

#### ► DESCRIPTION

During drilling operations on composite laminate parts there are different damages possible, which are conducting to violation of integrity of laminates, delamination, destroying of a polymeric matrix, and as result – deterioration of composite part. Such damages can occur either at the entrance of the drill, at the exit or internally.

The Heating Bolt Solution has been developed to provide heat for curing the resin applied to repair these damages; compaction forces can be also mechanically generated.

Inserted in the hole, the tool provides heat to raise the temperature at the periphery of the hole and in a localized area on the two in / out skins at the temperature about 80°C or at another programmed value.

There are two kinds of thermo bolts available:

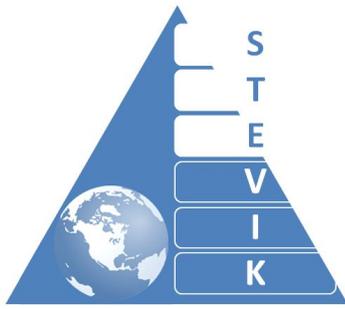
- pin-family bolts (with diameters less than 6 mm)
- heat-family bolts (with diameters above than 6 mm)

#### ► PIN FAMILY BOLTS

Reference for order	Hole diameter
GMICT032	3,2
GMICT046	4,6
GMICTA55	5,6

#### ► HEAT FAMILY BOLTS

Reference for order	Hole diameter
GMICB064-V*	6,35
GMICB079-V*	7,9
GMICB095-V*	9,5
GMICB0102-V*	10,2
GMICB0111-V*	11,1



# TECHNICAL DATA SHEET

**GMICBO**  
Heating bolts for repair of holes

GMICB0127-V*	12,7
GMICB0140-V*	14,0
GMICB0159-V*	15,9

Note: \* = operational voltage. \*= 1 for 120 Volts; \*= 2 for 230 Volts operation

► **NOTE**

For choosing of control console for bolts in your diameter please study technical data sheet "Control console of thermo-bolts".

Other dimensions of thermo bolts are available on request. Please note, that but request of needed diameter you ask with precision of 1/10 mm.