Code	Description
742EV2502	**AUTOMATIC HARDNESS TESTER** **ISOSCAN HV2 AC** Automatic optical-digital system for Vickers micro-hardness testing from HV0,025 to HV2 according to ISO 6507-2 Standards. Compliance with ASTM E384 available upon request. Determines Knoop hardness by using the relevant indenter. The system consists of:
	TECHNICAL FEATURES • Handy-placed knob load selector, with following standard test loads: 25 – 50 – 100 – 200 – 300 – 500 – 1000 - 2000 gf (0,2452 - 0,4903 - 0,9807 - 1,961 - 2,942 - 4,903 - 9,807 - 19,614 N). • Microscope with light intensity adjustment and LED illumination system granting a ultra-bright image of the indentation • **Motorized rotary turret with 5 positions** adapting the indenter and two objectives (10X and 40X provided with the instrument) (other magnification objectives and Knoop indenters can be ordered separately) • Motorized load application device • Manual X-Y stage, travel range 25x25 mm, with micrometers 0.01 mm resolution • Manual work piece focusing • Automatic test cycle • Maximum work piece height:85 mm • Throat depth 110 mm • Dimensions of the instrument: 340 x 500 x 520 mm (L x w x h) • Weight 28 kg • Accessory case containing: – instructions manual – plastic cover – N°2 test blocks HV1

Code	Description
	AUTOMATIC COMPUTERIZED READOUT SYSTEM **consisting of:**
	♦ **HARDWARE**
	• Entry Level PC: ∗ High resolution flat LCD 19" screen to visualize and analyze images of the indentations detected by the camera ∗ Keyboard and mouse ∗ High resolution CCD camera
	♦ **SOFTWARE**
	• Windows environment • Generation of single indentations and programmable load dwell time • Measuring software for Vickers micro-hardness testing, according to ISO 6507/2 standards, featuring two levels of automation: – Automatic mode: the system automatically detects the indentation and carries out the measurements (the sample surface must be properly prepared) – Manual mode: the operator moves a light reference onto the four vertices of the indentation displayed on the monitor (digital zoom); the system measures the diagonals and calculates the relevant micro-hardness value • User's friendly interface • Statistical processing of the results (Average, maximal, minimal values, and standard deviation) • Determination of the distance between two points • Automatic control of light intensity and manual focusing adjustment • Processing of the measurement results by means of: – Screen display of the measured or calculated numerical data – Automatic output of the results and relevant charts to Microsoft WORDPAD Template or RTF format – Storage of parameters and results of the test cycle on hard disk or external devices – Storage of the images on hard disk in BMP, TIFF, PNG format and possibility to review them – Creation and processing of certificates (logo and company data, measurement conditions, performed measurements) • Maximal and minimal hardness control • Conversion of hardness scales • Calibration of optical objectives • Multi - language support and access level control (three operative levels by password) • System set-up

Code	Description
	TRAINING AND ACCESSORIES FOR MODELS ISOSCAN, VICKERS and MICROSCAN
742042202	**TRAINING COURSE for AC models** • 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 • 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** **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) • Generation and handling of hardness profile (traverses) patterns as well as hardness arrays**(1)** • Synoptic control of the progress in the execution of hardness profiles and arrays **(1)** • 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. • 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. • Repetition of single indentations and / or single measurements • Automatic determination of a hardness value at a given distance from edge • Given a hardness value, calculation of the distance from edge • Given a hardness value, calculation of the effective case depth • 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** **(available only for PLUS SYSTEM)** • Digital micrometer head featuring 0,001 mm resolution complete with electronic interface.
742EV2594	**MICROMETRIC eyepiece** **(Optional for new Micro hardness tester AC series)** • 10x magnification micrometric eyepiece to view indentations and work pieces

Code	Description
	ACCESSORIES FOR ISOSCAN SERIES
742EV2592	• Dual indenter kit (Optional, to be supplied only upon order of a new hardness testers mod. Isoscan) consisting of: 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 (supplied only upon order of a new hardness testers mod. Isoscan)
742EV7020	• Additional built-in 10X objective complete with optical kit (supplied only upon order of a new hardness testers mod. Isoscan)
742EV7021	• Additional built-in 20X objective complete with optical kit (supplied only upon order of a new hardness testers mod. Isoscan)
742EV7022	• Additional built-in 40X objective complete with optical kit (supplied only upon order of a new hardness testers mod. Isoscan)
742EV7023	• Additional built-in 80X objective complete with optical kit (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