

**Format for the Vendor Qualification Criteria (VQC)**

NOMENCLATURE & DRAWING NO.: HOMOGENOUS MACHINABLE ARMOUR PLATE, LF No.0352620008, DRG No.JSS/8MM/JACKAL, 8X1250-2000X4000MM JACKAL PLATE HARDNESS: 388 BHN TO 495 BHN HARDENED AND LOW TEMPERED.

1	2	3	4	5	6
MANUFACTURING TECHNOLOGY & TESTING / INSPECTION FACILITIES REQUIRED TO PRODUCE THE ITEM		MUST BE POSSESSED BY THE VENDOR IN HIS OWN PREMISES - (P&M LIST & TESTING/INSPECTION EQUIPMENT LIST TO BE SUBMITTED)	PROVIDE DETAILS OF THE FACILITIES ASKED IN COLUMN (3) THAT ARE AVAILABLE IN-HOUSE (SELF-DECLARED P&M LIST (Nomenclature of machine, Make/Model, Capacity/Size & accuracy, Date of Installation, Vintage of machine/Year of Manufacturing of machine) AND TESTING/INSPECTION EQUIPMENT LIST (Nomenclature of the Testing/Inspection Equipment, Make/Model, Size & Range, Date of calibration) ALSO TO BE SUBMITTED)	MAY BE POSSESSED BY THE VENDOR IN HIS OWN PREMISES OR OUT SOURCED - (MOU/TIE-UP WITH THE VENDOR/SUB-VENDOR AND THEIR P&M LIST & TESTING/INSPECTION EQUIPMENT LIST TO BE SUBMITTED)	PROVIDE DETAILS OF THE FACILITIES ASKED IN COLUMN (5) THAT ARE AVAILABLE IN-HOUSE OR OUT-SOURCED FIRMS (NAME AND ADDRESS OF THE OUTSOURCING VENDOR TO BE DECLARED BY THE FIRM IN FIRM'S LETTERHEAD, SELF-DECLARED P&M LIST (Nomenclature of machine, Make/Model, Capacity/Size & accuracy, Date of Installation, Vintage of machine/Year of Manufacturing of machine) AND TESTING/ INSPECTION EQUIPMENT LIST (Nomenclature of the Testing/Inspection Equipment, Make/Model, Size & Range, Date of calibration) AND MOU/TIE-UP ALSO TO BE SUBMITTED)
Technology 1	STEEL MAKING	The steel is to be manufactured by electric arc furnace/open hearth furnace ( Furnace Minimum 10T Capacity) followed by vacuum degassing treatment, ESR process (ESR Facility with minimum 10 MT capacity. Suitable measure is to be taken by the steel maker to avoid harmful defect such as seams, flaws, piping, cracks, segregation/banding, inclusion, surface defect etc. in the ingots. Calcium silicide treatment shall be given in steel during ingot casting. Other technical parameters as per JSS: 9515-021:2020 (First Revision) for material JACKAL and JSS: 9515-022-2017.			
Technology 2	FORGING	Hot Forging: Heating Furnace min 1200° C and Press of min 2000 MT Capacity.			

Technology 3	HOT ROLLING			Hot Rolling mill of suitable capacity to manufacture the finished plates of thickness 8mm with dimensional tolerance of the thickness as per JSS:9515-021:2020 (First Revision) for Material Jackal and JSS-9515-022-2017.	
Technology 4	CUTTING			CNC Laser Cutting Machine/CNC Plasma & Gas Cutting Machine.	
Technology 5	SOFT ANNEALING	Heating Furnace of suitable size min 2.1X4.1m meters for Heat Treatment of the Plates temperature min 750° C.			
Technology 6	HARDENING	Heating furnace of suitable size min 2.1 X 4.1 m and capacity min 100° C for Heat Treatment of the finished Plates. Oil Quenching Tanks of suitable size min width 2.1 m X Length 4.1 m			
Technology 7	TEMPERING	Heating Furnace of suitable size min 2.1X4.1m for Heat Treatment of the Plates temperature min 750° c.			
Test/ Inspection 1	CHEMICAL TESTING	Spectrometer Suitable for Analysis of material as per Table 2 of JSS 9515-021:2020 (First Revision) and JSS 9515-022:2017			
Test/ Inspection 2	MECHANICAL TESING	Brinell Hardness Tester, Universal Testing Machine for UTS, YS, %E and %RA, Charpy Impact tester for Room Temp and Sub Zero (-40deg C)			
Test/ Inspection 3	METALLOGRAPHY TESTING	Microscope min 100 X Magnification for Microstructure, De-Carburization Layer, NMIR and Weld ability Test.			
Test/ Inspection 4	BALLISTIC TESTING			Final Acceptance will be after clearance in Ballistic test on Heat treated plate as per JSS: 9515-022:2017. Test will be arranged by HVF at PXE Balasore/OFMK Medak	

Note: Facilities must be available with vendors own premises - including facilities available with **Sister / Parent Concerns / Strategic Partners** shall be considered for Capacity Verification subjected to documentary evidence to prove the relationship / ownership.

**1. Supporting documents to be submitted:**

List of Plant & Machinery available in-house to be submitted as per format as well as outsourced vendors Plant & Machinery to be submitted as per format separately:

Sl. No.	Nomenclature of the machine	Make/Model	Capacity/Size & Accuracy	Date of Installation	Vintage of the Machine / Year of Manufacturing of machine

List of Testing/ Inspection facilities available in-house to be submitted as per format as well as outsourced vendors Plant & Machinery to be submitted as per format separately:

Sl. No.	Nomenclature of the Inspection/Testing Equipment	Make/Model	Size & Range	Date of Calibration

The Plant & Machinery list and Inspection/Testing facility (as per the above format) duly signed by the **CEO/MD/Director/ Proprietor/Partner (with Name and Designation)**. If it is signed by authorized representative then scan copy of authorization letter should be attached.

If the facilities mentioned in Column No. 5 of Vendor Qualification Criteria is not available at your own premises, then submit the Outsourcing Vendor (Sub-Vendor) Name, Address, MoU/Tie-ups from the Outsource Vendor and their Credentials/Certification (i.e. Plant & Machinery list and Inspection/Testing facility list – as per the above format).

In case, if the Outsourcing Vendors (Sub-Vendors) are not submitting the above information, then the Main/Applied vendor have to endorse the Outsourcing Vendor (Sub-Vendor) Name, Plant & Machinery list and Inspection/Testing facility (as per the above format) available with the Outsourcing Vendors (Sub-Vendors) in their letter head, duly signed by the **CEO/MD/Director/ Proprietor/Partner (with Name and Designation)**. If it is signed by authorized representative then scan copy of authorization letter should be attached.

**Note:** Authorization letter should be signed by the CEO/MD/Director/ Proprietor/Partner (with Name and Designation). In the authorization letter the authorized person Name, Designation and his/her specimen signature shall be affixed.

**2. Self-declaration for P&M list:**

**Firms Letterhead**

**Self-declaration**

I/We confirm that the information furnished about Plant & Machineries and Inspection/Testing facilities available at In-house as well as Outsourcing Vendors (Sub-Vendors) are correct to the best of my/our knowledge and belief. In the event of any information given by me/us is found incorrect/false at any time, I/We understand our registration will be cancelled without notice, besides any other appropriate action against me/us.

M/s.

Signature:

Name:

Designation: