



### 韩国拓博集团总部 / Korea Factory / R&D Center

韩国拓博株式会社  
Korea Turbo Inc.  
72-10, Sinchon-gil, Oksan-myeon, Heungdeok-gu, Cheongju-si, Chungbuk, Korea.  
TEL: 0082-43-275-7573/267-7573 FAX: 0082-43- 267-7572  
[www.k-turbo.com](http://www.k-turbo.com)

### 韩国拓博机械售后服务中心

Kturbo A/S Center  
118-6, Deck chon -li, Oksan-myeon, Heungdeok-gu, Cheongju-si, Chungbuk, Korea.  
Tel: 0082-42-935-0342 / 0082-43-273-7573 Fax: 0082-43-273-7572  
[www.k-turbo.com](http://www.k-turbo.com)

### 韩国拓博机械（香港）有限公司

Kturbo (HK) Co.,Ltd  
Chevalier House, 45-51 Chatham Road South, Tsim Sha Tsui, Kowloon, Hong Kong  
Tel: 00852 26681868 Fax: 00852 26681899  
[www.k-turbo.com](http://www.k-turbo.com)

### 中国工厂及售后服务中心 / China Factory & A/S Center

江苏大韩悬浮科技集团有限公司  
Korea Turbo (JiangSu)Group.Inc.  
地址：江苏省无锡宜兴市高塍镇科技大道北投环保产业园15栋  
电话：0510-87839005/6  
传真：0510-87839007  
[www.k-turbo.com](http://www.k-turbo.com)

### 北京办事处

地址：北京市丰台区菜户营58号5楼  
电话：010-52511391/2  
传真：010-52511393  
[www.k-turbo.com](http://www.k-turbo.com)

### 广州办事处

地址：广州市天河区天河北路233号中信广场  
电话：020-38107791/2  
传真：020-38107793  
[www.k-turbo.com](http://www.k-turbo.com)

### 售后服务中心

地址：安徽省安庆市迎江区老峰镇长江电商生态城B7栋  
电话：0556-5310825/6  
传真：0556-5310829  
[www.k-turbo.com](http://www.k-turbo.com)



The World's Leading  
Company For The High Speed  
Energy Machinery

TURBO SERIES

1997年全世界首家研发&制造成功空气悬浮：  
压缩机、鼓风机、冷冻机的韩国拓博集团



Turbo Compressor Series  
空气悬浮压缩机系列

- ◆ Compressors 空气悬浮压缩机
- ◆ Blowers 空气悬浮鼓风机
- ◆ Chillers 空气悬浮冷冻机

K Turbo

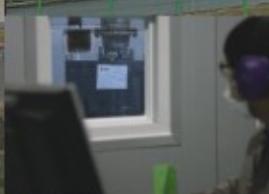
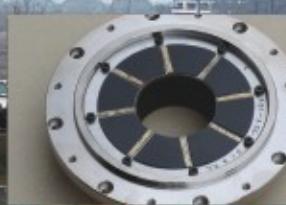
韩国拓博集团  
江苏大韩悬浮科技集团

## KTurbo 改善环境造福人类的技术

Technology that nurture mankind and nature is what KTurbo aiming.

## KTurbo 探寻人类发展的终极技术

KTurbo is looking beyond technology that will last centuries.



韩国拓博集团中国无锡工厂



## Contents 目录

- 04 ..Company Introduction 公司介绍
- 06 ..Founder of Turbo Compressor 空气悬浮创始人
- 08 ..Products 产品系列
- 10 ..Core Technology 核心技术
- 12 ..Controller 控制方式
- 13 ..Turbo Compressor 空气悬浮压缩机
- 22 ..Turbo Blower 空气悬浮鼓风机
- 26 ..5G New Turbo Blower 新概念5G空气悬浮鼓风机
- 28 ..Turbo Chiller 空气悬浮冷冻机
- 32 ..Client 现场业绩
- 34 ..Certificates 资质证书

# Company introduction

## 企业介绍

**K Turbo** 跳跃发展，追求终极效率  
飞跃性的技术进步

**1997~ 2004 创业期**

- 1997 12 成立韩国拓博机械株式会社  
FOUNDED KTURBO INC.
- 1998 08 空气悬浮鼓风机研发成功  
SUCCESFULLY DEVELOPED TURBO BLOWERS
- 2001 07 获得大韩民国技术大展金大中总统奖状  
AWARDED THE PRESIDENTIAL AWARDED IN THE NEW TECH KOREA 2001
- 2004 11 获得优质产品科学技术部长官奖状  
MINISTRY OF SCIENCE AND TECHNOLOGY AWARD
- 2005 01 星信洋灰（株）水泥公司入股一个亿人民币  
SUNGSHIN CEMENT INC. PARTICIPATES AS A STAKEHOLDER
- 2005 04 被选定优秀机器奖  
"EXCELLENT MACHINERY" AWARD
- 2005 05 清原第二工厂竣工  
COMPLETION OF THE SECOND CHEONGWON FACTORY
- 2005 11 获得优质产品国务院总理奖状  
PRIME MINISTER AWARD IN EXCELLENT CAPITAL GOOD

**2005~ 2010 跃进期**

- 2005 12 获得大韩民国新技术大展卢武铉总统奖状  
AWARDED THE PRESIDENTIAL AWARDED IN THE NEW TECH KOREA 2001
- 2006 06 研发成功空气悬浮压缩机  
SUCCESFULLY DEVELOPED TURBO COMPRESSORS
- 2007 08 取得空气悬浮鼓风机高效节能认证  
TURBO BLOWER CERTIFIED AS ON HIGH-EFFICIENT MATERIAL
- 2007 10 取得CE认证  
CE CERTIFICATION AND EUROPEAN EXPORTS
- 2008 01 成立韩国拓博机械（香港）有限公司  
FOUNDED KTURBO (HK)CO.,LTD
- 2008 05 取得UL认证 & 取得NRTL认证  
UL CERTIFICATION & NRTL CERTIFICATION
- 2008 06 获得大韩民国环保技术国务院总理奖状  
KOREA ENVIRONMENTAL MANAGEMENT AWARD FROM THE PRIME MINISTER
- 2009 12 成立美国工厂  
FOUNDED KTURBO USA INC.
- 2010 12 获得第47届贸易节“5000万美元出口”奖  
TOWER OF 50 MILLION USD EXPORTS AWARDED ON THE 47TH TRADE DAY

The technology of truth will be pursued by over coming the current problems.

More powerful takeoff will be taken by **K Turbo** which has the performance of passing through the way of innovation.

## 2011~ 现在 跃进期

- 2011 01 鼓风机的技术转让德国（Aerzen GmbH）公司  
TURBO BLOWER TECHNOLOGY TRANSFER TO GERMANY AERGEN GmbH
- 2011 12 获得第48届贸易节“6000万美元出口”奖  
TOWER OF 60 MILLION USD EXPORTS AWARDED ON THE 48TH TRADE DAY
- 2012 02 新工厂竣工，新公司搬迁  
BUILDING COMPLETION CEREMONY OF THE NEW FACTORY
- 2012 03 空气悬浮压缩机OEM方式供货给德国BOGE压缩机公司  
OEM SUPPLY OF TURBO COMPRESSOR TO GERMANY BOGE COMPANY
- 2013 04 全世界独一无二的先概念的5G空气悬浮压缩机研发成功

**2012~ 现在 跃进期**

- 2012 05 空气悬浮冷冻机研发成功  
SUCCESFULLY DEVELOPED TURBO CHILLERS
- 2017 05 成立中国安徽拓博节能技术有限公司  
FOUNDED CHINA ANHUI A/S CENTER
- 2020 02 成立韩国拓博机械售后服务中心  
FOUNDED KTURBO A/S CENTER
- 2021 12 公司名称改为韩国拓博株式会社  
CHANGE THE COMPANY NAME TO KOREA TURBO INC.
- 2023 06 新概念的5G空气悬浮鼓风机研发成功  
SUCCESFULLY DEVELOPED NEW CONCEPT 5G TURBO BLOWER
- 2023 08 成立江苏大韩悬浮科技集团有限公司  
空气悬浮压缩机系列专门生产、销售、售后等全方位服务  
FOUNDED JIANGSU KOREA SUSPENSION TECHNOLOGY GROUP INC.
- 2023 09 碳化硅(SiC)变频器研发成功  
空气悬浮鼓风机&空气悬浮压缩机全部应用碳化硅变频器。  
SUCCESFULLY DEVELOPED SIC INVERTER
- 2024 04 全世界独一无二的先概念的5G空气悬浮压缩机研发成功
- 2024 04 ORC发电机组出口到欧洲市场

## 空气悬浮创始人



## 韩国拓博集团追求创新

K-TURBO pursues innovation

具有最前沿的核心技术，即使再过百年，  
它仍将引领能源标准！

韩国拓博用一句话来概括就是“能源机械最高标准的企业”。能源机械不同于一般机械，技术难度大、经济价值高，给绿色环境带来的正面影响很大。为了达到能源机械的最高标准，只有高速回转且非油润滑的悬浮轴承，高效高速电机及特供定制的碳化硅（SIC）变频器的核心技术来实现。

我公司作为悬浮科技核心技术的带头人，1997年在全世界最早开发制造出最高标准的拓博鼓风机及拓博空压机。今后韩国拓博在该领域带来的变化规模，相当于第二次产业革命的效果。

最高标准能源机械诞生于韩国，成长于韩国。韩国拓博要超越极限，成长为世界超一流企业。

韩国拓博集团于2023年在中国成立了外国独资企业江苏大韩悬浮科技集团有限公司。

空气悬浮创始人 韩国拓博集团李宪锡博士



**终极节能设备的制造标准，**

**KTurbo 压缩系列是追求高品质、高效率客户的明智选择。**

*Manufacturing of the final standard energy machine which  
does not have any further area to be developed is under way.*

**韩国拓博集团为了产品高品质效率完美匹配，所有核心部件均在总部设计及生产。**

For the sake of perfect matching, core parts are designed/produced at one place.

**K Turbo 拥有5种核心技术专利制造的高速悬浮离心系列产品  
是工业能源领域的终极效率。**

Blower, compressor, and chiller which are the final standard of industrial energy machinery are manufactured with the 5 core technologies of K Turbo.

### 空气悬浮离心鼓风机 Blower

**1997年全世界首家研发成功产品！**

空气悬浮鼓风机是涡轮增压高度集中的高技术产品。适用于各个行业，如原料输送、工艺气体、污水处理、食品、制药、印染纺织、石油化工、电力、电子机械、冶金、建材、矿业和航空等领域。节能、无需润滑、低噪，保护环境的离心鼓风机。节能、无需润滑油、无需水泥基础、节约空间，维护成本低，效率高和半永久性的寿命。

Blower is the high technical product in which technical capability of Turbo is concentrated. The blower of Turbo is applied for various industries such as pressurized transport of raw material, sewage at waste water treatment, metallic treatment at mine, and up to the aviation. The pro-environmental turbo blower which does not require lubricant provides low maintenance cost, high efficiency and semi-permanent life.

