

## NDJ-1F(2T-RV) Viscometer



The YK-1F (2T-RV) seamlessly integrates touchscreen technology, delivering rapid, precise, and user-friendly viscosity measurements with its sleek, modern design. This high-performance instrument features stepless adjustment and the capability to measure ultra-high viscosity samples.

The system features 30 self-developed test programs with 30 sets of test data. Its 5-inch oversized color touchscreen provides comprehensive and intuitive visualization of various parameters and operational status. With multiple measurement parameters, rich display content, user-friendly operation, intuitive readings, high measurement accuracy, stable rotational speed, strong anti-interference performance, and the ability to display shear rate and viscosity curves, it also supports wide operating voltage ranges. This instrument can effectively replace similar imported models.

### Main features :

1. Built on ARM technology with a built-in Linux system, it features a clean and intuitive interface for creating test programs and handling data. The analysis, rapid and convenient viscosity test;



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2. The viscosity measurement is accurate: each range is automatically calibrated by computer, with high precision and small error;
3. Display rich content: In addition to viscosity (dynamic and kinematic), it also includes temperature, shear rate, and shear stress, percentage of measured value relative to full scale (graphical display), range overflow alarm, self Dynamic scanning, maximum measurement range under the current rotor speed combination, date, time, etc. The kinematic viscosity can be displayed when the density is known, which can satisfy the different measurement requirements of users.
4. Complete functions: can measure regularly, build 30 sets of test programs, access 30 sets of measurement data, display viscosity in real time Curves, printed data, and curves, etc.
5. The pre-leveling instrument: the level adjustment is intuitive and convenient;
6. Stepless speed control: NDJ-1F (2T-RV) features 0.1-200 RPM with 2000 speed settings
7. Display the shear rate-viscosity curve: Set the shear rate range and display it in real-time on the computer; or Display the viscosity curve over time
8. Optional Pt100 temperature probe: Wide temperature measurement range from -20 to 300°C, with a precision of 0.1°C.
9. A wide range of optional accessories: a dedicated constant temperature bath for viscometers, a constant temperature cup, a printer, and standard viscosity samples (standard silicone oil).

#### **10. Chinese and English operating system.**

**The performance is equivalent to the imported viscometer of the same type, and it can be used as a substitute.**

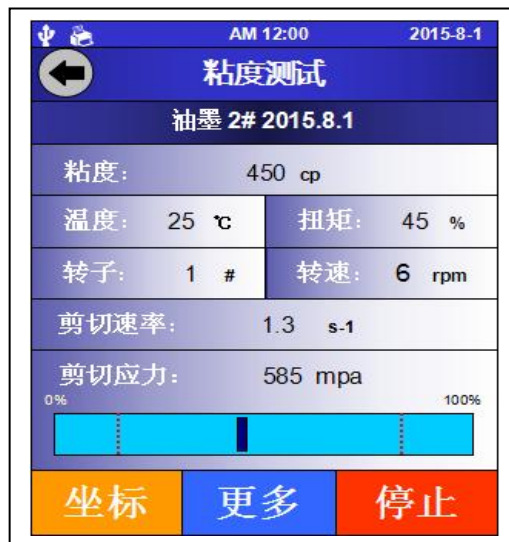
It is widely used in the industries of paint, coating, cosmetics, ink, pulp, food, oil, starch, solvent-based adhesive, latex, biochemical products, and other samples that need to be heated and melted, such as paraffin, polyethylene wax, rosin, asphalt, hot melt adhesive, etc.

#### **Technical details:**

Model	YK-1F (2T-RV series)
Control/Display Mode	5-inch color touch screen
RPM	0.1 – 200 stepless speed range, with 2000 selectable RPMs
Measuring range mPa.s	R2-R7: 100 - 40M URL: 3.2 - 1K 21:25-500K 27th; 125-2.5M 28:250-5M 29:500-10M
	K = 1000; M = 1000000

<b>Rotor</b>	R2– R7 (6 units, standard) R1 (optional) Enhanced Ultra-Low Viscosity Adapter (ULR) (Optional) Small sample adapters (rotors 21,27,28,29) (optional)
<b>Sample dosage</b>	R1-R7: 500ml ULR: Range 1-1000,21ml 21 rotor: 7.8ml 27 rotor: 11.3ml 28 rotor: 12.6ml 29 rotor: 11.5ml
<b>Measurement error ( Newtonian liquid )</b>	±1%
<b>Repetitive error ( Newtonian liquid )</b>	±0.5%
<b>Show shear strain / rate of shear</b>	standard configuration
<b>Timer</b>	standard configuration
<b>Display viscosity curve in real time</b>	shear rate-viscosity curve temperature-viscosity curve time-viscosity curve
<b>kinematic viscosity</b>	Enter the sample density
<b>Temperature measurement function</b>	Standard temperature probe interface (requires optional temperature probe)
<b>Auto Scan</b>	Scan and recommend the priority combination of rotor and speed
<b>Maximum measuring range</b>	Automatically displays the selected rotor and speed combinations for the measurable viscosity range
<b>Self-built survey program</b>	You can save up to 30 sets (including rotor, speed, temperature, time, etc.)
<b>Save measurement results</b>	You can save up to 30 data sets, including viscosity, temperature, rotor, rotational speed, shear rate, shear stress, time, density, and kinematic viscosity.
<b>put a seal on</b>	Data and curves can be printed (standard print interface, printer required)
<b>Data output interface</b>	RS232
<b>Constant temperature component</b>	Options (including specialized constant temperature baths and cups for various viscometers)
<b>Working power supply</b>	Wide voltage operation (110V / 60Hz or 220V / 50Hz)

Dimension	300 × 300 × 450 (mm)
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From left to right: R1 to R7 disc rotors

### Option :

#### 1. R1 rotor

If the sample viscosity falls below the lower limit of the measurement range for each model, select the R1 rotor.

