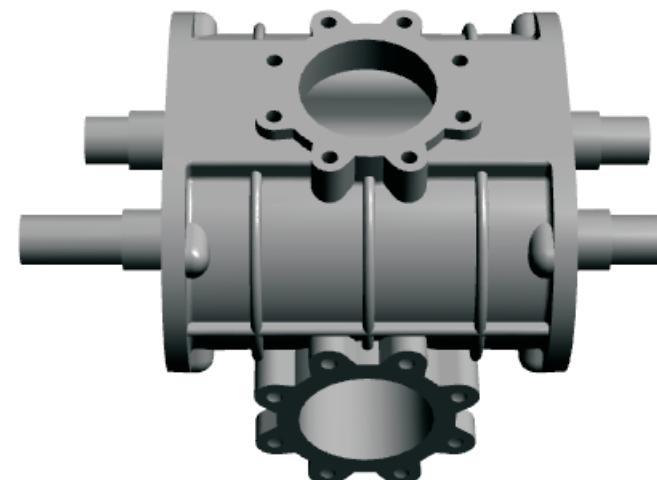


BLY

绿色 创新 分享 责任

Green Innovation Sharing Responsibility

三叶罗茨风机
Three-lobe roots blower



BLY

江苏博利源机械有限公司
Jiangsu BLY Industrial CO.,LTD.

工厂：江苏博利源机械有限公司
扬州市邗江区杨寿镇工业集中区创业园9号

数据仅供参考，若有改动、恕不另行通知 版本P-2019

Data is for reference only and subject to change without notice. Version P-2019

公司简介

博利源公司是一家致力于泵类、鼓风机、环保设备设计研发，生产销售及国际贸易为一体的高科技企业。在扬州设立了加工厂：江苏博利源机械有限公司，并逐步取得了生产许可证、ISO9000认证、产品CE认证。公司一贯秉持服务客户的理念，满足客户需求，不断要求自我成长，为了提升产品品质，持续创新和引进先进设计理念，不断完善产品更新。目前博利源旗下有两大品牌：博利源泵浦和锦田泵浦。其中博利源泵浦为江浙沪厂家直销品牌，锦田泵浦是全国联售的新品牌。目前公司主要产品有五大系列：

- 一、泵系列：潜水泵、潜水轴流泵、陆上型污水泵、陆上型清水泵、耐酸碱泵；
 - 二、鼓风机系列：三叶罗茨鼓风机、负压型三叶罗茨鼓风机；
 - 三、搅拌推流系列：潜水搅拌器、低速推流器、双曲面搅拌机；
 - 四、固液分离系列：带式压滤机、叠螺脱水机、泡药机；
 - 五、曝气盘：单膜片式曝气盘。

Company profile

Boliyuan is a company dedicated to the pump, blower, environmental equipment design and development, production and sales and international trade as one of the high-tech enterprises. Established a processing plant in Yangzhou: Jiangsu Boliyuan Machinery Co., Ltd., and gradually obtained the production license, ISO9000 certification, product CE certification. The company has been adhering to the concept of customer service, to meet customer needs, and constantly request self-growth, in order to improve product quality, continuous innovation and the introduction of advanced design concepts, and constantly improve product updates. Borgen currently has two brands: Borgen pumps and Nishikida pumps. Boliyuan pump for Jiangsu, Zhejiang and Shanghai Manufacturers direct brand, Nishikida pump is a new brand sold nationwide. At present the company's main products are five series: first, pump series:

- 1、submersible pumps, submersible axial flow pumps, land-based sewage pumps, land-based water pumps, acid and alkali pumps;
 - 2, blower series: three-blade Roots-type supercharger, negative pressure three-blade Roots-type supercharger;
 - 3, Mixing Push flow series: submersible mixer, low-speed Pusher, hyperboloid mixer; SOLID-LIQUID SEPARATION SERIES:
 - 4、Belt filter press, screw dehydrator, blister machine;
 - 5, aerator disk: Single Membrane aerator disk.

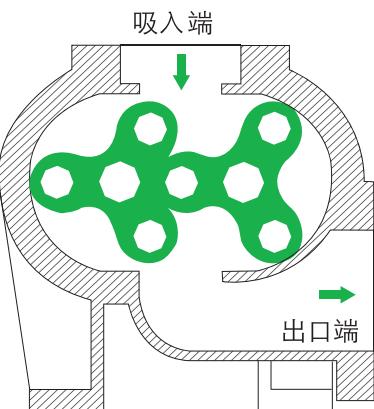
三叶罗茨鼓风机

Three-lobe roots blower

原理 Theory

三叶罗茨风机是一种容积式风机，其压力可根据用户的要求在允许的范围内加以调节，在机壳内部设置有两组互朝相反方向回转的叶轮，在叶轮与叶轮，及叶轮与壳体间仅留极小缝隙的状态下回转。当叶轮经过吸入端时，与壳体之间捕捉一定量的空气，随叶轮转旋，空气侧移，压力逐渐升高再送至出口端。

PRB is a displacement blower, the pressure can be adjusted according to the requirement of the user in allowing range, there are two impellers in the blower body which rotate in the opposite direction, in order to let the impeller rotate, there are some tiny gap between the impeller to body, impeller to impeller. When the impeller rotates through the suction inlet, it can gather an amount of air between the body and impeller, then the impeller go on rotating, and the air will be pressured, the pressure in the body will rise, finally the air has been send to the outlet.



