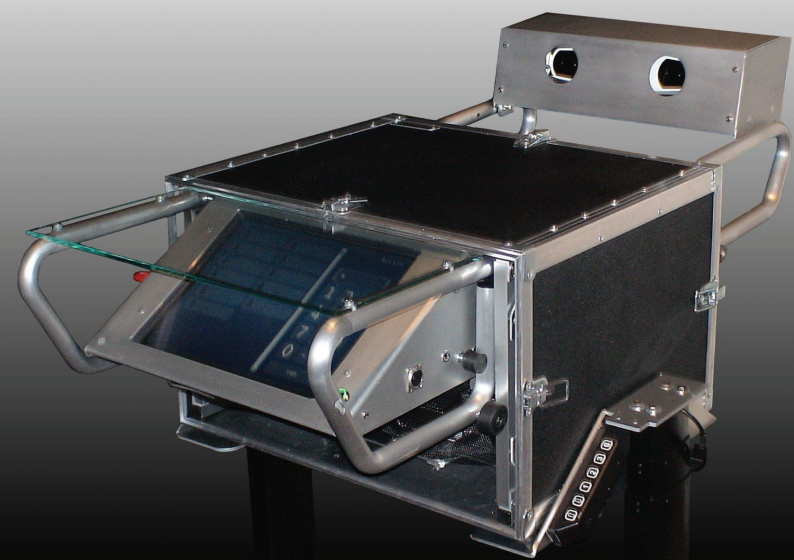


## ARC+ Virtual Welding Simulator

**Train welders faster, better, greener and cheaper!**

**ARC+ Welding Simulator simplify training and certification process for industries and training schools through 3D technology**



### Equipment

- 100% virtual welding station
- Adjustable platform
- 15" (38 cm) touch screen
- Motion tracking technology
- Welding mask with virtual reality components
- Universal adapters for real welding handles
- Portable and easy to set-up

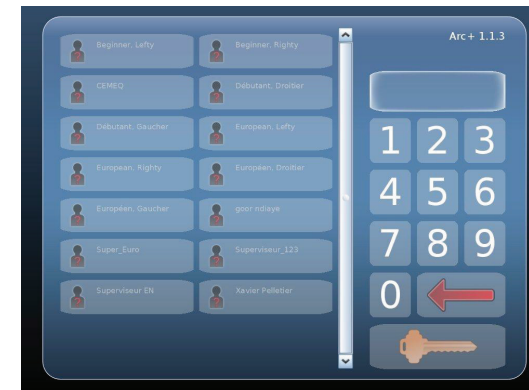
**First system to successfully emulate welding processes in aeronautic/car industries, including GTAW process**

### Cost savings

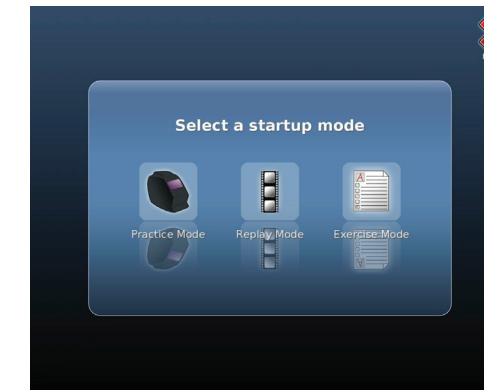
- Estimated payback per unit of 6-12 months, based on savings in welding equipment, consumables, plate preparation and supervision
- Green friendly technology



## ARC+ Characteristics



Secured virtual class



Mode selection



Choice of base metal



Choice of welding process



Choice of welding preparation

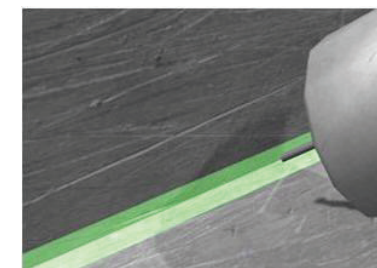


Choice of welding position

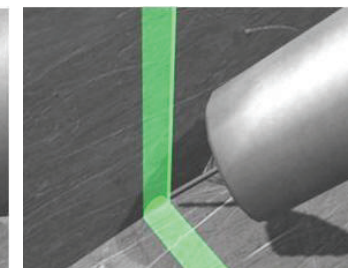
### Manual dexterity guides

Results coming from 3 years of experience with more than 1000 tests.

