TA SERIES 2026.10

微信公众号
WeChat public account

官方网站
Website

服务热线：400-080-2622
Service hotline

www.cn-tanabe.com

喷油螺杆空压机
Oil-Injected Screw Compressor



TA系列螺杆式空压机
TA Series Screw Air Compressor
7.5~850kW



至美系列螺杆式空压机
Tech Master Series Screw Air Compressor
7.5~75kW



激光切割机专用空压机
Laser Cutting Air Compressor
11~37kW

无油空压机
Oil-Free Compressor



TN系列干式无油螺杆空压机
TN Series Dry Oil-Free Screw Air Compressor
37~630kW



TH系列离心式空压机
TH Series Centrifugal Air Compressor
100~15000kW



TW系列水润滑无油空压机
TW Series Water-Lubricated Air Compressor
11~470kW



TC系列磁悬浮空压机
TC Series Maglev Air Compressor
75~400kW

真空泵
Vacuum Pump



TB系列微油螺杆真空泵
TB Series Oil-Injected Screw Vacuum Pump
5.5~110kW



TBV系列旋片真空泵
TBV Series Rotary Vane Vacuum Pump
0.75~7.5kW



TBD系列无油真空泵
TBD Series Oil-Free Vacuum Pump
1.5~75kW

定制产品
Customized Products



二氧化碳专用压缩机
CO_2 Compressor



无油氮气增压机
Dry Oil-free N_2 Booster



干式无油空气增压机
Dry Oil-free Air Booster



TS系列中高压螺杆增压机
TS Series Medium/High Pressure Booster

运营中心
Operations Center

深圳田边精机有限公司
SHENZHEN TECBELL PRECISION MACHINERY CO.,LTD

地址：深圳市宝安区新桥街道中心路 102 号时代中心 A 座 12 层
Address: 12th Floor, Tower A, Times Center Building, No.102 Central Road, Xinqiao Street, Bao'an District, Shenzhen

制造中心
Manufacturing Center

田边（福建）智能装备有限公司
TECBELL (FUJIAN) INTELLIGENT EQUIPMENT CO.,LTD

地址：福建省武平县武平工业园区环城南路98号
Address: No.98, Huancheng South Road, Wuping Industrial Park, Wuping County, Fujian Province

田边精機 TECBELL



TA系列 TA SERIES

超1级能效 Energy Efficiency level-1

螺杆式空气压缩机
Screw Air Compressors

5年 整机质保
田边精機 TECBELL
WARRANTY

关于我们 ABOUT US

田边精机于2006年3月在深圳前海创立，并于2007年相继注册运营“田边”“TECBELL”品牌。公司立足国际化视野，是集空气压缩机系统及真空负压系统产品研发、制造、销售、服务为一体的大型国际化公司。

Tecbell Precision Machinery was founded in March 2006 in Qianhai, Shenzhen. In 2007, the company officially registered and launched the “TECBELL” brands. With a global perspective, Tecbell has developed into a large-scale international enterprise integrating R&D, manufacturing, sales, and service of compressed air systems and vacuum systems.

企业产品 Enterprise Products

田边精机产品线涵盖永磁变频单双级螺杆式空压机、干式无油螺杆空压机、离心式空压机、水润滑无油空压机、螺杆真空泵、旋片真空泵、无油真空泵、磁悬浮空压机、磁悬浮鼓风机、激光切割机专用空压机、中高压螺杆增压机等系列节能产品。

Tecbell offers a comprehensive portfolio of energy-efficient solutions, covering permanent magnet variable frequency screw air compressors (single-stage and two-stage), oil-free and centrifugal compressors, advanced vacuum systems, and magnetic levitation (maglev) compressors and blowers. Our products also include specialized solutions for laser cutting applications, as well as medium- and high-pressure screw booster compressors.

生产基地 Production Base

田边精机在福建武平县兴建生产基地，成立田边(福建)智能装备有限公司，集自主研发、制造、销售、服务为一体;为进一步满足市场需求，田边再次投资建造一座占地面积40000㎡的现代化压缩机制造中心。

Tecbell is establishing a production base in Wuping County, Fujian Province, through the newly founded Tecbell (Fujian) Intelligent Equipment Co., Ltd. This integrated facility encompasses independent R&D, manufacturing, sales, and after-sale service. To further meet market demands, Tecbell is investing in construction of a modern compressor manufacturing center covering over 40,000 square meters.



2006
成立
Established

40000㎡
现代化压缩机制造中心
Modern Compressor Manufacturing Center

20+
国内办事处
Domestic Offices Across China

100+国家
countries
核心业务遍布全球
Core Business Presence in Worldwide

卓越的整机性能
Excellent Overall Performance



创新的设计
Innovative design

- 专利设计的独立封闭吸、排风结构冷却系统以及集成一体空滤总成过滤系统，机组内部温度和吸气温度接近环境温度，机组能耗更低。
  Thanks to its patented closed suction and exhaust cooling system and integrated air-filter assembly, the unit maintains internal and intake temperatures close to the ambient level, which leads to significantly lower energy consumption.

- 专利设计的温控系统，精准控制油温；法兰式连接的温控阀，使机组内部油路连接更加简洁和牢固，减少压降，减少泄漏点，降低机组能耗以及故障发生率。
  The patented temperature control system precisely regulates the oil temperature. The flange-connected thermo-static valve simplifies and strengthens the internal oil circuit connections, reducing pressure drop, minimizing potential leakage points, and lowering both energy consumption and failure rates of the unit.

- 低温升、高扭转强度的高效电机搭配优异的螺杆转子，压缩机生命周期成本得以降低，TA系列比上一代产品节能效果显著提高15%。
  The high-efficiency motor with low temperature rise and high torsional strength, combined with superior screw rotors, helps reduce the compressor's life-cycle cost. The TA series delivers 15% higher energy savings compared to the previous generation.



更高的可靠性
Higher reliability

- 低转速的离心风机和大冗余热设计的板翅式换热器冷却系统，严苛使用环境下运行更稳定，更低的运营成本，更长的使用寿命。
  The cooling system features a low-speed centrifugal fan and a plate-fin heat exchanger with high thermal redundancy, ensuring more stable operation in harsh environments, lower operating costs, and a longer service life.

易于安装和维护保养
Easy to install and maintain

- 紧凑、集成设计，将内部管道、冷却系统、驱动系统和控制系统全部集成到现成的产品包中，使设备具有故障频率低、调试时间短的特点，设备交付后便可投入使用。
  The compact and integrated design incorporates internal piping, cooling system, drive system, and control system into a ready-to-use product package. This results in low failure rates and shorter commissioning time, allowing the equipment to be put into operation immediately upon delivery.

- 专利设计的集成一体空滤总成过滤系统，打开空滤总成侧面门板即可轻松的维护或更换空滤芯。
  The patented integrated air filter assembly enables easy maintenance or filter replacement simply by opening the side panel of the filter housing.

