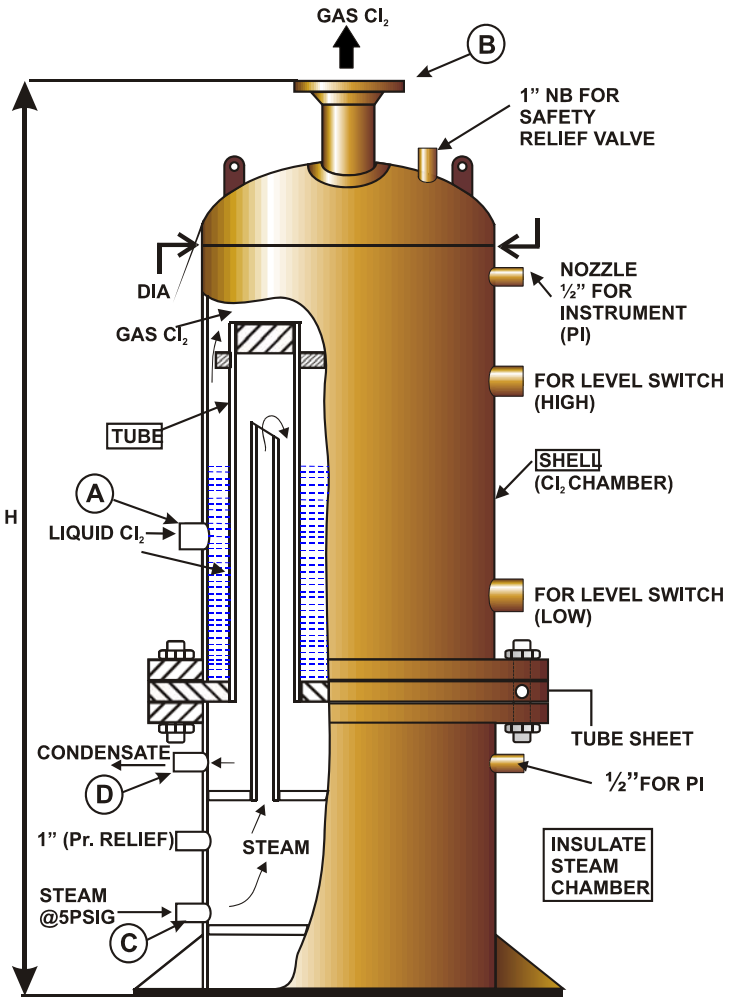
LIQUID CHLORINE VAPOURISERS

STEAM HEATED – BAYONET CONSTRUCTION

OPERATING PRINCIPLE

- Liquid chlorine is introduced to the shell bottom and above Tube sheet. As the liquid rises and contacts the heat transfer area to generate the vapour, the gas pressure rises. As the gas pressure reaches the liquid chlorine source pressure (storage tank gas pressure) the liquid flow ceases to balance the pressure in Tanker / Ton containers.
- When the gas demand is effected the liquid starts flowing in to meet the flow of gas from vapouriser
- Super heat – Vapourisers are designed for super heat of 5 deg.F at Full rated capacity. Increase of super heat results when vapouriser is operated at low capacity. But it is safer to operate for entire range.
- Superheat indicates the healthiness of vapouriser. As the fouling of heat transfer area increases, the superheat decreases and indicates the require ment of cleaning heat transfer area for efficient operation.
- Liquid chlorine level inside the vapouriser is self adjusting according to the vapourising rate. Lower the withdrawal rate lesser is the heat transfer contact area and thus results in lower level.
- Vapouriser can be operated principally from 20% to 100% of the capacity.
- If the ambient temperature is very low insulate the chlorine chamber and gas outlet piping to prevent recondensation of chlorine gas.
- Surface of outer tube is the principal heat transfer area.
- Both outer and inner tubes extend from separate stationery tube sheets and extends into the shell.
- Excellent condensing and falling of water from inside of tube wall provides excellent heat transfer.
- As per ASME unfired Pressure Vessel Code sec. VIII



- Negligible pressure drop of chlorine.
- Easy to dismantle for cleaning of tubes and inspection.
- Very compact and occupies very less floor space.
- Easy to erect and commission.

Materials of construction	
Tubes / Pipes	ASTM A 106 Gr. B
Sheets	ASTM A 516 Gr. 60 ASTM A 515 Gr. 60
Forgings	ASTM A 105

Model	*Chlorine In Kg/hr	Corrosion Allowance	Design class	Nozzle			
				A	B	C	D
SC-04-2T	2000	Chlorine side : 3 mm Steam side : 1.5 mm	300 # Standard as per Chlorine institute, USA	25	65	65	25
SC-04-3T	3000			40	80	80	40
SC-04-5T	5000			40	100	100	40
SC-04-7T	7500			50	125	125	50

* Rated Capacity for 5º F Superheat

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