BALDWIN ENGINEERING

Fuel Oil & Polluted Fluid Storage Tanks

(REV. 24)

EN 12285, BS799, UL142, UL58, API

Steel, Stainless Steel, FRP/GRP Steel Reinforced

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ABSTRACT

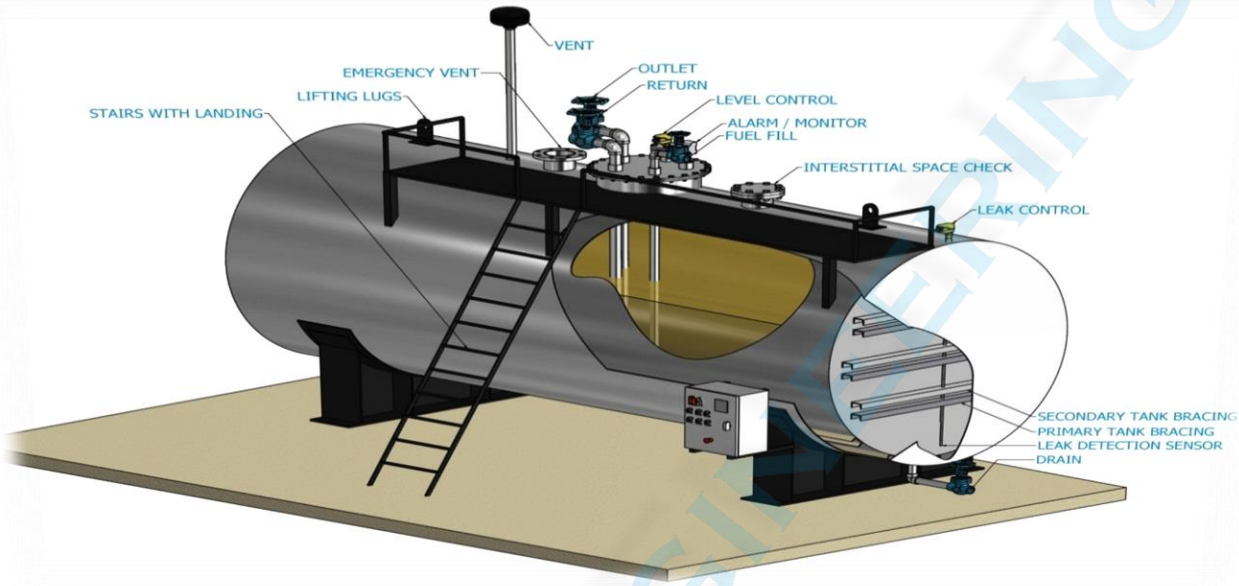
- A tank assembly which includes an inner storage tank with or without a surrounding outer containment tank with said tanks defining a substantially uniform space there between.
- The space may be vacuumed or pressurized or filled with light weight insulating material "liquid" .
- Horizontal & Vertical Tanks are available (Cylindrical or Rectangular) for buried & un-buried usage.

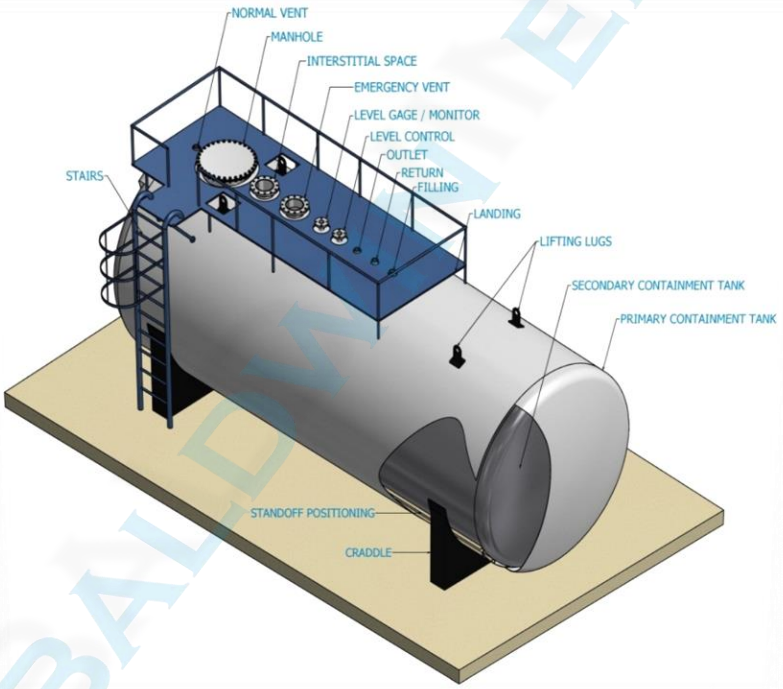
- Code standard is selected according to application & usage of the tank(s), requirements & limiting factors given in the received inquiry.

