



AUGMENTED TRAINING TECHNOLOGY FOR WELDING

SOLDAMATIC

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SOLDAMATIC

AUGMENTED TRAINING TECHNOLOGY FOR WELDING




TRAINING CENTER



 TEACHER



 STUDENT

**SOLDAMATIC
SERVICE
CENTER**



UPGRADES



SUPPORT & MAINTENANCE



CUSTOMER SPECIFIC
REQUIREMENT



SECTORS
CUSTOMIZATION

Letter from the Executive Director

First of all I want to thank you your interest in our product. The new **SOLDAMATIC** Welding Trainer Simulator is the most advanced and competitive educational technology for welding training existing in the world, we are very proud and we want you to become a part of it.

SOLDAMATIC is the result of a R&D+i project designed by Seabery Soluciones and developed by our technical team in cooperation with several prestigious partners. The main objective of this ambitious project was to produce an educational solution which incorporates a cutting- edge technology but at a very competitive price, able to improve and become a step forward in the traditional welding training method. And I really think we did it.

Simulation environments are great for technical training because of its safety and costs saving, but the simulation experience needs to be as real as possible to be effective for both teachers and students, and the Augmented Reality brings a world of possibilities in this field. Never before the Augmented Reality was used to create simulation environments for training purposes, letting the student interact in real time with real 3D objects overlapped by computer-generated images increasing his perception of the environment. But we did it.

And now we can offer you the most economic, efficient, safe, flexible and sustainable educational solution for welding training

worldwide, which with you can really feel the future of the technical training by turning traditional models into new ways of education with the help of technological innovation. It is said that technology must be at the service of the citizens, and we strongly believe that.

We are creating a **SOLDAMATIC** community in the Internet in which different users worldwide are sharing their experiences and taking the best profit of this new technology to accomplish their training objectives. Finally we can help you to train more qualified welders, with less workshop time, safely, sustainably (without harmful gases emission) and reducing your training costs. I invite you to keep up-to-date by following us in our web channels.

Start using Soldamatic, start changing your mind, start thinking in future.

For further information and quotes, please contact the authorized distributor in your country or directly us through our website.

Alejandro Villarán Vázquez
Executive Director

Seabery Soluciones

What make us Different

Augmented Reality

A cutting-edge artificial vision technology designed to achieve the most realistic training experience ever. Do not stay in the past with virtual reality; the future comes with Augmented Reality!

Virtual reality has been largely overtaken by the **AUGMENTED REALITY** (AR) used in **SOLDAMATIC**, which combines real objects with virtual computer-generated images to create a new mixed reality in real time. You will work with real 3D objects so the AR allows you to keep in touch with your working environment focusing on the real world instead of the computer: AR increases your perception of the environment overlapping with virtual 3D objects. This gives you the feeling that the objects of the real and virtual worlds coexist!

We can affirm that while virtual reality try to bring the real world into the computer, **SOLDAMATIC'S** Augmented Reality technology brings the computer to the real user work environment.



Visit our channel in youtube

You Tube

What make us Different

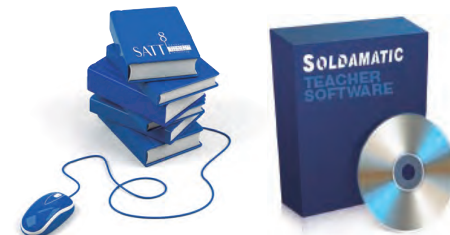
New Classroom Training System

As many **SOLDAMATICS** as needed working together, network connected through the **SOLDAMATIC SERVER** even with the teacher computer. This system let you start several welding courses at the same time in different **SOLDAMATIC's** classrooms, and set out just one real workshop that can be used by all the students of the different courses when they are skilled enough, introducing a new student in the Soldamatic classroom even if the course have started. Without investing in real equipment, consumables and facilities you can train much more welders in the same time!



