

空压机节能科技的新高峰  
Compressor Energy saving new high

**AUGUST**

阿格斯特



高效·节能·可靠·耐用

Efficient Energy saving Reliable Durable

永磁变频 螺杆空压机

Permanent Magnet VSD Compressor

两级压缩 螺杆空压机

Double Stage Compression Screw Air Compressor

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## 公司简介 Company Profile

宁波欣达螺杆压缩机有限公司是一家现代化的螺杆式压缩机专业生产企业，是目前国内拥有螺杆空压机核心技术，具有完全自主知识产权、并经国家严格审查许可的螺杆空压机制造基地。厂区总占地面积20万平方米，建筑面积12万平方米，员工总数1300余人，其中各类专业技术人员300余人。

目前公司是全球行业500强入选企业，是全国工业重点行业效益十佳企业，是国家重点高新技术企业，是浙江省机械行业较大规模企业之一。连续多次被评为全国用户满意服务先进企业，主导产品为全国用户满意产品“三连冠”。

宁波欣达螺杆压缩机有限公司拥有一支强大的研发团队，专业探究高效完美的压缩空气系统和解决方案，不断优化产品性能和制造工艺技术。公司依托强大的研发力量，先进的生产设备和完善的质量控制体系，专业生产阿格斯特牌螺杆式空气压缩机，目前已形成SF风冷系列、SW水冷系列、SF(W)-T变频系列、SD(C)Y移动机系列、SDK工矿系列、MP永磁变频系列、XG(P)T两级压缩系列等七大螺杆空压机系列产品，质量性能达到国际先进水平，产品遍布全国各地各行业，并出口到欧洲、东南亚、中东等地区，深受用户青睐。

宁波欣达竭诚为您提供优质的产品和服务！



Ningbo xinda screw compressor CO., Ltd. Is a modern screw compressor specialized production enterprise, which has the core technology of screw air compressor, has full independent intellectual property rights, and by the strict review licensing screw air compressor manufacturing base. The factory covers an area of 200,000 square meters, a building area of 120,000 square meters and a total staff of more than 1,300, among which more than 300 professional and technical personnel.

At present, the company is a global industry top 500 enterprises, is the national industrial enterprises ten key industries benefit, is the national key high-tech enterprises, is one of the large-scale enterprises in zhejiang province machinery industry. In succession, we have been rated as the national user satisfaction service advanced enterprise, leading the product to satisfy the national customer satisfaction product "triple crown".

Ningbo xinda screw compressor CO., Ltd., has a strong r&d team, professional to explore efficient compressed air system of perfect and solution, constantly optimize the product performance and manufacturing process technology. Company relying on the powerful research and development strength, advanced production equipment and perfect quality control system, specializing in the production of August, screw air compressor, at present has formed SF, air-cooled, SW water-cooled, SF (W)-T inverter series, SD (C) Y mobile machine series, the series of SDK mining, MP permanent magnet frequency series, XG (P) T the double stage compression and so on seven big series screw air compressor series of products, quality performance reached the international advanced level, products industries all over the country, and exported to Europe, southeast Asia, the Middle East and other regions, favored by users.

Ningbo xinda is dedicated to providing you with quality products and services!



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企业荣誉

Corporate honor

# 国家重点高新技术企业

National key high-tech enterprise

## ★ 浙江名牌产品

Zhejiang famous brand products

## ★ 中国压缩机制造10强企业

China compressor manufacture Top 10 enterprises

## ★ 宁波市重点推广节能产品

Ningbo city's key promotion energy-saving products

## ★ 通过ISO9001:2000质量体系认证

Passed iso9001:2000 quality system certification

## ★ 通过欧洲CE认证

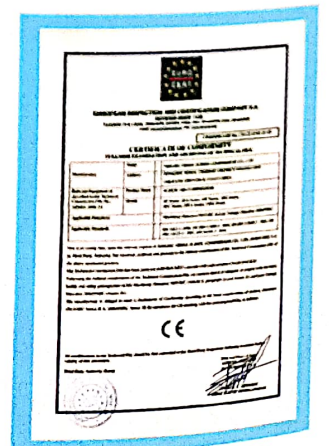
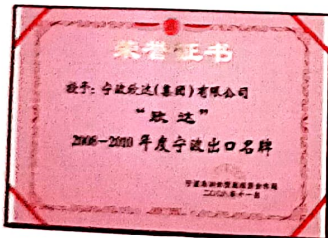
European CE certification

## ★ 中国气体压缩机械著名品牌

China air compressor famous brand

## ★ 产品节能认证

Energy conservation certification



# 部分专利证书

Partial patent certificates



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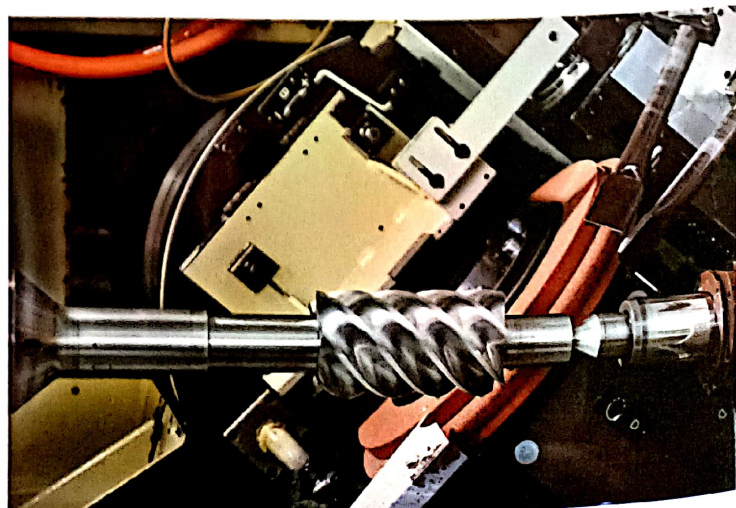
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## 一流的加工检测设备

Advanced processing and testing equipment

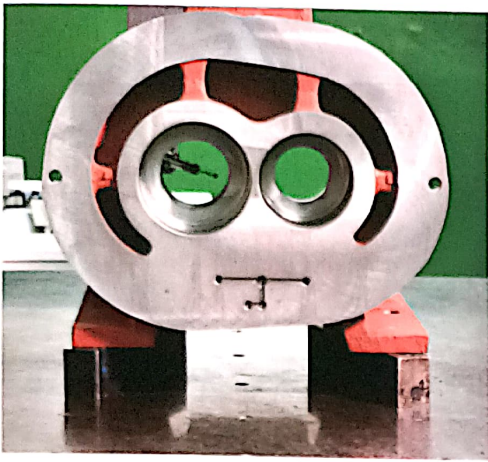
宁波欣达不是简单的“采购→装配→销售”模式的组装型工厂，是从“市场→研发→制造→市场”全能力、系统化的螺杆压缩机专业制造商，“立足专业、科技创新、追求卓越”是我们的宗旨，相信我们是您更值得信赖的伙伴！

Ningbo xinda is not a simple assembly plant of "procurement, assembly and sales" model, from "market, research and development, manufacture, marketing of the whole ability and systematized screw compressor professional manufacturer, "based on professional, scientific and technological innovation, Pursuit of Excellence" is our purpose, believe that we are your more trustworthy partner!"



