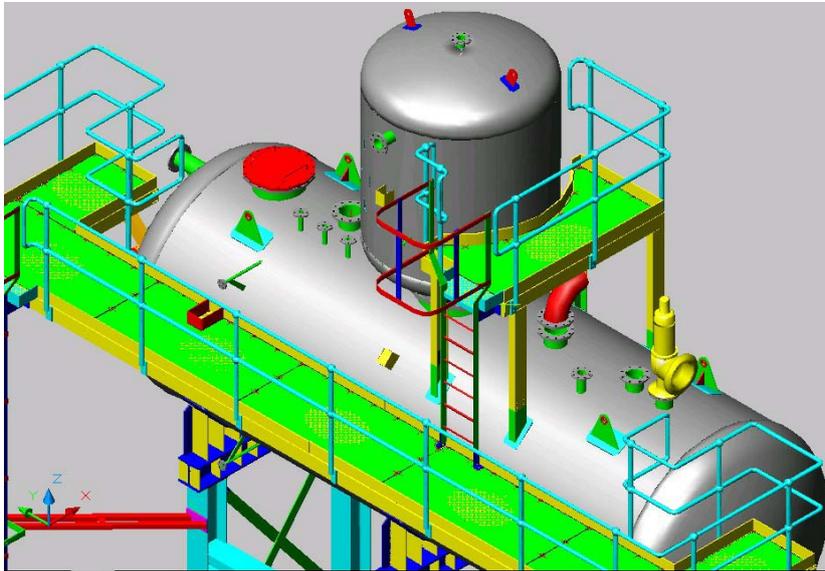


## Pressurised Deaerator for Steam Boilers



**AS STANDARD THE DEAERATORS ARE DESIGNED AND MANUFACTURED TO PD5500 CATEGORY 3 OR HIGHER.**

**FROM THE DEAERATOR, THE BOILER FEEDWATER IS SUPPLIED AT HIGHER TEMPERATURE MAKING THE BOILER MORE EFFICIENT.**

**DISSOLVED GASES ARE LIBERATED FROM THE BOILER FEEDWATER IN THE DEAERATOR, SAVING BOTH SULPHITE AND AMINE CHEMICAL COSTS.**

**PREVENTS BOILER AND PIPELINE CORROSION SINCE OXYGEN AND CARBON DIOXIDE ARE ELIMINATED AS FAR AS POSSIBLE FROM BOILER FEEDWATER.**

### Purpose

The principle reason for the corrosion commonly found on mild steel boiler hotwells and condensate pipework is the constant introduction of oxygen and carbon dioxide into the boiler feedwater.

An atmospheric hotwell or atmospheric deaerator can only partially remove these gasses from the steam and condensate systems.

A properly designed pressurised deaerator can bring the dissolved oxygen level to less than 0.02 ppm and at the same time increase the boiler feedwater temperature above 100°C for improved boiler efficiency.

### Design

All wetted parts of the deaerator dome are constructed in stainless steel. The saw tooth fixed deaerating elements inside the dome have been carefully designed to produce optimum water droplet size for effective deaeration.

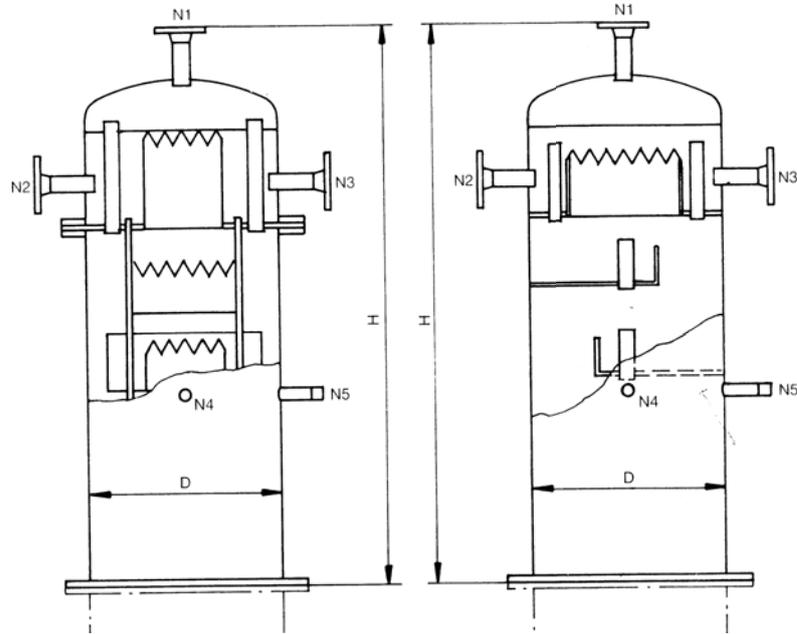
The accompanying deaerator storage vessel is of carbon steel construction. Stainless steel vessel is available as an option. The working level is approximately  $\frac{3}{4}$  full with the rest of the space within the vessel being saturated with steam to provide a blanket over the water surface.

