

ViscoTwin

The Most Versatile Sanitary Pump



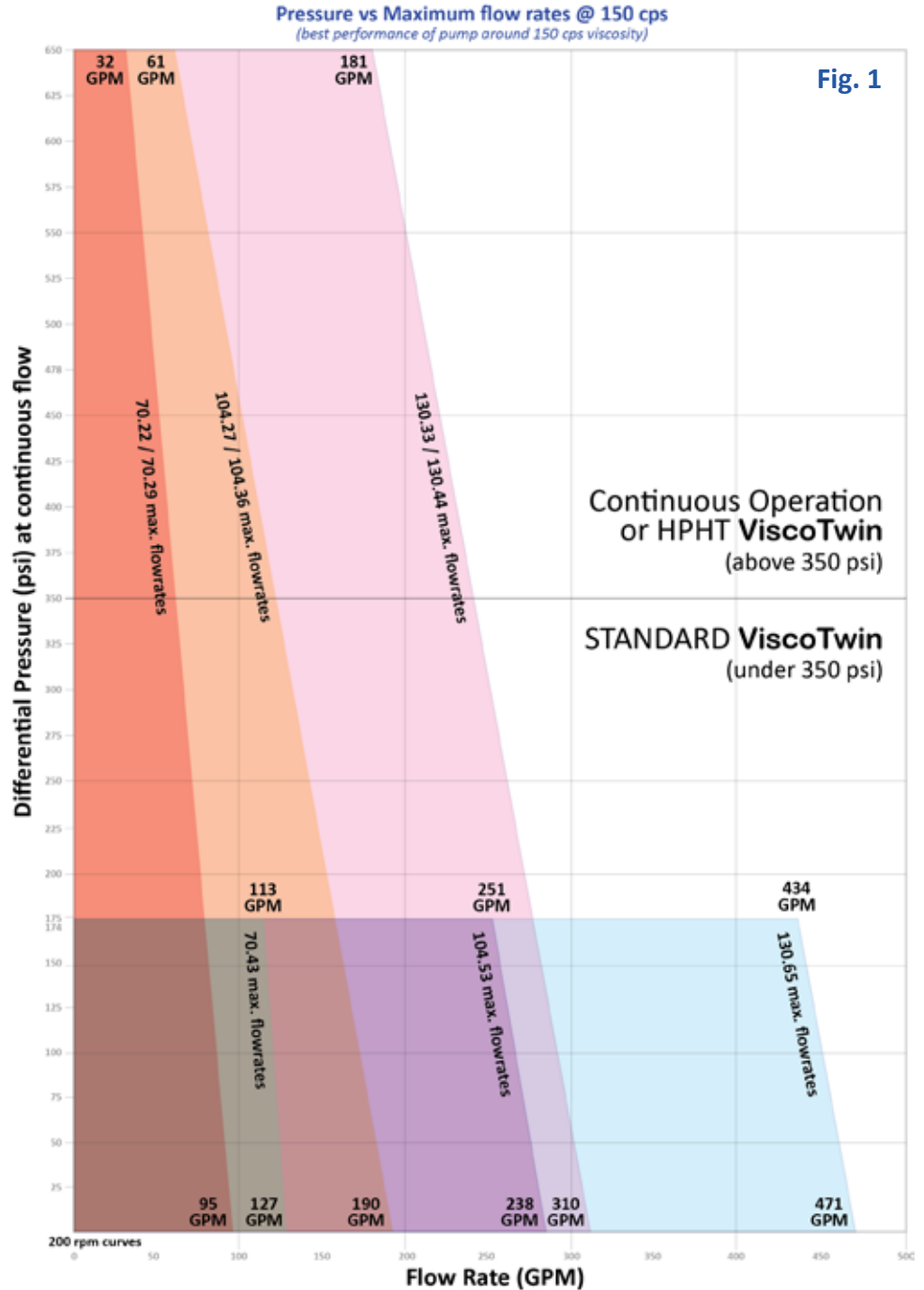
PROCESSTEC
GET TOMORROW'S TECHNOLOGY TODAY

Get High-Performance with ViscoTwin

Manufactured in Germany, **ViscoTwin** pumps feature a state-of-the-art, high performance design from the ground up. **ViscoTwin** pumps are bi-directional - four angular bearings are paired, two for pull, two for push. The **ViscoTwin** screw pump is your sanitary pumping solution developed to pump low and high-viscous product gently and with particles up to 30mm.

