

**HPT Multistage Barrel Casing Boiler Feed Pump**  
**HPT 多级筒式锅炉给水泵**



## Features and Benefits

### 1 Double casing design

- Maximum safety
- Pipework connections remain undisturbed during disassembly
- Optimized reliability and pump availability
- Provides maximum rigidity and accepts high pipe loads

### 2 Full cartridge pull-out design

- Rapid changeover
- Increased productivity

### 3 Optimized hydraulic profiles with precision casting impellers and diffusers

- Ample range of modern hydraulics
- High efficiency not relying on close clearances
- Good rotordynamic behavior

### 4 Shrunk on rotor design

- Allows for high rotor balancing quality
- Avoids fretting corrosion and minimizes stress concentrations
- Avoids loose parts on shaft during operation and results in lower vibration

### 5 Pure graphite stationary seal rings

- Highly reliable, well proven sealing concept

### 6 Axial thrust compensation by balancing piston

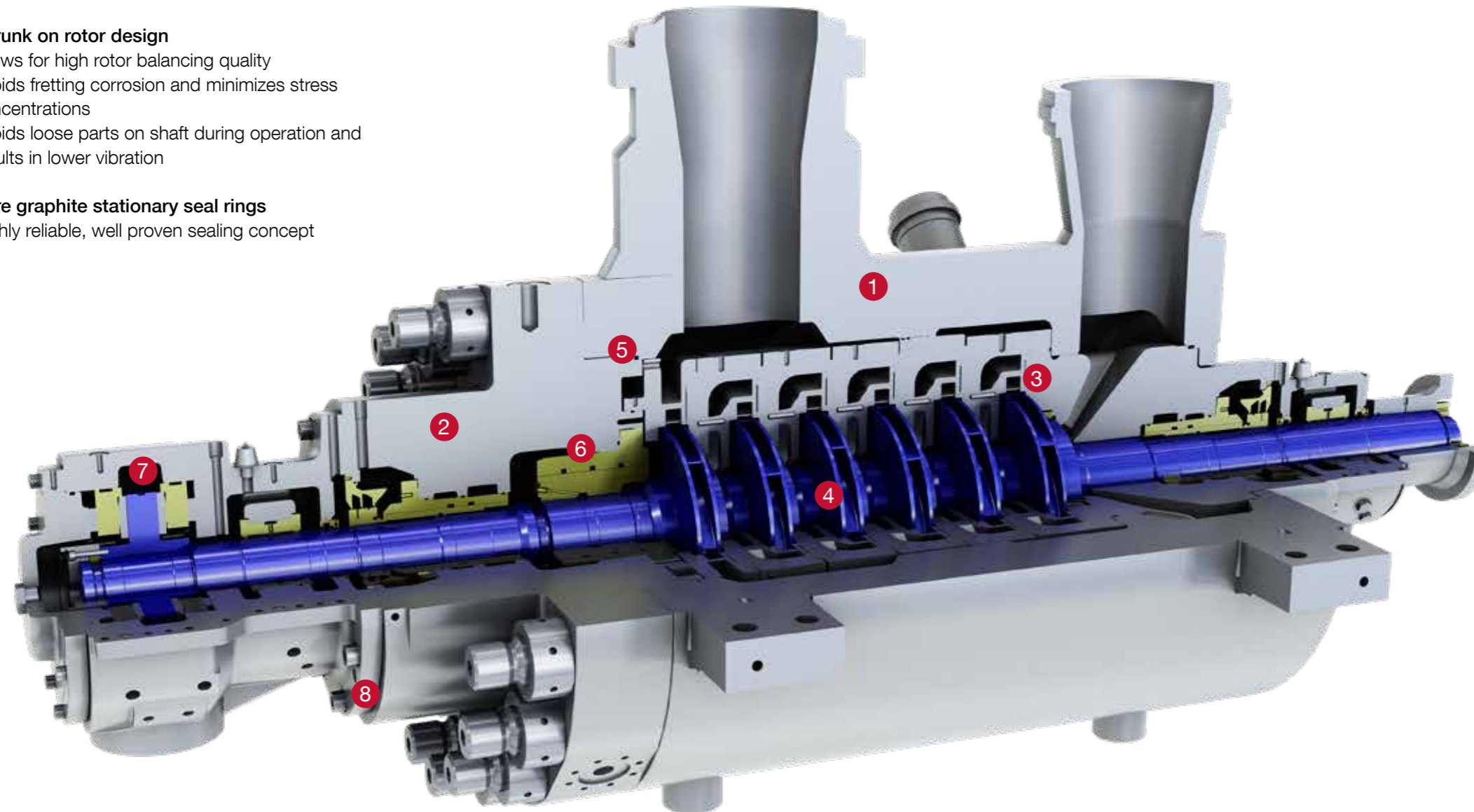
- Reduced damage risk during transient conditions
- Little reduction on efficiency during long period between overhauls
- Swirl breaks at balancing piston maintain rotor stability even when internal clearances are worn

