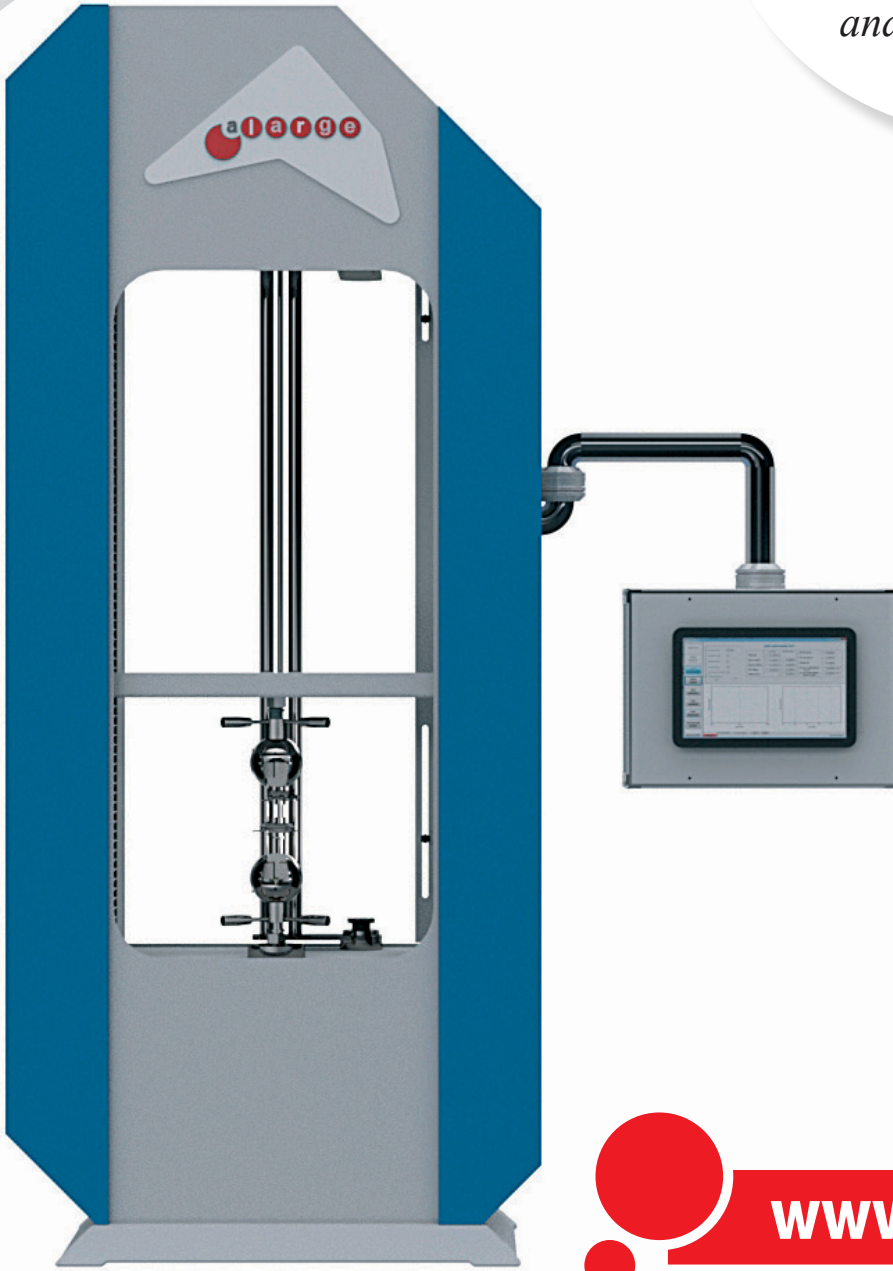




AGILE, ROBUST,  
SMART LAB SYSTEM.  
SUSTAINABILITY AND RESILIENCE.

## AL UN UNIVERSAL TEST MACHINE

*and multiaxis load  
solutions*



Alarge AL-UN machine compliance with **ISO 527, ISO 6259, ASTM D 638, ASTM D 624, ASTM D 412** standards and is equipped to perform dynamic and static tests up to 200 Hz frequency cycle tearing and peeling test attachments.

+90 212 924 56 52

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ALARGE ALIÇ AĞACI MAK. ELEK. AR-GE SAN. TİC. LTD. ŞTİ.

Çifte Havuzlar Mah. Eski Londra Asfaltı Cd. YTÜ Teknopark D2 Blok No: 2B01 Davutpaşa - İstanbul/TÜRKİYE

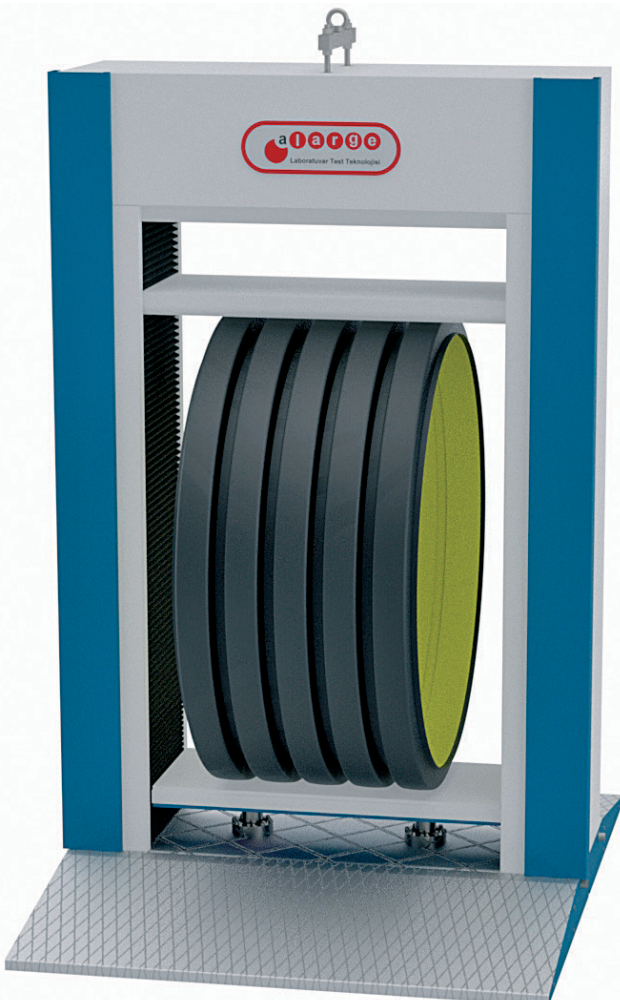
Fax: +90 212 278 61 33 Mail: info@alarge.com.tr

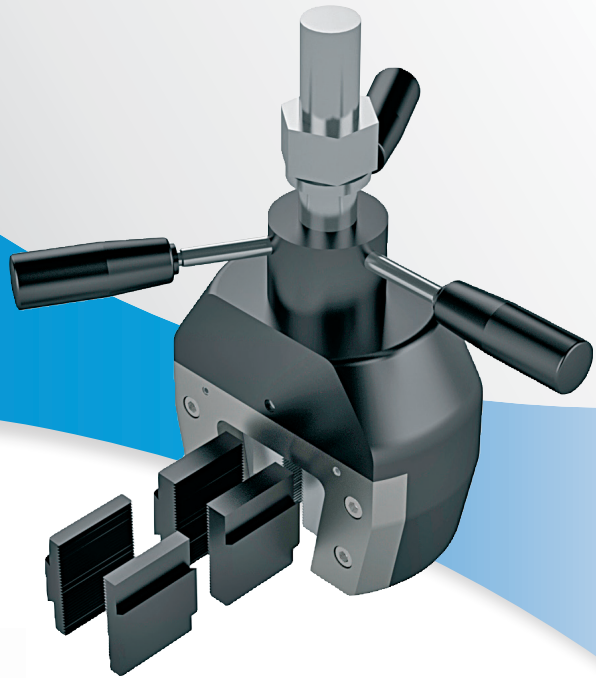
# AL UN UNIVERSAL TEST MACHINE

## FUNCTION SPECIFICATIONS



- ✓ Static Tensile
- ✓ Static Compression
- ✓ Dynamic Impact - Cycle Tensile
- ✓ Dynamic Impact - Cycle Compression
- ✓ Tensile test machine can perform GRP, steel, concrete and composite material tests.
- ✓ Sensitivity in load on strain measurement and frequency selection
- ✓ Sensitivity displacement measurement
- ✓ Strong frame - ball screw
- ✓ Chrome induction shaft bearing
- ✓ Full load strength with vertical (radial) load + axial bearing
- ✓ Single, double, column and robotic arm type options
- ✓ Remote access service network on many functional grips
- ✓ Suitable design for min. %1000 extension





