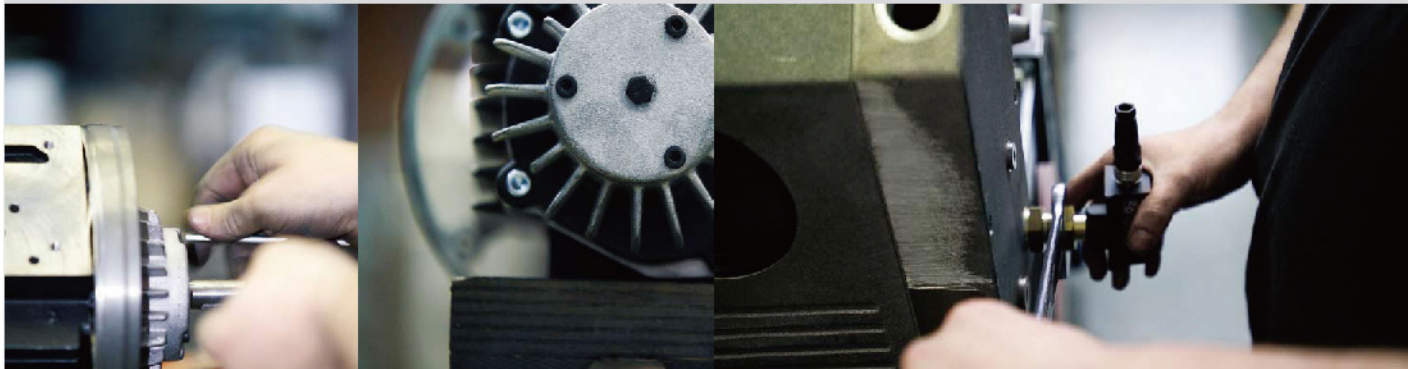


干式旋片泵 | 爪式泵 | 螺杆式真空泵
Dry Running | Claw | Screw





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

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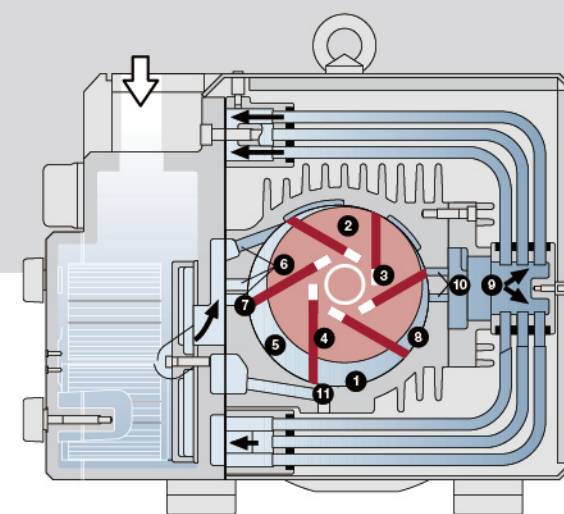
干式旋片泵
Dry Running

设计原理 Operating Principle

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. oil 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 as 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。

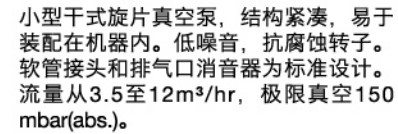
Pressure increase by volume reduction is the principle behind rotary vane operation. This design offers excellent service in pressure, vacuum or a combination of both. In a cylindrical casing (1) a rotor (2) is positioned eccentrically so that it is on the top almost touching the cylinder. Rotor blades 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.

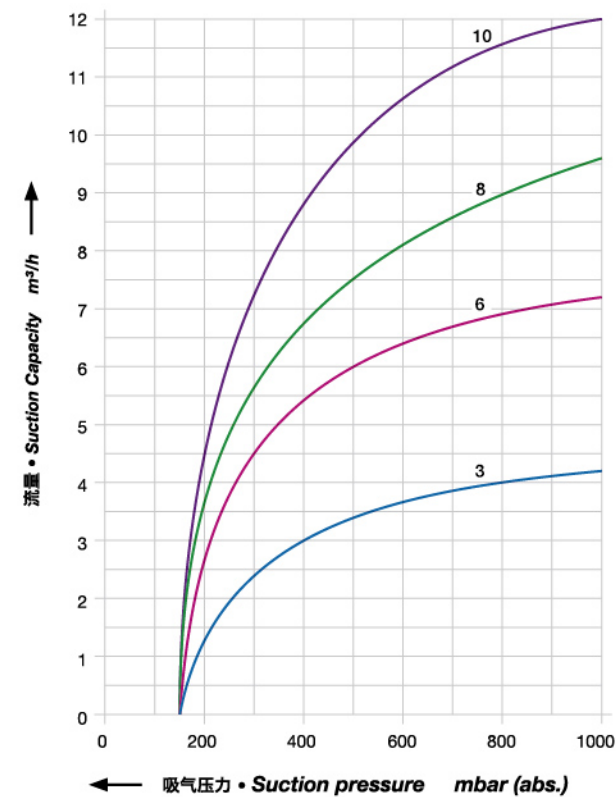
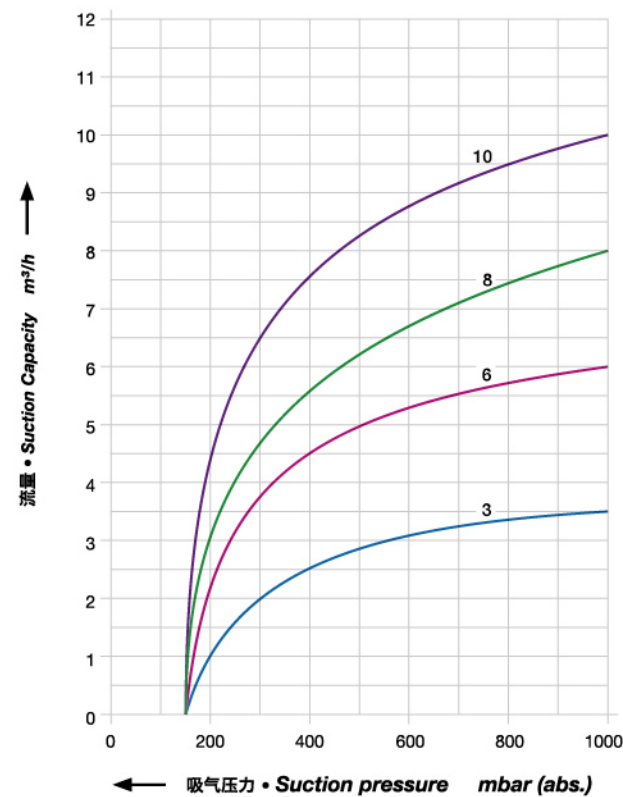
With pressure-vacuum pumps the lower end of the inlet port(s) (6) for the vacuum is moved forward. The cell can now be filled through second inlet (11). To avoid impairing the vacuum, this second inlet port is located about one cell segment away from the main suction port. The ratio between vacuum and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



可带24V直流电机，数据根据需要调整。

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.

60 Hz 选型图 • Selection diagram

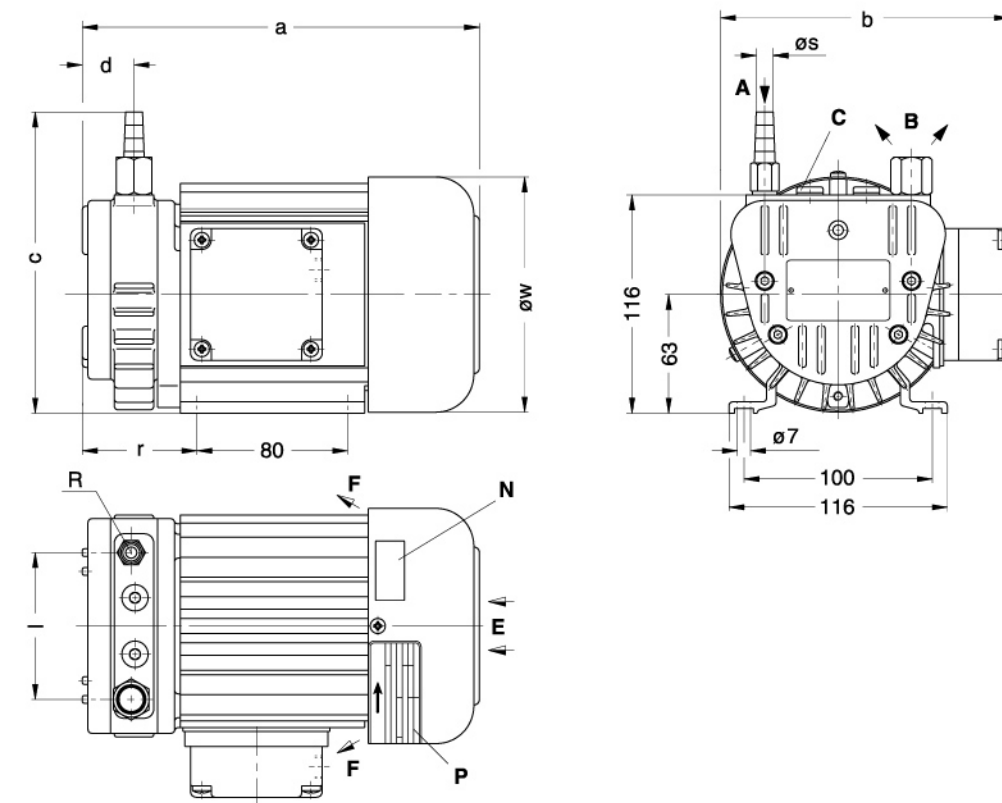


V-VTE			3	6	8	10
流量	m³/h	50 Hz	3,5	6,0	8,0	10
Capacity		60 Hz	4,2	7,2	9,6	12
极限真空	mbar (abs.)		150			
Ultimate vacuum						
电机类型	3~		200 – 255 / 346 – 440 V (50 Hz) / 200 – 277 / 346 – 480 V (60 Hz)			
Motor version	1~		230 V ± 10 % (50/60 Hz)			
电机功率	kW (3~)	50 Hz	0,120	0,25	0,37	0,37
Motor rating	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

V-VTE 3 | 6 | 8 | 10

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 $\frac{1}{8}$	G $\frac{3}{8}$	G $\frac{3}{8}$	G $\frac{3}{8}$

- | | |
|----------|--|
| 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 $\pm 10\%$)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 $\pm 10\%$) refer to vacuum pump at normal operating temperature.

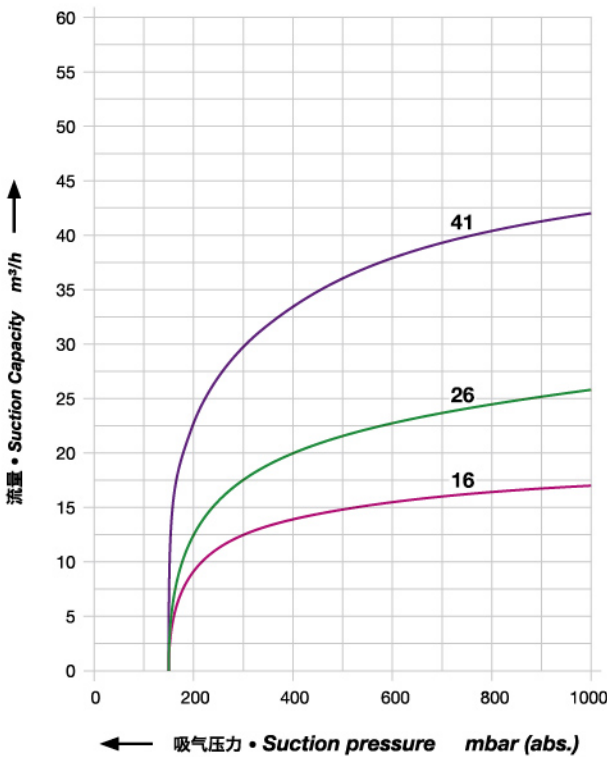


干式旋片真空泵，吸气口带纸质过滤器，隔音罩降低噪音水平，增强散热效果，有效保护操作者由于不慎触碰到热表面。灵活性的连接，无振动，易操作、维护和安装。流量从11.7至50.4m³/h，极限真空150mbar(abs.)。

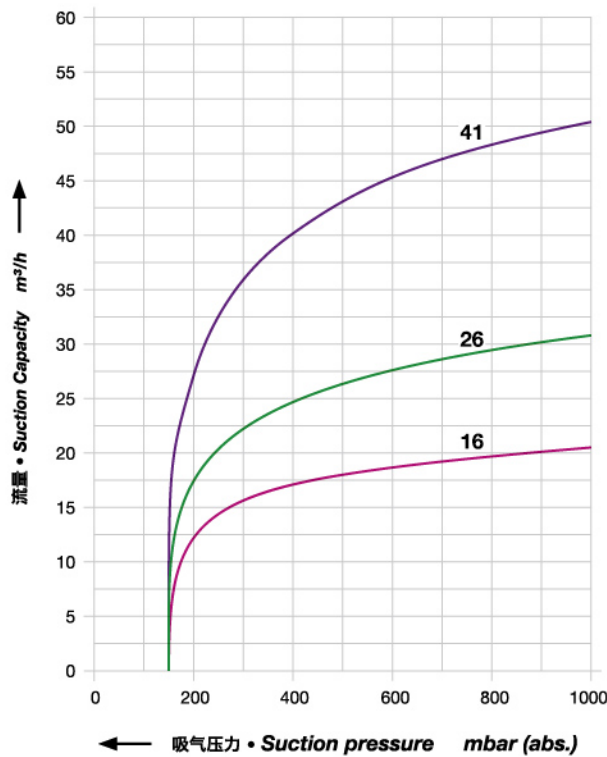
电机标准符合DIN EN 60034，保护标准IP54，绝缘等级F。

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

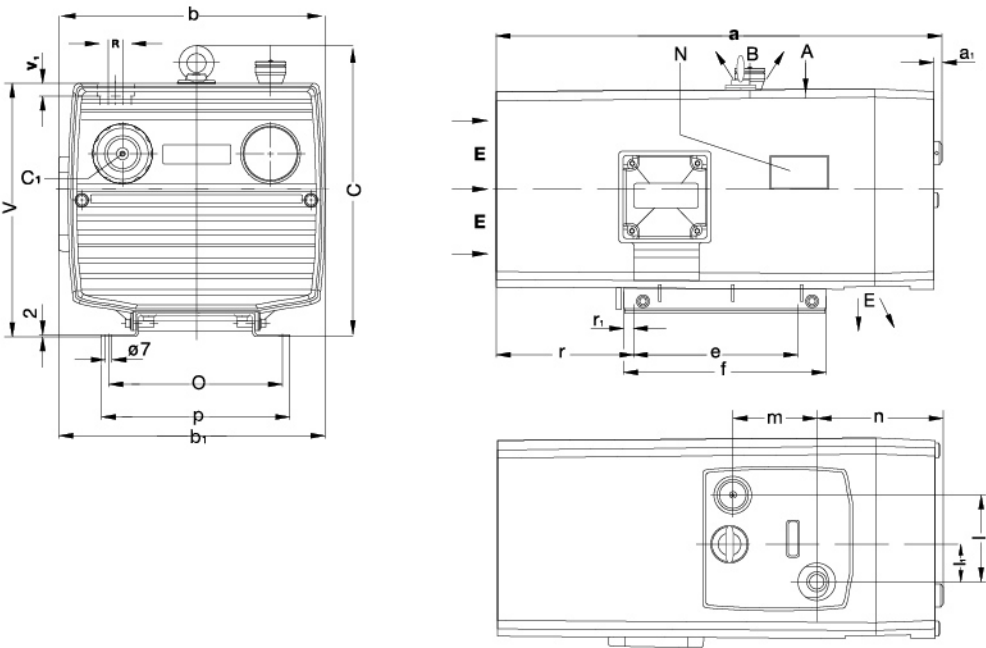


V-VTN			16	26	41
流量	m³/h	50 Hz	17,0	27,0	42,0
Capacity		60 Hz	20,5	32,0	50,4
极限真空	mbar (abs.)		150		
Ultimate vacuum					
电机类型	3~	50 Hz	200 – 255 / 346 – 440 V ± 5 %		
Motor version		60 Hz	200 – 290 / 346 – 500 V ± 5 %		
	1~		230 V ± 10 % (50/60 Hz)		
电机功率	kW (3~)	50 Hz	0,55	0,75	1,50
Motor rating		60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

附件 • Accessories

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

尺寸 • Dimensions [mm]



V-VTN	16	26	41
a (01) (02)	459 477	489 507	554 593
a1 (01) (02)	11 29	9 27	4 43
b	245	245	275
b1	236	236	270
c	283	283	319
e	180	180	200
f	220	220	242
l	125	125	147
l1	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
r1	11	11	10
v	246	246	282
v1	16	16	17
R	G ½	G ½	G ¾

A	真空联接处 Vacuum connection
B	排气口 Exhaust
C1	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.

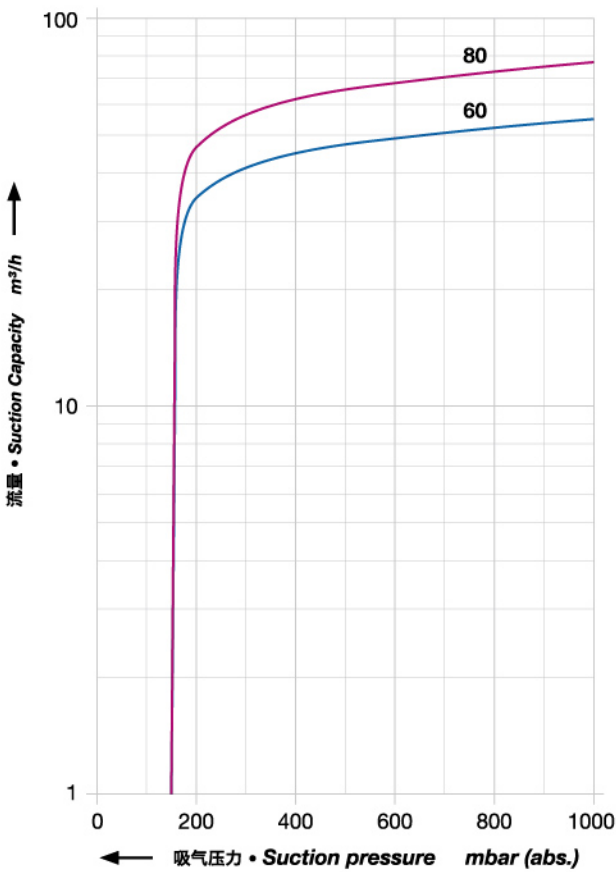


干式旋片真空泵，转子两侧装有轴承。带联轴节的法兰式电机。流量从55至92m³/hr，极限真空150mbar(abs.)。高效率及静音操作。隔音罩引导冷却空气从一侧或前后两侧排出，易于维修和操作。

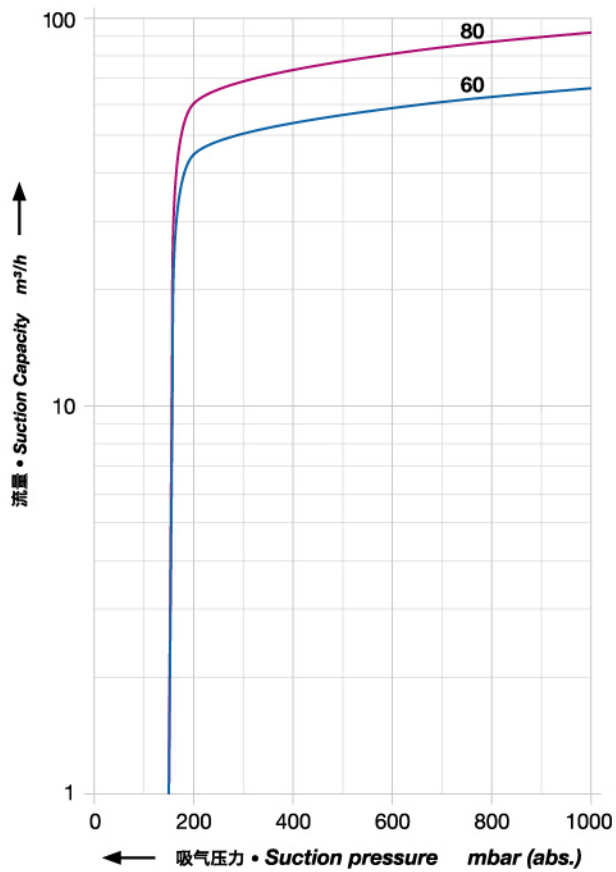
法兰式电机符合 DIN EN 60034标准，保护标准 IP 55，绝缘等级F。

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

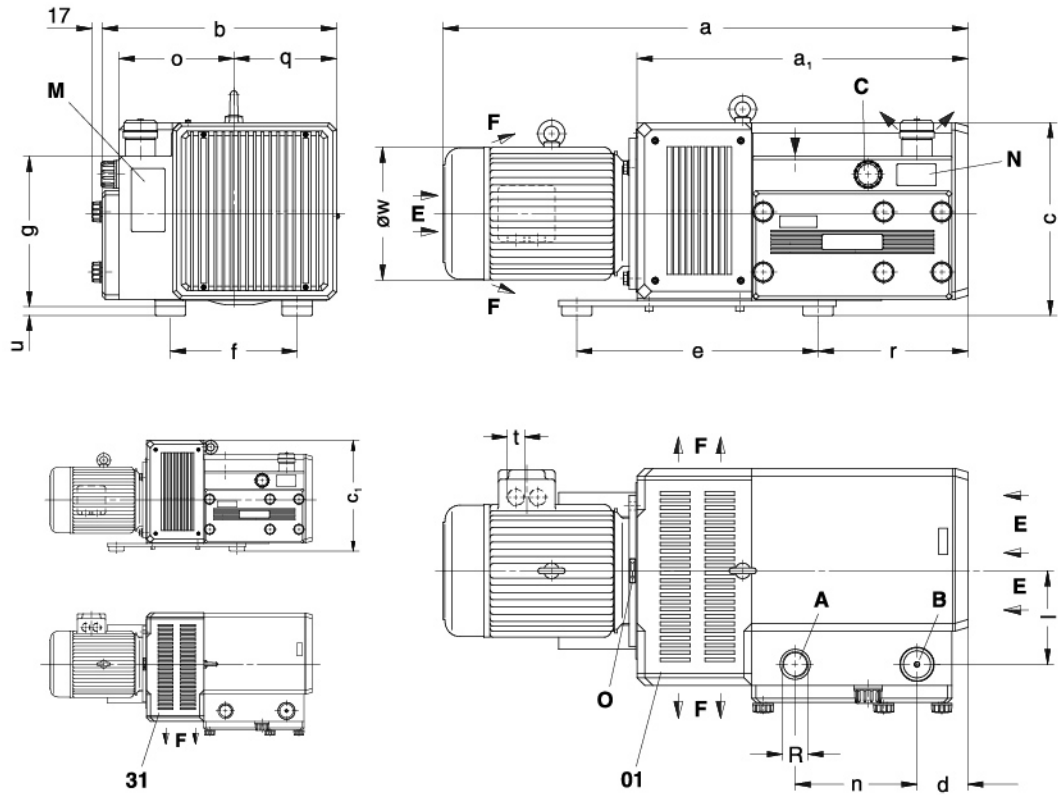


V-VTA			60	80
流量 Capacity	m³/h	50 Hz	55	77
		60 Hz	66	92
极限真空 Ultimate vacuum	mbar (abs.)		150	
电机类型 Motor version	3~	50 Hz	230 / 400 V ± 10 %	
		60 Hz	220 / 380 V	
电机功率 Motor rating	kW	50 Hz	1,5	2,2
		60 Hz	1,8	2,6
电流 Current drawn	A	50 Hz	6,1 / 3,5	9,5 / 5,45
		60 Hz	#	11,5 / 6,6
转速 Speed	min⁻¹	50 Hz	1450	
		60 Hz	1740	
平均噪音 Average noise level	dB(A)	50 Hz	72	73
	→ DIN 45635	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)
电机启动器 Motor starter	ZMS	50 Hz	100 / 40
		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
h	149	149
i	142	142
j	190	190
k	170	170
l	166	166
m	M 25 x 1,5	M 32 x 1,5
n	15	15
o	196	196
p	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ow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 ow and/or the current drawn can differ.
on request

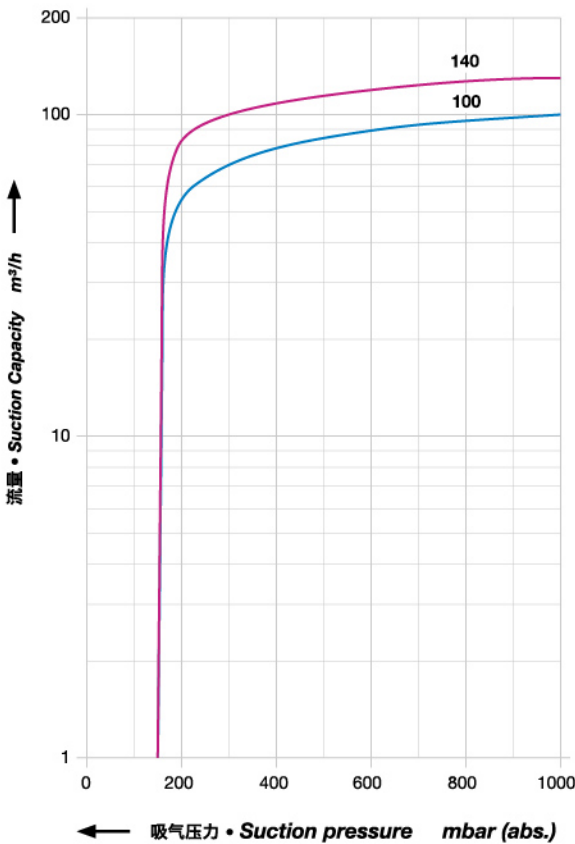


干式旋片真空泵，转子两侧装有轴承，带扭力弹性联轴节的法兰式电机。流量从100至155 m³/h。极限真空150mbar(abs)，高效及静音运行，隔音罩引导冷却空气排出，易维护及操作。

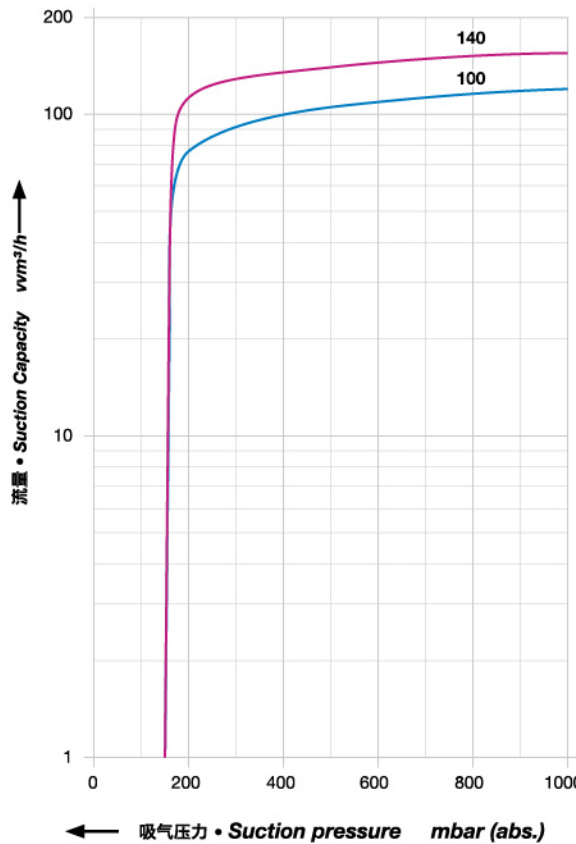
法兰式电机符合DIN EN 60034，保护标准IP 54，绝缘等级F。

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

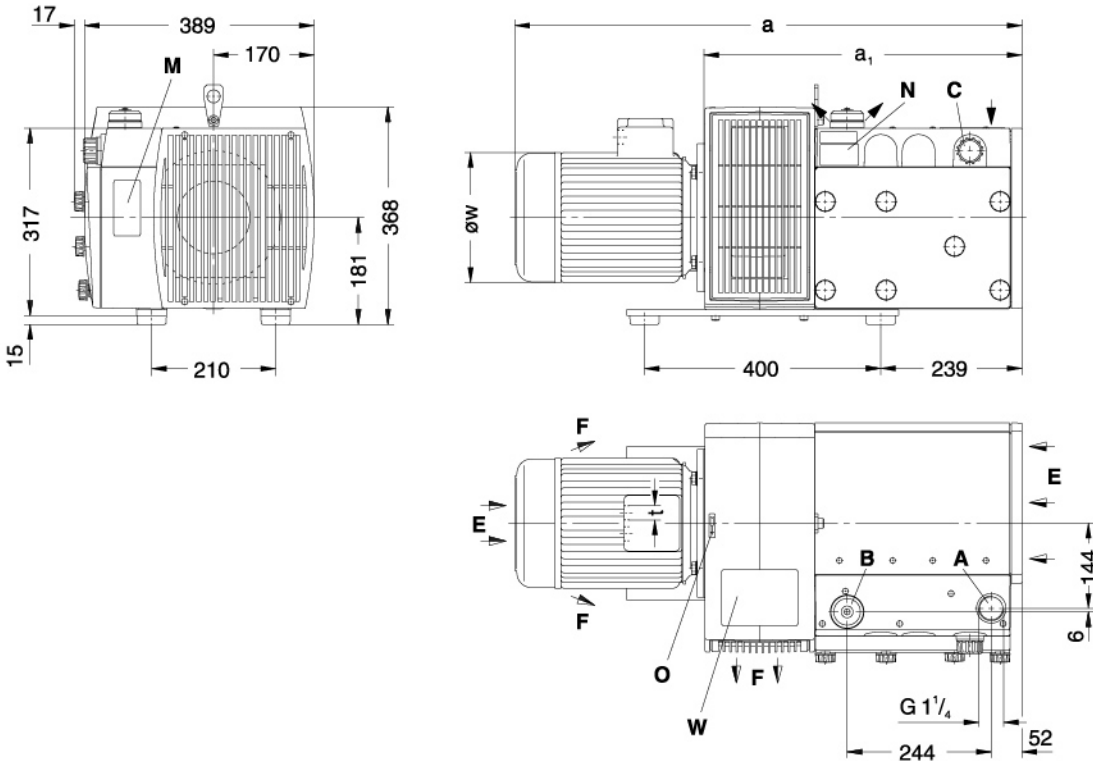


V-VTR			100	140
流量 Capacity	m³/h	50 Hz	100	130
		60 Hz	120	155
极限真空 Ultimate vacuum	mbar (abs.)		150	
电机类型 Motor version	3~	50 Hz	230 / 400 V ± 10 %	
		60 Hz	265 / 460 V ± 10 %	
电机功率 Motor rating	kW	50 Hz	3,0	4,0
		60 Hz	3,6	4,8
电流 Current drawn	A	50 Hz	11,5 / 6,6	14,2 / 8,2
		60 Hz	11,5 / 6,7	15,0 / 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 60 Hz	160 / 100 160 / 100	160 / 100 160 / 100

尺寸 • Dimensions [mm]

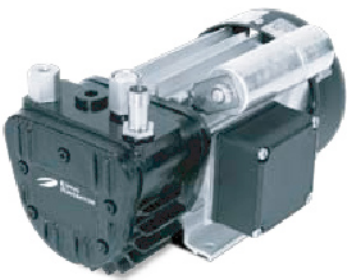


V-VTR	100	140
a	842	859
a₁	539	539
t	M 25 x 1,5	M 25 x 1,5
ø w	196	220

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 øw and/or the current drawn can differ.
on request

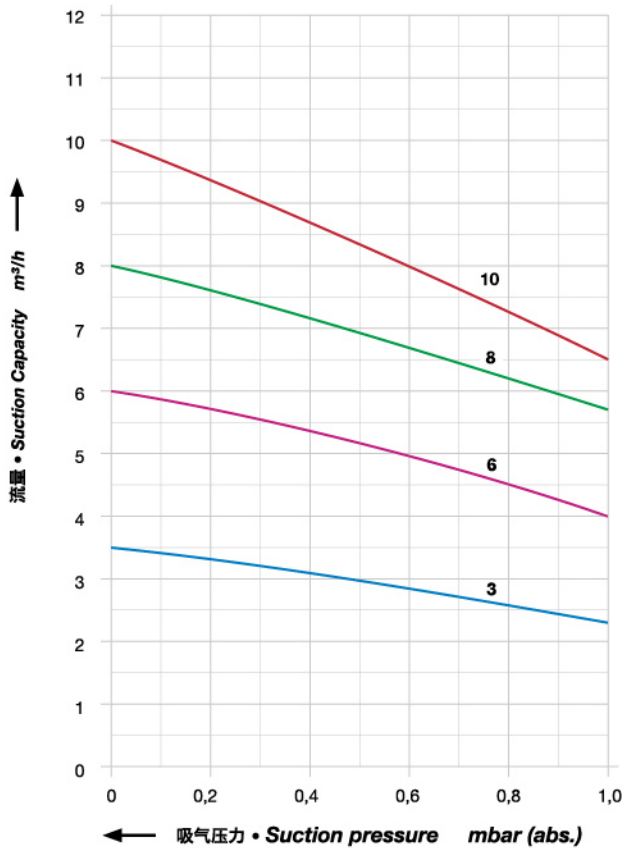


小型干式旋片压力泵，结构紧凑，易于装配在机器内。低噪音，抗腐蚀转子。软管联接和入口消音器为标准配备设计。流量从3.5至12m³/h，压力达1 bar。

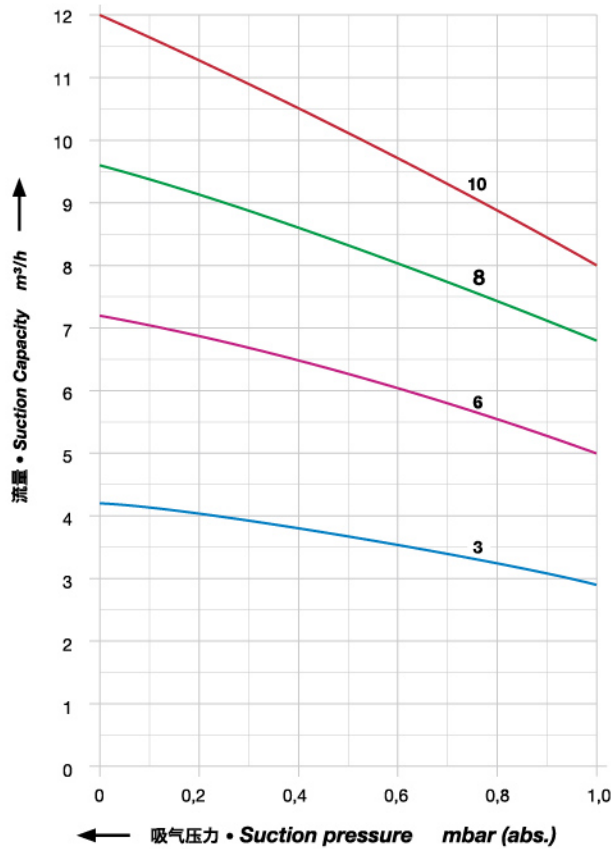
电机标准符合 DIN EN 60034，保护标准 IP 54，绝缘等级F。

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, have IP 55 protection and insulation class F.

50 Hz 选型图 • Selection diagram



60 Hz 选型图 • Selection diagram

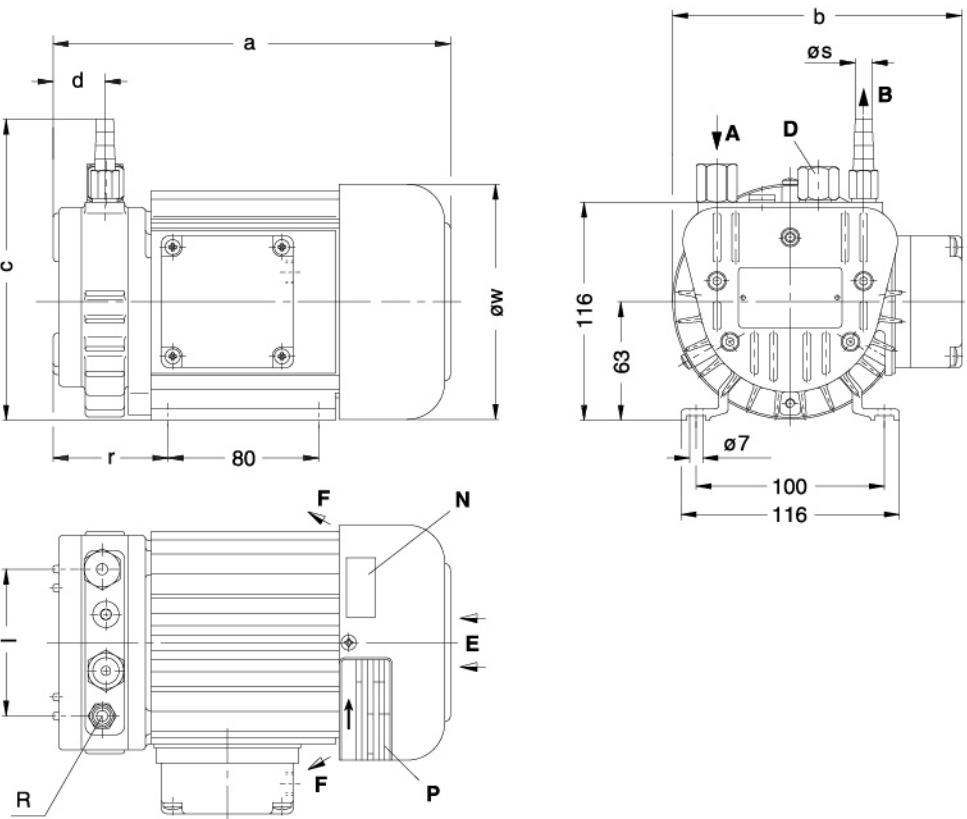


V-DTE			3	6	8	10
流量	m³/h	50 Hz	3,5	6,0	8,0	10
Capacity		60 Hz	4,2	7,2	9,6	12
正压力	bar	3~	1,0	1,0	1,0	1,0
Overpressure		1~	1,0	1,0	0,6	0,8
电机类型	3~	200 – 255 / 346 – 440 V (50 Hz) / 200 – 277 / 346 – 480 V (60 Hz)				
Motor version	1~	230 V ± 10 % (50/60 Hz)				
电机功率	kW (3~)	50 Hz	0,120	0,25	0,37	0,37
Motor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

附件 • Accessories

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

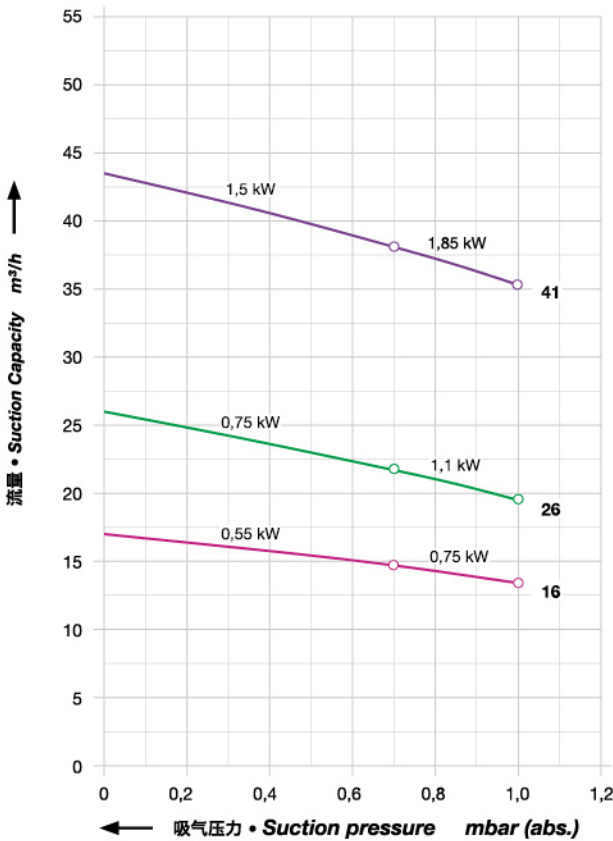


干式旋片压力泵，吸气口带空气过滤器，隔音罩降低噪音水平，增强散热效果，有效保护操作者由于不慎触碰到热表面。灵活性的连接，无振动，易操作、维护和安装。流量从11.3至52.2m³/h，压力达1bar。如果需要可配备压缩空气冷却器。

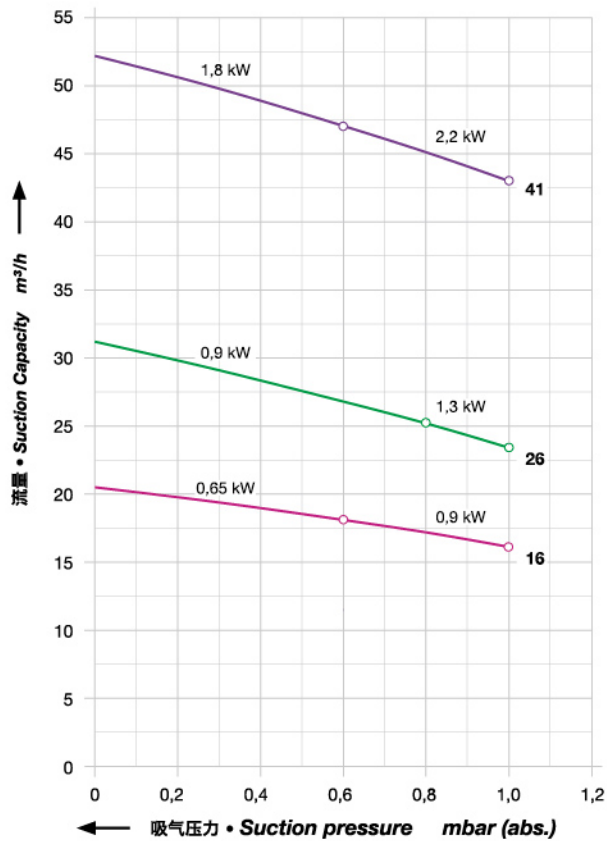
电机标准符合DIN EN 60034，保护标准IP54，绝缘等级F。

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

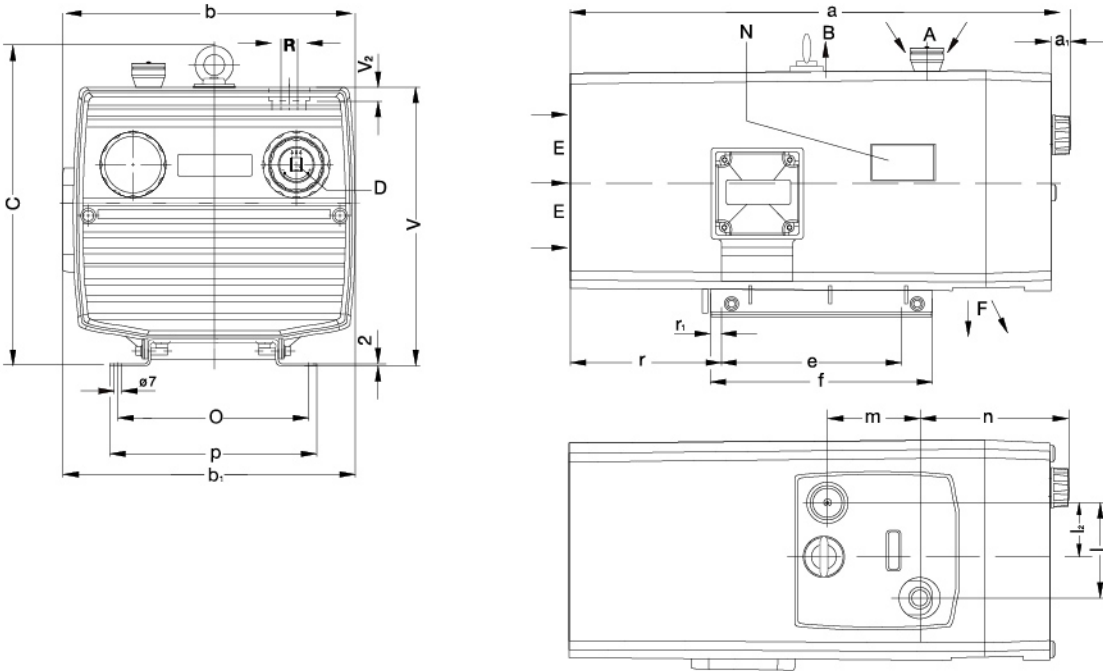


V-DTN				16		26		41	
流量 Capacity	m³/h	50 Hz		17,0		26,0		43,5	
		60 Hz		20,5		31,2		52,2	
正压力 Overpressure	bar	50 Hz	0,7	1,0	0,6	1,0	0,7	1,0	
		60 Hz	0,6	1,0	0,5	1,0	0,6	1,0	
电机类型 Motor version	3~	50 Hz	200 – 255 / 346 – 440 V ± 5 %						
		60 Hz	200 – 290 / 346 – 500 V ± 5 %						
	1~	50 Hz	230 V ± 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
a ₁	30	33	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 ₂	65	65	72
m	79	79	90
n	126	161	175
o	150	150	190
p	170	170	210
r	164	164	201
r ₁	11	11	10
v	246	246	282
v ₂	14	14	8
R	G 1/2	G 1/2	G 1/2

- 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.

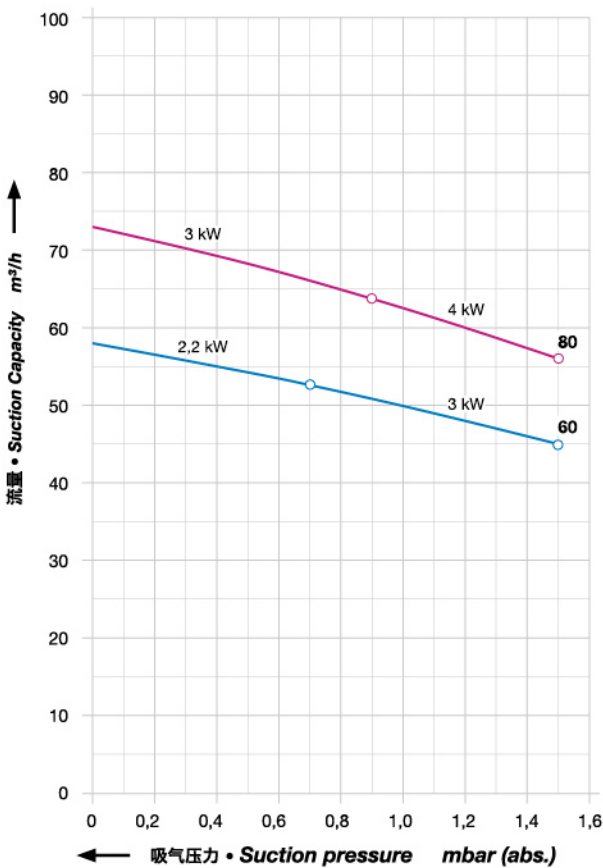


干式旋片压力泵，流量从58至88m³/hr。
持续运行时压力达1.5bar，间歇运行时
压力达2.2bar。高效率及静音操作。隔
音罩引导冷却空气从一侧或前后两侧排
出，易于维修和操作。

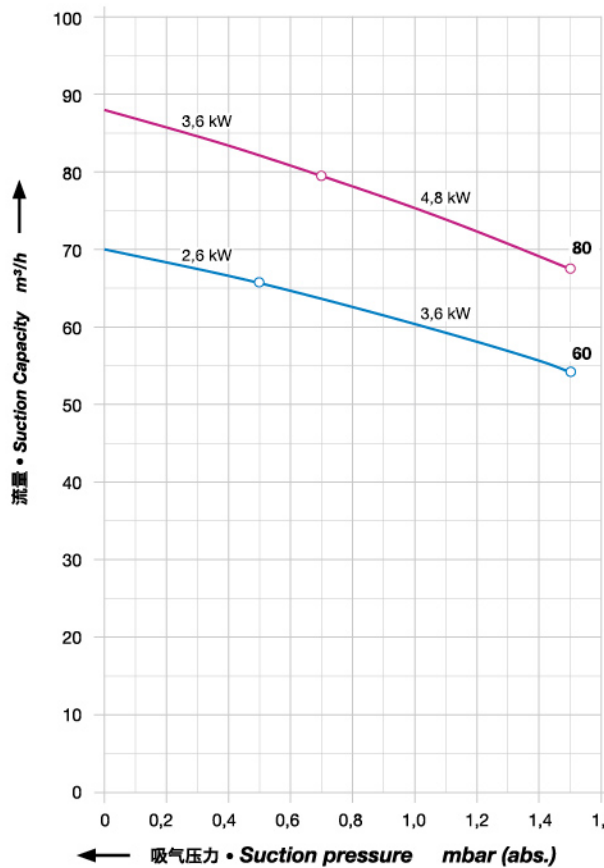
法兰式电机符合 DIN EN 60034标准，保
护标准 IP 55，绝缘等级F。

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

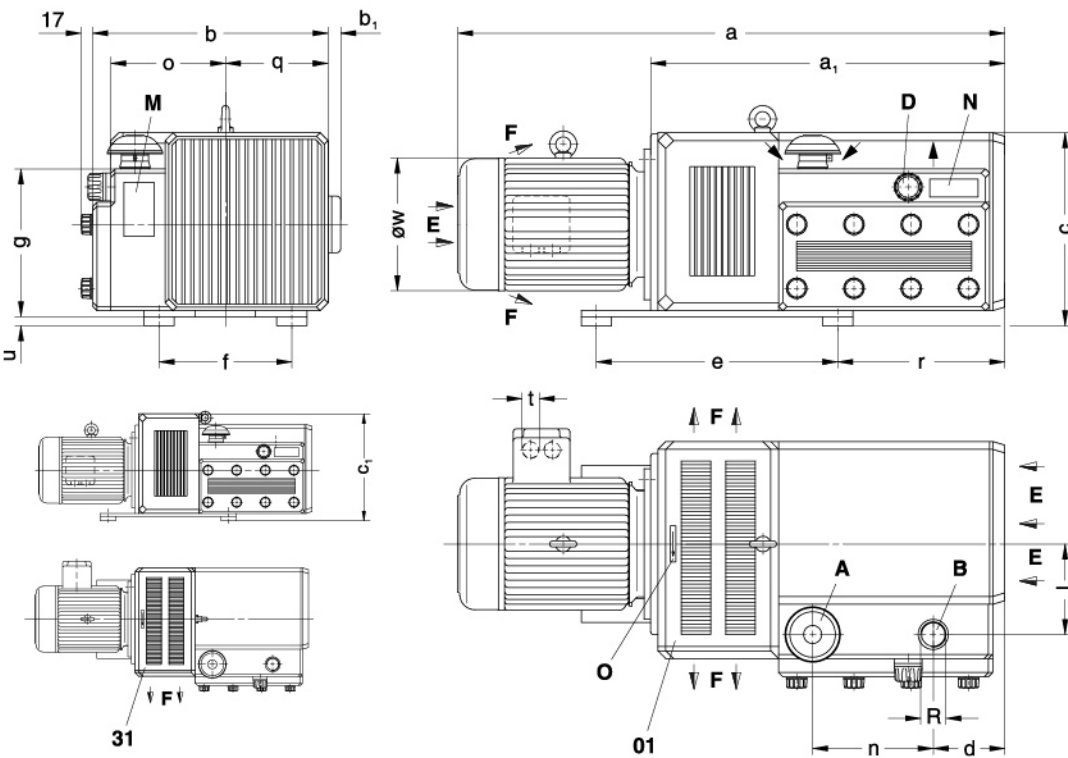


V-DTA		60		80	
流量	m³/h	50 Hz	58	73	
Capacity		60 Hz	70	88	
正压力	bar	50 Hz	0,7	1,5	0,9
Overpressure		60 Hz	0,5	1,5	0,7
电机类型	3~	50 Hz	230 – 400 V ± 10 %		
Motor version		60 Hz	220 – 380 V		
电机功率	kW	50 Hz	2,2	3,0	3,0
Motor rating		60 Hz	2,6	3,6	4,8
电流	A	50 Hz	10,0 / 5,9	11,4 / 6,6	12,2 / 7,1
Current drawn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

附件 • Accessories

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

尺寸 • Dimensions [mm]

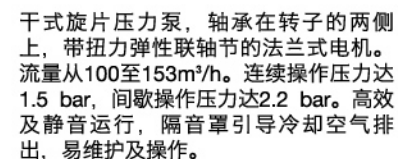


V-DTA	60	80
a	771	771
a1	468	468
b	388	388
b1	-	-
c	320	320
c1	366	366
d	77	77
e	400	400
f	210	210
g	249	249
h	149	149
i	146	146
j	190	190
k	170	170
l	166	166
m	M 32 x 1,5	M 32 x 1,5
n	15	15
o w	196	196
R	G 1	G 1

- (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 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

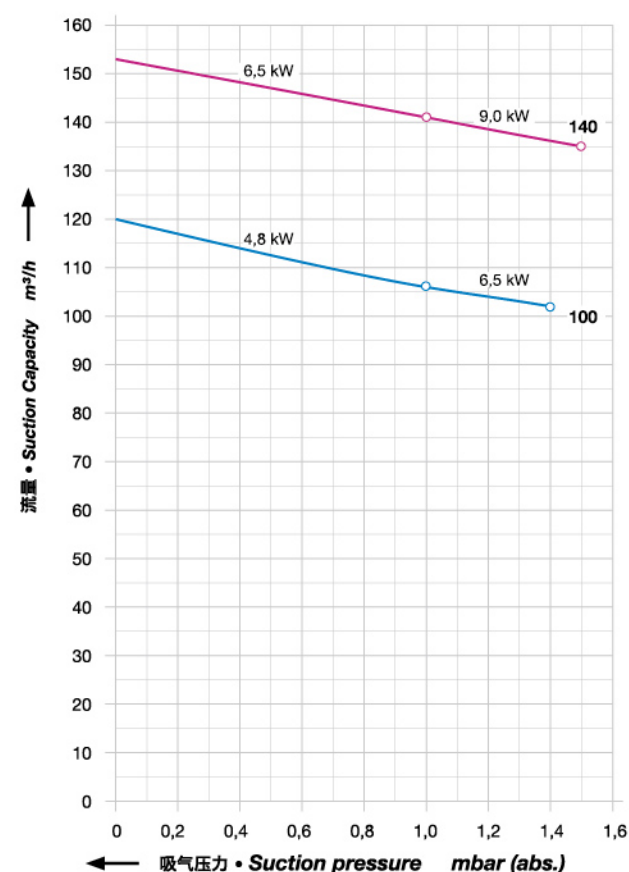
* 流量测于大气标准1巴(绝对压)和20摄氏度。工作曲线和数据表所示为压力泵在正常温
度下运行。我们保留调整技术数据的权利。尺寸a和ow或/和电流值会因不同电机而与数
据表不同。
根据需要

* 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 o w and/or the current drawn can differ
when compared with the data list, depending on the motor type.
on request



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.

60 Hz 选型图 • Selection diagram

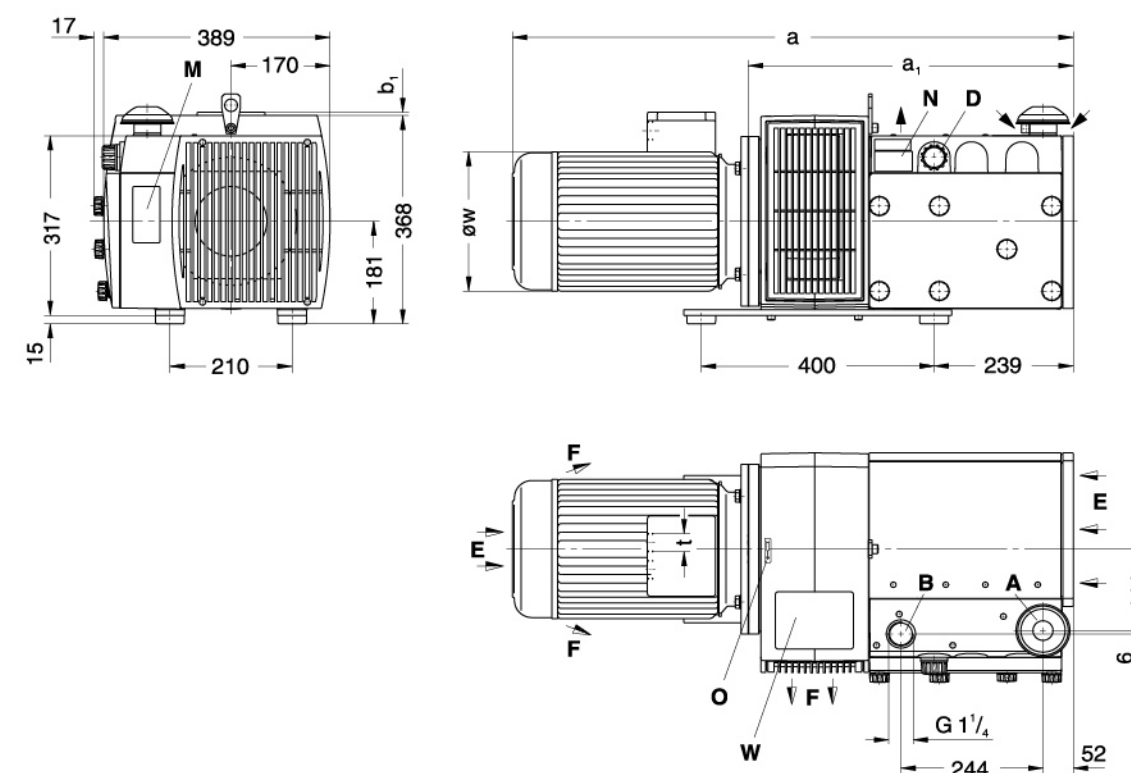


V-DTR			100		140	
流量	m³/h	50 Hz	100		130	
Capacity		60 Hz	120		155	
正压力	bar	50 Hz	1,0	1,5	1,0	1,5
Overpressure		60 Hz	1,0	1,4	1,0	1,5
电机类型	3~	50 Hz	230 / 400 V ± 10 %			
Motor version		60 Hz	265 / 460 V ± 10 %			
电机功率	kW	50 Hz	4,0	5,5	5,5	7,5
Motor rating		60 Hz	4,8	6,5	6,5	9,0
电流	A	50 Hz	14,2 / 8,2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

V-DTR 100 | 140

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
a₁	539	559	559	559
b₁	-	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 |

• 流量测量于大气标准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 $\pm 10\%$) 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	3~	50 Hz	200 – 255 / 346 – 440 V ± 5 %					
Motor version		60 Hz	200 – 290 / 346 – 500 V ± 5 %					
	1~		230 V ± 10 % (50 Hz)					
电机功率	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	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	min ⁻¹	50 Hz	1450					
		60 Hz	1740					
平均噪音	dB(A)	50 Hz	63		65		68	
		60 Hz	65		68		70	
最大重量	kg	3~	28,4		35,1		49,9	
Maximum weight		1~	28,6		35,2		52,2	

V-KTN 16																		
真空/超压	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
Vacuum/Overpressure			0				+0,4				+0,5				+0,6			
流量	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
Capacity	(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	kW	50 Hz											0,75					
Motor rating		60 Hz											0,90					

V-KTN 26																				
真空/超压	bar	S ¹⁾	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					
流量	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		
Capacity	(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	kW	50 Hz							1,1											
Motor rating		60 Hz							1,3											

V-KTN 41																		
真空/超压	bar	S ¹⁾	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			
流量	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
Capacity	(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	kW	50 Hz											1,85					
Motor rating		60 Hz											2,2					

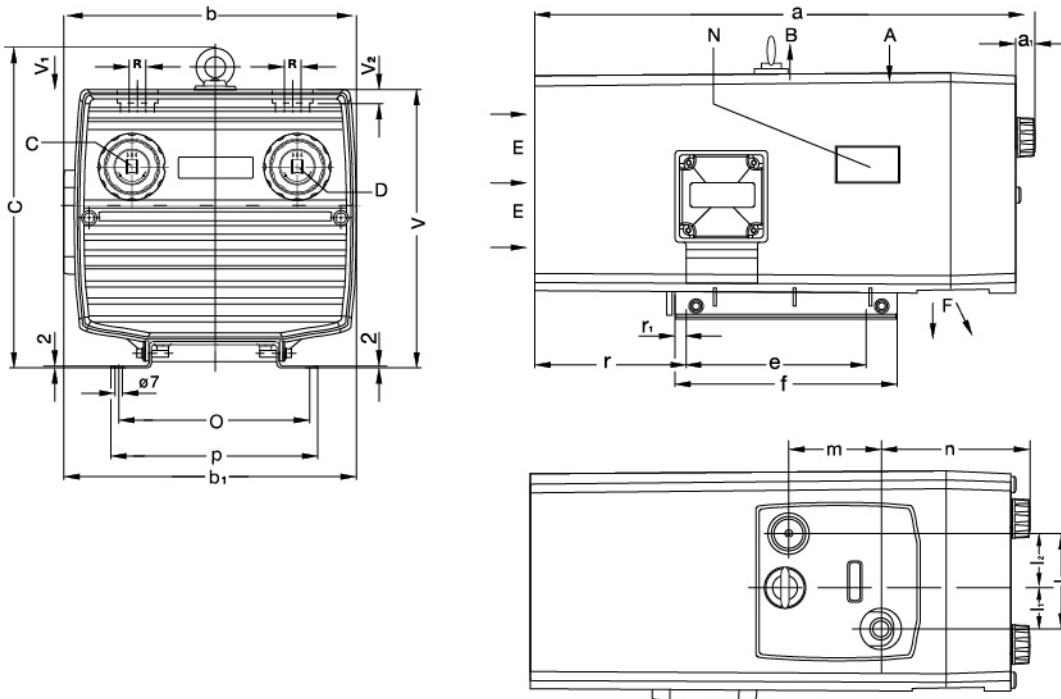
1) 吸气 • Suction air

2) 压缩空气 • Compressed air

附件 • Accessories

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



V-KTA 60/1 | 60/2 | 60/3



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

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
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
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
	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
	(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
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
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
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
	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
	(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
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
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
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
	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
	(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
电机功率	kW	50 Hz	2,2				3,0	2,2							3,0	
Motor rating		60 Hz	2,6												3,6	

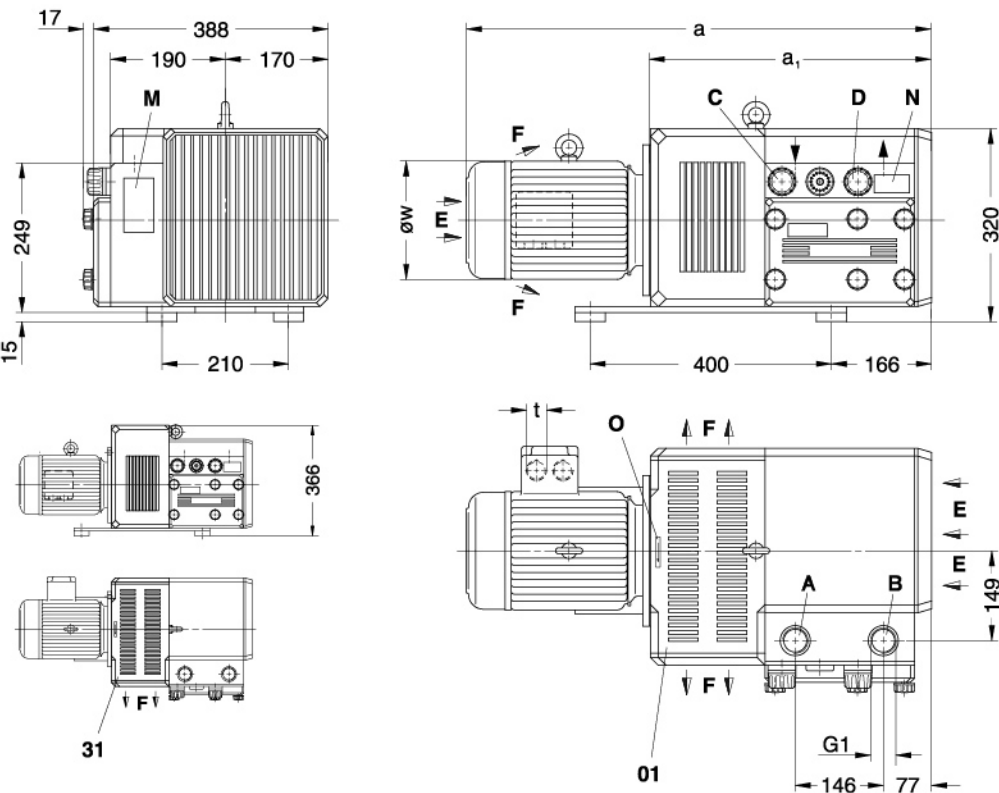
1) 吸气 • Suction air
2) 压缩空气 • Compressed air

V-KTA 60/1 | 60/2 | 60/3

附件 • Accessories

V-KTA		60			
逆止阀	ZRK		25 (03)		
Non-return valve					
灰尘分离器	ZFP		145 (06)		
Dust separator					
电机启动器	ZMS	50 Hz	100 / 60		160 / 100
Motor starter		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	E	冷却空气入口
	Two side cooling air outlet		Cooling air inlet
(31)	单侧冷却空气出口	F	冷却空气出口
	One side cooling air outlet		Cooling air outlet
A	真空联接处	M	油脂标牌
	Vacuum connection		Greasing label
B	压力联接处	N	数据牌
	Pressure connection		Data plate
C	真空调节阀	O	旋转方向
	Vacuum regulating valve		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.



V-KTA 80/1 | 80/2 | 80/3



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

V-KTA 80/1		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
真空/超压	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
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
	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
	(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
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		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
真空/超压	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
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
	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
	(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
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		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
真空/超压	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
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
	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
	(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
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				

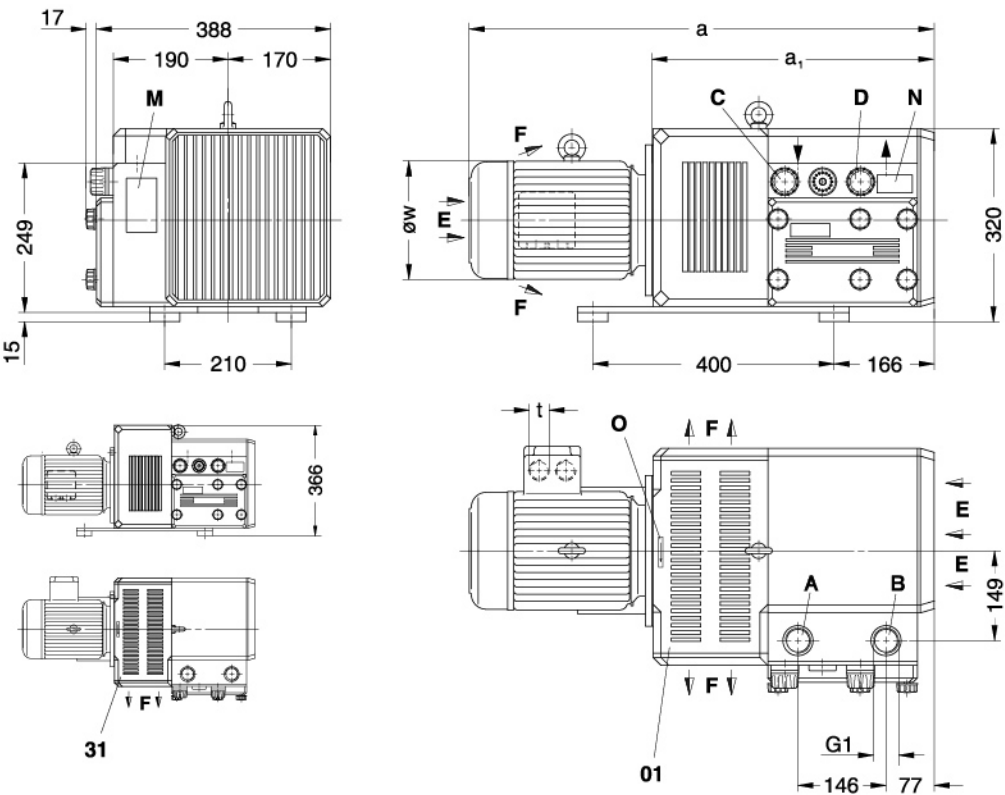
1) 吸气 • Suction air
2) 压缩空气 • Compressed air

V-KTA 80/1 | 80/2 | 80/3

附件 • Accessories

V-KTA		80	
逆止阀	ZRK		25 (03)
Non-return valve			
灰尘分离器	ZFP		216 (07)
Dust separator			
电机启动器	ZMS	50 Hz	160 / 100
Motor starter		60 Hz	200 / 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	E	冷却空气入口
	Two side cooling air outlet		Cooling air inlet
(31)	单侧冷却空气出口	F	冷却空气出口
	One side cooling air outlet		Cooling air outlet
A	真空联接处	M	油脂标牌
	Vacuum connection		Greasing label
B	压力联接处	N	数据牌
	Pressure connection		Data plate
C	真空调节阀	O	旋转方向
	Vacuum regulating valve		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，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	3~	50 Hz	230 / 400 V ± 10 %
Motor version		60 Hz	265 / 460 V ± 10 %
电机功率	kW (M)	50 Hz	5,5
Motor rating		60 Hz	6,5
电流	A	50 Hz	19,5 / 11,3
Current drawn		60 Hz	20,0 / 11,5
转速	min ⁻¹	50 Hz	1450
Speed		60 Hz	1740
平均噪音	dB(A)	50 Hz	76
Average noise level	→ DIN 45635	60 Hz	77
最大重量	kg		151
Maximum weight			

V-KTR 100															
真空/超压	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
Vacuum/Overpressure		D ²⁾			0					+0,2				+0,4	
流量	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
Capacity	(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	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
Power required		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	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
Temperature difference compressed air		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

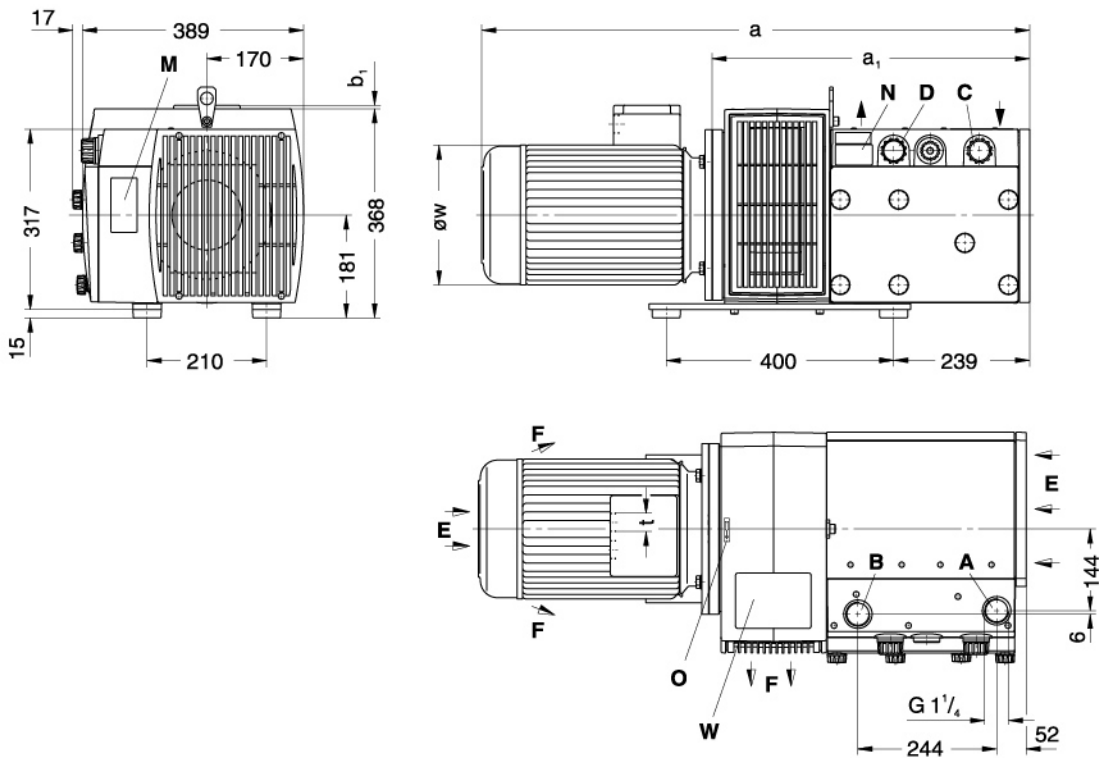
V-KTR 100														
真空/超压	bar	S ¹⁾	-0,5	-0,6	0	-0,2	-0,4	-0,5	-0,6	0	-0,2	-0,4	-0,5	-0,6
Vacuum/Overpressure		D ²⁾					+0,5					+0,6		
流量	m³/h	S*	81,8	75,6	99,6	93,8	85,2	80,8	74,7	98,8	92,6	84,3	79,8	74,2
Capacity	(50 Hz)	D	80,2	74,3	102,3	95,2	85,2	79,1	73,2	100,8	94,0	84,2	78,0	71,9
	m³/h	S*	101,6	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	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
Power required		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	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
Temperature difference compressed air		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	ZRK		32 (03)
Non-return valve			
灰尘分离器	ZFP		216 (07)
Dust separator			
电机启动器	ZMS	50 Hz	200 / 160
Motor starter		60 Hz	250 / 160

尺寸 • Dimensions [mm]



V-KTR	100
a	964
a ₁	559
b ₁	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 和/或电流值不同。

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

V-KTR 140															
真空/超压	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
Vacuum/Overpressure		D ²⁾	0						+0,2			+0,4			
流量	m³/h (50 Hz)	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
Capacity		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 (60 Hz)	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
		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	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
Power required		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	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
Temperature difference compressed air		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

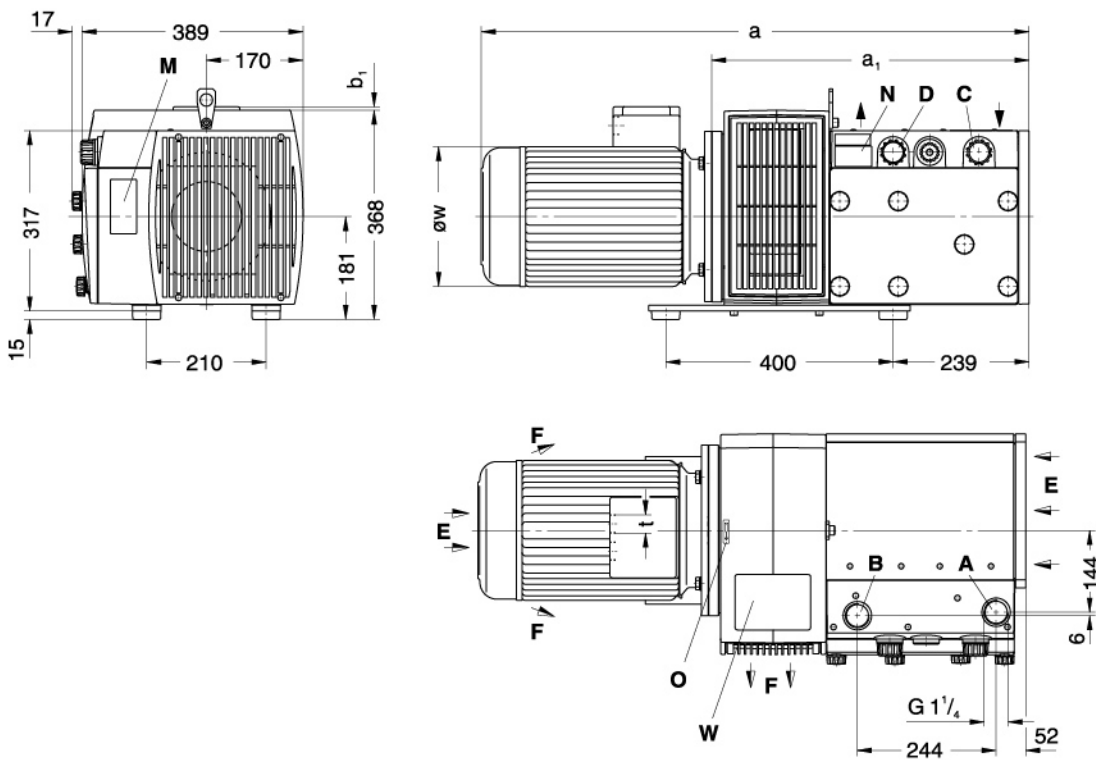
V-KTR 140														
真空/超压	bar	S ¹⁾	-0,5	-0,6	0	-0,2	-0,4	-0,5	-0,6	0	-0,2	-0,4	-0,5	-0,6
Vacuum/Overpressure		D ²⁾	+0,4			+0,5			+0,6			+0,6		
流量	m³/h	S*	104,9	98,7	123,5	115,7	108,6	103,4	97,5	121,8	114,4	106,7	102,4	96,8
Capacity		D	94,0	85,0	128,7	117,8	100,6	93,0	84,2	125,9	116,6	99,0	92,0	83,3
	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
		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	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
Power required		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	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
Temperature difference compressed air		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	ZRK		32 (03)w	
Non-return valve				
灰尘分离器	ZFP		216 (01)	
Dust separator				
电机启动器	ZMS	50 Hz	200 / 160	- / 160
Motor starter		60 Hz	250 / 160	- / 200

尺寸 • Dimensions [mm]



V-KTR	140	
a	964	964
a ₁	559	559
b ₁	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.

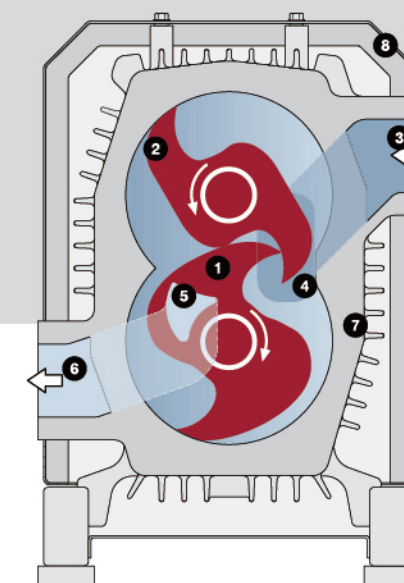
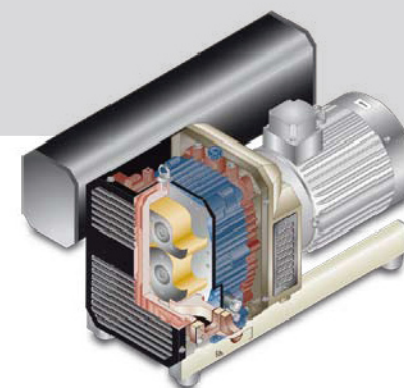


爪式
Claw

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 -0.6 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，无摩擦、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.



C-VLR ZEPHYR 60 | 100 | 150 | 251

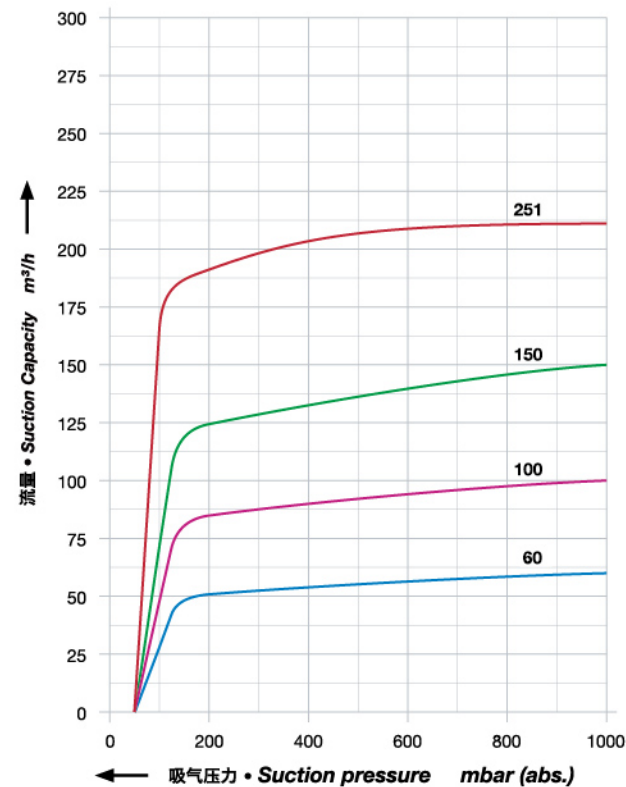


干式，高效无摩擦爪式真空泵，流量从60至255m³/h，极限真空（持续运行）可达100、150、200.mbar(abs)。无需经常维护，不附带冷却介质的空气冷却系统，适用于多种应用。

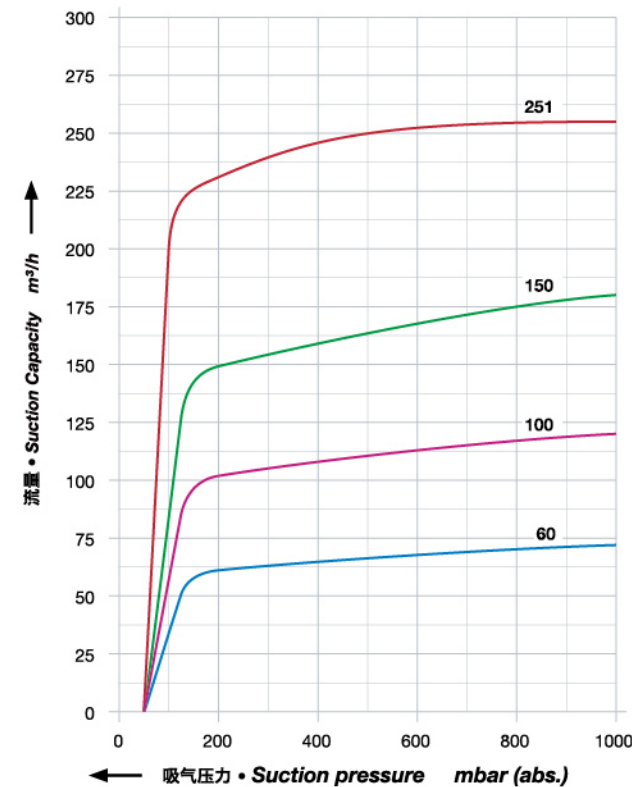
法兰式电机符合DIN EN 60034，保护标准 IP 55，绝缘等级F。

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



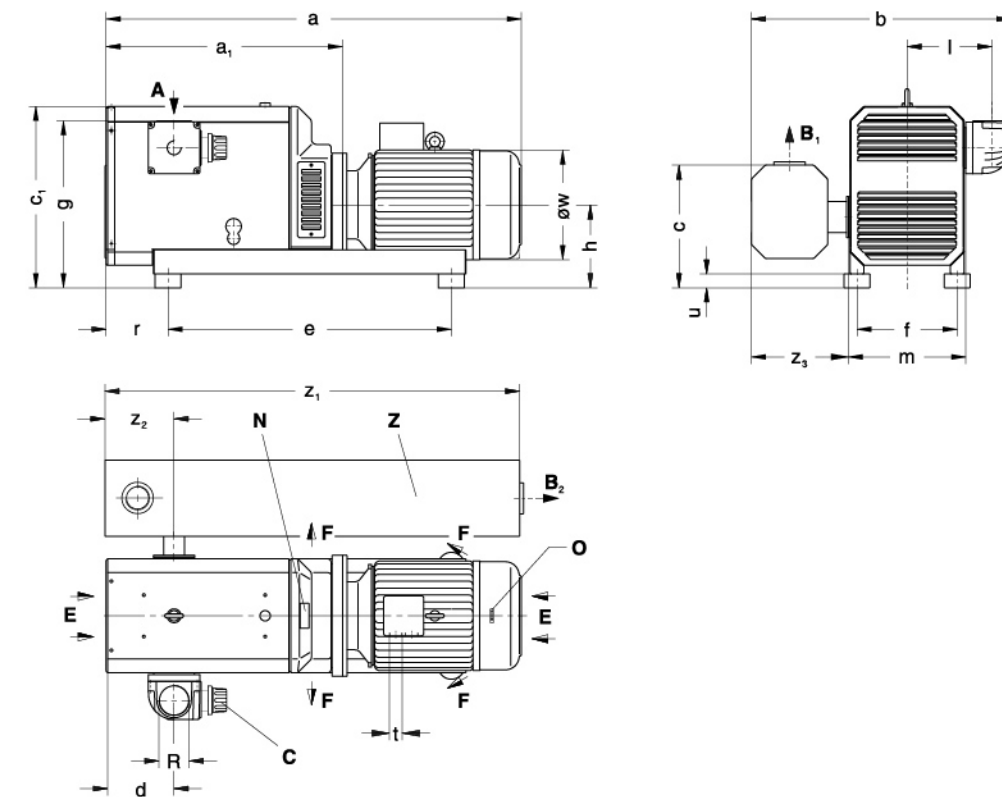
C-VLR			60	100	150	251
流量	m³/h	50 Hz	60	100	150	211
Capacity		60 Hz	72	120	180	255
极限真空(持续运行)	mbar (abs.)		50 (100)	50 (150)	50 (100)	50 (200)
End vacuum max. (continuous operation)						
电机类型	3~	50 Hz	230 / 400 V ±10 %			
Motor version		60 Hz	220 / 380 V			
电机功率	kW	50 Hz	1,1	2,2	3,0	4,0
Motor rating		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)	50 Hz	78	78	79	76
Average noise level	→DIN 45635	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)						

C-VLR ZEPHYR 60 | 100 | 150 | 251

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
a ₁	367	392	475	577
b	431	540	533	716
c / c ₁	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
z ₁	275	626	626	1060
z ₂	60	100	100	160
z ₃	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
B ₁	C-VLR 60 100 150
B ₂	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



C-VLR ZEPHYR 250 | 300 | 400 | 500

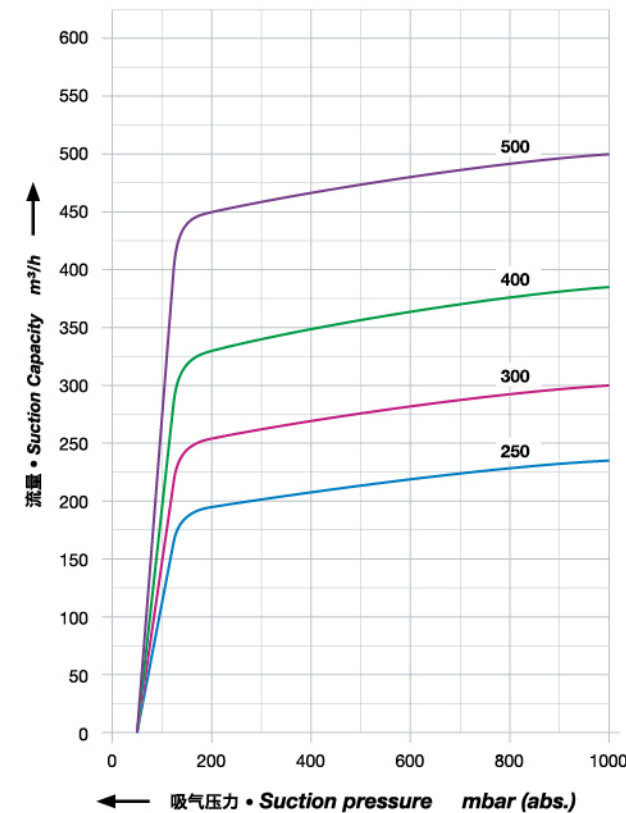


干式，高效无摩擦爪式真空泵，流量从235至600m³/h，极限真空（持续运行）可达200或250mbar(abs).无需经常维护，不附带冷却介质的空气冷却系统，适用于多种应用。

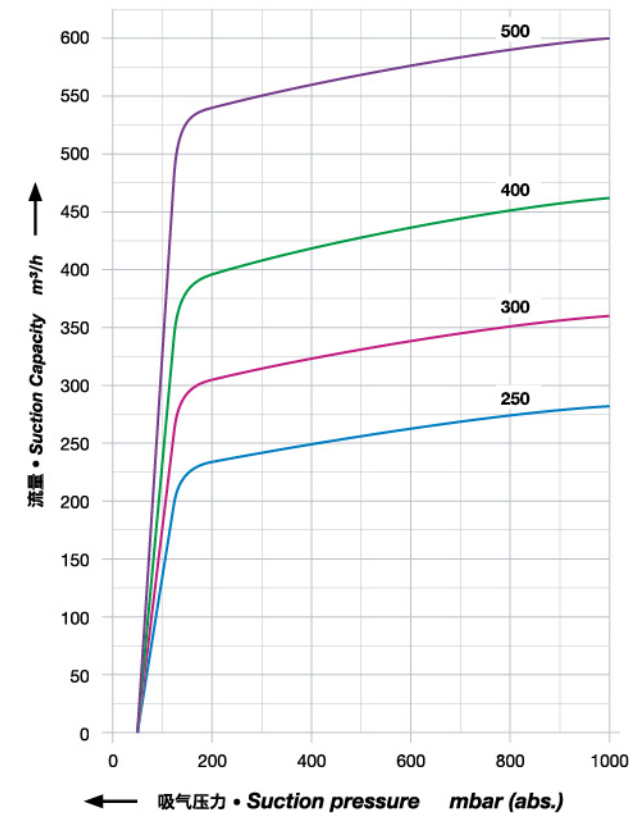
法兰式电机符合DIN EN 60034，保护标准 IP 55，绝缘等级F。

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



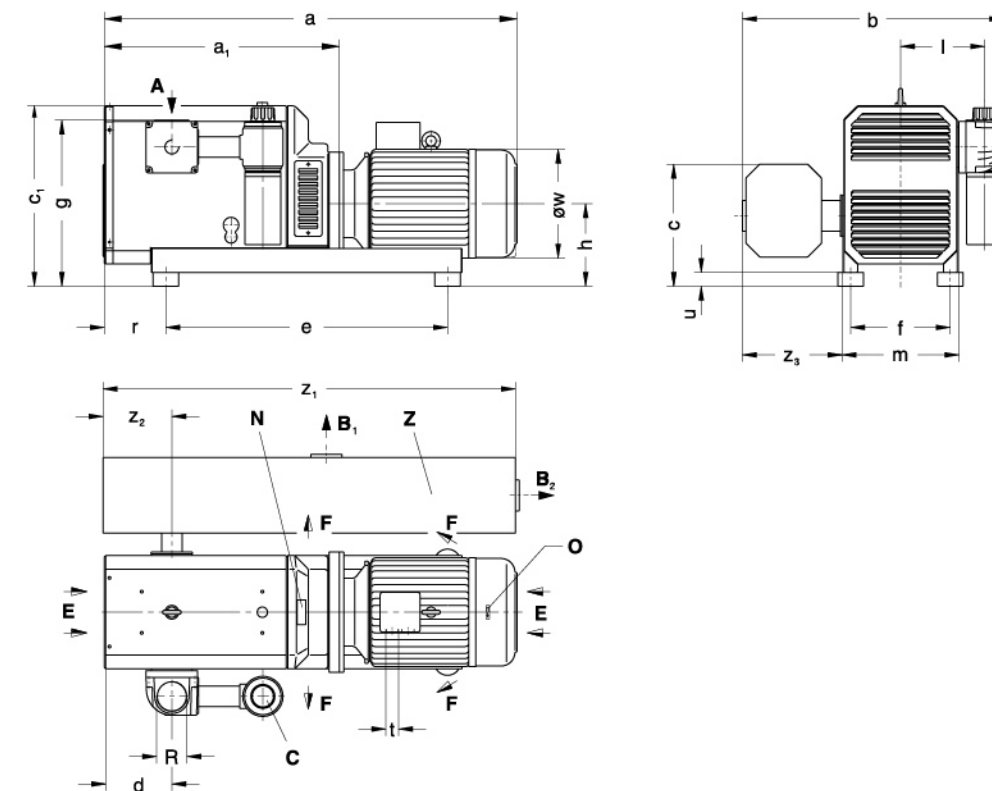
C-VLR			250	300	400	500
流量	m³/h	50 Hz	235	300	385	500
Capacity		60 Hz	282	360	462	600
极限真空(持续运行)	mbar (abs.)		50 (200)		50 (250)	
End vacuum max. (continuous operation)						
电机类型	3~	50 Hz	230 / 400 V ±10 %		400 / 690 V ±10 %	
Motor version		60 Hz	220 / 380 V		380 / 660 V	
电机功率	kW	50 Hz	4,0	5,5	7,5	9,0
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)	50 Hz	76	77	82	82
Average noise level	→DIN 45635	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)						

C-VLR ZEPHYR 250 | 300 | 400 | 500

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)
Vacuum tight suction filter					
电机启动器	ZMS	50 Hz	160 / 100	160 / 100	160 / 100
Motor starter		60 Hz	200 / 160	160 / 100	200 / 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
a ₁	486	486	654	684
b	712	712	744	764
c / c ₁	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
z ₁	1060	1060	1000	1200
z ₂	160	160	80	200
z ₃	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
B ₁	C-VLR 400 500
B ₂	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



C-VLR ZEPHYR 1000

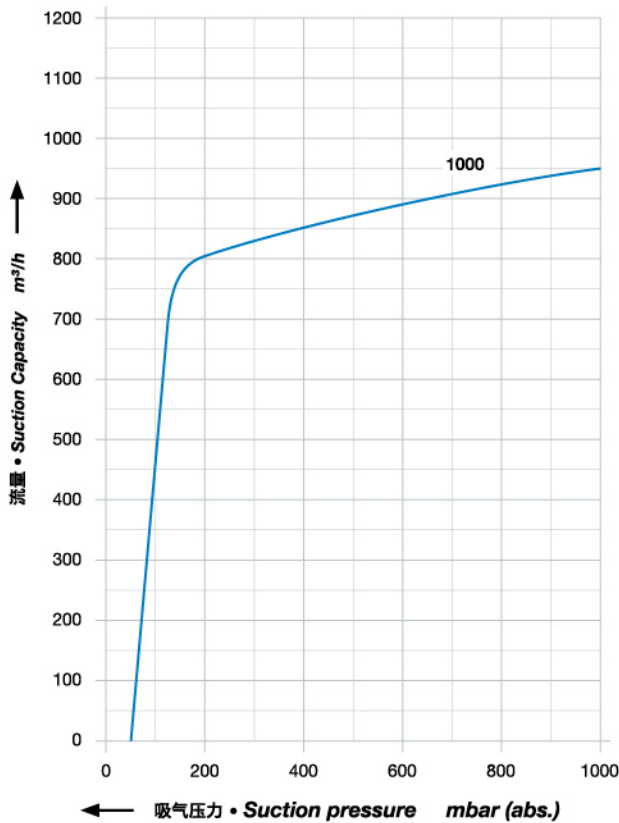


干式，高效无摩擦爪式真空泵，流量1000m³/h，极限真空（持续运行）可达200mbar(abs).无需经常维护，不附带冷却介质的空气冷却系统，适用于多种应用。

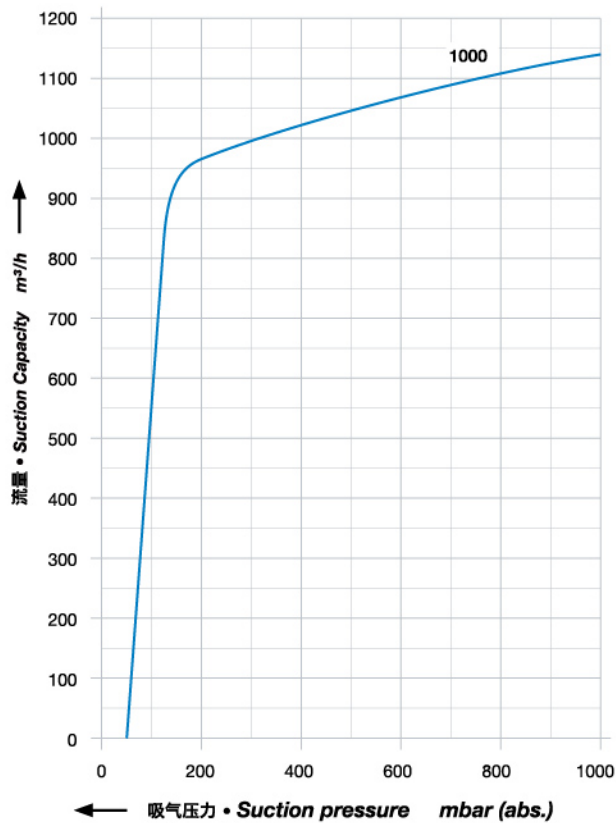
法兰式电机符合DIN EN 60034，保护标准 IP 55，绝缘等级F。

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



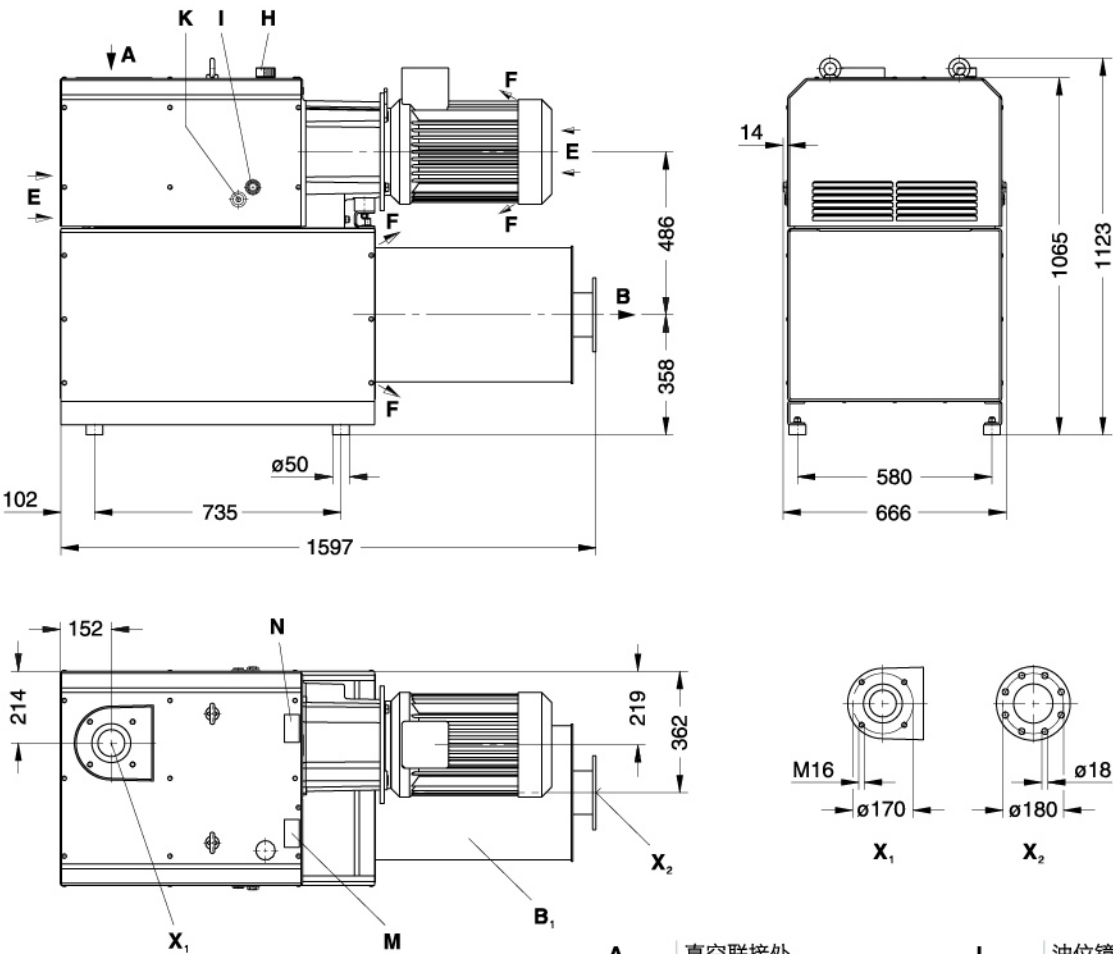
C-VLR		1000	
流量	m³/h	50 Hz	950
Capacity		60 Hz	1140
极限真空(持续运行)	mbar (abs.)		50 (200)
End vacuum max. (continuous operation)			
电机类型	3~	50 Hz	400 / 690 V ±10%
Motor version		60 Hz	380 / 660 V
电机功率	kW	50 Hz	18,5
Motor rating		60 Hz	22,0
电流	A	50 Hz	35,0 / 22,0
Current drawn		60 Hz	#
转速	min⁻¹	50 Hz	2850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

