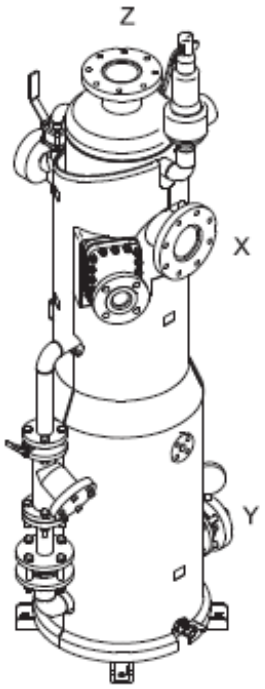
FJP™
FLASHJET™ Pump

Description

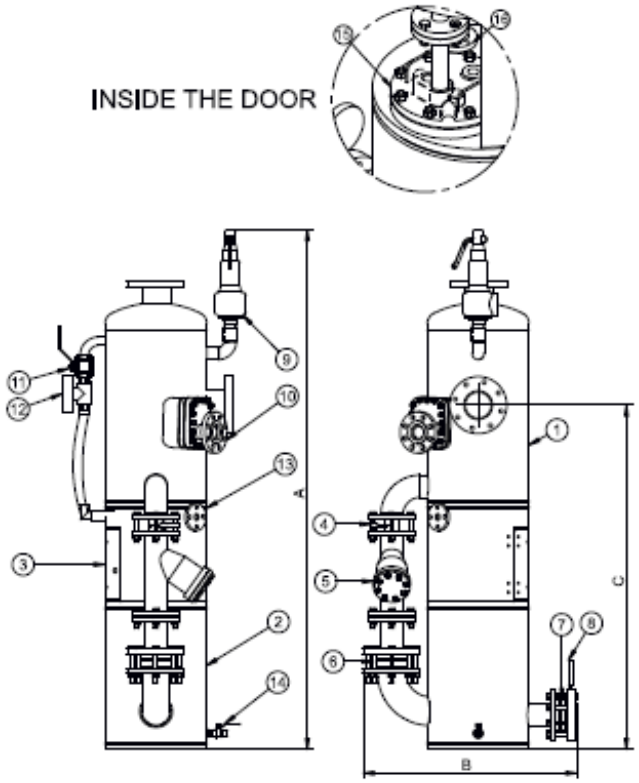
FJP is an integrated solution of a pressure powered condensate pump operated by steam and a Flash vessel. It is an innovative concept that enables the total recovery of flash steam and condensate simultaneously. The condensate recovery meter (CRM485R) gives the amount of condensate and energy recovered from the system and also it is available in exproof version



Size and Connection

Model	X Condensate inlet	Y Condensate outlet	Z Flash outlet	Overflow Connection
FJP40	100 NB	50 NB	100 NB	50 NB
FJP80	100 NB	80 NB	100 NB	
FJP80X	150 NB	80 NB	150 NB	

Dimension drawing



FJP with Insulation Jacket

Sr.No.	Description	Material - Standard
1	Flash Vessel Assembly	Carbon Steel,IS 3589
2	Pump Shell Assembly	Carbon Steel,IS 3589
3	Door	Carbon Steel
4	Isolation Valve	Cast Iron, IS - 210 Gr FG - 260
5	Forbes Marshall Strainer	Cast Iron, IS - 210 Gr FG - 260
6	Forbes Marshall FMDCV	Stainless Steel
7	Forbes Marshall FMDCV	Stainless Steel
8	Pump Outlet Pressure Gauge	Stainless Steel
9	Forbes Marshall Safety Relief Valve	Cast Iron
10	Overflow Trap Assembly	Stainless Steel
11	Exhaust Line Isolation Valve	Cast Iron
12	Back Mounted Pressure Gauge	Stainless Steel
13	Steam Inlet Flange Connection	Carbon Steel, SA 516 Gr 70
14	Pump Drain Ball Valve	Cast Steel
15	Mechanism Assembly	Stainless Steel
16	Forbes Marshall Reed Sensor	Stainless Steel

* INSULATION JACKET NOT SHOWN

End Connections

Flash outlet and condensate inlet flanged to class 150 as per ASME B16.5 For condensate outlet use flange provided with FJP

Capacity Chart

Maximum Flash pressure = 1.5 bar g

Max. Back pressure = 2 bar g

Maximum Condensate pressure = 10 bar g

Total back pressure on FJP has to be more than the flash pressure for its working

Recommended motive pressure = Total back pressure + 2 bar g minimum

Total Back Pressure = [Hx 0.1 bar g] + FP bar g + LP bar g

H= Height to which condensate is to be lifted in mtrs.

