



Description	
<b>742EV2650</b>	<p style="text-align: center;"><b>AUTOMATIC HARDNESS TESTER ISOSCAN HV 50 OD</b></p> <p>Automatic optical-digital system for Vickers hardness testing from HV1 to HV50 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:</p>
	<b>TECHNICAL FEATURES</b>
	<ul style="list-style-type: none"> <li>• Handy-placed knob load selector, with following standard test loads: 1 – 2 – 3 – 5 – 10 – 20 – 30 – 50 Kgf (9,81 - 19,61- 29,42 - 49,03 - 98,07 - 196,14 - 294,21 - 490,35 N).</li> <li>• Microscope with light intensity adjustment</li> <li>• <b>Motorized rotary turret with 5 positions</b> adapting the indenter and the 10X objective (other magnification objectives and Knoop indenters can be ordered separately)</li> <li>• 10X digital micrometric eyepiece featuring 0,01 µm resolution, calibrated for the use of the 10X objective</li> <li>• Motorized load application device</li> <li>• Flat anvil ( in alternative it is possible to order a Manual X-Y stage, travel range 25x25 mm, with micrometers 0.01 mm resolution among the optional accessories</li> <li>• Manual work piece focusing</li> <li>• Automatic test cycle</li> </ul>



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	<ul style="list-style-type: none"><li>• Colour touch screen LCD provided with alphanumerical readout and practical, quick and ease-of-use graphics</li><li>• Selectable load dwell time</li><li>• Software guide to the correct configuration in the various scales</li><li>• Possibility to save/retrieve test batches on external devices such as USB key and/or LAN company networks</li><li>• Possibility to enter nominal values and tolerances</li><li>• 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</li><li>• Data convertible into text or Excel formats</li><li>• Automatic software updates via USB key</li><li>• 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</li><li>• Automatic correction of measurements on the cylindrical and spherical work pieces as per ISO 6507 or ASTM standards</li><li>• Manual load selection with electronic load control</li><li>• Diagnosis and test menu</li><li>• Language selection</li><li>• Optical output for CCD or Camera (the adapter must be ordered separately)</li><li>• Maximum work piece height: 200 mm</li><li>• Throat depth: 155 mm</li><li>• Dimensions of the instrument: 400 x 600 x 700 mm (L x w x h)</li><li>• Weight: 40 kg</li> <li>• Accessory case containing:<ul style="list-style-type: none"><li>– Instructions manual</li><li>– Plastic cover</li><li>– No. 2 HV30 test blocks</li><li>– Flat anvil Ø 60 mm</li><li>– Small "V" shaped anvil</li><li>– Deep "V" shaped anvil</li></ul></li></ul>



Code	Description
	<b>TRAINING AND ACCESSORIES FOR MODELS ISOSCAN, VICKERS and MICROSCAN</b>
742042202	<p style="text-align: center;"><b>TRAINING COURSE for AC models</b></p> <ul style="list-style-type: none"> <li>• 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</li> <li>• 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.</li> </ul>
742EV2590	<b>Integrated PLUS optional system for microhardness testers models AC consisting of:</b>
	<ul style="list-style-type: none"> <li>• 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)</li> <li>• Generation and handling of hardness profile (traverses) patterns as well as hardness arrays(1)</li> <li>• Synoptic control of the progress in the execution of hardness profiles and arrays (1)</li> <li>• 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.</li> <li>• 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.</li> <li>• Repetition of single indentations and / or single measurements</li> <li>• Automatic determination of a hardness value at a given distance from edge</li> <li>• Given a hardness value, calculation of the distance from edge</li> <li>• Given a hardness value, calculation of the effective case depth</li> <li>• Automatic calculation of the effective case depth</li> </ul>
	<b>NOTE (1) : Array functions can be carried out only if the digital micrometer head is mounted on the Y axis.</b>
742EV2591	<p style="text-align: center;"><b>MICROMETER HEAD for Y axis (available only for PLUS SYSTEM)</b></p> <ul style="list-style-type: none"> <li>• Digital micrometer head featuring 0,001 mm resolution complete with electronic interface.</li> </ul>
742EV2594	<p style="text-align: center;"><b>MICROMETRIC eyepiece (Optional for new Micro hardness tester AC series)</b></p> <ul style="list-style-type: none"> <li>• 10x magnification micrometric eyepiece to view indentations and work pieces</li> </ul>