The **ViscoTwin** easily handles media containing up to 80% gas. The two-piece housing enables a large Pump Housing port, that is also 100% drainable. A wide variety of Pump Housings (heated), Process Connections, Spindle Pitches, Mechanical Seals, Elastomers, and Bearing Housing materials are also available.

Processtec understands that each application is unique. Customer service starts well before the pump is delivered, as each assembled pump undergoes rigorous testing by our trained technicians, before being shipped.



Properties	ViscoTwin 70	ViscoTwin 104	ViscoTwin 130
Max Differential Pressure	350 (Std.) - 650 psi (HPHT)	350 (Std.) - 650 psi (HPHT)	350 (Std.) - 650 psi (HPHT)
Max Flow-rate @ 10 PSI (1 cps)	132 GPM	268 GPM	455 GPM
Max RPM	4000 RPM	3600 RPM	3000 RPM
Max Temperature	266° F (Std.) - 385° F (HPHT)	266° F (Std.) - 385° F (HPHT)	266° F (Std.) - 385° F (HPHT)
Viscosity	0.5 - 1 Mio CPS	0.5 - 1 Mio CPS	0.5 - 1 Mio CPS
Particulate Size (mm)	21mm (1 3/16")	26mm (1 1/32")	32.5mm (1 9/32")
Pumpface OD Size	3.0" OD	4.0" OD	6.0" OD
Pump Housing OD Size	2.5" OD	3.0" OD	5.0" OD
NPSH	< 5 feet	< 5 feet	< 5 feet