Platform e-Soldamatic+ Specific Soldamatic Teacher Software

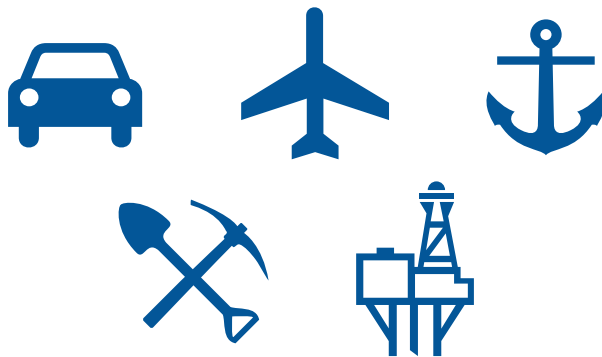
Efficient tools aimed to help the instructor and give him control over the training and make his job easier. With both tools the teacher designs, manage, monitor and evaluate the welding courses: students, exercises, theory, exams, etc. You start training with Distance Learning through e-Soldamatic Platform that is already managed by the Teacher-software, so you optimize the time inside the training center and saving costs. The teacher monitors everything about the training from his own computer in real time even without being in the classroom.



What make us Different

Adaptability To Specific Customers Requirements

According to the different training sectors and/or programs worldwide (automotive, naval, energy, mining, oil & gas, aeronautic, off-shore, etc.). We also can adapt **SOLDAMATIC** to any specific requirement that you may request (joints, consumables, work piece thickness, etc.).



Remote Maintenance and Updates In Real Time Worldwide

When connecting your **SOLDAMATIC** to internet, it will search for any upgrade available and will install it automatically through our **SOLDAMATIC SERVICE CENTER**. Applicable to maintenance and support, system improvement upgrades (for free) and even new features such as new base materials, gases, etc.



What make us Different

Price

We always work to be the most competitive in the global market-place. You will find neither a similar technology nor at a lower price. When you purchase **SOLDAMATIC** you can configure it starting from the standard version and adding all the desired options, and even later you can add new features. This way you only pay for what you really need and just when you need it!



Motivation

SOLDAMATIC is the most attractive solution for student's training as they feel it like a serious videogame, increasing their motivation and augmenting the results and quality of training. We call it Augmented Training!



What make us Different

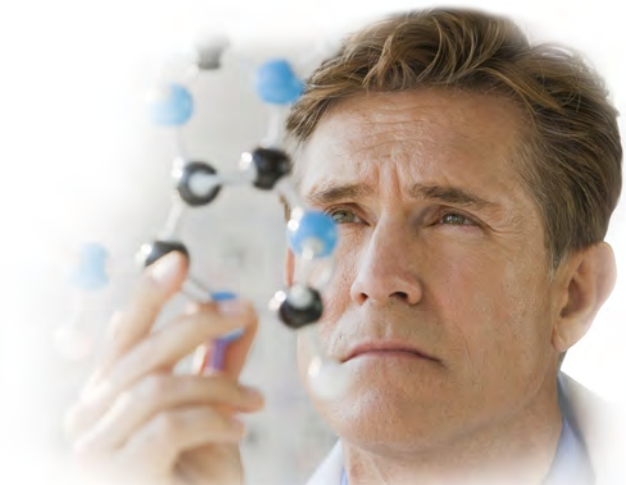
Customer Service

We want to hear **YOU**. We have an international network of confident distribution business partners to give you the best after-sale service and enhance your **SOLDAMATIC** experience. Everything you may need, just ask us.



R&D+i and Quality

Continuous investment in research, development and innovation to attend your requirements and help you fulfill your training objectives. ISO 9001 Quality Certified Company EC-5378/10. ISO 14001 Environment Certified Company MA-1791/10. Accredited by ENAC.



- **Standard** Included in Standard version
- **Optional** Can be added to Standard version

Soldamatic Components | e-Learning



e-Soldamatic platform

- **Standard**



Teacher Software

- **Standard**

Soldamatic Components



Soldamatic CPU

• Standard



Soldamatic Augmented Reality Mask

• Standard

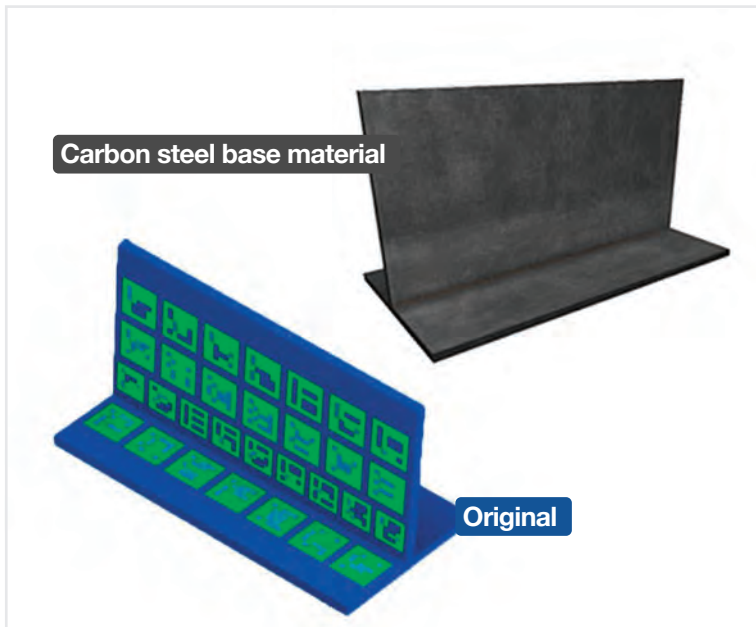
Soldamatic Components | Welding Torches



Welding Torches | SMAW (Electrode) | GMAW (MIG/MAG) | GTAW (TIG)

