FLOWSERVE

PolyChem™ Non-Metallic Chemical Process Pumps

ASME and ISO

M-Series

S-Series

GRP

VGRP

Bulletin PS-10-17d (E)

FLOWSERVE

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.

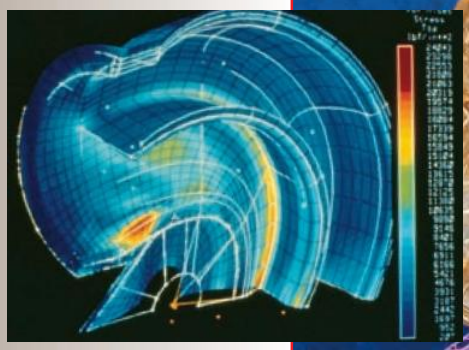
Pumping Solutions
Flowserve is providing pumping solutions which permit customers to continuously improve productivity, profitability and pumping system reliability.

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:
g dO L VWN P RT PP T R
g A PNSL TNLWOP TR
g A L P TLW NTP NP
g PWWRP X T R
g A L LN T R PNS WRd

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.

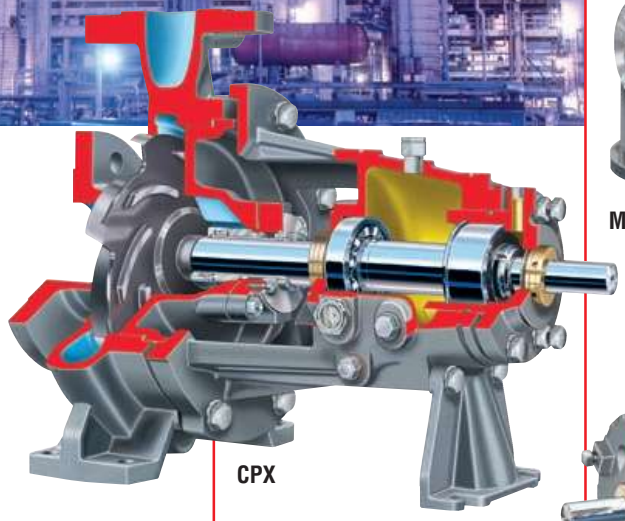
Pump designs include:
g FT RWW LRP NP
g 6P b PP MPL T R
single stage
g 6P b PP MPL T R
multistage
g I P TNLW
g F MX P TMWX
g E L d
g EPNT NL T R
g B NWL
g F PNTLWd



PolyChem Non-Metallic Chemical Process Pumps

Non-Metallic Pumps Designed to Global Standards

Embracing a global approach to pump design, Flowserve offers sealed and sealless PolyChem non-metallic pumps engineered 5FA9L O FC OP TR NTP TL L O F OTWWR PNTTNLT ' The fluoropolymer lined A FP TP and S-Series pumps and SP; ED engineered polymer composite pump are well suited for highly corrosive applications in the worldwide process industries.



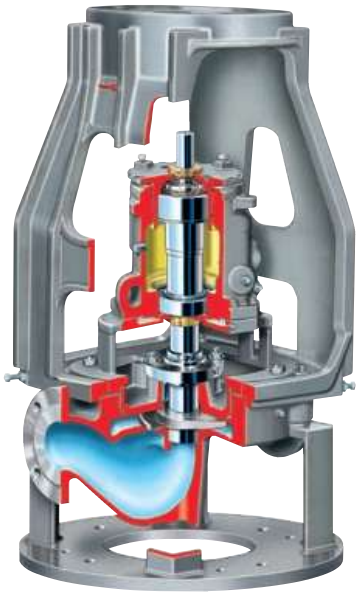
CPX

Applications

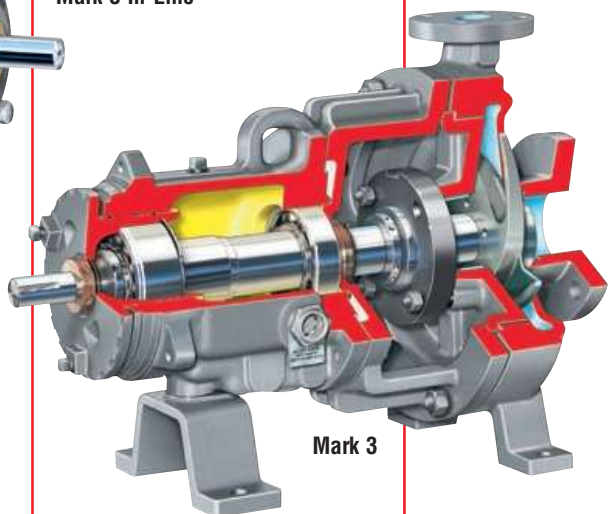
- g7SPX TNLWW
- gF PPWL O TX L dX P LW industry
- gA L T P P aT XP
- gJ L PbL P PL X P
- g5 L T X
- gA T T Rb V
- gA TN NST X L LN T R

Complementary Pump Designs

- gA L V, 5FA9X P LWWN chemical process pump
- gA L V, 5FA9T WT P NSPX TNLW process pump
- g7DK FC X P LWWN NSPX TNLW process pump



Mark 3 In-Line



Mark 3

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FLOWSERVE

PolyChem M-Series Fluoropolymer Lined Sealless Pumps

Close Coupled

Worldwide Application

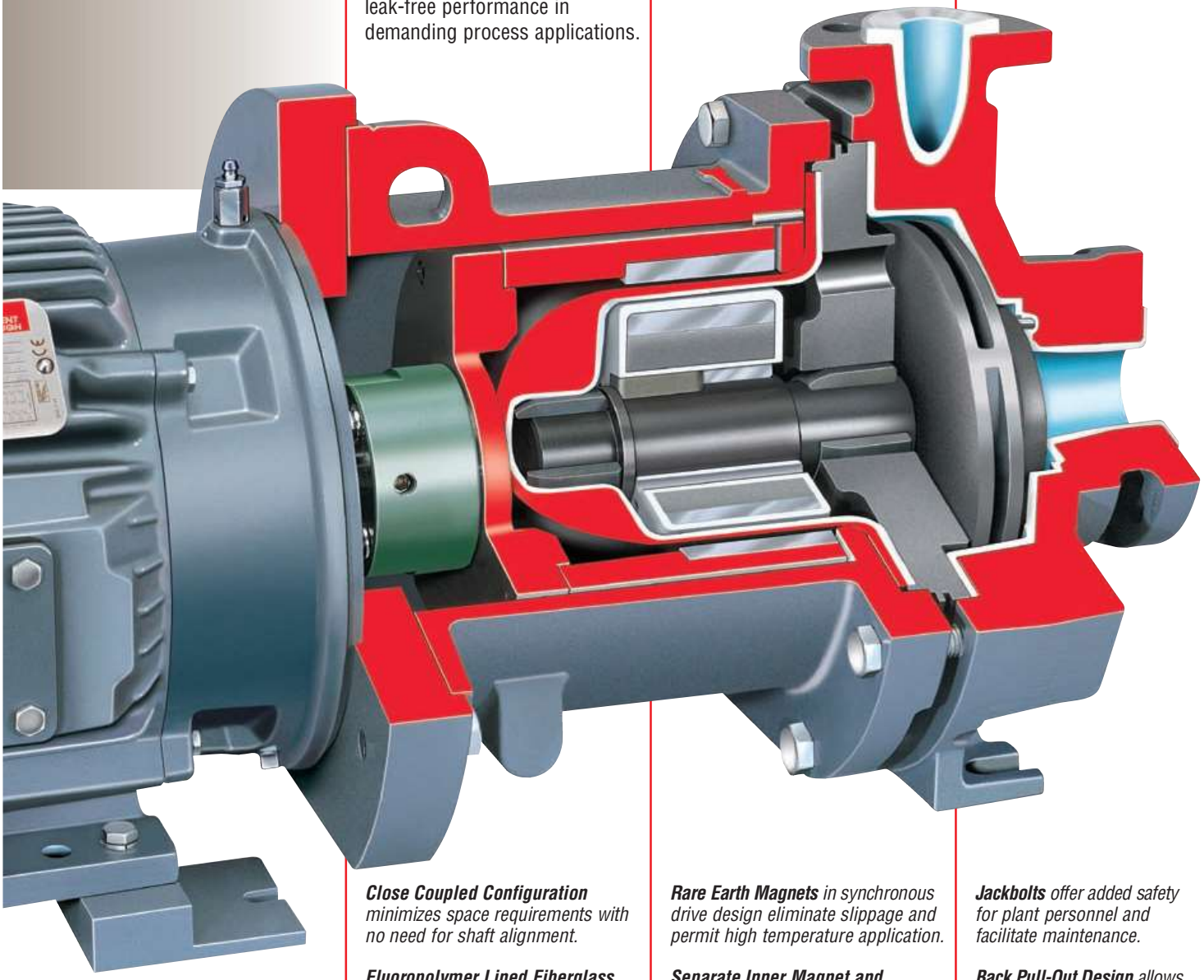
GSP D W7SPX A FP TP W polymer lined, close coupled, magnetically driven, chemical process pump is the result of extensive global market research. A FP TP PLWP X LP rugged, heavy-duty pumps designed specifically for reliable, leak-free performance in demanding process applications.

Addressing customer needs around the globe, PolyChem A FP TP X XPP SP W lowing dimensional standards:

- g 5FA 9 60, '
- g FC +1. 1
- g F O TW7R

Operating Parameters

- g : Wb , . X ^{3}/h (600 gpm)
- g PLO -. X -1)
- g D P P 0 ML +.) T
- g GPX P L P X -30°C (-20°F) to .) i 7 ,)) i :



Close Coupled Configuration *minimizes space requirements with no need for shaft alignment.*

Fluoropolymer Lined Fiberglass Containment Shell *offers superior corrosion resistance and strength.*

Fluoropolymer PFA Lined Wet End *is globally preferred for its superior corrosion resistance and temperature allowance. PFA is carbon reinforced where required for stiffness and strength.*

Rare Earth Magnets *in synchronous drive design eliminate slippage and permit high temperature application.*

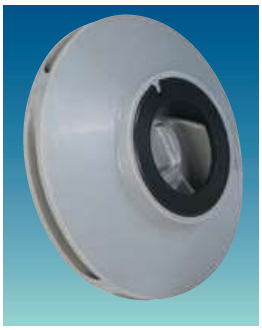
Separate Inner Magnet and Impeller Components *result in low cost maintenance and ease of upgrade.*

Rugged Silicon Carbide Radial and Axial Thrust Bearings *offer outstanding wear resistance and chemical inertness.*

Jackbolts *offer added safety for plant personnel and facilitate maintenance.*

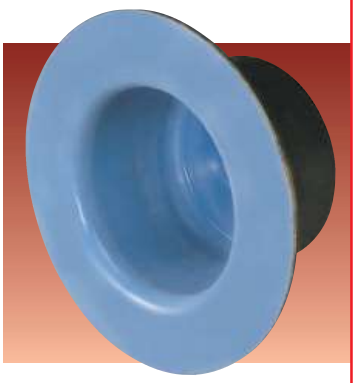
Back Pull-Out Design *allows for pump removal without disturbing the casing.*

Non-Sparking Rub Pads *prevent contact of critical components in the unlikely event of outer magnet support bearing failure.*



Enclosed Lined Impeller provides balanced hydraulic loads, extending bearing life.

