

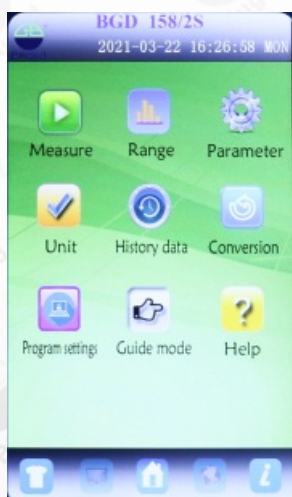
## Programmable Touch-screen Viscometer (Rheometer)

**R**otoray viscometers are used commonly to measure the viscosity value (also called apparent viscosity) of Newtonian or Non-Newtonian materials under a special rotational speed and a special spindle, but for high polymer material such as coating, ink and adhesive etc, almost resin, emulsion and material itself are Non-newtonian liquid. They always show different rheological properties under different shear rate (related to rotational speed and spindle shape). To compare this rheological properties of different materials, the normal method used in coatings and related materials is measuring its shear thinning (Thix index) and thixotropy: The extent of shear thinning is indicated by the drop in viscosity with increasing rotational speed. The degree of thixotropy is indicated by comparison of viscosities at increasing and decreasing rotational speeds, viscosity recovery, or viscosities before and after high shear. The high-shear treatment approximates shearing during paint application. The viscosity behavior measured after high shear is indicative of the characteristics of the paint soon after application.

Biuged offers some different types Rheometers according to different material rheological properties. Operator can set different measuring programme according to different requirements (such as change shear rate automatically), and using relevant professional software, the materials' rheological properties could be analysed and known well, including simulation of material under different application.

### Features

- ◆ Display sample shear rate and shear stress
- ◆ Continuous viscosity testing and sound alarm when beyond measurement range
- ◆ 7 inch high definition touch screen, easy to operate and display rich information. Powerful human-machine interface and various humanized operation menu for conversion.
- ◆ Anti-static shell and PC material lifting pole
- ◆ Build-in temperature probe RTD
- ◆ ARM chip processor: higher data processing speed



Rotor



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- ◆ New designed durable small axles
- ◆ Come with a gigabit ethernet interface to transfer data, reliable and quick.
- ◆ Come with USB interface, support operate to save measurement through external disk U: single point, continuous and timed saving ways for option.
- ◆ Come with RS 232 interface, can print measuring data by mini-printer with less labor.
- ◆ Calibrated by user, temperature and viscosity correction factor are protected by password, also can be modified by user when they have reliable and accurate data.
- ◆ Convert freely between various viscosity units, dynamic viscosity convert kinematic viscosity automatically
- ◆ Linear calibration by a computer
- ◆ Come with AC Power adapter 100V-240V, good anti-interference performance.
- ◆ Accompanied with detailed operation instruction
- ◆ Professional BGD 1608 programmed analyse software for option, can display sample rheological curve

### Main Technical Parameters:

| Ordering Information →<br>Parameters ↓ | BGD 156/S  | BGD 158/S  |
|--|--|--|
| Measurement Range<br>(mPa.s)           | BGD 156/1S: 1–2M<br>BGD 156/2S: 100–13M<br>BGD 156/3S: 200–26M<br>BGD 156/4S: 800–104M   | BGD 158/1S: 1–6M<br>BGD 158/2S: 100–40M<br>BGD 158/3S: 200–80M<br>BGD 158/4S: 800–320M |
| R.P.M (per min)                        | 0.3–100  | 0.1–250  |
| Rotor Amount                           | <b>BGD 156(8)/1</b> : four rotors---No.1, No.2, No.3, No.4<br>(#0 is optional)<br><b>BGD 156(8)/2、BGD 156(8)/3、BGD 156(8)/4</b> : six rotors<br>---No.2, No.3, No.4, No.5, No.6, No.7 (No.0 and<br>No.1 for option)  |  |
| Measurement Accuracy                   | ± 1.0 % (of the full range)  |  |
| Repeatability                          | ± 0.5 % (of the full range)  |  |
| Power Supply                           | Power Supply Adapter (input 110/220V; 50 /60Hz;<br>output 15V 1.2A)  |  |
| Optical Accessories                    | BGD 1601---Low viscosity adapter ( No.0 rotor )<br>BGD 1602---Small sample adapter ( comes with<br>NO.21、NO.27、NO.28、NO.29, and the max.<br>measure range would be reduce one-sixth )<br>BGD 1603---Mini single color printer<br>BGD 1608---Viscometer data collection and<br>programmed analyses software |  |

(M=1million)