

ITM-S series

ITM-S series impact tester for metal and other materials, fully complying to ISO 148, EN 10045, ASTM E23, GOST 9574 with impact energy ranging 150J, 300J, 450J, 600J and 750J.

- One-body cast frame design structure provides high stability and rigidity.
- Front and rear columns are symmetrical and pendulum arm is designed as cantilever beam support.
- ITM-S series is equipped with small friction high precision bearings. Absorbed energy without loading less than 0.3%.
- Double reduction gear system replaces the old drive system with high efficiency avoiding transmission failure.

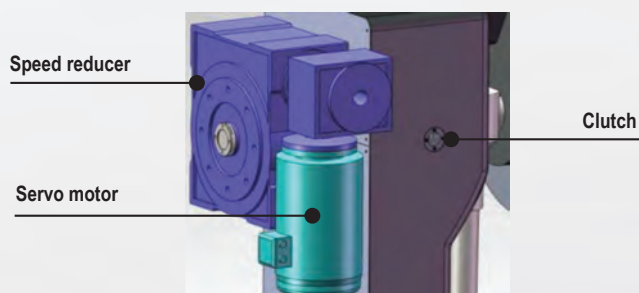


- Round pendulum head design reduces the windage losses and its arm prevents axial and transverse vibrations.
- Structure designed to change different pendulums easily.
- Impact testing machines equipped with electromagnetic hammer release system and clutch for locking and raising to initial position, dumper to prevent strong bump.
- ITM-S series equipped with Siemens PLC for tester controls and with high precision rotary encoder NEMICON, to measure the angle with resolution of 0.025° to ensure high accuracy of impact energy

Three available versions:

- ITM-SD with analogue dial gauge and touch screen display
 - ITM-SC with computer connection and software echoTestPilot
 - ITM-SI with instrumented impact system consisting in striking knife with force transducer, data sampling card, signal conditioner and test software
- For all versions are available, as optional, automatic specimen feeding systems and the related automatic cooling systems up to -180°C, combined with software allow fully automatic impact testing.

Model		ITM-SD1	ITM-SC1	ITM-SI1	ITM-SD2	ITM-SC2	ITM-SI2
Max Energy	J	450			750		
Analog display	-	Included	Included	Included	Included	Included	Included
Touch screen	-	Included	Included	Included	Included	Included	Included
Software and RS232 cable	-	N/A	Included	Included	N/A	Included	Included
Instrumented impact system	-	N/A	N/A	Included	N/A	N/A	Included
Pendulum moment 150J	Nm	80.3848					
Pendulum moment 300J		150.7695					
Pendulum moment 450J		241.1543					
Pendulum moment 600J		321.5390					
Pendulum moment 750J		401.9238					
Angle resolution	°	0.025					
Striking angle	°	150±1					
Distance from support axis to percussion center	mm	750					
Striking velocity	m/s	5.4					
Support span	mm	40					
Radius of support curvature	mm	1					
Angle of support taper	°	11±1					
Striking edge radius	mm	2					
Striking thickness	mm	16					
Striking tip angle	°	30					
Specimen dimensions	mm	55x10x10					
	mm	55x10x7.5					
	mm	55x10x5					
Motor power	kW	1.5					
Power supply	V-Hz-ph	400-50/60-3					
Dimensions	mm	2124x835x2100					
Weight	kg	1000					



Included accessories

SIEMENS PLC
 Full-closed protection cover
 Pendulum lock/release system
 Driving system
 Angle measurement system
 Anchor bolts
 Span block
 Specimen centering block
 Centering tongs
 Wedge block
 Specimen collection device

Accessories

CPITM-S15	Charpy pendulum without striker knife 150J (For versions ITM-SD and ITM-SC)
CPITM-S30	Charpy pendulum without striker knife 300J (For versions ITM-SD and ITM-SC)
CPITM-S45	Charpy pendulum without striker knife 450J (For versions ITM-SD and ITM-SC)
CPITM-S60	Charpy pendulum without striker knife 600J (For versions ITM-SD and ITM-SC)
CPITM-S75	Charpy pendulum without striker knife 750J (For versions ITM-SD and ITM-SC)
CPITM-SIIS15	Charpy pendulum with instrumented striker knife 150J (For version ITM-SI)
CPITM-SIIS30	Charpy pendulum with instrumented striker knife 300J (For version ITM-SI)
CPITM-SIIS45	Charpy pendulum with instrumented striker knife 450J (For version ITM-SI)
CPITM-SIIS60	Charpy pendulum with instrumented striker knife 600J (For version ITM-SI)
CPITM-SIIS75	Charpy pendulum with instrumented striker knife 750J (For version ITM-SI)
CSKR2	Charpy striker knife ISO 148, R2
CSKR8	Charpy striker knife ASTM E23, R8

NOTE: Choose the knife between ISO 148, R2 or ASTM E23, R8

Instrumented impact system

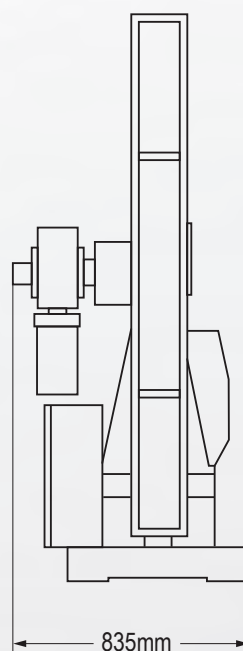
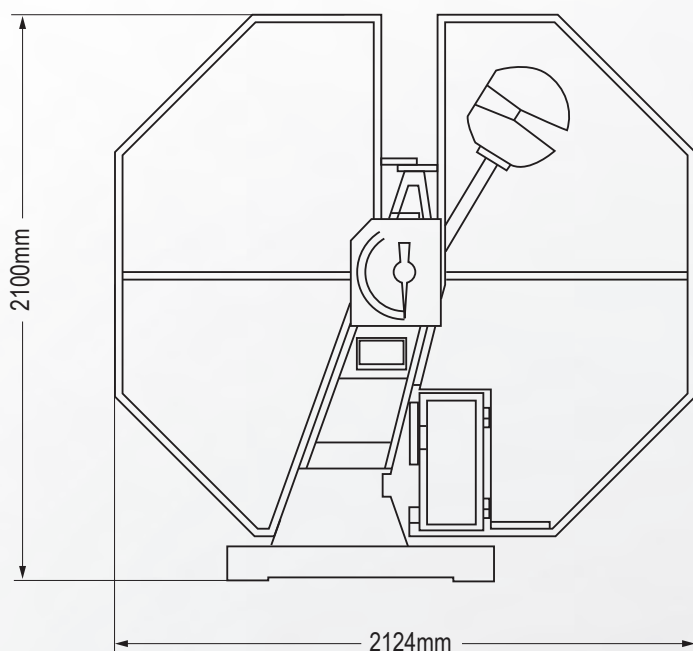
Force transducer	kN	30/50
A/D sampling resolution	bits	16
Maximum sampling frequency	MHz	1.25
Frequency band width	kHz	500
Motor power	kW	0.1
Power supply	V-Hz-ph	230-50/60-1

Computer System

Computer System	ECHOCS01	Computer
	ECHOCS02	Monitor
	ECHOCS03	Color printer
	ECHOCS04	Mouse
	ECHOCS05	Keyboard

Optional accessories

AFS100	Automatic specimen feeding system to test 40 specimens at time continuously at room temperature
AFS180	Automatic specimen feeding system to test 18 specimens at time continuously at room temperature
ACS100	Cylinder liquid nitrogen cooling capacity 160L
	Automatic cooling system to use with model AFS100
ACS180	Temperature range from environment to -100°
	Cylinder liquid nitrogen cooling capacity 160L
ACS180	Automatic cooling system to use with model AFS180
	Temperature range from environment to -180°
BMA 350	Motorized notching machine
NPP 50	Notch profile projector
CCS 40	Low temperature chamber -40°C
CCS 60	Low temperature chamber -60°C
CCS 80	Low temperature chamber -80°C
CCS 110	Low temperature chamber -110°C





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