



MTS Exceed® E22 Series Pendulum Impact Test Systems for Metals

Featuring integrated auto specimen feeding device with cooling chamber

Features

- » Rugged cast iron frame absorbs shock and vibration
- » High-resolution, frictionless encoder for accurate measurement of impact angle
- » Motorized pendulum
- » Reliable disc brake for quick pendulum braking
- » New pendulum structure design that helps prevent stuck samples
- » Ergonomic control panel with touchscreen display
- » Automatic pendulum interlock when enclosure door is opened
- » CE, USTC compliance

The rugged and thoughtfully engineered MTS Exceed Pendulum Impact Test Systems for Metals are ideal for measuring the energy absorption of a metallic specimen during impact. With an easy-to-operate control system, stable transmission system, reliable disc brake, new pendulum and frame design, these systems execute accurate, reliable Charpy impact tests.

To increase productivity and minimize operator error, this system includes an auto specimen feeding device and integrated cooling chamber. The auto specimen feeding device ensures the specimen is struck at the correct temperature within the five second testing requirement.

Conducting impact tests also requires careful consideration of safety requirements, and these systems include several features to maximize safe and reliable operation.

The transmission system uses precision bearings and two-stage reducer for smooth and steady pendulum operation. The system has an interlock feature that will stop the pendulum in the event of power loss, or if the machine enclosure is open.

The MTS Exceed Pendulum Impact Test Systems provide a solid foundation for establishing global standardized testing procedures. The multi-language interface and compliance with ISO and ASTM standards make it a good choice for global institutions and corporations. These systems can be quickly configured, delivered and installed to meet your specific testing requirements; and all MTS Exceed systems are backed by the MTS global service and support team. This highly experienced team is committed to maintaining system uptime and operational efficiency.

be certain.

Metals Test Standards

Standard	Description
GB/T 229	Charpy pendulum impact tester method
ASTM E23-12c	Standard test methods for notched bar impact testing of metallic materials
ISO 148-1	Metallic materials – Charpy pendulum impact test
EN 10045-1	Charpy impact test on metallic materials
GOST 9454-78	Metals impact test at low, room and high temperature

Pendulum (without striker)

	Pendulum Energy	Pendulum Part Number
ISO	150J	100301702
ISO	300J	100301700
ISO	450J	100301699
ASTM	150J	100301702
ASTM	300J	100301700
ASTM	450J	100301699

Pendulum Striker

	Striker Part Number
ISO (R2 mm)	100304355
ISO (R8 mm)	100282954
ASTM	100304353

Automated Specimen Feeder Specifications

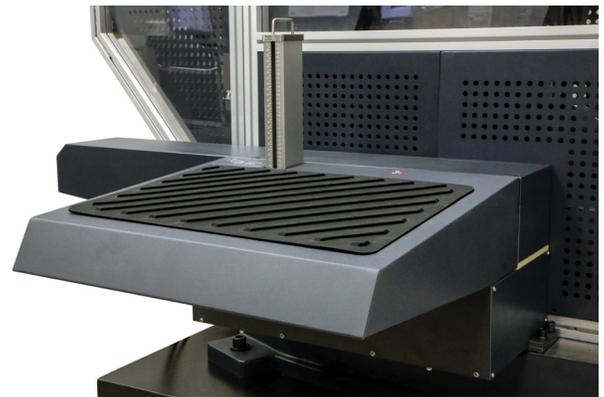
Mode	EAFF1182
Specimens:	
Maximum specimen count per load	30
Applicable dimensions (L*W*H)	55 mm x 10 mm x 10 mm 55 mm x 10 mm x 7.5 mm 55 mm x 10 mm x 5 mm
Cooling Method	Liquid Nitrogen
Cooling Capacity	Up to -180°C
Temperature Accuracy	±1°C
Feeding Time	≤3.5 seconds
Air Pressure Requirement	0.5-0.7 Mpa or 5-7 bar

EXCEED E22 SERIES SYSTEM SAFETY FEATURES:

- » Fully enclosed test space protection
- » Integrated safe pin allows safe operation during system maintenance
- » Air pressure monitoring to prevent system failure
- » Compliant with MACHINERY 2006/42/EC, ISO 12100 and ISO 13849-1

Specifications

Model	E22.452
Maximum impact energy	450J
Pendulum pre-elevation	150°
Minimum angle resolution	0.025°
Distance between pendulum center and impact point	750 mm
Impact speed	5.24 m/s
Strike blade radius	2 mm or 8 mm
Dimension of the main tester (W x H x D)	2240 x 902 x 2145 mm
Weight	1200 kg
Impact test result, digital display	Impact energy (kJ) Impact strength (kJ/m ²)
Functions	Friction loss correction Automatic calculation of the pendulum length Brake Linkable printer Linkable PC
Interface	RS 485
Power supply	200-240 V AC, 5A, 50/60 Hz, 1 kW, single phase
Features	Pendulum zeroing Powered hammer lift Auto pendulum brake USB flash drive data download port PC or panel control CE certified



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 100-308-285b ExceedE22Impact • Printed in U.S.A. • 5/18