ECLIPSE®

5ix

EXTERNAL GEAR PUMP



Flow:

up to 33 gpm (125 lpm)



Differential Pressure: up to 150 psi (10.3 bar)



Working Pressure:



up to 300 psi (20.7 bar)















ECLIPSE®



PULSAFEEDER EXPERTISE

For over 70 years, Pulsafeeder, Inc. continues to be a proven leader in fluid handling technology and innovation in chemical dosing. With extensive experience in providing fluid handling solutions, our pumps are designed to handle even the toughest applications. Known for rugged construction and dependable performance, our products are manufactured with excellence and the highest quality standards.

The Eclipse represents a dramatic advance in pump technology. Combining proven design principles with patented features, our pumps are safe, simple, and reliable. Structurally rugged with corrosion-resistant materials, Eclipse is an ideal fit for many corrosive liquids. From acids to bases, we cover the entire pH scale.

The innovative technology behind Eclipse supports its ability to handle the most corrosive chemicals with a simple-to-service, front pull-out design. Eclipse is available with wetted components in completely non-metallic construction, 316SS, and Alloy C. These material offerings ensure corrosion resistance over a wide range of chemicals and process conditions. These pumps are magnetically driven to eliminate mechanical seal wear and leaks associated with rotating seals. The patented bearing design promotes constant lubrication.

PRODUCT SPECIFICATIONS

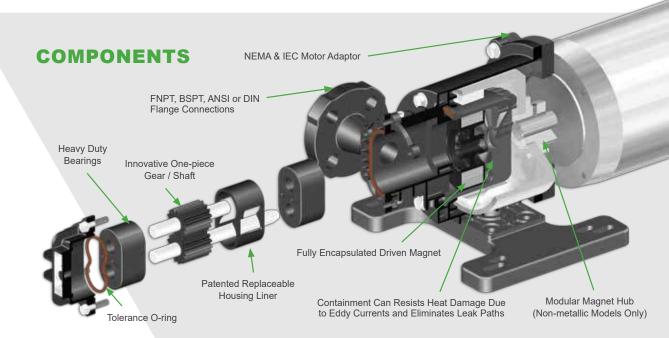
Markets

- Chemical Processing
- Oil & Gas
- Petrochemical
- Wastewater Treatment
- Water Treatment Power
- Water Treatment Municipal

Typical Applications

- Sodium Hypochlorite
- Hydrogen Peroxide
- Sulfuric Acid
- Solvents
- Caustic
- Polymers

- Dyes & Inks
- Catalyst
- Cleaning Agents
- Flocculants
- Adhesives & Resins
- Acids



FEATURES



DESIGNED FOR SIMPLICITY

- Fewest number of components of any external gear pump on the market
- Simplified ordering and inventory with fewer parts
- Self-aligning parts and piloted fits ensure proper assembly every time



RENEWABLE PERFORMANCE

- Patented housing liner protects the housing from wear
- Easy maintenance KOPkit® (Keep On Pumping kit) saves time and money
- Regain performance flow with a KOPkit[®]



HEAVY DUTY BEARINGS & TOLERANCE O-RING

- Bearings have large wear areas
- Patented bearings are made from self-lubricating materials
- Tolerance O-ring maintains proper internal operating clearances



MAGNETICALLY DRIVEN SEALLESS DESIGN

- Eliminates costly seal flush systems required for double mechanical seals
- Patented drive shaft spline design optimizes magnet alignment on shaft
- Fully encapsulated driven magnets offer maximum corrosion resistance
- Sealless design ensures zero leakage



UNIVERSAL FLANGES

- Standard housings mate to both ANSI and DIN flange connections
- PTFE or Viton® inserts act as a gasket and can be reused or replaced to ensure a proper seal (Non-metallic only)



UNIVERSAL MOTOR ADAPTOR

- Standard adaptors easily mate to multiple NEMA and IEC motors
- Wide range of motor adaptors allow for easy installation in retrofit applications



E02 MODEL



PRODUCT SPECIFICATIONS



Flow:

up to 0.45 gpm (1.7 lpm)



Differential Pressure:

up to 150 psi (10.3 bar)



