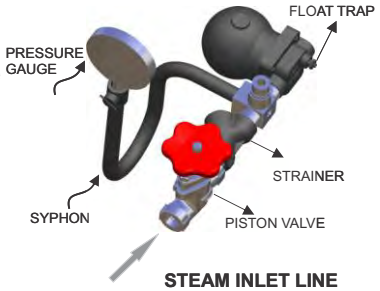
PRESSURE POWERED PUMP PACKAGED UNIT
PPPPU

Installation

STEP1

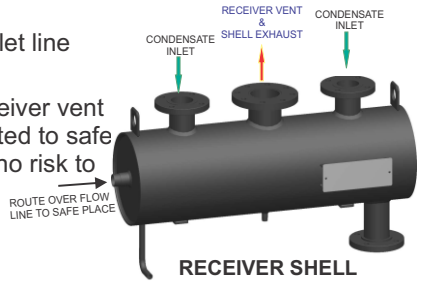
Assemble the pressure gauge to the syphon and connect steam inlet to piston valve ensuring leakproof joint.



STEP 2

Connect the condensate inlet line with the pump receiver.

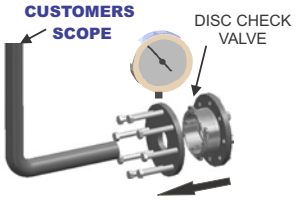
Please ensure that the receiver vent and over ow lines are routed to safe location such that there is no risk to personnel



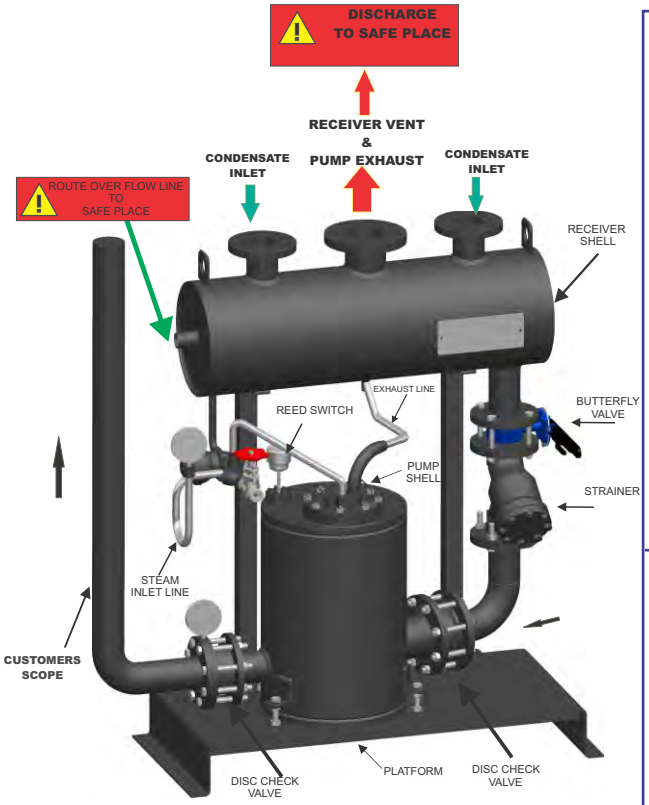
STEP 3

Connect CRM referring user manual(if supplied).

STEP 4



*Unscrew the ange of the outlet FMDCV and keep the FMDCV safe preventing any damage.
*Assemble and weld the discharge line with the FMDCV outlet ange.
*Please ensure that no dirt, weld spatter is left while welding.
*Provide ½"BSPT tapping on pump discharge line to cross check the back pressure in the discharge line



If the condensate flow to the pump is slow, the pump will not operate till it is full. The strokes will be intermittent.

