



**CSIR-NML**

**सीएसआईआर - राष्ट्रीय धातुकर्म प्रयोगशाला**

(सीएसआईआर की एक संघटक प्रयोगशाला, विज्ञान एवं प्रौद्योगिकी मंत्रालय)

भारत सरकार, बर्मागिंस, जमशेदपुर - 831007, झारखंड (भारत)

**CSIR-National Metallurgical Laboratory**

(A Constituent Laboratory of CSIR, Ministry of Science & Technology)

Govt. of India, Burmamines, Jamshedpur - 831 007, Jharkhand (India)

## **PURCHASE ORDER**

<b>To,</b> <b>Maksur Analytical Systems</b> <b>6, Bldg. No. A-3, PALA</b> <b>Empire Industrial Hub, Plot No. 22 (R)</b> <b>MIDC Ambarnath Industrial Area</b> <b>Chikhli, Ambarnath – 421505</b> <b>Dist. Thane, Maharashtra, INDIA</b> <b>E-mail: sales@maksur.in</b>	<b>P.O. No.</b>	<b>P/NC/759/GSR/SM/OTE/23-24</b>
	<b>Date</b>	<b>16.01.2026</b>
	<b>Subject</b>	<b>Purchase Order</b>
	<b>Ref.:-</b>	1. NML Enquiry No.- GEM/2024/B/5158661 dt. 18.07.2024 floated on GeM Portal. 2. Quotation Ref. No. 022820- 3RT-R5-100824

Dear Sir,

I am directed to inform you that after evaluating the bid documents submitted by you as referred above, The Director, CSIR-NML, Jamshedpur is pleased to inform you that you have been selected as the successful bidder for the **Supply, Installation and Commissioning of SSRT MACHINE FOR SCC AND CORROSION FATIGUE AT HIGH TEMPERATURE AND HIGH PRESSURE WATER ENVIRONMENT**. The total purchase price shall be ₹ 2,49,93,500.00, as indicated in your financial bid submitted on the GeM Portal and your revised offer submitted through GeM Portal, in accordance with the procedures intimated in the relevant bid documents.

Accordingly, you are requested to kindly arrange for execution of the Contract for **Supply, Installation and Commissioning of SSRT MACHINE FOR SCC AND CORROSION FATIGUE AT HIGH TEMPERATURE AND HIGH PRESSURE WATER ENVIRONMENT**. Detailed Technical Specifications and Drawings are attached at Annexure-A and Annexure-B.

Please apply for refund of EMD if deposited by you with proper documentary evidence.

Price Breakup				
Sr. No.	Description	Unit Price in Rupees	Qty.	Amount in Rupees
	Slow Strain Rate Testing (SSRT) Machine for SCC and Corrosion Fatigue At High Temperature and High Pressure Water Environment consist of following,			
1	Floor Model Corrosion Fatigue/Constant Extension Rate/Slow Strain Rate Load Frame / 50 kN SSRT Loading Machine	64,19,602.25	1	64,19,602.25
2	Direct Current Potential Drop (DCPD) Controller	1,18,02,168.32	1	1,18,02,168.32
3	Corrosive Environment Chamber (Autoclave) / 4-Liter C-276 Vessel (HPHT)	33,75,402.60	1	33,75,402.60
4	Strain Measuring Device (LVDT)	3,22,207.79	2	6,44,415.58
5	Standard Grips for CT and Tensile specimens			
5.1	1/2-CT specimen Grips	3,24,372.29	1 set	3,24,372.29
5.2	1-CT specimen Grips	3,49,534.63	1 set	3,49,534.63
5.3	M12 round tensile specimens Grips	1,88,928.57	1 set	1,88,928.57
5.4	M10 round tensile specimens Grips	1,86,872.30	1 set	1,86,872.30
5.5	Flat specimens Grips	1,94,448.05	1 set	1,94,448.05
6	Spare Parts Kit	7,54,941.56	1 set	7,54,941.56
7	Installation, Commissioning and Training	7,52,813.85	1	7,52,813.85
	<b>Total Supply Price up to NML Jamshedpur including GST (A)</b>			<b>2,49,93,500.00</b>

<b>TOTAL CONTRACT VALUE -</b>	<b>INR 2,49,93,500.00</b>
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❖ Detailed Technical Specifications and Drawings are attached at Annexure-A and Annexure-B.

**CHARGES FREEZED TOWARDS PREVENTIVE MAINTENANCE VISIT  
DURING ANNUAL MAINTENANCE CONTRACT PERIOD**

Sr. No.	Description	Unit Price in Rupees	Qty.	Amount in Rupees
8	<b>Non-comprehensive Annual Maintenance Contract</b>			
	Non-comprehensive AMC Service Charges towards services after 1 Year warranty period – excludes spare parts			
8.1	1 <sup>st</sup> Year of AMC Preventive Maintenance Visit	2,79,000.00	Per Visit	2,79,000.00
8.2	2 <sup>nd</sup> Year of AMC Preventive Maintenance Visit	3,05,600.00	Per Visit	3,05,600.00
8.3	3 <sup>rd</sup> Year of AMC Preventive Maintenance Visit	3,45,200.00	Per Visit	3,45,200.00
	<b>Total Service portion including GST (B)</b>			<b>9,29,800.00</b>