C-VLR ZEPHYR 1000

附件 • Accessories

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

尺寸 • Dimensions [mm]



A	真空联接处	I	油位镜
	Vacuum connection		Oil level indicator
B	排气口	K	新油排油口
	Exhaust		Oil drain point
B₁	出口消音器	M	油标牌
	Exhaust silencer		Oil type plate
E	冷却空气入口	N	数据牌
	Cooling air inlet		Data plate
F	冷却空气出口	O	旋转方向
	Cooling air outlet		Direction of rotation
H	油注入口	X₁, X₂	法兰 DN 100 PN6, PN10
	Oil filling point		Flange DN 100 PN6, PN 10

* 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øw或/和电流值不同。当与数据列表比较，取决于马达型号。
根据需求

* 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



C-DLR ZEPHYR 60 | 100 | 150

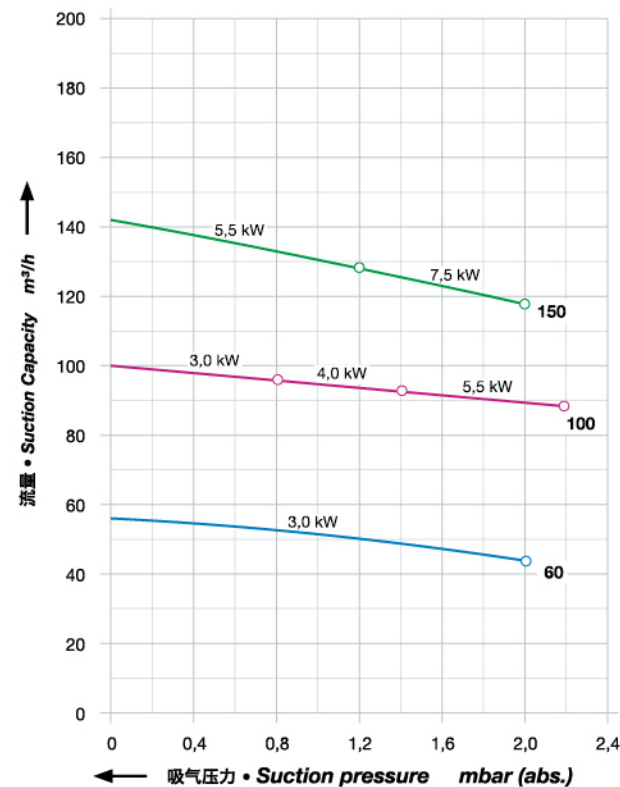


干式，高效无摩擦爪式压力泵，流量从56至170m³/hr，压力最大可达2.2 bar。无需经常维护，不附带冷却介质的空气冷却系统，适用于多种应用。

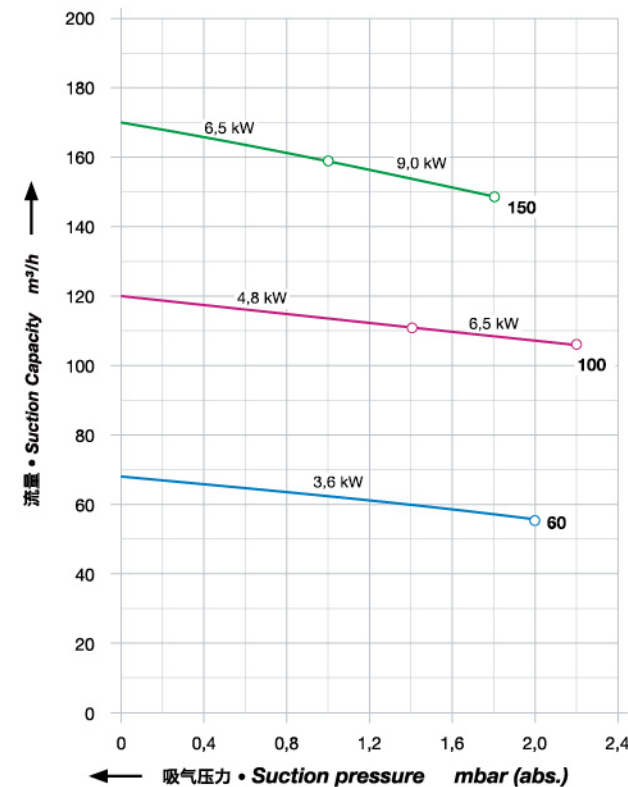
法兰式电机符合DIN EN 60034，保护标准 IP 55，绝缘等级F。

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

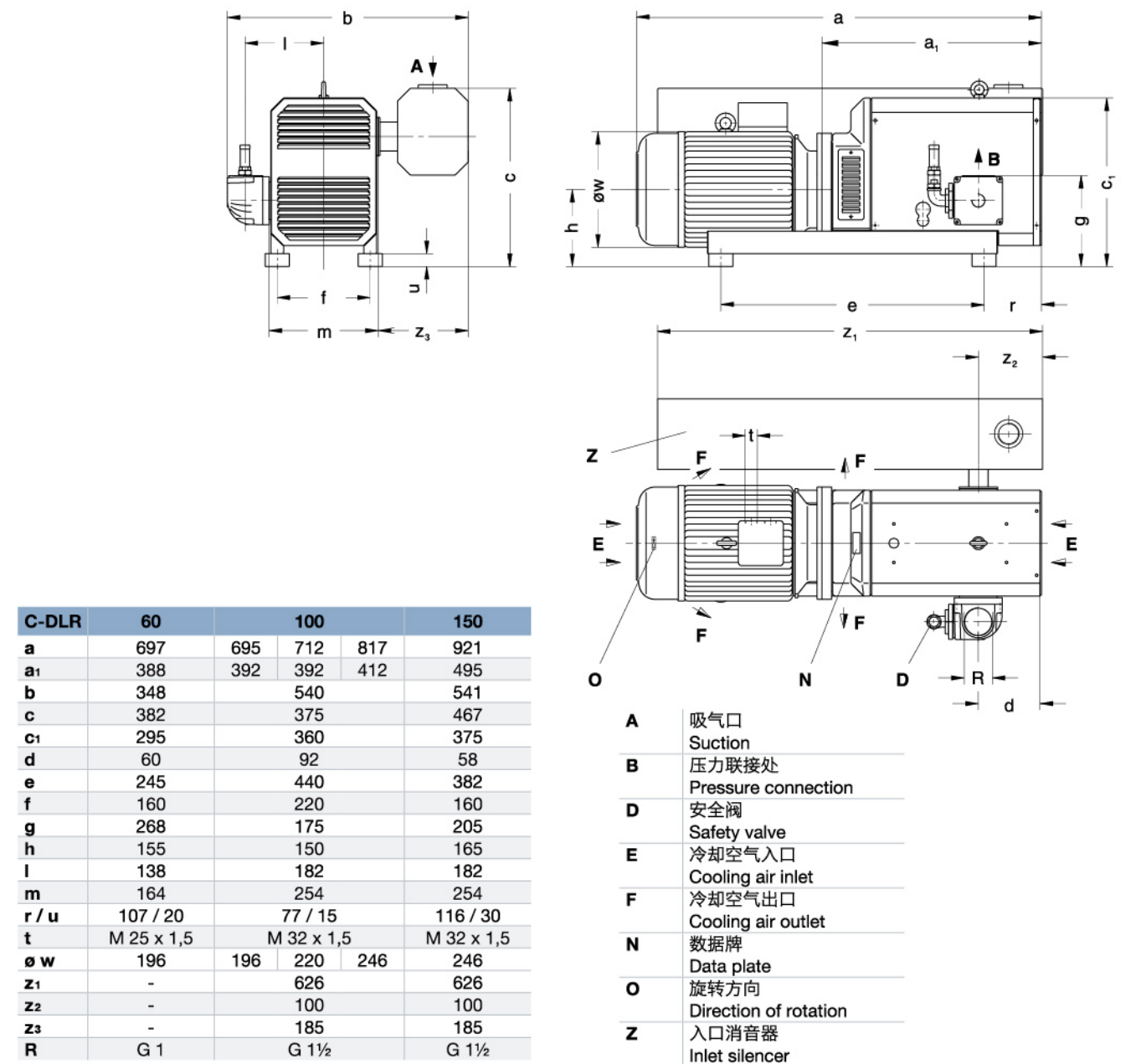


C-DLR			60	100			150	
流量	m³/h	50 Hz	56	100			142	
Capacity		60 Hz	68	120			170	
正压力	bar	50 Hz	2,0	0,8	1,4	2,2	1,2	2,0
Overpressure		60 Hz	2,0	-	1,4	2,2	1,0	1,8
电机类型	3~	50 Hz	230 / 400 V ±10 %				400 / 690 V ±10 %	
Motor version		60 Hz	220 / 380 V				380 / 660 V	
电机功率	kW	50 Hz	3,0	3,0	4,0	5,5	5,5	7,5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

附件 • Accessories

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

尺寸 • Dimensions [mm]



* 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øw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 øw and/or the current drawn can differ.
on request



C-DLR ZEPHYR 250 | 300

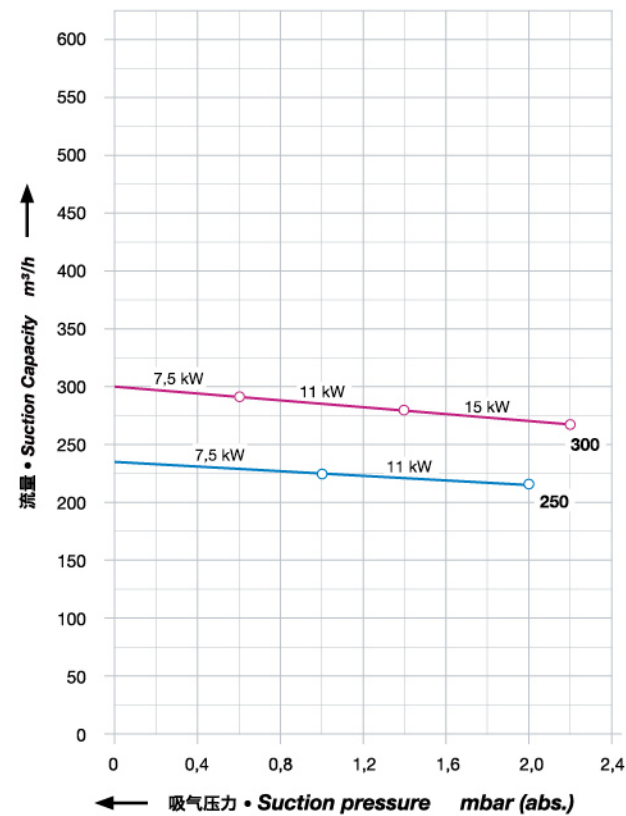


干式，高效无摩擦爪式压力泵，流量从235至360m³/hr，压力最大可达2.2 bar。无需经常维护，不附带冷却介质的空气冷却系统，适用于多种应用。

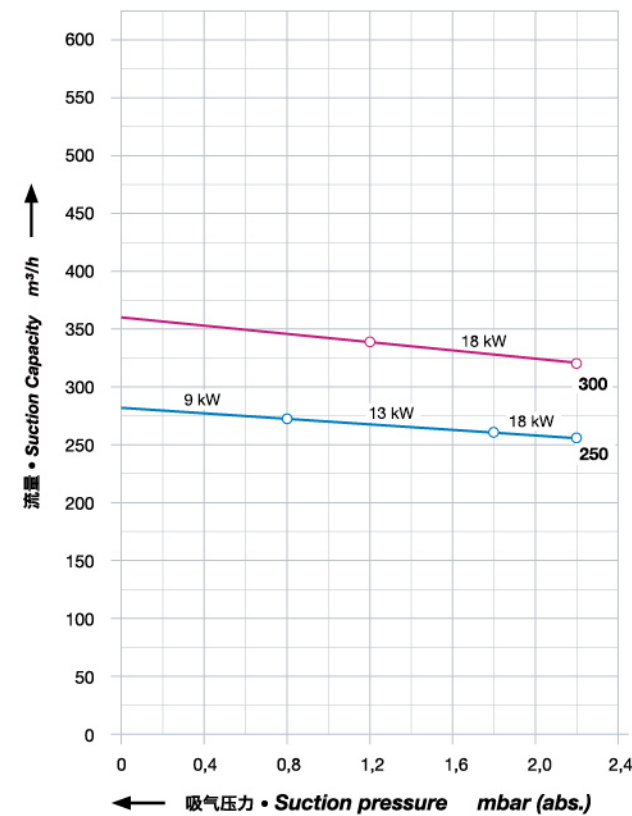
法兰式电机符合DIN EN 60034，保护标准 IP 55，绝缘等级F。

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

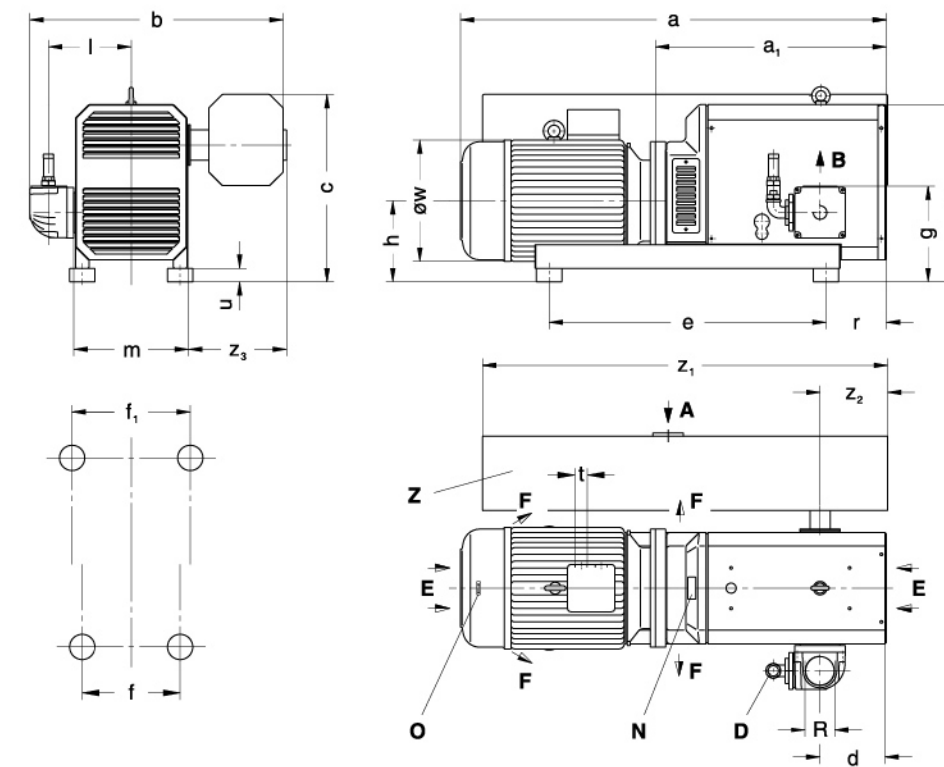


C-DLR			250			300		
流量	m³/h	50 Hz	235			300		
Capacity		60 Hz	282			360		
正压力	bar	50 Hz	1,0	2,0	-	0,6	1,4	2,2
Overpressure		60 Hz	0,8	1,8	2,2	-	1,2	2,2
电机类型	3~	50 Hz	400 / 690 V ±10 %					
Motor version		60 Hz	380 / 660 V					
电机功率	kW	50 Hz	7,5	11	-	7,5	11	15
Motor rating		60 Hz	9,0	13	18	-	13	18
电流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

附件 • Accessories

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

尺寸 • Dimensions [mm]



C-DLR	250			300		
a	921	1033	1033	921	1033	1033
a ₁	516	516	516	516	516	516
b	722			722		
c / c ₁	535 / 525			535 / 525		
d	100			86		
e	720			720		
f	290			290		
f ₁	-			-		
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 x 1,5	M 32 x 1,5		M 40 x 1,5
ø w	246		312	246		312
z ₁	1000			1000		
z ₂	80			80		
z ₃	270			270		
R	G 2			G 2		

A	吸气口
B	压力连接处
D	安全阀
E	冷却空气入口
F	冷却空气出口
N	数据牌
O	旋转方向
Z	入口消音器

* 流量测定于大气标准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



C-DLR ZEPHYR 400 | 500

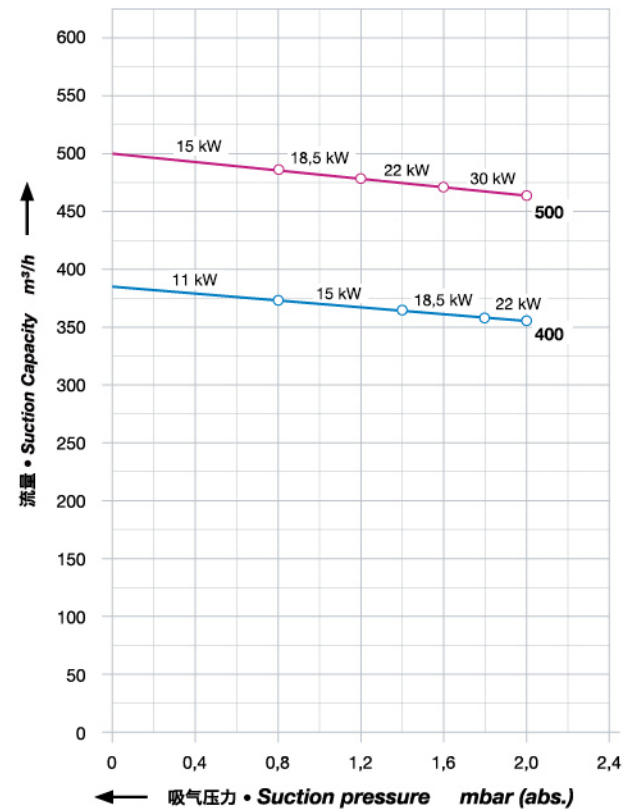


干式，高效无摩擦爪式真空泵，流量从385至600m³/hr，压力最大可达2.2 bar。无需经常维护，不附带冷却介质的空气冷却系统，适用于多种应用。

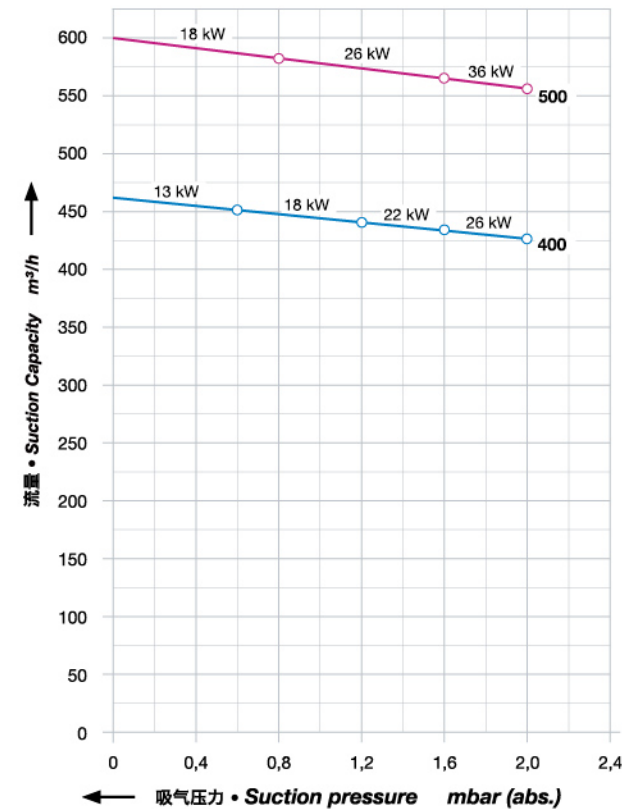
法兰式电机符合DIN EN 60034，保护标准 IP 55，绝缘等级F。

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



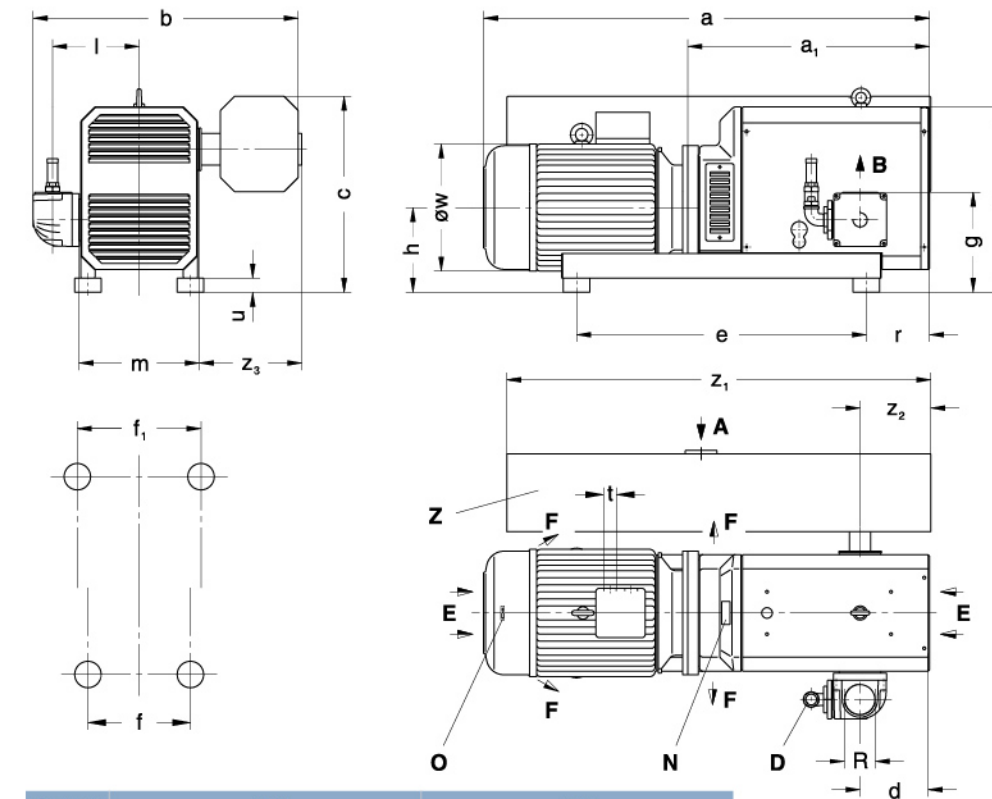
C-DLR			400				500			
流量	m³/h	50 Hz	385				500			
Capacity		60 Hz	462				600			
正压力	bar	50 Hz	0,8	1,4	1,8	2,0	0,8	1,2	1,6	2,0
Overpressure		60 Hz	0,6	1,2	1,6	2,0	0,8	-	1,6	2,0
电机类型	3~	50 Hz	400 / 690 V ±10 %							
Motor version		60 Hz	380 / 660 V							
电机功率	kW	50 Hz	11	15	18,5	22	15	18,5	22	30
Motor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

C-DLR ZEPHYR 400 | 500

附件 • Accessories

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

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	

* 流量测定于大气标准1巴（绝对）和20摄氏度。与进气口吸气状态有关，工作曲线和数值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



C-KLR ZEPHYR 80 | 140



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	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
Motor rating		60 Hz	4,8	6,5
电流	A	50 Hz	15,2 / 8,8	11,0 / 6,4
Current drawn		60 Hz	#	14,0 / 8,0
转速	min ⁻¹	50 Hz		2850
Speed		60 Hz		3450
平均噪音	dB(A)	50 Hz	80	82
Average noise level	→ DIN 45635	60 Hz	83	84
最大重量	kg		120	160
Maximum weight				

C-KLR 80		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
真空/正压力		D ²⁾	0			+0,4				+0,5				+0,6				+0,7		
流量	m³/h	S*	94	92	75	66	55	88	72	63	53	85	71	61	51	84	70	60	50	
Capacity	(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	kW	50 Hz									4,0									
Motor rating		60 Hz									4,8									

C-KLR 140		bar	S ¹⁾	0	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6
真空/正压力		D ²⁾	0			+0,4				+0,5		
流量	m³/h	S*	117,8	113,7	92,5	82,8	69,5	113,1	91,7	81,6	67,7	
Capacity	(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	kW	50 Hz					5,5					
Motor rating		60 Hz					6,5					

C-KLR 140		bar	S ¹⁾	0	-0,4	-0,5	-0,6	0	-0,4	-0,5	-0,6
真空/正压力		D ²⁾			+0,6				+0,7		
流量	m³/h	S*	111	90,8	80,8	65,4	110	90,3	78,9	64,9	
Capacity	(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	kW	50 Hz					5,5				
Motor rating		60 Hz					6,5				

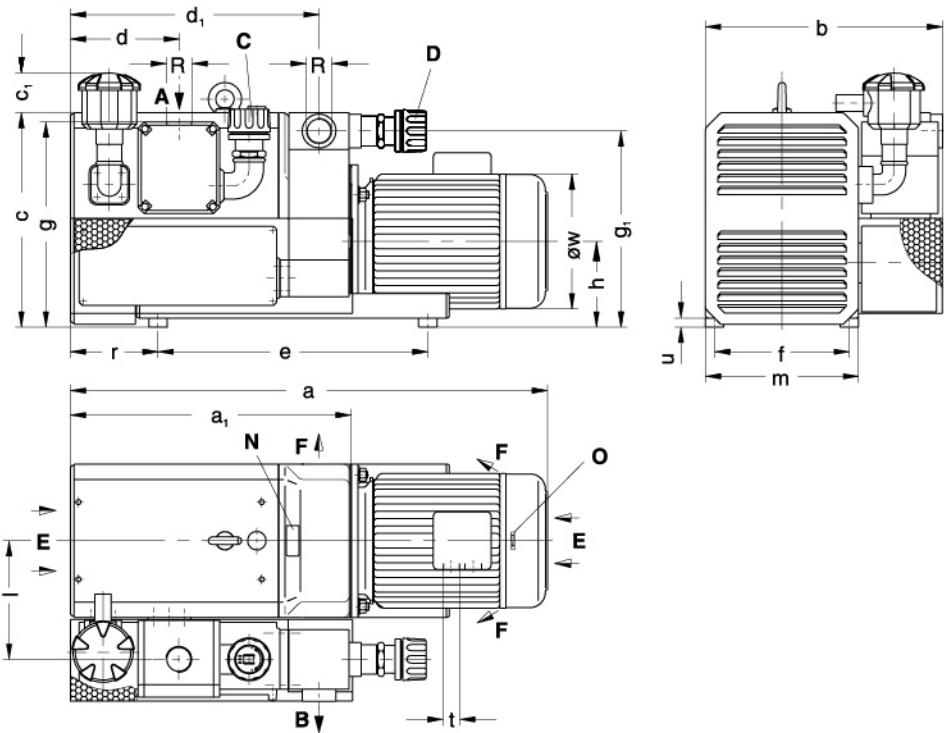
1) 吸气 • Suction air
2) 压缩空气 • Compressed air

C-KLR ZEPHYR 80 | 140

附件 • Accessories

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

尺寸 • Dimensions [mm]



C-KLR	80	140
a	778	1016
a ₁	458	590
b	387	355
c / c ₁	350 / 65	375 / 125
d	178	153
d ₁	406	544
e	440	382
f	220	160
g / g ₁	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
B	压力联接处
C	真空调节阀
D	压力调节阀
E	冷却空气入口
F	冷却空气出口
N	数据牌
O	旋转方向

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



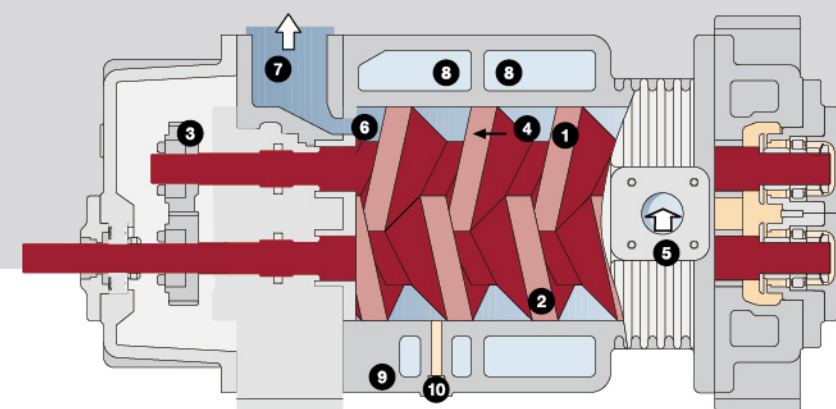
螺杆式真空泵
Screw



设计原理 Operating Principle

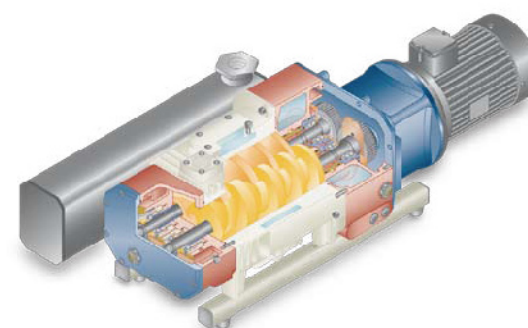
螺杆式真空泵也是基于静太压缩系统，作为设计原理，与罗茨泵的压力产生是通过“内部”体积的减少相反。

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).





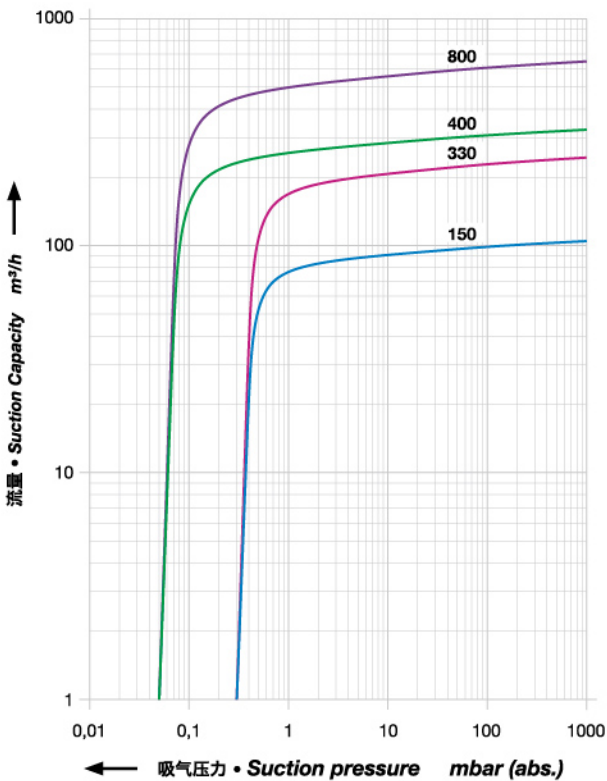
S-VSA TWISTER 150 (30) | 330 (30) | 400 (20) | 800 (20)



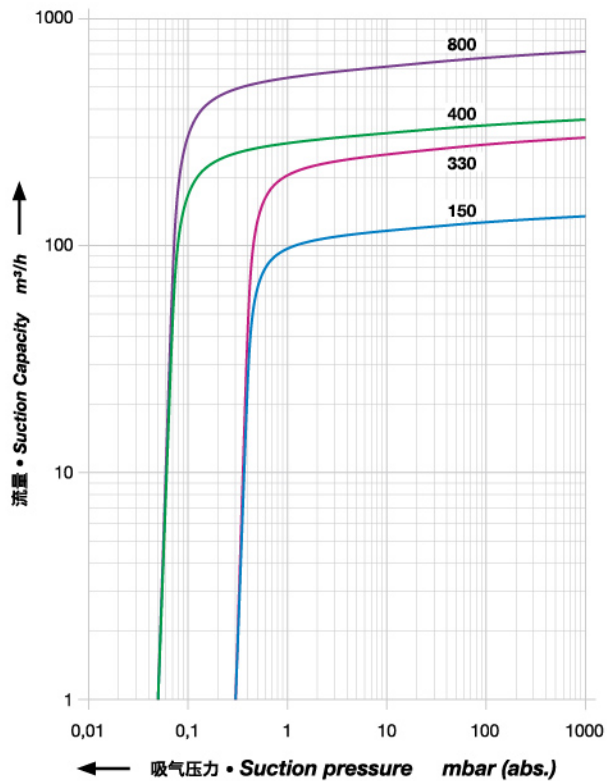
干式，无接触式螺杆真空泵，流量从105至720m³/h,极限真空0.05mbar (abs)。易维护，不同的涂层增强耐腐蚀性，特别适用于溶剂回收和干燥工艺。

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

S-VSA TWISTER 150 (30) | 330 (30) | 400 (20) | 800 (20)

附件 • Accessories

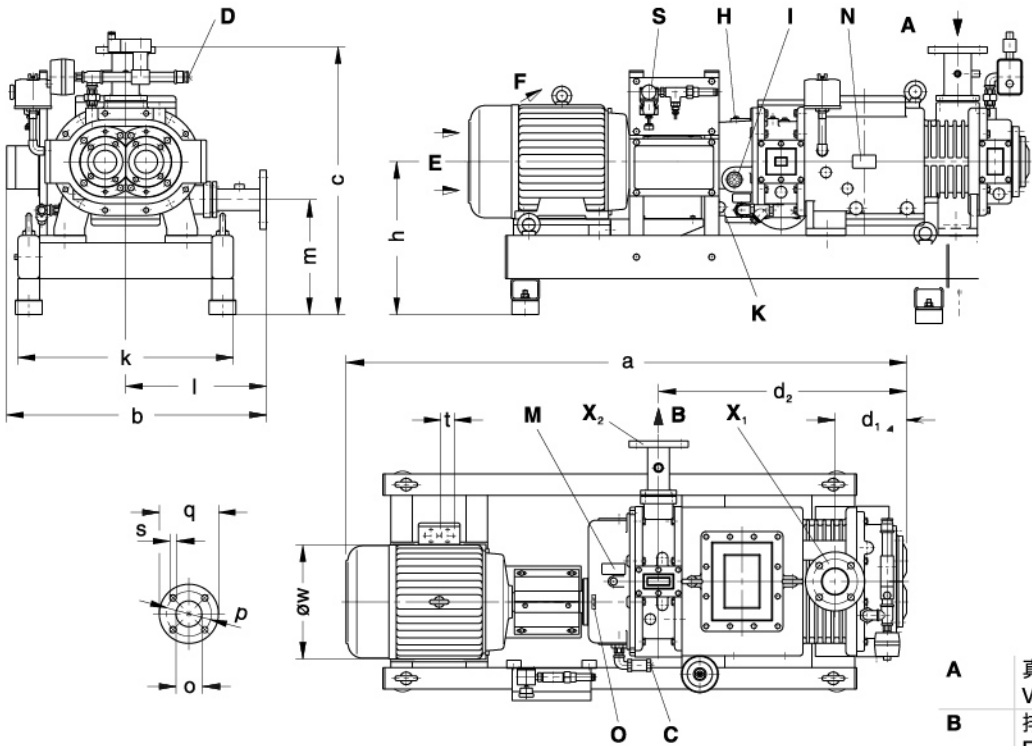
冲洗系统
放气阀
控制箱
真空开关

Flushing unit
Bleeding valve
Control box
Vacuum switch

真空表
蝶阀
冷凝器

Vacuum gauge
Butterfly valve
Condenser

尺寸 • Dimensions [mm]



- 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
- X1, X2 法兰
Flange

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
d1	173	199	199	235
d2	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 (X1/X2)	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
X1, X2	DN 40 PN 10	DN 50 PN 10	DN 50 PN 10	DN 100/DN 65 PN 10

* 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 øw and/or the current drawn can differ.
on request



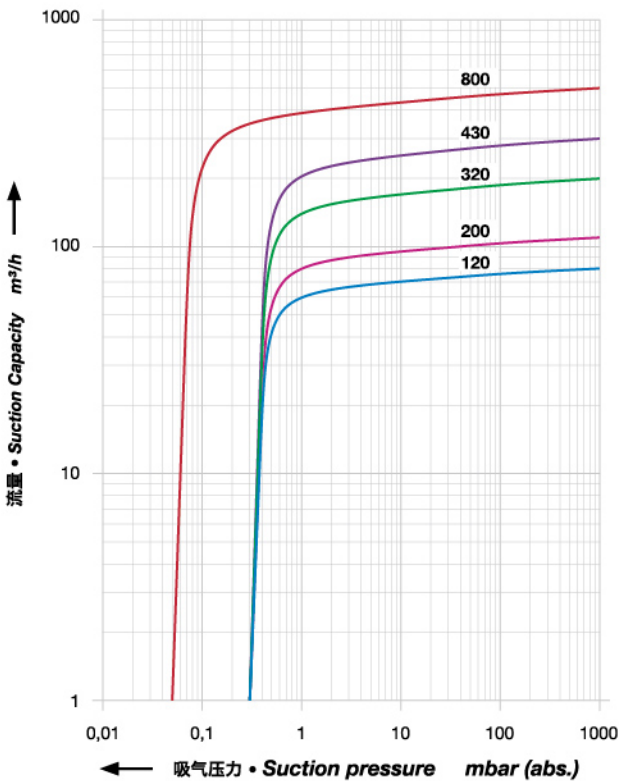
S-VSB TWISTER 120 (30) | 200 (30) | 320 (30) | 430 (30) | 800 (30)



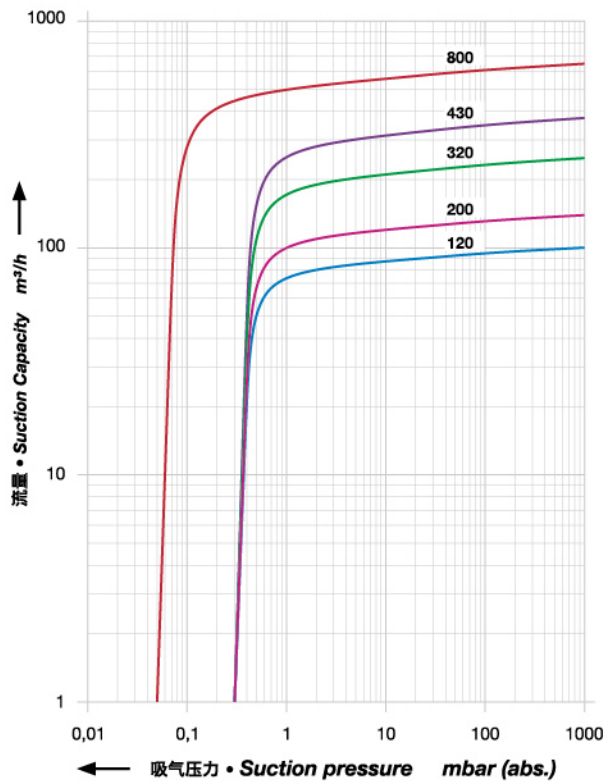
干式，无接触式螺杆真空泵，流量从80至650m³/h,极限真空0.05mbar(abs)。易维护，不同的涂层增强耐腐蚀性，特别适用于溶剂回收和干燥工艺。

