

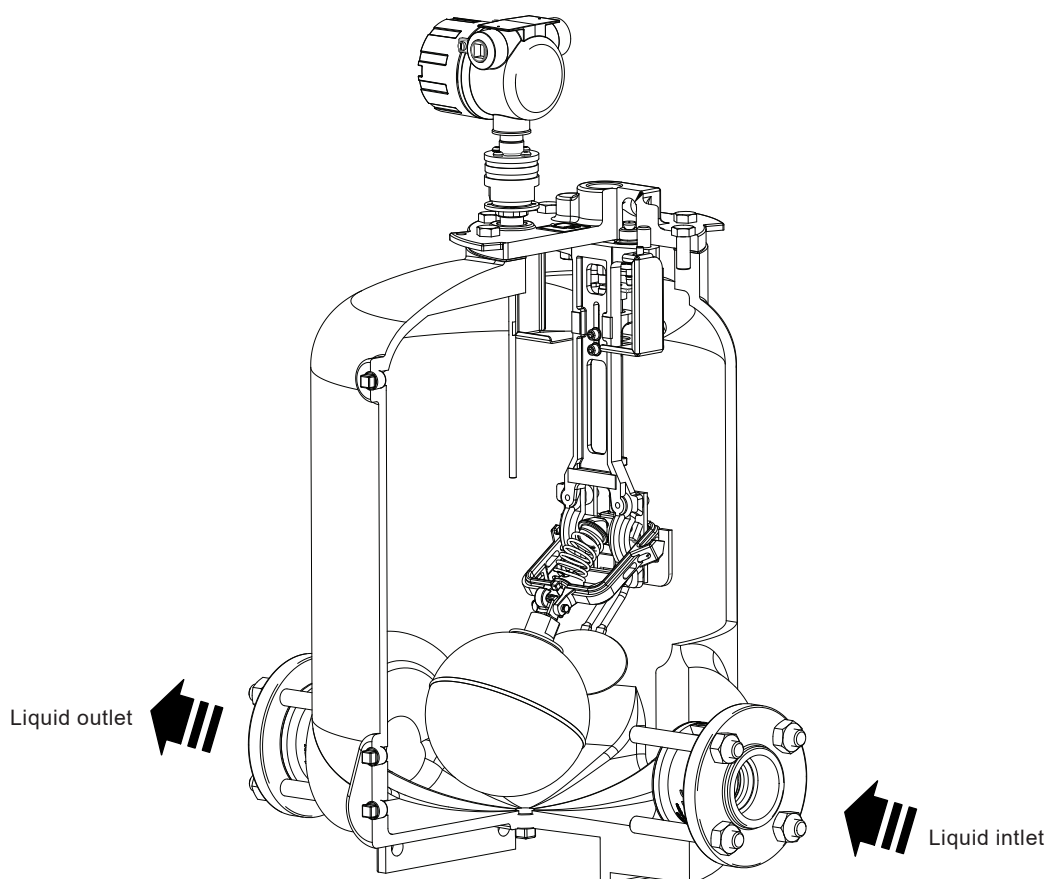


The Pivotrol® Pump Patented PTC Pressure Powered Pump

Description

The Spirax Sarco Pivotrol® Pump (patented) is a non electric pump which transfers high temperature condensate, or other liquids from a low point, low pressure or vacuum space to an area of higher pressure or elevation. This self-contained unit including PowerPivot® technology (patented) uses steam, compressed air or any other suitable pressurized gas as the pumping force. The standard Pivotrol® Pump (patented) will handle liquids from 0.9 to 1.0 specific gravity.

Model	PTC	PTC-T-bone
PMO	200 psi g (13.8 bar g)	
Sizes	2" x 2" (DN50 x DN50) 3" x 2" (DN80 x DN50)	3" x 3" (DN80 x DN80)
Connections	Cover: NPT Liquid: ANSI 150/NPT	
Construction	Ductile Iron	
Warranty	3 million cycles or 5-year warranty, whichever number is achieved first. Lifetime warranty on spring	
Options	Pump modified to handle liquids down to 0.65 specific gravity	



Accessories

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

Operating characteristics

Pump discharge per cycle	7.1 gal (27.0 l) Nominal
Average instantaneous discharge rate	See TI-P207-10-US
Steam	3 lbs (1.4 kg) per 1000 lbs (453.6 kg) of liquid pumped
Air consumption	60 scf per 1000 lbs (453.6 kg) of liquid pumped

For increased service life — Operate pump with motive pressure 15-20 psi g (1.0 -1.4 bar g) above pump back pressure.

