

## 无油螺杆鼓风机技术参数表/ OIL-FREE SCREW BLOWERS PARAMETER LIST

型号/Model	压力/Pressure (Bar)	排气量/Air Flow (m³/h)	电机功率/Motor Power (KW)	电机转速/Motor Speed (rpm)	排气口尺寸 Air Outlet Size	外形尺寸/Size (L*W*H)mm	重量/Weight (KG)
AGS-30A-4	0.4	1312	22/30	2600	DN150	2700*1300*2000	1850
AGS-30A-6	0.6	974	22/30	2000	DN150	2700*1300*2000	1850
AGS-30A-8	0.8	964	22/30	2000	DN150	2700*1300*2000	1850
AGS-30A-10	1.0	814	22/30	1750	DN150	2700*1300*2000	1850
AGS-30A-12	1.2	667	22/30	1500	DN150	2700*1300*2000	1850
AGS-30A-15	1.5	522	22/30	1250	DN150	2700*1300*2000	1850
AGS-40A-4	0.4	1537	30/40	3000	DN150	2700*1300*2000	1850
AGS-40A-6	0.6	1305	30/40	2600	DN150	2700*1300*2000	1850
AGS-40A-8	0.8	1292	30/40	2600	DN150	2700*1300*2000	1900
AGS-40A-10	1.0	949	30/40	2000	DN150	2700*1300*2000	1900
AGS-40A-12	1.2	805	30/40	1750	DN150	2700*1300*2000	1900
AGS-40A-15	1.5	658	30/40	1500	DN150	2700*1300*2000	1900
AGS-50A-4	0.4	2177	37/50	2000	DN250	2950*1700*2300	2900
AGS-50A-6	0.6	1723	37/50	1600	DN250	2950*1700*2300	2900
AGS-50A-8	0.8	1521	37/50	3000	DN150	2700*1300*2000	1950
AGS-50A-10	1.0	1272	37/50	2600	DN150	2700*1300*2000	1950
AGS-50A-12	1.2	939	37/50	2000	DN150	2700*1300*2000	1950
AGS-50A-15	1.5	920	37/50	2000	DN150	2700*1300*2000	1950
AGS-60A-4	0.4	2608	45/60	2300	DN250	2950*1700*2300	2900
AGS-60A-6	0.6	2173	45/60	2000	DN250	2950*1700*2300	2900
AGS-60A-8	0.8	1698	45/60	1600	DN250	2950*1700*2300	2900
AGS-60A-10	1.0	1498	45/60	3000	DN150	2700*1300*2000	2000
AGS-60A-12	1.2	1259	45/60	2600	DN150	2700*1300*2000	2000
AGS-60A-15	1.5	1233	45/60	2600	DN150	2700*1300*2000	2000
AGS-75A-4	0.4	3524	55/75	3000	DN250	2950*1700*2300	2950
AGS-75A-6	0.6	3018	55/75	2600	DN250	2950*1700*2300	2950
AGS-75A-8	0.8	2151	55/75	2000	DN250	2950*1700*2300	2950
AGS-75A-10	1.0	2130	55/75	2000	DN250	2950*1700*2300	2950
AGS-75A-12	1.2	1482	55/75	3000	DN150	2700*1300*2000	2950
AGS-75A-15	1.5	1452	55/75	3000	DN150	2950*1700*2300	2950
AGS-100A-4	0.4	4710	75/100	2600	DN300	2950*1700*2300	3350
AGS-100A-6	0.6	3517	75/100	3000	DN250	2950*1700*2300	3000
AGS-100A-8	0.8	2988	75/100	2600	DN250	2950*1700*2300	3000
AGS-100A-10	1.0	2958	75/100	2600	DN250	2950*1700*2300	3000
AGS-100A-12	1.2	2108	75/100	2000	DN250	2950*1700*2300	3000
AGS-100A-15	1.5	1887	75/100	1750	DN250	2950*1700*2300	3000
AGS-120A-4	0.4	5489	90/120	3000	DN300	2950*1700*2300	3380
AGS-120A-6	0.6	3995	90/120	2300	DN300	2950*1700*2300	3380
AGS-120A-8	0.8	3482	90/120	3000	DN250	2950*1700*2300	3100
AGS-120A-10	1.0	3108	90/120	2800	DN250	2950*1700*2300	3100
AGS-120A-12	1.2	2928	90/120	2600	DN250	2950*1700*2300	3100
AGS-120A-15	1.5	2082	90/120	2000	DN250	2950*1700*2300	3100
AGS-150A-4	0.4	6098	110/150	3300	DN300	2950*1700*2300	3450
AGS-150A-6	0.6	5398	110/150	3000	DN300	2950*1700*2300	3450
AGS-150A-8	0.8	3974	110/150	2300	DN300	2950*1700*2300	3450
AGS-150A-10	1.0	3292	110/150	2000	DN300	2950*1700*2300	3450
AGS-150A-12	1.2	3412	110/150	3000	DN250	2950*1700*2300	3150
AGS-150A-15	1.5	2892	110/150	2600	DN250	2950*1700*2300	3150
AGS-175A-4	0.4	5997	132/175	3300	DN300	2950*1700*2300	3550
AGS-175A-6	0.6	5797	132/175	3200	DN300	2950*1700*2300	3550
AGS-175A-8	0.8	5307	132/175	3000	DN300	2950*1700*2300	3500
AGS-175A-10	1.0	4572	132/175	2600	DN300	2950*1700*2300	3550
AGS-175A-12	1.2	3907	132/175	2300	DN300	2950*1700*2300	3550
AGS-175A-15	1.5	3370	132/175	3000	DN250	2950*1700*2300	3250
AGS-220A-8	0.8	5966	160/220	3300	DN300	2950*1700*2300	3600
AGS-220A-10	1.0	5328	160/220	3000	DN300	2950*1700*2300	3600
AGS-220A-12	1.2	4530	160/220	2600	DN300	2950*1700*2300	3600
AGS-220A-15	1.5	3876	160/220	2300	DN300	2950*1700*2300	3600
AGS-250A-10	1.0	5920	185/250	3300	DN300	2950*1700*2300	3700
AGS-250A-12	1.2	5279	185/250	3000	DN300	2950*1700*2300	3700
AGS-250A-15	1.5	4494	185/250	2600	DN300	2950*1700*2300	3700


