TRILLIUM FLOW TECHNOLOGIES

HORIZONTAL, AXIALLY SPLIT, ONE OR TWO-STAGE, DOUBLE SUCTION IMPELLER, BETWEEN BEARINGS PUMP

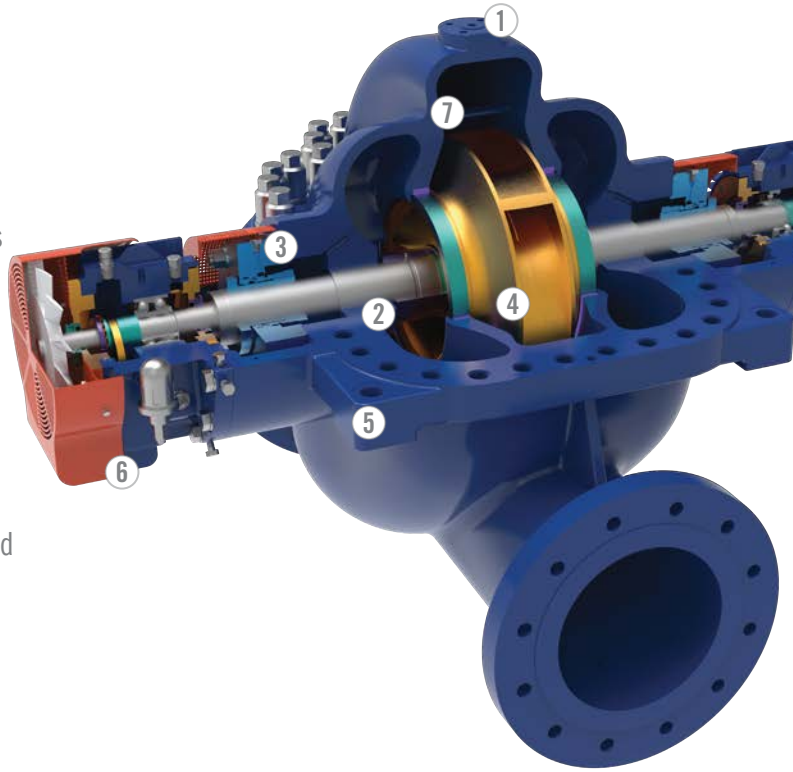
gabbioneta pumps

Termomeccanica Pompe

API-610

TYPE: BB1-API

TRILLIUM PUMP MODEL: AXD



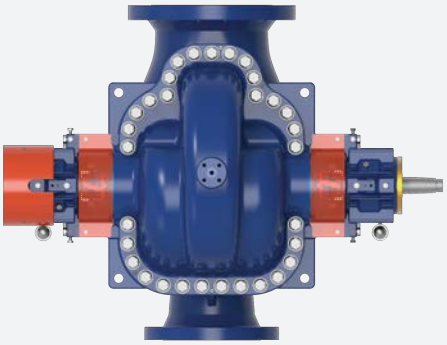
OVERVIEW

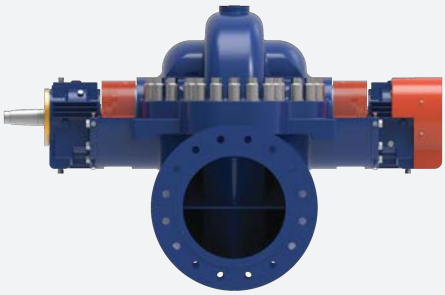
Trillium Flow Technologies updated AXD pump range combines the engineering excellence, innovation, and heritage of our Gabbioneta Pumps® and Termomeccanica Pompe brands. Our expertise in designing and manufacturing BB1 pumps dates back to the 1960s, with thousands of units installed worldwide.

This API-compliant BB1 pump range is axially split, one or two-stage, between-bearings, and is centerline-mounted with either a single or double suction first stage impeller.

KEY FEATURES

- API 610 compliant
- ① Integral case connections to avoid non-destructive testing
- ② Heavy-duty shaft to minimize rotor defection and maximize uptime
- ③ API 682 compliant seal chamber
- ④ Double suction impeller
- ⑤ Centerline mounted case configuration
- ⑥ Bearing housing leverages common parts across all Trillium Flow Technologies between bearings pumps
- ⑦ Bespoke high efficiency hydraulics





OPTIONS

All API material options: S-4, S-5, S-6, S-8, C-6, A-8, D-1, D-2, and bespoke options

Two stage options for higher head applications

Vertical configuration with product lubricated bearing available for select applications

High efficiency options with industry leading hydraulics

Composite wear parts, for improved efficiency and rotor dynamics

MAIN APPLICATIONS

Water Transportation, Supply, & Distribution

Sea Water Desalination

Crude Oil Pipeline

Tank Farm Transfer

Booster Applications

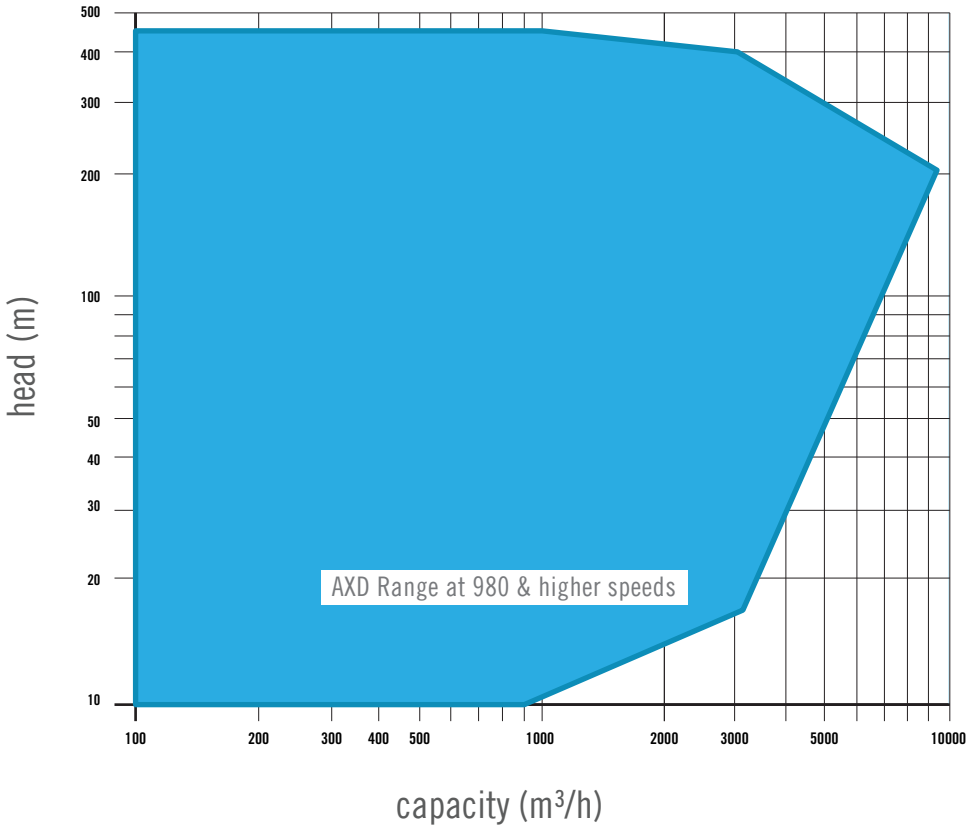
OPERATING RANGE

Capacity: up to 30,000 m³/hr, 132,000 USGPM

Head: up to 800m, 2625 ft

Temperature: up to 200°C, 392°F

Speed of rotation: Up to 6,000 RPM



TRILLIUM FLOW TECHNOLOGIES

gabbioneta pumps

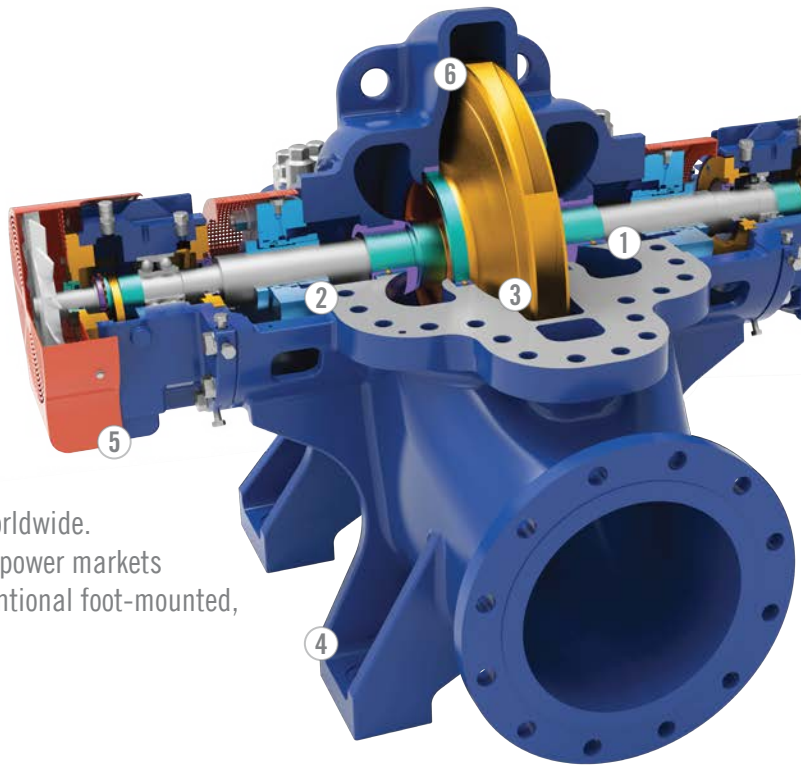
Termomeccanica Pompe

HORIZONTAL, AXIALLY SPLIT, ONE OR TWO-STAGE, DOUBLE SUCTION IMPELLER, BETWEEN BEARINGS PUMP

API-610

TYPE: BB1-IND

TRILLIUM PUMP MODEL: DD



OVERVIEW

Trillium Flow Technologies updated DD pump range combines the engineering excellence, innovation, and heritage of our Gabbioneta Pumps® and Termomeccanica Pompe brands.

