

# Moving Die Rheometer (MDR)

*Model: SR-321*

## Summary:

**Moving Die Rheometer** is a widely used tester in rubber processing industry, rubber quality control and basic research rubber, For optimize formula of rubber provide accurate data, It can accurately measure the scorch time, rheometer time, sulfide index, the maximum and minimum torque and other parameters.

## Applicable Industry:

Moving Die Rheometer For Rubber Compound Testing With Adjustable Oscillation Amplitude applied to rubber, tires, reclaimed rubber factory.

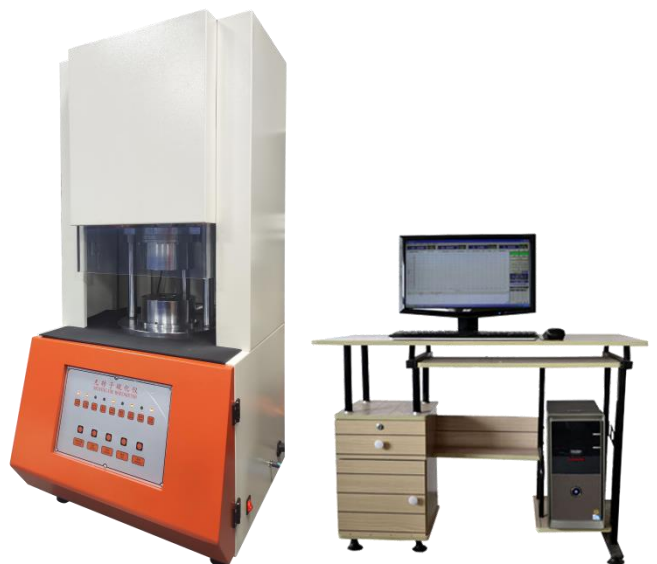
## Features:

**Optimum Test Data:** The comparison test can be done on the same interface for any secondary vulcanization test. The multiple vulcanization curves drawn can be compared to find out the best experimental data

**Mature Technology:** The instrument development platform based on large databases, temperature control devices using the software to directly control and collection and processing. Instrument to overcome the general curing temperature of the shortcomings of using temperature controller (accuracy poor).

**Scientific Design:** This instrument has statistics, analysis, storage and comparison functions. Humanized design, easy to operate .

**High Accuracy:** Using imported high-precision sensors



## Main Function:

SR-321 Moving Die Rheometer used monolithic rotor control, which include: host, temperature measurement, temperature control, data acquisition and processing, sensors and electrical chains and other components. These

measurements, temperature control circuit consists of a temperature control device, platinum resistance, heater composition, capable of automatic tracking power and ambient temperature changes, automatically correct PID parameters to achieve fast and accurate temperature control purposes. Data acquisition system and mechanical linkage to complete the rubber vulcanization process of force torch signal automatic detection, automatic real-time display of temperature and settings. After curing, automatic processing, automatic calculation, print vulcanization curve and process parameters. Show curing time, curing power  $J_u$ , also has a variety of audible alert.

Moving Die Rheometer is controlled by computer, the computer setting the parameters of the direct control of test parameters rheometer. Display real-vulcanization curve and temperature curve, store test results, different adjustable comparison of test results and in a different color.

### Applicable Standards:

ISO6502 / GB/T16584: Rubber—Measurement of Vulcanization Characteristics with Rotorless Cure Meters  
ASTMD5289-95 : Standard Test Method for Rubber Property—Vulcanization Using Rotorless Cure Meters  
ETC...

### How it works:

The rubber sample into the mold cavity is almost entirely enclosed and maintained at test temperature, the mold cavity are of two parts, of which the lower part with a small linear reciprocating movement (swing oscillation), oscillatory shear specimen produced strain determination is the reaction torque of the mold cavity (force), this torque (force) depends on the shear modulus of rubber.

Curing test specimens after the start of the shear modulus increases, the computer machine real-time display and record the torque (force), when the torque (force) rose to a stable value or the maximum as well as return to the state, they get a torque ( force) and time curve, that is, curing curve (Figure 1), shape of the curve and test the temperature and plastic material characteristics.