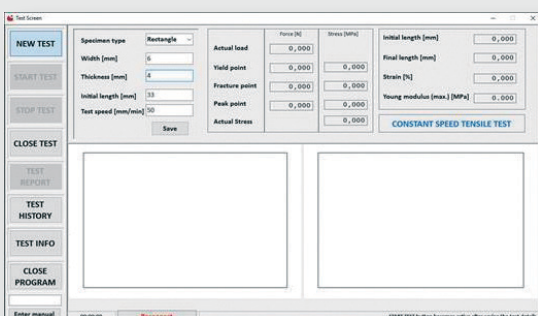
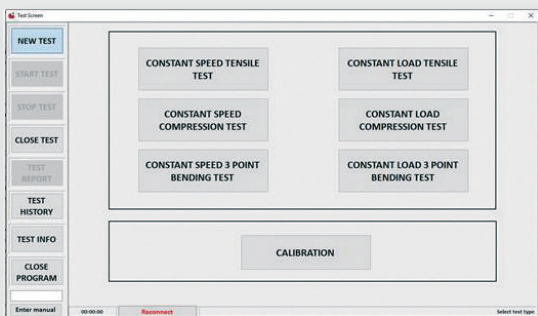
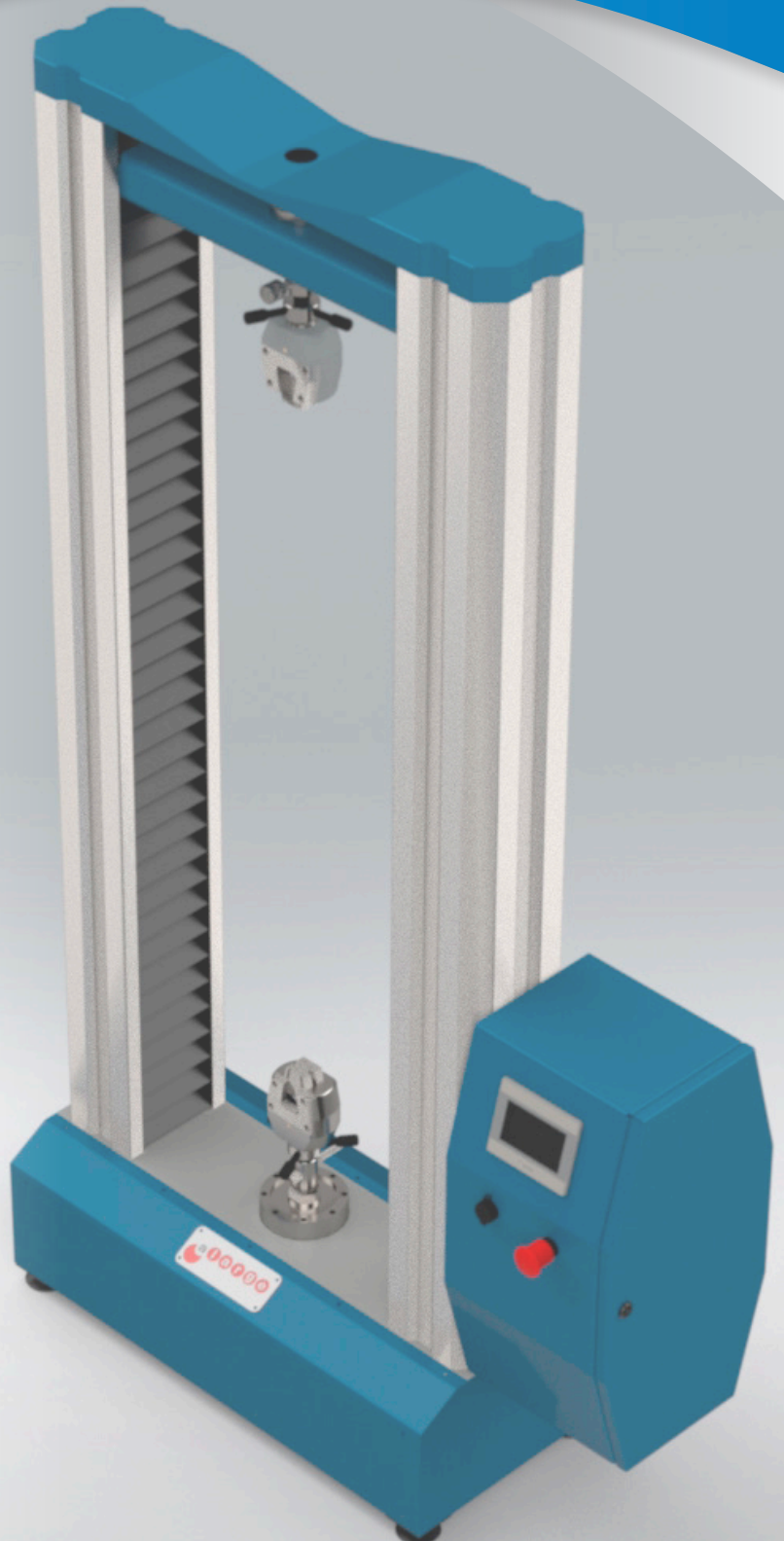
- ✓ % 0.25 precision, A type load cell (0,5 kN – 2000 kN)
- ✓ Traverse width: 200 – 5000 mm
- ✓ Crosshead speed : 0,0001 – 1500 mm/min
- ✓ Extensometer option with micron sensitivity
- ✓ Servo motor or AC motor options
- ✓ Robust mechanical design for 50% overload
- ✓ Video extensometer (Optional)
- ✓ Special production gapless screw + bearing system
- ✓ Worm gear reducer / chain-triglar transmission system and gapless reduction gear system
- ✓ Hydraulic and pneumatic grip options
- ✓ 414vw0 annealed special geometry grip sets (grip parts)
- ✓ Chrome / induction shaft. Nitration depth of 2 mm
- ✓ 17" touch screen PC control
- ✓ PLC system and communication software
- ✓ Electrical system for manual control with 4" touch screen panel

