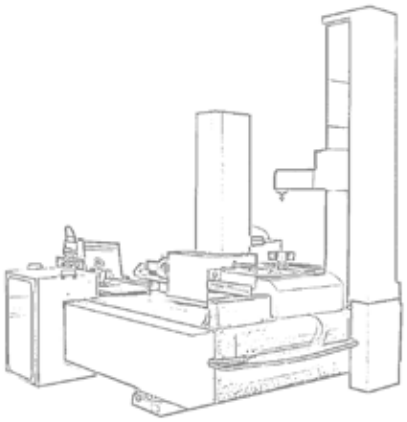
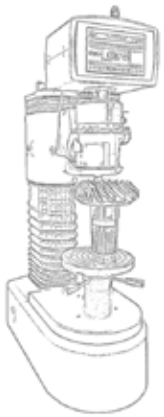
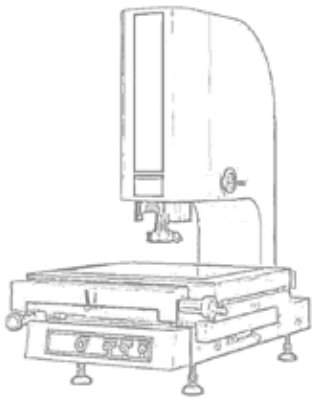
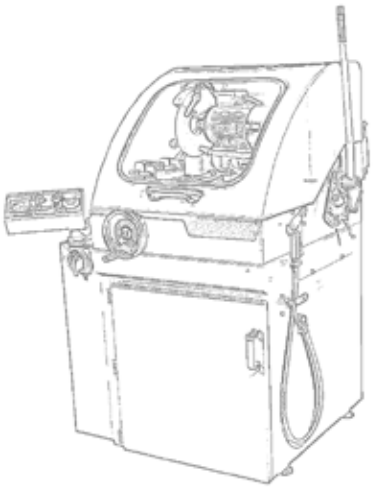
NON-DESTRUCTIVE TESTING INSTRUMENTS









kiwa
ISO 9001

www.crase.com

ULTRASONIC THICKNESS GAUGE UT-1M

Portable ultrasonic thickness gauge UT-1M, for operative non-destructive testing of the thickness, works on the principle of ultrasounds' propagation time measurement in the analysed material.

Advantages

- Wide range of measured thicknesses
- Convenience and ease in operation
- Minimum number of controls
- Select the type of probe through single button
- Preset velocity of ultrasound
- Graphical display with backlight
- Compensation of probe delay
- Control of the batteries
- Mapping the presence of acoustic coupling on the graphic display
- Fixation of the last measurement result in the removal of the transducer surface

ULTRASONIC THICKNESS GAUGE UT-2A (A-Scan)

It is a powerful, lightweight and portable instrument, made in an ergonomic shock-resistant case with rubber protectors – a modern industrial version of a general-purpose thickness gauge.

Advantages

- Wide range of measuring thicknesses.
- Function of thickness gauge and flaw detector.
- Convenience and ease in operation.
- B-scan mode, which allows user to get the product profile like a picture that is easy to read.
- Minimum number of controls.
- Select the type of probe from archive.
- Preset velocity of ultrasound.
- High brightness color display.
- Acoustic indicator of the presence of contact.

EMAT THICKNESS GAUGE UT-3M-EMA

EMAT thickness gauge allows users also to carry out tests in cases where traditional methods, such as piezo-ultrasonic, laser-optical, X-ray, mechanical, etc., are not applicable.
Electromagnetic-acoustic (EMA) technology for measuring thickness is based on the excitation of ultrasonic waves in the material by the generator of the device's probe, and fixing the path time of ultrasonic waves in the material.
The instrument automatically analyzes the signal, selects the correct measurement method, and adjusts the settings.
The gauge also features a B-scan mode. This mode gives users a visual profile of the product, like a picture, making it easy to read.

ACTIVE EMAT TRANSDUCER

This transducer expands the capabilities of standard flaw detector /thickness gauge with A-scan up to EMAT thickness gauge. It can be used with any ultrasonic thickness gauge with A-scan that enable bipolar excitation of the required amplitude.
The transducer allows to:
• measure the thickness of metal products through rust;
• measure the thickness of metal products through coatings;
• measure the thickness of metal products through an air gap (contactless);
• take product profile through the surface's scan (* through a special scanning trolley, buying separately).

COATING THICKNESS GAUGE TP-2020

Portable coating thickness gauge NOVOTEST TP-2020 - device for operative non-destructive testing of coating thickness with high measurement accuracy.