节能压缩主机
Energy Saving Compression Host

单级压缩 ONE-STAGE

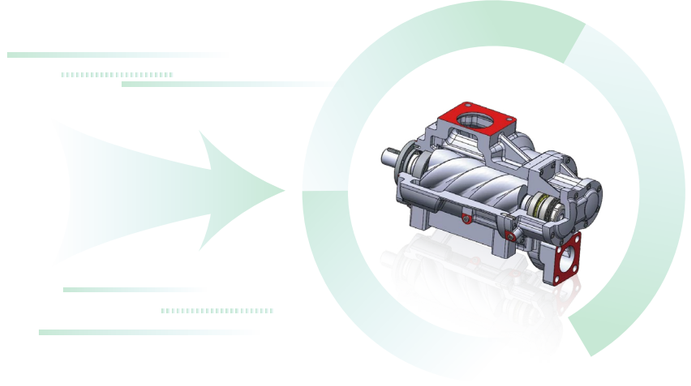
- TA全系列单级空气压缩机采用田边自主研发设计的“TECBELL”新一代高效节能主机，超1级能效标准（GB 30253-2024）。
  TA full range of single stage air compressors using Tecbell independently developed and designed the "Tecbell" new generation of high efficiency and energy saving host, more than 1 level energy efficiency standards.(GB 30253-2024).

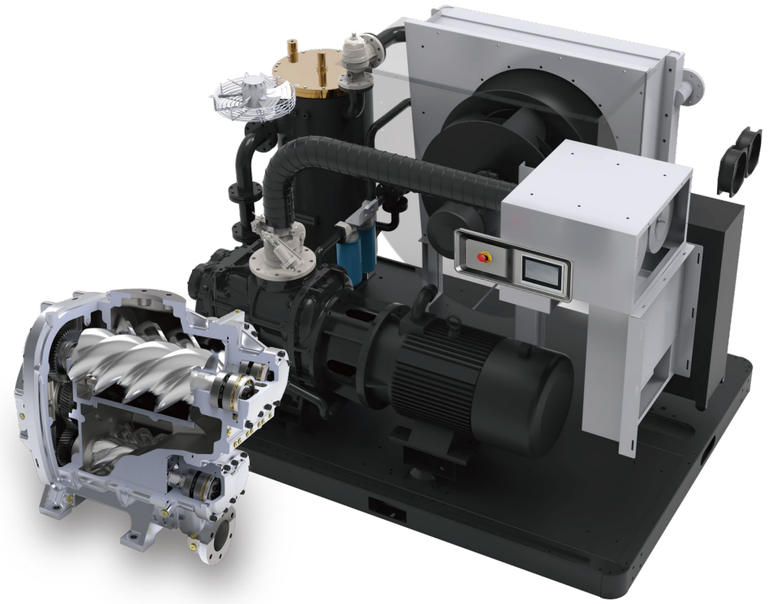
- 优化设计的阴、阳转子型线，有效减少阴阳转子间以及转子间与机体外壳间的间隙，减小了气体回流泄漏，提高了效率和降低压缩机主机噪音。
  The optimized design of Yin and Yang rotor profile can effectively reduce the gap between Yin and Yang rotors and between rotors and the body shell, reduce the gas backflow leakage, improve the efficiency and reduce the compressor host noise.

- 优化设计的阴、阳转子型线以及排气口结构设计，使接触面、接触线和泄露三角区达到最优性能，提高了容积效率，相比上一代主机节能效率提升15%。
  The optimized design of the negative and positive rotor profile and the exhaust port structure enables the optimal performance of the contact surface, contact line and leakage triangle, improves the volumetric efficiency, and increases the energy saving efficiency by 15% compared with the previous generation of the main engine.

高能效、低震动、高可靠性
HIGH ENERGY EFFICIENCY HIGH RELIABILITY LOW VIBRATION

Save Energy 15%





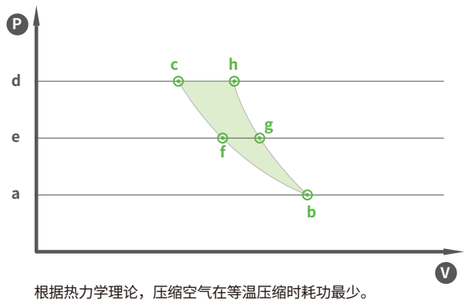
双级压缩 TWO-STAGE

- TA全系列双级空气压缩机采用田边自主研发设计的“TECBELL”双级高效节能主机，中段喷油冷却，近等温压缩，全系列能效均超1级能效标准（GB 30253-2024）。
  TA full range of two-stage air compressors are independently developed by Tecbell using the proprietary “TECBELL” two-stage high-efficiency energy-saving compressor unit. With interstage oil injection cooling, the compression process approaches isothermal compression, and the entire product line exceeds the Level 1 energy efficiency standard (GB 30253-2024).

- 采用最新一代型线，泄漏三角小，接触线长度合理，齿顶线速度比较接近，使其具备更高的效率。
  By adopting a new-generation rotor profile, the design minimizes the leakage triangle, ensures a reasonable contact line length, and maintains an optimal tip speed of rotor teeth, significantly enhancing operational efficiency.

- 优化油路设计，合理分配级间喷油量，更加节能。
  The oil circuit design is optimized to rationally distribute interstage oil injection, significantly improving energy efficiency.

- 独特的润滑方式，顺应螺杆齿沟方向喷油，减少润滑油对螺杆的阻力，增加油在螺杆表面的附着力，完全发挥润滑油的降噪、密封等作用，提升压缩效率。
  The unique lubrication method can spray oil in the direction lubricating oil to the screw, increase the adhesion of the oil on the screw surface, fully play the role of noise reduction and sealing of the lubricating oil, and improve the compression efficiency.



根据热力学理论，压缩空气在等温压缩时耗功最少。
According to thermodynamic principles, compressed air consumes the least energy during isothermal compression.

如上图所示：
As illustrated in the diagram:

面积a-b-c-d-a为定温压缩所产生的功
The area a-b-c-d-a represents the work in isothermal compression ;

面积a-b-h-d-a为单级喷油螺杆压缩机产生的功；
The area a-b-h-d-a represents the work of a single-stage oil-injected screw compressor;

面积a-b-f-e-a和面积e-f-c-d-e分别是双级喷油螺杆压缩机一级和二级压缩产生的功。很明显，双级喷油螺杆压缩机的总功比单级的少，更接近于等温压缩。
The areas a-b-f-e-a and e-f-c-d-e represent the work of the first-stage and second-stage compression in a two-stage oil-injected screw compressor, respectively. Clearly, the totalwork of the two-stage unit is less than that of a single-stage unit, more closely approaching isothermal compression .