Our expertise in designing and manufacturing BB1 pumps dates back to the 1960s, with thousands of units installed worldwide. This BB1 style pump range is designed for the industrial and power markets and is available in many different configurations, from conventional foot-mounted, single-stage, to two-stage and vertical configurations.

KEY FEATURES

① Heavy-duty shaft to minimize rotor defection and maximize uptime

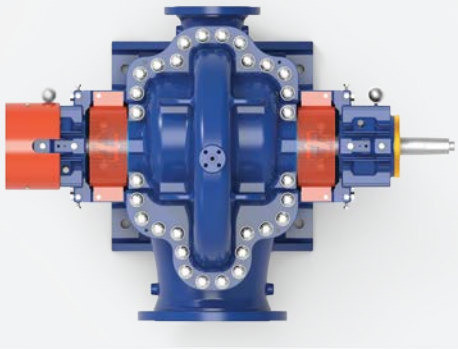
② API 682 compliant seal chamber

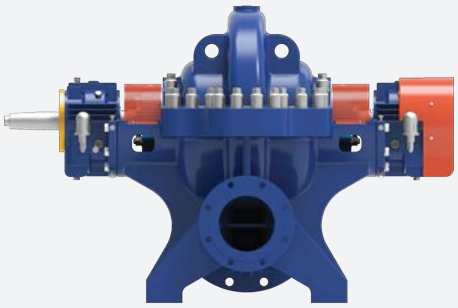
③ Double suction impeller

④ Foot mounted case configuration

⑤ Bearing housing leverages common parts across all Trillium Flow Technologies between bearings pumps

⑥ Bespoke high efficiency hydraulics





OPTIONS

All API material options: S-4, S-5, S-6, S-8, C-6, A-8, D-1, D-2, and bespoke options

Two-stage options for high head applications

Vertical configuration with product lubricated bearing available for select applications

High efficiency options with industry leading hydraulics

Composite wear parts, for improved efficiency and rotor dynamics

MAIN APPLICATIONS

Water Transportation, Supply, & Distribution

Sea Water Desalination

Crude Oil Pipeline

Tank Farm Transfer

Booster Applications

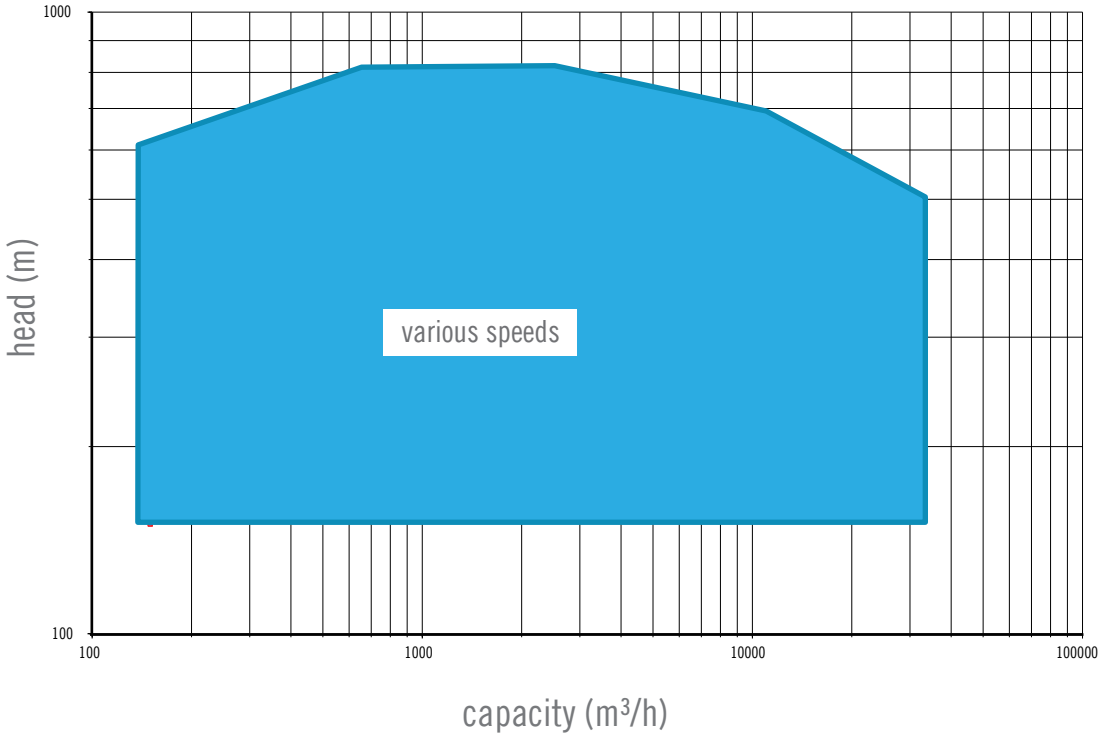
OPERATING RANGE

Capacity: up to 30,000 m³/hr, 132,000 USGPM

Head: up to 800 m, 2,625 ft

Temperature: up to 200°C, 392°F

Speed of rotation: Up to 6,000 RPM



TRILLIUM FLOW TECHNOLOGIES

HORIZONTAL, AXIALLY SPLIT, ONE STAGE, DOUBLE SUCTION IMPELLER, BETWEEN BEARINGS PUMP

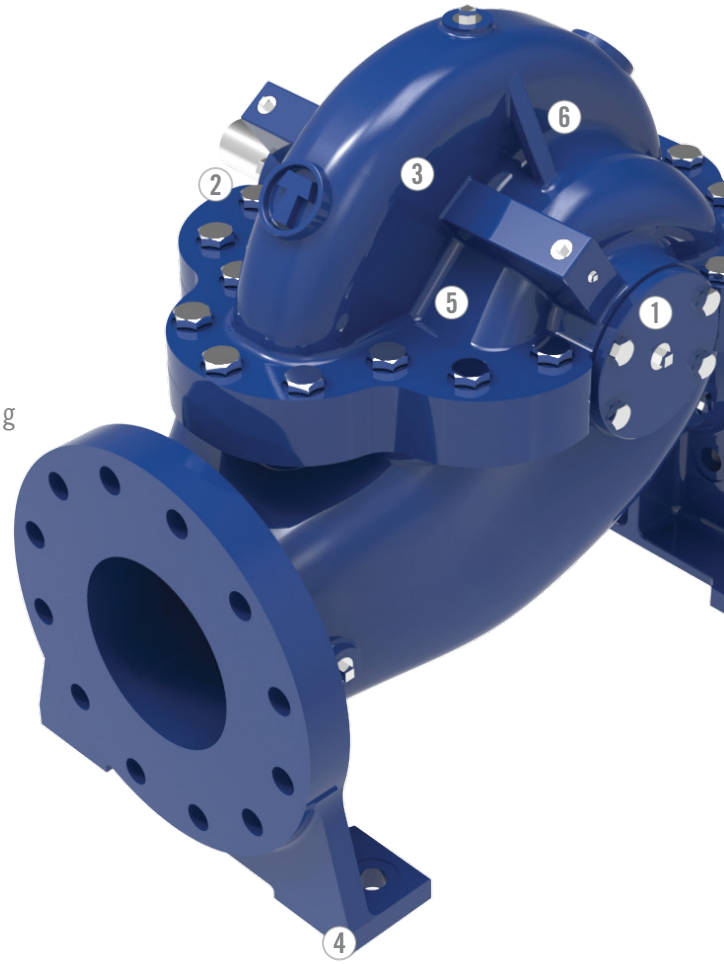
gabbioneta pumps

Termomeccanica Pompe

API-610

TYPE: BB1-IND

TRILLIUM PUMP MODEL: HSS



OVERVIEW

Trillium Flow Technologies HSS pump range combines the engineering excellence, innovation, and heritage of our Gabbioneta Pumps® and Termomeccanica Pompe brands. Our expertise in designing and manufacturing BB1 style industrial pumps dates back to the 1960s, with thousands of units installed worldwide.

