

CPC Pumps Model HBD/HBV

API 610/ISO 13709 Type BB5 Between Bearings, Multistage Double Casing Pumps

www.cpcpumps.com

HB Model BB5 Pump

API 610 Compliant Multistage Double Casing Pumps

The world is quickly moving towards a circular economy and the goal of Net Zero Emissions by 2050. Many of the processes in which pumps are already used today will also be essential going forward, with CPC's technology helping to drive this transformation.

With best-in-class hydraulic performance coverage and unique design, CPC Pumps HB Model BB5 pump line provides our customers with tailor-made solutions for process-critical applications. Our focus on serving the market for fully compliant API 610 centrifugal pumps has made us a leading innovator in the hydrocarbon processing industry since 1957.

The most **advanced** hydraulic fits in the industry

Project management focused approach providing adaptability and agility

Process-tailored solutions helping customers to achieve maximum efficiency

Decades of experience in CO2 applications drawing on the technologies & expertise of all Atlas Copco Gas & Process products

HBD/HBV (BB5) Pump

Fully compliant with API 610 requirements

Operating Parameters

Optional Features

- Flow rate in excess of 4,400 USGPM (1,000 m3/h)
- Beyond 12,000 ft and 3,660 m respectively (for heads)
- Temperatures up to 840 °F (450 °C)
- Standard design working pressure of 2,250 PSIG (15,000 kpag)

Standard Features

- Wide hydraulic coverage
- Application tailored hydraulic selections
- 600/900/1500/2500# flange ratings
- Available in all API 610 table H.1 materials
- Balancing drum or hydraulically opposed impeller arrangement for thrust balancing
- Diffuser & volute designs available
- Integral balance line for minimized chamber pressures
- Robust design shaft for minimal deflection to meet and exceed API 610 requirements
- Inpro/seal bearing housing closures
- Heavy duty baseplate with drip rim or drip pan designs

- Flange sealing options to suit customer preferences
- High pressure special casing design
- Fan/heat-sink bearing housing cooling arrangement for operation at elevated temperatures, to eliminate the need for cooling water
- Magnetic bearing housing isolators
- All bearing combination arrangements are available where suitable: Ball/Ball, Sleeve/Ball, Tilt pad/Sleeve

Seal Chamber

- Full compliance with API 682 requirements
- Ample space for dual mechanical seals
- Ease of access for maintenance

Case Cover ⊢

- Bolted cover standard
- Shear ring style cartridge retention for improved maintenance time (Optional)

Thrust Balancing

 Balancing drum or hydraulicallyopposed impeller arrangements available

Impellers

• Dynamically balanced Individually secured (Optional)

Flow Channel

• Diffuser-style & volute-style models available (HBD diffuser model shown)

Replaceable H Impeller Wear Rings

• Optional integral impeller ring

Center Line Mount

INPRO™ Bearing Isolators ⊢

• Effective lubricant contamination protection

Thrust Bearing Options

- Anti-friction
- Forced lubrication tilting pad

Flanges

- High pressure 2500 lbs. flanges
- Variety of optional flange faces & sealing methods

→ Radial Bearing Options

- Anti-friction
- Oil film sleeve
- Forced lubrication sleeve

Bearing Assembly

- Cooling fan option
- Oil ring, oil mist or forced lubrication configurations available



Applications Served

From improving energy efficiency and CO2 footprint of your existing rotating equipment to machinery serving new and emerging processes - there are numerous ways we can enhance your current operations.

CPC Pumps provides centrifugal pump solutions that can help you sustainably lower your environmental impact.

Compressible Fluids

When finding solutions for handling compressible fluids such as supercritical liquid CO₂, accurate calculations are crucial. CPC Pumps engineers designed the HB pump line utilizing modern CFD software and can analyze a range of challenges related to compressible fluids.

Carbon Capture, Utilization and Storage (CCUS)

Carbon capture, utilization and storage (CCUS) is a crucial concept to lowering the output of CO2 into the environment. By removing CO2 from exhaust sources, we can lower greenhouse gas production and also harness CO2 for various hydrocarbon processes. Supporting our commitment to net zero emissions, CCUS will play a vital role in reducing emissions for many years to come.

Green Energy & Renewables

As renewable energy utilization increases worldwide, the need for reliable pumps with the ability to handle extreme temperatures and pressures is critical. CPC's advanced hydraulic solutions can be tailored to support:

- Hydrogen
- Geothermal Power
- Flexible Energy Storage

Hydrocarbon & Petrochemical

CPC Pumps is a leader in providing class-leading, API 610 pump solutions for the refining and petrochemical services. Common applications include:

- Boiler Feed Water
- Seawater Injection
- Gas Plants
- Pipelines
- Amine
- Energy Recovery
- LNG

Our Global Aftermarket Services

The CPC Pumps International ownership experience does not end with the purchase of new equipment. Once commissioned, we strive to be your partner by providing:

- Service and maintenance of your equipment through its entire lifecycle
- Routine inspections and preventive maintenance to
 make sure that your machinery is running optimally
- Factory-supported diagnostic assistance and advice
- Genuine CPC Pumps International replacement parts (manufactured in-house using your pump's unique engineering drawings)
- Capital spares storage
- Emergency repairs
- A dedication to ensuring that your investment in CPC Pumps International delivers lasting production



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Why Choose CPC Pumps?

- The most advanced hydraulic fits in the industry
- State of the art engineering analysis tools (CAD/FEA/ CFD) utilized by a team of highly specialized engineers
- Robust and reliable designs, adaptable to meet the most challenging applications
- Highest level of service and technical support before and after sale
- Project management focused approach that provides customers with world class experiences, offering unmatched adaptability and agility
- Comprehensive line of API 610
 compliant solutions serving both
 traditional hydrocarbon and
 new energy industries

About CPC Pumps International Inc.

CPC Pumps International Inc. has been a provider of pump solutions for the hydrocarbon industry since 1957.

With best-in-class hydraulic performance coverage, unique design and advanced production capabilities, CPC Pumps provides our customers with tailor-made pump solutions for process-critical applications. Our focus on serving the market for fully compliant API 610 centrifugal pumps has made us a leading innovator in the hydrocarbon processing industry.

As an innovator, we always have our sights set on the present and the future. The world is quickly moving towards a circular economy and the goal of Net Zero Emissions by 2050. Many of the processes in which pumps are already used today will also be essential going forward, with CPC's technology helping to drive this transformation.

CPC Pumps International Inc. is part of Atlas Copco Gas and Process. It is operated as a standalone company within Atlas Copco Gas and Process, and serves as competence center of excellence for centrifugal pumps in Atlas Copco.



Inspiring innovation. Driving sustainability

www.cpcpumps.com

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