

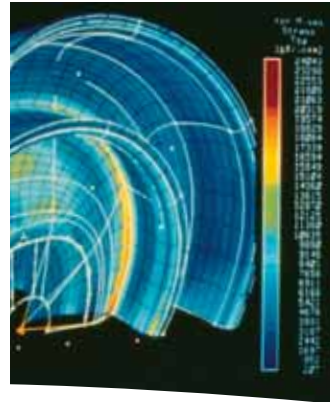


MEN
End-Suction Water Pump

MEN – MENBLOC



Experience In Motion



Pump Supplier To The World

Flowserve is the driving force in the global industrial pump marketplace. No other pump company in the world has the depth or breadth of expertise in the successful application of pre-engineered, engineered and special purpose pumps and systems.

Pumping Solutions

Flowserve is providing pumping solutions which permit customers to continuously improve productivity, profitability and pumping system reliability.

Market Focused Customer Support

Product and industry specialists develop effective proposals and solutions directed toward market and customer preferences. They offer technical advice and assistance throughout each stage of the product life cycle, beginning with the inquiry.



Dynamic Technologies

Flowserve is without peer in the development and application of pump technology, including:

- Hydraulic engineering
- Mechanical design
- Materials science
- Intelligent pumping
- Manufacturing technology

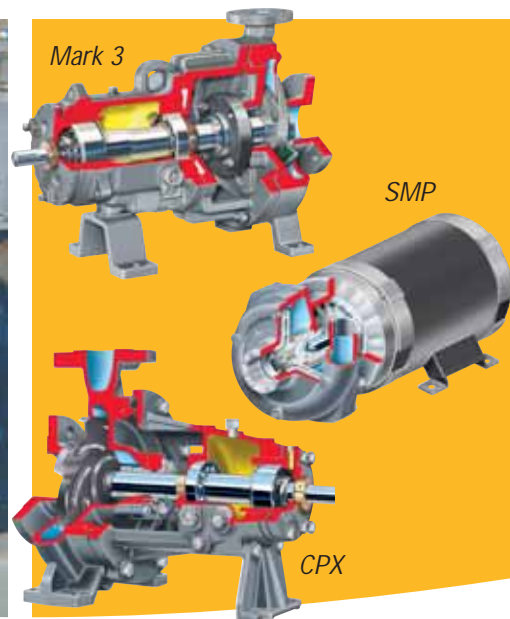
Broad Product Lines

Flowserve offers a wide range of complementary pump types, from pre-engineered process pumps, to highly engineered and special purpose pumps and systems. Pumps are built to recognized global standards and customer specifications.

Pump designs include:

- Single stage process
- Between bearing single stage
- Between bearing multistage
- Vertical
- Submersible motor
- Rotary
- Reciprocating
- Nuclear
- Specialty

**MEN
End-Suction
Water Pump**



**Rugged Construction,
Reliable Performance**

The MEN family of single stage, end-suction water pumps provides a broad range of hydraulic coverage and low total cost of ownership. This family of pumps delivers maximum mechanical and hydraulic flexibility. Available in both frame mounted and close coupled configurations, the MEN family of pumps is ruggedly designed to provide long, reliable performance in a variety of water services.

Significant Benefits

MEN end-suction water pumps are engineered to provide significant benefits for users.

- Superior pump performance
 - Low NPSHR
 - Quiet operation
 - Efficient operation
- Low total life-cycle costs
 - Optimal hydraulic selection
 - Lower energy costs
 - Reduced inventory requirements
 - Reduced maintenance costs
 - Increased uptime
- Versatility
 - Multiple configurations
 - Parts interchangeability

