

Innovative
Technological
Equipments



TM52V

Portable composites curing and repair equipment

Airbus approved.
Accurate multiprobe temperature control.
Manual or fully automatic mode.
Load a preprogrammed cycle and run.
Highly portable!!! Wheeled case with extensible handle.
USB, Wifi, Ethernet connectivity! Send reports on-the-fly!!!

TM52V is a dual zone curing and repairing portable equipment for Composite and Metallic damaged structures, with embedded PC based controller running an extremely powerful and user friendly software. It can perform two either simultaneous or totally independent curing cycles with up to 14 temperature channels each. Vacuum requirement is reached by connecting the input either to a pressurized or to a vacuum workshop supply line (internal electrical pump optional). The advanced software package in the TM52V has been designed for curing and repair process specialists, and can easily be managed by operators from the first moment. When curing process gets done, a detailed report can be printed out on any local or networked printer. It can be powered through 2x16A (Shuko) @230V or 32A (3P+N+E @400V). TM52V counts with 32A outputs to each heating system (heating blanket, IR lamps). With an additional bag vacuum reading, TM52V is able to detect bag leaks to prevent fails in curing process.



TECHNICAL SPECIFICATIONS

N° OF ZONES	2; DUAL OR INDEPENDENT
N° OF TEMP. CHANNELS	14
CH. PER ZONE	USER CONFIGURABLE
THERMOCOUPLES	J
VACUUM GENERATION	LINE OR VENTURI (OPT. INTERNAL PUMP)
VACUUM OUTPUTS PER ZONE	1
CURRENT PER ZONE	32A
CARRYING CASE	ENVIRONMENTAL RESISTANT RETRACTILE HANDLER & WHEELS
USER INTERFACE	10,1" NETBOOK
USB CONNECTOR	1
ETHERNET CONNECTION	OPTIONAL
VACUUM OUTPUTS	AUTO-BLOCKING QUICK COUPLING
VACUUM READING	DUAL; IN SW & EXT. DISPLAY

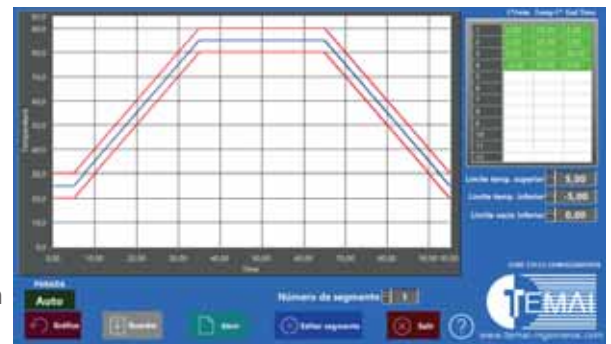
CONTROL SOFTWARE

USER LEVELS	3
CYCLES CONFIGURATION & OPERATION	TOTALLY INDEPENDENT PER ZONE
TYPE OF SEGMENTS	CONSTANT TEMPERATURE POSITIVE OR NEGATIVE RAMP HOTTEST, COOLEST OR AVERAGE
TEMPERATURE CONTROL	YES
TEMP ALARM BANDS	YES
CALIBRATION UTILITY	YES
FILE MANAGEMENT	YES
LANGUAGE	ENGLISH, SPANISH
ALARM SIGNALLING	AUDIBLE & VISUAL
VISUALIZATION TOOLS	ZOOM, SCROLL
EXPORT FORMAT	CSV
CASE DIMENSIONS	55,3 x 36 x 23 cm
CASE WEIGHT	16,5 kg

The software allows the user to easily generate and edit temperature profiles, run curing process, display temperature channels and save temperature and pressure data to a predefined file in csv format, with possibility of further offline retrieving and analysis.

Main Utilities coming with the software are:

- Users management.
Three user levels are predefined: Administrator, Technician, and Operator, each with their own access privileges to different capabilities.
- Curing profiles programming.
Complex time profiles including heating up and cooling down temperature ramps, as well as alarm bands, can be easily programmed following an intuitive sequential process in the profile editor.
- Stored Project data retrieve.
Virtually unlimited number of profiles and measurements can be stored in the PC memory. Advanced zooming and scrolling tools.



- Automatic mode.
In this mode, an operator can select a previously programmed temperature profile and immediately run it without editing capability. When the test ends, a process report can be printed out.
- Manual Operation Mode.
User can manually control heaters power, alarm on/off and temperature readings to check proper functioning before process is started. Thermocouples can be deselected during curing process.
- Temperature and vacuum sensors calibration dedicated utility.
Both offset and span for each temperature and vacuum channel, can be manually adjusted to reach a more precise measurement.