

➤ Axially-split pumps

HPDM axially-split, between bearing, single or multistage pump

Features and benefits

- Optimum technical solution due to a tailor-made design for each application
- Wide range of proven hydraulics allows high efficiency and suction performance
- Sturdy design with generous safety margins for long life of reliable service with minimum maintenance
- Proven experience backed by extensive list of references
- Technical support provided to customers from the early phases of the project design, allowing sound and cost-effective solutions for each application

Key characteristics

Capacities	up to 20'000 m ³ /h / 88'000 USgpm
Heads	up to 700 m / 2'300 ft.
Pressures	up to 175 bar / 2'500 psi
Temperatures	up to 70°C / 160°F

Applications

- Water transport
- Large crude oil pipelines
- Any other high flow, high head application



HSA axially-split, single stage pump ISO 13709 / API 610 type BB1

Features and benefits

- Between bearing design for reliability at high flow rates
- Double suction impeller for low NPSH3
- First critical speed is well above operating speed range for smooth operation
- Shared bearing design and components with HSB pump

Key characteristics

Capacities	up to 18'000 m ³ /h / 80'000 USgpm
Heads	up to 260 m / 850 ft.
Pressures	up to 34 bar / 490 psi
Temperatures	up to 150°C / 300°F

Applications

- Cooling water
- Tank farm
- Booster applications
- Export/loading pumps



HSB axially-split, between bearing, single stage pump ISO 13709 / API 610 type BB1

Features and benefits

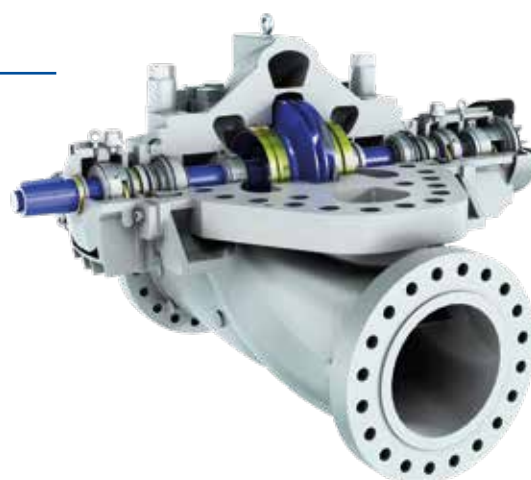
- Staggered vane, double suction impeller on larger sizes for reduced vibration
- Custom hydraulics to meet both current and future requirements with a simple rotor / volute changes
- Ball-ball, sleeve-ball and sleeve-pivot shoe bearings are available
- High-speed designs available for remote gas turbine-driven applications

Key characteristics

Capacities	up to 10'000 m ³ /h / 45'000 USgpm
Heads	up to 550 m / 1'800 ft.
Pressures	up to 150 bar / 2'200 psi
Temperatures	up to 205°C / 400°F

Applications

- Crude oil pipelines
- Heavy duty auxiliary applications
- Medium pressure applications in desalination and water transport



MSD axially-split, multistage pumps ISO 13709 / API 610 type BB3

Features and benefits

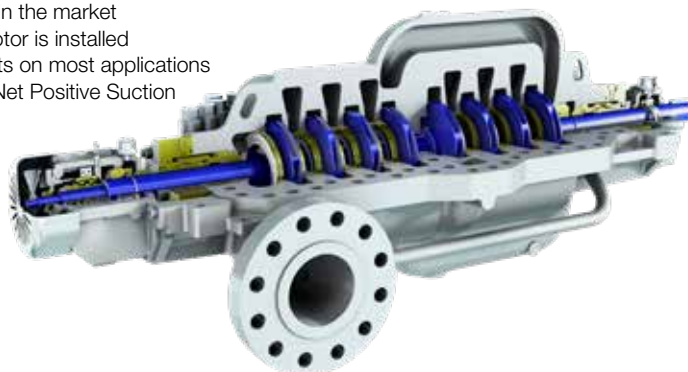
- Broadest hydraulic coverage of any BB3 type multistage pump in the market
- Axially split casing means rotor balance is not disturbed when rotor is installed
- Opposed impellers balance axial thrust, saving lube system costs on most applications
- Double suction, first-stage available on most sizes for reduced Net Positive Suction Head (NPSH)
- High speed option for gas turbine drive