### 7 Fully rated double acting tilting pad thrust bearing and multi lobed journal bearings

- Long operating life regardless of the operating mode
- High stiffness and damping at high speeds

### 8 Bearing housing fixed to pump cartridge through 360°

- Optimized vibrational behavior



## Main Applications

HPT radially split barrel-casing pumps are specifically designed for boiler feed applications in thermal power stations. These pumps are optimized to provide high availability and high efficiency operation over an extended period of time, thus reducing operating and maintenance costs. Their robust construction and tolerance of changing conditions make them particularly suitable for cyclic operation.

## 主要应用

HPT 径向剖分筒式泵是专门为火力发电厂设计的锅炉给水泵，该泵经过最优化设计能够保证在一定时间内高效可靠地运行，从而降低运行和维护费用。坚固的结构和对工况变化的承受能力使之特别适用于周期负荷运行。

## 特征及优点

### 1 双壳体设计

- 保证最大安全性
- 在拆卸过程中不影响管路接口
- 优化泵的可靠性和可用性
- 采用最大化刚性设计，承受高管路载荷

### 2 整抽式芯包设计

- 便于快速更换
- 提高生产效率

### 3 优化水力模型，采用精密铸造叶轮和导叶

- 众多可选的先进水力
- 不依赖较小间隙来保证高效
- 良好的转子动力学性能

### 4 转子套装设计

- 保证较高的转子平衡质量
- 避免腐蚀，最大程度地减小应力集中
- 避免轴上部件运行时松动，转子振动较小

### 5 纯石墨静密封环

- 高可靠性，良好证明的密封方式

### 6 通过平衡鼓来进行轴向推力补偿

- 降低瞬态工况下的损伤风险
- 效率在大修期内，长时间运行时略微降低
- 平衡鼓上的消涡孔能够保持转子稳定运行，即使在内部间隙磨损的情况下依然如此

### 7 全负荷双侧可倾瓦推力轴承和多油楔径向轴承

- 在任何工作状态下都能保持一个长期的运行寿命
- 维持高速下的高刚度和阻尼

### 8 轴承箱与芯包 360 度全周固定

- 优化振动性能

# HPT Multistage Barrel Casing Boiler Feed Pump

## HPT 多级筒式锅炉给水泵



Oil and gas  
石油及天然气



Hydrocarbon processing  
石油化工



Power generation  
电力



Pulp, paper and board  
浆、纸和纸板



General industry  
通用工业



Chemical process industry  
化工流程工业

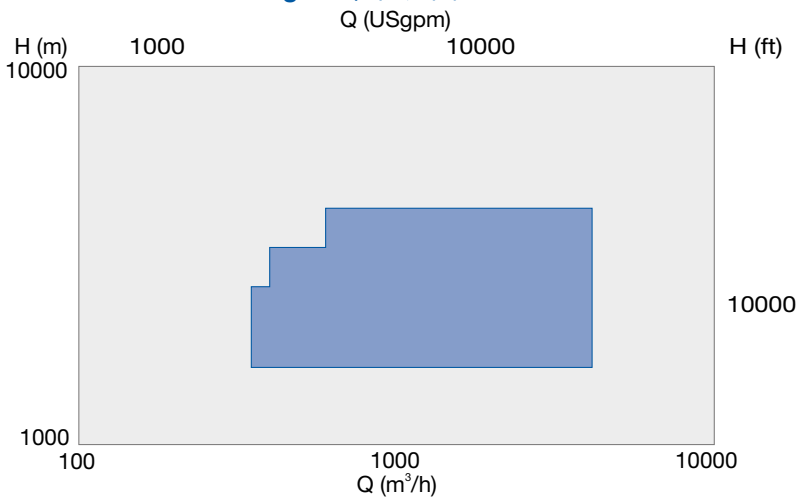


Water and wastewater  
水和污水

### Operating data / 运行数据

Metric units / 公制单位	Pump sizes / 泵规格	US units / 美国单位
达 / up to 500 mm		达 / up to 20 in
达 / up to 4 000 m <sup>3</sup> /h	Capacities / 流量	达 / up to 17 600 USgpm
达 / up to 4 200 m	Heads / 扬程	达 / up to 13 800 ft
达 / up to 545 bar	Pressures / 压力	达 / up to 7 905 psi
达 / up to 220°C	Temperatures / 温度	达 / up to 430°F

