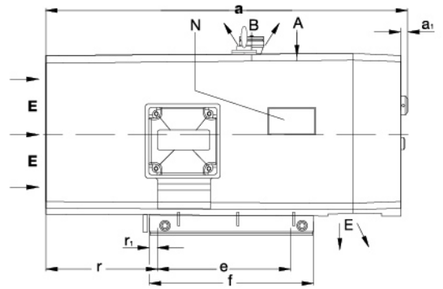
V-VTN			16	26	41
流量 Capacity	m³/h	50 Hz	17,0	27,0	42,0
		60 Hz	20,5	32,0	50,4
极限真空 Ultimate vacuum	mbar (abs.)		150		
电机类型 Motor version	3~	50 Hz	200 – 255 / 346 – 440 V ± 5 %		
		60 Hz	200 – 290 / 346 – 500 V ± 5 %		
	1~		230 V ± 10 % (50/60 Hz)		
电机功率 Motor rating	kW (3~)	50 Hz	0,55	0,75	1,50
		60 Hz	0,65	0,90	1,80
	kW (1~)	50 Hz	0,55	0,75	1,50
		60 Hz	0,65	0,90	1,80
电流 Current drawn	A (3~)	50 Hz	2,7 / 1,55	3,6 / 2,1	6,6 / 3,8
		60 Hz	2,9 / 1,7	4,2 / 2,4	6,9 / 4,0
	A (1~)	50 Hz	3,9	5,6	10,0
		60 Hz	4,4	6,5	10,0
转速 Speed	min^{-1}	50 Hz	1450		
		60 Hz	1740		
平均噪音 Average noise level	dB(A)	50 Hz	60	61	66
	ENISO3744	60 Hz	63	64	69
最大重量 Maximum weight	kg	3~	26,8	30,5	46,7
		1~	27,2	31,8	47,0

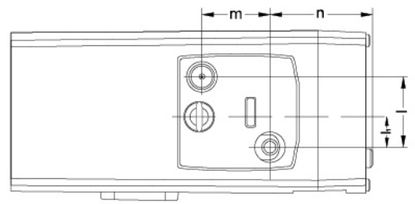
附件 • *Accessories*

V-VTN			16	26	41
真空调节阀 Vacuum regulating valve	ZRV		13 (08)	13 (08)	20 (08)
逆止阀 Non-return valve	ZRK		13	13	20
软管接头 Hose connection	ZSA		13	13	20
真空密封进气口过滤器 Vacuum tight suction filter	ZVF	50 Hz	20 (02)	20 (02)	20 (03)
		60 Hz			32 (01)
电机启动器 Motor starter	ZMS (3~)	50 Hz	40 / 16	40 / 25	100 / 40
		60 Hz	40 / 25	63 / 25	100 / 40
	ZMS (1~)	50 Hz	40	63	100
		60 Hz	63	100	100

尺寸 • *Dimensions [mm]*







V-VTN	16	26	41
a (01) | (02)	459 | 477	489 | 507	554 | 593
a_1 (01) | (02)	11 | 29	9 | 27	4 | 43
b	245	245	275
b_1	236	236	270
c	283	283	319
e	180	180	200
f	220	220	242
l	125	125	147
l_1	60	60	75
m	79	79	90
n (01) | (02)	106 | 125	136 | 154	138 | 177
o	150	150	190
p	170	170	210
r	164	164	201
r_1	11	11	10
v	246	246	282
v_1	16	16	17
R	G ½	G ½	G ¾

A	真空联接处 Vacuum connection
B	排气口 Exhaust
C_1	真空调节阀（选装） Vacuum regulating valve (optional extras)
E	冷却空气入口 Cooling air inlet
F	冷却空气出口 Cooling air outlet
N	数据牌 Data plate

* 流量测度于大气标准1巴（绝对压）和20摄氏度。工作曲线和数据表（公差±10%）所示为真空泵在正常温度下运行。
# 根据需要
• 流量根据需要

** The capacity refers to free atmospheric air at 1 bar (abs.) and 20 °C. Curves, table content (tolerance ±10 %) refer to vacuum pump at normal operating temperature.*
 # on request
• Capacity on request.

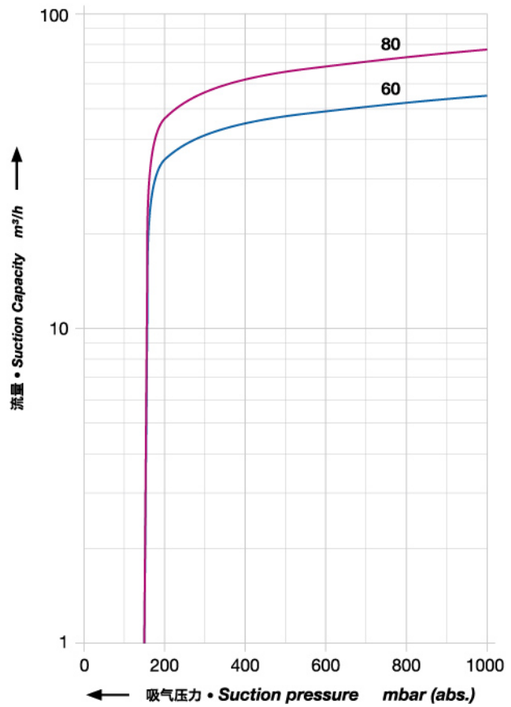


干式旋片真空泵，转子两侧装有轴承。带联轴节的法兰式电机。流量从55至92m³/hr，极限真空150mbar(abs.)。高效率及静音操作。隔音罩引导冷却空气从一侧或前后两侧排出，易于维修和操作。

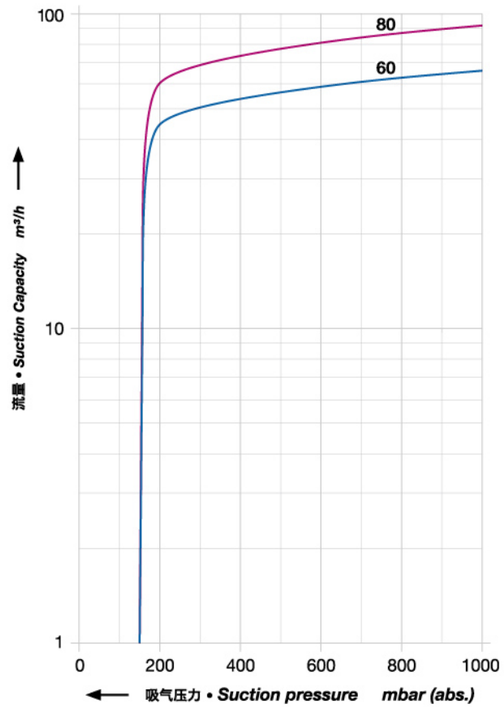
法兰式电机符合 DIN EN 60034标准，保护标准 IP 55，绝缘等级F。

Dry running rotary vane vacuum pump with bearings on both sides of the rotor. Flange motor with bolt coupling. Capacities from 55 to 92 m³/h. Ultimate vacuum 150 mbar (abs.). High efficiency and silent operation. Sound cover allows a ducted cooling air outlet either from one side only or from both front and back. Easy to service and operate. Flange mounted motors comply with DIN EN 60034, have IP 55 protection and insulation class F.

50 Hz 选型图 • *Selection diagram*



60 Hz 选型图 • *Selection diagram*

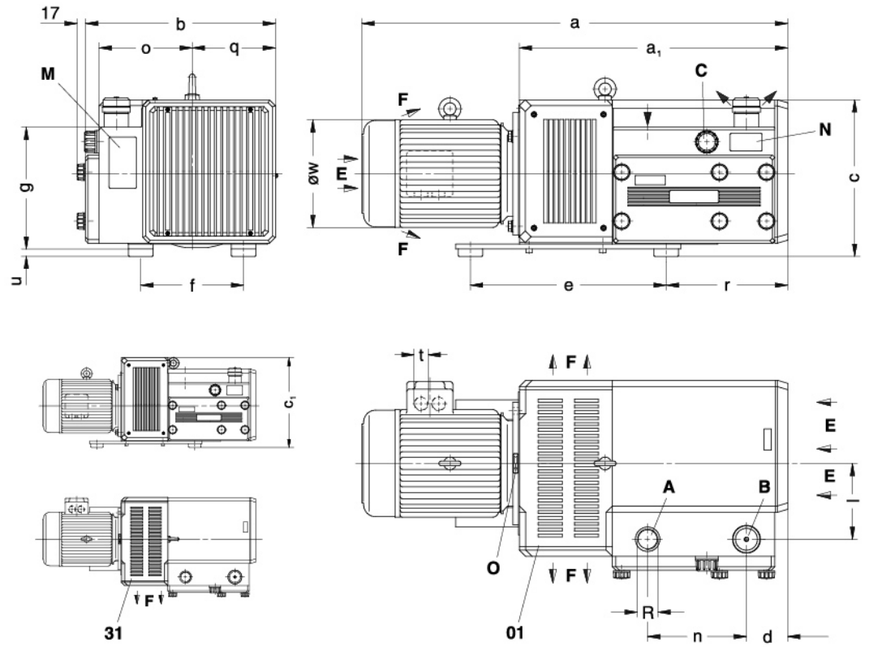


V-VTA			60	80
流量 Capacity	m³/h	50 Hz	55	77
		60 Hz	66	92
极限真空 Ultimate vacuum	mbar (abs.)		150	
电机类型 Motor version	3~	50 Hz	230 / 400 V ± 10 %	
		60 Hz	220 / 380 V	
电机功率 Motor rating	kW	50 Hz	1,5	2,2
		60 Hz	1,8	2,6
电流 Current drawn	A	50 Hz	6,1 / 3,5	9,5 / 5,45
		60 Hz	#	11,5 / 6,6
转速 Speed	min^{-1}	50 Hz	1450	
		60 Hz	1740	
平均噪音 Average noise level	dB(A) →DIN 45635	50 Hz	72	73
		60 Hz	74	75
最大重量 Maximum weight	kg		74	80

附件 • *Accessories*

V-VTA			60	80
逆止阀 Non-return valve	ZRK		25 (03)	25 (03)
真空密封灰尘分离器 Vacuum tight dust separator	ZFP		145 (06)	145 (06)
真空密封进气口过滤器 Vacuum tight suction filter	ZVF	50/60 Hz	32 (02)	32 (02)
电机启动器 Motor starter	ZMS	50 Hz	100 / 40	100 / 60
		60 Hz	#	160 / 100

尺寸 • *Dimensions [mm]*



V-VTA	60	80
a	737	771
a_1	468	468
b	388	388
c	320	320
c_1	366	366
d	80	80
e	400	400
f	210	210
g	249	249
l	149	149
n	142	142
o	190	190
q	170	170
r	166	166
t	M 25 x 1,5	M 32 x 1,5
u	15	15
ø w	196	196
R	G 1	G 1

(01)	两侧冷却空气出口 Two side cooling air outlet
(31)	单侧冷却空气出口 One side cooling air outlet
A	真空联接处 Vacuum connection
B	排气口 Exhaust
C	真空调节阀 Vacuum regulating valve
E	冷却空气入口 Cooling air inlet
F	冷却空气出口 Cooling air outlet
M	油脂标牌 Greasing label
N	数据牌 Data plate
O	旋转方向 Direction of rotation

* 与进气口吸气状态有关，工作曲线和数据表（公差±10%）所示为真空泵在正常温度下运行。
尺寸a 和 øw 或/和电流值不同。
根据需要

* *refers to suction conditions at inlet connection. Curves, table content (tolerance ±10 %) refer to vacuum pump at normal operating temperature.*
The dimensions a and ø w and/or the current drawn can differ.
on request

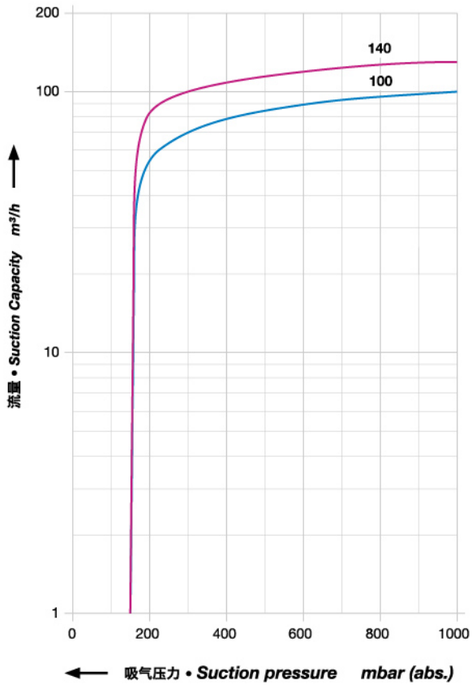


干式旋片真空泵，转子两侧装有轴承，带扭力弹性联轴节的法兰式电机。流量从100至155m³/hr。极限真空150mbar(abs)，高效及静音运行，隔音罩引导冷却空气排出，易维护及操作。

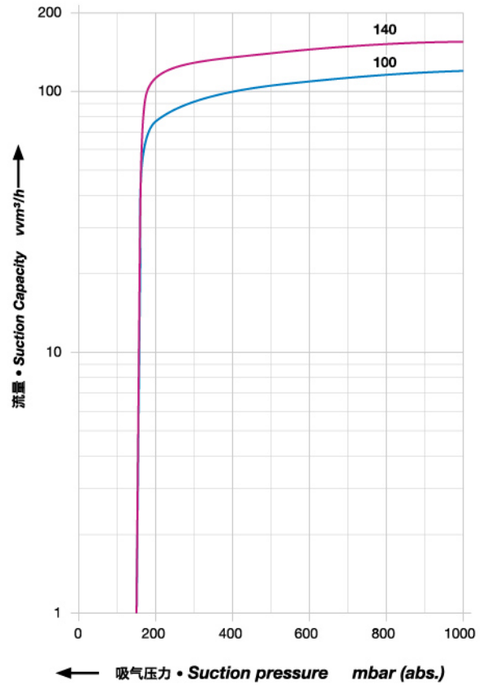
法兰式电机符合DIN EN 60034，保护标准 IP 54，绝缘等级F。

Dry running rotary vane vacuum pump with bearings on both sides of the rotor. Flange motor with torsionally flexible coupling.Capacities from 100 to 155 m³/h. Ultimate vacuum 150 mbar (abs.). High efficiency and silent operation. Sound cover allows a ducted cooling air outlet. Easy to service and operate.
Flange mounted motors comply with DIN EN 60034, have IP 55 protection and insulation class F.

50 Hz 选型图 • *Selection diagram*



60 Hz 选型图 • *Selection diagram*

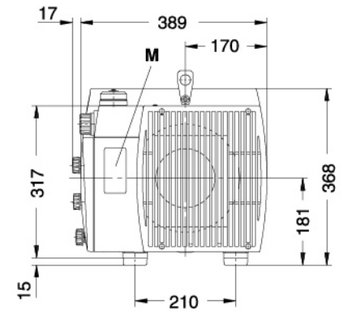


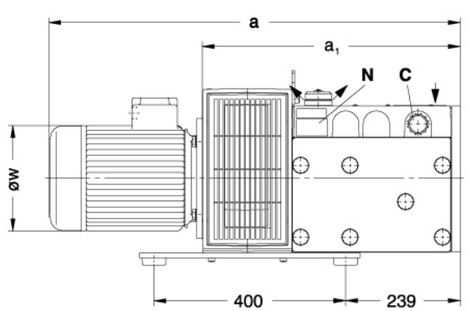
V-VTR			100	140
流量 Capacity	m³/h	50 Hz	100	130
		60 Hz	120	155
极限真空 Ultimate vacuum	mbar (abs.)		150	
电机类型 Motor version	3~	50 Hz	230 / 400 V ± 10 %	
		60 Hz	265 / 460 V ± 10 %	
电机功率 Motor rating	kW	50 Hz	3,0	4,0
		60 Hz	3,6	4,8
电流 Current drawn	A	50 Hz	11,5 / 6,6	14,2 / 8,2
		60 Hz	11,5 / 6,7	15,0 / 8,6
转速 *Speed*	min⁻¹	50 Hz	1450	
		60 Hz	1740	
平均噪音 Average noise level	dB(A) →DIN 456355	50 Hz	75	75
		60 Hz	77	78
最大重量 Maximum weight	kg		122	127

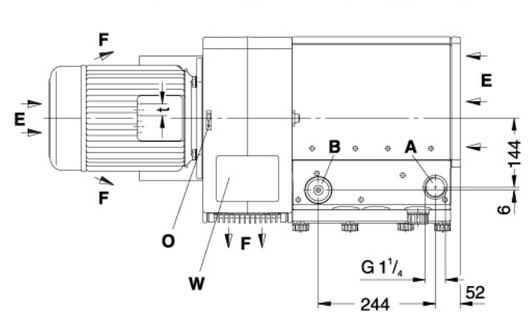
附件 • *Accessories*

V-VTR			100	140
逆止阀 Non-return valve	ZRK		32 (03)	32 (03)
真空密封灰尘分离器 Vacuum-tight dust separator	ZFP		216 (07)	216 (06)
真空密封进气口过滤器 Vacuum tight suction filter	ZVF	50/60 Hz	32 (03) / 40 (02)	40 (02)
电机启动器 Motor starter	ZMS	50 Hz	160 / 100	160 / 100
		60 Hz	160 / 100	160 / 100

尺寸 • *Dimensions [mm]*





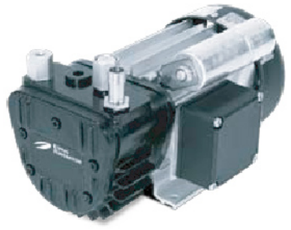


V-VTR	100	140
a	842	859
a1	539	539
t	M 25 x 1,5	M 25 x 1,5
ø w	196	220

A	真空联接处 Vacuum connection
B	排气口 Exhaust
C	真空调节阀 Vacuum regulating valve
E	冷却空气入口 Cooling air inlet
F	冷却空气出口 Cooling air outlet
M	油脂标牌 Greasing label
N	数据牌 Data plate
O	旋转方向 Direction of rotation
W	维护牌 Maintenance plate

* 与进气口吸气状态有关，工作曲线和数据表（公差±10%）所示为真空泵在正常温度下运行。
尺寸a 和 øw 或/和电流值不同。
根据需要

** refers to suction conditions at inlet connection. Curves, table content (tolerance ±10 %) refer to vacuum pump at normal operating temperature.*
The dimensions a and ø w and/or the current drawn can differ.
 # on request

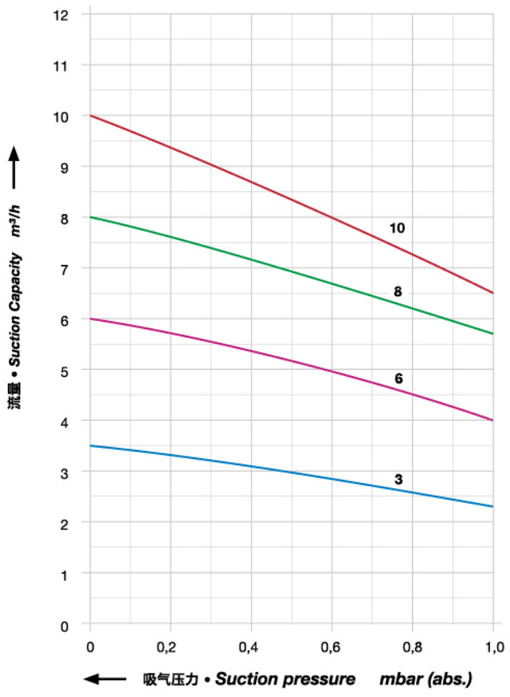


小型干式旋片压力泵，结构紧凑，易于装配在机器内。低噪音，抗腐蚀转子。软管联接和入口消音器为标准配备设计。流量从3.5至12m³/h，压力达1 bar。

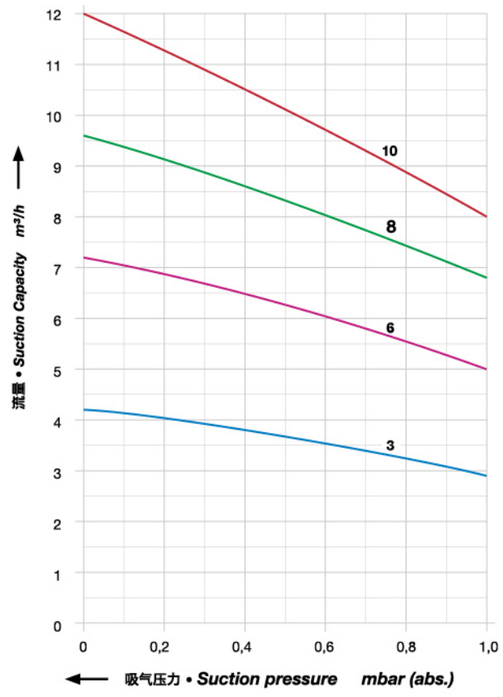
电机标准符合 DIN EN 60034，保护标准IP 54，绝缘等级F。

Small, dry running rotary vane compressor.Compact design, easy to install, very low noise level, corrosion proof rotors. Hose connector, inlet silencer and pressure relief valve fitted as standard. Capacities from 3.5 to 12 m³/h, pressure up to 1 bar.
Motors comply with DIN EN 60034, havelP 55 protection and insulation class F.

50 Hz 选型图 • *Selection diagram*



60 Hz 选型图 • *Selection diagram*

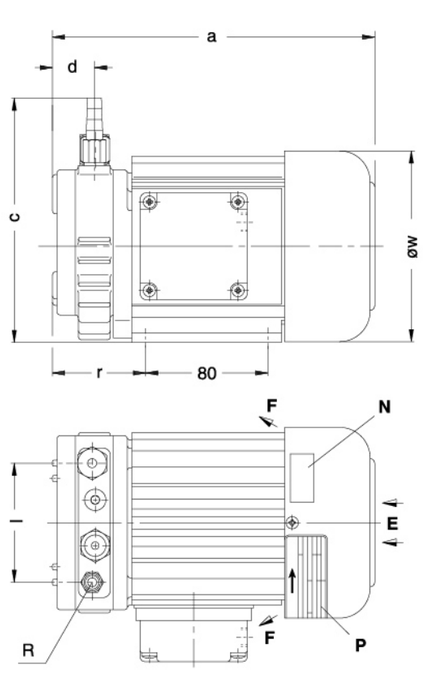


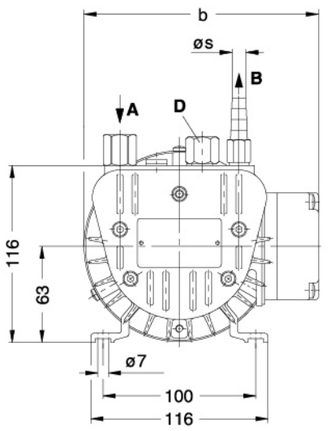
V-DTE			3	6	8	10
流量 Capacity	m³/h	50 Hz	3,5	6,0	8,0	10
		60 Hz	4,2	7,2	9,6	12
正压力 Overpressure	bar	3~	1,0	1,0	1,0	1,0
		1~	1,0	1,0	0,6	0,8
电机类型 Motor version	3~		200 – 255 / 346 – 440 V (50 Hz) / 200 – 277 / 346 – 480 V (60 Hz)			
	1~		230 V ± 10 % (50/60 Hz)			
电机功率 Motor rating	kW (3~)	50 Hz	0,120	0,25	0,37	0,37
		60 Hz	0,145	0,30	0,44	0,44
	kW (1~)	50 Hz	0,120	0,25	0,35	0,35
		60 Hz	0,145	0,30	0,42	0,42
电流 Current drawn	A (3~)	50 Hz	1,12 / 0,71	1,40 / 0,81	2,42 / 1,4	2,77 / 1,6
		60 Hz	1,02 / 0,62	1,6 / 0,9	2,25 / 1,3	2,25 / 1,3
	A (1~)	50 Hz	1,3	2,3	3,4	3,4
		60 Hz	1,4	2,5	3,9	3,9
转速 Speed	min⁻¹	50 Hz	2700 – 2860			
		60 Hz	3150 – 3380			
平均噪音 Average noise level	dB(A) →DIN 45635	50 Hz	57	60	62	63
		60 Hz	58	61	63	64
最大重量 Maximum weight	kg		6,5	7,5	8,0	10,3

附件 • *Accessories*

V-DTE			3	6	8	10
压力调节阀 Pressure regulating valve	ZRD		6	6	12	12
逆止阀 Non-return valve	ZRK		6 (03)	12 (03)	12 (03)	12 (03)
电机启动器 Motor starter	ZMS (3~)	50 Hz	16 / 10	16 / 10	40 / 25	40 / 25
		60 Hz	16 / 10	16 / 10	25 / 16	25 / 16
	ZMS (1~)	50 Hz	16	24	40	40
		60 Hz	16	40	40	40

尺寸 • *Dimensions [mm]*





V-DTE	3	6	8	10
a	208	224	249	264
b	156	156	156	156
c	151	157	156	148
d	24	28	27	27
l	78	82	82	82
r	60	75	80	95
ø s	8-10	10-12	10-12	11-13
ø w	125	125	125	125
R	G 1/8	G 3/8	G 3/8	G 3/8

A	吸气口 Suction
B	压力联接处 Pressure connection
D	卸压阀 Pressure limitation valve
E	冷却空气入口 Cooling air inlet
F	冷却空气出口 Cooling air outlet
N	数据牌 Data plate
O	旋转方向 Direction of rotation
P	电机铭牌 Motor name plate

* 流量测度于大气标准1巴（绝对压）和20摄氏度。工作曲线和数据表（公差±10%）所示为压力泵在正常温度下运行。

** The capacity refers to free atmospheric air at 1 bar (abs.) and 20 °C. Curves, table content (tolerance ±10 %) refer to compressor at normal operating temperature.*

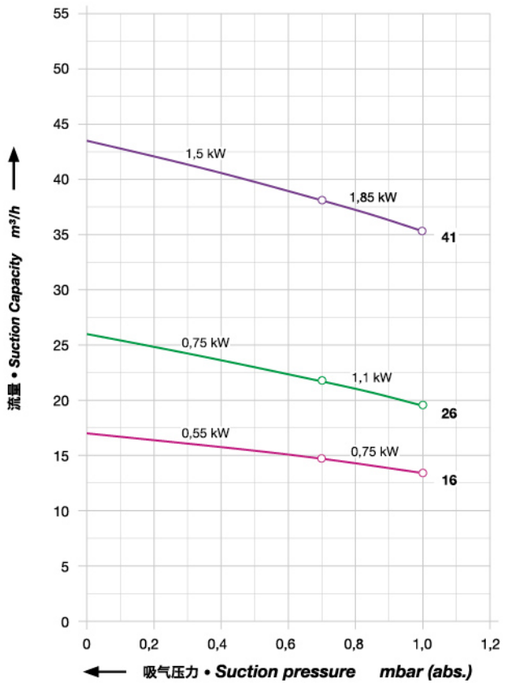


干式旋片压力泵，吸气口带空气过滤器，隔音罩降低噪音水平，增强散热效果，有效保护操作者由于不慎触碰到热表面。灵活性的连接，无振动，易操作、维护和安装。流量从11.3至52.2m³/h，压力达1bar。如果需要可配备压缩空气冷却器。

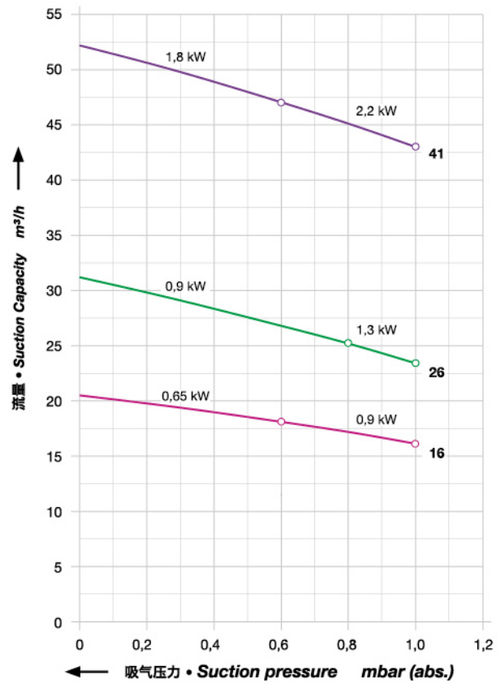
电机标准符合DIN EN 60034，保护标准IP54，绝缘等级F。

Dry running rotary vane compressor with integral suction air filter. Sound cover reduces noise level, enhances intensive cooling and protects operator from mistakenly touching hot surfaces. Flexible connections possible, vibration free, easy to operate, maintain and build in. Capacities ranging from 11.3 to 52.2 m³/h, pressure up to 1 bar.Can be fitted with a compressed air aftercooler if required. Motors comply with DIN EN 60034, have IP 55 protection and insulation class F.

50 Hz 选型图 • *Selection diagram*



60 Hz 选型图 • *Selection diagram*

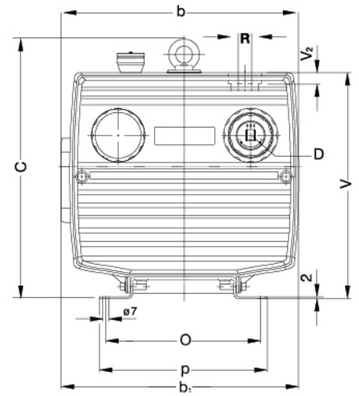


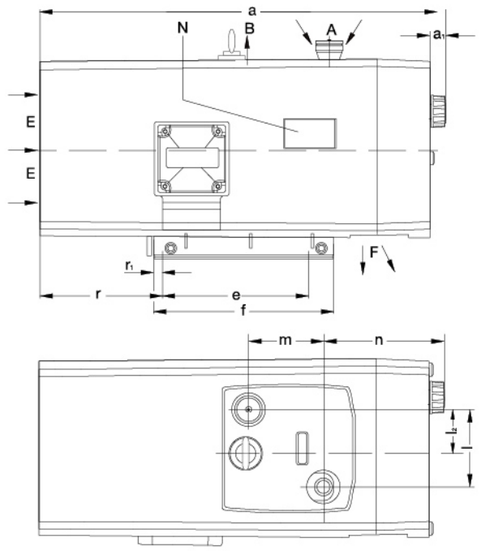
V-DTN			16		26		41	
流量 Capacity	m³/h	50 Hz	17,0		26,0		43,5	
		60 Hz	20,5		31,2		52,2	
正压力 Overpressure	bar	50 Hz	0,7	1,0	0,6	1,0	0,7	1,0
		60 Hz	0,6	1,0	0,5	1,0	0,6	1,0
电机类型 Motor version	3~	50 Hz	200 – 255 / 346 – 440 V ± 5 %					
		60 Hz	200 – 290 / 346 – 500 V ± 5 %					
	1~		230 V ± 10 % (50/60 Hz)					
电机功率 Motor rating	kW (3~)	50 Hz	0,55	0,75	0,75	1,1	1,50	1,85
		60 Hz	0,65	0,90	0,90	1,3	1,80	2,20
	kW (1~)	50 Hz	-	0,75	0,75	1,1	-	1,85
		60 Hz	-	0,90	0,90	-	-	-
电流 Current drawn	A (3~)	50 Hz	2,7 / 1,55	3,6 / 2,1	3,6 / 2,1	5,55 / 3,2	6,6 / 3,8	9,0 / 5,2
		60 Hz	2,9 / 1,7	3,8 / 2,2	4,2 / 2,4	5,7 / 3,3	6,9 / 4,0	9,0 / 5,2
	A (1~)	50 Hz	-	5,9	5,6	6,6	-	10,5
		60 Hz	-	5,9	6,5	-	-	-
转速 Speed	min⁻¹	50 Hz	1450					
		60 Hz	1740					
平均噪音 Average noise level	dB(A) ENISO3744	50 Hz	61		62		67	
		60 Hz	63		64		69	
最大重量 Maximum weight	kg	3~	28,0	28,2	30,7	33,9	47,0	48,4
		1~	-	28,7	34,4	34,4	-	49,0

附件 • *Accessories*

V-DTN			16		26		41	
逆止阀 Non-return valve	ZRK		13		13		20	
软管接头 Hose connection	ZSA		13		13		20	
电机启动器 Motor starter	ZMS (3~)	50 Hz	40 / 16	40 / 25	40 / 25	63 / 40	100 / 40	100 / 63
		60 Hz	40 / 25	40 / 25	63 / 25	63 / 40	100 / 63	100 / 63
	ZMS (1~)	50 Hz	-	63	63	100	-	160
		60 Hz	-	63	100	-	-	-

尺寸 • *Dimensions [mm]*





V-VTN	16	26	41
a	478	513	592
a₁	30	33	42
b	245	245	275
b₁	236	236	270
c	283	283	319
e	180	180	200
f	220	220	242
l	125	125	147
l₂	65	65	72
m	79	79	90
n	126	161	175
o	150	150	190
p	170	170	210
r	164	164	201
r₁	11	11	10
v	246	246	282
v₂	14	14	8
R	G ½	G ½	G ½

A	吸气口 Suction
B	压力联接处 Pressure connection
D	压力调节阀 Pressure regulating valve
E	冷却空气入口 Cooling air inlet
F	冷却空气出口 Cooling air outlet
N	数据牌 Data plate

* 流量测度于大气标准1巴（绝对压）和20摄氏度。工作曲线和数据表（公差±10%）所示为压力泵在正常温度下运行。
\# 根据需要
• 流量根据需要

** The capacity refers to free atmospheric air at 1 bar (abs.) and 20 °C. Curves, table content (tolerance ±10 %) refer to compressor at normal operating temperature.*
\# on request
• Capacity on request.

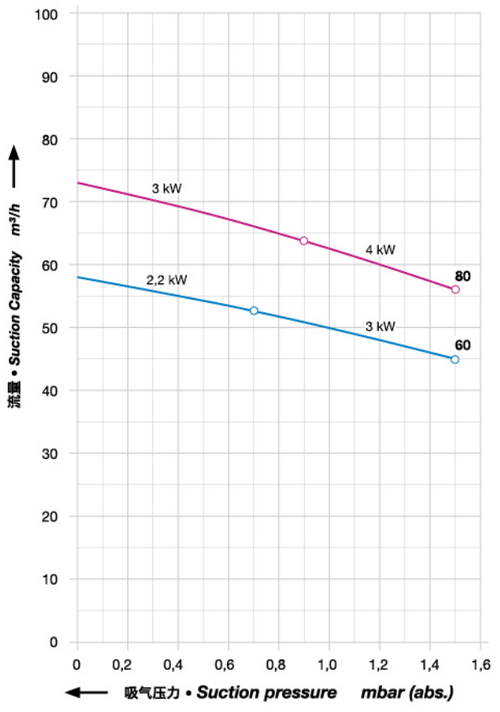


干式旋片压力泵，流量从58至88m³/hr。持续运行时压力达1.5bar，间歇运行时压力达2.2bar。高效率及静音操作。隔音罩引导冷却空气从一侧或前后两侧排出，易于维修和操作。

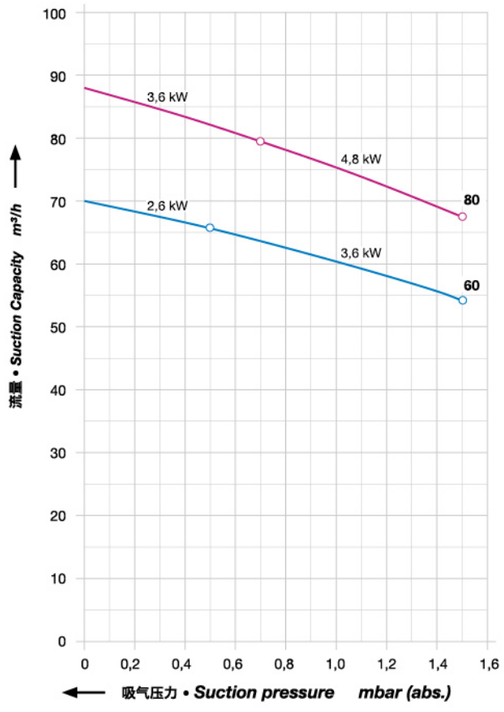
法兰式电机符合 DIN EN 60034标准，保护标准 IP 55，绝缘等级F。

Dry running rotary vane compressors with capacities ranging from 58 to 88 m³/h. Pressure up to 1.5 bar for continuous operation and up to 2.2 bar for intermittent operation. High efficiency and silent operation. Sound cover allows a ducted cooling air outlet, from one side only or from both front and back. Easy to service and operate.
Flange mounted motors comply with DIN EN 60034, have IP 55 protection and insulation class F.

50 Hz 选型图 • *Selection diagram*



60 Hz 选型图 • *Selection diagram*

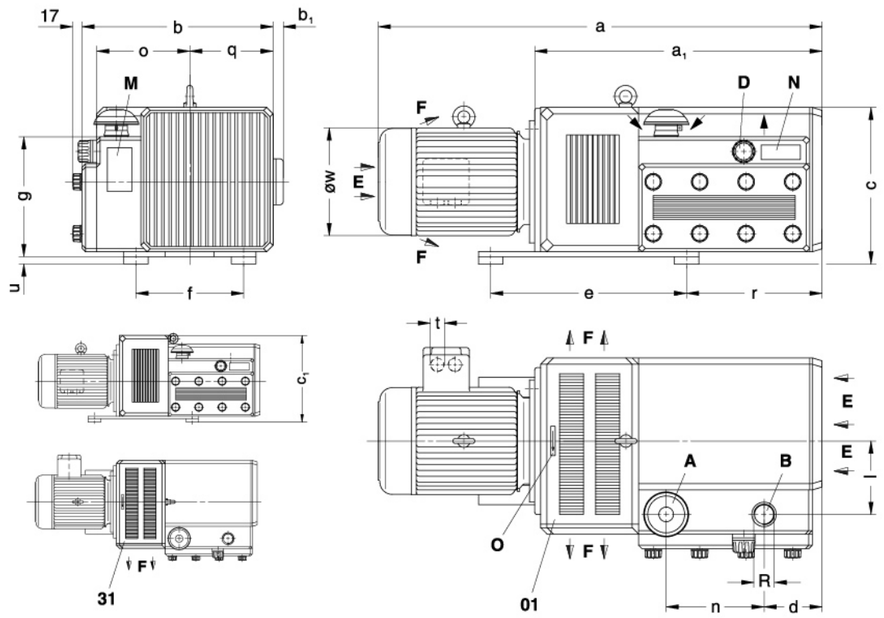


V-DTA			60		80	
流量 Capacity	m³/h	50 Hz	58		73	
		60 Hz	70		88	
正压力 Overpressure	bar	50 Hz	0,7	1,5	0,9	1,5
		60 Hz	0,5	1,5	0,7	1,5
电机类型 Motor version	3~	50 Hz	230 – 400 V ± 10 %			
		60 Hz	220 – 380 V			
电机功率 Motor rating	kW	50 Hz	2,2	3,0	3,0	4,0
		60 Hz	2,6	3,6	3,6	4,8
电流 Current drawn	A	50 Hz	10,0 / 5,9	11,4 / 6,6	12,2 / 7,1	15,0 / 8,8
		60 Hz	13,6 / 7,9	18,5 / 10,7	18,5 / 10,7	21,0 / 12
转速 Speed	min⁻¹	50 Hz	1450			
		60 Hz	1740			
平均噪音 Average noise level	dB(A) →DIN 45635	50 Hz	72		74	
		60 Hz	74		76	
最大重量 Maximum weight	kg		86	90	97	105

附件 • *Accessories*

V-DTA			60		80	
逆止阀 Non-return valve	ZRK		25 (03)		25 (03)	
进气过滤器 Suction filters	ZAF		25 (50)		25 (50)	
电机启动器 Motor starter	ZMS	50 Hz	100 / 60	160 / 100	160 / 100	160 / 100
		60 Hz	160 / 100	200 / 160	200 / 160	250 / 160

尺寸 • *Dimensions [mm]*

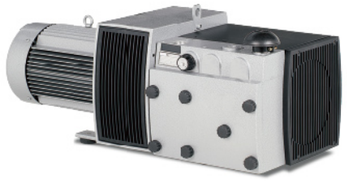


V-DTA	60	80	
a	771	771	788
a₁	468	468	
b	388	388	
b₁	-	-	
c	320	320	
c₁	366	366	
d	77	77	
e	400	400	
f	210	210	
g	249	249	
l	149	149	
n	146	146	
o	190	190	
q	170	170	
r	166	166	
t	M 32 x 1,5	M 32 x 1,5	
u	15	15	
ø w	196	196	220
R	G 1	G 1	

(01)	两侧冷却空气出口 Two side cooling air outlet
(31)	单侧冷却空气出口 One side cooling air outlet
A	吸气口 Suction
B	压力联接处 Pressure connection
D	压力调节阀 Pressure regulating valve
E	冷却空气入口 Cooling air inlet
F	冷却空气出口 Cooling air outlet
M	油脂标牌 Greasing label
N	数据牌 Data plate
O	旋转方向 Direction of rotation

* 流量测度于大气标准1巴(绝对压)和20摄氏度。工作曲线和数据表所示为压力泵在正常温度下运行。我们保留调整技术数据的权利。尺寸a和øw或/和电流值会因不同电机而与数据表不同。
# 根据需要

** The capacity refers to free atmospheric air at 1 bar (abs.) and 20°C. Curves and tables refer to compressor at normal operating temperature. We reserve the right to alter technical information! The dimensions a and ø w and/or the current drawn can differ when compared with the data list, depending on the motor type.*
 # on request

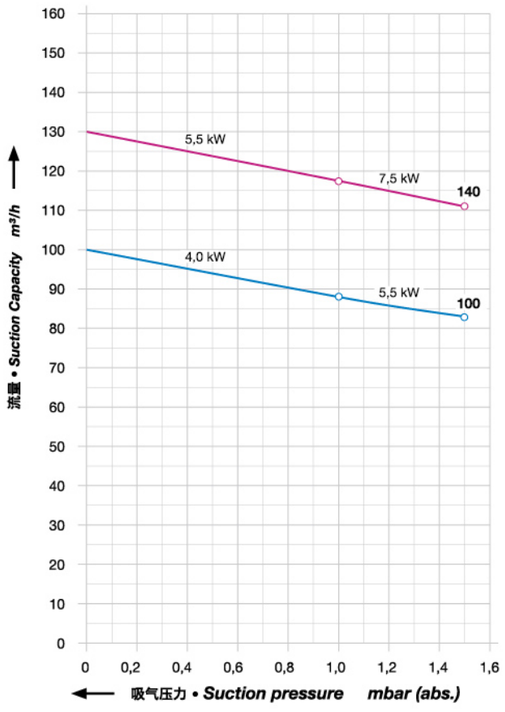


干式旋片压力泵，轴承在转子的两侧上，带扭力弹性联轴节的法兰式电机。流量从100至153m³/h。连续操作压力达1.5 bar，间歇操作压力达2.2 bar。高效及静音运行，隔音罩引导冷却空气排出，易维护及操作。

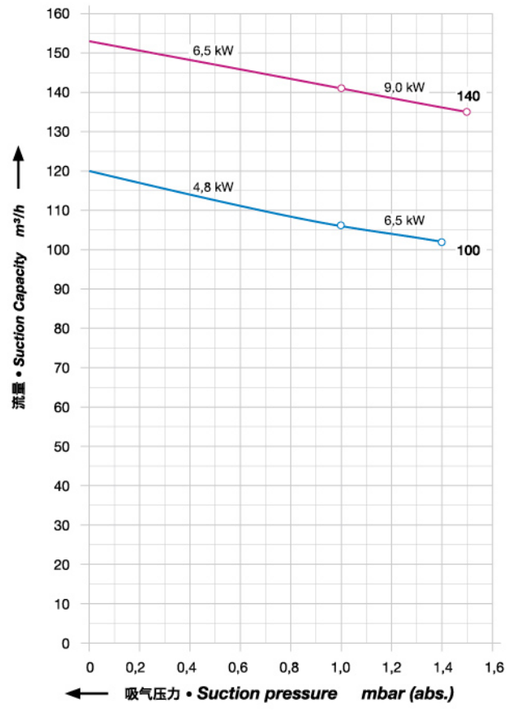
法兰式电机符合 DIN EN 60034，保护标准 IP 55，绝缘等级F。

Dry running rotary vane compressor with bearings on both sides of the rotor. Flange motor with torsionally flexible coupling. Capacities ranging from 100 to 153 m³/h. Pressure up to 1.5 bar for continuous operation and up to 2.2 bar for intermittent operation. High efficiency and silent operation. Sound cover allows a ducted cooling air outlet. Easy to service and operate.
Flange mounted motors comply with DIN EN 60034, have IP 55 protection and insulation class F.

50 Hz 选型图 • *Selection diagram*



60 Hz 选型图 • *Selection diagram*

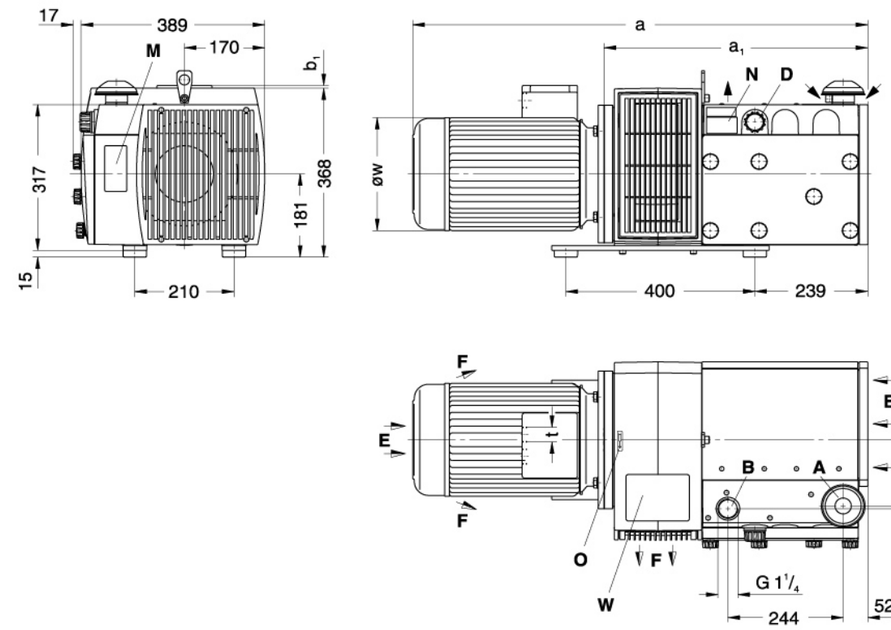


V-DTR			100		140	
流量 Capacity	m³/h	50 Hz	100		130	
		60 Hz	120		155	
正压力 Overpressure	bar	50 Hz	1,0	1,5	1,0	1,5
		60 Hz	1,0	1,4	1,0	1,5
电机类型 Motor version	3~	50 Hz	230 / 400 V ± 10 %			
		60 Hz	265 / 460 V ± 10 %			
电机功率 Motor rating	kW	50 Hz	4,0	5,5	5,5	7,5
		60 Hz	4,8	6,5	6,5	9,0
电流 Current drawn	A	50 Hz	14,2 / 8,2	19,5 / 11,3	19,5 / 11,3	27,0 / 15,5
		60 Hz	15,0 / 8,6	20,0 / 11,5	20,0 / 11,5	28,0 / 16,0
转速 Speed	min^{-1}	50 Hz	1450			
		60 Hz	1740			
平均噪音 Average noise level	dB(A) →DIN 45635	50 Hz	75	76	76	77
		60 Hz	77	78	78	79
最大重量 Maximum weight	kg		127	151	152	157

附件 • *Accessories*

V-DTR			100		140	
逆止阀 Non-return valve	ZRK		32 (03)		32 (03)	
进气过滤器 Suction filters	ZAF		32 (50)		32 (50)	
电机启动器 Motor starter	ZMS	50 Hz	160 / 100	200 / 160	200 / 160	- / 160
		60 Hz	160 / 100	250 / 160	250 / 160	- / 200

尺寸 • *Dimensions [mm]*



V-DTR	100		140	
a	859	964	964	964
a_1	539	559	559	559
b_1	-	1	1	1
t	M 25 x 1,5	M 32 x 1,5	M 32 x 1,5	
ø w	220	246	246	

A	吸气口 Suction
B	压力联接处 Pressure connection
D	压力调节阀 Pressure regulating valve
E	冷却空气入口 Cooling air inlet
F	冷却空气出口 Cooling air outlet
M	油脂标牌 Greasing label
N	数据牌 Data plate
O	旋转方向 Direction of rotation
W	维护牌 Maintenance plate

* 流量测度于大气标准1巴（绝对压）和20摄氏度。工作曲线和数据表（公差±10%）所示为压力泵在正常温度下运行。
# 根据需要

** The capacity refers to free atmospheric air at 1 bar (abs.) and 20 °C. Curves, table content (tolerance ±10 %) refer to compressor at normal operating temperature.*
 # on request



干式旋片真空压力复合泵，流量从16至51m³/h，压力/真空+ -0.6bar，内置进气及补气空气过滤器。隔音罩降低噪音水平，增强散热效果，有效保护操作者由于不慎触碰到热表面。灵活性的连接，无振动，易操作、维护和安装，带压缩空气冷却器。

电机标准符合DIN EN 60034，保护标准IP55，绝缘等级F。

Dry running rotary vane pressure vacuum pumps with capacities ranging from 16 to 51 m³/h. Pressure/vacuum up to ± 0.6 bar. Integral suction and blast air filters. Sound cover reduces noise level, enhances intensive cooling and protects operator from mistakenly touching hot surfaces. Flexible connection possible. Vibration free, easy to operate,maintain and install. With compressed air after cooler. Motors comply with DIN EN 60034, have IP 55 protection and insulation class F.

