SOLDAMATIC ®

AUGMENTED TRAINING FOR WELDING

SOLDAMATIC
AUGMENTED TRAINING FOR WELDING

SOLDAMATIC E-LEARNING
Curricula, Tests & Analysis Module

AT
AUGMENTED TRAINING

PRACTICE WORKSHOP
Manufacturing Industry

STUDENTS SIMULATOR
Augmented Reality (AR) Practices

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Data Sheet 2023

State of the Art, Turnkey, Scalable and Effective welding training solution powered by Augmented Reality

VISION TECHNOLOGY	AUGMENTED REALITY
WELDING PROCESSES SUPPORTED	MANUAL: GMAW (MIG/MAG) & FCAW G/S, SMAW (MMAElectrode), GTAW (TIG)
	ROBOTICS: GMAW (MIG/MAG) & FCAW G/S
WELDING POSITIONS	PA, PB, PC, PD, PF/PG, PE, PH/PJ, HL045/JL045 - 1F, 2F, 3F, 4F, 5F, 6F, 1G, 2G, 3G, 4G, 5G, 6G HL045 (6G) available in AWM-002, AWM-008, AWM-011, AWM-012 and AWM-016. 6GR available in AWM-011 (Pipeline 6GR)
DEFAULT WELDING JOINTS INCLUDED	Training Welding Joints: Overlapped plate, V-Butt plate, T-Angled plate to plate, V-Butt pipe, T-Angled pipe to plate
ADDITIONAL WELDING JOINTS AVAILABLE	20 Additional Advanced Welding Multijoints available for manual and robot welding based on Foundational, Automotive, Railway, Shipbuilding and Oil&Gas industries
	Manual: AWM001, AWM002, AWM003, AWM004, AWM005, AWM006, AWM007, AWM008, AWM011, AWM012, AWM013, AWM014, AWM020 available for AWS training content
	Robotics: AWM001, AWM004, AWM009, AWM010, AWM015, AWM016, AWM017, AWM018, AWM019
WELDING JOINTS FOR SPECIFIC INDUSTRIAL NEEDS	With Industrial Welding Services
ON DEMAND TAILOR MADE COUPONS	Including the physical workpiece. Industrial Welding Services
PIECE CAN BE MANIPULATED SEPARATELY	It can be manipulated at any time during the exercise to perform a visual inspection of the welding bead. The workpiece is not attached in any way to the workstand
REAL WELDING TORCHES	MANUAL: YES, by Abicor Binzel
REAL ADVANCED WELDING TORCHES	Handle ergonomics by Abicor Binzel
HAPTICS	Advanced GMAW/FCAW torch includes vibration feature
WELDING SOUNDS	Recorded in a real welding lab
REAL WELDING MASK	YES
VOLTAGE SELECTION	MANUAL: it can be modified during the exercise
	ROBOTICS: in job selection
INTENSITY (AMPERAGE) SELECTION	It can be modified during the exercise
SHIELDING GAS SELECTION	The flow can be modified during the exercise
WIRE SPEED SELECTION	MANUAL: in GMAW (MIG/MAG) and FCAW, it can be modified during the exercise
	ROBOTICS: in job selection
PLUG WELDING	In AWM-005 (Automotive Thin Plates) and Industrial Services
COUPON MATERIAL SELECTION	Carbon Steel, Stainless Steel, Aluminium

GAS COMPOSITION

MATERIAL	GMAW	GTAW	FCAW
Carbon Steel	Argon - Co_2, CO_2	Helium*	Argon - Co_2, CO_2
Aluminium	Argon	Argon	-
Stainless Steel	Argon - O_2	Argon	-

COUPON THICKNESS SELECTION	YES: 3mm, 6mm, 10mm 1mm, 2mm, 7mm, 8mm, 15mm, 16mm, 20mm, 25mm available with Advanced license
POSSIBILITY TO USE OTHER THICKNESSES	On demand with Industrial Welding Services

ELECTRODE STICK / FILLER ROD DIAMETER SELECTION	MATERIAL	GMAW	SMAW	GTAW
	Carbon	0.8mm, 1mm, 1.2 mm	2.5mm, 3.25mm, 4mm	2mm, 2.4mm, 3.2 mm
	Stainless Steel			
	Aluminium	1mm, 1.2mm	-	