Limiting operating conditions

PMO	200 psi g (13.8 bar g)
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Maximum operating pressure

Minimum motive differential required:	5 psi g (0.34 bar g)
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Filling head requirements

Filling head		Filling height	
		Above pump cover	From base of pump
Standard recommended		12" (305 mm)	36.9" (937 mm)
Maximum filling head		48" (1219 mm)	72.9" (1852 mm)
Minimum filling head	2x2 (DN50 x DN50)	-3" (-76 mm)	21.9" (556 mm)
	3x2 (DN80 x DN50)	-1" (-25 mm)	23.9" (607 mm)
T-Bone	3x3 (DN80 x DN80)	-1" (-25 mm)	23.9" (607 mm)

Max Number of Cycles per minute = 6

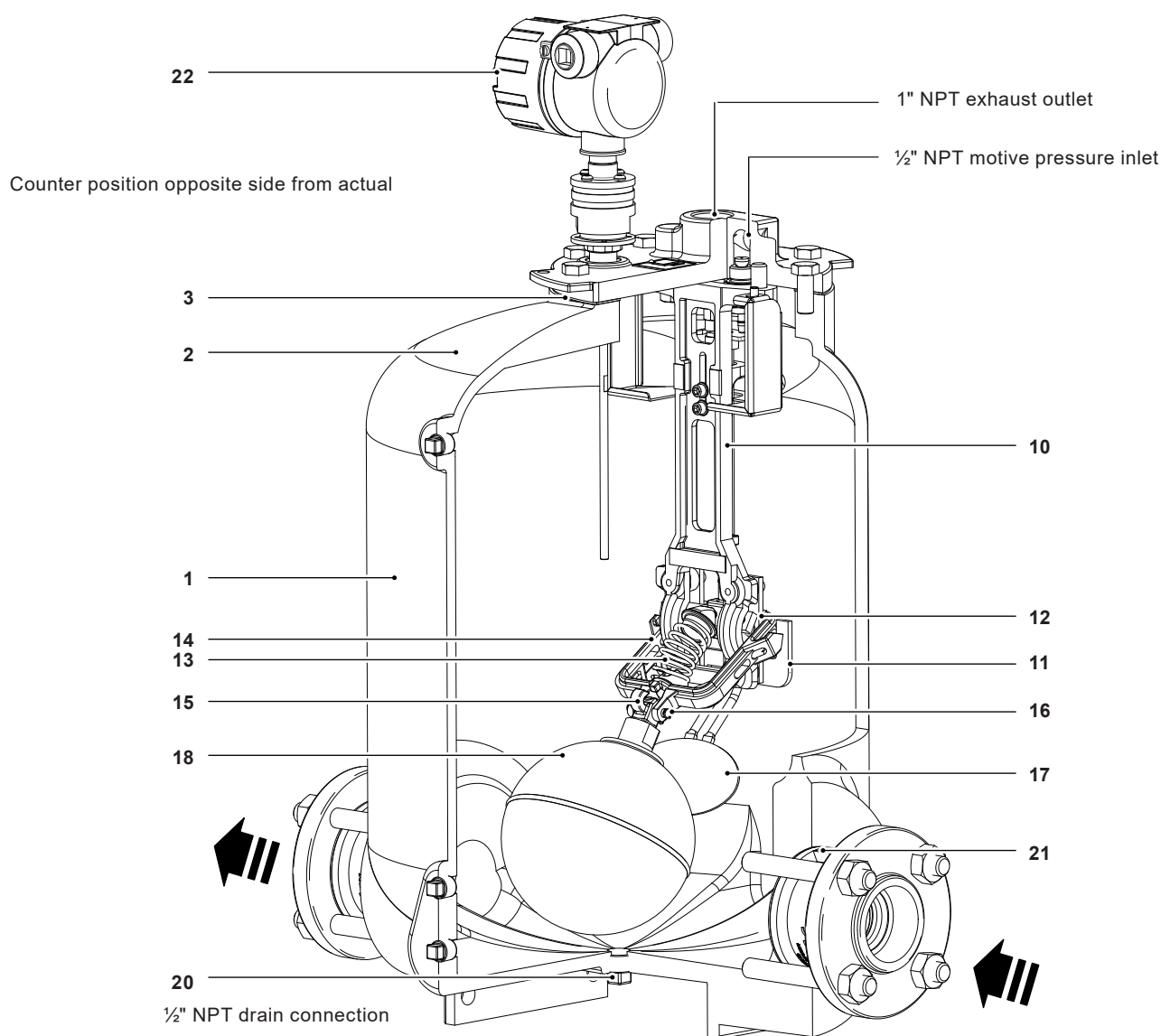
Specific gravity of pumped liquid options = **0.9 to 1.0; 0.8 to 0.89; 0.65 to 0.79**

