



Ref. No.: IITI(MM)/ME(PRJ)/1/1A/51/IS/2025-2026

November 27, 2025

PREBID REPORT

The online meeting for Pre-bid discussion will be held at IIT-Indore through online on 14/11/2025 at 03.00 PM onwards for Supply and Installation of Servo Hydraulic Fatigue Testing Machine.

Till date, we have received the below mentioned queries.

Sl. No.	Reference of the Clause/ Page No. of the Tender Document	Query raised	Query Raised by	Response from IITI
1.	Technical specifications Part-2	What is the frequency?	M/s. SPM INDIA PVT LTD	There is no defined frequency as this machine will be used for multiple test applications.
2.	Technical specifications Part-2	What is the stroke length?		100 mm
3.	Technical specifications Part-2	What is the type of oil chiller?		Water chiller
4.	Technical specifications Part-2	What is the Degassing time?		This is to ensure the oil viscosity to get back to the original state within short span.
5.	Technical specifications Part-2	208 bar pressure is required or not?		Yes. 280 Bar is required
6.	Technical specifications Part-2	The capacity is 29.3kW it is low do we really require that?		Cooling capacity of 29.3kW or above should be provided.
7.	Technical specifications Part-2	Can you please elaborate on the specified temperature range of 200 to 1000 for the grips and fixture?		The tests need to be done in the mentioned full temperature range. Appropriate grips and fixtures need to be provided for the test.
8.	Eligibility criteria Asked	Similar work completed to Govt/Semi Govt/ Centrally funded tech Inst (CFTI) which includes IITs, IISCRS, CSIR Inst etc.,		NO Change Please refer to point no. 06 in the essential qualification criteria.

		We are regular manufacturer's of Testrigs and we have supplied So far more than 1000 + plus systems of different testings to Defence, Auto, Aerospace, Railways & General Engg industries. We have supplied railway application Damper fatigue / endurance test rig, pantograph Fatigue / endurance test rig. For a defence project we have done Active Suspension testrig.		
9.	Page No. 19, Sr. No. 3 Actuator: Hydraulic reservoir capacity must ensure degassing time of min. 5 minutes.	Please explain this point. It is not clear what this specification requires	M/s. ITW India Private Limited	This is to ensure the oil viscosity to get back to the original state with in short span.
10.	Page No. 19, Sr. No. 3 Actuator: - min. 30 lpm nominal flow for the hydraulic power unit with reservoir capacity of 160 liters or more - System pressure of 280 bar	Please remove capacity required and provide details of what performance is required for the machine so suitable selection can be made.		The test specification is created based on the current fatigue crack growth test requirement as well as future high performance test requirements. Hence the capacities are lined up high to be future ready.
11.	Page No. 19, Sr. No. 3 Actuator: Refrigerator type oil chiller unit with nominal cooling capacity of 29.3kW or above should be provided to maintain constant, air temperature	Same query as above. This should be changed to "suitable capacity"		The test specification is created based on the current fatigue crack growth test requirement as well as future high performance test requirements. Hence the capacities are lined up high to be future ready.
12.	Page No. 19, Sr. No. 3 Actuator: Hydraulic Power pack should be integrated with the machine and provided with noise reduction unit.	This is maker specific point. Request to remove this point as separate HPU can be later upgraded with another load frame		Considering the space constraint, less maintenance cost and ease of operation, we require integrated powerpack.

13.	Page No. 20, Sr. No. 6 High Temperature Furnace: Temperature range up to 1100 °C or higher. Must have 3 heating zones. Stainless steel housing. Heating rate 28 K/min or higher. Sr. No. 07 Control Unit for Furnace: Maximum temperature gradient on the specimen $\pm 2K$ (Specimen length of 100 mm).	Please clarify on this as this is not right metric. Kindly define in Deg C/min	M/s. ITW India Private Limited	You can provide the equivalent celcius metric furnace.
14.	Page No. 20, Sr. No. 07 Control Unit for Furnace: 3 Thermocouples type N for specimen temperature control.	Preference for same type of thermocouple for sample and zone temperature to avoid variations based on thermocouple type sensitivity. Request to provide as N/S/R type.		Accepted.
15.	Page No. 20, Sr. No. 8 Thermocouples: Type: S for furnace and type N for specimen. Must be with movable spring loaded bearing. For applying directly to surface of specimens.	Spring loading will cause friction between sample and thermocouple. Request to provide option for quoting spot welded thermocouple as well.		Accepted.
16.	Page No. 22, Sr. No. 10 Electronic Controller: Colour Laser Printer HP/Epson/Canon make only acceptable	Please provide model number of printer to be quoted.		Any good quality color laser printer of mentioned makers with less maintenance requirement.
17.	Page No. 24, Part-III Delivery Period: Within 03 months from the date of Purchase order.	As it is high temperature configuration, request to amend to 6 months delivery period.		NO Change. Due to PDC of the project, we need delivery within 3 months.
18.	Page No. 17-18 Part-I Make In India- Class-I or Class-II Local Supplier:	The requirements of this 1200 deg High temperature machine are not related to medical		Make In India- Class-I or Class-II Local Supplier: A Self-Declaration Certificate regarding "Class-I or Class-II

	A Self-Declaration Certificate regarding "Class-I or Class-II Supplier" for the tendered item as per the Form-III is to be submitted. However, the item is exempted under (The OM No. F.4/1/2023-PPD (pt.) dated-17/02/2025 issued by Ministry of Finance, DoE under Rule 161(iv) of GFR-2017 for issuance of GTE for procurement of Medical Devices is applicable to this tender.) Accordingly, non-local supplier can also participate.	devices hence Make in India preference must be applicable.		Supplier" for the tendered item as per the Form-III is to be submitted. However, the GTE proposal has been approved by the competent authority for this procurement under as per OM No.F.20/42/2021-PPD dated 05.06.2025
19.	Serial No. 02 Basic Load Frame: Axial Servo Hydraulic two-column Load frame.	It is a servo hydraulic machine having two columns which are fine cromed.	M/s. Hydraulic & Engineering Instruments	NO Change. Kindly quote as per the tender specification.
20.	Serial No. 02 Basic Load Frame: Maximum Fatigue-rated Capacity: $\pm 50\text{kN}$ with minimum frame stiffness of min. 500kN/mm at daylight of 1000mm	We hereby confirm to submit the stiffness report along with the tender document. We will provide a stiffness of 650kN/mm at a daylight clearance of 1000mm		NO Change. Kindly quote as per the tender specification.
21.	Serial No. 02 Basic Load Frame: Hydraulic Lift and Hydraulic Clamp for Crosshead	Middle crosshead movement is thru hydraulic lifting cylinders and it has hydraulic locking arrangement.		NO Change. Kindly quote as per the tender specification.
22.	Serial No. 02 Basic Load Frame: Vertical test space without tooling and load cell: Minimum 1600mm	Test Space without load cell & attachment will be more than 1600mm		NO Change. Kindly quote as per the tender specification.
23.	Serial No. 02 Basic Load Frame: Width between columns: Minimum 400 mm	Horizontal space between the column will be 500mm		NO Change. Kindly quote as per the tender specification.

24.	Serial No. 03 Actuator: Hydrostatic bearing actuator +/- 50kN Force, stroke 100 mm	Hydrostatic / Polymeric Bearing Actuator with anti-rotation attachment	M/s. Hydraulic & Engineering Instruments	NO Change. Kindly quote as per the tender specification.
25.	Serial No. 03 Actuator: Servo valve 40 LPM	We need maximum Frequency + amplitude so that we can submit the performance curve along with the bid document. We can only decide the flow rate after we receive the speed & frequency.		The specifications are defined concerning current and future requirements. This machine is not indented for one specific application. Hence there is no defined amplitude and frequency.
26.	Serial No. 03 Actuator: Hydraulic Power pack must be integrated with the load frame	We recommend that the HPU should be kept separately because it can affect the sensors at the time of testing		Considering the space constraint, less maintenance cost and ease of operation, we require integrated powerpack.
27.	Serial No. 03 Actuator: Hydraulic reservoir capacity must ensure degassing time of min 5 minutes	Noted, breather caps will be provided		NO Change. Kindly quote as per the tender specification.
28.	Serial No. 03 Actuator: Min. 30 LPM nominal flow for the hydraulic power unit with reservoir capacity of 160 liters or more	We need maximum Frequency + amplitude so that we can submit the performance curve along with the bid document. We can only decide the flow rate after we receive the speed & frequency		The specifications are decided concerning current and future requirements. This machine is not indented for once specific application. Hence there is no defined amplitude and frequency.
29.	Serial No. 03 Actuator: System pressure of 280 bar	We recommend that the operating pressure should be 210 Bars which is more than sufficient. Generally all hydraulic components are designed for		The specifications are defined concerning current and future requirements. This machine is not indented for once specific application.