\*注: 本参数表仅供参考, 本公司可能对相关参数进行调整, 如有变动, 恕不另行通知, 若有不明处, 欢迎来电咨询。**ATTENTION:** This parameter table is for reference only. Our company may adjust the relevant parameters, we will not notify if any change. If you have any questions, please feel free to contact me.



OIL-FREE SCREW BLOWERS

无油螺杆鼓风机

AGS 30-425(22-315KW/30-425HP)  
AGS 30-425 VSD(22-315KW/30-425HP)

 **GENESIS**  
KOMPRESSOREN



GERMANY GENESIS COMPRESSOR



**YOUR CHOICE, OUR PROMISE**  
—— 您的选择·我们的承诺 ——



Genesis Kompressoren Compressor Co.,Ltd.是专业从事空气压缩机，螺杆鼓风机系统设备研发和生产的高新技术企业，主要产品包括螺杆式空压机、螺杆鼓风机，干燥机、储气罐、管道过滤器等。

为适应时代的节能环保需求，领先同行，广州艾玛压缩机有限公司以满足客户需求为技术发展之核心，不断开发研制，现推出无油双螺杆鼓风机系列，高效率，低转速，低噪音的特点，帮您节能省电高达60%，让您得到更纯净的空气。

Genesis Kompressoren Compressor Co.,Ltd.is a high-tech enterprise specializing in R&D and production of air compressor and screw blower system equipment. The main products include screw air compressor, screw blower, air dryer, air tank and pipeline filter.

