# COMPUTER CONTROLLED ERICHSEN CUPPING TESTER

## DESCRIPTION

HECT-100C  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 deep drawing 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.

☞ Adopt advanced new structure, servo motor constant speed loading, constant rate control, a microcontroller to control the punching process, can preset the speed.

☞ Clamping force is apply by independent hydraulic oil source, can adjust the clamping load, can independent calibrate.

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☞ 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.

☞ Test fixture easy to change, sample dismantel and installtation 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 manually stop the test.

☞ 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 | HECT-100C | | |
|---|---|---|---|
| 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: φ20±0.05mm | | |
| | Standard cushion type die hole: φ33±0.1mm | | |
| | Standard fixed mould hole: φ27±0.05mm | | |
| Deep drawing cup fixture | Punching head:dpφ32 | | |
| (Optional) | Punching mould: ddφ32.28; ddφ32.35; ddφ32.43; ddφ32.50; ddφ32.60; ddφ32.75; ddφ32.90; ddφ33.05; ddφ33.20; ddφ33.35; ddφ33.50; ddφ33.80; ddφ34.10; ddφ34.50; ddφ35.00; ddφ35.60; ddφ36.30; ddφ37.00 | | |
| 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: -

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|---|---|
| **Load frame**<br>**Include hydraulic oil station, low friction punching**<br>**head moving system** | **1 set** |
| **High precision ball leading screw** | **1 set** |
| **AC servo motor** | **1 set** |
| **High accuracy photoelectronic encoder** | **1 set** |
| **Load cell** | **1 set** |
| **Computer** | **1 set** |
| **Printer** | **1 set** |
| **Standard Erichsen Cupping fixture**<br>**Standard cupping ball: ϕ20±0.05mm**<br>**Standard cushion type die hole: ϕ33±0.1mm**<br>**Standard fixed mould hole: ϕ27±0.05mm**<br>**Sample punching mould (optional) (ϕ55 or 60 ϕ)** | **1 set** |
| **Operation manual** | **1 Set** |
| **Certificate** | **1 set** |
| **Packing list** | **1 set** |

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