Rugged Design with the Customer in Mind
D VW7SPX A FP TP X bPP designed to offer the optimum in pump reliability and value, while maintaining a simple design for safety and ease of maintenance.



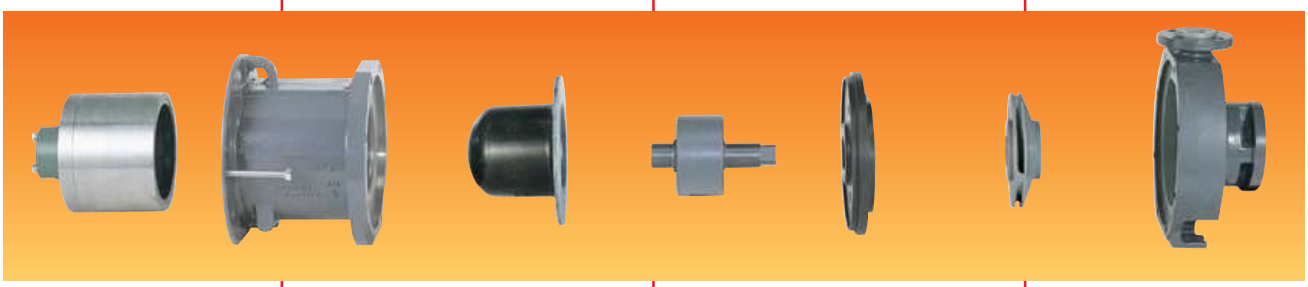
PFA Lined Casing
The Flowserve proprietary PFA molding processes ensure liner integrity.
g8 NTMVNL T LX SL L minimum PFA liner thickness , XX)' +. T
g5 X XPP 5FGA 5,2. and GGG40.3 specifications

PFA Lined Fiberglass Containment Shell is rated to 0ML +.) TLO P excellent magnet efficiencies. B XPLWDWN NT PWXT-nates magnetic losses and heat generation associated with metallic containment shells. The result is a more energy-efficient pump that uses a smaller motor and is less likely to cause vaporization of the pumping fluid.

Large Silicon Carbide Rotating Shaft Offers ruggedness simply not found in other non-metallic pumps. PolyChem's rotating shaft is supported by silicon carbide bearings located securely in a reinforced fluoropolymer bearing holder, thereby eliminating the need for bearing support in the inlet of the pump.

Standard Silicon Carbide Radial and Axial Thrust Bearings are chemically inert and have exceptional wear resistance.

Simplicity in Design



FLOWSERVE

PolyChem M-Series Fluoropolymer Lined Sealless Pumps

Long Coupled

Worldwide Application

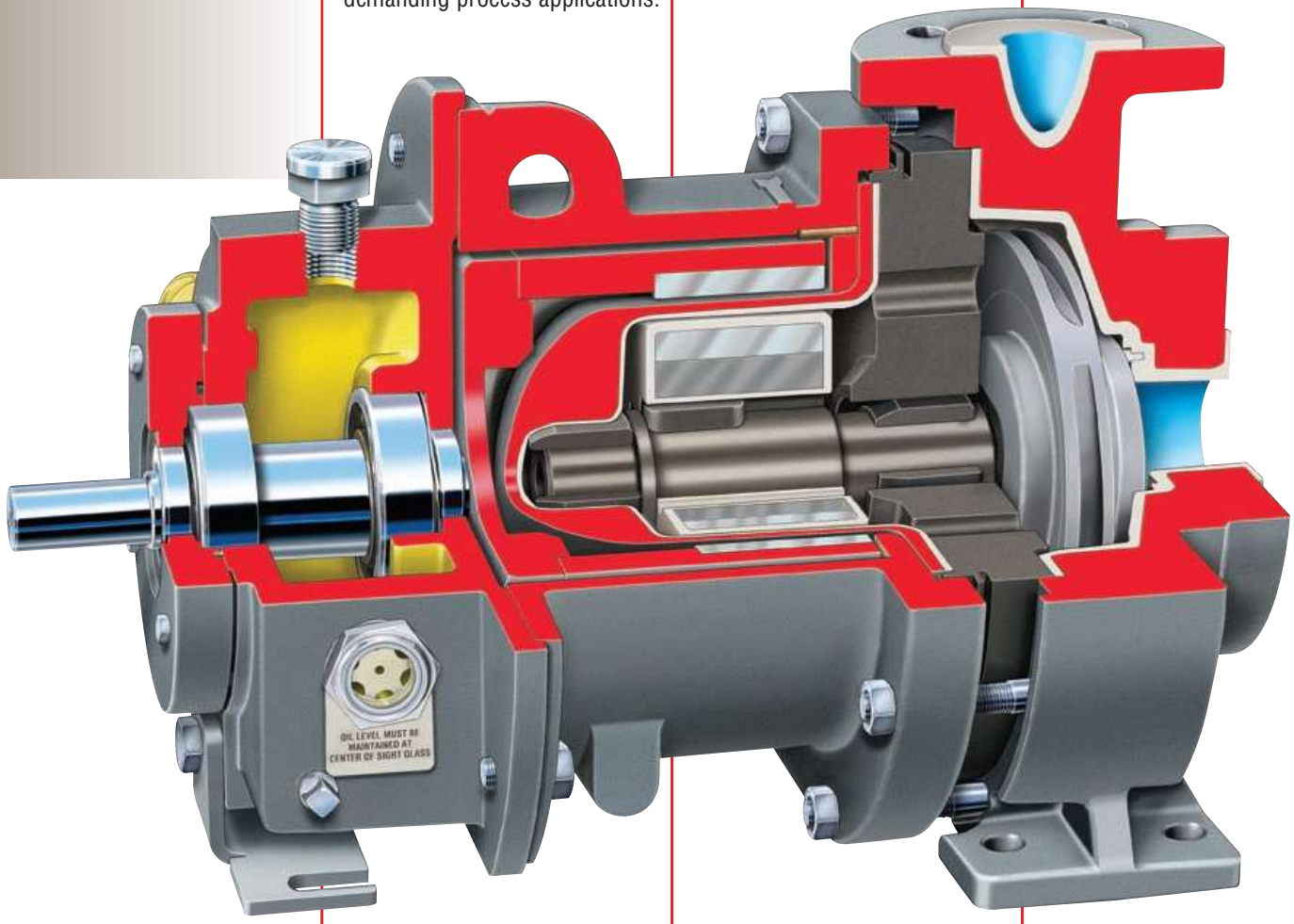
GSP D W7SPX A FP TP W polymer lined, long coupled, magnetically driven, chemical process pump is the result of extensive global market research. A FP TP PLW X LP rugged, heavy-duty pumps designed specifically for reliable, leak-free performance in demanding process applications.

Addressing customer needs around the globe, PolyChem A FP TP X XPP SP following dimensional standards:

- g 5FA 9 60, '
- g FC +1. 1
- g F O TW7R

Operating Parameters

- g : Wb , . X ^{3}/h (600 gpm)
- g PLO -. X (480 ft)
- g D P P 0 ML +.) T
- g GPX P L P X -30°C (-20°F) to .) i 7 ,)) i :



Long Coupled Configuration *offers traditional bearing housing with flexible coupling.*

Fluoropolymer Lined Fiberglass Containment Shell *offers superior corrosion resistance and strength.*

Fluoropolymer PFA Lined Wet End *is globally preferred for its superior corrosion resistance and temperature allowance. PFA is carbon reinforced where required for stiffness and strength.*

Rare Earth Magnets *in synchronous drive design eliminate slippage and permit high temperature application.*

Separate Inner Magnet and Impeller Components *result in low cost maintenance and ease of upgrade.*

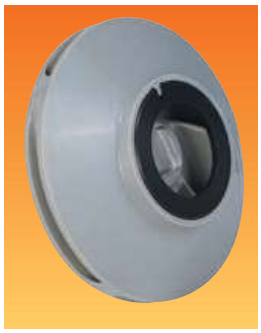
Rugged Silicon Carbide Radial and Axial Thrust Bearings *offer outstanding wear resistance and chemical inertness.*

Power Frame Pull-Out *permits safe power end maintenance without breaking sealed containment.*

Jackbolts *offer added safety for plant personnel and facilitate maintenance.*

Back Pull-Out Design *allows for pump removal without disturbing the casing.*

Non-Sparking Rub Pads *prevent contact of critical components in the unlikely event of outer magnet support bearing failure.*



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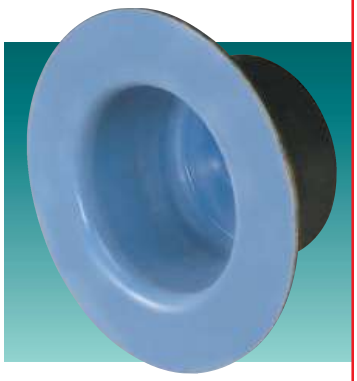

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Large Silicon Carbide Rotating Shaft Offers ruggedness simply not found in other non-metallic pumps. PolyChem's rotating shaft is supported by silicon carbide bearings located securely in a reinforced fluoropolymer bearing holder, thereby eliminating the need for bearing support in the inlet of the pump.

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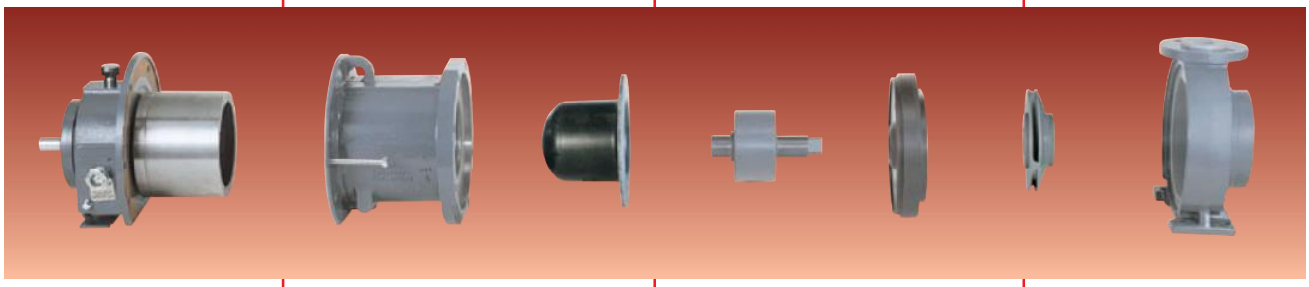
Simplicity in Design