In order to meet the energy conservation, environmental protection and customers' demand, now we recommend brand oil-free double screw blowers, which is high efficiency, low speed, low noise, can help you save energy up to 60% and get purer air.



① 高稳定性，24小时持续运作

High Reliability, 24 hours running

② 基于内压缩，对比罗茨鼓风机，主机节能提升至少30%

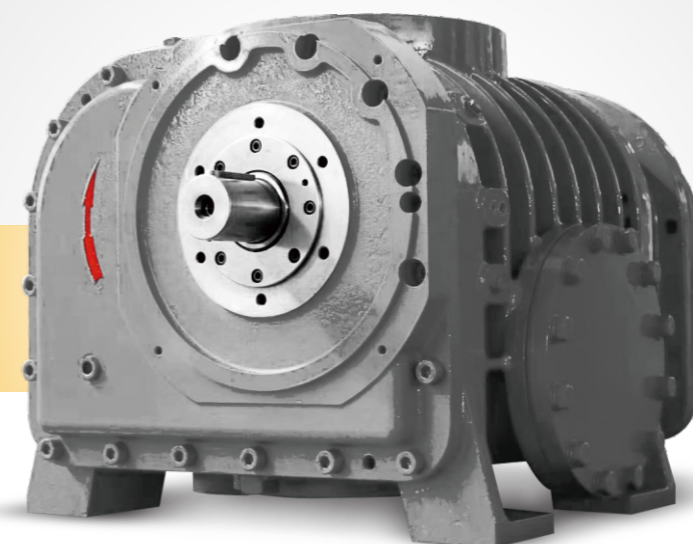
Screw type reduces energy cost by an average of 30%

③ 高效变频节能，系统优化节能，进一步省电

Permanent Magnet synchronous Frequency technology offers extra energy saving

④ 图文触屏控制，提供远程操作、联机及多种保护功能

PLC control, remote operation, Multi-machine control supplied



**能耗优势**

**ENERGY-SAVING**

基于螺杆转子的内压缩特点，无油螺杆鼓风机对比于传统罗茨鼓风机，从0.5BAR压力开始能耗减少约25%，压力越高，节能效果越大，可高达60%。  
The Genesis AHG range reduce energy cost at least 25% at 0.5bar, energy saving will reach more than 60% when pressure high to 0.8bar-1.5bar.

**技术优势**

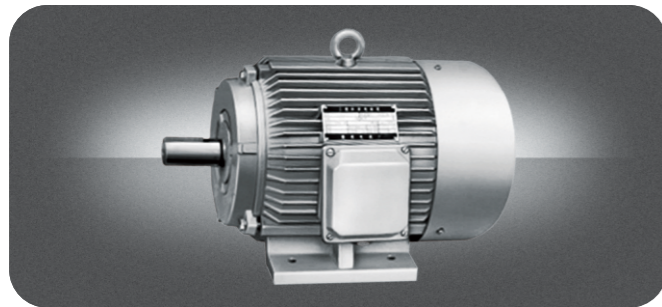
**LATEST TECHNOLOGY**

独立的研发团队，拥有自主技术，品质更坚实，售后更有优势保障；适合高温差、多粉尘、高湿度的恶劣气候环境。

Guarantees exceptional reliability, Latest technology, High Quality controlled. Which supply best after sold service. AirHorse screw Blowers Suitable for harsh environment with high temperature, dust and high humidity.







**永磁同步电机 | PMSM MOTOR**

高效率永磁同步电机，启动转矩大；根据鼓风机性能曲线专门设计，提高效率，降低比功率，电机55°C可长期运行，防护等级为IP54。  
High efficiency Permanent magnet synchronous motor, Large starting torque, Specially designed According to blower performance, Improve efficiency, Reduce specific power, The motor can run for a long time at 55 °C, IP54 Protection.