# AL UN UNIVERSAL TEST MACHINE

## FUNCTION SPECIFICATIONS

### ✓ Large Al Un graphic interface software:

1. Display the former test result
2. Ability to create analysis and comment page
3. Report Results in MS Office and PDF format
4. Report results in tabular form
5. Min. 400 data storage
6. Fast, real-time data process
7. Database for machine learning for customer experiments.



# HYDRAULIC GRIPS

## TECHNICAL SPECIFICATIONS

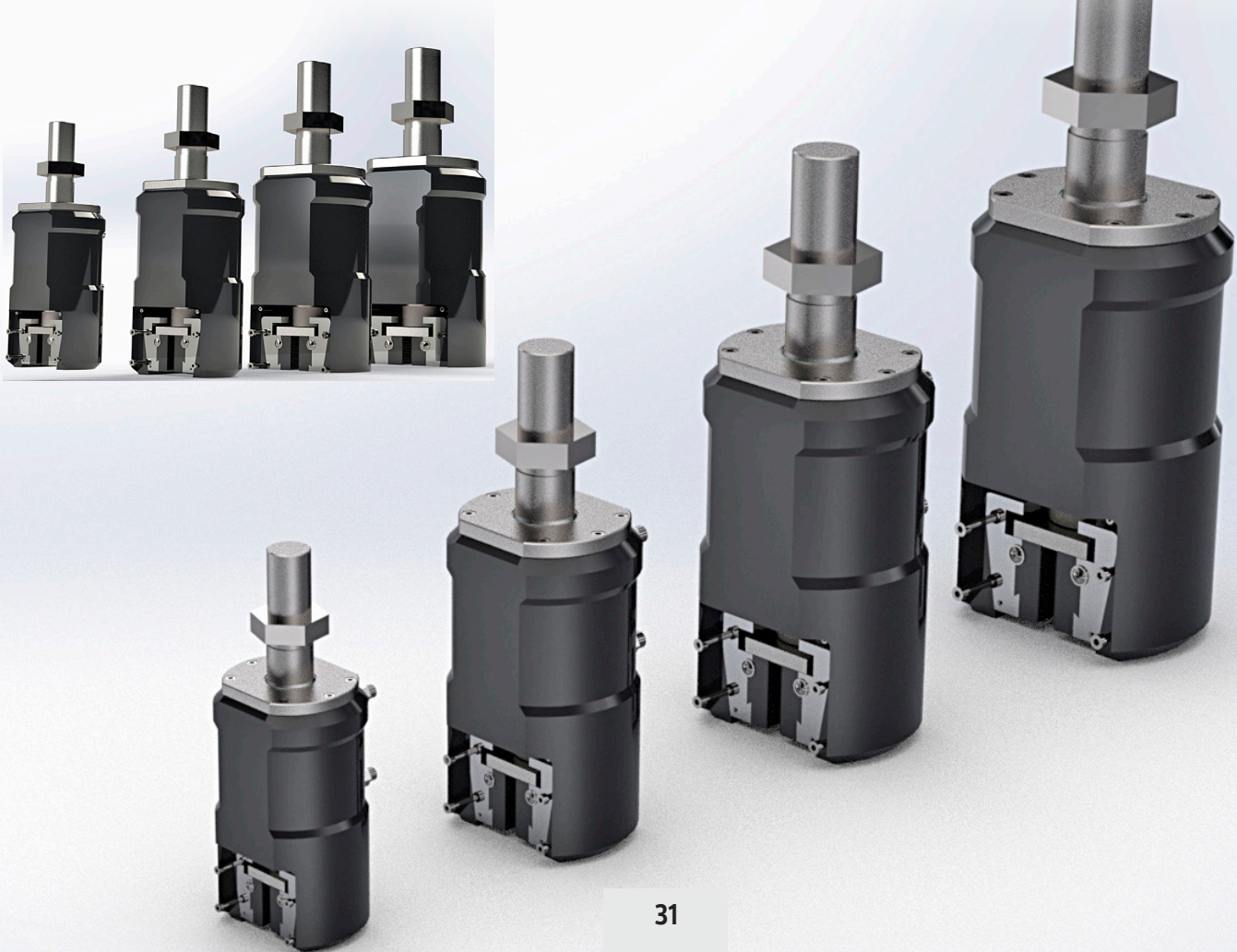
Hydraulic grips are ideal for high forces and high volume tests that involve repetitive opening and closing of jaws. Hydraulic grips are primarily used where test loads of 50 kN and up to 500 kN are required with high closing forces.

They are a versatile grip that can be used in both static, dynamic and reverse stress materials testing applications.

Hydraulic grips are suitable for round, flat

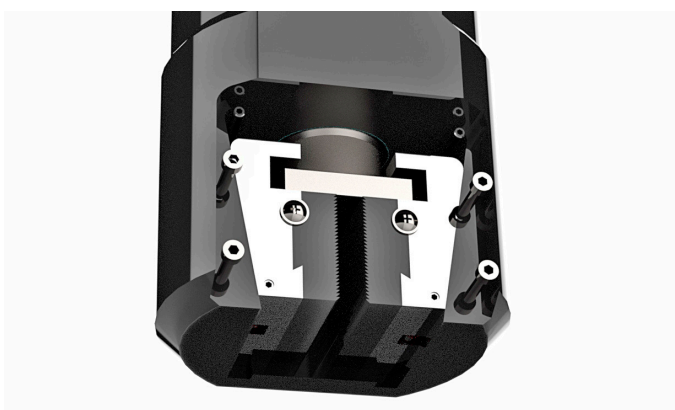
and asymmetrical section specimens using appropriate optional jaw faces. The interchangeable grip jaw faces accommodate both flat and round specimens and the grip design maintains a constant gripping force on the test specimen.

**Test loads : 500-200-100-50 kN**



# HYDRAULIC GRIPS

## TECHNICAL SPECIFICATIONS



### **SPECIMEN MATERIAL:**

- ✓ Plastics
- ✓ Metals
- ✓ Composites
- ✓ Wood
- ✓ Textiles
- ✓ Fleece
- ✓ Paper
- ✓ Film
- ✓ Elastomers
- ✓ Geotextiles

### **APPLICATIONS:**

- ✓ Tension
- ✓ Shear
- ✓ Fracture
- ✓ Fatigue
- ✓ Compression
- ✓ Torsion
- ✓ 180 Degree Peel
- ✓ Alternating load

# MECHANICAL GRIPS

## TECHNICAL SPECIFICATIONS



Mechanical Grips provide a very simple and efficient method for holding test specimens in a wide range of applications. Mechanical Grips are versatile general-purpose grips in which the faces remain stationary during loading. This makes it especially useful for applications where screw or pneumatic grips do not provide sufficient clamping force, or where

compressive or buckling forces are not desirable during specimen insertion. They feature a calibration line that provides a reference for specimen positioning. They are ideal for tensile testing of delicate flat, flexible specimens like plastic, foil, films, rubber, and flexible polymers.

