



The Pivotrol® Pump Patented PTF-HTF Pressure Powered Pump

Description

The Spirax Sarco **Pivotrol®** Pump (patented), featuring reliable **PowerPivot®** technology (patented) is specifically designed for use on heat transfer fluids, with specific gravity of .65 - .79, in a closed loop system. This self-contained unit uses the pressurized heat transfer fluid vapor phase as the pumping force to transport condensed heat transfer fluid from a low point, or low pressure space to an area of high pressure or elevation. Suitable for use in hazardous environments and volatile fluid pumping applications. See IM-5-201-US for full details.

Model	PTF-HTF
PMO	200 psig (13.8 barg)
Sizes	3" x 2"
Connections	Inlet & Outlet: ANSI 300 RF with surface finish 125-250 μ in. serrated concentric or spiral grooves per ANSI B16.5 Motive & Exhaust: SW ANSI B16.11 Drain: (2) ANSI 300 RF with surface finish 125-250 μ in. serrated concentric or spiral grooves per ANSI B16.5
Construction	ASME Coded Steel
Warranty	Lifetime Warranty on Spring

Accessories

- Gauge glass with brass cocks.
- Reflex type gauge glass -Insulation cover.

Capacities

For sizing and selection data, see TIS 5.030

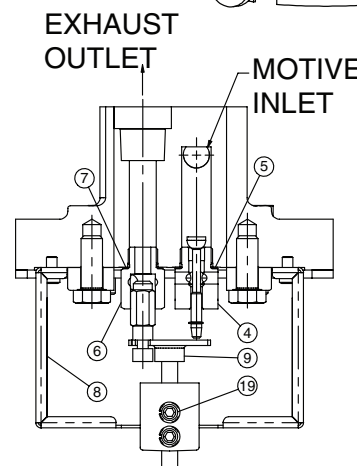
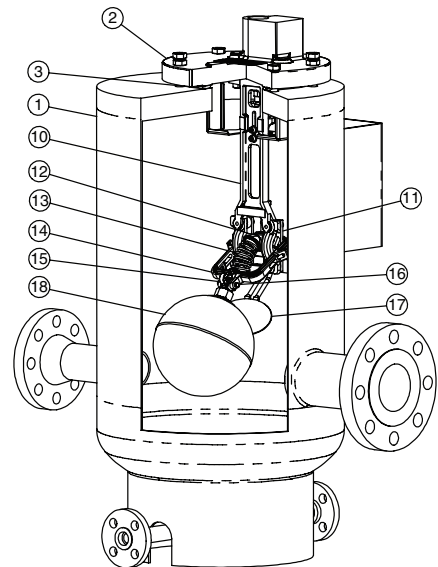
Operating Characteristics

Pump discharge per cycle – 8.4 gal (31.8 l) Nominal
Average instantaneous discharge rate – 90 gpm (5.7 l/s)

For increased service life – Operate pump with motive pressure 15-20 psig above pump back pressure.

Construction Materials

No.	Part	Material	Spec
1	Body	Fabricated Steel	ASME coded
2	Cover	Cast Steel	ASTM SA216 WCB
3	Cover Gasket	Spiral-Wound Flexitallic Type 'LS'	
4	Steam Inlet Valve Assembly	Stainless Steel	
5	Steam Inlet Valve Gasket	Stainless Steel	
6	Exhaust Valve Assembly	Stainless Steel	
7	Exhaust Valve Gasket	Stainless Steel	
8	Baffle	Stainless Steel	
9	Push Rod Assembly	Stainless Steel	
10	Mechanism Support	Stainless Steel	
11	Bushing Mounting Plate (Bushings)	Stainless Steel Carbide	
12	Spring Anchor	Carbide	
13	Spring	Inconel	
14	Float Arm Assembly (Pivots)	Stainless Steel Carbide	
15	Float Pivot	Stainless Steel	
16	Pin	Stainless Steel	
17	Paddle	Stainless Steel	
18	Float	Stainless Steel	
19	Screws (typical)	Stainless Steel	



Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.
In the interests of development and improvement of the product, we reserve the right to change the specification.

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The Pivotrol® Pump Patented

PTF-HTF Pressure Powered Pump

Dimensions (nominal) in inches and millimeters

A	B*	C	D	E	F	G	H	I	J	K	L	M	Weight
34.6	33.4	12.2	11.6	2.0	16.0	15.0	30.0	19.0	9.5	6.1	4.4	.6	210 lb
879	848	310	295	51	406	381	762	483	241	155	112	15	95.3 kg

*B Dimensions is to the centerline of the motive supply inlet.