This BB1 style pump range is designed for the industrial and power markets and is core advantage is being fully self-contained using product lubricated bearings which avoid the cost and maintenance of bearing housings and requires only one mechanical seal or packing assembly.

KEY FEATURES

① Product lubricated bearing arrangement

② Single seal chamber reducing cost and maintenance

③ Double suction impeller

④ Foot mounted case configuration

⑤ Disc type wear rings to manage axial thrust

⑥ Bespoke high efficiency hydraulics

OPTIONS

Available in range of materials to suit all industrial applications

Instrumentation available on request

Vertical configuration available for select applications

High efficiency options with industry leading hydraulics

MAIN APPLICATIONS

Water Transportation, Supply, & Distribution

Sea Water Desalination

Booster Applications

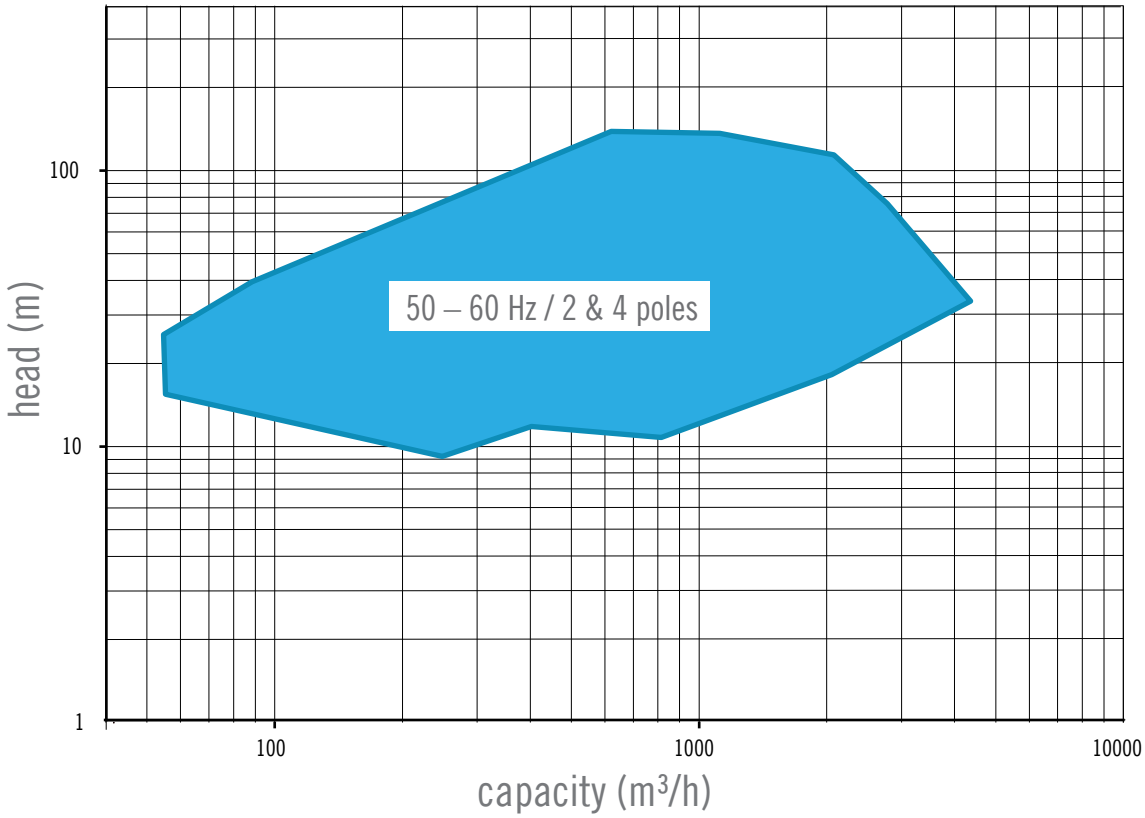
OPERATING RANGE

Capacity: up to 4,000 m³/hr, 18,000 USGPM

Head: up to 200 m, 650 ft

Temperature: up to 150°C, 300°F

Speed of rotation: Up to 4,000 RPM



TRILLIUM FLOW TECHNOLOGIES

HORIZONTAL, RADIALLY SPLIT, TWO-STAGE, BETWEEN BEARINGS, SINGLE & DOUBLE SUCTION PUMPS

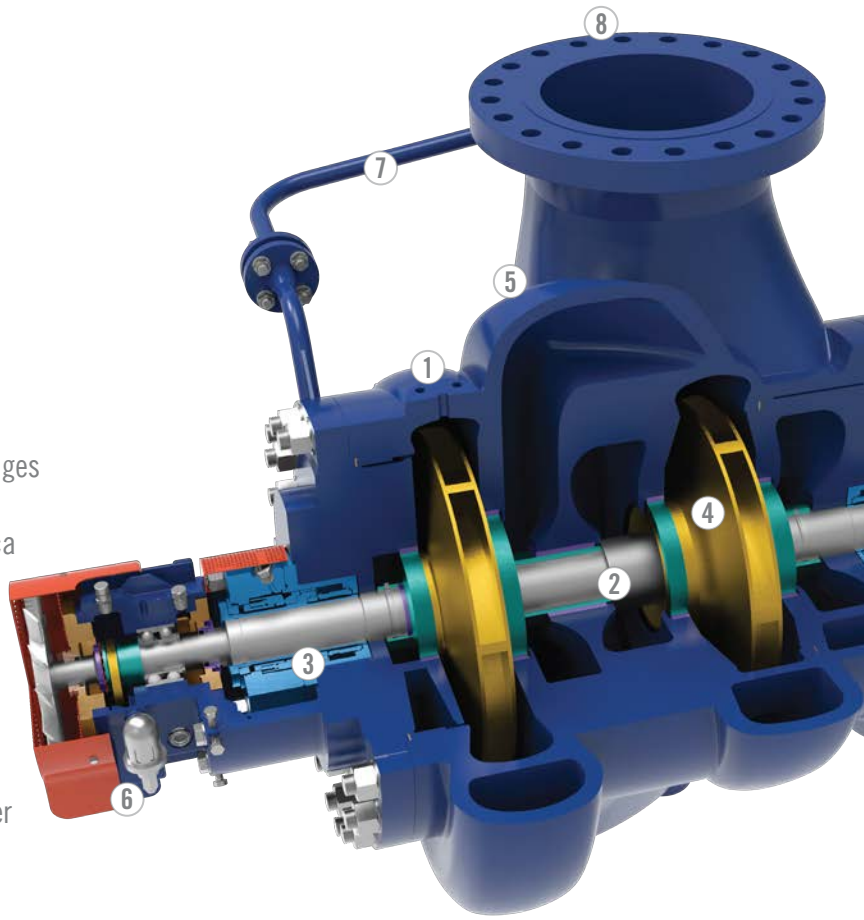
gabbioneta pumps

Termomeccanica Pompe

API-610

TYPE: BB2

TRILLIUM PUMP MODEL: DDH



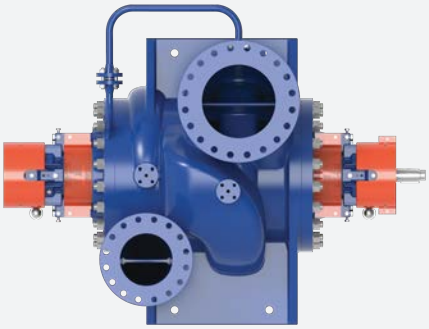
OVERVIEW

Trillium Flow Technologies updated DH & DDH pump ranges combine the engineering excellence, innovation, and heritage of our Gabbioneta Pumps® and Termomeccanica Pompe brands. Our expertise in designing and manufacturing BB2 pumps dates back to the 1960s, with thousands of units installed worldwide.

This API-compliant BB2 pump range is radially split, two-stage, between-bearings, and centerline-mounted with either a single or double suction first-stage impeller for reduced NPSHr.

