

सीएसआईआर - केन्द्रीय काँच एवं सिरामिक अनुसंधान संस्थान

196, राजा एस सी मोरिनका रोड, कोलकाता - 700 032, भारत

CSIR - CENTRAL GLASS & CERAMIC RESEARCH INSTITUTE

196, Raja S C Mullick Road, Kolkata - 700 032, India

PURCHASE ORDER

I. Kolkata - 700 032, India

M/s. Ashian Engineers Company India,
Ashian, 831-832, Westend Mall, District Centre,
Janak Puri, New Delhi-110058,
India.

E-mail:- Alam@ashianengineers.com, sales@ashianengineers.com

References:

- 1) CSIR-CGCRI Bid Document No. P/NC/26/SS/SO/OTE/24-25 [CPP Portal Tender ID: 2024_CSIR_206283_1 dated 04/10/2024].
- 2) Your Quotation offer Reference No. Nil dt. Nil.
- 3) All communications exchanged between you and CSIR-CGCRI till date.

Dear Sir.

I am directed to request you to kindly supply, install & commission the following material as the enclosed terms & conditions:-

S. No.	HSN Code	Item Description	Quantity	Unit Rate (INR)	Total (INR)
que	1 9024 AEC1112-AC Computer Controlled Tensile Tester (Specification as per Annexure I)		01 No.	9,45,000.00	9,45,000.00
			1	Total	9,45,000.00
	(+) GST@18%				1,70,100.00
LIANGE CONTRACTORS	(+) Packing & Forwarding charges (+) Inland Transportation & Insurance charges			Nil	
				Nil	
		F.O.R. C.S.I.R-C.G.C	.R.I Kolkat	a price in INR	11,15,100.00

The Specifications of the goods and other services shall strictly conform to those laid down in your offer No. Nil dt. Nil and all communications exchanged between you and CSIR-CGCRI till date.

This Contract/Purchase Order shall be governed by:-

(1) General Conditions of Contract and Special Conditions of Contract as detailed in the Bid Document.

Attention of the supplier is also invited to the terms and conditions mentioned in this Purchase Order.

The Order Acknowledgement must be submitted immediately and in any case, within 14 days from the date of placement of this Purchase Order failing which, the order will be deemed as cancelled.

You are requested to return the duplicate copy of this Purchase Order, duly signed and stamped, as a token of your acceptance to this order.

Yours faithfully,

(Bodhisattwa Dhar) Stores & Purchase Officer

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

Enclosures:

- 1. Terms & Conditions.
- 2. Technical Specifications Annexure I.
- 3. Format for Performance Bank Guarantee.
- 4. Format for Acceptance Certificate.



Explanations:The following words and expressions used in this Purchase Order shall have the meanings hereby assigned to them:

Purchaser	means CSIR-CENTRAL GLASS & CERAMIC RESEARCH INSTITUTE, 196 RAJA S.C. MULLICK ROAD, KOLKATA 700 032, INDIA.
Manufacturer	means M/s. Ashian Engineers Company India, India.
Supplier	means M/s, Ashian Engineers Company India, Ashian, 831-832, Westend Mall, District Centre, Janak Puri, New Delhi-110058, India.

1	. Delivery Term	F.O.R CSIR-CGCRI, Kolkata.	
2	Purchase Order Value / Contract Price		
3)	Payment	The payment shall be made in Indian Rupees, as follows: Net 100% payment by RTGS within 30 days from date of delivery of all ordered materials and acceptance of supply of all ordered items including completion of Installation, Commissioning & Demonstration of above items by firms and all contractual obligations to the entire satisfaction of the buyer, subject to the submission of Performance Bank Guarantee. Note: All payments due under the Contract shall be paid after deduction of statutory levies at source (like ESIC, Income Tax, etc.), wherever applicable.	
4.	The Supplier shall furnish Performance Security equivalent to 5% of the price i.e. for INR 55,755.00, valid till 60 days after the warranty period of year at the time of release of payment after completion of Ins Commissioning and Acceptance Certificate issued by the Purchaser and for all contractual obligations prescribed in Purchase Order. The proceeds of the performance security shall be payable to the Purchase Compensation for any loss resulting from the Supplier's failure to compensations under the Contract.		
5.	Goods & Service Tax (GST)	performance obligations, including any warranty obligations, without levy of any interest. GST @ 18% on all items is included in Purchase Order value. CSIR-CGCRI GST No.: 19AAATC2716R1ZC	
6.	Pre Dispatch Inspection (PDI)	The supplier should arrange for Pre-Dispatch Inspection at manufacturer's site with one week prior intimation in such a way so as to comply the delivery schedule. The cost of travel, hospitality for the PDI will be borne by CGCRI, Kolkata. However all costs related to demonstration of equipment will have to be borne by the supplier.	

		The Supplier shall deliver the consignment within 84 (eighty four) days from the date of issue of Purchase Order.		
7.	Delivery period	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 his right to get any benefit of a downward revisions in statutory duties, PVC and foreign exchange rate.		
8.	Warranty	1 (one) year comprehensive warranty from the date of Installation & Commissioning and completion of all contractual obligations to the entire satisfaction of the buyer.		
9.	Insurance	The Insurance in respect of goods to cover all risks upto final destination (CSIR-CGCRI, Kolkata) shall be borne by Supplier at its own costs.		
10	Installation & Commissioning	Installation, Commissioning & Demonstration is to be done by Expert & Trained Engineers of M/s. Ashian Engineers Company India, New Delhi, within 30 days from the date of receipt of materials in CSIR-CGCRI Kolkata. The pre-installation requirements at the site for trouble free and appropriate installation and operation must be clearly indicated in advance. All charges for Installation, Commissioning & Demonstration work are included in Purchase Order value. Successful conduct and conclusion of the acceptance test for the installed goods shall also be the responsibility and at the cost of the Supplier.		
11	Training	Onsite training for 3 (three) working days for 5 (five) persons of CSIR-CGCRI during installation period.		
12	LD Clause	The penalty shall (0.5%) point five percent per week or subject to a maximum of (10%) ten percent of Order Value for late delivery and towards delay in Installation & Commissioning including all contractual obligations beyond contractual deadlines.		
13	Certificate for effecting payment	Firm will submit the Acceptance Certificate/Installation Certificate duly signed by the user of CSIR-CGCRI alongwith invoice.		
14	Acceptance	Acceptance Criteria will involve the followings:- a) Supply of goods as per the Purchase Order. b) Completion of all contractual obligations to the entire satisfaction of the buyer. c) Acceptance Certificate/Installation Certificate is to be provided by the firm duly signed by firm and user of CSIR-CGCRI.		
15	End User Certificate	End User Certificate will be provided by the user of CSIR-CGCRI, if any.		

Yours faithfully,

(Bodhisattwa Dhar) Stores & Purchase Officer

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

Annexure I

Specifications:-

AEC1112-AC COMPUTER CONTROLLED TENSILE TESTER

PRODUCT DESCRIPTION

AEC1112-AC COMPUTER CONTROLLED TENSILE TESTER is table top for testing of ferrous and non ferrous material in Tensile, Compression. Bend and Cyclic testing as per the national and international standard etc.

AEC1112-AC COMPUTER CONTROLLED TENSILE TESTER is working in dual mode with and without computer.

AECI112-AC COMPUTER CONTROLLED TENSILE TESTER is supplied with calibration certificate of Load and extension from NABL/ASTM-E-8 from NABL/ISO 17025/ISO-148-3.

PART NUMBER

18

AEC1112-AC COMPUTER CONTROLLED TENSILE TESTER

FEATURES:-

- AEC1112-AC COMPUTER CONTROLLED TENSILE TESTER fully encased, ergonomically designed, precision aligned with pre- loaded ball screw drive for zero play/ backlash type, covered with bellows and guidance columns for increased lateral stiffness and linear crosshead travel.
- Displacement/deformation measured via rotary encoder with ± 0.5% accuracy.
- Autos stop/return after test at zero position or home position.
- User to specify the jog speed to protect samples of light materials while mounting.
- Crosshead movement through jog panel as well as through software.
- It is digital closed loop command feedback motion control system with high performance AC servo motor with brushless servo drive.
- Wide range of grips to suit variety of materials and shapes.

SAFETY FEATURES:

All safety device/parameters duly approved by National/International bodies like CE, EN 50081-1, 73/23/EEC, EN 61010-1 as per their directives.

- Control panel visible indication and software language in English.
- Dual level mechanical limit switches in front of machine.
 - First level switch stop the crosshead.
 - Second level limit switch cut the power to the machine.
 - First level limits ever fall in the future.
- Automatic transducer for over load of load cell and over travel protection.
- Emergency stop switch in front & back side of the machine.