  
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**CHARGES FREEZED TOWARDS BREAKDOWN VISIT (IF REQUIRED) DURING**  
**ANNUAL MAINTENANCE CONTRACT PERIOD**

Sl. No.	Description	Qty.	INR
1.	1st Year of AMC Breakdown Visit Charges	Each visit	INR 1,25,400.00
2.	2 <sup>nd</sup> Year of AMC Breakdown Visit Charges	Each visit	INR 1,25,600.00
3.	3 <sup>rd</sup> Year of AMC Breakdown Visit Charges	Each visit	INR 1,25,700.00

**NOTE:-**

- ❖ AMC will be effective immediately after expiry of warranty period. The visit shall be performed on the basis of requisition submitted by the user (CSIR-NML) in every year of AMC period giving 10 days time.
- ❖ Supplier shall be called for Breakdown visit if required during the AMC Period and attend the same within 10 days.

This Contract/Purchase Order shall be governed by:-

- (1) General Conditions of Contract and Special Conditions of Contract as detailed in the **Bid Document Ref. No. GEM/2024/B/5158661 dt. 18.07.2024 floated on GeM Portal** and
- (2) Special Conditions of Contract enclosed with this Purchase Order.

The Order Acknowledgement must be submitted immediately and in any case, within 07 days from the date of placement of this Purchase Order. The Order Acknowledgement shall be made on letterhead of the firm mentioning detailed technical specifications as per Quotation and shall also contains declaration towards acceptance of all the terms & conditions of the Purchase Order.

 16.01.26

Stores & Purchase Officer

For & on behalf of the Council of Scientific & Industrial Research



## Explanations

The following words and expressions used in this Tender Document shall have the meanings hereby assigned to them:

<b>Purchaser</b>	means CSIR-NATIONAL METALLURGICAL LABORATORY, BURMA MINES, JAMSHEDPUR, JHARKHAND - 831007
<b>Manufacturer/Supplier</b>	means M/s. Cortest Inc. USA
<b>Indian Agent</b>	M/s. Maksur Analytical Systems, Maharashtra

1.	Delivery Term	FOR NML Jamshedpur (Door delivery at Warehouse, CSIR-NML, Jamshedpur)
2.	Purchase Order Value / Contract Price	<b>INR 2,49,93,500.00</b> (INR TWO CRORE FORTY NINE LAKHS NINETY THREE THOUSAND FIVE HUNDRED ONLY)
3.	Transportation / Despatch	The ordered goods shall be delivered by Supplier at Warehouse of CSIR-NML, Jamshedpur and duly insured by Supplier on warehouse to warehouse basis covering all the risks including SRCC.
4.	Payment	<p><b><u>Payment shall be made in currency of the Contract in the following manner:</u></b></p> <p><b>Seventy percent (70%) of the Contract Price of Goods received, excluding the charges towards AMC, shall be paid within thirty (30) days of delivery of the goods in good condition and acceptance of the goods.</b></p> <p>At the time of taking delivery of the ordered goods, Purchaser reserves the right to ask for a joint inspection in presence of Supplier's representatives for verification of the goods delivered.</p> <p><b>Thirty percent (30%) of the Contract Price of Goods received, excluding the charges towards AMC, shall be paid within thirty (30) days of successful installation, commissioning and training of the items and acceptance certificate issued by user and submission of Performance Security.</b></p> <p><b><u>Payment terms of AMC for 03 Years (Non-Comprehensive in nature):-</u></b></p> <p>Payment to be released on a <b>yearly basis</b> through RTGS within 30 days of submission of the bills, duly supported by Service reports signed by the User Department, evidencing satisfactory service rendered by the vendor.</p> <p>Vendor shall raise a yearly invoice only if the service visits (Preventive or Breakdown) have been performed in the corresponding year period (Billing Period).</p>
5.	Banking Charges	All bank charges abroad shall be to the account of the beneficiary i.e. supplier and all bank charges in India shall be to the account of the purchaser.
6.	Performance Security	The Supplier shall furnish Performance Security for 3% of the contract price, i.e. <b>Rs. 7,49,805.00</b> before claiming payment.

