# Shanghai Dobetter Instrument & Equipment Co.,Ltd

# **Rotational Viscometers**



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# **Company Profile**



Dobetter group of corporations is a Chinese high-tech group which specializes in R&D, manufacturing, sales and service of intelligent and automated instruments in the fields of petroleum, asphalt, geology and viscosity. We own several quality plants leading the technology in these fields in China.

Our group is mainly engaged in five kinds of products: petroleum testing instruments, asphalt testing equipment, geological equipment, rotational viscometers and laboratory glassware. These products are widely used in the industrial fields such as oil fields, refineries, petroleum storage and transportation, chemical plants, power plants, machinery factories, steel works, metallurgic plants, pavement construction, automobile, aviation and geological survey. At the same time, the rotation viscometers are also applied in the civilian fields such as foods, medicines and cosmetics. The products we supply are designed and manufactured as per both domestic and international standards such as GB, SH, JTG, ISO and ASTM. Our products are in good sales in some countries and areas like Korea, Japan, Australia, South Africa, Nigeria, Brazil, Argentina, Chile, Singapore, Malaysia, Saudi Arabia, UAE, Kuwait, Iran, Turkey, Thailand, Vietnam, India, Pakistan, Bangladesh and Taiwan.

Our staff will maintain the philosophy of 'Do better forever' to regard our customer's needs as our first importance with enthusiastic, honest, meticulous and efficient attitude. We will always devote ourselves to supplying the best cost-performance instruments and equipment with quality service to customers worldwide. Dobetter staff welcome our customers from any country to inquire. We are looking forward to cooperating and creating the future with you together.

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# → NDJ Series of Viscometers

#### **Summary**

NDJ series of dial-type viscometers: Synchronous motor is equipped for stable rotation. Gear drives the speed regulation. Dial displays the reading. It is a kind of classic designed viscometer. The durability is good.

#### Model: NDJ-1

Main technical specifications and features

1) Measuring range (mPa.s):  $10 \sim 1 \times 10^5$ 

2) Rotating speed (r/min): 6, 12, 30, 60

3) Spindles: L1, L2, L3, L4

4) Measuring precision (F • S): ±5%

5) Power supply: AC220V, 50Hz

6) Spindle LO is optional for low viscosity test: Minimum 1mPa.s



## Model: NDJ-4

Main technical specifications and features

1) Measuring range (mPa.s):  $10 \sim 1 \times 10^5$ 

2) Rotating speed (r/min): 6, 12, 30, 60

3) Spindles: L1, L2, L3, L4

4) Measuring precision (F • S):  $\pm 5\%$ 

5) Power supply: AC220V, 50Hz

6) Spindle L0 is optional for low viscosity test: Minimum 1mPa.s



# → NDJ Series of Viscometers

#### **Summary**

NDJ series of digital viscometers: 16-bits microprocesser controls the circuit. No need to use gear driving. LCD screen displays viscosity, rotating speed, torque%, spindle number and max. viscosity under current rotating speed. Microprinter is optional for data printing.

#### Model: NDJ-5S

Main technical specifications and features

1) Measuring range (mPa.s):  $10 \sim 1 \times 10^5$ 

2) Rotating speed (r/min): 6, 12, 30, 60

3) Spindles: L1, L2, L3, L4

4) Measuring precision (F • S): ±1%

5) Power supply:  $100\sim240\text{V}/50\sim60\text{Hz}$ 

A specialized adaptor is equipped.

6) Spindle LO is optional for low viscosity test: Minimum 1mPa.s



#### Model: NDJ-8S

Main technical specifications and features

1) Measuring range (mPa.s):  $10\sim2\times10^6$ 

2) Rotating speed (r/min): 0.3, 0.6, 1.5, 3, 6, 12, 30, 60

3) Spindles: L1, L2, L3, L4

4) Measuring precision (F • S): ±1%

5) Power supply:  $100\sim240\text{V}/50\sim60\text{Hz}$ 

A specialized adaptor is equipped.

6) Spindle LO is optional for low viscosity test: Minimum 1mPa.s



# SNB Series of Viscometers

#### **Summary**

SNB series of digital viscometers: The upgraded products of NDJ series. This series of viscometers have wider measuring ranges. The rotating speeds are continuously adjustable. A RTD temperature sensor is equipped for detecting sample temperature in real time. 《Data collecting, analyzing and drawing 》 software is optional for data analyzing and processing. Microprinter is optional for data printing.