		300 Bars but we should maintain this at 210 bars so that the life of the hydraulic components is not reducing	M/s. Hydraulic & Engineering Instruments	
30.	Serial No. 03 Actuator: Operator interface with digital display for oil temperature and analogue display for oil pressure	We shall be attaching an operating panel on the loading unit which will have all important information like temp, machine health , crosshead movement up/down etc.		NO Change. Kindly quote as per the tender specification.
31.	Serial No. 03 Actuator: Should Include Protection device for oil temperature, oil pressure, oil level, oil filter condition and motor temperature	Necessary protection device is added in the machine.		NO Change. Kindly quote as per the tender specification.
32.	Serial No. 03 Actuator: Refrigerator type oil chiller unit with nominal cooling capacity of 29.3kW or above should be provided to maintain constant, air temperature independent oil temperature of power pack while working in summer season (47°C) and for continuous working of the machine in summer season. It shall have reservoir capacity of minimum 100 liters. The chiller should have frost protection feature.	We need to know the maximum freq & amplitude so that the flow rate of the HPU can be decided. 29.3KW is huge for a 40LPM flow rate. Please share these details so that the chiller selection can be done wisely.		The specifications are defined concerning current and future requirements.
33.	Serial No. 03 Actuator: Power pack operation can be started via the controller or from the power pack manually	Our controller supports this feature. We can also activate the HPU directly from the panel which is installed near		NO Change. Kindly quote as per the tender specification.

		the loading frame	M/s. Hydraulic & Engineering Instruments	
34.	Serial No. 03 Actuator: The unit must provide the trip circuits to shut down the system in the event of high oil temperature or low oil level	This feature is there in the system. System will trip automatically after reaching the desired temperature limit		NO Change. Kindly quote as per the tender specification.
35.	Serial No. 03 Actuator: Hydraulic Power pack should be integrated with the machine and provided with noise reduction unit.	Pump is submerged in the oil tank but it is highly recommended that the HPU should be kept separately to avoid any sort of jerk on the sensors while the test is going on.		Considering the space constraint, less maintenance cost and ease of operation, we require integrated powerpack. You can provide noise enclosure and damper to arrest noise and vibrations
36.	Serial No. 04 Load Cell: Dynamic Load Cell +/- 50kN	We will be supplying a fatigue rated load cell of capacity 100kN which will work both in tension/compression mode.		NO Change. Kindly quote as per the tender specification.
37.	Serial No. 04 Load Cell: Calibration as per ISO 7500-1 in class 0.5	We will be supplying the load cell as per ISO 7500-1 in class 0.5.		NO Change. Kindly quote as per the tender specification.
38.	Serial No. 04 Load Cell: With integrated acceleration sensors for mass compensation	Acceleration sensors will be mounted on load cell for mass compensation.		NO Change. Kindly quote as per the tender specification.
39.	Serial No. 05 Grips and Fixtures: Adapters for M12 threaded round dumbbell specimen	We will be supplying the thread as per the given requirement for M12		NO Change. Kindly quote as per the tender specification.
40.	Serial No. 05 Grips and Fixtures: Gauge length: 15 mm	This is for the electronic extensometer, please confirm. Also, we would like to		Kindly refer 5.3 and 9 from the tender specification.

		know if you require room temperature extensometer or high temperature extensometer for this application	M/s. Hydraulic & Engineering Instruments	
41.	Serial No. 05 Grips and Fixtures: High Temperature CT adaptors for 1/2CT compact tension specimen for fracture mechanic testing accordance with ASTM E 399.	These adaptors will be made from a high temperature material.		NO Change. Kindly quote as per the tender specification.
42.	Serial No. 05 Grips and Fixtures: These adaptors will be made from a high temperature material	These adaptors will be made from a high temperature material		NO Change. Kindly quote as per the tender specification.
43.	Serial No. 05 Grips and Fixtures: Room temperature clip on crack expansion transducer for pre-cracking with measuring travel of +2.5 mm, 10.0 mm compressed gauge length. Shall meet requirements of ASTM E1820.	Noted, we will be supplying the COD gauge as per the required specifications		NO Change. Kindly quote as per the tender specification.
44.	Serial No. 05 Grips and Fixtures: High temperature COD gauge with 10 mm gauge length	We will be supplying high temperature COD gauge having a gauge length of 10mm		NO Change. Kindly quote as per the tender specification.
45.	Page No. 19, Sr. No. 02 Basic Load	Frame Request to add a specification that the supplier must verify the frame stiffness at the site, as IIT Indore is very particular about frame stiffness.	M/s. Hittites Technology India Limited	The frame stiffness mentioned in tender is needed. However, verifying the same is not mandatory. It will be requested if needed during technical qualification.
46.	Page No. 19, Sr. No. 03 Actuator	Kindly clarify the purpose of specifying a minimum degassing time of 5 minutes and a minimum 30 LPM normal flow for the hydraulic power unit with a		This is to ensure the oil viscosity gets back to its original state within short span.

