



The Pivotrol® Pump Patented PTF-HTF Pressure Powered Pump

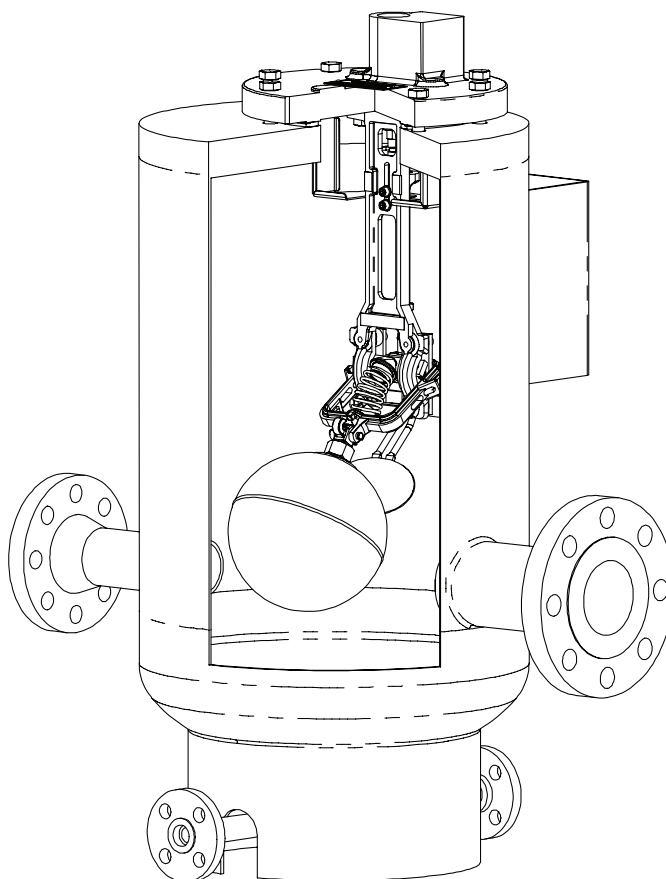
Description

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 psi g (13.8 bar g)
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.

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 psi g above pump back pressure.

Limiting operating conditions

PMO	Maximum operating pressure	200 psi g (13.8 bar g)
	Minimum motive differential required:	5 psi g (0.34 bar g)

Filling head requirements		Filling height
Filling head	Above pump cover	From base of pump
Standard recommended	12" (305 mm)	42.8" (1087 mm)
Maximum filling head	48" (1219 mm)	78.8" (2002 mm)
Minimum filling head	-1" (-25 mm)	29.8" (757 mm)
Maximum Number of Cycles per minute = 6		

Pressure shell design conditions

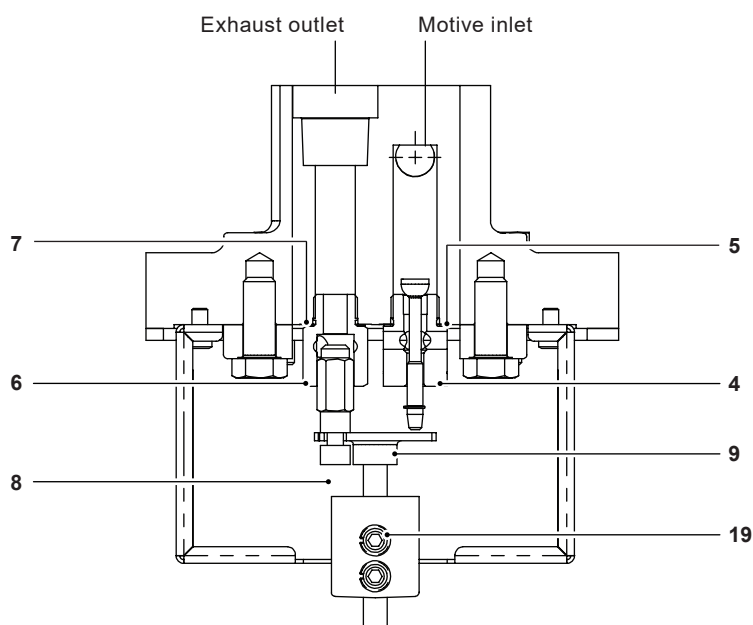
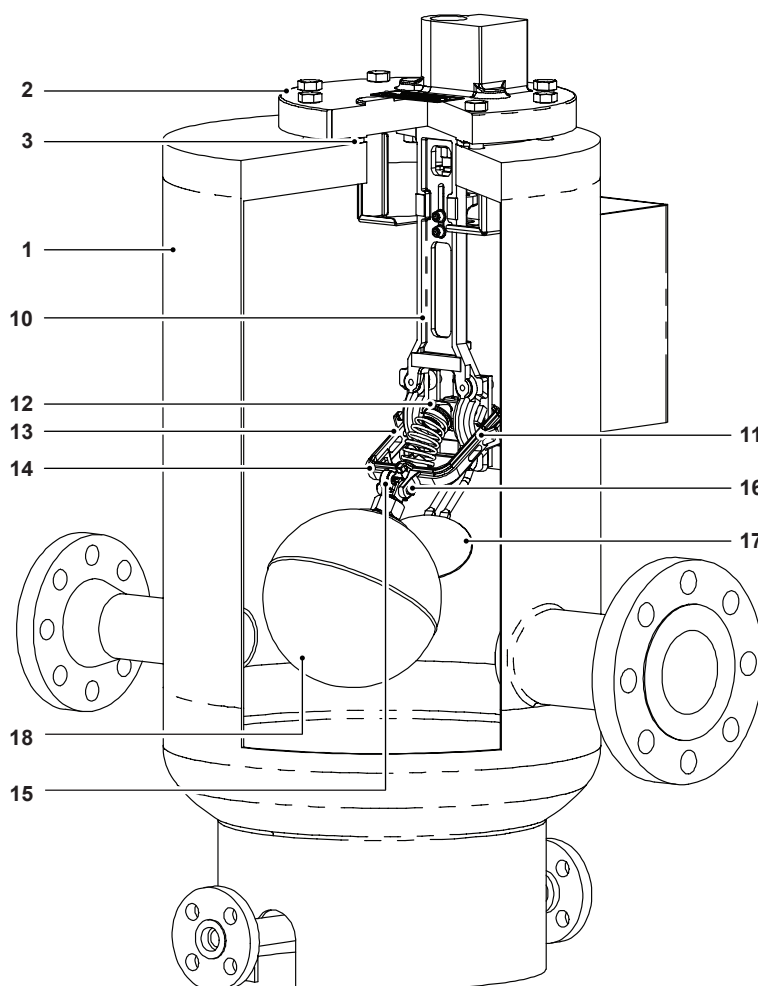
PMA	Maximum allowable pressure	200 psi g @ 750°F	(13.8 bar g @ 399°C)
TMA	Maximum allowable temperature	750°F @ 200 psi g	(399°C @ 13.8 bar g)

