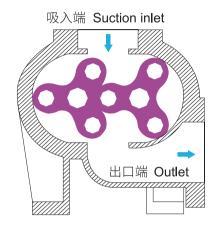




GRB three-lobe roots blower

GRB 三叶罗茨鼓风机

GRB three-lobe roots blower



原理 Theory

GRB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。

GRB 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.

特点 Features

- 风量和压力范围大。

口径: 32mm-400mm (1.25 "-16") 风量: 0.38-283m³/min (13-9985CFM)

压力:一段式GRB型可达8000mmAg (0.8kgf/cm²)

- 排出气体不含油污。
- 电脑动平衡校正,低振动低噪音。
- 风量稳定,压力变化对风量之影响小。
- 特殊叶轮设计,高效率省能源。
- 构造简单坚固,无故障。
- 齿轮达到5级加工精度,寿命长,低噪音。
- 严格品质管理,标准化制品。
- 叶轮采用龙门刨床六轴加工法,无需重复定位装夹, 一次精加工完成,使更换方便,其具有更高之精密度。
- Wide range of capacity and pressure.

Calibre: 32mm-400mm (1.25 "-16") Capacity: 0.38-283m³/min (13-9985CFM)

Pressure: The pressure of one-stage GRB type up to

8000mmAq (0.8kgf/cm²)

- Delivers completely oil-free air.
- Low oscillation and low noise by dynamic balance which revised by computer.
- Smaller change in capacity against change in pressure.
- High efficiency due to special impeller design, great airdelivery low power.
- Simpler and solider structure, less trouble.
- Highest quality pilot & accurate great applied, long life and low noise assured.
- Standardized product with strict quality control.
- Our rotor has used the most advanced technic, one time for all working process of the six-shaft method, to enhance the precision.

外形结构图 Externality construction



| No. | 名称 | Name |
|-----|-------|-----------------------|
| 1 | 本机体 | Blower body |
| 2 | 电动机 | Motor |
| 3 | 底座 | Foundation |
| 4 | 皮带轮 | Pulley |
| 5 | 传动皮带 | Driving belt |
| 6 | 皮带护罩 | Belt cover |
| 7 | 入口消音器 | Suction silencer |
| 8 | 防雨盖 | Rain cover |
| 9 | 逆止阀 | Check valve |
| 10 | 缓冲管 | Gauge Pipe |
| 11 | 吐出压力表 | Outlet pressure gauge |
| 12 | 三通管 | T-joint |
| 13 | 泄压阀 | Relief valve |
| 14 | 出口消音器 | Outlet silencer |

注: GRB-32、GRB-40 机型不配出口消音器 Note: GRB-32\GRB-40 without outlet silencer

型号说明 Type description

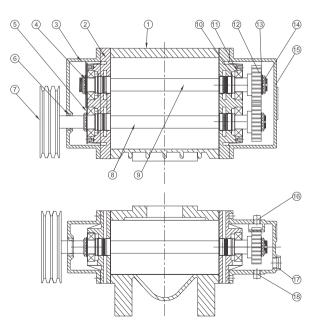


结构简图 Construction

| No. | 名称 | Name | 材质/ | Material |
|------|-------|--------------------|----------|----------|
| 740. | H10 | Name | 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 | VITON | VITON |
| 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/in²(psi) | kgf/cm² | 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/in²(psi) | 0.068 | 6.894 | 0.0689 | 1 | 0.0703 | 2.036 | 2.308 | 51.71 | 703 |
| 1 kgf/cm² | 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 | m³/min | l/min | cm³/s | in³/s | ft³/min(cfm) |
|----------------|---------|-------|--------|-------|--------------|
| 1 m³/min | 1 | 1000 | 16667 | 1016 | 35.288 |
| 1 l/min | 0.001 | 1 | 16.67 | 1.02 | 0.0353 |
| 1 cm³/s | 0.00006 | 0.06 | 1 | 0.061 | 0.002 |
| 1 in³/s | 0.00098 | 0.983 | 16.39 | 1 | 0.035 |
| 1 ft³/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

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:

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

- Q₁: 绝对压力P₁(mmAq) 摄氏温度T₁(°C)状态的 风量 (m³/min)
- Q_2 : 绝对压力 P_2 (mmAq) 摄氏温度 T_2 (°C)状态的 风量 (m³/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 1.0332kgf/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 (m³/min) based on absolute pressure P_1 (mmAq) and temperature T_1 (°C)
- Q_2 : Air capacity (m³/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%.

| 型号 | 转读 | 1000ı | mmAq | 2000r | mmAq | 3000r | nmAq | 4000r | mmAq | 5000r | nmAq | 6000r | nmAq | n³/min) <i>7000</i> r | nmAq | | nmAq |
|-------|------|--|------|-------|------|--------------|------|-------|--------------|-------|------|-------|------|--------------------------|------|------|------|
| Туре | RPM | Qs | La | Qs | La | Qs | La | Qs | La | Qs | La | Qs | La | Qs | La | Qs | La |
| | 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 | - | - | - | - |
| GRB32 | 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 | OS La OS La 500 0.56 0.17 0.51 0.28 750 0.68 0.20 0.62 0.33 750 0.68 0.20 0.62 0.33 750 0.68 0.20 0.62 0.33 750 0.68 0.20 0.62 0.88 750 0.93 0.26 0.88 0.43 7600 1.25 0.34 1.20 0.56 850 1.02 0.42 0.89 0.64 950 1.18 0.47 1.05 0.71 050 1.33 0.52 1.20 0.79 150 1.49 0.57 1.36 0.86 250 1.65 0.62 1.52 0.94 350 1.80 0.67 1.67 1.01 450 1.96 0.71 1.83 1.09 550 2.12 0.76 1.99 1.16 650 | 0.56 | 1.16 | 0.79 | 1.12 | 1.02 | 1.09 | 1.24 | 1.07 | 1.47 | - | - | - | - | | |
| | 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 |
| GRB40 | 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 | | | | 1.09 | 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 | | | | 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 | | | | 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 | | | | 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 | | | | | 2.36 | 1.86 | 2.27 | 2.33 | 2.20 | 2.81 | 2.13 | 3.28 | 2.07 | 3.75 | 2.01 | 4.23 |
| | | | | | | 2.51 | 1.96 | 2.43 | 2.46 | 2.36 | 2.96 | 2.29 | 3.46 | 2.23 | 3.96 | 2.17 | 4.46 |
| | | | | | | 1.52 | 1.34 | 1.41 | 1.70 | 1.31 | 2.06 | 1.22 | 2.42 | 1.14 | 2.79 | 1.07 | 3.15 |
| | | | | | | 1.78 2.04 | 1.49 | 1.67 | 1.90 2.10 | 1.57 | 2.30 | 1.48 | 2.71 | 1.40 | 3.11 | 1.33 | 3.52 |
| | | | | | | 2.30 | 1.81 | 2.19 | 2.10 | 2.09 | 2.79 | 2.01 | 3.28 | 1.93 | 3.77 | 1.85 | 4.26 |
| | | | | | | 2.56 | 1.96 | 2.45 | 2.50 | 2.35 | 3.03 | 2.01 | 3.56 | 2.19 | 4.10 | 2.11 | 4.63 |
| | 1350 | | | | | 2.82 | 2.12 | 2.71 | 2.70 | 2.62 | 3.27 | 2.53 | 3.85 | 2.45 | 4.42 | 2.37 | 5.00 |
| GRB50 | 1450 | | | | 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 | | | | 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 | | 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 |
| | 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 |
| GRB65 | 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 | | | | 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 | | | | 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 | | | | 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 | | | | 2.72 | 5.74 | 3.80 | 5.60 | 4.88 | 5.48 | 5.96 | 5.37 | 7.05 | 5.27 | 8.13 | 5.18 | 9.21 |
| | 800 | | | | 2.09 | 3.62 | 2.87 | 3.44 | 3.65 | 3.28 | 4.44 | 3.13 | 5.22 | 3.00 | 6.00 | 2.87 | 6.78 |
| GRB80 | 900 | | | | 2.35 | 4.22 | 3.23 | 4.03 | 4.11 | 3.87 | 4.99 | 3.73 | 5.87 | 3.60 | 6.75 | 3.47 | 7.63 |
| | 1000 | | | | 2.61 | 4.82 | 3.59 | 4.63 | 4.57 | 4.47 | 5.55 | 4.33 | 6.52 | 4.20 | 7.50 | 4.07 | 8.48 |
| | 1100 | 5.91 | 1.79 | 5.63 | 2.87 | 5.42 | 3.95 | 5.23 | 5.02 | 5.07 | 6.10 | 4.93 | 7.18 | 4.79 | 8.25 | 4.67 | 9.33 |