V-KTN			16	26	41
电机类型 Motor version	3~	50 Hz	200 – 255 / 346 – 440 V ± 5 %		
		60 Hz	200 – 290 / 346 – 500 V ± 5 %		
	1~		230 V ± 10 % (50 Hz)		
电机功率 Motor rating	kW (3~)	50 Hz	0,75	1,1	1,85
		60 Hz	0,90	1,3	2,20
	kW (1~)	50 Hz	0,75	1,0	1,85
		60 Hz	0,90	1,3	2,20
电流 Current drawn	A (3~)	50 Hz	3,6 / 2,1	5,55 / 3,2	9,0 / 5,2
		60 Hz	3,8 / 2,2	5,7 / 3,3	9,0 / 5,2
	A (1~)	50 Hz	-	6,6	-
		60 Hz	-	-	-
转速 Speed	min^{-1}	50 Hz	1450		
		60 Hz	1740		
平均噪音 Average noise level	dB(A) → ENISO3744	50 Hz	63	65	68
		60 Hz	65	68	70
最大重量 Maximum weight	kg	3~	28,4	35,1	49,9
		1~	28,6	35,2	52,2

V-KTN 16

真空/超压 Vacuum/Overpressure	bar		0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6
			0				+0,4				+0,5				+0,6			
流量 Capacity	m³/h	S*	17,0	13,4	12,3	10,4	15,5	10,8	9,2	7,0	15,0	10,2	8,4	6,3	14,6	9,6	7,8	5,2
	(50 Hz)	D	16,3	12,4	11,5	10,0	14,0	10,4	9,2	8,1	13,2	9,7	8,7	7,6	12,5	9,2	8,2	7,2
	m³/h	S*	19,8	16,5	14,8	13,1	18,9	13,9	12,4	10,0	18,1	13,4	11,8	9,4	17,7	12,9	10,9	8,8
	(60 Hz)	D	19,5	14,4	13,0	11,8	17.2	12,4	11,2	9,8	16,4	11,9	10,8	9,2	15,8	11,4	10,2	8,8
电机功率 Motor rating	kW	50 Hz	0,75															
		60 Hz	0,90															

V-KTN 26

真空/超压 Vacuum/Overpressure	bar	S[1] D[2]	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6
			0				+0,4				+0,5				+0,6			
流量 Capacity	m³/h	S*	26,0	19,5	18,0	15,0	24,0	17,5	15,0	12,0	23,5	17,0	14,0	11,0	23,0	16,0	13,0	10,0
	(50 Hz)	D	26,2	20,0	18,0	16,0	23,0	17,0	15,2	13,8	22,4	16,4	14,6	13,2	21,8	15,7	14,0	12,8
	m³/h	S*	31,5	25,0	23,0	20,2	29,5	22,3	20,2	17,0	28,5	21,2	19,2	15,8	27,5	20,0	18,2	15,0
	(60 Hz)	D	31,3	23,5	21,6	19,8	28,0	20,8	18,8	16,8	27,0	20,0	18,0	16,2	26,0	19,5	17,2	15,3
电机功率 Motor rating	kW	50 Hz	1,1															
		60 Hz	1,3															

V-KTN 41

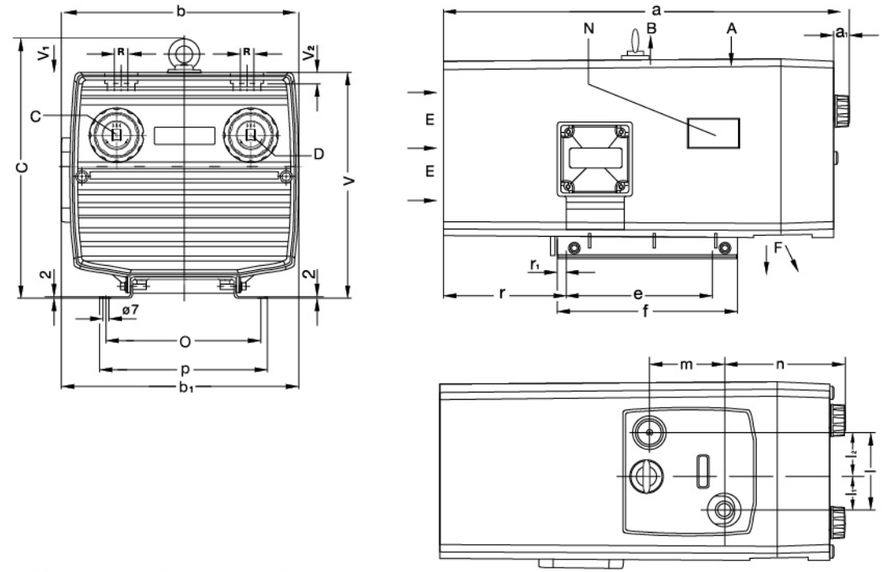
真空/超压 Vacuum/Overpressure	bar	S[1] D[2]	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6
			0				+0,4				+0,5				+0,6			
流量 Capacity	m³/h	S*	42,5	36,4	34,2	32,0	41,0	35,2	33,0	30,0	39,5	33,5	31,2	28,0	38,3	31,5	29,1	26,5
	(50 Hz)	D	42,0	31,3	28,4	25,2	40,5	30,1	27,2	24,0	38,7	29,0	26,0	23,1	37,0	27,5	24,7	22,0
	m³/h	S*	51,0	43,7	41,0	38,4	49,2	42,2	39,6	36,0	47,4	40,2	37,4	33,6	46,0	37,8	34,9	31,8
	(60 Hz)	D	50,4	37,6	34,1	30,2	48,6	36,1	32,6	28,8	46,4	34,8	31,2	27,7	44,4	33,0	29,6	26,4
电机功率 Motor rating	kW	50 Hz	1,85															
		60 Hz	2,2															

[1] 吸气 • Suction air
[2] 压缩空气 • Compressed air

附件 • *Accessories*

V-KTN			16	26	41
逆止阀 Non-return valve	ZRK		13	13	20
软管接头 Hose connection	ZSA		13	13	20
电机启动器 Motor starter	ZMS (3~)	50 Hz	40 / 25	63 / 40	100 / 63
		60 Hz	40 / 25	63 / 40	100 / 63
	ZMS (1~)	50 Hz	-	100	-
		60 Hz	-	-	-

尺寸 • *Dimensions [mm]*



V-VTN	16	26	41
a	480	511	592
a_1	32	31	42
b	245	245	275
b_1	236	236	270
c	283	283	319
e	180	180	200
f	220	220	242
l	125	125	147
l_1	60	60	75
l_2	65	65	72
m	79	79	90
n	126	156	175
o	150	150	190
p	170	170	210
r	164	164	201
r_1	11	11	10
v	246	246	282
v_1	16	16	17
v_2	14	14	8
R	G ½	G ½	G ¾

A	真空联接处 Vacuum connection
B	压力联接处 Pressure connection
C	真空调节阀 Vacuum regulating valve
D	压力调节阀 Pressure regulating valve
E	冷却空气入口 Cooling air inlet
F	冷却空气出口 Cooling air outlet
N	数据牌 Data plate

* 与进气口吸气状态有关，数据表（公差±10%）所示为压力／真空泵在正常温度下运行。
# 根据需要
• 流量根据需要

** Refers to suction conditions at inlet connection. Tables (tolerance ±10 %) refer to pressure/vacuum pump at normal operating temperature.*
 # on request
• Capacity on request.



干式旋片真空压力复合泵，流量从55至90m³/hr。真空达-0.6bar，压力达+0.7 bar。弹性调整真空和压力气体流量以满足不同要求，规格1：标准真空和压力流量；规格2: 最大压缩空气流量; 规格3: 最大真空流量。高效率及静音操作。隔音罩引导冷空气从一侧或前面及背面排出，易于维修和操作。

Dry running rotary vane pressure vacuum pump with capacities from 55 to 90 m³/h. Vacuum up to - 0.6 bar and pressure up to + 0.7 bar. Flexibility to alter vacuum and compressed air capacities to suit individual applications: Version /1: standard vacuum and pressure capacity. Version /2: maximum compressed air capacity. Version /3: maximum vacuum capacity. High efficiency and low noise level. Sound cover allows a ducted cooling air outlet either from one side only, or from both front and back. Easy to service and operate.

V-KTA			60
电机类型 Motor version	3~	50 Hz	230 / 400 V ± 10 %
		60 Hz	220 / 380 V
电机功率 Motor rating	kW	50 Hz	2,2 / 3,0
		60 Hz	2,6 / 3,6
电流 Current drawn	A	50 Hz	8,5 / 4,9 / 11,5 / 6,6
		60 Hz	13,6 / 7,9 / 18,5 / 10,7
转速 Speed	min^{-1}	50 Hz	1450
		60 Hz	1740
平均噪音 Average noise level	dB(A) →DIN 45635	50 Hz	73
		60 Hz	76
最大重量 Maximum weight	kg		86 / 92

V-KTA 60/1

真空/超压	bar	S[1]	0	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6
Vacuum/Overpressure		D[2]	0	+0,4				+0,5				+0,6				+0,7			
流量	m³/h	S*	54,3	52,5	44,7	42,0	38,6	51,8	44,0	41,3	37,6	51,1	43,2	40,5	36,7	50,5	42,5	39,7	36,0
Capacity	(50 Hz)	D	54,0	50,5	40,5	37,5	34,4	49,7	39,7	36,8	33,7	48,8	38,9	36,0	32,9	48,0	38,0	35,2	32,0
	m³/h	S*	64,1	62,0	52,7	49,6	45,5	61,1	51,9	48,7	44,4	60,3	51,0	47,8	43,3	59,6	50,2	46,8	42,5
	(60 Hz)	D	63,7	59,6	47,8	44,3	40,6	58,6	46,8	43,4	39,8	57,6	45,9	42,5	38,8	56,6	44,8	41,5	37,8
电机功率	kW	50 Hz	2,2									3,0							
Motor rating		60 Hz	3,6																

V-KTA 60/2

真空/超压	bar	S[1]	0	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6
Vacuum/Overpressure		D[2]	0	+0,4				+0,5				+0,6				+0,7			
流量	m³/h	S*	40,0	38,8	32,4	30,1	26,9	38,3	31,7	29,3	26,0	37,8	31,0	28,5	25,0	37,2	30,1	27,6	24,0
Capacity	(50 Hz)	D	57,5	54,6	45,2	42,8	40,5	53,7	44,5	42,1	39,8	52,9	43,8	41,4	39,2	52,0	43,0	40,7	38,5
	m³/h	S*	47,2	45,8	38,2	35,5	31,7	45,2	37,4	34,6	30,7	44,6	36,6	33,6	29,5	43,9	35,5	32,6	28,3
	(60 Hz)	D	67,9	64,4	53,3	50,5	47,8	63,4	52,5	49,7	47,0	62,4	51,7	48,9	46,3	61,4	50,7	48,0	45,4
电机功率	kW	50 Hz	2,2									3,0							
Motor rating		60 Hz	3,6																

V-KTA 60/3

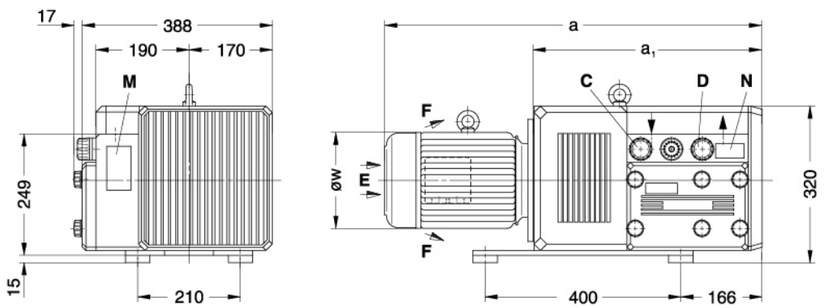
真空/超压	bar	S[1]	0	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6
Vacuum/Overpressure		D[2]	0	+0,4				+0,5				+0,6				+0,7			
流量	m³/h	S*	59,5	57,2	48,6	45,9	43,0	56,6	47,8	45,1	42,2	55,9	47,2	44,4	41,4	55,4	46,5	43,6	40,5
Capacity	(50 Hz)	D	45,0	42,5	32,6	29,7	26,4	41,6	31,8	28,9	25,6	40,8	31,1	28,2	24,8	40,0	30,5	27,4	24,0
	m³/h	S*	70,2	67,5	57,3	54,2	50,7	66,8	56,4	53,2	49,8	66,0	55,7	52,4	48,9	65,4	54,9	51,4	47,8
	(60 Hz)	D	53,1	50,2	38,5	35,0	31,2	49,1	37,5	34,1	30,2	48,1	36,7	33,3	29,3	47,2	36,0	32,3	28,3
电机功率	kW	50 Hz	2,2			3,0	2,2					3,0							
Motor rating		60 Hz	2,6					3,6											

[1] 吸气 • Suction air
[2] 压缩空气 • Compressed air

附件 • *Accessories*

V-KTA			60	
逆止阀 Non-return valve	ZRK		25 (03)	
灰尘分离器 Dust separator	ZFP		145 (06)	
电机启动器 Motor starter	ZMS	50 Hz	100 / 60	160 / 100
		60 Hz	160 / 100	200 / 160

尺寸 • *Dimensions [mm]*



V-KTA	60	
a	771	771
a_1	468	
t	M 32 x 1,5	M 32 x 1,5
ø w	196	196

(01)	两侧冷却空气出口 Two side cooling air outlet	E	冷却空气入口 Cooling air inlet
(31)	单侧冷却空气出口 One side cooling air outlet	F	冷却空气出口 Cooling air outlet
A	真空联接处 Vacuum connection	M	油脂标牌 Greasing label
B	压力联接处 Pressure connection	N	数据牌 Data plate
C	真空调节阀 Vacuum regulating valve	O	旋转方向 Direction of rotation
D	压力调节阀 Pressure regulating valve		

更高的压力和真空根据需要。
• 与进气口吸气状态有关，数据表（公差±10%）所示为压力／真空泵在正常温度下运行。
尺寸a 和ø w或/和电流值不同。

Higher pressures and vacuum on request!
• *refers to suction conditions at inlet connection. Tables (tolerance ±10 %) refer to pressure / vacuum pump at normal operating temperature.*
The dimensions a and ø w and/or the current drawn can differ.



干式旋片真空压力复合泵，流量从55至90m³/hr。真空达-0.6bar，压力达+0.7 bar。弹性调整真空和压力气体流量以满足不同要求，规格1： 标准真空和压力流量；规格2: 最大压缩空气流量; 规格3: 最大真空流量。高效率及静音操作。隔音罩引导冷空气从一侧或前面及背面排出，易于维修和操作。

Dry running rotary vane pressure vacuum pump with capacities from 55 to 90 m³/h. Vacuum up to - 0.6 bar and pressure up to + 0.7 bar. Flexibility to alter vacuum and compressed air capacities to suit individual applications: Version /1: standard vacuum and pressure capacity. Version /2: maximum compressed air capacity. Version /3: maximum vacuum capacity. High efficiency and low noise level. Sound cover allows a ducted cooling air outlet either from one side only, or from both front and back. Easy to service and operate.

V-KTA			80
电机类型 Motor version	3~	50 Hz	230 / 400 V ± 10 %
		60 Hz	220 / 380 V
电机功率 Motor rating	kW	50 Hz	3,0 / 4,0
		60 Hz	3,6 / 4,8
电流 Current drawn	A	50 Hz	11,5 / 6,6 / 15,2 / 8,8
		60 Hz	18,5 / 10,7 / 21,0 / 12,0
转速 Speed	min^{-1}	50 Hz	1450
		60 Hz	1740
平均噪音 Average noise level	dB(A) →DIN 45635	50 Hz	75
		60 Hz	77
最大重量 Maximum weight	kg		95 / 101

V-KTA 80/1

真空/超压	bar	S[1]	0	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6
Vacuum/Overpressure		D[2]	0	+0,4				+0,5				+0,6				+0,7			
流量	m³/h	S*	70,0	68,0	58,5	55,0	50,8	67,0	57,6	54,0	49,5	66,0	56,3	52,7	48,2	65,0	55,4	51,7	47,0
Capacity	(50 Hz)	D	68,5	64,4	52,7	49,4	46,0	63,5	51,8	48,6	45,0	62,8	50,8	47,5	43,8	62,0	50,0	46,6	43,0
	m³/h	S*	82,6	80,2	69,0	64,9	60,0	79,0	68,0	63,7	58,4	77,9	66,4	62,2	56,9	76,7	65,4	61,0	55,5
	(60 Hz)	D	80,8	76,0	62,2	58,3	54,3	74,9	61,1	57,3	53,1	74,1	59,9	56,0	51,7	73,2	59,0	55,0	50,7
电机功率	kW	50 Hz	3,0								4,0	3,0				4,0			
Motor rating		60 Hz	3,6					4,8											

V-KTA 80/2

真空/超压	bar	S[1]	0	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6
Vacuum/Overpressure		D[2]	0	+0,4				+0,5				+0,6				+0,7			
流量	m³/h	S*	50,5	48,7	39,6	36,3	32,0	48,0	38,8	35,4	31,1	47,2	37,8	34,5	30,0	46,3	37,0	33,5	29,0
Capacity	(50 Hz)	D	73,0	69,2	58,5	55,6	53,0	68,2	57,3	54,6	52,0	67,2	56,4	53,7	51,0	66,5	55,4	52,6	50,0
	m³/h	S*	60,0	57,5	46,7	42,8	37,8	56,6	45,8	41,8	36,7	55,7	44,6	40,7	35,4	54,6	43,7	39,5	34,2
	(60 Hz)	D	86,1	81,7	69,0	65,6	62,5	80,5	67,6	64,4	61,4	79,3	66,6	63,4	60,2	78,5	65,4	62,1	59,0
电机功率	kW	50 Hz	3,0			4,0		3,0				4,0							
Motor rating		60 Hz	3,6					4,8											

V-KTA 80/3

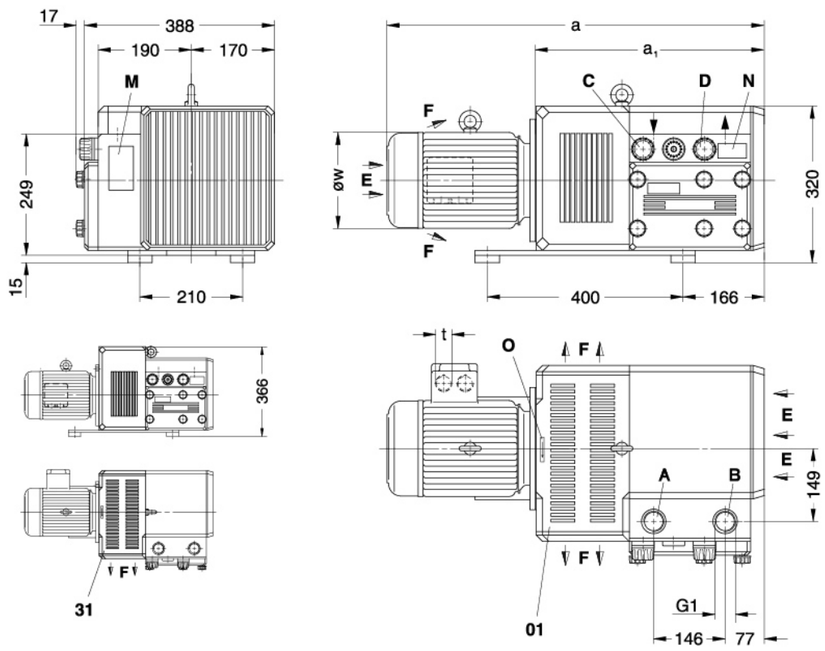
真空/超压	bar	S[1]	0	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6
Vacuum/Overpressure		D[2]	0	+0,4				+0,5				+0,6				+0,7			
流量	m³/h	S*	74,5	72,5	64,2	60,7	56,0	71,5	68,2	59,7	55,0	70,5	61,8	58,3	53,7	69,5	60,8	57,2	52,5
Capacity	(50 Hz)	D	57,0	53,5	41,0	37,5	33,7	52,5	39,8	36,3	32,5	51,5	38,6	35,0	31,2	50,4	37,5	33,7	30,0
	m³/h	S*	87,9	85,6	75,8	71,6	66,1	84,4	80,5	70,4	64,9	83,2	72,9	68,8	63,4	82,1	71,7	67,5	62,0
	(60 Hz)	D	67,3	63,1	48,4	44,3	39,8	62,0	47,0	42,8	38,4	60,8	45,5	41,3	36,8	59,5	44,3	39,8	35,4
电机功率	kW	50 Hz						3,0							4,0	3,0		4,0	
Motor rating		60 Hz	3,6			4,8		3,6				4,8							

[1] 吸气 • Suction air
[2] 压缩空气 • Compressed air

附件 • *Accessories*

V-KTA			80	
逆止阀 Non-return valve	ZRK		25 (03)	
灰尘分离器 Dust separator	ZFP		216 (07)	
电机启动器 Motor starter	ZMS	50 Hz	160 / 100	160 / 100
		60 Hz	200 / 160	250 / 160

尺寸 • *Dimensions [mm]*



V-KTA	80	
a	771	788
a_1	468	
t	M 32 x 1,5	M 32 x 1,5
ø w	196	220

(01)	两侧冷却空气出口 Two side cooling air outlet	E	冷却空气入口 Cooling air inlet
(31)	单侧冷却空气出口 One side cooling air outlet	F	冷却空气出口 Cooling air outlet
A	真空联接处 Vacuum connection	M	油脂标牌 Greasing label
B	压力联接处 Pressure connection	N	数据牌 Data plate
C	真空调节阀 Vacuum regulating valve	O	旋转方向 Direction of rotation
D	压力调节阀 Pressure regulating valve		

更高的压力和真空根据需要。
* 与进气口吸气状态有关，数据表（公差±10%）所示为压力／真空泵在正常温度下运行。
尺寸a 和⊠ w或/和电流值不同。

Higher pressures and vacuum on request!
* *refers to suction conditions at inlet connection. Tables (tolerance ±10 %) refer to pressure / vacuum pump at normal operating temperature.*
The dimensions a and ø w and/or the current drawn can differ.



