

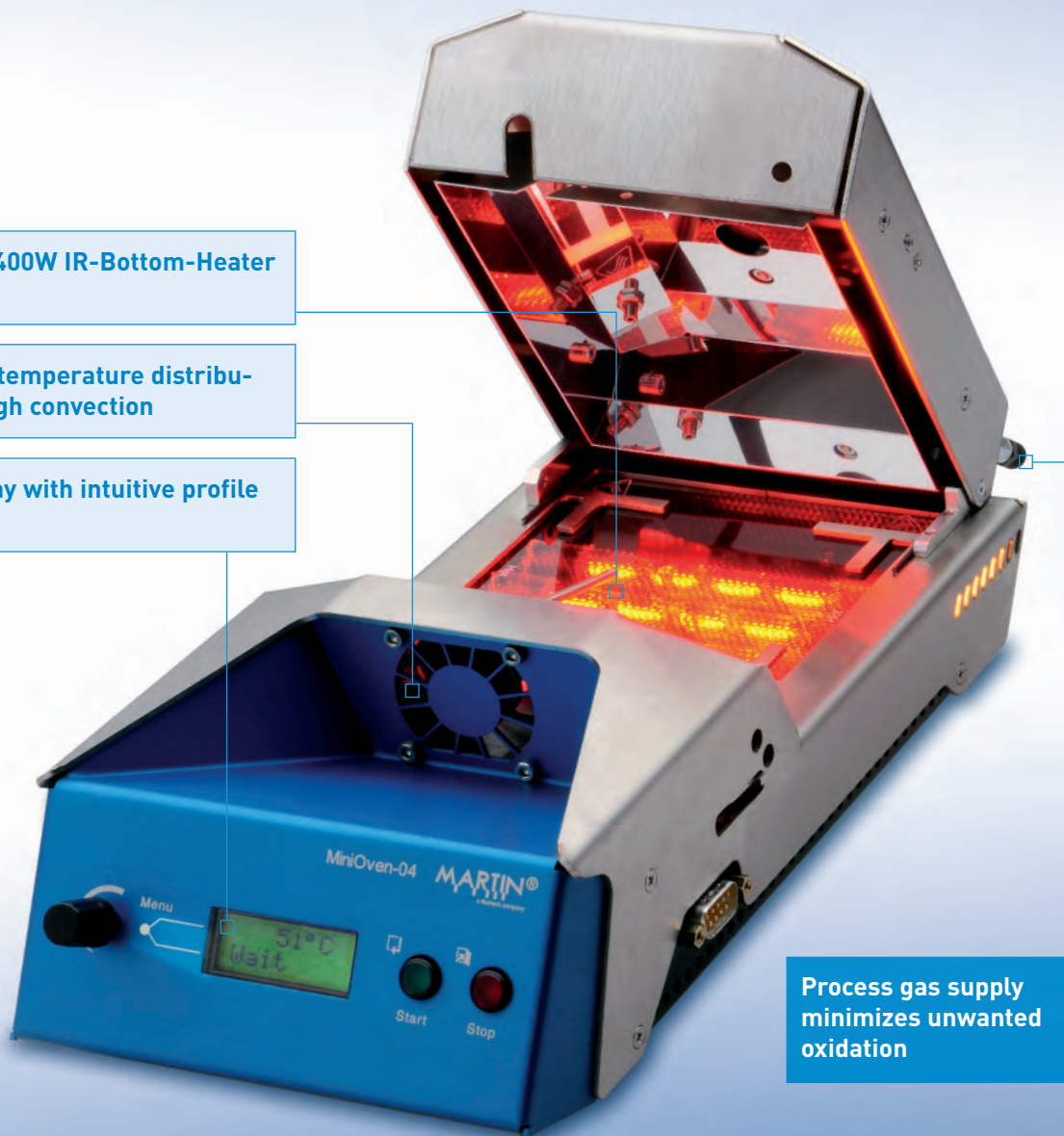
**NEW:**  
Process Gas  
Support

## **EXPERT MiniOven-04**

For Reballing and Prebumping  
of SMD Components

# Precision and Quality Always a Standard

The new EXPERT MiniOven-04, with Reball and Prebump Kits, provides convenient, successful results. New air convection technology, process gas supply, and intuitive feature control provide clear advantages: perfect wetting behavior of lead free solder, component safety, and long term liability.

