

# UNIVERSAL HARDNESS TESTER ADL DU 120 MINI

Easy to use, versatile in capabilities, multifunctional in application,  
and reliable in operation!

made in  
TURKEY



# Universal hardness tester ADL DU 120 Mini

ADL DU120 Mini is a universal hardness tester designed for measuring the hardness of metallic products. The device uses two methods of hardness measurement - ultrasonic and dynamic, making it efficient and universal for quality control of materials in various tasks, including input, interoperation, and output quality control of materials.

The hardness tester is suitable for measuring the hardness of carbon and structural steels, surface-hardened products, heat-resistant, corrosion-resistant, stainless steels, galvanic coatings, weld overlays, products with complex configurations, thin-walled, and compact products.

ADL DU 120 Mini has a Leeb scale, as well as standard calibrations for measuring hardness by Rockwell, Vickers, Brinell, and Shore. Additional scales for different materials can also be added, including through the one-point calibration function. This significantly increases the measurement accuracy for specific materials and sets it apart from its counterparts.

ADL DU 120 Mini also has the ability to store up to 20 user-defined scales and view the measurement history of the entire enterprise. The built-in automatic outlier value processing

algorithm and control of specified ranges increase the accuracy and reliability of material hardness measurements.

The dynamic sensor allows for the measurement of the hardness of solid objects with poorly prepared and coarse-grained surfaces. The G-type dynamic sensor is recommended for such objects, as it has low sensitivity to the curvature of the object and surface roughness. Additionally, the device can be equipped with additional interchangeable sensors of various sizes, spring stiffness, and indenter hardness.

The ultrasonic sensor allows for measuring the hardness of grooves, surfaces with small radii, hard-to-reach areas, complex-shaped products, and small parts. It is ideal for measuring the hardness of mirror surfaces of shaft necks, blades, gear teeth, due to its small indenter footprint.

## Features of hardness tester ADL DU 120 mini:

- The device housing is protected from dust and moisture.
- The intuitive device interface allows you to start working immediately after turning it on.
- The color display with adjustable backlight shows bright and clear measurement results even in low light conditions or bright sunlight.
- The device notifies the user when measurement results exceed set values.
- The unique statistical data processing system provides fast analysis of measurement results.
- One-point calibration function.
- The device can store up to 20 user-defined scales and the history of all measurements, as well as the date and time of the test.
- Reliable operation of the device in various climatic conditions.
- Shock-resistant housing, protection against accidental drops from a height of up to 1.5 meters.

## Main technical characteristics:

Parameter	Value	Parameter	Value
Measurement range on the main scales		Main characteristics	
Rockwell	20 – 70 HRC	Scale conversion	It is possible to convert the measured hardness into different scales
Brinell	30 – 650 HB	Programmable scales	Up to 20 additional scales
Vickers	230 – 940 HV	Algorithm for discarding false readings (for higher reading accuracy)	Yes
Measurement error (Regulated by ISO or DSTU standards)		Computing	Average value for 3 - 20 measurements, minimum-maximum average value, Finding Incorrect Measurement Results
Rockwell	2 HRC	Working temperature	- 20 ... +45 °C
Brinell, in the range		Display	LCD TFT 2.4", 240x320 px
- 90-180 HB	10 HB	Language	Ukrainian, English, Russian
- 180-250 HB	15 HB	PC connection	USB-C, customization and processing
- 250-460 HB	20 HB	Instrument power supply	Built-in battery
Vickers, in the range		Overall dimensions	141x73x32mm
- 240-500 HV	15 HV	Weight	0.3 kg
- 500-800 HV	20 HV		
- 800-940 HV	25 HV		
Diameter of the platform for installing the sensor			
For ultrasonic sensor	from 1 mm on the plane from 5 mm in a blind hole		
For dynamic sensor	from 10 mm on the plane		
Roughness (different sensors may work with different product roughness)			
Ultrasonic	1,6 Ra		
Dynamic			
- for sensor type "D"	3.2 Ra		
- for sensor type "G"	7.2 Ra		
- for sensor type "E"	1.6 Ra		

