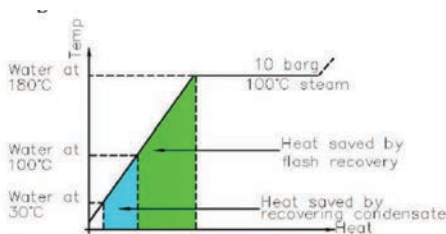
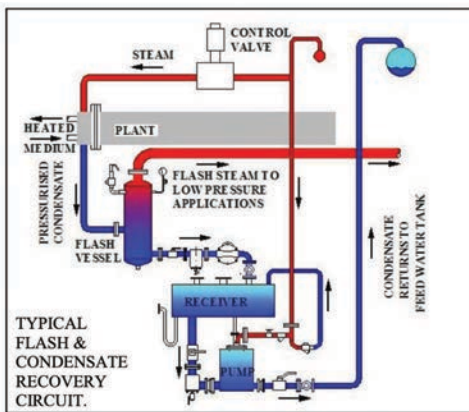


Flash & Condensate Recovery Systems

Mutiny & MTRPS





Maximum Heat Recovery from Available Condensate

WHY HEAT RECOVERY FROM CONDENSATE ?

Condensate is the steam that has condensed to water after giving away its latent heat in the heating process. Being condensed from steam it is pure water and the best possible source of feed water for the boiler. This quality feed water directly results into reduction of blow downs, the resultant heat losses through blowdowns and reduces other scale related challenges in the boiler. In addition to this the most important feature of Medium or high pressure condensate is that it carries with it a significant amount amount of sensible heat which gets wasted the moment we drain the condensate.

This heat, as shown in the demonstrative graph alongside, is nearly about 20% of the total heat of the steam and can be recovered by controlled flashing and return of the condensate to the boiler feed water tank at 100 deg.C.

Create substantial savings by recovering heat from condensate.... Consider

- Cost of steam at just Rs. 2 per kg,
- Condensate pressure 3.5 kg/cm² ...p1
- Flash recovery at 0.5kg/cm² pressure ...p2
- Condensate to be recovered. only 1000 kg/hr

$$\text{recoverable flash} = ((\text{sensible ht at } p_1 - \text{sensible ht at } p_2) / \text{latent ht at } p_2) \times 100$$

$$= ((148 - 109.5) / 533) \times 100 = 7.2\% = 72\text{kg/hr of steam recovery}$$

$$\text{Money saved} = 72 \times 2 = \text{Rs. 144 per hr.}$$

By returning balance condensate to boiler feed water tank at 100 deg. C

$$\text{equivalent steam saved} = ((100 - 35) \times 1000) / 540 = 120 \text{ kg/hr}$$

$$\text{Money saved} = 120 \times 2 = \text{Rs. 240 per hr.}$$

$$\text{Therefore total money saved} = 240 + 144 = \text{Rs 388 per hr.}$$

✓ *Reduces Boiler fuel consumption by recycling hot Condensate*

✓ *Lowers makeup water cost*

✓ *Provide faster payback and operational cost saving*

✓ *Boost your steam system performance with minimal losses*

Mutiny – Steam Operated Condensate Return Pump

MUTINY – Steam Operated Condensate Pump

IA make MUTINY is a STEAM OPERATED CONDENSATE PUMP. Simple in construction and operated by steam, these are highly economical and energy efficient pumps for pumping of hot condensate practically at 100° C. The pump is available as a complete package with condensate collection tank, interconnecting piping with strainer, isolating valve, disc check NRV at inlet and disc check valve at outlet. It is also provided with the motive steam inlet connections complete with isolating valve, steam trap and piping. Condensate inlet to tanks and the condensate outlet of the pump are provided with flanged connections.

STEAM OPERATED CONDENSATE RETURN PUMPS

SR No.	Item	Material	Class
1	Pump body, frame assly, receiver body	M.S.	IS 2062
2	Ainteno Online Cleaning Strainer	M.S.	With SS304 internals
3	Disc check valve	S.S.	
4	Butterfly / Ball Valve	C.I.	SS 304 internals
5	All pipng – condensate inlet & return, exhaust, overflow, steam inlet.	M.S.	IS 1239 CLASS C
6	Steam trap	SS 420	
7	Pump internals	SS 304	

Size	25NB, 40NB, 50NB, 80 X 50NB
MOC	Float based, spring loaded snapshut mechanism, fully mechanical and automatic.
End Connection:	ASA 150 # Flanged
Max. All. Pr.	7 bar
Max. All. Temp	180 °C



CAPACITY TABLE :

Condensate Handling Capacity, kg/hr.

SR No.	OP. INLET PR. Bar.	Back PR. Bar.	Pump Size				
			25NB	40NB	50NB	80 X 50NB	Mutiny – MINI
1	7.0	1	1065	1875	2700	4570	650
2	7.0	2.8	980	1715	2490	4250	500
3	7.0	4.2	900	1475	2370	4040	450
4	3.5	0.7	980	1635	2615	4500	600
5	3.5	1.75	940	1510	2370	4000	500
6	3.5	2.8	815	1305	1960	3350	400

MTRPS – Description

The Indo Anushka make MTRPS is designed as a complete solution for Flash Recovery and pumping condensate. This is an ideal equipment to recover 100% flash from condensate and pumping back condensate at more than 100 C. The MTRPS system is a balanced system where even the motive steam supply to the pump is recovered resulting in to zero loss of any steam. Additionally the MTRSP comes with a very compact design and it occupies very less space and hence can be installed locally near the equipment without disturbing the existing plant layout.



Operation

The condensate flows into the specially designed flashing chamber. Here the flash is separated from the condensate and the remaining hot condensate is discharged from the bottom of the flashing chamber.

This hot condensate then flows in to the pumping chamber from where it can be pumped to the application destination. The system consists of a balancing system to keep the pressure uniform in the entire equipment

Specifications:

MODEL – SIZE	CAPACITY KG/HR
MTRPS22-25M	600
MTRPS22-25	1000
MTRPS40-25	1200
MTRPS40-40	1400
MTRPS40-50	2000
MTRPS70-50	2400
MTRPS70-8050	4000
MTRPS130-50x2	4800
MTRPS130-8050+50	6000
MTRPS130-8050x2	8000

Get In Touch

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