Advantages

- Automatic sensor detection
- Storing individual calibrations in probes memory
- Average calculation, minimum and maximum indication
- Transfer of measurement data to PC via USB
- Shockproof housing with a special protective silicone bumper case
- Four operating modes: Normal, Control, Statistics, Automatic Averaging mode
- Different specialized probes to measure many parameters

COATING THICKNESS GAUGE

Coating thickness knife tester is designed to measure the thickness of both single and multiple layer coatings on any grounds, both metallic and non-metallic. The operation principle is based on the local cut (notch) of the coating at the tested place of object with following thickness measurement of this coating. The thickness of coating is determined by the width of notch, it is possible because of the special form of cutter of the instrument.

The measurement is performed by any portable measuring microscope with a suitable measuring range.

Coating thickness knife tester TPN-1 complies with ISO 2808, ASTM B 4138, DIN EN 1071-2.

ULTRASONIC FLAW DETECTORS

An ultrasonic flaw detector is designed to search for voids and inhomogeneities inside the materials under testing with ultrasound. It is the most common device for non-destructive testing of metal (and other materials with low attenuation of ultrasonic waves) products in production, as well as objects in operation.
Ultrasonic flaw detector **UD2301** is a powerful, ergonomic, portable device that has all the functions of a general industrial ultrasonic flaw detectors and can be used in laboratories and workshops, and is perfect for field use. The device is supplied with PC software for uploading the measurement archive and processing the results.

Ultrasonic flaw detector **UD2303** is a compact version of an industrial flaw detector with a set of functions and modes that are designed to simplify the routine process of product quality control as much as possible. Shock-resistant aluminum alloy case with a large battery will provide a long service life of the device and ability to be used in adverse conditions. UD2303 ultrasonic flaw detector has the function of screen rotation.

The ultrasonic flaw detector **UD3701** is designed to detect internal defects, such as discontinuities and heterogeneities of materials in products and welds; determine coordinates and evaluate defect parameters; measure thickness and the velocity of propagation and attenuation of ultrasonic waves in the materials (metals, plastics, glass, etc.); the search for places of corrosion, cracks, internal delamination and other defects.

PULSE HOLIDAY DETECTOR

Pulse Holiday Detector is a device for detecting defects (thinning, microholes, cracks, etc.) in dielectric coatings on metals.
The principle of operation of the device is based on the electrospark method. A probe with electrode connected to one pole of the voltage source scans the surface of the tested object directly along the coating.
The second pole of the voltage source from the ground connector is connected directly to the metal structure.
The electronic unit fixes the gaps by voltage between the electrode and the conductive base.

MAGNETIC FLAW DETECTOR

Magnetic flaw detector (magnetic yoke) applies in circumstances where the electric equipment must not be used or is prohibited by the rules.
Device is used during magnetic particle inspection (where it is applicable) according to ASTM E 709, ASTM E 1444, ASME Section V Article 7 and MIL-STD-1949. Magnetic flaw detector is used to detect surface and subsurface cracks of all kinds (flake, lack of fusion welded joints, tears etc.) in structures made of ferromagnetic materials.
The device has two permanent magnets placed in a cylindrical shells, which are connected by a flexible magnetic wire, so it can be used for MPI of remote locations, corner welds and other products of various shapes and sizes.

MAGNETOMETER

Magnetometer is designed to control the residual magnetization and study the magnetic heterogeneity of the surface of ferromagnetic products, to control the level of residual magnetization before welding gas and oil pipes, to control the induction of static (DC), alternating (AC) and pulsed magnetic fields generated by various magnetic and electromagnetic devices, such as magnetic particle flaw detectors, magnetic tables and chucks of grinding machines, demagnetizing devices, permanent magnets etc.
The device has the ability to create a measurement archive that can be transferred to a PC using special software.

STEEL STRUCTURE ANALYZER

Steel structure analyzer is designed for measuring coercive force of metal products and is used for non-destructive testing of chemical-thermal, thermal and thermomechanical treatments, evaluation of mechanical properties and residual stresses. It is used for determination of mechanical properties, and for measurement of the hardness of metal products, as well as measurements of products of ferromagnetic alloys in the presence of correlations between the studied parameters.
In addition, the device is used for testing the surface layer of ferromagnetic material for grading the metal in steel grades. It has an electromagnet transmitter with integra-

ADHESION TESTERS

Adhesion is the tendency of dissimilar particles or surfaces to cling to one another. In the field of quality testing, adhesion of coatings to the base material, such as paints, plastic, epoxy mixtures, sprayed metal, laminate to wood and other metal and polymer coatings, is the most often measured.
There are various instruments for adhesion testing of a coating over the base, depending on their nature and measurement's requirements.

Peel adhesion tester

Tensile adhesion tester

Bitumen and mastic insulation adhesion tester

Scratch adhesion tester

Cross hatch adhesion plate

Cross cut adhesion tester

DENSITY AND VISCOSITY CUPS

An important parameter of lubricants, paints and other liquids is viscosity. This parameter characterizes the ability of materials to resist the movement of one part relative to another.