永磁变频同步电机
Variable-Speed Synchronous Motor



- TA全系列采用高效率永磁变频同步电机，电机效率高达97.8%，超1级能效标准(GB 30253-2024)。
  High-efficiency permanent magnet variable frequency synchronous motor, the motor efficiency up to 97.8%, exceeding Level 1 energy efficiency standard (GB 30253-2024).
- 采用高矫顽力、耐高温38UH永磁体，保障180°C高温不退磁。
  It adopts high coercivity and high temperature resistant 38UH permanent magnets to ensure no demagnetization at high temperatures of 180° C.
- 全新轴承结构，运行稳定可靠、振动小、噪声低，大幅提高电机的使用寿命。
  The new bearing structure provides stable and reliable operation, small vibration and low noise, which greatly improves the service life of the motor.
- IP55防护等级，有效防止灰尘、水分及其他有害杂质进入电机，保证在严苛使用环境下稳定运行。
  IP55 protection level effectively prevents dust, moisture and other harmful impurities from entering the motor, ensuring stable operation in harsh environments.
- 加大基座号设计，超低温升，确保电机在极端的环境下长时间低转速安全运转；加粗的驱动轴，提高扭转强度。
  The enlarged base design and ultra-low temperature rise ensure that the motor can operate safely at low speed for a long time in extreme environments; the thickened drive shaft improves torsional strength.
- F级绝缘等级，B级温升设计，适应高温工况。
  Class F insulation, Class B temperature rise design, suitable for high temperature working conditions.

高性能变频器
High Performance Inverter

双变频控制，能耗下降更显著
Dual Frequency Conversion for Enhanced Energy Efficiency

田边定制的高性能变频器与创新设计的永磁电机技术相结合的变频控制系统，机组节能效果显著，这使得压缩机的生命周期总成本大幅降低。
Tecbell's dual-frequency control system integrates a customized high-performance inverter with an innovatively designed permanent magnet motor, delivering outstanding energy savings and significantly reducing the compressor's total life cycle cost.

更稳定
More Stable Operation

高性能重载型变频器，电流等级高，变频器容量大，相比轻载变频器温升小。采用矢量控制技术，保证电机温升小，在较宽的转速范围内可获得合适的转矩，驱动空压机稳定运行。
A high - performance heavy - duty inverter features a high current rating and large inverter capacity, resulting in a lower temperature rise compared to light - duty inverters. Vector control technology is adopted to ensure a minimal motor temperature rise and obtain the appropriate torque within a wide speed range, enabling stable operation of the air compressor.



更节能
Higher Energy Efficiency

无频繁启动和停机，无频繁加载和卸载，排气压力恒定，压力波动可稳定在±0.01MPa以内，有效提高气源质量，减少气量消耗，优化能效，降低能耗约30%～50%。
No frequent start - stops or load variations,constant exhaust pressure, with pressure fluctuations maintained within ±0.01 MPa. Effectively improves the gas source quality, reduces gas consumption, optimizes energy efficiency, and cuts energy consumption by approximately 30% - 50%.

内置电机节能算法，在运行中实时调节以尽可能降低输出电流，助力设备低碳增效。
Equipped with a built - in motor energy - saving algorithm, it adjusts in real - time during operation to minimize the output current, facilitating low - carbon and high - efficiency operation of the equipment.

更长寿
Longer Service Life

变频启动，无需星三角配置，对电网的电流冲击小，也不需要额外配置其他软启动器，运行更可靠，寿命更长。
Variable - frequency start - up eliminates the need for star - delta configuration, causes minimal current impact on the power grid, and negates the requirement for additional soft starters. Offers more reliable operation and an extended service life.

智能变频控制系统
Intelligent Frequency Conversion Control System

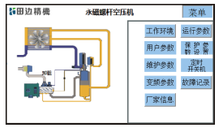
多功能触摸屏
Multifunctional Touchscreen

全彩触控显示屏，丰富的控制功能界面，智能控制，动态显示空气压缩机的运行状态，实时直观的压力、温度和电流工作曲线，各项参数/记录直观明了。可选配物联网模块，随时随地，掌握空压机维保情况，远程监控机器运行情况；随时随刻，调配生产运营，数据采集，用于节能管理。

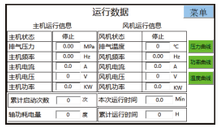
The full-color touchscreen features a rich control interface and intelligent control capabilities. It dynamically displays the operating status of the air compressor in real time, with intuitive pressure, temperature, and current curves, as well as clearly organized parameter records.An optional IoT module enables remote monitoring and maintenance tracking of the compressor anytime, anywhere. It also supports production scheduling and real-time data acquisition for effective energy-saving management.



<接通电源后默认界面>
<Default Interface After Power-On>



系统运行菜单
System Run Menu



运行状况
Operating Status Monitoring



参数设置界面
Parameter Setting Interface

维护保养计划
Maintenance Plan

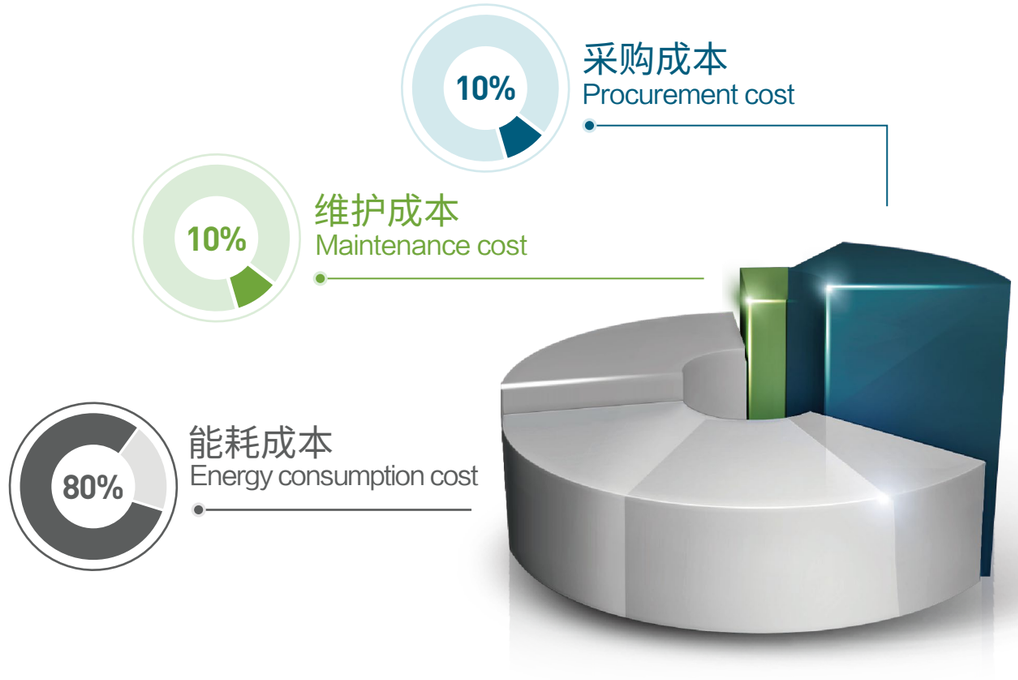
定时自动开关机
Timed Auto Start/Stop

报警记录查询
Alarm Record Query

多重附加功能
Multiple Additional Functions

- 反相保护功能 Reverse Phase Protection
- 排气超温/超压保护 Exhaust Over-Temperature/Over-Pessure Protection
- 过载保护 Overload Protection
- 维护报警功能 Maintenance Alarm Function
- 智能运行负荷调节 Intelligent Operation Load
- 电机过热保护 Motor Overheat Protection
- 压力和温度PID调节 P&T PID Regulation
- 电机节能算法 Energy Saving Algorithm for Motors
- 上电对地短路 Ground Fault On Power-Up