Working Pressure:

up to 200 psi (13.8 bar) Non-metallic up to 300 psi (20.7 bar) Metallic



Temperature:

up to 200°F (93°C) Non-metallic up to 450°F (232°C) Metallic



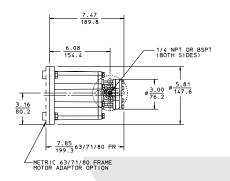
Viscosity:

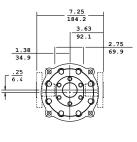
up to 1,000 cPs



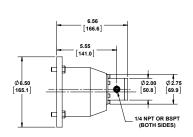
DIMENSIONAL DRAWINGS

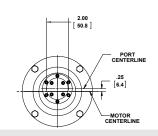
Non-metallic





Metallic





Note: For additional detailed dimensional drawings, refer to the model tech sheets on www.pulsa.com.

Housing	PVDF	316SS	Alloy C			
Magnet	Neodymium encapsulated in virgin PTFE	Samarium Cobalt	Samarium Cobalt			
Liner	Carbon reinforced PTFE	Carbon reinforced PTFE	Carbon reinforced PTFE			
Bearings	Carbon Graphite or Graphite impregnated Silicon Carbide	Carbon Graphite, Graphite impregnated Silicon Carbide, or PTFE	Carbon Graphite, Graphite impregnated Silicon Carbide, or PTFE			
O-rings	Viton®, EPDM, and Kalrez® 4079	PTFE and Kalrez®	PTFE and Kalrez®			

E05 MODEL



PRODUCT SPECIFICATIONS



up to 1.6 gpm (6.1 lpm)



Differential Pressure:

up to 150 psi (10.3 bar)



Working Pressure:

up to 200 psi (13.8 bar) Non-metallic up to 300 psi (20.7 bar) Metallic



Temperature:

up to 200°F (93°C) Non-metallic up to 450°F (232°C) Metallic



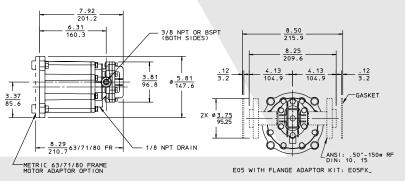
Viscosity:

up to 100,000 cPs

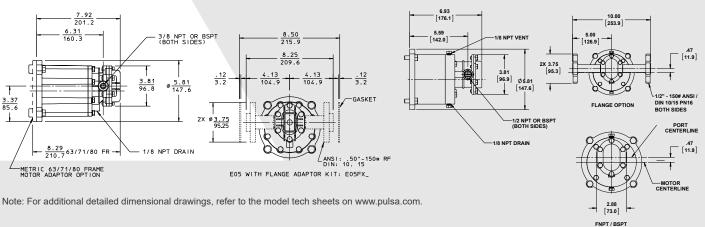


DIMENSIONAL DRAWINGS

Non-metallic



Metallic



Housing	PVDF	316SS	Alloy C				
Magnet	Neodymium encapsulated in virgin PTFE	Neodymium or Samarium Cobalt	Neodymium or Samarium Cobalt				
Liner	Carbon reinforced PTFE	Carbon reinforced PTFE	Carbon reinforced PTFE				
Bearings	Carbon Graphite or Graphite impregnated Silicon Carbide	Carbon Graphite, Graphite impregnated Silicon Carbide, or PTFE	Carbon Graphite, Graphite impregnated Silicon Carbide, or PTFE				
O-rings	Viton®, EPDM, and Kalrez® 4079	PTFE and Kalrez®	PTFE and Kalrez®				

E12 MODEL



PRODUCT SPECIFICATIONS



Flow:

up to 3.5 gpm (13.2 lpm)



Differential Pressure:

up to 150 psi (10.3 bar)



Working Pressure:

up to 200 psi (13.8 bar) Non-metallic up to 300 psi (20.7 bar) Metallic



Temperature:

up to 200°F (93°C) Non-metallic up to 450°F (232°C) Metallic



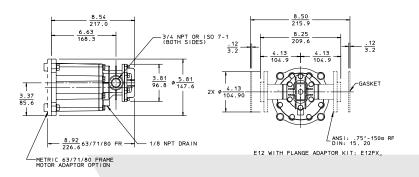
Viscosity:

up to 100,000 cPs

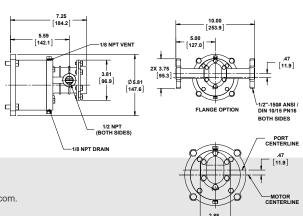


DIMENSIONAL DRAWINGS

Non-metallic



Metallic



Note: For additional detailed dimensional drawings, refer to the model tech sheets on www.pulsa.com.