## 2. Enhanced Ultra-Low Viscosity Adapter (ULV)

Designed for low-viscosity fluid measurement, available in jacketed and non-jacketed versions with a detection limit of 1 cP, depending on the viscometer model.



## 3. Small sample adapters (rotors 21,27,28,29)



## 3. Temperature probe (temperature sensor)

Use Pt100 platinum resistance

Temperature measurement range: -20 to 300°C

Measurement accuracy: 0.1°C



#### 4. Micro thermal printer

Connect directly to the viscometer  
print data  
Print curve



#### 5. Specialized constant temperature bath for viscometers

The specially designed circular opening accommodates a 200ml beaker, enabling direct viscosity measurement.

The measurement. The system's external circulation function can also guide the controlled constant-temperature liquid.

The external constant temperature cup can meet different testing requirements.

##### 5.1 HSY-601:

Temperature control range: from room temperature to 100°C, with a maximum increase of 10°C.

Temperature control accuracy: 0.1°C



## 5.2 HSY-601w:

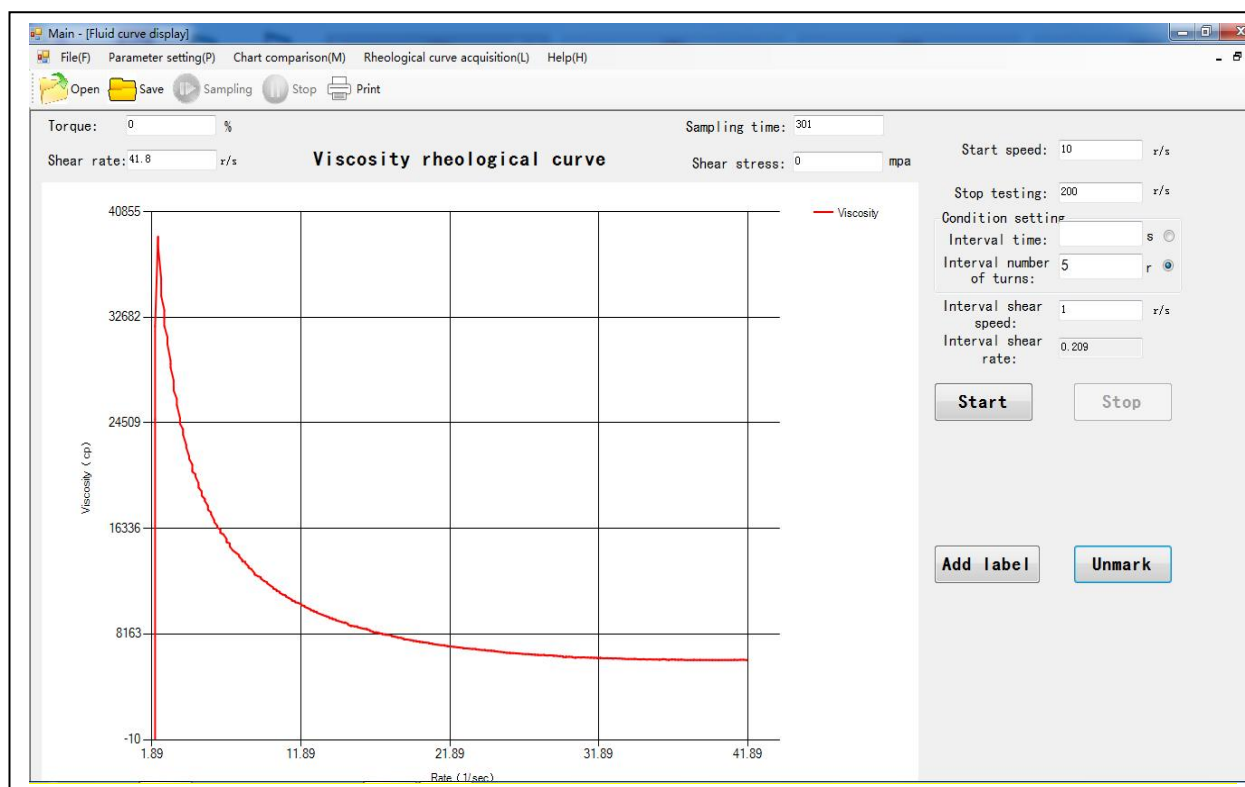
Temperature control range: -5 to 100°C

Temperature control accuracy: 0.1°C



## 6. Data processing software

Set the measurement parameters of the viscometer via the computer to display the results. The shear rate and viscosity rheological curves were obtained.



The X-axis represents shear rate, and the Y-axis represents viscosity.

## 5. Temperature control device and heating furnace

It is used with the 21,27,28,29 rotor to measure the high temperature melt sample.