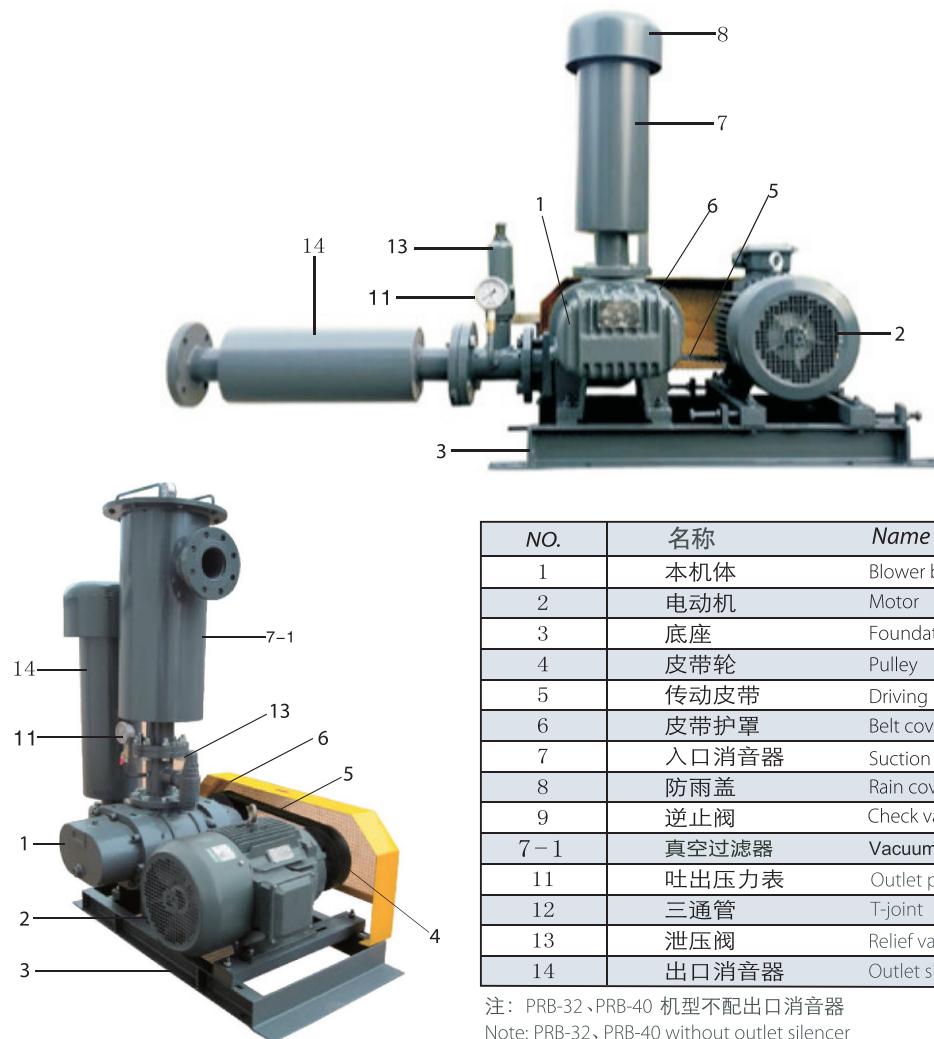
型号说明 Type description

PRB PRV - 100

口径 (mm) Diameter (mm)

RRB 三叶罗茨风机 Three-lobe roots blower

FRB 三叶多段风机 Three-lobe roots blow
RBV 真空罗茨风机 Vacuum roots blower

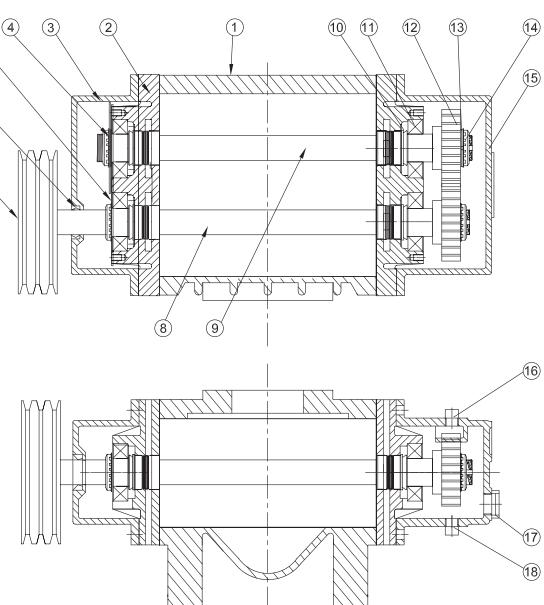


结构简图 Construction

No.	名称 Name	材质 Material	
		GB	JIS
1	鼓风机本体 Casing	HT250	FC250
2	轴承座 Bearing housing	HT250	FC250
3	油箱 Oil box	HT250	FC250
4	甩油片 Oil splash	Q235	SS400
5	轴承固定片 Bearing washer	Q235	SS400
6	骨架油封 Framework oil seal	NBR	NBR
7	皮带轮 Pulley	HT250	FC250
8	主动叶轮 Drive rotor	HT250	FC250
9	被动叶轮 Driven rotor	HT250	FC250
10	V型油封 V-ring	NBR	NBR
11	轴承 Bearing	GCr15	SUJ2
12	齿轮 Gear	20CrMnTi	20CrMnTi
13	止动垫圈 Lock washer	Q235	SS400
14	止动螺母 Lock nut	45	S45C
15	齿轮箱 Gear box	HT250	FC250
16	加油栓塞 Lubrication plug	45	S45C
17	润滑油面计 Oil gauge	Assembly	Assembly
18	泄油栓塞 Purge plug	45	S45C

注: 不同机型结构略有不同。

Note: Different model has a little difference.



单位换算表 Conversion table

PRESSURE	atm	kPa	bar	lbt/in ² (psi)	kgf/cm ²	in Hg	ftAq	mmHg(Torr)	mmAq
1 atm	1	101.325	1.01325	14.696	1.0333	29.921	33.914	760	10333
1 kPa	0.0099	1	0.01	0.145	0.0102	0.295	0.335	7.5	102
1 bar	0.9869	100	1	14.504	1.0198	29.53	33.47	750	10198
1 lbt/in ² (psi)	0.068	6.894	0.0689	1	0.0703	2.036	2.308	51.71	703
1 kgf/cm ²	0.968	98.062	0.981	14.228	1	28.96	32.82	735.53	10000
1 inHg	0.0334	33.863	0.0339	0.491	0.0345	1	1.133	25.4	345.3
1 ftAq	0.0295	2.99	0.0299	0.434	0.0305	0.882	1	22.42	304.8
1 mmHg(Torr)	0.013	0.1338	0.00138	0.019	0.0014	0.04	0.045	1	13.6
1 mmAq	0.000097	0.0098	0.000098	0.0014	0.0001	0.003	0.0033	0.074	1