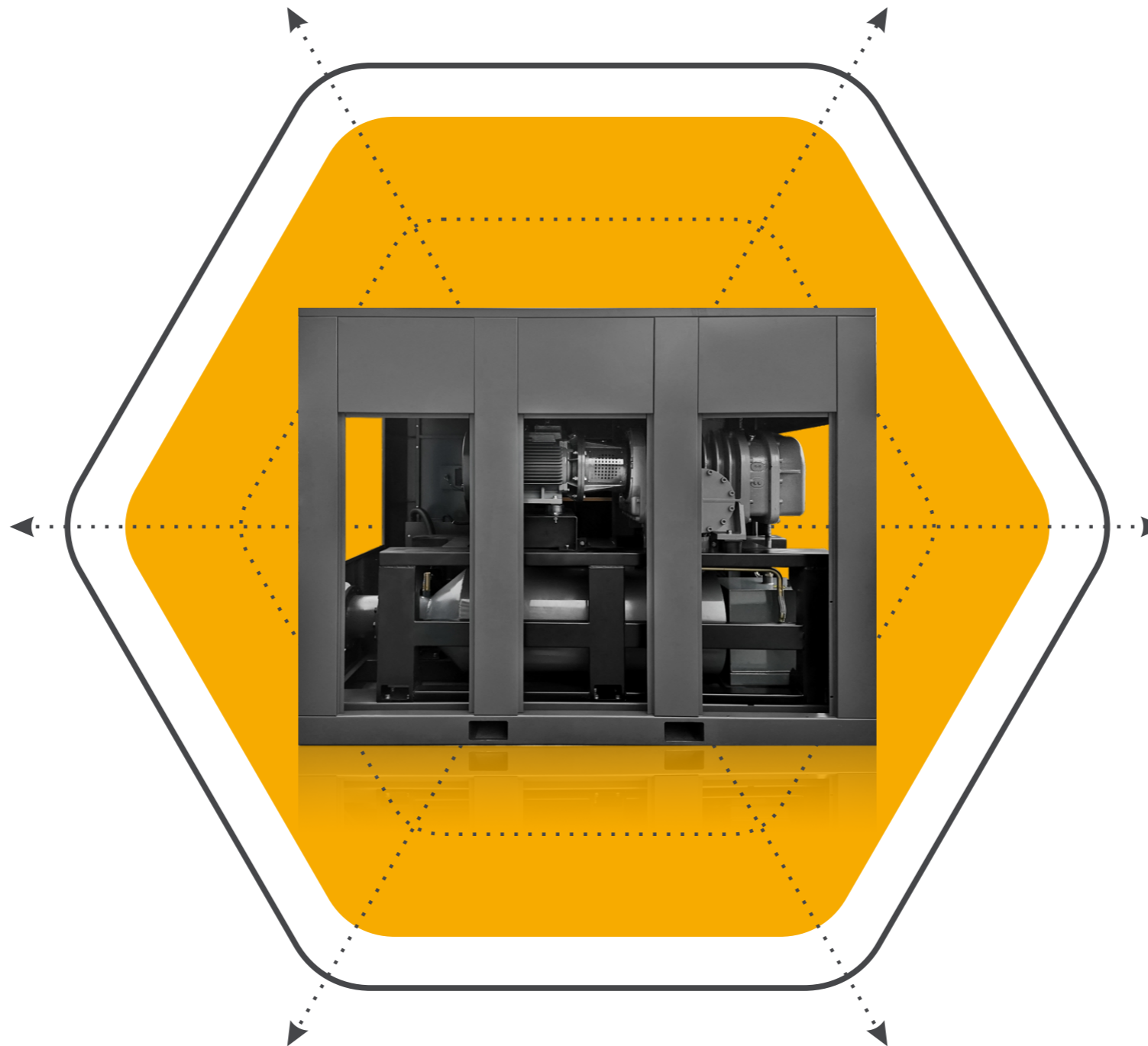
**消音系统 | SILENCING SYSTEM**

消音器配合低噪音型线机头，驱动部件采用震动绝缘构造，并降低进气排气音，实现低噪生产空间。  
Silencer with low noise screw air end, Drive components are constructed with vibration insulation, reducing the intake and exhaust sound, which make the machine running at very low noise.



