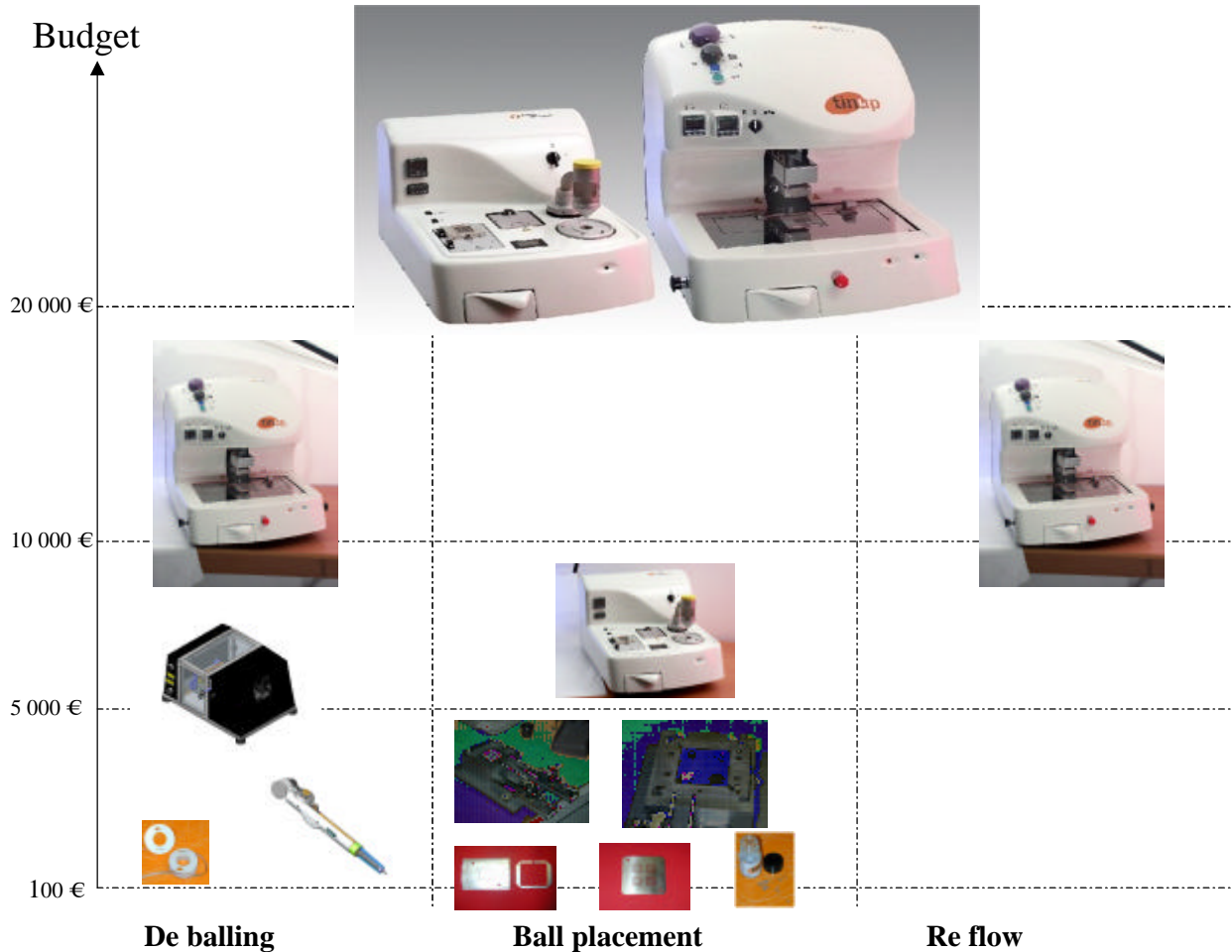


Applied Microtech SA, founded in 1999, with a capital of 1 115 808 €, is located at the techno pole Savoie technolac the high technology French-Swiss triangle, Grenoble, Lyon, Genève.

