Viscotester
VT-06

Uni-Cylinder Rotational Viscotester
Allows Easy Measurement of Fluid Viscosity

The VT-06 is designed for quality control applications in the manufacturing process of industrial products such as petrochemicals, paint, and adhesives, as well as foodstuffs. Viscosity measurements covering a wide range are possible, such as gear oil used in construction machinery. Measurement is performed by simply submerging a rotor in the fluid. The resistance to rotor movement caused by the viscosity (torque) is measured to obtain direct readings.

- Compact and light weight make the unit easily portable and allow operation with one hand
- Can be powered by alkaline batteries, nickel-hydride rechargeable batteries, or AC adapter
- Direct indication of viscosity in decipascal-seconds (SI units)
- Dedicated stand for measurement available as option

[Usage]
1. Attach rotor to unit and hold unit in the hand or place on dedicated stand. (Unit should be approximately horizontal in either case.)
2. Insert rotor in sample fluid, turn power on, and select rotor number.
3. Press start button and read indicated viscosity.

※ The supplied extension rod can reach fluid that is further away. (Only for use with the No.1 and No.2 rotors.)
Specifications

Measurement range
No. 3 rotor: 0.3 to 13 dPa·s (with No. 3 cup)
No. 1 rotor: 3 to 150 dPa·s (with JIS 300 mL beaker ¹)
No. 2 rotor: 100 to 4000 dPa·s (with JIS 300 mL beaker ¹)

Sample fluid capacity
No. 1 and No. 2 rotor (with JIS 300 mL beaker ¹): approx. 300 mL
No. 3 rotor (with No. 3 cup): approx. 150 mL

Measurement accuracy
±10 % ±1 digit of indicated value, reproducibility ±5 %

Rotor speed
62.5 rpm

Power supply
IEC LR6 (size AA) alkaline batteries,
nickel-hydride rechargeable batteries, AC adapter VA-05J

Dimensions and Weight
175 (H) x 77 (W) x 40 (D) mm (without protruding parts),
Approx. 260 g (without batteries)

Supplied accessories
No. 1 rotor (dia. 24 x 53 x 166 mm) SUS304 1
No. 2 rotor (dia. 15 x 1 x 113 mm) SUS304 1
No. 3 rotor (dia. 45 x 47 x 160 mm) SUS304 1
No. 3 Cup (dia. 52.6 x 76 mm) SUS304 1
Extension rod (900 mm x 300 x 3) SUS304 1
IEC LR6 (size AA) alkaline batteries 4

Note: The Viscotester cannot measure accurately with anything other than supplied cups or the JIS 300 mL beaker.

¹ JIS R 3503 : 1994, φ76×103 (H)

Rotors and Cups (unit: mm)

<table>
<thead>
<tr>
<th>No. 1 Rotor</th>
<th>No. 2 Rotor</th>
<th>No. 3 Rotor</th>
<th>No. 3 Cup</th>
</tr>
</thead>
<tbody>
<tr>
<td>φ 24</td>
<td>φ15</td>
<td>φ45</td>
<td>φ52.6</td>
</tr>
<tr>
<td>53</td>
<td>47</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sample amount for measurement
No.3 Cup: approx. 150 mL
Commercially available 300 mL beaker: approx. 350 mL

Note: For certain fluids, readings may differ slightly from other viscometers, depending on properties of target fluids, mechanical factors, as well as specific gravity, rotor speed, and other aspects.

Viscotester measurement examples (for reference)

<table>
<thead>
<tr>
<th>Product type</th>
<th>Viscosity</th>
<th>Rotor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newtonian fluids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Castor oil</td>
<td>6 dPa·s</td>
<td>No.3</td>
</tr>
<tr>
<td>Starch syrup</td>
<td>1000 dPa·s</td>
<td>No.2</td>
</tr>
<tr>
<td>Non-Newtonian fluids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condensed milk</td>
<td>16 dPa·s</td>
<td>No.1</td>
</tr>
<tr>
<td>Chocolate syrup</td>
<td>25 dPa·s</td>
<td>No.1</td>
</tr>
<tr>
<td>Tomato ketchup</td>
<td>43 dPa·s</td>
<td>No.1</td>
</tr>
<tr>
<td>Pure honey</td>
<td>76 dPa·s</td>
<td>No.1</td>
</tr>
<tr>
<td>Toothpaste</td>
<td>320 dPa·s</td>
<td>No.2</td>
</tr>
<tr>
<td>Starch paste</td>
<td>310 dPa·s</td>
<td>No.2</td>
</tr>
</tbody>
</table>

Viscocity: 0.01 Poise (P), 0.01 centi Poise (cP), 0.01 Pascal-seconds (Pa·s), 0.01 deciPascal-seconds (dPa·s)

CGS Unit and SI Unit

\[
1\text{cP}=\frac{1}{1,000}\text{Pa·s}=0.01\text{dPa·s} \quad 1\text{P}=\frac{1}{10}\text{Pa·s}=1\text{dPa·s}
\]

Note:

- Specifications subject to change without notice.

Distributed by:

RION Co., Ltd.
3-20-41, Higashimotomachi, Kokubunji, Tokyo 185-8533, Japan
Tel: +81-42-359-7888  Fax: +81-42-359-7442

https://rion-sv.com/

RION Co., Ltd.
ISO 14001 RION CO., LTD.
ISO 9001  RION CO., LTD.

RION Co., Ltd. is recognized by the JCSS which uses ISO/IEC 17025 (JIS Q 17025) as an accreditation standard and follows its accreditation scheme on ISO/IEC 17011. JCSS is operated by the accreditation body (IA Japan) which is a signatory to the Asia Pacific Laboratory Accreditation Cooperation (APLAC) as well as the International Laboratory Accreditation Cooperation (ILAC). The Quality Assurance Section of RION Co., Ltd. is an international MRA-compliant JCSS operator with the accreditation number JCSS 0197.

This leaflet is printed with environmentally friendly UV ink.