



OIL-LUBRICATED SCREW VACUUM PUMP SVP 油润滑螺杆式真空泵SVP

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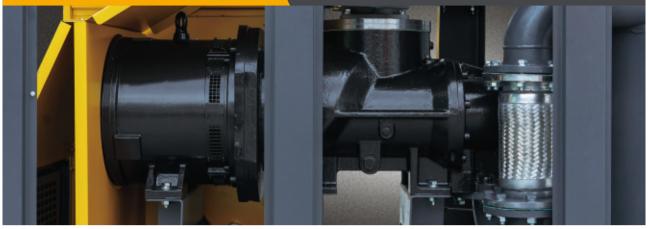
### 选择艾玛•选择好品质

CHOOSE AIRHORSE · CHOOSE QUALITY



### 创新型真空泵

### **INNOVATIVE VACUUM PUMP**



与常见的油润滑和干式旋片 泵技术相比更卓越的性能。



Compared with common oil lubrication and dry rotary vane pump technology have better performance.

Advanced screw technology, variable frequency and innovative motor design bringing a leap in energy efficiency.

先进的螺杆技术、变频和创新电机 设计相结合所带来的能效上的飞跃。

静音运行,噪音水平远低于其它技术。



Quiet Running, the noise level is much lower than other technologies.

Sustainable development of productivity brought bout by stable efficiency.



稳固效率所带来生 产力的可持续发展。

在所有运行压力下保持超高的油 剂回收能力,降低对环境的影响。

It maintains super high oil recovery capacity under all running pressures, reducing the impact on the environment.

### 安装快捷•方便简单

### **INSTALLATION QUICK • EASY AND CONVENIENT**

- **节省空间**: SVP系列是市面上占地面积最小
- 的设备之一,是真空机房安装的理想选择;
- 所有部件集合在一个整洁的外壳内;即插即用。
- SPACE SAVING: SVP series is one of the smallest equipment on the market, and it is an ideal choice for vacuum machine room installation
- All parts are assembled in a neat shell.
- Plug and play.





## 稳定性强•成本低廉

### STRONG STABILITY AND LOW COST

**SVP系列的保养便捷,保养频率低**:无旋片,无旋片振颤、无旋片磨损。平均保养间隔时间极长。该系列设备也不需要用水。超智能型触摸屏真空泵专用控制系统,你可以随时了解设备运行性能和保养要求。

The maintenance of SVP series is convenient and the maintenance frequency is low: no rotary vanes, no vibration of the rotary vanes, and no wear of the rotary vanes. The average maintenance interval is extremely long. This series of equipment also does not require water. Ultra-intelligent touch screen vacuum pump dedicated control system, you can know the equipment operating performance and maintenance requirements at any time.





### 一体式螺杆主机

- 机头采用新一代的螺杆型线,螺杆转子齿型精度 优于业界,轻载运作。
- 机头采用双螺杆螺杆结构,运行更平稳,效果好。
- 易损件少, 机头寿命长, 维护简单, 保养频率低。
- 电机直接驱动,无传动损失,加减少传动故障。
- 永磁变频控制,响应迅捷,大扭矩。
- IE5电机能效标准, 高效率。

### INTEGRATED SCREW AIR END

- Air end adopts a new generation of screw profile, the screw rotor tooth profile accuracy is better than that of the industry, and it operates at light load.
- Air end adopts twin-screw screw structure, which makes the operation more stable and the effect is good.
- Few wearing parts, long life of the air end, simple maintenance, low maintenance frequency.
- The motor is directly driven, no transmission loss, plus reducing transmission failure.
- Permanent magnet frequency conversion control, fast response, high torque.
- IE5 motor energy efficiency standard, high efficiency.

# 油润滑螺杆式真空泵SVP

#### SPECIAL INLET VALVE 专用型进气阀

- 自动控制开度,保证主机喷油量及润滑油的循环。
- 超低油路损失,整体效率提升。
- ▲ 常开式电磁阀控制,急停自动关闭,防止喷油。
- Automatic control of the opening angle, to ensure the amount of oil injection and lubricating oil circulation.
- Super-low oil circuit loss, entire efficiency improvement.
- Normally open solenoid valve control, emergency stop automatically closed, prevent oil injection.



- 采用更佳的流速和结构设计,使含油量≤3PPm。
- 方便维护保养。
- 油和油分保养时长5000h。

### **OIL AND GAS SEPARATION TANK**

- With better flow rate and structural design,
- oil content ≤3PPm.
- Convenient maintenance.
- Oil and oil separator maintenance are 5000h.

