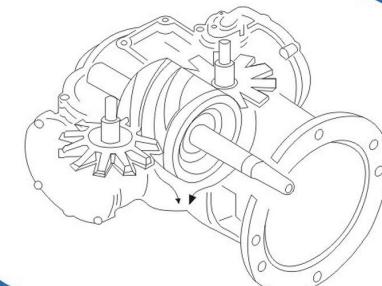




# HIGH PERFORMANCE SILENT OIL-FREE SCREW AIR COMPRESSOR

高性能静音全无油螺杆空气压缩机



以前瞻科技引导未来  
Leads the Future with Prospective Technology

DSDL



## / 公司简介 Company profile

帝狮智能科技（上海）有限公司位于上海市浦东新区，是一家拥有自主知识产权，从事喷水无油螺杆压缩机研发、设计、生产、销售的高科技密集型公司。目前主要生产制造水润滑无油螺杆压缩机、无油中高压压缩机、无油工艺螺杆气体压缩机、低压无油螺杆压缩机、与军工合作生产常压、中压、高压无油螺杆压缩机。

帝狮智能科技与知名军工企业技术合作生产稳定节能，技术领先的全无油螺杆压缩机产品。帝狮智能科技是无油螺杆压缩机行业的领航者。二十年的技术沉淀与创新让产品更简洁、更节能、更环保，故障率更低，更符合全球市场的推广需求，真正开创了全球螺杆压缩机行业变革的新时代。

帝狮智能，以前瞻科技引导未来！

since2000

帝狮德琳全无油喷水螺杆技术：掌握核心技术，以前瞻科技引导未来；

2000年 >

Z型微油螺杆机技术的研发和生产

In 2000 R&D and production of Z type Micro-oil screw air compressor

2007年 >

第一代：成功开发了合金铜主机技术

In 2007 First Generation: Successful Development of alloy copper airend

2009年 >

第二代：主机无轴封设计，合金铜转子不锈钢合金外壳主机技术

In 2009 Second Generation: Axis-free seal design of airend , airend technology of alloy copper rotor and stainless steel alloy shell

2012年 >

第二代升级版：主机无轴封设计，不锈钢转子、不锈钢合金外壳主机技术

In 2012 Second Generation upgraded version: Axis-free seal design of airend, airend technology of stainless steel rotor and stainless steel alloy shell

2013年 >

第三代：主机含轴封设计，主机转子及外壳使用全不锈钢合金技术，部分机型端盖含有铜部件，系统进行了大幅度的优化；

In 2013 Third Generation: The airend design with shaft seal, all stainless steel alloy technology is adopted in the airend rotor and shell, copper components are adopted in end cover for our partial air compressors, the system has been greatly optimized.

2015年 >

第四代：实现了真正意义上的全不锈钢合金技术主机以及系统不锈钢技术，集成主机，系统优化简洁；

In 2015 Fourth Generation: In a real sense, realized all stainless steel alloy airend and applied for the whole system, integrated airend, concisely optimized system

2016年 >

成功研发了3~4Mpa中压全无油螺杆空气压缩机；

In 2016 Successful development of 3~4Mpa medium pressure oil-free screw air compressor

2017年 >

第五代：克服了原有国内Z型螺杆机不能实现主机零部件标准化问题，实现了标准化，产品性能更加稳定，可实现真正量产化和推广普及；

In 2017 The fifth generation: overcame the standardization problem of main components of Z-type screw air compressor, achieve standardization, performance is more stable, real mass production and popularization;

2018年 >

军工技术合作；

In 2018 Technical Cooperation with Military Industry

2019年 >

高性能静音全无油螺杆空气压缩机

全系列：功率5.5KW~460KW 压力：

0.2~4Mpa 排气量：0.3~45m³/min

通过德国TUV ISO8573 0级认证

In 2019 High performance silent Fully oil-free screw air compressor

Range: 5.5KW~460KW Pressure: 0.2~4Mpa Air delivery: 0.3~45m³/min

Passed german TUV ISO8573 CLASS 0

帝狮德琳®

DSDL

## TECHNICAL ADVANTAGE

### 帝狮德琳水润滑无油螺杆压缩机技术优势

1、采用第五代无油螺杆主机技术，压缩机主机及系统采用不锈钢合金，实现了从铜主机到不锈钢主机的技术超越；

1. With the fifth generation of oil-free screw airend technology. The compressor airend and system adopt stainless steel alloy, thus the technological transcendence from the copper airend to the stainless steel airend is realized.