### 空气悬浮离心压缩机 Compressor

**2012年全世界首家研发成功产品！**

空气悬浮压缩机是可以替代无油螺杆机、离心压缩机的新标准设备。韩国拓博集团通过30年的空气悬浮鼓风机延长线的技术被验证。K-TURBO 9公斤压力的空气悬浮压缩机已经成功在全世界各地运行。稳定运行长达十多年。

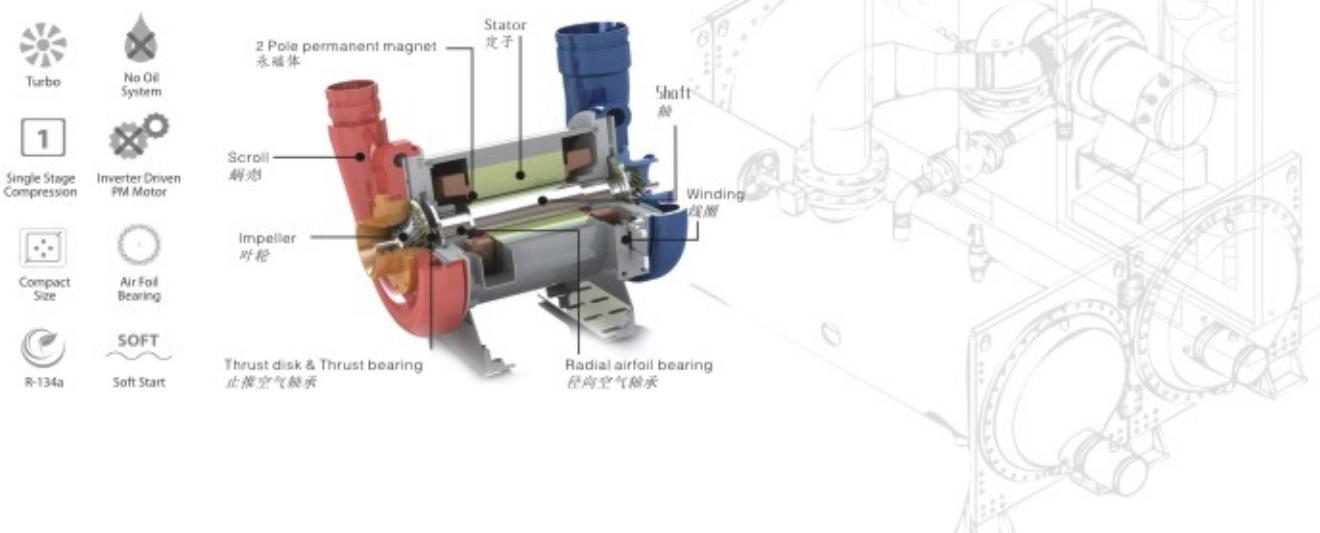
New standard is presented to oil-free market through the technical capability which has been verified from the extension line of blower.

### 空气悬浮离心冷冻机组 Chiller

**2016年全世界首家研发成功产品！**

亲环境冷媒使用，不会破坏臭氧层的未来型冷冻机组。使用在楼宇制冷、冷藏、工业等冷暖设施上，例如应用在食品、制药、石油化工、电子机械、电力、印染纺织等各工业领域。无需润滑油故热交换器无污染，免维护、无磨损、长期使用效率无降低。

This is the future turbo refrigerator for which pro-environmental refrigerant without the characteristic of ozone layer destruction is applied to the industrial fields such as the cooling at heating facility of factory including general building, groceries, power plant, etc. As lubricant is not used, there is not any dropping of efficiency with the elapse of time because heat exchanger is not contaminated, and the maintenance also is not required.



## 核心技术

Core Technology

### 韩国拓博集团永磁无刷直流电机核心结构

Structure of Guotubo Permanent Magnet Brushless DC Motor

**空气压缩机的最高标准！**

**选择超越 ISO 8573-1 Class 0 的最高标准**

因为韩国拓博空气压缩机不使用一滴外部油料也不使用油脂，从根本上排除污染危险性及生产过程中的重大危险要素，从而超越 Class 0，真正提供100%纯净空气。

### 韩国拓博空气悬浮压缩系列是成熟客户的明智选择。

韩国拓博空气悬浮压缩系列是成熟客户的明智选择。从1997年到现在一直致力于研发亲环境空气悬浮压缩系列，选用材质高档，稳定性高，效率高，是其他品牌产品无以伦比的。

### 韩国拓博集团拥有五种核心技术

Korea's Tuobao has five core technologies

#### 直流调速碳化硅 (SIC) 变频器制造技术

采用碳化硅半导体驱动电机、效率99%

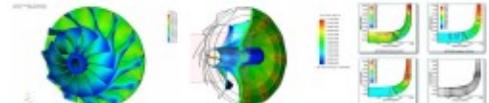


#### 钛合金&高强度不锈钢630叶轮精密铸造技术

空气悬浮4G风机都采用高强度不锈钢630叶轮  
空气悬浮5G风机都采用钛合金 (Ti-6Al-4V) 叶轮  
空气悬浮压缩机采用钛合金 (Ti-6Al-4V) 叶轮



#### 空气力学设计 / 解析技术



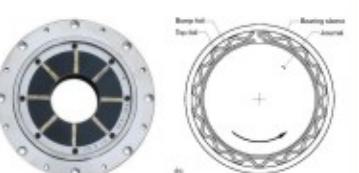
#### 永磁无刷直流电机制造技术

压缩机系列转数12万/分钟、效率98%



#### 空气悬浮轴承制造技术

空气悬浮创始人李宪锡博士制造的空气悬浮轴承已达到20公斤的承受压力。



**K Turbo 韩国拓博拥有最尖端的核心技术！即使再过百年，还是节能设备的最高标准！**

**空气悬浮轴承、永磁无刷直流电机、碳化硅 (SIC) 变频器、精密铸造叶轮、空气力学设计，五种核心技术正在实现了空气悬浮压缩机系列产品历史性的突破。**

The second industrial revolution is being realized by K-Turbo with the 5 core technologies such as the air foil bearing, the impeller with precision casting, the capability of aerodynamic technology, high velocity motor with high efficiency and inverter.



### 高速永磁无刷直流电机 PM Motor

K Turbo的高速永磁无刷直流电机转数可在5000至200,000转，效率高达97%的5马力至600马力的PM/BLDC电机。额定电流的5%左右可以启动，故无需其他启动柜。采用了碳化硅变频器，即使在高温环境情况下也能准确调节控制电机转数。

From 5,000 to 200,000 rpm, and from 5 to 600hp, K Turbo is proud of the high velocity motor with 97% of high efficiency. Separate starting board is not required as it can started with the current of 5% level of the rated current. In addition, accurate control can be accomplished under the environment of the motor with high temperature by applying the sensor-less drive technology.

### 高强度不锈钢叶轮 Impeller

K Turbo的叶轮是由最先进的空气力学系统设计，与航空空气力学设计原理一致。与原有叶轮相比具有半永久性寿命和更高的压力及强度。K Turbo高水平的精密铸造与加工工艺，使叶轮达到了最高效率。叶轮材质可选为钛、不锈钢630，钛合金。



The impeller of K Turbo with the most advanced aerodynamic system is identical with the leading technology of aeronautical engineering. Compared to existing aluminum impeller, it has semi-permanent life, and provides higher pressure with great strength, and has high efficiency. High efficiency impellers are directly produced with the process and casting equipment in which high level of technologies are combined.

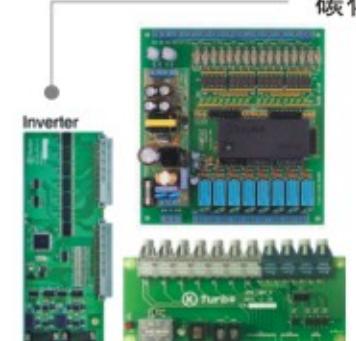
### 空气悬浮轴承 Air Foil Bearing

K Turbo的空气悬浮轴承是全世界第一，轴承无机械摩擦，无需润滑油系统，半永久性使用寿命。轴回转时轴承和轴之间产生的空气流动变化为压力，气膜压力场来支撑回转轴代替润滑油润滑。空气轴承无机械摩擦因此系统效率高、无噪音及半永久性的使用寿命。

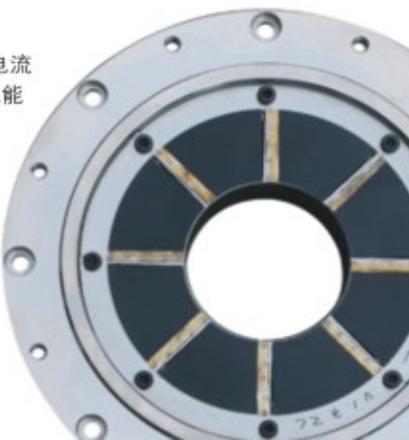
The air bearing of K Turbo which is operated without mechanical friction and lubricant is the first semi-permanent and none-oil feeding lubricating system of the world. The rotation shaft is floated by the pressure which is converted from the air flow, generated during the rotation of shaft, between the bearing and shaft, and it also performs the function of lubrication as well. In the case of this core technology, electric power is transmitted to the shaft without mechanical friction, therefore, high system efficiency without noise is provided as well as semi-permanent life of durability.

### 碳化硅 (SIC) 变频器 Sic Inverter

K Turbo 碳化硅变频器，效率高（达到99%），启动电流小（额定电流5%），无需其他启动柜。采用了碳化硅变频器在高温环境情况下也能准确调节控制电机转数。



Separate starting board is not required as it can started with the current of 5% level of the rated current. In addition, accurate control can be accomplished under the environment of the motor with high temperature by applying the sensor-less drive technology.



