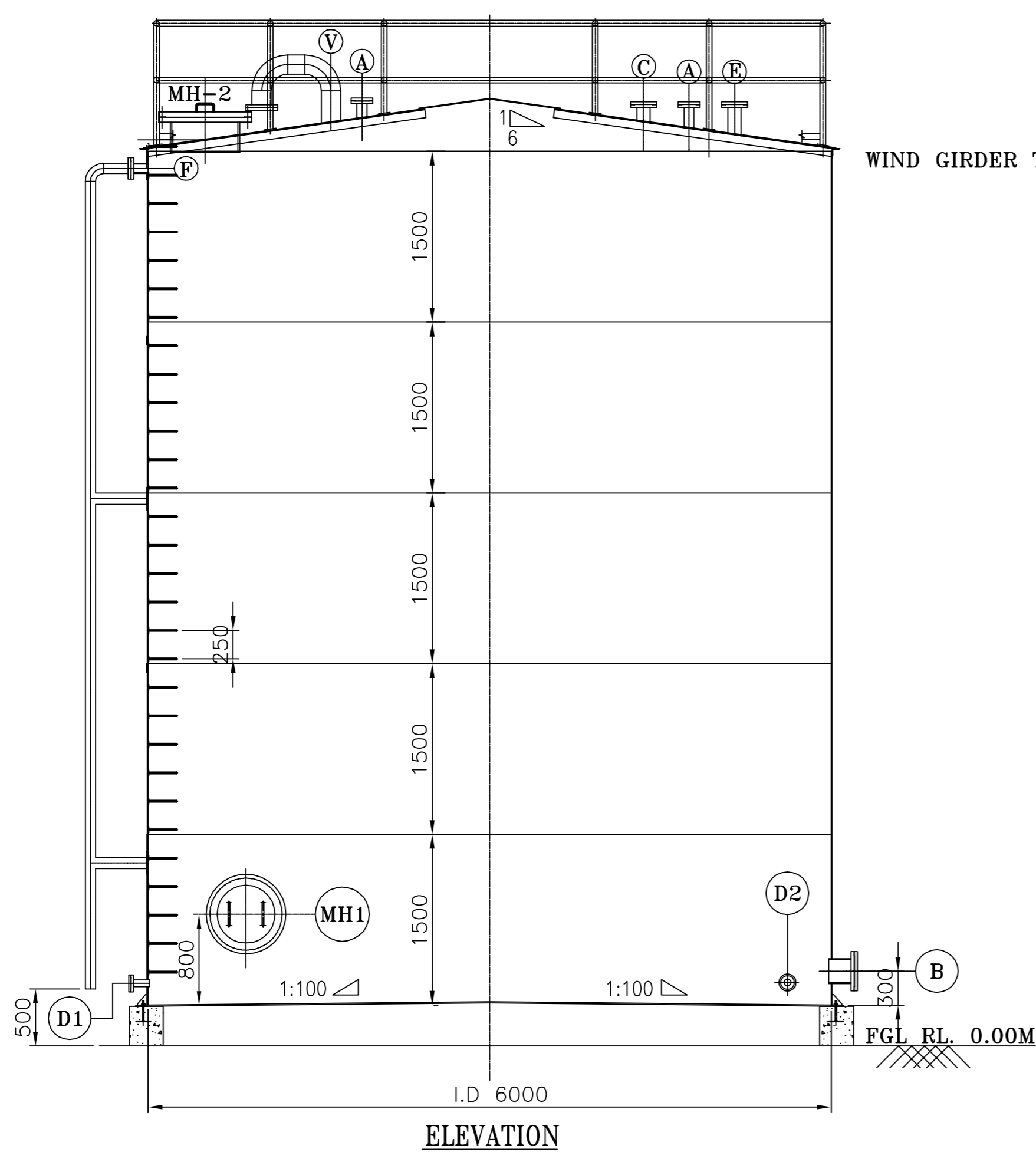
