

CHEMSTEEL®

BY OBERDORFER PUMPS

A Subsidiary of Thomas Industries Inc.

Basic Pump Series							
SEAL-LESS MAG-DRIVE			SEALED		Flow Rate Code	Max Flow (0 psi) GPM @ 1725 RPM	
Code	Metal	RYTON®	Code	RYTON®			
RM1	X		R1		02	0.5	
	X					03	1.5
	X					04	2
	X					06	3
SM2		X	S2	X	03	1.5	
		X		X		04	2
		X		X		05	2.8
	X	X		X		07	4
	X	X		X		10	5.6
SM4	X	X	S4	X	14	8	
						17	10
						17	10
SM9	X		S9	X	17	10	
	X			X		23	15
	X			X		30	20
	X			X		35	23
	X			X		46	30

Housing and Shaft Material

Code	Housing Material	Shaft Material
1	316 Stainless Steel	316 Stainless Steel
3	Alloy C	Alloy C
6	RYTON®	316 Stainless Steel
9	RYTON®	Alloy C

Gear Material Combination

Code	Drive	Idle
1	RYTON®	RYTON®
2	316 SS	PEEK®
3	PEEK®	PEEK®
4	Alloy C	Alloy C
5	Alloy C	TEFLON®
6	W88	W88
7	TEFLON®	TEFLON®
8	W88	TEFLON®
9	Alloy C	PEEK®
A	Alloy C	RYTON®
B	316 SS	RYTON®
C	W88	RYTON®
E	316 SS	316 SS
F	316 SS	TEFLON®

Bearing Material

Code	Material
C	Carbon Graphite
P	TEFLON®
J	Rulon®

Shaft Seal

Code	Style			Materials			
	Design	Seals	Case	Rotary Head Face	Elastomer	Stationary Head Face	O-Ring
B	Bellows	Single	316	Carbon	VITON®	Ceramic	VITON®
J	Bellows	Single	316	Silicon Carbide	EPDM	Silicon Carbide	EPDM
H	Bellows	Double	316	Carbon	VITON®	Ceramic	VITON®
Z	Bellows	Single	316	Silicon Carbide	VITON®	Silicon Carbide	VITON®
A	Wedge	Single	316	Carbon	TEFLON®	Ceramic	KALREZ®
C	Wedge	Single	316	Carbon	TEFLON®	Silicon Carbide	KALREZ®
D	Wedge	Single	Alloy C	Carbon	TEFLON®	Ceramic	KALREZ®
F	Wedge	Single	Alloy C	Carbon	TEFLON®	Silicon Carbide	KALREZ®
V	Wedge	Single	Alloy C	Silicon Carbide	TEFLON®	Silicon Carbide	KALREZ®
G	Wedge	Double	316	Carbon	TEFLON®	Silicon Carbide	KALREZ®
L	Two Lip Seals		304	VITON® backed by TEFLON®			
N	Packing			TEFLON® with Graphite			
P	Packing			GRAFOIL®			
Q	Packing			TEFLON®			
R	Packing with Lantern Ring			TEFLON® with Graphite			
S	Packing with Lantern Ring			GRAFOIL®			
T	Packing with Lantern Ring			TEFLON®			
M	MAG-COUPLED			Neodymium Iron			
W	MAG-COUPLED			Samarium Cobalt			

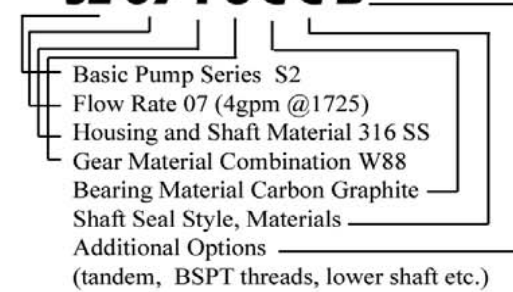
Additional Options

Code	Option
C1 through C7	Factory Installed Close Coupled Adapter
T1 through T5	Non-Metallic Gear - Temperature Trim
H	Tandem - High Flow
D	Tandem - Duplex
B	Bearing Flush Ports
E	BSPT Threads
L	Lower Shaft Drive
XX	Specials - Consult Factory
M1-M7	Factory Installed Close Coupled Adapter - Mag-Coupled
R	Ryton Containment Can

Mag-Drive

EXAMPLE:

S2 07 1 6 C C B



- metallic or non-metallic
- seal-less mag-drive
- 17 shaft seal options
- 1/2 to 30 GPM
- helical gears



TEFLON® is a registered trademark of DuPont, an equivalent fluoropolymer may be used.
 RYTON® is a registered trademark of Chevron Phillips Chemical an equivalent polyphenylenesulfide may be used.
 PEEK® is a registered trademark of Victrex, an equivalent polyetheretherketone may be used.
 GRAFOIL® is a registered trademark of UCAR Carbon Technology, an equivalent may be used.
 VITON® is a registered trademark of DuPont Dow Elastomers, an equivalent fluoroelastomer may be used.
 KALREZ® is a registered trademark of DuPont Dow Elastomers, an equivalent perfluoroelastomer may be used.
 RULON® is a registered trademark of Saint-Gobain, an equivalent compounded PTFE based material may be used.



