

ANNEXURE - A

To Letter No. 07292/HVIL-PLA/2022, Dt. 24/10/22

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).
1	<p><b>BOTTOM PLATE REAR ASSY</b>                      Drg.No. 172.01.011-3                      LF.No. 6206831110 (T72)</p>	<p>Technology 1  <b>RAW MATERIAL</b></p>		<p>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.</p>
		<p>Technology 2  <b>GAS CUTTING</b></p>		<p>CNC Gas Cutting Machine:-                      Capacity to cut 20 mm thick plate.</p>
		<p>Technology 3  <b>HEATING FOR FORMING AND HARDENING</b></p>	<p>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 &amp; Water bath.</p>	<p>(X)</p>
		<p>Technology 4  <b>FORMING</b></p>	<p>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.</p>	

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		<p align="center"><b>Technology 5</b></p> <p align="center"><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>	
		<p align="center"><b>Technology 6</b></p> <p align="center"><b>SURFACE TREATMENT</b></p>		Shot Blasting Machine
		<p align="center"><b>Technology 7</b></p> <p align="center"><b>MILLING</b></p>		Vertical Milling Center
71		<p align="center"><b>Technology 8</b></p> <p align="center"><b>TESTING</b></p>	Surface Table for inspection, Measuring instruments, profile/receiver gauges. Portable / Universal Hardness testing equipments.	