干式旋片真空压力复合泵，轴承在转子的两侧上，带扭力弹性联轴节的法兰式电机。流量从100至160m³/h。真空达 -0.6 bar，压力达 + 0.6bar。高效及静音运行，隔音罩引导冷却空气排出，易维护及操作。

法兰式电机符合 DIN EN 60034，保护标准 IP 55，绝缘等级F。

Dry running rotary vane pressure vacuum pumps with bearings on both sides of the rotor. Flange motor with torsionally flexible coupling. Capacities from 100 to 160 m³/h, vacuum up to - 0.6 bar and pressure up to + 0.6 bar. High efficiency and silent operation. Sound cover allows a ducted cooling air outlet. Easy to service and operate.
Flange mounted motors comply with DIN EN 60034, have IP 55 protection and insulation class F.

V-KTR			100
电机类型 Motor version	3~	50 Hz	230 / 400 V ± 10 %
		60 Hz	265 / 460 V ± 10 %
电机功率 Motor rating	kW (M)	50 Hz	5,5
		60 Hz	6,5
电流 Current drawn	A	50 Hz	19,5 / 11,3
		60 Hz	20,0 / 11,5
转速 Speed	min⁻¹	50 Hz	1450
		60 Hz	1740
平均噪音 Average noise level	dB(A) →DIN 45635	50 Hz	76
		60 Hz	77
最大重量 Maximum weight	kg		151

V-KTR 100														
真空/超压 Vacuum/Overpressure	bar	S[1]	0	-0,2	-0,4	-0,5	-0,6	0	-0,2	-0,4	-0,5	-0,6	0	-0,2	-0,4
		D[2]			0					+0,2				+0,4	
流量 Capacity	m³/h	S*	103,6	99,5	93,4	88,3	82,3	102,1	97,2	90,7	84,8	78,7	100,7	95,0	86,8
	(50 Hz)	D	110,0	101,5	90,6	85,3	79,6	107,1	99,0	88,7	82,8	76,7	104,0	96,5	86,3
	m³/h	S*	127,9	120,0	113,6	109,0	103,0	124,6	116,9	110,0	105,4	99,4	120,7	113,8	106,4
	(60 Hz)	D	136,5	125,9	107,7	98,4	90,5	133,3	122,0	104,7	95,9	87,8	130,0	118,1	101,7
需要功率 Power required	kW (erf)	50 Hz	2,71	3,15	3,45	3,69	3,80	2,95	3,27	3,68	3,89	4,06	3,18	3,59	4,07
		60 Hz	3,88	4,26	4,61	4,75	4,87	4,15	4,61	4,80	5,13	5,24	4,43	4,93	5,36
不同压缩空气温度 Temperature difference compressed air	Δ t (°C)	50 Hz	19,1	21,9	24,4	25,8	26,7	21,4	24,3	27,2	28,7	30,0	23,3	26,2	29,5
		60 Hz	22,0	25,0	27,5	28,5	29,5	25,0	28,0	30,8	31,7	32,5	28,0	31,0	34,0

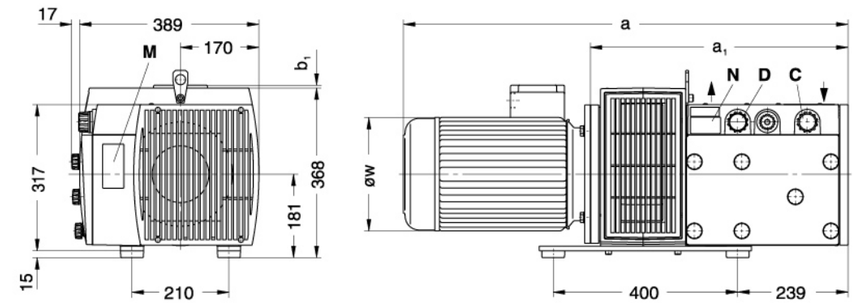
V-KTR 100														
真空/超压 Vacuum/Overpressure	bar	S[1]	-0,5	-0,6	0	-0,2	-0,4	-0,5	-0,6	0	-0,2	-0,4	-0,5	-0,6
		D[2]	+0,4				+0,5					+0,6		
流量 Capacity	m³/h	S*	81,8	75,6	99,6	93,8	85,2	80,8	74,7	98,8	92,6	84,3	79,8	74,2
	(50 Hz)	D	80,2	74,3	102,3	95,2	85,2	79,1	73,2	100,8	94,0	84,2	78,0	71,9
	m³/h	S*	101,6	95,8	118,8	112,3	104,5	99,7	93,8	117,0	110,9	102,8	97,8	91,9
	(60 Hz)	D	93,2	84,6	128,3	116,0	100,1	91,9	83,4	126,6	114,0	98,6	90,6	81,7
需要功率 Power required	kW (erf)	50 Hz	4,30	4,45	3,32	3,73	4,25	4,49	4,72	3,44	3,92	4,38	4,64	4,83
		60 Hz	5,53	5,67	4,65	5,18	5,61	5,77	5,94	4,85	5,36	5,77	5,99	6,15
不同压缩空气温度 Temperature difference compressed air	Δ t (°C)	50 Hz	31,0	32,5	24,8	28,0	31,0	32,8	34,3	25,8	29,0	32,6	34,3	36,0
		60 Hz	35,0	36,0	29,5	32,5	36,0	36,7	37,5	30,5	34,0	37,5	38,3	39,3

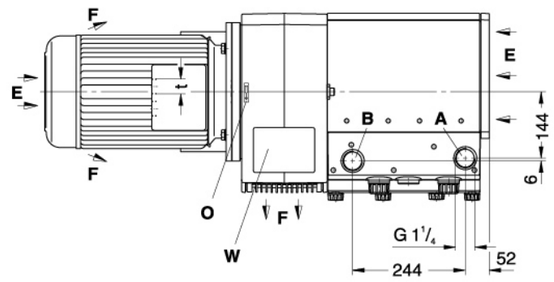
[1] 吸气 • Suction air
[2] 压缩空气 • Compressed air

附件 • *Accessories*

V-KTR			100
逆止阀 Non-return valve	ZRK		32 (03)
灰尘分离器 Dust separator	ZFP		216 (07)
电机启动器 Motor starter	ZMS	50 Hz	200 / 160
		60 Hz	250 / 160

尺寸 • *Dimensions [mm]*





V-KTR	100
a	964
a₁	559
b₁	1
t	M 32 x 1,5
ø w	246

A	真空联接处 Vacuum connection	F	冷却空气出口 Cooling air outlet
B	压力联接处 Pressure connection	M	油脂标牌 Greasing label
C	真空调节阀 Vacuum regulating valve	N	数据牌 Data plate
D	压力调节阀 Pressure regulating valve	O	旋转方向 Direction of rotation
E	冷却空气入口 Cooling air inlet	W	维护牌 Maintenance plate

更高的压力和真空根据需要。
* 与进气口吸气状态有关，数据表（公差±10%）所示为压力／真空泵在正常温度下运行。
尺寸a 和ø w或/和电流值不同。

Higher pressures and vacuum on request!
* *refers to suction conditions at inlet connection. Tables (tolerance ±10 %) refer to pressure / vacuum pump at normal operating temperature. The dimensions a and ø w and/or the current drawn can differ.*



干式旋片真空压力复合泵，轴承在转子的两侧上，带扭力弹性联轴节的法兰式电机。流量从100至160m³/h。真空达-0.6bar，压力达+0.6bar。高效及静音运行，隔音罩引导冷却空气排出，易维护及操作。

法兰式电机符合 DIN EN 60034，保护标准 IP 55，绝缘等级F。

Dry running rotary vane pressure vacuum pumps with bearings on both sides of the rotor. Flange motor with torsionally flexible coupling. Capacities from 100 to 160 m³/h, vacuum up to - 0.6 bar and pressure up to + 0.6 bar. High efficiency and silent operation. Sound cover allows a ducted cooling air outlet. Easy to service and operate.
Flange mounted motors comply with DIN EN 60034, have IP 55 protection and insulation class F.

V-KTR			140	
电机类型 Motor version	3~	50 Hz	230 / 400 V ± 10 %	
		60 Hz	265 / 460 V ± 10 %	
电机功率 Motor rating	kW (M)	50 Hz	5,5	7,5
		60 Hz	6,5	9,0
电流 Current drawn	A	50 Hz	19,5 / 11,3	27,0 / 15,5
		60 Hz	20,0 /11,5	28,0 / 16,0
转速 Speed	min⁻¹	50 Hz	1450	
		60 Hz	1740	
平均噪音 Average noise level	dB(A) →DIN 45635	50 Hz	77	
		60 Hz	78	
最大重量 Maximum weight	kg		150	155

V-KTR 140															
真空/超压 Vacuum/Overpressure	bar	S[1]	0	-0,2	-0,4	-0,5	-0,6	0	-0,2	-0,4	-0,5	-0,6	0	-0,2	-0,4
		D[2]			0					+0,2				+0,4	
流量 Capacity	m³/h	S*	131,3	123,2	115,6	110,3	104,0	128,7	120,6	113,1	107,2	101,0	125,3	117,5	110,0
	(50 Hz)	D	136,4	126,4	108,5	98,6	89,0	134,3	123,2	105,4	96,4	87,3	130,8	119,6	102,2
	m³/h	S*	156,1	150,4	141,0	135,8	130,1	153,4	147,3	137,2	131,7	125,3	150,4	142,9	133,7
	(60 Hz)	D	161,3	149,3	127,2	114,7	100,2	159,6	146,3	123,9	111,7	97,6	156,1	142,6	121,3
需要功率 Power required	kW (erf)	50 Hz	3,47	3,81	4,14	4,26	4,40	3,69	4,12	4,55	4,69	4,84	3,97	4,54	4,97
		60 Hz	5,00	5,28	5,50	5,60	5,66	5,39	5,63	5,92	6,06	6,15	5,78	6,09	6,45
不同压缩空气温度 Temperature difference compressed air	Δ t (°C)	50 Hz	23,4	28,3	31,7	32,9	34,8	25,8	31,6	35,3	36,4	37,8	30,3	35,0	38,6
		60 Hz	31,4	33,2	35,9	37,7	39,2	33,8	35,8	40,0	41,0	42,4	38,3	40,5	43,9

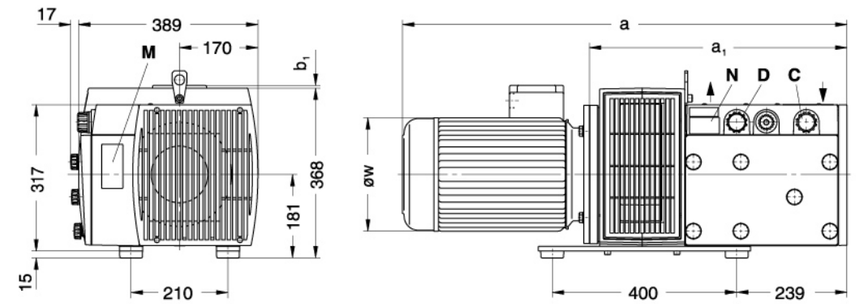
V-KTR 140															
真空/超压 Vacuum/Overpressure	bar	S[1]	-0,5	-0,6	0	-0,2	-0,4	-0,5	-0,6	0	-0,2	-0,4	-0,5	-0,6	
		D[2]	+0,4			+0,5				+0,6					
流量 Capacity	m³/h	S*	104,9	98,7	123,5	115,7	108,6	103,4	97,5	121,8	114,4	106,7	102,4	96,8	
	(50 Hz)	D	94,0	85,0	128,7	117,8	100,6	93,0	84,2	125,9	116,6	99,0	92,0	83,3	
	m³/h	S*	127,5	121,1	149,1	140,6	131,3	125,4	119,0	147,0	138,5	129,3	122,9	116,7	
	(60 Hz)	D	108,2	94,9	153,3	139,9	120,0	107,0	93,4	152,0	138,6	118,8	106,0	92,4	
需要功率 Power required	kW (erf)	50 Hz	5,16	5,38	4,27	4,81	5,22	5,37	5,56	4,46	4,99	5,51	5,62	5,89	
		60 Hz	6,56	6,66	6,08	6,33	6,69	6,80	6,95	6,33	6,68	6,97	7,12	7,25	
不同压缩空气温度 Temperature difference compressed air	Δ t (°C)	50 Hz	40,0	41,1	33,4	37,5	41,2	42,5	43,2	36,1	39,6	43,4	44,5	45,5	
		60 Hz	45,5	47,0	41,2	43,5	46,5	48,5	49,7	43,0	45,3	48,2	50,3	51,2	

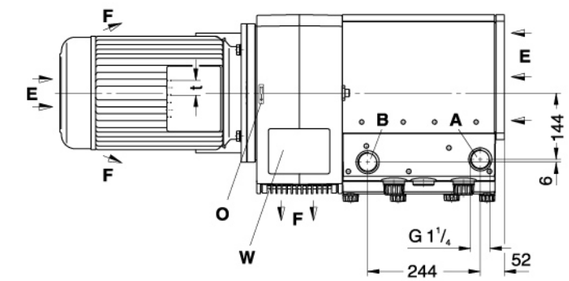
[1] 吸气 • Suction air
[2] 压缩空气 • Compressed air

附件 • *Accessories*

V-KTR			140	
逆止阀 Non-return valve	ZRK		32 (03)w	
灰尘分离器 Dust separator	ZFP		216 (01)	
电机启动器 Motor starter	ZMS	50 Hz	200 / 160	- / 160
		60 Hz	250 / 160	- / 200

尺寸 • *Dimensions [mm]*



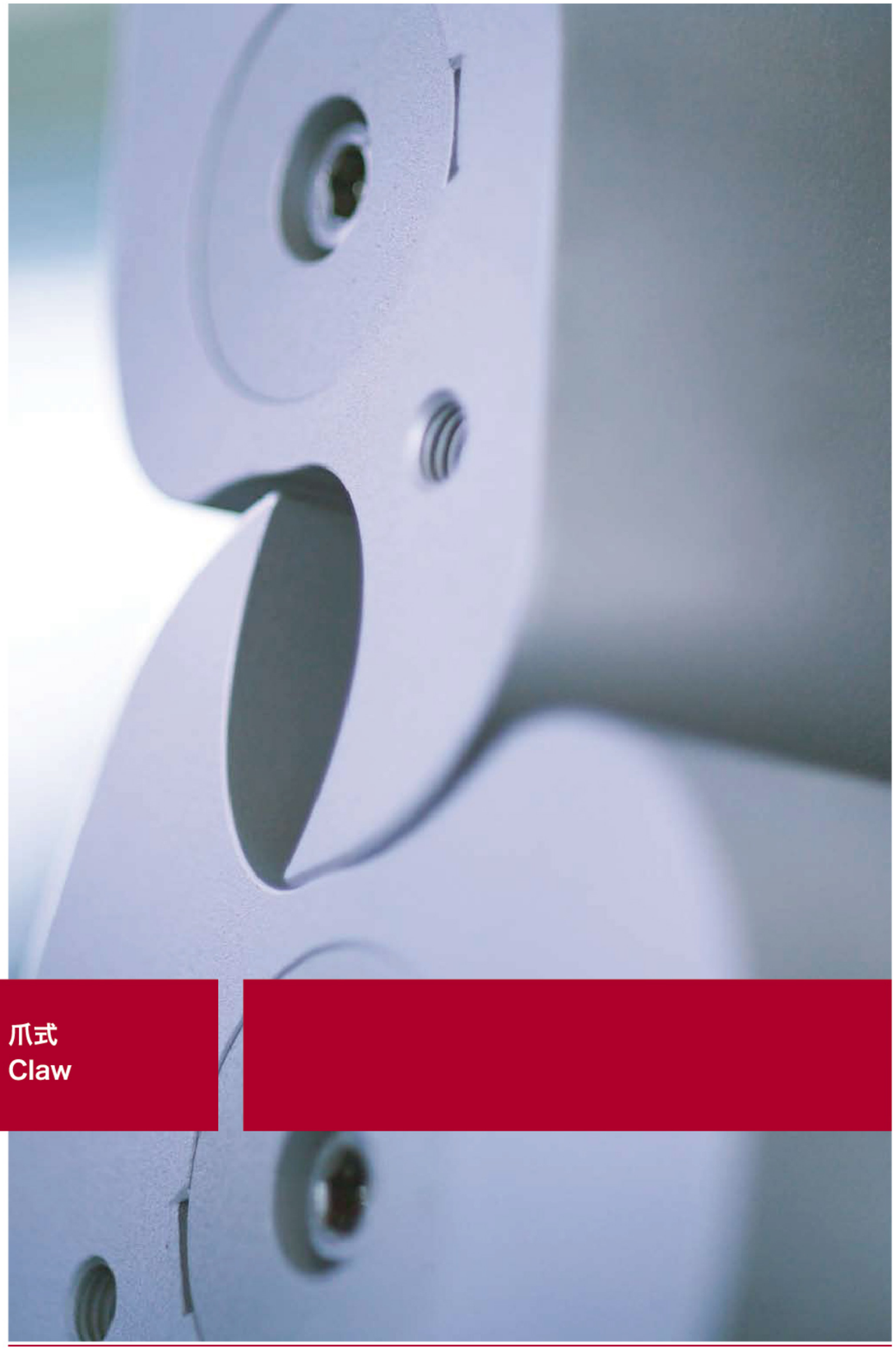


V-KTR	140	
a	964	964
a1	559	559
b1	1	1
t	M 32 x 1,5	M 32 x 1,5
ø w	246	246

A	真空联接处 Vacuum connection	F	冷却空气出口 Cooling air outlet
B	压力联接处 Pressure connection	M	油脂标牌 Greasing label
C	真空调节阀 Vacuum regulating valve	N	数据牌 Data plate
D	压力调节阀 Pressure regulating valve	O	旋转方向 Direction of rotation
E	冷却空气入口 Cooling air inlet	W	维护牌 Maintenance plate

更高的压力和真空根据需要。
* 与进气口吸气状态有关，数据表（公差±10%）所示为压力／真空泵在正常温度下运行。
尺寸a 和ø w或/和电流值不同。

Higher pressures and vacuum on request!
* *refers to suction conditions at inlet connection. Tables (tolerance ±10 %) refer to pressure / vacuum pump at normal operating temperature. The dimensions a and ø w and/or the current drawn can differ.*

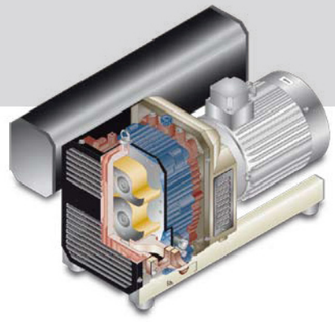


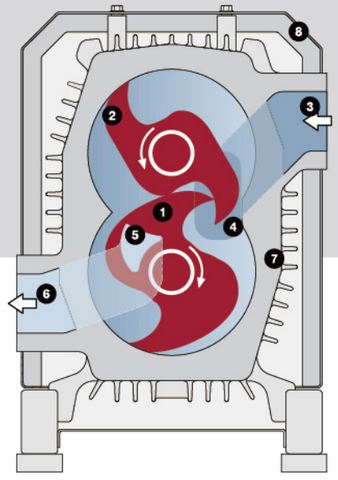
爪式
Claw

设计原理
Operating Principle

与旋片泵和罗茨风机一样，爪式真空和压力泵均采用静态空压设计，但与罗茨风机压缩设计之不同，其原理是通过内部的容积压缩后才产生压力。所有的应用中-压力、真空和两者的组合这种静态的设计原理，是一个极好的运行选择。根据规格，爪式泵的真空度最高可达100mbar(abs)，流量从60-600m³/hr，同样，流量从100-600m³/hr，压力最高可达2.2bar(g)，当同时应用于真空和压力时，可达到-0.6bar真空度和+1.0bar的压力。

The same as rotary vane pumps and roots blowers the ZEPHYR claw compressors and vacuum pumps have a static compression system as a principle of design. In contrast to roots blowers compression works by internal volume contraction. In all ranges of application - pressure, vacuum and both combined - this static principle of design gives extremely good operational possibilities. Depending on size, vacuum up to 100 mbar (abs.) and capacities between 60 and 600 m³/hr as well as pressure up to 2.2 bar (g) at flow rates between 100- 600 m³/hr can be achieved. In combined operation simultaneous vacuum up to -o.6 bar and pressure up to +1.0 bar can be obtained.





一台爪式泵由两个转子(1, 2)组成，在压缩腔内(9)进行反方向运转，无摩檫、间隙非常的紧密。两爪轮靠同步齿轮带动，当爪轮移动至吸气连接口(3)和轴向吸气进口(4)时，气体被吸进压缩腔体。

通过转子的旋转，气体从吸气侧输送至压力侧。

通过转子间容积的减少进行压缩，直到下面的转子露出排气通道(5)。

这种“内部压缩”产生不同的压力，效率超过60%。随后，预压缩气体通过压力连接口(8)被排出。

被吸进的冷却空气通过压缩腔体(9)和消音盖(10)间进行散热，热气被最终排出。

A claw pump consists of two rotors (1.2). they turn in opposite directions in a compressor housing (9) without friction and with very tight clearances. They are synchronized via a precision gear. As the claw moves over the suction connection (3) and the axial suction channel inlet (4) the gas is sucked into the compressing chamber.

Due to the revolution of the rotors the gas is conveyed from the suction side to the pressure side.

There it is compressed by the reduction of the volume between the rotors until the lower rotor uncovers the discharge channel (5).

This "internal compression" leads to high difference pressures at efficiencies of more than 60%. Afterwards the pre-compressed gas is discharged via the pressure connection (8).

To remove the compression heat, cooling air is sucked between the compressing housing (9) and s silencing cover (10) and then it is lateral exhausted.

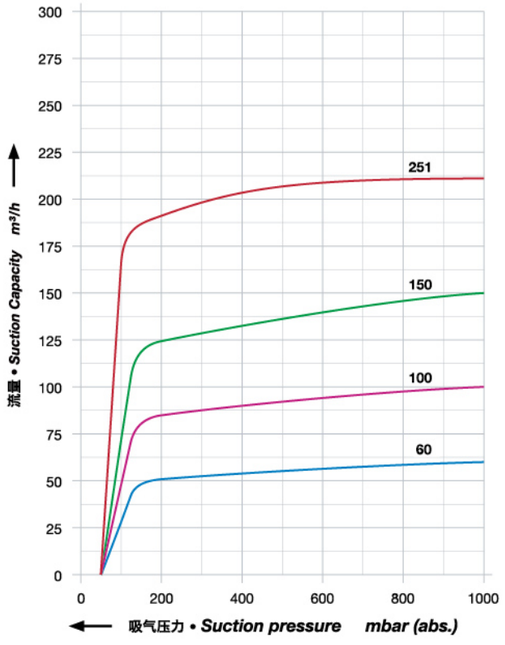


干式，高效无摩擦爪式真空泵，流量从60至255m³/h，极限真空（持续运行）可达100 . 150 . 200.mbar(abs). 无需经常维护，不附带冷却介质的空气冷却系统，适用于多种应用。

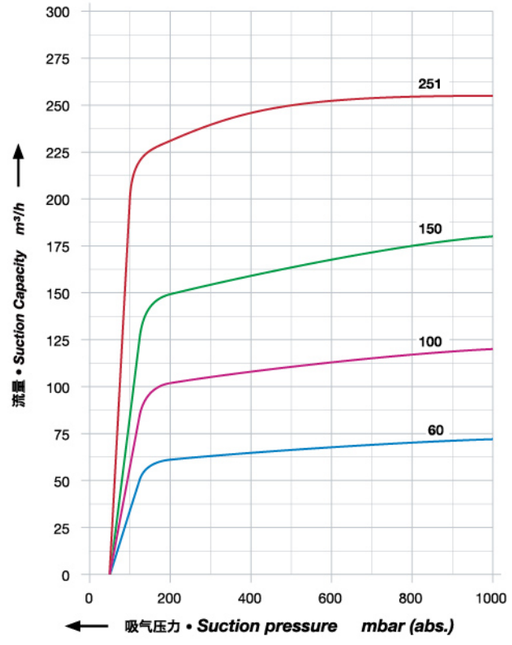
法兰式电机符合DIN EN 60034，保护标准 IP 55，绝缘等级F。

High efficiency, dry and contact free compression characterise this claw vacuum pump with capacities ranging from 60 to 255 m³/h. The ultimate vacuum for continuous operation is 100, 150 or 200 mbar (abs).
Low maintenance. Integrated air cooling without additional cooling medium.
Flange mounted motors comply with DIN EN 60034, have IP 55 protection and insulation class F.

50 Hz 选型图 • *Selection diagram*



60 Hz 选型图 • *Selection diagram*

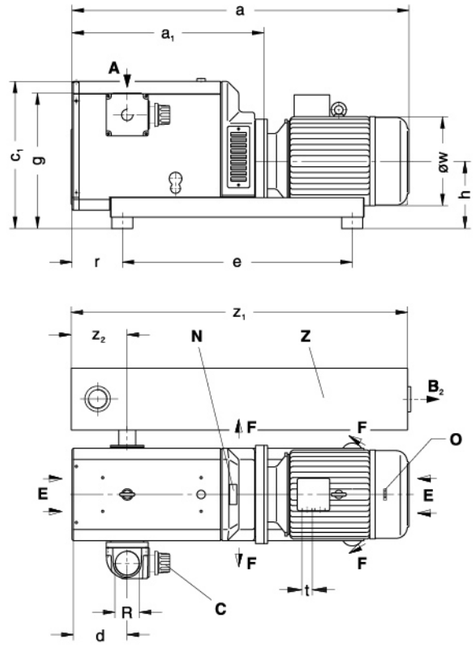


C-VLR			60	100	150	251
流量	m³/h	50 Hz	60	100	150	211
Capacity		60 Hz	72	120	180	255
极限真空(持续运行)	mbar (abs.)		50 (100)	50 (150)	50 (100)	50 (200)
End vacuum max. (continuous operation)						
电机类型	3~	50 Hz	230 / 400 V ±10 %			
Motor version		60 Hz	220 / 380 V			
电机功率	kW	50 Hz	1,1	2,2	3,0	4,0
Motor rating		60 Hz	1,5	2,6	3,6	4,8
电流	A	50 Hz	4,7 / 2,7	8,7 / 5,0	10,5 / 6,0	17,5 / 10,0
Current drawn		60 Hz	5,9 / 3,4	11,8 / 6,8	13,8 / 6,9	19,0 / 11,0
转速	min⁻¹	50 Hz	2850			
Speed		60 Hz	3450			
平均噪音	dB(A) →DIN 45635	50 Hz	78	78	79	76
Average noise level		60 Hz	80	82	82	78
最大重量	kg		51	105	125	140
Maximum weight						
油量(齿轮)	l		0,4	0,55	0,6	0,6
Oil intake (gear)						

附件 • *Accessories*

C-VLR			60	100	150	251
逆止阀	ZRK		25 (03)	40 (03)	40 (03)	50 (03)
Non-return valve						
真空密封进气口过滤器	ZVF	50 / 60 Hz	-	32 (54) / 40 (53)	40 (53)	50 (53)
Vacuum tight suction filter						
电机启动器	ZMS	50 Hz	63 / 40	100 / 63	160 / 63	200 / 160
Motor starter		60 Hz	63 / 40	160 / 100	160 / 100	200 / 160
软启动器	ZAD		#	#	#	#
Soft starter						

尺寸 • *Dimensions [mm]*



C-VLR	60	100	150	251
a	625	661	826	886
a₁	367	392	475	577
b	431	540	533	716
c / c₁	255 / 295	215 / 360	265 / 375	259,5 / 375
d	244	92	58	65
e	245	440	382	382
f	160	220	160	160
g	382	335	355	400
h	155	150	165	165
l	161	182	179	213
m	164	260	258	258
r	107	77	116	218
u	20	15	30	30
t	M 20 x 1,5	M 25 x 1,5	M 32 x 1,5	M 25 x 1,5
ø w	185	176	196	220
z₁	275	626	626	1060
z₂	60	100	100	160
z₃	120	185	185	260
R	G 1	G 1½	G 1½	G 2

A	真空联接处 Vacuum connection
B	排气口 Exhaust
B₁	C-VLR 60 | 100 | 150
B₂	C-VLR 251
C	真空调节阀 Vacuum regulating valve
E	冷却空气入口 Cooling air inlet
F	冷却空气出口 Cooling air outlet
N	数据牌 Data plate
O	旋转方向 Direction of rotation
Z	出口消音器 Exhaust silencer

* 与进气口吸气状态有关，工作曲线和数据表所示为真空泵在正常温度下运行。
尺寸a 和 ø w或/和电流值不同。
根据需要

* *refers to suction conditions at inlet connection. Curves, table content (tolerance ±10%) refer to vacuum pump at normal operating temperature. The dimensions a and ø w and/or the current drawn can differ.*
# *on request*

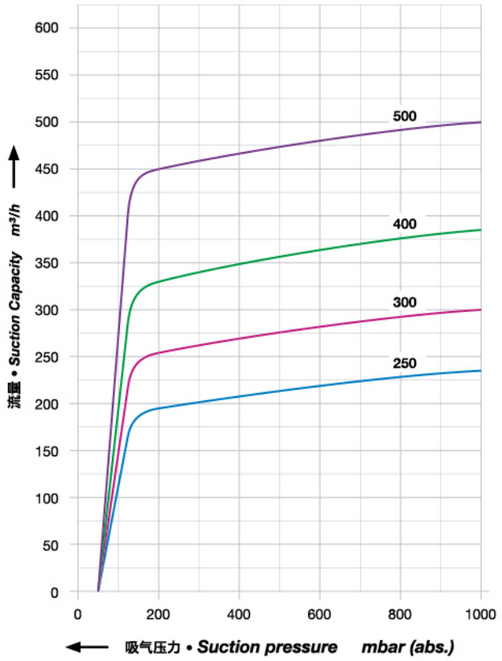


干式，高效无摩擦爪式真空泵，流量从235至600m³/h，极限真空（持续运行）可达200或250mbar(abs).无需经常维护，不附带冷却介质的空气冷却系统，适用于多种应用。

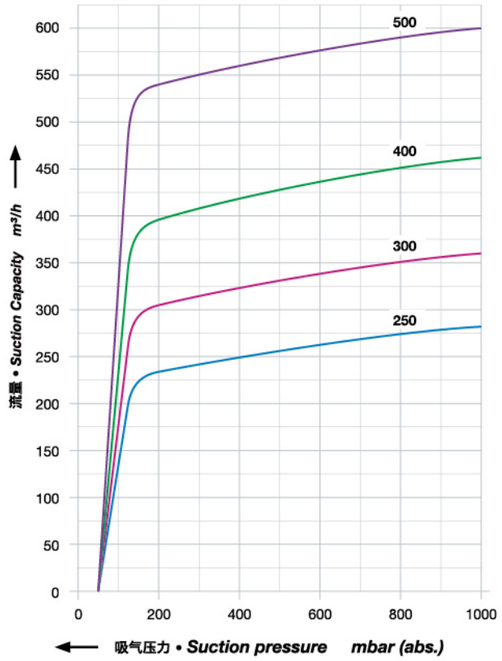
法兰式电机符合DIN EN 60034，保护标准 IP 55，绝缘等级F。

High efficiency, dry and contact free compression characterise this claw vacuum pump with capacities ranging from 235 to 600 m³/h. The ultimate vacuum for continuous operation is 200 or 250 mbar (abs).
Low maintenance. Integrated air cooling without additional cooling medium.
Flange mounted motors comply with DIN EN 60034, have IP 55 protection and insulation class F.

50 Hz 选型图 • *Selection diagram*



60 Hz 选型图 • *Selection diagram*

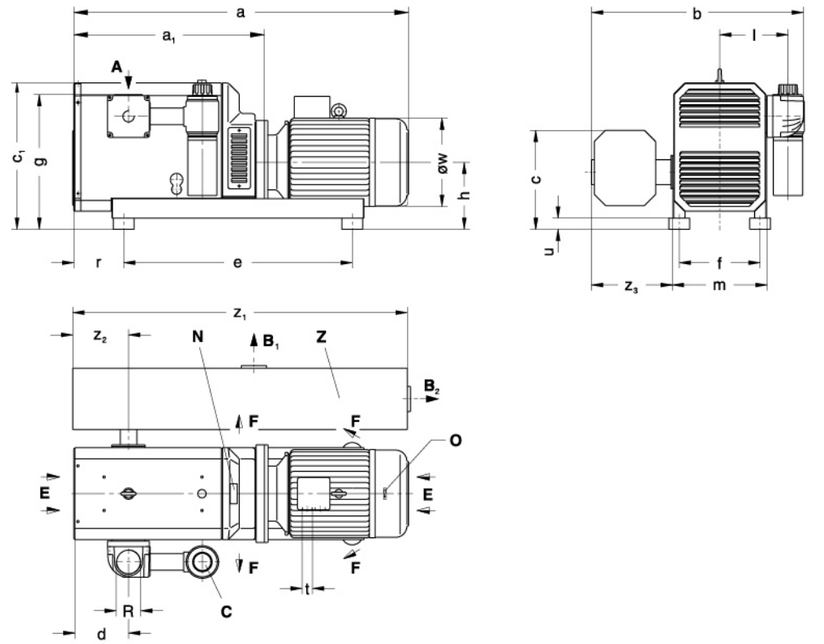


C-VLR			250	300	400	500
流量	m³/h	50 Hz	235	300	385	500
Capacity		60 Hz	282	360	462	600
极限真空(持续运行)	mbar (abs.)		50 (200)		50 (250)	
End vacuum max. (continuous operation)						
电机类型	3~	50 Hz	230 / 400 V ±10 %		400 / 690 V ±10 %	
Motor version		60 Hz	220 / 380 V		380 / 660 V	
电机功率	kW	50 Hz	4,0	5,5	7,5	9,0
Motor rating		60 Hz	4,8	6,5	9,0	11
电流	A	50 Hz	14,4 / 8,3	11,0 / 6,4	15,0 / 8,7	19,0 / 11,0
Current drawn		60 Hz	20,0 / 11,5	14,0 / 8,0	19,0 / 11	24,0 / 13,8
转速	min⁻¹	50 Hz	2850			
Speed		60 Hz	3450			
平均噪音	dB(A) →DIN 45635	50 Hz	76	77	82	82
Average noise level		60 Hz	78	79	84	84
最大重量	kg		213	263	330	381
Maximum weight						
油量(齿轮)	l		0,75	0,75	0,75	0,75
Oil intake (gear)						

附件 • *Accessories*

C-VLR			250	300	400	500
逆止阀	ZRK		50 (03)	50 (03)	80 (03)	80 (03)
Non-return valve						
真空密封进气口过滤器	ZVF	50/60 Hz	50 (53)	50 (53)	100 (51)	100 (51)
Vacuum tight suction filter						
电机启动器	ZMS	50 Hz	160 / 100	160 / 100	160 / 100	200 / 160
Motor starter		60 Hz	200 / 160	160 / 100	200 / 160	250 / 160
软启动器/隔音柜	ZAD / ZBZ		#	#	#	#
Soft starter / Acoustic enclosure						

尺寸 • *Dimensions [mm]*



C-VLR	250	300	400	500
a	806	891	1059	1201
a1	486	486	654	684
b	712	712	744	764
c / c1	335 / 525	335 / 525	335 / 525	355 / 525
d	100	86	197	197
e	720	720	820	820
f	290	290	290	290
g	459	459	483	483
h	240	240	240	240
l	235	235	245	245
m	340	340	340	340
r	111	111	179	179
u	40	40	40	40
t	M 32 x 1,5	M 32 x 1,5	M 32 x 1,5	M 40 x 1,5
ø w	220	246	246	312
z1	1060	1060	1000	1200
z2	160	160	80	200
z3	260	260	270	290
R	G 2	G 2	G 3	G 3

A	真空联接处 Vacuum connection
B	排气口 Exhaust
B1	C-VLR 400 | 500
B2	C-VLR 250 | 300
C	真空调节阀 Vacuum regulating valve
E	冷却空气入口 Cooling air inlet
F	冷却空气出口 Cooling air outlet
N	数据牌 Data plate
O	旋转方向 Direction of rotation
Z	出口消音器 Exhaust silencer

* 与进气口吸气状态有关，工作曲线和数据表所示为真空泵在正常温度下运行。
尺寸a 和 ø w或/和电流值不同。
根据需要

* *refers to suction conditions at inlet connection. Curves, table content (tolerance ±10%) refer to vacuum pump at normal operating temperature. The dimensions a and ø w and/or the current drawn can differ.*
# *on request*

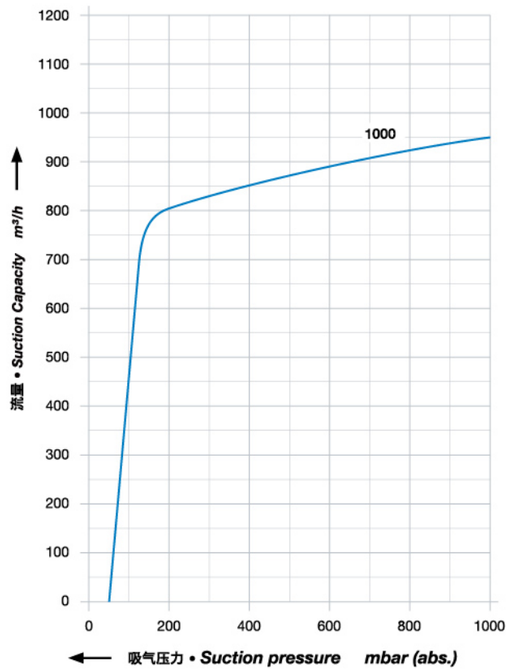


干式，高效无摩擦爪式真空泵，流量1000m³/h，极限真空（持续运行）可达200mbar(abs).无需经常维护，不附带冷却介质的空气冷却系统，适用于多种应用。

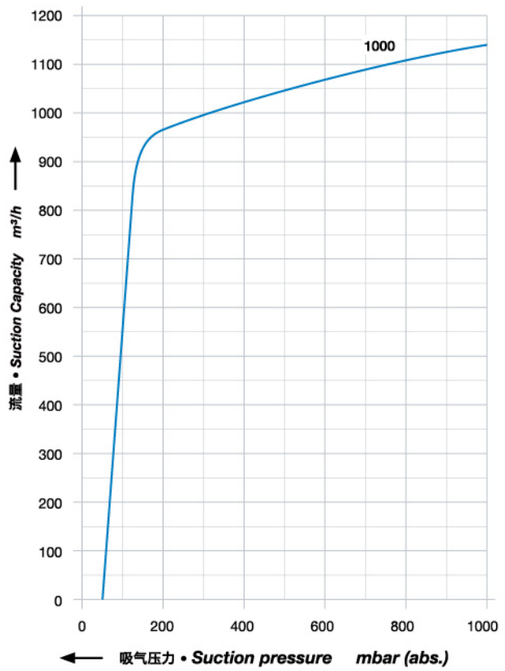
法兰式电机符合DIN EN 60034，保护标准 IP 55，绝缘等级F。

High efficiency, dry and contact free compression claw vacuum pump with capacity up to 1000 m³/h. The ultimate vacuum at continuous operation is 200 mbar (abs).
Low maintenance, integrated air cooling without additional cooling medium, suitable for multiple applications.
Flange mounted motors correspond to DIN EN 60034 and have IP 55 protection and insulation class F.

50 Hz 选型图 • *Selection diagram*



60 Hz 选型图 • *Selection diagram*

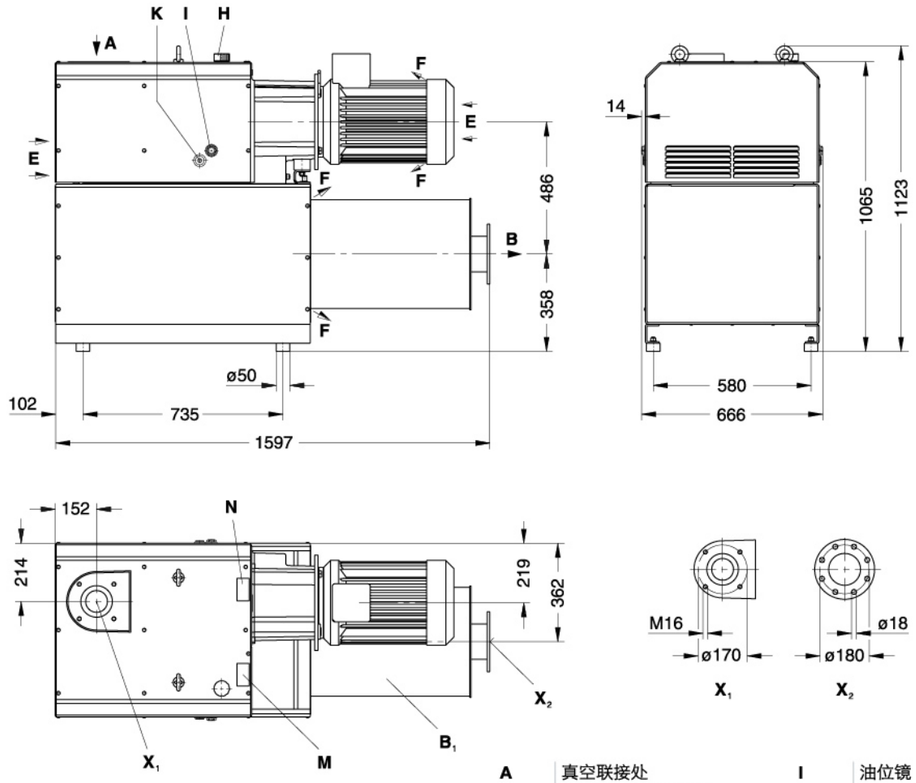


C-VLR			1000
流量 Capacity	m³/h	50 Hz	950
		60 Hz	1140
极限真空(持续运行) End vacuum max. (continuous operation)	mbar (abs.)		50 (200)
电机类型 Motor version	3~	50 Hz	400 / 690 V ±10%
		60 Hz	380 / 660 V
电机功率 Motor rating	kW	50 Hz	18,5
		60 Hz	22,0
电流 Current drawn	A	50 Hz	35,0 / 22,0
		60 Hz	#
转速 Speed	min⁻¹	50 Hz	2850
		60 Hz	3450
平均噪音 Average noise level	dB(A) →DIN 45635	50 Hz	82
		60 Hz	83
最大重量 Maximum weight	kg		790
油量(齿轮) Oil intake (gear)	l		2,8

附件 • *Accessories*

C-VLR			1000
逆止阀 Non-return valve	ZRK		100
真空密封进气口过滤器 Vacuum tight suction filter	ZVF	50/60 Hz	#
电机启动器 Motor starter	ZMS	50 Hz	- / 250
		60 Hz	#
软启动器/隔音柜 Soft starter / Acoustic enclosure	ZAD / ZBZ		#

尺寸 • *Dimensions [mm]*



A	真空联接处 Vacuum connection	I	油位镜 Oil level indicator
B	排气口 Exhaust	K	新油排油口 Oil drain point
B_1	出口消音器 Exhaust silencer	M	油标牌 Oil type plate
E	冷却空气入口 Cooling air inlet	N	数据牌 Data plate
F	冷却空气出口 Cooling air outlet	O	旋转方向 Direction of rotation
H	油注入口 Oil filling point	X_1, X_2	法兰 DN 100 PN6, PN10 Flange DN100 PN6, PN10

* 与进气口吸气状态有关，工作曲线和数据表所示为真空泵在正常温度下运行。我们保留调整技术的权利！尺寸a 和 ø w或/和电流值不同。当与数据列表比较，取决于马达型号。
# 根据需要

** related to suction conditions at inlet connection. Curves, table content (tolerance ±10%) refer to vacuum pump at normal operating temperature. We reserve the right to alter technical information! The dimensions a and ø w and/or the current drawn can differ when compared with the data list, depending on the motor type.*
 # on request

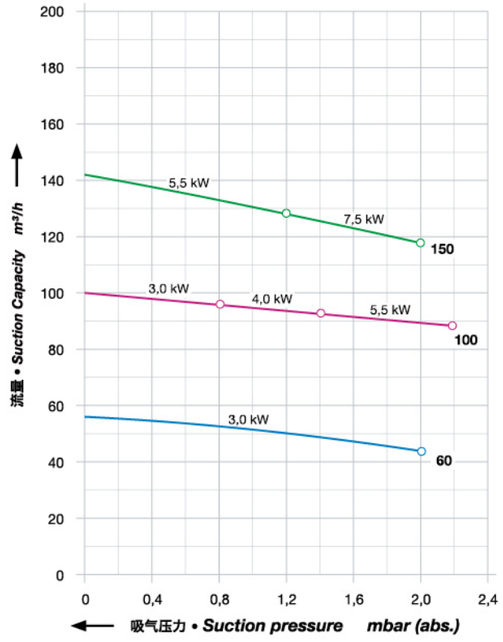


干式，高效无摩擦爪式压力泵，流量从56至170m³/hr,压力最大可达2.2 bar。无需经常维护，不附带冷却介质的空气冷却系统，适用于多种应用。

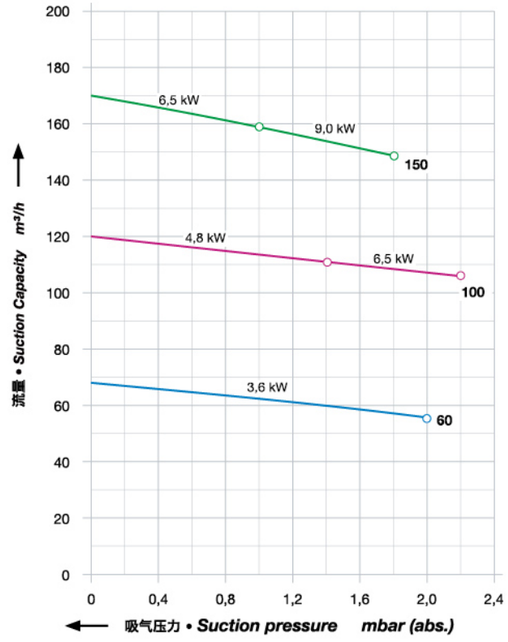
法兰式电机符合DIN EN 60034，保护标准 IP 55，绝缘等级F。

High efficiency, dry and contact free compression characterise this claw compressor with capacities ranging from 56 to 170 m³/h. Pressure for continuous operation goes up to max. 2.2 bar. Low maintenance. Integrated air cooling without additional cooling medium.
Flange mounted motors comply with DIN EN 60034, have IP 55 protection and insulation class F.