For a couple of years Applied Microtech has been demonstrated its capacity to innovate and propose industrial solutions. Its actions and its system in various countries (France, Japan, China, Korea, United Kingdom, Taiwan, Malaysia, Poland, Israël, United States...) and its famous customers (St microelectronics, Thales, Atmel, Solectron, Nokia ...) are illustrating its professionalism.

Applied Microtech works in the electronic and micro-electronic fields and offer you adapted global and modular solution for BGA de balling and re balling .

BGA De balling and Re balling Global and modular offer



BGA De balling and Re balling Global solution
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Preheating and ball placement station de balling and re balling station

Fruit of an innovation that allows the processes of de balling and re balling to be automated, Tin-Up™ responds to the expectation of interconnection professionals to recover BGA components or to modify their connection during assembly test or PCB mounting.

Technical characteristics :

Preheating and ball placement station		De balling and re balling station	
Temperature accuracy	± 5 °c	Temperature accuracy	± 5 °c
Maximum package body size	50 x 50 mm	Maximum package body size	50 x 50 mm
		minimum pitch minimum ball size	0,4 mm 0,25 mm
Power	1 700 VA	Power	2 000 VA
Weight	26 Kg (65 lbs)	Weight	45 Kg (112,5 lbs)
Size in mm	Length : 650 Width : 520 Height : 350	Size in mm	Length : 800 Width : 610 Height : 615

BGA De balling and Reflow System



Automated de balling configuration : reduce repair cost by using automated wick de soldering method.
 Constant quality guaranteed : self alignment of the heating head on the component insures excellent homogeneous result.

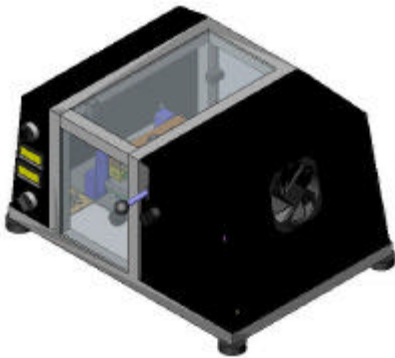
A switch change the automatism program from de balling to re balling without any hardware modification.

Solder reflow configuration: Heater block system is used as a compact reflow furnace so as to perform ball soldering.

De balling and re balling station
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Temperature accuracy	$\pm 5 \text{ } ^\circ\text{c}$
Maximum package body size	50 x 50 mm
minimum pitch	0,4 mm
minimum ball size	0,25 mm
Power	2 000 VA
Weight	45 Kg (112,5 lbs)
Size in mm	Length : 800 Width : 610 Height : 615

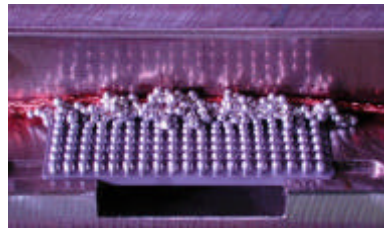
BGA De balling System



Driven de balling system : this system is based upon the same mechanical principal than automated de balling system.

Constant quality guaranteed : self alignment of the heating head on the component insures excellent homogeneous result.

Configuration changeover according package dimension is very smart and fast :

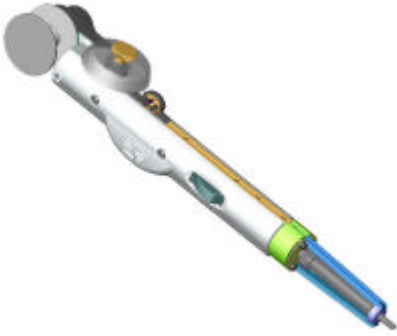


Technical characteristics :

BGA De balling system

Temperature accuracy	$\pm 5^{\circ}\text{c}$
Maximum package or board body size	50 x 50 mm
minimum pitch	0,4 mm
minimum ball size	0,25 mm
Power	1 500 VA
Weight	15 Kg (37,5 lbs)
Size in mm	Length : 300 Width : 420 Height : 215

De soldering Pen



Operator Uses De soldering pen like solder iron.
De soldering BGA or high density PCB is suitable thanks to the solder wick integrated system. The de solder braid is fed accurately in a guide under the iron tip. The operator is pushing two levers with thumb and index drawing the used braid rolling.

Technical characteristics :

De soldering Pen

Temperature accuracy	$\pm 5^{\circ}\text{c}$
Power	100 W / 24 V
Weight	400 g (1 lb)
Size in mm	Length : 250

BGA De Solder Braid



Reduce repair cost by using specific TINUP™ Solder Braid

Technical characteristics :

BGA de solder Braid

Solder braid width	6-7 mm
Surface metal layer	Tin or Cupper
Flux	No clean / Rosin

Ball placement station



Ball sphere recycling system : eliminate waste of costly material. All spheres are gather in a tank and automatically re injected by a Vortex in a dispensing shower head.
Vibration plate secure ball placement specially with very small balls.
Ball placement station feature integrates preheating plate and cooling station. These two modules can be used to speed and secure the reflow process.

Technical characteristics :

Ball placement station and preheating

Temperature accuracy	$\pm 5 \text{ }^{\circ}\text{c}$
Maximum package body size	50 x 50 mm
Power	1 700 VA
Weight	26 Kg (65 lbs)
Size in mm	Length : 650 Width : 520 Height : 350

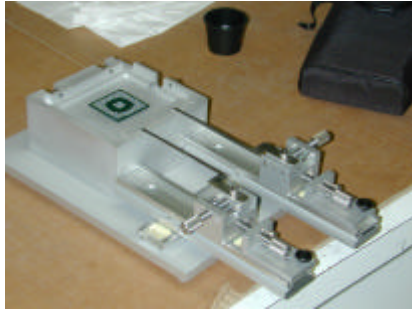
Specific Ball Placement tooling Kit



Specific Aluminum Tooling Kit are compatible with Jedec and EIAJ package dimension specification
This tool kit are compatible with Tin-up system and can be used inside conventional gas convection Oven.
Mutli-position imprint allow to speed the throughput
Full array mask reduce the cost
Specific pad pattern Mask is recommended for recurrent product.



Universal Ball Placement tooling Kit

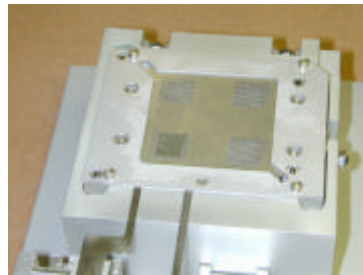


Reduce tooling cost when production is not recurrent and based on a broad range of packages configuration.

Visual package alignment is performed with an adjustable X,Y mechanism.

Tooling kit is assembled according the specific package configuration.

This tool kit are compatible with Tin-Up™ system and can be used inside conventional gas convection Oven.



Technical characteristics :

Universal Ball placement tooling Kit

Adjustable mechanism dimension in mm	250 x 150 x 100 mm
Adjustable mechanism weight	1,8 Kg (4,5 lbs)

BGA De Solder Braid



Process quality control with Tin-Up Solder Sphere.

Sn63-Pb37 : 762 μ m, 635 μ m, 508 μ m, 457 μ m, 300 μ m

Sn10-Pb90 : 889 μ m, 762 μ m, 635 μ m, 508 μ m

Others diameters and alloy upon request.

ORGANIZATION AND QUALITY SYSTEM

multi-skill team is a mix of young and experience and is able to act efficiently and propose solutions, in ad equation with sharp specifications. The innovative projects previously performed set up its creativity and realism. That is why Applied Microtech is able to guaranty a technical follow up and customer service at the same level than customer industrial challenge.

Regarding Quality system, the aim of is ISO 9001 and ISO 14000 certification before end of 2004. Today APPLIED MICROTECH already applies Iso 9000 procedure like periodical meeting, project review, internal audit, AMDEC tools and methods (DOE, Ishikawa, ...). APPLIED MICROTECH is managing a continuous improvement action plan.