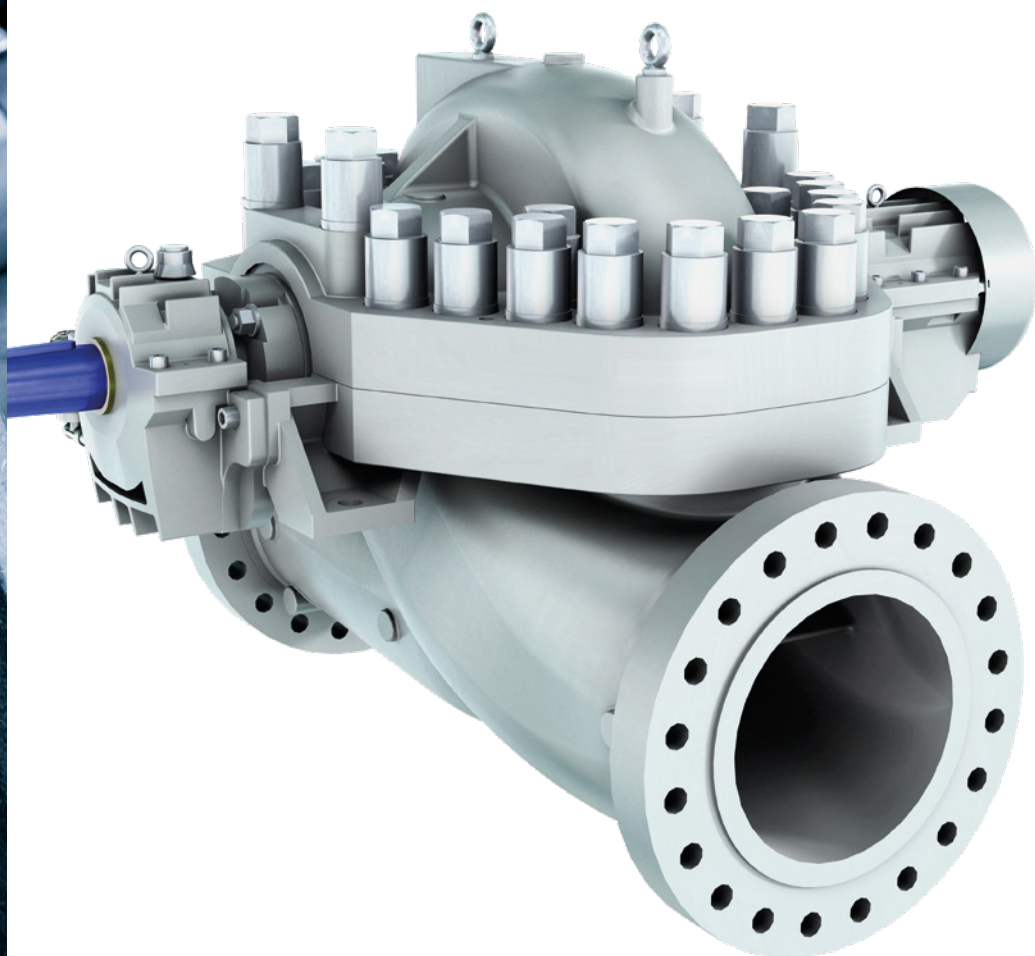


SULZER

Flow Equipment