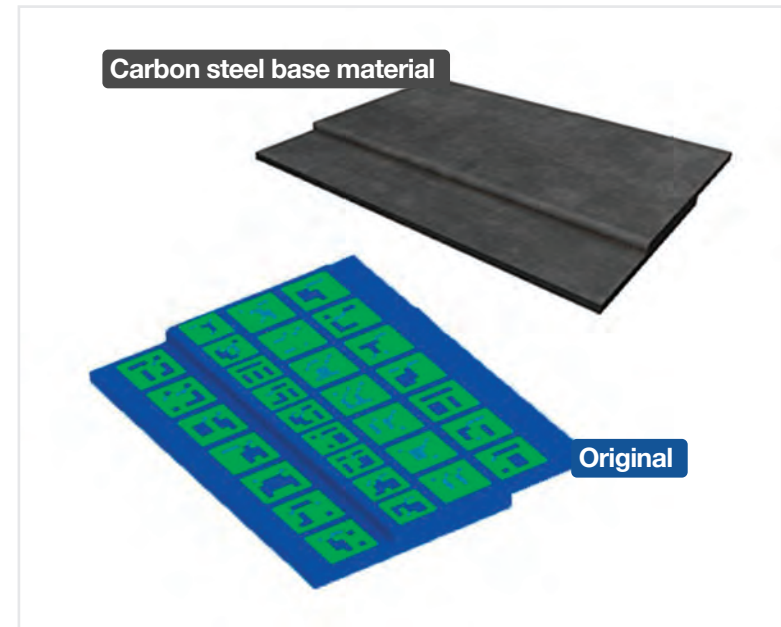
• Standard

Soldamatic Components | Work Pieces



T-Joint

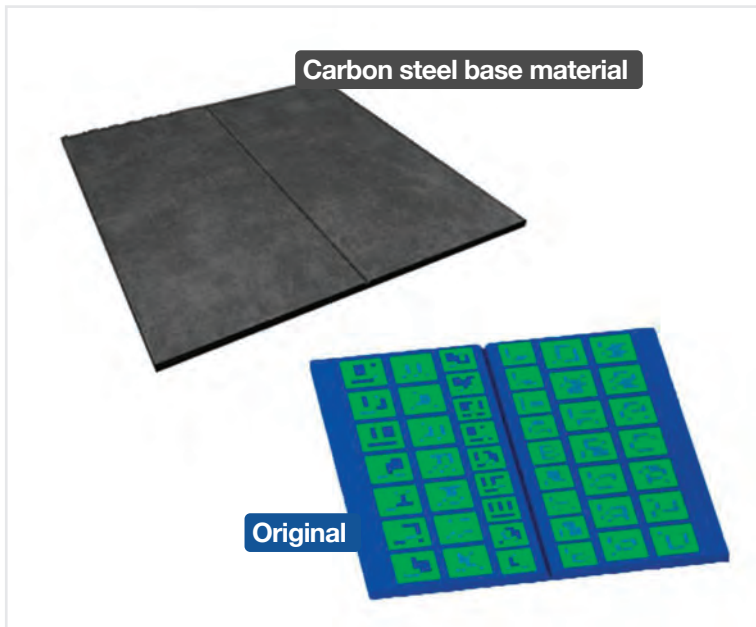
- Standard



Lap Joint

- Standard

Soldamatic Components | Work Pieces



V-Butt Joint

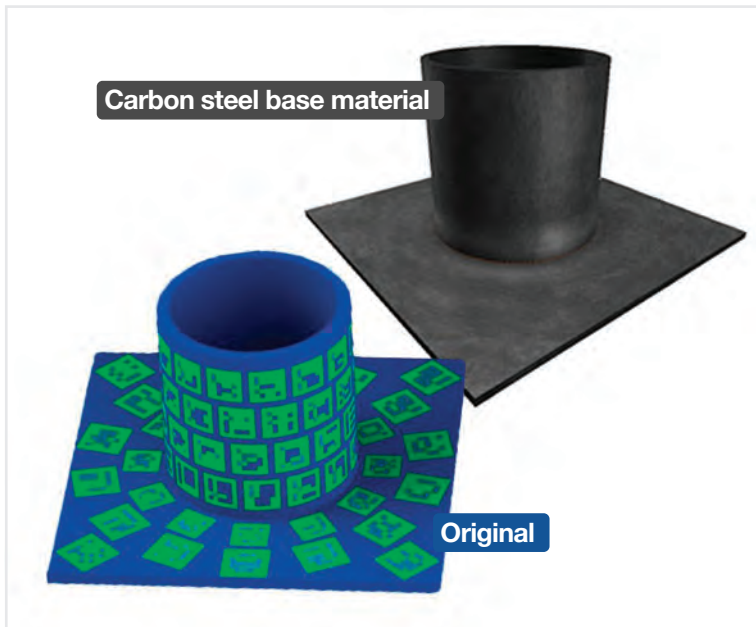
• Standard



Pipe V-Butt Joint

• Standard

Soldamatic Components | Work Pieces



Pipe T-Joint

- Standard

Soldamatic Components | Soldamatic Server



Soldamatic Server

• Optional



Wifi Router

• Standard

Soldamatic Components | Accesories



Welding Gloves

• Standard



Work Area Black Carpet

• Standard

Soldamatic Components | Accesories



Work Stand

• Optional



Secure Transport Flight Case

• Optional

Soldamatic Components



Packaging Anti Shock System

- Standard

SUMMARY

| Components | Standard | Optional |
|------------------------------|----------|----------|
| e-Soldamatic platform | ✓ | |
| Software professor | ✓ | |
| Soldamatic CPU | ✓ | |
| Augmented Reality Mask | ✓ | |
| SMAW (Electrode) | ✓ | |
| GMAW (MIG/MAG) | ✓ | |
| GTAW (TIG) | ✓ | |
| T-Joint | ✓ | |
| Lap Joint | ✓ | |
| V-Butt Joint | ✓ | |
| Pipe V-Butt Joint | ✓ | |
| Pipe T-Joint | ✓ | |
| Soldamatic Server | | ✓* |
| Wifi Router | ✓ | |
| Welding Gloves | ✓ | |
| Work Area Black Carpet | ✓ | |
| Work Stand | | ✓ |
| Secure Transport Flight Case | | ✓ |
| Packaging Anti Shock System | ✓ | |

*Necessary when 2 Soldamatics or more (Classroom training system)

Welding Features

| Welding Procedure | SMAW Consumable electrode | GMAW | | GTAW TIG | Standard | Optional |
|-------------------------|---------------------------------|------|-----|-------------|----------|----------|
| | | MAG | MIG | | | |
| TYPES OF JOINTS: | | | | | | |
| BUTT WELDS: | | | | | | |
| Square | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Single U | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Double U | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Single V | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Double V (X) | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Single bevel | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Double bevel (K) | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Single J | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Double J | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Other on demand | ✓ | ✓ | ✓ | ✓ | | ✓ |
| TEE WELDS: | | | | | | |
| Tee | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Single bevel | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Double bevel | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Single J | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Double J | ✓ | ✓ | ✓ | ✓ | | ✓ |