Applications

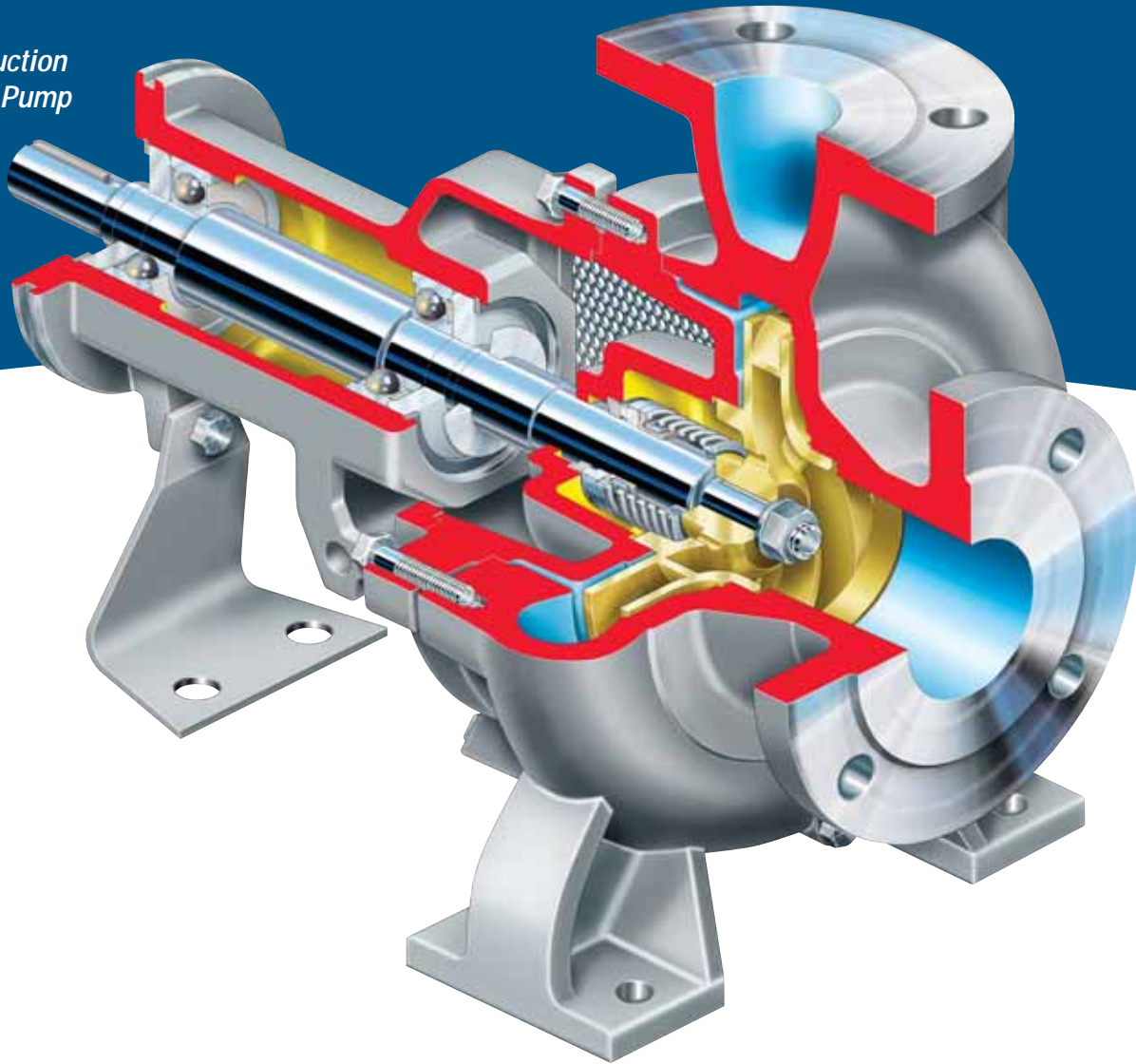
- Water supply
- Water treatment
- Irrigation
- Drainage
- Filter cleaning
- Fire protection
- General industry
- Water circulation
- HVAC

Complementary Pump Designs

FlowsERVE also can provide the following complementary pump designs:

- SMP standard motor pump
- SMX non-metallic standard motor pump
- Formed stainless steel pumps
- CPX ISO chemical process pump
- CPXV ISO vertical sump pump
- Mark 3 ANSI chemical process pump
- ESP2 vertical immersion sump pump
- FRBH heavy-duty paper stock and process pump
- ME end-suction water pump
- MHP frame mounted, single volute, high pressure pump
- DS end-suction process pump
- LR between bearings, axially split pump

MEN
End-Suction
Water Pump



The rugged and reliable MEN end-suction water pump is the preferred choice for general purpose water applications. The dependable MEN promotes parts interchangeability among pump sizes and configurations. The resulting reduction in inventory costs, along with the MEN's optimal hydraulics and minimal maintenance needs, provides users with significant cost savings.

MEN water pumps destined for Europe are CE marked and comply with the dimensional requirements of the latest editions of EN 733 and DIN 24 255.

Operating Parameters

- Flows to 800 m³/h (3500 gpm)
- Heads to 140 m (450 ft)
- Pressures to 16 bar (230 psi)
- Temperatures from -10°C (15°F) to 140°C (280°F)
- Speeds to 3500 rpm

Volute Casing Design has raised face flanges to ISO PN 10/16 or ANSI B16.1 specifications

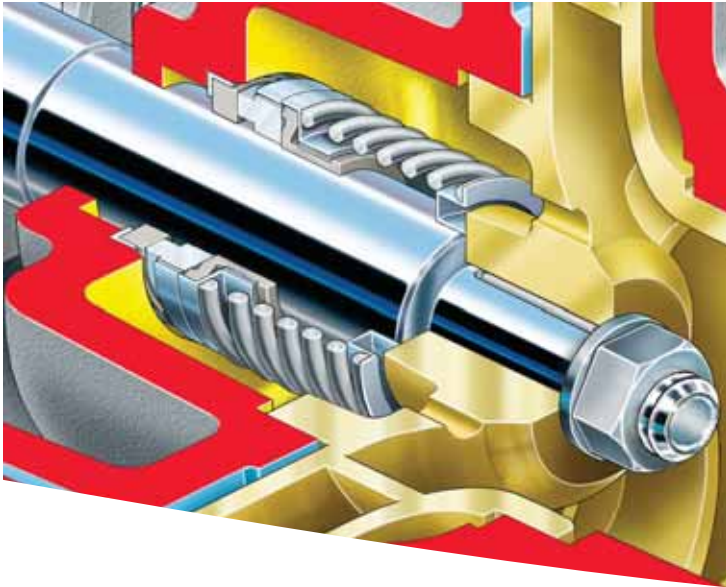
Precision Cast Closed Impeller with machined shrouds is dynamically balanced for high efficiency. Axial thrust is minimized by balancing chamber and holes on the rear side

Sturdy Bearing Housing incorporates greased-for-life, large diameter, reinforced ball bearings protected by thrower and covers

Open Seal Chamber features integral vortex breaking ribs to extend the life of mechanical seals. A 13 percent chromium steel sleeve is used with packing

Oversized Stainless Steel Shaft is conservatively designed to minimize deflection and reduce wear

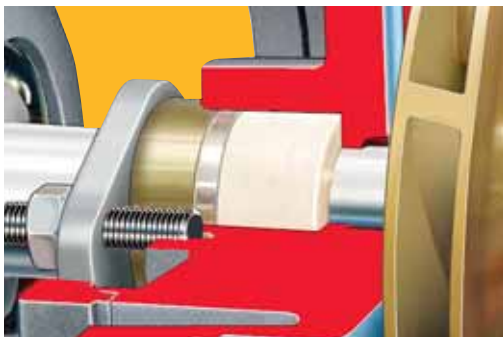
Back Pull-Out Design facilitates inspection and maintenance



Elastomeric Bellows Mechanical Seal

The MEN pump comes standard with an internal, elastomeric bellows mechanical seal that is inexpensive and highly dependable. The bellows high strength and flexibility is key to the seal's reliable performance in a wide range of applications. Bidirectional in operation, the seal readily accommodates misalignment, end-float and seal face wear. Furthermore, this design is widely used throughout the water industry, making spare parts readily available.

For those applications in which a mechanical seal is not needed, packing is also available with the MEN pump.



Optional Packed Gland



MENBLOC Close-Coupled Design

MENBLOC is the close-coupled configuration of the MEN water pump. Not requiring a baseplate or coupling, it is an economical alternative to the frame-mounted MEN. Its reduced footprint also permits its use in tight areas.

MENBLOC pumps intended for use in Europe are CE marked. Wet-end components comply with the latest editions of the EN 733 and DIN 24 255.

