

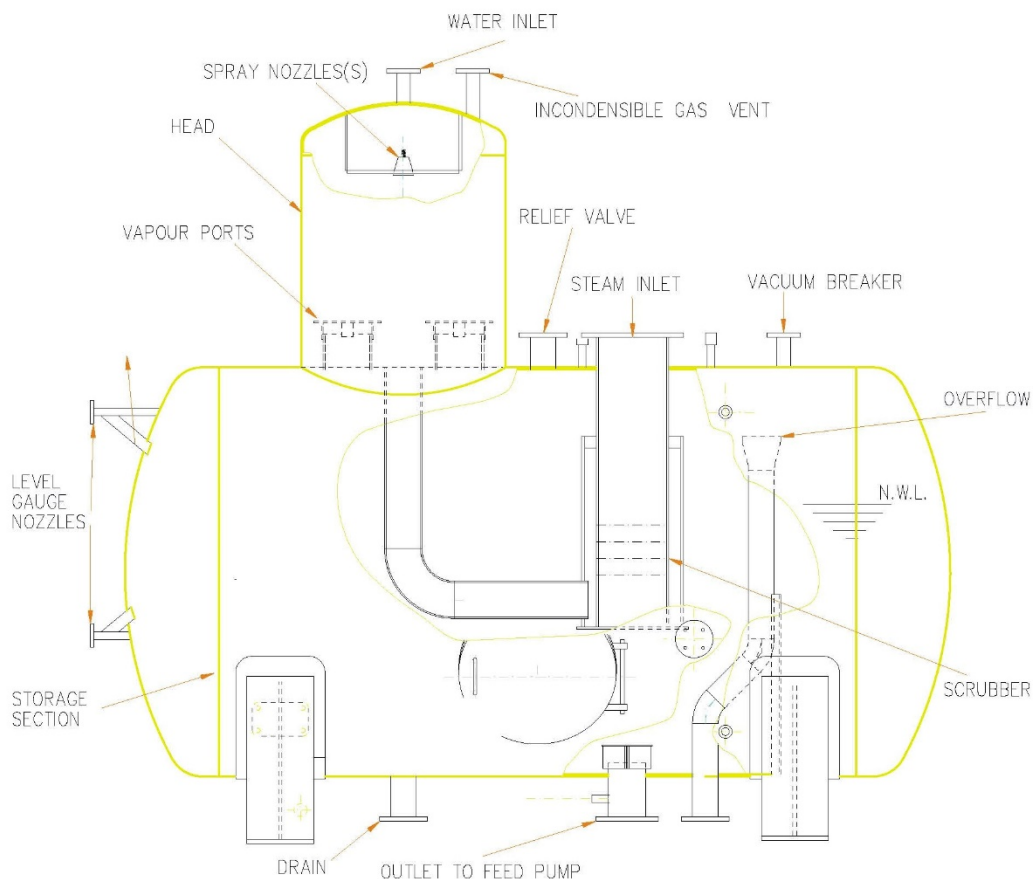


## Tomlinson Pressure Deaerators

The Tomlinson Energy Service pressure deaerator is based on Kennicott / John Thompson technology and is made in a size range from 10 t/h to 500 t/h. Water leaving the deaerator contains less than 0.005 mg/l of oxygen. The standard models operate at 20 kPa above atmospheric pressure, however higher-pressure units are available where higher feedwater temperatures are required. The standard deaerator is usually coupled to a vessel having 10 minutes storage capacity; however the storage capacity can be customised to suit the process.

Design details are illustrated in the figure below. Water entering the spray chamber is discharged into the deaerating head through spring loaded spray nozzles. These special spray nozzles are designed to efficiently atomise the water over widely varying flow conditions. The finely divided water particles are heated in the deaerating head by steam flowing up from the scrubber into the head. Oxygen and carbon dioxide released in the head are vented to atmosphere through a water-cooled pipe running through the spray chamber. Steam entrained with the gases is condensed in this pipe; this minimises heat loss from the system. The deaerated boiling water is drained into the storage vessel through a stainless-steel scrubber where it is vigorously agitated to strip it of practically all remaining gas.

The standard deaerator is fitted with pneumatically operated water flow and deaerator pressure control valves. Standard fittings include a water level gauge, level transmitter, pressure transmitter, vacuum relief valve, overflow control valve and drain valve.





### STANDARD CAPACITIES

MODEL NUMBER	OUTPUT (t/h)	STORAGE (tonnes)	HEAD DAMETER x LENGTH (mm)
TES010	10	1.6	Integral
TES020	20	3.3	900 x 1000
TES035	35	5.8	1050 x 1000
TES050	50	8.3	1200 x 1000
TES100	100	16.7	1500 x 1000
TES200	200	33.3	2000 x 1250
TES300	300	50.0	2300 x 1250
TES500	500	83.3	2700 x 1250

Other Models Available on Request  
Storage Time can be Customised to Suit



### ABBREVIATED REFERENCE LIST

CLIENT / LOCATION	CAPACITY (t/h)	PRESSURE / TEMPERATURE
Goro Nickel, New Caledonia	1 x 475	42 kPa/ 110°C
Caltex Refinery, Brisbane	1 x 216	120kPa / 123°C
Murray Goulburn, Rochester	1 x 30	20 kPa/105°C
Unilever Foods, Sydney	1 x 16	20 kPa/105°C
BP Refinery, Brisbane	1 x 320	20 kPa/105°C
BHP DRI, Port Headland	1 x 220	20 kPa / 105°C
Stuart Energy, Gladstone	1 x 19	20 kPa / 105°C
Hawaiian Philippines, Philippines	1 x 230	100 kPa / 120°C
Nabalco, Gove	1 x 63	350 kPa / 148°C
Bulong Nickel, Kalgoorlie	1 x 32	20 kPa / 105°C
Visypaper, Brisbane	1 x 50	20 kPa / 105°C
Murray Goulburn Coop, Victoria	1 x 16	20 kPa / 105°C
Comalco, Weipa	1 x 10	20 kPa / 105°C
Lopez Sugar Mill, Philippines	1 x 110	20 kPa / 105°C