Housing	PVDF	316SS	Alloy C			
Magnet	Neodymium encapsulated in virgin PTFE	Neodymium or Samarium Cobalt	Neodymium or Samarium Cobalt			
Liner	Carbon reinforced PTFE	Carbon reinforced PTFE	Carbon reinforced PTFE			
Bearings	Carbon Graphite or Graphite impregnated Silicon Carbide	Carbon Graphite, Graphite impregnated Silicon Carbide, or PTFE	Carbon Graphite, Graphite impregnated Silicon Carbide, or PTFE			
O-rings	Viton®, EPDM, and Kalrez® 4079	PTFE and Kalrez®	PTFE and Kalrez®			

E25 MODEL



PRODUCT SPECIFICATIONS



Flow:

up to 7.4 gpm (28 lpm)



Differential Pressure:

up to 150 psi (10.3 bar)



Working Pressure:

up to 200 psi (13.8 bar) Non-metallic up to 300 psi (20.7 bar) Metallic



Temperature:

up to 200°F (93°C) Non-metallic up to 450°F (232°C) Metallic



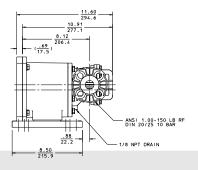
Viscosity:

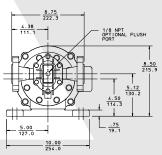
up to 100,000 cPs



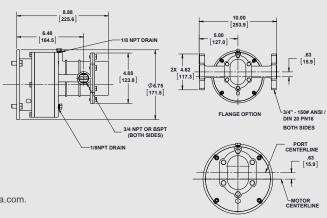
DIMENSIONAL DRAWINGS

Non-metallic





Metallic



Note: For additional detailed dimensional drawings, refer to the model tech sheets on www.pulsa.com.

Housing	PVDF	316SS	Alloy C			
Magnet	Neodymium encapsulated in virgin PTFE	Neodymium or Samarium Cobalt	Neodymium or Samarium Cobalt			
Liner	Carbon reinforced PTFE	Carbon reinforced PTFE	Carbon reinforced PTFE			
Bearings	Carbon Graphite or Graphite impregnated Silicon Carbide	Carbon Graphite, Graphite impregnated Silicon Carbide, or PTFE	Carbon Graphite, Graphite impregnated Silicon Carbide, or PTFE			
O-rings	Viton®, EPDM, and Kalrez® 4079	PTFE and Kalrez®	PTFE and Kalrez®			

E75 & E125 MODEL

PRODUCT SPECIFICATIONS



up to 33 gpm (125 lpm)



Differential Pressure:

up to 150 psi (10.3 bar)



Working Pressure:

up to 200 psi (13.8 bar) Non-metallic up to 300 psi (20.7 bar) Metallic



Temperature:

up to 200°F (93°C) Non-metallic up to 450°F (232°C) Metallic



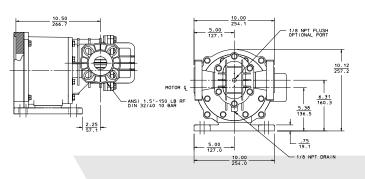
Viscosity:

up to 100,000 cPs

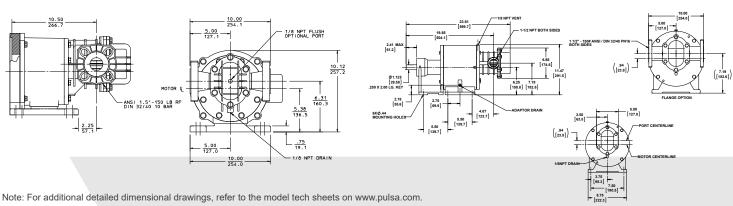


DIMENSIONAL DRAWINGS

Non-metallic



Metallic



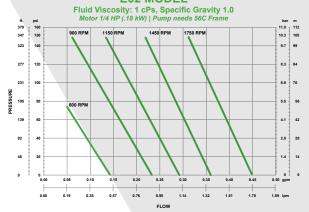
Housing	PVDF	316SS	Alloy C			
Magnet	Neodymium encapsulated in virgin PTFE	Samarium Cobalt	Samarium Cobalt			
Liner	Carbon reinforced PTFE	Carbon reinforced PTFE	Carbon reinforced PTFE			
Bearings	Carbon Graphite or Graphite impregnated Silicon Carbide	Carbon Graphite, Graphite impregnated Silicon Carbide, or PTFE	Carbon Graphite, Graphite impregnated Silicon Carbide, or PTFE			
O-rings	Viton®, EPDM, and Kalrez® 4079	PTFE and Kalrez®	PTFE and Kalrez®			