**进气过滤器 | AIR FILTER**

进气过滤精度可以达到15um，压力损失不超过500Pa，洁净进气，低压降进，高效率，进气排音设计，辅助隔音罩，噪音更低。  
Intake air filtration can reach 15um, Pressure loss does not exceed 500Pa, Clean intake air, Low pressure drop, high efficiency, Intake sound design, soundproof cover, make the whole machine silence.



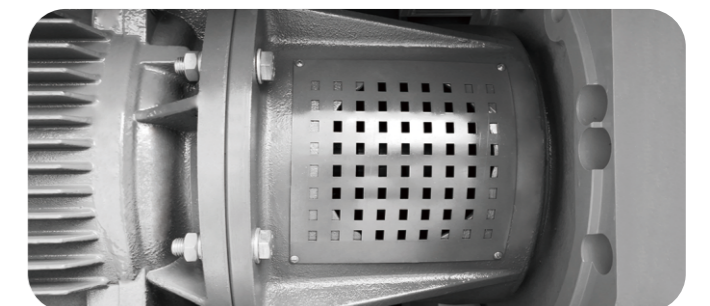
**控制系统 | CONTROL SYSTEM**

7英寸彩色图文触屏控制，界面友好，操作简便；24小时预警通知，提供远程操作支持；智能动态显示，故障分析恢复，多机联控；逆转保护，多点温度检测和控制保护，自动调节负荷率控制保护等。  
Touch 7 inch display, easy operation, 24-hour warning notice, remote operation support. Intelligent dynamic display, Failure analysis recovery, Multi-machine joint control, Multi-point temperature detection and control protection, Load factor automatic adjusting etc.



**变频器 | FREQUENCY CONVERTER**

采用优质变频器，实现软启动、变频调速、提高运转精度、改变功率因数以及过流/过压/过载保护等功能。  
High quality frequency converter, Soft start, Frequency, Change power factor and Over current, over pressure, over load protection etc.



**系统化 | SYSTEMATIZATION**

优异性能部件，经过系统化设计组合，使机组运行故障大幅降低，实现更高排气压力，出气量更加充分，耗能比处于鼓风机行业先进行列。  
Design combination with excellent performance parts, reducing operating failures, Achieve higher exhaust pressure, More flow output, Energy consumption ratio is first in the blower industry.





螺杆鼓风机和罗茨风机都是属于容积式风机，如果两者要进行比较的话，可以简单归结为压缩原理的不同，螺杆鼓风机的**节能、稳定、低噪优势**更为突出。

Both Screw Blower and Roots Blower is Positive displacement fan, If the two are to be compared, Can be simply boiled down to the difference in compression principle, Screw Blower is more energy saving, stability, low noise.

原理对比

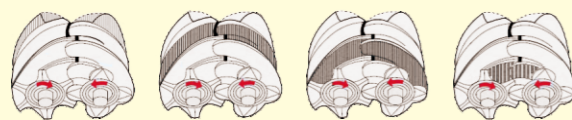
PRINCIPLE COMPARISON

同属于容积式风机 They are positive displacement fan

螺杆鼓风机运行原理  
Operating principle of Screw Blower



双螺杆结构  
Double Screw Structure



连续内压缩，转子运转中，周期性产生容积变化，完成压缩过程，并建立压力，排放到管网。

Continuous compression,  
When Rotor running, Volume changes periodically,  
Complete the compression process,  
And build pressure, Discharge to pipe.