KEY FEATURES

- Fully API 610 compliant
- ① Integral case connections to avoid non-destructive testing
- ② Heavy-duty shaft to minimize rotor defection and maximize uptime
- ③ API 682 compliant seal chamber
- ④ Single or Double suction impeller
- ⑤ Heavy-duty case suitable for 2x API nozzle loads
- ⑥ Bearing housing leverages common parts across all Trillium Flow Technologies between bearings pumps
- ⑦ Balance line to ensure both seals remain at equal pressure
- ⑧ Available with multiple nozzle configurations to suit all applications



OPTIONS

All API material options: S-4, S-5, S-6, S-8, C-6, A-8, D-1, D-2, and bespoke options

Multiple nozzle orientation configurations

API compliant bearing selections

Specialist Options: Coke Crusher, High Temperature

MAIN APPLICATIONS

High Temperature Refining

Hydrocarbon Transfer

Boiler Feed Booster

Pipeline Applications

Vacuum Bottoms

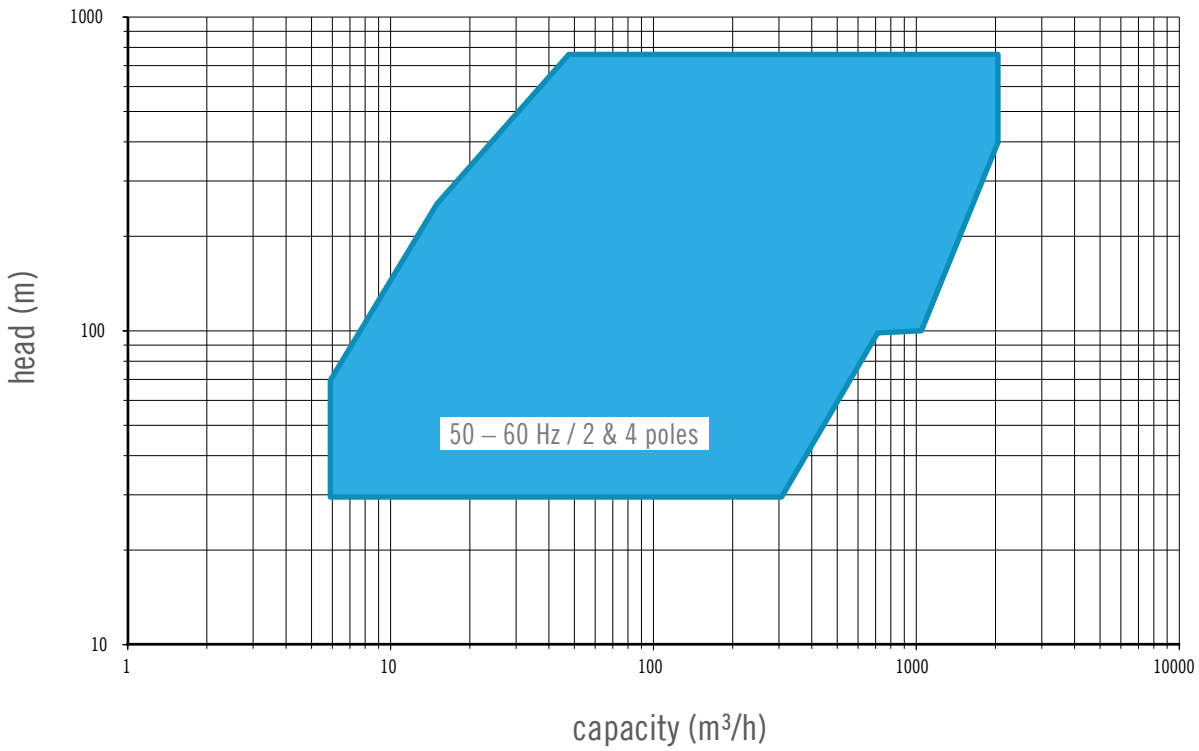
OPERATING RANGE

Capacity: up to 6,000 m³/h, 26,500 USGPM

Head: up to 500 m, 1,475 ft

Temperature: up to 427°C, 800 °F

Speed of rotation: Up to 4,000 RPM



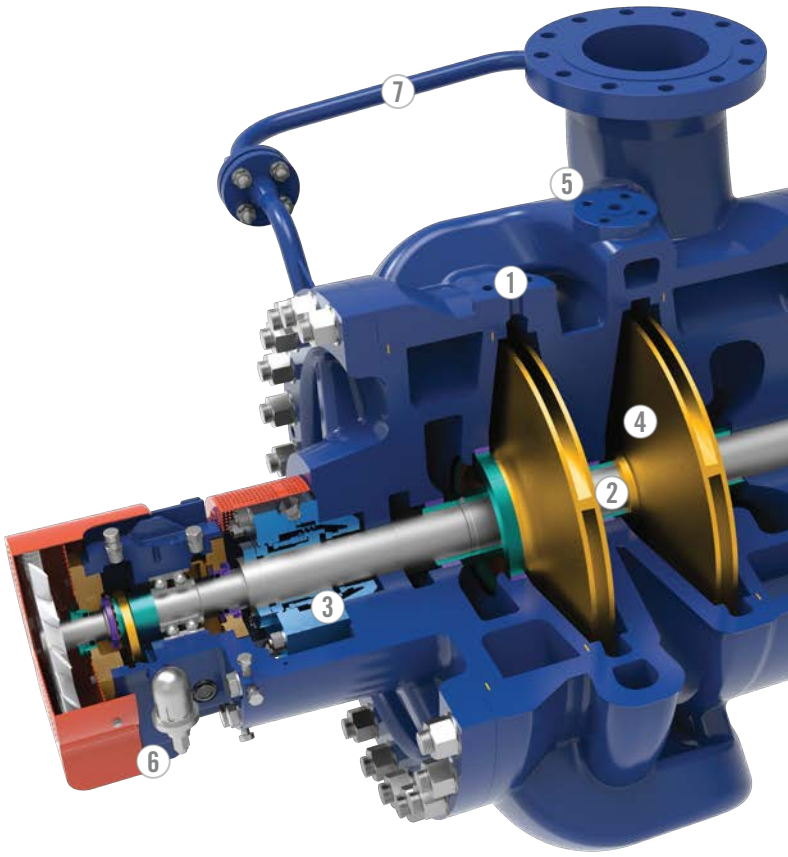
TRILLIUM FLOW TECHNOLOGIES

HORIZONTAL, RADIALLY SPLIT, TWO-STAGE, BETWEEN BEARINGS, SINGLE & DOUBLE SUCTION PUMPS

API-610

TYPE: BB2

TRILLIUM PUMP MODEL: DH



OVERVIEW

Trillium Flow Technologies updated DH & DDH pump ranges combine the engineering excellence, innovation, and heritage of our Gabbioneta Pumps® and Termomeccanica Pompe brands. Our expertise in designing and manufacturing BB2 pumps dates back to the 1960s, with thousands of units installed worldwide.

This API-compliant BB2 pump range is radially split, two-stage, between-bearings, and centerline-mounted with either a single or double suction first-stage impeller for reduced NPSHr.

KEY FEATURES

Fully API 610 compliant

① Integral case connections to avoid non-destructive testing

② Heavy-duty shaft to minimize rotor defection and maximize uptime

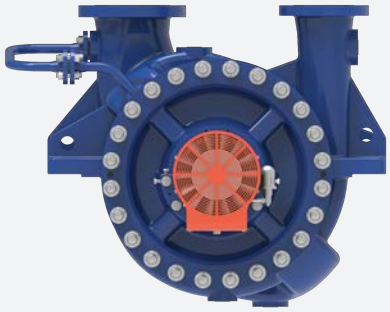
③ API 682 compliant seal chamber

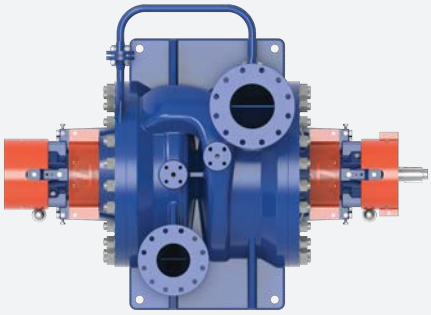
④ Single or Double suction impeller

⑤ Heavy-duty case suitable for 2x API nozzle loads

⑥ Bearing housing leverages common parts across all Trillium Flow Technologies between bearings pumps

⑦ Balance line to ensure both seals remain at equal pressure





OPTIONS

All API material options: S-4, S-5, S-6, S-8, C-6, A-8, D-1, D-2, and bespoke options

