

Material Testing System

Creep Tester
Charpy Impact Tester
Horizontal Impact Tester
Drop Impact Tester



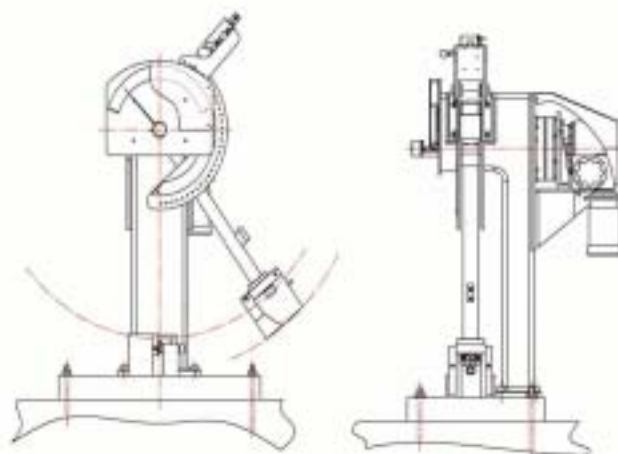
MATERIAL TESTING SYSTEM

We are developing and supplying equipment for test and inspection of various materials, based on research of force occurring from various disciplines.

Test systems such as 'high-collision test' and 'creep test' system provide values for dynamic characteristics for various industrial materials. That is, 'High-collision test machine' tests the characteristics of materials under the shock environment and the Creep Test System that tests creep characteristics with respect to the continuous load provide values for dynamic characteristics for various industrial materials, paving a way for development of new materials and products.

Impact Test Machine

Pendulum Type Impact Tester



Charpy Impact Tester for the determination of the resistance of plastics and metals to breakage by flexural shock as indicated by the energy extracted from a simple beam apparatus employing a pendulum-type hammer.

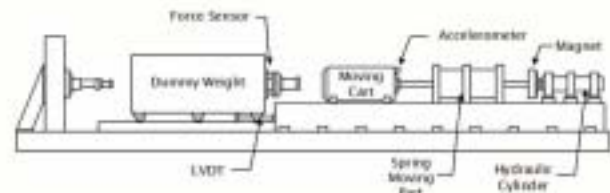
The results are reported in terms of energy absorbed per unit of specimen area, or more specifically, the energy absorbed in breaking the specimen which is equal to the difference between the potential energy at the moment of impact and the residual energy. It is possible to test of three type as follows,

- Charpy Impact Test
- Izod Impact Test
- Tension Impact Test

SPECIFICATION

Model	PW-AIT300J	PW-AIT400J	PW-AIT550J
Test Type	Pendulum type		
Velocity of Striking	3 – 5.4 m/s		
Impact energy range	300J	400J	550J
Pendulum Weight	22.24	32.8kgf	36.8kgf
Distance of Percussion	880mm	880mm	880mm
Total Loss	≤ 0.75 %		
Resolution	≥ 0.2 %		
Dimensions	1600 × 1800 × 1180	2000 × 1800 × 1180	2202 × 1800 × 1180

Horizontal Type Impact Tester



Test Type		Horizontal Impact Type		
Model		PW-HIT-005J-01	PW-HIT-010J-01	PW-HIT-020J-01
Max. Impact Speed		60 km/h (and over)		
Max. Impact Mass		200 kgf	500 kgf	1,000 kgf
Max. Impact Energy		5,000 J	10,000 J	20,000 J
Capacity of Target Well		2 t	5 t	10 t
Moving Cart	Mass	50 kg	80 kg	130 kg
	Deadweight	50 kg (3ea)	100kg (4ea) 20 kg (1ea)	100 kg (8ea) 70 kg (1ea)
Data Acquisition and Control System		Accelerometer : 0.01 mV/ m/s ² , 10 kHz Force Sensor : 60 klb (and over), 0.1 mV/lb, 50 kHz LVDT : 10", 2.8 mV per V/mm A/D Converter : 1.25 MS/s, 12 Bit, 16 CH, 8 DIO		

- This high speed impact tester is the machine to be used for testing the impact characteristic by letting Moving Cart collide with a specimen.
- By adjusting the stroke of spring, the impact energy can be controlled, and Data trigger system uses electromagnet.
- The moving cart is accelerated using hydraulic force and spring reaction.
- Using accelerometer, force sensor, LVDT, A/D Converter, Measuring the data and controlling the system is performed.

Drop Type Impact Tester



Test Type		Drop Impact Type		
Model		PW-DI-500 J	PW-DI-1000 J	PW-DI-1500 J
Max. Test Velocity		4.5 m/s	6.3 m/s	7.74 m/s
Impact Energy Range		3~500 J	3 ~ 1000 J	3 ~ 1500 J
Software Calculation		Impact energy , Total energy , Yield energy, Failure Energy Impact velocity, Slow down velocity, Rebound velocity Maximum load, Yield load, Failure load Deflection at max. load * more additional calculation is possible.		

- Generating the force by dropping impactor
- Control of arbitrary impact position
- High impact speed using pneumatic acceleration device
- Measurement of speed and impact force data
- Graphic user interface
- OS: Windows based (95/98/2000/XP/NT)
- Programming using of Labview
- Able to modify the software in parts as needed.

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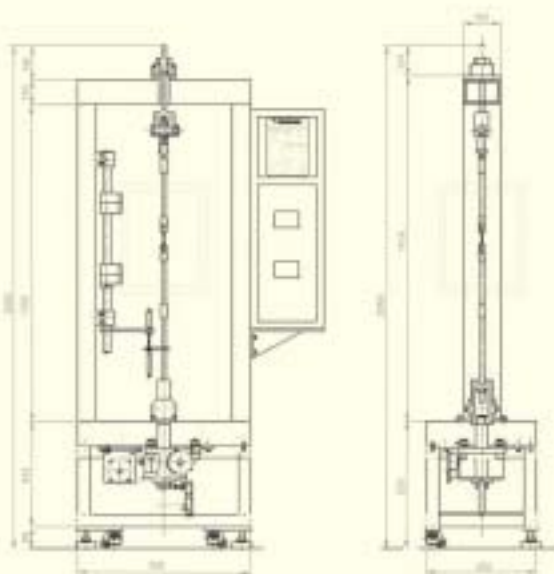
High Temperature Material Strength, Creep TMF



▲ Auto creep tester,
Loadcell type

FEATURES

- Direct loading by high power motor without deadweights
- Precise load control using high accuracy load cell
- Compact size without lever and deadweights
- Programmable load control possible for :
 - Cyclic creep test
 - Constant load or constant stress test
 - Thermo-mechanical fatigue (TMF) test with temperature control (option)
- Professional software for data acquisition and control



Model. PACT-5000
Max. Loading 5,000 kgf



- Automatic Measuring and Recording
- Data Reduction for Efficient File Sizing
- Data Back-up and Emergency Recovery
- Graphic User Interface
- OS : Windows 95 / 98 / 2000 / NT
- Setting Control Parameters of DAQ System
- Maximum 16 M/C Simultaneously