ViscoTwin Pump Features and Benefits

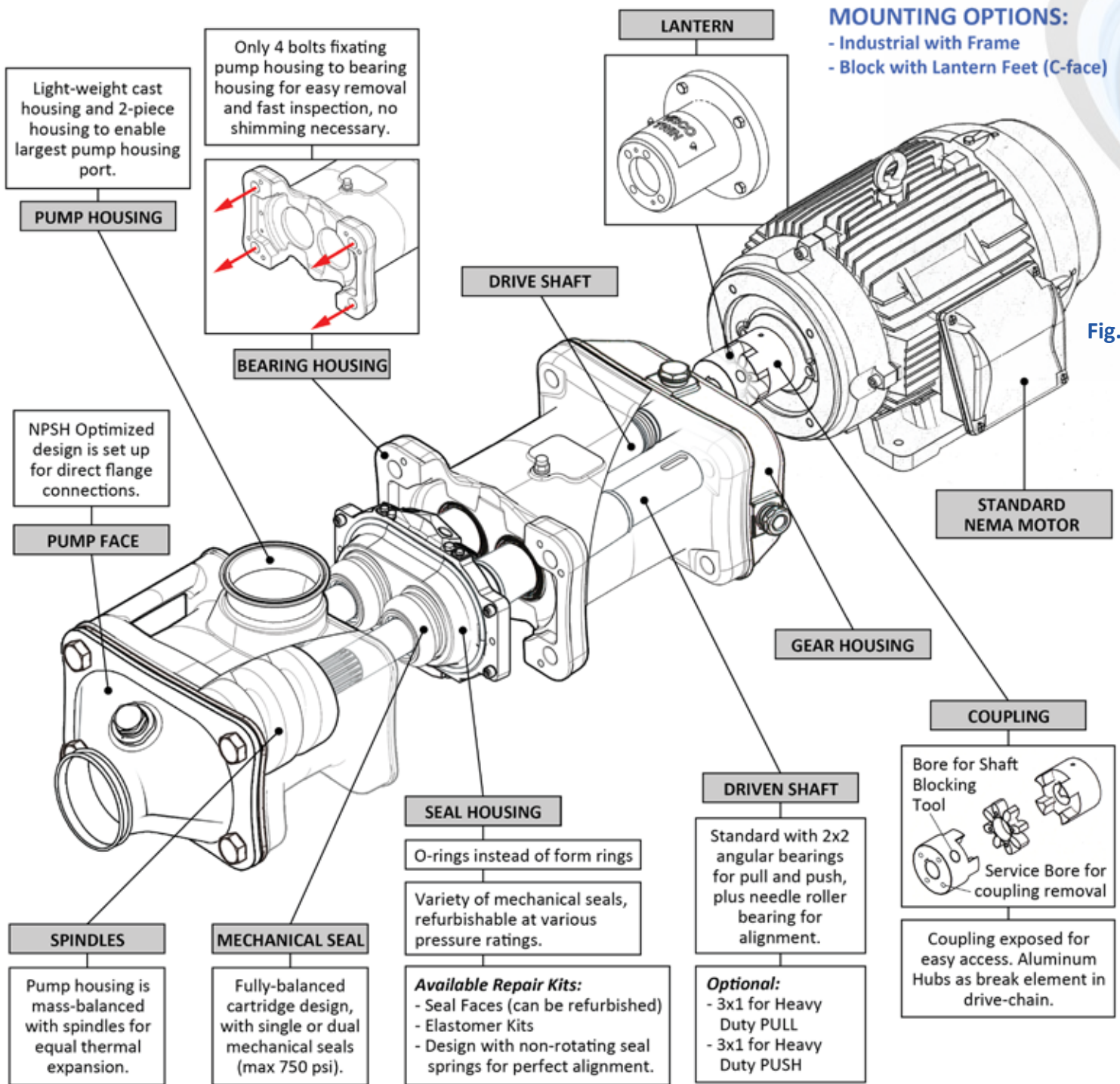


Fig. 2

The **ViscoTwin** can be used for a variety of applications and products such as:

- Slurries
- Chocolate
- Creams
- Ointments
- Macaroni Cheese
- Cheese Curd
- Butter
- Juices + Concentrates
- Spaghetti (5")
- Chocolate
- Mash
- Pulp
- Liquid Sugar
- Rework Foods
- Tomato Paste
- Peanut Butter
- Oils
- Fats
- Soaps
- And much more...

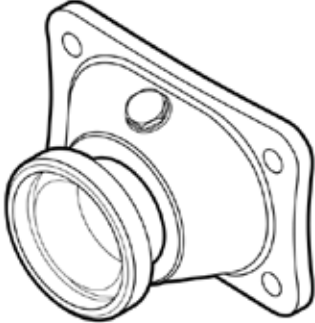


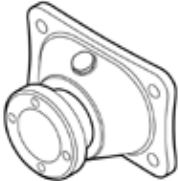

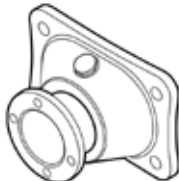

Pump Face Options for the ViscoTwin



Fig. 3

The **NPSH Optimized Pump Face** was designed to transition pumped product more efficiently and gently between the In-take Pipe and the Pump Housing. This design helps in many ways: it minimizes cavitation to keep the product with particulates intact, and offers the customer more options for piping configurations. The **ViscoTwin G8 NPSH Optimized Pump Faces** are standardized on Tri-Clamp connections. The available options are outlined in the tables below.

PUMP FACE SIZE OPTIONS		
ViscoTwin 70 2" to 3"	ViscoTwin 104 2.5" to 4"	ViscoTwin 130 3" to 6"

PROCESS CONNECTION OPTIONS		
 <p>Tri Clamp (Standard)</p>		
 <p>DIN 11851</p>	 <p>DIN 11864-1 (Screwed Union)</p>	 <p>DIN 11864-2 (Flange Union)</p>
 <p>DIN 11864-3 (Clamp Union)</p>	 <p>Varivent Flange</p>	 <p>Butt Weld</p>

Processtec supplies the Non O-ring/Collar side; the mated O-ring Groove side & clamps are not included with the ViscoTwin Pump.

Pump Housing Options for the ViscoTwin

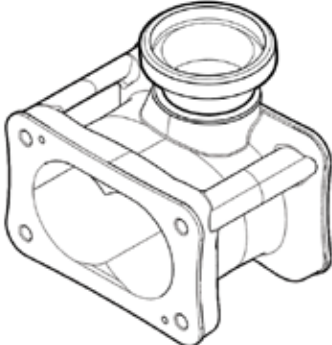
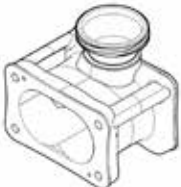
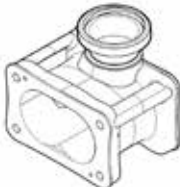
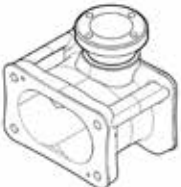
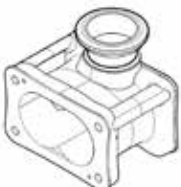
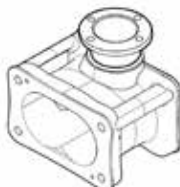
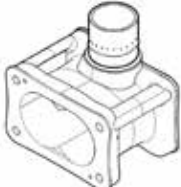
Fig. 4



These Lightweight cast **ViscoTwin Pump Housings** feature DURA-LOY hardening, and are designed to allow Pump Housing Ports up to 5" in diameter. An assortment of Process Connection options are available in a variety of sizes to fit your specific needs.

The available options are outlined in the tables below.

PUMP HOUSING SIZE OPTIONS (FULL PORT)		
ViscoTwin 70 1.5" to 2.5"	ViscoTwin 104 2" to 3"	ViscoTwin 130 2.5" to 5"

PROCESS CONNECTION OPTIONS		
 <p>Tri Clamp (Standard)</p>		
 <p>DIN 11851</p>	 <p>DIN 11864-1 (Screwed Union)</p>	 <p>DIN 11864-2 (Flange Union)</p>
 <p>DIN 11864-3 (Clamp Union)</p>	 <p>Varivent Flange</p>	 <p>Butt Weld</p>

Processtec supplies the Non O-ring/Collar side; the mated O-ring Groove side & clamps are not included with the **ViscoTwin** Pump.

ViscoTwin - Mechanical Seal Options

Different Mechanical Sealing surfaces and elastomers are available for the **ViscoTwin G8** pumps. Material and design are selected based on application. For easy handling, the **ViscoTwin G8** is designed to use a fully pre-assembled cartridge seal to prevent assembly errors and damages to the sealing surfaces.



Fig. 5

ViscoTwin G8 Pumps with **Single Acting Mechanical Seals (SAMS)** CANNOT run dry. Due to the self-draining capability of **ViscoTwin G8** pumps, **Processtec** strongly recommends this type of seal in select applications where the pump never runs dry or without product, such as transfer pumps.

SEALING SURFACE:

- Silicon Carbide (SIC)
- Tungsten Carbide (TC)
- Tungsten Carbide Knife Edge (TCKE) (Standard)



Fig. 6

ViscoTwin G8 Pumps with **Double Acting Mechanical Seals (DAMS)** can run dry as long as the quench media flows through the seal. The quench media lubricates and cools the sealing surfaces, whether there is product in the pump or not. The quench media reduces friction between the rotating sealing surface and the static sealing surface. **Processtec**, as a default, installs water flush seals with Tungsten Carbide Knife Edge for exceptional longevity results - so far, we have not had one DAMS failure!

SEALING SURFACE:

- Silicon Carbide (SIC)
- Tungsten Carbide (TC)
- Tungsten Carbide Knife Edge (TCKE) (Standard)

AVAILABLE ELASTOMERS (PRODUCT AREA)	
FKM	Standard
EPDM	For high temperature without fat content
FFKM	Special applications for high temperature, fat content, and stress



Fig. 7

High Pressure / High Temperature

The Standard Mechanical Seals are designed to withstand a product area pressure of up to 400 psi. With High Pressure Seals, the product area pressure can reach up to 650 psi.

These seals are only available in a specially designed **HPHT (High Pressure, High Temperature) ViscoTwin**, which can be built to withstand temperatures of up to 380° Fahrenheit!

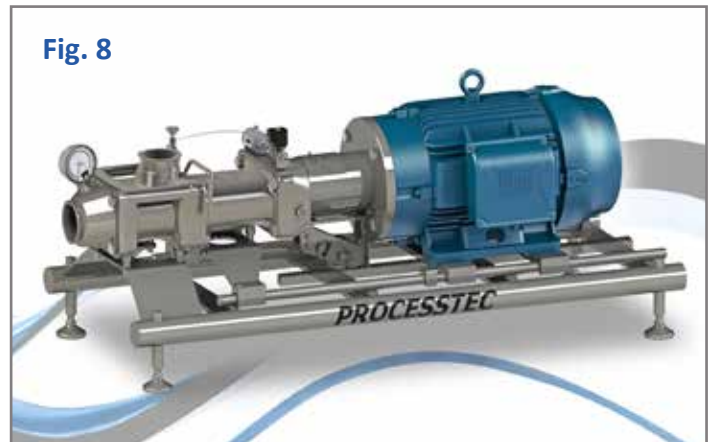


Fig. 8

Custom Bearing Arrangements

ViscoTwin pumps are unique in that they use 4 Angular Ball Bearings to absorb the axial forces in both directions. The Standard arrangement is 2:2. For high pressure applications, we configure a 3:1 (shown below) or 1:3 arrangement, depending on flow direction. Only the **ViscoTwin** has 4 bearing slots, allowing for these kinds of arrangements, while other brands have 3 bearing slots only.

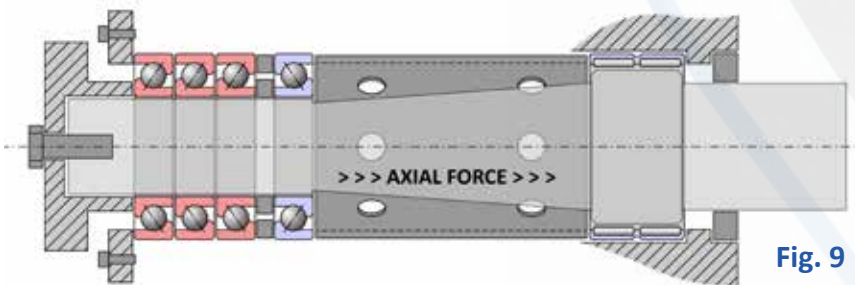


Fig. 9



Frame 4 Service Rail

Processtec has developed an innovative way to **SAVE TIME** and **INCREASE SAFETY** during pump maintenance - the **Frame 4 Service Rail**! It allows one technician to quickly and easily access the Spindle Screws for cleaning and maintenance without disconnecting the motor from the drive shaft. Use the QR Code to the right to see it in action, or contact **Processtec** for more information.

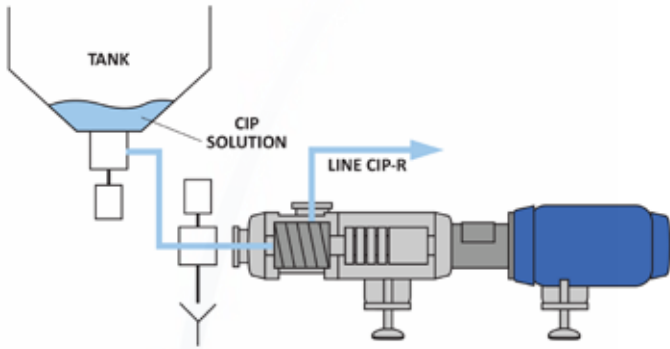


Fig. 10

Watch
a Video of
the **Frame 4
Service Rail**
IN ACTION!

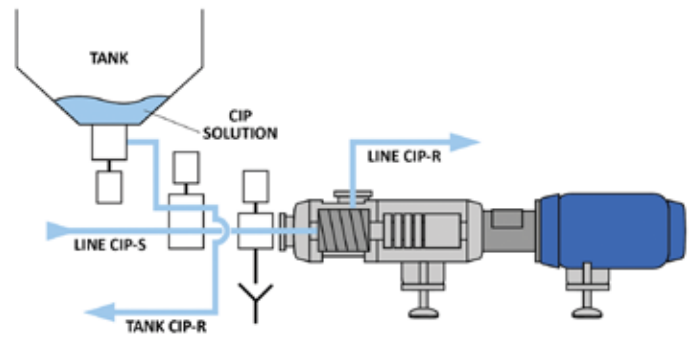


CIP Options (Self-Propelled and Inline)



Self-Propelled Cleaning (CIP) Fig. 11

The pump is used as a CIP return pump. This is mostly the case when a pump is installed as a tank discharge pump. The Max Flowrate is according to the pump curve for viscosity 1 cps.



Inline Cleaning (CIP) Fig. 12

Max Flowrate depending on differential pressure only. The pump does not need to propel the CIP solution and is part of the cleaned pipe line. A dedicated CIP pump upstream is propelling the CIP solution.

Custom Solutions with Custom Spindles

Three different spindle pitches are available for each **ViscoTwin** pump size, in any combination of Standard, Hardened or Hardened tapered and your choice of **EHEDG** or **3A**.

Smaller spindle pitches are used to create high discharge pressures, especially with product at viscosities below 2000 cps, at the cost of limiting the flowrate.

Larger Spindle Pitches can be used for high-viscous product at medium discharge pressure, and/or high flowrates of low-viscous media like CIP at lower differential pressures.

Fig. 13



X = Spindle Pitch
1/2 of X = Max. Particulate Size



22mm

29mm

43mm

27mm

36mm

53mm

33mm

44mm

65mm

ViscoTwin 70 G8

ViscoTwin 104 G8

ViscoTwin 130 G8

ViscoTwin - Featured Design Upgrade



Fig. 14

Shaft Blocking Tool

SAVES TIME and increases **SAFETY** during maintenance, without the need of assistance.



Fig. 15

Gapping Port

Allows for various monitoring sensors as well as **EASY ACCESS** for gapping procedures.