#### Model: SNB-1

Main technical specifications and features

1) Measuring range (mPa.s):  $10\sim6\times10^5$ 

2) Rotating speed (r/min):  $1\sim60$ 

3) Spindles: L1, L2, L3, L4

4) Measuring precision (F • S): ±1%

5) Power supply:  $100 \sim 240 \text{V}/50 \sim 60 \text{Hz}$ 

A specialized adaptor is equipped.

6) Spindle L0 is optional for low viscosity test: Minimum 1mPa.s



#### Model: SNB-2

Main technical specifications and features

1) Measuring range (mPa.s):  $10\sim6\times10^6$ 

2) Rotating speed (r/min): 0.1~100

3) Spindles: L1, L2, L3, L4

4) Measuring precision (F • S):  $\pm 1\%$ 

5) Power supply:  $100\sim240\text{V}/50\sim60\text{Hz}$ 

A specialized adaptor is equipped.

6) Spindle L0 is optional for low viscosity test: Minimum 0.6mPa.s



# SNB Series of Viscometers

#### **Summary**

SNB series of digital viscometers: The upgraded products of NDJ series. This series of viscometers have wider measuring ranges. The rotating speeds are continuously adjustable. A RTD temperature sensor is equipped for detecting sample temperature in real time. 《Data collecting, analyzing and drawing 》 software is optional for data analyzing and processing. Microprinter is optional for data printing.

#### Model: SNB-3

Main technical specifications and features

1) Measuring range (mPa.s):  $100 \sim 8 \times 10^7$ 

2) Rotating speed (r/min):  $0.1 \sim 100$ 

3) Spindles: L1, L2, L3, L4

4) Measuring precision (F • S): ±1%

5) Power supply:  $100 \sim 240 \text{V}/50 \sim 60 \text{Hz}$ 

A specialized adaptor is equipped.

6) Spindle L0 is optional for low viscosity test: Minimum 6mPa.s



#### Model: SNB-AI

Main technical specifications and features

1) Measuring range (mPa.s):  $50\sim6\times10^6$ 

2) Rotating speed (r/min): 0.1~200

3) Spindles: 21, 27, 28, 29

4) Measuring precision (F • S):  $\pm 1\%$ 

5) Power supply:  $100\sim240\text{V}/50\sim60\text{Hz}$ 

A specialized adaptor is equipped.

6) Spindle LO is optional for low viscosity test: Minimum 3mPa.s



## DV Series of Viscometers

#### **Summary**

DV-1 series of digital viscometers: The most universal viscometers in the world. Beside all performance of SNB series of viscometers, DV series of viscometers have wider measuring ranges. 《DV program-controlled off-line downloading》 software is optional for downloading the customized measuring program to the viscometer to make a personalized operation.

#### Model: LVDV-1

Main technical specifications and features

1) Measuring range (mPa.s):  $12\sim6\times10^6$ 

2) Rotating speed (r/min):  $0.1 \sim 100$ 

3) Spindles: L1, L2, L3, L4

4) Measuring precision (F • S): ±1%

5) Power supply:  $100\sim240\text{V}/50\sim60\text{Hz}$ 

A specialized adaptor is equipped.

6) Spindle LO is optional for low viscosity test: Minimum 0.6mPa.s



#### Model: RVDV-1

Main technical specifications and features

1) Measuring range (mPa.s):  $80\sim4\times10^7$ 

2) Rotating speed (r/min):  $0.1 \sim 100$ 

3) Spindles: R2, R3, R4, R5, R6, R7

4) Measuring precision (F • S): ±1%

5) Power supply:  $100\sim240\text{V}/50\sim60\text{Hz}$ 

A specialized adaptor is equipped.

6) Spindle LO is optional for low viscosity test: Minimum 6mPa.s

7) Spindle LO is optional for low viscosity test: Minimum 20mPa.s



#### Model: HBDV-1

Main technical specifications and features

1) Measuring range (mPa.s):  $640 \sim 32 \times 10^7$ 

2) Rotating speed (r/min):  $0.1 \sim 100$ 

3) Spindles: R2, R3, R4, R5, R6, R7

4) Measuring precision (F • S):  $\pm 1\%$ 

5) Power supply:  $100 \sim 240 \text{V}/50 \sim 60 \text{Hz}$ 

A specialized adaptor is equipped.

6) Spindle LO is optional for low viscosity test: Minimum 50mPa.s

7) Spindle LO is optional for low viscosity test: Minimum 160mPa.s



## DV Series of Viscometers

#### Summary

DV-2 series of digital viscometers: The most universal viscometers in the world. Beside all performance of SNB series of viscometers, DV series of viscometers have wider measuring ranges. 《DV program-controlled off-line downloading》 software is optional for downloading the customized measuring program to the viscometer to make a personalized operation.

