

**BI-DIRECTIONAL OPERATION**

- For applications requiring reversing flow

**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 or Teflon®

**HELICAL GEARS**

- Noise reduction up to 10 db

**INTERFACING TO WORLD STANDARDS**

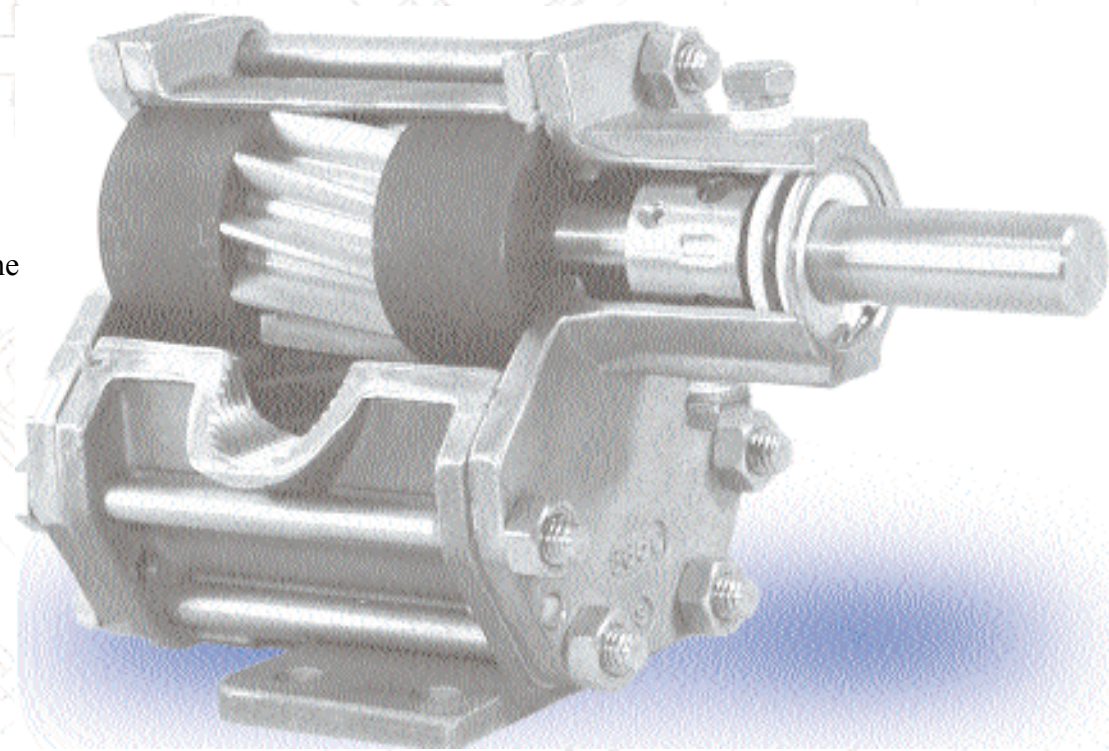
- NPT & BSPT porting
- Metric pump hardware
- Close-coupled adapters for NEMA and IEC standard motor frame sizes

**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 to reduce wear

**OPTIONAL BEARING FLUSH PORTS**

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



**METALLIC & NON-METALLIC**

- Wide range of capability
- Effective weight and cost selection

**BODY/COVER STATIC O-RINGS**

- Teflon® encapsulating silicone for sealing with a memory

**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

**DYNAMIC SEAL OPTIONS INCLUDE**

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

# 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.



**BEARINGS**

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



**SHAFTS**

Shafts are 316 stainless steel or Alloy C.