## 控制

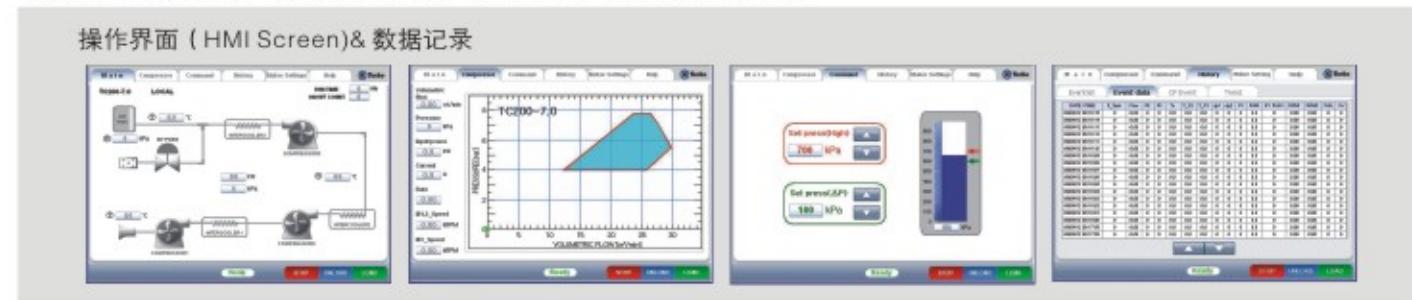
Controls

**K Turbo** 离心系列可以实现多台机并联在一起高效率运转，并可以与其他类型的离心系列并联使用，可选择就地控制运行、远程控制、控制中心控制运行。

### 就地控制系统 Local Control

就地控制运行是利用离心机上的彩色触摸式控制面板来操作运行。

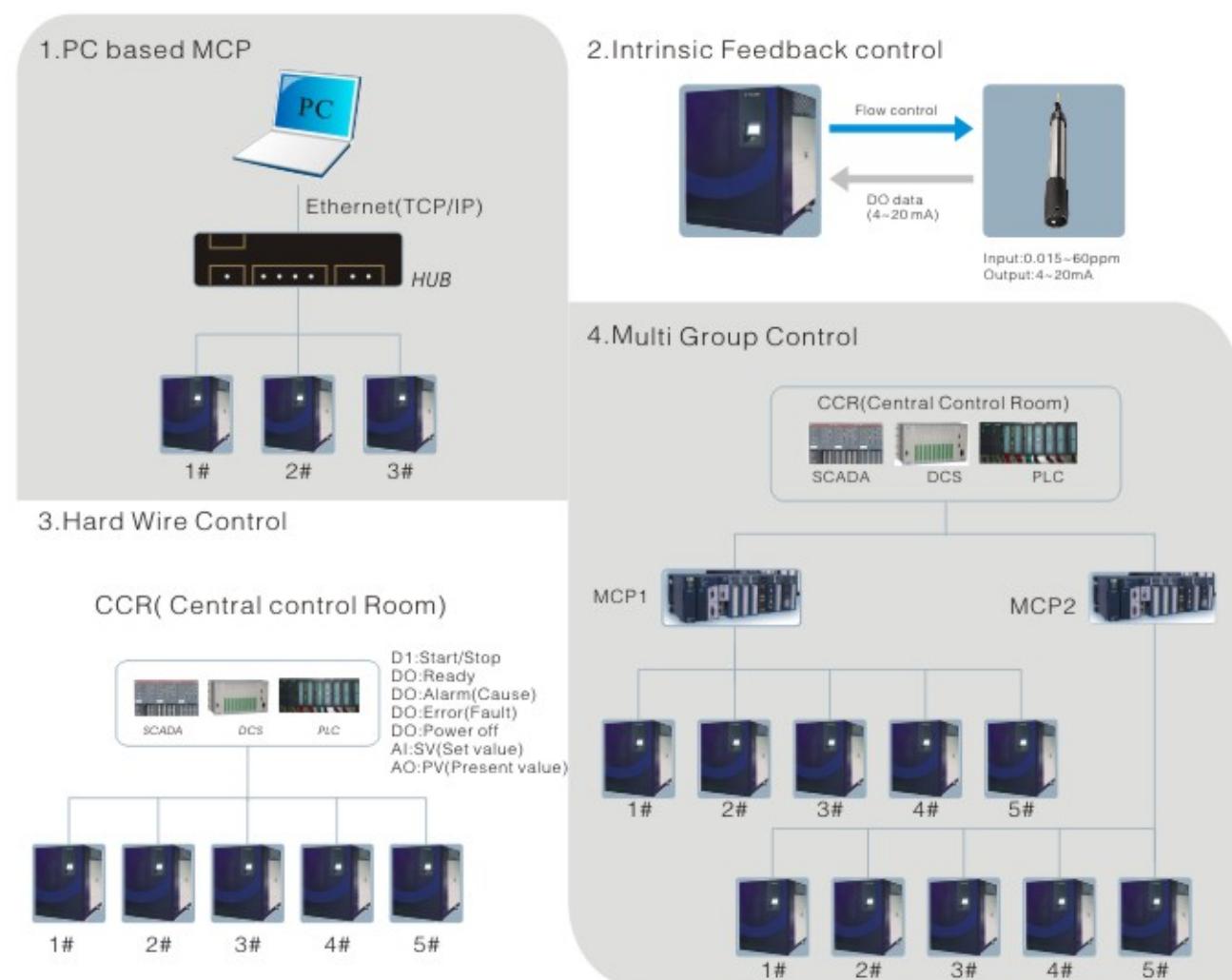
现场控制各种数据显示：转速，压力，流量，功率，压差，电流，进出口温度等。



### 控制中心控制 Remote Control

控制中心运行是在中央操作室通过运行画面显示风机状态，利用运行命令来远距离控制运行，同时在计算机内保存风机状态资料。

远程控制运行是将工厂控制系统通过因特网远距离控制设备，远距离诊断设备及监视运行状态。



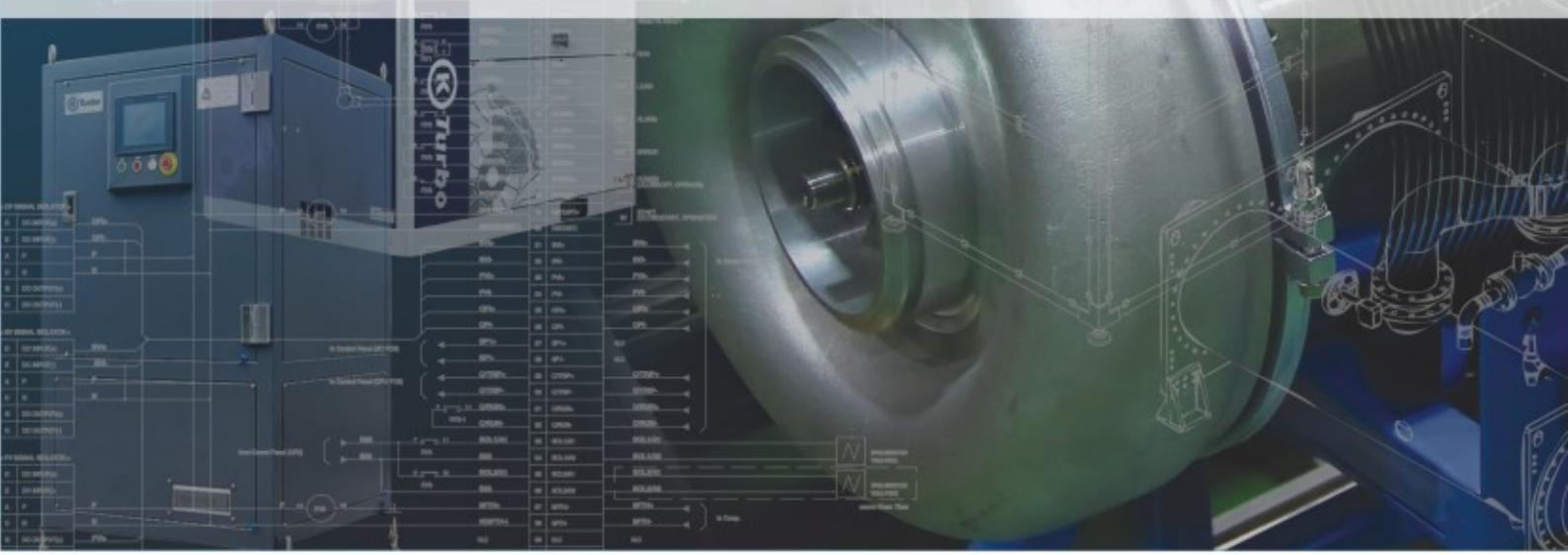
1997年 全世界首家成功研发出空气悬浮鼓风机的韩国拓博集团!

2012年 全世界首家成功研发出空气悬浮压缩机的韩国拓博集团!

2016年 全世界首家成功研发出空气悬浮冷冻机的韩国拓博集团!

韩国拓博集团进驻中国江苏省无锡市成立大韩悬浮科技集团

向中国客户提供生产、销售、售后等全方位服务!



## Products Compressor

### 空气悬浮离心压缩机

# Compressor

### 空气悬浮离心压缩机

High speed single stage centrifugal Compressor

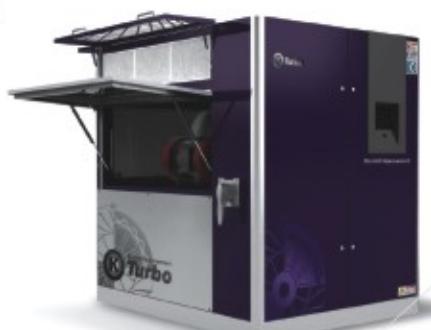
**工业用机器，完全无油离心压缩机！**

**节能，无缺陷的清洁空气，维护费用低，开始创造利润。**

The compressor as the first industrial machine for which the oil is not required!

Clean air without defect, low maintenance cost and energy saving.

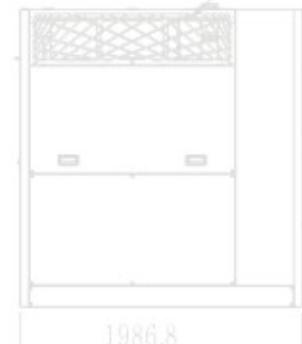
This is the beginning of profit creation.



### 超越选择ISO8573-1CLASS 0的最高标准

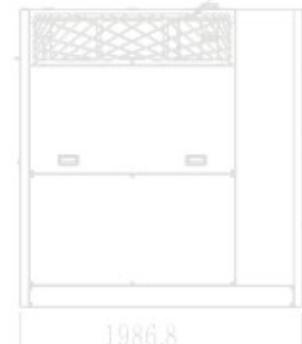
#### 高效率

比现有压缩机节能20%以上，设备的高效率和最小化的空载损耗（小于1%），大大减少电费支出。



#### 紧凑节省空间

应用钛合金叶轮和空气轴承使系统简化，保持高性能和高效率。可替代微油、无油螺杆压缩机，增速离心压缩机的产品。



#### 无需任何润滑油

无需任何润滑油润滑，完全实现了可以直接使用纯净气体的压缩空气。



#### 应用了韩国拓博集团最尖端技术

空气悬浮压缩机是可以代替无油螺杆机、离心压缩机的新标准设备。韩国拓博集团通过30年的空气悬浮鼓风机延长线的技术被验证。K-TURBO 9公斤压力的空气悬浮压缩机已经成功在全世界各地运行。稳定运行长达十多年。使用在食品、制药电力、半导体、化工、电子、印染、纺织等领域。



#### Enhanced efficiency

The electric power cost of customer will drastically be reduced with approx.20% enhancement of efficiency compared to existing equipment and minimized no-load loss (less than 1%).



#### The size and burden of the price are reduced .

High performance is maintained with the system simplification for which casted impeller and air bearing are applied, and this can be a reasonable selection to the customers of oil free compressor as well as oil injection compressor.



#### Oilless, not oil free

For the oil-less compressor, not oil free compressor, the important thing is how much clean is the air. As oil is not required, the purest compressed air can be used.



#### Application of the original technology which is identical with that of blower

The compressor of K Turbo which possesses the verified technical capability will be a great help to the enterprises of food, bio-industry, and electronics for which the Oil Free shall definitely be required.



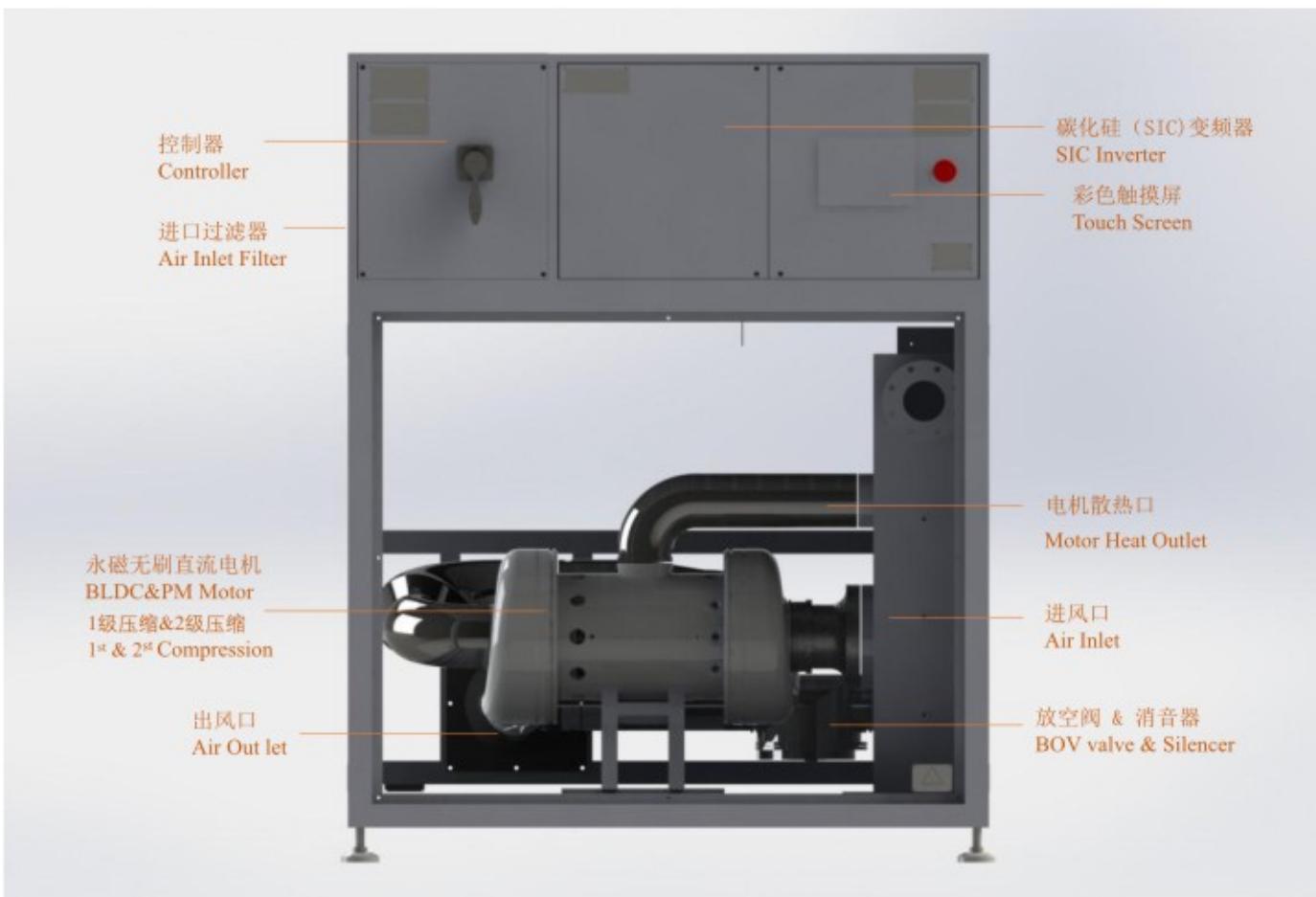
## Products Compressor

### 空气悬浮离心压缩机

High speed single stage centrifugal compressor

#### 低压空气悬浮压缩机内部结构 Low Pressure Compressor Structure

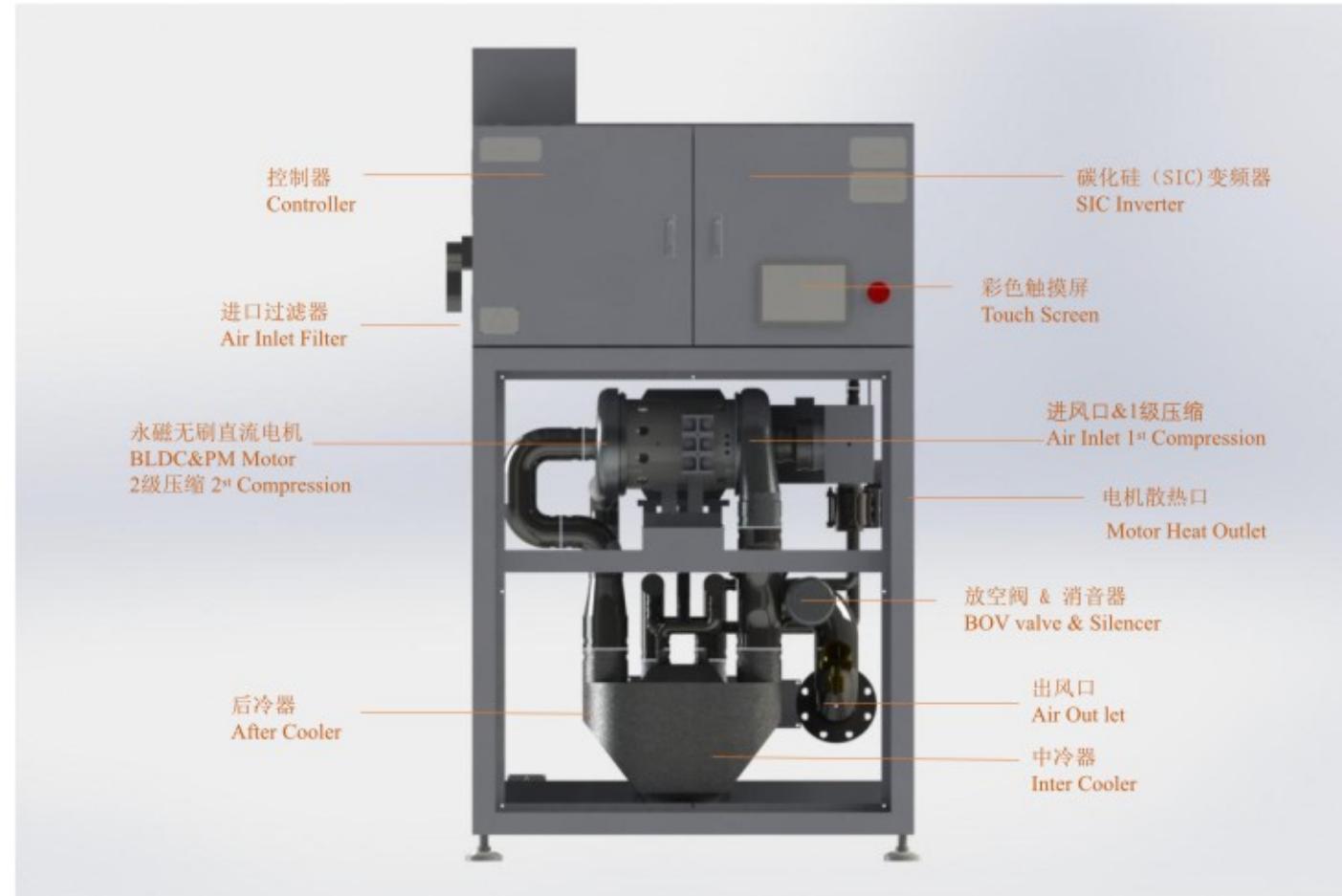
压缩级数: 1&2级压缩 / 转数45,000/分 / 2公斤以下的压缩机 / 空气冷却方式



### 高效率离心压缩机 The Highest Efficiency Turbo Compressor

#### 中压空气悬浮压缩机内部结构 Medium Pressure Compressor Structure

压缩级数: 2级压缩 / 转数60,000/分 / 3.5公斤的压缩机 / 水冷却方式



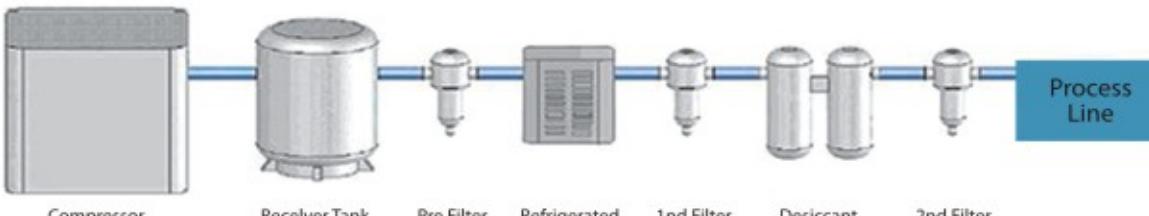
### 高效率离心压缩机 The Highest Efficiency Turbo Compressor



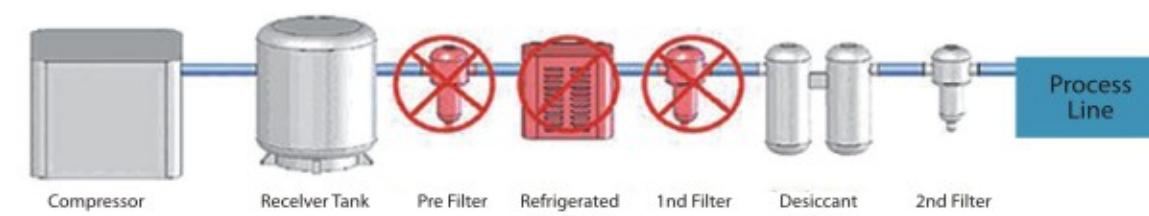
## Products Compressor

### 压缩机系统

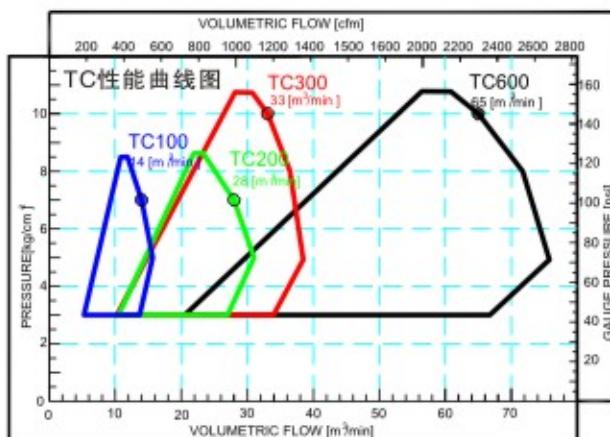
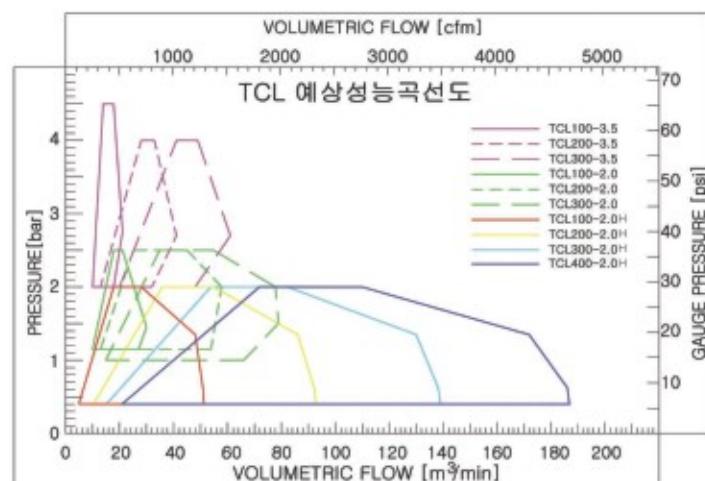
Oil System Compressor



