

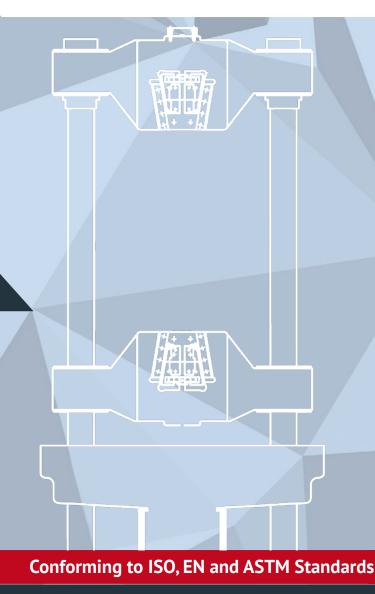


# UNIVERSAL Testing Machines

700 | 1000 | 1200 | 1500 | 2000 | kN capacity

#### Standards

EN ISO 6982 | EN ISO 7500-1 | EN ISO 15630-1 | ASTM A 370 |



# **STEEL**

- ► Tensile tests on steel rebars and rounds
- ▶ Tensile test on steel flats
- ▶ Tensile tests on wire strands and electro-welded steel screen
- ► Transverse tests on steel specimens
- ▶ Bend and re-bend tests on steel specimens
- ▶ Brinnel with 10mm ball
- ▶ Shear tests on rounds

# CONCRETE

- ➤ Compression tests on cubes and cylinders
- ► Flexural tests on concrete beams
- ► Indirect tensile on cylinders, cubes and paving blocks
- ► Determination of the Modulus of elasticity
- ▶ Pull out test

# **VARIOUS**

- Compression tests on rock, masonry units, refractories, etc
- ▶ Wire rope tensile tests
- ▶ Nut bolt testing
- ► Tensile test on headed and shouldered specimens













The ideal solution for Central Laboratories. Powerful hydraulic system which offers high test throughput improving the efficiency of the laboratory. Also suitable for controlling a second frame for Concrete compression up to 5000 kN and flexural tests.

The range includes four models of 1000 kN, 1200 kN, 1500 kN and 2000 kN cap. All models are controlled by the new and sophisticated computerized HPU 200 control unit and are complete with PC, upper and lower hydraulically operated

jaws, complete set of grips for rounds and flats, transverse test attachment and high precision load cell providing high accuracy from the very beginning of the load scale.

#### FRONT OPEN CROSSHEAD

For easy insertion of tensile specimens by just pulling from the front. Hydraulic gripping system operated by push button panel.

#### **RUGGED FOUR COLUMN FRAME**

Extremely rigid four column frame with large vertical clearance adjustable by using the dedicated push button panel.

#### **COMPLETE RANGE**

From 1000 kN up to 2000 kN capacity.

#### HIGH ACCURACY WITH LOAD CELL

Load measurement by high precision load cell providing high accuracy from 1% of the full scale.



### SUPERIOR HYDRAULICS

Oil flow (max 3.2l/min) control by servo-controlled proportional valve for high throughput of accurate tests.

#### **SECOND FRAME CONTROL\***

Normally adopted to connect concrete compression up to 5000 kN cap or any flexural frame.

#### PC CONTROLLED

Completely automatic test execution.

#### SOFTWARE PACKAGES INCLUDED

Supplied complete with management software and software packages concerning wide range of tests on steel, concrete and other construction material.

#### **ELASTIC MODULUS TEST\***

Prearrangement of the Hydraulic system to perform the Modulus of Elasticity test on concrete.

# Tecnical specifications

Models	70-T10H02	70-T12H02	70-T15H02	70-T20H02
Capacity kN	1000	1200	1500	2000
Max round specimen, dia mm	60	60	60	78
Max flat specimen, wxt mm	60x90	60x100	60x100	72x100
Max vertical clearance for compression/tension mm	850	850	850	850
Load resolution kN	0.01	0.02	0.02	0.02
Crosshead displacement resolution mm	0.01	0.01	0.01	0.01
Machine class 1 range (EN ISO 7500-1) kN	10-1000	12-1200	15-1500	20-2000

# AUTOMAX-I



The ideal solution for Commercial laboratories and Educational purposes. Featuring almost the same performances of the HPU 200 Series at a more affordable price thanks to the application of the AUTOMAX T technology.



This model is controlled by the new AUTOMAXT Control Console and is complete with PC, upper and lower hydraulically operated jaws, complete set of grips for rounds and flats, transverse test attachment and high precision load cell providing high accuracy from the very beginning of the load scale

**HUTUMFIX** 

#### FRONT OPEN CROSSHEAD

For easy insertion of tensile specimens by just pulling from the front. Hydraulic gripping system operated by push button panel.

#### PC CONTROLLED

Completely automatic test execution.

#### **SOFTWARE PACKAGES INCLUDED**

Supplied complete with management software and software packages concerning wide range of tests on steel, concrete and other construction material.

## **RUGGED FOUR COLUMN FRAME**

Extremely rigid four column frame with large vertical clearance adjustable by using the dedicated push button panel.

#### **ENERGY SAVING TECHNOLOGY**

ES Energy saving technology (max 0.9 l/min) by regulating the DC motor speed.

#### HIGH ACCURACY WITH LOAD CELL

Load measurement by high precision load cell providing high accuracy from 1% of the full scale.

# **ELASTIC MODULUS TEST**

Suitable to perform the Modulus of Elasticity test on concrete.

## **Tecnical specifications**

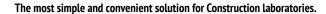
Models	70-T10T02	
Capacity kN	1000	
Max round specimen, dia mm	60	
Max flat specimen, wxt mm	60x90	
Max vertical clearance mm	850	
Load resolution kN	0.01	
Crosshead displacement resolution mm	0.01	
Machine class 1 range (EN ISO 7500-1) kN	10-1000	

C@NTROLS











flats, transverse test attachment and high precision pressure transducer.

#### **RUGGED FOUR COLUMN FRAME**

Extremely rigid four column frame with large vertical clearance adjustable by using the dedicated push button panel.

#### **TENSILE GRIPS**

Complete set of grips for rounds and flats.



#### **SOFTWARE PACKAGE**

Data acquisition and test results elaboration by intuitive and very comprehensive software (included).

#### **AUTOMATIC SYSTEM**

Completely automatic test execution of tension and compression tests.

#### HYDRAULIC UNIT

DC motor with dual stage pump: centrifugal low pressure for fast approach (max. flow rate 2.5 l/min) automatically switching to radial multi- piston high pressure (max. flow rate 0.9 l/min) for loading.

## **Tecnical specifications**

70-T07P02	70-T10P02	
700	1000	
70	70	
65x70	65x70	
850	850	
0.01	0.01	
0.01	0.01	
50-700	50-1000	
	700 70 65×70 850 0.01	

# **Test accessories**



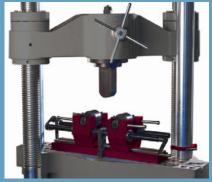
**Extensometer for strands** 



Universal extensometer



Coaxial extensometer



Bend and rebend on steel



Grips for strands testing



Double shear test device

ONCRET



Splitting on concrete

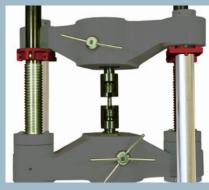


Flexure on concrete



Elastic modulus on concrete

ARIOU



Tension on threaded and shouldered head samples



Wire rope test accessories



Nut and bolt test accessory



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