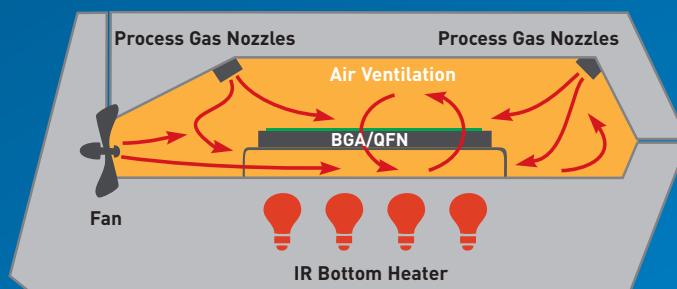


Process gas supply  
minimizes unwanted  
oxidation

NEW

## Uniform Heating

An optimized component heating process in the MiniOven-04 is the result of the combination of IR-radiation and new convection technology. For demanding applications, process gas can be utilized.



Air Ventilation inside the MiniOven-04



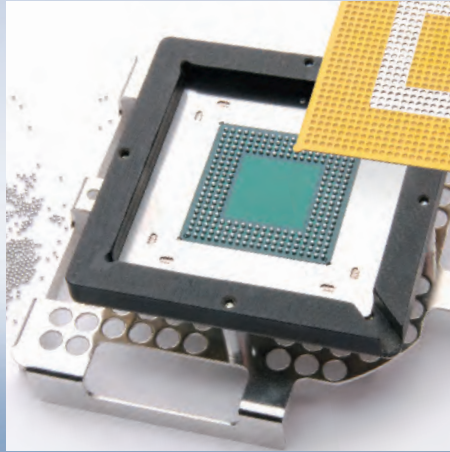
# Reballing and Prebumping for All Applications

The new MiniOven-04 is perfectly suitable for a wide range of applications, from small QFNs to very large BGAs. This is due to our extensive selection of stencils and masks for almost any standard chip. For new components, we will design and manufacture stencils on request – a service which MARTIN has successfully provided for many years.

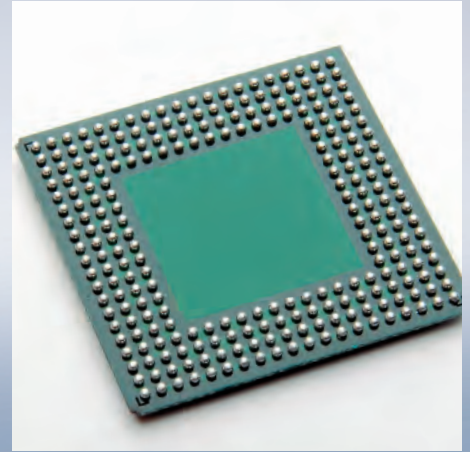
## Reballing



Filling solder spheres in the stencil holes.



BGA in frame after reflow process

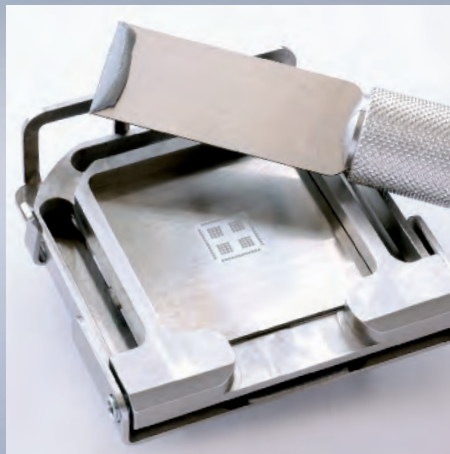


New reballed BGA

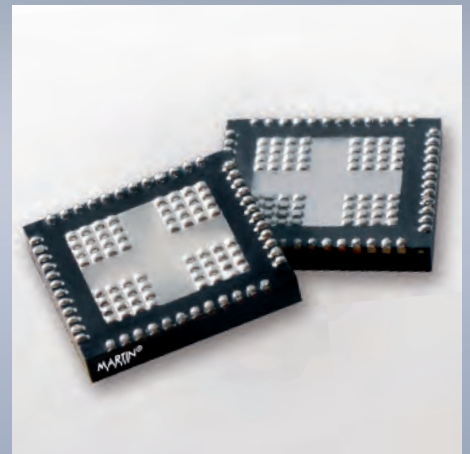
## