

# Durco<sup>®</sup> Mark 3<sup>™</sup> Sealmatic Pump

The Mark 3 Sealmatic pump provides reliable performance in many services where traditional mechanical seals are not suitable.



## Dynamic Sealing Ideal for Tough-To-Seal Applications

With the Flowserve Mark 3 Sealmatic pump, no mechanical seal is needed during operation. A dynamically sealing expeller repels fluid from the seal chamber, making it ideal for hard-to-seal applications. Furthermore, the need for external flushing and process contamination control are eliminated.

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 Sealmatic pump represents one of many pioneering innovations from Flowserve and Durco and is suitable for many critical process applications.

## **Applications**

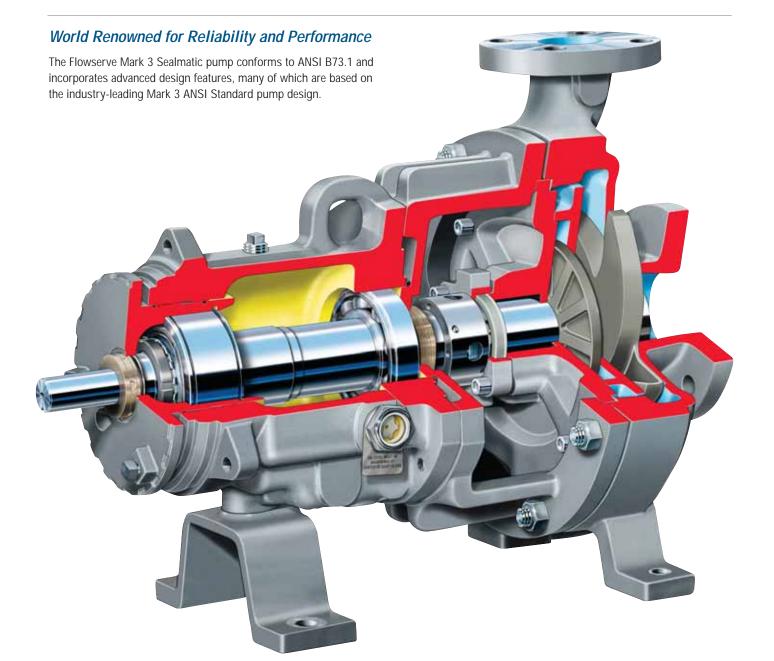
- Tough services where sealing is difficult
- Services where a seal flush is undesirable (e.g., evaporator feed)
- Continuous, around-the-clock applications
- Batch operations where a "run dry" condition
  might exist

### **Operating Parameters**

- Flows to 1680 m<sup>3</sup>/h (7400 gpm)
- Heads to 230 m (755 ft)
- Pressures to 31 bar (450 psi)
- Temperatures from -29°C (-20°F) to 149°C (300°F)

**Experience In Motion** 





*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

**ANSI 3A™ Power End** with Inpro VBXX<sup>®</sup> bearing isolators keeps lubricants in and contaminants out for long bearing life; available with a lifetime warranty

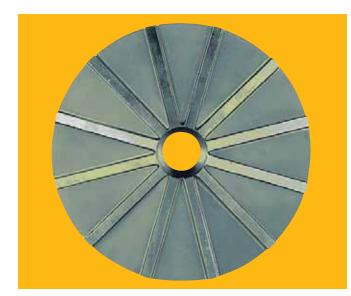
® VBXX is a registered trademark of Inpro/Seal Company.

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

*Standard Reverse Vane Impeller* offers repeatable pump performance throughout the life of the pump

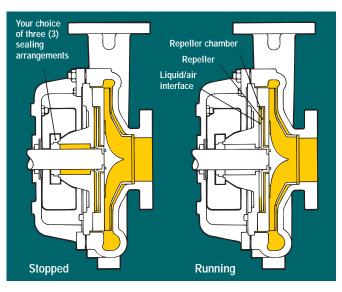
*Spinning Expeller* creates centrifugal force to expel fluid from the seal chamber

## Durco Mark 3 Sealmatic Pump



## Dynamic Sealing Technology

The Mark 3 Sealmatic Pump incorporates a dynamic sealing expeller to evacuate liquid from the seal chamber via centrifugal force. This design provides reusable performance in many services where traditional mechanical seals are not suitable.



## Benefits of Sealmatic Dynamic Sealing Technology

- Eliminates the need for conventional mechanical seals
- · Eliminates need for external flush and associated product dilution
- Eliminates need for contamination control



## Choice of Static Sealing Options

Flowserve provides a choice of static sealing options to keep the pump from leaking while the pump is stopped. They include:

- Flexible graphite packing
- Dry-running end-face seal
- · Stationary fluoropolymer disk seal FXP
- · Elastomeric lip seals



#### Seventeen Sizes Available

Eleven Group 2	Six Group 3
2K2x1M-10A	3K8x6M-14A
2K3x1.5M-10A	3K10x8M-14
2K3x2M-10A	3K6x4M-16
2K4x3M-10	3K8x6M-16A
2K4x3M-10H	3K10x8M-16
2K6x4M-10	3K10x8M-16H
2K6x4M-10H	
2K3x1.5M-13	
2K3x2M-13	
2K4x3M-13	
2K6x4M-13A	

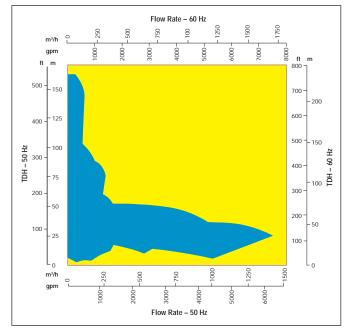
Offered in a wide range of metallurgy to meet application needs.

## Additional Configurations

The Sealmatic design also is available in recessed impeller and in-line configurations.



### Mark 3 Sealmatic Performance Curve



#### 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. The KW941 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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