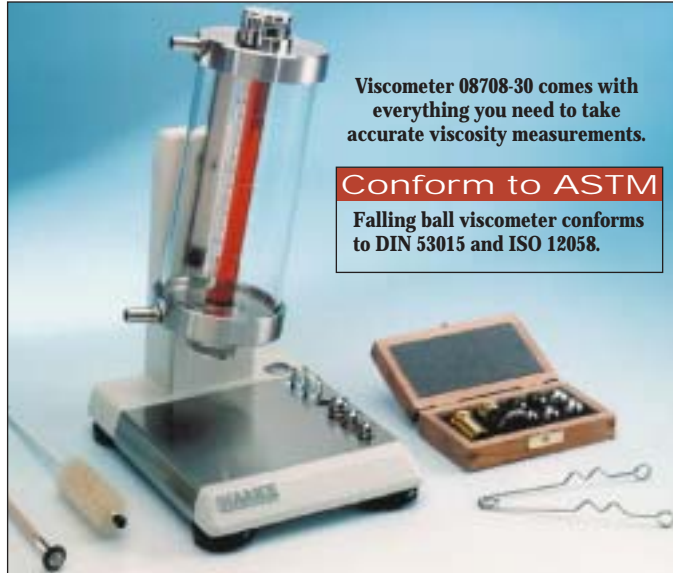


Falling Ball Viscometer

- ▶ Accurate viscosity measurements of transparent Newtonian fluids and gases



Viscometer 08708-30 comes with everything you need to take accurate viscosity measurements.

Conform to ASTM

Falling ball viscometer conforms to DIN 53015 and ISO 12058.

The falling ball viscometer is designed for low viscosity solutions—ideal for polymers, inks, solvents, oils, and raw materials. The boron silica glass measuring tube provides excellent visibility of the ball, improving accuracy. Combine the viscometer with circulating bath 08708-55 (sold separately below) for superior precision.

The viscometer uses an inclined measuring tube. Measure the travel time as the ball slides down the tube through the sample liquid. The time it takes for the ball to travel the distance of the tube correlates to the viscosity. Results are given as dynamic viscosity in the absolute viscosity units of millipascal seconds (mPas).

Viscometer includes: six balls; case; glass thermometer (-1 to 26°C, 0.1°C divisions); cleaning tools; and calibration sheet. For gas measurements, order the gas ball separately below.

A-08708-30 Falling ball viscometer

A-08708-51 Gas ball for gas measurements

A-08708-55 Circulating bath; 115 VAC, 50/60 Hz.

Temperature range is -28 to 150°C (-18 to 302°F). For falling ball viscometer

A-08708-53 Temperature sensor, 100 Ω Pt RTD. For circulating bath

Specifications

Viscosity range:

0.5 to 10⁵ mPas (cp)

Temperature range: -20 to 120°C (-4 to 248°F)

Reproducibility: better than 0.5%

Comparability: better than 1%

Material of construction

Falling tube: Boron silica glass
Balls 1 and 2: Boron silica glass
Balls 3 and 4: nickel iron alloy
Balls 5 and 6: stainless steel



| Viscosity at 20°C (mPas) | Common liquids and gases | Ball |
|--------------------------|--------------------------|------|
| 10 ⁵ | Tar | } 6 |
| 10 ⁴ | Honey | |
| 10 ³ | Glycerine | |
| 10 ² | Lubricating oil | |
| 10 ¹ | Olive oil, spindle oil | |
| 10 | Water | |
| 10 ⁻¹ | Ether | } 1 |
| 10 ⁻² | Neon | |

More info

To order bath oils and standards, see the "Baths and Circulators" section on page 128.

Sample Viscometer

- ▶ Viscometer and console rapidly and accurately determine fluid viscosity without calibration!
- ▶ Tubes and needles are disposable, making cleaning quick and simple



98939-10

Conform to ASTM

Sample viscometer conforms to ASTM D 5478-98.

Measure viscosities of Newtonian and non-Newtonian fluids with this sample viscometer. Determine viscosity by measuring the time it takes a disposable needle to fall through a fluid held in a sample insert tube. Gentle needle passage minimizes disturbance of the mechanical structure and particle size distribution of your samples. Needle density is controlled by adding weights (included). Order replacement needles from table below.

Viscometer includes: console; disposable sample tube; disposable needles (0.8 and 0.9 cm OD); 1/2" OD aluminum weights (2, 3, and 5 g); 1/2" OD stainless steel weights (6 1/2, 10, and 15 g); and 1 1/8" OD stainless steel weights (20, 25, 50, 70, and 100 g).

A-98939-10 Sample viscometer; 110 VAC, 60 Hz

A-98939-15 Sample viscometer; 220 VAC, 50 Hz

Specifications

Viscosity range: 1 to 10⁸ mPas (cp)

Temperature range: -40 to 100°C (-22 to 212°F)

Accuracy: better than 1%

Output: RS-232

Needle: metal

Needle densities: up to 300 g/cm³

Sample volume: 4.5 mL

Shpg wt: 39 lb (17.7 kg)

Accessories

A-98939-82 Constant temperature heating block maintains sample temperature; range of -30° to 100°C (86° to 212°F). Holds up to nine 4.5 mL samples

A-98939-84 Software calculates and plots the viscosity properties for non-Newtonian fluids. PC-compatible, requires minimum 4.3 MB hard drive space

A-98939-86 Closed system kit for volatile samples

A-98939-52 Replacement disposable sample tube

Replacement Needles

| Catalog number | Diameter | Price |
|----------------------------|----------|-------|
| A-98939-54 | 0.7 cm | |
| A-98939-56 | 0.8 cm | |
| A-98939-58 | 0.9 cm | |