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Pressurised Deaerator for Steam Boilers

Typical Details of the Deaerator Dome



Type		DD250	DD350	DD450	DD550	DD650	DD800	DD900
Capacity	m <sup>3</sup> /h	0.5 - 1.6	1.7 - 3.0	3.1 - 5.0	5.1 - 8.0	8.1 - 11	11.1 - 15	15.1 - 19
D	mm	250	350	450	550	650	800	900
H	mm	1050	1260	1280	1300	1820	1850	1870
Connection feedwater tank	mm	250	350	450	550	650	800	900
Connection N1	mm	15	20	25	32	32	40	50
Weight	kg	85	115	155	210	275	450	570

Type		DD1000	DD1200	DD1400	DD1600	DD1800	DD2000	DD2200
Capacity	m <sup>3</sup> /h	19.1 - 24	24.1 - 33	33.1 - 40	40.1 - 50	50.1 - 80	80.1-100	100.1-120
D	mm	1000	1200	1400	1600	1800	2000	2200
H	mm	1880	1920	2450	2500	2690	2700	2800
Connection feedwater tank	mm	1000	800	1000	1000	1000	1000	1000
Connection N1	mm	50	65	65	80	80	100	100
Weight	kg	615	870	1220	1720	2300	2500	2880

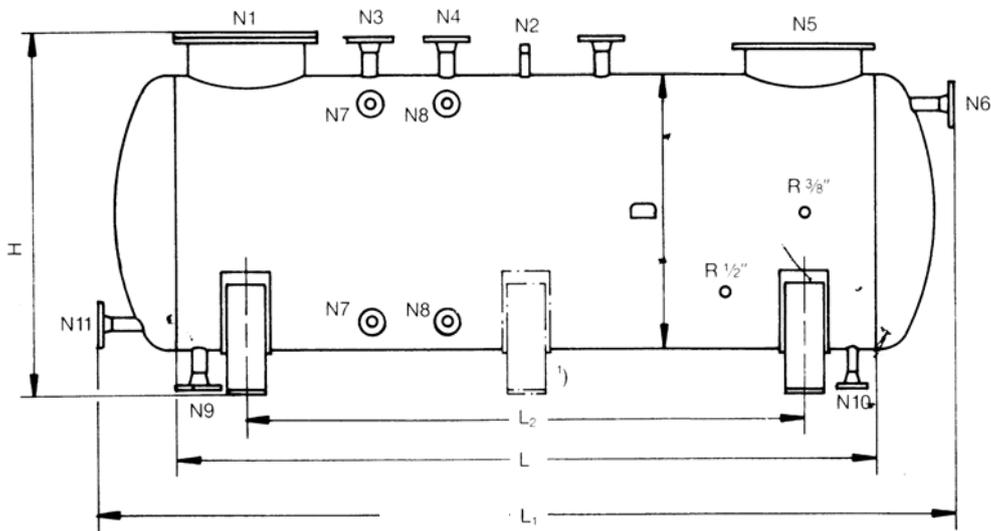
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Pressurised Deaerator for Steam Boilers

Typical Details of the Deaerator Storage Vessel



Type		SV2	SV3	SV4	SV6	SV8	SV10	SV16
Volume	m <sup>3</sup> /h	2	3	4	6	8	10	16
D	mm	1000	1200	1200	1600	1600	1600	2000
L	mm	2500	2500	3000	3000	4000	5000	5000
L1	mm	2940	3050	3550	3680	4680	5680	5850
L2	mm	1900	1900	2200	2200	3200	4100	4100
H	mm	1350	1600	1600	1950	1950	1950	2350
Weight	kg	570	780	870	1140	1340	1630	2560

Type		SV22	SV30	SV40	SV50	SV70	SV100	SV120
Volume	m <sup>3</sup> /h	22	30	40	50	70	100	120
D	mm	2000	2500	2500	2900	2900	2900	3100
L	mm	7000	6000	8000	8000	10000	12000	14000
L1	mm	7850	7050	9020	9180	11502	16500	16600
L2	mm	6100	5100	7000	7000	9000	9000	12000
H	mm	2350	2850	2850	3250	3250	3250	3450
Weight	kg	3210	3860	4160	6260	8850	tba	tba

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**Pressurised Deaerator for Steam Boilers**

Some reference sites where RTK Deaerators have been installed.



**Installation at a Pigmentation Company in  
Yanbu, Saudi Arabia**



**Installation at a Frozen Food Company in  
Wisbech, Cambs, UK**



**Installation at a MDF Company in  
Chirk, North Wales, UK**



**Installation at a Frozen Food Company in  
Worsted, Norfolk, UK**

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