



## ITM-MP series

## ITM-MP series impact tester for:

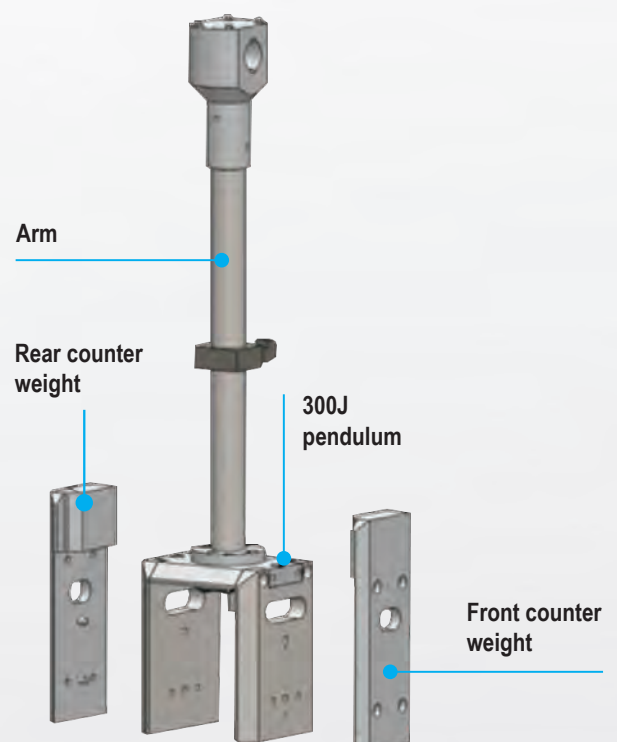
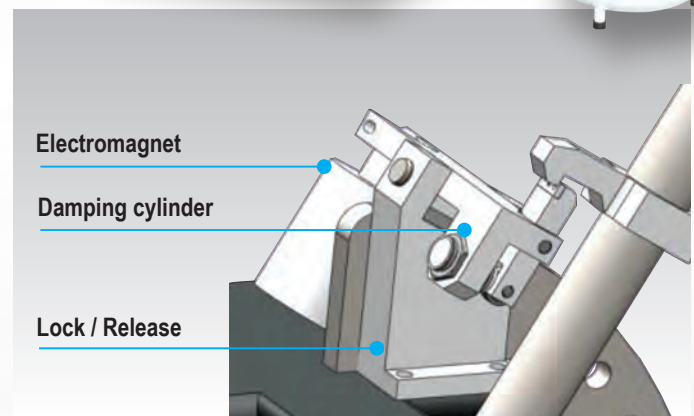
- > Charpy and Izod
- > Tensile impact test
- > Wedge impact test of adhesive bond
- > Bruggen method test of toothed gear wheels
- > fully complying to ISO 148, ISO 14556, ISO 11343, >EN 10045, ASTM E23, ASTM E1820, ASTM E2298, GOST 9574, JIS Z 2242, JIS B 7722 with impact energy 150J, 300J, 450J, 600J and 750J.



- > Heavy solid steel base machine structure for anvil and heavy-duty cast steel uprights supports.
- > 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-MP 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 versions available:

- ITM-MPD with analogue dial gauge and touch screen display
  - ITM-MPC with computer connection and software echoTestPilot .
  - ITM-MPI 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.
- > ITM-MP series supplied with pendulums projected to ensure accurate striking point and moment.
- > High stiffness pendulum rod, no vibration after impact.
- > 450J pendulum consists in 300J pendulum with two counter weights. This flexible design facilitates switching impact energy.



➤ ITM-MP series standard configuration includes Charpy support and anvil with a smart design and easy to assemble, possibility to install multi-purpose fixture for Charpy, Izod and Tensile impact tests.

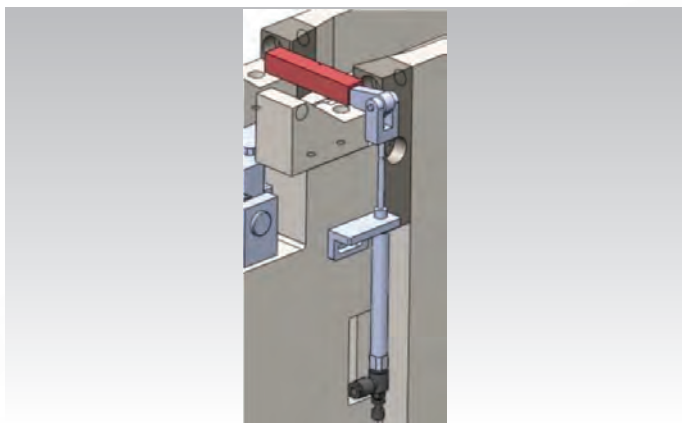
## Multi-purpose fixtures available:

### Manual type:

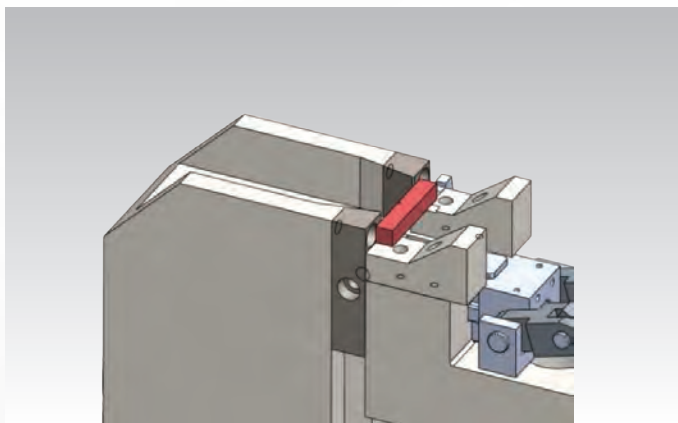
- For Charpy test with manual sample centering
- For Izod test with manual sample clamp

### Pneumatic type:

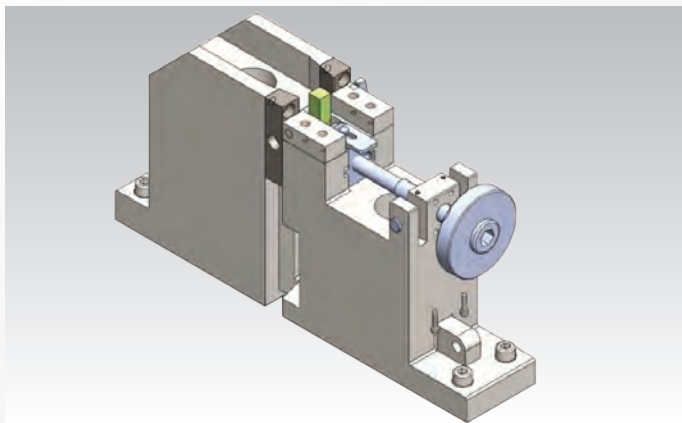
- For Charpy test with pneumatic cylinder sample centering
- For Izod test with pneumatic cylinder sample clamping



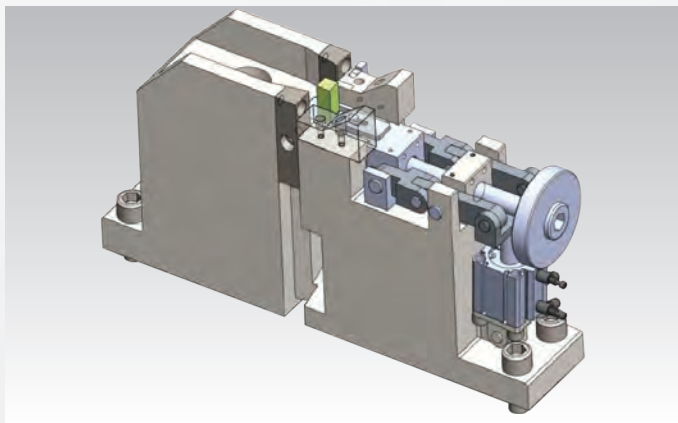
Charpy pneumatic type



Charpy manual type



Izod manual type



Izod pneumatic type

## ITM-MP series

Model		ITM-MPD	ITM-MPC	ITM-MPI
Max Energy	J	450		
Analog display	-	Included	Included	Included
Touch screen	-	Included	Included	Included
Software and RS232 cable	-	N/A	Included	Included
Instrumented impact system	-	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	°	30-150 adjustable		
Distance from support axis to percussion center	mm	750		
Striking velocity	m/s	5.24		
Support span	mm	40		
Radius of support curvature	mm	1		
Angle of support taper	°	11±1		
Striking edge radius	mm	2(R2) or 8(R8)		
Striking thickness	mm	16		
Striking tip angle	°	30		
Specimen dimensions	mm	55x10x10		
	mm	55x10x7.5		
	mm	55x10x5		
Motor power	kW	0.8		
Power supply	V-Hz-ph	400-50/60-3		
Dimensions	mm	1960x680x2000		
Weight	kg	800		