未来看得见的省钱
Foreseeable Cost Saving



空压机整个生命周期内产生的成本可分为:采购成本、维护成本、能耗成本三部分组成。
依据生命周期评价(LCA): 空压机的采购成本占比不到10%，维护占比10%，能耗成本超过80%以上。
因此，采购空压机时需要放眼未来，应当关注的投入是整个生命周期成本而非初始投资成本。

The total cost of an air compressor throughout its lifecycle can be categorized into three components: purchase cost, maintenance cost, and energy consumption cost. According to Life Cycle Assessment (LCA): The purchase cost accounts for less than 10% of the total and Maintenance constitutes around 10% while energy consumption costs exceed 80%. Therefore, when purchasing an air compressor, it is critical to adopt a long-term perspective—focusing on the total lifecycle cost rather than just the initial investment.

可靠的节能知识
Reference for Energy Saving

ENERGY SAVING KNOWLEDGE

国标空压机能效标准
National Energy Efficiency Stanards for Air Compressors

节选自《GB19153-2019容积式空气压缩机能效限定值及能效等级》表2/额定排气压力0.8MPa/风冷

Excerpt from《GB19153-2019 Minimum Allowable Values of Energy Efficiency and Energy Efficiency Grades for Displacement Air Compressors》 Chart2/Rated Discharge Pressure 0.8MPa/Air Cooling

电机功率 Motor Power	18.5kW	22kW	30kW	37kW	45kW	55kW	75kW	90kW	110kW	132kW	160kW	200kW	250kW	315kW
能效等级 Energy efficiency	机组比功率 kW(m³/min) Generating unit specific power													
一级 Level 1	7.4	7.3	7.1	7	6.9	6.8	6.6	6.5	6.4	6.4	6.3	6.3	6.2	6.2
二级 Level 2	8.1	7.9	7.7	7.6	7.5	7.3	7.1	7	6.9	6.9	6.8	6.8	6.7	6.7
三级 Level 3	9.2	8.9	8.7	8.5	8.3	8.1	7.9	7.8	7.7	7.7	7.6	7.6	7.5	7.5

变频器在螺杆空压机的节能计算
Energy Saving Calculation of Variable Frequency Drive in Rotary Screw Air Compressors

100% 满载节能 Energy Saving at Full Load

70% 负载节能 Energy-Efficient Under Varing Loads

项目 Parameter	普通空压机 Normal Air Compressor	田边高性能变频空压机 Tecbell High Performance VFD Air Compressors	普通空压机 Normal Air Compressor	田边高性能变频空压机 Tecbell High Performance VFD Air Compressor
年工作时间(H) Annual Operating Hours(H)	8000	8000	8000	8000
能耗/机组比功率kW/(m³/min) Specific Power Consumption	7.8	6.25	9.3	6.25
排气量(m³/min) Specific Power Consumption	12	13	12	13
年用气量(m³) Annual Air Consumption	5760000	5760000	4032000	4032000
一年耗电(度) Annual Power Consumption(kWh)	748800	600000	624960	420000
电费单价(元) Electricity Price(¥/kWh)	0.8	0.8	0.8	0.8
一年电费(万元) Electricity Price(¥/kWh)	59.9	48	50	33.6
节省电费(万元) Electricity Saving(¥10000)	-	11.9	-	16.4

说明：数据以75kW/8bar单级空压机为例，工作时间和年用气量恒定的情况下对比节能效果

Note: The data is based on a 75 kW/8 bar single-stage air compressor. Energy-saving effects are compared under constant operating hours and annual air consumption.

更多重要产品特点和指标
More Important Product Features and Specifications

01 冷却器
Cooler

● 采用传热效率高的铝板翅式换热器，优越的流体对流放热系数，换热效率高。
Equipped with high-efficiency aluminum plate-fin heat exchangers, featuring superior convective heat transfer coefficients and exceptional thermal efficiency.
● 优化翅片矩形排列设计，快速冷却，减少压降。换热系统设计余量 20%~50%，保证了压缩机在极端环境下稳定运行。
Optimize the rectangular arrangement design of fins for rapid cooling and reduced pressure drop.The heat exchange system is designed with a 20% to 50% performance margin, ensuring stable compressor operation even under extreme conditions.

02 离心风机冷却系统
Centrifugal fan cooling system

● 运用流体动力学仿真软件优化设计计算的离心风机，在运行和启动过程中的状态都较为平稳，它所带来的平稳性以及给予相同风量及风压下的轴流风机的耗功低，实现最佳风机效率，较相同状态下的轴流风机降低能耗值30% 以上。
Centrifugal fans are optimized via computational fluid dynamics (CFD) simulations, delivering stable operation during startup and runtime. Compared to axial fans under identical air volume/pressure conditions, they achieve 30%+ energy savings due to superior efficiency.
● 采用独立封闭的吸、排风结构冷却系统，吸（冷风）、排（热风）风由不同方向进出，冷却效果极佳，机组内部温度接近环境温度，机组能耗降低。
Features an independent closed-loop suction/exhaust system with cross-directional airflow (cool air in, hot air out), minimizing internal temperatures and energy consumption.
● 田边定制设计的离心叶轮，单台最大能满足 450kW 机组冷却系统，较传统大功率机组多台风机串联设计，具有噪音低，风压平稳均匀，散热面积得到充分利用的优点。
Custom-designed centrifugal impellers for single-unit 450kW cooling systems. Outperforms traditional multi-fan designs with lower noise, uniform pressure, and maximized heat dissipation.

03 高效微粒子空气过滤系统
High efficiency particulate air filtration system

● 高品质、重载空气过滤系统，较高的容尘能力和较低的进气阻力设计。
Heavy-duty air filtration system with high dust-holding capacity and low inlet resistance, designed for demanding environments.
● 可滤除空气中的微小固体颗粒，3μm以上的颗粒过滤精度可达99.9%，适用于重粉尘环境，压缩机主机名副其实的“安全卫士”。
Captures airborne particles ≥3μm with 99.9% efficiency, serving as a critical "safety guard" for compressors in dusty conditions.

04 温控系统
Temperature control system

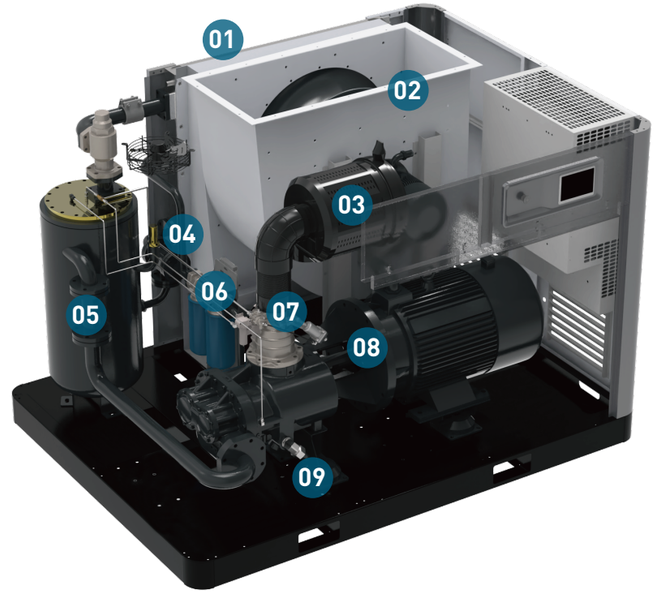
● 田边定制设计的温控阀，内部感温，自适应调节，精准控制油温。
Custom temperature control valves with built-in sensors for adaptive oil temperature regulation.
● 无外部运动件和运动密封件，低摩擦，损耗小，“零”泄漏设计。
Seal-less design minimizes friction and ensures zero leakage.
● 铸件设计结构，良好的超温和超压保护性能，恒温控制，性能可靠，寿命长。
Cast housing provides reliable over-temperature/over-pressure protection, stable performance, and long service life.

05 油气分离器
Oil gas separator

● 优化设计的油气分离罐，进口可形成螺旋切向流动，便于油气离心分离。
Coalescing separator tank with tangential inlet for efficient oil-gas separation.
● 优化设计的油气分离切向线速度以及沉降时间，油气分离效果最佳，确保机器排气含油量≤2ppm。
Optimized tangential velocity and settling time ensure ≤2ppm

06 油过滤系统
Oil filtration system

● 采用美国H＆V公司的超细玻纤复合滤材，优质洁净过滤，有效保护压缩机主机轴承的安全运行，延长主机使用寿命。
The company in the United States, H&V, Its ultra-fine fiberglass composite filter media for superior contamination control and extended bearing life.
● 阻力小、耐高温、耐腐蚀性，性能更稳定，提高压缩机主机的使用寿命。
Low resistance, high-temperature resistance, and corrosion resistance ensure stable performance and longevity.



07 单向进气系统
Non-return air intake system

● 田边定制设计的进气阀，特殊的结构设计，无一般常开式进气阀启动负荷大的情况。
“ TECBELL”custom - designed air intake valve, with a unique structural design, eliminates the high starting load problem of conventional normally - open air intake valves.
● 具有止回功能，在紧急停机的工况下，也不会喷油。
It features a check - back function and will not spray oil even under emergency shutdown conditions.
● 具有卸载补气功能，可以有效消除主机产生的气蚀噪音。
It has the unloading and air - supplement function, which can effectively eliminate the cavitation noise generated by the main unit.
● 0～100%比例调节气量功能，容调阀调节，压力损失小，动作稳定，寿命长。
0 - 100% stepless capacity regulation, controlled by a modulation valve with low pressure loss, stable operation, and long service life.

08 主机电机直联系统
Motor-compressor direct coupling system

● 田边自主研发设计的“TECBELL”高效节能主机。
“TECBELL” high - efficiency and energy - saving main unit independently developed and designed by Tecbell.
● 田边定制高效稀土永磁同步电动机，180°C不失磁。
“TECBELL” customized high - efficiency rare - earth permanent magnet synchronous motor does not lose magnetism at 180° C.
● 主机和电机采用1:1直联驱动，传动精度、效率高。
The main unit and the motor adopt a 1:1 direct - drive mode, with high transmission accuracy and efficiency.
● 主机和电机采用分体式设计，稳定可靠，维护方便。
The main unit and the motor adopt a split - type design, which is stable, reliable and easy to maintain.

09 无泄漏密封系统
Seal-less system

● ORFS-O型圈端面密封：
高耐腐蚀性材质，适用于油、水、气及其混合介质。高耐磨性，密封面磨损后具有自动弹性补偿功能。具有自密封作用，密封性能可靠。
ORFS - O - ring face seal:
Made of highly corrosion - resistant materials, it is suitable for oil, water, gas and their mixed media. It has high wear resistance and can automatically compensate elastically after the sealing surface is worn. It has a self - sealing function and reliable sealing performance.

● 可靠的管路密封和避震：
采用无缝钢管，表面耐腐蚀处理，长久使用无隐患。道连接头采用锥面和O型圈双保险密封，实现“零”渗漏。
Reliable pipeline seal and shock absorber:
Seamless steel pipes are used, and anti - corrosion treatment is carried out on the surface, so there are no hidden dangers during long - term use. Pipe connectors adopt double seals of conical surfaces and O - rings to achieve “zero” leakage.

单级压缩永磁变频参数表
Single - stage compression VSD Machine parameter

型号 Model	额定功率 Rated power (kW)	冷却方式 Cooling	工作压力 Pressure (bar)	容积流量 Volumetric flow rate (m³/min)	重量 Weight (kg)	外形尺寸 Overall size (L×W×H mm)	出口尺寸 Outlet size
TA-7A/7EPM	7.5	风冷	7	1.20	220	980x680x900	G3/4
TA-7A/8EPM			8	1.05			
TA-7A/10EPM			10	0.98			
TA-7A/12.5EPM			12.5	0.86			
TA-11A/7EPM	11	风冷	7	2.00	290	1150x700x1050	G3/4
TA-11A/8EPM			8	1.85			
TA-11A/10EPM			10	1.53			
TA-11A/12.5EPM			12.5	1.21			
TA-15A/7EPM	15	风冷	7	2.58	320	1150x700x1050	G3/4
TA-15A/8EPM			8	2.40			
TA-15A/10EPM			10	2.10			
TA-15A/12.5EPM			12.5	1.80			
TA-18A/7EPM	18.5	风冷	7	3.40	320	1150x700x1050	G1
TA-18A/8EPM			8	3.20			
TA-18A/10EPM			10	2.55			
TA-18A/12.5EPM			12.5	2.10			
TA-22A/7EPM	22	风冷	7	3.80	500	1500x1000x1320	G1
TA-22A/8EPM			8	3.60			
TA-22A/10EPM			10	3.30			
TA-22A/12.5EPM			12.5	2.42			
TA-30A/7EPM	30	风冷	7	5.40	570	1500x1000x1320	G1
TA-30A/8EPM			8	5.00			
TA-30A/10EPM			10	4.53			
TA-30A/12.5EPM			12.5	3.65			
TA-37A/7EPM	37	风冷	7	6.70	850	1650x1150x1400	G1 1/2
TA-37A/8EPM			8	6.50			
TA-37A/10EPM			10	5.45			
TA-37A/12.5EPM			12.5	4.60			
TA-45A/7EPM	45	风冷	7	7.92	880	1650x1150x1400	G1 1/2
TA-45A/8EPM			8	7.50			
TA-45A/10EPM			10	6.80			
TA-45A/12.5EPM			12.5	5.80			
TA-55AW/7EPM	55	风冷 水冷	7	11.13	1350 980	2200x1350x1620 2050x1250x1600	G 2
TA-55AW/8EPM			8	10.62			
TA-55AW/10EPM			10	9.44			
TA-55AW/12.5EPM			12.5	7.60			
TA-75AW/7EPM	75	风冷 水冷	7	14.00	1450 1050	2200x1350x1620 2050x1250x1600	G 2
TA-75AW/8EPM			8	13.00			
TA-75AW/10EPM			10	11.97			
TA-75AW/12.5EPM			12.5	10.00			
TA-90AW/7EPM	90	风冷 水冷	7	17.70	1700 1800	2350x1580x1620 2500x1750x1650	G2 1/2
TA-90AW/8EPM			8	17.00			
TA-90AW/10EPM			10	14.20			
TA-90AW/12.5EPM			12.5	12.10			
TA-110AW/7EPM	110	风冷 水冷	7	22.00	2150 1950	2550x1850x1750 2500x1750x1650	DN65
TA-110AW/8EPM			8	21.00			
TA-110AW/10EPM			10	18.00			
TA-110AW/12.5EPM			12.5	14.50			

