

RAJIV GANDHI INSTITUTE OF PETROLEUM TECHNOLOGY, JAIS, AMETHI

Dated: **03.02.2021**

CORRIGENDUM -1

Reference: **E-Procurement of Research Grade Rheometer System**

Tender number: **RG IPT/JAIS/CEES/E-OPN/LAB/2020-21/01**

Please refer to the following amendments in the tender.

The following modifications are mentioned below:


1. Revised Technical Specification attached (updated changes are mark bold and underlined in specification sheet).
2. Last date of submission e-tender is extended - 15th February 2021 (Monday) 3PM.
3. The date of opening of Techno Commercial bid - 15th February 2021 (Monday) at 4PM.

The bidders are requested to upload the tender following the revised technical specifications following the corrigendum-1.

The other term and conditions are unchanged.

Note: Please see our website www.rgipt.ac.in for more information.

Approved By:


Dr. Amit Ranjan
Chairman Purchase Committee
CEES Department.



RESEARCH GRADE RHEOMETER SYSTEM

One Research Grade Rheometer System is required to perform advanced level rheological characterization of fluids with varying range of viscosity and textures under both normal and shear conditions.

MAIN INSTRUMENT

MOTOR TECHNOLOGY	DIRECT CURRENT SYNCHRONOUS MOTOR/ DRAG CUP MOTOR WITH LINEAR RELATIONSHIP BETWEEN TORQUE & STATOR CURRENT	
TORQUE RANGE	MIN. (ROTATION)	1.00 nano Nm or BETTER
	MIN. (OSCILLATION)	0.6 nano Nm or BETTER
	MAX.	200 milli Nm or better
MOTOR BEARING	AIR BEARING,	
SPEED RANGE	10E-7 to 300 rad/s OR BETTER	
FREQUENCY RANGE	10E-7 to 600 rad/s OR BETTER	
STRAIN SENSOR	HIGH RESOLUTION OPTICAL ENCODER	
MEASUREMENT TYPES	ROTATIONAL , OSCILLATORY & TRANSIENT	
NORMAL FORCE	0.005 to 50N OR BETTER	
GAP CONTROL	AUTOMATIC GAP CONTROL	
STEP RATE, TIME CONSTANT	5ms OR BETTER	
STEP STRAIN, TIME CONSTANT	10ms OR BETTER	

TEMPERATURE CONTROL SYSTEM FOR CONE/PLATE & PLATE/PLATE MEASURING GEOMETRIES

TEMPERATURE CONTROL	PELTIER TEMPERATURE CONTROL DEVICE WITH APPROPRIATE ENCLOSURE TO MAINTAIN TEMPERATURE UNIFORMITY IN UPPER AND LOWER PLATES INCLUDING THE SAMPLE.
TEMPERATURE RANGE	-10 DEG C OR LOWER TO 180 DEG C OR HIGHER

MEASURING SYSTEMS TO BE SUPPLIED

SHEAR VISCOMETRY/RHEOLOGY	<ul style="list-style-type: none"> > MEASURING PLATE WITH DIAMETER 50 MM -01 NO. > MEASURING PLATE WITH DIAMETER 25MM -01 NO. > MEASURING CONE WITH DIAMETER-40 MM & ANGLE 1 DEG-01NO. > MEASURING CONE WITH DIAMETER-25 MM & ANGLE 4 DEG-01NO. > MEASURING SANDBLASTED PLATE WITH DIAMETER 25 MM -01 NO > MEASURING SANDBLASTED LOWER CAP PLATE -01 NO > SOLVENT TRAP
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UTILITIES

AIR COMPRESSOR	OIL FREE AIR COMPRESSOR
AIR DRYER	MULTISTAGE MEMBRANE TYPE WITH MICROFILTERS
COMPUTER	I5, 2.67GHZ OR HIGHER , 8GB RAM OR MORE, SSD WITH 240 GB OR MORE FOR THE SUITABLE OPERATION OF THE INSTRUMENT
CIRCULATOR	-TEMPERATURE RANGE :-5 TO 150 DEG C -BATH VOLUME : 3-5 L -TEMEPRATURE ACCURACY :+-0.2 DEG C -WITH EXTERNAL CIRCULATION PUMP

RHEOLOGY SOFTWARE

ARCHITECHTURE	TEMPLATE BASED WITH ATLEAST 50 BUILT-IN TEMPLATES PRE-PROGRAMMED FOR ALL TYPES OF MATERIALS
ANALYSIS MODULES	INTEGRATED MODELLING/CURVE FITTING, SQUEEZE FLOW RHEOLOGY AND EXTENSIONAL RHEOLOGY MODULES. RAW DATA SHOULD BE ACCESSIBLE.
TESTING PROTOCOLS	TACK TEST, ROTATIONALCONTROL STRESS/COMBINATION OF CSR+CSS, OSCILLATORY WITH CONTROL STRESS / COMBINATION OF STRAIN+CSS TRANSIENT WITH CREEP(SINGLE/MULTI-LEVEL)/STEP-STRAIN(STRESS RELAXATION) COMBINATION WITH ANY MODES ABOVE - FOR E.G. TRANSIENT+ROTATIONAL OR OSCILLATORY+ROTATIONAL.
SUPER-IMPOSED TESTING	STEADY SHEAR OVER OSCILLATORY SIMULTANEOUS OPERATION

OPTIONAL

Upgradability to rheo-SALS (Small Angle Light Scattering). Temperature range up to 400 Deg C or higher.

WARRANTY

THE INSTRUMENT SHOULD BE QUOTED WITH 3 YEARS WARANTY