Welding Features

| Welding Procedure | | GMAW | | | Standard | Optional |
|--|----------------|------|-----|---|----------|----------|
| | | MAG | MIG | | | |
| CORNER WELDS: | | | | | | |
| Corner | | ✓ | ✓ | ✓ | | ✓ |
| Other on demand | | ✓ | ✓ | ✓ | | ✓ |
| LAP WELDS: | | | | | | |
| Lap | | ✓ | ✓ | ✓ | ✓ | |
| EDGE WELDS: | | | | | | |
| Edge | | ✓ | ✓ | ✓ | | ✓ |
| WELDING POSITIONS (ANSI/AWS A3.0M/A3.0:2010): | | | | | | |
| Butt joint: | 1G, 2G, 3G, 4G | ✓ | ✓ | ✓ | ✓ | |
| Pipe butt joint: | 1G, 2G, 5G, 6G | ✓ | ✓ | ✓ | ✓ | |
| Fillet joint: | 1F, 2F, 3F, 4F | ✓ | ✓ | ✓ | ✓ | |
| Pipe tee joint: | 2F, 4F, 5F | ✓ | ✓ | ✓ | ✓ | |
| Single bevel pipe with restriction ring: | 6GR | | | | | ✓ |
| ELECTRICAL FEATURES: | | | | | | |
| AC/DC | | ✓ | | ✓ | ✓ | |
| DC+/DC- (Polarity) | | ✓ | | | ✓ | |
| Voltage | | | ✓ | ✓ | ✓ | |

Welding Features

| Welding Procedure | SMAW Consumable electrode | GMAW | | GTAW TIG | Standard | Optional |
|--------------------------------------|---------------------------------|------|-----|-------------|----------|----------|
| | | MAG | MIG | | | |
| Current (Amp) | ✓ | | | ✓ | ✓ | |
| Wire speed | | ✓ | ✓ | | ✓ | |
| ELECTRIC ARC STRIKING: | | | | | | |
| Scratching | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Lift arc (tapping) | | ✓ | ✓ | ✓ | ✓ | |
| High frequency | | ✓ | ✓ | ✓ | ✓ | |
| SHIELDING GAS: | | | | | | |
| Argon | | | ✓ | ✓ | ✓ | |
| CO ₂ | | ✓ | | | ✓ | |
| Helium | | | ✓ | ✓ | ✓ | |
| Mixtures with Argon-Helium | | ✓ | ✓ | ✓ | ✓ | |
| Argon-CO ₂ | | ✓ | ✓ | | ✓ | |
| Argon-O ₂ | | ✓ | ✓ | | ✓ | |
| Other on demand | | | | | | ✓ |
| Vacuum/Enclosure Shielding Inert Gas | | | | ✓ | | ✓ |
| BASE MATERIAL: | | | | | | |
| Carbon Steel | | | | | ✓ | |
| Stainless Steel | | | | | | ✓ |

Welding Features

| Welding Procedure | SMAW Consumable electrode | GMAW | | GTAW TIG | Standard | Optional |
|---------------------------------|---------------------------------|------|-----|-------------|----------|----------|
| | | MAG | MIG | | | |
| Aluminum | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Copper | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Titanium | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Others on demand | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Alloys | ✓ | ✓ | ✓ | ✓ | | ✓ |
| BASE MATERIAL THICKNESS: | | | | | | |
| 1/8 " | ✓ | ✓ | ✓ | ✓ | | ✓ |
| 3/16" | ✓ | ✓ | ✓ | ✓ | | ✓ |
| 1/4 " | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 3/8" | ✓ | ✓ | ✓ | ✓ | | ✓ |
| 1/2 " | ✓ | ✓ | ✓ | ✓ | | ✓ |
| 1" | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Others on demand | ✓ | ✓ | ✓ | ✓ | | ✓ |
| FILLER MATERIAL: | | | | | | |
| ELECTRODE STICKS: | | | | | | |
| Rutile | | | | | | |
| 2,50 mm | ✓ | | | | ✓ | |
| 3,25 mm | ✓ | | | | ✓ | |

Welding Features

| Welding Procedure | SMAW Consumable electrode | GMAW | | GTAW TIG | Standard | Optional |
|---------------------|---------------------------------|------|-----|-------------|----------|----------|
| | | MAG | MIG | | | |
| 4,00 mm | ✓ | | | | ✓ | |
| Other on demand | ✓ | | | | | ✓ |
| Basic | | | | | | |
| 2,50 mm | ✓ | | | | ✓ | |
| 3,25 mm | ✓ | | | | ✓ | |
| 4,00 mm | ✓ | | | | ✓ | |
| Other on demand | ✓ | | | | | ✓ |
| Celulosic | | | | | | |
| | ✓ | | | | | ✓ |
| WIRES: | | | | | | |
| Solid wire | | | | | | |
| 0,80 mm | | ✓ | ✓ | | ✓ | |
| 1,00 mm | | ✓ | ✓ | | ✓ | |
| 1,20 mm | | ✓ | ✓ | | ✓ | |
| Other on demand | | ✓ | ✓ | | | ✓ |
| Cored wire | | | | | | |
| | | ✓ | ✓ | | | ✓ |
| FILLER RODS: | | | | | | |
| 2,00 mm | | | | ✓ | ✓ | |
| 2,40 mm | | | | ✓ | ✓ | |
| Other on demand | | | | ✓ | | ✓ |