### 真空泵变频专用控制系统

#### **VACUUM PUMP FREOUENCY CONVERSION SPECIAL CONTROL SYSTEM**

- 采用知名品牌变频器厂家, 宽电压设计, 高性能矢量 变频控制,超强过载能力,控制响应迅速,电机保护 更加全面。
- 通过进气端压力传感器信号反馈,跟变频器设定值进 行对比运算,调整变频器输出,从而达到稳定真空 度,保证稳定正常的生产。
- 由于采用变频控制,机器无经常加卸载,降低噪音, 减少开关配件的损坏并且降低能耗。



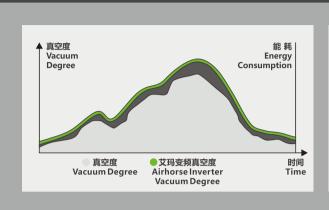
- With well-known brand inverter manufacturer, wide voltage design, high performance vector frequency conversion control, super overload capacity, fast control response, more comprehensive motor protection.
- Through the signal feedback of the pressure sensor at the intake end, compare the operation with the set value of the frequency converter, adjust the output of the frequency converter, so as to achieve the stable vacuum degree and ensure the stable and normal production.
- Because of frequency conversion control, the machine does not often load and unload, reduce noise, reduce the damage of switch accessories and reduce energy consumption.

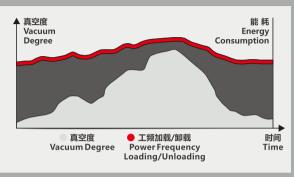
# **COOLING SYSTEM**

- 独特设计的进风通道,直接从外部吸气, 减少风机开启次数,降低风机能耗。
- 电机散热通道,保证热量直接排出机箱外 部,不滞留在机箱内部,以此达到较低的 吸气温度,降低压缩高温空气而造成的能 耗增加。
- 进风通道及电机散热通道可以充当隔音 罩,降低噪音。
- Unique design of air inlet channel, directly from the outside of the air, reduce the number of fan open, reduce fan energy consumption.
- Motor heat dissipation channel, ensure that the heat directly discharged from the outside of the cabinet, does not stay in the cabinet, so as to achieve a lower suction temperature, reduce the compression of high temperature air caused by the increase of energy consumption.
- Air inlet channel and motor heat dissipation channel can act as sound insulation cover to reduce noise.

### **AVERAGE ENERGY SAVING 50%**

## 平均节能50%





- 真空泵采用新一代的螺杆型线,螺杆转子齿型精度优于业界,轻载运作。
- 超凡的一体式螺杆主机结构,电机直接驱动,无传动损失,可以获得近100%的传动效率。
- 电机采用高矫顽力,耐高温永磁体,保证150℃不消磁。
- 超一级能效, 电机效率高达98%以上, 符合IEC 60034-30-1:2014《变速交流电动机》IE5水平。
- 矢量变频控制,响应迅捷,合理分配电流值,转矩提升效果更加优异。
- 无极变速, 宽频调速范围, 弱磁控制是一般永磁电机的一倍, 易于变频控制, 动态响应性能好, 可以快速大范围响应调节, 也可精确调节控制真空度。
- 真空泵在操作过程中,保持设定点压力,根据客户现场调整其电机转速以维持定点压力,与传统 技术相比,实现节能50%以上。
- 真空泵系统无论是在工艺循环期间、抽空循环期间,还是机器空转期间,仅在工艺需要时才提供 峰值性能,确保实现最大幅度的降低能耗和维护成本。
- The vacuum pump adopts a new generation of screw profile, the screw rotor tooth profile accuracy is better than other industry, and it operates under light load.
- Extraordinary integrated type screw air end structure, directly driven by the motor, no transmission loss, and nearly 100% transmission efficiency can be obtained.
- The motor adopts high coercivity and high temperature resistant permanent magnets, which can guarantee no demagnetization at 150°C.
- Super first-class energy efficiency, motor efficiency can up to 98% or more, conform to the IEC 60034-30-1:2014 "Variable Speed AC Motor" IE5 level.
- Vector frequency conversion control, quick response, reasonable distribution of current value, and torque boost effect is more excellent.
- Infinitely variable speed, wide frequency speed range, weak magnetic control is twice of the general permanent magnet motor, easy frequency conversion control, good dynamic response performance, rapid response adjustment in a large range, and precise adjustment and control of the vacuum degree.
- During the operation of the vacuum pump, the set point pressure is maintained, it will adjust the motor speed according to the customer site to maintain the fixed-point pressure. Compared with the traditional technology, energy saving is achieved by more than 50%.
- The vacuum pump system provides peak performance only when the process requires it, whether it is during the process cycle, during the evacuation cycle, or during the idling period of the machine, to ensure the greatest reduction in energy consumption and maintenance costs.