K Turbo System Compressor



### 空气悬浮压缩机性能曲线图



提供绝对洁净的空气及低噪音产品。

Supplies absolutely clean air low noise

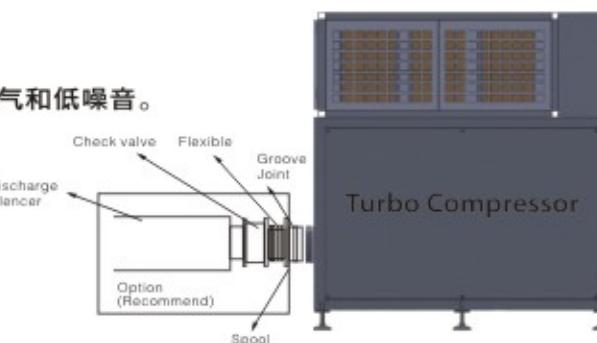
在机械控制系统中完全无油和无机械接触，可提供洁净的空气和低噪音。

压缩空气不受任何污染，绝不会产生环境污染问题。

No oil and no mechanical contact in the system produces clean air and low noise.

Airstream is free from contamination and produces no environmental problem.

Discharge silencer



## 高效率离心压缩机

The Highest Efficiency Turbo Compressor

## 高效率离心压缩机

The Highest Efficiency Turbo Compressor

每立方5.92 KW全球最高效率的完全无油空压机，当之无愧的终极标准

The highest efficiency Oilless Turbo compressor in the world, relized 5.92 KW/m³/min.

### 空气悬浮压缩机选型 Turbo Compressor Specification

#### 高压压缩机系列

型号	级数	功率	压力	流量	冷却方式	出风口径	冷却水口径	冷却水	尺寸
MODEL	STAGE	HP	PRESSURE (bar)	FLOW RATE (m³/min)	Cooling Type	Discharge Pipe Size (in)	Coolant Pipe Size (in)	Coolant Volume (ton/h)	Dimension (mm) (ft*W*H)
TCH 75-9.0	3	75	9.0	8	Water	65	40	9.8	1150 * 1150 * 1800
TCH 100-9.0	3	100	9.0	12		65	50	15.0	1210 * 1210 * 1825
TCH 150-9.0	3	150	9.0	17		80	50	19.5	1210 * 1210 * 1825
TCH 200-9.0	3	200	9.0	23		80	65	23.0	1210 * 1210 * 1825
TCH 250-9.0	3	250	9.0	28		80	65	25.5	1310 * 1310 * 2005
TCH 300-9.0	3	300	9.0	33		100	65	30.0	1310 * 1310 * 2005
TCH 600-9.0	3	600	9.0	66		150	80	60.0	1800 * 1800 * 2005

型号	级数	功率	压力	流量	冷却方式	出风口径	冷却水口径	冷却水	尺寸
MODEL	STAGE	HP	PRESSURE (bar)	FLOW RATE (m³/min)	Cooling Type	Discharge Pipe Size (in)	Coolant Pipe Size (in)	Coolant Volume (ton/h)	Dimension (mm) (ft*W*H)
TCH 75-7.0	3	75	7.0	9	Water	65	40	9.8	1150 * 1150 * 1800
TCH 100-7.0	3	100	7.0	13		65	50	15.0	1210 * 1210 * 1825
TCH 150-7.0	3	150	7.0	19		80	50	19.5	1210 * 1210 * 1825
TCH 200-7.0	3	200	7.0	25		80	65	23.0	1210 * 1210 * 1825
TCH 250-7.0	3	250	7.0	30		80	65	25.5	1310 * 1310 * 2005
TCH 300-7.0	3	300	7.0	36		100	65	30.0	1310 * 1310 * 2005
TCH 600-7.0	3	600	7.0	72		150	80	60.0	1800 * 1800 * 2005

#### 中压压缩机系列

型号	级数	功率	压力	流量	冷却方式	出风口径	冷却水口径	冷却水	尺寸
MODEL	STAGE	HP	PRESSURE (bar)	FLOW RATE (m³/min)	Cooling Type	Discharge Pipe Size (in)	Coolant Pipe Size (in)	Coolant Volume (ton/h)	Dimension (mm) (ft*W*H)
TCM100-5.0	3	100	5.0	16	Water	100	50	10.0	1210 * 1210 * 1825
TCM150-5.0	3	150	5.0	24		125	50	20.0	1210 * 1210 * 1825
TCM200-5.0	3	200	5.0	32		150	50	25.0	1310 * 1310 * 2005
TCM250-5.0	3	250	5.0	40		150	65	30.0	1310 * 1310 * 2005
TCM300-5.0	3	300	5.0	53		200	50	35.0	1600 * 1600 * 2005

型号	级数	功率	压力	流量	冷却方式	出风口径	冷却水口径	冷却水	尺寸
MODEL	STAGE	HP	PRESSURE (bar)	FLOW RATE (m³/min)	Cooling Type	Discharge Pipe Size (in)	Coolant Pipe Size (in)	Coolant Volume (ton/h)	Dimension (mm) (ft*W*H)
TCM100-3.5	2	100	3.5	19	Water	100	50	9.8	1110 * 1110 * 1825
TCM150-3.5	2	150	3.5	28		150	50	20.0	1110 * 1110 * 1825
TCM200-3.5	2	200	3.5	37		150	50	20.0	1200 * 1200 * 2005
TCM250-3.5	2	250	3.5	47		150	50	25.5	1200 * 1200 * 2005
TCM300-3.5	2	300	3.5	58		200	50	30.0	1400 * 1400 * 2005

#### 低压压缩机系列

型号	级数	功率	压力	流量	冷却方式	出风口径	冷却水口径	冷却水	尺寸
MODEL	STAGE	HP	PRESSURE (bar)	FLOW RATE (m³/min)	Cooling Type	Discharge Pipe Size (in)	Coolant Pipe Size (in)	Coolant Volume (ton/h)	Dimension (mm) (ft*W*H)
TCL 50-2.0	2	50	2.0	12	Air	125	N/A	N/A	910 * 950 * 1760
TCL 75-2.0	2	75	2.0	20		150			910 * 950 * 1760
TCL 100-2.0	2	100	2.0	26		150			910 * 950 * 1760
TCL 150-2.0	2	150	2.0	40		200			1150 * 1150 * 1890
TCL 200-2.0	2	200	2.0	55		200			1106 * 1090 * 1890
TCL 300-2.0	2	300	2.0	78		250			1600 *

## 空气悬浮离心鼓风机

High speed single stage centrifugal blower

# Blower

### 在世界上首次采用空气轴承和永磁直流电机的高速离心鼓风机！

K-TURBO 空气悬浮离心鼓风机节能、无油、低噪音、占地面积小，无需水泥基础是亲环境涡轮增压技术在空气悬浮鼓风机上完美的结合。

The turbo blower for which air bearing and permanent magnet motor are applied for the first time in the world! The blower of K-TURBO Turbo is the no-oil, low noise, semi-permanent and perfect pro-environmental turbo blower which is combined with the up-to-date technical capability of turbo.



### 全世界首次大、中型终极效率的回转机械

全世界首次在大、中型工业机械产品上使用的空气轴承。空气轴承节能、无机械摩擦、故无磨损、低噪音、半永久性寿命，环境友好型产品。

### 技术创新能力

K-TURBO离心鼓风机采用高速PM/BLDC电机效率达到了97%以上。比罗茨鼓风机节能40%以上；比其它离心鼓风机节能25%以上，机械部件的重量减少了90%以上，变频器采用碳化硅变频器。

### 应用航空技术的叶轮

叶轮的性能在于设计和制造技术。高压缩效率，锻造或精密铸造。叶轮与轴直接连接，动力传递效率为100%。可根据情况调整叶轮使用材料钛合金、不锈钢630等。

### 全世界应用的鼓风机

全世界客户认可的K-TURBO空气悬浮单级高速离心鼓风机，多应用在工业气体、市政污水处理等领域。如工艺管道气体、加压输送、水泥厂、石油化工、食品制药发酵、电厂脱硫氧化风机、电子机械、冶金、建材、印染纺织、家畜粪尿处理、粮食及食品干燥等领域使用K-TURBO鼓风机。

The first middle and large type final standard rotary machine of the world

The air bearing is applied to middle and large type industrial machine for the first time in the world. The air foil bearing does not have mechanical friction, therefore, it provides semi-permanent life without wear, and it creates comfortable atmosphere with low noise because only slight sound of air flow is generated.

### Innovative technological capability

Epochal efficiency of 97% is provided because high velocity PM motor is applied. 40% of the energy compared to existing equipment is saved because single high speed rotational body is adopted, and the weight is drastically reduced to 1/20 of existing mechanical section.

