

Introduction

This series of bending testing machine is designed with 3-cylinder structure, allowing fast and freely adjusting the span and fulfilling 180 degree bend test. It is widely used for bending test of metallic materials. It provides with constant loading rate and constant displacement rate control, able to switch from one to the other. This equipment is widely used in steel industries, quality lab, research institutes, universities and etc.

Working principal

One upper-positioned cylinder applies the force to bend specimen to preset angle, then two opposite horizontal-placed cylinders bend the specimen to required angle. It can satisfy precise 180 degree bending test with high efficiency and easy-to-operate.



Features:

- One-body cast steel structure with high stiffness
- 3-cylinder design to perform any angle bending test
- Compact structure with ergonomic design
- Two horizontal-positioned cylinders are controlled by highly precise synchronous valve with error less than 2%
- Easily switch between automatic and manual bending test
- Force measurement is guaranteed by high accuracy load cell, with high reliability and repeatability
- Displacement is measured by photoelectric encoder with high accuracy and stability
- Self-calibration: force and displacement can be calibrated automatically according to test standards
- Silent HPU features environmental-friendly and humanized design. Unique pressure differential follow-up system allows low energy consumption and low heat generation
- High speed DSP control electronics provides high integrity, strong control and data processing ability, and high reliability
- Closed loop control and measurement of stress, strain and displacement. Control loops can switch automatically and smoothly. Control algorithm adopts advanced neural element self-adapting PID. Ne
- Data acquisition system and position capturing system. Data acquisition system consists of 8 channels of 24 bit A/D exchange; effective resolution is 1/350000 with non-step in full range.
- Data exchange between hardware and software via USB 1.1 interface and velocity of 12Mb/s. USB is main direction of development of communication, which has merits of high communication velocity, variety of communication mode(such as controlling , breaking, batch, real time ,etc.), and will be the main mode of communication.
- Built-in overload protection both in hardware and software

Standards:

GB/T 14452-93, GB/T 232-1999, ISO 7438

Parameters:

Model	HBT505A	HBT106A	HBT206A
Max vertical force	500	1000	2000
Maximum horizontal force	300	400	1000
Accuracy	Class 1		
Frame structure	One-body cast steel		
Force resolution	1/350000		
accuracy in synchronism	<2%		
Displacement resolution	0.007mm		
Displacement accuracy	±1% of reading		
Support roller/bending nose (mm)	Φ30×130/Φ1-Φ75	Φ80×200/Φ5-Φ160	Φ80×210/Φ5-Φ160
Maximum specimen thickness(mm)	20	40	40
Vertical compression speed (mm/min)	350	240	240
Horizontal compression speed (mm/min)	2×300	2×240	2×240
Maximum piston travel(mm)	150	350	350
Maximum span (mm)	150	360	360
Dimension (mm) (Length x width x height)	950×550×1850	1580×530×2200	1660×680×2260
Weight(kg)	1000	2800	4200
Power requirements	5kW(380V)+2kW(220V)	8kW(380V)+2kW(220V)	12kW(380V)+2kW(220V)



Shenzhen Wance Testing Machine Co., Ltd.

Fuxinfa Industrial Park, Liuxiandong, Xili,

Nanshan District, 518055, Shenzhen, China

Tel: +86-755-23057996 Fax: +86-755-23057995

Email: sales@wance.net.cn

www.wance.net.cn www.wance.net