| Code | Description |
|---|---|
| **742030100** | **AUTOMATIC MICRO-HARDNESS TESTER**<br>**MICROSCAN OD**<br>Automatic optical-digital system for Vickers micro-hardness testing from HV0,01 to HV1 (up to HV5 with optional loads) according to ISO 6507-2 Standards.<br>Compliance with ASTM E384 available upon request.<br>Determines Knoop hardness by using the relevant indenter.<br><br>The system consists of: |
| | **BASIC STRUCTURE**<br>**Consisting of:** |
| | • Sturdy cast iron stand<br>• Main body pivoting on a cylinder rod, fitted with macro/micrometric focusing device. Suitable for testing large sized work pieces.<br>• Microscope fitted with 10X and 50X objectives (other magnification objectives can be ordered separately)<br>• 20W halogen illuminator with adjustable intensity<br>• 10X digital micrometric eyepiece featuring 0,01 µm resolution, calibrated for the use of both 10X and 50X objectives<br>• Load application device featuring adjustable speed by means of a dashpot<br>• Standard loads to be selected manually:10 – 15 – 25 – 50 – 100 – 200 – 300 – 500 - 1000 gf (0,098 - 0,147 - 0,245 - 0,490 - 0,980 - 1,961 - 2,942 - 4,903 - 9,807 N) (optional loads up to 5000 gf / 49,03 N)<br>• Manual X-Y stage 125 x 125 mm, travel range 25x25 mm, with micrometers 0.01 mm resolution<br>• Accessory case including:<br>– 136° diamond pyramid indenter for Vickers microhardness testing<br>– HV1 test block<br>– Instruction manual<br>– Dust cover<br>– Small bottle of oil for dash-pot<br>– Screw driver |

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|---|---|
| | **OPTICAL-DIGITAL READOUT SYSTEM**<br>**Including:** |
| | • Colour touch screen LCD provided with alphanumerical readout and practical, quick and ease-of-use graphics<br>• Selectable load dwell time<br>• Software guide to the correct configuration in the various scales<br>• Possibility to save/retrieve test batches on external devices such as USB key and/or LAN company networks<br>• Possibility to enter a nominal values and tolerances<br>• Software for the calculation of statistical parameters, such as average value, standard deviation, max. and min. values and number of measurements with indication of out-of-tolerance values, date, time, work piece No., batch No., histogram of the effected tests, line chart with indication of the test trend<br>• Data convertible into text or Excel formats<br>• Automatic software updates via USB key<br>• Automatic conversion of the values measured in the various hardness scales: Rockwell, Brinell, Vickers, Knoop, as well as tensile strength according to either “Galileo conversion tables”, ISO 18265 or ASTM E140 standards<br>• Automatic correction of measurements on the cylindrical and spherical work pieces as per ISO 6507 or ASTM standards<br>• Manual load selection with electronic load control<br>• Diagnosis and test menu<br>• Language selection<br>• Optical output for CCD or Camera (must be ordered separately)<br>• Maximum work piece height: 125 mm<br>• Throat depth: 130 mm<br>• Dimensions of the instrument: mm (L 370 x w 370 x h 500)<br>• Weight: 30 kg |

| Code | Description |
|---|---|
| | **TRAINING AND ACCESSORIES FOR MODELS ISOSCAN, VICKERS and MICROSCAN** |
| **742042202** | **TRAINING COURSE for AC models**<br>• Training course at our premises providing instructions how to use the chosen instrument (file management, execution of test batches, programming and execution of hardness profiles). Duration of the course: 8 hours<br>• Board and lodging near our location as well as travel expenses are not included in the a.m. price and can be quoted upon request. |
| **742EV2590** | **Integrated PLUS optional system for microhardness testers models AC**<br>**consisting of:** |
| | • Electronic digital micrometer head featuring 0.001 mm resolution mounted on the X axis, provided with relevant connection cables to interface with the central unit (optional on Y axis)<br>• Generation and handling of hardness profile (traverses) patterns as well as hardness arrays**(1)**<br>• Synoptic control of the progress in the execution of hardness profiles and arrays **(1)**<br>• Software to generate hardness profiles (traverses) on the basis of a pattern. Available profile (traverse) patterns: linear, zigzag, array **(1)** (hardness maps) on the basis of the coordinates acquired automatically by the digital micrometer head and the measured hardness values.<br>• Graphic visualization (2D and 3D **(1)**) of the profile on the screen. The results and the profile can be automatically transferred to Microsoft WORD® Template.<br>• Repetition of single indentations and / or single measurements<br>• Automatic determination of a hardness value at a given distance from edge<br>• Given a hardness value, calculation of the distance from edge<br>• Given a hardness value, calculation of the effective case depth<br>• Automatic calculation of the effective case depth |
| | **NOTE (1) : Array functions can be carried out only if the digital micrometer head is mounted on the Y axis.** |
| **742EV2591** | **MICROMETER HEAD for Y axis**<br>**(available only for PLUS SYSTEM)**<br>• Digital micrometer head featuring 0,001 mm resolution complete with electronic interface. |
| **742EV2594** | **MICROMETRIC eyepiece**<br>**(Optional for new Micro hardness tester AC series)**<br>• 10x magnification micrometric eyepiece to view indentations and work pieces |