### Performance ranges / 性能范围



### Materials

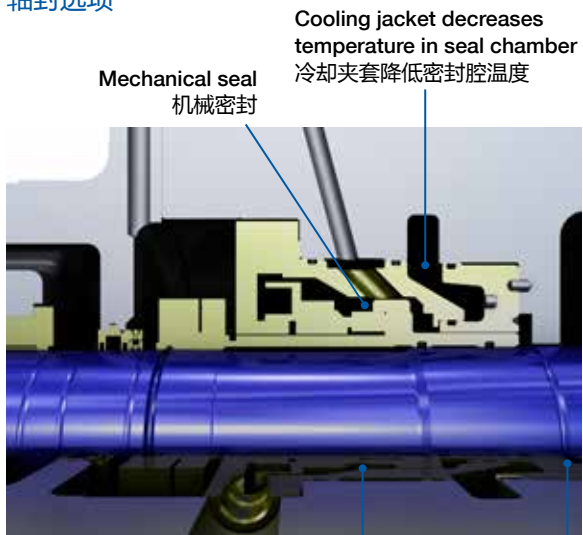
### 材料

Pump part	Material	泵部件	材料
Barrel casing	Forged low alloyed carbon steel	筒体	锻造的低合金碳钢
Impellers, diffusers and stage casings	Chrome steel	叶轮、导叶和中段	铬钢
Shaft	Chrome steel	轴	铬钢
Balance piston and sleeve	Chrome steel	平衡鼓和平衡鼓套	铬钢

# Options / 可选设计

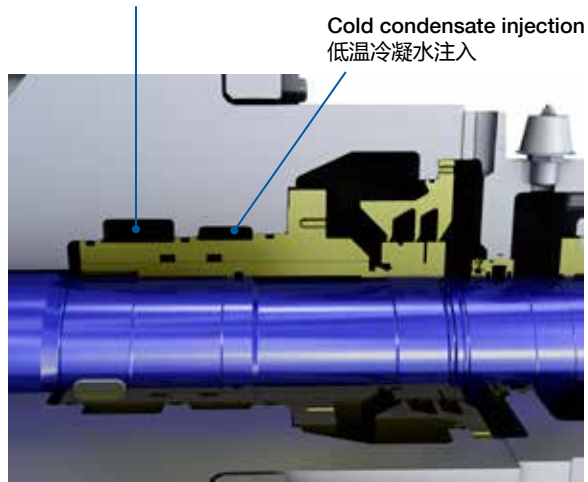
## Shaft seal options

### 轴封选项



Cool / 冷 (~60°C) Hot / 热 (~180°C)

Bleed-off for high suction pressures; without bleed-off for low suction pressures  
高吸入压力下的溢流，低吸入压力下无溢流



### Single mechanical seal

- Minimal leakage
- Low energy consumption

### 单端机械密封

- 最小泄漏量
- 低能量损耗

### Fixed throttle bushing

- Simple and reliable design
- Less sensitive to dirt

### 固定节流衬套

- 简单和可靠设计
- 对污物不敏感

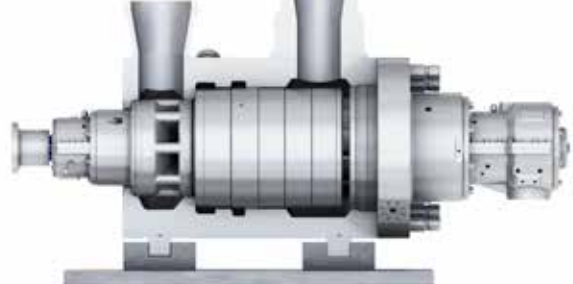
## Cartridge pull-out

### 芯包抽出



## Assembled

### 组装的



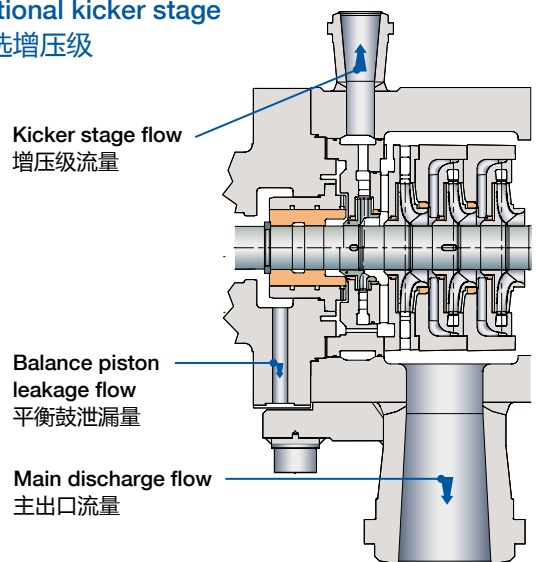
## Optional double ITO

### 可选双抽头设计



## Optional kicker stage

### 可选增压级





苏州苏尔寿泵业有限公司  
苏州新区建林路 433 号  
总机 +86 (0) 512 8187 3888  
传真 +86 (0) 512 8187 3591  
邮编 215151

