

SI.No.	Nomenclature & Drawing No.	Manufacturing Technology & Testing /Inspection Facilities required to produce the item	Must be possessed by the vendor in his own premises (List of Plant & Machinery and Testing/ Inspection facility to be submitted)	Must be possessed by the vendor in his own premises (or) may be outsourced. (Name and Address of subcontractor, list of Plant & Machinery and Testing / Inspection facility to be submitted).
1	HULL BOTTEM FRONT PLATE (CMD) Drg.No. 172.01.009- 16 LF.No. 6201201134	Technology 1	RAW MATERIAL	Under taking by Vendor that vendor will procure Raw material from SAIL ( Who is the approved source of Raw material for HVF as of now) or any other source approved by HVF in future or Russia OEM with suitable documents proof required.
3	HULL BOTTOM PLATE MIDDLE(CMD) Drg.No. 172.01.010-9 LF.No. 6201201135	Technology 2	GAS CUTTING	CNC Gas Cutting Machine:- Capacity to cut 20 mm thick plate.
		Technology 3	HEATING FOR FORMING AND HARDENING	Gas Fired Chamber Furnace : 3000X5500 MM, Loading temperature in furnace : 900-1000°C Heating temperature : 900-980 °C Heating time : 20-40 minutes. Holding time : 40-70 minutes with facilities:- Rotary loading unit 7T , Over Head Crane 10T & Water bath.
		Technology 4	FORMING	Hydraulic Press - 10000 T Pressing Force 7500-10000T Holding time 10-15 seconds. Transfer time of blank from furnace till complete dipping in water Max. 4 minutes. Cooling time in water Min.1.5 minutes Water temperature 20-40°C Straightening Hydraulic Press 400T.

Sl.No.	Nomenclature & Drawing No.	Manufacturing Technology & Testing /Inspection Facilities required to produce the item	Must be possessed by the vendor in his own premises (list of Plant & Machinery and Testing/ Inspection facility to be submitted	Must be possessed by the vendor in his own premises (or) may be out sourced.(Name and Address of sub-contractor, list of Plant & Machinery and Testing / Inspection facility to be submitted).
		Technology 5	<p><b>HIGH TEMPERING</b></p> <p>Gas Fired Chamber Furnace : 3000X5500 MM            Loading temperature in furnace : 570-620°C            Heating temperature : 580-620°C            Heating time : 1.0 -1.50 Hrs            Holding time : 1.0 -1.50 Hrs            Transfer time Max.4 minutes,            Cooling time in water Minimum 2 minutes            water temperature 20 - 60 °C            with facilities:- Rotary loading unit 7T,            Over Head Crane 10T &amp; mechanized bath.</p>	
		Technology 6	<p><b>SURFACE TREATMENT</b></p>	Shot Blasting Machine
		Technology 7	<p><b>MILLING</b></p>	Vertical Milling Center
		Technology 8	<p><b>TESTING</b></p>	Surface Table for inspection, Measuring instruments, profile/receiver gauges. Portable / Universal Hardness testing equipments.