FP = Frictional pressure drop of discharge

LP = Line pressure

Limiting conditions

Sizes: FJP40 / FJP80 / FJP80X

Body design: 8.7 bar g at 220°C for FJP40 & FJP80

7.0 bar g at 180°C for FJP80X

Operating motive pressure: 3 to 8.7 bar g for FJP40 and FJP80

3 to 7 bar g for FJP80X

FJP discharge per cycle: 30 liters for FJP40 and FJP80

55 liters for FJP80X

Maximum steam consumption: 4.5 kg of steam per 1000 kg of condensate pumped.

Model	Approx. Dimensions			
	A	B	C	Approx. Empty Weight
FJP40	2m	0.63m	1.4m	250 kg
FJP80	2m	0,63m	1,4m	300 kg
FJP80X	2.2m	0.75m	1.5m	450 kg

Motive steam pressure bar g	Total list or Back pressure bar g	Capacity kg/hr		
		FJP40	FJP80	FJP80X
8.7	0.5	3345	7355	
8.7	1	3020	5870	
8.7	1.5	2865	5310	
8.7	2	2730	4845	
8	0.5	3315	7125	
8	1	3020	5550	
8	1.5	2820	4870	
8	2	2645	4340	
7	0.5	3250	6825	11840
7	1	2960	5280	10545
7	1.5	2765	4695	9250
7	2	2590	4225	7960
6	0.5	3195	6495	9100
6	1	2855	4960	8355
6	1.5	2700	4480	7610
6	2	2565	4085	6870
5	0.5	3120	6305	8495
5	1	2755	4810	7995
5	1.5	2575	4335	7000
5	2	2415	3945	6005
4	0.5	2835	5175	8425
4	1	2600	4245	7435
4	1.5	2370	3555	6040
4	2	2180	3060	4645
3	0.5	2725	4480	7375
3	1	2355	3500	6035

If the total back pressure is less than the flash pressure, contact factory

Installation Note

Install FJP in the vertical position as shown in below figure. It is advisable to install a NRV before the common condensate header on the condensate outlet line

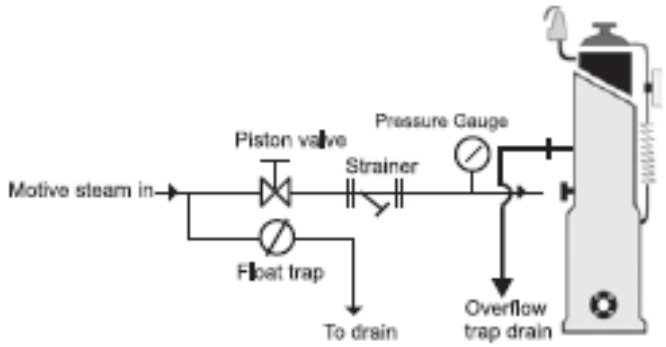
Install the provided 100 mesh strainer and Float trap (drain trap) in the motive steam line of FJP

The FJP is suitable to use under shed only.

Caution: The product is coated with high temperature resistant paint and insulated with insulation jacket.

Take precaution while installation such that the paint and insulation jacket does not get damaged.

Refer user manual for further details.



How to specify

Example: Flash Jet Pump Model FJP40 with CRM.

How to order

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

Available Spares-

Spare list for FJP40 and FJP80

Internals
Gasket kit
Inlet valve kit
Exhaust valve kit
float assembly
spring assembly
Overflow trap gasket
SOFT53 mechanism.Gasket
25NB gasket for exhaust assembly
SOFT53 main valve assembly. Including float

Spare list for FJP80X

Internals
Gasket kit
Valve seat Inlet valve seat & head assembly
Exhaust valve seat & head assembly
float assembly
O-ring set
spring assembly
Overflow trap gasket
SOFT53 mechanism.Gasket
25NB gasket for exhaust assembly
SOFT53 main valve assembly. Including float