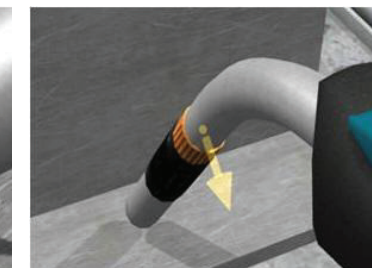
More than 100 welding procedures, allowing up to 25 exercises with 5 guides



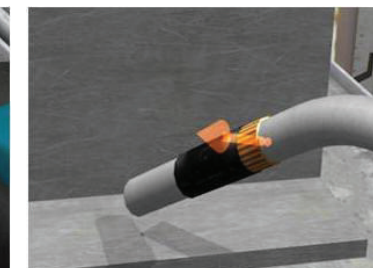
Motion straightness



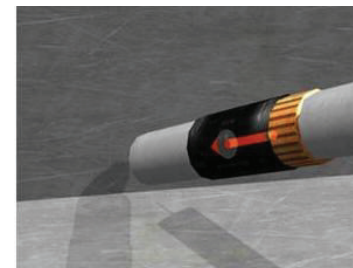
Arc speed



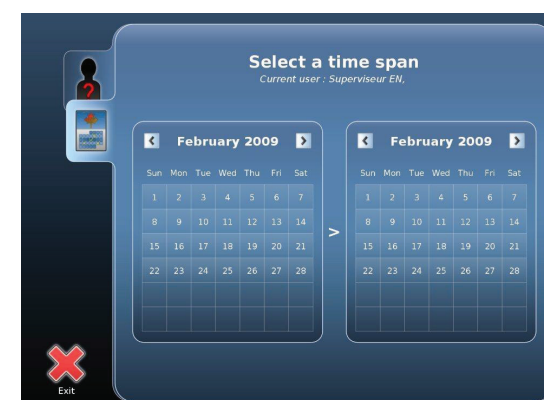
Travel angle



Work angle



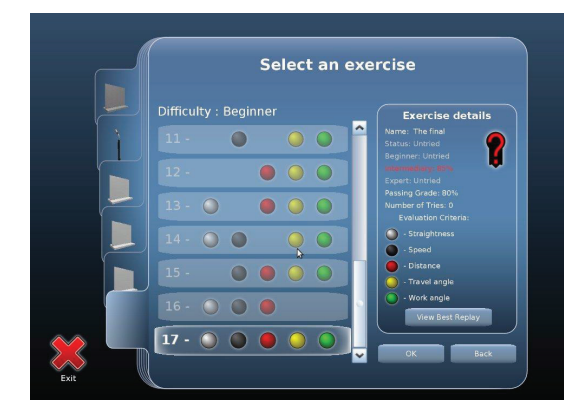
Stick-out



Replays calendar



Replays list



Exercises list with results

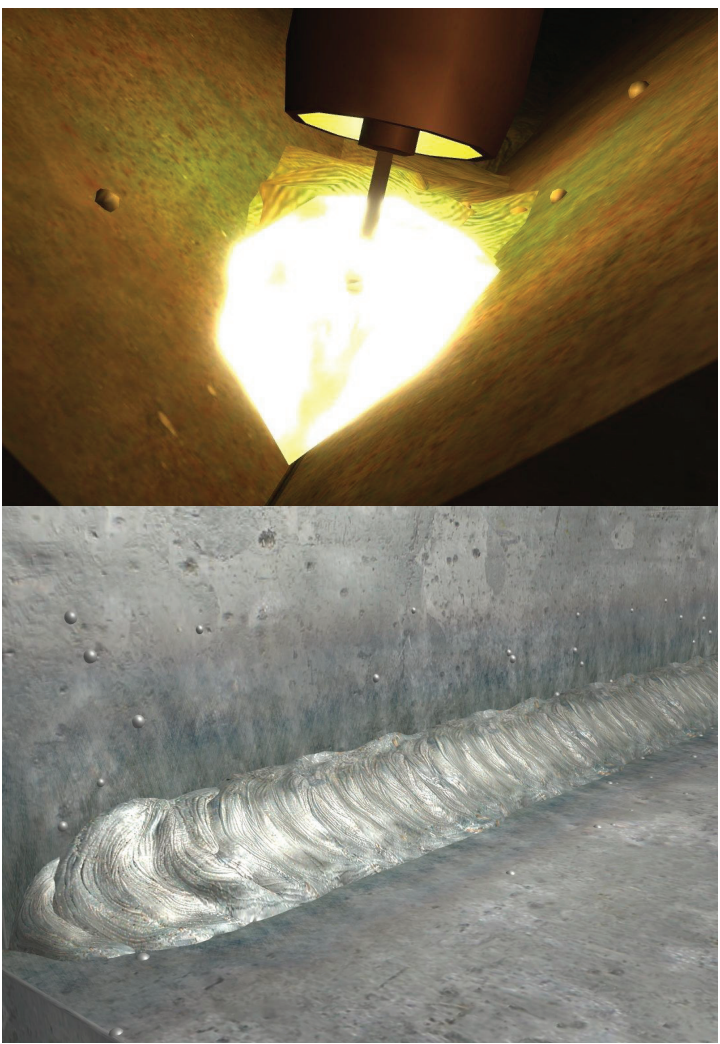


# ARC+ Specifications

- \* Creates a weld bead in immersive 3-D with the motion tracking action of a real welding gun
- \* Simulates smoke, sparks, weld pool, metal projections and realistic sounds
- \* Detects travel, work angles, arc speed, and arc length/stick-out variations
- \* Provides weld bead 3D reports
- \* Renders instant replays, including complete image reconstitution with second-by-second digital updates
- \* Generates diagnostic reports for student and instructor review
- \* Offers ultra-quick set ups for multiple applications GMAW, GTAW, FCAW, MCAW and SMAW
- \* Trains to International, AWS and European standard
- \* Private network, Internet-ready or standalone

## Benefits

- \* Multi-pass possible for all plate thickness
- \* Two hands welding for GTAW and thin materials
- \* Virtual class management and savings on consumables
- \* Eases annual internal recruitment for existing or future evaluations.
- \* Fast feedback (Multilingual teaching, instant replays) and ergonomics via touch screen
- \* Generates reports for monitoring student progress showing the effect of muscle memory and motion dexterity performance on weld properties
- \* Provides convenient access to self-directed hands-on activities and learning as well as replays and demonstrations.