Note: See TI-P207-08-US for cycle counter details

Pressure shell design conditions

PMA	Maximum allowable pressure	200 psi g @ 388 °F	(13.8 bar g @ 198 °C)
TMA	Maximum allowable temperature	650 °F @ 124 psi g	(343 °C @ 8.56 bar g)

Materials

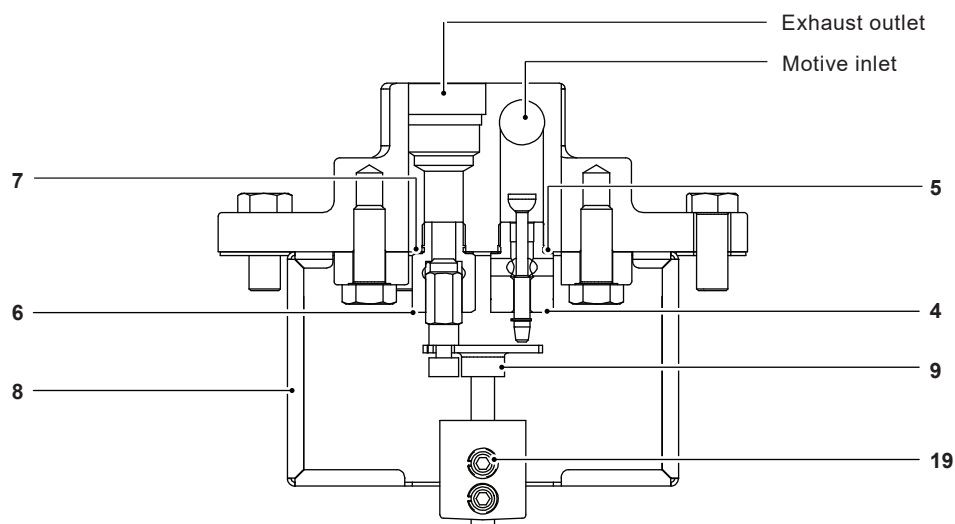


No.	Material
1	Ductile Iron ASTM A395
2	Ductile Iron ASTM A395
3	Grafoil
4	Stainless steel
5	Stainless steel
6	Stainless steel
7	Stainless steel
8	Stainless steel
9	Stainless steel
10	Stainless steel
11	Stainless steel carbide

No.	Material
12	Carbide
13	Inconel
14	Stainless steel carbide
15	Stainless steel
16	Stainless steel
17	Stainless steel
18	Stainless steel
20	Forged Steel
21	Stainless steel (see TI-P154-10-US)
22	Various (see TI-P207-08-US)

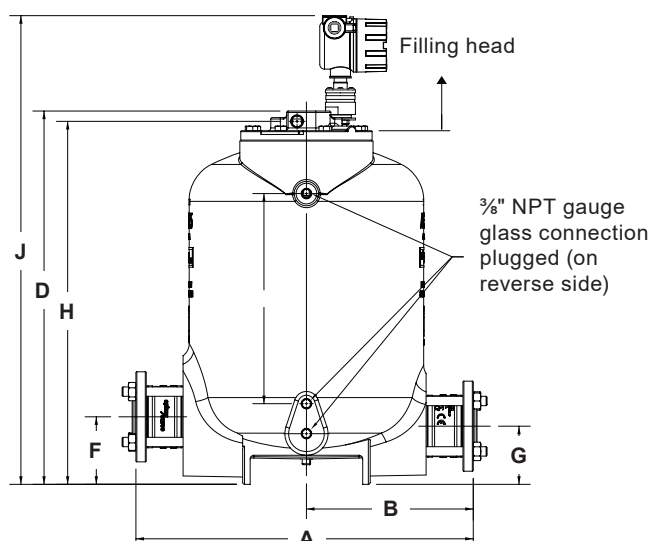
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Materials