#### Model: LVDV-2

Main technical specifications and features

1) Measuring range (mPa.s):  $6\sim 6\times 10^6$ 

2) Rotating speed (r/min):  $0.1\sim200$ 

3) Spindles: L1, L2, L3, L4

4) Measuring precision (F • S):  $\pm 1\%$ 

5) Power supply:  $100\sim240\text{V}/50\sim60\text{Hz}$ 

A specialized adaptor is equipped.

6) Spindle LO is optional for low viscosity test: Minimum 0.3mPa.s



#### Model: RVDV-2

Main technical specifications and features

1) Measuring range (mPa.s):  $40\sim4\times10^7$ 

2) Rotating speed (r/min):  $0.1\sim200$ 

3) Spindles: R2, R3, R4, R5, R6, R7

4) Measuring precision (F • S): ±1%

5) Power supply:  $100\sim240\text{V}/50\sim60\text{Hz}$ 

A specialized adaptor is equipped.

6) Spindle LO is optional for low viscosity test: Minimum 3mPa.s

7) Spindle LO is optional for low viscosity test: Minimum 10mPa.s



#### Model: HBDV-2

Main technical specifications and features

1) Measuring range (mPa.s):  $320 \sim 32 \times 10^7$ 

2) Rotating speed (r/min): 0.1~200

3) Spindles: R2, R3, R4, R5, R6, R7

4) Measuring precision (F • S):  $\pm 1\%$ 

5) Power supply:  $100 \sim 240 \text{V}/50 \sim 60 \text{Hz}$ 

A specialized adaptor is equipped.

6) Spindle LO is optional for low viscosity test: Minimum 25mPa.s

7) Spindle LO is optional for low viscosity test: Minimum 80mPa.s



#### **→ SNB-H Series of Viscometers**

#### Summary

SNB-H series of viscometers: Mainly used to test samples which need to be heated. Such as bitumen, hot melt adhesive, polyethylene wax, etc. It can be used off line. The measuring data can be displayed on the LCD screen. 《Data collecting, analyzing and drawing》software is optional for test monitoring and viscosity-temperature curve drawing in real time (for Model SNB-AIH). The heater adopts built-in whole type. The uniformity and durability are good.

#### Model: SNB-RH

Main technical specifications and features

1) Measuring range (mPa.s):  $50\sim2\times10^5$ 

2) Rotating speed (r/min): 5, 10, 20, 50, 100

3) Spindles: 21, 27, 28, 29

4) Measuring mode: manual

5) Measuring precision (F • S):  $\pm 1\%$ 

6) Sample amount: 10∼20ml

7) Temperature control range: Ambient~250°C

8) Temperature control precision:  $\pm 0.1$ °C

9) It will alert if over the measuring range.



# Model: SNB-AIH

Main technical specifications and features

1) Measuring range (mPa.s):  $50\sim2\times10^5$ 

2) Rotating speed (r/min): 5, 10, 20, 50, 100

3) Spindles: 21, 27, 28, 29

4) Measuring mode: manual

5) Measuring precision (F • S):  $\pm 1\%$ 

6) Sample amount: 10∼20ml

7) Temperature control range: Ambient~250°C

8) Temperature control precision:  $\pm 0.1$ °C

9) It will alert if over the measuring range.



#### DV-H Series of Viscometers

#### **Summary**

DV-1H series of viscometers: Mainly used to test samples which need to be heated. Such as bitumen, hot melt adhesive, polyethylene wax, etc. It can be used off line. The measuring data can be displayed on the LCD screen. 《Data collecting, analyzing and drawing》software is optional for test monitoring and viscosity-temperature curve drawing in real time. The heater adopts built-in whole heating type. The heating uniformity and durability are good.