制造一流的产品  
High quality products

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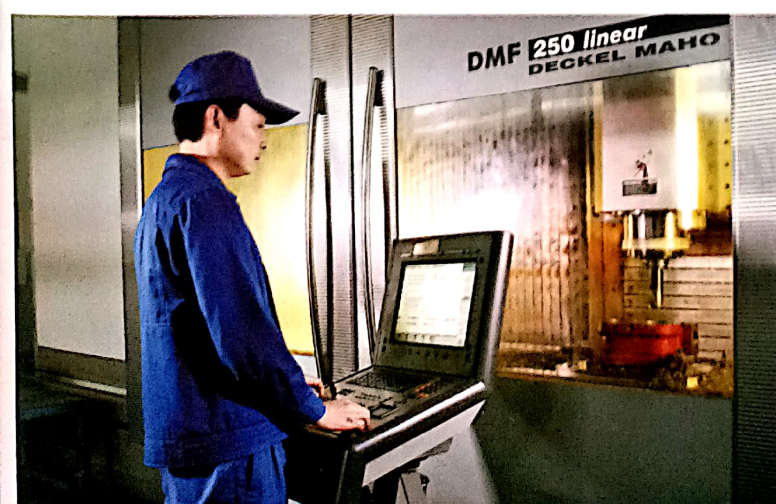


宁波欣达拥有三条高精度的螺杆主机生产线，装备进口专业加工检测设备和国际先进的工艺技术，机壳采用精密数控加工中心加工，高效型线转子经CNC高精度磨削加工而成，实现螺杆空压机核心——主机的高精度、高效率、高可靠性和长寿低噪。

Ningbo xinda has three high-precision screw host production lines, equipped with imported professional processing detection equipment and international advanced technology, chassis adopts precision CNC machining center, efficient rotor type line through high precision CNC grinding and formed, realize the core screw air compressor - host of high precision, high efficiency, high reliability and long life and low noise.



德国转子测量中心  
German rotor measuring center



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欣达永磁变频

Xinda permanent magnet conversion



## 一体式永磁变频技术参数表(IP23)

One-piece permanent magnet variable frequency compressor technology specification (IP23)

| 型号<br>Model | 电机功率<br>Motor power<br>(KW/HP) | 工作压力<br>Discharge Pressure<br>(MPa) | 容积流量<br>Free air Delivery<br>(m <sup>3</sup> /min) | 重量<br>Weight<br>(kg) | 外形尺寸<br>Overall Dimension<br>(mm) | 供气出口<br>Air Supply Out<br>(Inch) |
|-------------|--------------------------------|-------------------------------------|--|----------------------|-----------------------------------|----------------------------------|
| EMP11A      |                                | 0.7                                 | 0.77-1.7   |                      |                                   |                                  |
| EMP11B      | 11/15                          | 1.0                                 | 0.63-1.4   | 360                  | 1200×850×1180                     | 1"                               |
| EMP11D      |                                | 0.8                                 | 0.72-1.6   |                      |                                   |                                  |
| EMP15A      |                                | 0.7                                 | 1.08-2.4   |                      |                                   |                                  |
| EMP15B      | 15/20                          | 1.0                                 | 0.88-1.95  | 380                  | 1200×850×1180                     | 1"                               |
| EMP15D      |                                | 0.8                                 | 1.0-2.21   |                      |                                   |                                  |
| EMP18.5A    |                                | 0.7                                 | 1.35-3.0   |                      |                                   |                                  |
| EMP18.5B    | 18.5/25                        | 1.0                                 | 1.08-2.4   | 500                  | 1305×897×1342                     | 1-1/4"                           |
| EMP18.5D    |                                | 0.8                                 | 1.24-2.75  |                      |                                   |                                  |
| EMP22A      |                                | 0.7                                 | 1.58-3.5   |                      |                                   |                                  |
| EMP22B      | 22/30                          | 1.0                                 | 1.31-2.9   | 530                  | 1305×897×1342                     | 1-1/4"                           |
| EMP22D      |                                | 0.8                                 | 1.49-3.3   |                      |                                   |                                  |
| EMP30A      |                                | 0.7                                 | 2.25-5.0   |                      |                                   |                                  |
| EMP30B      | 30/40                          | 1.0                                 | 1.85-4.1   | 550                  | 1305×897×1342                     | 1-1/2"                           |
| EMP30D      |                                | 0.8                                 | 2.12-4.7   |                      |                                   |                                  |
| EMP37A      |                                | 0.7                                 | 2.93-6.5   |                      |                                   |                                  |
| EMP37B      | 37/50                          | 1.0                                 | 2.48-5.5   | 820                  | 1350×1099×1362                    | 1-1/2"                           |
| EMP37D      |                                | 0.8                                 | 2.75-6.1   |                      |                                   |                                  |
| EMP45A      |                                | 0.7                                 | 3.42-7.6   |                      |                                   |                                  |
| EMP45B      | 45/60                          | 1.0                                 | 2.97-6.6   | 850                  | 1350×1099×1362                    | 1-1/2"                           |
| EMP45D      |                                | 0.8                                 | 3.29-7.3   |                      |                                   |                                  |



# 欣达永磁变频

Xinda permanent magnet conversion

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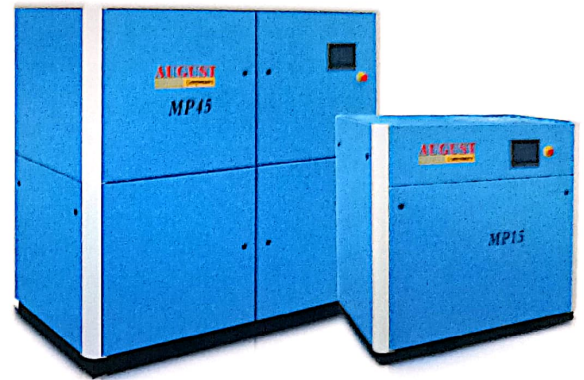
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## 优点:

Advantages

- 一体式设计，成本低，性价比高。
- 永磁电机与主机采用内嵌式一体轴直联结构，结构紧凑，传动效率100%。
- 体积小，一般约为普通异步变频电机尺寸的1/3，节约材料和安装空间。
- 永磁电机内部没有电机轴承，完全消除轴承故障点，可靠性高，同时无需定期更换润滑油及轴承，彻底免维护。

- One-piece design, low cost, cost performance.
- Permanent magnet motor adopt with the air end with embedded integrated one-piece shaft structure, compact structure, transmission efficiency of 100%.
- Small size, generally is about the size of 1/3 general asynchronous frequency conversion motor, save material and installation space.
- Permanent magnet motor without internal motor bearing, completely eliminate the bearing of failure, high reliability, meanwhile without regular replacement grease and bearing, completely free maintenance.



第3代IP54分体式永磁变频  
The third generation IP54 permanent magnet variable frequency

## 缺点:

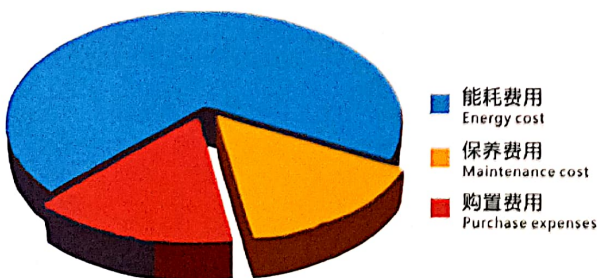
Disadvantages

- 一体式永磁电机防护等级仅为IP23（2-直径小于12mm的固定异物可轻松进入永磁电机，3-与铅垂线成60°以上的溅水就会对永磁电机造成有害影响。）
- 主机油封漏油时，渗漏的油会进入永磁电机，油封维修保养时需要同时拆除主机和永磁电机。
- 永磁电机采用钕铁硼永磁体，只耐温150°不失磁，长期低转速运行时，电机尾部冷却风机的转速同步下降，影响散热，电机温升大，存在消磁或退磁的隐患。
- 单变频设计，仅能实现永磁电机变频，冷却风机工频运行。

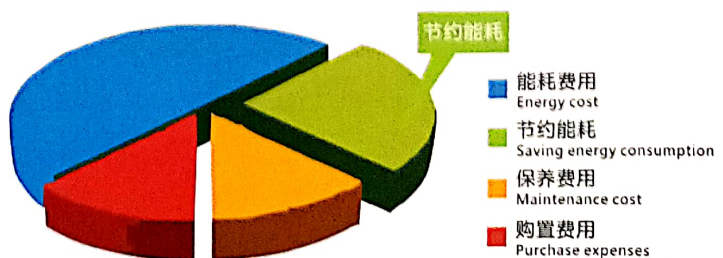
- One-piece permanent magnet motor protection class is Ip23.
- When the air end oil seal leakage, leakage of oil will enter the permanent magnet motor, oil seal maintenance needs to be removed at the same time the air end and permanent magnet motor.
- Permanent magnet motor using ndfeb permanent magnets, under the 150°, the magnet not loose magnetic, long-term low speed running, the tail motor cooling fan speed synchronization to drop, affect the heat dissipation, the motor temperature rise, existing degaussing or demagnetization hidden trouble.
- Single frequency conversion design, only can realize frequency and permanent magnet motor, cooling fan fixed frequency operation.

## 节能价值传递

Energy saving value transfer



普通空压机成本构成  
Cost composition of common air compressor



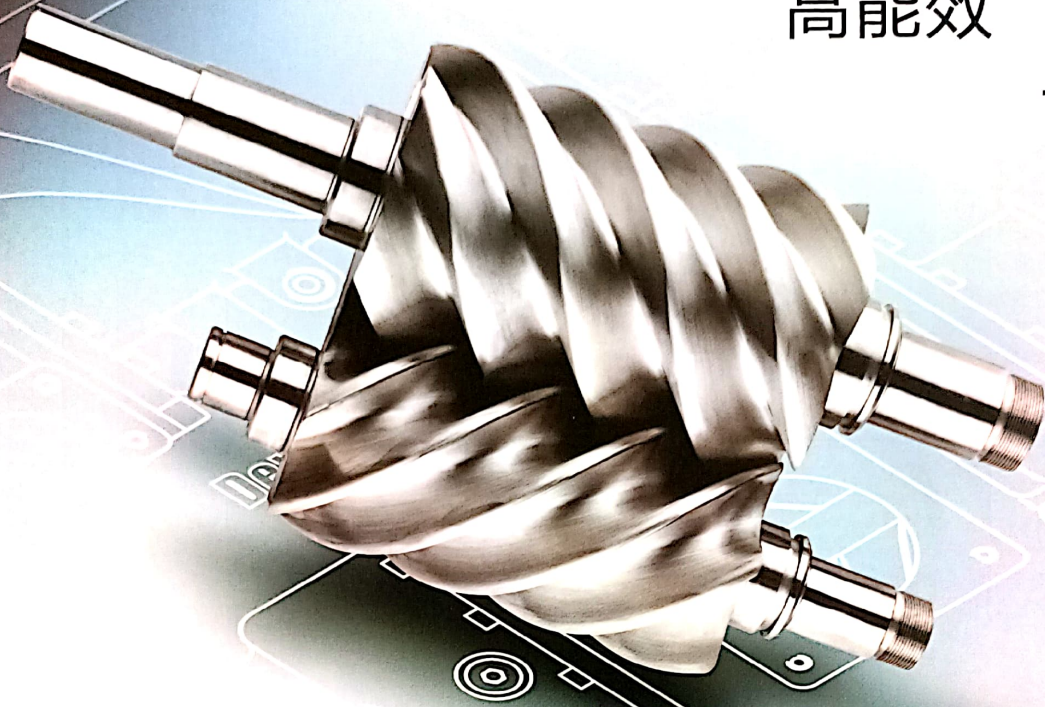
永磁变频空压机成本构成  
Cost composition of variable frequency air compressor

# 大转子

# 低转速

# 高能效

# 长寿命



## 欣达核心主机技术

Xinda core air end technology

## 智能控制系统

Intelligent control system

- 直观显示：排气温度、排气压力、运行频率、电流、功率、运行状态等。
- 实时监控排气温度、排气压力、电流、频率波动。
- 可选配物联网模块，外接云端智能管理系统，通过移动终端可实时掌握机组运行状况，可实现远程启停、远程在线监控等功能。
- Direct display: discharge temperature, discharge pressure, operating frequency, current, power, running state, etc.
- Real-time monitoring of discharge temperature, discharge pressure, current, frequency fluctuation.
- Optional the Internet of things module, external cloud intelligent management system, through mobile terminal can real-time control the operation condition of unit, realize the functions such as remote start-stop and remote online monitoring.



# 欣达永磁变频

Xinda permanent magnet conversion

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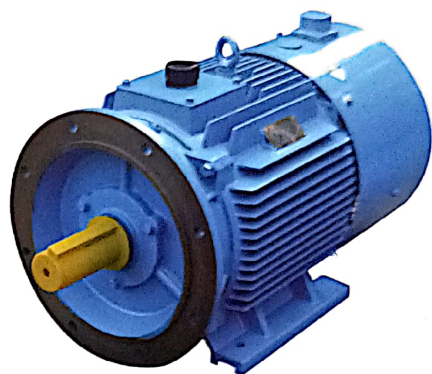
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## 第三代高效永磁电机

The third generation high efficiency permanent magnet motor

- 绝缘等级F级，防护等级采用IP54，适应比较恶劣的环境。
- 分体式设计，维修保养方便。
- 无齿轮箱设计，电机与主机阳转子通过联轴器直接联接，传动效率高。
- 独立的冷却风机设计，使电机冷却不受调速的影响。
- 绕组内置PT100温度保护开关，避免电机高温消磁。
- 调速范围宽，精度高，气量调节范围广。
- 高温磁钢UH，耐高温180℃不失磁。
- 永磁电机效率高比普通电机3%~5%，且效率恒定，当转速下降的时候，依然保持高效率。

- Insulation grade F, protection grade IP54, adapt to the bad environment.
- Split design, easy maintenance.
- Gearless box design, motor is connected directly with rotor through the coupling, high transmission efficiency.
- Independent cooling fan design, so that the motor cooling is not affected by the speed regulation.
- With PT100 temperature protection switch to avoid high temperature degaussing.
- Large speed range, high precision and large adjustment range.
- High temperature magnetic steel UH, 180 °C not break the magnetic.
- Permanent magnet motor is 3% ~ 5% higher than normal motor, and constant efficiency, when the rotate speed down, and still keep high efficiency.



永磁电机

Permanent magnet motor

## 第三代双变频一体式变频器

The third generation dual variable frequency inverter

- 双变频系统：永磁电机变频+冷却风机变频，一体式集成结构紧凑，极致节能。
- 恒压供气：供气压力精确控制在0.01MPa以内。
- 恒温供气：一般恒温设定在85℃左右，使油润滑效果最佳同时避免高温跳机。
- 消除空载，减少45%的空载耗能；消除过余压力，空压机压力每升高0.1MPa，耗能增加7%。
- 变频范围30%~100%，比一般变频范围更大。
- 矢量供气，精确计算，保证空压机的产气量与用户系统的需求气量时刻保持一致。

- Dual variable frequency system: permanent magnet motor variable frequency + cooling fan motor variable frequency, one-piece integrated structure, extreme energy saving.
- Constant pressure air supply: the supply pressure is precisely controlled under 0.01 Mpa.
- Constant temperature air supply: constant temperature set at 85 °C, making the effect of lubrication best and meanwhile avoid the high temperature don't switch off.
- Eliminates empty load, reduces the empty load energy consumption by 45%. Eliminate overpressure. When the air compressor of pressure rise 0.1MPa, energy consumption will add 7%.
- Large Frequency range 30% ~ 100%, and more large than the normal frequency conversion.
- Vector air supply, accurate calculation, ensure that the air flow of air compressor is consistent with the demand of the user system.



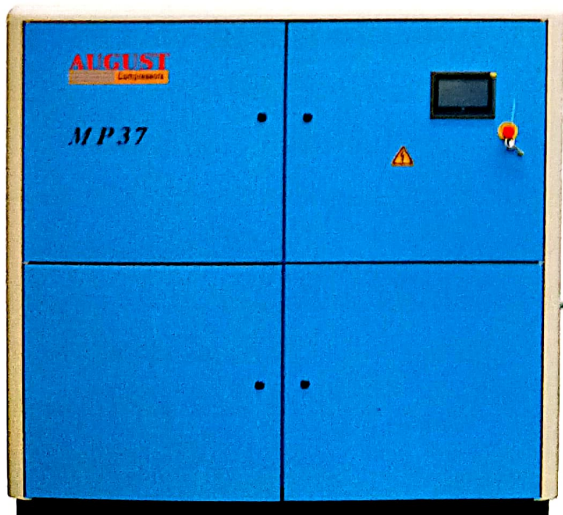
变频器

Frequency converter

### 分体式永磁变频技术参数表(IP54)

Split type permanent magnet frequency conversion technology parameter table (IP54)

| 型号<br>Model | 电机功率<br>Motor power<br>(KW/HP) | 工作压力<br>Discharge Pressure<br>(MPa) | 容积流量<br>Free air Delivery<br>(m <sup>3</sup> /min) | 重量<br>Weight<br>(kg) | 外形尺寸<br>Overall Dimension<br>(mm) | 供气出口<br>Air Supply Out<br>(Inch) |
|-------------|--------------------------------|-------------------------------------|--|----------------------|-----------------------------------|----------------------------------|
| MP7.5A      | 7.5/10                         | 0.7                                 | 0.36-1.23  | 260                  | 1100×600×880                      | 1/2"                             |
| MP7.5B      |                                | 1.0                                 | 0.30-1.0   |                      |                                   |                                  |
| MP7.5D      |                                | 0.8                                 | 0.33-1.1   |                      |                                   |                                  |
| MP11A       | 11/15                          | 0.7                                 | 0.53-1.9   | 360                  | 1200×750×1080                     | 1"                               |
| MP11B       |                                | 1.0                                 | 0.48-1.6   |                      |                                   |                                  |
| MP11D       |                                | 0.8                                 | 0.52-1.8   |                      |                                   |                                  |
| MP15A       | 15/20                          | 0.7                                 | 0.73-2.6   | 380                  | 1200×750×1080                     | 1"                               |
| MP15B       |                                | 1.0                                 | 0.63-2.15  |                      |                                   |                                  |
| MP15D       |                                | 0.8                                 | 0.72-2.41  |                      |                                   |                                  |
| MP18.5A     | 18.5/25                        | 0.7                                 | 0.89-3.2   | 430                  | 1460×860×1300                     | 1-1/4"                           |
| MP18.5B     |                                | 1.0                                 | 0.78-2.6   |                      |                                   |                                  |
| MP18.5D     |                                | 0.8                                 | 0.88-2.95  |                      |                                   |                                  |
| MP22A       | 22/30                          | 0.7                                 | 1.03-3.7   | 450                  | 1460×860×1300                     | 1-1/4"                           |
| MP22B       |                                | 1.0                                 | 0.93-3.1   |                      |                                   |                                  |
| MP22D       |                                | 0.8                                 | 1.02-3.5   |                      |                                   |                                  |
| MP30A       | 30/40                          | 0.7                                 | 1.38-5.2   | 480                  | 1460×860×1300                     | 1-1/2"                           |
| MP30B       |                                | 1.0                                 | 1.23-4.3   |                      |                                   |                                  |
| MP30D       |                                | 0.8                                 | 1.35-4.9   |                      |                                   |                                  |
| MP30E       |                                | 0.5                                 | 1.86-6.2   | 930                  | 1730×910×1680                     |                                  |
| MP37A       | 37/50                          | 0.7                                 | 1.86-6.7   | 930                  | 1730×910×1680                     | 1-1/2"                           |
| MP37B       |                                | 1.0                                 | 1.71-5.7   |                      |                                   |                                  |
| MP37D       |                                | 0.8                                 | 1.83-6.3   |                      |                                   |                                  |
| MP37E       |                                | 0.5                                 | 2.25-7.5   |                      |                                   |                                  |



### 分体式永磁变频技术参数表(IP54)

Split type permanent magnet frequency conversion technology parameter table (IP54)

| 型号<br>Model | 电机功率<br>Motor power<br>(KW/HP) | 工作压力<br>Discharge Pressure<br>(MPa) | 容积流量<br>Free air Delivery<br>(m <sup>3</sup> /min) | 重量<br>Weight<br>(kg) | 外形尺寸<br>Overall Dimension<br>(mm) | 供气出口<br>Air Supply Out<br>(Inch) |
|-------------|--------------------------------|-------------------------------------|--|----------------------|-----------------------------------|----------------------------------|
| MP45A       | 45/60                          | 0.7                                 | 2.16-7.8   | 950                  | 1730×910×1680                     | 1-1/2"                           |
| MP45B       |                                | 1.0                                 | 1.95-6.8   |                      |                                   |                                  |
| MP45D       |                                | 0.8                                 | 2.13-7.5   |                      |                                   |                                  |
| MP45E       | 55/75                          | 0.5                                 | 3.15-10.5  | 1900                 | 2000×1200×1800                    | 2"                               |
| MP55A       |                                | 0.7                                 | 3.0-10.5   |                      |                                   |                                  |
| MP55B       |                                | 1.0                                 | 2.52-8.4   |                      |                                   |                                  |
| MP55D       | 75/100                         | 0.8                                 | 2.82-9.8   | 1900                 | 2000×1200×1800                    | 2"                               |
| MP55E       |                                | 0.5                                 | 4.05-13.5  |                      |                                   |                                  |
| MP75A       |                                | 0.7                                 | 4.26-13.5  |                      |                                   |                                  |
| MP75B       | 90/122                         | 1.0                                 | 3.64-11.5  | 2000                 | 2000×1200×1800                    | 2"                               |
| MP75D       |                                | 0.8                                 | 4.02-12.4  |                      |                                   |                                  |
| MP90A       |                                | 0.7                                 | 4.95-16.5  |                      |                                   |                                  |
| MP90B       | 90/122                         | 1.0                                 | 4.11-13.7  | 2200                 | 2500×1400×1930                    | 2-1/2"                           |
| MP90D       |                                | 0.8                                 | 4.86-16.2  |                      |                                   |                                  |
| MP90E       |                                | 0.5                                 | 6.0-20.0   |                      |                                   |                                  |
| MP110A      | 110/150                        | 0.7                                 | 6.0-20.0   | 2400                 | 2500×1400×1930                    | 2-1/2"                           |
| MP110B      |                                | 1.0                                 | 5.1-17.0   |                      |                                   |                                  |
| MP110D      |                                | 0.8                                 | 5.88-19.6  |                      |                                   |                                  |
| MP132A      | 132/180                        | 0.7                                 | 7.05-23.5  | 2500                 | 2500×1400×1930                    | 2-1/2"                           |
| MP132B      |                                | 1.0                                 | 6.15-20.5  |                      |                                   |                                  |
| MP132D      |                                | 0.8                                 | 6.75-22.5  |                      |                                   |                                  |
| MP160A      | 160/215                        | 0.7                                 | 8.55-28.5  | 3500                 | 2700×1600×2000                    | 2-1/2"                           |
| MP160B      |                                | 1.0                                 | 7.35-24.5  |                      |                                   |                                  |
| MP160D      |                                | 0.8                                 | 8.1-27.0   |                      |                                   |                                  |

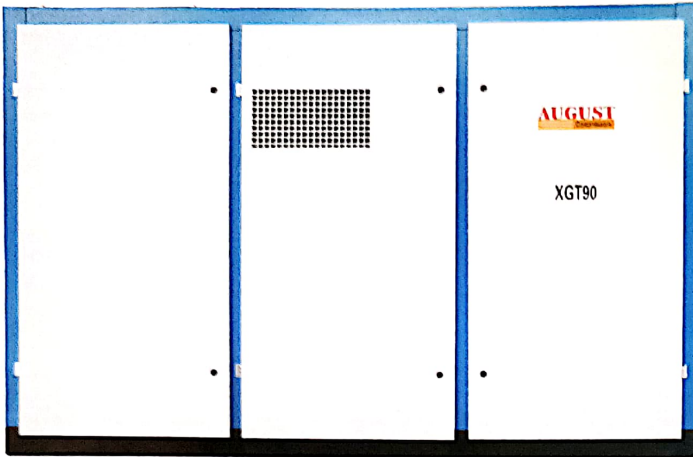


# AUGUST

阿格斯特

## 两级压缩

### Double stage compression



**高效 节能 低碳 环保**

欣达两级压缩永磁变频空压机 实测能效

- 比国家一级能效标准 节省15%
- 比国家二级能效标准 节能25%
- 比国家三级能效标准 节省35%

### 高效节能两级螺杆主机

High efficiency and energy saving double stage air end

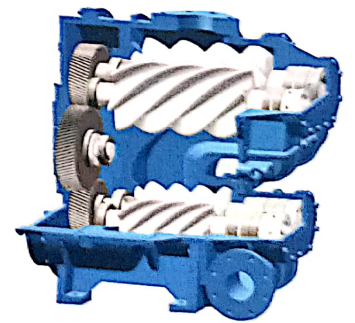
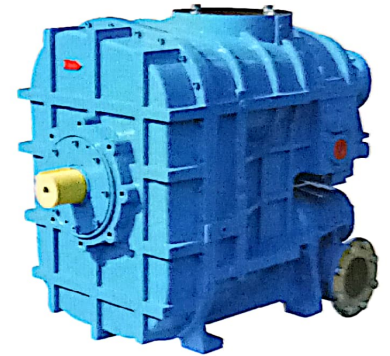
- 一级压缩单元和二级压缩单元集成在一个机体内，分别通过斜齿轮直接传动，使每级转子都能获得最佳的线速度。
- 空气通过一级压缩后，通过强化喷油冷却进行等压压缩，降低二级吸气温度，确保两级压缩单元接近等温压缩，降低压缩功。
- 合理分配压缩比，优化轴承设计，两级压缩降低了每级压缩比，减少内泄漏，提高容积效率，降低了轴承负荷，提高了主机的寿命。
- 在相同功率下两级压缩比单级压缩产气量多15%，可以实现多15%的节能效果。

●First stage compression unit and the second stage compression unit are integrated in one air end driven directly by the helical gear, the optimal linear speed for each stage.