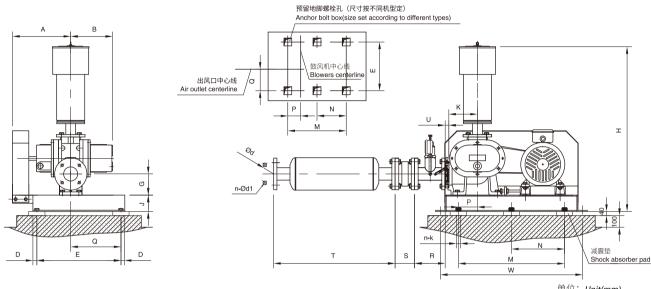
| | 44.14 | 1000r | nmAa | 2000r | mmAa | 3000r | mmAa | 4000r | mmAa | 5000r | mmAa | 6000r | | | ressure(| | nmAq |
|------------|-----------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----------------|-----------------|
| 型号 Type | 转速 RPM | | | | | | | | | | | | | | | | |
| | 1200 | | 1 | | | | | | l | 1 | | | | | | Qs 5.27 | La 10.18 |
| | | | | | | | | | | | | | | | | 5.87 | 11.03 |
| | | | | | | | | | | | | | | | | 6.47 | 11.87 |
| | 1500 | 8.31 | 2.45 | 8.03 | 3.91 | 7.81 | 5.38 | | | 7.47 | 8.32 | 7.32 | 9.79 | 7.19 | 11.25 | 7.07 | 12.72 |
| GRB80 | 1600 | 8.91 | 2.61 | 8.63 | 4.18 | 8.41 | 5.74 | 8.23 | 7.31 | 8.07 | 8.87 | 7.92 | 10.44 | 7.79 | 12.00 | 7.67 | 13.57 |
| | 1650 | 9.21 | 2.69 | 8.93 | 4.31 | 8.71 | 5.92 | 8.53 | 7.54 | 8.37 | 9.15 | 8.22 | 10.76 | 8.09 | 12.38 | 7.97 | 13.99 |
| | 1750 | 9.81 | 2.85 | 9.53 | 4.57 | 9.31 | 6.28 | 9.13 | 7.99 | 8.97 | 9.70 | 8.82 | 11.42 | 8.69 | 13.13 | 8.57 | 14.84 |
| | 1850 | 10.41 | 3.02 | 10.12 | 4.83 | 9.91 | 6.64 | 9.73 | 8.45 | 9.57 | 10.26 | 9.42 | 12.07 | 9.29 | 13.88 | 9.16 | 15.69 |
| | 1950 | 11.00 | 3.18 | 10.72 | 5.09 | 10.51 | 7.00 | 10.33 | 8.91 | 10.17 | 10.81 | 10.02 | 12.72 | 9.89 | 14.63 | 9.76 | 16.54 |
| | 800 | 5.78 | 1.98 | 5.39 | 3.07 | 5.09 | 4.17 | 4.84 | 5.26 | 4.62 | 6.36 | 4.42 | 7.46 | 4.24 | 8.55 | 4.07 | 9.65 |
| | 900 | 6.61 | 2.22 | 6.23 | 3.46 | 5.93 | 4.69 | 5.68 | 5.92 | 5.46 | 7.15 | 5.26 | 8.39 | 5.08 | 9.62 | 4.91 | 10.85 |
| | 1000 | 7.45 | 2.47 | 7.07 | 3.84 | 6.77 | 5.21 | 6.52 | 6.58 | 6.30 | 7.95 | 6.10 | 9.32 | 5.91 | 10.69 | 5.74 | 12.06 |
| | 1100 | 8.29 | 2.72 | 7.90 | 4.22 | 7.61 | 5.73 | 7.36 | 7.24 | 7.14 | 8.74 | 6.94 | 10.25 | 6.75 | 11.76 | 6.58 | 13.27 |
| | 1200 | 9.13 | 2.96 | 8.74 | 4.61 | 8.45 | 6.25 | 8.20 | 7.90 | 7.98 | 9.54 | 7.78 | 11.18 | 7.59 | 12.83 | 7.42 | 14.47 |
| | 1300 | 9.97 | 3.21 | 9.58 | 4.99 | 9.29 | 6.77 | 9.03 | 8.55 | 8.81 | 10.33 | 8.61 | 12.12 | 8.43 | 13.90 | 8.26 | 15.68 |
| GRB100 | 1400 | 10.81 | 3.46 | 10.42 | 5.37 | 10.12 | 7.29 | 9.87 | 9.21 | 9.65 | 11.13 | 9.45 | 13.05 | 9.27 | 14.97 | 9.10 | 16.88 |
| | 1500 | 11.65 | 3.70 | 11.26 | 5.76 | 10.96 | 7.81 | 10.71 | 9.87 | 10.49 | 11.92 | 10.29 | 13.98 | 10.11 | 16.03 | 9.94 | 18.09 |
| | 1600 | 12.49 | 3.95 | 12.10 | 6.14 | 11.80 | 8.33 | 11.55 | 10.53 | 11.33 | 12.72 | 11.13 | 14.91 | 10.95 | 17.10 | 10.78 | 19.30 |
| | 1650 | 12.91 | | | | | | | | | | | | | | 11.20 | 19.90 |
| | | | | | | 12.04 | 21.10 | | | | | | | | | | |
| | | | 12.87 | 22.31 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | 13.71 | 23.52 |
| | | | | | | | | | | | | | | | | 6.75 | 13.58 |
| | | | | | | | | | | | | | | | | 7.36 7.98 | 14.45 15.32 |
| | | | | | | | | | | | | | | | | 8.59 | 16.19 |
| | | | | | | | | | | | | | | | | 9.33 | 17.23 |
| | | | | | | | | | | | | | | | | 10.07 | 18.28 |
| | | | | | | | | | | | | | | | | 10.81 | 19.32 |
| | | | | | | | | | | | | | | | | 11.67 | 20.54 |
| GRB125A | | | | | | | 9.20 | | | | | | | 12.71 | | 12.53 | 21.76 |
| | 1320 | 15.23 | 4.42 | 14.81 | 7.07 | 14.49 | 9.72 | 14.22 | 12.37 | 13.98 | 15.02 | 13.77 | 17.67 | 13.57 | 20.32 | 13.39 | 22.97 |
| | | | | | | | | | | | | | | | | 14.25 | 24.19 |
| | 1470 | 17.07 | 4.92 | 16.65 | 7.87 | 16.33 | 10.82 | 16.06 | 13.78 | 15.83 | 16.73 | 15.61 | 19.68 | 15.42 | 22.63 | 15.23 | 25.59 |
| | 1560 | 18.18 | 5.22 | 17.76 | 8.35 | 17.44 | 11.49 | 17.17 | 14.62 | 16.93 | 17.75 | 16.72 | 20.89 | 16.52 | 24.02 | 16.34 | 27.15 |
| | 1650 | 19.28 | 5.52 | 18.87 | 8.84 | 18.55 | 12.15 | 18.28 | 15.46 | 18.04 | 18.78 | 17.83 | 22.09 | 17.63 | 25.40 | 17.44 | 28.72 |
| | 1750 | 20.51 | 5.86 | 20.10 | 9.37 | 19.78 | 12.89 | 19.51 | 16.40 | 19.27 | 19.92 | 19.06 | 23.43 | 18.86 | 26.94 | 18.67 | 30.46 |
| | 1850 | 21.74 | 6.19 | 21.33 | 9.91 | 21.01 | 13.62 | 20.74 | 17.34 | 20.50 | 21.05 | 20.28 | 24.77 | 20.09 | 28.48 | 19.90 | 32.20 |
| | 780 | 12.64 | 3.82 | 12.08 | 6.11 | 11.64 | 8.39 | 11.27 | 10.68 | 10.95 | 12.97 | 10.66 | 15.26 | 10.39 | 17.55 | 10.14 | 19.84 |
| | 830 | 13.54 | 4.06 | 12.97 | 6.50 | 12.54 | 8.93 | 12.17 | 11.37 | 11.85 | 13.81 | 11.55 | 16.24 | 11.28 | 18.68 | 11.03 | 21.11 |
| | 880 | 14.44 | 4.30 | 13.87 | 6.89 | 13.44 | 9.47 | 13.07 | 12.05 | 12.75 | 14.64 | 12.45 | 17.22 | 12.18 | 19.80 | 11.93 | 22.39 |
| GRB125 | 930 | 15.34 | 4.55 | 14.77 | 7.28 | 14.34 | 10.01 | 13.97 | 12.74 | 13.64 | 15.47 | 13.35 | 18.20 | 13.08 | 20.93 | 12.83 | 23.66 |
| | 990 | 16.42 | 4.84 | 15.85 | 7.75 | 15.41 | 10.65 | 15.05 | 13.56 | 14.72 | 16.47 | 14.43 | 19.37 | 14.16 | 22.28 | 13.91 | 25.18 |
| | 1050 | 17.50 | 5.14 | 16.93 | 8.22 | 16.49 | 11.30 | 16.12 | 14.38 | 15.80 | 17.46 | 15.51 | 20.55 | 15.24 | 23.63 | 14.99 | 26.71 |
| | 1110 | | | | | | | | 15.20 | 16.88 | 18.46 | 16.59 | | | 24.98 | 16.07 | 28.24 |
| | 1180 | 19.83 | 5.77 | 19.26 | 9.24 | 18.83 | 12.70 | 18.46 | 16.16 | 18.14 | 19.63 | 17.84 | 23.09 | 17.57 | 26.55 | 17.32 | 30.02 |