### The impeller for which the technology of aeronautical engineering is applied

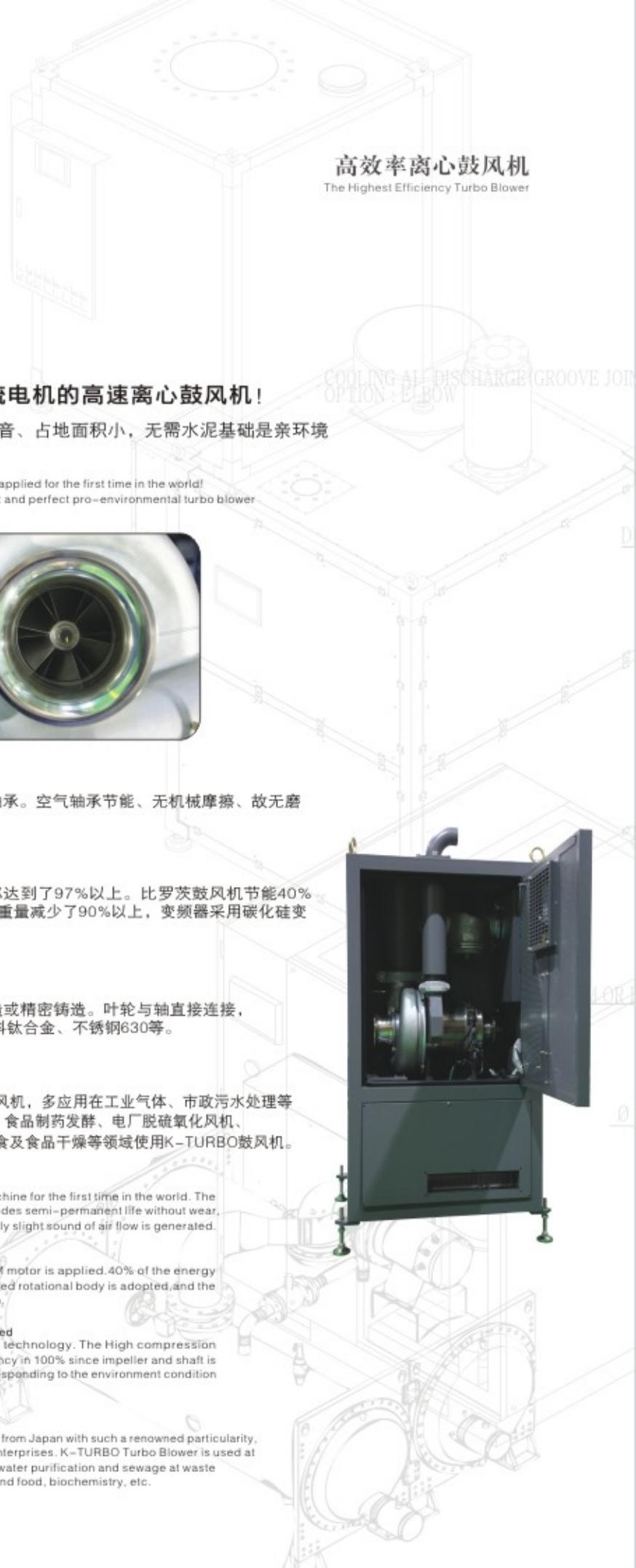
The impeller is entirely relied on the design and manufacturing technology. The High compression efficiency, Forged or precision casting. Power transmission efficiency in 100% since impeller and shaft is directly connected without coupling. Material can be changed corresponding to the environment condition titanium, stainless steel, aluminum, etc.

### Globally selected blower

The blower of K-TURBO Turbo, which has been acknowledged even from Japan with such a renowned particularity, is installed and operated at various public agencies and general enterprises. K-TURBO Turbo Blower is used at pressurized transport(cement, chemicals, food, power plant, etc.), water purification and sewage at waste water treatment, livestock waste matter treatment, drying of grain and food, biochemistry, etc.

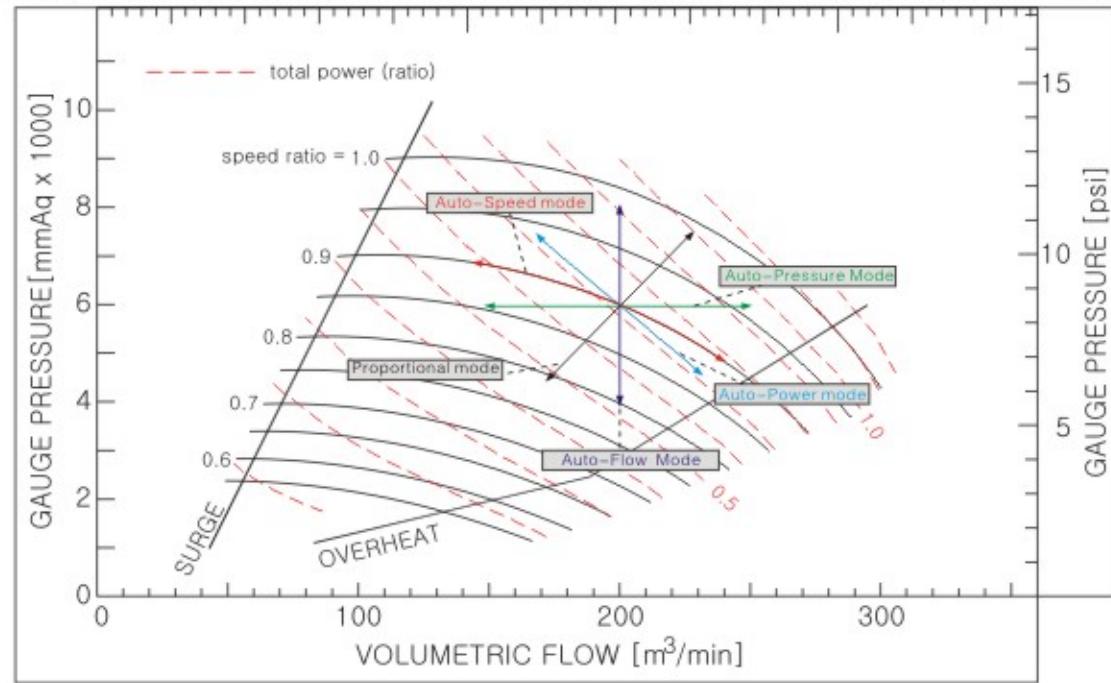
## 高效率离心鼓风机

The Highest Efficiency Turbo Blower



## 运转模式 The operation mode

运转模式为转数控制模式、压力控制模式、比例控制模式、电流控制模式、流量控制模式、DO控制模式。

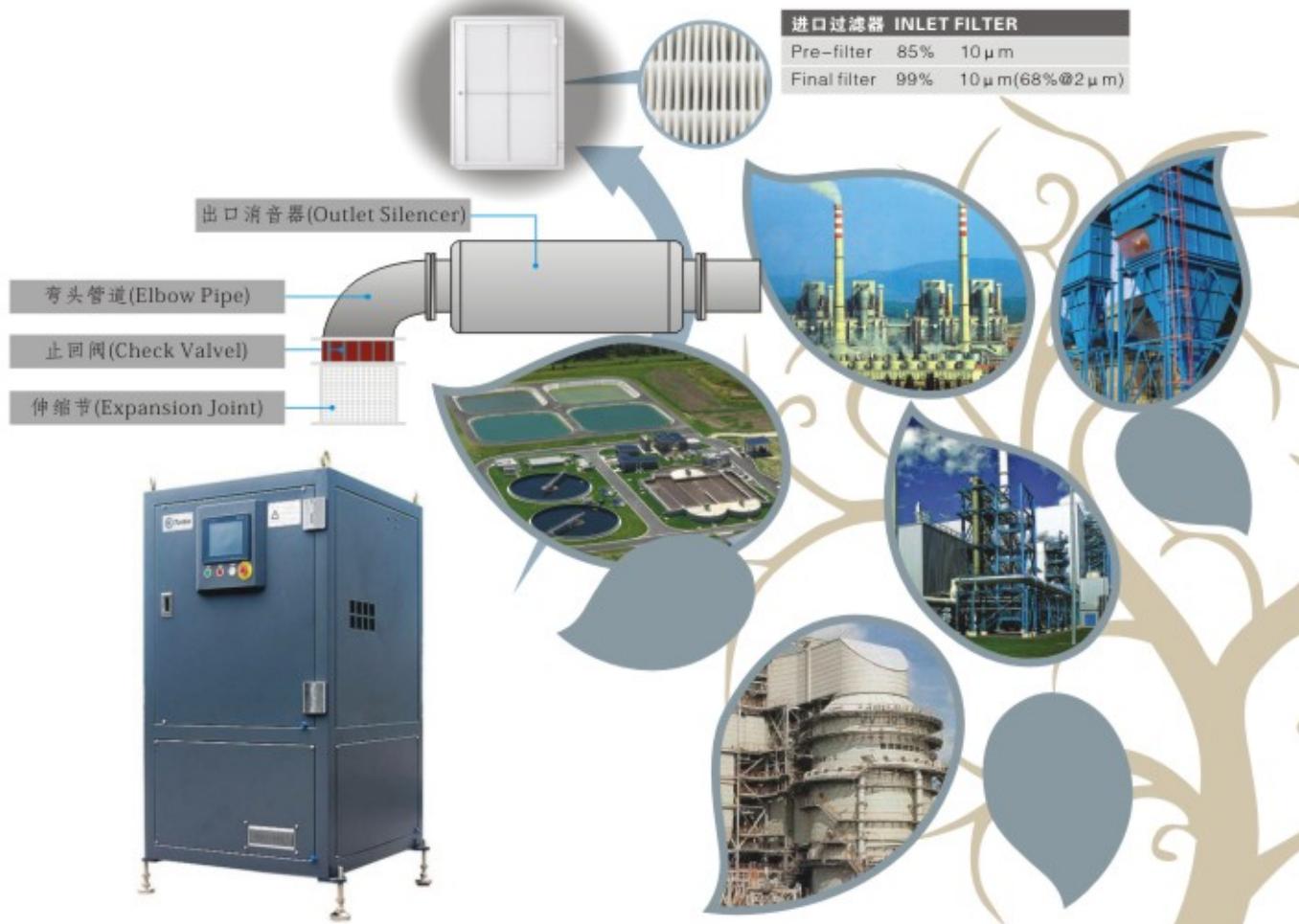


The operation mode

The operation mode

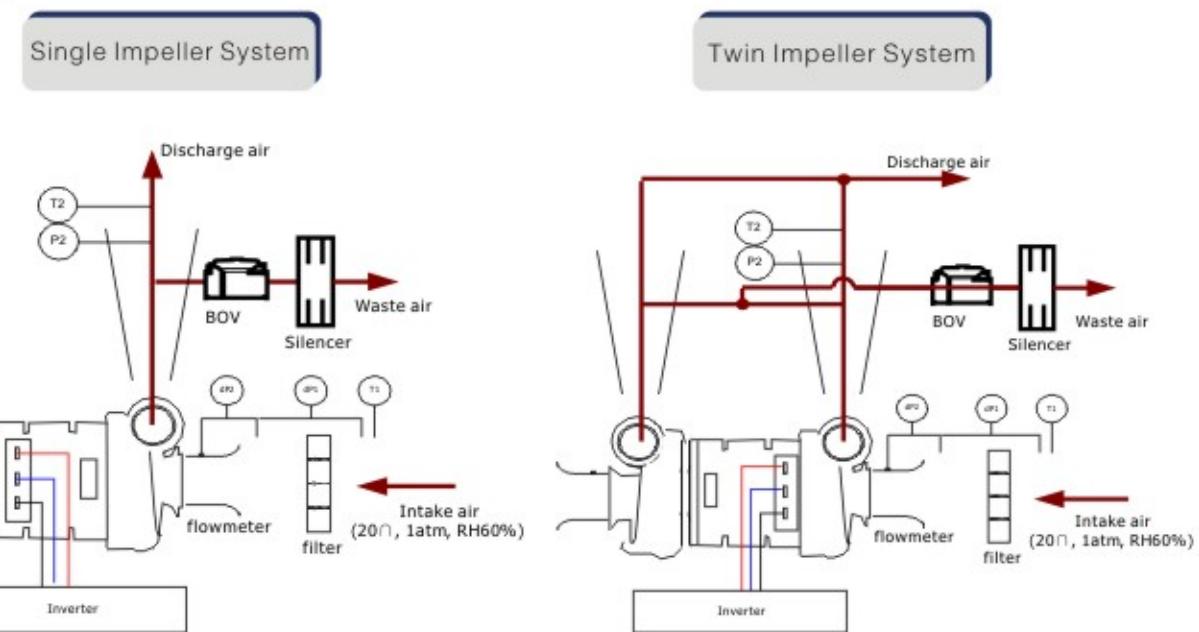
运转模式为转数控制模式、压力控制模式、比例控制模式、电流控制模式、流量控制模式、DO控制模式。