7.	Country of Origin	INDIA and USA
8.	Port of Shipment	By Road.
9.	Road Permit / eWaybill	Will not be provided.
10.	Delivery period	<p><b>6 (Six) months from date of issue of Purchase Order.</b></p> <p><b>Denial Clause</b> (over and above levy of Liquidated Damage): any increase in statutory duties and / or upward rise in prices due to the PVC (Price Variation Clause) clause and / or any adverse fluctuation in foreign exchange are to be borne by the seller during the extended delivery period, while the purchaser reserves the right to get any benefit of a downward revisions in statutory duties, PVC and foreign exchange rate.</p> <p>Except as provided under the Force Majeure clause, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of penalty pursuant to Penalty Clause unless an extension of time is agreed upon pursuant to above clause without the application of penalty clause.</p>
11.	Warranty	<b>01 (One) Year on-site Comprehensive Warranty</b> from the date of completion of successful installation & commissioning and completion of all contractual obligation to the entire satisfaction of buyer.
12.	AMC	<p>Consecutive <b>03-years Non-comprehensive AMC (minimum 01 preventive + 01 breakdown visit annually)</b> for equipment to be started immediately after expiry of warranty period of 01 Year.</p> <p>❖ <b>The visit shall be performed on the basis of requisition submitted by the user (CSIR-NML) in every year of AMC period giving 10 days time.</b></p> <p>❖ <b>Supplier shall be called for Breakdown visit if required during the AMC Period and attend the same within 10 days.</b></p>
13.	Pre-installation visit	Firm's engineer will make the inspection for site readiness prior to shipment to expedite the installation.
14.	Installation & Commissioning	<p>Installation and commissioning of the equipment will be completed by the firm's engineers including acceptance test at site <b><u>within 1 (One) month after receipt of the item.</u></b></p> <p><b>Supplier must submit copy of Installation Certificate duly signed &amp; stamped by both the firm's engineer and user of CSIR-NML indicating specific start date and completion date of Installation.</b></p> <p><b>Delay beyond the prescribed period in completion of contractual obligations will attract the imposition of Liquidated Damage Clause as mentioned in this tender document.</b></p>
15.	Training	It should be imparted for Five (05) persons for Five (05) days to the purchaser at purchaser's premises. It should be completed as per schedule mentioned under installation and commissioning.





16.	Acceptance	<p>The vendor should successfully demonstrate SCC, FCGR and corrosion fatigue tests with the standard specimen geometries as per the IS-16842:2022, ASTM G129, ASTM 647, ASTM 1681 at CSIR-NML, Jamshedpur.</p> <p><b>On successful completion of acceptability test, receipt of deliverables, etc. and after the Buyer is satisfied with the working of the equipment, the acceptance certificate signed by the supplier and the representative of the buyer will be issued. The date on which such certificate is signed shall be deemed to be the date of successful commissioning of the equipment.</b></p>
17.	LD Clause	It will be applicable for delay in delivery / shipment, installation, commissioning and completion of all contractual obligations beyond deadlines as mentioned in our Purchase Order.
18.	Certificate for effecting payment	Firm will submit the installation and acceptance certificate indicating the completion of Installation, Commissioning & Training as well as duly signed by the user of CSIR-NML alongwith Invoice for effecting the payment.

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Stores & Purchase Officer  
For & on behalf of the Council of Scientific & Industrial Research

### SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

SCC 1	The Purchaser is: Director, CSIR-NATIONAL METALLURGICAL LABORATORY, BURMA MINES, JAMSHEDPUR, JHARKHAND - 831007
SCC 2	The Supplier is: M/s. Maksur Analytical Systems, Maharashtra
SCC 5	<b>Final Destination:</b> CSIR-NATIONAL METALLURGICAL LABORATORY, BURMA MINES, JAMSHEDPUR, JHARKHAND - 831007
SCC 6	<b>Order Acknowledgement/Confirmation:</b> The Order Acknowledgement must be submitted immediately and in any case, within 07 days from the date of placement of this Purchase Order. The Order Acknowledgement shall be made on letterhead of the firm mentioning detailed technical specifications as per Quotation and shall also contains declaration towards acceptance of all the terms & conditions of the Purchase Order.
SCC 7	<b>Performance Security:</b> The Supplier shall furnish Performance Security for <b>3% of the contract price</b> , i.e. <b>Rs.7,49,805.00</b> before claiming balance payment.
SCC 8	<b>Delivery / Shipment :</b> <b>6 (Six) months from date of issue of Purchase Order.</b>  Denial Clause (over and above levy of Liquidated Damage): any increase in statutory duties and / or upward rise in prices due to the PVC (Price Variation Clause) clause and / or any adverse fluctuation in foreign exchange are to be borne by the seller during the extended delivery period, while the purchaser reserves the right to get any benefit of a downward revisions in statutory duties, PVC and foreign exchange rate.  Except as provided under the Force Majeure clause, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of penalty pursuant to Penalty Clause unless an extension of time is agreed upon pursuant to above clause without the application of penalty clause.
SCC 9	<b>Part supply will not be accepted.</b>
SCC 10	The <b>country of origin</b> of the Goods is INDIA and USA
SCC 11	The <b>port of shipment</b> of the Goods is By Road.
SCC 12	The <b>mode of shipment:</b> By Road.
SCC 15	<b>Pre-installation visit</b> Firm's engineer will make the inspection for site readiness prior to shipment to expedite the installation.  <b>Installation &amp; Commissioning:</b> Installation and commissioning of the equipment will be completed by the firm's engineers including acceptance test at site within One month after receipt of the item.  Supplier must submit copy of Installation Certificate duly signed & stamped by both the firm's engineer and user of CSIR-NML indicating specific start date and completion date of Installation.