| 型号 | 转速 | 1000r | nmAq | 2000r | nmAq | 3000r | nmAq | 4000r | nmAq | 5000r | nmAq | 6000r | | | nmAq | | |
|---------|------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|-------|-------|----------------|
| Туре | RPM | Qs | La | Qs | La | Qs . | La | Qs | La | Qs . | La | Os . | La | Qs . | La | Os . | La |
| | 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 |
| GRB125 | 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 |
| | 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 | | | | | | | | | | | | 27.23 |
| | 880 | 18.67 | 5.55 | 17.95 | 8.88 | | | | | | | | | | | | 28.87 |
| | 930 | 19.83 | 5.87 | 19.11 | | | | | | | | | | | | | 30.51 |
| | 990 | 21.22 | 6.24 | 20.50 | | 1. | 32.47 | | | | | | | | | | |
| | 1110 | 24.00 | 7.00 | 23.28 | | | | | | | | | | | | | 36.41 |
| | 1180 | 25.62 | 7.44 | 24.90 | 11.91 | | | | | | | | | | | | 38.71 |
| GRB150 | 1250 | 27.24 | 7.89 | 26.53 | 12.62 | | | | | | | | | | | | 41.00 |
| | 1320 | 28.86 | 8.33 | 28.15 | 13.32 | | | | | | | | | | | | 43.30 |
| | 1390 | 30.48 | 8.77 | 29.77 | 14.03 | | | | | | | | | | | | 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 |
| | 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 | | | | | | | | | | | | 55.25 |
| GRB200A | 1110 | 39.07 | 11.23 | 38.16 | 17.97 | | | | | | | | | | | | 58.40 |
| | 1180 | 41.67 | 11.94 | 40.76 | 19.10 | | | | | | | | | | | | 62.08 |
| | 1250 | 44.27 | 12.65 | 43.37 | | | | | | | | | | | | | 65.77 69.45 |
| | 1320 | 46.87 | 13.36 | 45.97 48.57 | | | | | | | | | | | | | 73.13 |
| | 1470 | 52.45 | 14.87 | 51.54 | 23.80 | | | | | | | | | | | | 77.34 |
| | 880 | 39.61 | 11.45 | 38.59 | 18.32 | | | | | | | | | | | | 59.53 |
| | 930 | 42.00 | 12.10 | 40.98 | 19.36 | | | | | | | | | | | | 62.91 |
| | 990 | 44.86 | 12.88 | 43.85 | 20.61 | | | | | | | | | | | | 66.97 |
| | 1050 | 47.73 | 13.66 | 46.72 | 21.86 | 45.94 | 30.05 | 45.28 | 38.25 | 44.70 | 46.44 | 44.18 | 54.64 | Qs La Qs 18.83 28.13 18.53 20.09 29.70 19.8 21.35 31.28 21.14 22.79 33.08 22.5 24.40 35.10 24.1 26.02 37.13 25.7 27.82 39.38 27.5 29.61 41.63 29.3 13.51 22.63 13.2 15.83 25.53 15.5 16.99 26.99 16.6 18.38 28.73 18.0 19.77 30.47 19.4 21.16 32.21 20.8 22.78 34.24 22.4 24.40 36.27 24.0 26.02 38.30 25.7 27.65 40.33 27.3 29.50 42.65 29.1 33.67 47.88 33.3 35.99 50.78 35.6 38.31 53.68 37.9 25.06 38.63 | 43.25 | 71.03 | |
| C222 | 1110 | 50.60 | 14.44 | 49.58 | 23.10 | 48.81 | 31.77 | 48.15 | 40.43 | 47.57 | 49.10 | 47.05 | 57.76 | 46.57 | 66.42 | 46.12 | 75.09 |
| GRB200 | 1180 | 53.94 | 15.35 | 52.93 | 24.56 | 52.15 | 33.77 | 51.49 | 42.98 | 50.92 | 52.19 | 50.39 | 61.40 | 49.91 | 70.61 | 49.47 | 79.82 |
| | 1250 | 57.29 | 16.26 | 56.27 | 26.02 | 55.50 | 35.77 | 54.84 | 45.53 | 54.26 | 55.29 | 53.74 | 65.05 | 53.26 | 74.80 | 52.81 | 84.56 |
| | 1320 | 60.63 | 17.17 | 59.62 | 27.48 | 58.84 | 37.78 | 58.18 | 48.08 | 57.61 | 58.38 | 57.08 | 68.69 | 56.60 | 78.99 | 56.16 | 89.29 |
| | 1390 | 63.98 | 18.08 | 62.96 | 28.93 | 62.19 | 39.78 | 61.53 | 50.63 | 60.95 | 61.48 | 60.43 | 72.33 | 59.95 | 83.18 | 59.50 | 94.03 |
| | 1470 | 67.80 | 19.12 | 66.79 | 30.60 | 66.01 | 42.07 | 65.35 | 53.55 | 64.78 | 65.02 | 64.25 | 76.49 | 63.77 | 87.97 | 63.33 | 99.44 |

| 型号 | 转速 | 1000r | nmAq | 2000r | nmAq | 3000r | nmAq | 40001 | nmAq | 5000r | nmAq | 6000r | nmAq | | nmAq | | nmAq |
|------------|------------|----------------|----------------|----------------|----------------|----------------|-----------------|--------|-----------------|----------------|----------------|------------------|--------|--------|------------------|--------|------------------|
| 至号 Type | #女述 RPM | Qs | La | Os | La | Qs | La | Qs | La | Os | La | Os | La | Os | La | Qs | La |
| | 830 | 50.02 | 14.40 | 48.83 | 23.03 | 47.92 | 31.67 | 47.15 | 40.31 | 46.48 | 48.95 | 45.87 | 57.59 | 45.30 | 66.22 | 44.78 | 74.86 |
| | 880 | 53.21 | 15.26 | 52.02 | 24.42 | 51.11 | 33.58 | 50.34 | 42.74 | 49.66 | 51.90 | 49.05 | 61.06 | 48.49 | 70.21 | 47.97 | 79.37 |
| | 930 | 56.39 | 16.13 | 55.20 | 25.81 | 54.29 | 35.49 | 53.53 | 45.17 | 52.85 | 54.85 | 52.24 | 64.52 | 51.68 | 74.20 | 51.15 | 83.88 |
| | 990 | 60.21 | 17.17 | 59.03 | 27.48 | 58.12 | 37.78 | 57.35 | 48.08 | 56.67 | 58.38 | 56.06 | 68.69 | 55.50 | 78.99 | 54.97 | 89.29 |
| | 1050 | 64.04 | 18.21 | 62.85 | 29.14 | 61.94 | 40.07 | 61.17 | 51.00 | 60.50 | 61.92 | 59.88 | 72.85 | 59.32 | 83.78 | 58.80 | 94.71 |
| GRB250 | 1110 | 67.86 | 19.25 | 66.67 | 30.81 | 65.76 | 42.36 | 64.99 | 53.91 | 64.32 | 65.46 | 63.71 | 77.01 | 63.14 | 88.57 | 62.62 | 100.12 |
| | 1180 | 72.32 | 20.47 | 71.13 | 32.75 | 70.22 | 45.03 | 69.46 | 57.31 | 68.78 | 69.59 | 68.17 | 81.87 | 67.60 | 94.15 | 67.08 | 106.43 |
| | 1250 | 76.78 | 21.68 | 75.59 | 34.69 | 74.68 | 47.70 | 73.92 | 60.71 | 73.24 | 73.72 | 72.63 | 86.73 | 72.06 | 99.74 | 71.54 | 112.75 |
| | 1320 | 81.24 | 22.90 | 80.05 | 36.63 | 79.14 | 50.37 | 78.38 | 64.11 | 77.70 | 77.85 | 77.09 | 91.58 | 76.53 | 105.32 | 76.00 | 119.06 |
| | 1390 | 85.70 | 24.11 | 84.51 | 38.58 | 83.60 | 53.04 | 82.84 | 67.51 | 82.16 | 81.97 | 81.55 | 96.44 | 80.99 | 110.91 | 80.46 | 125.37 |
| | 1470 | 90.80 | 25.50 | 89.61 | 40.80 | 88.70 | 56.10 | 87.93 | 71.39 | 87.26 | 86.69 | 86.65 | 101.99 | 86.08 | 117.29 | 85.56 | 132.59 |
| | 830 | 66.52 | 19.20 | 64.86 | 30.71 | 63.59 | 42.23 | 62.52 | 53.75 | 61.57 | 65.26 | 60.72 | 76.78 | 59.94 | 88.30 | 59.21 | 99.82 |
| | 930 | 70.76 75.01 | 20.35 | 69.11 73.36 | 32.56 34.41 | 67.84 72.09 | 44.77 | 71.01 | 56.99 | 65.82 70.07 | 69.20 73.13 | 64.97 | 81.41 | 64.18 | 93.62 98.94 | 63.45 | 105.83 |
| | 990 | 80.11 | 22.90 | 78.45 | 36.63 | 77.18 | 50.37 | 76.11 | 64.11 | 75.17 | 77.85 | 74.31 | 91.58 | 73.53 | 105.32 | 72.80 | 119.06 |
| | 1050 | 85.21 | 24.28 | 83.55 | 38.85 | 82.28 | 53.42 | 81.21 | 67.99 | 80.27 | 82.56 | 79.41 | 97.13 | 78.63 | 111.70 | 77.90 | 126.27 |
| GRB300A | 1110 | 90.30 | 25.67 | 88.65 | 41.07 | 87.38 | 56.48 | 86.31 | 71.88 | 85.36 | 87.28 | 84.51 | 102.68 | 83.72 | 118.09 | 82.99 | 133.49 |
| | 1180 | 96.25 | 27.29 | 94.60 | 43.66 | 93.32 | 60.04 | 92.25 | 76.41 | 91.31 | 92.79 | 90.46 | 109.16 | 89.67 | 125.53 | 88.94 | 141.91 |
| | 1250 | 102.20 | 28.91 | 100.54 | 46.25 | 99.27 | 63.60 | 98.20 | 80.95 | 97.26 | 98.29 | 96.40 | 115.64 | 95.62 | 132.98 | 94.89 | 150.33 |
| | 1320 | 108.15 | 30.53 | 106.49 | 48.84 | 105.22 | 67.16 | 104.15 | 85.48 | 103.20 | 103.79 | 102.35 | 122.11 | 101.57 | 140.43 | 100.84 | 158.75 |
| | 1390 | 114.09 | 32.15 | 112.44 | 51.43 | 111.17 | 70.72 | 110.09 | 90.01 | 109.15 | 109.30 | 108.30 | 128.59 | 107.51 | 147.88 | 106.78 | 167.16 |
| | 1470 | 120.89 | 34.00 | 119.23 | 54.40 | 117.96 | 74.79 | 116.89 | 95.19 | 115.95 | 115.59 | 115.09 | 135.99 | 114.31 | 156.39 | 113.58 | 176.78 |
| | 800 | 101.28 | 29.11 | 98.93 | 46.58 | 97.12 | 64.05 | 95.60 | 81.52 | 94.26 | 98.99 | 93.05 | 116.46 | 91.94 | 133.92 | 90.90 | 151.39 |
| | 900 | 114.64 | 32.75 | 112.30 | 52.40 | 110.49 | 72.06 | 108.97 | 91.71 | 107.63 | 111.36 | 106.42 | 131.01 | 105.31 | 150.66 | 104.27 | 170.32 |
| | 1000 | 128.01 | 36.39 | 125.66 | 58.23 | 123.86 | 80.06 | 122.34 | 101.90 | 121.00 | 123.73 | 119.79 | 145.57 | 118.68 | 167.40 | 117.64 | 189.24 |
| GRB300 | 1100 | 141.38 | 40.03 | 139.03 | 64.05 | 137.23 | 88.07 | 135.71 | 112.09 | 134.37 | 136.11 | 133.16 | 160.13 | 132.05 | 184.14 | 131.01 | 208.16 |
| | 1200 | 154.75 | 43.67 | 152.40 | 69.87 | 150.60 | 96.08 | 149.08 | 122.28 | 147.74 | 148.48 | 146.53 | 174.68 | 145.41 | 200.89 | 144.38 | 227.09 |
| | 1300 | 168.12 | 47.31 | 165.77 | 75.70 | 163.97 | 104.08 | 162.45 | 132.47 | 161.11 | 160.85 | 159.90 | 189.24 | 158.78 | 217.63 | 157.75 | 246.01 |
| | 1400 | 181.49 | 50.95 34.31 | 179.14 | 81.52 54.90 | 177.34 | 112.09 75.49 | 175.82 | 142.66 96.08 | 174.48 | 173.23 | 173.27 107.82 | 203.80 | 106.36 | 234.37 157.84 | 171.12 | 264.94 178.43 |
| | 700 | 139.61 | 40.03 | 136.53 | 64.05 | 134.16 | 88.07 | 132.17 | 112.09 | 130,41 | 136.11 | 128.82 | 160.13 | | 184.14 | 126.00 | 208.16 |
| | 800 | 160.62 | 45.75 | 157.54 | 73.20 | 155.17 | | | 128.10 | | 155.55 | | | 148.37 | | 147.01 | 237.90 |
| | 900 | 181.63 | 51.47 | 178.54 | 82.35 | 176.18 | 113.23 | 174.19 | 144.11 | 172.43 | 174.99 | 170.84 | 205.88 | 169.38 | 236.76 | 168.02 | 267.64 |
| GRB350 | 1000 | 202.64 | 57.19 | 199.55 | 91.50 | 197.19 | 125.81 | 195.19 | 160.13 | 193.44 | 194.44 | 191.85 | 228.75 | 190.39 | 263.06 | 189.03 | 297.38 |
| | 1100 | 223.64 | 62.91 | 220.56 | 100.65 | 218.19 | 138.39 | 216.20 | 176.14 | 214.44 | 213.88 | 212.86 | 251.63 | 211.39 | 289.37 | 210.04 | 327.11 |
| | 1200 | 244.65 | 68.63 | 241.57 | 109.80 | 239.20 | 150.98 | 237.21 | 192.15 | 235.45 | 233.33 | 233.86 | 274.50 | 232.40 | 315.68 | 231.04 | 356.85 |
| | 1300 | 265.66 | 74.34 | 262.58 | 118.95 | 260.21 | 163.56 | 258.22 | 208.16 | 256.46 | 252.77 | 254.87 | 297.38 | 253.41 | 341.98 | 252.05 | 386.59 |
| | 1400 | 286.67 | 80.06 | 283.58 | 128.10 | 281.22 | 176.14 | 279.22 | 224.18 | 277.47 | 272.21 | 275.88 | 320.25 | 274.42 | 368.29 | 273.06 | 416.33 |
| | 600 | 137.87 | 39.77 | 134.46 | 63.63 | 131.84 | 87.50 | 129.64 | 111.36 | 127.69 | 135.22 | 125.94 | 159.09 | 124.32 | 182.95 | 122.82 | 206.81 |
| | 700 | 162.22 | 46.40 | 158.81 | 74.24 | 156.19 | 102.08 | 153.99 | 129.92 | 152.04 | 157.76 | 150.29 | 185.60 | 148.67 | 213.44 | 147.17 | 241.28 |
| | 800 | 186.57 | 53.03 | 183.16 | 84.85 | 180.54 | 116.66 | 178.34 | 148.48 | 176.39 | 180.30 | 174.64 | 212.11 | 173.02 | 243.93 | 171.52 | 275.75 |
| GRB400 | 900 | 210.92 | 59.66 | 207.51 | 95.45 | 204.89 | 131.25 | 202.69 | 167.04 | 200.74 | 202.83 | 198.99 | 238.63 | 197.37 | 274.42 | 195.87 | 310.22 |
| | 1000 | 235.27 | 66.29 | 231.86 | 106.06 | 229.24 | 145.83 | 227.04 | 185.60 | 225.09 | 225.37 | 223.34 | 265.14 | 221.72 | 304.92 | 220.22 | 344.69 |
| | 1100 | 259.62 | 72.91 | 256.21 | 116.66 | 253.59 | 174.00 | 251.39 | 204.16 | 249.44 | 247.91 | 247.69 | 291.66 | 246.07 | 335.41 | 244.57 | 379.16 |
| | 1200 | 283.97 | 79.54 | 280.56 | 127.27 | 277.94 | 174.99 | 275.74 | 222.72 | 273.79 | 270.45 | 272.04 | 318.17 | 270.42 | 365.90 | 268.92 | 413.62 |

外形尺寸图 (配用卧式出口消音器)

Installation dimensions (horizontal outlet silencer)



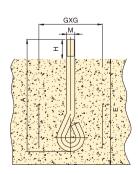
| 单位: | Unit(mm) |
|-----|----------|
| | |

| 型号 Type | Α | В | D | Ε | G | Н | J | К | М | N | W | Р | Q | R | S | Т | U | Ød | n-Ød1 | 地脚螺栓 <i>n-k</i> |
|------------|-------|-------|----|------|-------|------|-----|-----|------|------|------|-------|-------|-----|-----|------|----|-----|-----------------|--------------------|
| GRB40 | 235 | 230 | 20 | 350 | 104 | 741 | 56 | 140 | 520 | - | - | 98 | 95 | 150 | 95 | 595 | 18 | 110 | 4-Ø18 | 4-M12x160 |
| GRB50 | 320 | 270 | 20 | 412 | 103.5 | 921 | 80 | 140 | 520 | - | 700 | 93 | 211 | 150 | 105 | 595 | 18 | 125 | 4-Ø18 | 4-M12x160 |
| GRB65 | 342.5 | 300 | 20 | 412 | 104 | 924 | 80 | 152 | 520 | - | 700 | 93 | 188.5 | 150 | 115 | 595 | 18 | 145 | 4-Ø18 | 4-M12x160 |
| GRB80 | 383 | 304 | 20 | 482 | 106.5 | 1241 | 80 | 180 | 700 | - | 900 | 112.5 | 238 | 180 | 135 | 795 | 22 | 160 | 8-Ø18 | 4-M12x160 |
| GRB100 | 426 | 354 | 20 | 482 | 110 | 1245 | 80 | 180 | 700 | - | 900 | 130.5 | 195 | 180 | 150 | 795 | 22 | 180 | 8-Ø18 | 4-M12x160 |
| GRB125A | 495 | 375.5 | 24 | 602 | 135 | 1840 | 100 | 250 | 950 | - | 1150 | 178 | 291 | 250 | 165 | 1260 | 22 | 210 | 8-Ø18 | 4-M16x220 |
| GRB125 | 495 | 435.5 | 24 | 602 | 157.5 | 1835 | 100 | 262 | 950 | - | 1150 | 182 | 271 | 250 | 165 | 1260 | 22 | 210 | 8-Ø18 | 4-M16x220 |
| GRB150 | 574 | 490.5 | 24 | 602 | 163 | 1860 | 100 | 250 | 950 | - | 1150 | 182 | 212 | 250 | 180 | 1260 | 22 | 240 | 8-Ø23 | 4-M16x220 |
| GRB200A | 534 | 472 | 30 | 790 | 198 | 2285 | 160 | 358 | 1300 | 650 | - | 313 | 441 | 250 | 210 | 1645 | 25 | 295 | 8-Ø23 | 6-M20x350 |
| GRB200 | 584 | 522 | 30 | 790 | 194 | 2285 | 160 | 345 | 1300 | 650 | - | 310 | 391 | 250 | 210 | 1645 | 25 | 295 | 8-Ø23 | 6-M20x350 |
| GRB250 | 695 | 597 | 30 | 940 | 216 | 2520 | 160 | 356 | 1400 | 700 | - | 270 | 490 | 250 | 230 | 1750 | 38 | 350 | 12 - Ø23 | 6-M20x350 |
| GRB300A | 880 | 697 | 30 | 940 | 255 | 2660 | 160 | 360 | 1500 | 750 | - | 248 | 470 | 350 | 245 | 1850 | 38 | 400 | 12-Ø23 | 6-M20x350 |
| GRB300 | 795 | 627.5 | 35 | 1030 | 300 | 2955 | 250 | 510 | 2000 | 1000 | - | 321 | 487 | 350 | 245 | 1850 | 38 | 400 | 12-Ø23 | 6-M20x350 |

注: 当GRB-40配电机功率在1.1~4kW及以上,GRB-150配电机功率在55kW及以上,GRB-200配电机功率在90kW及以上,风机底座尺寸另询。

Note: When the motor power of GRB-40 is 1.1-4kW or above, GRB-150 is 55kW or above, and GRB-200 is 90kW or above, the size of the blower base should be specifically confirmed.

地脚螺栓 Anchor bolt



| | | | | | 单位: Unit(mm) |
|--------------------------------|-----|----|-----|---------|--------------------------|
| 地脚螺栓 M Anchor bolt GB799-88 | А | Н | Ε | G×G | 适用型号 Application type |
| M10 | 160 | 32 | 224 | 100×100 | GRB32 |
| M12 | 160 | 36 | 224 | 100×100 | GRB40,50,65,80,100 |
| M16 | 220 | 45 | 275 | 120×120 | GRB125(A),150 |
| M20 | 300 | 55 | 345 | 150×150 | GRB200(A),250,300(A) |
| M30 | 400 | 72 | 428 | 200×200 | GRB350,400 |

- 注: 1.图注E为最小尺寸,根据安装的土壤情况,应适当加深。
 - 2. GxG为二次浇灌前的预留孔尺寸。

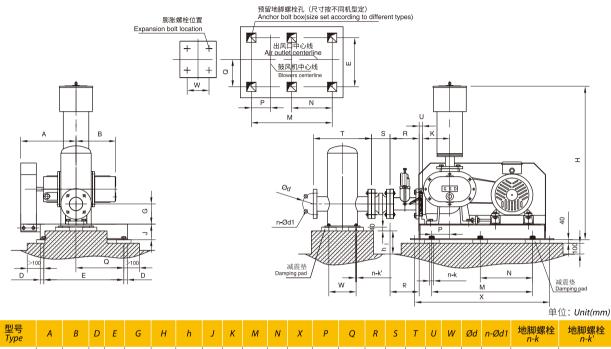
Note: 1. The note E on the drawing is the minimum size, it shall be deepened properly according to the soill condition in the installation place.

