

# THERMAX ATMOSPHERIC FLASH SYSTEM

When high pressure condensate is discharged from steam traps to low pressure condensate return lines, excess energy is released in the form of flash steam. This flash steam can be used to heat boiler feed water or for low pressure steam application

## GENERATES LOW PRESSURE FLASH STEAM

- Not covered under IBR
- Adequately sized to minimize pressure drop
- Steam trap sized to handle condensate at low pressure difference to be fitted at condensate outlet
- Designed with optimum separation velocity to get dry steam



## MATERIAL OF CONSTRUCTION

Body & Nozzles	ASTMA 106
Dished Ends	IS 2062 Gr. B/SA285

## DESIGN SPECIFICATIONS

Design Code	ASME BPVC Sec VIII Div I
Design Pressure	14 kg/cm <sup>2</sup> (g)
Design Temperature	200° C

Higher design / operating pressure available on request

## SELECTION

Use the selection table to select the appropriate size of flash vessel. It is necessary to know the pressure of condensate, flash steam pressure required and the condensate flow rate.

### EXAMPLE

The condensate at 3.5 kg/cm<sup>2</sup>g with a flow rate of 2500 kg/hr.

The pressure of the flash steam required :	0.5 kg/cm <sup>2</sup> g	
The heat content of water at 3.5-kg/cm <sup>2</sup> (g) :	148 Kcal/kg	
The heat content of water at 0.5-kg/cm <sup>2</sup> (g) :	110.9 Kcal/kg	
Latent heat of steam at 0.5 kg/cm <sup>2</sup> (g) :	531.9 Kcal/kg	
% Flash steam :	(148-110.9)/531.9	= 7%
Flash Steam Produced :	(7*2500) / 100	= 175 kg/hr

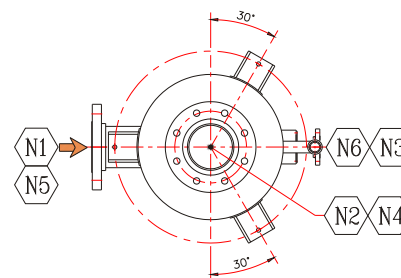
Looking to the table provided below, for condensate load of 2500 kg/hr and flash steam load of 175 kg/hr **TAFS-300** becomes an ideal selection.

## SELECTION TABLE FOR TAFS

Condensate kg/hr	Flash Steam Kg/hr	Model	Size mm NB
850	200	TAFS 150	150
2200	450	TAFS 200	200
4500	900	TAFS 300	300
7000	1150	TAFS 350	350

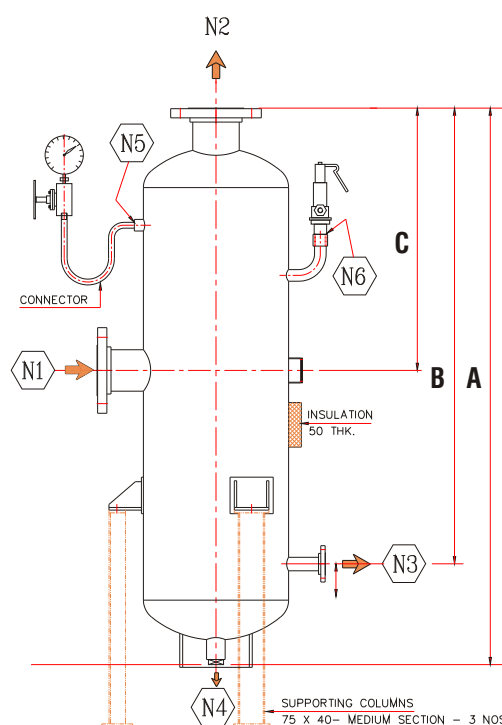
## END CONNECTIONS

N1, N2, N3 flanged to ANSI B 16.5 Class # 150  
N4, N5, Screwed BSP



## INSTALLATION

The flash vessel should be installed in vertical position only with flash steam outlet at the top.



## MODELS AND DIMENSIONS

	TAFS 150	TAFS 200	TAFS 300	TAFS 350
A	1510	1610	1660	1810
B	1250	1335	1365	1505
C	880	940	855	1075
N1	50	80	100	150
N2	65	100	150	150
N3	40	40	50	50
N4	25	25	25	25
N5	15	15	15	15
N6	25	25	40	40