压力常用换算公式

Pressure Conversion Formula

$$1 \text{ kPa} = 1000 \text{ Pa} = 1000 \text{ N/m}^2$$

$$1 \text{ mbar} = 10.198 \text{ mmAq}$$

$$1 \text{ mmHg(Torr)} = 133.8 \text{ Pa}$$

CAPACITY	m^3/min	l/min	cm^3/s	in^3/s	$\text{ft}^3/\text{min(cfm)}$
1 m^3/min	1	1000	16667	1016	35.288
1 l/min	0.001	1	16.67	1.02	0.0353
1 cm^3/s	0.00006	0.06	1	0.061	0.002
1 in^3/s	0.00098	0.983	16.39	1	0.035
1 $\text{ft}^3/\text{min(cfm)}$	0.028	28.32	471.95	28.8	1

性能表使用须知 Working directions of performance table

1. 性能参数表示鼓风机之型式、口径、回转数、吐出压力、实际进口风量、轴动力。

2. 性能参数为标准吸入状态之空气量(温度20°C, 绝对压力1.0332kgf/cm², 相对湿度65%)。

3. 基准状态(温度0°C, 绝对压力1.0332kgf/cm²)的风量, 一般以Nm³/min表示。

4. 不同状态进口风量的换算:

$$Q_2 = Q_1 \times \frac{P_1}{P_2} \times \frac{273+T_2}{273+T_1}$$

Q_1 : 绝对压力 P_1 (mmAq) 摄氏温度 T_1 (°C) 状态的风量(m^3/min)

Q_2 : 绝对压力 P_2 (mmAq) 摄氏温度 T_2 (°C) 状态的风量(m^3/min)

5. 电机功率一般为轴功率的1.1~1.3倍。

6. 性能参数误差约5%。

1. The performance parameter indicate the type, caliber, revolutions, discharge pressure, actual inlet air capacity and shaft power of the blower.

2. The performance parameter indicate the air quantity in standard suction condition (20°C temperature, absolute pressure 1.0332 kgf/cm² and relative humidity 65%).

3. The reference air capacity (0°C temperature and absolute pressure 1.0332 kgf/cm²) is generally indicated in Nm³/min.

4. The inlet air capacity can be converted as following.

$$Q_2 = Q_1 \times \frac{P_1}{P_2} \times \frac{273+T_2}{273+T_1}$$

Q_1 : Air capacity (m^3/min) based on absolute pressure P_1 (mmAq) and temperature T_1 (°C)

Q_2 : Air capacity (m^3/min) based on absolute pressure P_2 (mmAq) and temperature T_2 (°C)