单级压缩永磁变频参数表
Single - stage compression VSD Machine parameter

型号 Model	额定功率 Rated power (kW)	冷却方式 Cooling	工作压力 Pressure (bar)	容积流量 Volumetric flow rate (m³/min)	重量 Weight (kg)	外形尺寸 Overall size (L×W×H mm)	出口尺寸 Outlet size
TA-132AW/7EPM	132	风冷 水冷	7	25.70	2550 2200	2550x1850x1750 2500x1750x1650	DN65
TA-132AW/8EPM			8	24.60			
TA-132AW/10EPM			10	21.20			
TA-132AW/12.5EPM			12.5	17.80			
TA-160AW/7EPM	160	风冷 水冷	7	30.00	3000 2850	3000x2000x2000 2850x1800x2000	DN80
TA-160AW/8EPM			8	29.00			
TA-160AW/10EPM			10	24.83			
TA-160AW/12.5EPM			12.5	20.87			
TA-185AW/7EPM	185	风冷 水冷	7	34.22	3600 3300	3000x2000x2000 2850x1800x2000	DN80
TA-185AW/8EPM			8	33.00			
TA-185AW/10EPM			10	28.90			
TA-185AW/12.5EPM			12.5	23.90			
TA-200AW/7EPM	200	风冷 水冷	7	39.70	4300 3800	3550x2300x2140 3250x2200x2160	DN100
TA-200AW/8EPM			8	37.35			
TA-200AW/10EPM			10	34.08			
TA-200AW/12.5EPM			12.5	29.05			
TA-250AW/7EPM	250	风冷 水冷	7	48.06	5100 4450	3550x2300x2140 3250x2200x2160	DN100
TA-250AW/8EPM			8	45.90			
TA-250AW/10EPM			10	41.80			
TA-250AW/12.5EPM			12.5	36.80			
TA-280AW/7EPM	280	风冷 水冷	7	52.10	6000 5300	3650x2400x2300 3580x2400x2300	DN125
TA-280AW/8EPM			8	50.30			
TA-280AW/10EPM			10	45.74			
TA-280AW/12.5EPM			12.5	40.48			
TA-315AW/7EPM	315	风冷 水冷	7	57.10	6600 5900	3650x2400x2300 3580x2400x2300	DN125
TA-315AW/8EPM			8	55.80			
TA-315AW/10EPM			10	49.94			
TA-315AW/12.5EPM			12.5	43.36			
TA-355AW/7EPM	355	风冷 水冷	7	65.34	7500 6800	3650x2400x2300 3580x2400x2300	DN125
TA-355AW/8EPM			8	64.73			
TA-355AW/10EPM			10	54.69			
TA-355AW/12.5EPM			12.5	45.38			

* 田边精机对产品享有设计变更权，设备资料、规格参数等如有变更，敝公司不做另行通知
*Tecbell has the right to make design changes to its products. If there are any changes to equipment information, specifications, etc., our company will not notify customers separately

* 技术规格为实验室测试数据，吸气条件：1atm/30°C/80%RH
*The technical specifications are based on laboratory test data, and the suction conditions are 1 atm/30℃/80%RH

* 工作压力：表显压力
*Working pressure: gauge pressure

* 容积流量测试标准：GB/T 3853、GB/T 15487
*Volume flow test standards: GB/T 3853, GB/T 15487

* 如需2bar～6bar、16bar～40bar以及非标定制机型，请与销售人员联系
*For customized models ranging from 2bar to 6bar, 16bar to 40bar, and non-standard models, please contact sales personnel

* 设备使用地海拔＞1000m，请与销售人员联系
*If the equipment is used at an altitude greater than 1000 m, please contact sales personnel

* 详细规格请查阅《技术规格说明书》或咨询销售人员
*For detailed specifications, please refer to the "Technical Specification Manual" or consult the sales staff

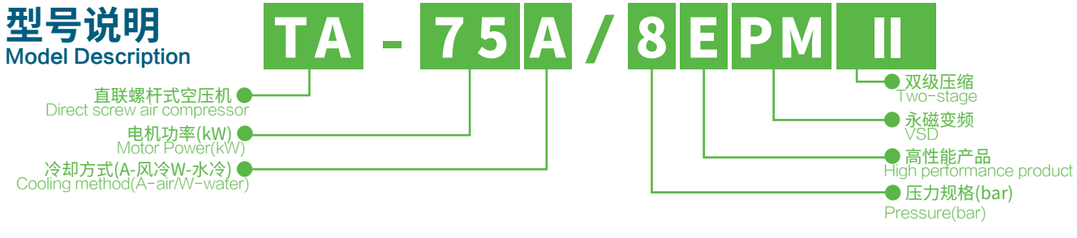
双级压缩永磁变频参数表
Two - stage compression VSD Machine parameter

