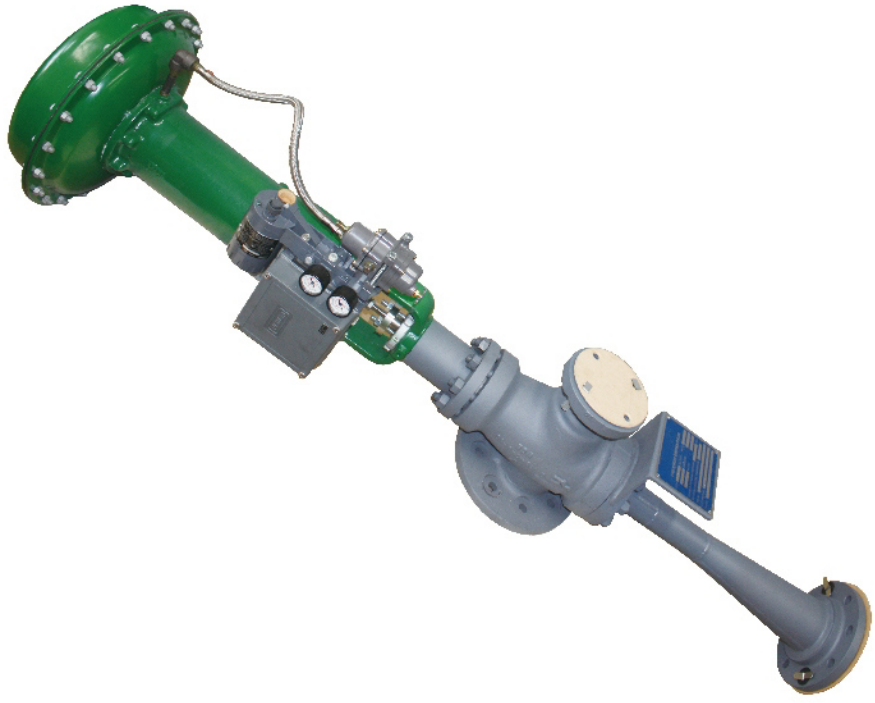
TENGXUAN TECHNOLOGY

Txuan

# 高效率可调热泵

## High Efficiency Thermocompressor



江苏腾旋科技股份有限公司

TENGXUAN TECHNOLOGY CO., LTD.

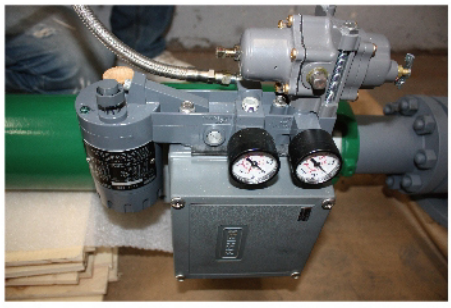
# 高效率可调热泵

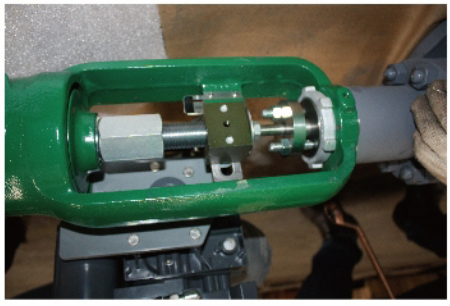
腾旋公司生产的热泵可通过精确调控高、低压蒸汽流，来实现低压蒸汽的增压并得以利用。热泵主要由三个部分组成：喷嘴、混合腔、扩散体。腾旋热泵结构简约而高效。

Tengxuan Thermo-compressor is designed to boost low-pressure steam by accurately mixing low-pressure steam with high-pressure steam. Thermo-compressor contains of three basic parts: a nozzle, mixing section, and a diffuser. Tengxuan Thermo-compressor is simple yet highly energy efficient.

腾旋公司生产的热泵可应用于造纸、石油、电厂、燃气等行业，其加工材质可满足相应的使用条件。

Tengxuan Thermo-compressor are used in the process, paper, petroleum, power, gas, and other industries. Thermo-compressor can be supplied in materials to meet service conditions.