5. The motor power is 1.1~1.3 multiple of shaft power.

6. The error of the parameter is about 5%.

PRB-性能参数 Performance parameters

型号 Type	转速 RPM	1000mmAq		2000mmAq		3000mmAq		4000mmAq		5000mmAq		6000mmAq		7000mmAq		8000mmAq	
		Qs	La														
PRB-32	1500	0.56	0.17	0.51	0.28	0.47	0.40	0.43	0.51	0.40	0.62	0.38	0.73	-	-	-	-
	1750	0.68	0.20	0.62	0.33	0.58	0.46	0.55	0.59	0.52	0.72	0.49	0.86	-	-	-	-
	2000	0.79	0.23	0.74	0.38	0.70	0.53	0.66	0.68	0.63	0.83	0.61	0.98	-	-	-	-
	2300	0.93	0.26	0.88	0.43	0.84	0.61	0.80	0.78	0.77	0.95	0.74	1.13	-	-	-	-
	2600	1.07	0.29	1.02	0.49	0.97	0.68	0.94	0.88	0.91	1.08	0.88	1.27	-	-	-	-
	3000	1.25	0.34	1.20	0.56	1.16	0.79	1.12	1.02	1.09	1.24	1.07	1.47	-	-	-	-
PRB-40	850	1.02	0.42	0.89	0.64	0.79	0.85	0.71	1.07	0.63	1.29	-	-	-	-	-	-
	950	1.18	0.47	1.05	0.71	0.95	0.95	0.86	1.20	0.79	1.44	-	-	-	-	-	-
	1050	1.33	0.52	1.20	0.79	1.10	1.06	1.02	1.32	0.94	1.59	-	-	-	-	-	-
	1150	1.49	0.57	1.36	0.86	1.26	1.16	1.18	1.45	1.10	1.74	-	-	-	-	-	-
	1250	1.65	0.62	1.52	0.94	1.42	1.26	1.33	1.58	1.26	1.90	1.19	2.22	1.13	2.54	1.07	2.86
	1350	1.80	0.67	1.67	1.01	1.57	1.36	1.49	1.70	1.42	2.05	1.35	2.39	1.29	2.74	1.23	3.08
	1450	1.96	0.71	1.83	1.09	1.73	1.46	1.65	1.83	1.57	2.20	1.50	2.57	1.44	2.94	1.39	3.31
	1550	2.12	0.76	1.99	1.16	1.89	1.56	1.80	1.95	1.73	2.35	1.66	2.75	1.60	3.15	1.54	3.54
	1650	2.27	0.81	2.14	1.24	2.04	1.66	1.96	2.08	1.89	2.50	1.82	2.93	1.76	3.35	1.70	3.77
	1750	2.43	0.86	2.30	1.31	2.20	1.76	2.12	2.21	2.04	2.65	1.98	3.10	1.91	3.55	1.86	4.00
	1850	2.59	0.91	2.46	1.39	2.36	1.86	2.27	2.33	2.20	2.81	2.13	3.28	2.07	3.75	2.01	4.23
	1950	2.74	0.96	2.61	1.46	2.51	1.96	2.43	2.46	2.36	2.96	2.29	3.46	2.23	3.96	2.17	4.46
PRB-50	850	1.81	0.61	1.64	0.97	1.52	1.34	1.41	1.70	1.31	2.06	1.22	2.42	1.14	2.79	1.07	3.15
	950	2.07	0.68	1.91	1.09	1.78	1.49	1.67	1.90	1.57	2.30	1.48	2.71	1.40	3.11	1.33	3.52
	1050	2.34	0.75	2.17	1.20	2.04	1.65	1.93	2.10	1.83	2.55	1.75	2.99	1.67	3.44	1.59	3.89
	1150	2.60	0.82	2.43	1.32	2.30	1.81	2.19	2.30	2.09	2.79	2.01	3.28	1.93	3.77	1.85	4.26
	1250	2.86	0.90	2.69	1.43	2.56	1.96	2.45	2.50	2.35	3.03	2.27	3.56	2.19	4.10	2.11	4.63
	1350	3.12	0.97	2.95	1.54	2.82	2.12	2.71	2.70	2.62	3.27	2.53	3.85	2.45	4.42	2.37	5.00
	1450	3.38	1.04	3.21	1.66	3.08	2.28	2.97	2.90	2.88	3.51	2.79	4.13	2.71	4.75	2.64	5.37
	1550	3.64	1.11	3.47	1.77	3.34	2.43	3.23	3.10	3.14	3.76	3.05	4.42	2.97	5.08	2.90	5.74
	1650	3.90	1.18	3.73	1.89	3.61	2.59	3.50	3.30	3.40	4.00	3.31	4.70	3.23	5.41	3.16	6.11
	1750	4.16	1.26	4.00	2.00	3.87	2.75	3.76	3.50	3.66	4.24	3.57	4.99	3.49	5.74	3.42	6.48
	1850	4.43	1.33	4.26	2.12	4.13	2.91	4.02	3.70	3.92	4.48	3.84	5.27	3.76	6.06	3.68	6.85
	1950	4.69	1.40	4.52	2.23	4.39	3.06	4.28	3.89	4.18	4.73	4.10	5.56	4.02	6.39	3.94	7.22
PRB-65	850	2.38	0.79	2.16	1.18	2.00	1.66	1.86	2.13	1.74	2.60	1.63	3.07	1.53	3.54	1.44	4.01
	950	2.71	0.88	2.50	1.32	2.34	1.85	2.20	2.38	2.08	2.91	1.97	3.43	1.87	3.96	1.78	4.49
	1050	3.05	0.97	2.84	1.46	2.68	2.05	2.54	2.63	2.42	3.21	2.31	3.79	2.21	4.38	2.12	4.96
	1150	3.39	1.06	3.18	1.60	3.02	2.24	2.88	2.88	2.76	3.52	2.65	4.15	2.55	4.79	2.46	5.43
	1250	3.73	1.16	3.52	1.74	3.36	2.44	3.22	3.13	3.10	3.82	2.99	4.52	2.89	5.21	2.80	5.90
	1350	4.07	1.25	3.86	1.88	3.70	2.63	3.56	3.38	3.44	4.13	3.33	4.88	3.23	5.63	3.14	6.38
	1450	4.41	1.34	4.20	2.02	4.04	2.83	3.90	3.63	3.78	4.43	3.67	5.24	3.57	6.04	3.48	6.85
	1550	4.75	1.43	4.54	2.16	4.38	3.02	4.24	3.88	4.12	4.74	4.01	5.60	3.91	6.46	3.82	7.32
	1650	5.09	1.53	4.88	2.30	4.72	3.22	4.58	4.13	4.46	5.05	4.35	5.96	4.25	6.88	4.16	7.79
	1750	5.43	1.62	5.22	2.44	5.06	3.41	4.92	4.38	4.80	5.35	4.69	6.32	4.59	7.29	4.50	8.26
	1850	5.77	1.71	5.56	2.58	5.40	3.61	5.26	4.63	5.14	5.66	5.03	6.68	4.93	7.71	4.84	8.74
	1950	6.11	1.80	5.90	2.72	5.74	3.80	5.60	4.88	5.48	5.96	5.3					

