

## SPECIFICATIONS

### Tannas Basic Rotary (TBR) Viscometer

**Principle:**

- High temperature, low shear rate rotational (*absolute*) viscometry.

**Dimensions:**

- Viscometer: ~ 32 lbs. (10" x 10" x 16") or (25 x 25 x 41 cm)
- Console Box: ~7 lbs. (8.5" x 13" x 5.5") or (22 x 33 x 14 cm)

**Operating Temperatures:**

- Ambient to over 200°C ( $\pm 0.1^\circ\text{C}$ )
- Sub-ambient temperature operating information upon request.

**Shear Rate Capabilities:**

- Maintains constant shear rate from 1 to over 200 reciprocal seconds ( $\text{sec}^{-1}$ ), depending on speed setting and rotor size.

**Read-out:**

- Continuous viscosity reading directly into centiPoise (cP).

**Sample Volume:**

- Fifty (50) mL sample size is recommended.

**Viscosity Range:**

- The TBR is capable of analyzing fluids with viscosities ranging from 1 to 35,000 cP with the current Rotor design. For measuring higher viscosities, a different size Rotor may be required. This can be investigated on a project basis. The desired operating temperatures would be required for such a project to commence.
- When measuring oils with viscosities too high to manually (hand) inject into the TBR via the syringe, a Pump Controller is required.

**Accuracy & Repeatability:**

- TLS-I Viscometer - Specially modified Brookfield Viscometer with traditional Brookfield torque accuracy:  $\pm 0.1$ , reproducibility:  $\pm 0.2\%$ .
- A repeatability study conducted with 10 back-to-back analyses on the TBR resulted in a Relative Standard Deviation of 0.083% with repeatability at 0.23%.

**Voltage:**

- 120 VAC, 50/60 Hz (*Also available in 220 VAC*)

**Safety:**

- Over-temperature Cut-out Fuse
- CE Marked

**Special Features:**

- Sample measurement time as quick as 5 minutes, depending on sample type.
- Incorporates the Chase-flush technique for sample injection.
- Excellent for measuring viscosities of 'used' and 'heavily sooted' oils.
- AutoSampler Delivery System also available.