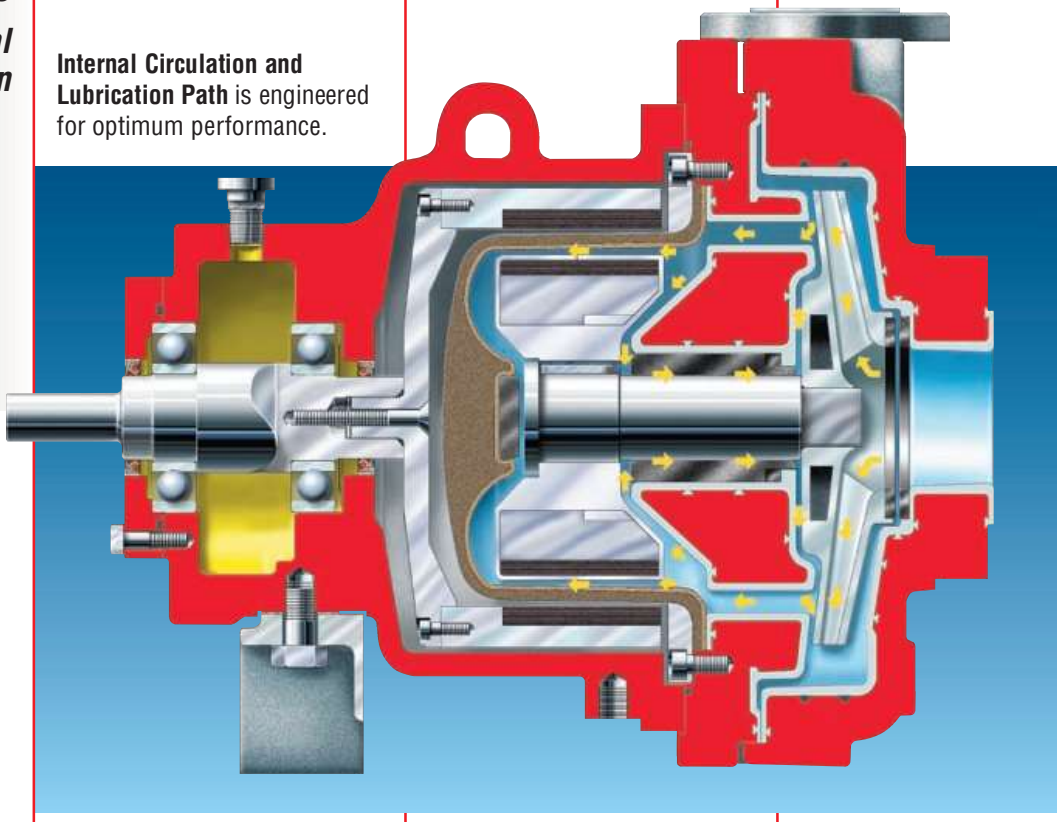
FLOWSERVE

PolyChem M-Series Fluoropolymer Lined Sealless Pumps

Technical Information

A FPTP X LPOPTRPO for superior performance and reliability at reduced cost.

Internal Circulation and Lubrication Path is engineered for optimum performance.



Separate Inner Magnet and Impeller Components significantly reduce impeller replacement cost compared with integral assembly designs.

Rotating Shaft Design eliminates shaft support obstructions in the casing inlet which are common with stationary shaft designs.
g X aPO P XL NP
g EPO NPO BDF

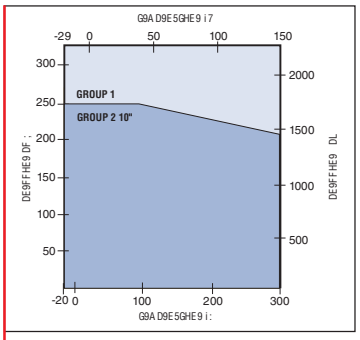
PolyChem M-Series

Performance Curves

D W7SPX A FP TP PLWW pumps cover a broad hydraulic range.

Thirteen Sizes

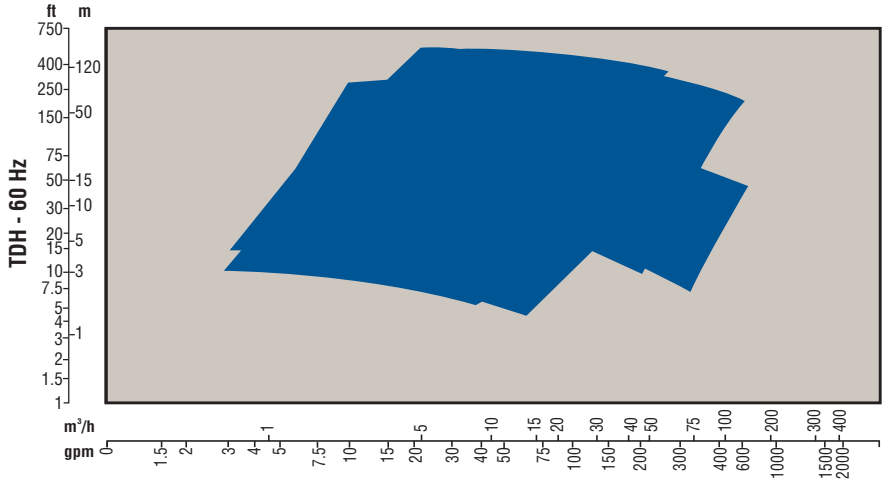
g: - ; 5FA9
g GS PP , ; + 5FA9
g GS PP , ; 5 FC
g GS PP , ; 6(7 FC



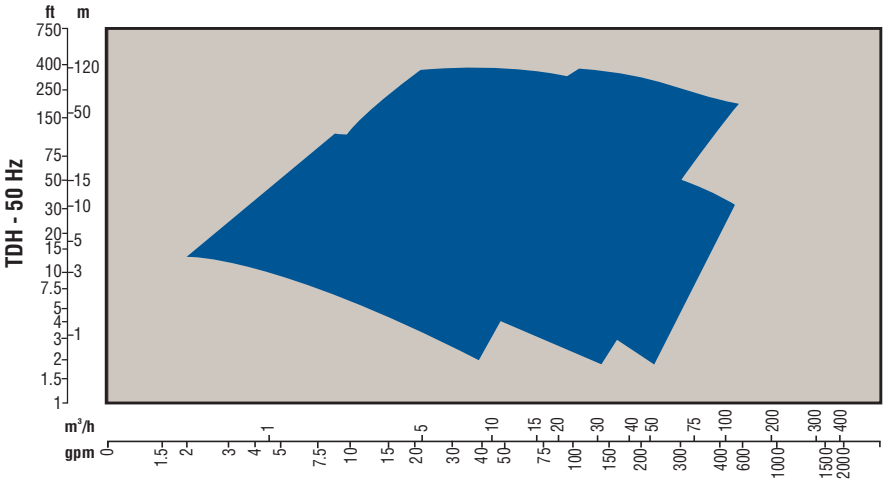
Operating Parameters

g: Wb , . X ^{3}/h (600 gpm)
g PLO -. X (480 ft)
g D P P 0 ML +.) T
g GPX PL P X -30°C (-20°F) to .)i7 ,))i:

M-Series ASME Range Chart



M-Series ISO Range Chart

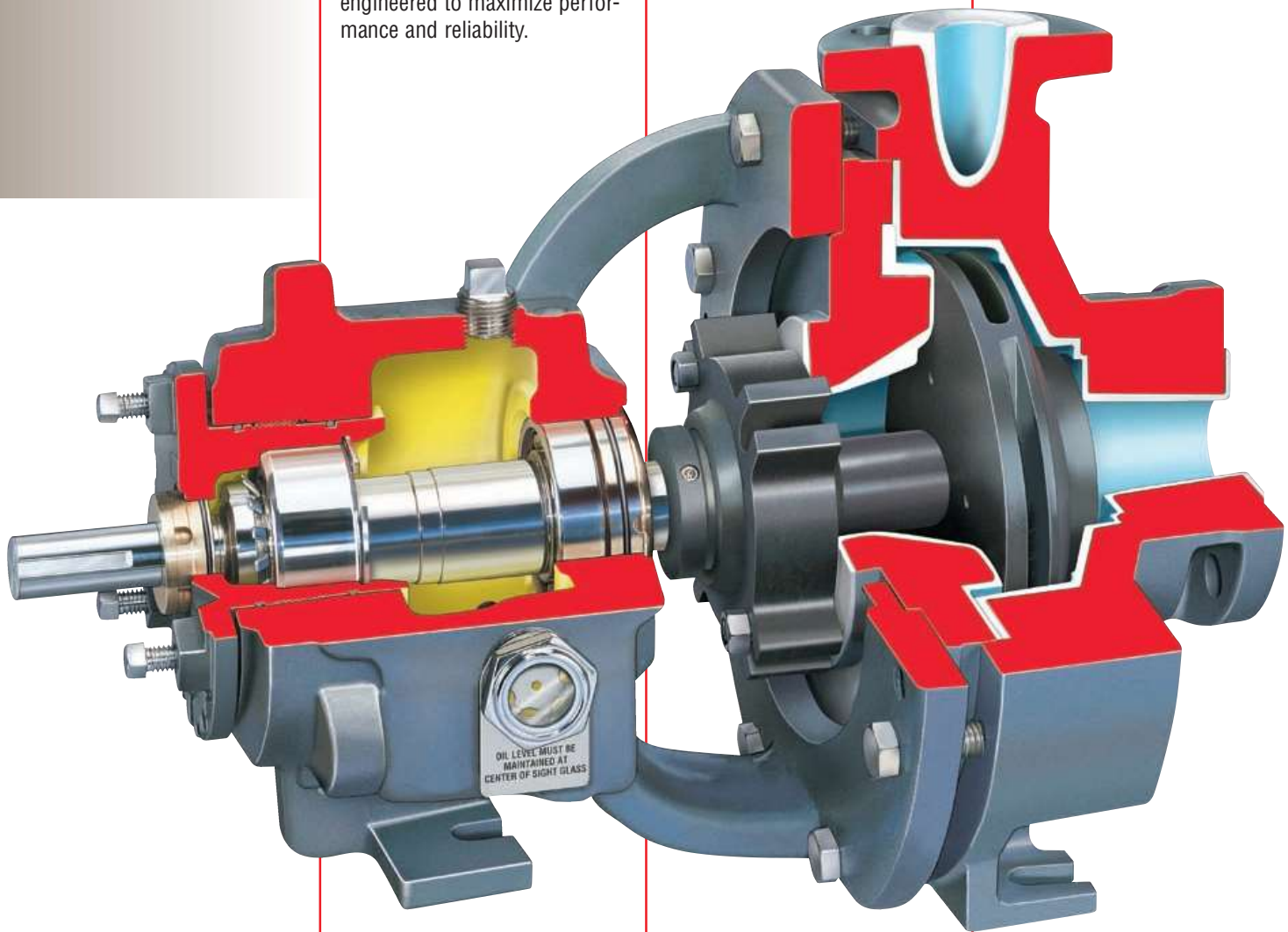


PolyChem S-Series Fluoropolymer Lined Mechanically Sealed Pumps

Revolutionary Non-Metallic Pump Technology
Flowserve fluoropolymer lined sealed pumps offer outstanding performance and significant economy in highly corrosive L WKL T ' N LTR SP aP ALV, bP PO PolyChem S-Series pumps are engineered to maximize performance and reliability.

Addressing customer needs around the globe, PolyChem S-Series pumps meet the following dimensional standards:
g 5FA 9 60, '
g FC +1. 1(. 22
g F O TWWR

Operating Parameters
g : Wb -+) X ^{3}/h
1.) R X
g PLO -. X -1)
g D P P 0 ML
+.) T
g GPX PL P X ,)i7
+)i: .)i7 ,))i:



External Micrometer Impeller Adjustment *accurately sets impeller in 20 seconds. Furthermore, mechanical seals and all critical settings can be set accurately in the shop.*

Fluoropolymer PFA Lined Wet End *is globally preferred for its superior corrosion resistance and temperature allowance.*

Enclosed Impeller, *through 250 mm (10 in), provides balanced hydraulic loads, extending bearing life. Open impeller available.*

Clean Room Assembly *of optional ANSI 3A™ power end (shown here) ensures optimum lubrication environment. Mark 3 power end is standard.*

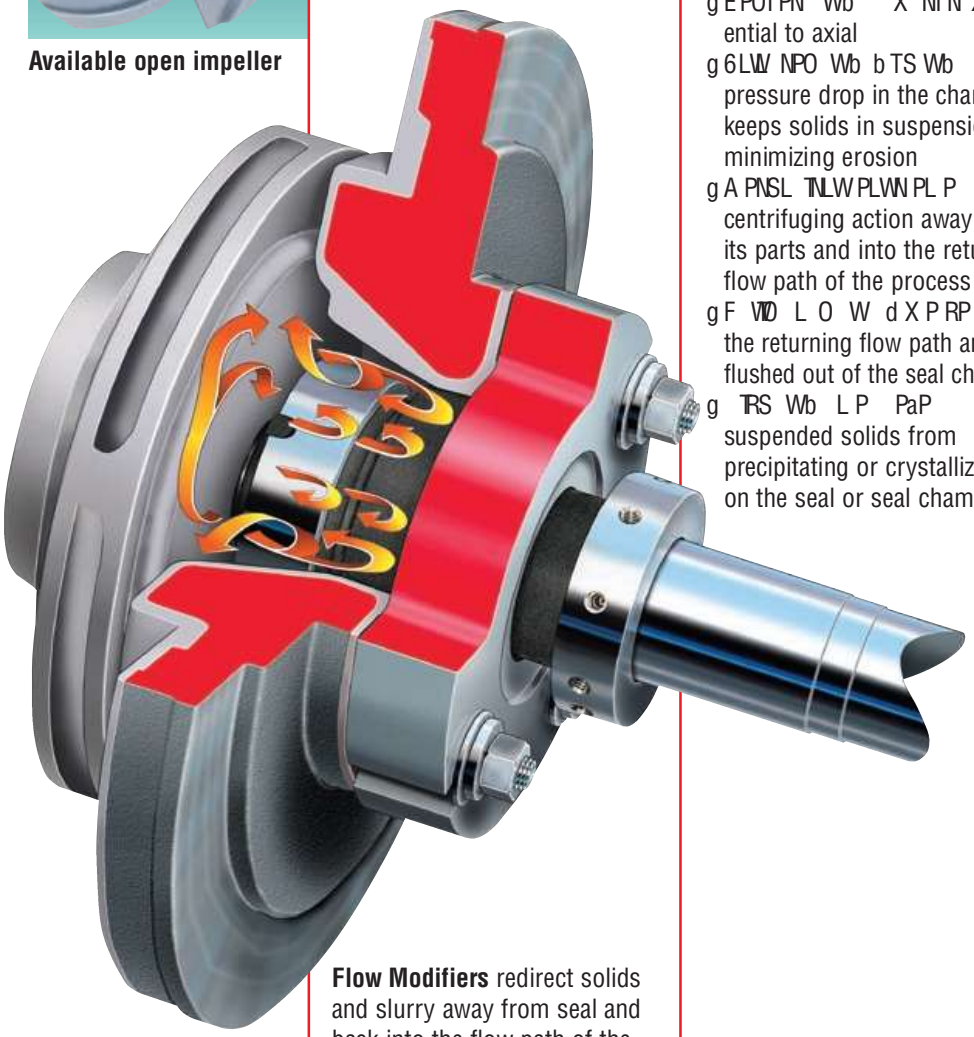
Silicon Carbide Shaft Sleeve *mitigates corrosion and wear.*

Seal Chamber *with large tapered bore accommodates multiple seal selections. (See page 12 for typical seal arrangements.)*

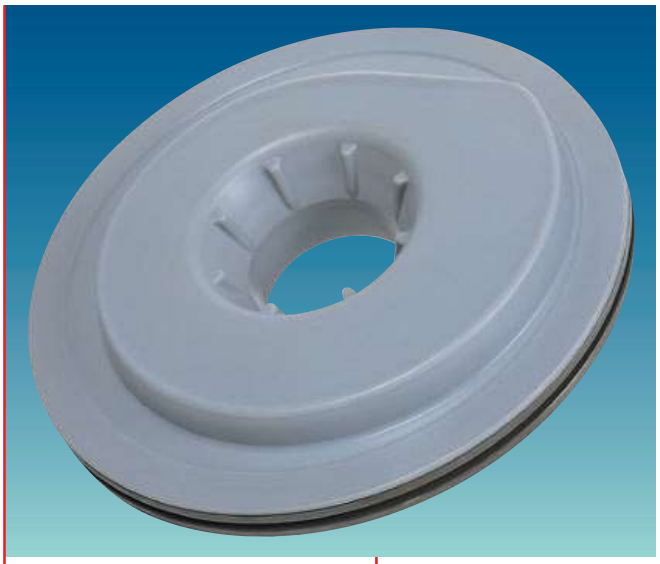
Advanced FM SealSentry™ Design Technology
C W:Wb PaP P L non-metallic pump with the advantages of an oversized seal chamber with flow modifiers.
g FPW W ST R
g FPWaP T R
g FPWO LT T R

Seal life is extended due to superior purging of heat, solids and vapors. Costs are reduced because single seals often can be selected where dual seals or external flush and throat bushing combinations had been necessary.

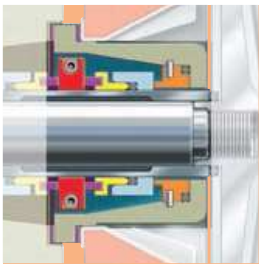
Available open impeller



Flow Modifiers redirect solids and slurry away from seal and back into the flow path of the process liquid.



Flow Modifiers Extend Mechanical Seal Life
g E POTPN Wb X NTN X P- ential to axial
g 6LW NPO Wb b TS Wb pressure drop in the chamber keeps solids in suspension, minimizing erosion
g A PNSL TNLW PLWN PL P L centrifuging action away from its parts and into the returning flow path of the process liquid
g F WD L O W d X P RP T the returning flow path and are flushed out of the seal chamber
g TRS Wb L P PaP suspended solids from precipitating or crystallizing on the seal or seal chamber



Unique Seal Chamber Canister allows double component seals to be L WPO T SP:A PLW chamber. This canister enables quick retrofits and eliminates the need to stock additional rear covers

Choice of Power Ends
g F L OL O A L V, 5 power end
g C T LW5BF , 5h power end (shown on page 10) with lifetime b L L d PL P (FPLW I 6KK MPL T R isolators

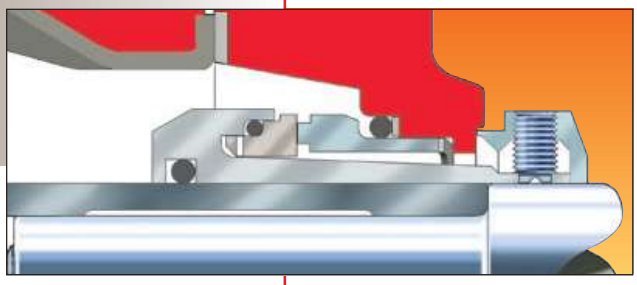
Power End Options
g 5WWd SL WPaP
g F WD SL
g LMd T S PLW
g A LR P TN O LT WR
g CTW WT RP
g E PR PL LMAV O MAV shielded bearings
g CTWX T d PX

FLOWSERVE

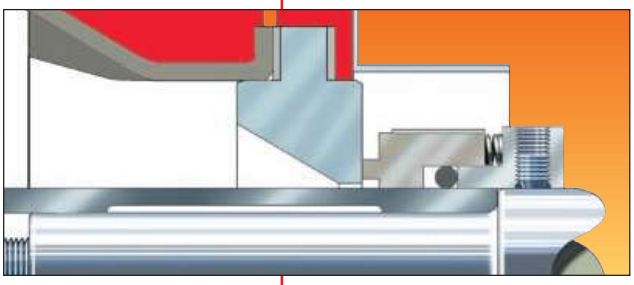
PolyChem S-Series Fluoropolymer Lined Mechanically Sealed Pumps

Sealing Options
PolyChem S-Series pumps offer the advantage of innovative and readily available seal selections. Shown here are standard and recommended seal arrangements.

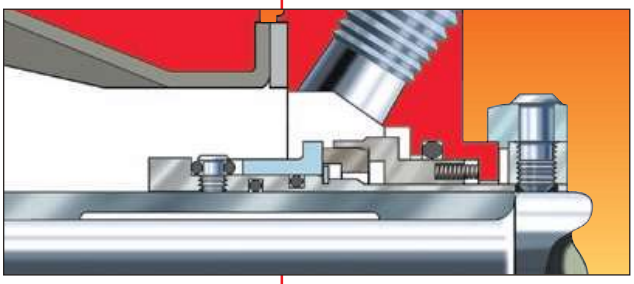
Non-Metallic Single Cartridge



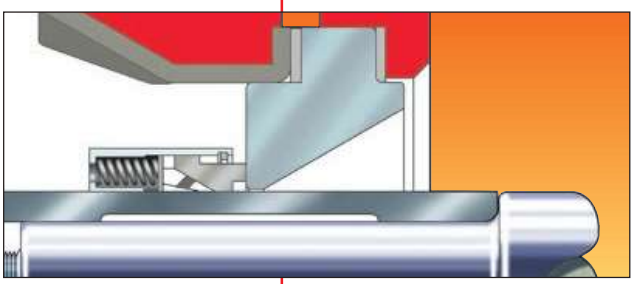
Non-Metallic Single External



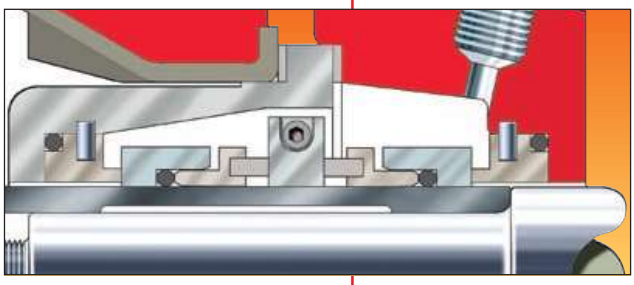
Metallic Single Cartridge



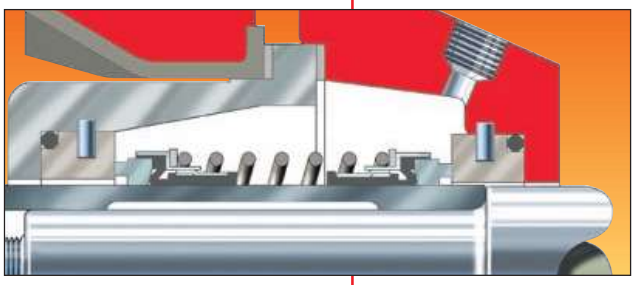
Metallic Single Component



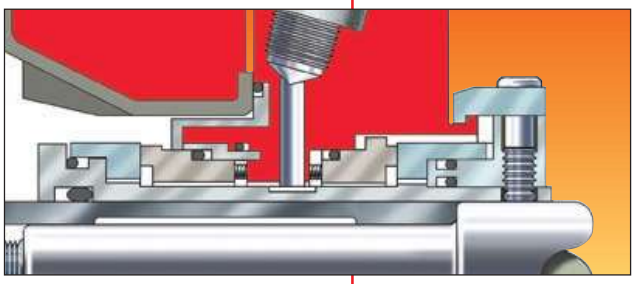
Double Component (Collar Drive)