## 安装及应用 Installation & Application



## Products Blower System Map

System map



## 空气悬浮离心鼓风机系列选型 Specification

型号 Model	流量 m³/min	压力 bar	功率 HP	出风口径				尺寸 (mm) A	尺寸 (mm) L	尺寸 (mm) W	尺寸 (mm) H	重量 kg
				A	L	W	H					
<b>TB 25-0.8S</b>	13	0.8	25	100	780	910	1440	450				
<b>TB 30-0.8S</b>	16	0.8	30	100	780	910	1440	450				
<b>TB 50-0.6S</b>	35	0.6	50	150	780	910	1440	450				
<b>TB 50-0.8S</b>	26	0.8	50	150	780	910	1440	450				
<b>TB 75-0.6S</b>	50	0.6	75	200	910	950	1760	560				
<b>TB 75-0.8S</b>	41	0.8	75	200	910	950	1760	560				
<b>TB 100-0.6S</b>	70	0.6	100	250	910	950	1760	610				
<b>TB 100-0.8S</b>	54	0.8	100	200	910	950	1760	610				
<b>TB 100-1.0S</b>	45	1.0	100	200	910	950	1760	610				
<b>TB 150-0.6S</b>	105	0.6	150	300	1100	1100	1970	1000				
<b>TB 150-0.8S</b>	80	0.8	150	250	1106	1090	1890	830				
<b>TB 150-1.0S</b>	69	1.0	150	250	1106	1090	1890	830				
<b>TB 200-0.6T</b>	140	0.6	200	400	1106	1090	2200	1000				
<b>TB 200-0.8S</b>	110	0.8	200	300	1100	1100	1970	1000				
<b>TB 200-1.0S</b>	89	1.0	200	250	1106	1090	1890	830				
<b>TB 250-0.8T</b>	135	0.8	250	300	1300	1300	2270	1510				
<b>TB 250-1.0T</b>	113	1.0	250	300	1300	1300	2270	1510				
<b>TB 300-0.6T</b>	210	0.6	300	500	1485	1110	2320	1300				
<b>TB 300-0.8T</b>	161	0.8	300	400	1485	1110	2320	1460				
<b>TB 300-1.0T</b>	138	1.0	300	400	1485	1110	2320	1460				
<b>TB 400-0.8T</b>	220	0.8	400	500	1300	1300	2270	1600				
<b>TB 400-1.0T</b>	178	1.0	400	400	1300	1300	2270	1600				
<b>TB 500-0.8T</b>	268	0.8	500	500	1300	2600	2270	2500				
<b>TB 600-0.8T</b>	322	0.8	600	500	1300	2600	2270	2500				
<b>TB 800-0.8T</b>	440	0.8	800	500	1300	2600	2270	2500				

Air Flow m³/min, 1atm, 20°C, 60RH, AirFlow Tolerance ± 5%

高效率离心鼓风机  
The Highest Efficiency Turbo Blower

The Highest Efficiency Turbo Blower

## 空气悬浮最尖端高效率5G鼓风机

The highest Efficiency 5G Turbo Blower

# 5G Blower

## 全世界最尖端新概念 5G 空气悬浮鼓风机！

新概念5G空气悬浮鼓风机 The Highest Efficiency 5G Turbo Blower

5G高效空气悬浮鼓风机 New 5G Turbo Blower

K-TURBO 在1997年全球首家研发出空气悬浮鼓风机。经过二十五年地不懈努力，从第一代空气悬浮鼓风机产品到第四代空气悬浮鼓风机产品，在全世界共销售2万多台。

K-Turbo had developed the high speed direct turbo blower for the first time in the world in 1997. Over the 20years, We have sold 20,000units to the global market, from 1G turbo blower to 4G turbo blower.

K-TURBO 凭借二十五年在空气悬浮鼓风机研发制造方面积累的经验，终于在2023年，在全世界首先成功研发出与原有空气悬浮鼓风机产品不同层次的全新第五代5G空气悬浮鼓风机。

K-Turbo Based on more than 20years of high speed turbo technology for blower, K-turbo finally have developed the 5G machine of turbo blower. The 5G is a new concept for blower and the first time high speed turbo technology in the word in 2023.

**第五代5G空气悬浮鼓风机是革命性的产品** New 5G Turbo Blower Advanced

与原有空气悬浮鼓风机产品相比，性能及效率更加卓越，效率可提高20%，噪音从80dB降到70dB，整个机器体积小，构造简单，可直接与室内外的主排管连接使用。韩国拓博第五代5G空气悬浮鼓风机是全世界最高效率、最尖端的亲环境产品。

Our 5G technology is provided innovative solutions for installation space. The 5G system is not packaging for blower and can be installed directly piping of outdoor or indoor so, We don't need a room for installation machine.

### 新概念5G空气悬浮鼓风机的结构

New 5G Turbo Blower System

进口过滤器 Inlet Filter

永磁无刷直流电机BLDC & PM motor

放空阀 BOV valve

控制器 & 碳化硅变频器  
Controller & SIC Inverter

止回阀 Check Valve

手动蝶阀 Gate Valve

出风口主管 Main pipe



全世界最尖端5G 空气悬浮鼓风机

新概念  
空气悬浮鼓风机！

高效率新概念5G鼓风机  
The Highest Efficiency Turbo Blower

## 5G Products Blower

新概念5G空气悬浮鼓风机 The Highest Efficiency 5G Turbo Blower

K-TURBO空气悬浮鼓风机是追求高品质、高效率客户的明智选择！

新概念

最尖端的5G空气悬浮鼓风机

K-TURBO 凭借二十五年在空气悬浮鼓风机研发制造方面积累的经验研发出的全新第五代5G空气悬浮鼓风机。5G空气悬浮鼓风机选用材质高档，稳定性高，效率高，是其他品牌无以伦比的。

### 5G 空气悬浮鼓风机的材质及特点

※叶轮全部采用钛合金钢 ( Ti-6Al-4V )

※旋转轴全部采用镍基高温合金718

※全部采用碳化硅 ( SiC ) 变频器

※空气悬浮5G轴承可承受20公斤的压力

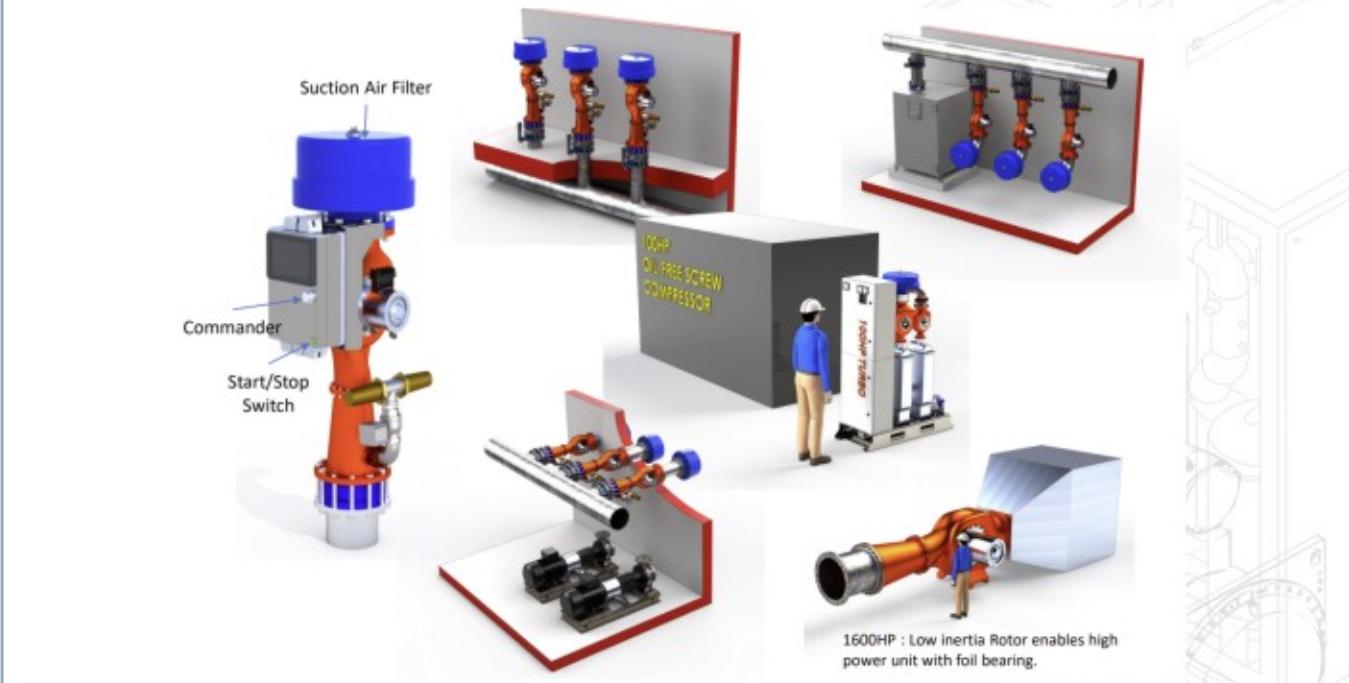
※定子采用日本川崎超薄0.05硅钢片

※永磁电机采用高温钐钴 ( SMCO 32H )

※电机转数10万转/分



### 新概念5G空气悬浮鼓风机安装图



## Products Chiller

空气悬浮离心冷冻机组

# Chiller

适用亲环境冷媒的未来型离心冷冻机组！

为了追求节能，采用直连式的空气轴承无油冷冻机组，空气悬浮轴承无接触、无磨损、设备使用效率不降低，无需润滑油，故无须维护。

Future type turbo chiller for which pro-environmental refrigerant is applied!

