Innovation for Aircraft Maintenance Composite and Metallic Structures Equipment, Solution Engineering, Training

Anita- GMICC010 Battle Field Bonding Console

AN INNOVATIVE BONDING CONTROL UNIT

GMI Aero addresses battle field composite repair works with a complete solution for patch bonding: robust bonding process controller and appropriate heating systems.

This solution benefits from our long time experience in this field and regular R&D in our line of composite repair bonding consoles Anita.

THE ANITA COMBAT CONCEPT

For the context of battle field, the operator needs an equipment light and robust, integrally equipped and with push-button operation very short sequence.

Our Anita CC010 complies fully with these constraints in offering in a small compact volume, all functions needed for expediting a bonding process. It comes together with heating system specially designed for the specific working context with easy installation and quick connect features.



In a compact size the Anita CC offers:

- Temperature control for one zone power output through 4 thermocouples
- · Two working possibilities:
 - Battle field: quick connection is provided for use of our integrally sensor equipped heating blankets (see below)
 - Workshop: individual connections for thermocouple cables and electric heaters to allow standard blanket use
- Programming of cycles through PC to constitute a built in field use library
- · Simple selection of the cycle to run through a rotating 4 poles switch
- · Quick Start of Cycle through two switches
- · High visibility screen for process supervision
- USB interface for cycle data logging and analysis on a PC
- Complete vacuum circuits for pumping and sensing
- · Capability for control of heating blanket, radiant panel, air blower.

TECHNICAL SPECIFICATIONS

- Dimensions: W x D x H: 350 x 280 x 170 mm 13,7 x 11 x 9 in Weight: 5 kg 11 lb
- Volts: 220 or 120 VAC, automatic switching
- Power Capacity (V*I): 30 Amps x 220 Volts = 6600 Watts or 30 x 120 Volts = 3600 Watts available on 1
 power output
- Screen Panel display for process supervision Panel Dimensions: 115 x 86mm 4.5 x 3.4 in.

INNOVATIVE FEATURES

- · Proportional power output for precise temperature control.
- · Watch dog and safety associated circuits for operational security.

SENSING

· Thermocouple scanning capacity: type J, 4 channels









- 1 Vacuum electronic gauge for bag quality monitoring. This value is monitored permanently, displayed and recorded,
- Sensing precision: temperature better than 0,4 °C /0,8°F; vacuum better than 0,050 bar/1,5 in Hg

ALARMS

- Audible alarm,
- · Clear messages and alarm Icons on screen
- · Easy accessible external fuse

VACUUM GENERATION

- · Venturi pump built in : protection for no contamination water or oil internal spill
- high performances; vacuum limit 80 mb; flow: 121NI/mn or 4,3 cfm

PROGRAMMING

- Easy programming of temperature and duration of Ramp up and plateau cycles (up to 2 plateaus)
 - Up to 4 cycles can be installed in memory with clear description on screen panel
- · Easy selection of the cycle to run through a rotative 4 pole switch

CYCLE DATA ANALYSIS & REPORTING

· Cycles data are stored in memory and can be collected through a USB Key to be analysed on a PC .

CALIBRATION

· Easy calibration through PC dialogue

DELIVERY CONTENT LIST

The Anita CC010 comes with all its accessories necessary:

- A Power cable: 1 unit, length 5 m (6 ft.)
- · Blanket cable: 1 unit, length 3 m (10 ft)
- Vacuum Silicone Hose: 1 unit for pumping line, length 3 m (10 ft.)
- Vacuum Silicone Hose: 1 unit for return sensing of a bag, length 3 m (10 ft.)
- · 2 Vacuum valves,
- Thermocouple cables: Qty 4; 3 m long (10 ft.): type J in standard version (type K on request)
- · A User and Service Manual.
- · An optional transportation case is proposed
- · See below for specific integrally sealed blanket

HEATING BLANKETS

For this application GMI Aero offers specially designed integrally sealed heating blankets. The equipment has also built in thermocouple cables. All leads are then grouped in a compact sealed connector for immediate connection of a single cable.



REFERENCES TO ORDER

Anita Bonding controller P/N:GMICC010-X

where X =... 1 => with vacuum valves US or 2 => with vacuum valves European styles



- Integrally equipped auto sealed **Heating Blanket** with 2 built in thermocouples
 - Heating diameter 35 cm Seal diam : 45 cm ; P/N : GMIHBIS045-1Z-V (with V= 1 for 120 Volts and 2 for 230 Volts)
- Valves 1 left and 2 right

· Other dimensions under request

Note: for thermocouples type K specify.

- · Other heating blankets standard; specify dimensions and voltage see our catalogue
- · For storage and transportation case, consult us.