

	ITER-India (Institute For Plasma Research)	Tender Notice No.
		I-ITN19010

Title	Tender No. I-ITN19010 dated 23-11-2019 for Supply of SS Cabins (2nos.)
Sub Title	Annexure-I: Scope of Supply/Work and Technical Specification for SS cabins (2nos.) Annexure-II: Essential Eligibility Criteria, Instructions to Bidders and Terms & Conditions

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	Annexure-I: Scope of Supply/Work and Technical Specifications	Tender Notice No.
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1. Scope of Work

- Based upon the technical specifications/3D CATIA model from ITER-India, vendor to prepare 3-D manufacturing model (*.stp and *.igs files) of SS cabin along with Bill of Material and submit to ITER-India for review and approval.
- Based upon the approved manufacturing model, vendor to prepare manufacturing Drawings and submit these to ITER-India for approval
- Only after approval of manufacturing drawing by ITER-India, Vendor to procure of all raw materials and submit material test certificates.
- Fabricate 2 Nos. of SS cabins in accordance to approved manufacturing drawings.
- Perform specified factory test
- Supply of 2 Nos. of SS cabins to ITER-India lab, IPR, Gandhinagar
- Final acceptance by ITER-India after dimensional and visual checks for the supplied SS cabins at ITER-India lab
- Vendor to prepare all required documents and reports.

2. Applicable Codes

Applicable codes shall be ASTM for material requirements.

3. Description for SS cabin

The SS cabins shall be used as an enclosure for power supply system its cooling system.

The SS cabins be fabricated from the same batch of SS sheet (TP240-SS304-L, surface finish of No.4.) of ~ 1.8mm thickness. All loading and supporting column/Frame shall be made of multi-bends profiles formed from SS sheet of same batch.

SS Riveting with double side cap shall be used for assembly & welding should be minimized.

The size of a SS cabin is 3.2m x 1.6mx 3.05m (L x B x H); it is closed on all sides except rear and one of lateral side as shown in Fig. 1 &2. One of the lateral side face to be provided with perforations/louvers

to maintain the air circulation within the system; this side shall be fabricated as box panel type with sandwich aluminum honeycomb to provide strength.

The front side of the SS cabin is to be provided with access door (4 Nos.), each of size 2470mmx 660mm (H x B) with 3 pins lock system secured with self- locking hinges. The doors shall be swing type with sandwich aluminum honeycomb to provide strength.

The ground grid of the SS cabin shall be made of 220 mm x 220 mm x1.8mm boxes profile with a floor of SS sheet of 1.8 mm thick. The loading capacity of ground grid must be 300 Kgs/sq-m.

The roof of the SS cabin shall be made of 76 mm x76mm x1.8mm boxes profile with ceiling of perforated SS sheet of 1.8 mm thick. The loading capacity of roof must be 100 Kgs/sq-m.

The SS cabin must be of self- lifting type as single unit. The lifting test shall be performed at the vendor's site before dispatch.

The pictorial and dimension representation of SS cabin are shown in figures 1 & 2 for better understanding of the system.

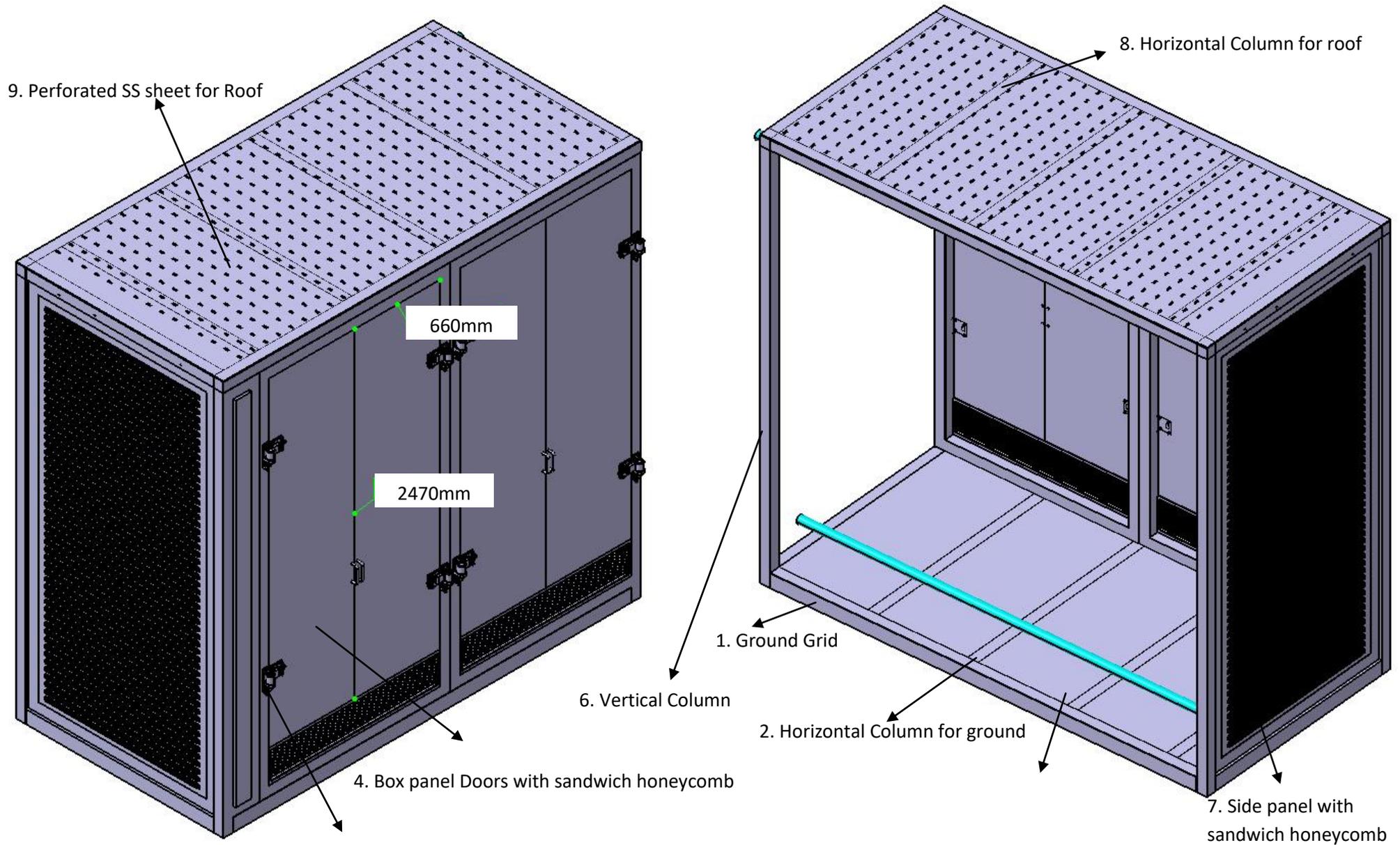


Figure-1 Pictorial and Dimensional view of the system

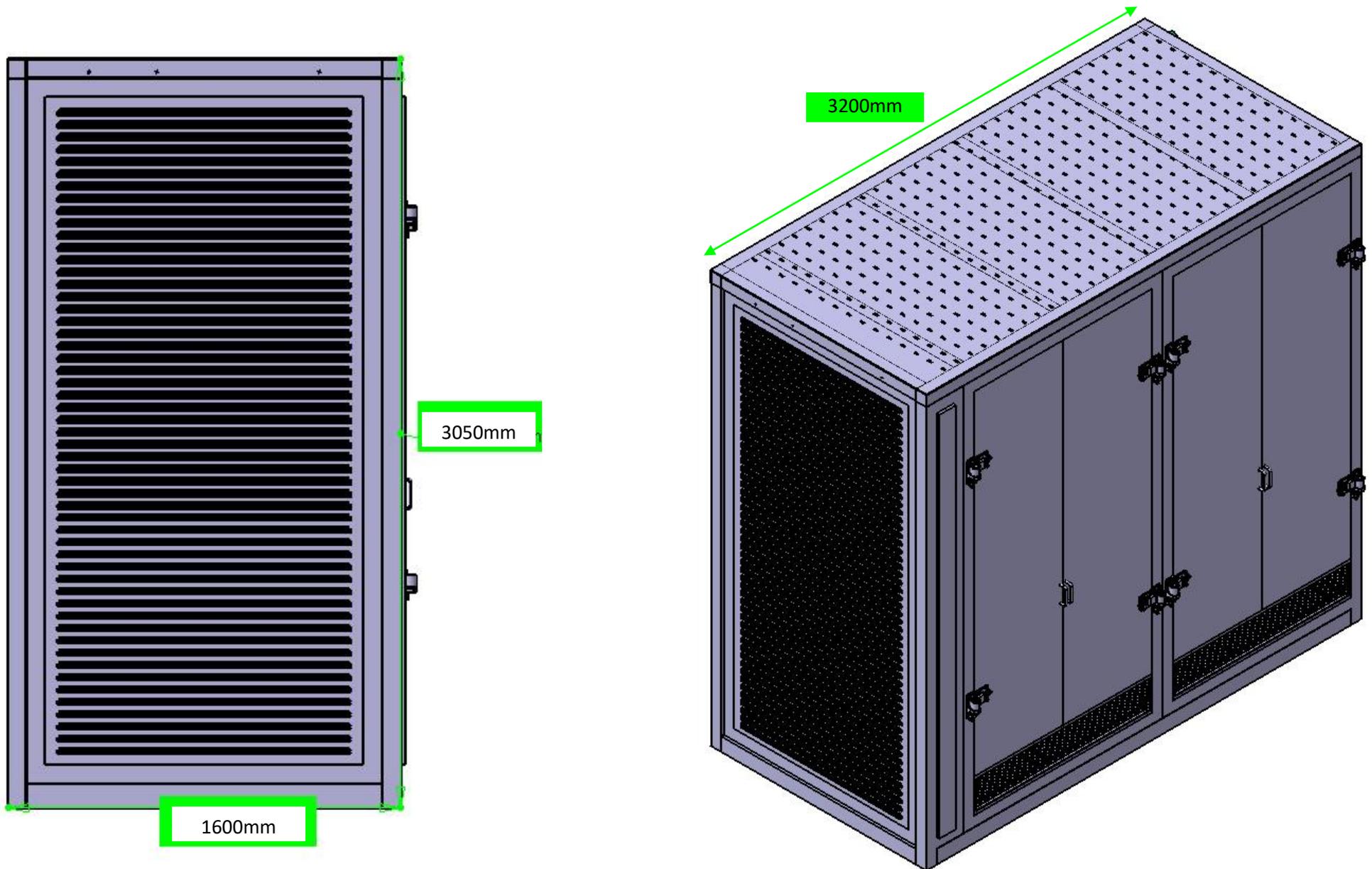
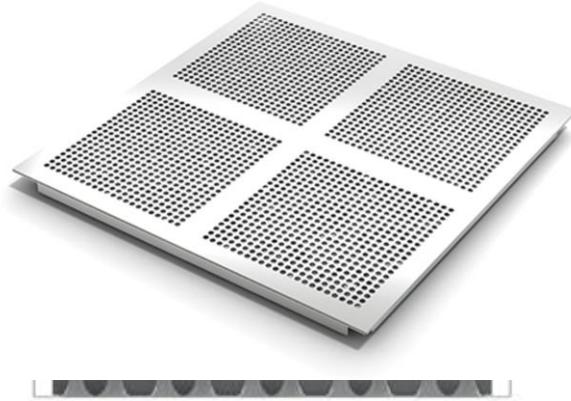