# ELLIGENT TOUCH VACUUM 1P DEDICATED CONTROLLER

## 智能触摸真空泵专用控制器



- 内置专门为真空泵设计的最先进监控系统,操 作简单、功能强大、实现节能。可以配置远程 监控,还可与工厂管理系统进行联网。
- Built in the most advanced monitoring system specially designed for vacuum pump, simple operation, powerful function, energy saving. Remote monitoring can be configured, and the factory management system can be networked.

### **CONVENIENT OPERATION**

### 操作简单

- 高精度彩色显示器,清晰的图形显示, 多种语言设置。
- 专用于保养维修的LED指示器。
- 全自动真空泵,仅需极少的手工操作。
- High-precision color display, clear graphics display, Multiple languages available.
- LED indicator dedicated to maintenance.
- Fully automatic vacuum pump, requiring only minimal manual operation.

### **MULTIPLE FUNCTIONS**

# 功能齐全

你可以获取真空泵每天运行的所有信息,包括报警、安全停机和保养等:

All information about the daily operation of the vacuum pump can be obtained, including alarms, safety shutd owns and maintenance, etc.:

#### 监 控

#### MONITORING

真空泵运行状态、记录运行/停机小时数、可编程 的定时器、温度/压力值、设定点控制等。

vacuum pump operating status, recording operating/ downtime, programmable timer, temperature/pressu re value, set point control, etc.

#### SAFETY

报警显示、故障和停机显示。 Alarm display, fault and shutdown display.

#### **MAINTENANCE**

保养运行、远程控制(可选) Maintenance operation, remote control (optional).

#### REMOTE MONITORING

#### 远程监控

远程监控可作为可选项按需求增加(以太网)。 Remote monitoring can be added as an option as required.

#### WIFI CONNECTION

#### WiFi连接

通过手机或电脑随时查看设备运行信息,远程操作。 You can view the equipment operation information at any time through a mobile phone or a computer, and operate it remotely.

#### **TANDEM MONITORING**

保养运行、远程控制(可选)。 Maintenance operation, remote control (optional).



### 真空泵应用领域

### **VACUUM PUMP APPLICATION FIELD**

广泛应用于玻璃加工、电子半导体、陶瓷制砖、造纸纸托、印刷印染、食品包装、木材加工、烟草生产、制瓶制罐、复合材料、高空模拟、航空航天行业等。

It is widely used in glass processing, electronic semiconductors, ceramic bricks, paper and paper trays, printing and dyeing, food packaging, wood processing, tobacco production, bottle and cans, composite materials, high-altitude simulation, aerospace industries, etc.















目前艾玛压缩机有限公司销售和服务网络在中国划分了华东、华南、华西、华 北和东北五个大区域,200多家网点。在主要城市都设立了办事机构,并有优秀 的服务人员为您提供优质、快捷的服务。

AirHorse Compressor Co., Ltd. Sales and service network in China is divided into east China, south China, Hwaseo, north China and northeast five large regions, more than 200 outlets. In the main cities have set up offices, and have excellent service staff to provide you with quality, fast service.

# SVP系列真空泵参数表 SVP SERIES VACUUM PUMP TECHNICAL PARAMETERS LIST

型号 Model	电机功率 Motor Power (kw)	流量(抽速) Air Flow (Pumping Speed) (m³/h)	极限真空 Ultimate Vacuum (pa)	进气管径 Import Pipe Diameter (DN)	进气管径 Outlet Pipe Diameter (DN)	尺寸 Size (mm)	重量 Weight (kg)
SVP7-10	7.5	588	60	80	65	1500×880×1460	805
SVP11-12	11	690	60	100	65	1850×920×1490	1040
SVP15-15	15	876	60	100	65		
SVP18-18	18.5	1062	60	150	100	2000×1000×1670	1280
SVP22-22	22	1320	60	150	100		
SVP30-27	30	1620	60	150	100	2300×1120×1827	1910
SVP37-30	37	1812	60	150	100		
SVP45-44	45	2640	60	200	150	2860×1650×2114	3500
SVP55-53	55	3180	60	200	150		
SVP75-75	75	4500	60	250	200	3300×2250×2350	5200
SVP90-90	90	5400	60	250	200		

### Airhorse 艾玛

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