

# TRAY TYPE DEAERATOR

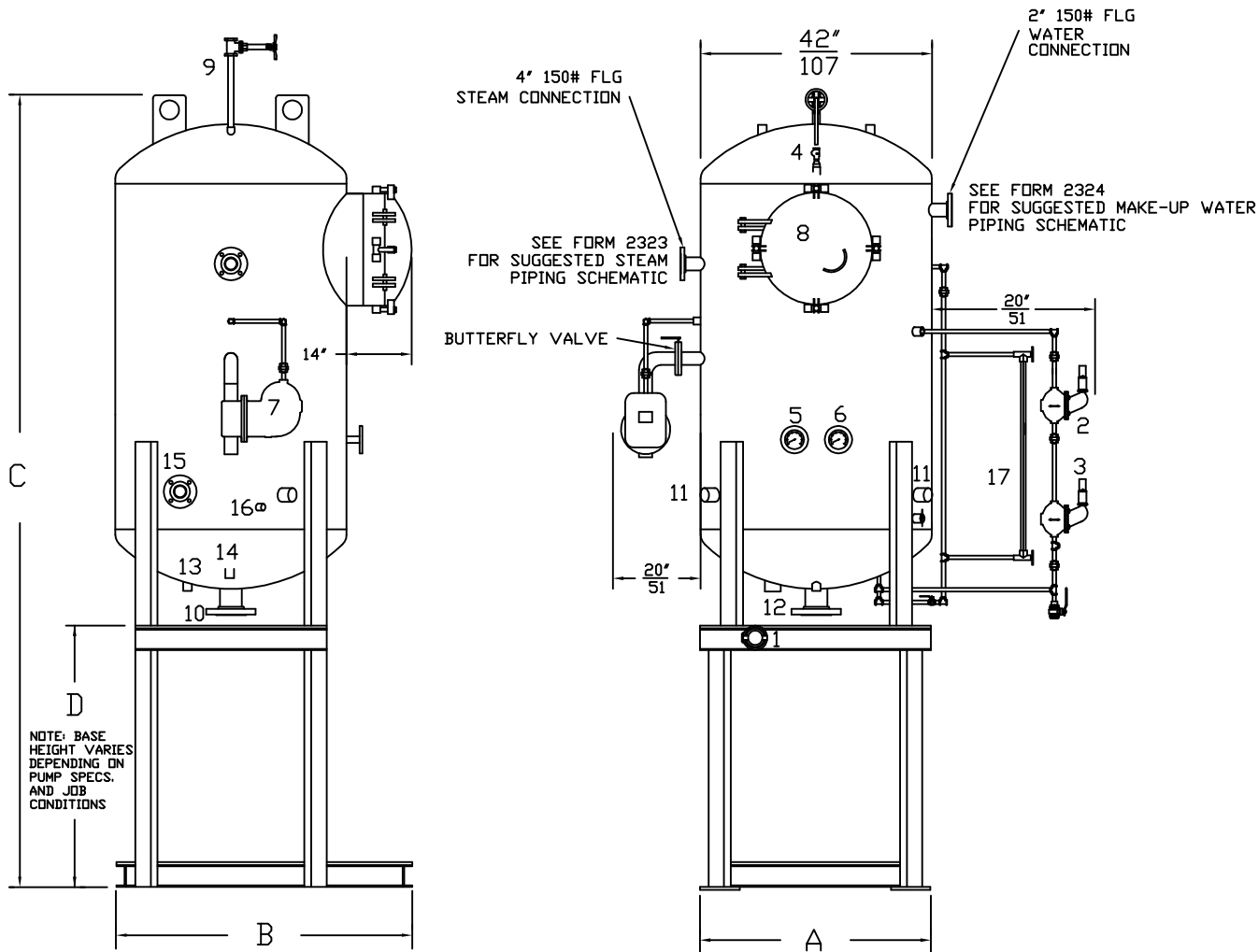
## VERTICAL TANK DESIGN (5,000 PPH – 15,000 PPH)

EFFECTIVE DATE: 5/5/15

REPLACES: 6/1/05

**NOTES:**

1. CONTROL AND PIPING CONFIGURATIONS WILL VARY DEPENDING ON JOB SPECIFICATIONS AND CONDITIONS.
2. DIMENSIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. CONSULT FACTORY FOR CERTIFIED DIMENSIONS.



NOTE: ALL LEVEL CONTROLS HAVE A BALL VALVE IN THE PIPING TO TEST FOR OPERATION.