For the direct connection type, no lubrication high velocity turbo refrigerator which pursues energy saving, there is not any dropping of efficiency with the elapse of time therefore the maintenance cost is not required.



### 系统简化

K Turbo离心冷冻机组去除复杂的油系统，无需保养可半永久性使用。

### 从60RT到1000RT

K Turbo离心冷冻机组可提供最小型60RT至1000RT。

### 核心技术

K Turbo采用无摩擦的空气轴承，无需润滑油，高速永磁无刷直流电机，比螺杆冷冻机组节能30%。

### 无需润滑油

螺杆冷冻机组95%以上都是润滑油系统故障，K Turbo离心冷冻机组无需润滑油系统，因此故障率少，不采用任何润滑油给环境带来贡献。

#### Simplification of system

Due to the simplification of system of K-Turbo by removing complicated chiller oil system, supplementary maintenance cost will not be generated and semi-permanent usage can be accomplished.

#### From super-mini type of 60RT to middle type of 1000RT

The refrigerator of wide range from super-mini type of 60RT as for the turbo refrigerator to 1,000RT in which several units of 240RT are applied is provided.

#### The core is the technology

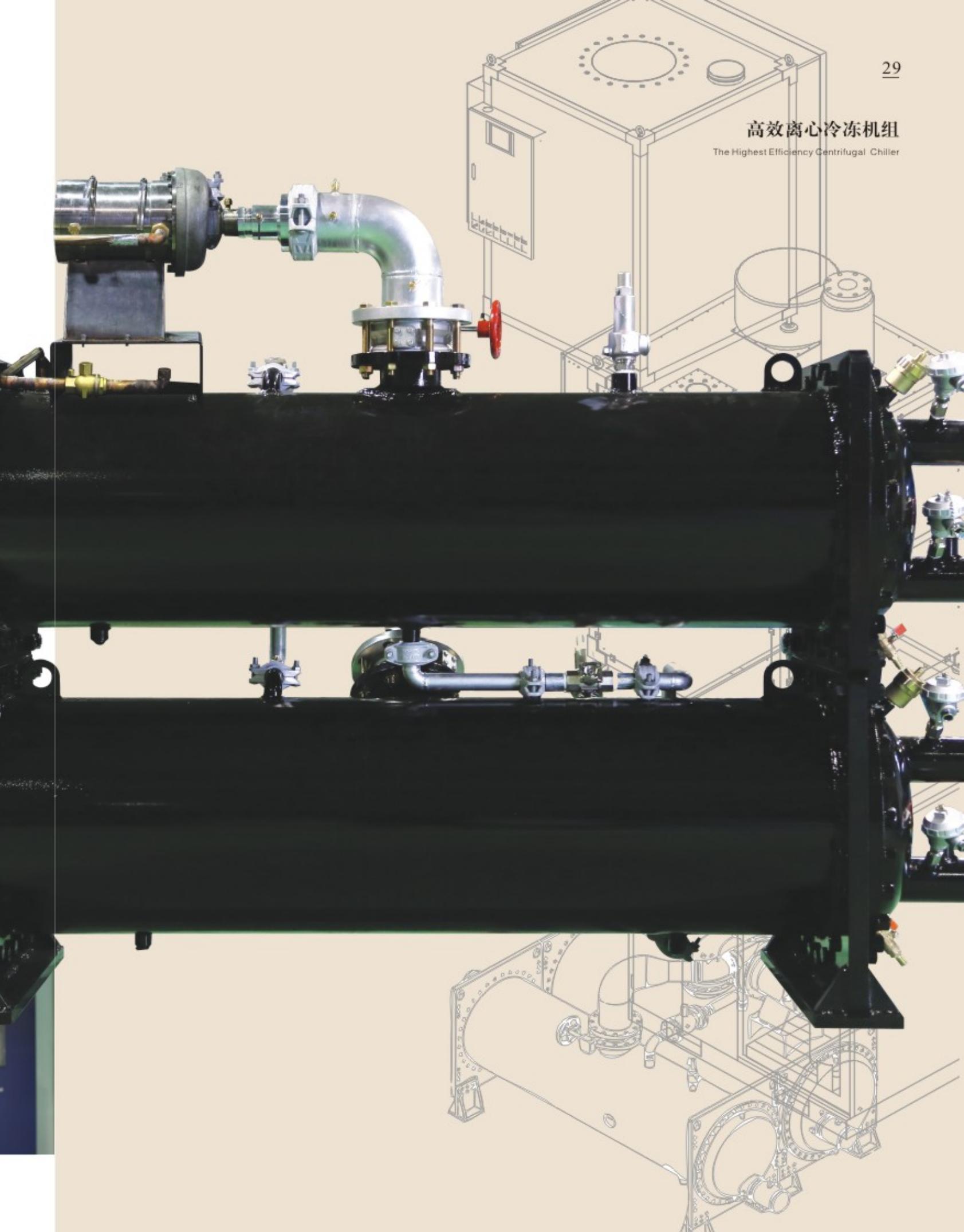
Due to the application of non-contact bearing, lubricant is not required, and owing to the usage of PM motor with which high velocity rotation can be performed, energy saving of more than 30% compared to existing screw type can be realized.

#### No failure due to lubricant

95% of failure of existing screw type product is occurred due to lubricant. However, as the chiller of K Turbo does not use lubricant, the rate of failure is lowered, and it becomes the product of contributing to the environmental protection because of the elimination of lubricant usage.

### 高效离心冷冻机组

The Highest Efficiency Centrifugal Chiller



### 高效离心冷冻机组

The Highest Efficiency Centrifugal Chiller



### 高效离心冷冻机组

The Highest Efficiency Centrifugal Chiller

### 离心冷冻机组特征



### Products Chiller

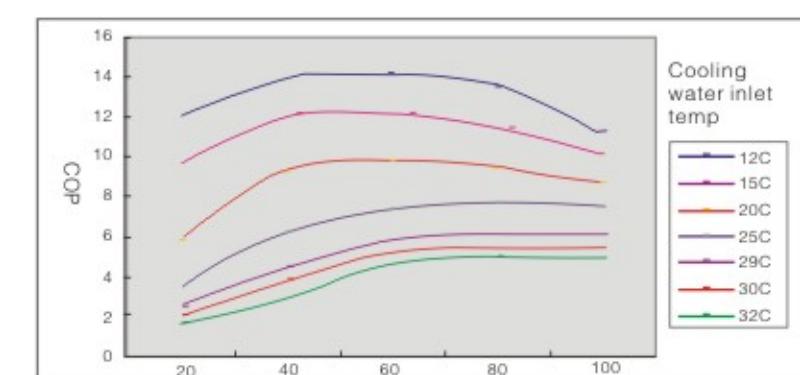
高效离心冷冻机组

The Highest Efficiency Centrifugal Chiller



### 空气悬浮离心冷冻机系列选型

型号/Model		TR60C	TR60H	TR240H	TR720H
性能/Capacity		USRT		60	60
压缩机/Compressor		Inverter driven high speed PM motor			
冷冻水 Chilled Water	COP	4.54		5.54	5.59
	流量/Flow Rate Pressure Loss	LPM mmAq	660 50	660 1507	2413 1137
冷却水 Cooling Water	流量/Flow Rate Pressure Loss	LPM mmAq	790 50	790 1390	2862 1052
	尺寸 Size	宽/W 长/L 高/H	mm mm mm	1010 1334 1548	1863 870 1887
电压/Voltage		V	380/440		



# Client

## 主要客户

Major References  
Overseas clients



## 韩国拓博集团

### 空气悬浮压缩机中国现场业绩表

K-TURBO COMPRESSOR TC300HP-2公斤



K-TURBO COMPRESSOR TC300HP-3.5公斤



K-TURBO COMPRESSOR TC300HP-9公斤



K-TURBO COMPRESSOR TC300HP-9公斤



K-TURBO COMPRESSOR TC150HP-7公斤



K-TURBO COMPRESSOR TCL200HP-2公斤



### Turbo Compressor Performance

2015年十五台安装在广西丹宝利酵母厂



2016年三台安装在浙江长兴&台州发电厂



2017年二十一台安装在佛山新能源电池厂



2017年四台安装在广东珠海TDK集团电子厂



2021年二台安装在无锡SK半导体厂



2021年二台安装在浙江长兴奇达纺织厂



## Certificates

### 优秀机械资质认证

Ministry of Commerce, Industry & Energy



### Electric Data & Test Standards

电机&变频器规格

Motor & Inverter Specification											
	25HP	50HP	75HP	100HP	150HP	200HP	250HP	300HP	400HP	600HP	
Motor Rating	{HP}	25	50	75	100	150	200	250	300	400	600
	{KW}	18	37	55	75	110	150	185	224	298	450
Output Ratings	Capacity {KVA}	27	53	80	107	160	213	267	320	427	640
	Current {A}	38	77	116	154	231	308	385	462	616	924
	Voltage	-350v									
	Frequency	1000Hz									
Input Ratings	Voltage	380~400V									
	Frequency	50/60Hz									
	Cooling method	Forced air cooling									
Control & Operation	Control method	Sensorless									
	Operation method	Terminal									
	Frequency setting	Analog reference : 0~1.2[mA]									
	Input signal	Contact Input : Run/Stop									
	Output signal	Open collector output : Trip,Pulse									
Protection	Inverter Trip	Over voltage, Low voltage, Over current, Inverter overheat, Cooling fan trip									
Environment	Ambient temperature	-10 ~ 40°C									
	Ambient humidity	Less than 90% RH Max.(Non-Condensing)									
Harmonic Solutions	Class	Total Harmonics	Power Factor	Configuration	Remark						
	Basic	I-THD < 35%	PF < 0.95	DC Choke	Kturbo Standard						

Rated capacity is based on 380V~440V

### 压缩系列材质

Texture of material

Material Quality	
Scroller Casing	AC4CH aluminum Alloy
Impeller	Titanium Alloy
	17-4PH Stainless Steel
Shaft Balanced	Titanium Alloy
Air Foil Bearing	Titanium & Plasma coating
Base plate	Structural steel
Casing	Minimum rating of 20Psig
Discharge elbow	Steel,ASTM A36
Blow off valve	Cast Al alloy
Flexible joint	Stainless steel
Check valve	Cast iron body, SST disk
Discharge silencer	Steel, ASTM A36

### 压缩系列测定标准

Test Standards		
	Measurement	Performance
Pressure	ptc 19.2	USA
Temperature	ASME PTC 19.5	USA
	ASME MFC 3M	USA
Flow Rate	BS 1042	G.B.
	DIN VDI/VDE2040	GERMANY
	ISO 5167	International
	KS B ISO 5167	KOREA
	JIS Z 8762,8763	JAPAN
Test Calculation		
		ASME PTD 10 USA
		ISO 5389 International
		KS B ISO 5389 KOREA
		DIN VDI 2045 GERMANY
Test Method		
		JIS B 8340 JAPAN
		KS B 6350 JAPAN

KRW 100million