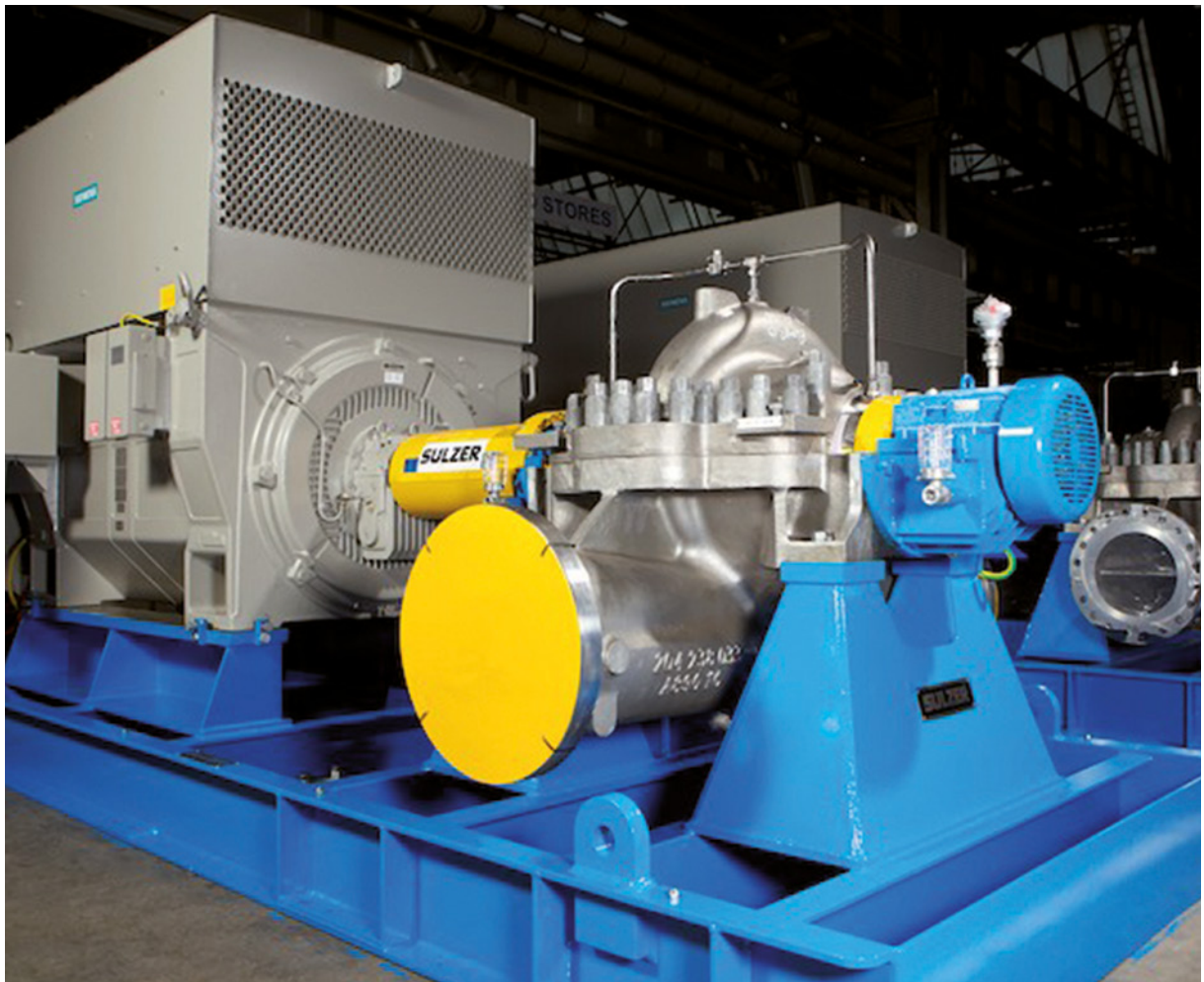
HSB horizontal axially split single stage double suction pump



