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SMART SYSTEM FOR WELDING

Develop, diagnose and expertise your welding processes for R&D, on-site operation and maintenance needs

Challenge

Develop a process parameter instrumentation equipment for welding

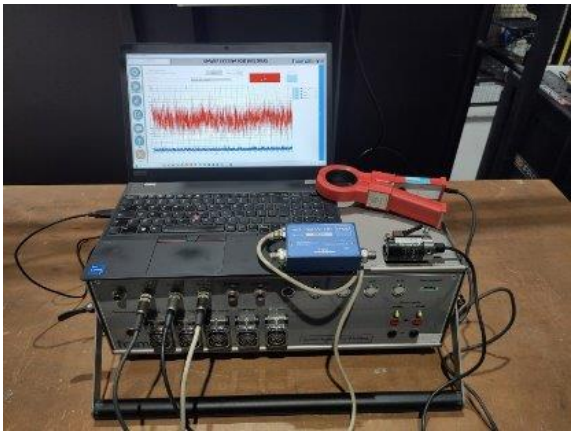
- Speeding up the development of new welding process
- Recording welding parameters and vision of welding process
- Visualizing synchronously the weld pool behavior and welding parameters
- Increasing the traceability of welding processes development

Solution

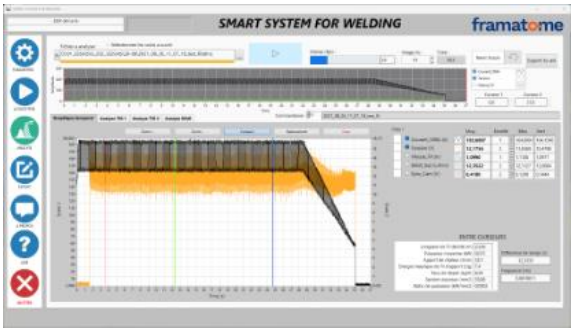
A semi-automated measuring device that allows an operator to manage multiple devices simultaneously.

- Real Time monitoring tool adapted to your needs:
  - From a standard configuration
  - To a specific configuration designed for your welding process
  - Supplier independent and easy to use:
  - Use separate sensors independent from welding power supply
  - Easy setting, limited installation time, intuitive use

- Powerful tool to understand the behavior of welding process:
  - Acquiring, recording and replaying synchronized welding data and video in a same device dedicated to welding processes
  - Advanced analysis tool to compute welding characteristics



Welding power supply independent instrumentation device



Analysis of welding curves with computed characteristics

Customer benefits

Real time monitoring of your welding process
Analyzing welding process and improving understanding of its behavior
Helping diagnosis providing means of on-site welding expertise when a problem appears
Helping the qualification of welding procedure specification
Checking welding equipment

Your performance
is **our** everyday **commitment**

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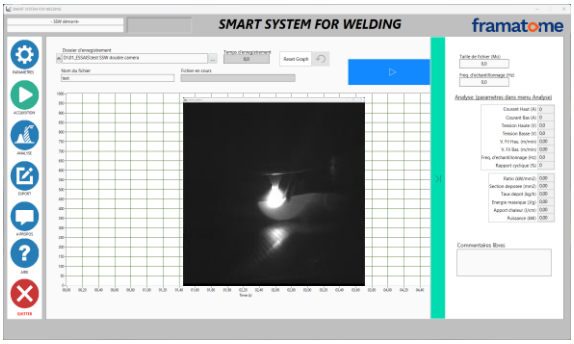
Technical information

Welding :

- GTAW, GMAW, SMAW, SAW, Plasma, Hybrid LASER, WAAM
- Analogic inputs dedicated to welding parameters (current, voltage, wire speed, gas flow)
- 2 analogic input (0-30V): additional sensors
- 1 channel for Thermocouple acquisition (K type)
- 1 or 2 welding camera interface
- 1 clock output: synchronization with external acquisition chassis
- 1 trigger output for camera (standard, high speed, welding current or voltage threshold)
- 1 analogic output 0-10V
- 2 power outputs: 12V and 24V

In option :

- Up to 8 additional analogic inputs (SSW Evolve)
- Hall effect sensor
- Wire speed sensor
- Gas flow sensor
- Welding speed sensor
- Welding cameras (RGB and monochrome)
- High frequency arc ignition insulation box
- Wiring with length adapted to your needs
- Rugged case for optimal transport protection



Synchronized acquisition of welding vision and welding parameters



Compact SSW configuration Front view



Evolve SSW configuration Front view

Key figures

Time reduced by **10** to diagnose welding process issue

Quick adjustment to improve arc behavior with welding vision

References

- **Orano**
- **Naval Group**
- **Safran**
- **Additiv Factory Hub**
- **IRT Jules Verne**

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