PRB-性能参数 Performance parameters

型号 Type	转速 RPM	1000mmAq		2000mmAq		3000mmAq		4000mmAq		5000mmAq		6000mmAq		7000mmAq		8000mmAq	
		Qs	La														
PRB-125	1250	21.09	6.11	20.52	9.78	20.09	13.45	19.72	17.12	19.39	20.79	19.10	24.46	18.83	28.13	18.58	31.80
	1320	22.35	6.46	21.78	10.33	21.34	14.21	20.98	18.08	20.65	21.96	20.36	25.83	20.09	29.70	19.84	33.58
	1390	23.61	6.80	23.04	10.88	22.60	14.96	22.23	19.04	21.91	23.12	21.62	27.20	21.35	31.28	21.10	35.36
	1470	25.04	7.19	24.48	11.51	24.04	15.82	23.67	20.14	23.35	24.45	23.06	28.76	22.79	33.08	22.53	37.39
	1560	26.66	7.63	26.09	12.21	25.66	16.79	25.29	21.37	24.97	25.95	24.67	30.53	24.40	35.10	24.15	39.68
	1650	28.28	8.07	27.71	12.91	27.27	17.76	26.91	22.60	26.58	27.44	26.29	32.29	26.02	37.13	25.77	41.97
	1750	30.08	8.56	29.51	13.70	29.07	18.83	28.70	23.97	28.38	29.11	28.09	34.24	27.82	39.38	27.57	44.52
	1850	31.87	9.05	31.30	14.48	30.87	19.91	30.50	25.34	30.18	30.77	29.88	36.20	29.61	41.63	29.36	47.06
PRB-150	780	16.35	4.92	15.64	7.87	15.09	10.82	14.62	13.78	14.22	16.73	13.85	19.68	13.51	22.63	13.20	25.59
	830	17.51	5.24	16.79	8.38	16.25	11.52	15.78	14.66	15.38	17.80	15.01	20.94	14.67	24.08	14.35	27.23
	880	18.67	5.55	17.95	8.88	17.40	12.21	16.94	15.54	16.53	18.87	16.17	22.20	15.83	25.53	15.51	28.87
	930	19.83	5.87	19.11	9.39	18.56	12.91	18.10	16.43	17.69	19.95	17.33	23.47	16.99	26.99	16.67	30.51
	990	21.22	6.24	20.50	9.99	19.95	13.74	19.49	17.49	19.08	21.23	18.72	24.98	18.38	28.73	18.06	32.47
	1050	22.61	6.62	21.89	10.60	21.34	14.57	20.88	18.55	20.47	22.52	20.11	26.49	19.77	30.47	19.45	34.44
	1110	24.00	7.00	23.28	11.20	22.73	15.40	22.27	19.61	21.86	23.81	21.50	28.01	21.16	32.21	20.84	36.41
	1180	25.62	7.44	24.90	11.91	24.36	16.38	23.89	20.84	23.49	25.31	23.12	29.77	22.78	34.24	22.46	38.71
	1250	27.24	7.89	26.53	12.62	25.98	17.35	25.52	22.08	25.11	26.81	24.74	31.54	24.40	36.27	24.09	41.00
	1320	28.86	8.33	28.15	13.32	27.60	18.32	27.14	23.31	26.73	28.31	26.36	33.31	26.02	38.30	25.71	43.30
	1390	30.48	8.77	29.77	14.03	29.22	19.29	28.76	24.55	28.35	29.81	27.98	35.07	27.65	40.33	27.33	45.59
	1470	32.34	9.27	31.62	14.84	31.08	20.40	30.61	25.96	30.21	31.53	29.84	37.09	29.50	42.65	29.18	48.22
	1560	34.42	9.84	33.71	15.74	33.16	21.65	32.70	27.55	32.29	33.46	31.92	39.36	31.59	45.27	31.27	51.17
	1650	36.51	10.41	35.80	16.65	35.25	22.90	34.78	29.14	34.38	35.39	34.01	41.63	33.67	47.88	33.36	54.12
	1750	38.83	11.04	38.11	17.66	37.56	24.29	37.10	30.91	36.69	37.53	36.33	44.16	35.99	50.78	35.67	57.40
	1850	41.14	11.67	40.43	18.67	39.88	25.67	39.42	32.68	39.01	39.68	38.64	46.68	38.31	53.68	37.99	60.68
PRB-200A	830	28.66	8.40	27.75	13.44	27.06	18.48	26.47	23.51	25.96	28.55	25.49	33.59	25.06	38.63	24.66	43.67
	880	30.52	8.90	29.61	14.25	28.92	19.59	28.33	24.93	27.81	30.27	27.35	35.62	26.92	40.96	26.52	46.30
	930	32.38	9.41	31.47	15.06	30.78	20.70	30.19	26.35	29.67	31.99	29.21	37.64	28.78	43.29	28.38	48.93
	990	34.61	10.02	33.70	16.03	33.01	22.04	32.42	28.05	31.90	34.06	31.44	40.07	31.01	46.08	30.61	52.09
	1050	36.84	10.62	35.93	17.00	35.24	23.37	34.65	29.75	34.13	36.12	33.67	42.50	33.24	48.87	32.84	55.25
	1110	39.07	11.23	38.16	17.97	37.47	24.71	36.88	31.45	36.36	38.19	35.90	44.92	35.47	51.66	35.07	58.40
	1180	41.67	11.94	40.76	19.10	40.07	26.27	39.48	33.43	38.96	40.59	38.50	47.76	38.07	54.92	37.67	62.08
	1250	44.27	12.65	43.37	20.24	42.67	27.82	42.08	35.41	41.57	43.00	41.10	50.59	40.67	58.18	40.27	65.77
	1320	46.87	13.36	45.97	21.37	45.27	29.38	44.69	37.40	44.17	45.41	43.70	53.42	43.27	61.44	42.87	69.45
	1390	49.48	14.06	48.57	22.50	47.87	30.94	47.29	39.38	46.77	47.82	46.30	56.26	45.87	64.70	45.47	73.13
	1470	52.45	14.87	51.54	23.80	50.85	32.72	50.26	41.65	49.74	50.57	49.28	59.49	48.85	68.42	48.45	77.34
PRB-200	880	39.61	11.45	38.59	18.32	37.81	25.19	37.16	32.05	36.58	38.92	36.06	45.79	35.58	52.66	35.13	59.53
	930	42.00	12.10	40.98	19.36	40.20	26.62	39.55	33.88	38.97	41.13	38.45	48.39	37.97	55.65	37.52	62.91
	990																