型号 Model	额定功率 Rated power (kW)	冷却方式 Cooling	工作压力 Pressure (bar)	容积流量 Volumetric flow rate (m³/min)	重量 Weight (kg)	外形尺寸 Overall size (L×W×H mm)	出口尺寸 Outlet size
TA-15A/7EPMⅡ	15	风冷	7	3.05	570	1500x1000x1320	G1
TA-15A/8EPMⅡ			8	2.90			
TA-15A/10EPMⅡ			10	2.65			
TA-15A/12.5EPMⅡ			12.5	2.50			
TA-22A/7EPMⅡ	22	风冷	7	4.30	850	1650x1150x1400	G1 1/2
TA-22A/8EPMⅡ			8	4.20			
TA-22A/10EPMⅡ			10	3.50			
TA-22A/12.5EPMⅡ			12.5	3.37			
TA-30A/7EPMⅡ	30	风冷	7	6.30	900	1650x1150x1400	G1 1/2
TA-30A/8EPMⅡ			8	6.10			
TA-30A/10EPMⅡ			10	4.50			
TA-30A/12.5EPMⅡ			12.5	4.20			
TA-37A/7EPMⅡ	37	风冷	7	7.20	1350	2200x1350x1620	G 2
TA-37A/8EPMⅡ			8	7.05			
TA-37A/10EPMⅡ			10	6.08			
TA-37A/12.5EPMⅡ			12.5	5.52			
TA-45A/7EPMⅡ	45	风冷	7	10.00	1450	2200x1350x1620	G 2
TA-45A/8EPMⅡ			8	9.75			
TA-45A/10EPMⅡ			10	6.96			
TA-45A/12.5EPMⅡ			12.5	6.60			
TA-55AW/7EPMⅡ	55	风冷 水冷	7	13.00	2150 1800	2350x1580x1650 2550x1850x1750	G2 1/2
TA-55AW/8EPMⅡ			8	12.50			
TA-55AW/10EPMⅡ			10	10.20			
TA-55AW/12.5EPMⅡ			12.5	9.80			
TA-75AW/7EPMⅡ	75	风冷 水冷	7	15.73	2450 2000	2350x1580x1650 2550x1850x1750	G2 1/2
TA-75AW/8EPMⅡ			8	15.06			
TA-75AW/10EPMⅡ			10	13.20			
TA-75AW/12.5EPMⅡ			12.5	12.00			
TA-90AW/7EPMⅡ	90	风冷 水冷	7	20.20	2700 2300	2550x1850x1750 2550x1850x1750	DN65
TA-90AW/8EPMⅡ			8	19.30			
TA-90AW/10EPMⅡ			10	16.37			
TA-90AW/12.5EPMⅡ			12.5	14.65			
TA-110AW/7EPMⅡ	110	风冷 水冷	7	24.00	3600 3200	3000x2000x2000 2850x1800x2000	DN80
TA-110AW/8EPMⅡ			8	23.00			
TA-110AW/10EPMⅡ			10	19.70			
TA-110AW/12.5EPMⅡ			12.5	18.50			
TA-132AW/7EPMⅡ	132	风冷 水冷	7	28.50	3800 3300	3000x2000x2000 2850x1800x2000	DN80
TA-132AW/8EPMⅡ			8	26.71			
TA-132AW/10EPMⅡ			10	23.90			
TA-132AW/12.5EPMⅡ			12.5	21.30			
TA-160AW/7EPMⅡ	160	风冷 水冷	7	33.5	4200 3800	3000x2000x2000 2850x1800x2000	DN80
TA-160AW/8EPMⅡ			8	32.15			
TA-160AW/10EPMⅡ			10	28.50			
TA-160AW/12.5EPMⅡ			12.5	26.50			
TA-185AW/7EPMⅡ	185	风冷 水冷	7	41.50	5500 5000	3550x2300x2140 3250x2200x2160	DN100
TA-185AW/8EPMⅡ			8	39.80			
TA-185AW/10EPMⅡ			10	34.00			
TA-185AW/12.5EPMⅡ			12.5	32.40			

双级压缩永磁变频参数表
Two - stage compression VSD Machine parameter

型号 Model	额定功率 Rated power (kW)	冷却方式 Cooling	工作压力 Pressure (bar)	容积流量 Volumetric flow rate (m³/min)	重量 Weight (kg)	外形尺寸 Overall size (L×W×H mm)	出口尺寸 Outlet size
TA-200AW/7EPMⅡ	200	风冷 水冷	7	44	6800 6000	3550x2300x2140 3250x2200x2160	DN100
TA-200AW/8EPMⅡ			8	42.32			
TA-200AW/10EPMⅡ			10	38.00			
TA-200AW/12.5EPMⅡ			12.5	33.00			
TA-220AW/7EPMⅡ	220	风冷 水冷	7	48.10	7000 6350	3550x2300x2140 3250x2200x2160	DN100
TA-220AW/8EPMⅡ			8	46.30			
TA-220AW/10EPMⅡ			10	41.00			
TA-220AW/12.5EPMⅡ			12.5	38.50			
TA-250AW/7EPMⅡ	250	风冷 水冷	7	55.4	7300 6800	3650x2400x2300 3680x2400x2300	DN125
TA-250AW/8EPMⅡ			8	52.50			
TA-250AW/10EPMⅡ			10	45.00			
TA-250AW/12.5EPMⅡ			12.5	41.20			
TA-280AW/7EPMⅡ	280	风冷 水冷	7	60.00	8750 7900	3650x2400x2300 3680x2400x2300	DN125
TA-280AW/8EPMⅡ			8	57.00			
TA-280AW/10EPMⅡ			10	51.40			
TA-280AW/12.5EPMⅡ			12.5	47.00			
TA-315AW/7EPMⅡ	315	风冷 水冷	7	66.7	10500 9250	3650x2400x2300 3680x2400x2300	DN125
TA-315AW/8EPMⅡ			8	65.20			
TA-315AW/10EPMⅡ			10	59.10			
TA-315AW/12.5EPMⅡ			12.5	54.30			
TA-355AW/7EPMⅡ	355	风冷 水冷	7	77.00	11800 10500	5000x2450x2500 4880x2450x2550	DN150
TA-355AW/8EPMⅡ			8	74.21			
TA-355AW/10EPMⅡ			10	64.50			
TA-355AW/12.5EPMⅡ			12.5	58.30			
TA-400AW/7EPMⅡ	400	风冷 水冷	7	83.13	13300 12000	5000x2450x2500 4880x2450x2550	DN150
TA-400AW/8EPMⅡ			8	82.09			
TA-400AW/10EPMⅡ			10	73.91			
TA-400AW/12.5EPMⅡ			12.5	69.30			
TA-450W/7EPMⅡ	450	水冷	7	95.8	12500	4880x2450x2550	DN150
TA-450W/8EPMⅡ			8	93.09			
TA-450W/10EPMⅡ			10	81.69			
TA-450W/12.5EPMⅡ			12.5	76.57			

型号说明
Model Description



*有更多机型需求详情咨询销售人员
*For more information about additional models, please consult our sales staff.

整机质保五年
5-Year Full Machine Warranty

按田边精机相关售后指导操作，田边精机对该系列整机承诺：
五年内非人为因素损坏的质量问题享受整机质保服务。

In accordance with Tecbell's after-sales guidelines, we guarantees a 5-year full machine warranty for this product series, covering all non-human-induced quality defects.

行业先行者 陪伴您5年的安心无忧

Industry pioneer ensures your 5 years of worry-free operation.