#### Model: LVDV-1H

Main technical specifications and features

1) Measuring range (mPa.s):  $10 \sim 1 \times 10^6$ 

2) Rotating speed (r/min):  $0.1 \sim 100$ 

3) Spindles: 21, 27, 28, 29

4) Measuring precision (F • S):  $\pm 1\%$ 

5) Sample amount: 10∼20ml

6) Temperature control range: Ambient ~250°C

7) Temperature control precision:  $\pm 0.1$ °C



#### Model: RVDV-1H

Main technical specifications and features

1) Measuring range (mPa.s):  $100 \sim 1 \times 10^7$ 

2) Rotating speed (r/min):  $0.1 \sim 100$ 

3) Spindles: 21, 27, 28, 29

4) Measuring precision (F • S):  $\pm 1\%$ 

5) Sample amount: 10~20ml

6) Temperature control range: Ambient~250°C

7) Temperature control precision:  $\pm 0.1$ °C



#### Model: HBDV-1H

Main technical specifications and features

1) Measuring range (mPa.s):  $800 \sim 8 \times 10^7$ 

2) Rotating speed (r/min):  $0.1 \sim 100$ 

3) Spindles: 21, 27, 28, 29

4) Measuring precision (F • S):  $\pm 1\%$ 

5) Sample amount: 10∼20ml

6) Temperature control range: Ambient~250°C

7) Temperature control precision:  $\pm 0.1^{\circ}$ C



## **DV-H Series of Viscometers**

#### **Summary**

DV-2H series of viscometers: Mainly used to test samples which need to be heated. Such as bitumen, hot melt adhesive, polyethylene wax, etc. It can be used off line. The measuring data can be displayed on the LCD screen. 《Data collecting, analyzing and drawing》software is optional for test monitoring and viscosity-temperature curve drawing in real time. The heater adopts built-in whole heating type. The heating uniformity and durability are good.

#### Model: LVDV-2H

Main technical specifications and features

1) Measuring range (mPa.s):  $5\sim1\times10^6$ 

2) Rotating speed (r/min):  $0.1\sim200$ 

3) Spindles: 21, 27, 28, 29

4) Measuring precision (F • S):  $\pm 1\%$ 

5) Sample amount: 10∼20ml

6) Temperature control range: Ambient~250°C

7) Temperature control precision:  $\pm 0.1$ °C



#### Model: RVDV-1H

Main technical specifications and features

1) Measuring range (mPa.s):  $50 \sim 1 \times 10^7$ 

2) Rotating speed (r/min):  $0.1\sim200$ 

3) Spindles: 21, 27, 28, 29

4) Measuring precision (F • S):  $\pm 1\%$ 

5) Sample amount: 10∼20ml

6) Temperature control range: Ambient ~250°C

7) Temperature control precision:  $\pm 0.1^{\circ}$ C



#### Model: HBDV-1H

Main technical specifications and features

1) Measuring range (mPa.s):  $400 \sim 8 \times 10^7$ 

2) Rotating speed (r/min): 0.1~200

3) Spindles: 21, 27, 28, 29

4) Measuring precision (F • S): ±1%

5) Sample amount: 10∼20ml

6) Temperature control range: Ambient~250°C

7) Temperature control precision:  $\pm 0.1$ °C



# Specialized Thermostat

#### **Summary**

Specialized thermostat for viscometers: Specially designed for our company's viscometers. Suitable to provide different test temperatures for samples. Microcomputer precisely controls the thermostatic system. International famous brand of Pt100 temperature sensor is equipped. Good quality stainless steel material is used for table-board, inner slot and tank body. The durability is good.

#### Model: CH-1015

Main technical specifications and features

1) Temperature control range: Ambient~95°C

2) Temperature display resolution: 0.1°C

3) Temperature control precision:  $\pm 0.05$  °C

4) Pump flow rate: 8L/min

5) Circulating mode: Inner or outer circulation, selectable

6) Volume: 15L

7) Dimension of slot:  $215 \times 180 \times 200$ mm, 2 holes ( $\Phi$  74)

8) Overall dimension: 310×430×470mm

9) Power supply: AC220V, 50Hz



# Model: DC-0506

Main technical specifications and features

1) Temperature control range: -5~95°C

2) Temperature display resolution: 0.1°C

3) Temperature control precision:  $\pm 0.05$ °C

4) Pump flow rate: 8L/min

5) Circulating mode: Inner or outer circulation, selectable

6) Volume: 6L

7) Dimension of slot:  $150 \times 150 \times 150$ mm, 1 hole( $\Phi$  74)

8) Overall dimension:  $340 \times 400 \times 670$ mm

9) Power supply: AC220V, 50Hz



# **Auxiliaries**

## **Summary**

Accessories for viscometers: Customers can choose different spindles and accessories as per various test needs.

Spindles: L0∼L5



Spindles: R1∼R7



Spindles: 21~29



**Small Sample Adaptor** 



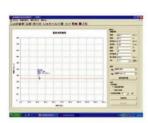
**Ultra-Low Viscosity Adapter** 



**RTD** sensor



**Data&Drawing software** 



**DV** software



Micro-printer





# We can provide:

Professional viscosity test technology in all fields

# We only do:

Better instruments with more efficient service

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