	Delay beyond the prescribed period in completion of contractual obligations will attract the imposition of Liquidated Damage Clause as mentioned in this tender document.
SCC 16	<p><b>Training:</b> It should be imparted for Five (05) persons for Five (05) days to the purchaser at purchaser's premises. It should be completed as per schedule mentioned under installation and commissioning.</p>
SCC 16	<p><b>Inspection and Tests:-</b> The Inspection tests prior to shipment of goods and at final acceptance at buyer's site.</p> <p>After the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the Supplier's plant by the Supplier prior to shipment to check whether the goods are in conformity with the technical specifications.</p> <p>Manufacturers Test Certificate with data sheet shall be issued to the effect and submit alongwith delivery documents.</p> <p>The acceptance test will be conducted by the Purchaser, their consultant or other such person nominated by the Purchaser at its option after the equipment is installed at Purchaser's site in the presence of supplier's representatives. The acceptance will involve trouble free operation. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment is expected to occur. The Supplier shall maintain necessary log in respect of the result of the test to establish to the entire satisfaction of the Purchaser, the successful completion of the test specified. In the event of the ordered item failing to pass the acceptance test, a period not exceeding two weeks will be given to rectify the defects and clear the acceptance test, failing which, the Purchaser reserve the right to get the equipment replaced by the Supplier at no extra cost to the Purchaser. Successful conduct and conclusion of the acceptance test for the installed goods and equipment shall also be the responsibility and at the cost of the Supplier.</p> <p>Before the goods and equipment are taken over by the Purchaser, the Supplier shall supply operation and maintenance Manuals together with Drawings of the goods and equipment built. These shall be in such details as will enable the Purchase to operate, maintain, adjust and repair all parts of the works as stated in the specifications. The Manuals and Drawings shall be in the ruling language (English) and in such form and numbers as stated in the Contract. Unless and otherwise agreed, the goods and equipment shall not be considered to be completed for the purposes of taking over until such Manuals and Drawing have been supplied to the Purchaser.</p> <p>On successful completion of acceptability test, receipt of deliverables, etc. and after the Purchaser is satisfied with the working of the equipment, the acceptance certificate signed by the Supplier and the representative of the Purchaser will be issued. The date on which such certificate is signed shall be deemed to be the date of successful commissioning of the equipment.</p>
SCC 18	<p><b>Packing:</b> Packing, Forwarding, Transportation and Insurance are to be borne by M/s. Maksur Analytical Systems, Maharashtra. The Insurance in respect of goods to cover all risks upto CSIR-NML Stores shall be borne by the supplier at its own costs as the Purchase Order is on F.O.R. NML basis. All charges for Insurance are included in Purchase Order value.</p>



SCC 19	<p><b>Shipping and other Documents :</b></p> <p>Within 24 hours of dispatch, the supplier shall notify the purchaser the complete details of dispatch and also supply following documents by registered post / speed post and copies thereof by FAX/Email.</p> <p>(a) Two copies of Supplier's Invoice indicating, <i>inter-alia</i> description and specification of the goods, quantity, unit price, total value, HSN Code, Gross &amp; Net Weight, Volume of goods;</p> <p>(b) Packing list;</p> <p>(c) Certificate of country of origin;</p> <p>(d) Insurance certificate under the contract;</p> <p>(e) Railway receipt/Consignment note;</p> <p>(f) Manufacturer's guarantee certificate and in-house inspection certificate;</p> <p>(g) Inspection certificate issued by purchaser's inspector, if any; and</p> <p>(h) Any other document(s) as and when required in terms of the contract.</p>
SCC 20	<p><b>Mode of dispatch:</b></p> <p>In case of supplies from within India, the mode of transportation shall be by Road.</p> <p><del>In case of supplies from abroad, the mode of transportation shall be by Sea.</del></p>
SCC 21	<p><b>Insurance:</b></p> <p>The Insurance in respect of goods to cover all risks including SRCC upto final destination shall be borne by Supplier at its own costs.</p>
SCC 22	<p><b>Warranty:</b></p> <p><b>01 (One) Year on-site Comprehensive Warranty</b> from the date of completion of successful installation &amp; commissioning and completion of all contractual obligation to the entire satisfaction of buyer.</p>
SCC 23	<p><b>Payment:</b></p> <p><u><b>Payment shall be made in currency of the Contract in the following manner:</b></u></p> <p><b>Seventy percent (70%) of the Contract Price of Goods received, excluding the charges towards AMC, shall be paid within thirty (30) days of delivery of the goods in good condition and acceptance of the goods.</b></p> <p>At the time of taking delivery of the ordered goods, Purchaser reserves the right to ask for a joint inspection in presence of Supplier's representatives for verification of the goods delivered.</p> <p><b>Thirty percent (30%) of the Contract Price of Goods received, excluding the charges towards AMC, shall be paid within thirty (30) days of successful installation, commissioning and training of the items and acceptance certificate issued by user and submission of Performance Security.</b></p> <p><u><b>Payment terms of AMC for 03 Years (Non-Comprehensive in nature):-</b></u></p> <p>Payment to be released on a <b>yearly</b> basis through RTGS within 30 days of submission of the bills, duly supported by Service reports signed by the User Department, evidencing satisfactory service rendered by the vendor.</p> <p>Vendor shall raise a yearly invoice only if the service visits (Preventive or Breakdown) have been performed in the corresponding year period (Billing Period).</p>

SCC 24	<b>Liquidated Damages :</b> The penalty shall (0.5%) point five percent per week or subject to a maximum of 10% of Order Value towards late delivery and towards delay in Installation and Commissioning and towards delay in completion of contractual obligations.
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**BIDDER / SUPPLIER MUST REFER TO ALL CORRESPONDENCES / COMMUNICATIONS EXCHANGED BETWEEN BIDDER AND CSIR-NML WHICH SHALL FORM A PART OF THE CONTRACT.**



Stores & Purchase Officer  
For & on behalf of the Council of Scientific & Industrial Research





**MAKSUR**  
ANALYTICAL SYSTEMS

The Director  
National Metallurgical Laboratory  
Burmamines, Jamshedpur-831 007

Date: October 24, 2024  
Offer No.: 022820-3CRT-R5-100824

#### Technical Bid

Ref. : Your GeM Tender Inquiry No. GEM/2024/B/5158661 dated 18.07.2024  
**Slow Strain Rate Testing (SSRT) Machine for SCC and Corrosion Fatigue At High Temperature and High Pressure Water Environment**

Sr. No.	Description	Unit Price in Rupees	Qty.	Amount in Rupees
	<b>Slow Strain Rate Testing (SSRT) Machine for SCC and Corrosion Fatigue At High Temperature and High Pressure Water Environment consist of following,</b>			
1	<b>Floor Model Corrosion Fatigue/Constant Extension Rate/Slow Strain Rate Load Frame</b> P/N: LF-103 <ul style="list-style-type: none"> <li>• Accommodates up to 4-liter vessel</li> <li>• 2-column construction</li> <li>• 50KN load capacity</li> <li>• Servo Motor / Jack-Screw Drive</li> <li>• 10,000 pound load cell (Tension Only)</li> <li>• Load Measurement Accuracy: Better than 0.15% full scale</li> <li>• Dual LVDT's for maximum sensitivity at low load levels</li> <li>• LVDT Accuracy: Better than 0.25% full scale</li> <li>• LVDT Sensitivity: &lt; than 0.5% of setting rate</li> <li>• LVDT/load cell junction box</li> <li>• Displacement Range: 0-25.4mm</li> <li>• Displacement Resolution: 0.0001mm</li> <li>• Displacement Accuracy: Better than 0.25% full scale</li> <li>• Extension Rate Range: 10e-8 mm/s to 3.5 mm/s</li> <li>• Accuracy of Extension Rate: &lt; than 0.5% of setting rate</li> <li>• Fatigue Frequency: Up to 1 Hz</li> <li>• 17-4 PH load train components</li> <li>• Industrial textured epoxy coating</li> <li>• Suitable for testing under ASTM E1681, E1820, E647, G129, &amp; G142 standards</li> </ul>		1	
2	<b>Direct Current Potential Drop (DCPD) Controller</b> P/N: LF-201-M Drawing # 3580-233 <ul style="list-style-type: none"> <li>• PC controlled (latest PC with Windows operating system) • Flat screen monitor, USB mouse and keyboard</li> <li>• National Instruments I/O modules</li> <li>• DCPD measurement for CT specimens</li> <li>• Accuracy of DCPD measurement: better than or equal to 0.1mm</li> <li>• Uses switchable DC current with precision measurement for determining crack growth</li> <li>• Precision Multimeter</li> <li>• Direct Current (DC) power source (minimum 20 amp)</li> <li>• Solid state DC switching</li> </ul>		1	

Office: 005, Bldg. No A-3, P.A.I.A., Empire Industrial Hub, Plot No. 22 (B), MIDC Ambarnathi Industrial Area, Gskhidi, Ambarnathi, Dist. Thane - 421505, Maharashtra, INDIA.

Works: 201, F. Bldg. No. A-3, P.A.I.A., Empire Industrial Hub, Plot No. 22 (B), MIDC Ambarnathi Industrial Area, Gskhidi, Ambarnathi, Dist. Thane - 421505, Maharashtra, INDIA.

Tel: 0251-2602384 / 2602632 / 2603075/2621 E-mail: sales@maksur.in Website: www.maksur.com  
Reg. Office: 121, Pandurang Apartment, Karan section, Ambarnathi (East) 421 501

MAKSUR is a registered company with the Registrar of Companies, Mumbai. GSTIN: 27MAEN2371L1ZP



