Durco® Mark 3™ Lo-Flo™ Pump

Innovative casing and impeller design extend bearing and mechanical seal life at low flows and high heads.

Enhanced Reliability for Low-Flow Applications

The Flowserve Mark 3 Lo-Flo pump is designed to improve pump reliability and performance in low-flow, high-head applications. The first pump manufacturer to introduce an ANSI standard low-flow, high-head pump, Flowserve developed its innovative radial vane impeller and circular, concentric casing to reduce radial loads and shaft vibration while extending bearing and mechanical seal life.

The Flowserve Mark 3 family of ANSI process pumps came to prominence in the chemical processing industries under the Durco heritage name. The Mark 3 Lo-Flo pump represents one of many pioneering innovations from Flowserve and Durco and is suitable for the most critical applications in process pumping.

The Flowserve Mark 3 Lo-Flo pump conforms to ANSI B73.1 and is completely interchangeable with the industry-leading Mark 3A power end.

Applications

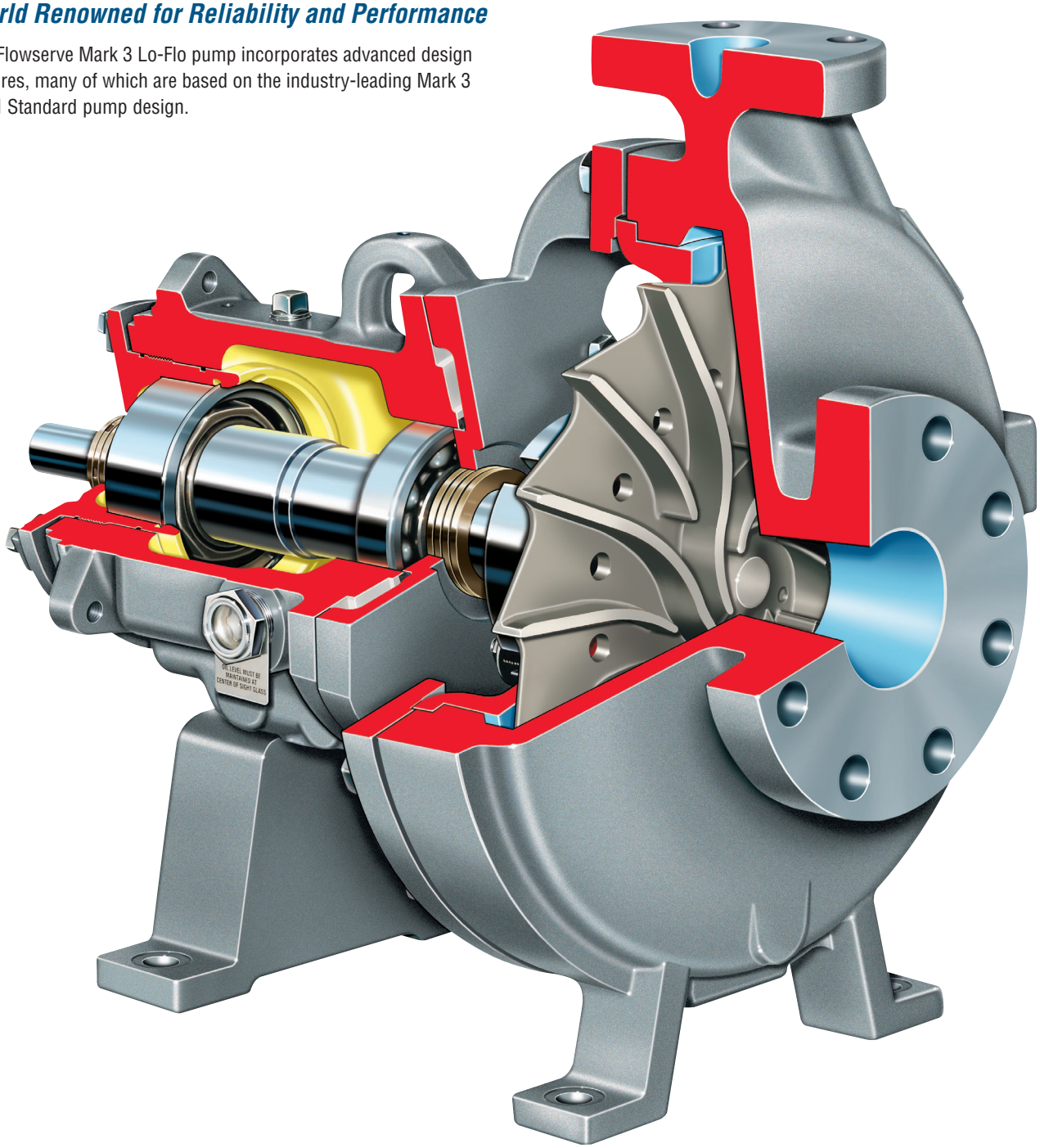
- Acid transfer
- Brine
- Chemical processing
- Petrochemical processing
- Corrosive services
- Food and beverage processing
- Hydrocarbon processing
- Pharmaceuticals
- Polymers
- Pulp and paper
- Sea water
- Slurries
- Solvents
- Steel and primary metals
- Water and wastewater treatment

