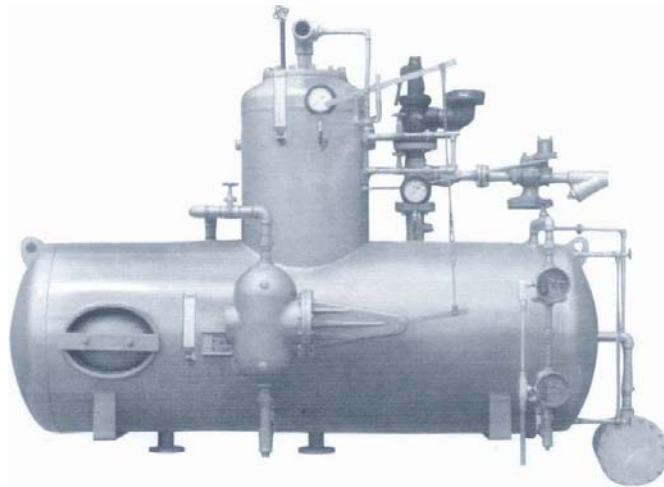


Packaged Deaeration Systems Series "ADA-SS"



The primary function of The Alstrom Deaerators is to remove non-condensable gases (oxygen, carbon dioxide, and air) from boiler feedwater. The presence of undissolved oxygen in feedwater is a principal factor in corrosion of steam system components constructed of iron, steel, or brass. Carbon dioxide, besides being itself corrosive, will accelerate corrosion when combined with oxygen. Carbon dioxide in feedwater will also carry over into the steam and subsequently into the condensate, forming corrosive carbonic acid that will erode piping and heat transfer equipment. Air (non-condensable gases) is an insulator and will "plate out" on heat transfer surfaces as the steam condenses, greatly reducing heat transfer efficiency.



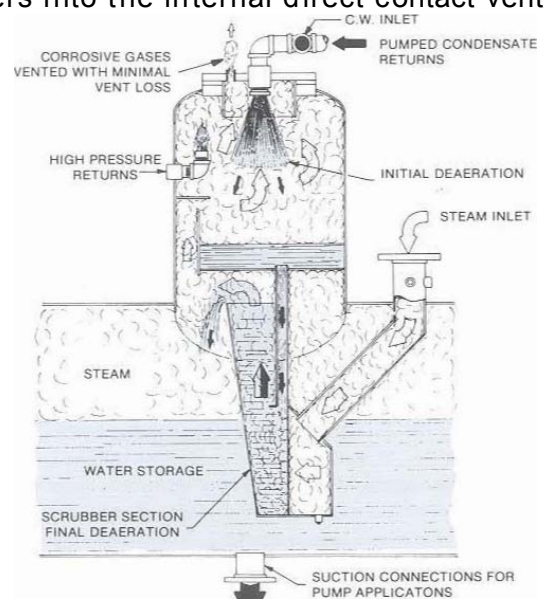
Alstrom's spray-scrubber deaerators are designed to remove these non-condensable gases and reduce the oxygen content of the feedwater to not more than 0.005 cc/liter, and reduce the titratable free carbon dioxide to zero. As an added benefit, the feedwater from an Alstrom deaerator, being at saturation temperature, eliminates problems caused by cold water being injected into a boiler such as thermal shock and an unstable water level created by collapsing steam bubbles.

Operation

Incoming cold or tempered water first enters into the internal direct contact vent condenser of the vertical heater compartment, where stainless steel spray valve(s) direct the flow of water in conical sheets into a steam atmosphere. (Tempered water is a mixture of pumped condensate and cold water make-up.)

In the internal direct contact vent condenser most of the corrosive gases are removed before the water strikes any steel surfaces and is expelled from the deaerator through a stainless steel vent pipe with a restricted orifice to the outside.

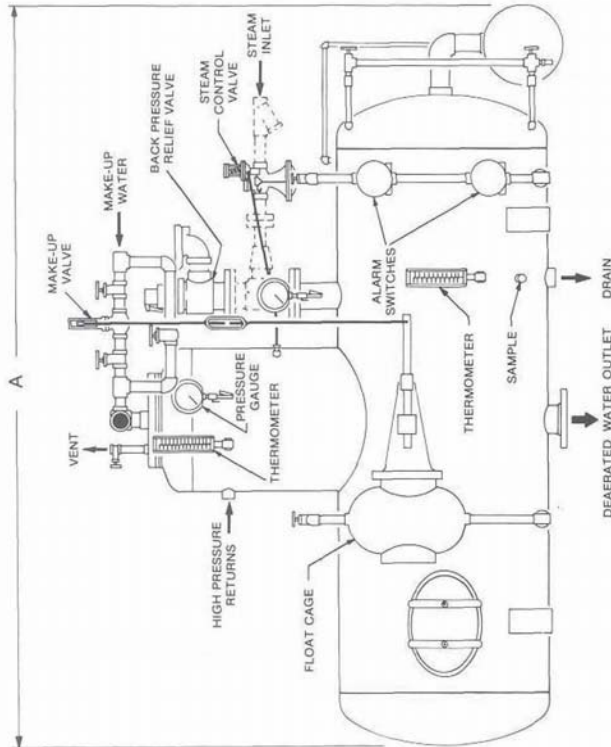
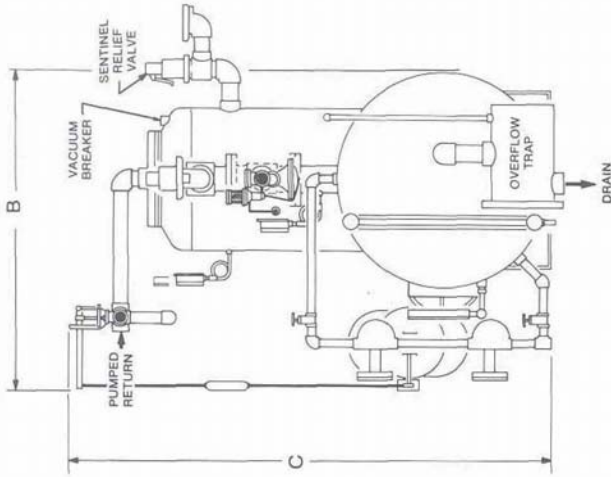
The hot deaerated water then passes into the steam scrubber section where remaining traces of undissolved gases are released as the water is vigorously scrubbed with a large excess of steam containing no free oxygen.