2. GxG is the size of the preformed holes for the secondary casting.



外形尺寸图 (配用立式出口消音器)

Installation dimensions (vertical outlet silencer)

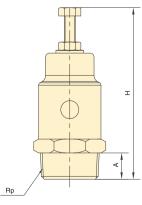


| 型号 Type | А | В | D | Ε | G | Н | h | J | К | М | N | X | Р | Q | R | 5 | Т | U | W | Ød | n-Ød1 | 地脚螺栓 <i>n-k</i> | 地脚螺栓 <i>n-k'</i> |
|------------|-------|-------|----|-----|-------|------|-------|-----|-----|------|-----|------|-------|-------|-----|-----|-----|----|-----|-----|----------------|--------------------|---------------------|
| GRB40 | 235 | 230 | 20 | 350 | 104 | 741 | 140 | 56 | 140 | 500 | - | 700 | 98 | 95 | 150 | 95 | 300 | 18 | 140 | 110 | 4 - Ø18 | 4-M12x160 | 4-M12x150 |
| GRB50 | 320 | 270 | 20 | 412 | 103.5 | 921 | 163.5 | 80 | 140 | 520 | - | 700 | 93 | 211 | 150 | 105 | 300 | 18 | 140 | 125 | 4 - Ø18 | 4-M12x160 | 4-M12x150 |
| GRB65 | 342.5 | 300 | 20 | 412 | 104 | 924 | 154 | 80 | 152 | 520 | - | 700 | 93 | 188.5 | 150 | 115 | 350 | 18 | 170 | 145 | 4 - Ø18 | 4-M12x160 | 4-M12x150 |
| GRB80 | 383 | 304 | 20 | 482 | 106.5 | 1241 | 141.5 | 80 | 180 | 700 | - | 900 | 112.5 | 238 | 180 | 135 | 400 | 22 | 190 | 160 | 8-Ø18 | 4-M12x160 | 4-M12x150 |
| GRB100 | 426 | 354 | 20 | 482 | 110 | 1245 | 135 | 80 | 180 | 700 | - | 900 | 130.5 | 195 | 180 | 150 | 450 | 22 | 240 | 180 | 8-Ø18 | 4-M12x160 | 4-M12x150 |
| GRB125A | 495 | 375.5 | 24 | 602 | 135 | 1840 | 145 | 100 | 250 | 950 | - | 1150 | 178 | 291 | 250 | 165 | 500 | 22 | 240 | 210 | 8-Ø18 | 4-M16x220 | 4-M12x150 |
| GRB125 | 515 | 435.5 | 24 | 602 | 157.5 | 1835 | 167.5 | 100 | 262 | 950 | - | 1150 | 182 | 271 | 250 | 165 | 500 | 22 | 240 | 210 | 8 - Ø18 | 4-M16x220 | 4-M12x150 |
| GRB150 | 574 | 490.5 | 24 | 602 | 163 | 1860 | 153 | 100 | 250 | 950 | - | 1150 | 182 | 212 | 250 | 180 | 600 | 22 | 290 | 240 | 8 - Ø23 | 4-M16x220 | 4-M12x150 |
| GRB200A | 534 | 472 | 30 | 790 | 198 | 2285 | 202 | 160 | 358 | 1300 | 650 | - | 313 | 441 | 250 | 210 | 650 | 25 | 350 | 295 | 8 - Ø23 | 6-M20x350 | 4-M12x150 |
| GRB200 | 584 | 522 | 30 | 790 | 194 | 2285 | 198 | 160 | 345 | 1300 | 650 | - | 310 | 391 | 250 | 210 | 650 | 25 | 350 | 295 | 8 - Ø23 | 6-M20x350 | 4-M12x150 |

注: 当GRB-40配电机功率在1.1~4kW及以上,GRB-150配电机功率在55kW及以上,GRB-200配电机功率在90kW及以上,风机底座尺寸另询。

Note: When the motor power of GRB-40 is 1.1-4kW or above, GRB-150 is 55kW or above, and GRB-200 is 90kW or above, the size of the blower base should be specifically confirmed.

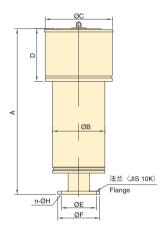
泄压阀 Relief valve



| | | | | 里址: Unit(mm) |
|------------|----|------|--------------------------|-------------------|
| 型号 Type | Α | Н | 适用机型 Application type | 重量 Weight (kg) |
| SV ½" | 15 | 91.5 | GRB32 | 0.3 |
| SV1¼" | 19 | 145 | GRB40,50,65,80 | 0.3 |
| SV2" | 24 | 185 | GRB100,125(A),150 | 1 |
| SV3" | 30 | 230 | GRB200(A),250 | 1.6 |
| SV100 | 90 | 490 | GRB300(A) | 29 |
| SV150 | 95 | 490 | GRB350,400 | 38.4 |

注:SV100、SV150为法兰连接,参考JB/T 1.0MPa法兰标准。 Note: Type SV100\SV150 is connect with flange. Refer to JB/T 1.0MPa.

入口消音器 Suction silencer

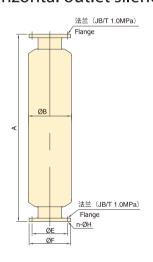


| | | | | | | | | | 单位: Unit(mm) |
|------------|------|-----|-----|-----|-----|-----|-----------------|----------------------|--------------------------|
| 型号 Type | А | В | С | D | Ε | F | n-ØH | 重量 Weight (kg) | 适用型号 Application type |
| SS32 | 113 | - | 105 | - | - | - | - | 4 | GRB32 |
| SS40 | 400 | 133 | 150 | 220 | 105 | 140 | 4-Ø14 | 7 | GRB40 |
| SS50 | 550 | 133 | 150 | 220 | 120 | 155 | 4 - Ø19 | 10 | GRB50 |
| SS65 | 550 | 159 | 190 | 280 | 140 | 175 | 4 - Ø19 | 12 | GRB65 |
| SS80 | 820 | 219 | 245 | 280 | 150 | 185 | 8 - Ø19 | 21 | GRB80 |
| SS100 | 820 | 245 | 273 | 330 | 175 | 210 | 8 - Ø19 | 27 | GRB100 |
| SS125 | 1310 | 273 | 310 | 350 | 210 | 250 | 8-Ø23 | 45 | GRB125(A) |
| SS150 | 1310 | 299 | 340 | 370 | 240 | 280 | 8-Ø23 | 52 | GRB150 |
| SS200 | 1500 | 330 | 380 | 370 | 290 | 330 | 12 - Ø23 | 81 | GRB200(A) |
| SS250 | 1700 | 400 | 480 | 550 | 355 | 400 | 12 - Ø25 | 98 | GRB250 |
| SS300 | 1825 | 500 | 600 | 650 | 400 | 445 | 16 - Ø25 | 135 | GRB300(A) |
| SS350 | 2237 | 550 | 676 | 700 | 445 | 490 | 16 - Ø25 | 200 | GRB350 |
| SS400 | 2533 | 600 | 720 | 750 | 510 | 560 | 16 - Ø27 | 250 | GRB400 |

注: SS32为1"Rp连接方式

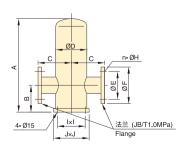
Note: Type SS32 is connect with Rp thread standard 1".

