

## API 610 BBT/BBTD two stage radially split between bearings process pump



# Main industries and applications

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The BBT and BBTD pumps are designed for heavy duty, high pressure and high temperature applications. These applications range from light hydrocarbons at low temperatures, to corrosive fluids, coker furnace charge, vacuum bottoms and other services at high or low temperatures found in:

- Refineries
- Petrochemical plants
- Power plants
- Liquefied Natural Gas (LNG) facilities

For low Net Positive Suction Head (NPSH) applications, a BBT-D with double suction first stage impeller is utilized. First stage coke crushers are also available for coking applications.



# Features and benefits

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## 1 Heavy radially split casing

- Easily handles 2 times API nozzle loads
- Designed for high pressure and temperature

## 2 Stiff shaft design

- Increases mechanical seal life
- Lowers the deflection leading to less wear
- Allows reliable rotor dynamic performance
- Improves vibration

## 3 CFD hydraulics

- Opposed impellers balance axial loads
- Efficient and reliable hydraulic performance in wide range of services

## 4 Bearings

- Ball-ball, sleeve-ball, or sleeve-pivot shoe bearings for long life

## 5 Flanges

- 300# or 600# as required

## 6 Seals chambers

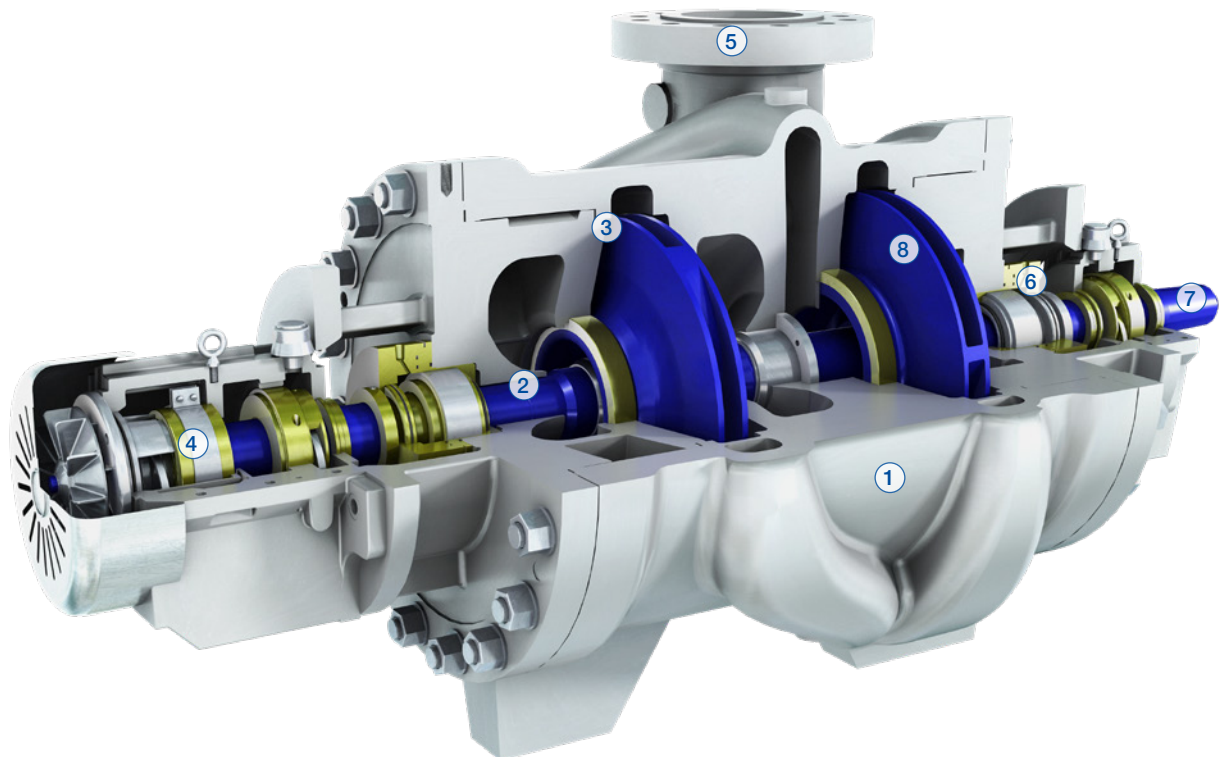
- Balance line causes both seal chambers to be near suction pressure for longer seal life