●After the first stage compression, constant pressure compression by intensify spread oil cooling, reduce the second stage compression suction temperature, ensure that the double stage compression unit is close to isothermal compression.

●Compression ratio reasonable distribution, optimized bearing design, double stage compression reduces the compression ratio of each stage, reduces internal leakage, improves the volume efficiency, reduces the bearing load, and improves the life of the air end.

●In the same power, double stage compression energy saving is 15% more than the single stage compression.



### 最新一代高效XA系列转子型线

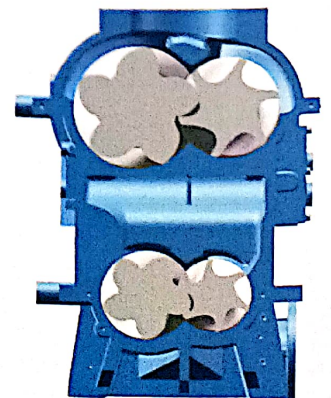
The latest generation of efficient XA series rotor type line

- 最新一代XA系列双边不对称优化转子型线，阴阳转子6/5齿数比。
- “XA”转子型线，采用SKF圆柱及角接触球等高效轴承，轴承寿命 $\geq 100,000$ 小时。
- 大转子、低转速、高精度、高效、低噪音、低振动、高可靠性、长寿命的设计理念，秉承“高效、节能、可靠、耐用”的制造理念，彰显一流品质。

●The latest generation of XA series bilateral asymmetric optimization rotor profile, 6/5 ratio of rotor to stator ratio.

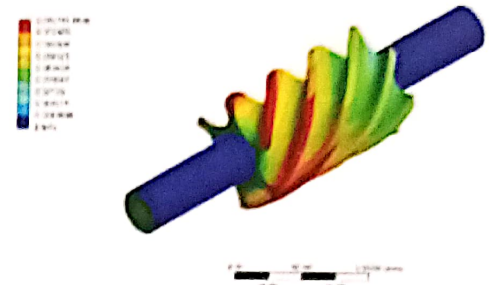
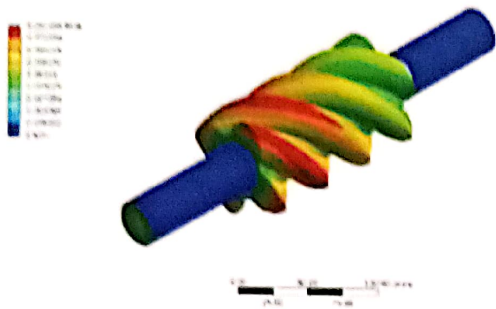
●“XA” rotor, using SKF column and angular contact ball bearings, bearing life, more than 100000 hours.

●Big rotor, low speed, high precision, high efficiency, low noise, low vibration, high reliability, long lifetime design, adhering to the "high efficiency, energy saving, reliable, durable" of manufacturing concepts, show first-rate quality and feature.

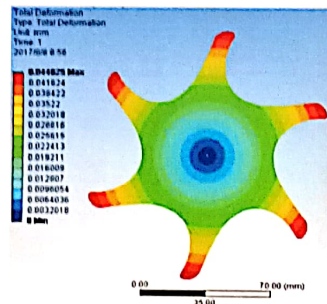
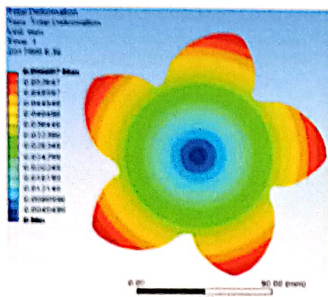


## 有限元辅助优化设计

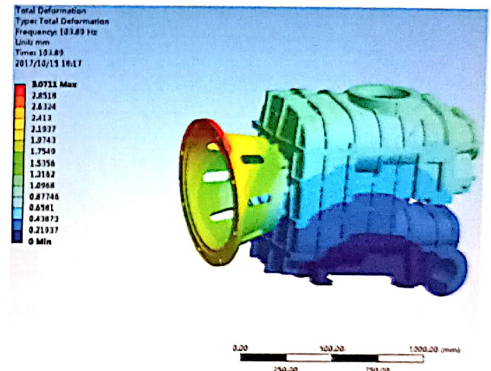
Finite element assisted optimization design



转子受力分析  
Force analysis of rotor



转子热变形分析  
Analysis of thermal deformation of rotor



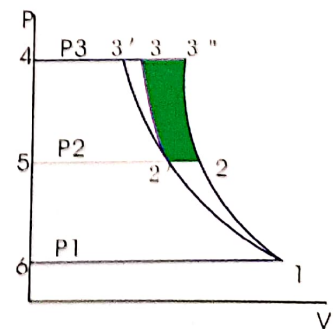
机身模态分析  
Body mode analysis

## 转子受力分析-两级压缩节能原因深入解析

Deeply analyze the reasons for the double stage compression energy saving

根据螺杆压缩机的工作原理，等温压缩过程是最节省功的。下图为整体压缩过程的示功图，曲线1-2'-3'为等温压缩过程，与纵坐标形成的面积6-1-3'-4为等温压缩的指示功。曲线1-2-3''为普通一级压缩过程，与纵坐标形成的面积6-1-3''-4为普通一级压缩的指示功。曲线1-2-2'-3'为欣达二级压缩过程，与纵坐标形成的面积6-1-2-2'-3'-4为欣达二级压缩的指示功。由图示可以看出，等温压缩过程6-1-3'-4面积（指示功）最小，但在压缩机实际压缩过程中无法做到等温压缩，普通一级压缩比等温压缩多出了1-3'-3''面积的功率，而欣达二级压缩则比普通一级压缩节省了2-2'-3-3''面积的功率。

According to the working principle of screw compressor, isothermal compression process is the most economical. The figure below shows the indicator diagram of the overall compression process. The curve 1-2'-3' is the isothermal compression process, and the area of 6-1-3'-4 is the indicator work of isothermal compression. Curve 1-2-3'' is the normal single stage compression process, and the area of 6-1-3''-4 is the indicator work of normal single stage compression. The curve 1-2-2'-3' is the AUGUST double stage compression process, and the area of 6-1-2-2'-3'-4 the indicator work of AUGUST double stage compression. From here you can see that the isothermal compression process '6-1-3'-4 area is smallest (minimum indicated work), but in actual can't achieve isothermal compression, normal single stage compression of 1-3'-3'' power area is more than isothermal compression but August double stage compression will save 2-2'-3-3'' power area more than normal single stage compression.



