

# PPPPU - HP

## Pressure Powered Pump Package Unit - High Pressure with Insulation Jacket and Condensate Recovery Meter

### Description

The Forbes Marshall Pressure Powered Pump Package Unit - High Pressure (PPPPU - HP) is a positive displacement pump unit operated by steam, compressed air or pressurized gas designed to pump hot condensate at high back pressure & with high motive pressure.

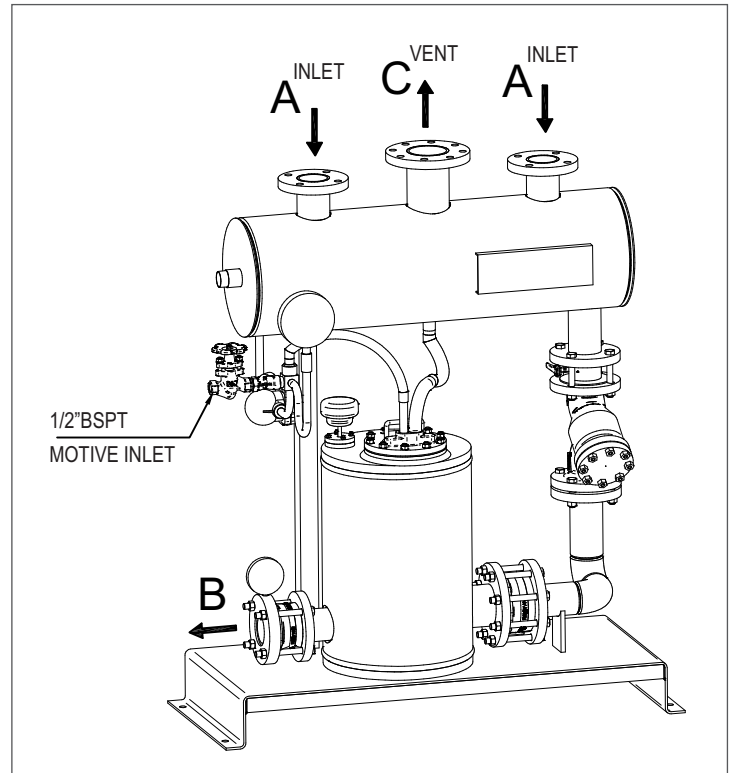
### Sizes and Pipe Connections

Size (DN)	Condensate inlet conn. (A) (DN)	Pump outlet conn. (B) (DN)	Vent conn. (C) (DN)	Empty weight (kg)
40	50	50	100	245
50	50	80	100	350
80	80	80	100	395

**Size :** DN40, 50 and 80 pressure powered pump package unit.

Condensate inlet and vent flanged to ASME B16.5 Class 150

Condensate outlet : Use special flange provided with pump

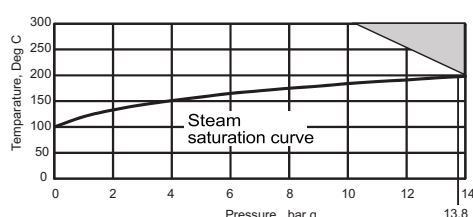



### Limiting Conditions

Design Standard	ASME Section VIII Div.1
PMA Maximum design pressure	13.8 bar g
TMA Maximum design temperature	220°C
Operating inlet motive pressure	Steam / Compressed Air / Pressurised gas 3 to 13.8 bar g(max)
Pump discharge per cycle	30 kg
Steam consumption	3.5 kg of steam per 1000 kg liquid pumped
Air consumption	200 SCF per 1000kg liquid pumped
Minimum operating temperature	0°C
Max. Allowable back Pressure	8.5 bar g
Pump Shell Hydrotest Pressure	21 bar g