LOAD CELL

Load Cells 1KN, 2KN, 5KN, 10KN and 20KN offer alloy steel or total stainless steel construction, compared hermetic sealing, oil proof, water proof and anti-corrosion making them suitable for use in all key environments. It is to approved/recognized International/ National standards as per ASTM E4, BS 1610 51221, ISO 7500-1, EN 10002-2 and IS 1828 (P-1), Class-A = 2

- 4 Accuracy of load cell: ±0.5% of reading values down to 1/500 of load cell capacity
 - ♦ Static Error Band% FS ±0.05
 - ◆ Hysteresis% FS ±0.02
 - Non-repeatability% RO ±0.01
 - Load cells withstand up to 150% of rated load without mechanical damage and up to 100% without zero shift

SPECIFICATIONS

MODEL	AECH12 -ACIKN	AECH12 -AC2KN	AECH12 -AC5KN	AECU12 -ACI0KN	AEC1112 -AC20KN
Maximum Capacity (N)	±1000	±2000	±5000	±10000	±20000
Load Resolution (N)	0.01	0.02	0.05	0.1	0.2
Testing & return speed variable in 0.1 mm/min	0.1 to 1000				
Displacement/ Position resolution (mm)	0,001	0.001	0.001	0.001	0,001
Displacement/Position Accuracy (mm)	±0.01	±0.01	±0.01	±0,01	±0.01
Vertical Space/ Crosshead Travel (mm)	950	950	950	950	950
Max no. of cycles per test	9000	9000	9000	9000	9000
Power supply single phase	200-240, 50Hz	200-240, 50Hz	200-240, 50Hz	200-240, 50Hz	200-240, 50Hz
Dimension (W x D x H) (mm)	300 x 400 1450	300 x 400 1450	350 x 450 1450	400 x 450 1550	400 x 450 1550
Weight (Kg)	28	35	43	54	67

TRANSDUCER AND ELECTRONIC CONTROL:

- Control panel with ON/OFF, START, STOP, RETURN and EMERGENCY STOP.
 - > Integrated digital data acquisition for measurement of load, extension, strain measurement etc.
 - Servo Loop Update rate of 8kHz
 - Data Resolution of 1/10:00,000
 - 3 Default control modes: Position Control, Load Control and Strain Control
- 5 > Automatic identification of load cell
- Samples automatic stop function upon overloading
 - Data transmission through USB 2.0/ RS232.

ACCESSORIES:

- Pneumatic type grips 1/2/5/10/20KN with gripping 30mm x 30mm for thickness 0.001 mm to 1 mm.
 - Wedge action grip for miniature type flat and round samples with following features:
 - Max. sample width: 5mm.
 - Gauge length 5 to 35 mm.
 - Final Sample Longth (End to End): Up to 62 mm
 - Pyramid Jaw faces for flat specimens from 0.1 to 5mm thick
 - V-jaws for round samples upto 3mm dia.
 - Tensile testing of composites, metals and hard plastics.
 - Eccentric/self-tightening grip for rubber 0.1mm to 5mm thickness.
 - O-Ring testing attachment with rollers for 5 to 40 mm ID samples.
 - Compression fixture/ platen
 - Round Compression plates like 60/100 dia, ground & hardened.
 - Square Compression plates like 100/150 mm, ground & hardened
 - Flexural fixture for bend test attachment rated capacity for soft composites, metals etc
 - Distance between supports: 5- 50 mm.
 - As per ASTM D 790& ASTM C 1161.
 - Span length adjustable: 5-50mm
 - Articulating bearing and exchangeable rollers
 - Furnace along with support stand;
 - ♦ Environmental chamber temperature range; ambient to 1100°C with resolution of ≤ 1°C.
 - Internal size of the test chamber J50 x 150 x 250 mm.
 - Two peep holes in top and bottom side for tensile attachment.
 - Digital display of temperature and control through digital PID controller.
 - Heating element: SiC
 - Heating rate: 1 to 25°C/min.
 - Air Circulation forced through fan.
- 2 x Air Compressor for pneumatic grip.
 - Compatible latest computer, Printer and UPS.