注：12'3' 为等温压缩过程  
123'' 为一级压缩过程  
122' 为两级压缩过程

# AUGUST

阿格斯特

## 两级压缩

Double stage compression

### 高效过滤系统

High precision filtration separation system

- 空气过滤器：采用高效滤材，高精度，大流量，低流阻，长寿命；独立进风，直接吸入机组外部空气，保证进气温度低，提升整机效率。
- 油过滤器：AUGUST专用10um精度级油过滤器，为主机提供干净清洁的润滑油。
- 油气分离滤芯：进口高分子滤材，出口气体含油量<3PPm，提供洁净可靠的压缩空气。
- Air filter: adopt efficient filter material, high precision, big flow, low resistance, longer lifetime; specialized air inlet, can directly breath air form the umit outside, ensure inlet temperaturun low, promoting the efficient of complete machine.
- Oil filter :August dedicated 10um precision oil filter, providing the clearly lubricating oil for airend.
- Oil separator filter element: import high polymer filter materials, export gas oil content <3PPm, can provides a clean and reliable compressed air.



### 高效进气阀

High safety control valve system

大口径、低压降，系统性能稳定，在工作中能随着实际压缩空气需求量的变化自动调整。

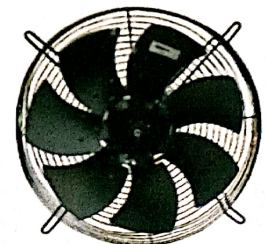
Large diameter, low pressure drop, stable system performance, automatically adjust according to the actual compressed air demand.



### 冷却系统

Reliable cooling system

- 大余量散热面积设计，散热效果强劲，杜绝高温停机。
- 轴流冷却风扇，风量；吸风结构，散热均匀。
- 双风扇设计，根据排气温度确定启动风扇的数量。
- 独特的冷却流场，噪音小。
- Large heat dissipation area design, the effect of heat dissipation is very powerful, avoid to high temperature stop.
- Axial flow cooling fan, large air volume, Suction structure, heat evenly.
- Double fan design, determine the number of starting fans according to the discharge temperature.
- Unique cooling flow field with low noise.



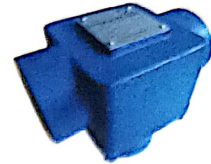


## 混流系统温控阀

Mixed flow system temperature control valve

一级与二级主机之间喷入冷却油进行中间冷却，为了确保级间压缩空气温度始终在压力露点温度之上，采用专利设计的混流系统温控阀控制润滑油喷油温度，从而既达到了良好的级间冷却效果又杜绝了液态水的形成，避免了二级主机的锈蚀和系统的油乳化问题。

Between first and second air end Inject cooling oil, in order to ensure the interstage compressed air temperature is always above the dew point temperature, using patent design of mixed flow system temperature control valve ,achieves the good interstage cooling and prevent the formation of liquid water, avoid corrosion and system oil emulsion problems.



## YE3高效电机

YE3 high efficiency motor

- 全系标配YE3高效电机，使整个空压机组具备更高的能效表现，更加高效节能；
- 绝缘等级F级，防护等级IP54，适应各种恶劣工况；
- SKF轴承，噪音低，寿命长；
- 外置注油嘴，维护简便。

- Total system equip Ye3 high efficiency motor,making the total compressor unit has higher energy efficient performance,more energy-efficient.
- F class insulation,IP54 protection level,can adopt kinds of poor working conditions.
- SKF bearing, low noise, long lifetime.
- The external filling nozzle, reliable operation and easy maintenance.



## 智能控制系统

Personalized intelligent control system

- 微电脑控制，智能化运行，中英文界面显示，操作直观方便。
- 实时显示及监控压力、温度、电流等各种参数。
- 故障自动报警，历史运行数据存储及查询。
- 可实现计算机远程监控和多台空压机联动控制。
- 可选配物联网模块，外接云端智能管理系统，实时掌握机组运行状况。

- Intelligent control system, full automatic operation, Chinese and English interface, easy operation, clear operation status.
- Real time display and monitor kinds of parameter of pressure, temperature, electricity and so on.
- Automatically send the alarm or stop, and show the cause of the failure, automatically write to the history failure.
- Computer remote monitoring ,and air compressors linkage control.
- optional iot module, external cloud intelligent management system, real-time control unit operation condition.