Operating Parameters

- Flows to 340 m³/h (1500 gpm)
- Heads to 100 m (330 ft)
- Pressures to 16 bar (230 psi)
- Temperatures to 110°C (230°F)

Options and Technical Data



Available Configurations

Available in 33 sizes, the MEN family of water pumps consists of multiple designs with varied hydraulic capabilities to meet application needs. They include the following configurations:

- MEN frame-mounted standard water pump
- MENBLOC close-coupled standard water pump
- MEN-SP cantilever sump pump
- MEN-TI diesel-driven fire pump

Options to Suit Application Needs

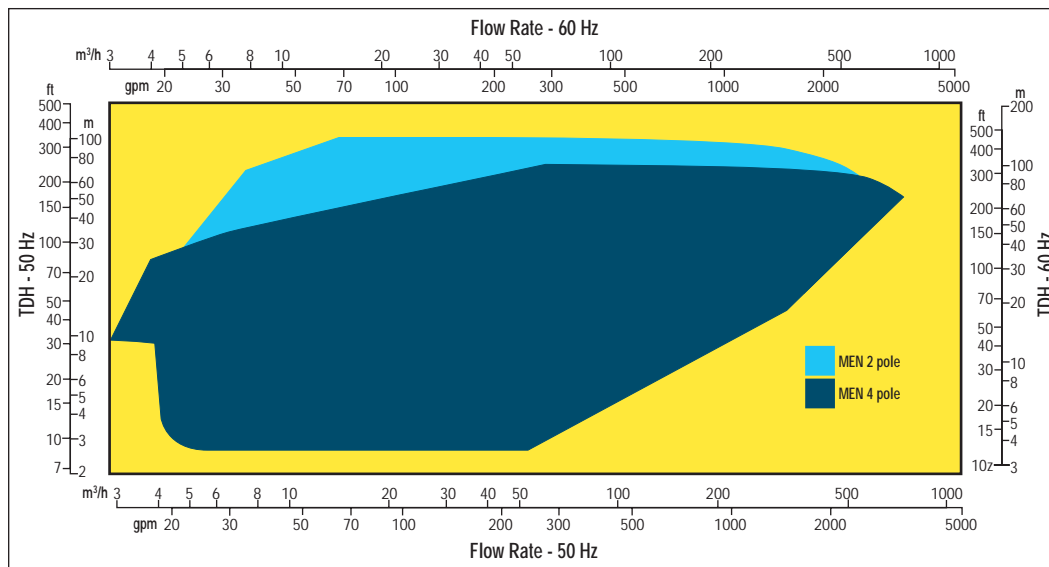
- ISO or ANSI flanges
- Grease lubricated bearings
- Casing wear rings
- Packing or mechanical seal

Materials of Construction

Description	Standard		Options
	Gland Packing	Mechanical Seal	
Casing	Cast Iron		
Casing Cover w/Stuffing Box	Cast Iron		
Wear Ring			13% Chromium Steel
Impeller	Cast Iron or Bronze		
Bearing Housing	Cast Iron		
Shaft	13% Chromium Steel		Other Chromium Steel *
Shaft Sleeve	13% Chromium Steel		
Gland Packing	Graphite PTFE		
Mechanical Seal		Graphite on Ceramic	Silicon Carbide on Silicon Carbide

* Consult factory or Flowserve representative

MEN Range Chart



Global Service and Technical Support



Service Dedication

Flowserve Engineered Services focus on providing customers with uncompromising service and support, where and when needed. Dedicated to delivering the highest quality support, Engineered Services integrate pump and materials engineering knowledge with creative service solutions.

A worldwide network of service and repair centers staffed by highly skilled engineers and technicians is available around the clock, seven days a week to respond to customer queries, to evaluate and troubleshoot problems and to provide reliable solutions.

Strength of Experience, Commitment to Excellence

Flowserve has long served industries requiring superior equipment performance and service life.

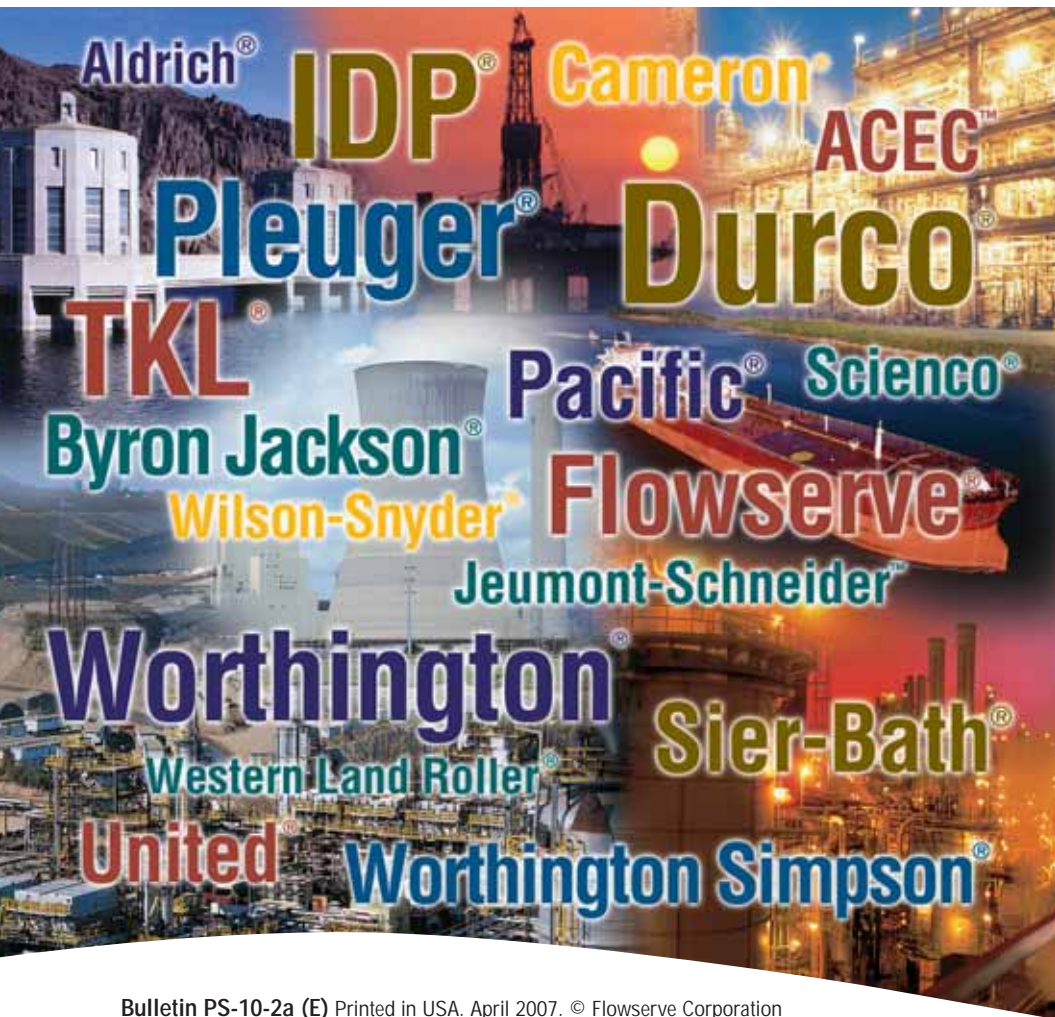
- Oil and gas production
- Hydrocarbon processing
- Chemical processing
- Water resources
- Power generation
- Nuclear
- Mining and mineral processing
- Pulp and paper
- General industry

Flowserve is dedicated to maximizing equipment performance and providing reliability-centered maintenance programs for pumps and related equipment, regardless of manufacturer. Using the FlowStar.net™ asset management software, Flowserve engineers and technicians track performance and support improvement programs using a service life cycle cost business approach. The results are improved reliability and increased profitability.

Business Partner

Flowserve partners with customers to respond to the dynamic business conditions that affect them. Flowserve will work with customers to drive efficiency, maximize throughput and control process quality. Whether user needs involve on-site technical assistance or broader project planning with full turnkey responsibility, Flowserve Engineered Services will deliver professional, reliable results.





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