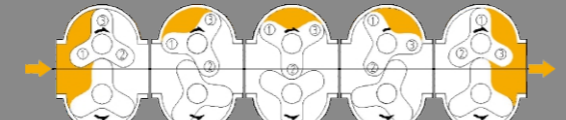
内压缩 · 效率高 · 供气平稳  
COMPRESSION · HIGH EFFICIENT  
STABLE AIR SUPPLY

罗茨鼓风机运行原理  
Operating principle of Roots Blower



三叶型  
Trefoil Type

两叶型  
Two-leaf Type



转子转动输送空气，输送过程无容积变化，依靠管网背压建立压力，无内压缩过程。

Rotor rotates to deliver air,  
No volume change during transport,  
Establish pressure on pipe net work,  
No compression process.

无内压缩 · 效率较低  
NO INTERNAL COMPRESSION  
LOW EFFICIENT

罗茨风机在运转和输送空气的过程中，转子间的腔体不发生容积变化，压力来自于把大量的空气强制送入一个体积比较小的外部腔体中，如：管道或储气罐中，外部腔体中空气的密度不断提高，从而产生压力，通常称之为“外压缩”。罗茨鼓风机结构简单，强制送风（送风量不受排气压力影响），自身不产生压力。

螺杆鼓风机的工作原理就跟罗茨鼓风机有些区别了，空气同样是吸进来，再排出去，吸气时，螺杆和螺杆之间的空腔是大的，随着螺杆转子的转动，腔体体积会逐渐变小，当气体排出去后，腔体容积会变得很小很小。也就是说，在旋转过程中，就相当于把2m<sup>3</sup>的气压缩成1m<sup>3</sup>的气，压力随之就提高，也就是说这个压力的提升不是来自于外围的管网，而是来自于主机腔体内部容腔的变化，也就是所谓的内压缩。

When Roots Blower In the process of running and conveying air, No change in volume between the rotors, The pressure comes from forcing a large amount of air into a relatively small external cavity. for example: In a pipe or a air tank, The density of air in outside continues to increase, and pressure produce. Commonly referred to as "external compression". Roots Blower is simple structure , Forced air supply (air supply is not affected by exhaust pressure), No pressure on itself.

Screw Blower working principle is different from Roots Blower, The air is sucked in and discharge. When air is sucked in, there is large space between rotors, With the rotation of the rotor, the space gradually become smaller, when the air exhaust, the space become very small. That is compressing 2m<sup>3</sup> of air into 1m<sup>3</sup> of air during rotating, the pressure goes up. The high pressure not come from outside pipe, its come from the air end space change. This is Internal compression.



OIL-FREE SCREW BLOWERS  
无油螺杆鼓风机



AGS 30-425(22-315KW/30-425HP)  
AGS 30-425 VSD(22-315KW/30-425HP)





工作压力每增加0.1bar  
0.1bar Working Pressure Increased

罗茨鼓风机  
ROOTS BLOWERS

VS

螺杆鼓风机  
SCREW BLOWERS

出口温升约10度  
About 10 Degree of Outlet Temperature

出口温升约8度  
About 8 Degree of Outlet Temperature

20%

螺杆鼓风机出口温升低

20% OUTLET TEMPERATURE LOWER OF SCREW BLOWERS

—— 螺杆鼓风机 ——  
**脉冲低 寿命长**  
LOW PULSE AND LONG LIFE OF SCREW BLOWERS

罗茨鼓风机  
ROOTS BLOWERS

VS

螺杆鼓风机  
SCREW BLOWERS

完全依靠背压，回流产生脉冲；即使三叶比两叶脉冲降低，但脉冲扭矩依旧会产生间歇性噪音与震动。  
Producing pulse fully rely on Back pressure and Reflux. Even the three leaves pulses are lower than the two leaf, But the Pulse torque will produce intermittent noise and vibration.

内压缩，排气稳定，压力脉冲低，设备震动降低，寿命延长。  
Internal compression, Stable exhaust, low pulse, low vibration, long life.

