

## Blowdown Tanks For Low Pressure Process Steam Boilers

Rite Blowdown (Blowoff) Tanks are engineered for the safe removal of scale causing solids in process steam boilers. These vented, heavy-duty tanks are constructed in accordance with ASME Code Section VIII, Division 1 for a maximum allowable working pressure (MAWP) of 150 PSIG @ 450 F and National Board registered. Rite Blowdown Tanks may be used for intermittent blowdown service as supplied, or for continuous blowdown or multiple boiler blowoff service with the addition of an automatic aftercooler system.

All Rite BDT LPS Blowdown Tanks feature **Schedule 80 blowdown inlet nozzles with a halfinch thick strike plate** for improved blowdown performance and extended tank life over other designs. Unlike blowdown separators that require temperature regulating valves and volume cold water supply to cool their direct discharge, Rite Blowdown Tanks hold enough cooled water left over from each previous blowoff to cool and temper the next, thus **insuring a safe, low volume discharge every time you blowdown**. Compare our standard features below and see why one choice stands out - the **Rite** choice.





# Low Pressure Steam Blowdown (Blowoff) Tanks Data & Dimensions



REF.	DESCRIPTION	BDTLPS1648	BDTLPS1860	BDTLPS1872	BDTLPS2448	BDTLPS2460	BDTLPS2472	BDTLPS3060	BDTLPS3072	BDTLPS3672	BDTLPS4260
A	VENT, FLASH STEAM	2 1/2" FNPT	3" FNPT	3" FNPT	4" FLG.	4" FLG.	4" FLG.	5" FLG.	5" FLG.	5" FLG.	6" FLG.
		2 1/2 TINFT	3 TINET	JINFI	4 110.	4 110.	4 110.	5 1 LG.	5 1 20.	J 1 LG.	0 1 LG.
В	BLOWDOWN INLET	1" MNPT	1 1/2" MNPT	1 1/2" MNPT	1 1/2" MNPT	2" MNPT	2" MNPT	2" MNPT	2" MNPT	2" MNPT	2" MNPT
С	TEMPERED WATER OUTLET	2" MNPT	2" MNPT	2" MNPT	2" MNPT	2 1/2" MNPT	2 1/2" MNPT	3" MNPT	3" MNPT	3" MNPT	3" MNPT
D	INSPECTION PORTS (2)	2" FNPT	2" FNPT	2" FNPT	2" FNPT	2" FNPT	2" FNPT	2" FNPT	2" FNPT	2" FNPT	12x16 M.W.
E	CLEANOUT / FLUSHING DRAIN	2" FNPT	2" FNPT	2" FNPT	2" FNPT	2" FNPT	2" FNPT	3" FNPT	3" FNPT	3" FNPT	2" FNPT
F	PRESSURE GAGE CONNECTION *	1/2" FNPT	1/2" FNPT	1/2" FNPT	1/2" FNPT	1/2" FNPT	1/2" FNPT	1/2" FNPT	1/2" FNPT	1/2" FNPT	1/2" FNPT
G	GAUGE GLASS CONNECTIONS (2) *	1/2" FNPT	1/2" FNPT	1/2" FNPT	1/2" FNPT	1/2" FNPT	1/2" FNPT	1/2" FNPT	1/2" FNPT	1/2" FNPT	1/2" FNPT
н	THERMOMETER CONNECTION *	3/4" FNPT	3/4" FNPT	3/4" FNPT	3/4" FNPT	3/4" FNPT	3/4" FNPT	3/4" FNPT	3/4" FNPT	3/4" FNPT	3/4" FNPT
J	COLD WATER CONNECTION *	3/4" FNPT	3/4" FNPT	3/4" FNPT	3/4" FNPT	3/4" FNPT	3/4" FNPT	3/4" FNPT	3/4" FNPT	3/4" FNPT	3/4" FNPT
0.D.	OUTSIDE DIAMETER INCHES (cm)	16 (41)	18 (46)	18 (46)	24 (61)	24 (61)	24 (61)	30 (77)	30 (77)	36 (92)	42 (107)
S.L.	SHELL LENGTH INCHES (cm)	48 (122)	60 (153)	72 (183)	48 (122)	60 (153)	72 (183)	60 (153)	72 (183)	72 (183)	60 (153)
0.A.H.	OVERALL HEIGHT INCHES (cm)	75 (191)	88 (224)	96 (244)	78 (198)	90 (229)	98 (249)	92 (234)	104 (264)	107 (272)	98 (249)
	DOWN CAPACITY (HALF TANK) NS (LITERS)	21 (79)	36 (136)	40 (151)	54 (204)	65 (246)	76 (288)	106 (401)	124 (469)	183 (693)	222 (840)
	AL OPERATING WEIGHT HALF FULL) POUNDS (kg)	585 (266)	850 (386)	953 (432)	1090 (494)	1275 (578)	1465 (665)	1869 (848)	2139 (970)	2841 (1289)	3181 (1443)
FLOODED WEIGHT (FULL) POUNDS (kg)		935 (424)	1150 (522)	1287 (584)	1540 (699)	1819 (825)	2097 (951)	2752 (1248)	3173 (1439)	4366 (1981)	5032 (2283)
SHIPPING WEIGHT POUNDS (kg)		410 (186)	550 (250)	620 (281)	640 (290)	735 (333)	830 (377)	1035 (470)	1235 (560)	1390 (631)	1350 (612)
MAX. BOILER OPERATING PRESSURE		150 psi	150 psi	150 psi	150 psi	150 psi	150 psi	150 psi	150 psi	150 psi	150 psi