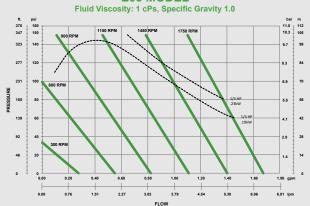
FLOW CURVES



E02 MODEL

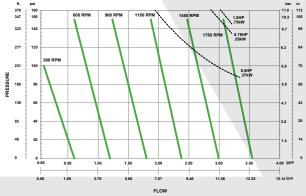


E05 MODEL



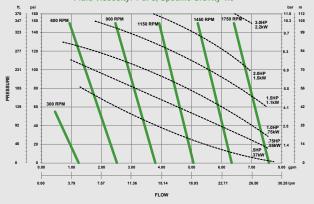
E12 MODEL

Fluid Viscosity: 1 cPs, Specific Gravity 1.0



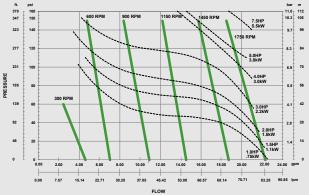
E25 MODEL

Fluid Viscosity: 1 cPs, Specific Gravity 1.0



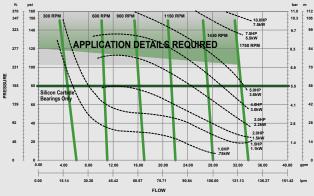
E75 MODEL

Fluid Viscosity: 1 cPs, Specific Gravity 1.0



E125 MODEL

Fluid Viscosity: 1 cPs, Specific Gravity 1.0



MODEL STRINGS SID



NON-METALLIC PUMP CONFIGURATION STRING

Pump Selection	Available Model	Code	Description	E	-	 _	-	-
Positions 1, 2, 3 PUMP SIZE	E	02 05 12 25 75 125	Size 02 - Max. Flow .45 gpm (1.7 lpm) 1/4"-18 FNPT / 1/4"-19 BSPT Size 05 - Max. Flow 1.6 gpm (6.1 lpm) 3/8"-18 FNPT / 3/8"-19 BSPT Size 12 - Max. Flow 3.5 gpm (13.2 lpm) 3/4"-14 FNPT / 3/4"-14 BSPT Size 25 - Max. Flow 7.4 gpm (28 lpm) Flanged 1"-150# ANSI / DIN 20 / 25 Size 75 - Max. Flow 22 gpm (83.3 lpm) Flanged 1 1/2"-150# ANSI / DIN 32 / 40 Size 125 - Max. Flow 33 gpm (125 lpm) Flanged 1 1/2"-150# ANSI / DIN 32 / 40					
Position 4 BASE MATERIAL	02,05 02,05 Export Res 12 12 25,75,125	K M strictions K M N	PVDF / FNPT PVDF / BSPT, s apply to the following sizes listed below: PVDF / FNPT PVDF / BSPT, PVDF, Flanged					
Position 5 BEARINGS	02,05,12,25,75,125	L B	Carbon Silicon Carbide					
Position 6 O-RINGS	02,05,12,25,75,125	V E K	Viton® EPDM Kalrez® Grade 4079					
Position 7 MOTOR MOUNTING ARRANGEMENTS	02,05,12,25,75 02,05,12,25,75,125 75,125 75,125 02,05,12 02,05,12 02,05,12,25,75 25,75 25,75,125 02,05,12,25,75,125	F O R W H J K L P	NEMA 56C (C-face, rigid base, 5/8" shaft diameter, 4x 3/8"-16 tapped holes on a 5-7/8" bolt circle) NEMA 143/5TC-182/4C (C-face, rigid base, 7/8" shaft diameter, 4x 3/8"-16 tapped holes on a 5-7/8" bolt circle) NEMA 182TC-184TC (C-face, rigid base, 1-1/8" shaft diameter, 4x 1/2"-13 tapped holes on a 7-1/4" bolt circle) NEMA 213TC-215TC (C-face, rigid base, 1-3/8" shaft diameter, 4x 1/2"-13 tapped holes on a 7-1/4" bolt circle) IEC 63 B3/B14 (rigid base, C-face, 11 mm motor shaft diameter, 4x M5 tapped holes on a 75 mm bolt circle) IEC 71 B3/B14 (rigid base, C-face, 19 mm motor shaft diameter, 4x M6 tapped holes on a 150 mm bolt circle) IEC 90 B3/B14 (rigid base, C-face, 24 mm motor shaft diameter, 4x M8 tapped holes on a 115 mm bolt circle) IEC 100/112 B3/B14 (rigid base, C-face, 28 mm motor shaft diameter, 4x M8 tapped holes on a 130 mm bolt circle) NO MOTOR MOUNTING KIT (Pump includes Drive Magnet)					
Position 8	02,05,12,25,75,125	-	Dash					
Position 9 OPTIONS	02,05,12,25,75,125 05,12,25,75,125 02,05,12,25,75,125 02,05,12,25,75,125 02,05,12,25,75,125 05,12,25,75,125 02,05,12,25,75,125 05,12,25,75,125	X A N B X-ATEX A-ATEX N-ATEX B-ATEX	Standard (Complete Pump - No Options) Bearing Flush Port (1x 1/8" FNPT / BSPT Connection located in the center of the front cover) Pump Wet End Only (Only available in conjunction with 7th position option "Y") Combination Of 9th Position Options "A" AND "N" Standard Pump with ATEX Directive - CE Ex II 2G T6 II 2D T6 Bearing Flush with ATEX Directive - CE Ex II 2G T6 II 2D T6 Wet End Only with ATEX Directive - CE Ex II 2G T6 II 2D T6 Wet End Only and Bearing Flush with ATEX Directive - CE Ex II 2G T6 II 2D T6					

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METALLIC PUMP CONFIGURATION STRING