- |                          |                              |  |                                |
|--------------------------|------------------------------|--|--------------------------------|
| 1. MAKE-UP WATER CONTROL | 6. PRESSURE GAUGE            | 11. 2" NPT PUMP BYPASS                             | 16. 1" NPT MAGNESIUM ANODE     |
| 2. HIGH LEVEL CONTROL    | 7. 2" NPT OVERFLOW TRAP      | 12. 1" NPT CHEMICAL PORT                           | 17. GAUGE GLASS                |
| 3. LOW LEVEL CONTROL     | 8. 20" DIA. TRAY ACCESS DOOR | 13. 1" NPT DRAIN                                   | 18. RELIEF VALVE **            |
| 4. VACUUM BREAKER        | 9. 1-1/2" NPT VENT           | 14. 1" NPT SAMPLE PORT                             | 19. PRESSURE REDUCING VALVE ** |
| 5. TEMPERATURE GAUGE     | 10. 3" FLANGED PUMP SUCTION  | 15. 3" 150# FLG HIGH TEMPERATURE CONDENSATE RETURN | 20. MAKE-UP WATER VALVE **     |
- \*\* SHIPPED LOOSE, NOT SHOWN

MODEL	CAPACITY			DIMENSIONS				INCHES
	LBS/HR Kg/HR	BOILER HP Kw	(STORAGE) GALLONS LITERS	(A) OVER-ALL LENGTH	(B) OVER-ALL WIDTH	(C) OVER-ALL HEIGHT	(D) OVER-ALL BASE HEIGHT	CM
DTV-150-5-1-*	5,000 2,268	145 1,422	100 378	42 107	54 137	133 338	BASE DIMENSIONS WILL CHANGE DEPENDING ON PUMP SELECTION AND JOB CONDITIONS. CONSULT FACTORY FOR BASE DIMENSIONS.	
DTV-150-10-2-*	10,000 4,536	290 2,844	200 757	42 107	54 137	149 378		
DTV-150-15-3-*	15,000 6,804	435 4,267	300 1,135	42 107	54 137	163 414		

**BRYAN STEAM**

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PERU, INDIANA  
46970

FORM NO.:

2005

	DTV-5		DTV-10		DTV-15	
<b>Deaerator Design</b>						
Capacity	(pph)	(Kg/Hr)	(pph)	(Kg/Hr)	(pph)	(Kg/Hr)
	5000	2268	10000	4536	15000	6804
Number of Tray Columns	1		1		1	
Trays in each Column	5		5		5	
Number of Trays	5		5		5	
Style of Tray	46501		46501		46501	
<b>Pressure Vessel</b>						
	(in.)	(cm.)	(in.)	(cm.)	(in.)	(cm.)
Diameter	42	106.68	42	106.68	42	106.68
Shell Length	47.625	120.97	63.625	161.61	77.625	197.17
Head Thickness	0.3125	0.79	0.3125	0.79	0.3125	0.79
Shell Thickness	0.375	0.95	0.375	0.95	0.375	0.95
<b>Connections/Opening</b>						
	(in.)	(cm.)	(in.)	(cm.)	(in.)	(cm.)
Tray Access Door	20	50.8	20	50.8	20	50.8
Undeaerated Water Inlet	2	5.08	2	5.08	2	5.08
Steam Inlet	4	10.16	4	10.16	4	10.16
High Temperature Return	3	7.62	3	7.62	3	7.62
Pump Suction	3	7.62	3	7.62	3	7.62
Pump Bypass	2	5.08	2	5.08	2	5.08
Overflow	2	5.08	2	5.08	2	5.08
Drain	2	5.08	2	5.08	2	5.08
Sample	1	2.54	1	2.54	1	2.54
<b>Standard Level from Bottom of Storage Tank</b>						
	(in.)	(cm.)	(in.)	(cm.)	(in.)	(cm.)
Overflow	26.5	67.31	41.5	105.41	55.5	140.97
High Level	24.5	62.23	39.5	100.33	53.5	135.89
Low Level	8	20.32	8	20.32	8	20.32
Head Seam	12.65	32.131	12.65	32.131	12.65	32.13
	(gallons)	(liters)	(gallons)	(liters)	(gallons)	(liters)
Overflow	131	496	215	814	302	1143
High Level	120	454	204	772	291	1101
Low Level	24	91	24	91	24	91
Head Seam	51.7	196	51.7	196	51.7	196