腾旋可调热泵能够适应推动蒸汽、抽吸蒸汽及喷射蒸汽的压力变化情况，同时又能调节各自的流量大小。热泵尺寸为3″～8″ ，法兰连接。

Tengxuan Thermo-compressor has automatically-controlled spindles. They are used when pressure, suction, or discharge conditions vary and it is necessary to control discharge pressure or flow. These units are made in 3 thru 8 inch sizes with flanged connections.

| 热泵尺寸(英寸)<br>Size of Thermo-compressor (inch) | 高压蒸汽入口<br>Motive steam inlet (inch) | 抽吸蒸汽入口<br>Suction steam inlet (inch) | 喷射蒸汽出口<br>Discharge (inch) |
|---|---|---|---|
| 3 | 1 1/2 | 3 | 3 |
| 4 | 2 | 4 | 4 |
| 5 | 3 | 5 | 5 |
| 6 | 4 | 6 | 6 |
| 8 | 5 | 8 | 8 |

当工作温度超过225℃时，纺锤体阀芯及阀座需进行表面硬化处理以耐磨。

For temperatures above 225℃, spindle and seat should be hard-faced to resist wear.

# Thermocompressor

热泵可按照不同的使用工况或用户指定的要求来加工制造，通常热泵的壳体及扩散体为碳钢材质，喷嘴及纺锤体阀芯为不锈钢材质。

These compressors are made in materials to fit operating conditions or as specified by customer. Standard materials are steel body and diffuser with stainless steel muzzle and spindle.

特点：

Features

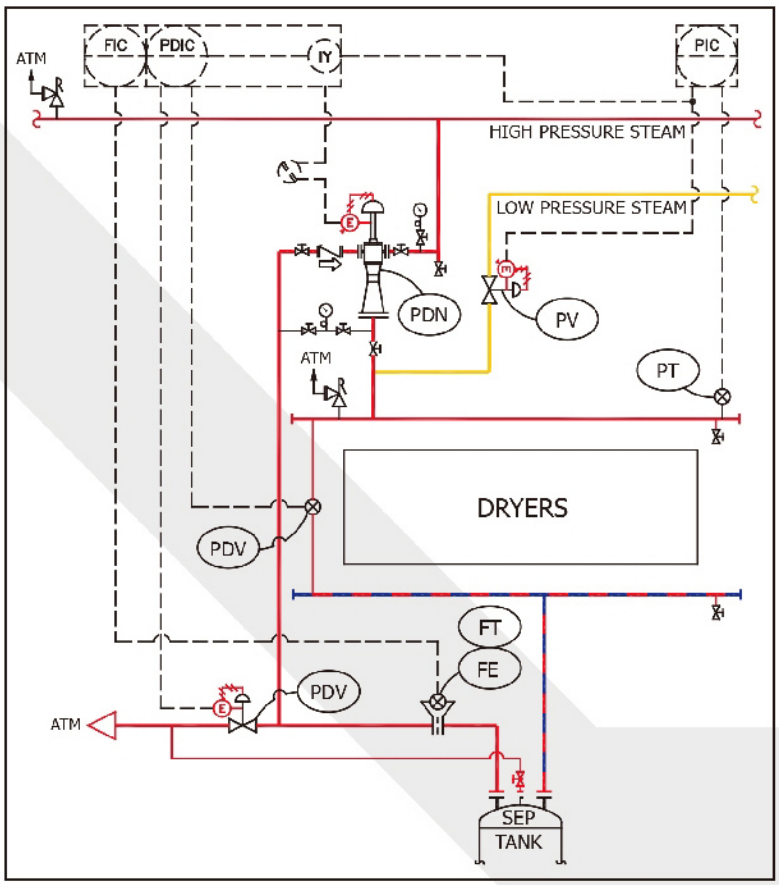
- 运用计算流体动力学仿真流体特性。
  Computational fluid dynamics used to model flow characteristics.
- 针对特定的工况，对喷嘴及混合腔进行尺寸选型。
  Nozzle and mixing chamber are sized based on specific operating conditions.
- 配合现有的安装，无须变动管道。
  Retrofit existing installations without piping modifications.
- 热泵几何形状最佳。
  Optimized thermocompressor geometry.