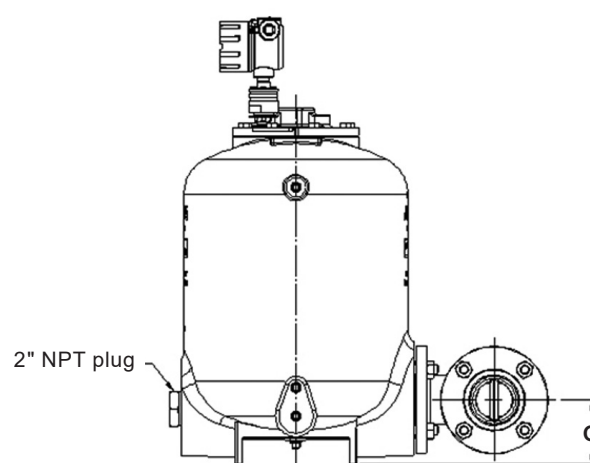
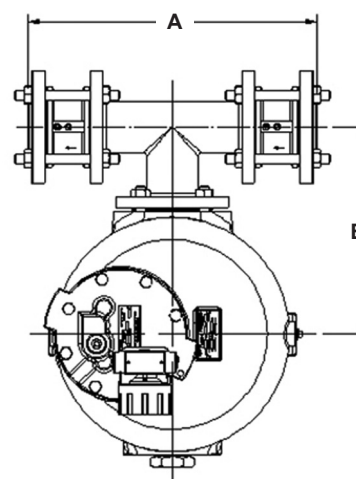


No.	Part	Material
4	Steam Inlet Valve Assembly	Stainless steel
5	Steam Inlet Valve Gasket	Stainless steel
6	Exhaust Valve Assembly	Stainless steel
7	Exhaust Valve Gasket	Stainless steel
8	Baffle	Stainless steel
9	Push Rod Assembly	Stainless steel
19	Screws (typical)	Stainless steel

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



PTC



PTC T-Bone

PTC Size	Dimensions										Weight
	A	B	C	D	E	F	G	H*	I	J (Ref Only)	Pump
2" (DN50) PTC with stainless steel Check Valves	23.3 (592)	11.3 (287)	14 (356)	24.9 (632)	5.1 (130)	4.5 (114)	3.9 (99)	24.2 (615)	6.1 (155)	31.6 (803)	260 lb (118 kg)
3" (DN80)x 2" (DN50) PTC with stainless steel Check Valves	23.9 (607)										270 lb (122 kg)
PTC w/T-Bone 3" (DN80) x 3" (DN80) with stainless steel Check Valves	19.2 (488)	13.8 (351)	14 (356)	24.9 (632)	5.1 (130)	N/A	4.5 (114)	24.2 (615)	6.1 (155)	31.6 (803)	280 lb (127 kg)

* H Dimension is to the centerline of the motive supply inlet.

Capacities

For sizing and selection data, see TI-P207-10-US.

Sample specification

The pump shall be Spirax Sarco Pivotrol® Pump (patented) operated by steam, compressed air or other pressurized gas to 200 psi g (13.8 bar g), which does not require any electrical energy.

The pump shall have Stainless steel, split disc check valves on the inlet and outlet connections. The pump shall contain Spirax Sarco PowerPivot® (patented) inside to ensure longevity and reliability of the pump.

The Pivotrol® Pump (patented) shall include an Inconel spring with a lifetime warranty and be supplied with an integral cycle counter to monitor a 3 million cycle or 5-year warranty, whichever number is achieved first.

When required the pump shall be supplied with a gauge glass and custom designed insulation jacket.

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.