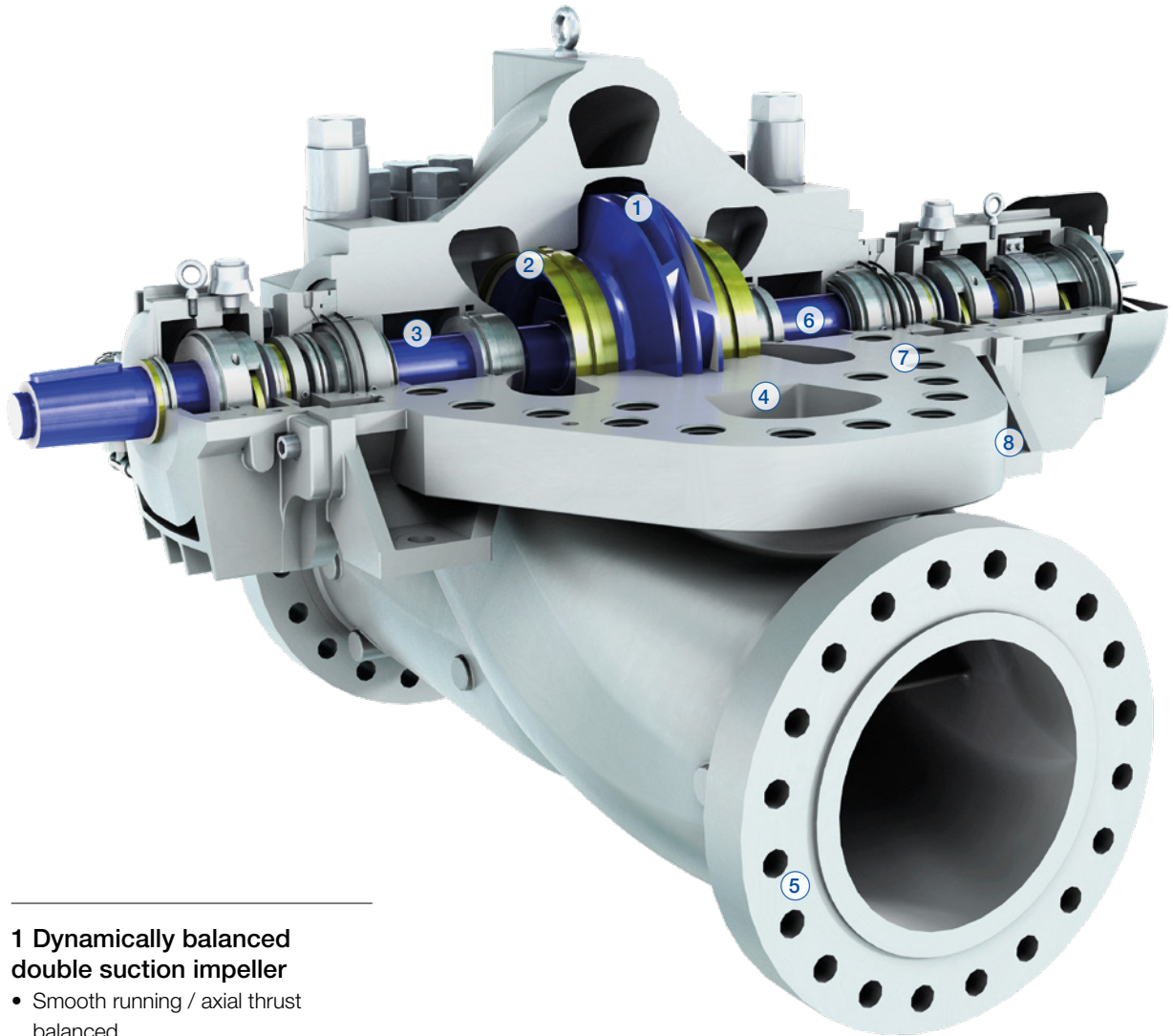
Main industries and applications

Thousands of Sulzer HSB pumps are found on crude oil pipelines throughout the world. Some of the larger crude lines may have over 200 HSBs with a 3 to 4.4 MW (4'000 to 6'000 hp) motor on each pump. Other HSBs are pumping condensate in power plants, potable water over rough terrain, and even light hydrocarbons. HSBs are driven

by electric motors, VFD-motors, motor-fluid couplings, gas turbines, diesel engines, and Sulzer HST power recovery turbines. HSB pumps are commonly used for fluids with viscosities from 0.1 cp to over 600 cp. In some cases, cold crude oil startup viscosities can exceed 1'000 cp.