**Included accessories**

SIEMENS PLC  
 Full-closed protection cover  
 Pendulum lock/release system  
 Driving system  
 Angle measurement system  
 Servo motor  
 Anchor bolt  
 Charpy support and anvil compliance with ISO and ASTM  
 Span block  
 Specimen centering block  
 Centering tongs  
 Wedge block  
 Specimen collection device

**Accessories**

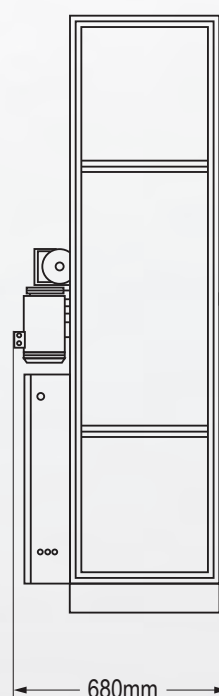
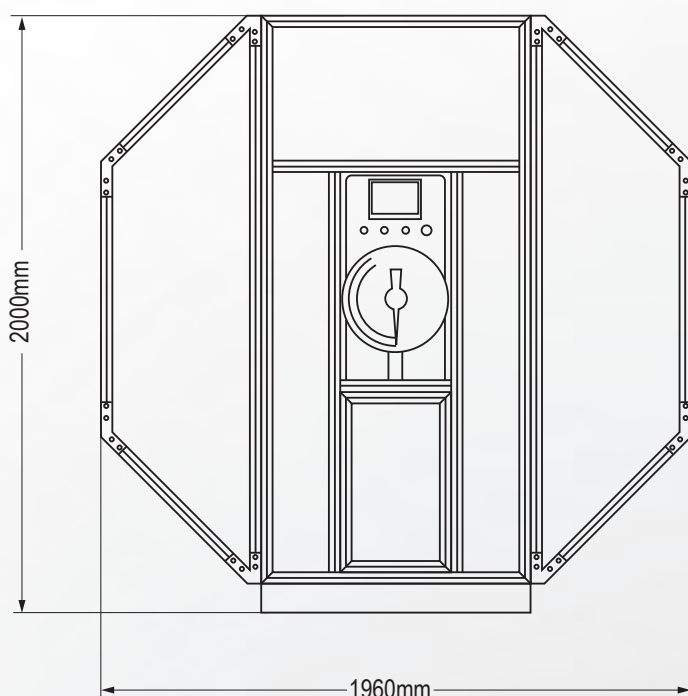
Model	Description
PITM-MP15	Pendulum without striker knife 150J
PITM-MP30	Pendulum without striker knife 300J
PITM-MP45	450J pendulum counter weights assembled on 300J pendulum
CSKR2	Charpy striker knife ISO 148, R2 (For versions ITM-MPD and ITM-MPC)
CSKR8	Charpy striker knife ASTM E23, R8 (For versions ITM-MPD and ITM-MPC)
ISKI	Izod striker knife ASTM E23 (For versions ITM-MPD and ITM-MPC)
IISSK2I	Instrumented Charpy striking knife ISO 148, R2 with 30kN force transducer (For version ITM-MPI)
IISSK8I	Instrumented Charpy striking knife ISO 148, R8 with 30kN force transducer (For version ITM-MPI)
IISISKI	Instrumented Izod striker knife ASTM E23 (For versions ITM-MPI)
FIX010	Manual specimen fixture for Charpy and Izod
FIX020	Pneumatic specimen fixture for Charpy and Izod
FIX030	Tensile impact fixture for round specimen
FIX040	Tensile impact fixture for flat specimen
AP004	Air pump tfor with model FIX020

**Instrumented impact system**

Model	Description	
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

**Optional accessories****Automatic system**

Model	Description
AFS100	Automatic specimen feeding system to test 40 specimens at time continuously at room temperature
AFS180	Automatic specimen feeding system to test 12 specimens at time continuously at room temperature
ACS100	Cylinder liquid nitrogen cooling capacity 160L Automatic cooling system to use with model AFS100 Temperature range from environment to -100°
ACS180	Cylinder liquid nitrogen cooling capacity 160L 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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