

AB-DA SERIES

DEAERATORS

ALLIED BOILER

& SUPPLY INC.

■ ALLIED WORK FORCE BOILERS ■

Available from
5,000 to 200,000 LBS/HR



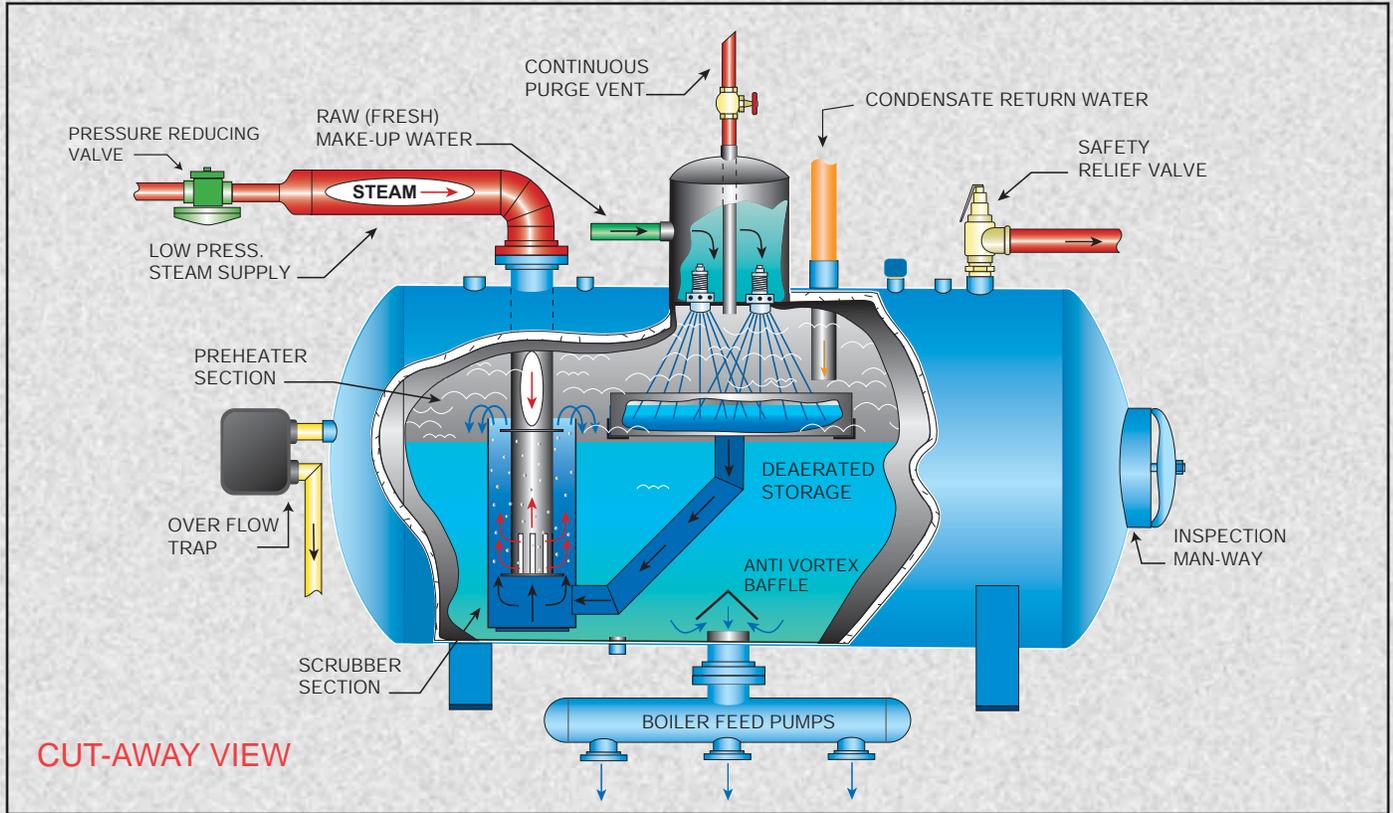
Guaranteed to Remove
Oxygen in Boiler
Feedwater to .005cc/liter



Inspected and registered
with the National Board of
Boiler & Pressure Vessel Inspectors.



Designed, constructed
and stamped in accordance with
the requirements of the ASME Boiler Codes.