50 Hz 选型图 • *Selection diagram*



60 Hz 选型图 • *Selection diagram*

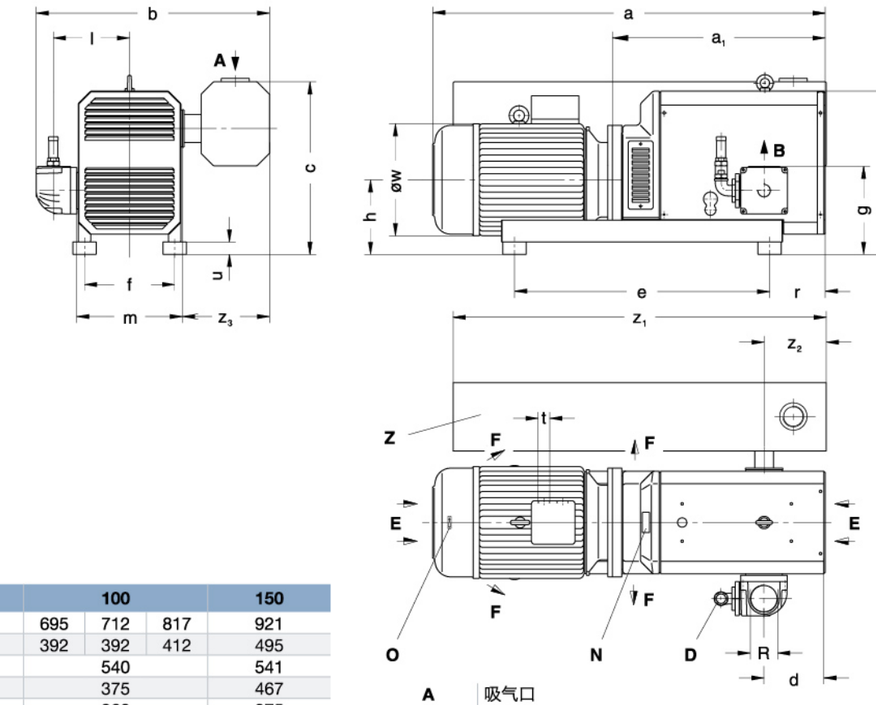


C-DLR			60		100		150	
流量 Capacity	m³/h	50 Hz	56		100		142	
		60 Hz	68		120		170	
正压力 Overpressure	bar	50 Hz	2,0	0,8	1,4	2,2	1,2	2,0
		60 Hz	2,0	-	1,4	2,2	1,0	1,8
电机类型 Motor version	3~	50 Hz	230 / 400 V ±10 %			400 / 690 V ±10 %		
		60 Hz	220 / 380 V			380 / 660 V		
电机功率 Motor rating	kW	50 Hz	3,0	3,0	4,0	5,5	5,5	7,5
		60 Hz	3,6	-	4,8	6,5	6,5	9,0
电流 Current drawn	A	50 Hz	11,8 / 6,8	10,5 / 6,0	13,8 / 8,8	12,5 / 7,3	11,0 / 6,4	15,5 / 8,8
		60 Hz	#	-	#	#	14,0 / 8,0	29,4 / 17,0
转速 Speed	min⁻¹	50 Hz	2850					
		60 Hz	3450					
平均噪音 Average noise level	dB(A) →DIN 45635	50 Hz	78		79		80	
		60 Hz	79		83		81	
最大重量 Maximum weight	kg		57	105	110	130	151	
油量(齿轮) Oil intake (gear)	l		0,4		0,55		0,6	

附件 • *Accessories*

C-DLR		60	100	150
逆止阀 Non-return leaf	ZRZ	#	40	40
进气过滤器 Suction filter	ZAF	25 (00)	40 (00)	40 (00)
压力调节阀 Pressure regulating valve	ZDR	#	40	40
稳流器 Pulsation silencer	ZPD	#	#	#
马达启动 / 软启动 Motor starter / Soft starter	ZMS / ZAD	#	#	#

尺寸 • *Dimensions [mm]*



C-DLR	60	100			150
a	697	695	712	817	921
a1	388	392	392	412	495
b	348	540			541
c	382	375			467
c1	295	360			375
d	60	92			58
e	245	440			382
f	160	220			160
g	268	175			205
h	155	150			165
l	138	182			182
m	164	254			254
r / u	107 / 20	77 / 15			116 / 30
t	M 25 x 1,5	M 32 x 1,5			M 32 x 1,5
ø w	196	196	220	246	246
z1	-	626			626
z2	-	100			100
z3	-	185			185
R	G 1	G 1½			G 1½

A	吸气口 Suction	
B	压力联接处 Pressure connection	
D	安全阀 Safety valve	
E	冷却空气入口 Cooling air inlet	
F	冷却空气出口 Cooling air outlet	
N	数据牌 Data plate	
O	旋转方向 Direction of rotation	
Z	入口消音器 Inlet silencer	

* 流量测度于大气标准1巴（绝对压）和20摄氏度。与进气口吸气状态有关，工作曲线和数据表所示为压力泵在正常温度下运行。尺寸a 和 ø w或/和电流值不同。
# 根据需要

* *The capacity refers to free atmospheric air at 1 bar (abs.) and 20°C. Curves, table content (tolerance ±10%) refer to compressor at normal operating temperature. The dimensions a and ø w and/or the current drawn can differ.*
 # on request

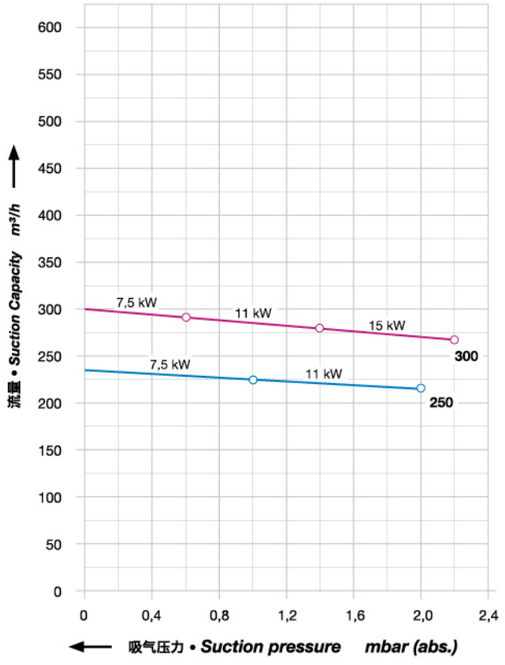


干式，高效无摩擦爪式压力泵，流量从235至360m³/hr,压力最大可达2.2 bar。无需经常维护，不附带冷却介质的空气冷却系统，适用于多种应用。

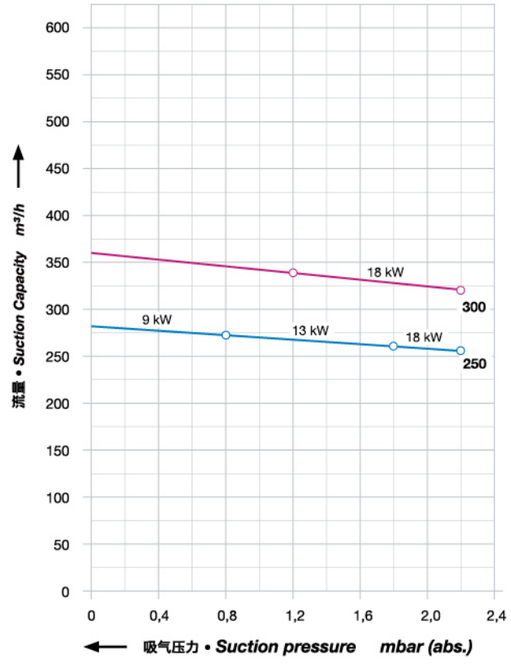
法兰式电机符合DIN EN 60034，保护标准 IP 55，绝缘等级F。

High efficiency, dry and contact free compression characterise this claw compressor with capacities ranging from 235 to 360 m³/h. Pressure for continuous operation goes up to max. 2.2 bar. Low maintenance. Integrated air cooling without additional cooling medium.
Flange mounted motors comply with DIN EN 60034, have IP 55 protection and insulation class F.

50 Hz 选型图 • *Selection diagram*



60 Hz 选型图 • *Selection diagram*

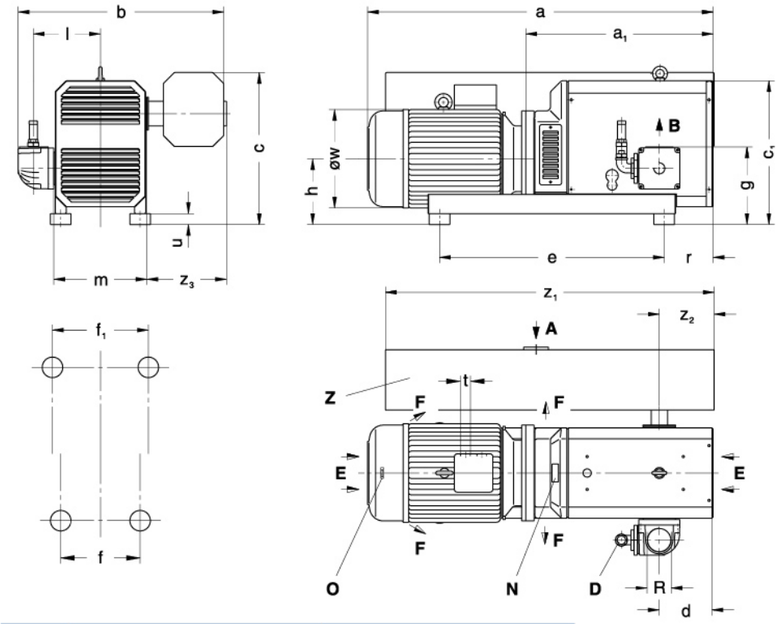


C-DLR			250			300		
流量 Capacity	m³/h	50 Hz	235			300		
		60 Hz	282			360		
正压力 Overpressure	bar	50 Hz	1,0	2,0	-	0,6	1,4	2,2
		60 Hz	0,8	1,8	2,2	-	1,2	2,2
电机类型 Motor version	3~	50 Hz	400 / 690 V ±10 %					
		60 Hz	380 / 660 V					
电机功率 Motor rating	kW	50 Hz	7,5	11	-	7,5	11	15
		60 Hz	9,0	13	18	-	13	18
电流 Current drawn	A	50 Hz	14,6 / 8,4	23,5 / 13,5	-	14,7 / 8,5	23,5 / 13,5	29,0 / 17,0
		60 Hz	#	#	#	#	#	#
转速 Speed	min⁻¹	50 Hz	2850					
		60 Hz	3450					
平均噪音 Average noise level	dB(A) →DIN 45635	50 Hz	81			82		
		60 Hz	85			85		
最大重量 Maximum weight	kg		250	277	293	259	286	301
油量(齿轮) Oil intake (gear)	l		0,75			0,75		

附件 • *Accessories*

C-DLR		250	300
逆止阀 Non-return leaf	ZRZ	50	50
进气过滤器 Suction filter	ZAF	50 (00)	50 (00)
压力调节阀 Pressure regulating valve	ZDR	40	40
稳流器 Pulsation silencer	ZPD	300	300
马达启动/软启动/隔音柜 Motor starter / Soft starter / Acoustic enclosure	ZMS / ZAD / ZBZ	#	#

尺寸 • *Dimensions [mm]*



C-DLR	250			300		
a	921	1033	1033	921	1033	1033
a1	516	516	516	516	516	516
b	722			722		
c / c1	535 / 525			535 / 525		
d	100			86		
e	720			720		
f	290			290		
f1	-			-		
g	259			259		
h	240			240		
l	235			235		
m	340			340		
r / u	111 / 40			111 / 40		
t	M 32 x 1,5		M 40 x1,5	M 32 x 1,5		M 40 x 1,5
ø w	246		312	246		312
z1	1000			1000		
z2	80			80		
z3	270			270		
R	G 2			G 2		

A	吸气口 Suction
B	压力联接处 Pressure connection
D	安全阀 Safety valve
E	冷却空气入口 Cooling air inlet
F	冷却空气出口 Cooling air outlet
N	数据牌 Data plate
O	旋转方向 Direction of rotation
Z	入口消音器 Inlet silencer

* 流量测度于大气标准1巴（绝对压）和20摄氏度。与进气口吸气状态有关，工作曲线和数据表所示为压力泵在正常温度下运行。尺寸a 和 ø w或/和电流值不同。
# 根据需要

* *The capacity refers to free atmospheric air at 1 bar (abs.) and 20°C. Curves, table content (tolerance ±10%) refer to compressor at normal operating temperature. The dimensions a and ø w and/or the current drawn can differ.*
 # on request

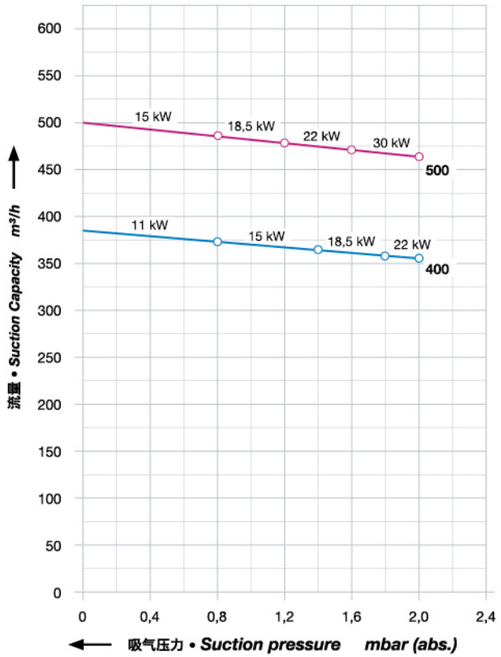


干式，高效无摩擦爪式真空泵，流量从385至600m³/hr,压力最大可达2.2 bar。无需经常维护，不附带冷却介质的空气冷却系统，适用于多种应用。

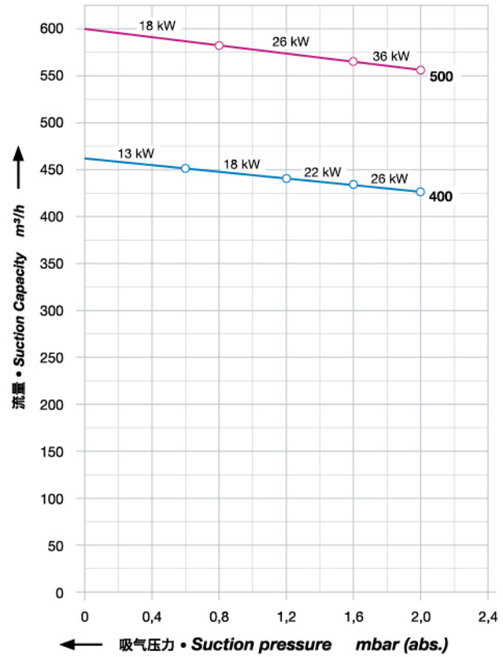
法兰式电机符合DIN EN 60034，保护标准 IP 55，绝缘等级F。

High efficiency, dry and contact free compression characterise this claw compressor with capacities ranging from 385 to 600 m³/h. Pressure for continuous operation goes up to max. 2.2 bar. Low maintenance. Integrated air cooling without additional cooling medium.
Flange mounted motors comply with DIN EN 60034, have IP 55 protection and insulation class F.

50 Hz 选型图 • *Selection diagram*



60 Hz 选型图 • *Selection diagram*

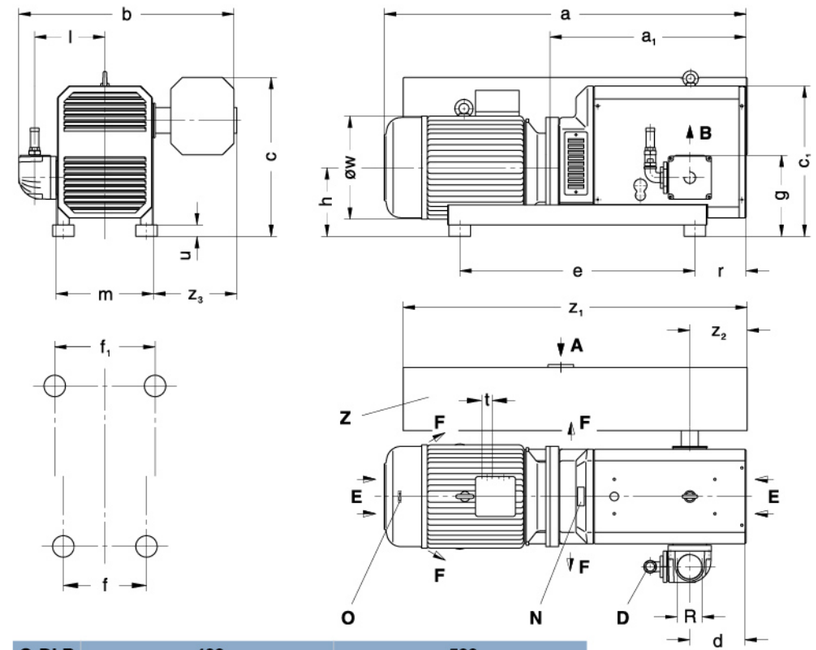


C-DLR			400				500			
流量 Capacity	m³/h	50 Hz	385				500			
		60 Hz	462				600			
正压力 Overpressure	bar	50 Hz	0,8	1,4	1,8	2,0	0,8	1,2	1,6	2,0
		60 Hz	0,6	1,2	1,6	2,0	0,8	-	1,6	2,0
电机类型 Motor version	3~	50 Hz	400 / 690 V ±10 %							
		60 Hz	380 / 660 V							
电机功率 Motor rating	kW	50 Hz	11	15	18,5	22	15	18,5	22	30
		60 Hz	13	18	22,0	26	18	-	26	36
电流 Current drawn	A	50 Hz	23,5 / 13,5	29,0 / 17,0	35,0 / 22,0	40,0 / 23,0	29,0 / 17,0	35,0 / 22,0	40,0 / 23,0	55,0 / 32,0
		60 Hz	#	#	#	#	#	-	#	#
转速 Speed	min⁻¹	50 Hz	2850							
		60 Hz	3450							
平均噪音 Average noise level	dB(A) →DIN 45635	50 Hz	82				82			
		60 Hz	85				85			
最大重量 Maximum weight	kg		356	372	396	442	411	423	458	510
油量(齿轮) Oil intake (gear)	l		0,75				0,75			

附件 • *Accessories*

C-DLR		400	500
逆止阀 Non-return leaf	ZRZ	80	80
进气过滤器 Suction filter	ZAF	80 (00)	80 (00)
压力调节阀 Pressure regulating valve	ZDR	#	#
稳流器 Pulsation silencer	ZPD	400	500
马达启动/软启动/隔音柜 Motor starter / Soft starter / Acoustic enclosure	ZMS / ZAD / ZBZ	#	#

尺寸 • *Dimensions [mm]*



C-DLR	400				500			
a	1203	1203	1203	1264	1203	1203	1264	1374
a_1	686	686	686	686	686	686	686	746
b	744				764			
c / c_1	535 / 525				555 / 525			
d	197				197			
e	820				820		920	
f	290				290		290	
f_1	-				-		350	
g	283				283			
h	240				240			
l	245				245			
m	340				340			
r / u	179 / 40				179 / 40			
t	M 40 x 1,5				M 40 x 1,5		M 50 x 1,5	
ø w	312		360		312		360	
z_1	1000				1200			
z_2	80				200			
z_3	270				290			
R	G 3				G 3			

A	吸气口 Suction
B	压力联接处 Pressure connection
D	安全阀 Safety valve
E	冷却空气入口 Cooling air inlet
F	冷却空气出口 Cooling air outlet
N	数据牌 Data plate
O	旋转方向 Direction of rotation
Z	入口消音器 Inlet silencer

* 流量测度于大气标准1巴（绝对压）和20摄氏度。与进气口吸气状态有关，工作曲线和数据表所示为真空泵在正常温度下运行。尺寸a 和 ø w或/和电流值不同。
# 根据需要

* *The capacity refers to free atmospheric air at 1 bar (abs.) and 20°C. Curves, table content (tolerance ±10%) refer to compressor at normal operating temperature. The dimensions a and ø w and/or the current drawn can differ.*
# *on request*



干式，高效无摩擦，爪式真空压力复合泵，流量从80至140m³/hr，真空可达-0.6 bar，压力可达+1.0 bar。无需经常维护，不附带冷却介质的空气冷却系统，适用于多种应用。

法兰式电机符合 DIN EN 60034，保护标准 IP 55，绝缘等级F。

High efficiency, dry and contact free compression characterise this claw pressure vacuum pumps with capacities ranging from 80 to 140 m³/h. Vacuum for continuous operation goes up to -0.6 bar and pressure up to +1.0 bar.
Low maintenance. Integrated air cooling without additional cooling medium.
Flange mounted motors correspond to DIN EN 60034 and have IP 55 protection and insulation class F.