Key characteristics

Capacities	up to 3'200 m ³ /h / 14'000 USgpm
Heads	up to 2'900 m / 9'500 ft.
Pressures	up to 300 bar / 4'400 psi
Temperatures	up to 205°C / 400°F

Applications

- Refined product pipelines
- Water injection
- CO₂ pipeline and injection
- Crude oil export
- Industrial boiler feedwater
- Lean amine circulation



MSD-RO axially-split, multistage pump

Features and benefits

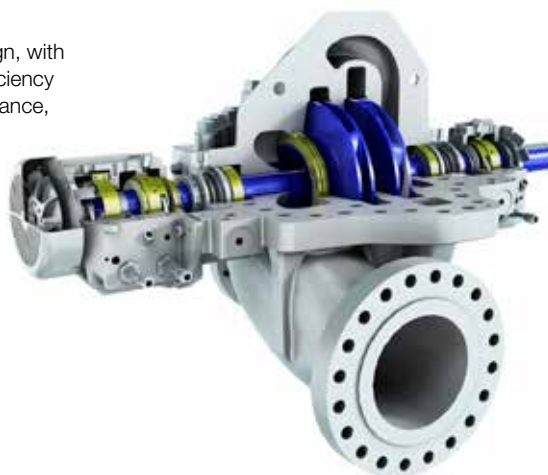
- Hydraulic configuration with two single suction impellers offers a compact design, with extremely low Net Positive Suction Head (NPSH) values and top of its class efficiency
- Special opposed, dynamically balanced impeller design for ideal axial thrust balance, increasing the overall pump efficiency by avoiding the use of balancing line
- Reduced wear parts clearances by using PEEK or honeycomb to increase pump efficiency

Key characteristics

Capacities	up to 1'600 m ³ /h / 7'000 USgpm
Heads	up to 650 m / 2'150 ft.
Pressures	up to 110 bar / 1'305 psi
Temperatures	up to 60°C / 140°F

Applications

- High pressure membrane feed pump in Seawater Reverse Osmosis (SWRO)
- Water transport



SMD axially-split, double suction pump

Features and benefits

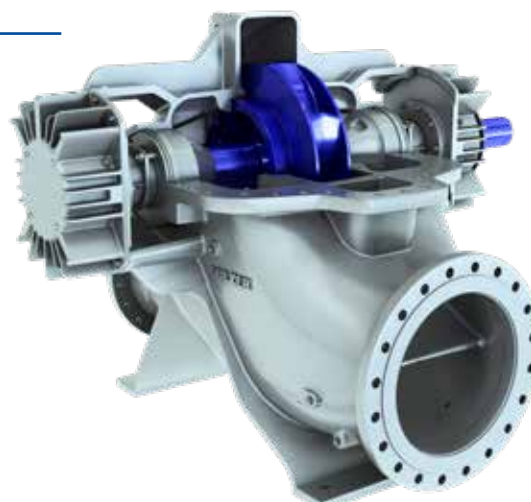
- Optimum hydraulic fit with high efficiency maintained over a wider flow range
- Exceptionally low Net Positive Suction Head Required (NPSHR) value not only at the best efficiency point but also on overload
- Maintenance-friendly features; excellent interchangeability of parts
- Horizontal and vertical constructions

Key characteristics

Capacities	up to 24'000 m ³ /h / 106'000 USgpm
Heads	up to 260 m / 850 ft.
Pressures	up to 34 bar / 490 psi
Temperatures	up to 140°C / 280°F

Applications

- Water intake, transport and supply
- Desalination
- Water treatment
- District heating and cooling
- Industrial water applications



ZPP axially-split, double suction, single stage pump

Features and benefits

- Long and trusted experience in all industrial segments
- Excellent performance
- Suitable for the most demanding industrial requirements
- Exceeds requirements of international ISO 5199 standard
- Unique and superior design features minimize life cycle costs
- Quick and easy installation, safe operation, easy maintenance and service

Key characteristics

Capacities	up to 25'000 m ³ /h / 110'000 USgpm
Heads	up to 160 m / 525 ft.
Pressures	up to 20 bar / 290 psi
Temperatures	up to 120°C / 250°F

Applications

- Clean and lightly contaminated liquids
- Viscous liquids
- Low-consistency fibrous slurries
- Low-pressure pulsation pumping applications