Operating Parameters

- Flows to 50 m^3/h (220 gpm)
- Heads to 300 m (985 ft)
- Pressures to 31 bar (450 psi)
- Temperatures from -75°C (-100°F) to 370°C (700°F)

World Renowned for Reliability and Performance

The Flowserve Mark 3 Lo-Flo pump incorporates advanced design features, many of which are based on the industry-leading Mark 3 ANSI Standard pump design.



Radial Vane Impeller *provides improved performance over a broader application range.*

Circular Concentric Casing *reduces radial loads and vibration and extends bearing and seal life.*

SealSentry™ Seal Chambers *extend seal life and provide advanced self-flushing ability.*

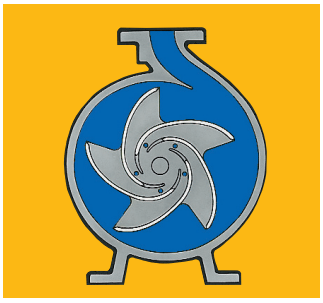
External Micrometer Impeller Adjustment *accurately sets impeller clearance in 20 seconds, in the shop or the field.*

Metal-to-Metal Construction *assures a true running and concentric shaft, extending bearing and mechanical seal life.*

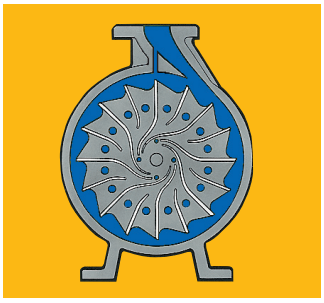
Large Shaft and Bearing Components *extend bearing life and reduce shaft deflection and vibration.*

Innovative Impeller Design

The Mark 3 Lo-Flo pump's radial vane impeller has a unique twist to provide superior performance in low-flow, high-head conditions.



Expanding Volute Casing



Circular Concentric Casing

Efficient Circular Concentric Casing

The Mark 3 Lo-Flo pump's circular concentric casing is more hydraulically efficient at lower flow rates. An internal bypass is drilled in the discharge without breaching the casing wall or creating a potential leak path. This helps to balance pressures.

