

CORRIGENDUM-1

Technical Specifications	Bid should be submitted as per below mentioned Revised Technical Specifications
Last date of submission of E-Tender	13.02.2019 (Wednesday) on or before 03.30 p.m
Opening of Techno-Commercial Bid	13.02.2019 (Wednesday) at 04.00 p.m

Revised Technical Specification of Contact Angle Meter

TENDER NO. RGIPT/Jais/E-Tender-CRF-SS/2018-19/07

Equipment Specification

A. Base Module

1. Unit should be operated on available power supply i.e. 220 VAC/50 Hz
2. The apparatus must allow the determination of:
 - (a) Interfacial tension between liquid-gas and liquid-liquid (water-crude oil) interfaces
 - up to 2000 mN/m
 - resolution: atleast 0.01 mN/m
 - (b) Contact angle between liquid and solid interfaces
 - up to 180
 - resolution: at least 0.1
 - (c) Surface Tension and Surface free Energy

B. Specification

Pressure Range: Up to 40 bar or more

Temperature: up to 200 deg C

Wetted Material: AISI 316 SS

Pressure and Temperature Indicator Cell Window

C. Dosing System

- (a) Needles with different internal diameters
- (b) Pumps: required for test fluid storage, pressurization and injection of fluid into cell from top and bottom

Features: Max pressure more than cell pressure

D. Analysis System

1. High Speed Camera: minimum 200 fps (1200 x 800 pixel)
2. Optical Zoom (minimum 6.5 x zoom)
3. Lighting system to have a clear view of drop profile
4. Interface electronics
5. Data acquisition and interpretation system
6. Software: to determine contact angle and interfacial tension, to control camera, lighting system, temperature, pressure, dosing modules, to store the data
7. Computer work station:
 - a) Processor: i 7, 8 GB RAM
 - b) Monitor: 17" color (TFT)
 - c) Printer: Laser colour
 - d) Windows Package: Windows 8/10
 - e) Online UPS with required capacity to run the integrated system (min 30 min backup)

E. Spares and Toolkit:

1. Vendors also quote the consumable and non-consumable spares for smooth running of system for two years including gas cylinders
2. Vendors also provide toolkit for day to day operation

F. Scope of work

The scope of work includes supply, installation, testing, commissioning, demonstration and training of a High temperature high pressure Contact Angle Meter

G. Demonstration

Demonstration for carrying out following operations by the vendor's product technical expert:

- (a) Interfacial Tension measurement test runs using crude oil – water emulsions, along with additives
- (b) Cleaning and maintenance of the equipment
- (c) Trouble shooting exercises

On-site Installation and training free.

H. Two Years onsite warranty with spares and AMC of the equipment should be mandatory for 3 years is required on all the items. Warranty period will start from the date of installation. . Parts should be given with part no. and name. In case of breakdown during the warranty period, a competent service engineer of the supplier should make as many visits as are necessary to rectify the instrument

The supplier should provide any spares required for making the instrument operational during warranty.

The other terms & conditions of the E-Tender remains unchanged.

This issues with the approval of the Competent Authority.

Sd/-
Stores & Purchase Officer