BI-DIRECTIONAL OPERATION

- For applications requiring reversing flow

BODY/COVER STATIC O-RINGS

- Teflon® encapsulating silicone for sealing with a memory

COMBINED BEARING & WEARPLATE

- Full size bearings match the gear diameter and eliminate the need for separate wear plates
- Gear trimming for desired flow rates
- Made of carbon-graphite, Teflon® or Rulon®

SEAL HOUSINGS

- Ported for flush, drain, barrier fluid and lantern packing lubrication
- Access to seals without removal of cover

UPPER DRIVE STANDARD

- Lends itself to in-line pump seal maintenance without leakage of trapped chemicals
- Easily converted to a lower drive configuration

HELICAL GEARS

- Noise reduction up to 10 db

INTERFACING TO WORLD STANDARDS

- NPT & BSPT porting
- Metric pump hardware
- Close-coupled adapters for NEMA and IEC standard motor frame sizes

DYNAMIC SEAL OPTIONS INCLUDE

- Single or double mechanical wedge & bellows styles
- Standard compression packing
- Lantern Ring compression packing
- Lip seals

METALLIC & NON-METALLIC

- Wide range of capability
- Effective weight and cost selection

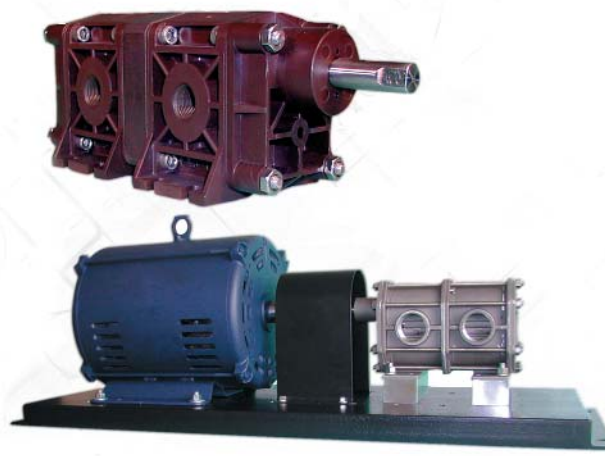
OPTIONAL BEARING FLUSH PORTS

- To extend bearing life when pumping non-lubricating fluids or fluids with a small degree of fine solids

EXTENDED LIFE

- Gear & bearing combinations of metallic and non-metallic wear surfaces
- Slotted bearings to lubricate shaft and gear surfaces
- Hydraulic porting to balance axial thrust and reduce wear

TANDEM PUMPS



- Tandem Pumps double the output flow for a single fluid.
- Or with isolation, handle different fluids in direct ratio to each other.

Chemsteel Magnetic Gear Pumps are engineered to safely handle hazardous, toxic, highly corrosive or explosive chemicals.

MAG DRIVE PUMPS

- Stainless Steel
- Alloy C
- Ryton

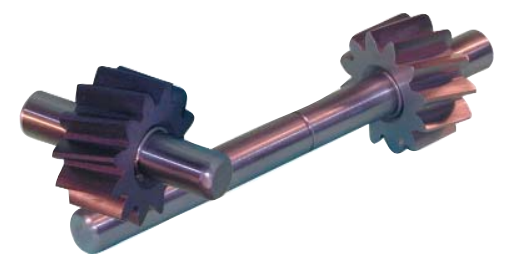
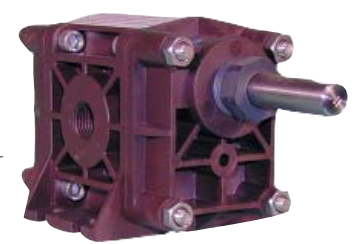
CONSTRUCTION

BODY

Ryton®, Polyphenylene Sulfide PPS, an engineered, reinforced plastic, offering a wide range of chemical compatibility, physical stability, and high temperature resistance (to 200° F).

Type 316, An all purpose austenitic stainless, excellent corrosion resistance; premium choice of all 300 series alloys.

Alloy C, Most used of exotic high/nickel alloys. Superior corrosion resistance for severe alkaline and acidic pumping applications.



GEARS
Precision machined metallic gears of 316SS, W88 stainless, and Alloy C. Also available in glass reinforced Teflon®, Ryton® and carbon reinforced PEEK.

SHAFTS

Shafts are 316 stainless steel or Alloy C.



BEARINGS
Full gear diameter carbon sleeve bearings for maximum chemical resistance and high load capacity. Teflon® or Rulon® plastic bearings available for product purity.

SEALS

Single and/or double mechanical seals are offered in elastomer bellows and Teflon® wedge designs. Bellows design available with Viton® or EPDM formed elastomer shaft seal. Wedge designs available with Teflon® wedge shaft seal and perfluoroelastomer stationary seat o-rings. Packing materials: Teflon®, Grafoil® and Teflon®/Graphite.



BODY/COVER O-RINGS

Teflon® encapsulating, silicone o-rings provide elastic memory to assure an effective long lasting seal. Avoiding the re-torquing required of pumps using pure TFE.

CLOSE COUPLED MAG DRIVE PUMPS

BODY Stainless Steel, Ryton and Alloy C constructions

GEARS Ryton®, Peek, 316 SS, W88, Alloy C and Teflon®

SHAFTS 316 SS or Alloy C

BEARINGS Carbon, Teflon® and Rulon®

- Neodymium or Samarium cobalt magnets
- Close Coupled Adapters for NEMA and IEC standard motor frame sizes
- 316 Stainless Steel, Ryton and Alloy C containment cans
- 1/2 to 30 GPM