**AUGUST**

阿格斯特

**两级压缩**

Double stage compression

**两级压缩技术参数表**

Specification sheet

| 型号<br>Model  | 电机功率<br>Motor power<br>(KW/HP) | 工作压力<br>Discharge Pressure<br>(MPa) | 容积流量<br>Free air Delivery<br>(m <sup>3</sup> /min) | 重量<br>Weight<br>(kg) | 噪音<br>Noise<br>(dB(A)±3) | 外形尺寸<br>Overall Dimension<br>(mm) | 供气出口<br>Air Supply Out<br>(Inch) |
|--------------|--------------------------------|-------------------------------------|--|----------------------|--------------------------|-----------------------------------|----------------------------------|
| XG(P)T55/5   | 55/75                          | 0.5                                 | 4.11-13.7  | 2220<br>(2300)       | 75                       | 2400×1500×1700                    | 2"                               |
| XG(P)T55/7   |                                | 0.7                                 | 3.9-13.0   |                      |                          |                                   |                                  |
| XG(P)T55/8   |                                | 0.8                                 | 3.6-12.0   |                      |                          |                                   |                                  |
| XG(P)T55/10  |                                | 1.0                                 | 3.15-10.5  |                      |                          |                                   |                                  |
| XG(P)T55/13  |                                | 1.3                                 | 2.85-9.5   |                      |                          |                                   |                                  |
| XG(P)T75/5   | 75/100                         | 0.5                                 | 5.7-19.0   | 2300<br>(2350)       | 76                       | 3064×1864×1870                    | 2-1/2"                           |
| XG(P)T75/7   |                                | 0.7                                 | 4.95-16.5  |                      |                          | 2400×1500×1700                    | 2"                               |
| XG(P)T75/8   |                                | 0.8                                 | 4.56-15.2  |                      |                          |                                   |                                  |
| XG(P)T75/10  |                                | 1.0                                 | 4.05-13.5  |                      |                          |                                   |                                  |
| XG(P)T75/13  |                                | 1.3                                 | 3.6-12.0   |                      |                          |                                   |                                  |
| XG(P)T90/5   | 90/122                         | 0.5                                 | 7.11-23.7  | 3850<br>(3900)       | 80                       | 3064(3464)×1864×1870              | 2-1/2"                           |
| XG(P)T90/7   |                                | 0.7                                 | 6.06-20.2  |                      |                          |                                   |                                  |
| XG(P)T90/8   |                                | 0.8                                 | 5.61-18.7  |                      |                          |                                   |                                  |
| XG(P)T90/10  |                                | 1.0                                 | 5.19-17.3  |                      |                          |                                   |                                  |
| XG(P)T90/13  |                                | 1.3                                 | 4.2-14.0   |                      |                          |                                   |                                  |
| XG(P)T110/5  | 110/150                        | 0.5                                 | 8.76-29.2  | 3890<br>(3980)       | 80                       | 3064(3464)×1864×1870              | 2-1/2"                           |
| XG(P)T110/7  |                                | 0.7                                 | 7.2-24.0   |                      |                          |                                   |                                  |
| XG(P)T110/8  |                                | 0.8                                 | 6.75-22.5  |                      |                          |                                   |                                  |
| XG(P)T110/10 |                                | 1.0                                 | 6.15-20.5  |                      |                          |                                   |                                  |
| XG(P)T110/13 |                                | 1.3                                 | 4.98-16.6  |                      |                          |                                   |                                  |
| XG(P)T132/5  | 132/180                        | 0.5                                 | 10.5-35.0  | 3945<br>(4030)       | 80                       | 3794×2114×2080                    | 4"                               |
| XG(P)T132/7  |                                | 0.7                                 | 8.64-28.8  |                      |                          | 3064(3464)×1864×1870              | 2-1/2"                           |
| XG(P)T132/8  |                                | 0.8                                 | 7.98-26.6  |                      |                          |                                   |                                  |
| XG(P)T132/10 |                                | 1.0                                 | 7.32-24.4  |                      |                          |                                   |                                  |
| XG(P)T132/13 |                                | 1.3                                 | 5.91-19.7  |                      |                          |                                   |                                  |

# 两级压缩

## Double stage compression

# AUGUST

## 阿格斯特

## 两级压缩技术参数表

Specification sheet

| 型号<br>Model  | 电机功率<br>Motor power<br>(KW/HP) | 工作压力<br>Discharge Pressure<br>(MPa) | 容积流量<br>Free air Delivery<br>(m <sup>3</sup> /min) | 重量<br>Weight<br>(kg) | 噪音<br>Noise<br>(dB(A)±3) | 外形尺寸<br>Overall Dimension<br>(mm) | 供气出口<br>Air Supply Out<br>(Inch) |
|--------------|--------------------------------|-------------------------------------|--|----------------------|--------------------------|-----------------------------------|----------------------------------|
| XG(P)T160/5  | 160/215                        | 0.5                                 | 12.6-42.0  | 4550<br>(5000)       | 82                       | 3794(4194)×2114×2080              | 4"                               |
| XG(P)T160/7  |                                | 0.7                                 | 10.38-34.6   |                      |                          |                                   |                                  |
| XG(P)T160/8  |                                | 0.8                                 | 9.9-33.0   |                      |                          |                                   |                                  |
| XG(P)T160/10 |                                | 1.0                                 | 9.42-31.4  |                      |                          |                                   |                                  |
| XG(P)T160/13 |                                | 1.3                                 | 8.07-26.9  |                      |                          |                                   |                                  |
| XG(P)T185/5  | 185/250                        | 0.5                                 | 13.86-46.2   | 4600<br>(5050)       | 82                       | 3794(4194)×2114×2080              | 4"                               |
| XG(P)T185/7  |                                | 0.7                                 | 11.85-39.5   |                      |                          |                                   |                                  |
| XG(P)T185/8  |                                | 0.8                                 | 11.25-37.5   |                      |                          |                                   |                                  |
| XG(P)T185/10 |                                | 1.0                                 | 9.75-32.5  |                      |                          |                                   |                                  |
| XG(P)T185/13 |                                | 1.3                                 | 8.25-27.5  |                      |                          |                                   |                                  |
| XG(P)T200/5  | 200/270                        | 0.5                                 | 15.15-50.5   | 4700<br>(5100)       | 85                       | 4350×2214×2080                    | 5"                               |
| XG(P)T200/7  |                                | 0.7                                 | 13.38-44.6   |                      |                          | 3794(4194)×2114×2080              | 4"                               |
| XG(P)T200/8  |                                | 0.8                                 | 12.75-42.5   |                      |                          |                                   |                                  |
| XG(P)T200/10 |                                | 1.0                                 | 12.12-40.4   |                      |                          |                                   |                                  |
| XG(P)T200/13 |                                | 1.3                                 | 10.41-34.7   |                      |                          |                                   |                                  |
| XG(P)T220/5  | 220/295                        | 0.5                                 | 16.5-55.0  | 6200                 | 85                       |                                   |                                  |
| XG(P)T220/7  |                                | 0.7                                 | 14.48-48.0   |                      |                          |                                   |                                  |
| XG(P)T220/8  |                                | 0.8                                 | 13.71-45.7   |                      |                          |                                   |                                  |
| XG(P)T220/10 |                                | 1.0                                 | 12.45-41.5   |                      |                          |                                   |                                  |
| XG(P)T220/13 |                                | 1.3                                 | 11.4-38.0  |                      |                          |                                   |                                  |
| XG(P)T250/5  | 250/335                        | 0.5                                 | 18.6-62.0  | 6450                 | 85                       | 4350×2214×2080                    | 5"                               |
| XG(P)T250/7  |                                | 0.7                                 | 15.45-51.5   |                      |                          |                                   |                                  |
| XG(P)T250/8  |                                | 0.8                                 | 15.06-50.2   |                      |                          |                                   |                                  |
| XG(P)T250/10 |                                | 1.0                                 | 13.5-45.0  |                      |                          |                                   |                                  |
| XG(P)T250/13 |                                | 1.3                                 | 12.0-40.0  |                      |                          |                                   |                                  |

注:1.XGT为风冷工频;XPT为永磁变频。

2.小括号内数据为XPT机型数据。

3.除表中所列外,还可以提供水冷系列(W)及其他规格型号产品。

4.以上机型为我公司标准型号,参数有变恕不通知,特殊排气压力要求接订单。