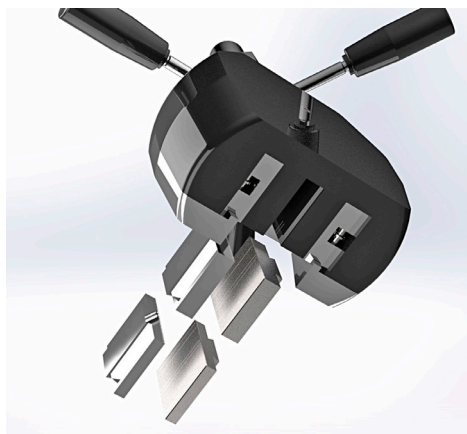
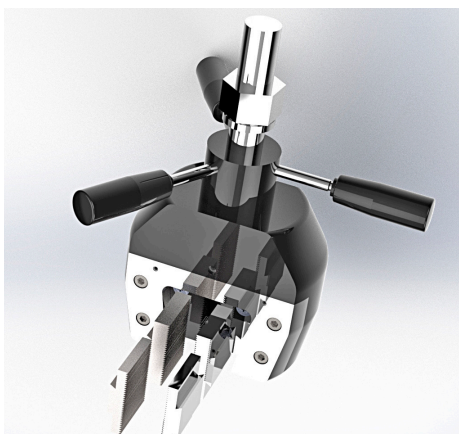
**Test Loads : 50–20–10–5 kN**

### **SPECIMEN MATERIAL:**

- ✓ Composites
- ✓ Plastics
- ✓ Metals
- ✓ Wood
- ✓ Polymers
- ✓ Textiles
- ✓ Films
- ✓ Rubber
- ✓ Paper

### **APPLICATIONS:**

- ✓ Compression
- ✓ Tension
- ✓ Peel
- ✓ Tear
- ✓ Tensile



# AL UN UNIVERSAL TEST MACHINE TECHNICAL SPECIFICATIONS

MODEL	AL-UN 1	AL-UN 5	AL-UN 10	AL-UN 20	AL-UN 30	AL-UN 50	AL-UN 100	AL-UN 200
Standards	ISO 527, ISO 6259, ASTM D 638, ASTM D 624, ASTM D 412							
Max. Test Power	1 kN	5 kN	10 kN	20 kN	30 kN	50 kN	100 kN	200 kN
Precision	% ±0,3							
Max. Distance Between Clamps	50 cm	100 cm	100 cm	150 cm	150 cm	150 cm	200 cm	200 cm
Vertical Space	10 cm	140 cm	140 cm	180 cm	180 cm	180 cm	250 cm	250 cm
Horizontal Space	30 cm	40 cm	40 cm	50 cm	50 cm	50 cm	80 cm	80 cm
Speed Range	0,001 – 1500 mm/dk							
Speed Precision	% ±0,1 / ±0,1 Special							
Structure	Single Column			Double Column				
Extensometer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Video Ext.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inner Extensometer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Video Inner Ext.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compression Die	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spherical Wedge Grip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grip for Coarse Samples	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Double Sample Area	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accessory Preference	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control	PC Control			Touch Screen PC Control				
Graphic Software	Configurable graphic software according to user's preferences							
Data Transfer	USB, SD Card, Wi-Fi							
Required Power	220 V			380 V				

Available ✓ Optional  Not Applicable ✗

✓ Data base system ✓ Multi Axis Loady

## Technical Identity:

**High precision and mechanical rigidity, special screw system and grips. Video extensometer and system network/ database supported.**

## Usage Identity:

**Friendly operator touchscreen panel, suitable for scientific use, ergonomic design. Friendly in use with touchscreen panel. Suitable for scientific studies.**