\* Connections are optional at extra cost.

\*\* 2" inspection openings w/plugs.



# Low Pressure Steam Blowdown (Blowoff) Tanks Installation & Operation

#### INSTALLATION

- 1. Level tank on concrete pad (with shims if required) until plumb.
- 2. Limit the number of elbows in vent piping to two 45 degree offsets.
- 3. Do not use plastic pipe or fittings.
- 4. Do not insulate the tank.
- For multiple boiler connections, continuous blowdown systems or frequent blowoff operations - an aftercooler may be required to keep the tempered water outlet temperature at or below 140 degrees F. Use cold water connection J for manual control, or install automatic aftercooler system at the tempered water outlet nozzle C.
- 6. Dashed lines indicate field piping.

### **GENERAL OPERATING INSTRUCTIONS**

- 1. Electrically turn off boiler feed pump.
- 2. Blowdown low pressure steam boilers at or near operating pressure.
- 3. If boiler is equipped with fast & slow opening blowdown valves, open the fast one first, the slow one second. Shut blowdown valves off after water level in boiler gauge glass drops about 4" (see step 5).
- 4. Restore power to boiler feed pump. Pump should come on and refill the boiler to normal operating level.
- 5. Your chemical treatment company may alter the amount and frequency of blowdown based on job conditions.





## Blowdown Tanks For Low Pressure Steam Process Boilers Specification and Order Form

SN			
NB			

Provide \_\_\_\_\_\_ Rite Blowdown Tank Model BDT LPS\_\_\_\_\_. Blowdown tank shall be constructed in accordance with the ASME Code Section VIII, Division 1 for a maximum allowable working pressure of 150 psig and shall be "U" stamped and registered with the National Board. Shell and head thickness shall be 3/8" (.375"). The tank shall have the following fittings: vent, blowdown inlet, tempered water outlet, inspection openings, and a cleanout/flushing drain.

A 1/2" thick strike plate shall be welded inside the tank above the inlet nozzle to protect the tank shell from erosion during blowdowns. The tempered water outlet nozzle shall be larger than the blowdown inlet nozzle for faster drainage and shall incorporate a water seal leg and integral anti-siphon feature.

The tank shall be supported by four heavy duty angle iron legs on feet with anchoring holes. Tanks shall be furnished with lifting lug(s) and painted with two or more coats of hard metallic blue polyurethane paint.

The following options are available at extra cost:

- \_\_\_\_\_ Cold water connection.
- \_\_\_\_\_ Industrial grade thermometer (shipped loose).
- \_\_\_\_\_ Pressure gauge with siphon loop (shipped loose).
- \_\_\_\_\_ Gauge glass assembly (shipped loose).
- \_\_\_\_\_ Automatic aftercooler assembly (shipped loose).
- \_\_\_\_\_ 4X6 handhole assembly (except on model BDT-4260 where 12" x 16" is standard).

Blowdown tank is for a	Dellar Medel	A 11	
Blowdown tank is for a	Boller, Model	A#	

A copy of this brochure shall ship with the tank \_\_\_\_\_\_ or mailed ahead of time to:

Representative	Job Name	Ship to:	
Requested Ship Date	Purchase Order # _		
Price: Freight	Attn:	Tag:	
	Call	Hrs. Ahead:	
		Contact:	