



SWET System

Pre-Heating for Weld Repair In An Argon Atmosphere

Our SWET System is designed to pre-heat and weld superalloys at elevated temperatures. The system uses an argon purge chamber which removes oxygen from work area to avoid oxidation.

ADVANTAGES

Temperature Uniformity

Coils are specifically designed to guarantee temperature uniformity in the whole part surface.

Reduced Argon Usage

Low cost of operation: optimized gas consumption & increased energy efficiency. The excellent laminar flow of the chamber helps reducing argon usage.

Ergonomic Design

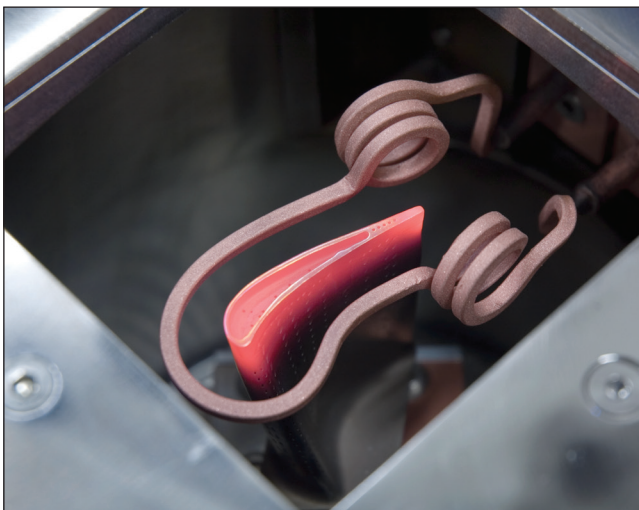
The whole machine concept is designed under ergonomics principles and following

Full Process Control

Temperature and argon flow are controlled and can be preset in the program.

Specially Designed Induction Coil

The copper coil provides the proper heating pattern to the part and maximizes the efficiency of the induction heating power supply



SWET System: Pre-Heating for Weld Repair

Specifications

Power Supply	10 kW
Dimensions (W x D x H)	915 x 1750 x 1830 mm; 36 x 69 x 72 in
Work Height	Adjustable 810 to 1020 mm; Adjustable 32 to 40 in
Arm Rest Angle	Adjustable 0-30°
Chamber Size	Designed depending on the parts to optimize argon usage
Argon Rapid Purge	40 l/min; 8.8 gl/min
Argon Standard Purge	25 l/min; 5.5 gl/min
Water Required	15 l/min / 3.3 gl/min @ 3 bar differential
Max. Water/Air Temperature	33°C/ 40°C // 91.5°F /105°F
Control	Unitronics HMI/PLC
Safety / Interlocking System	E-stop relay, water flow, max and feedback part temperature

Parts Loading System

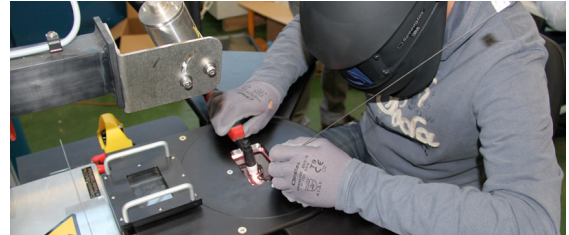
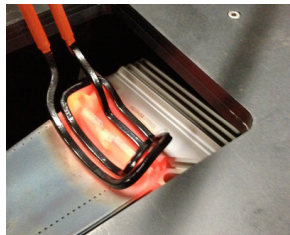
Parts are loaded onto a stainless steel fixture. The part is grabbed by the inner part of the fixture and manually fixed.



Process Parameters Control

Complete system integration:

- Programmed time delay for chamber purging.
- Ramp up, Hold, Ramp down temperature control.
- Closed loop temperature control via infrared pyrometer.
- Holds temperature steady during welding process.
- Takes unit out of temperature control for TIG arc.



Temperature Uniformity

The specially designed induction coil provides the proper heating pattern to the part and maximizes the efficiency of the induction heating power supply, while still allowing easy insertion and removal of the part.

Ergonomic Design

The system height and armrest angle can be adjusted to provide comfort to the working welder. All process parameter indicators are located in the front panel so the operator can easily control them.



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