

NDJ-1 Rotational Viscometer

I. Summary

The instrument is a mechanical rotational viscometer. It can measure the viscous resistance and dynamic viscosity of liquids. It can be widely used to determine viscosity of oil grease, paint, plastics, food, medicine, adhesive, and other fluids.

II. Main technical characteristics

1. It adopts a synchronous motor, which rotates at a stable speed. The motor connects to the dial and it drives spindle rotating through hairspring and rotating shaft.
2. It uses gear system and clutch to change rotation speed. The rotation speed has four grades and it is controlled by a special knob. You can select a speed as per the test requirements.
3. The instrument is equipped with No.1 to 4 total 4 spindles and it can preset 4 grades of speed for each spindle, so you can select a suitable spindle and speed to meet different measurement requirements as per the viscosity of sample to be determined.
4. The instrument is equipped with a needle fixed device (needle control rod). When the rotation speed is high, it is convenient to read the reading using the needle control rod.

III. Main technical specification and parameters

1. Measurement range: 10~100000mPa·s;
2. Measurement error: $\pm 5\%$ (F·S);
3. Spindle: No.1, 2, 3, and 4 spindles;
4. Speed: 6, 12, 30, and 60 RPM;
5. Power supply: AC 220V $\pm 10\%$, 50Hz $\pm 10\%$;
6. Size: 300 \times 300 \times 450mm;
7. Net weight: 2 kg; (not including the holder);





- ※ 50+ years R&D professional experiences
- ※ ISO9001 certificate

NDJ-1B Rotational Viscometer

Purpose:

NDJ-1B Rotary Viscometer is the update one of the NDJ-1 Rotational Viscometer with indicator. The instrument adopts microprocessor to digitize process, and the measurement result displays in LCD directly, and with printer port, may printer the measurement information. Moreover, the viscometer is with the characteristics of higher sensitivity, better reliability, and much more convenient operation than NDJ-1 Rotary Viscometer.

NDJ-1B Rotary Viscometer is used to measure the absolute viscosity of Newton liquid and apparent viscosity of Non- Newton liquid and it is widely used to measure all kinds of liquids such as: grease, paint, plastic, medicament, dope, adhesive, scour and etc.

Technical index:

1. Measurement range: 10~2000000mPa·s
2. Rotator spec: No. 1~4
3. Rotary speed: 0.3、0.6、1.5、3、6、12、30、60 rpm
4. Measurement error: $\pm 3\%$ (F·S);
5. Power supply: AC 220V $\pm 10\%$ 50Hz $\pm 10\%$;
6. Ambient condition: Temperature 5~35 °C, RH is not more than 80%





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NDJ-1C Brookfield Rotational Viscometer

Purpose:

The instrument is produced specially for determining the apparent viscosity of asphalt as per T0625-2000. It also can be used for determining the viscosity of various liquid of hot sol, paraffin, medicament and high polymer.

Technical index:

1. Testing Range: 100~200000 mPa.s
2. Rotor: 21#, 27#, 28#, 29# total 4 nos.
3. Rotor Speed: 5, 10, 20, 50 r/m
4. Testing Mode: manual / automatic
5. Temperature Control Range: ambient ~ 200
6. Temperature Control Accuracy: ± 0.1
7. Error: $\pm 1\%$ (Newton liquid)
8. Internal Volume: 10 cc
9. Available ambient environment:
 - (1) Ambient: 5 ~ 35
 - (2) Relative Humidity: $\leq 80\%$
 - (3) Power Supply: AC 220 \pm 10 V; 50 \pm 1 Hz
 - (4) Neither electromagnetic interference, nor concussion, nor corrosive air around instrument.





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NDJ-1D Brookfield Rotational Viscometer

Purpose:

The instrument is used to test the absolute viscosity of Newton Liquid and apparent viscosity of non-Newton Liquid as per concerning standards. NDJ-1D, new type holds a large testing range and high accuracy, used in various realms of petroleum, highway, foodstuff, chemical, painting, cosmetic and so on.

Technical index:

1. Highly bright LCD screen, technique of microprocessor, access data automatically.
2. Equipped with portable printer supporting output, or by RS232 attach to PC.
3. Test Range: 10 mPa·s~2000000 mPa·s (up to 4000000 mPa·s).
4. Measurement of Rotor: 4 kinds of 21、27、28、29 (rotors with enlarged range are selectable in our company).
5. Rotate Speed of Rotor: 0.5, 1, 2, 5, 10, 20, 50 r/min, gear 4.
6. Test Error: $\pm 2\%$ (F·S).
7. Test Forms: handwork and AUTO.
8. Temperature Control Range: ambient~200 °C.
9. Temperature Control Accuracy: ± 0.1 °C.
10. Volume of Sample Holder: 20 ml.
11. Voltage: AC 220 V $\pm 10\%$, 50 Hz.
12. Ambient Temperature: 5 °C~35 °C.
13. Relative Humidity: less than 80%.



NDJ-1E Brookfield Rotational Viscometer

Purpose and scope:

The NDJ-1E Brookfield Rotational Viscometer is one of the upgraded products in our company. Adopting the advanced mechanical design technology, the manufacture techniques and the microcomputer technology, it can collect data accurately. Using white background light and ultra bright LED display screen, it can indicate data clearly. With a special printing interface, it can plot out the measurement through a printer.

It is suitable to determine the absolute viscosity of the Newton liquids and the apparent viscosity of non-Newton liquids. It is widely used to determine the viscosity of various liquid such as greases, oil paints, plastic, pharmaceuticals, dopes, adhesives, and detergents, etc.

Main technical specification:

1. Measurement range: $0.1 \sim 6000\ 000\ \text{mPa}\cdot\text{s}$
2. Spindle: No.1~4 total four types of spindle (No.0 is optional)
3. Spindle speed: $0.1 \sim 200\ \text{r/min}$ stepless speed regulation
4. Measurement error: $\pm 2\%$ (F.S)
5. Power supply: AC 220 V $\pm 10\%$, 50 Hz
6. Working environment:
Ambient temperature: $5 \sim 35^\circ\text{C}$
Relative humidity: $\leq 80\%$.



Optional: 1. HWY-501 water bath 1 unit



2. Glassware sample container 1 unit

NDJ-1F Brookfield Rotational Viscometer

I. summary

The NDJ-1F Brookfield rotation viscometer is designed and made according to the requirement of the T0625 <asphalt Brookfield rotation viscosity test (Brookfield viscometer method)> in the JTJ 052 <test regulation of the highway asphalt and asphalt mixture> of the communication industry standard of the People Republic of China. The instrument is the upgraded product of the NDJ-1B and NDJ-1C Brookfield rotation viscometers in our company. It is suitable to determine the absolute viscosity of the Newton liquids and the apparent viscosity of the non-Newton liquids.

The instrument adopts the advanced machine design technology, manufacture techniques and microcomputer technology to control the temperature, collect and process the data. The display screen is a white background light, ultra bright LCD screen. The instrument also equips a pin micro-printer for output. The measurement can be displayed by the display screen in real time and plotted out through the printer. In addition, the instrument can connect to the PC through the RS232 communication interface.

The instrument has the characteristics of high measure sensitivity, reliable results and beautiful model, as well as convenience to operate. It is widely used to determine the viscosity of various liquids such as asphalt, hot sol, paraffin, high polymer and so on.

II. Main technical specification and parameter

1. measurement range: $25 \text{ mPa}\cdot\text{s} \sim 1 \times 10^7 \text{ mPa}\cdot\text{s}$ (If choosing the No.30 rotor, the measurement can extend to $2 \times 10^7 \text{ mPa}\cdot\text{s}$)
2. Rotor: No. 21, 27, 28, 29 total four type of rotor (the No.30 is optional)
3. Rotor speed: 0.1 – 200 r/min stepless speed adjusting
4. measurement error: $\pm 2\%$ (F· S), (choosing the No.30 rotor, it will be $\pm 3\%$ (F· S))
5. control temperature range: $25 \text{ }^\circ\text{C} \sim 200 \text{ }^\circ\text{C}$
6. control temperature accuracy: $\pm 0.1 \text{ }^\circ\text{C}$
7. Sample can cubage: 20 ml
8. power supply: AC 220 V $\pm 10\%$, 50 Hz
9. ambient temperature: $5 \text{ }^\circ\text{C} \sim 35 \text{ }^\circ\text{C}$ (when the control temperature of the heater is close to the ambient temperature, turn on the air conditioner to allow the ambient temperature is approximately $5 \text{ }^\circ\text{C}$ lower than the control temperature of the heater)
10. relative humidity: $\leq 80\%$





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NDJ-79 Rotational Viscometer

Purpose:

NDJ—79 viscosity by rotational viscometer is an exact instrument used to test the absolute viscosity for all kinds of Newtonian liquid and the apparent viscosity for all kinds of non-Newtonian liquid. If matched with special rotator in usage, it is used to determinate the rheological property for non-Newtonian liquid. It is convenient for operation, steady for property, simple for maintain, and it is suitable to determinate the liquid viscosity of grease, paint, printing ink, dope, plastic, paste, rubber, latex, scour, rosin, condensed milk, cream, medicine, cosmetic and etc. it is necessary instrument to lab or analyst lab.

Technical index:

a. Measuring range table

measuring range (MPa.s)	rpm			
rotator	60	30	12	6
1	100	200	500	1000
2	500	1000	2500	5000
3	2000	4000	10000	20000
4	10000	20000	50000	100000

b. Coefficient table

coefficient	rpm			
rotator	60	30	12	6
1	1	2	5	10
2	5	10	25	50
3	20	40	100	200
4	100	200	500	1000

NDJ-7 Rotation Viscometer



I. Summary

The instrument is suitable to determine absolute viscosity of Newton liquids and apparent viscosity of Non-Newton liquids. It can be used to determine viscosity of petroleum, resin, paints, ink, sizing agent, cosmetics, cream, medicine, and asphalt, etc. You can select different measurement unit for different sample viscosity or test requirements. The instrument is small, light, convenient to be operated, simple to be repaired, durable, and it can determine the viscosity of liquids rapidly and reliably.

II. Main technical characteristics

1. The instrument is driven by a synchronous motor. The motor rotates at a constant speed and it is not affected by changes in load and the power supply voltage.
2. It is equipped with two measurement units. Each unit contains a measurement chamber and several rotation cylinders with rotation shaft, so that it can meet different measurement requirements.
3. It adopts arc type dial, so it is convenient to read reading.

III. Main technical specification and parameters

1. Measurement range: $1 \sim 10^6$ mPa·s;
2. Measurement error: $\pm 5\%$ (For Newton liquids);
3. Measurement unit: it contains unit II and unit III;
4. Speed: 750, 75, 7.5 RPM;
5. Power supply: AC220V $\pm 10\%$, 50 Hz;
6. Size: 170 mm \times 140mm \times 440mm;
7. Weight: 15 kg;