Pump Selection	Available Model	Code		Descript	ion		E			-	-	-	_
Positions 1, 2, 3 PUMP SIZE	E	02 05 12 25 75 125	Size 05 - Max. Flow 1.6 gp Size 12 - Max. Flow 3.5 gp Size 25 - Max. Flow 7.4 Size 75 - Max. Flow 22 gpm (i	Size 02 - Max. Flow .45 gpm (1.7 lpm) 1/4" FNPT / 1/4" BSPT Size 05 - Max. Flow 1.6 gpm (6.1 lpm) 1/2" FNPT / 1/2" BSPT / Flanged .50-150# ANSI / DIN10 / 15 - PN16 Size 12 - Max. Flow 3.5 gpm (13.2 lpm) 1/2" FNPT / 1/2" BSPT / Flanged .50-150# ANSI / DIN10 / 15 - PN16 Size 25 - Max. Flow 7.4 gpm (28 lpm) 3/4" FNPT / 3/4" BSPT / Flanged .75"-150# ANSI / DIN 20 - PN16 Size 75 - Max. Flow 22 gpm (83.3 lpm) 1-1/2 FNPT / 1-1/2" BSPT / Flanged 1 1/2"-150# ANSI / DIN 32 / 40 - PN16 Size 125 - Max. Flow 33 gpm (125 lpm) 1-1/2 FNPT / 1-1/2" BSPT / Flanged 1 1/2"-150# ANSI / DIN 32 / 40 - PN16									
Position 4 BASE MATERIAL	02,05,12,25,75,125 02,05,12,25,75,125 02,05 02,05 05,12,25,75,125 05 Export 12,25,75,125 12,25,75,125 12,25,75,125	A G C S U V E Restric	tions apply to the fol	316SS/FNPT 316SS/BSPT ALLOY C / FNPT ALLOY C / BSPT 316SS / Flange ALLOY C / Flange ALLOY C / Flange ALLOY C / Flange ALLOY C / FNPT ALLOY C / BSPT ALLOY C / Flange									
Position 5 BEARINGS	02,05,12,25,75,125	L B T	Silicon Carbide** Silico	Carbon on Carbide bearings, must selec Glass Filled PTFE 11	*	nina ceramic shafts)							
Position 6 O-RINGS	02,05,12,25,75,125	U K	Kalrez® Gr	PTFE ade 4079 (recommended for fluc	ctuating temperature appl	ications)							
Position 7 MOTOR FRAME MOUNTING	02,05,12,25 05,12,25 02 02,05,12 05,12,25 25 75,125 75,125	F O H J K L R	NEMA 143/5TC (C-face IEC 63 B3/B14 (rigid base IEC 71 B3/B14 (rigid base, IEC 80 B3/B14 (rigid base, IEC 90 B3/B14 (rigid base, NEMA	NEMA 56C (C-face, rigid base, 5/8" shaft diameter, 4x 3/8"-16 tapped holes on a 5-7/8" bolt circle) NEMA 143/5TC (C-face, rigid base, 7/8" shaft diameter, 4x 3/8"-16 tapped holes on a 5-7/8" bolt circle) 6C 63 B3/B14 (rigid base, C-face, 11 mm motor shaft diameter, 4x M5 tapped holes on a 75 mm bolt circle) 6C 71 B3/B14 (rigid base, C-face, 14 mm motor shaft diameter, 4x M6 tapped holes on a 85 mm bolt circle) 6C 80 B3/B14 (rigid base, C-face, 19 mm motor shaft diameter, 4x M6 tapped holes on a 100 mm bolt circle) C 90 B3/B14 (rigid base, C-face, 24 mm motor shaft diameter, 4x M8 tapped holes on a 115 mm bolt circle) NEMA - Pedestal with 1.125" Shaft Diameter (182-184T or 213-215) IEC - Pedestal with 28mm Shaft Diameter (100/112, B3)									