罗茨鼓风机  
ROOTS BLOWERS

VS

螺杆鼓风机  
SCREW BLOWERS

一般比样本标定流量小5%  
Air flow is 5% less than true air flow

真实流量  
True air flow

—— 螺杆鼓风机 ——  
**真实流量**  
TRUE AIR FLOW OF SCREW BLOWERS

24<sub>h</sub>  
螺杆鼓风机24小时运行  
24 HOURS RUNNING OF SCREW BLOWERS

罗茨鼓风机  
ROOTS BLOWERS

VS

螺杆鼓风机  
SCREW BLOWERS

温升高，散热模式单一，较多采用一用一备，交替使用，长时连续运行导致故障率高。  
High temperature, simple Cooling mode, always one machine use, another backup, Alternate running, high failure rate if long time operation.

机体配备散热夹套，运行温度更低，更稳定，可24小时运行，保守使用可采用多备一。  
High efficiency cooling, low temperature, more stable, can running 24 hours a day. No need backup.

罗茨鼓风机  
ROOTS BLOWERS

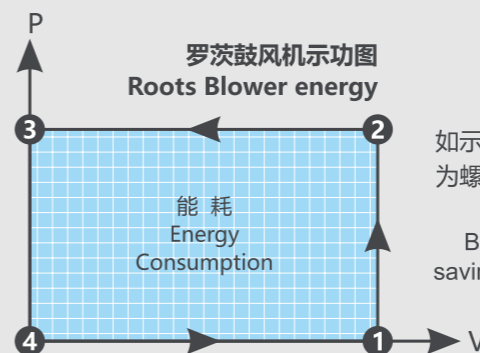
VS

螺杆鼓风机  
SCREW BLOWERS

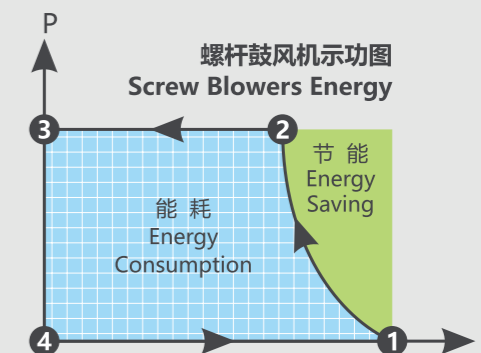
即使采用消音器罗茨鼓风机噪音值最高可达116-118分贝  
Even add air filter the noise can much 116-118DB

一般可控制在60-85分贝左右  
Usually controlled noise to 60-85DB

—— 螺杆鼓风机 ——  
**噪音低**  
LOW NOISE OF SCREW BLOWERS



如示功图所示，蓝色区域为螺杆鼓风机与罗茨鼓风机做功能耗。  
Blue area is energy saving of Screw Blowers.



35%

螺杆鼓风机节能

More than 35% Energy Saving in Screw Blowers

在实际中，设备所需的压力越高，螺杆鼓风机的节能效果即越显著：  
0.5bar压力下，节能达到25%；  
0.8bar压力下，节能即可达到35%。

The higher pressure of usage, the more energy saving:  
0.5bar, Energy saving more than 25%,  
0.8bar, Energy saving more than 35%.

节能案例

ENERGY SAVING CASE

45KW / 0.4bar

螺杆鼓风机  
SCREW BLOWERS

VS

罗茨鼓风机  
ROOTS BLOWERS

排气量：43.5m<sup>3</sup>/min

排气量：33m<sup>3</sup>/min  
实际用气量：26m<sup>3</sup>/min

FAD is 43.5m<sup>3</sup>/min

FAD is 30m<sup>3</sup>/min  
Actually use 26m<sup>3</sup>/min

相同功率、压力，气量高出30%，节能高出50%  
SAME POWER, PRESSURE, AIR FLOW IS 30% HIGHER, ENERGY SAVING MORE THAN 50%



螺杆鼓风机 短周期内收回成本，越用越省  
SCREW BLOWER Recovers cost in a short period,  
more time you use, more cost you saving.