Features and benefits



1 Dynamically balanced double suction impeller

- Smooth running / axial thrust balanced
- Low NPSH

2 Replaceable case and impeller rings

- Simple, low cost efficiency renewal

3 Integral seal chamber

- Operating at suction pressure; designed for mechanical seals of all configurations
- Minimizes emissions and leakage

4 Double volute casing

- Minimizes shaft deflection
- Longer mechanical seal life

5 Horizontal suction and discharge nozzles

- Cast integral with bottom half of the casing
- Two times API 610 nozzle load capacity

6 Large shaft diameter with minimum bearing span

- More power capacity
- Improved mechanical seal life

7 Axial split casing

- Ease of disassembly for inspection and maintenance

8 Near centerline or nozzle mounting

- Near centerline mounted for alignment on warmer services
- Nozzle mounted for ambient services with heavy nozzle loads

Specifications

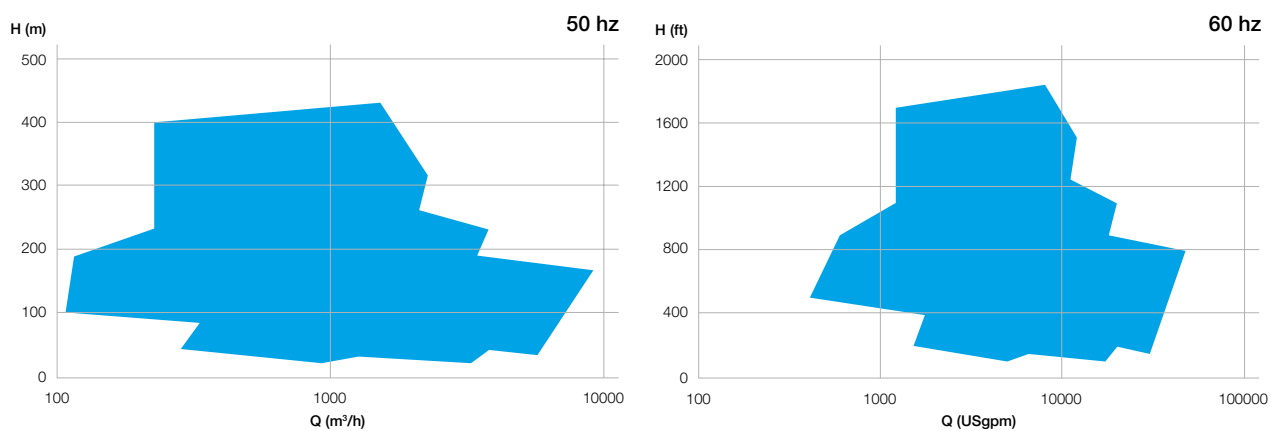
Material options

API 610 material codes: S-4, S-5, S-6, C-6, A-8, D-1, D-2

Operating data

	50 Hz	60 Hz
Pump sizes	up to 30x30x28.5	up to 30x30x28.5
Capacities	up to 10'000 m ³ /h	up to 45'000 USgpm
Heads	up to 400 m	up to 1'800 ft.
Pressures	up to 150 bar	up to 2'200 psi
Temperatures	up to 200°C	up to 400°F
Speeds	up to 5'000 rpm	up to 5'000 rpm

Performance range





We keep your processes flowing

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

Our offer

The Flow Equipment 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

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

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.



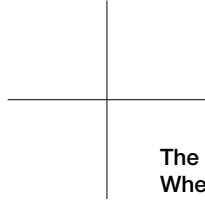
Compressors and aeration

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

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.



The Sulzer Flow Equipment division keeps your processes flowing. Wherever fluids are treated, pumped, or mixed, we deliver highly innovative and reliable solutions for the most demanding applications.

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