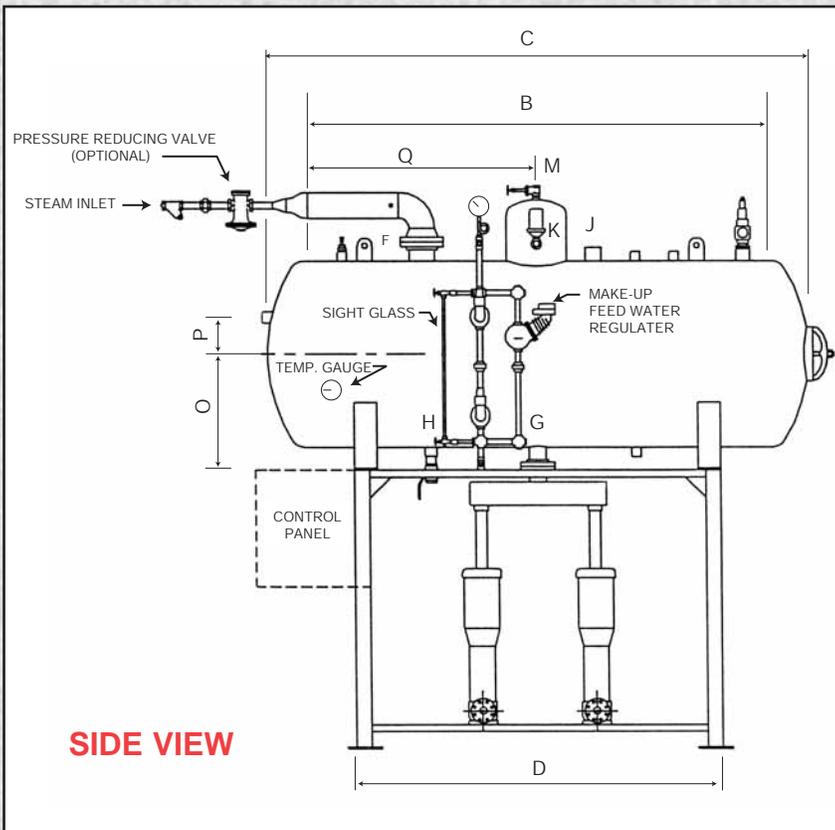


DEAERATOR SPECIFICATIONS

(ALL DIMENSIONS ARE IN INCHES)

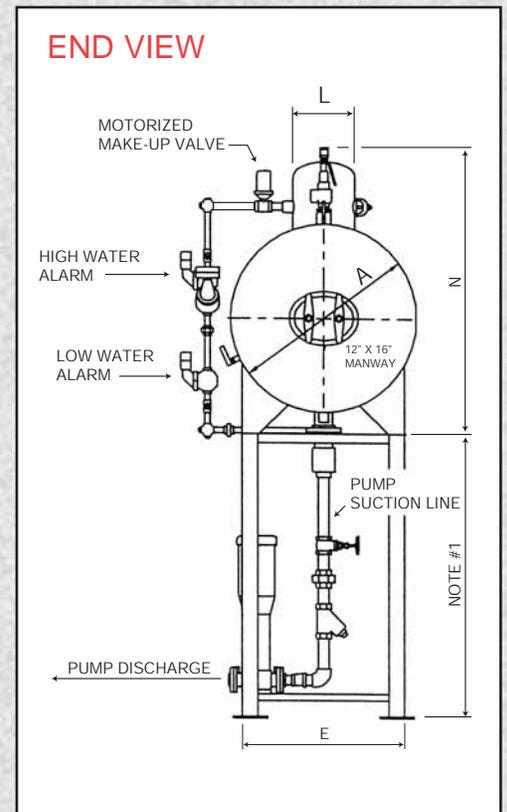
AB-DA SERIES MODEL NO.			DA-5	DA-7	DA-10	DA-12	DA-14	DA-16	DA-19	DA-22	DA-26
WEIGHT	TANK/TRIM	LBS	2400	2400	2700	2700	3000	3000	4000	4000	4500
CAPACITY		LBS/HR	5,000	7,000	10,000	12,000	14,000	16,000	19,000	22,000	26,000
WATER CAPACITY	@ OVERFLOW	GAL	268	268	331	331	456	456	789	789	957
WATER CAPACITY	@ NWL	GAL	118	118	141	141	189	189	285	285	347
WATER CAPACITY (W/DOME)	FLOODED	GAL	354	354	424	424	565	565	877	877	1033
A	TANK DIAMETER	IN	42	42	42	42	42	42	48	48	48
B	TANK LENGTH	IN	48	48	60	60	84	84	96	96	120
C	OVERALL LENGTH	BARE VESSEL	IN	70	70	81 1/2	81 1/2	105	105	118	142
D	SUPPORT STAND LENGTH	IN	46	46	54	54	72	72	84	84	96
E	SADDLE WIDTH	IN	36	36	36	36	36	36	42	42	42
F	STEAM INLET	150#-FLNG	IN	4	4	4	4	6	6	6	6
G	WATER OUTLET	150#-FLNG	IN	3	3	3	3	4	4	4	6
H	TANK DRAIN	IN	1 1/4	1 1/4	1 1/4	1 1/4	1 1/2	1 1/2	2	2	2
I	OVERFLOW	IN	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/2	2	2	2
J	CONDENSATE RETURN	IN	2	2	2	2	2 1/2	2 1/2	3	3	3
K	INLET WATER	IN	1 1/4	1 1/4	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
L	DOME DIAMETER	IN	12	12	12	12	14	14	16	16	16
M	STEAM PURGE VENT	IN	3/4	3/4	3/4	3/4	1	1	1	1	1
N	TANK HEIGHT	FROM SUPPORT	IN	66	66	66	66	72	72	76	76
O	BASE OF SADDLE TO C/L OF TANK	IN	27	27	27	27	29	29	30	30	30
P	C/L TO OVERFLOW	IN	7 1/2	7 1/2	9	9	9	9	9 1/2	9 1/2	9 1/2
Q	HD. TO VENT CONNECTION	IN	24	24	30	30	42	42	48	48	60
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NOTE: STAND HEIGHT IS DEPENDENT ON NPSH OF PUMP REQUIRED. **CONSULT FACTORY FOR LARGER SIZES**