13、高寒、高原地带机型可定做，可选配智能辅热系统。

13. Can make customization: frigid region, high region options intelligent heating system.

12、可实现定期自动换水和自动系统清洗功能，压缩机内部更加整洁、卫生。

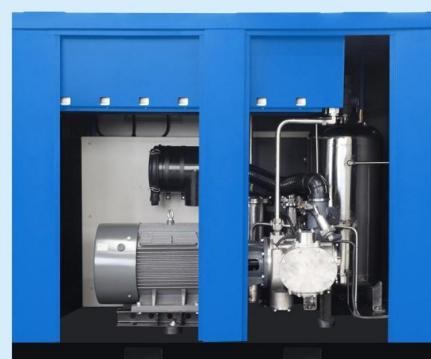
12. The function of automatic water exchange and automatic system cleaning can be realized, and the interior of the compressor is more clean and sanitary.

11、专利主机（专利号：ZL 2014 20251586.4）优化设计，大转子、低转速（3000r/min以内），没有齿轮箱，采用直连驱动，相比干式无油螺杆（10000r/min~20000r/min）更低转速，更长寿命。

11. The airend patent (patent number: ZL 2014 20251586.4) optimized design, large rotor, low rotary speed (within 3000r/min), without gearbox, direct connection drive, it has lower rotary speed and longer life compared with dry oil-free screw air compressor (10000r/min~20000r/min).

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DSDL



3、更少的维护耗材（空气过滤滤芯、水过滤滤芯）  
维护简便，无需专业人员操作，保证更低的维护成本；

3. Less maintenance consumables (air filter, water filter), easy maintenance, no professional staff is required to operate it, and less maintenance costs;

2、整机采用集成设计，没有繁杂的管路和线路，故障点更少，更稳定；

2. Integrated design is adopted for the whole machine. There are no complex pipelines and lines, and the fault points are less and more stable.

4、压缩机系统绝对无油，没有任何油污染风险，是压缩空气无油的保证；

4. There is absolutely no oil in compressor system, without any oil pollution risk, it gives guarantee of no oil in generated compressed air.

5、等温压缩，容积效率更高。相比干式无油螺杆机二级压缩平均节能15%以上，相比其一级压缩平均节能25%以上，运行温度小于50°C，没有被灼伤的风险；

5. Volumetric efficiency is more higher based on isothermal compression. More than 15% energy is averagely saved compared with dry type two stage compression oil-free screw air compressors, more than 25% energy is averagely saved compared with the dry type one stage compression, the running temperature is less than 50 °C, and there is no risk of being burned.

6、更宽的压力范围：2bar~40bar

6. Wider pressure ranges: 2~40 Bar.

7、全数控智能精密加工工艺让主机运行平稳，确保更低噪音、更小震动及更长使用寿命；

7. The full intelligent CNC precise machining technology keeps the airend working smoothly, which can ensure lower noise, smaller vibration, and longer service life.

8、相同功率的水润滑螺杆压缩机比干式无油螺杆压缩机排气量平均大10%以上；

8. Averagely more than 10% air delivery is generated for the same power of water lubricating screw air compressors than the same power dry type oil-free screw air compressor;

9、操作更加简单方便，采用PLC智能控制，具有自动故障检测，故障预警、保养提醒、故障提醒，自动保护功能，可实现24小时无人值守，可实现远程控制功能；

9. More simple and convenient operation. PLC intelligent control is adopted. Automatic fault detection, fault warning, maintenance reminder, fault reminder, automatic protection function. It can realize 24 hours unattended and remote control function.

10、压缩空气经过润滑水的清洗，更加洁净，可以直接用于呼吸使用，饱和压缩空气的露点更低，压缩空气的含水量比普通干式螺杆空压机平均低25%以上；

10. Compressed air is more clean through cleaned by lubricating water, it can be directly used for breathing. The dew point of saturated compressed air is lower, and the water content of compressed air is lower by more than 25% than that of an ordinary dry type oil-free screw air compressor.

| 4 | 帝狮德琳®

## 严谨的制造工艺 Rigorous manufacturing process

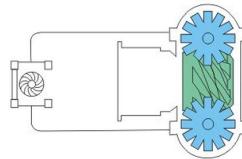
### / 严格的工艺生产制造流程

每个零部件严格检测，精益求精，从原材料到零部件成品每一道程序严格把控，确保每个零部件达到优等品，各个零部件优化设计，保证更经久耐用。

Each component is strictly tested and refined, from raw materials to components

Each procedure is strictly controlled to ensure the each component to achieve the required level

Superior parts and components are optimized to ensure durability.