**MAKSUR**  
ANALYTICAL SYSTEMS

• Additional Controller Channel			
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Sr. No.	Description	Unit Price	Qty.	Amount
	<ul style="list-style-type: none"> <li>• Proprietary software (Labview based) for conducting the following tests: Cyclic Loading (Load, Strain and Displacement controlled) Constant Displacement Constant Load Test Strain Rate Tests Slow Strain Rate Test / Constant Extension Rate Test Low/High Speed Fatigue Test Type of Waveform: Sinusoidal, Triangular, Trapezoidal</li> <li>• DCPD crack measurement Constant Cyclic Load Controlled Fatigue with Data Acquisition and of Strain and Stress / Load corresponding to fatigue cycle K Value with data acquisition as per ASTM E647 and ASTM E1681</li> <li>• Software Safety Features Include: Over Temperature Alarm Over Pressure Alarm Over Load Alarm</li> <li>• Suitable for testing under ASTM E1681, E1820, E647, G129, &amp; G142 standards</li> </ul>			
3	<b>4-Liter C-276 Vessel (HPHT)</b> Drawing # 22700-092-M <ul style="list-style-type: none"> <li>• C-276 Solid Forging</li> <li>• 4-liter capacity; 350°C (662°F) up to 35 MPa (5076 psi)</li> <li>• Bolted lid closure with C-276 seal ring</li> <li>• Water-cooled, pull-rod seal housing</li> <li>• I-718 Pull-rod sized for maximum applied load of 10,000 lbs.</li> <li>• (4) 1/4" HiP ports in lid, (1) for safety burst disk, (3) plugged</li> <li>• (2) 3/8" HiP ports in lid (plugged)</li> <li>• (5) 1/4" HiP ports in bottom for valve panel, TC, and pressure transducer</li> <li>• Load frame mounted valve panel for gas I/O and vessel drain</li> <li>• Safety burst disk assembly; C-276 housing with C-276 burst disk</li> <li>• Pressure transducer and NACE Sour service approved pressure gauge</li> <li>• Heater band with insulation jacket • Fused SCR enclosure</li> <li>• C-276 Solution TC</li> <li>• Heater band TC</li> <li>• Isolated vessel feed-thru fittings with HiP adapters for DCPD measurement</li> <li>• Load frame control software upgrade for vessel heating, pressure monitoring, and pressure compensated load measurement</li> <li>• Internal tripod load fixture sized for maximum applied load of 10,000 lbs</li> </ul>			

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Works: 2201-F, Bldg. No. A-3, PALA, Empire Industrial Hub, Plot No. 22 (R), MIDC Ambarnath Industrial Area, Chikhli, Ambarnath, Dist. Thane - 421505, Maharashtra, INDIA.

Tel: 0251-2602384 / 2602612 / 2603005/5022 | E-mail: sales@maksur.in | Website: www.maksur.com  
Reg. Office: 121, Padurising Apartment, Kharadi Station, Ambarnath (East) 421 501

At: 121, Padurising Apartment, Kharadi Station, Ambarnath (East) 421 501  
GSTIN: 27AAEN9371L1ZP