Position 8	02,05,12,25,75,125	-		Dash									
Position 9 SHAFT /GEAR / MAGNET OPTIONS	02,05,12,25,75,125	S - S - S - S - S - S - S - S - S - S -	DRIVE (SHAFT / GEAR) 316SS / PTFE 316SS / 316SS ALUMINA / PTFE Alloy C / Alloy C 316SS / 316SS Alloy C / Alloy C 316SS / 316SS Alloy C / Alloy C ALUMINA / PEEK 316SS / 316SS Alloy C / Alloy C ALUMINA / PEEK 316SS / 316SS Alloy C / Alloy C Alloy C / Alloy C	IDLER (SHAFT / GEAR) 316SS / PTFE 316SS / PTFE ALUMINA / PTFE Alloy C / PTFE Alloy C / PTFE 316SS / 316SS Alloy C / Alloy C 316SS / 316SS 316SS / PEEK Alloy C / PEEK ALUMINA / PEEK 316SS / 316SS Alloy C / Alloy C 316SS / 316SS	STANDARD MACE E02,E75,E125 Samarium Cobalt NOT AVAILABLE NOT AVAILABLE NOT AVAILABLE Samarium Cobalt Samarium Cobalt	Neodymium Neodymium Samarium Cobalt Samarium Cobalt	200° 200° 200° 300°l 300°l 300°l 400°l 400°l 450°l	F (93°C) F (93°C) F (93°C) F (93°C) F (93°C) F (93°C) F (149°C) F (149°C) F (149°C) F (204°C) F (204°C) F (222°C) F (232°C) F (232°C)	ature				
Position 10 OPTIONS	02,05,12,25,75,125	N	WET END C	ONLY (Requires 7th position code	e identifying motor frame	mounting)							

All pumps include ATEX Directive - CE Ex II 2G TX II 2D TX







KOPKIT® (KEEP ON PUMPING KIT)

- Designed to guard against unnecessary downtime and assure the highest level of efficient and uninterrupted service from your pump.
- In the event of a breakdown, KOPkit® will put you back in business fast!



BACK PRESSURE VALVES

- Particularly useful in metering applications or other low-flow systems
- Prevents mainstream pressure surges and siphoning



PRESSURE GAUGES

- Relied on to measure pressure in the system. Proper pressure is necessary to ensure flow.
- Accurate and reliable.



PRESSURE RELIEF VALVES

• Prevent an over pressurization situation from damaging your pump or system.



Y-STRAINERS

- Capture out debris in pipelines, protecting equipment and processes.
- Prevent premature wear of the rotating components within a pump.





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