

## MATS-2010H

## Soft Magnetic Material Dynamic Hysteresisgraph System

## Model MATS-2010H



Automatic measurement on hysteresis loop and demagnetization curve of permanent-magnet material, accurate measurement on magnetic characteristic parameters such as remanence  $B_r$ , coercive force  $H_cB$ , intrinsic coercive force  $H_cJ$  and maximum magnetic energy product  $(BH)_{max}$ .

Windows measurement software applied simply. The product conforms to China National Standards GB / T3217 - 92 and international standard IEC404 - 5.

Adopt ATS structure, users can customize different configuration as required: According to the size of measured sample to determine electromagnet size and correspondent test source power; Select different measuring coil and probe according to testing method; Determine whether selecting jig according to sample shape; Determine whether selecting heating system according to test requirement.

## General Features

## Software Features

## Software Screen

## Technical Data

## Product Family

- Automatic measurement on saturation hysteresis loop and magnetic characteristic parameters of generally permanent-magnet material such as Ferrite, Rubber & Plastic Magnet and AlNiCo, etc.:  $J_s$ ,  $B_r$ ,  $H_cB$ ,  $H_cJ$ ,  $(BH)_{max}$ .
- Automatic measurement on demagnetization curve and magnetic characteristic parameters of rare earth permanent-magnet materials such as NdFeB and SmCo, etc. at the second quadrant:  $B_r$ ,  $H_cB$ ,  $H_cJ$ ,  $H_k(H90)$  and  $(BH)_{max}$ .
- Test sample shapes: circular ring, round cake, square, tile and other irregular shapes.
- Adopt B coil + fluxmeter to measure magnetic induction, zero shift of integrator can be self-corrected through software.
- Adopt J coil + fluxmeter to measure magnetical polarization, remnant coil area of J coil can be automatically compensated through software.
- Magnetic field intensity can be measured with Hall magnetometer, nonlinear error of hall probe can be corrected through software, within 0 ~ 2.4T range, nonlinear error can be controlled within  $\pm 0.2\%$ .
- Adopt H coil + fluxmeter to measure magnetic field intensity, Hall magnetometer only used to indicate zero point of magnetic field so as to thoroughly eliminate nonlinear error of hall probe.
- Optimal range of field voltage, fluxmeter and magnetometer can be automatically set up.
- Magnetization, testing and demagnetization of general permanent magnetic sample completed at one time, time set up 20 seconds ~ 60 seconds.

- Rare earth permanent magnetic samples need saturation magnetizing before testing, testing time 60 seconds ~ 120 seconds.
- The sample after tested is in demagnetization or magnetizing status, freely selected by users.
- Select heating head and temperature controller to detect magnetic characteristics of Ferrite, AlNiCo and rare earth material under high temperature (maximal 220°C).
- Select shoe jig for direct measurement on magnetic shoe.