Packaged Deaeration Systems Series "ADA-SS"



Receiver Dimensions



Model	Capacity (#/Hr.)	Storage		Storage Tank		Deaerator		Dimensions			Water Inlet	Over-flow	Steam Inlet	Weight - Lbs		
		Cu. Ft.	Gallons	Dia.	S.S.L.	Dia.	S.S.L.	A	B	C				Shipping	Operating	Flooded
ADA-5SS	5,000	13	10	30"	4'-0"	24"	25"	6'-3"	4'-3"	5'-11"	2 - 12"	1"	2 - 12"	1,100	2,000	2,900
ADA-10SS	10,000	26	20	30"	6'-8"	24"	25"	9'-0"	4'-3"	5'-11"	2 - 12"	1"	3"	1,300	3,000	4,050
ADA-15SS	15,000	40	30	36"	6'-0"	24"	28"	8'-6"	4'-9"	6'-9"	2 - 12"	2"	4"	1,600	4,150	5,000
ADA-20SS	20,000	53	40	36"	8'-0"	24"	28"	10'-6"	4'-9"	6'-9"	2 - 12"	2"	5"	1,800	5,200	6,150
ADA-30SS	30,000	80	60	42"	9'-1"	24"	28"	11'-9"	5'-3"	7'-3"	2 - 12"	2"	6"	2,500	7,550	8,600
ADA-45SS	45,000	120	90	42"	13'-11"	30"	30"	16'-9"	5'-3"	7'-6"	2 - 12"	2"	8"	3,100	10,650	12,250
ADA-60SS	60,000	160	120	48"	13'-4"	30"	30"	16'-3"	5'-9"	8'-0"	3"	3"	8"	4,300	14,350	16,000
ADA-75SS	75,000	200	160	48"	17'-0"	36"	30"	20'-0"	6'-3"	8'-6"	3"	4"	10"	5,550	18,000	20,250
ADA-90SS	90,000	240	180	54"	15'-5"	36"	30"	18'-9"	6'-3"	9'-0"	3"	4"	10"	5,600	20,900	23,050
ADA-120SS	120,000	320	240	54"	21'-0"	42"	30"	24'-3"	6'-9"	9'-6"	4"	4"	12"	6,600	26,750	29,350
ADA-150SS	150,000	400	300	60"	21'-2"	42"	30"	24'-9"	7'-9"	10'-3"	4"	6"	12"	8,350	33,600	36,900
ADA-180SS	180,000	480	360	72"	17'-8"	42"	42"	21'-6"	7'-9"	12'-3"	6"	6"	14"	7,900	38,200	41,400
ADA-210SS	210,000	560	420	72"	20'-0"	48"	42"	25'-0"	7'-9"	12'-3"	6"	6"	14"	8,650	43,950	48,650
ADA-240SS	240,000	640	480	72"	24'-0"	48"	42"	28'-3"	7'-9"	12'-3"	6"	6"	16"	9,450	49,800	56,100
ADA-270SS	270,000	720	540	72"	27'-3"	48"	42"	31'-6"	7'-9"	12'-3"	6"	6"	18"	10,200	55,650	62,350
ADA-300SS	300,000	800	600	84"	22'-0"	54"	42"	26'-6"	8'-9"	13'-3"	8"	6"	18"	11,650	62,150	69,200
ADA-330SS	330,000	880	660	84"	24'-4"	54"	42"	28'-9"	8'-9"	13'-3"	8"	6"	20"	12,500	68,050	75,450
ADA-360SS	360,000	960	720	84"	26'-8"	60"	42"	31'-0"	8'-9"	13'-3"	10"	6"	20"	13,350	73,950	82,600
ADA-390SS	390,000	1040	780	84"	29'-0"	60"	42"	33'-6"	8'-9"	13'-3"	10"	6"	20"	14,200	79,850	88,900
ADA-420SS	420,000	1120	840	90"	26'-0"	60"	42"	30'-6"	9'-3"	13'-9"	10"	**6"	24"	16,700	87,350	96,250

NOTE:

1. Storage capacities based on 10 minutes other capacities available upon application.
2. Water outlet(s) vary with application.
3. Weights apply to vessel only, and do not include accessories.
4. All dimensions, weights, volume, etc... are approximate and subject to change without notice.
5. Overflow trap sizing based on P.S.I.G. operating pressure, except:
* P.S.I.G. operating pressure
** 15 P.S.I.G. operating pressure
6. Custom Units are available upon request.