Multiple nozzle orientation configurations

API compliant bearing selections

Specialist Options: Coke Crusher, High Temperature Alignment

MAIN APPLICATIONS

High Temperature Refining

Hydrocarbon Transfer

Boiler Feed Booster

Pipeline Applications

Vacuum Bottoms

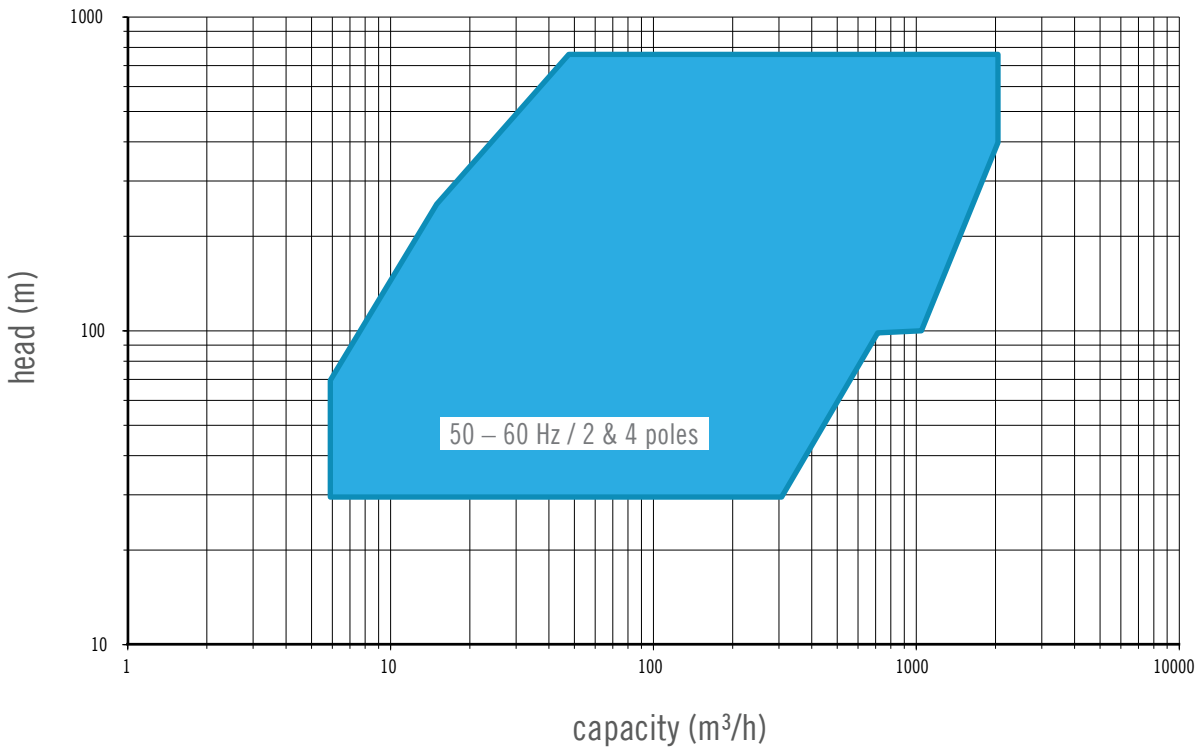
OPERATING RANGE

Capacity: up to 6,000 m³/h, 26,500 USGPM

Head: up to 500 m, 1,475 ft

Temperature: up to 427°C, 800 °F

Speed of rotation: Up to 4,000 RPM



TRILLIUM FLOW TECHNOLOGIES

HORIZONTAL, RADIALLY SPLIT, SINGLE-STAGE, BETWEEN BEARINGS, DOUBLE-SUCTION PUMPS

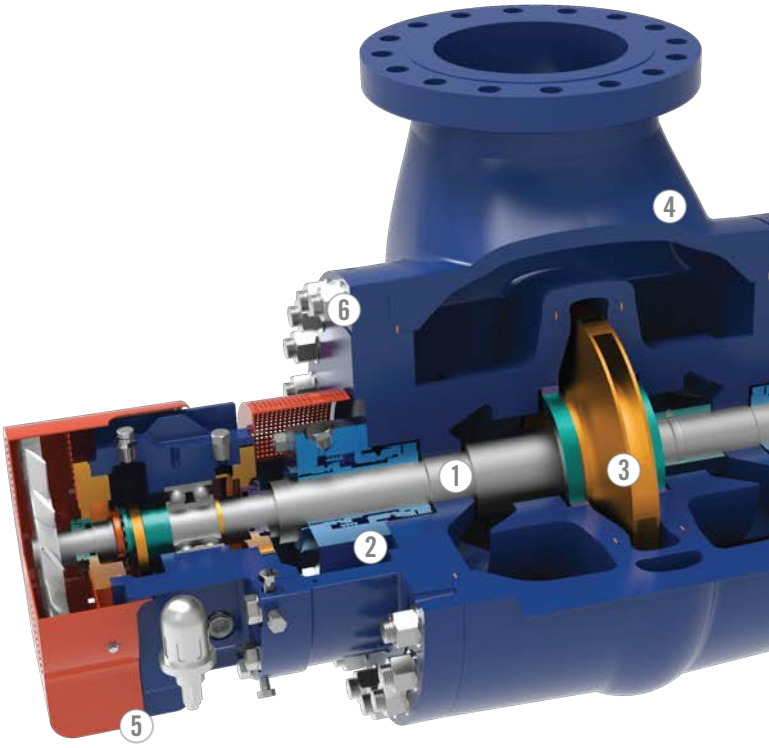
gabbioneta pumps

Termomeccanica Pompe

API-610

TYPE: BB2

TRILLIUM PUMP MODEL: DSA



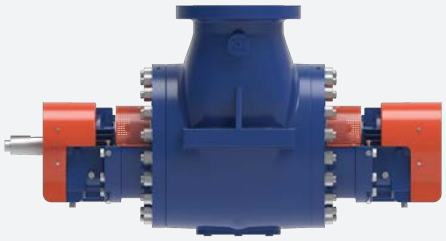
OVERVIEW

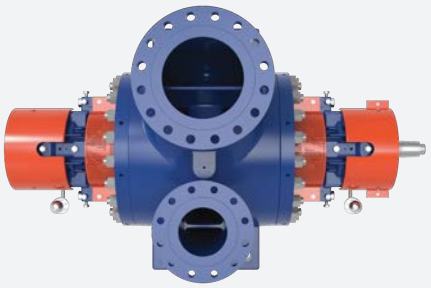
Trillium Flow Technologies updated DSA pump range combines the engineering excellence, innovation, and heritage of our Gabbioneta Pumps® and Termomeccanica Pompe brands. Our expertise in designing and manufacturing BB2 pumps dates back to the 1960s, with thousands of units installed worldwide.

This API-compliant BB2 pump range is radially split, single-stage, between-bearings, and centerline-mounted with a double suction impeller for enhanced NPSHr.

KEY FEATURES

- Fully API 610 compliant
- Integral case connections to avoid non-destructive testing
- Optimized hydraulic coverage across BB2 applications
- ① Heavy-duty shaft to minimize rotor defection and maximize uptime
- ② API 682 compliant seal chamber
- ③ Double suction impeller
- ④ Heavy-duty case suitable for 2x API nozzle loads
- ⑤ Bearing housing leverages common parts across all Trillium Flow Technologies between bearings pumps
- ⑥ Single and double-cover options available





OPTIONS

All API material options: S-4,S-5,S-6,S-8, C-6,A-8,D-1,D-2, custom options available

Multiple nozzle orientation configurations

API compliant bearing selections

Specialist Options: Coke Crusher

MAIN APPLICATIONS

High Temperature Refining

Hydrocarbon Transfer

Boiler Feed Booster

Pipeline Applications

Vacuum Bottoms

OPERATING RANGE

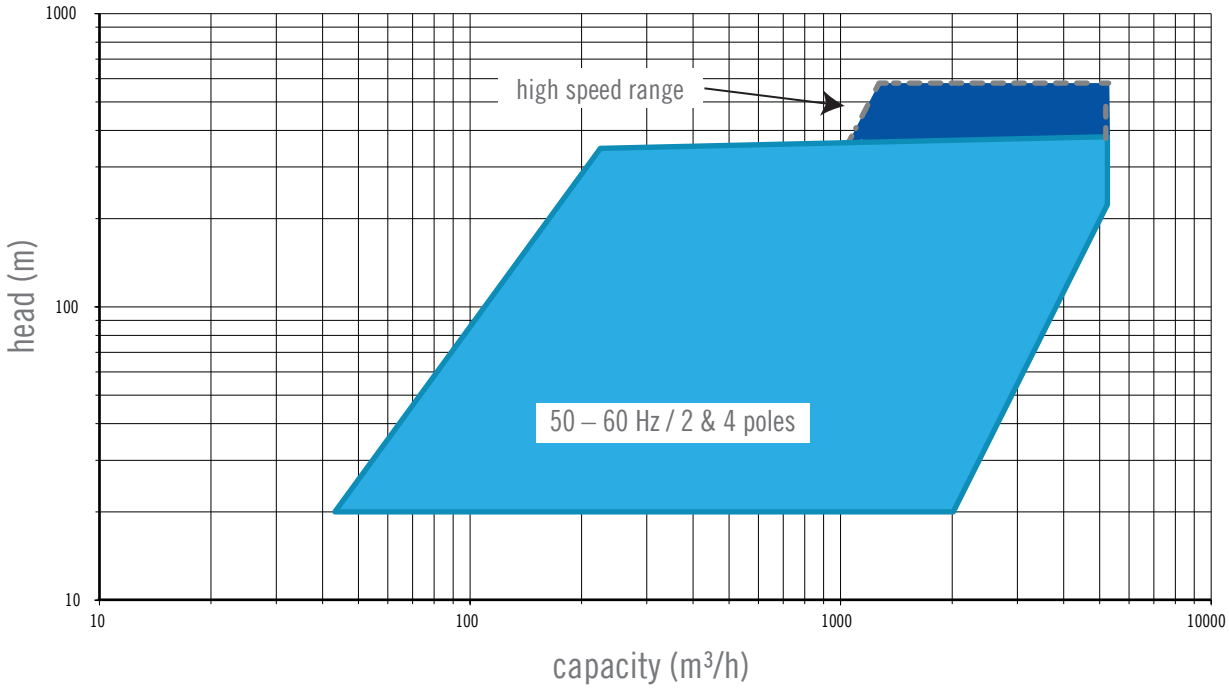
Capacity: up to 6,000 m³/h, 26,500 USGPM

Head: up to 500 m, 1,475 ft

Temperature: up to 427°C, 800 °F

Speed of rotation: Up to 4,000 RPM

The chart displays standard performance curves at 50Hz (light blue) and 60Hz (dark blue). Several custom units are available for applications beyond standard performance limits.



TRILLIUM FLOW TECHNOLOGIES

HORIZONTAL, AXIALLY SPLIT, MULTI-STAGE, BETWEEN BEARINGS, SINGLE & DOUBLE SUCTION PUMPS.

gabbioneta pumps

Termomeccanica Pompe

API-610

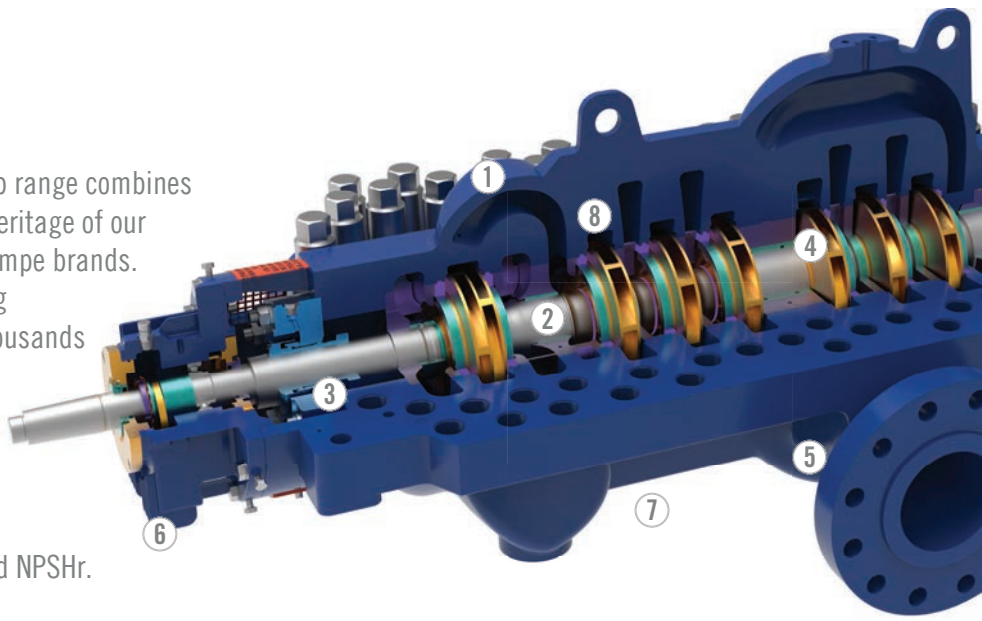
TYPE: BB3

TRILLIUM PUMP MODEL: AHP

OVERVIEW

Trillium Flow Technologies updated AHP pump range combines the engineering excellence, innovation, and heritage of our Gabbioneta Pumps® and Termomeccanica Pompe brands. Our expertise in designing and manufacturing BB3 pumps dates back to the 1960s, with thousands of units installed worldwide.

This API-compliant BB3 pump range is axially split, multi-stage, between-bearings, centerline-mounted with either a single or double suction first stage impeller for reduced NPSHr.



KEY FEATURES

Fully API 610 compliant

① Integral case connections to avoid non-destructive testing

② Heavy-duty shaft to minimize rotor defection and maximize uptime

③ API 682 compliant seal chamber

④ Single or Double suction impeller

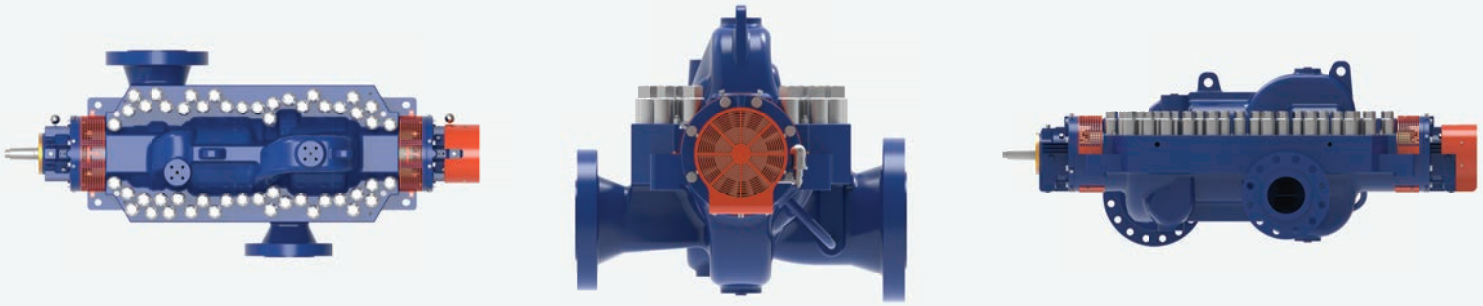
⑤ Duty case suitable for 2x API nozzle loads

⑥ Bearing housing leverages common parts across all Trillium Flow Technologies between bearings pumps

⑦ Balance line to ensure both seals remain at equal pressure

⑧ High Pressure center bush and back-to-back arrangement to minimize axial thrust and improve rotor dynamics and MTBF

⑨ Axially split case to allow quick maintenance, inspection, and rotor changes



OPTIONS

All API material options: S-4, S-5, S-6, S-8, C-6, A-8, D-1, D-2, and bespoke options