		reservoir capacity of 160 litres or more.	M/s. Hittites Technology India Limited	
47.	Page No. 19, Sr. No. 03 Actuator	The mentioned system pressure is not related to machine performance or requirements; hence, we request modification of the specification to 210–280 bar.		The test specification is created based on the current FCG test requirement as well as future high performance test requirements. Hence the capacities are lined up high, to be future ready.
48.	Page No. 19, Sr. No. 03 Actuator	Kindly allow the supplier to select a suitable chiller for the machine instead of specifying a particular capacity.		The test specification is created based on the current FCG test requirement as well as future high performance test requirements. Hence the capacities are lined up high, to be future ready
49.	Page No. 19, Sr. No. 03 Actuator	Kindly allow us to quote the power pack as a separate item instead of integrating it with the machine frame, as it creates noise and vibrations that affect test data.		Considering the space constraint, less maintenance cost and ease of operation, we require integrated powerpack. You can provide noise enclosure and damper to arrest noise and vibrations.
50.	Page No. 19, Sr. No. 03 Actuator	Kindly clarify the required power pack capacity.		30LPM nominal flow with 160 litres of reservoir capacity and 280 bar pressure.
51.	Page No. 20, Sr. No. 5 Grips and Fixtures	Kindly clarify the list of test software required as per specifications. Currently, it includes only High Cycle Fatigue Test (HCF) as per ASTM E466 and K1c Test as per ASTM E399. During the meeting, you mentioned that you also intend to use the machine for Low Cycle Fatigue (LCF). If LCF is required, we need to include an extensometer and suitable grips.		The machine should be compatible with performing the LCF test. No additional extensometer or grip is required than tender specification.

52.	Page No. 20, Sr. No. 06 High Temperature Furnace	Kindly elaborate the furnace specifications, including temperature range and accuracy.	M/s. Hittites Technology India Limited	Temperature range is up to 1100 degree Celsius.
53.	Page No. 20, Sr. No. 07 Control unit for furnace	Kindly select only one type of thermocouple; varying types may affect linearization and accuracy.		Any type (N/S/R) of thermocouple can be used.
54.	Page No. 21, Sr. No. 09 High Temperature Extensometer	We now have the latest technology extensometer capable of working at 1200°C in ambient laboratory conditions without additional water cooling. Kindly modify the specification accordingly.		Water cooled extensometer can be quoted.
55.	Page No. 22, Sr. No. 12 Others	Kindly remove this clause, as all test software, manuals, calibration certificates, licenses, and documents will be provided along with the machine in both hardcopy and softcopy. Hence, the clause is not required and does not affect machine operation or test results.		The online access platform is required to ensure the proper documentation and avoid losing documents
56.	Page No. 22, Sr. No. 12 Others	Kindly include supply of machines to major Deemed Universities, NABL Laboratories, and PSUs in the qualification criteria.		Only bodies mentioned in the tender will be considered as references

The Revised Schedule of bid submission is as mentioned below:

Sr. No.	For As:	Read As:
1.	Last date & Time of submission of bids Online: December 04, 2025, at 3:00 PM	Last date & Time of submission of bids Online: December 09, 2025, at 3:00 PM
2.	Opening of Technical Bid Online: December 05, 2025, at 3:00 PM	Opening of Technical Bid Online: December 10, 2025, at 3:00 PM

All prospective/willing bidders are requested to take note of this report as part of the Tender document. All other terms and conditions of the tender remain unchanged.

Assistant Registrar (MMS)

सहायक कुलसचिव
(सामग्री प्रबंधन विभाग)
Assistant Registrar
(Materials Management Section)