**Note : Receiver not to be pressurized**

### Operating Range



 The product must not be used in this region

### Standard Accessories

Condensate Recovery Meter - (CRM485R) and Insulation Jacket

**Note :** Refer separate TIS for CRM485R and insulation jacket

### How to Order

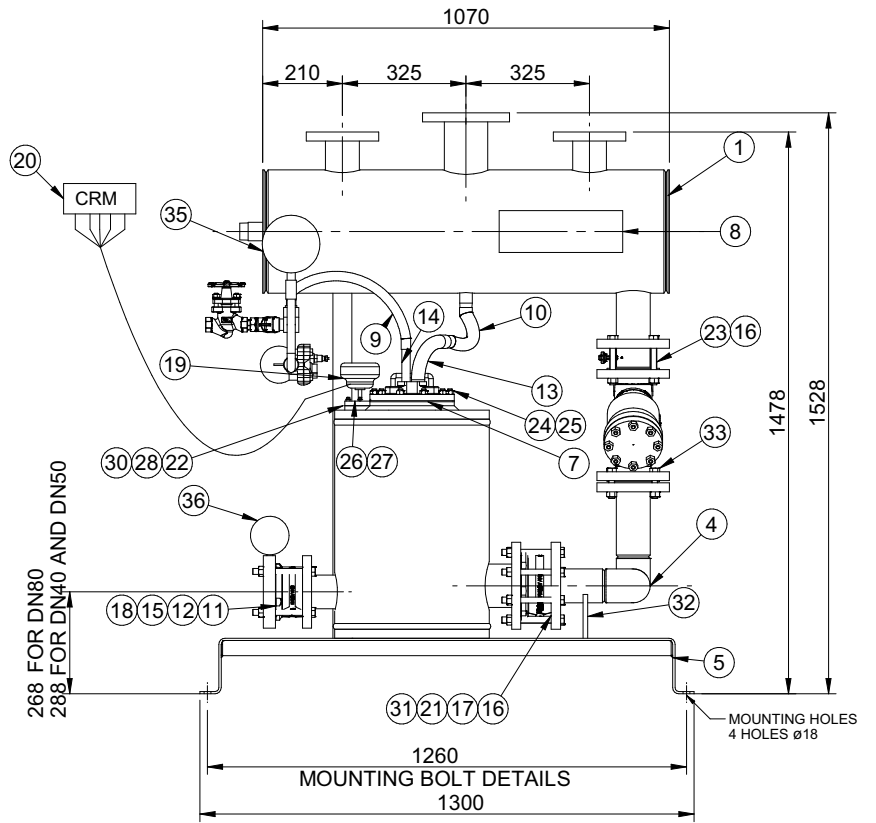
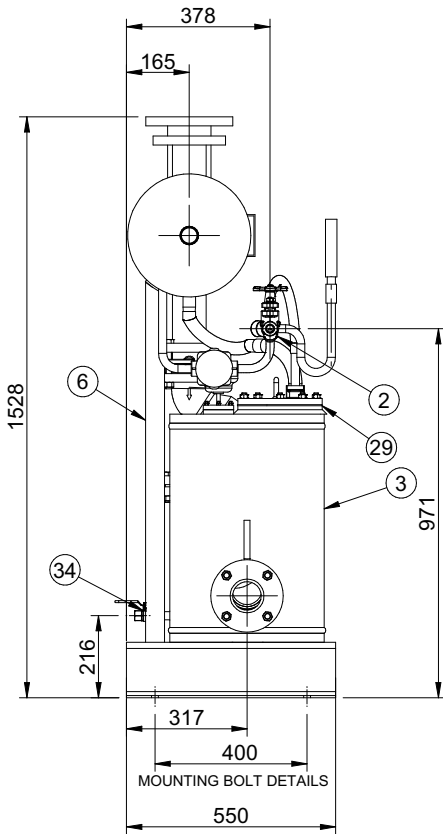
Example : DN40 Pressure Powered Pump Package Unit - High Pressure PPPPU - HP with Insulation Jacket.

### Available Spares

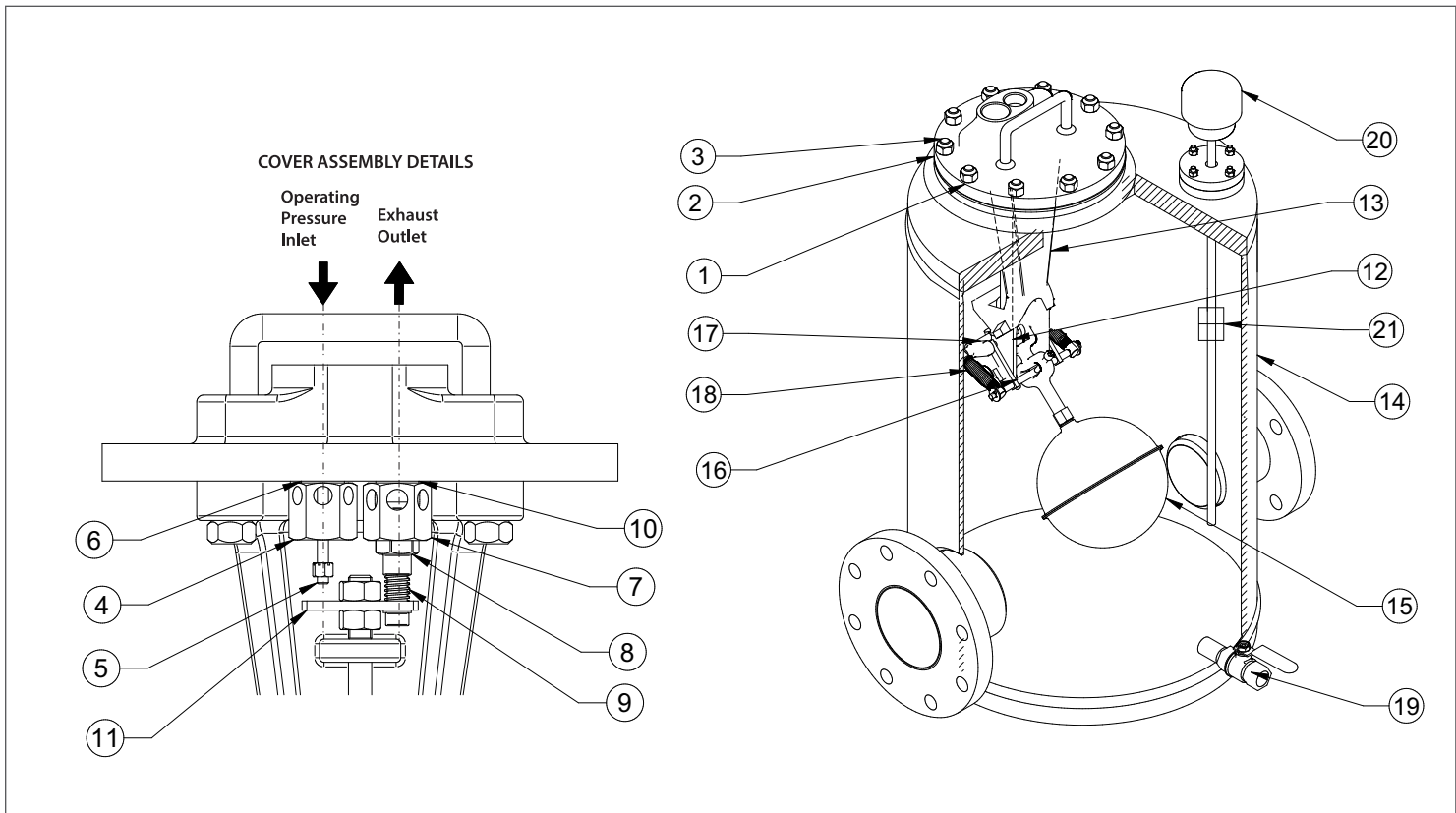
Set of Internals  
Gasket Kit  
Inlet Valve Kit  
Exhaust Valve Kit  
Float Assly.  
Spring Assly. (pkt. Of 2)