Composite wear parts, for improved efficiency and rotor dynamics

Split wear parts for ease of maintenance

Specialist Options: High speed up to 6000 RPM, low SG density modifications

MAIN APPLICATIONS

General High Pressure Refinery Applications

Water Injection

Pipeline Applications

Boiler Feed Water

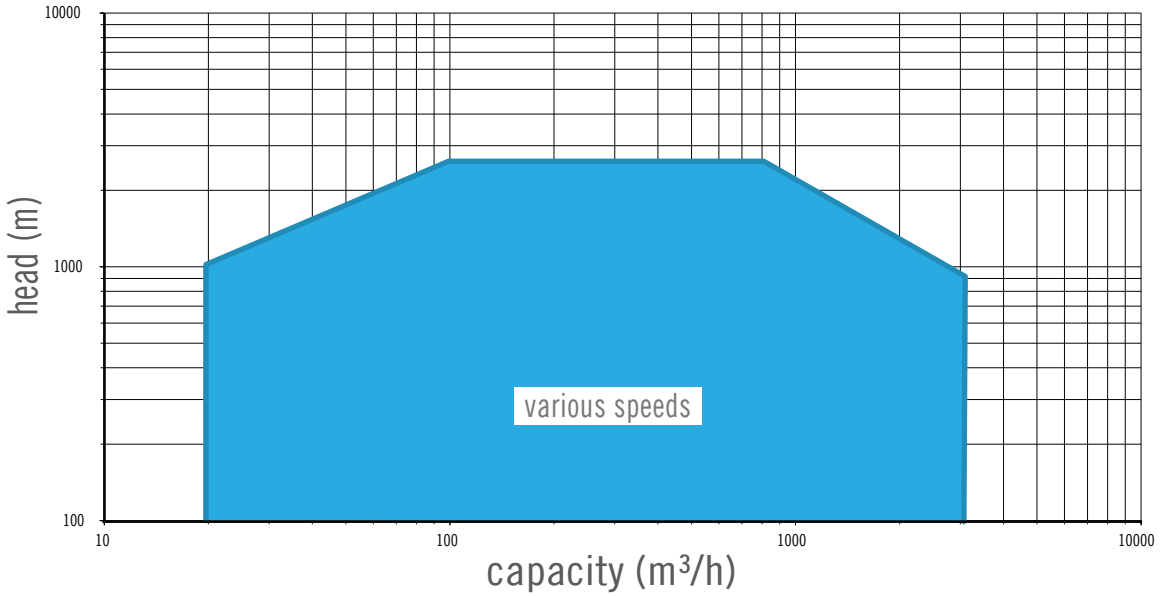
OPERATING RANGE

Capacity: up to 3,000 m³/hr, 13,200 USGPM

Head: up to 2,500 m, 8,200 ft

Temperature: up to 200°C, 400°F

Speed of rotation: Upto 6,000 RPM



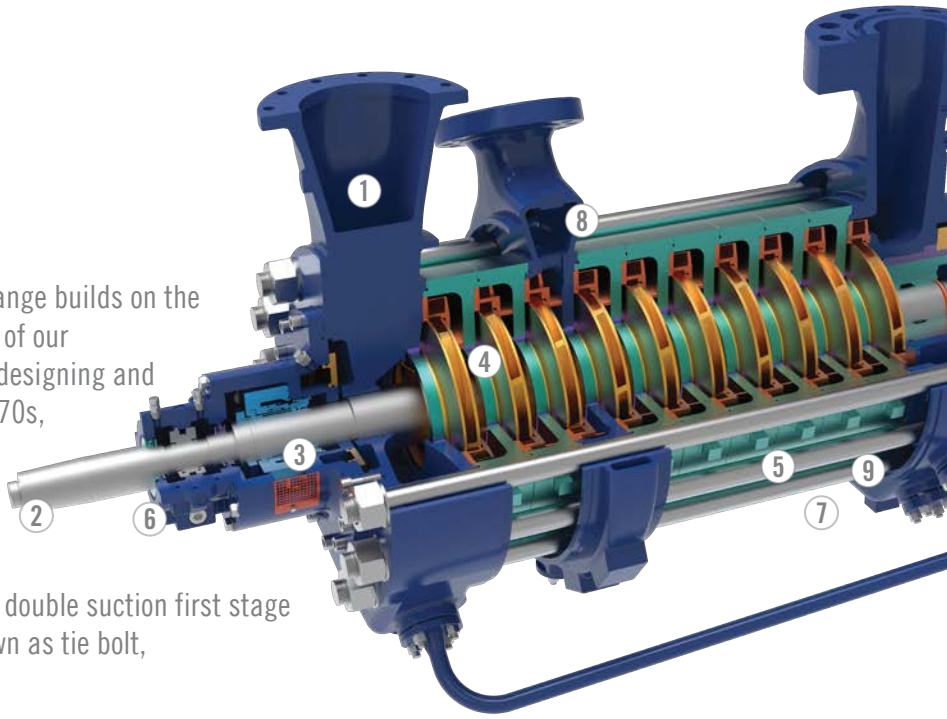
TRILLIUM FLOW TECHNOLOGIES

HORIZONTAL, RADIALLY SPLIT, MULTI-STAGE, TIE BOLT, BETWEEN BEARINGS PUMP

API-610

TYPE: BB4

TRILLIUM PUMP MODEL: MES



OVERVIEW

Trillium Flow Technologies updated MES pump range builds on the engineering excellence, innovation, and heritage of our Termomeccanica Pompe brand. Our expertise in designing and manufacturing BB4 pumps dates back to the 1970s, with hundreds of units installed worldwide.

This API-compliant BB4 pump range is a radially split, multi-stage, between-bearing, centerline-mounted pump with either a single or double suction first stage impeller for reduced NPSHr. These are often known as tie bolt, or segmental pumps.

KEY FEATURES

- API 610 compliant
- ① Integral case connections to avoid non-destructive testing
- ② Heavy-duty shaft to minimize rotor defection and maximize uptime
- ③ API 682 compliant seal chamber
- ④ Single or Double suction impeller
- ⑤ Compact ring section design
- ⑥ Bearing housing leverages common parts across all Trillium Flow Technologies between bearings pumps
- ⑦ Balance line to ensure both seals remain at equal pressure
- ⑧ Interstage take off options to support bespoke applications
- ⑨ Tie bolt design to reduce cost and to accommodate thermal shock

OPTIONS

All API material options: S-4, S-5, S-6, S-8, C-6, A-8, D-1, D-2, and bespoke options

High efficiency options for RO and power markets

Composite wear parts, for improved efficiency and rotor dynamics

Specialist Options: High speed over 6500 RPM, interstage take off options

MAIN APPLICATIONS

Boiler Feed Water For Traditional Power Plants

Water Transmission Pipelines & Water Distribution

Condensate Extraction

High Pressure Auxiliary Services In General Industry,

Petrochemical, & RO Desalination Plants

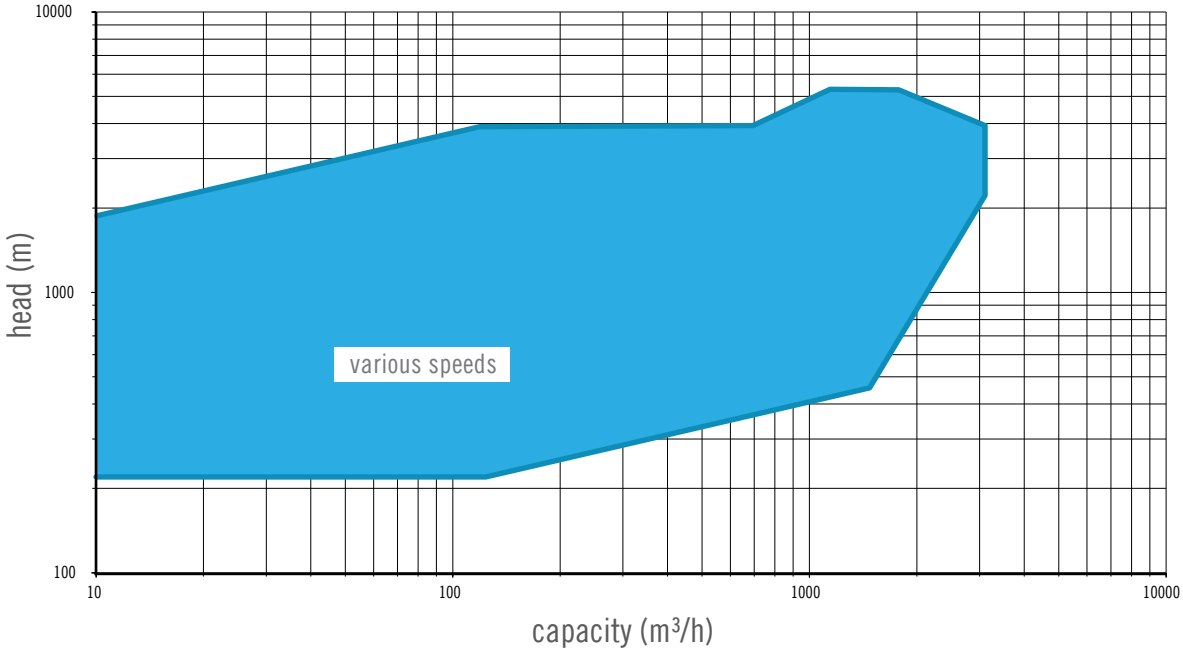
OPERATING RANGE

Capacity: up to 2,000 m³/hr, 8,800 USGPM

Head: up to 4,000 m, 13,100 ft

Temperature: up to 204°C, 400°F

Speed of rotation: Up to 6,500 RPM



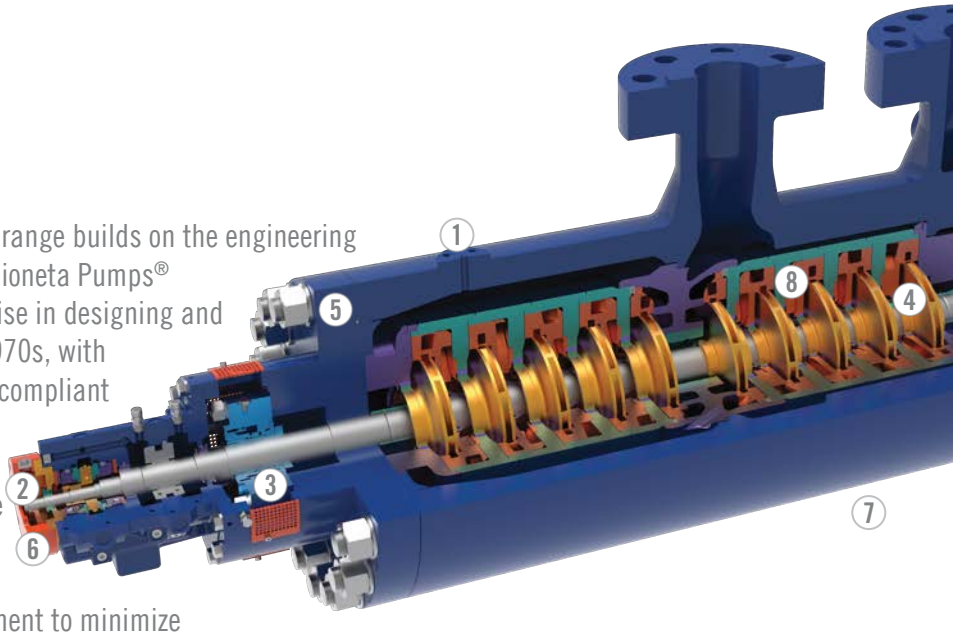
TRILLIUM FLOW TECHNOLOGIES

HORIZONTAL, RADIALLY SPLIT, MULTI-STAGE, BACK-TO-BACK, BETWEEN BEARINGS PUMP

API-610

TYPE: BB5

TRILLIUM PUMP MODEL: AHPB



OVERVIEW

Trillium Flow Technologies updated AHPB pump range builds on the engineering excellence, innovation, and heritage of our Gabbioneta Pumps® and Termomeccanica Pompe brands. Our expertise in designing and manufacturing BB5 pumps dates back to the 1970s, with hundreds of units installed worldwide. This API-compliant BB5 pump range is a radially split, multi-stage, between-bearings, centerline-mounted pump with either a single or double suction first-stage impeller for reduced NPSHr.