APPLIED CODES & STANDARDS

	UNDERGROUND												ABOVEGROUND							
	BURIED				UNBURIED															
	Horizontal				Horizontal				Vertical				Horizontal				Vertical			
	Cylindrical		Rectangular		Cylindrical		Rectangular		Cylindrical		Rectangular		Cylindrical		Rectangular		Cylindrical		Rectangular	
	Single Wall	Double Wall	Single Wall	Double Wall	Single Wall	Double Wall	Single Wall	Double Wall	Single Wall	Double Wall	Single Wall	Double Wall	Single Wall	Double Wall	Single Wall	Double Wall	Single Wall	Double Wall	Single Wall	Double Wall
UL 58		*			*	*														
UL 142													*	*	*	*	*	*	*	*
EN 12285		*			*	*							*	*						
BS 799													*	*	*	*	*	*	*	*

Demo Illustration Drawings For The Tanks :



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Tank Features

Design & Fabrication Codes :

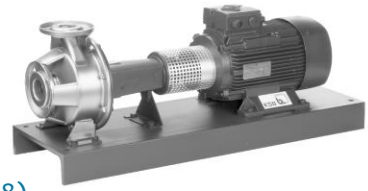
- API / EN-12285 / UL-142 / UL-58 / BS 799.

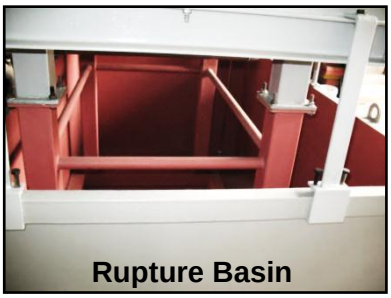
Connections/Nozzles/Branches/Attachments:

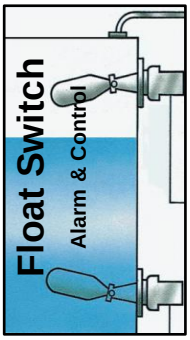
1. Lifting lugs.
2. Fuel filling (see note #1).
3. Fuel return (see note #2).
4. Fuel outlet (see note #3).
5. Normal Vent.
6. Emergency Vent.
7. Main tank's drain (see not #4).
8. Outer tank's drain (see note #5).
9. Annular space check (see note #6).
10. Annular space fill/vacuum/pressurization (see note #7).
11. Level gauge (see note #8).
12. Local Level controls (see note #8).
13. Man-way/hole (see note #9).
14. Bracings, stand-offs & stiffening rings (see note #10).
15. Saddles (see note #11).

Options

1. Multi-Compartment tank design.
2. Ladder & Gantry (for un-buried tanks).
3. Filling valve/over fill chamber/caps.
4. Fuel return valve/check valve.
5. Outlet valve/foot-valve/strainer.
6. Flame arrestors.
7. Bursting disks.
8. Drain valves (see notes #4 & #5).
9. Local level indicators (see note #8).
10. Remote level indicators/controllers (see note #8).
11. Leakage detection system & Bund / Rupture Basin (see note #6).
12. Fuel filling and/or un-loading pump's skids (see note #12).
13. Suction/transfer/out-take pump's skids (see note #13).
14. Tank heating (see note #14).
15. Main control center, (see note #15).







Notes:

1. More than one filling connection can be made, change nozzle size/re-orientation is possible.
2. More than one return connection can be made, change nozzle size/re-orientation is possible, the use of temperature transmitters/thermostats/controllers, with adequate means of alarm/safety systems on any return line is also possible as optional extra.
3. For buried tanks, or un-accessible under-ground un-buried tanks, the fuel outlet is top mounted as standard, while for above ground tanks the fuel outlet is side, or, bottom mounted as standard, top mounted in the latter case is optional.
4. Not applied for buried tanks, multi drain connections can be made as optional.
5. Applied only for double wall tanks.
6. Leak detection system only is applied for double wall tanks, while Bunds / Rupture Basins can be applied to any tank, detecting overflow, and or tank's outer wall failure, in which a leak detection system is applied, the size of the Bund, or the Rupture Basin is usually not less than 100% of the main containment tank, however, customs sizes are available on request.
7. Applied only for double wall tanks.
8. As standard, for the un-buried tanks are side mounted, where a local level indicator, magnetic level gauge, or any other means of indicating and/or controlling devices are used to be mounted directly to the tank's side, either for local display/indication, or for giving electrical signals that can be read on a remote level content measuring device, or remote level indicators/controllers, While for buried or un accessible under-ground tanks, all of the above are top mounted only.
9. As standard one man-way are used for each tank, or each compartment in a single tank, man ways positions/sizes can be changed to clients requirements as optional, however, for the buried tanks, and or the un-accessible under-ground tanks the man way/man ways are always top mounted.
10. Bracings are applied for flat walls only, Stand-offs for double walls only.
11. Not applied for UL58 coded tanks, or any buried tank.
12. Single, double, triple or multi pumps stations are available to be provided with the tank as a packaged unit, or stand-alone packaged pump skid for field connections, please provide flow rate, delivery head, NSPH available & number of pumps required.
13. Either inside tank pumps, or outside tank pumps, Single, double, triple or multi pumps stations are available to be provided with the tank as a packaged unit, or stand-alone packaged pump skid for field connections, please provide flow rate, delivery head, NSPH available & number of pumps required.
14. Available immersion electric heaters, steam, hot water/fluids heated coils/bundles, annular heating tracing elements, please provide min. & required fuel temperatures, and available heating energy source conditions, i.e. for electric heating : voltage & frequency, for steam heating : pressures (assumed saturated), for water/fluids : pressure & temperatures.
15. Can be for a single tank, multi-tanks, bulk main tanks & daily service tanks, with or without pumping stations, and/or heating, available with any BMS interface, or PLC, or PC communication modules, with or without monitoring/displays screens .

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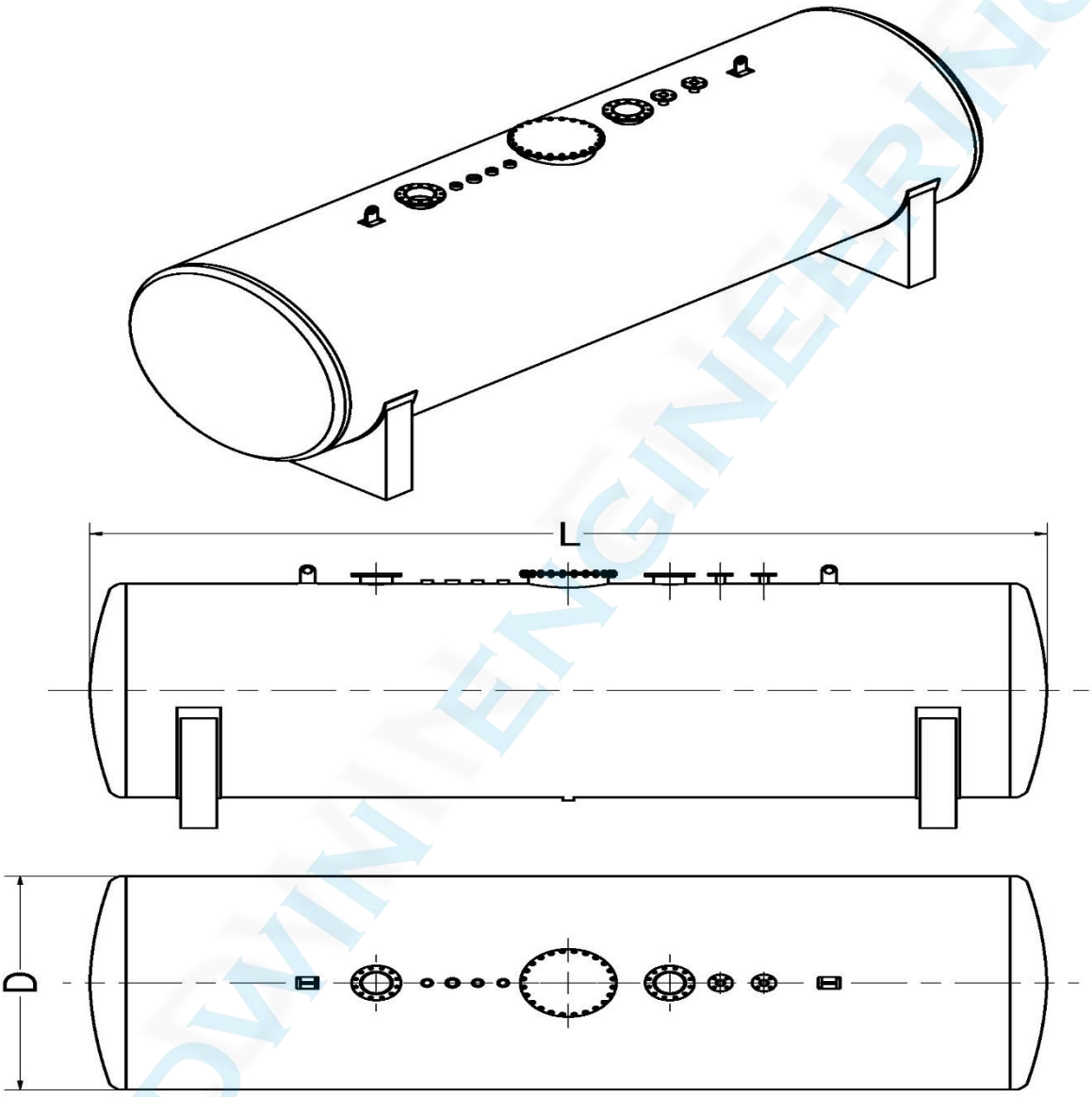
SINGLE & DOUBLE WALL FUEL OIL STORAGE TANKS - (CYLINDRICAL)