### / 整机超静音设计

整机机箱采用超静音设计，低转速大风量冷却风机，采用加大型冷却器减少空气对流摩擦，同时具有优秀的冷却效果；

The whole machine chassis adopts super quiet design, low speed and large volume cooling fan.

large air coolers are used to reduce the air convection friction, the superior cooling effect is achieved.



### / 人性化结构设计

人性化结构设计，简化安装，同时后续维护保养更加便利，极低的维护费用，无需专业人员，用户亦可经专业指导自行维护、保养，便于普及推广。

Humanized structure design, simplified installation, and subsequent maintenance is more convenient. low maintenance costs, no professional staff is required. it can be maintained by professional guidance so that it can be popularized conveniently.



### / 系统及压缩空气超级洁净

整机系统内部均采用不锈钢合金材料，保证耐用不腐蚀，具有超长的使用寿命，保证压缩空气“0”污染，更加节能、稳定、绿色环保。

The whole machine system is made of stainless steel alloy to ensure durability, anti-corrosion with long service life, ensuring the “0” pollution, more energy-saving, stable,green environmental protection



## Rigorous manufacturing process

### 优异的性能，源自全球顶尖的产品配置

Excellent performance origins from the world's top product configuration



自主开发的智能化节能控制系统  
Intelligent energy saving control system developed independently



丹麦Danfoss电磁阀  
Denmark Danfoss solenoid valve



顶级西门子施耐德控制元器件  
Top SIEMENS Schneider controls components



高效、高性能优异电机  
High efficiency and high performance motor



德国Schaeffler轴承/瑞典SKF轴承  
Germany Schaeffler bearing/swedish SKF bearing



丹麦Danfoss 冷却器  
Denmark Danfoss cooler



## 严谨的制造工艺

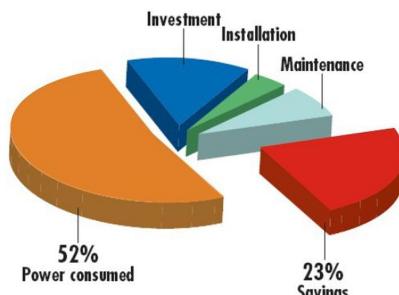
Rigorous manufacturing process



### 变频机型的益处

- 压缩空气产量根据需求调整
- 更低的系统压力，节能
- 没有加卸载循环，没有卸载功耗
- 平稳启动，没有峰值启动电流
- 大大降低能耗

Compressed air output is adjusted according to demand.  
Lower system pressure and energy saving  
No loading and unloading cycles, no unloading power consumption. Smooth start, no peak start current.  
Greatly energy consumption is reduced.



### 节能的解决方案

压缩空气需求通常是不稳定的 – 只要气量负荷图显示波动存在，那变频压缩机就能节能

对于一台固定转速压缩机来说，五年内的电费就是压缩机初投资的6倍

所以，一台变频压缩机的投资回报周期通常少于两年

变频压缩机既有风冷型也有水冷型。它使能耗与压缩空气产量成正比。

Compressed air demand is usually unstable – the variable-frequency compressor can save energy as long as the gas-load fluctuations exists.

For a fixed rotary speed compressor, the electricity charge in five years is 6 times.....

Variable frequency compressors have air cooling and water cooling type, which make the energy consumption is proportional to compressed air delivery.