### Specifications:

Model

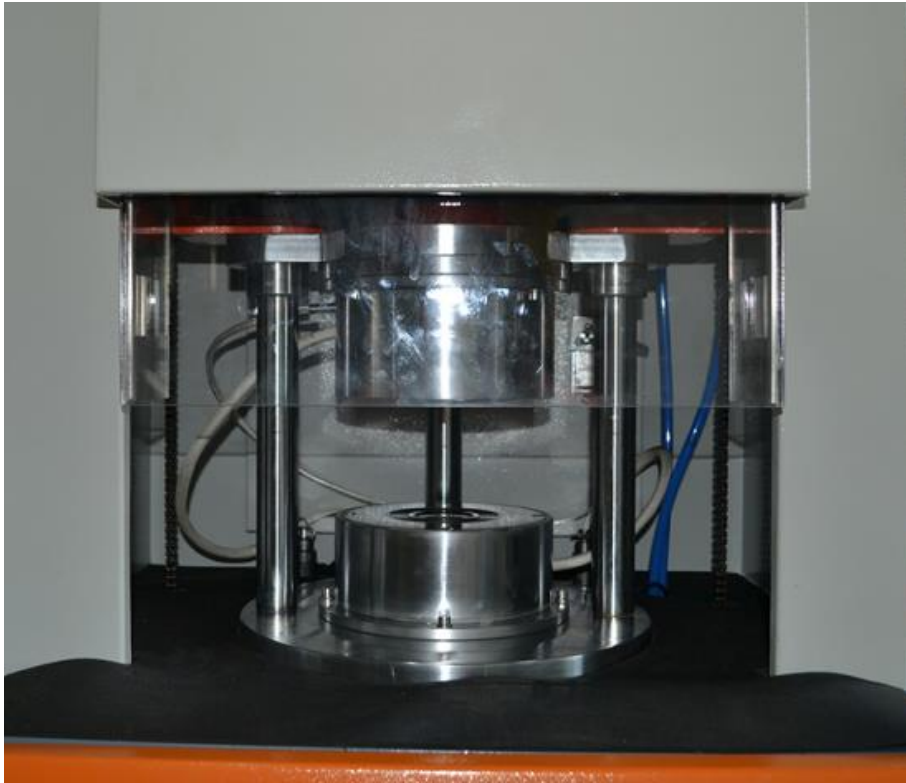
SR-321 Moving Die Rheometer for rubber processing industry

Standard	GB/T16584 IS06502
Temperature	RT~ 230 °C
Heating-up	15°C/min
Temperature fluctuation	≤ ±0.3°C
Temperature resolution	0.01 °C
Torque range	0-5N.M,0-10N.M,0-20N.M (optional )
Torque resolution	0.001NM
Power	50HZ, 220V±10%
Pressure	0.4Mpa
Air-pressure requirement	0.5Mpa--0.65MPa (user prepare the dia 8 trachea)
Environment temperature	10~20°C
Humidity range	55--75%R.H
Compressed air	0.35~0.40Mpa
Oscillation frequency	100r/min (about 1.67HZ)
Oscillation angle	±0.5 Degree
Printing	date, time, temperature,vulcanization curve,temperature curve, ML,MH,ts1,ts2,t10 ,t50, Vc1, Vc2.

**SUNRISE is a professional manufacturer for various test equipment, we denote ourselves to making best quality products and service for providing you a suitable solutions!**

We focus on every details of product quality and precision.

**Durability test die cavity, made of SKD 11 cold work die steel**



**NSK bearing, precise and reliable**



**Professional software interface and curve:**



## *After-sales Service*



- 1) 12 months product warranty. Free components will be provided if any performance failure occurs within 12 months caused by non-human damage.
- 2) If you face any problems in future during testing process, We will serve as a technical adviser for lifetime, give you a reply within 48 hours and the solution provided within 3 working days.
- 3) We will provide some guidance for the normal use of the machine, and in the case of the machine is not used for a long time, protection guidance provided, then keep the good performance of the machine.
- 4) We can offer operation video and operation manual, also can provide video-conference.
- 5) If necessary, on-site service will be provided, but the transport and travel expense shall be borne by customer.

## PRODUCTION LOGISTICS



1.Design



2.Production Material



3.Accessories Processing



4.Product Assembly



5.Product Debugging



6.Packaging & Shipping

## OUR CUSTOMERS