COMPUTER CONTROLLER, INTELLIGENT CONTROL UNIT(DATA ACQUISITION) AND SOFTWARE

I is user friendly multifunctional software. It is perpetually licensed and any up gradation in future free of cost. It is a menu driven and window 7/8/10 or latest version based with graphical user interface. Software for Tensile, Compression, Bend and Cyclic testing as per national/ international standard test methods with following features.

- Select unit of load (kg, KN, N, Lbf, Ton and Gram) & unit of Disp (MM, Inch and cm).
- Pre-defined/ Pre-programmable sample input parameters such as Identification code, shape, dimension, area, date, test speed, preload in kN, etc.
- Analysis mechanical properties data & control of test result like % Elongation, Peak Elongation, Yield load/ stress. Ultimate tensile strength, Compressive Strength, Cross sectional Area, Proof stress, Strain, Load at specified elongation, Modulus of elasticity, Young's modulus etc.
- User access based on login ID and Password.
- Customized/user defined report format with three axes X, Yland Y2 in graph

- Saving and retrieval of test methods and data in word/excel/CSV/PDF file.
- Printing of test Report for tested samples and store test data with graphs and test result.
- Real time numerical displays (digital or analog) for test data as well as facilities for generating graphs and tables of processed test results. Graphical user interface as per the Microsoft windows standards.
 - Load Vs. Displacement Graph
 - Load Vs. Time Graph
 - Displacement Vs. Time Graph.
 - Stress Vs. Strain Graph
- > Comparative study of test results with features like multi graphs, Bar Graphs.
- Easy Test Data saving as excel/ access files to retrieve and view stored past data like Product, Test, Batch details & test data. User can feed/ Program parameters like Date, User Name, Material Details & Specifications, Sample Size, Units of measurement, Test Selection, Parameter, Batch No., etc.
- Copy, paste and make the report with graph and result table from software in excel and pdf applications.
- Run time screen displaying both the real time graph and the calculated results of multiple specimens simultaneously.

COMPUTERISED OPERATION

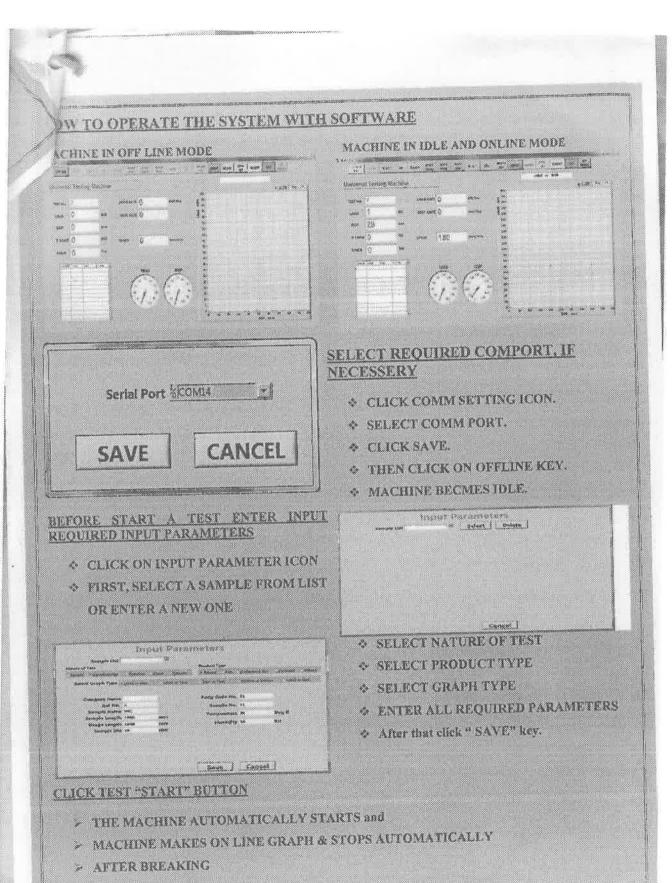
THE DATA BASE STARTS TO LOAD

- > Enter a user Name.
- Enter a Password.
- Zikk LOGIN/ENTER.



