CHEMSTEEL® Numbering System

Example:

S2 07 1 6 C C B

- Basic Pump Series S2
- Flow Rate 07 (4 gpm @ 1725)
- Housing and Shaft Material 316 SS
- Gear Material Combination W88
- Bearing Material Carbon Graphite
- Shaft Seal Style, Materials
- Additional Options
  (Tandem, BSPT threads, Lower shaft, etc.)

1. 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	.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
	X	X		X	14	8
SM4	X		S4		17	10
				X	17	10
SM9	X		S9	X	23	15
	X			X	30	20
	X			X	35	23
	X			X	46	30

2. 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

3. 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®
H	W88	PEEK®

4. Bearing Material

CODE	MATERIAL
C	Carbon Graphite Resin
P	TEFLON®
J	Rulon®

5. Shaft Seal

CODE	STYLE			MATERIAL			
				Rotary Head	Stationary Head		
	Design	Seals	Case	Face	Elastomer	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 Lips 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®			
W	MAG-COUPLED			Samarium Colbalt			

6. Additional Options

CODE	OPTION
C1 through C7	Factory Installed Close Coupled Adapter
T1 through T13	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

Mag-Drive

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.

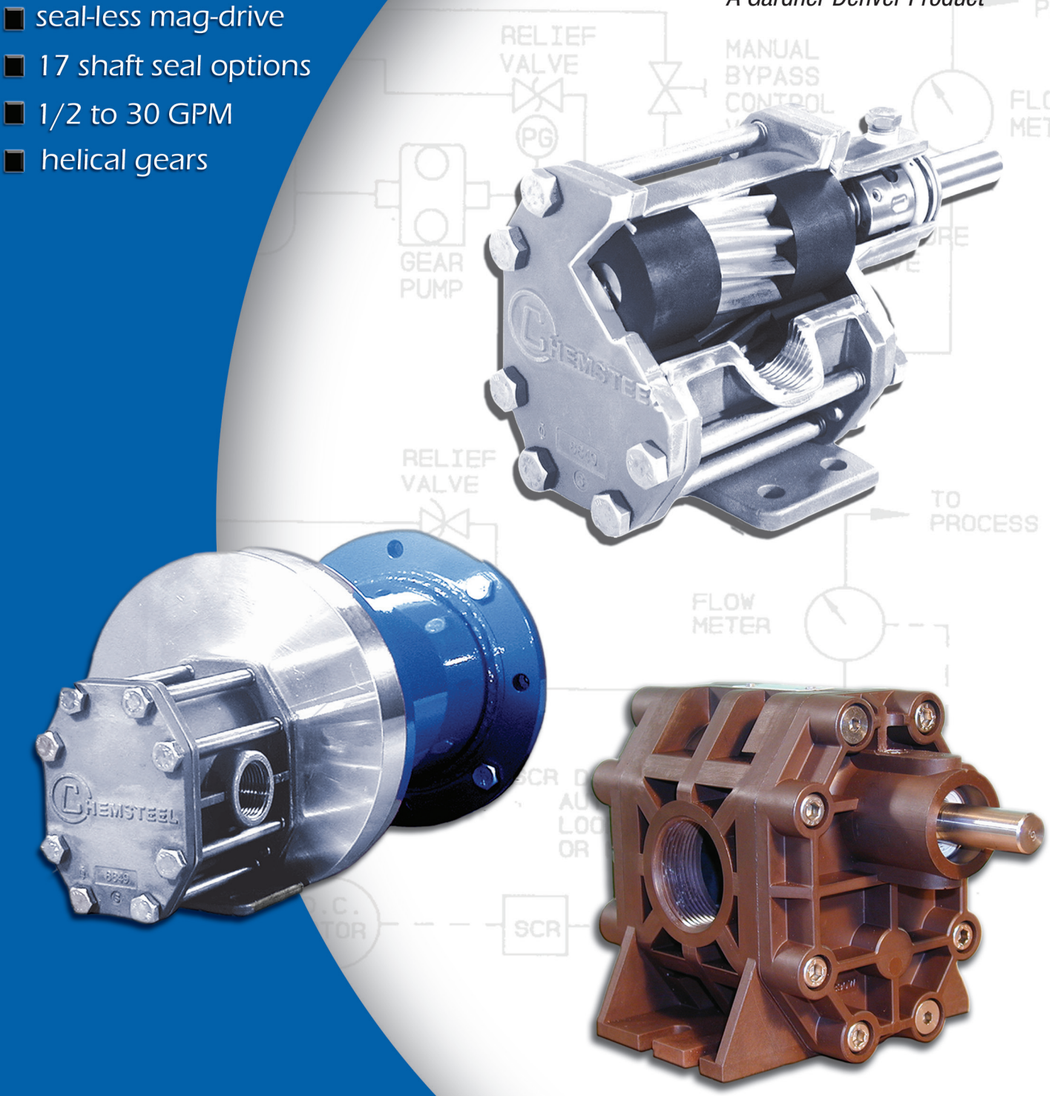
CHMbrochure.022013

CHEMSTEEL®

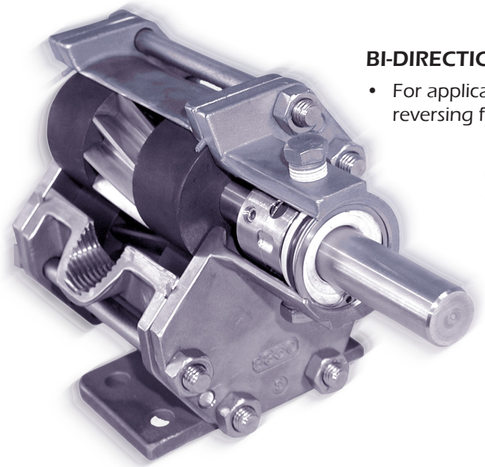
- metallic or non-metallic
- seal-less mag-drive
- 17 shaft seal options
- 1/2 to 30 GPM
- helical gears

OBERDORFER PUMPS

A Gardner Denver Product



CHEMSTEEL® by OBERDORFER PUMPS *A Gardner Denver Product*



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

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

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

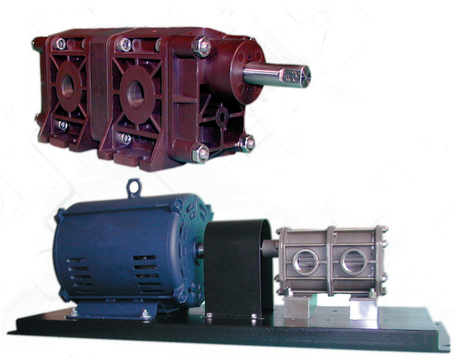
DYNAMIC SEAL OPTIONS INCLUDE

- 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

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®

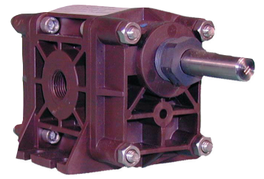
CONSTRUCTION

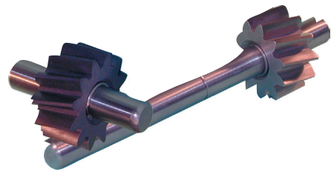
BODY

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.



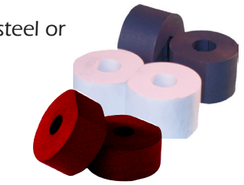


GEARS

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 316 SS, 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®

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