PRV-性能参数 Performance parameters

机型 Type	转速 RPM	-1000mmAq			-2000mmAq			-3000mmAq			-4000mmAq			-5000mmAq			-6000mmAq		
		Qs	La	N	Qs	La	N	Qs	La	N	Qs	La	N	Qs	La	N	Qs	La	N
PRV-40	1250	1.64	0.35	0.75	1.41	0.69	1.50	1.22	1.04	2.20	1.01	1.38	2.20						
	1350	1.80	0.37	1.5	1.56	0.75	1.50	1.36	1.12	2.20	1.15	1.49	2.20						
	1450	1.96	0.4	1.5	1.71	0.80	1.50	1.51	1.20	2.20	1.29	1.60	2.20	1.15	2.00	3.00	1.03	2.40	3.00
	1550	2.11	0.43	1.5	1.85	0.86	1.50	1.65	1.29	2.20	1.43	1.71	3.00	1.29	2.14	3.00	1.16	2.57	3.70
	1650	2.27	0.46	1.5	2.01	0.91	2.20	1.80	1.37	2.20	1.57	1.82	3.00	1.43	2.28	3.70	1.29	2.74	3.70
	1750	2.42	0.48	2.2	2.16	0.97	2.20	1.96	1.45	3.00	1.71	1.93	3.70	1.57	2.42	3.70	1.43	2.90	3.70
	1850	2.58	0.51	2.2	2.30	1.02	2.20	2.10	1.53	3.00	1.85	2.05	3.70	1.71	2.56	3.70	1.56	3.07	3.70
	1950	2.73	0.54	2.2	2.46	1.08	2.20	2.25	1.62	3.00	1.99	2.16	3.70	1.84	2.70	3.70	1.69	3.23	5.50
	1250	2.66	0.58	1.50	2.24	1.15	1.50	1.86	1.73	2.20	1.59	2.30	3.00	1.42	2.88	3.70	1.23	3.46	5.50
PRV-50	1350	2.92	0.62	1.50	2.49	1.24	1.50	2.10	1.87	2.20	1.83	2.49	3.00	1.65	3.11	3.70	1.50	3.73	5.50
	1450	3.18	0.67	1.50	2.73	1.34	2.20	2.34	2.00	3.00	2.06	2.67	3.70	1.87	3.34	5.50	1.73	4.01	5.50
	1550	3.44	0.71	1.50	2.98	1.43	2.20	2.59	2.14	3.00	2.29	2.86	3.70	2.10	3.57	5.50	1.95	4.28	5.50
	1650	3.52	0.76	1.50	3.23	1.52	2.20	2.82	2.28	3.00	2.52	3.04	3.70	2.33	3.80	5.50	2.17	4.56	5.50
	1750	3.76	0.81	2.20	3.48	1.61	2.20	3.06	2.42	3.70	2.75	3.22	4.00	2.56	4.03	5.50	2.39	4.84	7.50
	1850	4.01	0.85	2.20	3.72	1.70	2.20	3.30	2.56	3.70	2.99	3.41	5.50	2.79	4.26	5.50	2.61	5.11	7.50
	1950	4.26	0.90	2.20	3.97	1.80	3.00	3.54	2.70	3.70	3.22	3.59	5.50	3.02	4.49	5.50	2.82	5.39	7.50
	1250	3.49	0.75	2.20	3.11	1.50	3.00	2.89	2.25	3.70	2.70	2.99	4.00	2.50	3.74	5.50	2.31	4.49	5.50
	1350	3.83	0.81	2.20	3.43	1.62	3.70	3.21	2.43	3.70	3.00	3.23	4.00	2.80	4.04	5.50	2.60	4.85	7.50
PRV-65	1450	4.17	0.87	2.20	3.75	1.74	3.70	3.52	2.61	4.00	3.30	3.47	5.50	3.10	4.34	5.50	2.88	5.21	7.50
	1550	4.51	0.93	3.00	4.08	1.86	4.00	3.83	2.78	4.00	3.61	3.71	5.50	3.39	4.64	5.50	3.17	5.57	7.50
	1650	4.84	0.99	3.00	4.41	1.98	5.50	4.15	2.96	5.50	3.92	3.95	5.50	3.69	4.94	7.50	3.46	5.93	7.50
	1750	5.18	1.05	3.70	4.72	2.10	5.50	4.45	3.14	5.50	4.21	4.19	5.50	3.99	5.24	7.50	3.52	6.29	7.50
	1850	5.52	1.11	3.70	5.05	2.22	5.50	4.77	3.32	5.50	4.52	4.43	5.50	4.29	5.54	7.50	4.03	6.65	11.00
	1950	5.86	1.17	3.70	5.38	2.34	5.50	5.09	3.50	5.50	4.82	4.67	5.50	4.58	5.84	7.50	4.32	7.01	11.00
	1200	6.22	1.28	2.20	5.57	2.55	3.00	5.08	3.83	5.50	4.49	5.10	7.50	4.10	6.38	7.50	3.71	7.65	11.00
	1300	6.82	1.38	2.20	6.14	2.76	3.70	5.63	4.15	5.50	5.03	5.53	7.50	4.63	6.91	11.00	4.22	8.29	11.00
	1400	7.42	1.49	2.20	6.72	2.98	3.70	6.18	4.46	5.50	5.57	5.95	7.50	5.16	7.44	11.00	4.73	8.93	11.00
PRV-80	1500	8.02	1.59	2.20	7.30	3.19	4.00	6.74	4.78	7.50	6.11	6.38	7.50	5.68	7.97	11.00	5.24	9.57	11.00
	1600	8.62	1.70	2.20	7.87	3.40	5.50	7.30	5.10	7.50	6.64	6.80	11.00	6.20	8.50	11.00	5.75	10.21	15.00
	1650	8.92	1.75	2.20	8.16	3.51	5.50	7.58	5.26	7.50	6.91	7.02	11.00	6.47	8.77	11.00	6.00	10.52	15.00
	1750	9.51	1.86	2.20	8.74	3.72	5.50	8.14	5.58	7.50	7.45	7.44	11.00	7.00	9.30	11.00	6.51	11.16	15.00
	1850	10.11	1.97	3.00	9.31	3.93	5.50	8.70	5.90	7.50	7.99	7.87	11.00	7.52	9.83	15.00	7.02	11.80	15.00
	1950	10.71	2.07	3.00	9.88	4.15	5.50	9.25	6.22	7.50	8.53	8.29	11.00	8.05	10.36	15.00	7.52	12.44	15.00
	1200	9.04	1.79	2.20	3.57	5.50	7.32	5.36	7.50	6.80	7.14	11.00	6.43	8.93	11.00	6.09	10.72	15.00	
	1300	9.88	1.93	3.00	8.92	3.87	5.50	8.10	5.80	7.50	7.54	7.74	11.00	7.17	9.67	15.00	6.81	11.61	15.00
	1400	10.72	2.08	3.00	9.72	4.17	5.50	8.88	6.25	7.50	8.30	8.33	11.00	7.91	10.42	15.00	7.51	12.50	15.00
PRV-100	1500	11.56	2.23	3.00	10.53	4.46	5.50	9.66	6.70	11.00	9.05	8.93	11.00	8.64					

SRB 沉水式罗茨鼓风机

SRB submersible roots blower

特点 Features

■ 低噪音

鼓风机在运转中，因放在水中，故声音在空气和水的介面被折射入水里，而不传入空气中，同时水与槽壁也同样折射回去而达到降低噪音的效果。适用于学校、大楼、小区、医院等。



■ Low noise

Because the blower is installed under water, the operating noises reaching the surface of water are refracted into water instead of air. Meanwhile, water and tank walls also refract the noises into water. In this way, noises are effectively reduced. SRB series will be applied to school, building, community and hospital.