优点：

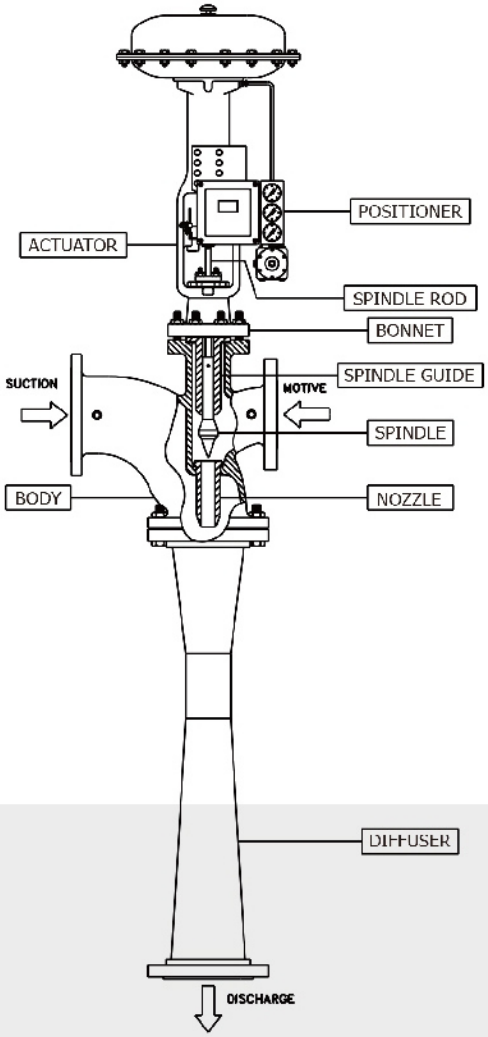
Benefits

- 引流效率较常规设计提高至25%。
  Entrainment efficiency improvements up to 25% compared to conventional designs.
- 高压推动蒸汽的用量最小化。
  Minimize high-pressure motive steam use.
- 投资小，改造成本低。
  Low-cost upgrade to latest jet compressor technology
- 压力操作范围更宽。
  Wider operating range.
- 提高能效。
  Increased energy efficiency

## Typical Application and Control




## Thermocompressor



| | |
|---|---|
| 旋转接头 | Rotary Joints |
| 关节接头 | Swivel Joints |
| 机械密封 | Mechanical Seals |
| 金属软管 | Hoses |
| 虹吸器 | Syphons |
| 扰流器 | Turbulator Bars |
| 纸芯夹头 | Core Chucks |
| 涂料筛 | Screen Filter |
| 干网清洗 | Dryer felt cleaner |
| 移动喷淋执行机构 | Shower Oscillator Systems |
| 蒸汽节能系统 | Steam & Condensate Systems |
| 涂辅料系统 | Coating & Supplementary Materials Systems |

## 腾旋科技蒸汽冷凝水系统代表性业绩

Typical Reference List of Steam and Condensate System (Txuan China)

| 用户<br>Customer | 纸种<br>Paper Grade | 车速<br>Speed(m/min) | 卷纸幅宽<br>Paper Trim(mm) | 纸机供应商<br>PM OEM | 系统类型<br>System Type |
|---|---|---|---|---|---|
| 玖龙纸业有限公司<br>Nine Dragons Paper Co., Ltd | 高强瓦楞原纸<br>Corrugated Paper | 1200 | 6660 | 美卓<br>Metso | 多段通汽<br>Cascade |
| 山东鲁丽纸业有限公司<br>Shandong Luli Paper Co., Ltd. | 牛皮挂面箱板纸<br>Kraft Linerboard | 750 | 4950 | 辽机<br>LYZJ | 热泵系统<br>Thermocompressor |
| 北京轩辕集团白俄罗斯纸业公司<br>Belarus Dobrush Paper Co., Ltd. | 涂布白板纸<br>Coated White Board | 600 | 4260 | 江苏华东<br>HuaDong | 多段通汽<br>Cascade |
| 宁波思特雷斯金属防护材料有限公司<br>Ningbo Stainless Protective Metal Material Co., Ltd. | 不锈钢垫纸<br>Stainless Steel InterleavingPaper | 600 | 2520 | 江苏华东<br>HuaDong | 热泵系统<br>Thermocompressor |
| 广西永凯糖业有限公司<br>Guangxi Yongkai Suger & Paper Co., Ltd. | 文化用纸<br>Fine Paper | 1000 | 4600 | 江苏华东<br>HuaDong | 热泵系统<br>Thermocompressor |
| 河北保定成功纸业有限公司<br>Hebei Chenggong Paper Co., Ltd. | 生活用纸<br>Tissue | 1200 | 2860 | 上海轻良<br>Qing Liang | 热泵系统<br>Thermocompressor |
| 山东泉林纸业有限责任公司<br>Shandong Tralin Paper Co., Ltd. | 生活用纸<br>Tissue | 900 | 2860 | 潍坊凯信<br>Hicredit | 热泵系统<br>Thermocompressor |

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