## OIL-FREE SCREW AIR COMPRESSOR

### / SL系列节能低压无油螺杆机

SL series energy-saving low pressure oil-free screw air compressor

型号 Model	最大工作压力 Maximum working pressure	流量 FAD	电机功率 Motor power	噪音 Noise	空气出口外径 Air outlet diameter	冷却水量 Quantity of cooling water	润滑油量 Quantity of lubricating water	外形尺寸 Dimension		重量 Weight	空气出口 Air outlet
								T/H	L	mm	KG
S30A/WL	0.4	6.7	30/40	66	1 1/2 "	7	50	1650×1180×1505(A) 1500×1080×1300(W)	1200	2 "	
S37A/WL	0.4	8.6	37/50	66	1 1/2 "	9	60	1650×1180×1505(A) 1500×1080×1300(W)	1300	2 1/2 "	
S45WL	0.4	10.5	45/60	68	1 1/2 "	10	120	1800×1360×1670	1500	2 1/2 "	
S55WL	0.4	13.5	55/75	69	1 1/2 "	12	160	1800×1360×1670	1670	2 1/2 "	
S75WL	0.4	19.9	75/100	72	1 1/2 "	18	160	1800×1360×1670	1300	3 "	
S90WL	0.4	23.9	90/120	73	1 1/2 "	20	180	2200×1550×1800	2550	3 "	
S110WL	0.4	28.2	110/150	77	2 "	24	180	2200×1550×1800	2600	4 "	
S132WL	0.4	30.0	132/180	77	2 "	30	180	2200×1550×1800	2800	4 "	
S160WL	0.4	36.0	160/220	79	3 "	35	230	3000×1800×2100	4000	5 "	
S185WL	0.4	45.0	185/250	79	3 "	38	230	3000×1800×2100	4350	5 "	

注：1、以“S75W”为例，S代表 DSDL，75代表本台机器的主电机功率为75KW，如果后缀为“A”代表为风冷，W代表水冷；L代表低压，接受2~5公斤机型的非标定制；

2、以上参数参考工况：干空气、进口绝压：1bar、空气和冷却风进口温度20℃、流量测量参照ISO1217、噪音测量按照ISO2151:2004 误差±3dB

3、接受高寒、高原地带订制机。

本公司产品不断改进，保留产品参数更新的权利，恕不另行通知。

## OIL-FREE SCREW AIR COMPRESSOR

### / SH系列节能中压无油螺杆机

SH series energy-saving middle pressure oil-free screw air compressor

型号 Model	最大 工作压力 Maximum working pressure	流量 FAD	电机 功率 Motor power	噪音 Noise dB	空气出口外径 Air outlet diameter	冷却水量 Quantity of cooling water 进水32°C Inlet water 32°C	润滑油量 Quantity of lubricating water	外形尺寸 Dimension		重量 Weight KG	空气出口 Air outlet
								T/H	L		
SH37W	4	3	37/50	66	1	10	80	1800×1360×1710	1200	1"	
SH65W	4	6	65/90	70	11/2"	18	120	1800×1360×1710	1800	1"	
SH110W	4	10	110/150	72	2"	28	160	3000×1560×1680	2260	1½"	
SH132W	4	12	132/180	73	2"	35	170	3000×1800×2100	2500	1½"	
SH165W	4	15	165/225	75	21/2"	40	190	3000×1800×2100	2980	2"	
SH220W	4	20	220/300	77	3"	50	200	3000×2100×2200	3200	2"	
SH275W	4	25	275/375	78	3"	56	250	3600×2100×2200	4600	2½"	
SH460W	4	42	460/625	80	4"	95	360	4200×3600×2200	5800	3"	

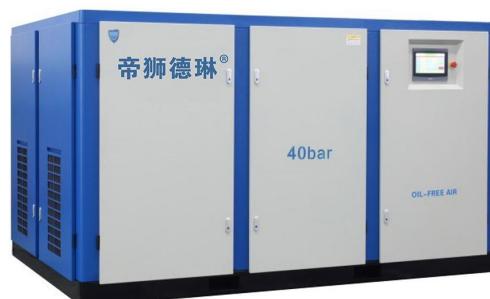
注：1、以“SH110W”为例，S代表DSDL的缩写，H代表中压机，110代表本台机器的主机电机功率为110kW，后缀W代表水冷；

2、以上参数参考工况：干空气、进口绝压：1bar、空气和冷却风进口温度20°C。

流量测量参照ISO1217、噪音测量按照ISO2151:2004 误差±3dB

3、可以接受非标定制（1.5MPa~4.0MPa）。

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## OIL-FREE SCREW AIR COMPRESSOR