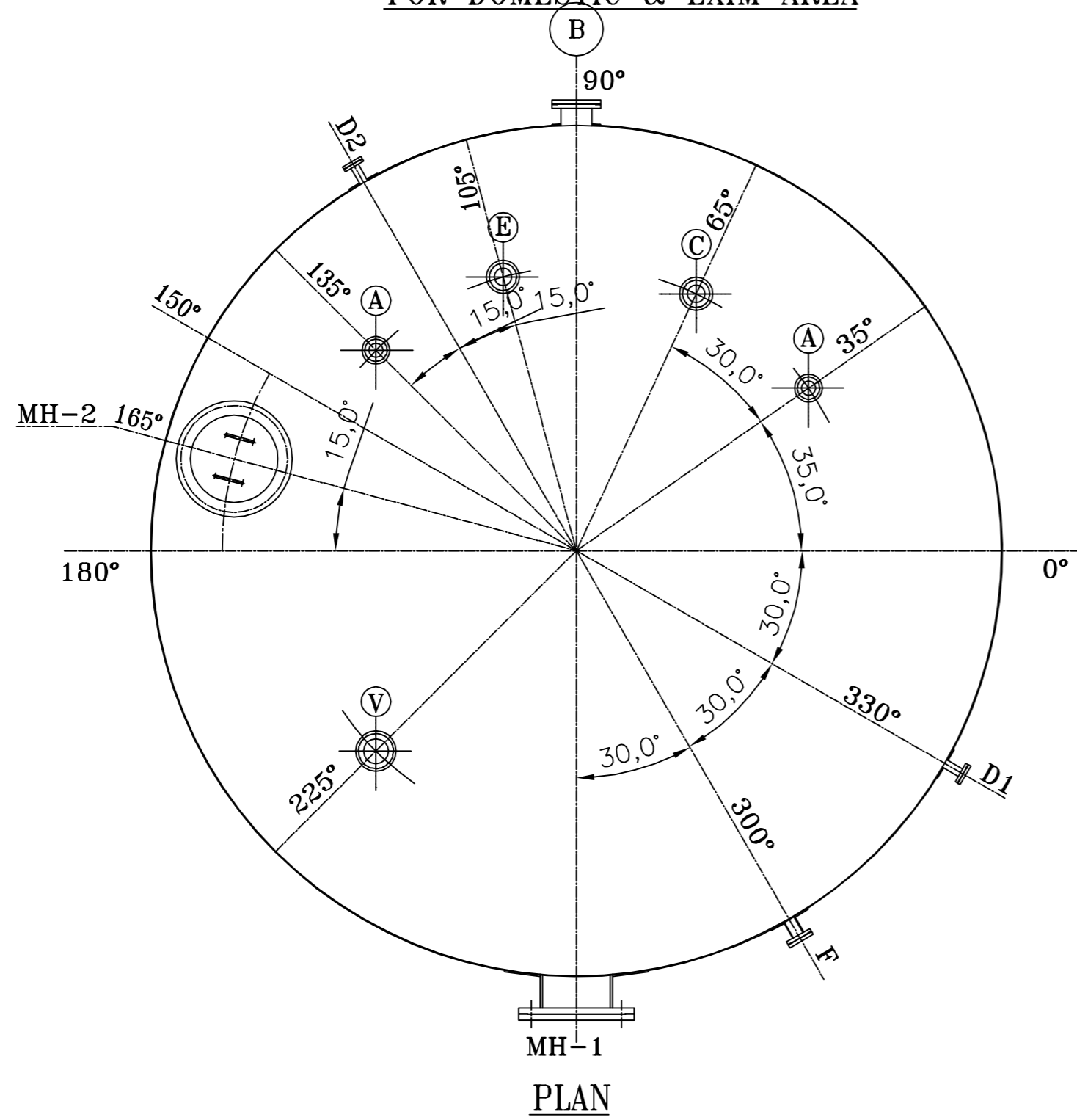


ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.

**MS FIRE WATER TANK-200 KL CAPACITY**

**FOR DOMESTIC & EXIM AREA**



**NOTES:-**

01. ALL DIMENSIONS ARE IN mm. UNLESS OTHERWISE NOTED. MINIMUM PLATE WIDTH SHALL BE 1250mm.
02. WIND GIRDER MUST BE PROVIDED AS TANKS WILL BE CONSTRUCTED IN COASTAL AREA
03. INTERNAL SHELL WELD SEAMS SHALL BE MADE SMOOTH.
04. ALL FLANGE RATING AND DRILLING SHALL BE AS PER B16.5 SORF-PLATE FLANGE WITHOUT HUB UNLESS OTHERWISE SPECIFIED.
05. ALL BOLT HOLES SHALL STRADDLE PRINCIPLE AXIS OF THE FLANGE.
06. MANHOLE NECKS, NOZZLE NECKS 300NB AND ABOVE MAY BE FABRICATED FROM SAME PLATE MATERIALS AS USED FOR SHELL PLATES.
07. WELD SHALL BE NEAT IN APPEARANCE, FREE OF SLAG, UNDER CUTS AND OTHER DEFECTS.
08. REINFORCING PADS AND PAD SECTIONS SHALL HAVE  $\phi 6$ mm TELL TALE HOLE LOCATED AS LOW AS POSSIBLE IN THE PAD.
09. FABRICATION TOLERANCE AS PER IS 803
10. SURFACE PREPARATION:- SAND BLASTING FOR PLATES SA 21/2 GRADE BOTH SIDE, SAND BLASTING/WIRE BRUSHING FOR OTHER MEMBERS
11. PAINTING:-  
A. ONE COAT OF INORGANIC ZINC SILICATE PRIMER 65-75 MICRON DFT  
B. INTERMEDIATE COAT EXTERIOR ONE COAT OF-HIGH BUILD MIO (MICACEOUS IRON OXIDE)-min 30 DFT  
C. FINISH COAT-2 COATS OF CORROSION RESISTANT /WEATHER RESISTANT ACRYLIC POLYURETHANE ENAMEL PAINT (MIN 30 MICRON DFT PER COAT)
12. COLOR CODE OF FINAL COAT AND LOGO WILL BE FINALIZED LATER.
13. DRAINS AT OPPOSITE WILL BE PROVIDED AT THE BOTTOM MOST OF SHELL
14. 1.2 m HEIGHT HAND RAILING WITH 2 RUNS OF 25 MM DIA AND 40 MM DIA VERTICAL STUDS AND TOE PLATE ALONG THE PERIPHERY OF ROOF
15. STRUCTURAL STAIR CASE FROM BASE TO ROOF TOP WITH 25 MM THICK MS GRATING ALONG WITH 1 MTR HIGH HANDRAIL MADE FROM 25 MM DIA PIPE AND 40 NB PIPE (FOR POST) WITH INTERMEDIATE LANDING
16. LOGO OF VPLPL TO BE PAINTED ON TANK, EARTHING TO BE MADE AS PER REQUIREMENT

**TENDER PURPOSE ONLY**

NOTE: DRAWINGS IS INDICATIVE. BIDDER SHALL SUBMIT THE DETAILED DESIGN AND DRAWINGS FOR APPROVAL BEFORE STARTING OF FABRICATION

**NOZZLE SCHEDULE**

MARK No.	DESCRIPTION	PIPE		FLANGE		PROJECTION FROM SHELL OUT SIDE	QTY	REMARKS
		SIZE (NB)	SCH	TYPE	CLASS			
A	WATER INLET	80	40	SORF	150#	150mm	2	1 WORKING 1 SPARE
B	WATER OUTLET	250	40	SORF	150#	150mm	1	-
C	SPARE	200	40	SORF	150#	150mm	1	-
D1	DRAIN OUT	80	40	SORF	150#	150mm	1	-
D2	DRAIN OUT	80	40	SORF	150#	150mm	1	-
E	LEVEL SWITCH	50	80	SORF	150#	150mm	1	-
MH-1	MAN HOLE SIDE	600	-	SORF	-	125MM	1	FABRICATED
MH-2	MAN HOLE TOP	600	-	SORF	-	125MM	1	FABRICATED
V	VENT WITH MESH	150	40	SORF	150#	150MM	1	-
F	OVER FLOW	80	40	SORF	150#	150MM	1	-