The AHPB has a back-to-back impeller arrangement to minimize thrust loads and improve rotor dynamic performance on light SG applications. The design is available with bolted or shear ring end cover arrangements.

KEY FEATURES

- API 610 compliant
- ① Integral case connections to avoid non-destructive testing
- ② Heavy-duty shaft to minimize rotor defection and maximize uptime
- ③ API 682 compliant seal chamber
- ④ Single or Double suction impeller
- ⑤ Bolted or shear ring end cover arrangements
- ⑥ Bearing housing leverages common parts across all Trillium Flow Technologies between bearings pumps
- ⑦ Balance line to ensure both seals remain at equal pressure
- ⑧ Back-to-back impeller arrangement

OPTIONS

All API material options: S-4, S-5, S-6, S-8, C-6, A-8, D-1, D-2, and bespoke options

Bolted or shear ring end cover arrangements

Composite wear parts, for improved efficiency and rotor dynamics

Specialist Options: High speed over 6000 RPM

MAIN APPLICATIONS

Water Injection

Crude Oil Transmission

Boiler Feed Water

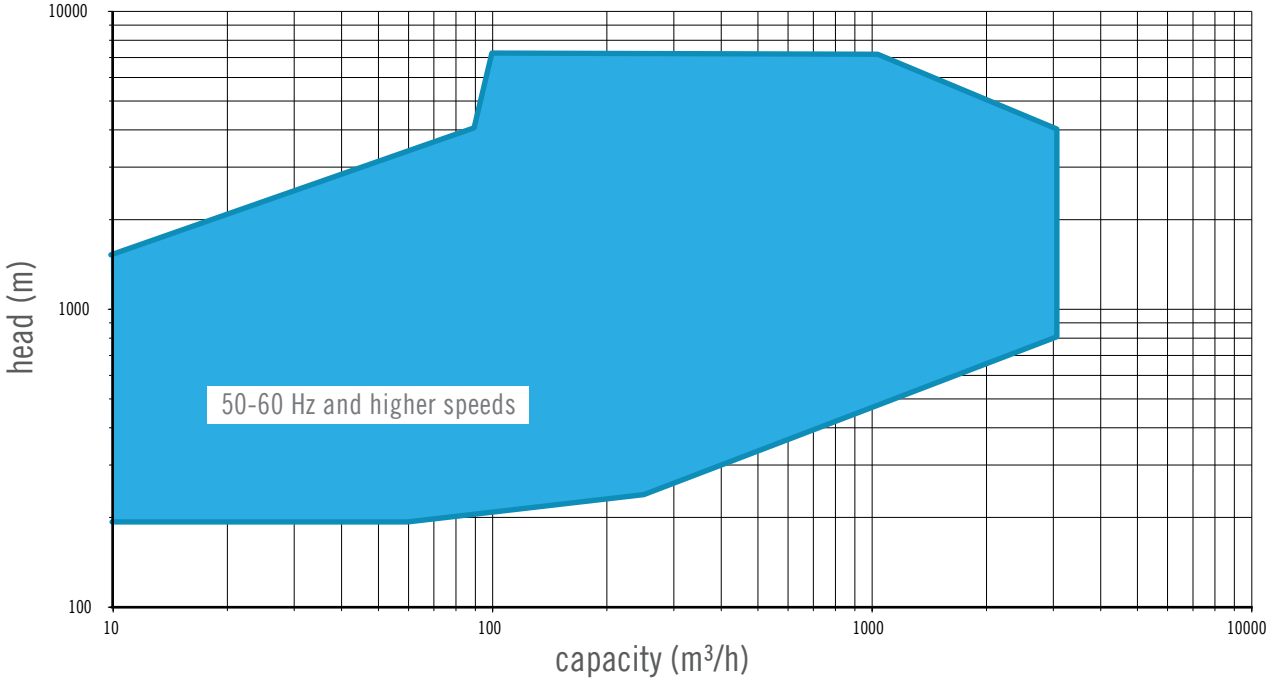
OPERATING RANGE

Capacity: up to 3,000 m³/hr, 13,100 USGPM

Head: up to 7,000 m, 23,000 ft

Temperature: up to 427°C, 800°F

Speed of rotation: Up to 6,000 RPM



TRILLIUM FLOW TECHNOLOGIES

HORIZONTAL, RADIALLY SPLIT, MULTI-STAGE, IN-LINE, BETWEEN BEARINGS PUMP

API-610

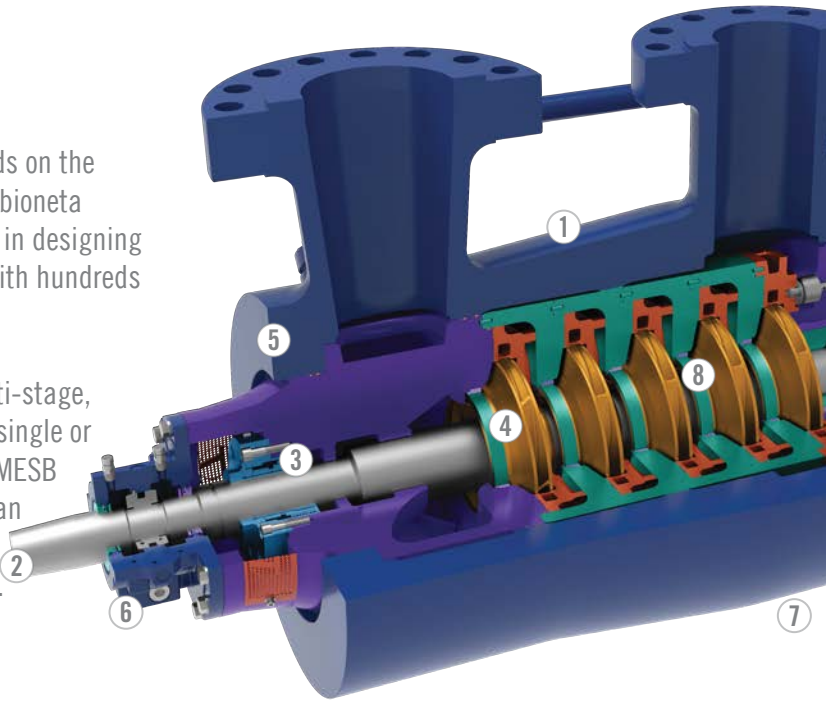
TYPE: BB5

TRILLIUM PUMP MODEL: MESB

OVERVIEW

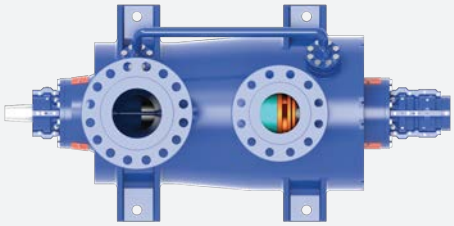
Trillium Flow Technologies updated MESB pump range builds on the engineering excellence, innovation, and heritage of our Gabbioneta Pumps® and Termomeccanica Pompe brands. Our expertise in designing and manufacturing BB5 pumps dates back to the 1970s, with hundreds of units installed worldwide.

This API-compliant BB5 pump range is a radially split, multi-stage, between-bearings, centerline-mounted pump with either a single or double suction first-stage impeller for reduced NPSHr. The MESB has an inline impeller arrangement to minimize bearing span and provide a more compact design. The pump range is available with bolted or shear ring end cover arrangements.



KEY FEATURES

- API 610 compliant
- ① Integral case connections to avoid non-destructive testing
- ② Heavy-duty shaft to minimize rotor defection and maximize uptime
- ③ API 682 compliant seal chamber
- ④ Single or Double suction impeller
- ⑤ Bolted or shear ring end cover arrangements
- ⑥ Bearings housing leverages common parts across all Trillium Flow Technologies between bearing pumps
- ⑦ Balance line to ensure both seals remain at equal pressure
- ⑧ Inline impeller arrangement



OPTIONS

All API material options: S-4, S-5, S-6, S-8, C-6, A-8, D-1, D-2, and bespoke options

Bolted or shear ring end cover arrangements

Composite wear parts, for improved efficiency and rotor dynamics

Specialist Options: High speed over 6000 RPM

MAIN APPLICATIONS

Water Injection

Crude Oil Transmission

Boiler Feed Water

OPERATING RANGE

Capacity: up to 3,000 m³/hr, 13,100 USGPM

Head: up to 7,000 m, 23,000 ft

Temperature: up to 427°C, 800°F

Speed of rotation: Up to 6,000 RPM