Figure-2 Pictorial and Dimensional view of the system

4. Specific information of sub-components (for information only)



Swing door with sandwich aluminum honeycomb



Side panel - Box type with sandwich aluminum honeycomb

5. Test and Inspection

a. Following test shall be performed at the Vendor's site before dispatch

- Dimensional measurements for the overall SS cabin
 - Linear tolerance with in $\pm 10\text{mm}$
 - Perpendicularity with in $\pm 5\text{mm}$
- Load test for floor (with $300\text{kg}/\text{sq.m}$ - center of grid) and roof of SS cabin (with $100\text{kg}/\text{sq.m}$ - center of grid), maximum deflection should not be more than 5mm

- SS cabin to be lifted using adequate eyebolts on the top and following tests shall be performed
 - Alignment/verticality inspection before and after lifting, deviation should be within $\pm 5\text{mm}$.
 - Fixing and arresting inspection before and after lifting, no visual deformities allowed.

The tolerances and fit for all mechanical machined components must be in accordance to ISO-2768-m.

b. Following test shall be performed at ITER-India lab after receipt of SS cabins

- Visual inspection, no visual deformities/defects allowed
- Dimensional measurements for the overall SS cabin/s
 - Linear tolerance with in $\pm 10\text{mm}$
 - Perpendicularity with in $\pm 5\text{mm}$

6. General

- All the box profiles must be made of same batch SS sheet with same gauge thickness, bends must have fillet of 2mm atleast.
- All of the breakout/Knockout/perforations must be burr free.
- The edges/corners must have smooth contouring.
- The doors must have zero verticality after opening.
- Cutting, bending and punching must be done with programed CNC machine only.
- The inside and outside appearance/finish of the SS cabin must be uniform and of same type.
- SS Studs to be provided for earthing purpose.

7. Compliance for the specifications (to be submitted by bidder along with offer)

Sr.	Specification/section	Compliance (Yes/No)
1.	Scope of works as per section 1 of Annexure-I	
2.	Applicable codes as per section 2 of Annexure-I	

**Annexure-I: Scope of Supply/Work and Technical Specifications****Tender Notice No.****I-ITN19010**

3.	Compliance to specification as per section 3, 4 , 6 of Annexure-I	
4.	Test and inspection as per section 5 (a and b) of Annexure-I	
5.	Submission of documents/drawings as per section 3 of Annexure-II	
6.	Delivery as per section 4 of Annexure-II	