**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**

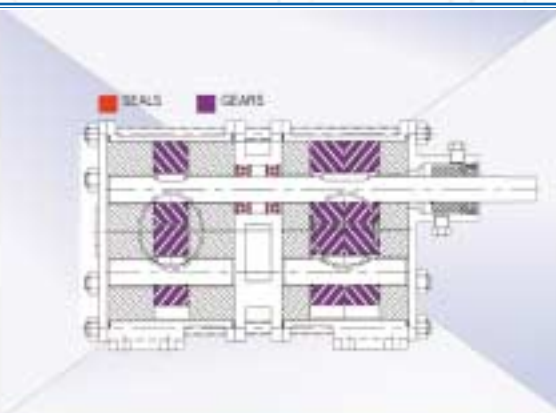
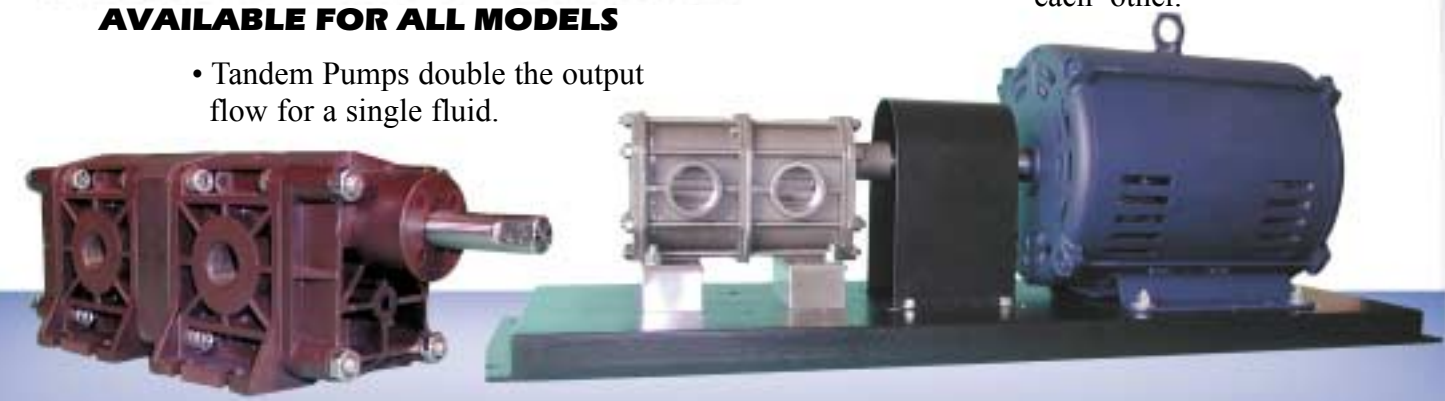
Teflon® encapsulating, silicone o-rings provide elastic memory to assure an effective long lasting seal. Avoiding the re-torquing required of pumps using pure TFE.

## TANDEM PUMPS

AVAILABLE FOR ALL MODELS

- Tandem Pumps double the output flow for a single fluid.

- Or with isolation, handle different fluids in direct ratio to each other.



Example: **S 20716CC-B**

S20716CC K ADD "K" TO BASE PUMP NUMBER FOR PARTS KIT.

Basic Pump Series

Code	Metal	RYTON®	Code	Max Flow (1 psi differential)	
				GPM @ 1725 RPM	SCFH
S1	S		83	1.5	
			84	2	
			85	3	
			86	4	
			87	5	
S4	S		88	7.5	
			89	10	
			90	15	
			91	20	
			92	25	
S8	S		93	30	
			94	40	
			95	50	
			96	60	
			97	70	

Housing and Shaft Material

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

Gear Material Combination

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

Bearing Material

Code	Material
C	Carbon Graphite
P	TEFLON®

Shaft Seal

Code	Style			Materials			
	Design	Seals	Case	Rotary Head	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®
A	Wedge	Single	316	Carbon	TEFLON®	Ceramic	KALREX®
C	Wedge	Single	316	Carbon	TEFLON®	Silicon Carbide	KALREX®
D	Wedge	Single	Alloy C	Carbon	TEFLON®	Ceramic	KALREX®
F	Wedge	Single	Alloy C	Carbon	TEFLON®	Silicon Carbide	KALREX®
G	Wedge	Double	316	Carbon	TEFLON®	Silicon Carbide	KALREX®
L	Two Lip Seals			VITON® backed by TEFLON®			
R	Packing			TEFLON® with Graphite			
P	Packing			GRAFOLUB			
Q	Packing			TEFLON®			
B	Packing with Labyrinth Ring			TEFLON® with Graphite			
S	Packing with Labyrinth Ring			GRAFOLUB			
T	Packing with Labyrinth Ring			TEFLON®			

Additional Options

Code	Option
CT through CR	Factory Installed Close Coupled Adapter
T1 through T5	NON-METALLIC GEAR - Temperature Tires
H	Tandem - High Flow
B	Tandem - Blastox
W	Bearing Flush Ports
R	RSPT Threads
L	Lower Shaft Drive
XX	Specials - Consult Factory

Notes: TEFLON® is a registered trademark of DuPont, an equivalent fluoropolymer may be used. RYTON® is a registered trademark of Celvolon-Phillips Chemical, an equivalent polyphenylene sulfide may be used. PEEK® is a registered trademark of Victrex, an equivalent polyetheretherketone may be used. GRAFOLUB is a trademark of UCAR Carbon Technology, an equivalent may be used. VITON® is a trademark of DuPont Dow Elastomers, an equivalent fluorocarbon may be used. KALREX® is a trademark of DuPont Dow Elastomers, an equivalent perfluoroelastomer may be used.

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# CHEMSTEEL®

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