- Weight of tank shall be shown in the relevant quote.
- Saddles/Cradles height is 300 mm Max., and applied only for Non-Buried Tanks.
- Dimensions & Volumes shown in the relevant data sheets are for Primary Containment Tank.
- For double wall tank, dimensions of the Secondary Containment tank shall be shown in the relevant quote.
- For Tanks with Rupture Basin/Bund, their rupture basin/bund dimensions/volumes shall be shown in the relevant quote.

Note : Custom Sizes Available upon request.

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NOZZLES (INCH)

Capacity (kL)	FILL	RETURN	OUTLET	MANHOLE	NORMAL VENT	EMERGENCY VENT	CHECK SPACE	SPACE FILL	DRAIN	Level Control	Top Level Gauge	Side Level Gauge
1	1	1.5	1.5	16	1.25	3	3	1	1	2	2	1
2	1	1.5	1.5	18	1.25	4	4	1	1	2	2	1
3	1	1.5	1.5	18	1.25	5	5	1	1	2	2	1
4	1	1.5	1.5	18	1.25	5	5	1	1	2	2	1
5	1.25	1.5	1.5	20	1.25	5	5	1	1	2	2	1
6	1.25	2	2	20	1.25	5	5	1	1	2	2	1
7	1.25	2	2	20	1.25	6	6	1	1	2	2	1
8	1.25	2	2	20	1.25	6	6	1	1	2	2	1
9	1.25	2	2	20	1.25	6	6	1	1	2	2	1
10	1.5	2	2	22	1.5	6	6	1	1	2	2	1
15	2	2	2	22	2	8	8	1.5	1.5	2	2	1
20	2.5	2	2	22	2	8	8	1.5	1.5	2	2	1
25	2.5	2	2	22	2	8	8	2	1.5	2	2	1
30	2.5	2	2	22	2	8	8	2	1.5	2	2	1
35	2.5	2	2	24	2	8	8	2	2	2	2	1
40	2.5	2	2	24	2.5	8	8	2	2	2	2	1
45	2.5	2	2	24	2.5	8	8	2	2	2	2	1
50	3	2	2	24	2.5	8	8	2	3	2	2	1
60	3	2	2	24	2.5	8	8	2	2	2	2	1
70	4	2	2	24	2.5	8	8	2	2	2	2	1
80	4	2	2	24	2.5	8	8	2	2.5	2	2	1
90	4	2	2	24	2.5	10	10	2	2.5	2	2	1
100	4	2	2	24	3	10	10	2	2.5	2	2	1
125	4	3	3	24	3	10	10	2.5	2.5	2	2	1
150	4	3	3	24	3	10	10	2.5	2.5	2	2	1

Higher Capacity On Request

Note : Nozzles Sizes and Location Shown Can Be Changed To Order.

Data Published subject to change without prior notice unless submittal is provided.

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