Welding Features

| Welding Procedure | SMAW Consumable electrode | GMAW | | GTAW TIG | Standard | Optional |
|---|---------------------------------|------|-----|-------------|----------|----------|
| | | MAG | MIG | | | |
| TUNGSTEN ELECTRODE: | | | | | | |
| Pure tungsten. | | | | ✓ | | ✓ |
| Tungsten -thorium alloy | | | | ✓ | ✓ | |
| Tungsten-zirconium alloy | | | | ✓ | | ✓ |
| Tungsten-lanthanum alloy | | | | ✓ | | ✓ |
| Tungsten-cerio alloy | | | | ✓ | | ✓ |
| WELDING SYSTEM: | | | | | | |
| 2 times | | ✓ | ✓ | ✓ | ✓ | |
| 4 times | | ✓ | ✓ | ✓ | | ✓ |
| Timer | | ✓ | ✓ | | | ✓ |
| WELDING ANALYSIS AND DIAGNOSTIC: | | | | | | |
| Basic analysis module | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Advanced analysis module | ✓ | ✓ | ✓ | ✓ | | ✓ |

Technical Specifications

| | | |
|-----------|---|--|
| 01 | Supported welding processes | SMAW, GMAW, FCAW, GTAW Manual Arc Welding, MIG/MAG, TIG. |
| 02 | Supported joints | Standard version: V-butt joint, lap joint, T-joint, pipe V-butt joint and pipe T-joint. Optional: any other joints at the customer's request. |
| 03 | Welding positions (ANSI/AWS A3.0M/A3.0:2010) | 1F, 2F, 3F, 4F, 1G, 2G, 3G, 4G, 5G, 6G, 6GR |
| 04 | Workpieces positions | Plain, flat, vertical, 45°, over-head |
| 05 | Voltage selection | 10V - 30V |
| 06 | Intensity (Amp) selection | 60A - 300A |
| 07 | Polarity selection | DC+, DC-, AC |
| 08 | Shielding gas selection | Standard version: CO2, Argon and mixtures. Optional: Helium, Nitrogen, etc. Gases mixtures configurable by the customer. |
| 09 | Wire speed selection | YES, in GMAW |
| 10 | Base material selection | Standard version: carbon steel. Optional: stainless steel, aluminum, nickel, copper, etc. Any other material at the customer's request. |
| 11 | Workpiece thickness selection | Standard version: 10mm (coming soon 6 and 16mm). Optional: any other thickness at the customer's request. |

Technical Specifications

| | |
|--|---|
| 12 Electrode stick selection | Main version: basic, rutile. Optional: celulosic, etc. |
| 13 Electrode stick diameter selection | Standard version: 2.50, 3.25 y 4.00 mm. Optional: other diameters at the customer request. |
| 14 Wire diameter selection (solid wire) | Standard version: 0.80, 1.00 and 1.20 mm. Optional: any other diameter at the customer's request. |
| 15 Filler rod selection | Standard version: 2.00 and 2.40 mm. Optional: any other diameter at the customer's request. |
| 16 Analysis and evaluation mode | Standard version: Basic Analysis Module. Optional: Advanced Analysis Module |
| 17 Help mode for students | On-screen help icons |
| 18 Vision technology | Augmented Reality |
| 19 Power supply | 115-230 V 5A-11A 50-60 Hz Overcurrent protection point (Max) +3,3V: 60A; +5V: 48A; +12V:80A Over voltage protection point +3,3V: +3,76V-+4,8V; +5V: +5,6V-+7,0V; +12V: +13,0V-+16,5V Under voltage protection +3,3V: 2,0V-2,4V; +5V: 3,3V-3,7V; +12V:8,5V-9,5V Short circuit protection activated when any DC rails short circuit Over power protection at 110%-130% full load |