卧式出口消音器 Horizontal outlet silencer



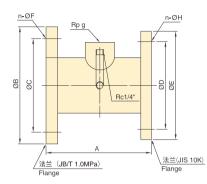
| | | | | | | | 单位: Unit(mm) |
|------------|------|-----|-----|-----|-----------------|-------------------|--------------------------|
| 型号 Type | Α | В | Ε | F | n-ØH | 重量 Weight (kg) | 适用型号 Application type |
| DS50 | 595 | 159 | 125 | 160 | 4-Ø18 | 12 | GRB50 |
| DS65 | 595 | 159 | 145 | 180 | 4-Ø18 | 13.5 | GRB65 |
| DS80 | 795 | 219 | 160 | 195 | 8-Ø18 | 24 | GRB80 |
| DS100 | 795 | 219 | 180 | 215 | 8-Ø18 | 25 | GRB100 |
| DS125 | 1260 | 290 | 210 | 245 | 8-Ø18 | 48 | GRB125(A) |
| DS150 | 1260 | 290 | 240 | 280 | 8 - Ø23 | 51 | GRB150 |
| DS200 | 1645 | 356 | 295 | 335 | 8 - Ø23 | 79 | GRB200(A) |
| DS250 | 1750 | 405 | 350 | 390 | 12 - Ø23 | 98 | GRB250 |
| DS300 | 1850 | 484 | 400 | 440 | 12 - Ø23 | 140 | GRB300(A) |
| DS350 | 2500 | 560 | 460 | 500 | 16-Ø23 | 280 | GRB350 |
| DS400 | 2700 | 610 | 515 | 565 | 16-Ø26 | 340 | GRB400 |

立式出口消音器 Vertical outlet silencer



| | | | | | | | | | | | 单位: Unit(mm) |
|------------|------|-----|-----|-----|-----|-----|-------|-----|-----|----------------------|--------------------------|
| 型号 Type | Α | В | С | D | Ε | F | n-ØH | I | J | 重量 Weight (kg) | 适用型号 Application type |
| VDS50 | 420 | 120 | 150 | 162 | 125 | 160 | 4-Ø18 | 140 | 180 | 19.0 | GRB50 |
| VDS65 | 480 | 130 | 175 | 185 | 145 | 180 | 4-Ø18 | 170 | 210 | 27.0 | GRB65 |
| VDS80 | 595 | 145 | 200 | 225 | 160 | 195 | 8-Ø18 | 190 | 235 | 36.9 | GRB80 |
| VDS100 | 660 | 155 | 225 | 285 | 180 | 215 | 8-Ø18 | 240 | 310 | 51.8 | GRB100 |
| VDS125 | 840 | 190 | 250 | 281 | 210 | 245 | 8-Ø18 | 240 | 310 | 65.9 | GRB125(A) GRB125 |
| VDS150 | 990 | 210 | 300 | 346 | 240 | 280 | 8-Ø23 | 290 | 376 | 99.6 | GRB150 |
| VDS200 | 1040 | 256 | 325 | 410 | 295 | 335 | 8-Ø23 | 350 | 425 | 131.5 | GRB200(A) GRB200 |

三通管 "T" -joint

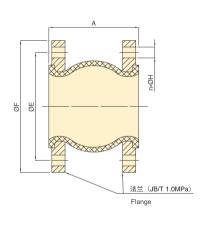


单位: Unit(mm)

| | 型号 Type | А | В | C | n-ØF | D | Ε | n-ØH | g | 重量 Weight (kg) | 适用型号 Application type |
|---|------------|-----|-----|-----|-----------------|-----|-----|-----------------|-------|-------------------|--------------------------|
| | HJ40 | 150 | 145 | 110 | 4-Ø18 | 120 | 155 | 4-Ø19 | 1¼" | 5.5 | GRB40 |
| | HJ50 | 150 | 160 | 125 | 4-Ø18 | 120 | 155 | 4 - Ø19 | 1¼" | 5.8 | GRB50 |
| Ī | HJ65 | 150 | 180 | 145 | 4-Ø18 | 140 | 175 | 4 - Ø19 | 1¼" | 7.5 | GRB65 |
| | HJ80 | 180 | 195 | 160 | 8-Ø18 | 150 | 185 | 8-Ø19 | 1¼" | 9 | GRB80 |
| | HJ100 | 180 | 215 | 180 | 8-Ø18 | 175 | 210 | 8-Ø19 | 2" | 11.5 | GRB100 |
| Ī | HJ125 | 250 | 245 | 210 | 8-Ø18 | 210 | 250 | 8-Ø23 | 2" | 15.5 | GRB125(A) |
| | HJ150 | 250 | 280 | 240 | 8-Ø23 | 240 | 280 | 8 - Ø23 | 2" | 18 | GRB150 |
| | HJ200 | 250 | 335 | 295 | 8-Ø23 | 290 | 330 | 12 - Ø23 | 3″ | 23 | GRB200(A) |
| | HJ250 | 250 | 390 | 350 | 12 - Ø23 | 355 | 400 | 12 - Ø25 | 3″ | 30 | GRB250 |
| | HJ300 | 350 | 440 | 400 | 12 - Ø23 | 400 | 445 | 16 - Ø25 | DN100 | 45 | GRB300(A) |
| | HJ350 | 400 | 500 | 460 | 16-Ø23 | 445 | 490 | 16 - Ø25 | DN150 | 59 | GRB350 |
| Ī | HJ400 | 400 | 565 | 515 | 16-Ø26 | 510 | 560 | 16-Ø27 | DN150 | 72 | GRB400 |

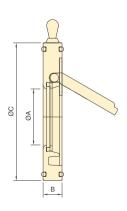
注:DN100、150为法兰连接,参考JB/T 1.0MPa规范尺寸。 Note: Type DN100\150 is connect with flange. Refer to JB/T 1.0MPa.

弹性接头 Flexible connector



| | | | | | | 单位: Unit(mm) |
|------------|-----|-----|-----|-----------------|-------------------|--------------------------|
| 型号 Type | Α | Ε | F | n-ØH | 重量 Weight (kg) | 适用型号 Application type |
| KXT50 | 105 | 125 | 160 | 4 - Ø18 | 3.72 | GRB50 |
| KXT65 | 115 | 145 | 180 | 4-Ø18 | 4.68 | GRB65 |
| KXT80 | 135 | 160 | 195 | 8-Ø18 | 5.5 | GRB80 |
| KXT100 | 150 | 180 | 215 | 8-Ø18 | 6.7 | GRB100 |
| KXT125 | 165 | 210 | 245 | 8-Ø18 | 8.3 | GRB125(A) |
| KXT150 | 180 | 240 | 280 | 8-Ø23 | 12 | GRB150 |
| KXT200 | 210 | 295 | 335 | 8 - Ø23 | 14 | GRB200(A) |
| KXT250 | 230 | 350 | 390 | 12 - Ø23 | 18.6 | GRB250 |
| KXT300 | 245 | 400 | 440 | 12 - Ø23 | 27.5 | GRB300(A) |
| KXT350 | 255 | 460 | 500 | 16 - Ø23 | 34 | GRB350 |
| KXT400 | 255 | 515 | 565 | 16-Ø26 | 47 | GRB400 |

逆止阀 Check valve



| | | | | | 单位: Unit(mm) |
|------------|-----|----|-----|-------------------|--------------------------|
| 型号 Type | Α | В | С | 重量 Weight (kg) | 适用型号 Application type |
| DCV-50 | 37 | 18 | 105 | 1 | GRB40, GRB50 |
| DCV-65 | 45 | 18 | 125 | 1.4 | GRB65 |
| DCV-80 | 52 | 22 | 140 | 0.8 | GRB80 |
| DCV-100 | 65 | 22 | 160 | 0.9 | GRB100 |
| DCV-125 | 90 | 22 | 190 | 1.2 | GRB125(A) |
| DCV-150 | 115 | 22 | 215 | 1.5 | GRB150 |
| DCV-200 | 160 | 25 | 270 | 2.6 | GRB200(A) |
| DCV-250 | 180 | 38 | 325 | 12.5 | GRB250 |
| DCV-300 | 213 | 38 | 375 | 18.5 | GRB300(A) |
| DCV-350 | 246 | 38 | 435 | 23.5 | GRB350 |
| DCV-400 | 278 | 42 | 487 | 32 | GRB400 |

如蒙洽询请指示下列各项:

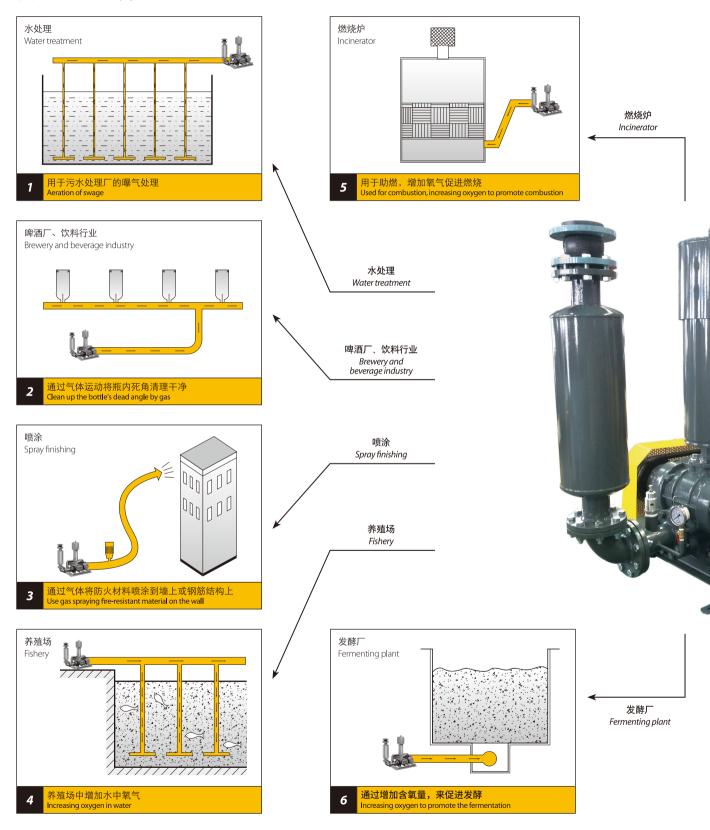
For further details, please fulfill the chart below.

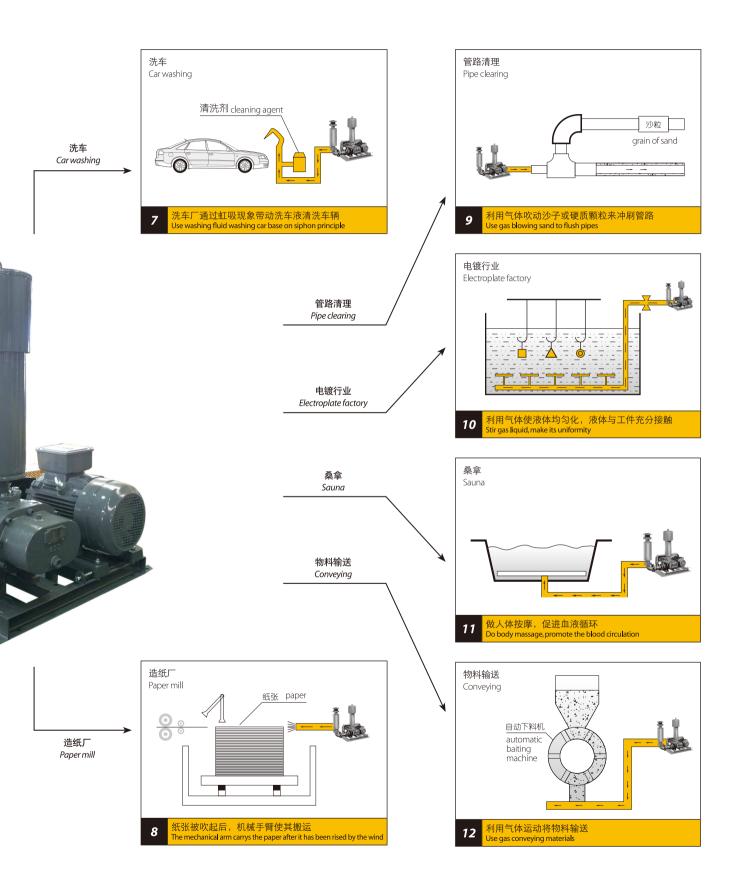
| 客户: | | | 承办人员: | | | | |
|---------------------------|------------------------------------|--------------------------------|----------------------------------|--------------|--|--|--|
| Customer | | Un | Undertaker | | | | |
| 工程名称: | | | 呈地点: | | | | |
| Name of project _ | | Add | dress of project | | | | |
| 电话: | | 传真 | 真: | | | | |
| Telephone | | Fax | · · | | | | |
| | | | | | | | |
| | | | | | | | |
| * 用途 * Usage | 压缩用 Compression | | 真空用 Vacuum | | | | |
| * 当地状况 | 海拔m Elevation | | 最高相对湿度% Max relative humidity | | | | |
| * Local condition | 当地大气压力(MPa) | | 最高气温(°C) | | | | |
| | Local atmospheric pressure | | Max air temperature | | | | |
| - 11 W - T | 名称 | | 温度(℃) | | | | |
| * 气体性质 | Name | | Temperature 各组分比例 | | | | |
| Gas character | 成份 Constituents | | 合组分CL例 Ratio of constituent | | | | |
| | 、风量(m³/min) | | 口径(mm) | | | | |
| 风机参数 | * Capacity | | Diameter | | | | |
| Blower's parameter | * 风压(mmAq) | | 转速(r/min) | | | | |
| parameter | Pressure | | Speed | | | | |
| | 型式 | | 电压(V) | | | | |
| 电机参数 | Туре | | Voltage | | | | |
| Motor's | 功率(kW) | | 频率(Hz) | | | | |
| parameter | Power 极数 | | Frequency 其它 | | | | |
| | ^{仅数} Pole | | 共 以 Others | | | | |
| 安装位置 Location | 室内安装 Indoor install | 遮雨棚式室外安装 Camping outdoor in | | 其它 Others | | | |
| * 传动方式 * Driving mode | 皮带传动(标准型) Belt-driven(Standard) | | 直联传动 Direct drive | | | | |
| 其它要求 Other requirement | | | | | | | |

备注: 1.以上资料请尽可能完整填写。 2.项目前加注"*"者,请务必填写。

Notes: 1. Please fill in the parameter lists as complete as possible. 2. The item with " \star " must be filled.

用途说明 Applications





欢迎索取以下产品型录

To find out more about following products, please visit www.gsd.net.cn

| 泵系列 | 潜水泵系列 陆上泵系列 特种泵系列 |
|--|--|
| Pump Series | Submersible pump series On land pump series Special pump series |
| 搅拌推流系列 | 搅拌机系列 推流器系列 |
| Mixing and flow propeller | Mixing series Flow propeller series |
| 供氧曝气系列 | 曝气机系列 曝气盘系列 曝气管系列 |
| Aeration equipment series | Aerator series Disc diffusers Tube diffusers |
| 风机系列 | 磁悬浮鼓风机 空气悬浮鼓风机 三叶罗茨鼓风机系列 |
| Blower Series | Maglev turbo blower Turbo blower Three-lobe Roots Blower blower series |
| 污泥处理设备 | 带式脱水机 厢式压滤机 叠螺式脱水机 污泥干化设备 浅层高效气浮设备 |
| Sludge treatment equipment | Belt filter press Box filter press Screw press Mud scraper Dissolued air flotation clarifier |
| 智能化系列 | 智能设备 水务设备健康管理 水务系统工艺优化智联管理 |
| Intelligent series | Intelligent equipment Health management for water equipment Intelligent management for water system process |
| 反应器及套装设备 | 芬顿反应系统 MBR生物膜反应器 预制泵站 一体化污水处理设备 |
| Reactor and package equipment | Fenton reaction system MBR biofilm reactor Prefabricated pumping station Intelligent Compact Unit |
| 耗材药剂及相关设备 Consumables,reagents and related equipment | 生物绳 PAC 聚合氯化铝 PAM 聚丙烯酰胺 泡药设备 Biological rope PAC polyaluminum chloride PAM polyacrylamide Automatic dispensing dissolvers |
| | |

GSD 的经营理念 Business Philosophy G-Green绿色 S-Safe安全 D-Development 永续经营



水处理系统专业合作伙伴

Professional partners in water treatment systems

免费咨询电话

400-657-9066

川源(中国)机械有限公司版权所有 all rights reserved. CY-4B

数据来源:公司实验室数据及客户实际使用数据,具体使用环境不同,数据可能存在差异。本型录内容如有变更,恕不另行通知。