### / ST系列特种工艺气体压缩机

ST series special process gas air compressor

ST系列特种、工艺气体压缩机：

- 利用最新一代（第五代）喷水无油螺杆机的特性；
- 接近等温压缩所具有的低温特性（主机温度小于60°C）；
- 真正意义上的全不锈钢主机（主机螺杆、主机壳体都是不锈钢材质）耐腐蚀特性；
- 高效的全密封系统（采用进口的机械密封、及迷宫密封）不泄露的特性；
- 主机内压缩腔运行不存在金属与金属之间的接触；
- 采用纯净水密封、润滑、冷却能更好的适应各种气体压缩机的要求，尤其是需要防爆型的压缩机的要求；
- 自主知识产权可根据客户要求订制各种规格及其品种的压缩机；
- 拥有自主专利的全不锈钢主机；

已成功开发：汽油气压缩机、沼气压缩机、氮气压缩机、氧气压缩机等特殊气体压缩机。

ST series special process gas compressor

Characteristics of the latest generation of DSDL (the fifth generation) water lubrication oil-free screw air compressor:

Low temperature characteristics of close to isothermal compression (temperature of air end is lower than 60°C);

In a real sense, full stainless steel air end (air end screw, air end casing are both stainless steel material) corrosion resistance characteristics;

High efficiency full seal system (adopting imported mechanical seal, and labyrinth seal), without leakage;

There is no direct contact between metals when the compressor air end runs;

Adopting pure water to seal, lubricate, cool, which can adapt to the requirements of various gas compressors, especially for the requirements for explosion-proof air compressor;

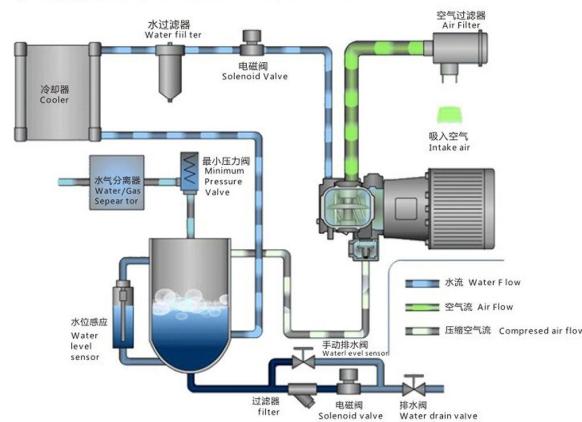
With our own intellectual property rights, all kinds of air compressors can be made according to the requirements of our customers; Full stainless steel air end with independent patents;

Gasoline gas compressors, methane compressors, nitrogen compressors, oxygen compressors and other special gas compressors have been successfully developed.



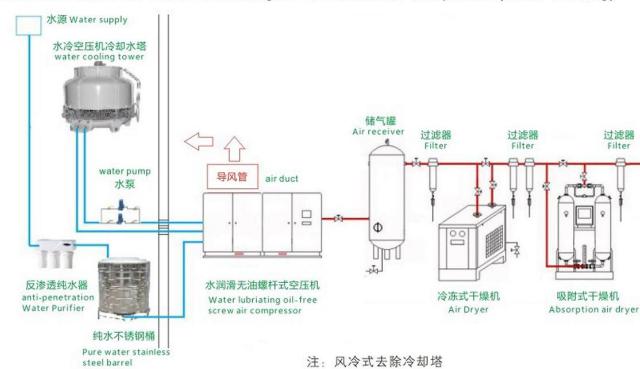
帝狮德琳® 12

## 压缩机组系统流程图 Compressor system flow chat



## 水润滑无油螺杆式空压机系统流程示意图（水冷式）

System flow chate for water lubricating oil-free screw air compressor(water cooling)



## 远程控制系统 Remote control system



## 无油螺杆压缩机应用领域

The application of oil free screw air compressor



## 技术服务：

无论售前、售中、售后，只要用户需要技术上的帮助和咨询，本公司将在24小时内予以无偿提供相关技术支持。现场开机调试成功后，我公司的售后服务工程师负责对用户的操作人员进行常规的操作培训。在质保期内，接到用户设备发生故障的通报，售后服务工程师24小时内到达现场（偏远地区除外），企业的诚信服务深得用户好评！

### Technical services:

Our company will provide our customers with the relevant technical support within 24 hours for free regardless of pre-sale, in-sale, after-sale if our customers need technical support and consultation.

After commissioning, our after-sale service technician is responsible for the regular operation training of users. Within the expiry date, after-sale service technician will arrive at the application site (except in remote areas) when the notification of user's equipment faulty is informed to us. The sincere service of our company is well received by our users!