FEATURES:-(THE VIEW OF FUNCTION ACCORDING TO THE ICONS)

- > OFFLINE: Click to make ONLINE, It turns to MACHINE IDLE.
- STOP:-it can uses to STOP test, start, up, down etc. (Emergency stops also)
- > START A TEST:-make a TEST.
- > UP:-CROSS HEAD.
- DOWN: CROSS HEAD.
- > RESET LOAD:-Before and After a TEST.
- > RESET PEAK LOAD: -, Before and after a TEST
- RESET DISP.:-Before and after a TEST.
- > CAL:-AUTO CAL.
- GRAPH SET: One can adjust GRAPH according to the required LEVEL.
- INPUT:-Enter ALL INPUTS before a TEST.
- > ADMIN: is Used for selection of test modes.
- COMM SETTING:-Select Required COMPORT.
- REPORT:-One can view ALL TYPES OF REPORTS.
- Exit: From TEST WINDOW



AFTER BREAKING

| Part |

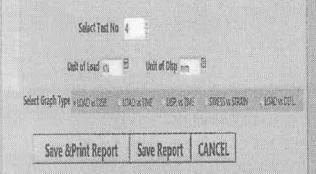
Select Report Type

- Select Single Report
- Select Multi Report
- Select Sample Report

Exit

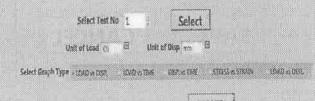
IT SHOWS THIS WINDOW

- ♦ Select test no.
- ♦ Click select key.



HOW TO VIEW A TEST REPORT

- ♦ Select the required report type
- ♦ HOW TO GENARET A TEST REPORT
- ♦ Click Report ICON.



CANCEL

IT SHOWS THIS TYPE WINDOW.

- Select unit of load (kg, KN, N, Lbf, Ton and Gram) & unit of Disp(MM, Inch and cm).
- Select graph type.
- Click save & print report or save report otherwise cancel.
- The Report generates automatically in "D" drive (saves only in "D")

PERFORMANCE SECURITY FORM

MODEL BANK GUARANTEE FORMAT FOR PERFORMANCE SECURITY

To.

WHEREAS (name and address of the supplier) (hereinafter called "the supplier") has
undertaken, in pursuance of contract Noto supply
(description of goods and services) (herein after called "the contract").
AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank
guarantee by a scheduled commercial bank recognized by you for the sum specified therein as security for
compliance with its obligations in accordance with the contract;
AND WHEREAS we have agreed to give the supplier such a bank guarantee;
NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up
to a total of
pay you, upon your first written demand declaring the supplier to be in default under the contract and without
cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.
We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the
demand.
We further agree that no change or addition to or other modification of the terms of the contract to be performed
there under or of any of the contract documents which may be made between you and the supplier shall in any
way release us from any liability under this guarantee and we hereby waive notice of any such change, addition
or modification.
This guarantee shall be valid until the day of, 20
(Signature of the authorized officer of the Bank)
Name and designation of the officer
Seal, Name & Address of the Issuing Branch of the Bank
and the second s

Note: Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

ACCEPTANCE CERTIFICATE FORM

(On company letterhead)

No	Dated:					
M/s.						
		8				
	Sub: Certificate of commissioning of equip	ment				
01.	This is to certify that the equipment as detailed below has/have been with all the standard and special accessories (subject to remarks in Finstalled and commissioned.	ara 2). The same has been				
(a) (b)	Contract No Date Description of the equipment					
(c)						
(d) = (e)	Name of the consignee Scheduled date of delivery of the consignment to the Lab./Instts Actual date of receipt of consignment by the Lab./Instts					
(f)	Scheduled date for completion of installation/commissioning					
(g)	Training Starting Date					
(h) (i)	Names of People Trained					
(j)	Actual date of completion of installation/commissioning					
(k) (l)	Penalty for late delivery (at Lab./Instts. level)₹ Penalty for late installation (at Lab./Instts. level ₹					
Details	of accessories/items not yet supplied and recoveries to be made on the SI. No. Description	hat account: Amount to be recovered				
	Description	Amount to be recovered				
02.	The acceptance test has been done to our entire satisfaction. The supplier has fulfilled his contractua obligations satisfactorily					
or The supplier has failed to fulfill his contractual obligations with regard to the following:						
	(a)					
	(b)					
	(c)					
	(d)					
indicate	The amount of recovery on account of failure of the supplier to med at Sr. No. 3.	eet his contractual obligations is as				
For Su	plier	For Purchaser				
Name.	re	Signature				
Design	Designation Designation					
Name (f the firm	Name of the Lab/Instt				
Date		Date				