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

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

附件 • Accessories

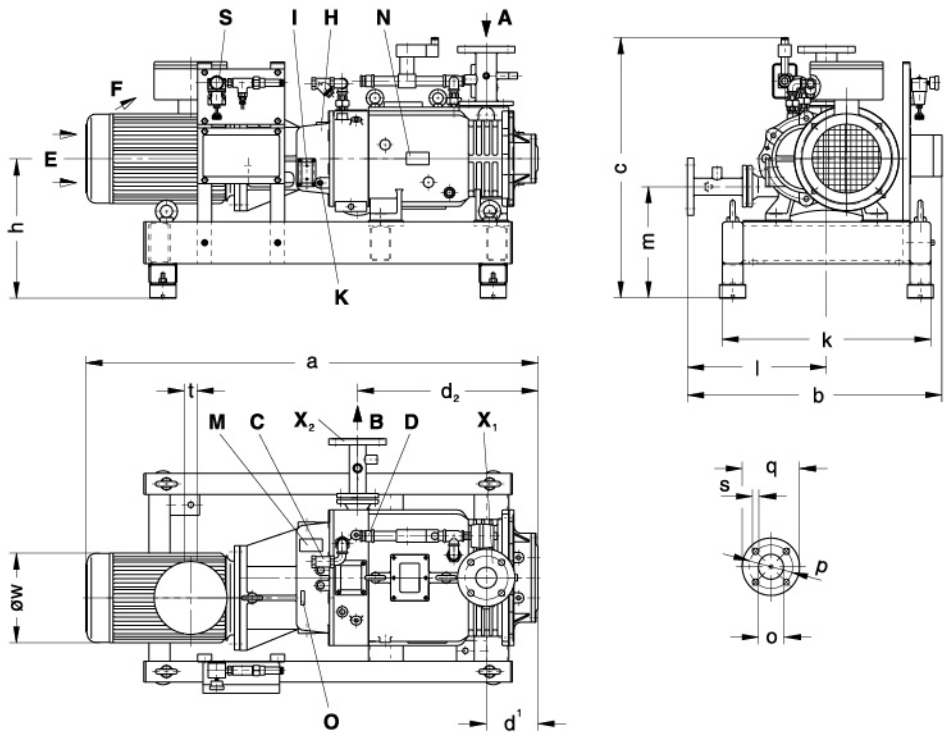
冲洗系统
放气阀
控制箱
真空开关

Flushing unit
Bleeding valve
Control box
Vacuum switch

真空表
蝶阀
冷凝器

Vacuum gauge
Butterfly valve
Condenser

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 ¾ / Rp ¾	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 øw and/or the current drawn can differ.
on request



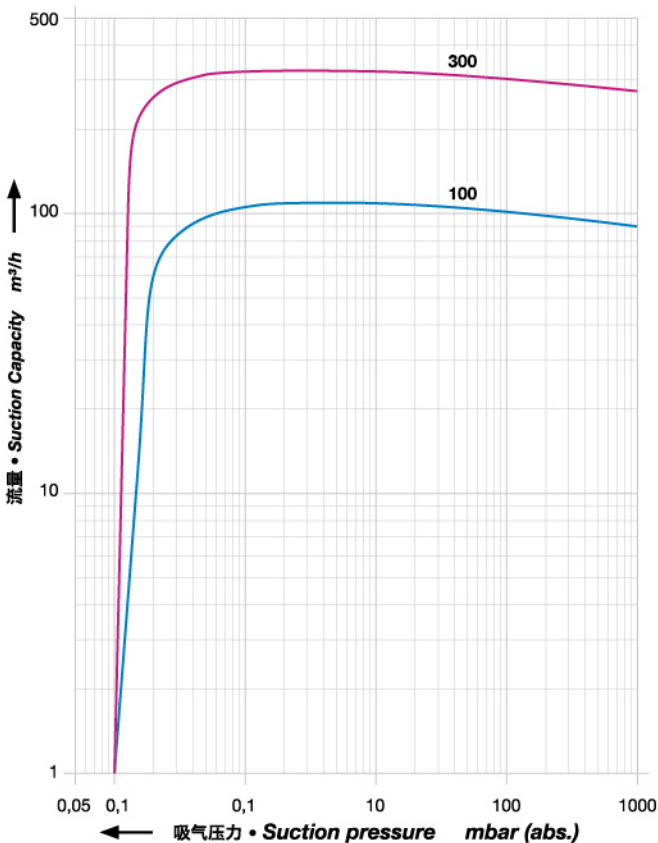
S-VSI TWISTER 100 | 300



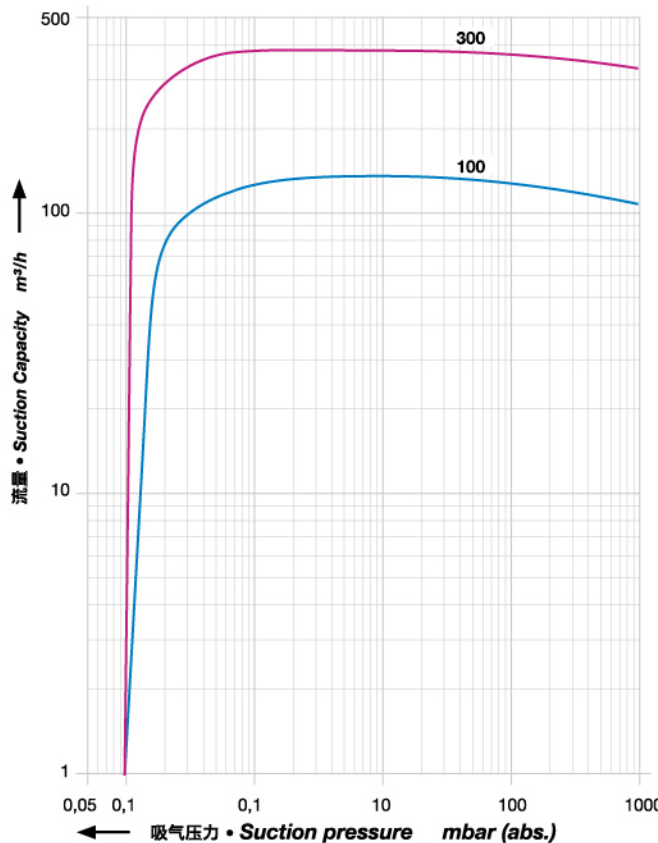
干式，无接触螺杆真空泵。流量从110至380m³/hr，极限真空0.1mbar (abs.)。易维护，不同涂层提高防腐能力，特别适合于溶剂回收和干燥工艺。采用精密的螺杆渐倾式设计，可降低其内在的运行温度。

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

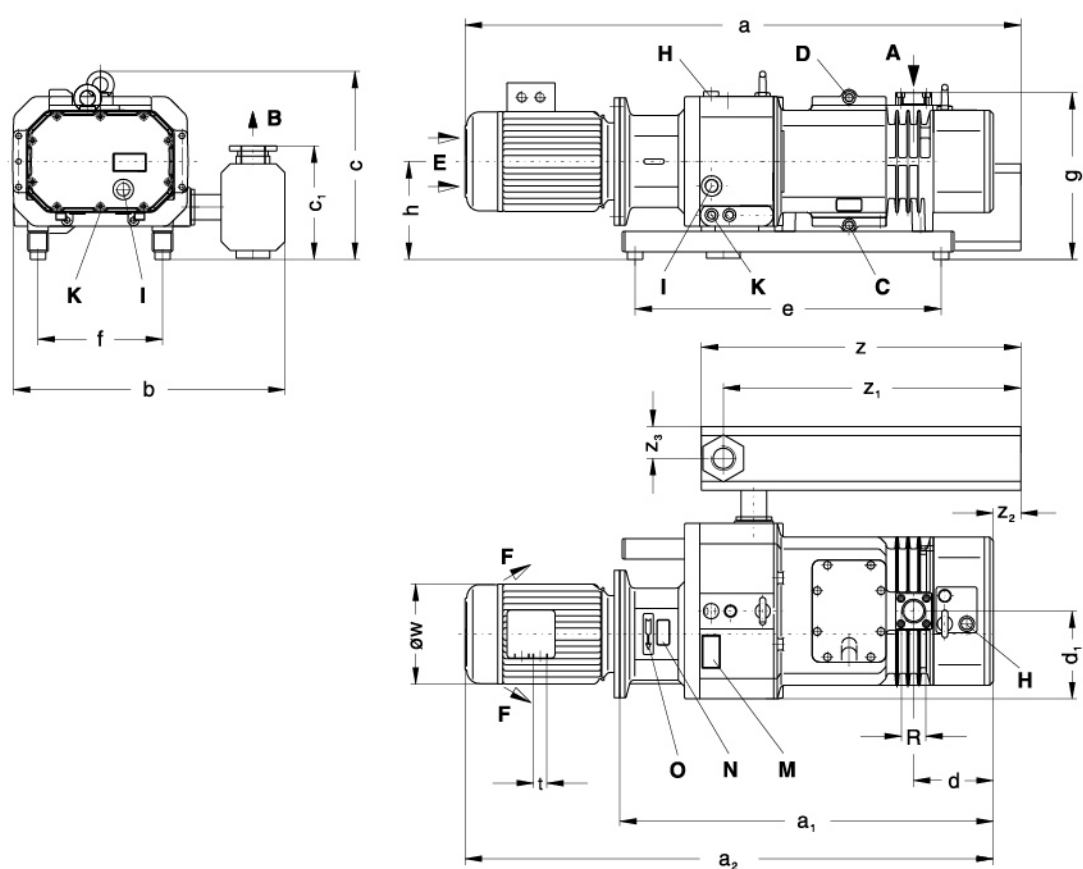


V-VSI		100		300	
最大流量	m³/h	50 Hz	110	60 Hz	320
Capacity maximum		60 Hz	138		380
极限真空	mbar (abs.)	0,1			
End vacuum					
电机类型	3~	50 Hz	230 / 400 V ±10 %		400 / 690 V ±10 %
Motor version		60 Hz	220 / 380 V		380 / 660 V
电机功率	kW	50 Hz	3,0		7,5
Motor rating		60 Hz	3,6		9,0
电流	A	50 Hz	10,5 / 6,0		14,6 / 8,4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

附件 • Accessories

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

尺寸 • Dimensions [mm]



V-VSI	100	300
a	1089	1442
a ₁	732	887
a ₂	1035	1253
b	534	671
c	369	421
c ₁	223	155
d	156	172
d ₁	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
øw	196	260
z / z ₁	626 / 529	835 / -
z ₂ / z ₃	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 ¾ Cooling water inlet	K	新油排油口 Oil drain point
D	冷却水出口 G ¾ 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 øw and/or the current drawn can differ.
on request

换算表 Conversion Tables

压力，真空 / <i>Pressure,Vacuum</i>						
	mbar (hPa)	bar	Pa (N/m²)	kPa	atm	kp/cm²(at)
1 mbar (hPa)	1	1 x 10 ⁻³	10 ²	0,1	9,869 x 10 ⁻⁴	1,02 x 10 ⁻³
1 bar	10³	1	1 x 10 ⁵	100	0,987	1,02
1 Pa (N/m²)	0,01	1 x 10 ⁻⁵	1	0,001	9,869 x 10 ⁻⁶	1,02 x 10 ⁻⁵
1 kPa	10	0,01	10³	1	9,869 x 10 ⁻³	1,02 x 10 ⁻²
1 atm	1,013 x 10³	1,013	1,013 x 10 ⁵	1,013 x 10²	1	1,033
1 kp/cm² (at)	9,807 x 10²	0,981	9,807 x 10 ⁴	98,07	0,968	1
1 mm H₂O	9,807 x 10 ⁻²	9,807 x 10 ⁻⁵	9,807	9,807 x 10 ⁻³	9,677 x 10 ⁻⁵	10 ⁻⁴
1 Torr (mm Hg)	1,333	1,333 x 10 ⁻³	1,333 x 10²	1,333 x 10 ⁻¹	1,316 x 10 ⁻³	1,36 x 10 ⁻³
1 micron	1,333 x 10 ⁻³	1,333 x 10 ⁻⁶	1,333 x 10 ⁻¹	1,333 x 10 ⁻⁴	1,316 x 10 ⁻⁶	1,36 x 10 ⁻⁶
1 in. Hg	33,86	3,386 x 10 ⁻²	3,386 x 10³	3,386	3,342 x 10 ⁻²	3,453 x 10 ⁻²
1 in. H₂O	2,491	2,491 x 10 ⁻³	2,491 x 10²	0,249	2,458 x 10 ⁻³	2,54 x 10 ⁻³
1 lb/in² (psi)	68,95	6,895 x 10 ⁻²	6,895 x 10³	6,895	6,805 x 10 ⁻²	7,03 x 10 ⁻²

	mm H₂O	Torr (mm Hg)	micron	in. Hg	in. H₂O	lb/in² (psi)
1 mbar (hPa)	10,197	0,75	750	2,953 x 10 ⁻²	0,402	1,45 x 10 ⁻²
1 bar	1,02 x 10 ⁴	7,5 x 10²	7,5 x 10 ⁵	29,53	4,015 x 10²	14,5
1 Pa (N/m²)	0,102	7,5 x 10 ⁻³	7,5	2,953 x 10 ⁻⁴	4,015 x 10 ⁻³	1,45 x 10 ⁻⁴
1 kPa	1,02 x 10²	7,5	7,5 x 10³	0,295	4,015	0,145
1 atm	1,033 x 10 ⁴	7,6 x 10²	7,6 x 10 ⁵	29,92	4,068 x 10²	14,7
1 kp/cm² (at)	10 ⁴	7,356 x 10²	7,356 x 10 ⁵	28,96	3,973 x 10²	14,22
1 mm H₂O	1	7,354 x 10 ⁻²	73,54	2,896 x 10 ⁻³	3,394 x 10 ⁻²	1,42 x 10 ⁻³
1 Torr (mm Hg)	13,59	1	10³	3,937 x 10 ⁻²	0,535	1,934 x 10 ⁻²
1 micron	1,359 x 10 ⁻²	10 ⁻³	1	3,937 x 10 ⁻⁵	5,35 x 10 ⁻⁴	1,934 x 10 ⁻⁵
1 in. Hg	3,45 x 10²	25,4	2,54 x 10 ⁴	1	13,6	0,491
1 in. H₂O	25,4	1,868	1,868 x 10³	7,356 x 10 ⁻²	1	3,613 x 10 ⁻²
1 lb/in² (psi)	7,03 x 10²	51,71	5,171 x 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 / <i>Capacity</i>						
	m³/h	m³min	m³/s	l/min	cfm (ft³/min)	gal/min
1 m³/h	1	1,667 x 10 ⁻²	2,778 x 10 ⁻⁴	16,67	0,588	4,403
1 m³min	60	1	1,667 x 10 ⁻²	10³	35,28	2,642 x 10²
1 m³/s	3600	60	1	6 x 10 ⁴	2,117 x 10³	1,585 x 10 ⁴
1 l/min	6 x 10 ⁻²	10³	1,667 x 10 ⁻⁵	1	3,528 x 10 ⁻²	0,264
1 cfm (ft³/min)	1,699	2,832 x 10 ⁻²	4,72 x 10 ⁻⁴	28,32	1	7,481
1 gal/min	0,227	0,378	6,306 x 10 ⁻⁵	3,784	0,133	1

功率 / <i>Efficiency</i>						
	kW	W (J/s)	PS	hp	kcal/h	Btu/h
1 kW	1	10³	1,36	1,341	860	3,412 x 10³
1 W (J/s)	10 ⁻³	1	1,36 x 10 ⁻³	1,341 x 10 ⁻³	0,860	3,412
1 PS	0,736	736	1	0,986	6,329 x 10²	2,509 x 10³
1 hp	0,746	7,46	1,014	1	6,413 x 10²	2,545 x 10³
1 kcal/h	1,163 x 10 ⁻³	1,163	1,58 x 10 ⁻³	1,559 x 10 ⁻³	1	3,968
1 Btu/h	2,931 x 10 ⁻⁴	0,2931	3,985 x 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)

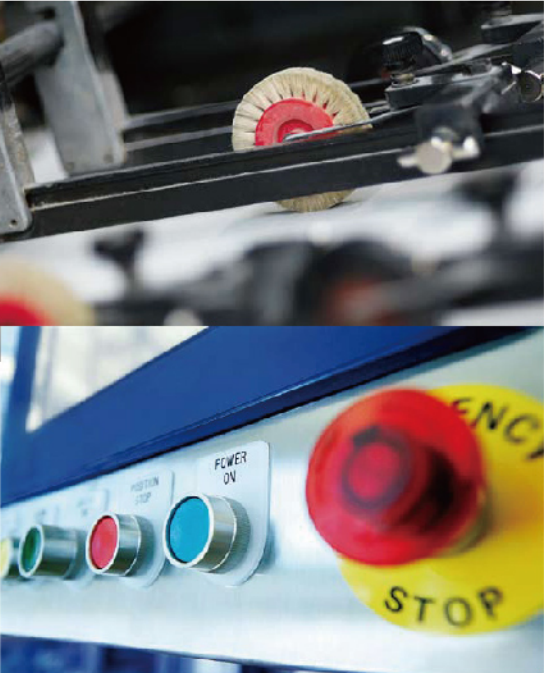
长度 / <i>Length</i>						
	m	cm	m	in	ft	yd
1 mm	1	0,1	10³	3,94 x 10 ⁻²	3,28 x 10 ⁻³	1,093 x 10 ⁻³
1 cm	10	1	10²	0,394	3,28 x 10 ⁻²	1,093 x 10 ⁻²
1 m	10³	10²	1	39,4	3,28	1,093
1 in	25,4	2,54	2,54x 10²	1	8,33 x 10 ⁻²	2,78 x 10 ⁻²
1 ft	3,084x 10²	30,48	0,305	12	1	0,333
1 yd	9,144	0,914x 10²	0,914	36	3	1

体积 / <i>Volume</i>						
	ml (cm³)	l (dm³)	in³	ft³	Imp. gal	U.S. gal
1 ml (cm³)	1	10 ⁻³	0,061	3,53 x 10 ⁻⁵	2,20 x 10 ⁻⁴	2,64 x 10 ⁻⁴
1 l (dm³)	10³	1	0,610 x 10²	3,53 x 10 ⁻²	0,220	0,264
1 in³	16,39	1,639 x 10 ⁻²	1	5,79 x 10 ⁻⁴	3,606 x 10 ⁻³	4,327 x 10 ⁻³
1 ft³	2,83 x 10 ⁴	28,3	1,728 x 10³	1	6,25	7,46
1 Imp. gal	4,55 x 10³	4,55	2,773 x 10²	0,160	1	1,20
1 U.S. gal	3,785 x 10³	3,785	2,311 x 10²	0,134	0,833	1

重量 / <i>Weight</i>						
	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

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 - 污水清静 - 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	Industrial applications - Dust extraction systems - Drying systems - Industrial furnaces	KLR	Printing industry - Sheet offset machines - Rotary offset machines - Screen printing machines - Flexo printing machines - Tin printing machines - Air-supply cabinets
一般工业应用 - 吸尘系统 - 干燥系统 - 工业炉		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	
包装工业 中央系统	Packaging Centralized vacuum	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
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		

螺杆泵 Screw

VSI	Industry - Dust extraction systems - Drying - Coating - Metallurgy - Cleaning - Industrial furnaces	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
工业应用 - 吸尘系统 - 干燥 - 涂层 - 冶金 - 清洁 - 工业炉		气体输送 中央真空系统	Pneumatic conveying Centralized vacuum systems
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		



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S-Series Screw / 螺杆式真空泵



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