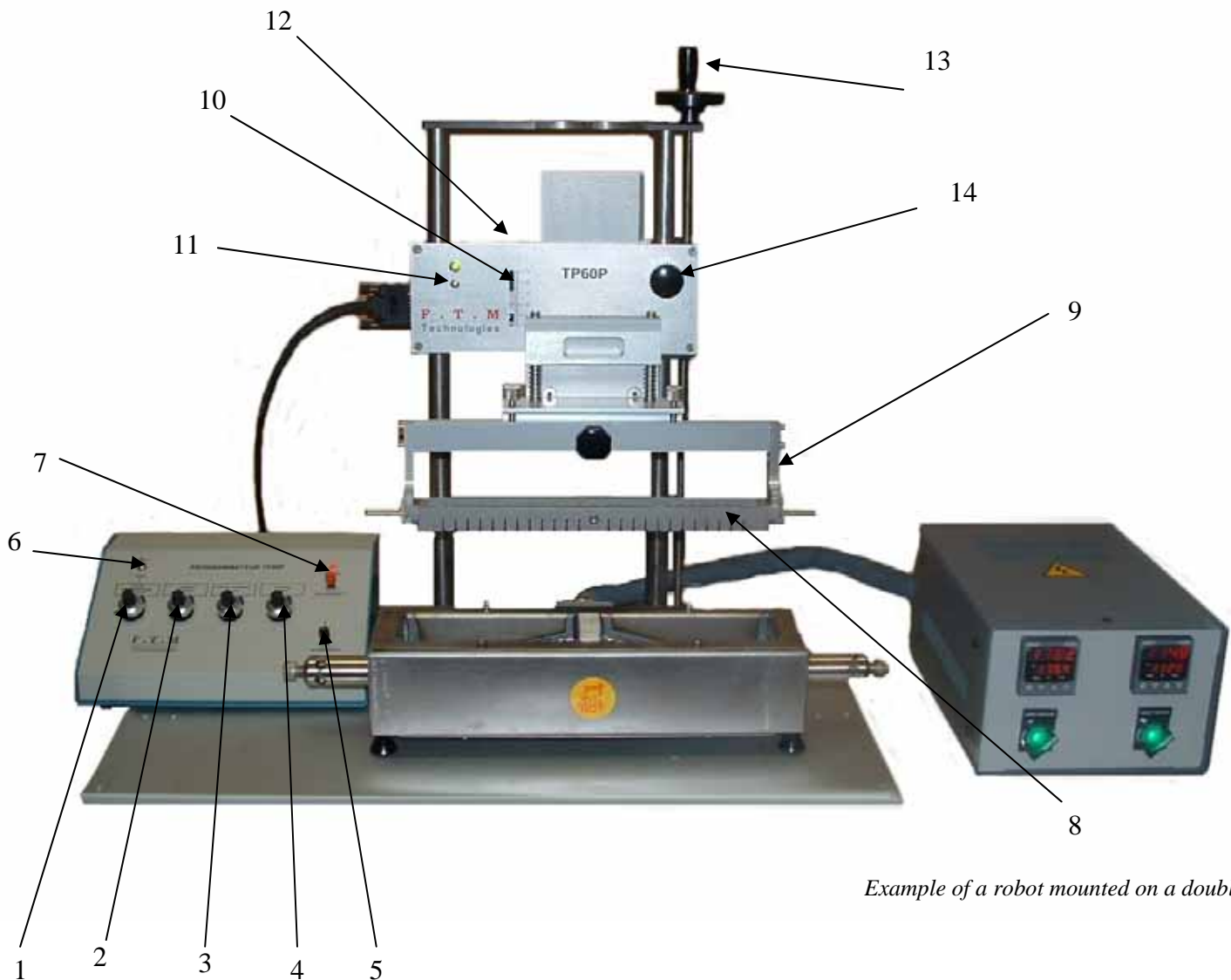


TINNING/DEGOLDING STATION

This programmable robot is conform to the norm NF C 20 720 relating to brazing's modes of tries.



Example of a robot mounted on a double bath

Principle: This robot allows the transport of components during tinning, gold and enamel removal or fluxing operations by regulating the following parameters: **preheating time (by approaching the components of the fusioned alloy), entry speed, immersion time and exit speed.**

Advantages: Thanks to its very precise parameters, it allows, for example, to avoid bridges that we can often find between the component's legs when going out from the tin.

78 rue Raymond Poincaré 92000 NANTERRE
Tel: +33 (0)1 40 86 00 09 Fax: +33 (0)1 40 86 16 45
www.ftm-technologies.com
Email : info@ftm-technologies.com

F . T . M
Technologies

You can already visit our new website
www.ftm-technologies.com
to see our demonstration videos!

TECHNICAL CHARACTERISTICS OF THE ROBOT

Support's dimensions (LxW)	660 mm
Total height	580 mm
Robot's way	60 mm
Power supply	230 v 50 Hz
Capacity of the tool for holding the components (length)	300 mm

DESCRIPTION

- 1 Regulation of the preheating's time by approaching the tool of the fusioned alloy (from 1/10 min to 10 min). This allows the component's preheating, for example, to avoid thermal shocks.
- 2 Regulation of the entry speed in the alloy (from 0 to 30mm/s)
- 3 Regulation of the immersion time in the alloy (from 0,1 to 10 s)
- 4 Regulation of the exit speed from the alloy (from 0 to 30mm/s)
- 5 Cycle's departure (also see 11)
- 6 Switch button to select with or without preheating time
- 7 Back to zero button
- 8 Bar with components
- 9 Tool for holding the bar with components
- 10 Indication of the preheating's height
- 11 Cycle's departure
- 12 Regulation of the preheating's height
- 13 Regulation of the block for the 0 point (in function of the used bath)
- 14 Blockage of the whole block

SOLDER BATH BE 300 X 50



TECHNICAL CHARACTERISTICS OF THE SOLDER BATH

Capacity	1600 w
Useful dimensions	Pot: 300 x 50 x 45mm
Alloy's capacity	About 7 Kg
Power supply	230 v 50 Hz
Regulation	PID with order adjustment

DESCRIPTION

- 1 Regulator PID double display
- 2 Grooves which allow to scrap the dross and to check the alloy's level
- 3 Vat for collecting the dross

This solder bath is compatible with lead-free alloys

In theory, a degolding and tinning station for components has to include two different baths: one for the degolding step, the other for the tinning step (because there is the risk of pollution if only one bath is used).

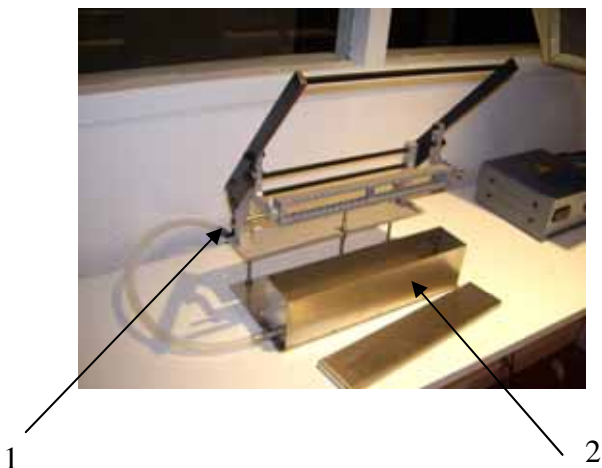
In principle, it is also needed to use two different robots: the first one to degold the components, and the second one to tin the components. But this is costly, so we have another possibility: the manual pantograph below.

MANUAL PANTOGRAPH



This pantograph is mounted very easily on the solder bath BE 300X50 and can be used on the degolding station. A manual pressure on the lever (1) allows to make the bar with components (3) go down to a depth fixed thanks to an abutment (2) adjusted before. The pantograph can hold the same bars with components than the robot, but for sure it doesn't have any parameters as the immersion time or entry and exit speeds (what can involve bridges between the components' legs, but it does not really matter as they will be eliminated when they will be tinned with the robot)

FLUXING



The fluxing step can be realized in the same way, with a fluxing vat (2) mounted with a pantograph. The vat has a drain valve (1).

Or quite simply it is possible to saok manually the components held on the bar in a vat with flux.

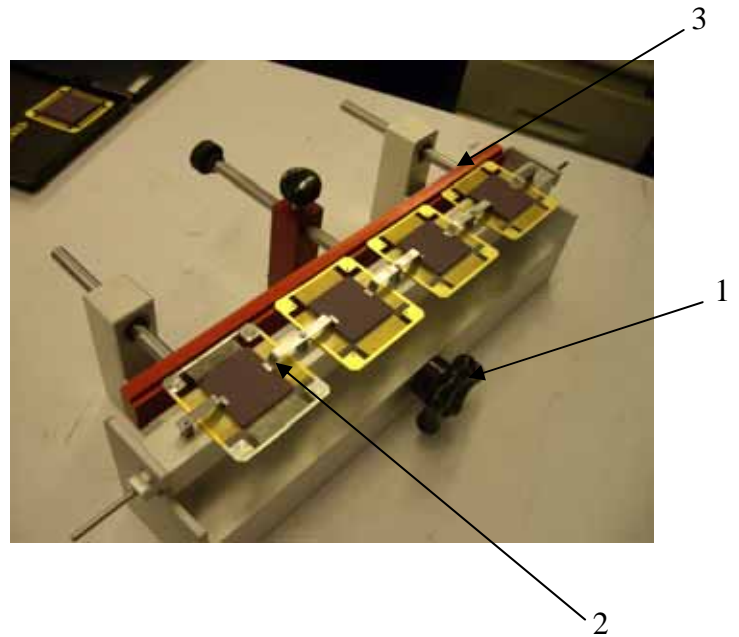
TOOLS FOR HOLDING COMPONENTS



A few examples

BARS' LOADER WITH THE COMPONENTS

In some cases, this device has been studied to make the loading and the unloading of the bars with components easier, in particular those concerning the integrated circuits, PF , CQFT etc



A knurled button (1) comes to raise the springs (2) to let the components pass. Moreover this system allows thanks to its adjustable abutment (3) to center the component on the bar so that it is possible to tin the two sides just by turning the bar over.