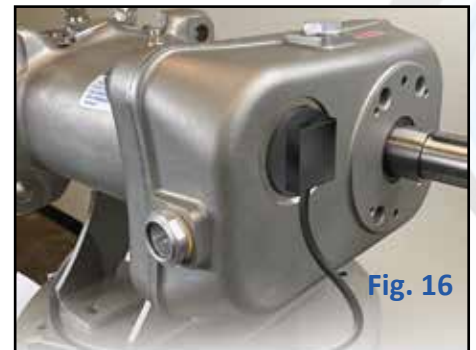


Fig. 16

Vibration Sensor

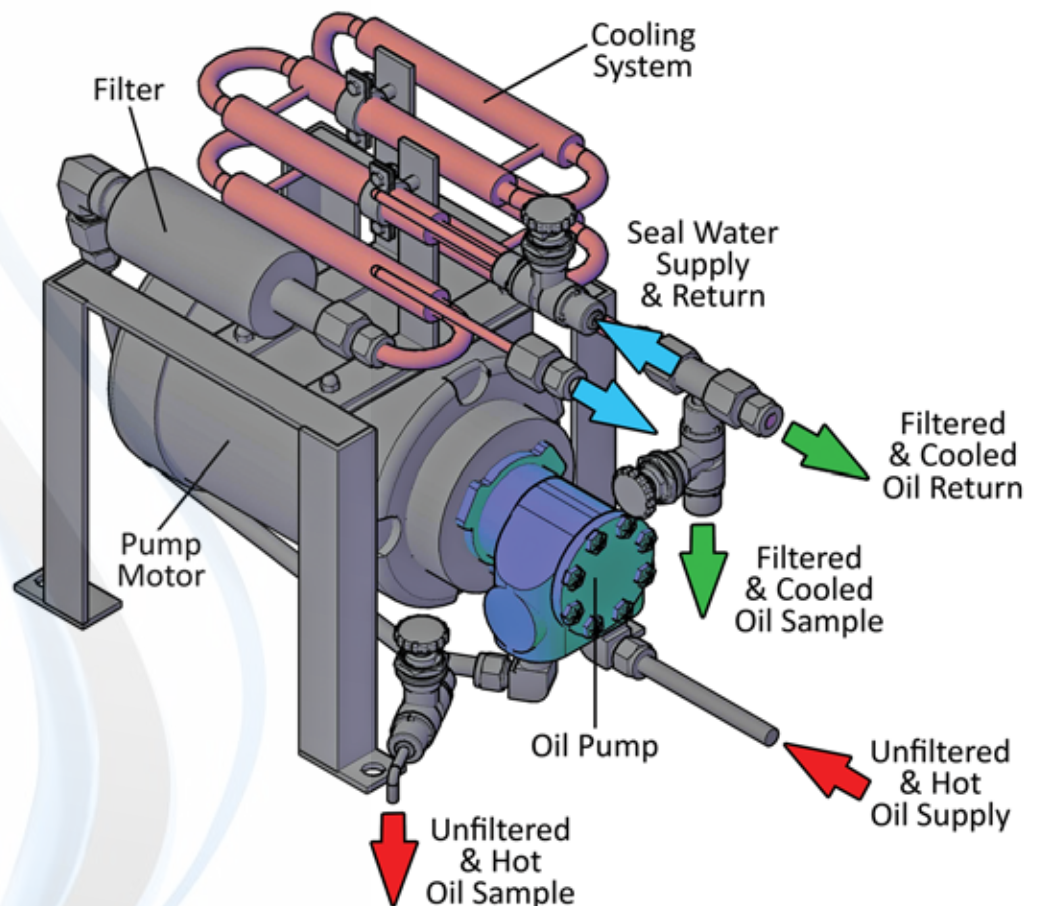
Installs onto the Gear Housing to closely monitor vibrations (*currently in development*).

Customized Oil Cooling System

Fig. 17

In case very hot product is pumped, the heat can penetrate through the shaft to the needle bearings, and shaft seals. It is recommended to install an oil cooler with oil filter to maintain the oil quality and oil temperature at the needle bearings at max 212° F (100° C).

Processtec's customized oil cooling system for the **ViscoTwin G8** pumps is shown in Fig. 14.