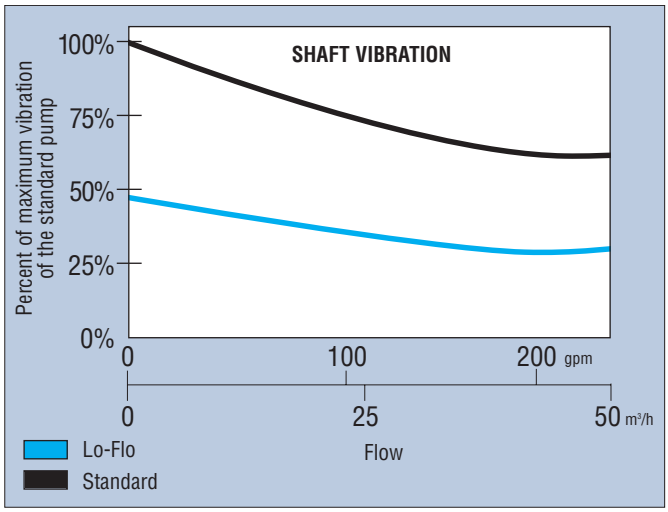
Choice of Power Ends

- Standard Mark 3A power end with double lip oil seals and top vent/breather
- ANSI 3A™ power end featuring Inpro VBXX® bearing isolators and up to a lifetime warranty

® VBXX is a registered trademark of Inpro/Seal Company.

Reduced Vibration

Shaft vibration is a critical factor in both bearing and mechanical seal life. Reducing shaft vibration results in significantly improved pump performance and reliability.



Improved Performance and Reliability

The innovative radial vane impeller and circular, concentric casing of the Flowserve Lo-Flo pump improve pump performance and reliability when compared to standard pumps. Furthermore, maintenance is reduced.

- Reduced radial loads up to 90 percent at low-flow conditions
- Minimized thrust loads
- Reduced NPSH requirements
- Reduced shaft vibration
- Extended bearing life
- Extended mechanical seal life
- Broadened application range

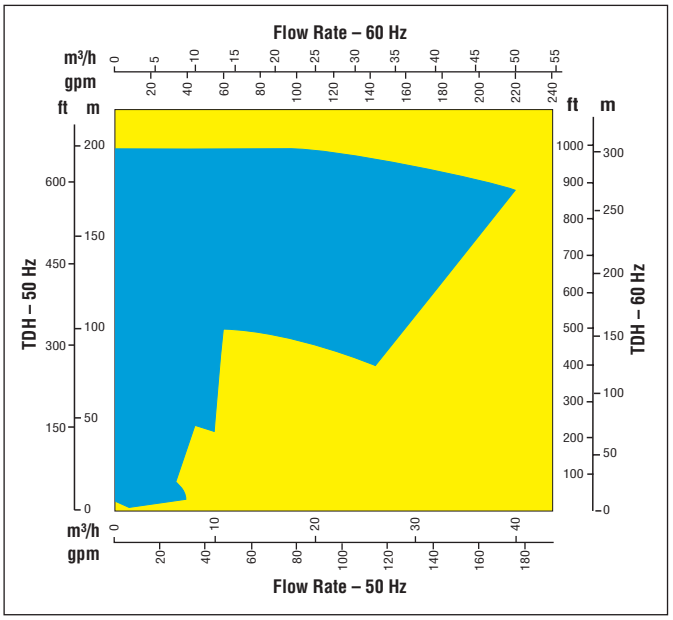
Innovative Seal Chamber Design

The SealSentry family of seal chambers features unique flow modifiers (FM) designed to extend mechanical seal life and increase pump reliability.

- Improves mechanical seal performance and reliability
- Permits use of less expensive seal and flush plan technology
- Improves pump reliability

Durco Mark 3 Lo-Flo Pump

Mark 3 Lo-Flo Performance Curve



Four Sizes Available

- 1K1.5x1LF-4
- 1K1.5x1LF-8
- 2K2x1LF-10
- 2K3x1.5LF-13

Offered in a wide range of materials to meet application needs.

The KW941 Pump Power Monitor

The KW941 Pump Power Monitor monitors and displays actual power to the pump, offering simultaneous protection from underload and overload operating conditions. Able to prevent damage from operating below recommended flow rates, the KW941 is ideal for low-flow applications. The KW941 also helps to eliminate costly downtime and expensive pump repairs caused by:

- Dry running
- Pump overloads
- Cavitation
- Blocked lines
- Closed suction or discharge valves
- Excessive wear or rubbing

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