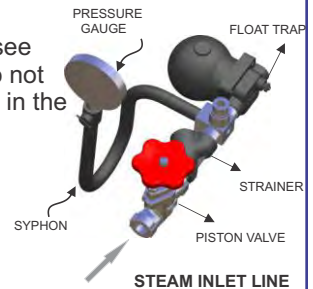
For foundation details refer user manual

Commissioning

STEP A

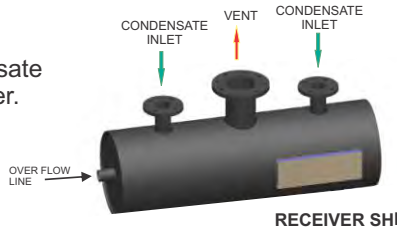
1. Remove strainer cap and the screen from steam and condensate inlet strainers. Flush steam /condensate through the strainer for 5-10 minutes until clear steam and condensate is visible. Reassemble the strainer cap and screen of both the strainers.

2 Open the piston valve and see that steam inlet pressure do not exceed more than 8.7 bar g in the pressure gauge.



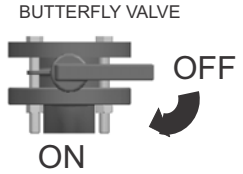
STEP B

Allow the condensate ow to the receiver.



STEP C

Check that the isolation valve on the pump is in open condition and observe the pump performance.



PRECAUTIONS

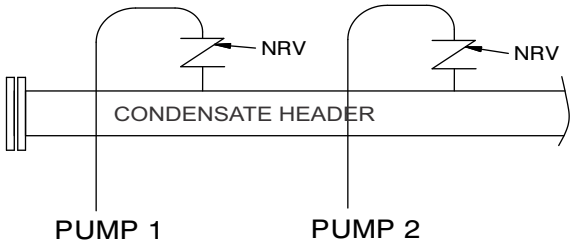
1. Do not allow the motive(Steam/Air) pressure to uctuate.
2. Do not install crooked discharge line.
3. The discharge line should never be smaller than bore of the outlet check valve.
4. If the condensate discharge line is more than 100 mtrs long then it should be properly sized to handle the quantity of condensate. For more details please contact Forbes Marshall .
5. Do not close the exhaust and vent pipe under any circumstances and ensure they are piped to safe location
6. If the pump is supplied with Flash Vessel allow the condensate to ow by gravity from ash vessel trap outlet to condensate inlet of pump receiver.

CAPACITY CHART

MOTIVE STEAM				
Pressure (bar)		Capacity (kg/hr)		
Motive	Back	DN40	DN50	DN80
8.7	0	4090	6765	10355
	1	3295	4655	6165
	2	2980	3765	5090
	3	2730	3605	3925
	4	2405	3100	3495
8	0	4015	6680	10455
	1	3295	4440	5830
	2	2890	3660	4555
	3	2475	2995	3770
	4	2350	2645	2950
7	0	3935	6675	10135
	1	3230	4195	5545
	2	2830	3415	4440
	3	2420	2930	3515
	4	2195	2605	2855
6	0	3955	6365	9880
	1	3115	3775	5210
	2	2800	3270	4290
	3	2325	2700	3425
	4	2095	2195	2720
5	0	3930	6275	9605
	1	3005	3765	5050
	2	2635	3055	4140
	3	2290	2505	3070
4	0	3705	5910	9175
	0.5	3095	3885	5440
	1	2835	3410	4460
	2	2380	2705	3215
3	0	3525	5420	8090
	0.5	2970	3540	4705
	1	2570	2950	3675

MOTIVE AIR				
Pressure (bar)		Capacity (kg/hr)		
Motive	Back	DN40	DN50	DN80
6	0	4055	6360	9645
	1	3655	5555	7925
	2	3465	4845	6710
	3	3335	4390	5765
	4	3055	3815	4810
5	0	4060	6350	9750
	1	3770	5485	7700
	2	3555	4800	6460
	3	3275	4130	5465
4	0	4110	6305	9555
	0.5	3905	5590	8425
	1	3790	5380	7550
	2	3450	4520	6105
3	0	4060	6265	9500
	0.5	3935	5695	8085
	1	3680	5125	7085

7. If you have to connect more than one pump to common condensate return header please refer below gure.



* NRV :SIZE EQUAL TO PUMP OUTLETSIZE

8. Ensure there is no additional pressurised lines or any discharge from centrifugal pump is connected to the discharge line which could cause increase in back pressure