ViscoTwin - Seal Water Automation Kit

Processtec offers a Seal Water Automation Kit which allows you to accurately supply seal quench water to the manual needle valve at the pump, and it includes the following components:

- Flow Meter w/Programmable Set Point & Cable
- Solenoid or Pneumatic Shut-off Valve
- Fittings and Pipe in Stainless Steel

C-ID: 22311 (ViscoTwin 104 & 130 G8)



Fig. 18

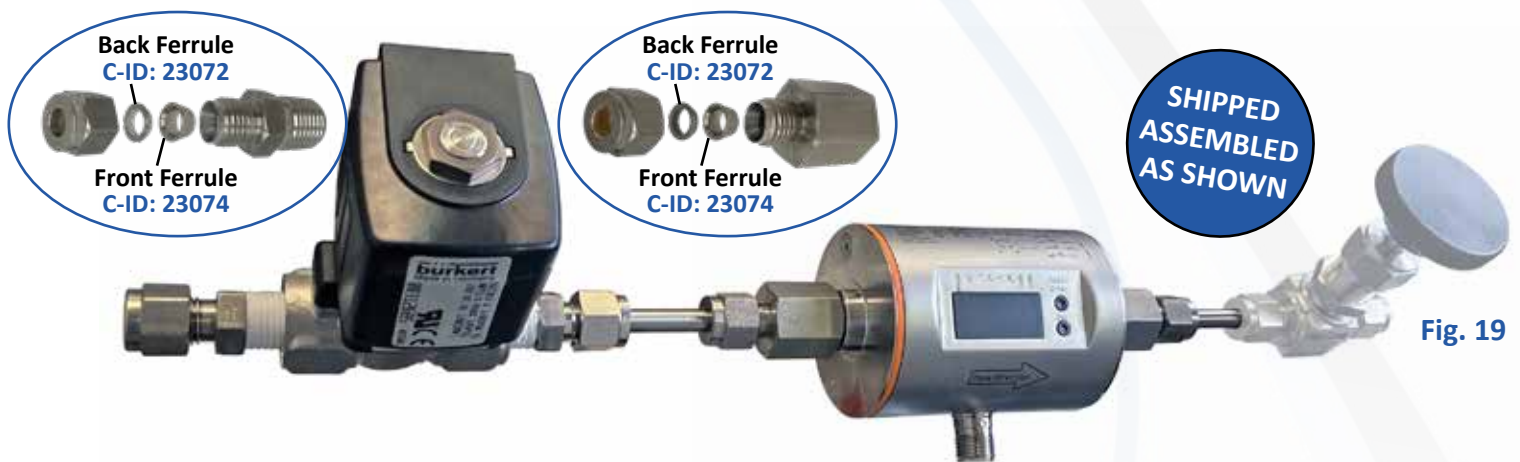


Fig. 19

Burkert Solenoid Shutoff Valve	1/4" Stainless Steel Tubing	IFM Flow Meter	1/4" Needle Valve <i>(Sold Separately)</i>
Automates the flow of Seal Water to start and stop with your ViscoTwin pump.	2 pieces of 1/4" ID Stainless Steel tubing are included.	Monitors the volumetric flow, quantity consumed, and even Seal Water temperature.	Stainless Steel Needle Valve, used with a Flow Meter for precise control of Seal Water.
C-ID: 21951	--	C-ID: 21460	C-ID: 10745



Fig. 20

**SEAL WATER
AUTOMATION KIT**
*Shown with Optional
Mounting Bracket*

We also offer a new **Mounting Bracket** for our VT104 and VT130 pumps! The existing fittings and Flow Meters can be re-used. The intermediate stainless tubing can be adjusted to fit the bracket length. Tension rings to re-fit the existing compression fittings can also be supplied upon request. *The cost for each bracket is \$150.00*

Mounting Bracket for VT104 C-ID 23070

Mounting Bracket for VT130 C-ID 23071

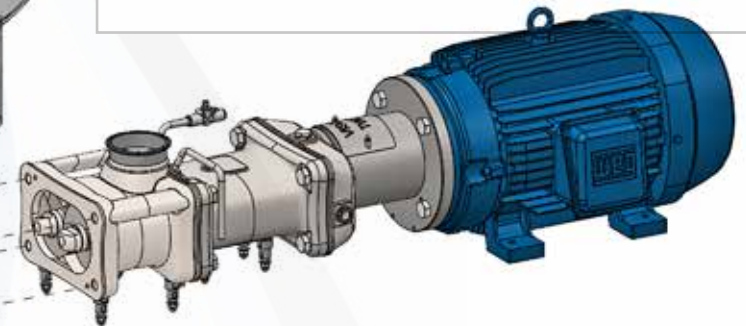
New for
2021!