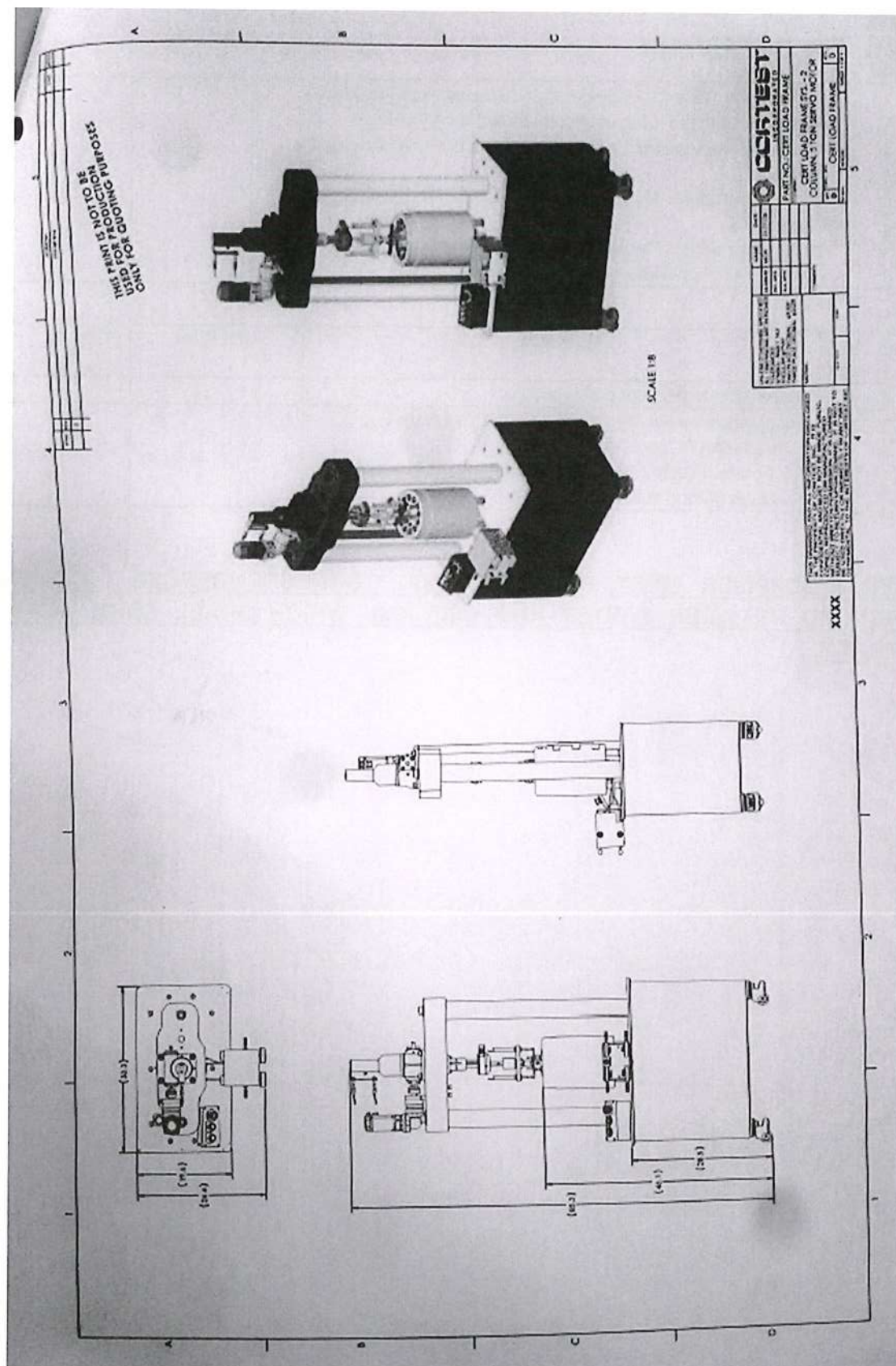


**MAKSUR**  
ANALYTICAL SYSTEMS

	<ul style="list-style-type: none"><li>• Accommodates 1/2-CT specimen (isolated grips included) •</li><li>Accommodates 1-CT specimen (isolated grips included)</li><li>• Accommodates M12 round tensile specimens (isolated grips included)</li><li>• Accommodates M10 round tensile specimens (isolated grips included)</li><li>• Accommodates Flat specimens (isolated grips included)</li><li>• Tool kit for operation and maintenance of vessel</li></ul>			
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Sr. No.	Description	Unit Price	Qty.	Amount
4	Spare Parts as per scope of inquiry			
5	Documentation Package on USB Flash Drive contains, <ul style="list-style-type: none"><li>• Installation / Operation Manuals</li><li>• Calibration Certs / Test Reports, Material CERTS</li><li>• As-Built Blueprint Drawings</li></ul>			Included

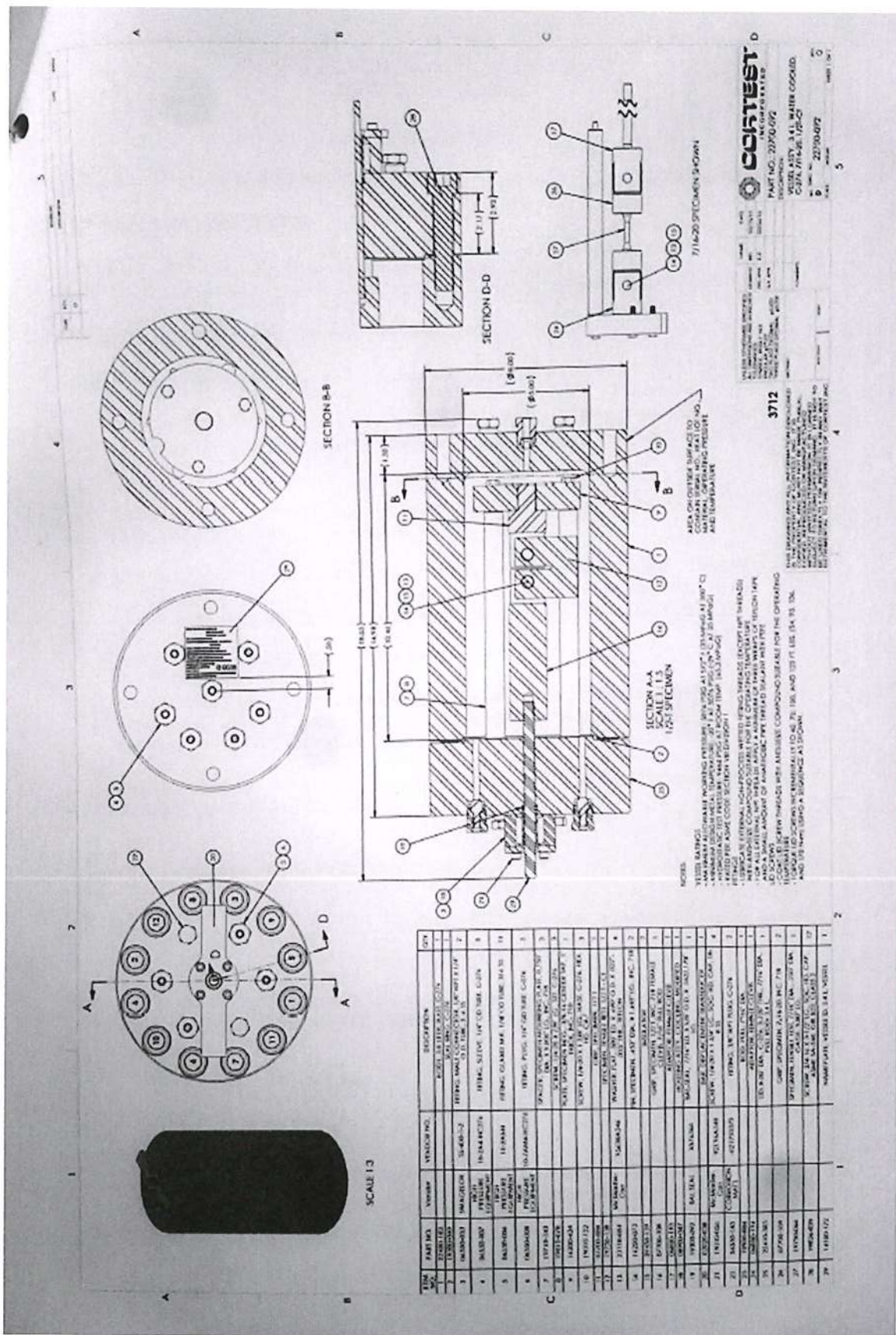
**BIDDER / SUPPLIER MUST REFER TO ALL CORRESPONDENCES / COMMUNICATIONS EXCHANGED BETWEEN BIDDER AND CSIR-NML WHICH SHALL FORM A PART OF THE CONTRACT.**











