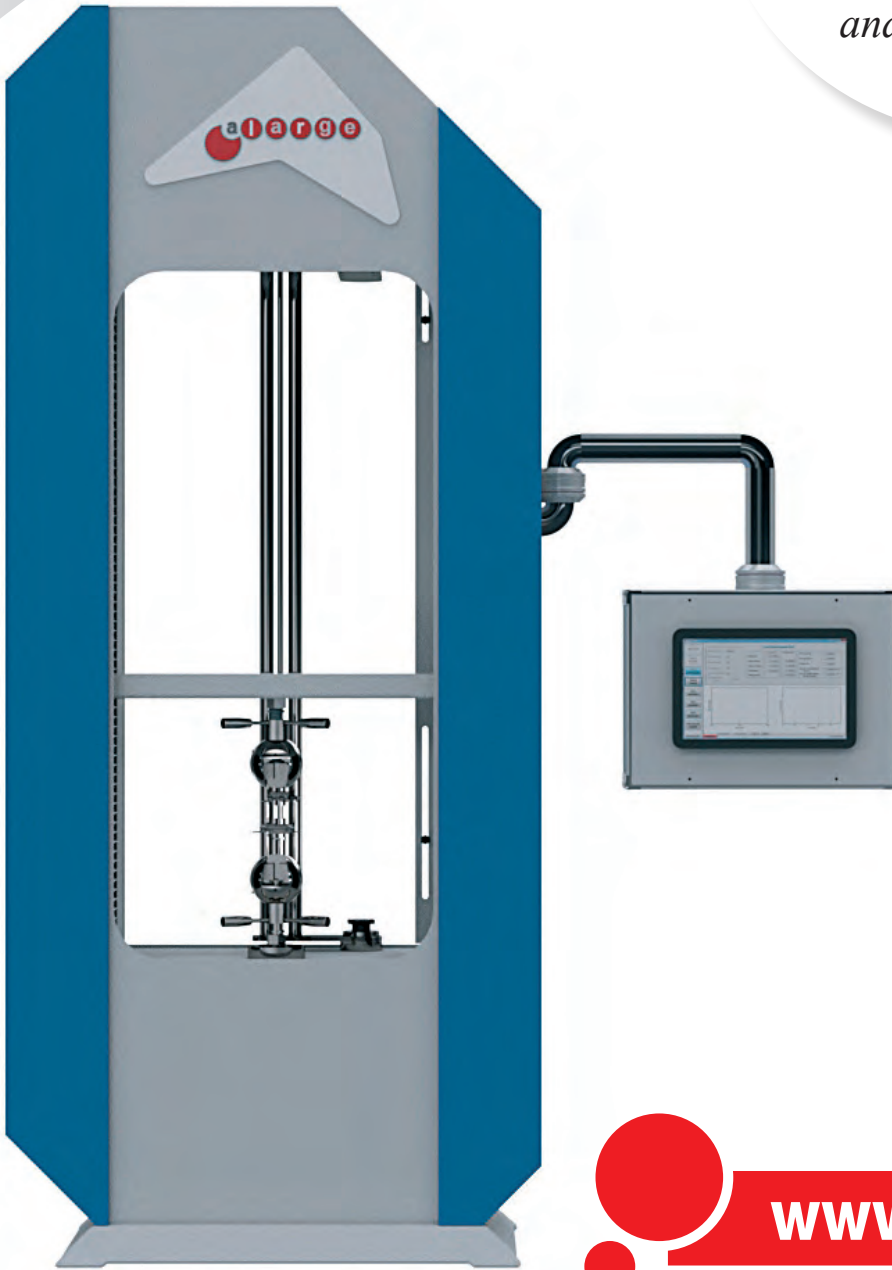




AGILE, ROBUST,  
SMART LAB SYSTEM.  
SUSTAINABILITY AND RESILIENCE.

## 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.

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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

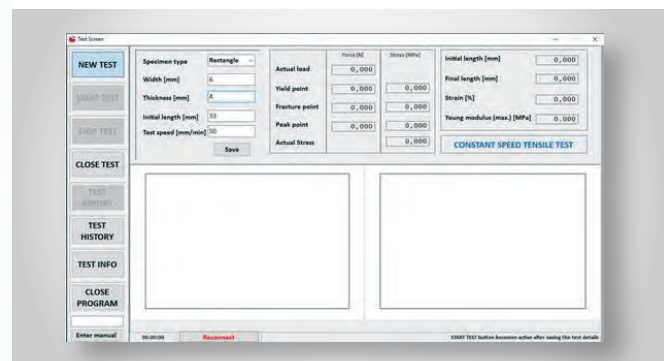
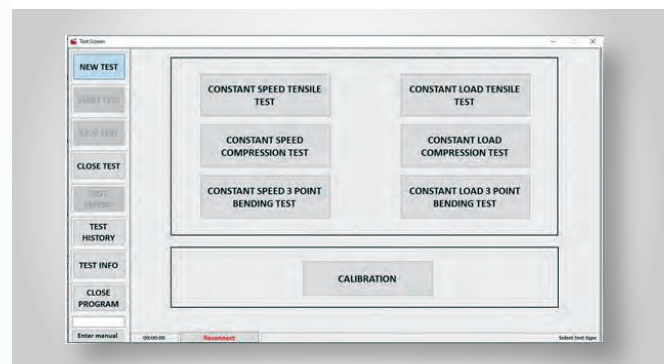
Fax: +90 212 278 61 33 Mail: info@alarge.com.tr

