

TECHNICAL SPECIFICATION DATA SHEET - ZINCALUME WATER TANKS		
1	Design Code	As per IS:1893
2	Liquid Density (kg/m ³)	1,000
3	Working Pressure	Atmospheric Pressure
4	Design Temperature	(-) 20 deg c to 70 deg C
5	Working Temperature (deg C)	15-48 deg c
6	Wind Design	As per IS: 875 Part 3
7	Wind speed	As per IS: 875 Part 3
8	Seismic Zone	As per IS:1893 Part 1 -2016
9	CAPACITY	100 kl approx.
10	Diameter	As per design
11	Height	3.0 m approx.
12	Volume	100 kl approx.
13	Quantity	100 kl x 1
14	Free Board	+ 300 MM
15	Construction & MOC	As mentioned below
16	VOID	
17	Shape	Cylindrical and Vertical with Dome Roof
18	Tank Type	Corrugated Bolted Panel with Liner
19	Roof Type	Self-Supporting Dome Roof
20	MOC of Shell Sheets	Tata BlueScope Zincalume Steel (G350)/JSW or equivalent
21	Material Composition	Composition on Zincalume sheet - Al-55%, Zn-43.4%, Si-1.5%
22	Shell Sheet Grade	G300, AS 1397/IS15961, ZL34
23	Coating thickness on sheet (micron)	150 gsm
24	Panel Profile	Pitch - 75 mm Depth - 18mm
25	Sheet Dimension (Wall)	As per design
26	Sandwich material between layers of sheets	Bond tight
27	Sheet Colour (Shell & Roof)	Natural Zinc Colour
28	MOC of Roof Sheets	Zincalume / Galvalume
29	Roof Sheet Grade	G550 High tensile
30	Total Thickness of roof (mm)	0.8 mm of Single Sheet
31	Total Thickness of Wall (mm)	0.8 mm of Single and multiple fusing done as per structural load & Design.
32	Roof Load Bearing	Min. 110 kg/m ²
33	Yield & Tensile strength Roof sheet	550 Mpa
34	MOC of trusses for roofing	MS-Hot dipped galvanized - 500-600 GSM
35	Size of Trusses for Roofing	As per Tank Design
36	Inside liner type	High tensile - PVC liner- SRF/Ferrari/Sioen or equivalent
37	Liner Thickness	760 GSM -800 GSM
38	Liner Strength	Minimum Warp - 30 Kg & weft - 25 Kg Breaking strength - Warp >2500 N/5cm Breaking strength - Weft >2000 N/5cm
39	Liner Grade	Food Grade
40	Liner PH Range	4 to 8 Ph Range

41	Water Head Test	220 PSI for PVC
42	Void	
43	Bottom protection of liner	Double Layer Geo Textile
44	Thickness of Geo-Textile	0.3 mm compressed / 3mm non-compressed
45	Void	
46	Liner Standard	Reinforced PVC, UV Stabilized, Anti Algae
47	External Ladder	Heavy duty Industrial ladder with intermediate resting platform with Safety Cage - All Hot Dip Galvanised Members
48	Internal Ladder	Nylon rope with aluminium steps
49	Antivortex	Yes
50	Corrosion protection	Yes
51	Nozzles / Accessories	
52	Nozzle MOC	MS Hot Dipped Galvanized to IS 1239, IS 3589
53	Nozzle Type & Schedule	MS - Hot Dip Galvanized, Drilling Dimensions and counter flanges to match BS Table 10 D
54	Access Hatch on Dome roof - Manhole on roof Top	Zincalume steel- min. 750 x 750 mm with lockable access hatch x 1 Qty each Tank
55	Air Vent Type	Turbo Vent -1 Nos on roof top Effective Throat Dia 600 mm with vanes shaft shall be of Stainless Steel other components of aluminium including rivets & other accessories, zinc plated steel screws, bolts & nuts and sealed & lubricated steel top & bottom bearings
56	Level Indicator assembly	External Float and board type Level indicator to be provided
57	Anchor fasteners / Nuts & Bolts	
58	MOC	High Tensile HDG/ M10
59	Grade	Gr. 8.8
60	Protection of Nuts (Inside Shell)	Taped to Cover
61	Protection of Nuts (Outside Shell)	PVC /Silicon Caps from outside.
62	Nuts Bolts Make	TWF/Unbrako(DFL)/SF/TVS sundaram.
63	Anchor Fastener MOC	Galvanised Iron - M16
64	Anchor Fastener Make	BONN/Hilti/Fischer/Cannon
65	Anchor Fastener Type	Mechanical type
PREFERABLE LIST OF MAKES/BRANDS USED IN THE TANK (new supplies shall be purchased from any leading manufacturer, conforming to IS standards as approved by BHEL engineer at site)		
A	Product/Component Details	Makes/Brands
B	Galvalume wall sheet	Tata Bluescope/JSW
C	Galvalume roof sheet	Tata Bluescope/JSW
D	Galvanised Steel Sheets	JSW/Posco
E	PVC Geomembrane Liner	SRF/Sieon/Ferrari
F	Hex Nut Bolts 8.8 grade	TWF/Unbrako(DFL)/SF/TVS sundaram.
G	Expansion Anchor Fasteners	BONN/Hilti/Fischer/Cannon
H	Structural Steel	Tata Bluescope/JSW
I	Geotextile Fabrics	Virender textile
J	Fusing sandwich Sheet chemical	Azonobel/Bondtite

K	Turbine Vent for roof	Golden/Anchit/PNP.
L	MS pipe for nozzles	Jindal/Tata Steel/Apollo
M	MS flanges for Nozzles	ISI marked
N	Float & Board type Level Indicator	Cirrus / Cibie