### How to Order Spares

Always order spares by using the description given in the column headed "Available Spares" of User Manual for this product.



Sr. No.	Description	Sr. No.	Description
1	Receiver Assembly	20	Condensate Recovery Meter Unit
2	Steam Inlet Connection Assembly	21	Inlet Check Valvet
3	Shell Assembly	22	Reed Sensor Flange
4	Condensate Inlet Assembly	23	Hex Head Bolts
5	Frame Assembly	24	Stud
6	Support Assembly	25	Nut
7	Actuator Mechanism Assembly	26	Stud
8	Nameplate	27	Nut
9	Steam Inlet Hose	28	Sensor Mounting Flange
10	Exhaust Hose	29	Mechanism Gasket
11	Check Valve Outlet	30	Reed Flange Gasket
12	ANSI Class 150 Flange	31	Hex Head Bolts
13	BSPT (M) 90 Deg Bend	32	Condensate Line Support
14	BSPT Pipe Nipple 100mm Length	33	Hex Head Bolts
15	Hex Head Bolts	34	Ball Valve
16	Nut	35	Pressure Gauge Steam
17	Check Valve Gasket	36	Pressure Gauge Condensate Outlet
18	Check Valve Gasket		
19	Reed Sensor Assembly		



**Material**

Sr. No.	Description	Material	Standard
1	Cover	Carbon Steel	ASTM A216 Gr. WCB
2	Cover Gasket	Non Asbestos Sheet	-
3	Stud and Nut	Carbon Steel	ASTM A193 Gr. B7/A194 Gr.2H
4	Inlet Valve Seat	Stainless Steel	ASTM A276 Gr. 304
5	Inlet Valve Stem	Stainless Steel	ASTM A276 Gr. 304
6	Inlet Seat Gasket	Copper	-
7	Exhaust Valve Seat	Stainless Steel	ASTM A276 Gr. 304
8	Exhaust Valve Head	Stainless Steel	SS316
9	Exhaust Spring	Stainless Steel	ASTM A276 Gr. 431
10	Exhaust Seat Gasket	Copper	-
11	Valve Actuator Disc	Stainless Steel	ASTM A276 Gr. 304
12	Push Rod	Stainless Steel	ASTM A276 Gr. 304
13	Mechanism Support	Stainless Steel	ASTM A351 Gr. CF8
14	Body	Carbon Steel	ASTM A516 Gr. 70
15	Float	Stainless Steel	ASTM A240 Gr. 304
16	Linkage Mechanism	Stainless Steel	ASTM A351 CF 8
17	Push Rod Actuator	Stainless Steel	ASTM A351 CF 8
18	Spring	Inconel	-
19	Drain Valve	Forged Carbon Steel	ASTM A105
20	Flow-temp Sensor	Stainless Steel	-
21	Sensor Float	Stainless Steel	ASTM A240 Gr. 304