Density cup – Pycnometer

Viscosity flow cup

Viscosity mug

COATING HARDNESS TESTERS

The coating surface hardness testing allows to measure the scratch resistance of coatings and paints.

Pencil coating hardness tester

Scratch hardness coating tester

Buchholz coating hardness tester

BENDING COATING TESTERS

The instrument measures the elasticity and the flexural strength of coatings through rounding the test sample on the set of cylindrical rods with different diameters. Starting from the rod with maximum diameter, if it does not cause any mechanical destruction or de-lamination of paint film, the user has to continue bending the test sample on smaller rods.
The result is the minimum diameter of the rod in millimetres that causes no destruction when testing the paint film.

Bending coating tester

Conical bending coating tester

Cylindrical bending coating tester

Bending coating tester ShG

IMPACT TESTERS

The impact coating strength tester is used to check the resistance of technical products to external factors during operation (such as punching, impacts), as well as to verify the manufacturer's specifications .
There are various instruments for measurements on different types of coating, like paints, laminate and plastic coatings, and many kinds of bases.
Impact testing is useful to measure coatings resistance to damages caused by accident, but also to verify the quality of coatings during the production process, so that all required resistance standards are satisfied.
Tests result is evaluated based on cracking or deformation of the coating.

Pipe impact tester

Impact tester

Impact tester Universal

OTHER COATING TESTING INSTRUMENTS

Film applicator

Erichsen cupping tester

Pinhole detector

ROUGHNESS TESTERS

Instruments used to measure the roughness of surfaces in non-destructive way. Possibility to measure different parameters and to set various measurement profiles. They are commonly employed for quality control activities and to check incoming and outgoing goods.

iSurfa-100 Surface roughness tester

High measurement accuracy, wide measurement range, simple operation, easy portability and stable operation. It can be widely used in the detection of various metal and non-metal processing surfaces. It is a pocket instrument integrated with a host and a sensor. It has the characteristics of hand-held, and is more suitable for use in the production site. The exterior is made of aluminium, which is durable and has remarkable anti-electromagnetic interference ability. Low-power consumption ARM processor is used for data processing and calculation. Equipped with Bluetooth adapter, it can communicate with devices such as smart phones. The sensor probe has a protective door, which effectively protects the sensor probe and ensures the accuracy of measurement.

iSurfa-300 Roughness waviness tester

High precision large stroke guide rail, length up to 50 mm, and sensor range ± 500 µm. 5 measurement types and skidless measurement for more realistic feedback on the morphology of machined surfaces. The sensor can be switched vertically or in the same direction with the guide rail at will, so the measurement of deep grooves can be made from the side without being limited by the depth of the stylus and groove. Data can be directly stored in the built-in memory of the machine. It supports automatic multiple calibration of standard blocks, so that the calibration error is greatly reduced.

iSurfa-360 Surface roughness gauge

Small size, light weight, and easy to use. Adopting DSP chips for control and data processing, with fast speed and low power consumption. Compatible with multiple national standards such as ISO, DIN, ANSI, and JIS. Large capacity data storage, capable of storing 100 sets of raw data and waveforms. Equipped with power saving functions such as automatic sleep and automatic shutdown. Displays various prompt instructions such as measurement information, menu prompt information, error information, and on/off machine information. Optional Bluetooth function; can connect computers and printers, prints all parameters or any parameters set by the user. Optional accessories such as curved sensors, small hole sensors, measuring platforms, sensor sheaths, extension rods, etc.

iSurfa-520 Surface roughness tester

Portable surface roughness tester is a high accuracy instrument for measuring surface roughness. It can be used on variety of machining parts and operates on various surfaces, not only flat but also outer cone, outer cylinder, curved, pinholes, grooves, recesses grooves and axle etc.
Portable surface roughness tester allows surface roughness measurement both on metal and non-metal workpieces. It is suitable for machining and manufacturing, quality control, inspection departments, especially for measurement on large and heavy workpiece, assembly line on site. The roughness tester is a non-destructive testing instrument, damage won't caused to testing piece.

VARIOUS NON-DESTRUCTIVE TESTING INSTRUMENTS

Grindometer

Concrete rebound hammer – Sclerometer

Strength meter

Concrete cover meter

Digital surface profile gauge

Dew point meter

Depth gauge

CONTACTS

HEADQUARTERS

Via Primo Villa, 15/f
20875 Burago di Molgora (MB)
Italy

Tel: +39 039 66 84 23

Sales

crasesrl@crase.com

Marketing

marketing@crase.com

Administration

amministrazione@crase.com

Service

service@crase.com

PARTNERS

NOVOTEST MDM METROSOFT Chennai Metco ernst