■ 安装简便

主体不须固定底座、配管短。水中型鼓风机因置于水中，故不需另制作隔音罩或隔音厂房，同时鼓风机置放在水槽中，不占用空间，所以能有效利用空间。

■ 低故障

沉水鼓风机采用直接式动力传导，不须皮带轮，减少故障。

■ 电动机

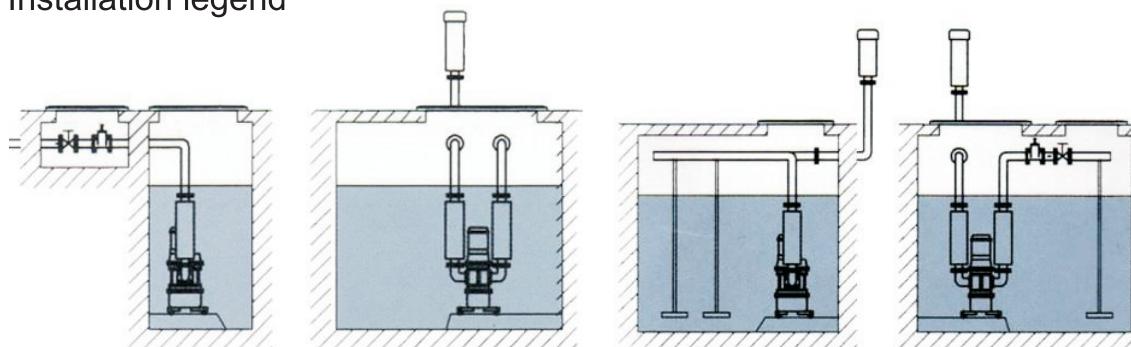
使用鼠笼式感应电动机，F级绝缘，防护等级IP68。在电动机中加装过热保护器，对过载、温升等状况自动进行检测，避免由于电动机过热造成电机烧毁。

■ 过滤装置

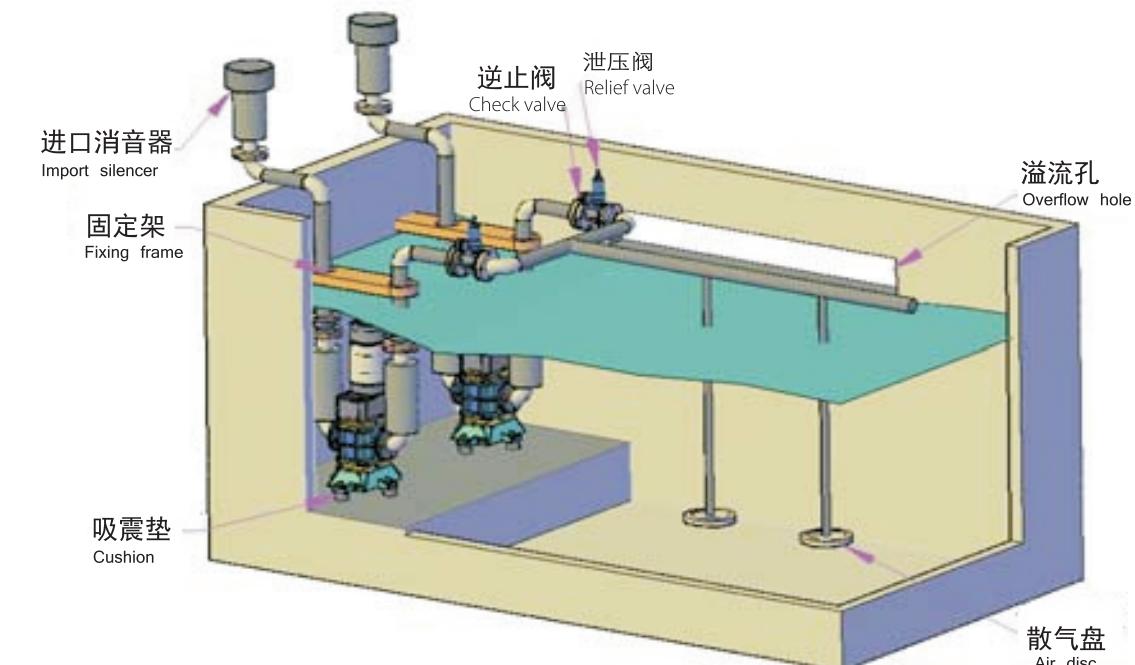
型式为干式，可承受突增压力及吸力而不变形，过滤器的面积设计为鼓风机风量的1.2倍，使压损不会大于25mmAq。

安装图例

Installation legend



一体化设备安装图例 Integrated equipment installation legend



单位换算表 Conversion table

PRESSURE	atm	kPa	bar	lbt/in ² (psi)	kgf/cm ²	in Hg	ftAq	mmHg(Torr)	mmAq
1 atm	1	101.325	1.01325	14.696	1.0333	29.921	33.914	760	10333
1 kPa	0.0099	1	0.01	0.145	0.0102	0.295	0.335	7.5	102
1 bar	0.9869	100	1	14.504	1.0198	29.53	33.47	750	10198
1 lbt/in ² (psi)	0.068	6.894	0.0689	1	0.0703	2.036	2.308	51.71	703
1 kgf/cm ²	0.968	98.062	0.981	14.228	1	28.96	32.82	735.53	10000
1 inHg	0.0334	3.3863	0.0339	0.491	0.0345	1	1.133	25.4	345.3
1 ftAq	0.0295	2.99	0.0299	0.434	0.0305	0.882	1	22.42	304.8
1 mmHg(Torr)	0.013	0.1338	0.00138	0.019	0.0014	0.04	0.045	1	13.6
1 mmAq	0.000097	0.0098	0.000098	0.0014	0.0001	0.003	0.0033	0.074	1

CAPACITY	m ³ /min	l/min	cm ³ /s	in ³ /s	ft ³ /min(cfm)
1 m ³ /min	1	1000	16667	1016	35.288
1 l/min	0.001	1	16.67	1.02	0.0353
1 cm ³ /s	0.00006	0.06	1	0.061	0.002
1 in ³ /s	0.00098	0.983	16.39	1	0.035
1 ft ³ /min(cfm)	0.028	28.32	471.95	28.8	1