## 7 Tapered shaft

- Eases seal maintenance

## 8 Impellers

- Enclosed and dynamically balanced for improved efficiency and reliability



# Specifications

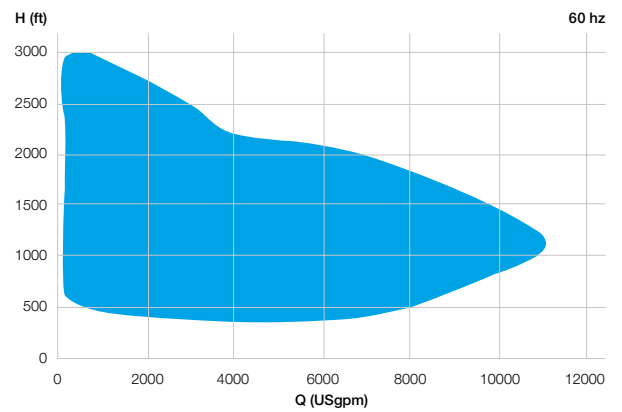
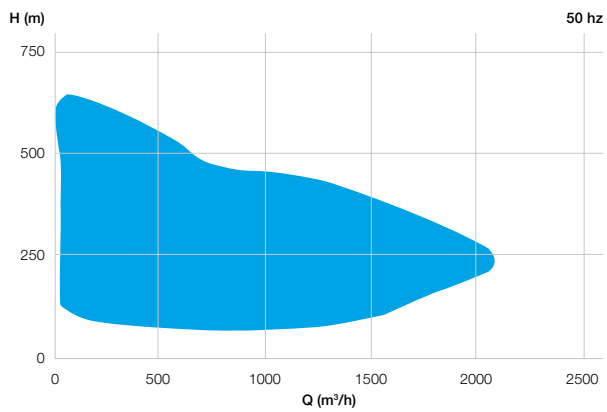
## Material options

S-6, C-6, A-8, D-1, D-2 and 317L for ISO13709 (API 610)

## Operating data

	50 Hz	60 Hz
<b>Pump sizes</b>	50 to 250 mm	2 to 10 in.
<b>Capacities</b>	up to 2'000 m <sup>3</sup> /h	up to 10'000 USgpm
<b>Heads</b>	up to 740 m	up to 2'400 ft.
<b>Pressures</b>	up to 100 bar	up to 1'480 psi
<b>Temperatures</b>	up to 425°C	up to 800°F

## Performance range



# We keep your processes flowing

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Wherever fluids are treated, pumped, or mixed, we deliver highly innovative and reliable solutions for the most demanding applications.

## Our offer

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The Flow division specializes in pumping solutions specifically engineered for the processes of our customers. We provide pumps, agitators, compressors, grinders, screens and filters developed through intensive research and development in fluid dynamics and advanced materials. We are a market leader in pumping solutions for water, oil and gas, power, chemicals and most industrial segments.



### Pumps

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As one of the world's leading pump manufacturers, Sulzer provides a wide range of products for engineered, configured, and standard pumping solutions as well as essential auxiliary equipment. We are renowned for our state-of-the-art products, performance reliability and efficient solutions.



### Agitators and dynamic mixers

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Sulzer mixing and agitation technology offers a wide range of products for industrial applications. Side-mounted horizontal and top-mounted vertical agitators, dynamic chemical mixers, and tower and tank flow management products guarantee effective mixing and agitating processes.



### Compressors and aeration

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Sulzer's state of the art offering for municipal and industrial wastewater treatment includes turbocompressors, aeration systems and mechanical aerators. Our application and process know-how combined with our unique product portfolio give us the means to provide customers with reliable and efficient solutions.



### Submersible mixers

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Sulzer's energy efficient submersible mixers are suitable for a wide range of applications in industry and municipal treatment plants. They provide the right solution to match mixing tasks for agitating, blending, mixing, dissolving and suspension of solids in industry and municipal treatment plants.

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