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===== Forwarded message =====  
From: sss <sss@maksur.in>  
To: 'spo.nml@csir.res.in' <spo.nml@csir.res.in>  
Cc: 'bholazad@nml.res.in' <bholazad@nml.res.in>, 'sales maksur' <sales@maksur.in>, 'msg' <msg@maksur.in>  
Date: Tue, 29 Jul 2025 16:54:39 +0530  
Subject: FW: NML: P/NC/759/GSR/SM/GEM-OTE/23-24:- Clarification of technical bid  
===== Forwarded message =====

Dear Sir,

Thank you very much for your e-mail and for considering our offer for further evaluation.

Further to your e-mail, we have consulted these technical queries with our OEM M/s. Cortest Inc., USA. Please find below our reply to your queries, pointwise. For your ready reference, I have also enclosed herewith the mail correspondence, we had with our principles.

1. With reference to point no 1.1 as per our tender specs, the load cell capacity should be 50kN (fatigue-rated load cell) and is not sufficient with 44.45 kN (10,000 lb) as you have mentioned in the response. Hence, please confirm whether you can supply the SSRT machine with a 50kN load cell capacity (fatigue rated) as per our tender document.  
**Maksur Reply:** We would like confirm herewith our compliance to 50 kN Load Cell Capacity requirement (fatigue rated), as per tender specifications.

2. Confirm whether the displacement resolution of SSRT is 0.0001 mm or better. As you have given compliance on this point.  
**Maksur Reply:** The displacement resolution of proposed system is 0.0001 mm

3. Confirmation provision of additional channels in the controller for connecting external devices, e.g.: Ultrasonic measurement device or external COD/CMOD gauge or additional strain device. As you have given compliance on this point.  
**Maksur Reply:** We confirm the additional channel on SSRT controller will be provided. For providing this one additional channel, we need few details from your side like,  
• Purpose of this channel for which it will be used  
• Channel Input format in mA or Voltage with its range  
• Unit of parameter of the data being captured in the controller ....etc

We need this above and additional information, as required, on receipt of purchase order from NML.

4. Confirm that you have offered AMC for consecutive 3 years Non-Comprehensive AMC (01 preventive + 1 breakdown) for equipment after warranty. Also confirm that you have offered the price of the AMC in your Price Bid.  
**Maksur Reply:** We, Maksur Analytical Systems are Authorised Representative of CORTEST Inc-USA and we are authorised to provide after sales service & support like installation and commissioning during warranty and after warranty in the form of AMC.  
In your case, as you have asked to provide non comprehensive AMC services, we have proposed against the tender, based on your tender requirement, and have offered the price of AMC in our price bid, as well. During the routine preventive AMC visit the following minimum task will be carried out.

1. System performance check
2. Calibration of LVDT & load cell once in a year
3. In case of any faulty component/ item identified, it will be informed to NML for sourcing from us. The same will be replaced once received at your LAB to make the system operational again.

5. Provide past PO copies issued to you by Govt. / Semi Govt. / PSU / Pvt. organizations during last 3 years for same / similar equipment disclosing the rates.  
**Maksur Reply:** We have submitted the past PO references for the similar system supplied in India and abroad. For your ready reference, please find enclosed herewith the same again.

6. A declaration on your letterhead to the effect that the category of the bidder on the basis of the local content imparted to the offered equipment shall fall in the category of Class-II Local Supplier.  
**Maksur Reply:** Enclosed is the Class-II local supplier document on our letterhead.

We hope the reply to your queries is in line with your requirement. Should you need any other details, please feel free to contact us.

Thanking you,  
With Best Regards,

Sameer Sardesai  
Sr. Project Manager  
Cell: 9422661970

Maksur Analytical Systems  
006, Bldg. No. A-3, PALA,  
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MIDC Ambarnath Industrial Area,  
Chikholi, Ambarnath - 421505  
Dist. Thane, Maharashtra, INDIA  
Tel: 9970920600  
E-mail: sales@maksur.in  
Website: www.maksur.com  
ISO 9001:2015 and ISO 45001:2018

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