

## 数显门式电子布氏硬度计 Digital Gantry-Mode Electric Brinell Hardness Tester



HBM-3000C  
小型门式电子布氏硬度计  
Small-Sized Gantry-Mode Electric  
Brinell Hardness Tester



HBM-3000C  
中型门式电子布氏硬度计 Middle-  
Sized Gantry-Mode Electric Brinell  
Hardness Tester



HBM-3000C  
大型门式电子布氏硬度计  
Large-Sized Gantry-Mode Electric  
Brinell Hardness Tester



HBMS-3000C  
大型数显门式电子布氏硬度计  
Large-Sized Gantry-Mode Digital  
Brinell Hardness Tester

### 产品介绍

- HBMS-3000C 数显门式电子布氏硬度计采用先进的设计理念，机电诸方面均采用当今硬度计领域先进技术，检测结果精准，示值重复性强，自动化程度高，是当今国内最先进的布氏硬度计之一，广泛应用于石油机械、铁路器材、汽车轮毂、飞机制造、矿山机械、特殊钢等行业；
- 机身及工作台采用精密铸造工艺，构造坚固、刚性好、精确、可靠、耐用；
- 门式机架，大型可移动工作台，最大移动距离 1000mm；
- 配备布氏 CCD 图像自动测量系统，图像处理模块可对压痕进行封闭式抓拍，自动显示布氏硬度值并完成硬度单位换算，保存测试数据组并自动生成硬度测试报告及报表。测试数据保存于离线数据库中；
- 测试机构采用高精度轮辐式压力传感器；加载装置内置精密压力传感器，试验力值精确、稳定可靠，并具备试验力自动补偿功能；
- 采用自主研发的数显门式电子布氏硬度计专用数控系统，运行速度快，全闭环由快到慢梯度施加试验力，确保了试验力施加平稳无冲击；
- 采用当代先进高速微处理器，瞬间响应快，保证试验力精度稳定在  $\pm 1\%$  以内；
- 步进电机，高精度滚珠丝杠及直线导轨；定位精确，维护简便；
- 试验力、加载饱和时间、进给速度、测试速度可人为调整控制；
- 自动化测量，消除人为操作干扰与读数误差；
- 精度符合 GB/T231.2-2018, ISO 6506-2 和美国 ASTM E10。

### Product Features

- HBMS-3000C digital Gantry-Mode electric Brinell hardness tester with advanced design concept, mechanical and electrical aspects are used advanced technology in the field of hardness tester, accurate test results, strong repeatability indicating value and high degree of automation., is one of the most advanced Brinell hardness tester in China, widely used in petroleum machinery, railway equipment, automobile hub, aircraft manufacturing, mining machinery, special steel and other industries;
- The machine body and worktable adopt precision casting technology, which is firm, rigid, accurate, reliable and durable;
- Gantry-Mode frame, large movable table, maximum movement distance 1000mm;
- Equipped with Brinell CCD image automatic measurement system, the image processing module can take the closed snapshot of indentation, automatically display the Brinell hardness value and complete hardness unit conversion, save the test data group and automatically generate hardness test report and statement. The test data is stored in an offline database;
- Adopt the Self-Developed gate-type electronic Brinell hardness tester special numerical control system, fast running speed, full closed loop from fast to slow gradient applied test force, ensure the test force exerted smooth and no impact;
- Adopt the modern advanced high speed microprocessor, the instantaneous response is fast, ensure the test force accuracy is stable within  $\pm 1\%$ ;
- Stepper motor, high precision ball screw and linear guide, accurate positioning and easy maintenance;
- Testing force, loading saturation time, feed speed and testing speed can be adjusted manually

- The test process is automated without operation error;
- Automatic test, Eliminate manual operation interference and reading error;
- Accuracy is in line with GB/T231.2-2018, ISO 6506-2 and ASTM E10.

### 主要参数 Main Parameters

|   |  |
|---|--|
| 测量范围<br>Range of Measurement  | 5-650HBW   |
| 试验力<br>Test Force   | 187.5、250、500、750、1000、1500、3000kgf<br>(1838.8、2415.8、4903.5、7355.3、9807、14710.5、29421N) |
| 试件允许最大高度<br>Available Maximum Height of Specimen                          | 950mm (可定制)  |
| 硬度测试机构的横向移动距离<br>Lateral Moving Distance of<br>Hardness Testing Mechanism | 650mm  |
| 工作台尺寸 (长 * 宽)<br>Worktable Size   | 1500X1000mm  |
| 工作台最大移动距离<br>Maximum Moving<br>distance of Worktable                      | 1000mm   |
| 两立柱中心距离<br>Central Distance<br>between Two Columns                        | 1350mm (可定制)   |
| 工件台最大载重量<br>Maximum Load of Workpiece                                     | 4000kg   |
| 硬度分辨率<br>Hardness Resolution  | 0.1HBW   |
| 电源<br>Power Supply  | AC 220V, 50Hz  |
| 外形尺寸<br>Outline Dimension   | 2000x1500 x 2000 mm  |
| 重量<br>Weight  | 3000kg   |

### 配置明细 Configuration List

|  |               |
|--|---------------|
| 门式电子布氏硬度计主机<br>Mainframe Machine               | 1 台<br>One Pc |
| 控制柜<br>Control Cabinet                         | 1 台<br>One Pc |
| 品牌电脑<br>Brand Computer                         | 1 台<br>One Pc |
| 布氏自动测量系统<br>Brinell Automatic Measuring System | 1 套<br>One Pc |
| 20 倍读数显微镜 (JC-10)<br>20X Reading Microscope    | 1 个<br>One Pc |

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| 布氏硬质合金压头 (Φ2.5/Φ5/Φ10mm)<br>Brinell Carbide Head       | 各 2 个<br>Two Pcs Each Type |
| 布氏硬质合金钢球 (Φ2.5/Φ5/Φ10mm)<br>Brinell Carbide Head       | 各 6 粒<br>Six Pcs Each Type |
| 标准布氏硬度块 HBW100 ± 25<br>Standard Brinell Hardness Block | 2 块<br>Two Blocks          |
| 标准布氏硬度块 HBW200 ± 25<br>Standard Brinell Hardness Block | 2 块<br>Two Blocks          |