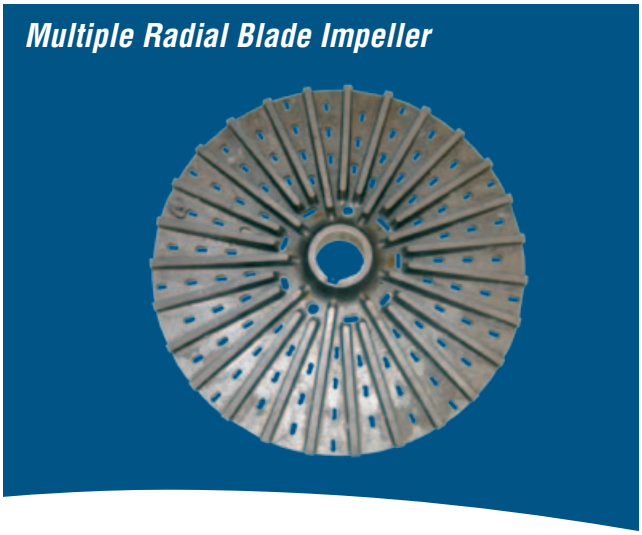
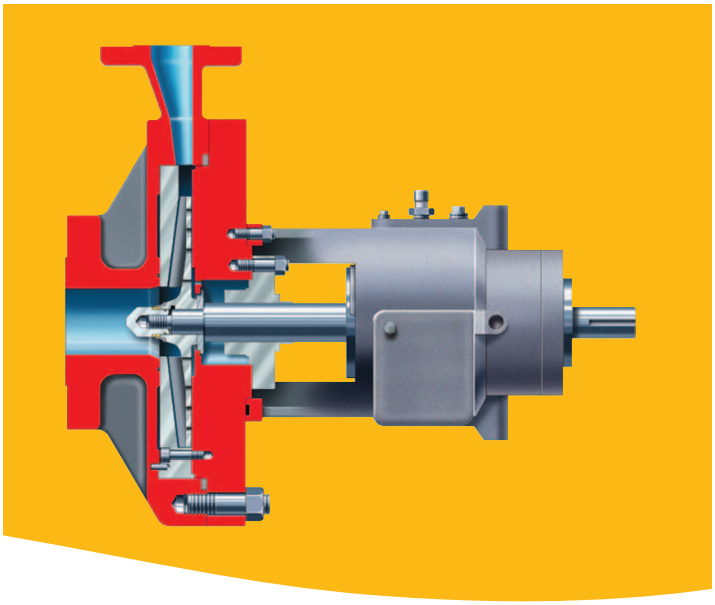
FLOWSERVE

HPXM

ISO 13709/API 610 (OH2), Centerline Mounted,
Low-Flow, High-Head, Overhung Process Pump





Proven Low-Flow, High-Head Performance

The HPXM is the low-flow version of the HPX product line, a "modular" design comprised of a multiple radial blade impeller with either a volute insert or custom machined casing to produce best efficiency point (BEP) fits at virtually any low-flow/high-head hydraulics. Since 1988, its proven hydraulics provide a continuously rising performance curve for smooth, stable operation to minimum continuous flow. Utilizing the HPX bearing housing design for maximizing parts interchangeability, the HPXM meets or exceeds the rigorous requirements of ISO 13709/ API 610 (OH2), latest edition. Custom tuned hydraulics provide more than 100 fits with only two pump sizes.

Operating Parameters

- Flows to 40 m^3/h (175 gpm)
- Heads to 280 m (920 ft)
- Temperatures from -160°C (-250°F) to 450°C (850°F)
- Pressures to 80 bar (1160 psi)

Features and Benefits

Multiple Radial Blade Impeller provides superior hydraulic fits at low flows than enclosed impeller designs. Usage of multiple balance holes provides increased head with high efficiency and is a more reliable method in balancing axial thrust compared to pump-out vane designs.