Limiting Operating Conditions

PMO

Max. Operating Pressure 200 psig (13.8 barg)
 Minimum motive differential required: 5 psig

Filling Head Requirements

	Filling Head Above Pump Cover	Filling Height From Base of Pump
Standard recommended	12" (305mm)	42.8" (1087mm)
Max filling head	48" (1219mm)	78.8" (2002mm)
Min filling head	-1" (-25mm)	29.8" (757mm)

Max Number of Cycles per minute = 6

Pressure Shell Design Conditions

PMA

Max. allowable pressure 200 psig @ 750°F (13.8 barg @ 399°C)

TMA

Max. allowable temperature 750°F @ 200 psig (399°C @ 13.8 barg)

Check Valves

Two check valves are required, but not supplied with the pump.

Recommended check valves are 2" and 3" Velan Model F00-1114C-02AA ANSI 300 RF flanged cast steel swing type valves. (All capacity data established with Velan check valves as specified.)

Sample Specifications

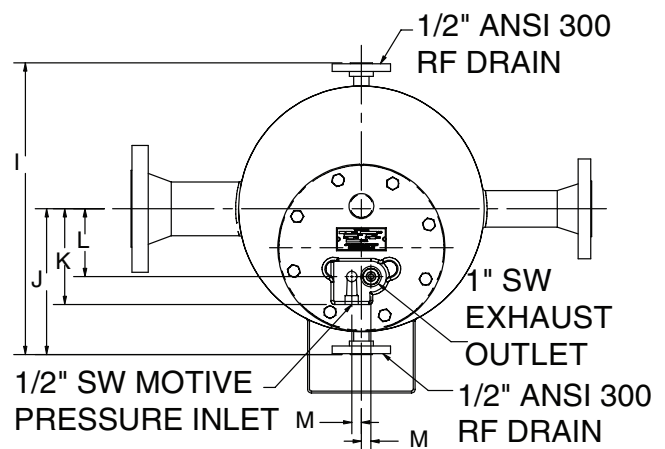
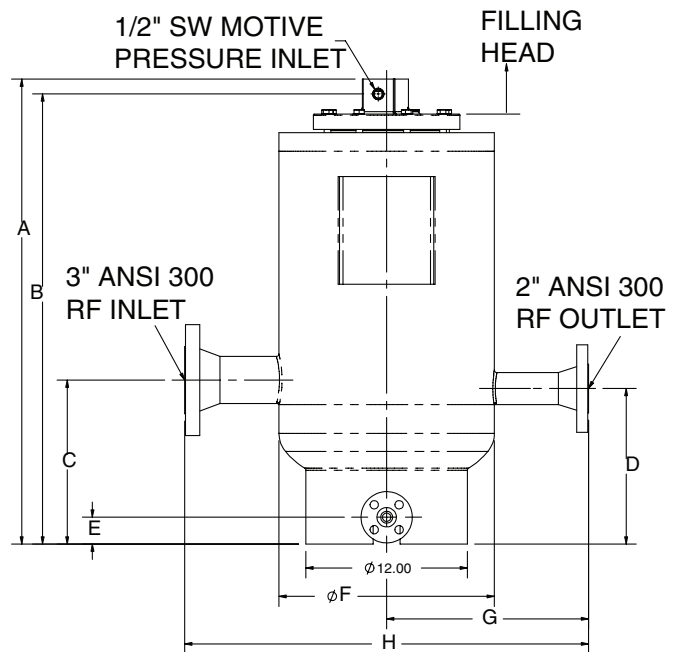
The pump shall be Spirax Sarco PTF-HTF, Pivotrol® Pump (patented) featuring reliable PowerPivot® technology (patented) specifically designed for use on heat transfer fluids in a closed loop system, which does not require any electrical energy (.65 - .79 specific gravity range). The PTF-HTF, Pivotrol® pump (patented) shall include an Inconel spring with a lifetime warranty and 3 year warranty.

Installation

Full details are given in IM-5-201-US, which accompanies the product.

Maintenance

Complete installation and maintenance instructions are given in IM-5-201-US, which accompanies the product.



Condensate Recovery

Non-Electric Pumps

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