ELECTRODE STICK / FILLER ROD SELECTION	MATERIAL	GMAW	SMAW	GTAW	FCAW
	Carbon Steel	ER70S-6	E7018, E6010, E6013	ER70S-6	E71T-1, E71T-7
	Stainless Steel	E316LSi	E316L	ER316L	
	Aluminium	ER5356	-	ER5356	

POSSIBILITY TO TRY DIFFERENT SETTINGS DURING THE EXERCISE AND THEIR EFFECTS IN THE WELDING BEAD	YES
MULTIPASS EXERCISE WITH DIFFERENT WELDING PROCESSES	YES
WELDING TECHNIQUE	Push / Drag
WELDING PATTERN/WEAVE	Straight, Triangle, Convex, Circle, Zigzag
WELDING DIRECTION	ROBOTICS: Right to left/ Left to right
OPEN ROOT WELDING	In AWM-006, AWM-008, AWM-011, AWM-012, AWM-013 and AWM-015
TRANSFER MODES	Short circuit, globular, spray, pulsed-arc (available for AWM welding joints)
UNDO WELDING	It is possible to undo a pass or weldment repeating only a certain part of the exercise
ON-SCREEN HELP GUIDES	They can be added/removed
POSSIBILITY TO CONNECT THE UNIT TO A ROBOTIC ARM	Robotics license needed
ANALYSIS MODULE	YES
ADVANCED ANALYSIS MODULE	Included in Advanced licenses. Mechanical Resistance and Cross Section
DEFECTS ANALYZED	Porosity, spatter, slag inclusion, burnthrough (available for AWM welding joints)

REPORT FEATURES	CTWD, Travel Speed, Work Angle, Travel Angle, Trajectory, Voltage, Wirefeed Speed, Technical Parameters, Equipment Settings, and Bend Test
AUGMENTED TRAINING CONTENT	Developed by Seabery: Augmented Training Soldamatic Welding Course; Augmented Training Methodology; Introduction to Robot Welding; MAG position PF / PD / PH
INTERNATIONAL PUBLISHERS CONTENT	AWS, CESOL, DVS, Ludo Breemans
LMS APPLICATION	Soldamatic e-Learning for Teachers and Students
LMS APPLICATION: TEACHER ACCESS	Easy web access and also desktop application
LMS APPLICATION: STUDENTS ACCESS	Web access. Visualize contents, progress, take tests, live chat
LMS APPLICATION: LIVE CHAT	Available for teachers and students
LMS APPLICATION: SHAREVIEW	Teachers can see what the students see in real time in their laptop, either within the same classroom or online
REMOTE TRAINING / DISTANCE LEARNING	Synchronous and asynchronous options Teachers can monitor students from different training centers online, seeing in real time their progress and the welders' point of view while welding
STUDENT PERSONALIZED PROFILE	Practices report and progression
REPORTS	Exercises, courses, students and diploma reports. Also CSV format available for end-user custom reports
CUSTOMIZED PRACTICES	Customized in Soldamatic E-Learning
REAL ENVIRONMENT DURING SIMULATION	YES
SUBSCRIPTION OPTIONS	Anual or Lifetime
UPDATES	Online and offline Software updates and bugfixing (Same version) included in the license with no additional cost New system versions included in the anual license with no additional cost
REMOTE MAINTENACE	YES
SPECIFIC CUSTOMER ADAPTATIONS ON DEMAND	YES
REGULATIONS	CE and FCC
CERTIFICATIONS	ISO 9001 Quality Management System ISO 14001 Environmental Management System
WARRANTY	1 year by default, up to 2 more years optional
SOLDAMATIC SIMULATOR	
DIMENSIONS (WITHOUT ACCESSORIES)	439x237x533mm (17.28x9.33x20.98 in.)
WEIGHT (WITHOUT HELMET)	9.5 Kilograms (20.94 lbs.)
WEIGHT (WITH HELMET)	10.8 Kilograms (23.80 lbs.)
ACCESORIES	MANUAL STANDARD: filler rod, welding gloves, Wi-Fi antennas ROBOTICS: Vision Module, Robotics educational torch and Robotics advanced torch OPTIONAL: GTAW (TIG) Pedal, Workstand, Augmented Lab server including router, and flight case.