Technical Specifications

| | | |
|-----------|---|---|
| 20 | Dimensions (without accesories) | 400 x 230 x 440 mm |
| 21 | Weight | 15 kgs. aprox. without accesories. 30 kgs. aprox with accesories. |
| 22 | Accesories included | Standard version: Welding torches (SMAW, GMAW (FCAW) and GTAW), Welding Mask with Augmented Reality, 5 Workpieces, GTAW Filler Rod, All Necessary Cables. Optional: Work Stand, Flight-Case for secure transportation (which can be checked in for domestic or international flights). |
| 23 | Dimensions and weight for transportation | 600 x 800 x 600mm Export Box (H x B x T). Europalet. Total Height: 700mm. Total Weight (aprox): 45 kgs. Security packaging, ANTI SHOCK SYSTEM. |
| 24 | Processor | Intel® Core i7 870 4 cores 3,60 GHZ Speed Cache 8MB Intel® Turbo Boost Intel® Hyper Threading |
| 25 | Chipset | Intel® H61(B3) Express Chipset |
| 26 | RAM | 4GB (2x2048Mb) DIMM DDR3 |
| 27 | Graphic Board | 1024 MB GDDR5 |
| 28 | Hard Disc | Solid State 32GB SSDNow SATA2 2,5" |

Technical Specifications

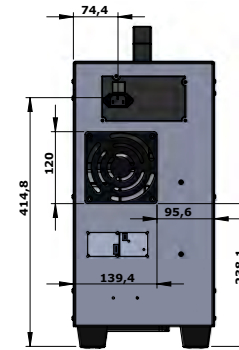
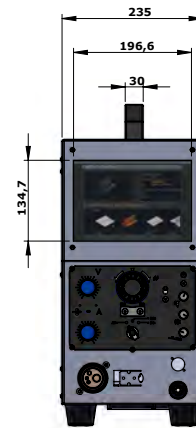
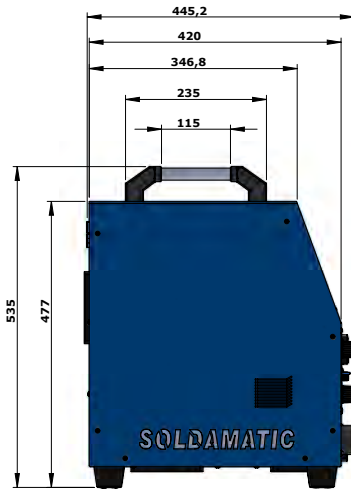
| | | |
|----|--|--|
| 29 | Audio | Realtek® ALC887 8-Channel High Definition Audio |
| 30 | Operating System | SbyOS. Seabery Operating system optimized for SOLDAMATIC. |
| 31 | Display size | 9,7" |
| 32 | Display resolution | HD LCD 1024x768 XGA |
| 33 | Port for external display/projector | VGA |
| 34 | Augmented Reality video-glasses resolution | High Resolution LCD 640x480. VGA Display input up to 1024x768. Ultra-low video distortion. 31° Diagonal field of view. 24-bit True Color. Similar to viewing a 67-inch screen from a distance of 10 feet (3 meters). Focus Adjustment +2 to -5 diopters. |
| 35 | Augmented Reality video-glasses power supply | 5 V |
| 36 | Cameras resolution (x2) | 752 x 480 a 60 fps. |
| 37 | Cameras power supply | 5 V |
| 38 | Operating temperature | 0 - 45° |
| 39 | Humidity | 10 - 80% |

Technical Specifications

| | | |
|----|--|---|
| 40 | Remote Maintenance and Upgrades | In real time connecting to Internet |
| 41 | Master Software: minimum hardware requirements | Windows Vista, 7 Processor 32 bits (x86) 2.2GHz 3MB RAM 2GB Graphic 512MB DirectX 9.0c compatible. NVidia GeForce GT440 or higher ATI Radeon HD5000 or higher HDD 250MB |
| 42 | Server Hardware | SbyOS Operating System Processor Intel i3 Core 2.4GHz 3MB RAM 2GB 2 Ethernet ports HDD 500GB |
| 43 | Specific customer adaptations on demand | YES. Software upgrades in remote. |
| 44 | Regulations | CE and FCC |
| 45 | Company Certifications | ISO 9001 Quality Management System ISO 14001 Environmental Management System Accredited by ENAC |
| 46 | Guarantee | 1 Year |

Note: the information contained here is for commercial purposes and does not mean any legal contract or obligation for the company.

Size Soldamatic | Student's simulator



SATT 8

Seabery
AUGMENTED
TRAINING
Technology

AUGMENTED TRAINING TECHNOLOGY FOR WELDING

SOLDAMATIC



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