- \* Built-in Learning Content Management System, and learner detailed reports generated for instructors. Speeds-up the process of certifying welders with its online access
- \* Breakdown and reassembly of manual dexterity parameters using exercises
- \* Retratability of tests with complete replay information
- \* Welding datasheets customization with three levels of difficulty
- \* Multiple exercises with performance evaluation
- \* Visuals guides available for essential manual variables



123 Certification Inc.

1751 Richardson Street, #2.204  
Montreal, Quebec  
H3K 1G6  
Phone: (514) 932-7273  
Fax: (514) 932-1761  
Internet: [www.123certification.com](http://www.123certification.com)

Specifications can change without prior notice.  
Patent & Patent Pending Worldwide

Dimensions for transport:  
\* Main case: 24" X 23" X 14" (62 cm X 60 cm X 37 cm) 85# (38.5 kg)  
\* Aluminum and ABS ATA-300 case with roller wheels

Revision: June 2011

# ARC+ Diagnostic

In the hiring process, the simulator helps to identify candidates with above average manual dexterity and to evaluate the welders skills for annual wage review.

## Welding materials

- \* Aluminum, Steel, Stainless steel
- \* Exotic materials as options

## Workmanship

- \* Multi-pass, Multi-layer beads
- \* Semi-automatic: GMAW, MCAW, FCAW
- \* Manual: GTAW, SMAW

## Normalized assemblies

- \* Wide variety of choices
- \* Replicate of welder certification assemblies according to prevailing welding codes

## Diagnostic on demand

- \* Manual dextority rating
- \* Weld quality rating (size, heat input, root penetration)
- \* Print-out of welding datasheets with actual parameters

## Multiple assembly types

- \* Adapted for welding professional schools
- \* All possible weld preparations
- \* All welding positions (F, H, V, O) (1)

(1): Not all combinations are possible, contact us for more information.