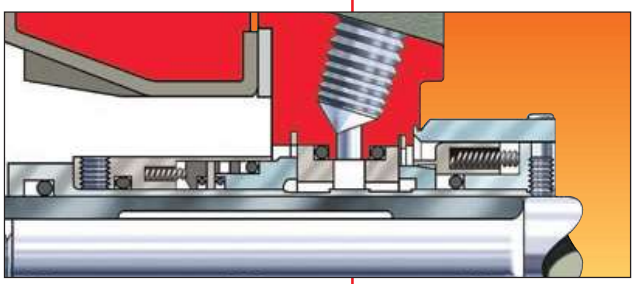
Double Component (Friction Drive)



Non-Metallic Double Cartridge



Metallic Double Cartridge



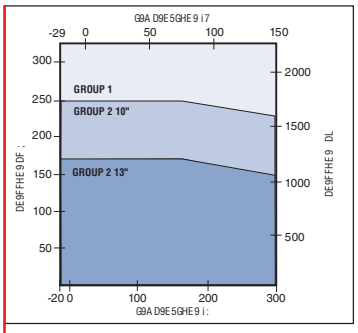
PolyChem S-Series

Performance Curves

PolyChem S-Series sealed pumps cover a broad hydraulic range.

Nineteen Sizes

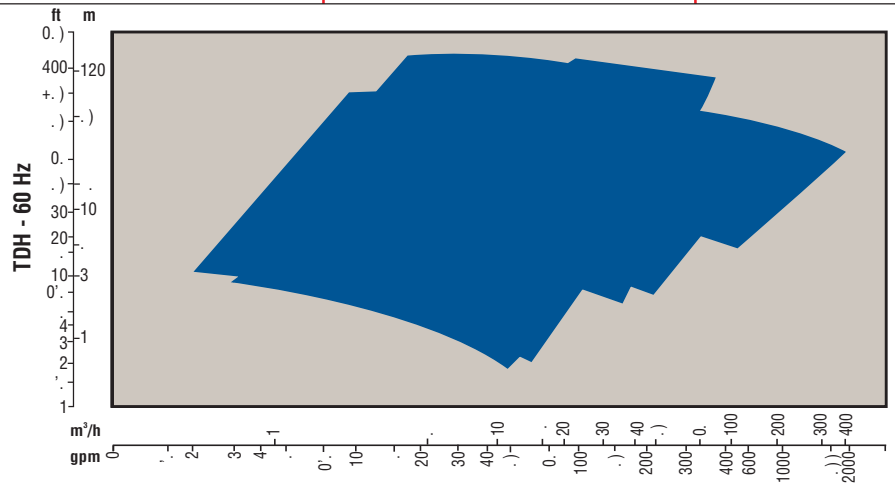
g: - ; 5FA9
gFTc / ; + 5FA9
g GS PP , ; 5 FC
gFTc / ; 6(7 FC



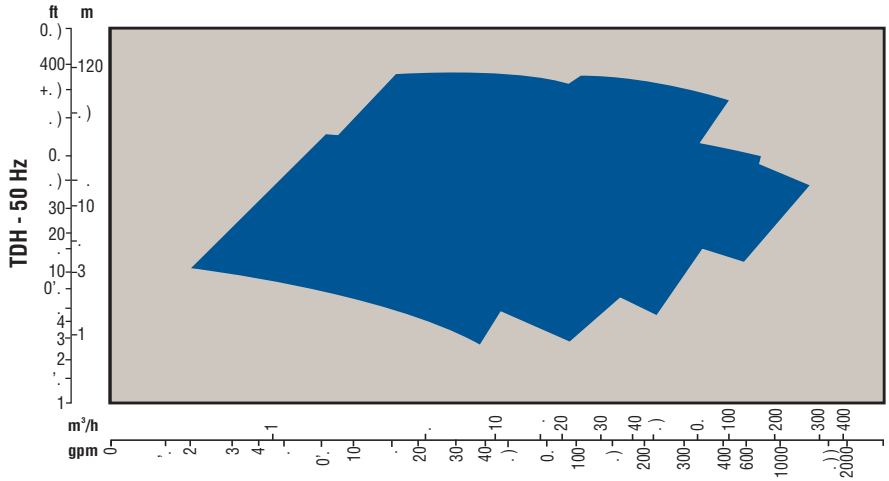
Operating Parameters

g: Wb -+) X 3/h
1.) R X
g PLO -. X
(480 ft)
g D P P 0 ML
+.) T
g GPX P L P X
-30°C (-20°F) to
.)i7 ,))i:

S-Series ANSI Range Chart



S-Series ISO Range Chart



FLOWSERVE

PolyChem GRP Engineered Composite ANSI Pumps

The Low-Cost, Long-Term Solution to Corrosive Services

GSP D W7SPX ; ED P RT PP PO composite pump is the result of intensive product development and installation experience. A LOP PX T X 8P LVL P® vinyl ester resin reinforced with randomly oriented glass fibers, SP ; ED X T OP TR PO

5FA 9 60, '. A L OL O chemical process pumps.

J TS N T P T L NP superior to many more expensive, highly alloyed metals and with costs closer to that of ductile iron, SP D W7SPX ; ED SL aP to be the low-cost, long-term solution in acidic and chloride-rich applications.

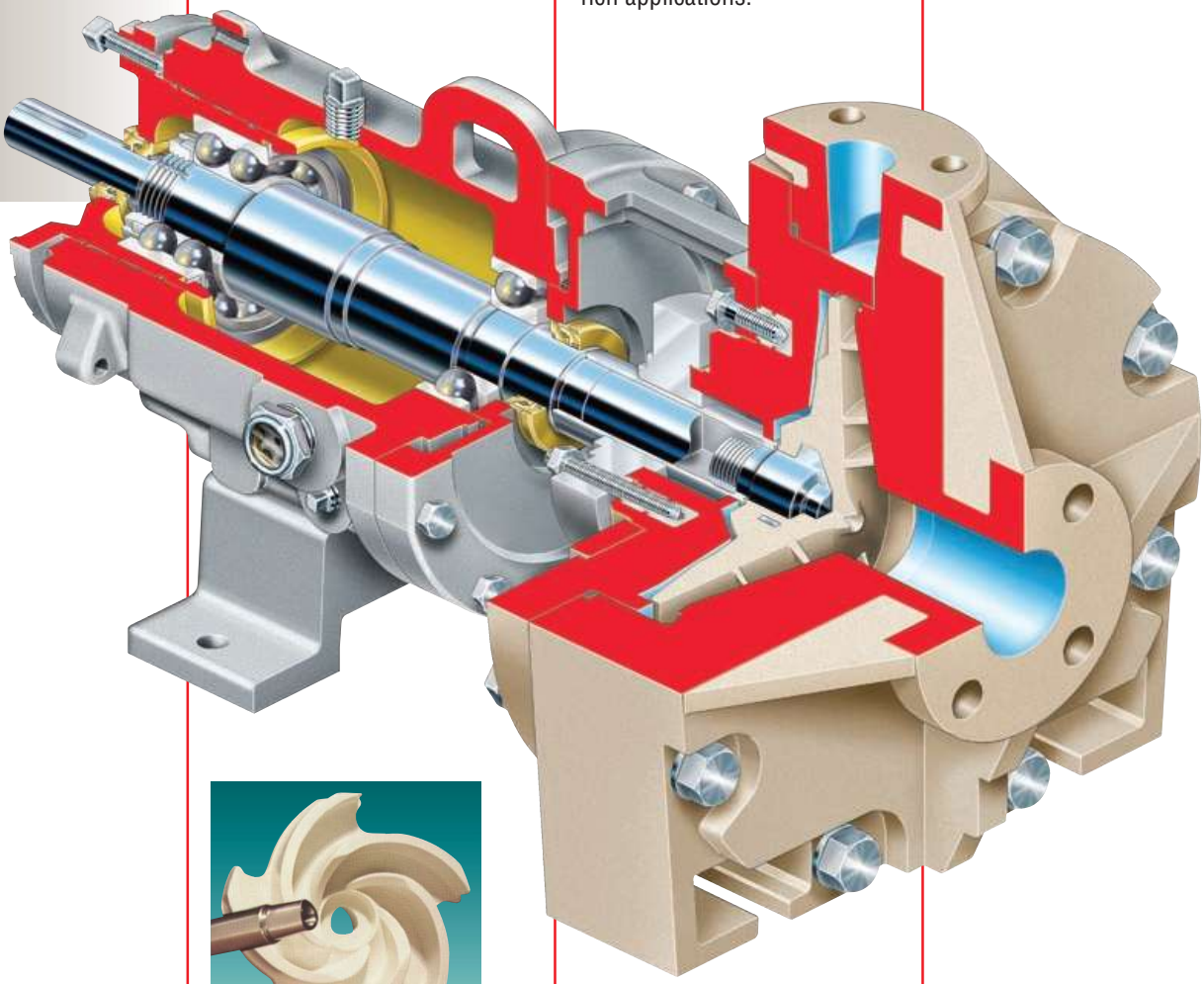
Operating Parameters

g : Wb +) .) X ^{3}/h (9000 gpm)

g PLO .) X .))

g D P P 0 ML +.) T

g GPX P L P X -. i7 .)i: +)i7 +.)i:



Engineered Composite Material Construction *offers cost-effective corrosion resistance and is light-weight, non-galling, non-sparking, and non-conductive.*

Tapered Polygon Impeller Drive *provides exceptional torque carrying ability and unequaled shear strength for durability.*

Externally Adjustable, Semi-Open Impeller *is inherently balanced and provides consistently high efficiencies.*

Centerline Discharge Casing *with integrally molded flanges is fully gusseted for optimal nozzle loading capabilities.*

Standard Mark 3 Power End *with double lip oil seals and top vent breather.*

Low-Cost, Non-Metallic Replaceable Sleeve *mitigates shaft corrosion.*

Radial Fit and Square O-Rings *for the casing and impeller, respectively, protect the shaft from corrosive liquids.*

Flexible Spacer-Type Couplings *permit disassembly without disturbing the piping, driver or alignment.*

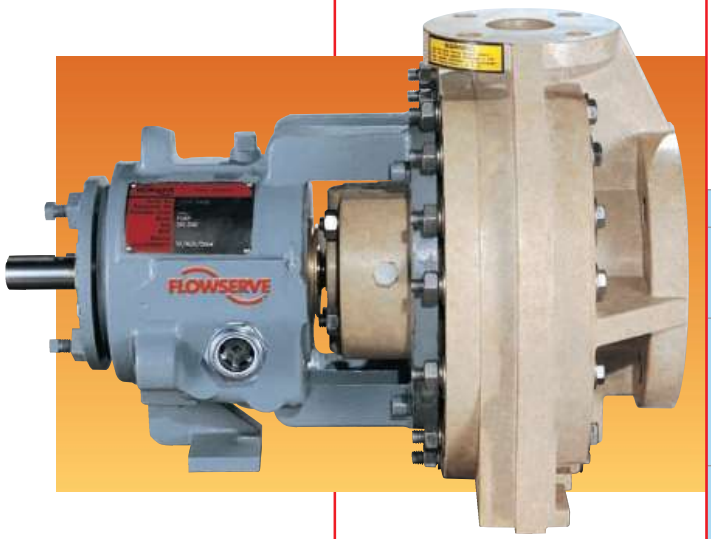
® Derakane is a registered trademark of Dow Chemical Company

Self-Priming Option
A LOP L TPL d glass fiber reinforced thermosetting epoxy resin, the self-priming pump is MTW 5FA960,' OTX P T ' TL PcNPW lent choice for corrosive applications such as:
g O TLW X
g J L P PL X P pond transfer
g GL V NL WLOT R
g T LT

Operating Parameters
g :Wb . X 3/h .)) R X
g PLO . X ,0.