Shown With Optional Insulation & Lagging Package

	DA-30	DA-35	DA-40	DA-50	DA-60	DA-80	DA-100	DA-125	DA-150	DA-200	
	4500	4750	5700	7300	8000	8800	9500	10500	11500	14000	
	30,000	35,000	40,000	50,000	60,000	80,000	100,000	125,000	150,000	200,000	
	957	1025	1224	1600	1931	2421	2717	3810	4354	5796	
	347	365	444	560	679	848	954	1324	1517	1998	
	1033	1091	1305	1673	2022	2521	2832	3935	4499	5956	
A	48	54	54	66	66	72	72	84	84	96	A
B	120	96	120	96	120	126	144	144	168	168	B
C	142	123 1/2	147 1/2	126 1/4	148 1/4	156	174	179	203	207	C
D	96	84	102	84	108	108	120	132	128	132	D
E	42	48	48	56	56	60	60	66	66	78	E
F	6	6	6	8	8	10	10	10	10	10	F
G	6	6	6	6	6	6	6	8	8	8	G
H	2	2	2	2	2 1/2	2 1/2	2 1/2	2 1/2	3	2 1/2	H
I	2	2	2	3	3	3	3	3	3	6	I
J	3	3	3	4	4	4	4	6	6	6	J
K	1 1/2	2	2	2	2	2	2	2 1/2	2 1/2	4	K
L	16	18	18	20	20	20	20	24	24	30	L
M	1	1	1	1	1	1	1	1	1	1	M
N	76	86	86	101	101	111	111	124	124	135	N
O	30	35	35	41	41	44	44	50	50	56	O
P	9 1/2	11 3/4	11 3/4	16	16	16	16	17	17	24	P
Q	60	51	60	48	60	60	72	72	84	84	Q
	DA-30	DA-35	DA-40	DA-50	DA-60	DA-80	DA-100	DA-125	DA-150	DA-200	



The **AB-DA SERIES** deaerating boiler feedwater system eliminates the need of expensive oxygen scavenger chemicals and also offers the following advantages:

- Removes carbon dioxide as well as oxygen.
- Raises the boiler feedwater temperature, eliminating thermal shock in boilers.
- Improves overall boiler room efficiency.
- Feedwater pumps are sized for each individual application, assuring total compatibility and optimum operation.
- Vessels are ASME Code constructed for 50 psig.
- Compact design means smaller boiler room requirements.

WHY DEAERATE?

The use of deaerators has long been used in power plants and water tube type boilers, primarily because they remove undissolved oxygen and raise the temperature of the feedwater. These advantages are important today for firetube boilers as well, due to higher capital investments.

Operating costs can be reduced by recovering flash steam when returned by high temperature condensate. This feature also raises the feedwater temperature, thus requiring less boiler fuel to convert the feedwater to useable steam.

Boiler tubes, condensate lines, and process piping have a much longer useful life by eliminating the pitting action of untreated water. This advantage alone justifies the cost of an **AB-DA SERIES** deaerator.

HOW DOES IT WORK?

Undeaerated fresh water is fed into the deaerator through the inlet water connection. This water passes through the steam-filled heating and venting section. The water temperature is raised and many of the undissolved gases are released. As the water passes through the assembly, it flows to a scrubber section where final deaeration is accomplished by scrubbing the water with oxygen free steam. This steam is induced through a stainless steel spray valve assembly which causes the high velocity steam to break the water down to a fine mist through a violent scrubbing action. The deaerated water spills over to the tanks storage compartment for use by the boiler, and the gases are vented to the atmosphere.

STANDARD EQUIPMENT

- Welded steel tank, designed and constructed for 50 psig as per the requirements of ASME Code; deaerating section with spray valve.
- Structural steel stand with square tubing and steel pump platform.
- Feedwater pump and motor sets, sized for each application.
- Water inlet valve assembly for condensate return and fresh water.
- Overflow trap, tank thermometer, pressure gauge.
- Steam pressure reducing valve assembly with temperature controller.
- Safety relief valve(s), vent valves, tank drain valve.
- Water gauge glass set with cocks, drain valve, and protection rods.
- Pump suction piping with strainer and shut-off valve.

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The Spirit of Service

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