

FJP

Flash Jet Pump

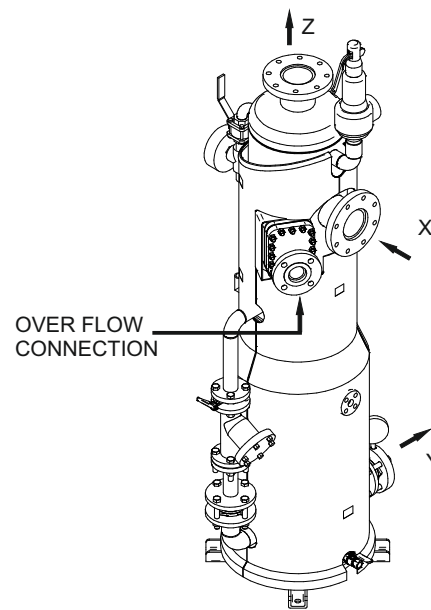
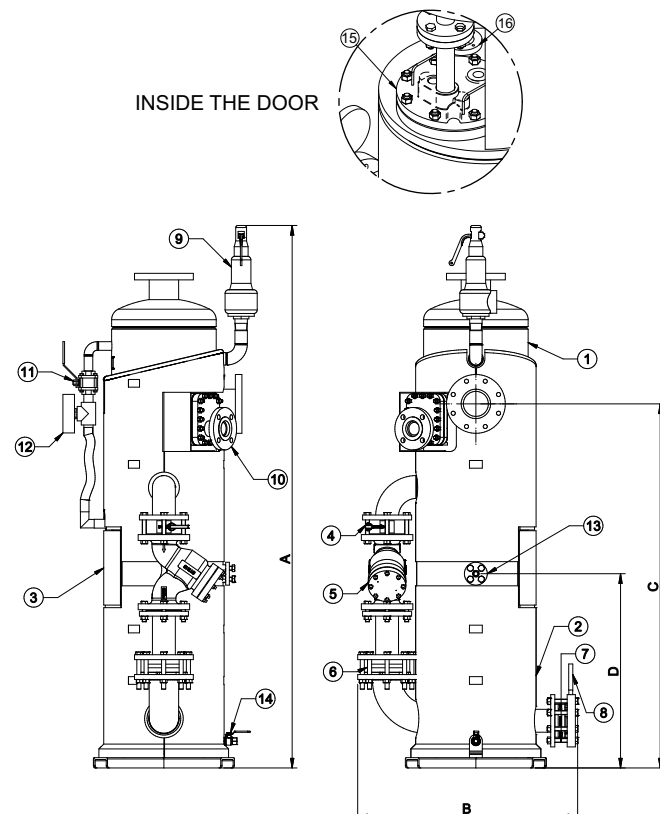
Description

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
FJP25	80 NB	25 NB	80 NB	50 NB
FJP40	100 NB	50 NB	100 NB	
FJP50	100 NB	80NB	100 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	FRP
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, IS - 210 Gr FG - 260
10	Overflow Trap Internals	Stainless Steel
11	Exhaust Line Isolation Valve	Cast Iron, IS - 210 Gr FG - 260
12	Flash Vessel 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

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

Motive steam pressure bar g	Back pressure bar g	FJP capacity, kg/hr				
		FJP25	FJP40	FJP50	FJP80	FJP80X
10	0.5	1208				
10	1	1256				
10	1.5	1209				
10	2	1072				
9	0.5	1330				
9	1	1313				
9	1.5	1214				
9	2	1019				
8.7	0.5	1325	3347	5206	7358	
8.7	1	1285	3022	4422	5870	
8.7	1.5	1201	2869	3894	5310	
8.7	2	1021	2731	3577	4848	
8	0.5	1320	3319	5145	7126	
8	1	1302	3022	4218	5550	
8	1.5	1196	2823	3727	4872	
8	2	999	2649	3477	4340	
7	0.5	1283	3254	4948	6826	11842
7	1	1193	2962	3985	5281	10548
7	1.5	1069	2768	3479	4696	9254
7	2	876	2594	3244	4228	7960
6	0.5	1273	3196	4613	6498	9102
6	1	1191	2858	3586	4963	8358
6	1.5	1135	2703	3185	4484	7614
6	2	935	2569	3107	4087	6870
5	0.5	1370	3124	4404	6305	8495
5	1	1141	2757	3520	4811	7997
5	1.5	1133	2575	3090	4335	7001
5	2	1049	2415	2902	3945	6006
4	0.5	1226	2837	3691	5179	8429
4	1	1120	2600	3240	4246	7437
4	1.5	1061	2372	3214	3557	6043
4	2	931	2184	2570	3060	4649
3	0.5	1176	2725	3363	4480	7379
3	1	1067	2359	2803	3500	6039

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

Limiting conditions

Sizes: FJP25 / FJP40 / FJP50 / FJP80 / FJP80X

Body design: 10 bar g at 184°C for FJP25
8.7 bar g at 220°C for FJP40 / FJP50 / FJP80
7.0 bar g at 180°C for FJP80X

Operating motive pressure: 3 to 10 bar g for FJP25
3 to 8.7 bar g for FJP40 / FJP50 / FJP80
3 to 7 bar g for FJP80X

FJP discharge per cycle: 10 liters for FJP25
30 liters for FJP40 / FJP50 / FJP80
55 liters for FJP80X

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

Model	Approx. Dimensions				Approx. Empty Weight
	A	B	C	D	
FJP25	1.8m	0.74m	1.28m	0.46m	175 kg
FJP40	2m	0.77m	1.4m	0.71m	250 kg
FJP50	2m	0.87m	1.4m	0.71m	270kg
FJP80	2m	0.85m	1.4m	0.75m	300 kg
FJP80X	2.2m	0.95m	1.5m	0.77m	450 kg

Installation Note

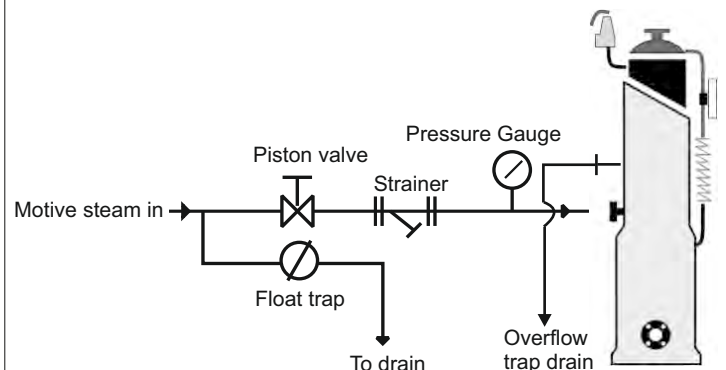
Install FJP in the vertical position as shown in below figure. It is advisable to install a NRV before the common condensate header on the condensate outlet line
Install the provided 100 mesh strainer and Float trap (drain trap) in the motive steam line of FJP

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 FJP25**

FJP25 Mechanism kit
Gasket kit
Inlet valve kit
Exhaust valve kit
Float assembly kit
Overflow trap assembly kit
Inlet/Exhaust hose kit
Spring Kit

Spare list for FJP40, FJP50 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



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