**DESIGN DATA**

DESIGN AND FABRICATION CODE	: IS-803
STORED PRODUCT	: WATER FOR FIRE FIGHTING
SPECIFIC GRAVITY	: 0.8-0.95
CAPACITY (NET)	: 200 KL.
CAPACITY (NOMINAL)	: 211 KL.
NUMBER OF TANKS	: 2 Nos
DESIGN PRESSURE (Kg/sq.cm)	: ATMOSPHERIC
OPERATING PRESSURE (Kg/sq.cm)	: ATMOSPHERIC
DESIGN TEMPERATURE (°C)	: ATMOSPHERIC
OPERATING TEMPERATURE (°C)	: ATMOSPHERIC
TYPE OF ROOF	: CONICAL
LIFTING LUG	: TO BE PROVIDED
TANK HEATING SYSTEM	: NA
JOINT EFFICIENCY	: 0.7
TESTING	: AS PER CODE
STRESS RELIEF	: NA
CORROSION ALLOWANCE	: 1.6mm (FOR SHELL & BOTTOM)

**MATERIAL OF CONSTRUCTION**

SHELL/BOTTOM / ROOF PLATE	: IS 2062 Gr.A
NOZZLE FLANGES EXTERNAL & INTERNAL	: IS 2062 Gr.A
NOZZLE RF PAD	: IS 2062 Gr.A
NOZZLE NECK	: IS 2062 Gr.A
FITTINGS	: IS 1239 PART-II(M)
SUPPORT LEG, LUG, AND LADDER	: IS 2062 Gr.A
HAND RAIL	: IS 1239 PART-I(M)
BOLTS, NUTS, WASHERS-EXTERNAL	: IS 1367 CL 4.0
BOLTS, NUTS, WASHERS-INTERNAL	: SS 304
GASKET	: 1.5 THK. CAF
M/H FLG. & COVER	: IS 2062 Gr.A
MANHOLE NOZZLES	: IS 2062 Gr.A
SURFACE PREPARATION & PAINTING	: REFER NOTES
WELDING ELECTRODE	: E 6013

**NON-DESTRUCTIVE TEST**

**A. DYE-PENETRANT TEST**

- A.1. ROOT WELD : 100%
- A.2. BACK CHIPPED AND CLEANED SURFACE (BUTT JOINTS) : 10%
- A.3. SHELL TO BOTTOM PLATE FILLET WELD : 10%
- A.4. BOTTOM PLATE FILLET WELD : 10%

**B. PNEUMATIC TEST**

- B.1. RF PAD WELD JOINTS : AT 15 PSIG WITH SOAP SOLUTION.

**C. LEAK TEST**

- C.1. SHELL TO BOTTOM PLATE FILLET WELDS : LEAK TESTED WITH PENETRATING OIL AND CHALK SOLUTION.

**D. VACCUM BOX TESTING**

- D.1. BOTTOM PLATE LAP JOINTS : 100% 2PSIG VACUUM.

**E. HYDROTESTING**

- E.1. WATER FILL TEST.

**DESIGN LOAD (APPROXIMATE):**

**MS FIRE WATER TANK-200 KL CAPACITY**

- 01. EMPTY WEIGHT OF TANK : 14 MT ( INCLUDING RAILING & STAIR CASE)
- 02. WEIGHT OF TANK FILLED WITH WATER : 214 MT

**MINIMUM PLATE THICKNESS**

- 1) BASE PLATE- 8 MM
- 2) SHELL-1ST SHELL- 8 MM, SUBSEQUENT SHELLS- 6 MM
- 3) ROOF- 5 MM

- ALL FLANGES/MAN HOLES SHALL BE BLINDED WITH BLIND FLANGES, GASKETS, NUTS BOLTS ETC.
1. WT. OF MS TANK IS INDICATIVE. BIDDER TO CALCULATE THE EXACT QUANTITY OF STRUCTURAL MATERIAL, APPURTENANCES AND QUOTE AGAINST RELEVANT ITEM IN LUMSUMP BASIS INCLUDING PAINTING.
  2. BIDDER TO GO THROUGH THE PAINTING SPECIFICATION THOROUGHLY AND INCLUDE THE SUPPLY AND APPLICATION COST AGAINST RELEVANT ITEM NO ALONG WITH TANK FABRICATION & ERECTION. NO SEPARATE PAYMENT FOR PAINTING WILL BE MADE.

CLIENT : **VISAKHAPATNAM PORT LOGISTICS PARK LIMITED.**  
(A BALMER LAWRIE - VISAKHAPATNAM PORT TRUST JV)

PROJECT : **MULTI MODAL LOGISTICS HUB AT VIZAG**

TITLE : **MS FIRE WATER TANKS**

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