Check valves

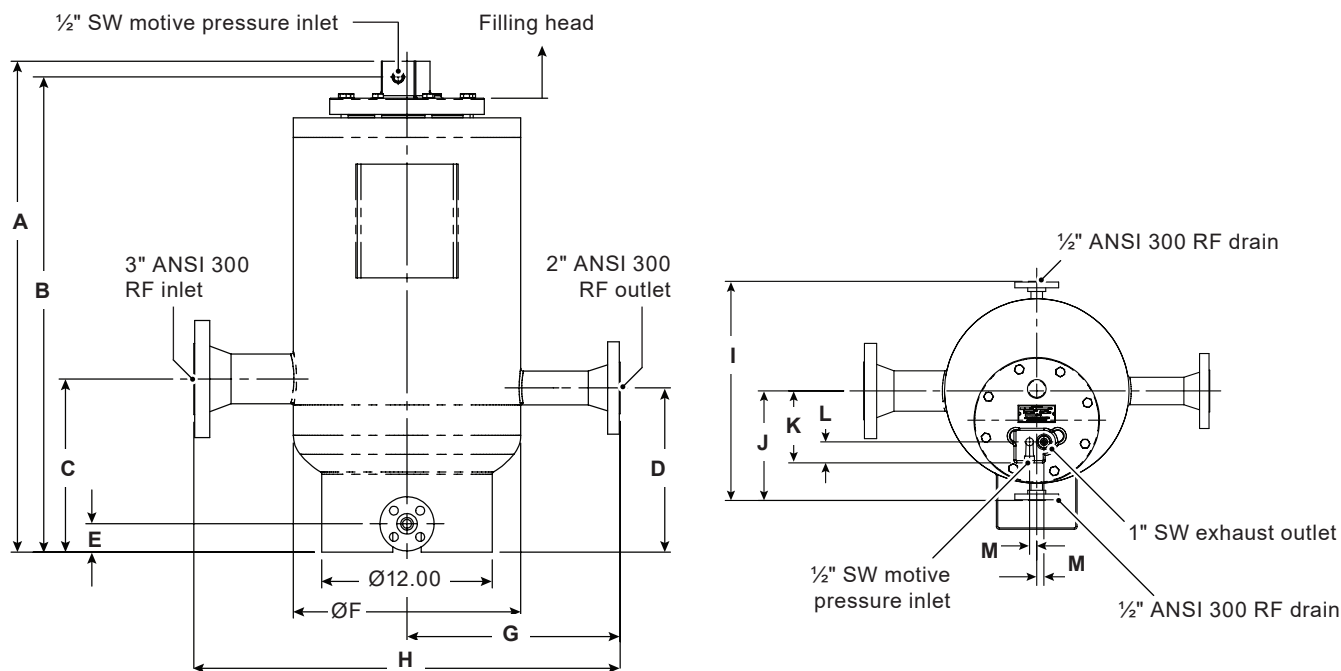
Two check valves are required, but not supplied with the pump. Recommended check valves are 2" and 3" Velan Model F00-1114C-02AA ANSI 300 RF flanged cast steel swing type valves. (All capacity data established with Velan check valves as specified.)

Materials

No.	Part	Material
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	Stainless steel
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



Dimensions/weights (approximate) in inches (mm) and lbs (kg)



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

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

Capacities

For sizing and selection data, see TIS 5.030

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.