# AL UN UNIVERSAL TEST MACHINE

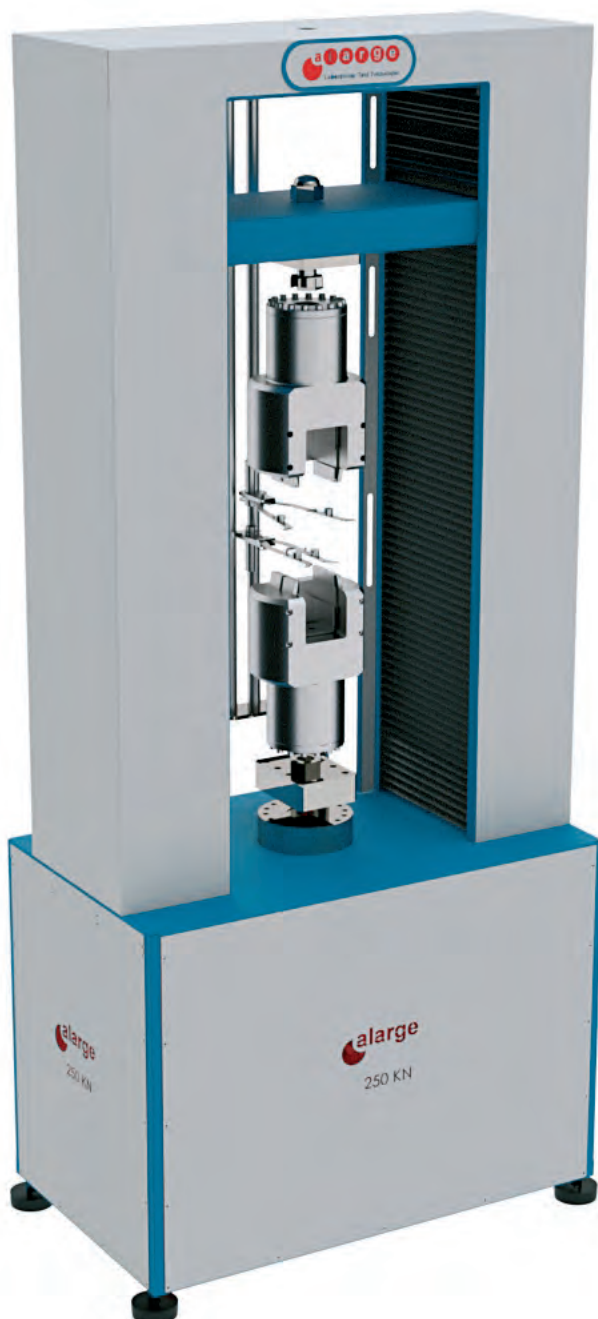
## FUNCTION SPECIFICATIONS



- 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



# TECHNICAL SPECIFICATIONS



% 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

Alarge AI Un graphic interface software:

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

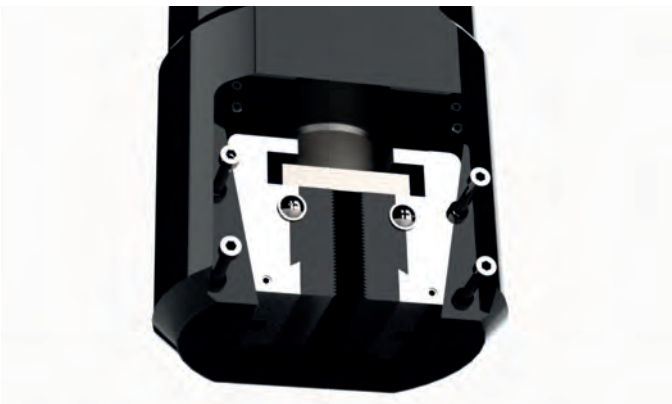
Hydraulic grips are suitable for round, flat and asymmetrical section specimens using appropriate optional jaw faces. The interchangeable grip jaw faces accommodate both flat and round specimens and the grip design maintains a constant gripping force on the test specimen.

**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-NT NOTCHING MACHINE

## TECHNICAL SPECIFICATIONS



### Motor rating : 4 kW

1. Makes notches on plastic samples with a Type A blade.
2. The smallest notched sample thickness is 4 mm.
3. The notch depth can be adjusted precisely with the micrometer positioned on the device.
4. The speed of the cutter motor can be adjusted with a potentiometer.



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## 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								
Video Ext.								
Inner Extensometer								
Video Inner Ext.								
Compression Die								
Spherical Wedge Grip								
Grip for Coarse Samples								
Double Sample Area								
Accessory Preference								
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.**

