

CORRIGENDUM

CHAPTER - 4

TECHNICAL SPECIFICATIONS: RESEARCH GRADE RHEOMETER SYSTEM

RESEARCH GRADE RHEOMETER SYSTEM	
MAIN INSTRUMENT	
Motor Technology	Direct Current Synchronous Motor / Drag Cup Motor
Min. Torque (Rotation)	2nNm or better
Min. Torque(Oscillation)	8nNm or better
Max. Torque	200mNm or better
Radial Motor Bearing	Air Bearing
Axial Motor Bearing	Air Bearing
Speed Range	10^{-5} to 314 rad/s or better
Frequency Range	10^{-5} to 126 rad/s or better
Strain Sensor	High Resolution Optical Encoder
Measurement Types	Rotational, Oscillatory & Transient
Oscillatory Modes	Strain, Direct Strain Amplitude & Control Stress
Gap Control	Automatic Gap Control
TEMPERATURE CONTROL SYSTEM FOR CONE/PLATE & PLATE/PLATE MEASURING GEOMETRIES	
Temperature Control	Air cooled Peltier Temperature Control
Temperature Range	0 to 180 Deg C with cover & without any external circulator cooling.
MEASURING SYSTEMS	
Shear Viscometry /Rheology	<ol style="list-style-type: none">1. Measuring Plate (SS) Diameter 50mm -01 No.2. Measuring Plate(SS) Diameter 25mm -01 No.3. Measuring Plate(SS) with 60 mm Diameter -01 No.4. Measuring Cone(SS) with 60 mm Diameter & 1 Deg Angle-01 No.5. Measuring Cone(SS) with 25 mm Diameter & 2 Deg Angle-01 No

UTILITIES

Air Compressor	100psi, 5cfm Oil Free System
Air Dryer	Multistage with Micro filters
RHEOLOGY SOFTWARE	
Architecture	Template based with built-in templates pre-programmed for all types of materials
Analysis Modules	Integrated Modelling/Curve Fitting, Rheo-Optics Adapter Module, Squeeze Flow Rheology And Extensional Rheology Modules.
Testing Protocols	-Rotational with rate/control stress/combination of csr+css, -Oscillatory with strain / direct strain amplitude / 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
Upgradability	The Rheometer should be upgradable to small angle light scattering systems (SALS), Tribology, Di-Electroscopy & Small Angle X-Ray Scattering Systems, Powder Rheology, Humidity attachment
No. of copies of licensed software	05
COMPUTER SYSTEM AND PRINTER	
Computer	Latest computer system compatible with the instrument should be supplied.
Printer	Latest coloured printer with good efficiency and minimum cost per page print should be given with instrument.
WARRANTY, INSTALLATION AND DOCUMENT	
Warranty	3 years comprehensive warranty with + 2 years AMC
Required Documents along with technical specifications	The supplier must have sold at least 10 RHEOMETER System Installed in academic and national organization

Standard	in India in last 5 years. Detail must be provided .
On site Installation and pre installation requirement	Vendor has to do installation onsite. Vendor has to visit the site for physical inspection after the order and has to do site survey for vibration, magnetic field etc. and guide for necessary requirements
Latest model and new technology	Quoted RHEOMETER model should be a globally sold model and it should be available on all global websites of manufacturer, model quoted should not be a country specific
Training and Support	On-site training must be provided by factory trained engineer at the buyer's site free of cost. Additional training should be provided after 3 months of installation. Service response time must be within 72 hours. Remote diagnostics with internet connectivity (online support)