C-KLR			80	140
电机类型 Motor version	3~	50 Hz	230 / 400 V ±10 %	400 / 690 V ±10 %
		60 Hz	220 / 380 V	380 / 660 V
电机功率 Motor rating	kW	50 Hz	4,0	5,5
		60 Hz	4,8	6,5
电流 Current drawn	A	50 Hz	15,2 / 8,8	11,0 / 6,4
		60 Hz	#	14,0 / 8,0
转速 Speed	min⁻¹	50 Hz	2850	
		60 Hz	3450	
平均噪音 Average noise level	dB(A) →DIN 45635	50 Hz	80	82
		60 Hz	83	84
最大重量 Maximum weight	kg		120	160

C-KLR 80

真空/正压力 Vacuum/Overpressure	bar	S[1]	0	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6
		D[2]	0	+0,4				+0,5				+0,6				+0,7			
流量 Capacity	m³/h	S*	94	92	75	66	55	88	72	63	53	85	71	61	51	84	70	60	50
	(50 Hz)	D	95	80	61	59	57	75	60	58	54	70	58	55	52	65	57	55	52
	m³/h	S*	120	112	89	78	66	111	86	76	64	110	85	73	62	108	82	71	60
	(60 Hz)	D	97	92	76	71	68	90	74	70	67	88	72	68	64	87	70	67	62
电机功率 Motor rating	kW	50 Hz	4,0																
		60 Hz	4,8																

C-KLR 140

真空/正压力 Vacuum/Overpressure	bar	S[1]	0	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6
		D[2]	0	+0,4				+0,5			
流量 Capacity	m³/h	S*	117,8	113,7	92,5	82,8	69,5	113,1	91,7	81,6	67,7
	(50 Hz)	D	120	109,7	94,6	90,8	86,8	108,1	93,4	89,2	85,4
	m³/h	S*	139,5	136,2	114,1	103,1	85,6	134,8	113,2	101,7	83,8
	(60 Hz)	D	138,1	131,4	116,9	111,5	105,7	129,1	115,6	110,3	104,6
电机功率 Motor rating	kW	50 Hz	5,5								
		60 Hz	6,5								

C-KLR 140

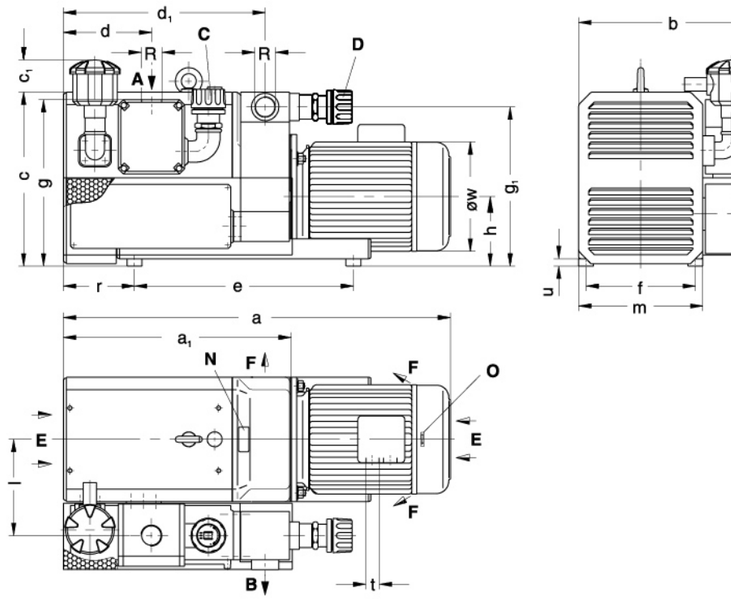
真空/正压力 Vacuum/Overpressure	bar	S[1]	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6
		D[2]	+0,6				+0,7			
流量 Capacity	m³/h	S*	111	90,8	80,8	65,4	110	90,3	78,9	64,9
	(50 Hz)	D	105,9	92,1	88	83,9	103,5	90,5	86,2	82,7
	m³/h	S*	133,9	112,4	100,9	80,5	133,4	109	99,6	77,3
	(60 Hz)	D	126,9	113,8	109,3	100,2	125,5	111,8	107,2	98
电机功率 Motor rating	kW	50 Hz	5,5							
		60 Hz	6,5							

[1] 吸气 • Suction air
[2] 压缩空气 • Compressed air

附件 • *Accessories*

C-KLR			80	140
逆止阀 Non-return leaf	ZRZ		40	40
灰尘分离器 Dust separator	ZFP		145 (06)	216 (06)
电机启动器 Motor starter	ZMS	50 Hz	160 / 100	160 / 100
		60 Hz	#	160 / 100

尺寸 • *Dimensions [mm]*

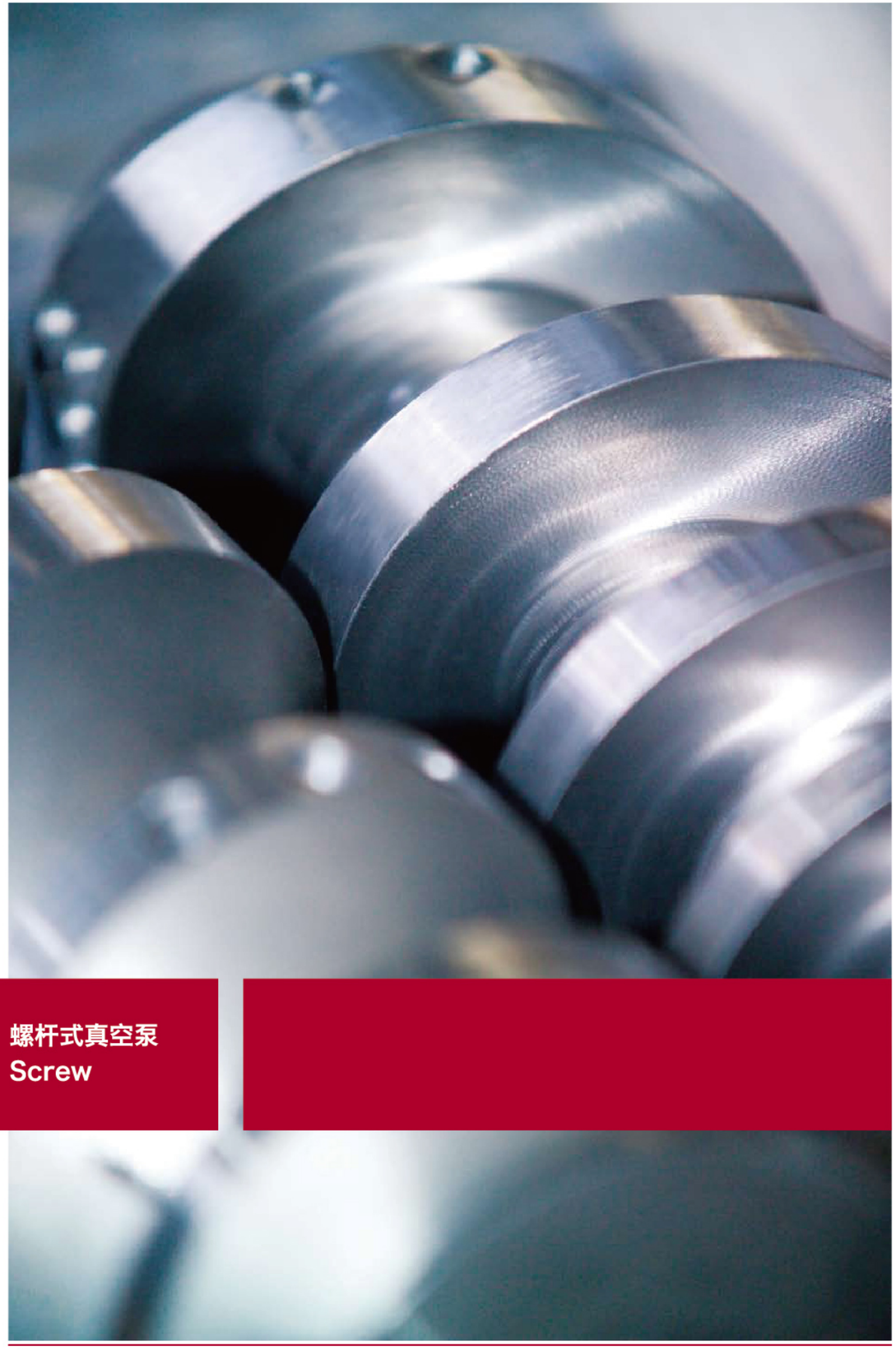


C-KLR	80	140
a	778	1016
a1	458	590
b	387	355
c / c1	350 / 65	375 / 125
d	178	153
d1	406	544
e	440	382
f	220	160
g / g1	335 / 320	355 / 295
h	140	165
l	193	180
m	250	250
r	143	211
t	M 25 x 1,5	M 32 x 1,5
u	15	30
ø w	220	246
R	G 1¼	G 1½

A	真空联接处 Vacuum connection
B	压力联接处 Pressure connection
C	真空调节阀 Vacuum limitation valve
D	压力调节阀 Pressure limitation valve
E	冷却空气入口 Cooling air inlet
F	冷却空气出口 Cooling air outlet
N	数据牌 Data plate
O	旋转方向 Direction of rotation

更高的压力和真空根据需要
* 与进气口吸气状态有关，工作曲线和数据表所示为压力／真空泵在正常温度下运行。尺寸a 和 øw 或/和电流值不同。
# 根据需要

Higher pressures and vacuum on request!
* *refers to suction conditions at inlet connection. table content (tolerance ±10%) refer to pressure/vacuum pump at normal operating temperature. The dimensions a and ø w and/or the current drawn can differ.*
 # on request

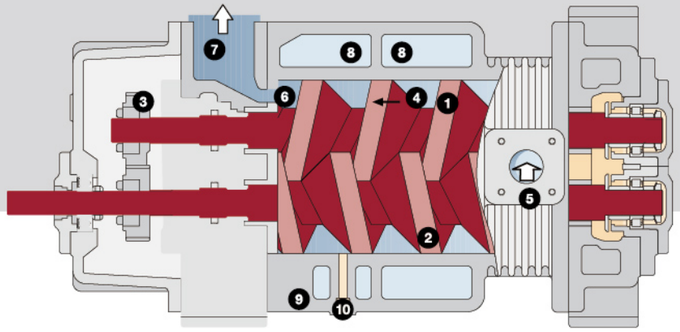


螺杆式真空泵
Screw

设计原理
Operating Principle

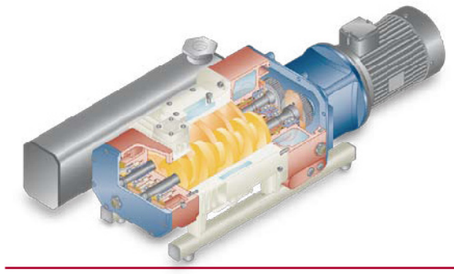
螺杆式真空泵也是基于静太压缩系统，作为设计原理，与罗茨泵的压力产生是通过“内部”体积的减少相反。

Screw vacuum pumps are based on static compression systems as a design principle. In contrast to the Roots blowers compression takes place by internal volume reduction.



螺杆式真空泵是由两根螺杆(1，2)组成，一根右旋螺纹另外一根左旋螺纹。两根结合的非常密致螺杆，无摩擦的向压缩腔(9)转动，经由一根精密齿轮(3)同步。压缩腔和特别形状的螺杆形成了压缩室(4)。由于两根螺杆反方向运转，与吸气点(5)连接的腔室被放大，气体被输送至压缩腔。腔室沿吸气侧到压力侧轴向移动。在输送期间，由于流量的增加使得腔室中大量的气体增加。压力侧的腔室沿着腔壁轴向移动，体积逐渐减少直到螺杆(1)的前表面打开压力通道(6)，预压缩气体通过压力连接点(7)被排出。冷却水被获得用于冷却外面的腔壁(8)。部分规格的泵，附加的冷却气体能被导入泵体。

A screw vacuum pump consists of two screws (1,2), one with a right- hand thread and the other with a left-hand thread. Both screws turn in the compression housing (9) without friction with very tight clearances. They are synchronised via a precision gear (3). The compression housing and the special shape of the screws form the compression chambers (4). Due to the opposite rotation of both screws the chamber connected with the suction port (5) is enlarged and the gas is transported into the compression chamber. Then the chamber moves axially from the suction side to the pressure side (arrow). During this transportation the mass of the gas in the chamber increases due to clearance flow. On the pressure side the chamber is moved against the axial housing wall and the volume is reduced until the front surface of the screw (1) opens the pressure channel (6) and the pre-compressed gas is discharged through the pressure connection (7). Cooling is achieved using a water cooled outer chamber (8). For some pump sizes additional cooling gas can be introduced into the pump(10).

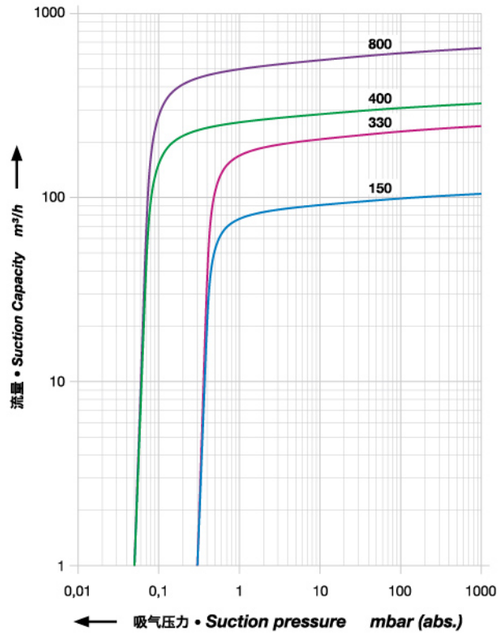




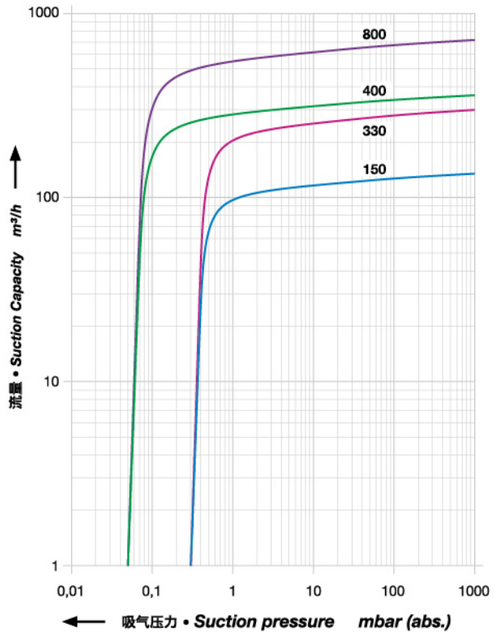
干式，无接触式螺杆真空泵，流量从105至720m³/h,极限真空0.05mbar (abs)。易维护，不同的涂层增强耐腐蚀性，特别适用于溶剂回收和干燥工艺。

Dry running, non contact operation screw vacuum pumps with capacities ranging from 105 to 720 m³/h, ultimate vacuum 0.05 mbar (abs). Easy to service. Different coatings enhance corrosion resistance. Especially suitable for solvent recovery and drying processes.

50 Hz 选型图 • *Selection diagram*



60 Hz 选型图 • *Selection diagram*

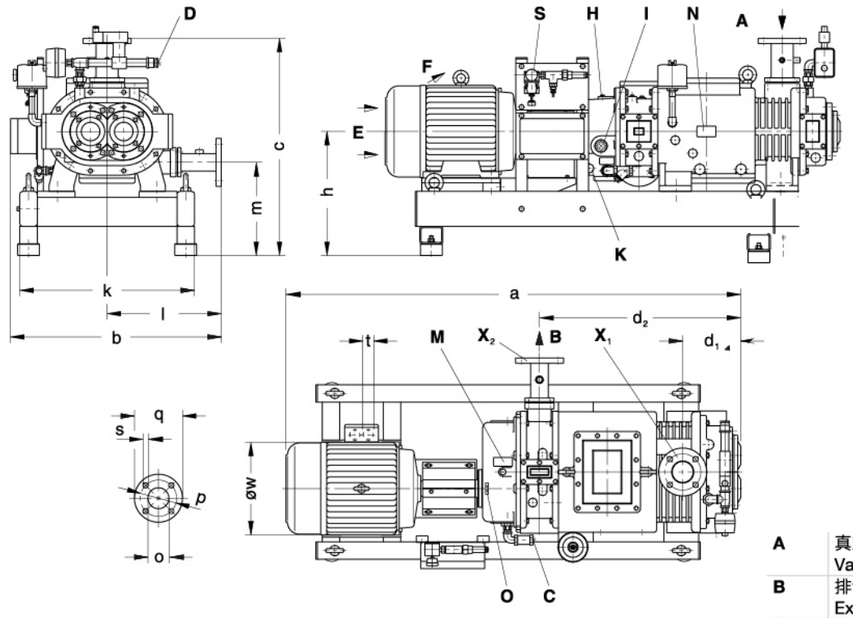


V-VSA			150 (30)	330 (30)	400 (20)	800 (20)
流量 Nominal capacity	m³/h	50 Hz	105	245	325	650
		60 Hz	135	300	360	720
极限真空 End vacuum	mbar (abs.)		0,3	0,3	0,05	0,05
电机类型 Motor version	3~	50 Hz	230 / 400 V ±10 %			
		60 Hz	380 / 660 V			
电机功率 Motor rating	kW	50 Hz	4,0	7,5	15	18,5
		60 Hz	4,8	9,0	18	22,0
电流 Current drawn	A	50 Hz	#	#	#	#
		60 Hz	#	#	#	#
转速 Speed	min⁻¹	50 Hz	2850			
		60 Hz	3450			
平均噪音 Average noise level	dB(A)	50 Hz	#	79	80	81
		60 Hz	#	#	81	#
最大重量 Maximum weight	kg		320	520	610	810
油量(齿轮) Oil intake (gear)	l		1,3	1,6	2,0	4,0
冷却水消耗 Cooling water consumption	l/h		120	210	420	600

附件 • *Accessories*

冲洗系统	Flushing unit	真空表	Vacuum gauge
放气闸	Bleeding valve	蝶阀	Butterfly valve
控制箱	Control box	冷凝器	Condenser
真空开关	Vacuum switch		

尺寸 • *Dimensions [mm]*



V-VSA	150 (30)	330 (30)	400 (20)	800 (20)
a	1174	1374	1562	1730
b	667	707	724	867
c	664	692	746	807
d_1	173	199	199	235
d_2	532	642	691	790
h	365	375	426	412
k	600	600	600	800
l	335	375	392	435
m	278	284	320	332
p	110	125	125	180
q	150	165	165	220
s	18	18	18	18
o (X_1/X_2)	44,3 / 44,3	56,3 / 44,3	72 / 56	100 / 72
t	M 32 x 1,5	M 32 x 1,5	M 40 x 1,5	M 40 x 1,5
ø w	220	246	317	317
C / D	Rp ½ / Rp ½	Rp ½ / Rp ½	Rp ½ / Rp ½	Rp ¾ / Rp ¾
X_1, X_2	DN 40 PN 10	DN 50 PN 10	DN 50 PN 10	DN 100/DN 65 PN 10

A	真空联接处 Vacuum connection
B	排气口 Exhaust
C	冷却水进口 Cooling water inlet
D	冷却水出口 Cooling water outlet
E	冷却空气入口 Cooling air inlet
F	冷却空气出口 Cooling air outlet
H	油注入口 Oil filling point
I	油位镜 Oil check
K	新油排油口 Oil drain point
M	油标牌 Oil type plate
N	数据牌 Data plate
O	旋转方向 Direction of rotation
S	密封气体连接 Sealing gas connection G ¼
X_1, X_2	法兰 Flange

* 与进气口吸气状态有关，按照PNEUROP标准，工作曲线和数据表（公差±10%）所示为真空泵在正常温度下运行。尺寸a 和 øw 或/和电流值不同。
# 根据需要

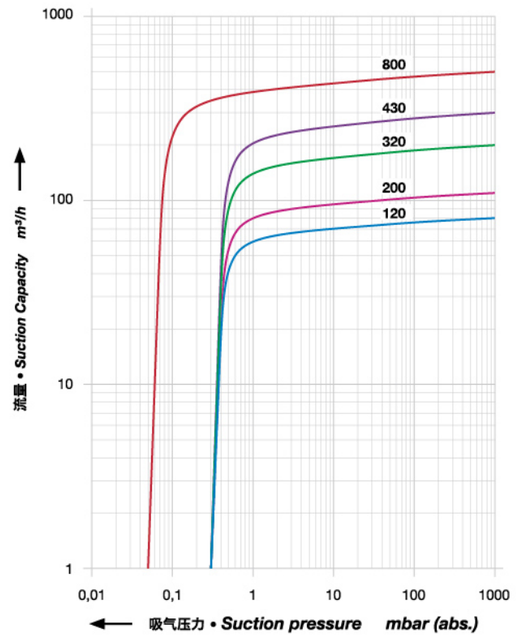
* *refers to suction conditions at inlet connection. Curves, table content (tolerance ±10 %) according to PNEUROP standards and refer to vacuum pump at normal operating temperature. The dimensions a and ø w and/or the current drawn can differ.*
 # on request



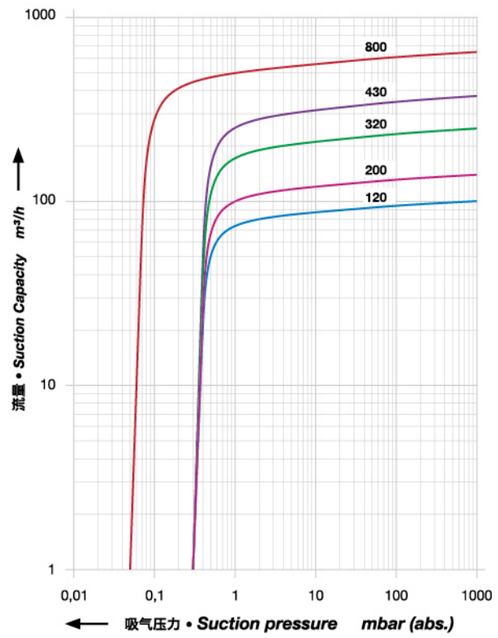
干式，无接触式螺杆真空泵，流量从80至650m³/h,极限真空0.05mbar(abs)。易维护，不同的涂层增强耐腐蚀性，特别适用于溶剂回收和干燥工艺。

Dry running, non contact operation screw vacuum pumps with capacities ranging from 80 to 650 m³/h, ultimate vacuum 0.05 mbar (abs). Easy to service. Different coatings enhance corrosion resistance. Especially suitable for solvent recovery and drying processes. Low running temperature due to the precision graduation of the screw pitch.

50 Hz 选型图 • *Selection diagram*



60 Hz 选型图 • *Selection diagram*



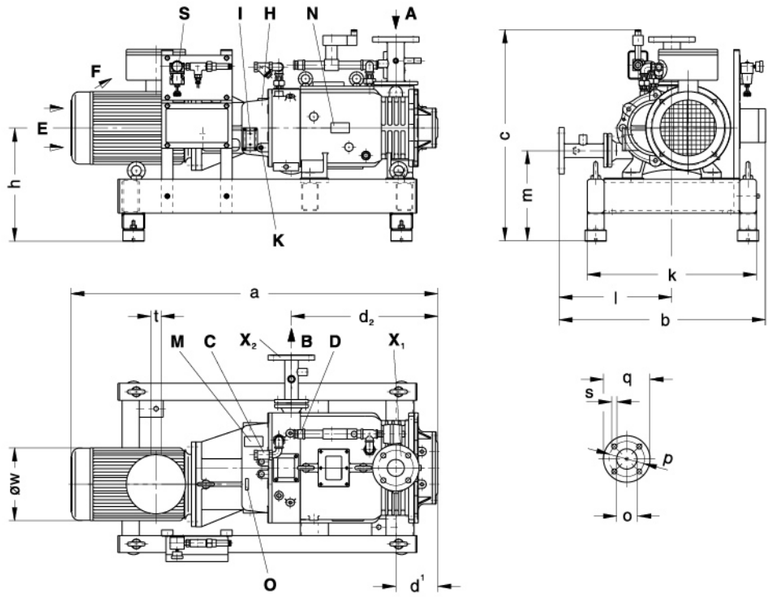
V-VSB			120 (30)	200 (30)	320 (30)	430 (30)	800 (30)
流量 Nominal capacity	m³/h	50 Hz	80	110	200	300	500
		60 Hz	100	140	250	375	650
极限真空 End vacuum	mbar (abs.)		0,3	0,3	0,3	0,3	0,05
电机类型 Motor version	3~	50 Hz	230 / 400 V ±10 %				
		60 Hz	380 / 660 V				
电机功率 Motor rating	kW	50 Hz	3,0	4,0	5,5	7,5	15
		60 Hz	3,6	4,8	6,5	9,0	18
电流 Current drawn	A	50 Hz	#	#	#	#	#
		60 Hz	#	#	#	#	#
转速 Speed	min⁻¹	50 Hz	2850				
		60 Hz	3450				
平均噪音 Average noise level	dB(A)	50 Hz	72	73	74	76	78
		60 Hz	74	75	76	78	80
最大重量 Maximum weight	kg		230	280	380	450	750
油量(齿轮) Oil intake (gear)	l		0,45	1,0	1,6	1,8	2,0
冷却水消耗 Cooling water consumption	l/h		120	240	480	660	1200

S-VSB TWISTER 120 (30) | 200 (30) | 320 (30) | 430 (30) | 800 (30)

附件 • *Accessories*

冲洗系统	Flushing unit	真空表	Vacuum gauge
放气闸	Bleeding valve	蝶阀	Butterfly valve
控制箱	Control box	冷凝器	Condenser
真空开关	Vacuum switch		

尺寸 • *Dimensions [mm]*



A	真空联接处 Vacuum connection	**F**	冷却空气出口 Cooling air outlet	**N**	数据牌 Data plate
B	排气口 Exhaust	**H**	油注入口 Oil filling point	**O**	旋转方向 Direction of rotation
C	冷却水进口 Cooling water inlet	**I**	油位镜 Oil check	**S**	密封气体连接 Sealing gas connection G ¼
D	冷却水出口 Cooling water outlet	**K**	新油排油口 Oil drain point	**X₁, X₂**	法兰 DIN 2501 Flange DIN 2501
E	冷却空气入口 Cooling air inlet	**M**	油标牌 Oil type plate		

V-VSB	120 (30)	200 (30)	320 (30)	430 (30)	800 (30)
a	838	1123	1300	1592	1648
b	617	671	732	797	822
c	577	609	725	751	779
d₁	111	126	149	163	200
d₂	351	482	519	603	586
h	280	303	402	416	432
k	450	450	600	600	700
l	325	379	400	430	440
m	190	235	321	320	346
p (X₁ / X₂)	110	125 / 110	125 / 110	160 / 125	180 / 160
q (X₁ / X₂)	150	165 / 150	165 / 150	200 / 165	220 / 200
s (X₁ / X₂)	18	18 / 18	18 / 18	18 / 18	18 / 18
o (X₁ / X₂)	ø 40	ø 50 / ø 40	ø 50 / ø 40	ø 80 / ø 50	ø 100 / ø 80
t	M 32 x 1,5	M 32 x 1,5	M 32 x 1,5	M 32 x 1,5	M 40 x 1,5
ø w	194	220	258	258	317
C / D	Rp ³/₈ / Rp ³/₈	Rp ½ / Rp ½	Rp ½ / Rp ½	Rp ½ / Rp ½	Rp ½ / Rp ½
X₁, X₂	DN 40 PN 10	DN 50 / DN 40 PN10	DN 50 / DN 40 PN10	DN 80 / DN 50 PN10	DN 100 / DN 80 PN10

* 与进气口吸气状态有关，按照PNEUROP标准，工作曲线和数据表（公差±10%）所示为真空泵在正常温度下运行。尺寸a 和 øw 或/和电流值不同。
# 根据需要

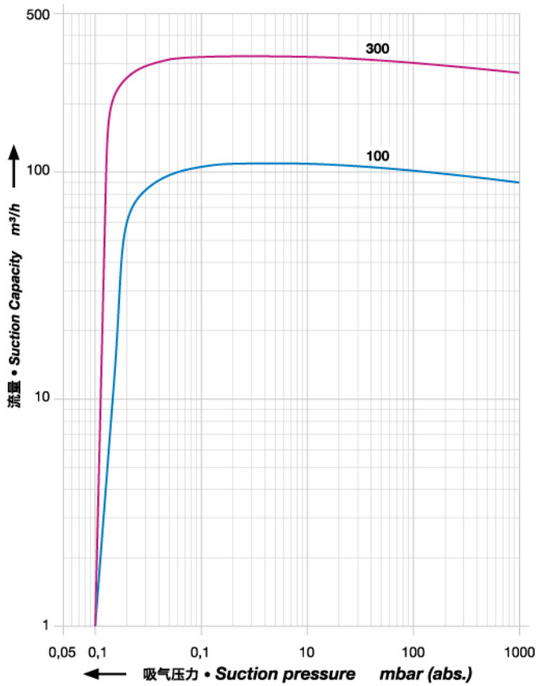
* *refers to suction conditions at inlet connection. Curves, table content (tolerance ±10 %) according to PNEUROP standards and refer to vacuum pump at normal operating temperature. The dimensions a and ø w and/or the current drawn can differ.*
 # on request



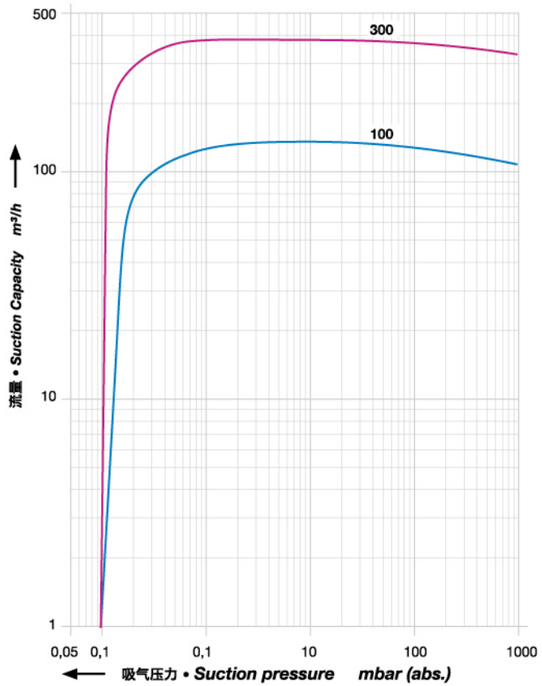
干式，无接触螺杆真空泵。流量从110至380m³/hr，极限真空0.1mbar (abs.)。易维护，不同涂层提高防腐能力，特别适合于溶剂回收和干燥工艺。采用精密的螺杆渐倾式设计，可降低其内在的运行温度。

Dry running, non contact operation screw vacuum pumps with max. capacities ranging from 110 to 380 m³/h, ultimate vacuum 0.1mbar (abs). Easy to service. Different coatings enhance corrosion resistance.
Especially suitable for solvent recovery and drying processes. Low running temperature thanks to the precision graduation of the screw pitch.

50 Hz 选型图 • *Selection diagram*



60 Hz 选型图 • *Selection diagram*



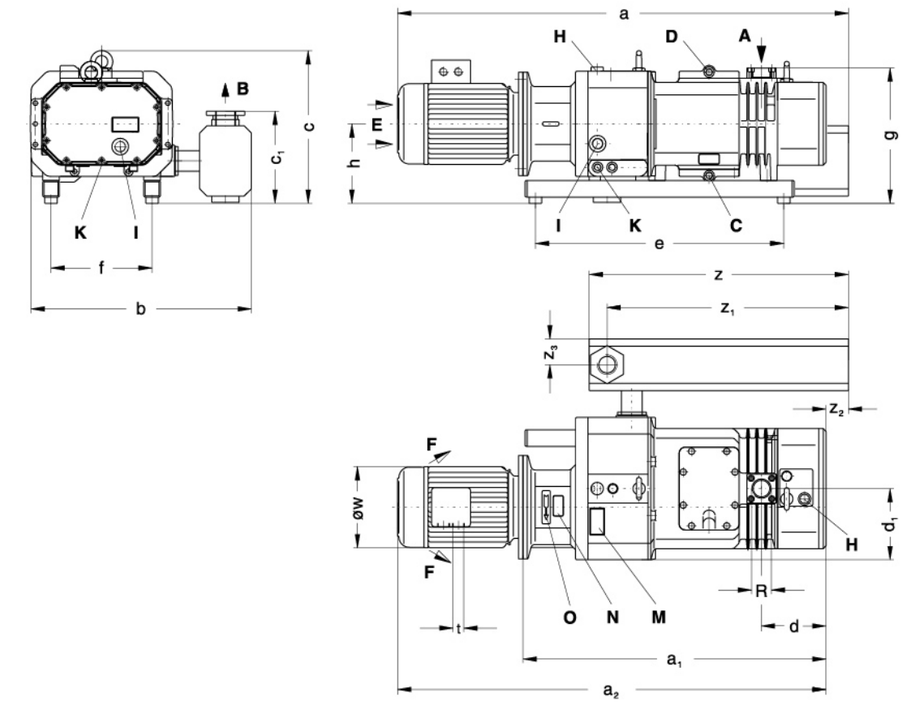
V-VSI			100	300
最大流量 Capacity maximum	m³/h	50 Hz	110	320
		60 Hz	138	380
极限真空 End vacuum	mbar (abs.)		0,1	
电机类型 Motor version	3~	50 Hz	230 / 400 V ±10 %	400 / 690 V ±10 %
		60 Hz	220 / 380 V	380 / 660 V
电机功率 Motor rating	kW	50 Hz	3,0	7,5
		60 Hz	3,6	9,0
电流 Current drawn	A	50 Hz	10,5 / 6,0	14,6 / 8,4
		60 Hz	#	#
转速 Speed	min⁻¹	50 Hz	2880	
		60 Hz	3550	
平均噪音 Average noise level	dB(A)	50 Hz	72	77
		60 Hz	75	80
最大重量 Maximum weight	kg		190	308
油量(齿轮) Oil intake (gear)	l		1,0 / 0,65	1,1 / 0,75
冷却水消耗 Cooling water consumption	l/h		100	400

S-VSI TWISTER 100 | 300

附件 • *Accessories*

V-VSI			100	300
逆止阀 Non-return valve	ZRK		40 (03)	65 (03)
真空密封进气口过滤器 Vacuum tight suction filter	ZVF	50 / 60 Hz	32 (54) / 40 (53)	65 (52)
电机启动器 Motor starter	ZMS	50 Hz	160 / 63	160 / 100
		60 Hz	#	#
软启动器 Soft starter	ZAD		#	#

尺寸 • *Dimensions [mm]*



V-VSI	100	300
a	1089	1442
a₁	732	887
a₂	1035	1253
b	534	671
c	369	421
c₁	223	155
d	156	172
d₁	172	205
e	600	940
f	244	270
g	327	395
h	192	225
t	M 32 x 1,5	M 32 x 1,5
ø w	196	260
z / z₁	626 / 529	835 / -
z₂ / z₃	54 / 62,5	189 / -
R	G 1½	G 2½

A	真空联接处 Vacuum connection	H	油注入口 Oil filling point
B	排气口 Exhaust	I	油位镜 Oil check
C	冷却水进口 G ⅜ Cooling water inlet	K	新油排油口 Oil drain point
D	冷却水出口 G ⅜ Cooling water outlet	M	油标牌 Oil type plate
E	冷却空气入口 Cooling air inlet	N	数据牌 Data plate
F	冷却空气出口 Cooling air outlet	O	旋转方向 Direction of rotation

* 与进气口吸气状态有关，按照PNEUROP标准，工作曲线和数据表（公差±10%）所示为真空泵在正常温度下运行。尺寸a 和 øw 或/和电流值不同。
# 根据需要

* *refers to suction conditions at inlet connection. Curves, table content (tolerance ±10 %) according to PNEUROP standards and refer to vacuum pump at normal operating temperature. The dimensions a and ø w and/or the current drawn can differ.*
 # on request

换算表 Conversion Tables

压力，真空 / *Pressure,Vacuum*

	mbar (hPa)	bar	Pa (N/m²)	kPa	atm	kp/cm²(at)
1 mbar (hPa)	1	1×10^{-3}	10^2	0,1	$9{,}869 \times 10^{-4}$	$1{,}02 \times 10^{-3}$
1 bar	10^3	1	1×10^5	100	0,987	1,02
1 Pa (N/m²)	0,01	1×10^{-5}	1	0,001	$9{,}869 \times 10^{-6}$	$1{,}02 \times 10^{-5}$
1 kPa	10	0,01	10^3	1	$9{,}869 \times 10^{-3}$	$1{,}02 \times 10^{-2}$
1 atm	$1{,}013 \times 10^3$	1,013	$1{,}013 \times 10^5$	$1{,}013 \times 10^2$	1	1,033
1 kp/cm² (at)	$9{,}807 \times 10^2$	0,981	$9{,}807 \times 10^4$	98,07	0,968	1
1 mm H_2O	$9{,}807 \times 10^{-2}$	$9{,}807 \times 10^{-5}$	9,807	$9{,}807 \times 10^{-3}$	$9{,}677 \times 10^{-5}$	10^{-4}
1 Torr (mm Hg)	1,333	$1{,}333 \times 10^{-3}$	$1{,}333 \times 10^2$	$1{,}333 \times 10^{-1}$	$1{,}316 \times 10^{-3}$	$1{,}36 \times 10^{-3}$
1 micron	$1{,}333 \times 10^{-3}$	$1{,}333 \times 10^{-6}$	$1{,}333 \times 10^{-1}$	$1{,}333 \times 10^{-4}$	$1{,}316 \times 10^{-6}$	$1{,}36 \times 10^{-6}$
1 in. Hg	33,86	$3{,}386 \times 10^{-2}$	$3{,}386 \times 10^3$	3,386	$3{,}342 \times 10^{-2}$	$3{,}453 \times 10^{-2}$
1 in. H_2O	2,491	$2{,}491 \times 10^{-3}$	$2{,}491 \times 10^2$	0,249	$2{,}458 \times 10^{-3}$	$2{,}54 \times 10^{-3}$
1 lb/in² (psi)	68,95	$6{,}895 \times 10^{-2}$	$6{,}895 \times 10^3$	6,895	$6{,}805 \times 10^{-2}$	$7{,}03 \times 10^{-2}$

	mm H_2O	Torr (mm Hg)	micron	in. Hg	in. H_2O	lb/in² (psi)
1 mbar (hPa)	10,197	0,75	750	$2{,}953 \times 10^{-2}$	0,402	$1{,}45 \times 10^{-2}$
1 bar	$1{,}02 \times 10^4$	$7{,}5 \times 10^2$	$7{,}5 \times 10^5$	29,53	$4{,}015 \times 10^2$	14,5
1 Pa (N/m²)	0,102	$7{,}5 \times 10^{-3}$	7,5	$2{,}953 \times 10^{-4}$	$4{,}015 \times 10^{-3}$	$1{,}45 \times 10^{-4}$
1 kPa	$1{,}02 \times 10^2$	7,5	$7{,}5 \times 10^3$	0,295	4,015	0,145
1 atm	$1{,}033 \times 10^4$	$7{,}6 \times 10^2$	$7{,}6 \times 10^5$	29,92	$4{,}068 \times 10^2$	14,7
1 kp/cm² (at)	10^4	$7{,}356 \times 10^2$	$7{,}356 \times 10^5$	28,96	$3{,}973 \times 10^2$	14,22
1 mm H_2O	1	$7{,}354 \times 10^{-2}$	73,54	$2{,}896 \times 10^{-3}$	$3{,}394 \times 10^{-2}$	$1{,}42 \times 10^{-3}$
1 Torr (mm Hg)	13,59	1	10^3	$3{,}937 \times 10^{-2}$	0,535	$1{,}934 \times 10^{-2}$
1 micron	$1{,}359 \times 10^{-2}$	10^{-3}	1	$3{,}937 \times 10^{-5}$	$5{,}35 \times 10^{-4}$	$1{,}934 \times 10^{-5}$
1 in. Hg	$3{,}45 \times 10^2$	25,4	$2{,}54 \times 10^4$	1	13,6	0,491
1 in. H_2O	25,4	1,868	$1{,}868 \times 10^3$	$7{,}356 \times 10^{-2}$	1	$3{,}613 \times 10^{-2}$
1 lb/in² (psi)	$7{,}03 \times 10^2$	51,71	$5{,}171 \times 10^4$	2,036	27,68	1

Vacuum Conversion
Absolute pressure p (mbar abs.) can be converted to and from pressure difference Δp (inches Hg) based on atmospheric pressure of 1013 mbar abs. (= 760 Torr = 29.92 inches Hg abs.) using the following formulae:
29.92 - 2.953 x 10-2 x p (mbar abs.) = Δp (inches Hg)
1013 - 33.86 x Δp (inches Hg) = p (mbar abs.)

真空换算
极限压力p (mbar 绝对压) 能换算成为压力差△p(inches Hg) 基于大气压力为1013mbar绝对压（=760 Torr = 29.92 in Hg 绝对压）可用以下方程式：
29.92-2.953 × 10-2 X p (mbar 绝对压)= △p(inches Hg)
1013-33.86 × △p(inches Hg) = p (mbar 绝对压)

流量 / *Capacity*

	m³/h	m³min	m³/s	l/min	cfm (ft³/min)	gal/min
1 m³/h	1	$1{,}667 \times 10^{-2}$	$2{,}778 \times 10^{-4}$	16,67	0,588	4,403
1 m³min	60	1	$1{,}667 \times 10^{-2}$	10^3	35,28	$2{,}642 \times 10^2$
1 m³/s	3600	60	1	6×10^4	$2{,}117 \times 10^3$	$1{,}585 \times 10^4$
1 l/min	6×10^{-2}	10^3	$1{,}667 \times 10^{-5}$	1	$3{,}528 \times 10^{-2}$	0,264
1 cfm (ft³/min)	1,699	$2{,}832 \times 10^{-2}$	$4{,}72 \times 10^{-4}$	28,32	1	7,481
1 gal/min	0,227	0,378	$6{,}306 \times 10^{-5}$	3,784	0,133	1

功率 / *Efficiency*

	kW	W (J/s)	PS	hp	kcal/h	Btu/h
1 kW	1	10^3	1,36	1,341	860	$3{,}412 \times 10^3$
1 W (J/s)	10^{-3}	1	$1{,}36 \times 10^{-3}$	$1{,}341 \times 10^{-3}$	0,860	3,412
1 PS	0,736	736	1	0,986	$6{,}329 \times 10^2$	$2{,}509 \times 10^3$
1 hp	0,746	7,46	1,014	1	$6{,}413 \times 10^2$	$2{,}545 \times 10^3$
1 kcal/h	$1{,}163 \times 10^{-3}$	1,163	$1{,}58 \times 10^{-3}$	$1{,}559 \times 10^{-3}$	1	3,968
1 Btu/h	$2{,}931 \times 10^{-4}$	0,2931	$3{,}985 \times 10^{-4}$	3,93 x 10-4	0,252	1

Temperature Conversion tC (°C) ⟷ tF (°F):
1.8 x tC (°C) + 32 = t F (°F)
0.556 x tF (°F) - 17.78 = tC (°C)

温度换算 tC (°C) ⟷ tF (°F):
1.8 x tC (°C) + 32 = t F (°F)
0.556 x tF (°F) - 17.78 = tC (°C)

长度 / *Length*

	m	cm	m	in	ft	yd
1 mm	1	0,1	10^3	$3{,}94 \times 10^{-2}$	$3{,}28 \times 10^{-3}$	$1{,}093 \times 10^{-3}$
1 cm	10	1	10^2	0,394	$3{,}28 \times 10^{-2}$	$1{,}093 \times 10^{-2}$
1 m	10^3	10^2	1	39,4	3,28	1,093
1 in	25,4	2,54	$2{,}54 \times 10^2$	1	$8{,}33 \times 10^{-2}$	$2{,}78 \times 10^{-2}$
1 ft	$3{,}084 \times 10^2$	30,48	0,305	12	1	0,333
1 yd	9,144	$0{,}914 \times 10^2$	0,914	36	3	1

体积 / *Volume*

	ml (cm³)	l (dm³)	in³	ft³	Imp. gal	U.S. gal
1 ml (cm³)	1	10^{-3}	0,061	$3{,}53 \times 10^{-5}$	$2{,}20 \times 10^{-4}$	$2{,}64 \times 10^{-4}$
1 l (dm³)	10^3	1	$0{,}610 \times 10^2$	$3{,}53 \times 10^{-2}$	0,220	0,264
1 in³	16,39	$1{,}639 \times 10^{-2}$	1	$5{,}79 \times 10^{-4}$	$3{,}606 \times 10^{-3}$	$4{,}327 \times 10^{-3}$
1 ft³	$2{,}83 \times 10^4$	28,3	$1{,}728 \times 10^3$	1	6,25	7,46
1 Imp. gal	$4{,}55 \times 10^3$	4,55	$2{,}773 \times 10^2$	0,160	1	1,20
1 U.S. gal	$3{,}785 \times 10^3$	3,785	$2{,}311 \times 10^2$	0,134	0,833	1

重量 / *Weight*

	g	kg	oz	lb	Brit. ton	U.S. ton
1 g	1	10-3	3,53 x 10-2	2,205 x 10-3	0,984 x 10-6	1,103 x 10-6
1 kg	103	1	35,3	2,205	0,984 x 10-3	1,103 x 10-3
1 oz	28,35	2,835 x 10-2	1	6,246 x 10-2	2,788 x 10-5	3,125 x 10-5
1 lb	454	0,454	16,01	1	4,463 x 10-4	5,00 x 10-4
1 Brit. ton	1,016 x 106	1,016 x 103	3,587 x 104	2,24 x 103	1	1,120
1 U.S. ton	0,907 x 106	0,907 x 103	3,20 x 104	2,00 x 103	0,893	1

应用 Application

干式旋片真空泵和压力泵 *Dry running rotary vane pumps and compressors*

工业应用
- 拾取和放置

Industrial applications
- *Pick and place*

处理系统
- 包装工业

Handling systems
- *Packaging*

包装机械
- 印刷工业

Packaging machines
- *Printing industry*

印刷机械
- 印后机械

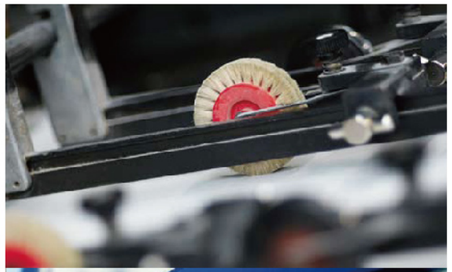
Printing machines
- *Post-press machines*

木工加工
- 固定

Wood industry
- *Clamping*

环境技术
- 曝气

Environmental technology
- *Aeration*











罗茨泵 *Roots*

一般工业
- 吸尘
- 干燥
- 曝气
- 不同应用处理

General applications
- *Dust extraction*
- *Drying*
- *Aeration*
- *Different process application*

木工工业
- 吸尘
- 气体输送
- 真空输送
- 压力输送

Wood industry
- *Dust extraction*
- *Pneumatic conveying plants*
- *Vacuum conveying*
- *Pressure conveying*

环境技术
- 吸尘
- 废水处理
- 槽罐通风
- 过滤残渣
- 污水清净
- 车辆抽吸设备
- 气体搅拌
- 家庭污水处理

Environmental technology
- *Dust extraction*
- *Waste water treatment*
- *Tank aeration*
- *Filter rinsing*
- *Sewage water cleaning*
- *Equipment of suction vehicles*
- *Gas stirring*
- *Domestic waste water systems*

爪式泵 *Claw*

VLR/DLR

一般工业应用
- 吸尘系统
- 干燥系统
- 工业炉

Industrial applications
- *Dust extraction systems*
- *Drying systems*
- *Industrial furnaces*

包装工业
- 中央系统

Packaging
- *Centralized vacuum*

木工工业
- 吸尘
- 握持
- 固定

Wood industry
- *Dust extraction*
- *Holding*
- *Clamping*

环境技术
- 吸尘
- 曝气
- 压缩空气干燥

Environmental technology
- *Dust extraction*
- *Aeration*
- *Drying gas compression*

印刷工业
- 中央真空系统
- 中央压缩系统

Printing industry
- *Centralized vacuum supply*
- *Centralized pressure supply*

气体输送
- 真空输送

Pneumatic conveying
- *Vacuum conveying*

KLR

印刷工业
- 单张胶印印刷机
- 轮转印刷机
- 丝网印刷机
- 柔性印刷机
- 印铁机
- 中央风柜

Printing industry
- *Sheet offset machines*
- *Rotary offset machines*
- *Screen printing machines*
- *Flexo printing machines*
- *Tin printing machines*
- *Air-supply cabinets*

印后机械
- 书籍装订机
- 收集
- 切割机
- 折叠机
- 中央风柜

Post-press applications
- *Book-binding machines*
- *Collecting machines*
- *Cutting machines*
- *Folding machines*
- *Air-supply cabinets*

螺杆泵 *Screw*

VSI

工业应用
- 吸尘系统
- 干燥
- 涂层
- 冶金
- 清洁
- 工业炉

Industry
- *Dust extraction systems*
- *Drying*
- *Coating*
- *Metallurgy*
- *Cleaning*
- *Industrial furnaces*

包装工业
- 应用食品加工和包装的中央真空系统
- 非食品包装的中央真空系统

Packaging
- *Centralized vacuum systems for food processing/packaging*
- *Centralized vacuum systems non food packaging*

环境技术
- 干燥系统
- 废水处理
- 气体搅拌

Environmental technology
- *Drying systems*
- *Waste water treatment*
- *Gas stirring*

气体输送
- 中央真空系统

Pneumatic conveying
- *Centralized vacuum systems*

干式旋片泵 | 爪式泵 | 螺杆式真空泵

Dry Running | Claw | Screw

Elmo Rietschle
A Gardner Denver Product