整机5年质保服务不包含周期更换的易损件。
需使用田边精机正厂配件和润滑油。

The 5-year full machine warranty does not cover periodically replaced wear parts.
Maintenance and repairs must use genuine Tecbell replacement parts and lubricants.

ISO 9001 证书编号：11422Q48911R0S
ISO14001 证书编号：11422E48912R0S
ISO45001 证书编号：11422S28913R0S

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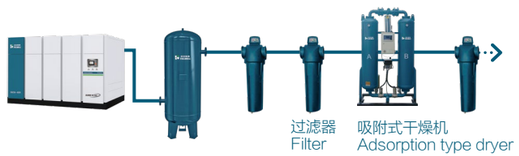
MD (2006/42/EC)
LVD (2014/35/EU)
EMC (2014/30/EU)
认证编码：TTC-23-2906/01/01

IMD(2006/42/EC)
LVD(2014/35/EU)
EMC(2014/30/EU)
Certification Code：TTC - 23 - 2906/01/01

质量安全认证
证书编号：2023GCCA02007033001
证书编号：2023GCCA02005033001

Quality and Safety Certification
Certificate No.2023GCCA02007033001
Certificate No.2023GCCA02005033001

不同用途空气净化配置方案
Air Purification Configuration Schemes for Different Purposes

配置 Configuration	效果 Effect	用途 Usage
	去除水分≥99% Moisture removal ≥ 99% 含油量≤2PPM Oil content ≤ 2PPM 过滤颗粒≤35μm Filtered particles ≤ 3μm	防止管道污染、过滤大型固态及液态污染物、过滤大型干燥系统中的颗粒物。用于大型空气动力工具、空气夹盘、一般清洁气枪。 Prevent pipeline pollution,filter large solidand liquid pollutants, and filter particulatematter in large drying systems. Used forlarge aerodynamic tools, air chucks, andgeneral cleaning air guns.
	压力露点2~8℃ Pressure dew point 2~8 ℃ 去除水分≥99% moisture removal ≥ 99% 含油量≤0.5PPM oil content ≤ 0.5PPM 过滤颗粒≤1μm filtered particles ≤ 1μm	过滤绝大部分的水分、油污及颗粒物。用于设备自动化、电镀喷漆等。 Filter the vast majority of water, oil, and particulate matter. Used for equipment automation, electroplating and painting etc.
	压力露点-20~-40℃ Pressure dew point -20~-40 ℃ 去除水分≥99% moisture removal ≥ 99% 含油量≤0.01PPM Oil content ≤ 0.01PPM 过滤颗粒≤1μm filtered particles ≤ 1μm	用于生物工程、电子工业、电子零件、风干、纺织化纤、化工精密用气等。 Used in bioengineering, electronic industry, electronic parts, air drying, textile and chemical fiber, chemical precision gas, etc.
	压力露点-40℃~-70℃ Pressure dew point-40℃~-70℃ 去除水分≥ 99% moisture removal ≥ 99% 含油量≤0.01PPM Oil content ≤ 0.01PPM 过滤颗粒≤0.01μm Filter particles ≤ 0.01μm	用于精密设备,机器人、精密气动工具、高精喷涂、气体输送、空气轴、空气电机、空气仪表等。 Used for precision equipment, robots, precision pneumatic tools, high-precision spraying, gas conveying, air shafts, air motors, air instruments, etc.
	压力露点-40℃~-70℃ Pressure dew point-40℃~-70℃ 去除水分≥99% moisture removal ≥ 99% 含油量≤0.003PPM Oil content ≤ 0.003PPM 过滤颗粒≤0.01μm Filter particles ≤ 0.01μm	优质的清洁空气,过滤油气及碳氢化物异味.用于食品、化妆品、医药、塑料成型、尖端引气设备等。 High quality clean air that filters out oil and gas as well as carbon hydride odors. Used in food, cosmetics, pharmaceuticals, plastic molding, cutting-edge air entrainment equipment etc.

匠心品质 至上服务
Originality Quality Supreme Service

为更好的服务和满足客户需求,田边精机在全国范围内建设专业的售后服务网络,派驻技术工程人员常年为客户开展技术支持到维保后端的全方位服务。
我们的客服售后将认真倾听客户心声,并及时反馈研发部门改进,以期田边精机的压缩机技术开发更上一层楼。
如有任何需求,请随时联系您身边的经销商或田边公司业务、售后部门,我们将及时快速的响应需求!

To better serve and meet customer needs, Tecbell has established a nationwide professional after-sales service network, with certified technical engineers stationed across the country to provide comprehensive end-to-end support, from technical assistance to maintenance and backend services. Our customer service team actively listens to client feedback and promptly relays insights to R&D for continuous improvement, ensuring Tecbell's compressor technologies evolve to achieve higher performance standards.

电话咨询：400-080-2622　　Telephone consultation：400-080-2622



田边精機 精工智造
TECBELL MANUFACTURING

田边纯正备件Tecbell genuine parts



- 田边空压机原厂备件由田边精机厂家质量保证,请使用正品备件,以保障您的设备性能稳定运行,免去后顾之忧!
- 我们有专业的服务工程师根据您的设备制定保养周期计划并及时提供相应的备件,确保您的设备在保养周期内稳定运行。
- 使用不配套的备件会降低压缩机的效率和可靠性,不仅会增加使用成本,而且还可能引起故障,对您的盈利能力产生严重影响。

- Tecbell air - compressor genuine spare parts are quality - assured by Tecbell precision machine manufacturer. Please use genuine spare parts to ensure the stable operation of your equipment and have no worries!
- We have professional service engineers who will develop maintenance cycle plans according to your equipment and timely provide the corresponding spare parts to ensure the stable operation of your equipment within the maintenance cycle.
- The use of unmatched spare parts will reduce the efficiency and reliability of the air - compressor, which will not only increase the operating costs but also may cause failures, having a serious impact on your profitability.

田边纯正润滑油Tecbell genuine lubricants



- 传统的矿物润滑油使用寿命短,含油润滑液的冷凝水直接排放对环境造成污染。田边精机提供的纯正合成润滑油,使用寿命是普通矿物油的3倍,含油润滑液的冷凝水可生物降解,可直接排放。
- 田边精机润滑油具有高闪点、强热稳定性、耐腐蚀、抗乳化及抗泡性等优点,对设备提供卓越保护,增加机器的可靠性和使用寿命。

- Traditional mineral lubricants have a short service life, and the condensate from oil-laden lubricating fluids. if directly discharged, it can pollute the environment. Tecbell's genuine synthetic lubricating oil offers a service life three times longer than that of conventional mineral oils, while its condensate from oil-laden lubricants is biodegradable and can be safely discharged without environmental harm.
- Tecbell's lubricating oil boasts key advantages such as high flash point, excellent thermal stability, superior corrosion resistance, effective anti-emulsification, and anti-foaming properties. These features deliver outstanding equipment protection, enhance machine reliability, and extend its service life.