**Sulzer Pumps Suzhou Ltd.**  
No.433, Jianlin Road, Suzhou New District,  
Suzhou 215151  
Tel. +86 (0) 512 8187 3888  
Fax +86 (0) 512 8187 3591

北京分公司  
北京市建国门内大街 7 号光华长安大厦  
1 座 1003/1005 室  
电话 +86 (0) 10 6510 1777/1781  
传真 +86 (0) 10 6518 5011  
邮编 100005

**Beijing Branch**  
Room 1003/1005, Tower 1,  
No.7, Bright China Chang An Building,  
Jian Guo Men Nei Dajie,  
Beijing, China 100005  
Tel. +86 (0) 10 6510 1777/1781  
Fax +86 (0) 10 6518 5011

苏尔寿泵业上海技术服务中心  
上海市浦东新区合庆镇  
东川公路 5587 号  
电话 +86 (0) 21 5897 3801  
传真 +86 (0) 21 5897 3803/3605  
邮编 201201

**Shanghai Service Center**  
No.5578, Dongchuan Road,  
Heqing Pudong New Area  
Shanghai, China 201201  
Tel. +86 (0) 21 5897 3801  
Fax +86 (0) 21 5897 3803/3

大连苏尔寿泵及压缩机有限公司  
大连市双 D 港双 D7 街 6 号  
总机 +86 (0) 411 8758 1888  
传真 +86 (0) 411 8758 1878-8738  
邮编 116600

**Sulzer (Dalian) Pumps & Compressors Ltd.**  
No.6 DD 7th Street, DD Port  
Dalian 116600  
Tel. +86 (0) 411 8758 1888  
Fax +86 (0) 411 8758 1878-8738

上海分公司  
上海市浦东新区福山路 388 号宏嘉  
大厦 2102-2014 室  
电话 +86 (0) 21 6888 2900  
传真 +86 (0) 21 5882 6708  
邮编 200122

**Shanghai Branch**  
Room 02-04, Hong Jia Tower,  
No.388 Fu Shan Road,  
Pu Dong New District,  
Shanghai, PRC 200122  
Tel. +86 (0) 21 6888 2900  
Fax +86 (0) 21 5882 6708

成都技术服务中心  
四川省彭州市石化基地炼厂南路  
与经一路交汇处  
电话 +86 (0)28 8385 9009  
邮编 611930

**Chengdu Service Center**  
The Intersection of Refinery South Road  
and Jingyi Road, Petrochemical Base,  
Pengzhou, Sichuan, China 611930  
Tel. +86 (0)28 8385 9009

苏尔寿泵业(昆山)有限公司  
江苏省昆山市晨丰西路 8 号  
总机 +86 (0)512 3660 6388  
传真 +86 (0)512 3660 6307  
邮编 215300

**Sulzer Pump Solutions (Kunshan) Co., Ltd.**  
No.8, West Chenfeng Road,  
Kunshan, Jiangsu, China 215300  
Tel. +86 (0)512 3660 6388  
Fax +86 (0)512 3660 6307

广州办事处  
广州市天河区华庭路 4 号富力天河商务  
大厦 1006 室  
电话 +86 (0) 20 8310 7466  
传真 +86 (0) 20 8310 5626  
邮编 510610

**Guangzhou Office**  
Room 1006, Fuli Tianhe Business Macion,  
No. 4 Huating Road, Tianhe District,  
Guangzhou, PRC 510610  
Tel. +86 (0) 20 3810 7466  
Fax +86 (0) 20 3810 5626

[www.sulzer.com](http://www.sulzer.com)

E00616 en zh 12.2017, Copyright © Sulzer Ltd 2017

This brochure is a general presentation. It does not provide any warranty or guarantee of any kind. Please, contact us for a description of the warranties and guarantees offered with our products. Directions for use and safety will be given separately. All information herein is subject to change without notice.

这本样本只是个梗概介绍, 它不提供任何种类的授权和担保。如想要获得我们产品授权和担保的描述, 请与我们联系。此中的所有信息 在没有通知的情况下会随时更改。