POWER SUPPLY	120-240V
PROCESSOR	Intel® Core™ i5 10th gen
CHIPSET	Intel® Q470E
RAM	16 GB (2 x 8GB Dual-Channel) DDR4 2400Mhz
GRAPHIC CARD	NVIDIA Quadro T1000
HARD DISK	M.2 SSD 128GB
AUDIO	Realtek High Definition Audio
OPERATING SYSTEM	Seabery Operating System optimized for Soldamatic 2023
AUTOMATIC SHUTDOWN	It can be configured
DISPLAY SIZE	9.7"
DISPLAY RESOLUTION	HD LCD 1024 x 768 XGA
BACK PANEL PORTS	Screen: HDMI/Display Ports USB: 4 x USB 3.2 Gen 1 Connection: 2x LAN 2x Antennas Intel® WiFi6 Dual Band Audio: microphone & speakers ports Others: Robotics port
FRONT PANEL PORTS	1 X USB type A, 1 X USB type B
AR VISION MODULE RESOLUTION	MIPI LCD 4,7" HDMI Display input up to 1280x720 Ultra-low video distortion 24-bit True Colour
CAMERAS RESOLUTION (X2)	640x480 / 800x600 Autofocus
UNIT CAN BE USED WITH GLASSES	YES
OPERATING TEMPERATURE	0 - 45°
HUMIDITY	10 - 80%

SOLDAMATIC SERVER	
INSTALLATION TYPE	ON-PREMISE OR CLOUD
ON-PREMISE	
RAM MEMORY	4GB DDR4 2400MHz
MOTHERBOARD	ASUS H110M-D
MICROPROCESSOR	Intel Core I3-7100
POWER SUPPLY	550W 100-240Vac
HARD DISK	1TB SATA3
NETWORK CARD	Gigabit Ethernet PCIe 10/100/1000Mbps

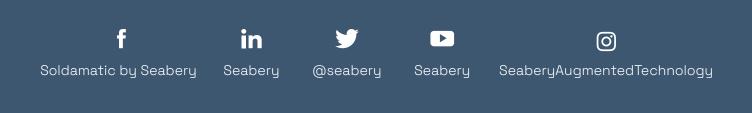| SOLDAMATIC E-LEARNING REQUIREMENTS	
WINDOWS	MacOS
WINDOWS 10 64 BITS	OS Min: High Sierra 10.13
Processor: Intel I5 2.5GHz	Processor: Intel I5 1.86GHz
RAM: 8GB	RAM: 8GB
Graphic card specifications: Nvidia Geforce 950	Graphic card: Intel Iris Plus Graphics 640

LANGUAGES AVAILABLES
ENGLISH (EN) / SPANISH (ES) / GERMAN (DE) / FRENCH (FR) / PORTUGUESE (BR) / RUSSIAN (RU) / CHINESE (ZH) / HINDI (IN) / ITALIAN (IT) JAPANESE (JA) / TURKISH (TR) / DUTCH (NL) / KOREAN (KO) / THAI (TH) / POLISH (PL) / CZECH (CS) / INDONESIAN (ID) / HUNGARIAN (HU) ROMANIAN (RO) / ALBANIAN (SQ) / SLOVENIAN (SL) / SERBIAN (SR) / LATVIAN (LV) / GEORGIAN (KA) / VIETNAMESE (VI) / MALAYSIAN (MS) TAMIL (TA) / TELUGU (TE) / SINGHALESE (SI) / KAZAKH (KZ) / SWEDISH (SV) / DANISH (DA) / LITHUANIAN (LT) / ARAB (AR) / MARATHI (MR)

MADE IN SPAIN

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Seabery is the international leader in professional skills training with augmented reality-based simulation training solutions for the 21st century workforce, with partners and presence in more than 80 countries.

Soldamatic is leading welding training with a State-of-the-art, Turn-Key, and Scalable solution to create the next generation of welders effectively and efficiently.

Seabery

AUGMENTED TECHNOLOGY

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