Code	Description
	<b>ACCESSORIES FOR ISOSCAN SERIES</b>
742EV2592	<ul style="list-style-type: none"> <li>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</li> </ul>
742EV7001	<ul style="list-style-type: none"> <li>USB CCD B/W Camera, high resolution, sensitivity and speed</li> </ul>
742EV7002	<ul style="list-style-type: none"> <li>Photo-tube with C-mount (for CCD camera)</li> </ul>
742EV7003	<ul style="list-style-type: none"> <li>Universal tilting vice</li> </ul>
742EV7004	<ul style="list-style-type: none"> <li>Specimen holder for prepared work pieces Ø 25 mm</li> </ul>
742EV7005	<ul style="list-style-type: none"> <li>Specimen holder for prepared work pieces Ø 30mm</li> </ul>
742EV7006	<ul style="list-style-type: none"> <li>Specimen holder for prepared work pieces Ø 40mm</li> </ul>
742EV7007	<ul style="list-style-type: none"> <li>Specimen holder for prepared work pieces Ø 1.25"</li> </ul>
742EV7008	<ul style="list-style-type: none"> <li>Specimen holder for prepared work pieces Ø 1.5"</li> </ul>
742EV7009	<ul style="list-style-type: none"> <li>Specimen precision holder (Vertical type)</li> </ul>
742EV7010	<ul style="list-style-type: none"> <li>Specimen precision holder (Horizontal type)</li> </ul>
742EV7011	<ul style="list-style-type: none"> <li>Thin specimen holding device</li> </ul>
742EV7012	<ul style="list-style-type: none"> <li>Precision vise (jaw opening 50 mm)</li> </ul>
742EV7013	<ul style="list-style-type: none"> <li>Precision vise (jaw opening 80 mm)</li> </ul>
742EV7014	<ul style="list-style-type: none"> <li>5x Objective</li> </ul>
742EV7015	<ul style="list-style-type: none"> <li>10x Objective</li> </ul>
742EV7016	<ul style="list-style-type: none"> <li>20x Objective</li> </ul>
742EV7017	<ul style="list-style-type: none"> <li>40x Objective</li> </ul>
742EV7018	<ul style="list-style-type: none"> <li>80x Objective</li> </ul>
742EV7019	<ul style="list-style-type: none"> <li>Additional built-in 5X objective complete with optical kit (supplied only upon order of a new hardness testers mod. Isoscan)</li> </ul>
742EV7020	<ul style="list-style-type: none"> <li>Additional built-in 10X objective complete with optical kit (supplied only upon order of a new hardness testers mod. Isoscan)</li> </ul>
742EV7021	<ul style="list-style-type: none"> <li>Additional built-in 20X objective complete with optical kit (supplied only upon order of a new hardness testers mod. Isoscan)</li> </ul>
742EV7022	<ul style="list-style-type: none"> <li>Additional built-in 40X objective complete with optical kit (supplied only upon order of a new hardness testers mod. Isoscan)</li> </ul>
742EV7023	<ul style="list-style-type: none"> <li>Additional built-in 80X objective complete with optical kit (supplied only upon order of a new hardness testers mod. Isoscan)</li> </ul>
742EV7024	<ul style="list-style-type: none"> <li>Flat Anvil ø 80 mm</li> </ul>
742EV7025	<ul style="list-style-type: none"> <li>Large Flat Anvil ø 180 mm</li> </ul>
742EV7026	<ul style="list-style-type: none"> <li>Large Flat Anvil ø 200 mm</li> </ul>
742EV7027	<ul style="list-style-type: none"> <li>Small V-Shape Anvil ø 80 mm</li> </ul>
742EV7028	<ul style="list-style-type: none"> <li>Deep V-Shape Anvil ø 80 mm</li> </ul>
742EV7029	<ul style="list-style-type: none"> <li>Vickers Diamond indenter for Isoscan series</li> </ul>
742EV7030	<ul style="list-style-type: none"> <li>Vickers Diamond indenter for ISOSCAN HV 50 hardness tester</li> </ul>
742EV7031	<ul style="list-style-type: none"> <li>Knoop diamond indenter for Isoscan series</li> </ul>



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
<b>ACCESSORIES FOR MODELS MICROSCAN OD – AC</b>	
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