### 能耗成本 | ENERGY COST

**罗茨鼓风机: 高** Roots Blower: High  
**螺杆鼓风机:** 从0.5bar开始, 比罗茨节能25-45%, **1-2**年收回采购成本, 节能效益不断凸显。  
**Screw Blower:** Start from 0.5bar, Screw Blower saving more than 25-45%.  
Saving machine cost in a **1-2** years.



### 购置成本 | MACHINE COST

**罗茨鼓风机:** 单价低, 数量多。  
**螺杆鼓风机:** 单价较高, 购置数量少。  
**Roots Blower:** Unit price low, but quantity need more.  
**Screw Blower:** Unit price high, but quantity less.



### 维修频率 | MAINTENANCE

**罗茨鼓风机:** 频繁, 常规主机质保**1**年。  
**Roots Blower:** Need more maintenance, air end warranty 1 year.  
**螺杆鼓风机:** 低, 艾玛主机质保**2**年。  
**Screw Blower:** Less maintenance, air end warranty 2 years.



### 部署数量 | QUANTITY

**罗茨鼓风机:** 根据情况, 一备一或二备一等。  
**Roots Blower:** Always one pcs use, one pcs backup or Two pcs use, one pcs backup.  
**螺杆鼓风机:** 根据使用情况, N+1。  
**Screw Blower:** Always no need backup or N+1.



### 运行时间 | RUNNING TIME

**罗茨鼓风机:** 脉冲大, 温度高, 保守使用一般8小时左右切换备机。  
**Roots Blower:** High pulse, high temperature, only working 8 hours and then change another one.  
**螺杆鼓风机:** 结构配备散热夹套, 运行温度低, 可24小时运行。  
**Screw Blower:** Efficiency cooling system, low temperature, can running 24 hours a day.

CHOOSE  
螺杆鼓风机  
SCREW BLOWERS

电机功率: **37KW**  
Motor Power: 37KW  
标定风量: **23.82m³/min**  
Standard Air Flow: 23.82m³/min  
全年满负荷**8000**小时, 耗电**296000**度  
Full load of 8,000 hours a year,  
Power Consumption 296,000 Degrees

**0.7bar**  
压力 | Pressure

**23.8**  
m³/min  
风量 | Air Flow



CHOOSE  
罗茨鼓风机  
ROOTS BLOWERS

电机功率: **55KW**  
Motor Power: 55KW  
标定风量: **24.04m³/min**  
Standard Air Flow: 24.04m³/min  
全年满负荷**8000**小时, 耗电**440000**度  
Full load of 8,000 hours a year,  
Power Consumption 440,000 Degrees

一年:  
螺杆鼓风机节电**144000**度  
能耗费用节省**115200**元

ONE YEAR:  
SCREW BLOWER CAN SAVE POWER **144,000** DEGREES  
SAVE ENERGY CONSUMPTION COST **RMB115,200**

数据采集因产品而异, 会有浮动, 实际产品以各自参数为准。  
Data collection varies from product to product and will be Boating. The actual product is subject to the respective parameters.

双螺杆鼓风机广泛应用于食品制造, 生物工程, 污水处理, 制药, 喷涂, 电镀, 纺织等行业, 来达到干燥、除尘、发酵、蒸发蒸馏、气力输送的作用。

Double Screw Blowers are widely used in food manufacturing, Biological Engineering, wastewater treatment, Pharmaceutical, Spraying, plating, Textile industry etc. To make the purpose of drying, Dust removal, Fermentation, Evaporative distillation, Pneumatic conveying etc.



食品制造  
FOOD  
MANUFACTURING



制药行业  
PHARMACEUTICAL  
INDUSTRY



喷涂行业  
SPRAYING  
INDUSTRY



生物工程  
BIOLOGICAL  
ENGINEERING



污水处理  
SEWAGE  
TREATMENT



纺织行业  
TEXTILE  
INDUSTRY