Compression Molded
; ED bP P ON X P LP compression molded at high temperatures and pressures to evenly distribute reinforcing fibers. This results in:
g FX S SdO L VWN L LRP
g TRS P TNP NTP
g bP PL T R N
g TRS N LW P R S

Stuffing Box Options
Four stuffing boxes are available to maximize seal or packing life.
g F L OL O M c b TS NWX PO seat gland accepts all types of single outside seals
g F L OL O M c b TS b TS W R gland accepts all types of inside seals, including single and double seals
g DLNVT R M c Pc P T
g GL P M P M c



ANSI 3A Power End is so advanced it carries a lifetime warranty.
g 7P TTPO NWRL X L PX MW
g (F PLW I 6KK N LN I L 6WNV 6PL T R W VPP WMTNL in and contaminants out
g A LR P TN O LT WR
g G aP P WMPO b TS WR
g MTNL T T

Typical GRP Seal Arrangements

Seal Types	Unbalanced	Balanced
Single outside with clamped seats	A WT W T R C T R X PO	—
	6PWb C T R X PO	—
Double	Friction drive	—
	A WT W T R C T R X PO	—
	A WT W T R PTFE mounted	—
Single inside with flexible seats	Single spring, elastomer bellows	
	FT RW T R C T R X PO	
	A WT W T R DG:9 X PO	
		A P LWMPWb C T R X PO
Single inside, cartridge	A WT W T R C T R X PO	
		A P LWMPWb C T R X PO
Double/tandem, cartridge	A WT W T R C T R X PO	
		A P LWMPWb C T R X PO

PolyChem VGRP Engineered Composite ANSI Pumps

The PolyChem VGRP is a fiberglass, vertical immersion, open impeller pump designed for corrosive wet pit applications in waste handling and chemical transfer.

VGRP Operating Parameters

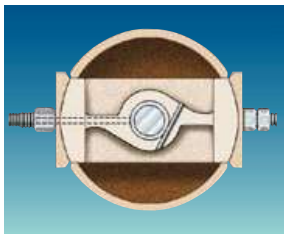
- g : Wb . / . X 3/h +.)) R X
- g PLO) X , .)
- g D P P 0 ML +.) T
- g GPX P L P X ,) i 7 (-20°F) to 90°C (200°F)
- g DT OP S -'+. X - 4 / '0. X ++ b TS T LW tailpipe

Unique Single-Piece Fiberglass Column *is generously sized for strength and rigidity. Available in 0.6 m (2 ft) to 4.3 m (14 ft) lengths.*

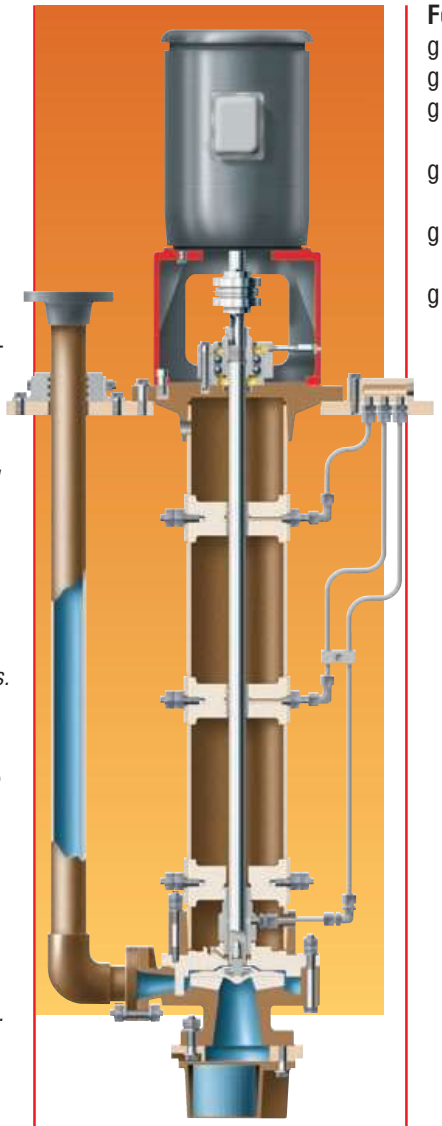
Shaft and Bearing System *operates well below the first critical speed, resulting in less shaft whip and longer bearing life. Meets API bearing span requirements.*

Bearings *can be lubricated by external flush, or self-lubricated by the pump fluid.*

Patented Pull-Out Bearing Retainer *streamlines maintenance.*



Pullout Bearing Retainer



Features

- g 7 : LNP B9A 5 X
- g 5D MPL T R LNT R
- g PR LWO MAY b thrust bearings
- g : TMP RW mounting plate
- g FT RWY N PN T for bearing lubrication
- g I L PLWO S bearing

Options

- g FTX WRc L O O WRc pit covers
- g : WL b TNSP
- g , / FF 5WWd +) L PWWd® or titanium alloy shafts
- g DL TN W P P L L dirty product lubrication
- g B X P LWXN WM TNL T WP
- g GL TWT P

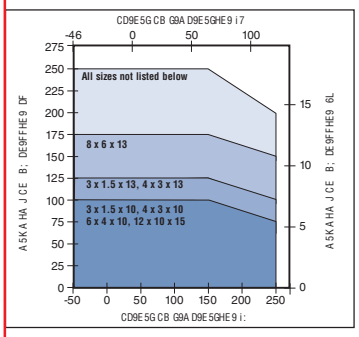
j L PWWd T L PRT P PO LOPX L V Ld P P L T LW N

PolyChem GRP and VGRP Performance Curves

GRP
Sixteen Sizes

g: - ;
gBTP 2 ; +
gGb + ; ,
gC P ; -

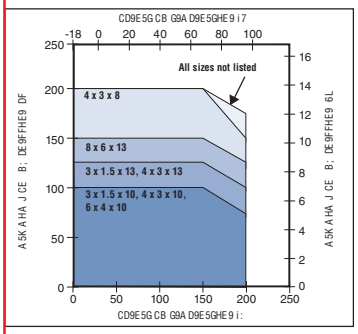
GRP



VGRP
Fourteen Sizes

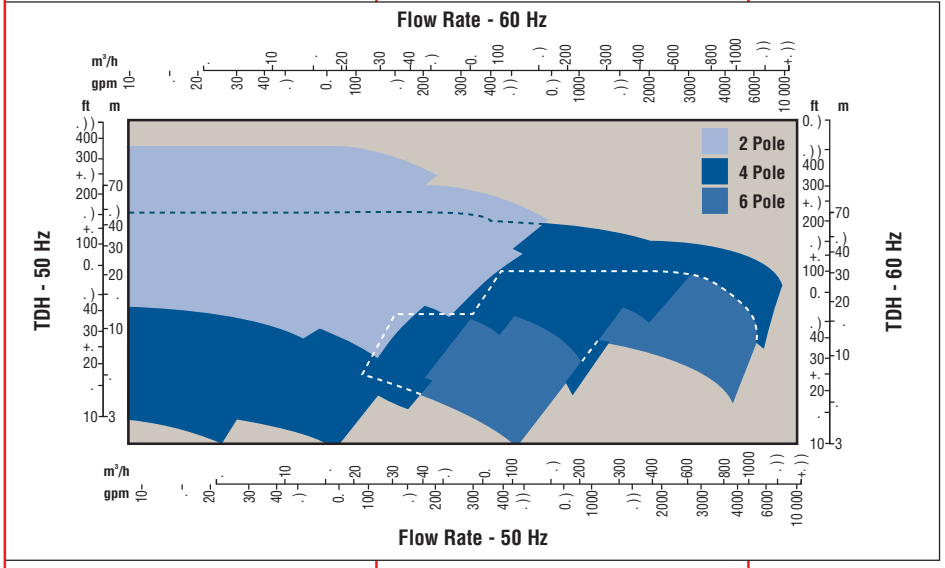
g: - ;
gBTP 2 ; +
gC P ; ,

VGRP

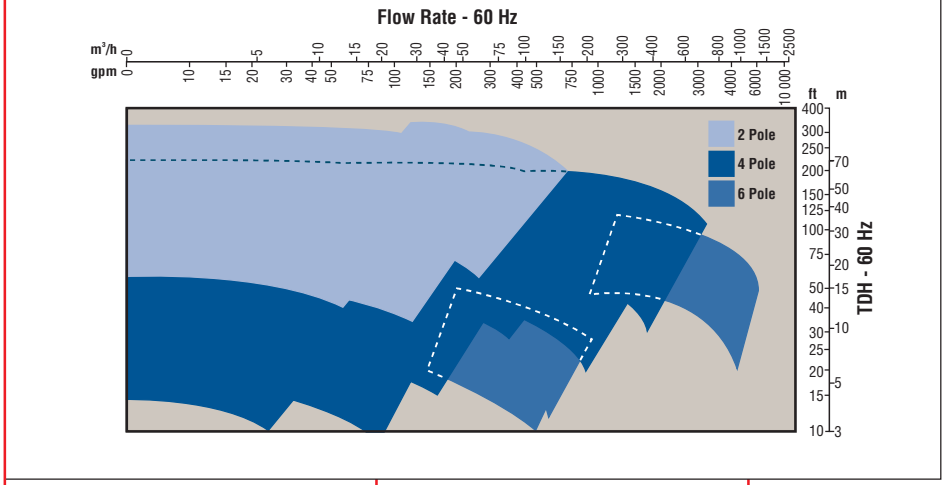


GRP Operating Parameters

g:Wb +).) X3/h
(9000 gpm)
g PLO .) X
.))
gDP P 0ML
+.) T
gGPX PL P X
-.i7 .)i:
+)i7 +.)i:



VGRP Range Chart

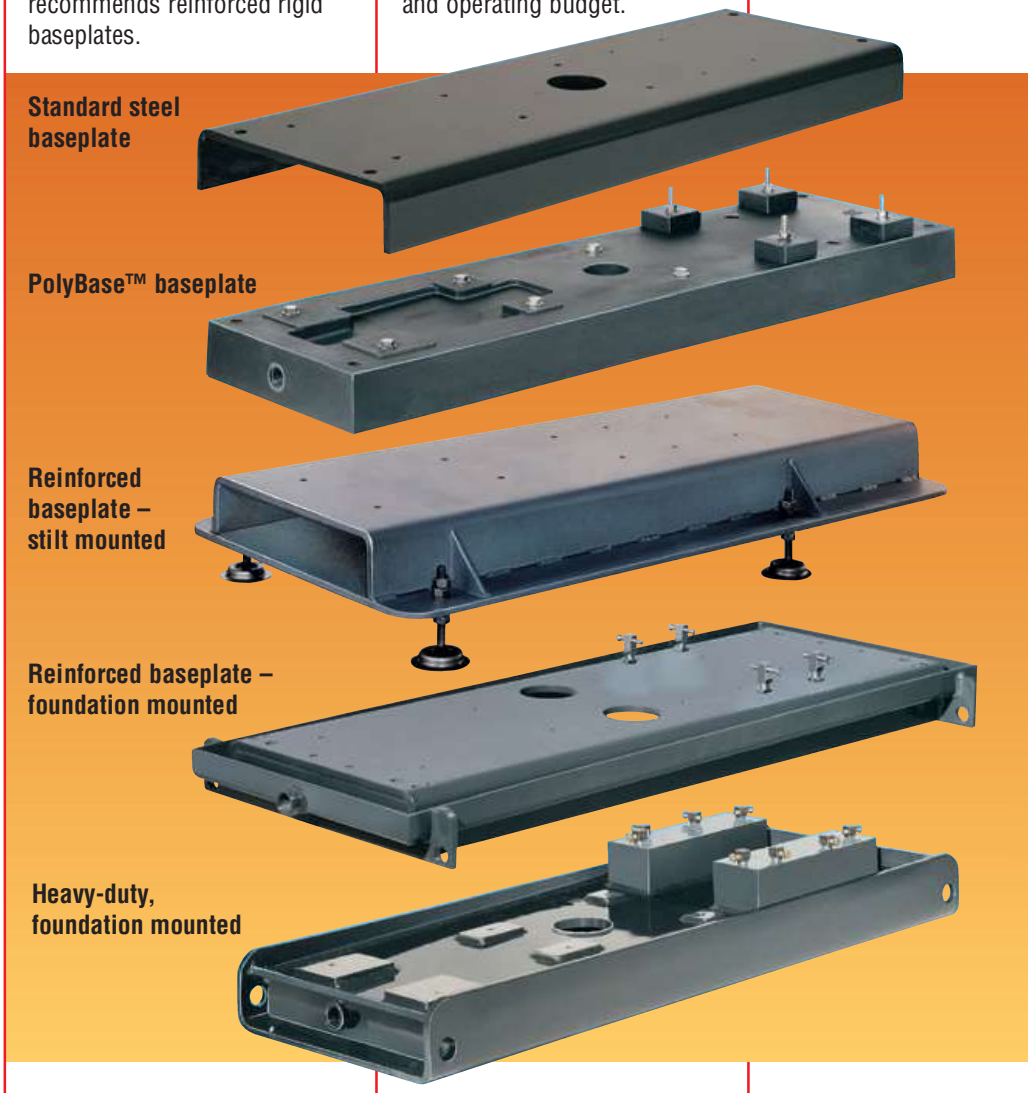


FLOWSERVE

Pre-Engineered Baseplate Designs

Extend Pump Life and Reduce Maintenance Costs
The Flowserve family of pre-engineered baseplates further extends pump life by reducing internal stress and vibrations. That is why Flowserve recommends reinforced rigid baseplates.

Flowserve offers a broad range of metallic and non-metallic, grout and stilt mounted designs with standard options. This provides flexibility in choosing the baseplate that best meets application needs and operating budget.



Baseplate Materials
- F PPW
- E WRO PPW
- F LT VR PPW
- D VX P N NPP

Baseplate Options
- F TWX TR
- F TRX TR
- 8 LT TX L LO connections
- D VN PPX
- A PP LOU P
- 9L ST R T

Polybase – Polymer Concrete Baseplate
- b T LWRO N
- F PT aTML T dampening
- 7 T PT L
- F PT PT L NP twisting or diaphragming
- C T LWL NS ML T and grout holes
- P X alternate equipment configuration requirements

FLOWSERVE

Polyshield Polymer Baseplate and Foundation System

The Polyshield Baseplate and Foundation System is the superior solution for cost effective, high performance X T LWWT ' P complete unit it combines a traditional baseplate with a formed concrete foundation for pump-drive sets.

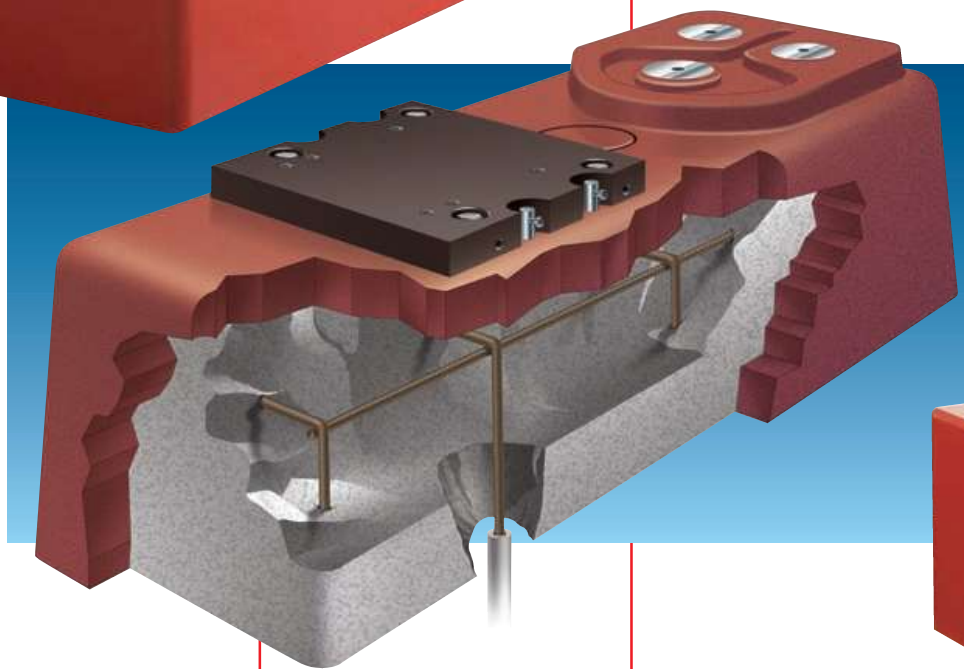
Benefits of Selecting the Polyshield Baseplate and Foundation System

g GTX P LaT R
  – Quick installation time
  f EPO NP TX P L X PNPT L UM TP commissioning
g 7 LaT R
  f EPO NP LWT LWRO N
  – Dramatically minimizes field rework necessary to meet specifications
g 6P P P XL NP L O reliability
  – Extended pump life
  f EPO NPO aTML T
  f X aPO N T resistance
g FT RW N P N aP TP NP
  f C P TPNP N NT
  – Flat mounting surfaces
  f C P TPNP X mounting block

The Polyshield baseplate and foundation system can be combined with numerous pump designs, including:

g FC L O 5FA 9 X P LWTN and non-metallic
g Foot- and frame-mounted general industrial
g : X PO between bearing
g FC , 0) 2(5D /)

Please see Bulletin PS-90-2 for more complete product information



FLOWSERVE

Pump Accessories

ClearGuard and Durcoshield Non-Metallic Safety Guards
ClearGuard and DurcoShield pump guards permit visual inspection of coupling and seal areas, respectively, while protecting personnel from potential safety hazards of rotating parts. Constructed of durable and transparent polycarbonate with HI WRS T STMT SPd L P designed to withstand tough chemical processing environments.

DurcoShield splash and shaft guard is a one-piece shield that envelops the open areas between the bearing housing and casing. Suitable for L WNL T .)i7 ,))i: DurcoShield protects from:
g D NP WTD Ld
g E LTR SL L O PLW components

ClearGuard meets machinery guard safety R TOPWP ' B ST R WV RP than 6 mm (0.24 in) in diameter can enter the shell. Furthermore, the ability to inspect the coupling through ClearGuard can provide early warning of deteriorating or malfunctioning components.

The KW941 Pump Power Monitor monitors and displays actual power to the pump, offering simultaneous protection from underload and overload operating conditions.

GSP J 2- SPW PWK T L P costly downtime and expensive pump repairs caused by:
g 8 d T R
g D X aP WLO
g 7LaTL T
g 6WNWPO WP
g 7W PO NT discharge valves
g 9cNP TaP b PL MMT R

PROS+
DECF **pr**oposal and **o**rder **s**ystem is the most comprehensive and user friendly pump selection program in the industry. This software ensures cor-rect sizing and selection of Flowserve pumps to best suit your process application needs.

Pros+ is available from your local sales representative or on-line at www.flowserve.com.

