

C&H SERVICES SBU



Perfect Solution to avoid corrosion damage to steam boiler plants

■ What is Pressurised Deaerator?

Deaerator is a system designed to heat boiler feed water in order to reduce oxygen and carbon dioxide level to reduce corrosion of boiler internals, tubes, etc. Thermax pressurised deaerator economically handles wide range of flow rates & temperature for both boiler feed water & process applications.

Purpose of Deaerator

- To remove oxygen, CO₂ & other non condensable gases from feed water
- To heat incoming makeup water & return condensate to an optimum temperature
- Minimizing solubility of the undesirable gases
- Providing the highest temperature water for injection to the boiler
- Improve heat transfer in boiler
- Utilize low pressure exhaust and flash steam
- Common collection points for high & low temperature condensate returns
- Economizing of overall operation by reduction in the chemical treatment costs

Working Principle

- Make-up water and return condensate is distributed over series of trays & comes in direct contact with the steam, which is fed into the system from below.
- Above process reduces the solubility of oxygen and carbon dioxide and removes these gases from the feed water.
- The released gases are vented through vent line provided at the top of the vessel.

Key Features

- Guaranteed Oxygen removal Up to 7 PPB
- Designed conforming to IBR / ASME
- Highest process deaerator installed capacity: 250 m³/hr, 171 Deg.C
- Conventional/PLC based control system available

Type/Application

- Boiler Deaerator - Boiler feed water application
- Process Deaerator - Tyre industry

MOC

Shell	: SA 515 / 516 Gr 70	Nozzles & Pipes	: SA 106 Gr. B
Dished End	: SA 515 / 516 Gr 70	Water Spray Nozzle	: SS 304 / 316
Perforated Tray	: SS 304 / 316		

Technical Specifications

Deaeration Capacity	kg/hr	5000	10000	15000	20000	25000	30000
Feed water flow	kg/hr	4415	8824	13236	17647	22059	26471
Feed water inlet temp	Deg.c.	30	30	30	30	30	30
Final water temp	Deg.c.	105	105	105	105	105	105
Steam flow	kg/hr	650	1307	1961	2614	3268	3921
Design pressure	kg/cm ² (g)	3.5	3.5	3.5	3.5	3.5	3.5
Hydraulic test pressure	kg/cm ² (g)	5.25	5.25	5.25	5.25	5.25	5.25
Design metal temp.	Deg.c.	147	147	147	147	147	147
Operating pressure	kg/cm ² (g)	0.25	0.25	0.25	0.25	0.25	0.25
Operating temp.*	Deg.c.	105	105	105	105	105	105

* Higher temperature range is available on request

For more information, please get in touch with your nearest Thermax Representative. You can also mail us at info.c&hservices@thermaxindia.com visit us at: www.thermaxindia.com

In view of our constant endeavour to improve the quality of our products, we reserve the right to alter or change specifications without prior notice. All photographs shown in this publication are representative in purpose, and to be used for reference only. For actual details and specifications, please refer to Thermax offer document.



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Sustainable Solutions in
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