

03. TECHNICAL SPECIFICATIONS

03. SPECIFICATION OF 02 Nos. Viscometer Baths to determine Viscosity of petroleum product using viscometers according to ASTM D 445 Test Method

This instrument should be fully complied with updated version of ASTM D 445 test method.

DESCRIPTION	COMPLY/NOT COMPLY
<p>1. Main Instrument Test Methods, to determine Viscosity of petroleum product using viscometers - ASTM D 445(updated version) Power supply: 230 volts \pm 10 %, 50 - 60 Hz</p>	
<p>2. Viscosity Bath</p> <p>Temp Range : Ambient to 150°C Temp Stability of : \pm 0.02 °C up to 100°C Bath medium \pm 0.05 °C between 100 and 150°C Temp Uniformity : \pm 0.02 °C at 40 and 100°C Tube Capacity : Minimum 06 Bath Fluid : Oil or water Bath Capacity : 50 Liters or available Heating : >2000W or Bath temperature Stability within 1hr.</p> <p>Viscometer bath should have Integral back light, Toughened glass in front panel, Digital display with 0.01°C resolution.</p>	
<p>3. Bath Calibration Bath Temperature Calibration certificate should be from ISO 17025 accredited laboratory or relevant authority with valid traceability.</p>	
<p>4. Accessories Universal thermometer holder – 4 Nos. Universal Viscometer holder, for all regular viscometer tube. – 8 Nos. Silicone bath oil, 20 liters, for filling viscometer baths in the temperature range of 100 to 150 °C. – 5 x 20L</p>	

Spare Accessories should be provided for 02 years uninterrupted service

5. Optional Accessories,

- Suspended flow / Reverse flow Kinematic Viscometer tubes & Caps (ASTM D 445) with Calibration Certificate obtained from Accredited laboratory (ISO 17025)

Commodity	Viscosity Range & Temperature	Quantity	Viscometer Type
Diesel	2 – 4 cSt. @ 40°C	05 Nos.	Suspended Flow
Fuel Oil	90 – 175 cSt. @ 50°C	05 Nos.	Reverse Flow
	165 – 175 cSt. @ 50°C	05 Nos.	
	60 – 100 cSt. @ 50°C	05 Nos.	

- Kinematic Viscosity bath thermometers with Calibration Certificate obtained from Accredited laboratory (ISO 17025)

	Temperature Range	Quantity
Thermometer	38.6 – 41.4 °C	05 Nos.
	48.6 to 51.4 °C	05 Nos.
	98.6 to 101.4 °C	05 Nos.

- Bench Viscometer Stand – 02 Nos.
- Six Channel Quartz timer for time measurement to 1000 seconds, Accuracy 99.999% ± 1 digit at 20°C with certificate of analysis. – 03 Nos.

Other Requirements:

- I) Manufacturing and assembly of the total unit should be in the country of origin.
- ii) Should manufacture in USA, UK, Europe and Japan.
- iii) Capability and facilities of after sales availability in Sri Lanka
- iv) Capability of attend breakdown of within 24 hrs.

v) Details of previous customer.	
vi) Availability of training facilities.	
vii) Supplier should supply all technical details with the brochure containing all above for evaluation purposes.	
viii) Those who do not provide supportive literature of manufacturer / equipment may not be considered for evaluation.	
ix) Supply Equipment should be in the latest model.	
x) Equipment should not be obsolete within next 05 years.	
xi) Minimum of 02 years warranty period.	

Signature of the Bidder: Date:.....

(Common Company Seal)

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