Introducing the ViscoTwinFeeder

Fig. 21

THE ViscoTwinFeeder FEATURES:

- Vertical conveying of viscous to very viscous product
- Fully CIP-able setup
- Matches to any **Processtec** pump frame (ideally the **Frame 4 Service Rail**)
- Works with the **ViscoTwin 104** or **130**
- Available in a variety of tank sizes & shapes
- Full automation upgrade is available

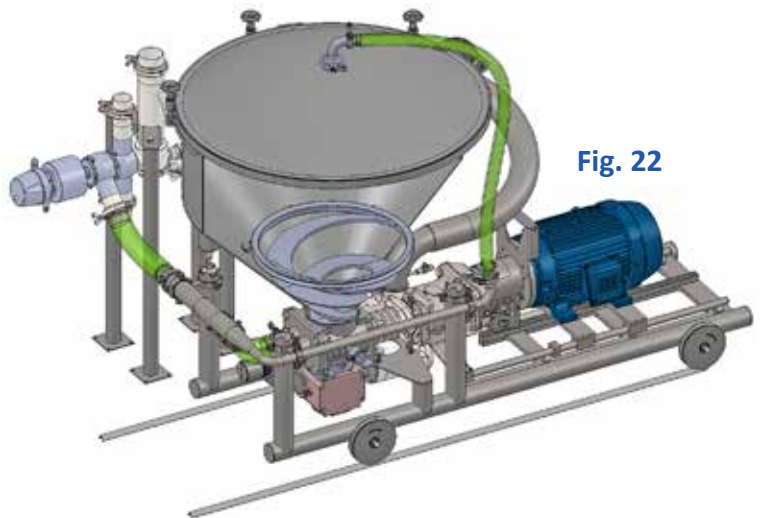


The ViscoTwinFeeder attaches to a ViscoTwin Pump Housing, to mix of a variety of Bulky Products.

THE ViscoTwinFeeder IS DESIGNED TO ACCOMPLISH THE FOLLOWING:

- Product Deaeration
- Low to very high-viscosity product
- The installation of additional pumps (up to a maximum of six)
- Compact in space
- 100% drainable
- Allows for pressurized tanks
- Cannot be airlocked due to the vertical feed & close-coupled housing

Fig. 22



ViscoTwinFeeder is shown here with multiple integrations and add-on configurations.

Some of the Industries We Serve



DAIRY



JUICES



FRUITS



PERSONAL CARE



TOMATO



BEVERAGES



SAUCES



INFANT FORMULA



PROCESSED FOODS



PROCESSED MEAT



BAKERY



CONFECT-
IONERY



PASTRIES



OILS



FRAGRANCE



CHEMICALS



PAINTS



VARNISHES



OINTMENTS



PHARMA-
CEUTICALS

ViscoTwin 104/130

(Shown in Stainless Steel)



Available in  upon request



Fig. 23

ViscoTwin 130 w/ Frame 4 Service Rail

Available in  upon request

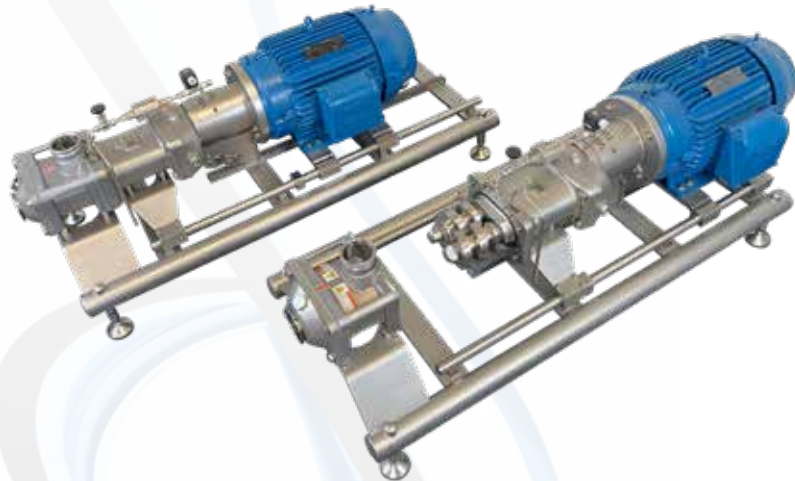


Fig. 24

Spare Parts Catalogs

We have taken the time to catalog and categorize all of the available Spare Parts and Maintenance Tools used for maintaining and operating **ViscoTwin G8 Pumps**. Our **Spare Parts Catalogs** make it easy to order and re-order the proper Spare Parts, Tools, Oils, and all other supplies needed to keep your pumps in proper working order.



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