



BANBROS ENGINEERING PVT. LTD.

The Precision Measurement People

COMPUTER CONTROLLED ERICHSEN CUPPING TESTER



BECT-100

**DESCRIPTION: -**

BECT-100 Erichsen cupping tester is mainly used to check the ductility of metal sheet and strip. It conform with ISO 20482:2003 *Metallic materials - sheet and strip - Erichsen cupping test* standard. GB 5125-2008 (Method for deepdrawing cup testing of non-ferrous metal) . Can inspect the ductility deformation performance of tst sample and inspect anisotropism of coloured metal sheet.

Erichsen cupping test mean use certain size steel ball or ball shape punch, press a sample that be loaded a 10KN pressure, till the sample appear a penetrate through crack. Check the deep (mm) at this situation, this deep value is called Erichsen cupping test result value.

1. Adopt advanced new structure, servo motor constant speed loading, constant rate control, microcontroller to control the punching process, can preset the speed.
2. Clamping force is apply by independent hydraulic oil source, can adjust the clamping load, can independent calibrate.
3. Force measuring change from oild sensor to load cell, encoder to measure the cupping value. Our low friction moving device technology used in the punch moving system, improve the test data repeatability, accuracy and reliability.
4. Test fixture easy to change, sample dismantel and installation convenient. install the sample, then press a button will automatically clamping. Can input or change test parameter, punching process is PID control, automatically judge the sample cracking and automatically stop. With watch window, can easy observe sample cracking, for the ultrathin sample can manuallystop the test.
5. Test result is computer display, with peak value memory function, max. punching load, Erichsen cupping value etc., can save the test result, curve drawing, test report etc., one test finish can automatically back to initial condition.

SPECIFICATION: -



Model	BECT-100
Specimen thickness	0.1-4mm
Max. width of Plate Specimen	100mm
Punch max. stroke	100mm
Clamping piston stroke	100mm
Max. punching load	100Kn
Max. clamping load	100Kn
Display resolution	0.01mm
Load accuracy	±1%
Deformation accuracy	±0.5%
Test speed	0.05mm/min -200mm/min
Erichsen Cupping fixture	Standard cupping ball: $\phi 20 \pm 0.05$ mm Standard cushion type die hole: $\phi 33 \pm 0.1$ mm Standard fixed mould hole: $\phi 27 \pm 0.05$ mm
Deep drawing cup fixture (Optional)	Punching head: $d_p \phi 32$ Punching mould: $dd\phi 32.28$; $dd\phi 32.35$; $dd\phi 32.43$; $dd\phi 32.50$; $dd\phi 32.60$; $dd\phi 32.75$; $dd\phi 32.90$; $dd\phi 33.05$; $dd\phi 33.20$; $dd\phi 33.35$; $dd\phi 33.50$; $dd\phi 33.80$; $dd\phi 34.10$; $dd\phi 34.50$; $dd\phi 35.00$; $dd\phi 35.60$; $dd\phi 36.30$; $dd\phi 37.00$
Computer screen display	Punching load, clamping load, displacement, Erichsen cupping value, rate, curve etc.
Control type	Computer control
Hydraulic oil	N46 hydraulic oil
Power supply	220V.
Dimensions	780mm×780mm×1100mm
Weight	260Kg

STANDARD ACCESSORIES: -

Load frame	1 set
Include hydraulic oil station, low friction punching head moving system	1 set
High precision ball leading screw	1 set
AC servo motor	1 set
High accuracy photoelectric encoder	1 set
Load cell	1 set
Computer	1 set
Printer	1 set
Standard Erichsen Cupping fixture Standard cupping ball: $\phi 20 \pm 0.05$ mm Standard cushion type die hole: $\phi 33 \pm 0.1$ mm Standard fixed mould hole: $\phi 27 \pm 0.05$ mm Sample punching mould (optional) ($\phi 55$ or 60ϕ)	1 set
Operation manual	Operation manual
Certificate	1 set
Packing list	1 set