Customed Machined Casing or Volute Inserts ensure BEP fits for any given set of hydraulics. Volutes are replaceable to accommodate future changing duty conditions.

Raised Face Flanges are to ASME B16.5 criteria for Class 300 standard, class 600 optional flanges.

Centerline Mounted Pump Casing withstands nozzle loads beyond ISO 13709/API 610 design requirements and ensures proper shaft alignment in high-temperature applications.

ISO 21049/API 682 Seal Chamber accommodates a variety of cartridge single and dual mechanical seal types.

Back Pullout Design simplifies maintenance as neither the motor nor the piping is disturbed.

Heavy-Duty Bearing System uses a single row, deep groove, radial bearing and duplex, single row, 40° angular contact thrust bearings.

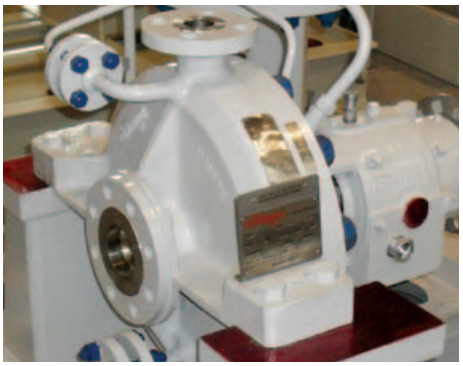
Optional Inducer

For applications with low NPSHA, the HPXM can be fitted with an optional inducer. This axial-flow pumping device provides significant improvement in suction performance by reducing pump NPSH3.

Available Bearing Lubrication Systems

The same bearing housing systems for the HPX apply to the HPXM:

- Oil slinger, purge or pure oil mist; optional ring oil
- Labyrinth type oil seals, optional bearing isolators
- Fan cooling for extreme ambient temperature conditions or high/low pumpage temperatures
- Finned cooling insert for efficient water cooling



Optional Pump Configuration

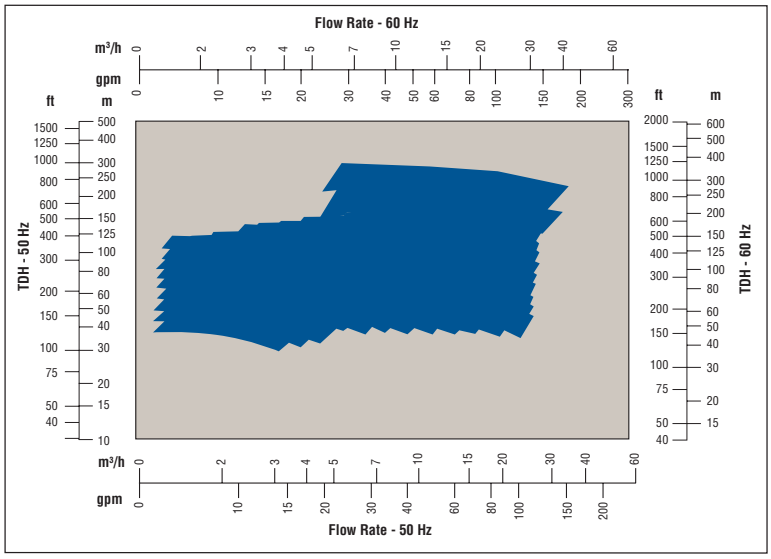
Vertical in-line designs:

- HWMA (OH3)
- WMA (OH4)

Special Benefits of the HPXM Design

- Smooth and stable performance throughout the preferred and allowable operating regions defined by ISO 13709/API 610
- Stable, “rising” curve to minimum continuous flow
- Custom machined casing or volute insert, sized for a specific head-capacity operating point
- BEP fits for virtually any low-flow, high-head hydraulic requirements
- Centerline mounted design for handling thermal growth without misalignment for high-temperature applications
- Full interchangeability with HPX mechanical seals and bearing assemblies

HPXM Range Chart



Bulletin PSS-10-5.1a (E) Printed in USA. January 2011.

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