| Code | Description |
|---|---|
| | **ACCESSORIES FOR ISOSCAN SERIES** |
| **742EV2592** | • Dual indenter kit<br>(Optional, to be supplied only upon order of a new hardness testers mod. Isoscan) consisting of:<br>One Knoop indenter, one 40x objective, software for automatic indentation reading and result handling |
| **742EV7001** | • USB CCD B/W Camera, high resolution, sensitivity and speed |
| **742EV7002** | • Photo-tube with C-mount (for CCD camera) |
| **742EV7003** | • Universal tilting vice |
| **742EV7004** | • Specimen holder for prepared work pieces Ø 25 mm |
| **742EV7005** | • Specimen holder for prepared work pieces Ø 30mm |
| **742EV7006** | • Specimen holder for prepared work pieces Ø 40mm |
| **742EV7007** | • Specimen holder for prepared work pieces Ø 1.25" |
| **742EV7008** | • Specimen holder for prepared work pieces Ø 1.5" |
| **742EV7009** | • Specimen precision holder (Vertical type) |
| **742EV7010** | • Specimen precision holder (Horizontal type) |
| **742EV7011** | • Thin specimen holding device |
| **742EV7012** | • Precision vise (jaw opening 50 mm) |
| **742EV7013** | • Precision vise (jaw opening 80 mm) |
| **742EV7014** | • 5x Objective |
| **742EV7015** | • 10x Objective |
| **742EV7016** | • 20x Objective |
| **742EV7017** | • 40x Objective |
| **742EV7018** | • 80x Objective |
| **742EV7019** | • Additional built-in 5X objective complete with optical kit<br>(supplied only upon order of a new hardness testers mod. Isoscan) |
| **742EV7020** | • Additional built-in 10X objective complete with optical kit<br>(supplied only upon order of a new hardness testers mod. Isoscan) |
| **742EV7021** | • Additional built-in 20X objective complete with optical kit<br>(supplied only upon order of a new hardness testers mod. Isoscan) |
| **742EV7022** | • Additional built-in 40X objective complete with optical kit<br>(supplied only upon order of a new hardness testers mod. Isoscan) |
| **742EV7023** | • Additional built-in 80X objective complete with optical kit<br>(supplied only upon order of a new hardness testers mod. Isoscan) |
| **742EV7024** | • Flat Anvil ø 80 mm |
| **742EV7025** | • Large Flat Anvil ø 180 mm |
| **742EV7026** | • Large Flat Anvil ø 200 mm |
| **742EV7027** | • Small V-Shape Anvil ø 80 mm |
| **742EV7028** | • Deep V-Shape Anvil ø 80 mm |
| **742EV7029** | • Vickers Diamond indenter for Isoscan series |
| **742EV7030** | • Vickers Diamond indenter for ISOSCAN HV 50 hardness tester |
| **742EV7031** | • Knoop diamond indenter for Isoscan series |

| Code | Description |
|---|---|
| **742EV7033** | • X-Y Manual stage for Isoscan series (110 x 110mm / Travel 25 x 25 mm) |
| **742EV7034** | • X-Y Manual stage for ISOSCAN HV 50 hardness tester (110 x 110mm / Travel 25 x 25 mm) |
| **742EV7035** | • X-Y Manual stage for Vickers hardness tester (110 x 110mm / Travel 50 x 50 mm) |
| **742EV7036** | • X-Y Manual stage for ISOSCAN HV 50 hardness tester (180 x 180mm / Travel 25 x 25 mm) |
| **742EV7037** | • X-Y Manual stage for ISOSCAN HV 50 hardness tester (180 x 180mm / Travel 50 x 50 mm) |
| **742EV7038** | • X-Y Manual stage for ISOSCAN HV 50 hardness tester (200 x 200mm / Travel 25 x 25 mm) |
| **742EV7039** | • X-Y Manual stage for ISOSCAN HV 50 hardness tester (200 x 200mm / Travel 50 x 50 mm) |
| **742EV7041** | • Calibration glass scale for microhardness testers |
| | **ACCESSORIES FOR MODELS MICROSCAN OD – AC** |
| **742020100** | • Test block 100-225 HV1 (*) |
| **742020200** | • Test block 300-600 HV1 (*) |
| **742020300** | • Test block 700-900 HV1 (*) |
| **742022000** | • Special “V shaped” vice for wires |
| **742021000** | • Revolving specimen holding vice |
| **742032622** | • Chuck vise |
| **742032623** | • Universal vise |
| **742032624** | • Thin specimen holding device |
| **742023000** | • KNOOP indenter with MPA certification |
| **742024000** | • Micro - Vickers indenter for Microscan model |
| **742032285** | • 12V 20W halogen bulb for microscope |
| **742032616** | • Test block for low hardness range HV 0,2 (*) |
| **742032617** | • Test block for medium hardness range HV 0,2 (*) |
| **742032618** | • Test block for high hardness range HV 0,2 (*) |
| **742035000** | • 2000 gf load for Microscan model |
| **742036000** | • 3000 gf load for Microscan model |
| **742038000** | • 5000 gf load for Microscan model |
| **742039000** | • 2500 gf load for Microscan model |
| **742000288** | • 20x Objective |
| **742000289** | • 5x Objective |