压力常用换算公式

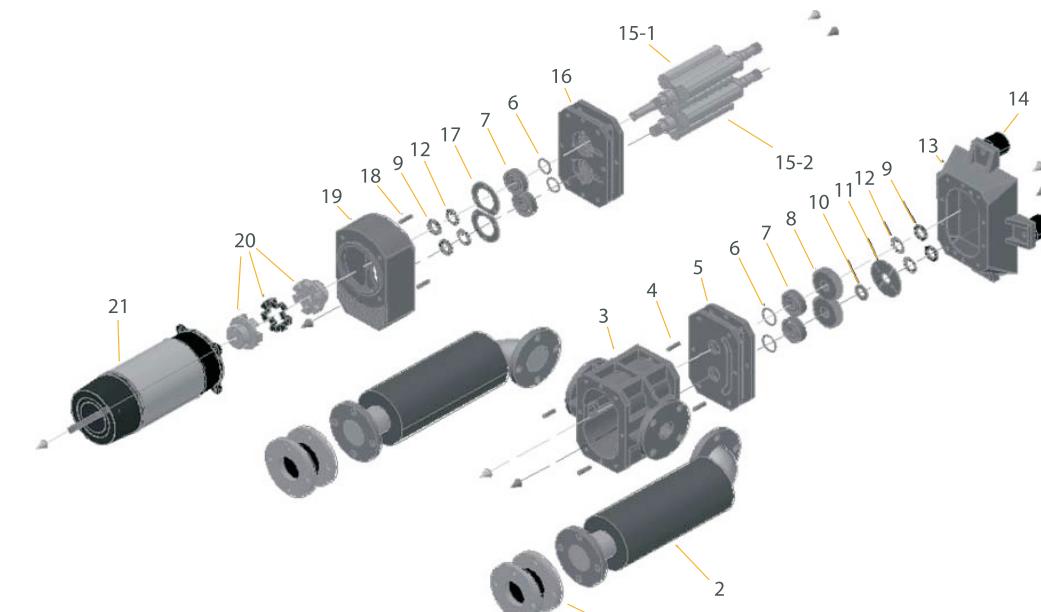
Pressure Conversion Formula

1 kPa=1000Pa=1000N/m²

1mbar=10.198mmAq

1mmHg(Torr)=133.8Pa

结构图 Construction



NO.	名称 NAME	材质 MATERIAL
1	防震接头 Flexible joint	Synthetic Rubber
2	消音器 Silencer	Q235
3	鼓风机本体 Casing	HT250
4	弹簧定位销 Positioning pin	50
5	后轴承座 Bearing housing	HT250
6	V型油封 V-ring	NBR
7	轴承 Bearing	GCr15
8	齿轮 Gear	20CrMnTi
9	防松螺丝 Lock nut	45
10	垫片 Washer	Q235
11	甩油片 Oil splash	Q235

NO.	名称 NAME	材质 MATERIAL
12	垫圈 Washer	Q235
13	脚底齿轮箱 Base gear box	HT250
14	减震垫 Vibration isolator	Synthetic Rubber
15-1	主动叶轮 Drive shaft	HT250
15-2	被动叶轮 Driven shaft	HT250
16	前轴承座 Bearing housing	HT250
17	轴承固定片 Bearing washer	Q235
18	定位销 Positioning pin	45
19	中承座 Oil box	HT250
20	联轴器 HRC Couplings	HT250
21	马达 Motor	HT200

型号说明 Type description

SRB - 40 - 0.75



SRB性能参数 Performance parameters

Qs(m³/min) Pressure(mmHg) La(kW)

型号 Type	功率 kW	转速 RPM	1000mmHg		2000mmHg		3000mmHg		4000mmHg		5000mmHg		6000mmHg	
			Qs	La	Qs	La								
SRB40-1.5	1.5	980	1.46	0.52	1.32	0.79	1.21	1.06						
SRB40-2.2A	2.2	980	1.46	0.52	1.32	0.79	1.21	1.06	1.12	1.32	1.03	1.59		
SRB40-2.2B	2.2	1450	2.16	0.71	2.01	1.09	1.90	1.46						
SRB40-3.7	3.7	1450	2.16	0.71	2.01	1.09	1.90	1.46	1.82	1.83	1.73	2.20	1.65	2.40
SRB50-2.2A	2.2	980	2.14	0.48	1.81	0.97	1.48	1.45						
SRB50-3.7A	3.7	980	2.14	0.48	1.81	0.97	1.48	1.45	1.25	1.93	1.09	2.42	0.91	2.90
SRB50-2.2B	2.2	1450	3.72	1.04	3.53	1.66	3.39	2.10						
SRB50-3.7B	3.7	1450	3.72	1.04	3.53	1.66	3.39	2.10	3.27	2.90	3.17	3.51		
SRB50-5.5	5.5	1450	3.72	1.04	3.53	1.66	3.39	2.10	3.27	2.90	3.17	3.51	3.07	4.13
SRB65-2.2	2.2	980	2.82	0.63	2.77	1.26	2.43	1.89						
SRB65-3.7A	3.7	980	2.82	0.63	2.77	1.26	2.43	1.89	2.32	2.52	2.17	3.14		
SRB65-5.5A	5.5	980	2.82	0.63	2.77	1.26	2.43	1.89	2.32	2.52	2.17	3.14	2.04	3.77
SRB65-3.7B	3.7	1450	4.85	1.34	4.62	2.02	4.44	2.83	4.29	3.63				
SRB65-5.5B	5.5	1450	4.85	1.34	4.62	2.02	4.44	2.83	4.29	3.63	4.16	4.43		
SRB65-7.5	7.5	1450	4.85	1.34	4.62	2.02	4.44	2.83	4.29	3.63	4.16	4.43		
SRB80-5.5	5.5	1450	6.47	1.63	6.27	2.61	6.07	3.59	5.87	4.57				
SRB80-7.5	7.5	1450	6.47	1.63	6.27	2.61	6.07	3.59	5.87	4.57	5.68	5.55	5.48	6.52
SRB100-7.5	7.5	1450	8.66	2.45	8.36	3.91	8.07	5.38						
SRB100-11	11	1450	8.66	2.45	8.36	3.91	8.07	5.38	7.79	6.85	7.50	9.79	7.22	10.30
SRB125-11	11	1450	12.44	3.70	12.22	5.76	11.89	7.81	11.45	9.87				
SRB125-15	15	1450	12.44	3.70	12.22	5.76	11.89	7.81	11.45	9.87	11.12	11.92	10.79	13.98