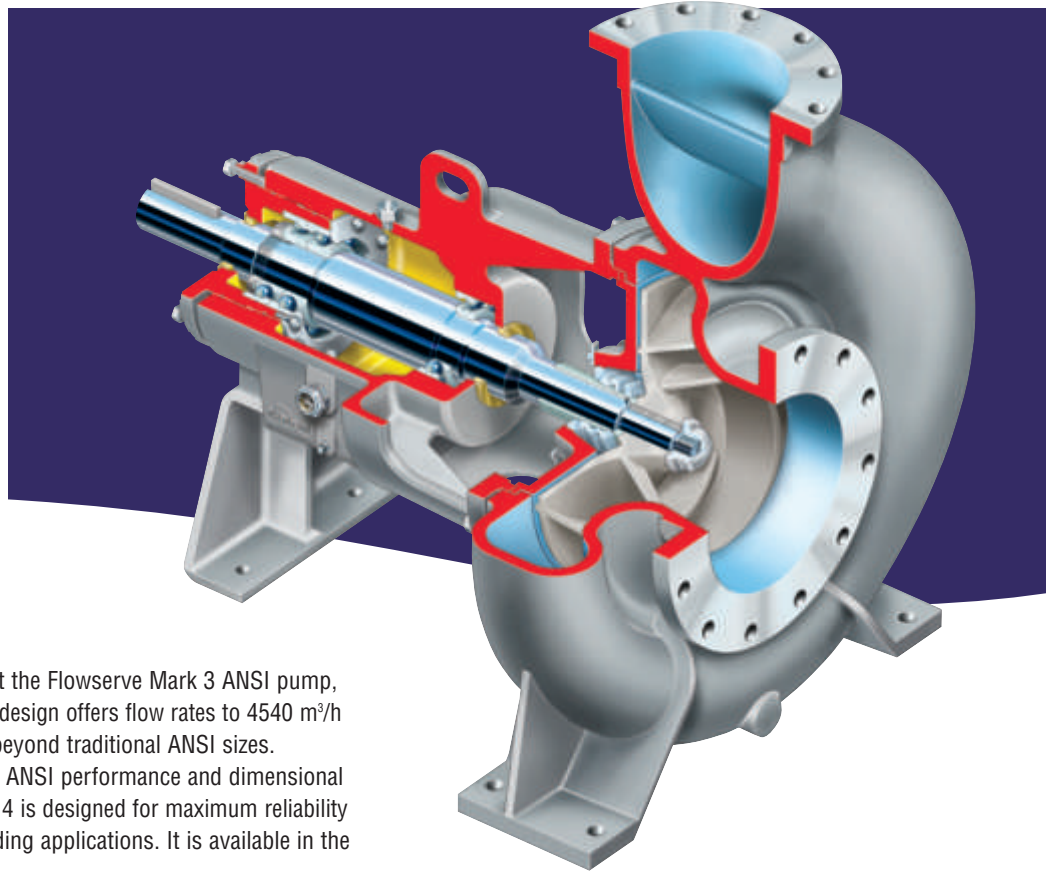


# Mark 3, Group 4 Chemical Process Pump

*Complementing the Flowserve Mark 3 ANSI chemical process pump, the new Mark 3 Group 4 design offers flow rates well beyond traditional ANSI sizes.*



Designed to complement the Flowserve Mark 3 ANSI pump, the new Mark 3 Group 4 design offers flow rates to 4540 m<sup>3</sup>/h (20 000 US gpm), well beyond traditional ANSI sizes. Outside the scope of the ANSI performance and dimensional requirements, the Group 4 is designed for maximum reliability and efficiency in demanding applications. It is available in the following six sizes:

- 4K10x6-180P
- 4K10x8-180P
- 4K12x10-180P
- 4K14x12-180P
- 4K14x14-180P
- 4K16x16-180P

### **Operating Parameters**

- Flows to 4540 m<sup>3</sup>/h (20 000 US gpm)
- Heads to 90 m (300 ft)
- Pressures to 14 bar (200 psi)
- Temperatures to 150°C (300°F)

