Model NO.
Mixer-60C



Structure
Block Assembly
Max.Temperature
350°
Max.Torque
320nm
Max.Speed
250rpm/Min
Loading Way
Manual + Pneumatic
Transport Package
Plywood
Specification
60ml
Trademark

Hapro

Origin

China

HS Code

9024900000

Production Capacity

100/Year

Product Description

The Hapro Torque Rheometer system serve for testing the rheological behavior properties and extrusion ability of polymers and for analysing and emulating production process in the laboratory . It is an ideal instrument and system in research and development as well as in practical application , for searching the material liquidity, plastifying, heating and shear stability,etc. industrial production.

Excellent reproducibility of the measured values, the easy handling, the low cost and the reliability make the Mixer best suited for production control as well as for research and development . With Hapro Mixer system, you can simulate on a laboratory scale all processes like compounding, mixing, plastifying, thermosetting material (cross-linking polyethylene cross-linking feature), solidity testing, heat stability testing, shearing sensibility testing, etc. that are relevant for production and processing of polymers and other plastic and plastifiable materials.

The mixer chamber consist of three sections which are independently temperature controlled. Counter-rotating rotors provide high strength mixing and shearing action. Customer can choose the different chamber volumes (e.g. 20ml/ 60ml /200ml /300ml). The different rotor types and loading ways to implement different applications. For teaching and demonstration, the visualization window can be configured.

- **Technical parameters :**

	Mixer-20	**Mixer-60**	**Mixer-200**	**Mixer-300**
Types of rotor	Roller,Banbury,Cam,Delta,Sigma (Roller standard ,others optional)			
Rotor processing	After high precision polishing, the surface chromium plating			
Speed ratio of rotors	3:2			
Temp control system	RKC from Japan			
Temperature sensor	J type thermocouple			
Heating	Electrical Heating/3 zones, PID			
Max. Temperature	350ºC			

Loading	Manually+ Pneumatic			
Max. rotor speed	150 or 200 or 250 r/min			
Max. torque	80Nm	150Nm	240 Nm	320 Nm
Total power	1500 W	1700W	3600W	4800W
Weight	280 kg			
Dimension(L×W×H)	650×600×1800 mm			

- **Types of rotors**

Rotor is the core component of Mixer System. Different structural type of rotors are suitable for different mixing process and directly affect the products quality ,efficiency and energy consumption. Now, we have developed five kinds of rotors for the plastic and rubber materials ,as illustrated below. The rotors are made of special steel ,counter-rotation towards each other at the speed ratio of 3: 2 provide for excellent compounding and high shear mixing characteristics .

Photo	Name	Function
	Roller	It is usually used for testing thermoplastic materials and compounding with additives.
	Banbury	It is usually used for testing natural and synthetic elastomers with regard to flow and cure behavior, compounding with additives .
	Cam	It is usually used for testing thermo-plastic polymer, ceramic composites, food and other high-torque materials.
	Delta	It is usually used for testing cross-linking thermo-set polymer .
	Sigma	It is usually used for testing food, medicine, and plastisol materials, which have low-torque.

- **Loading way**

Each measurement starts with measuring the sample weight. Following that, the sample is put into the measuring chamber and compressed by the piston. Mixer of torque rheometer, consisting of two kinds of loading way , hand loading and the pneumatic loading . Pneumatic loading chute has the advantage that can eliminate the error caused by personnel changes and unskilled operation .