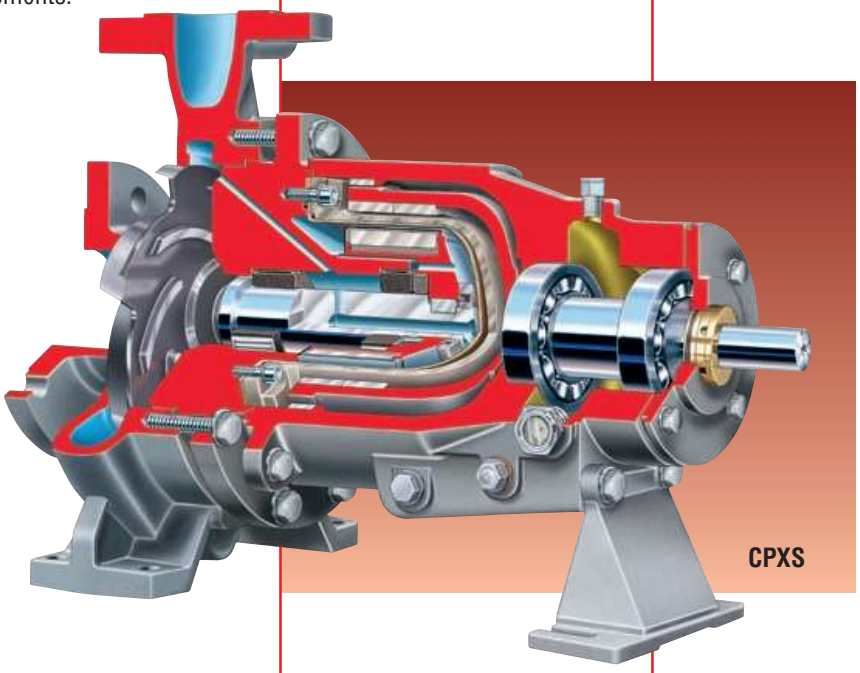
CPXS and Guardian Magnetic Drive Pumps

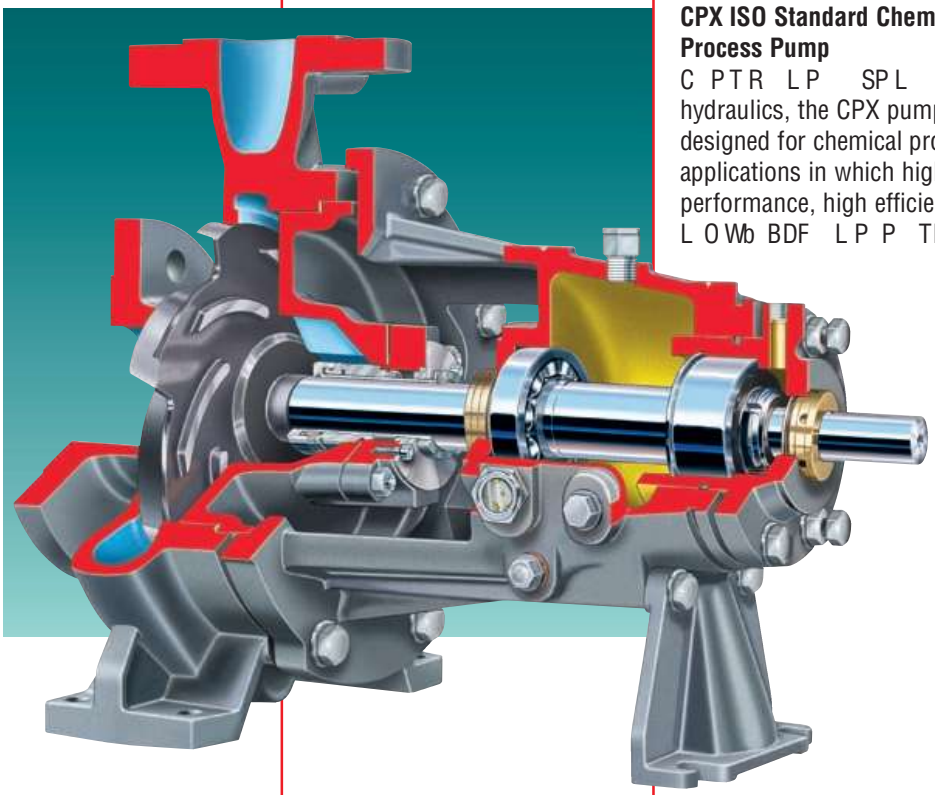
CPX ISO Chemical Process Pumps

CPXS and Guardian® Magnetically Driven Pumps
Flowserve offers highly reliable magnetically driven pumps M S5FA9L O FC PNTF-NL T 'GSP7DKF FC L O ; L OTL 5FA9 X LP ideal for emission free service requirements.

Operating Parameters
g:Wb ,0. X3/h
/.) R X
g PLO +. X 0))
g TRS PX PL P OP TR
+2)i7 ..)i:
gDP P +. ML
,/. T

Please see Bulletin PS-10-14 for more information on the Guardian and Bulletin PS-10-30 for more information on the CPXS.





CPX ISO Standard Chemical Process Pump
C PTR LP SPL hydraulics, the CPX pump is designed for chemical process applications in which high performance, high efficiency L OWb BDF LP P TPO'

7 XTR FC +1.1 OTX P T LWL O FC . 22 OP TR NTPTL SP CPX is CE marked and compliant with applicable European directives, such as ATEX.

Operating Parameters
g:Wb -)) X3/h
(6160 gpm)
g PLO ++) X
(720 ft)
gGPX PL P X
-80°C (-110°F)
,.)i7 //)i:
gDP P +. ML
,/. T

Please see Bulletin PS-10-30 for more complete product information.

FLOWSERVE

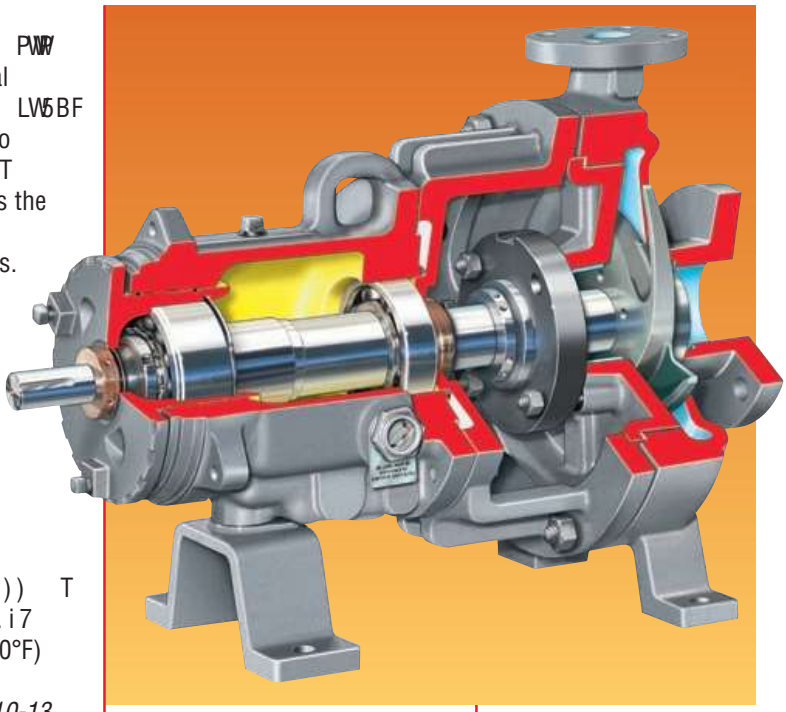
Durco Mark 3 ASME Standard and In-Line Pumps

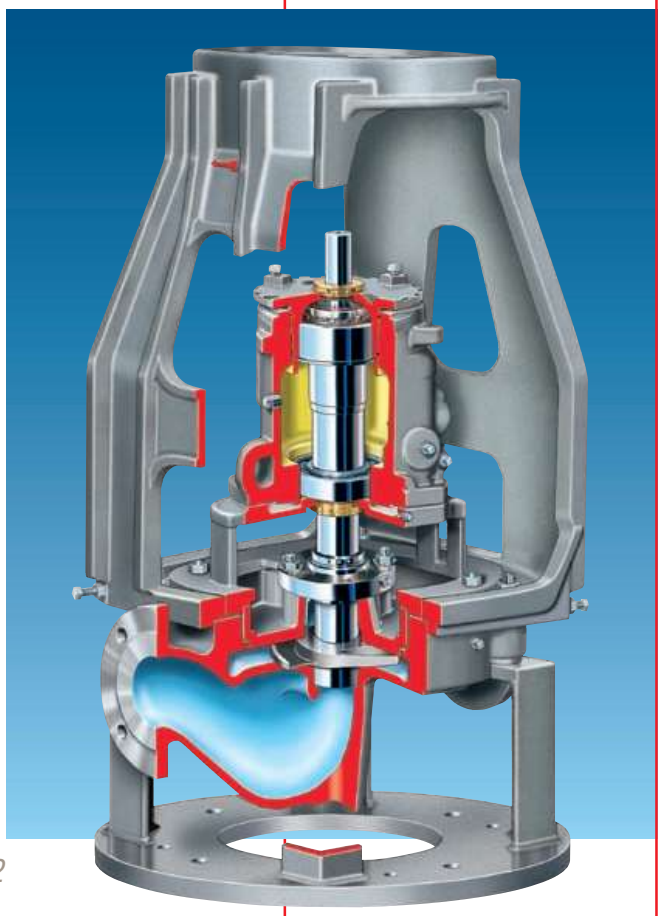
Durco Mark 3
J TS T PaP PaL P TX PWW SealSentry family of seal NSLX MP L O SP T LW5BF 3A power end, the Durco A L V, F L OL O X T recognized worldwide as the PX TP LX P T 5FA 9 chemical process pumps.

Thirty Sizes
g F PaP 0 ;
g F Tc PP / ; +
g F PaP 0 ; ,

Operating Parameters
g : Wb /1) X 3/h (7400 gpm)
g PLO + . X 0))
g D P P +0 ML -)) T
g GPX P L P X 0. i7 (-100°F) to 370°C (700°F)

Please see Bulletin PS-10-13 for more complete product information.





Durco Mark 3 In-Line
8P TR PO PcNPPO 5FA 9 60, '+ NTP TL SP A L V, T P process pump offers improved reliability and extended pump WP' GSP LNP LaT R A L V, T P SL M LO L WWL T in chemical and hydrocarbon processing as well as in general T O d' J TS T b T OP P O ent bearing housing and rigid C-flange style motor adapter, the A L V, T P PX LT P the most reliable process pump designs available.

Operating Parameters
g : Wb , 0) X 3/h (1630 gpm)
g PLO +,) X 0/)
g D P P +- ML , .) T
g GPX P L P , 0) i7 (700°F)

Please see Bulletin PS-10-15 for more complete product information.

FLOWSERVE

Global Engineered Services and Support

Total Cost Reduction

Asset Management

Product Life Cycle

Performance Re-rates

Site Diagnostics

Repair Services

Energy Management

Spare Parts

Maintenance Contracts

Materials Upgrades

Turnkey Services

Field Repairs

Installation

Project Supervision

Commissioning

Equipment Upgrades

Condition Monitoring

Systems Analysis

Field Machining

Service Dedication
Flowserve Engineered Services is focused on providing customers with uncompromising service and support, where and when needed. Dedicated to delivering the highest quality support, Engineered Services integrates its extensive pump and materials engineering knowledge with creative service solutions. Engineered Services fully understands the business challenges facing customers and is prepared to manage solutions to succeed as a team.

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.
g CTWL ORL O NT
g dO NL M NP TR
g 7SPX TNLW NP TR
g J L P P NP
g D bP RP P L T
g B NWRL
g A T T R L O X T P LW NP TR
g D W L O L P
g ; P P LWT O d

Engineered Services is dedicated to maximizing equipment performance and providing reliability-centered maintenance programs for pumps and related equipment, regardless of manu- LN P' H T R SP:WbF L h asset management software, Engineered Services tracks performance and supports 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 NP LWd' J SP SP user needs involve on-site technical assistance M LOP UPN planning with full turnkey responsibility, Flowserve Engineered Services will deliver professional, reliable results.

Flowserve… Supporting Our Customers With The World's Leading Pump Brands

USA and Canada
Flowserve Corporation
.+ . B SC7 6VaO'
Suite 2300
aT R GPcL 0.) , 2 . -+ HF5
GPWY S P3 2, 0 12) . 1, 2

Europe, Middle East, Africa
Flowserve Corporation
; PM b LRP T
J P M PV , 2 .
4822 ZX Breda
BP SP W O
GPWY S P3, 0/ .) + 12+)

Latin America
Flowserve Corporation
A L k E O TR Pe - - /)
6 / - - 7; B I TN TL FL : P L O
Buenos Aires, Argentina
GPWY S P3. - -)) / 10))
GPWY Lc3. - -0 - /)

Asia Pacific
Flowserve Pte. Ltd.
10 Tuas Loop
FT RL P / , 0, - .
GPWY S P3/ . / 00)/))
GPWY Lc3/ . / 002 - /) 0

Your local Flowserve representative:

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официальный дистрибьютор
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www.promhimtech.ru
Тел. 8 800 250-01-54
e-mail: zakaz@promhimtech.ru

D T. PO T H'F'5'
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