**Micrometer Type Shaft and Impeller Adjustment** accurately sets impeller clearance at the casing

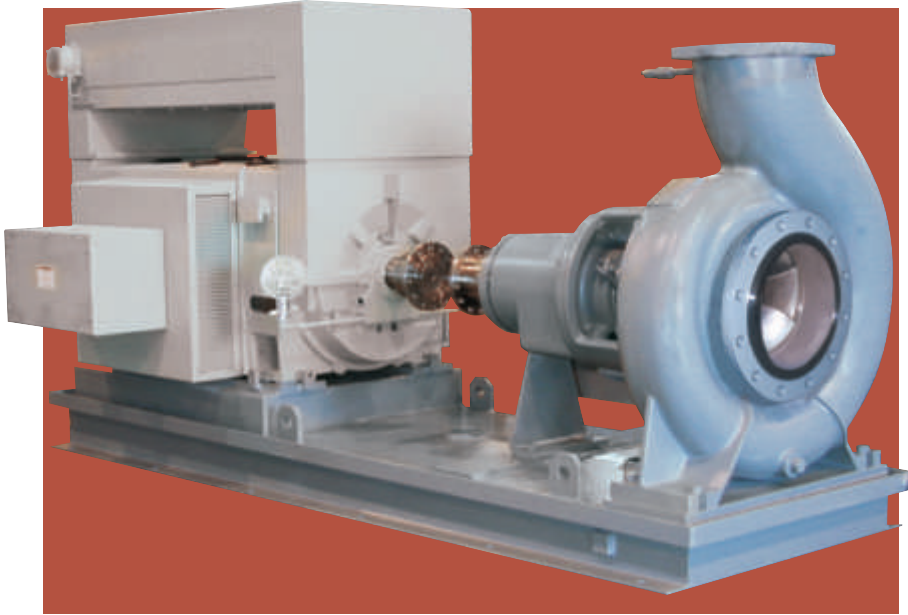
**Seal Sentry Seal Chamber** maximizes seal life, reduces pump operating costs and improves pump reliability

**Keyed Semi-Open Impeller, Full Vane Impeller** is designed for high efficiency and prevents clogging

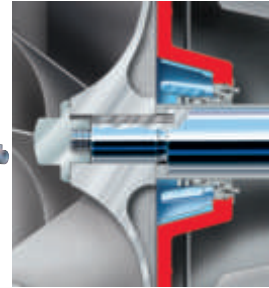
**INPRO Seal's VBXX non-contact vapor block bearing isolators** keep lubricants in and contaminants out

**Self-Venting, Top Centerline Discharge Casing** with unobstructed suction prevents trapped air to maintain efficiency and flow. Casing splitter reduces radial loads

**Back Pump-Out Vanes** increase axial balance and reduce seal chamber pressure, prolonging seal life



**Optional Flow Inducer** significantly improves suction performance by reducing pump NPSHR.

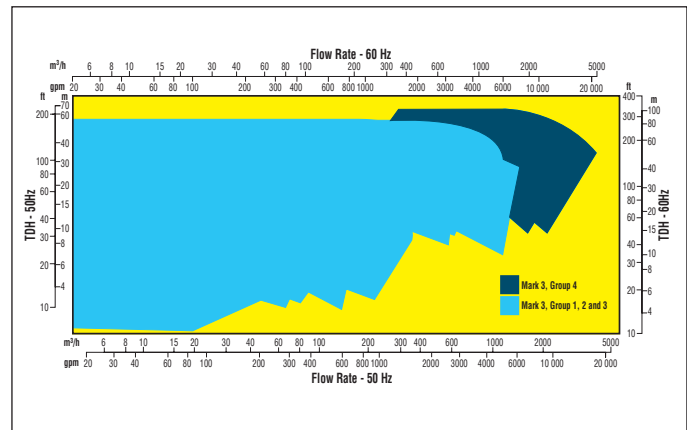


**Seal Sentry Seal Chamber with Flow Modifiers (FM)** is standard. Cylindrical bore (CB) seal chamber is also available.

## Standard Materials of Construction

Component	Materials Classes							
	DI/CI	DI/CISSF	316 SS	316L	317L	CD4MCu	CA6NM	Alloy 20
Casing, Seal Chamber	Cast Iron/ Ductile Iron		CF8M	CF3M	CG3M	CD4MCu	CA6NM	CN7M
Impeller	DI/CI	CF8M	CF3M	CG3M	CD4MCu	CA6NM	CN7M	
Shaft	1045 Steel				2205	Steel	316 SS	
Gland Set	CF8M			CN7M		317L	CN7M	
Seal Cage Set	CG3M			CN7M		317L	CN7M	
Seal Chamber Bushing	316 SS			317L	Alloy 20	317L	Alloy 20	
Bearing Frame	Cast Iron							
Thrust Bearing Housing	Cast Iron							

## Mark 3, Group 4 Range Chart



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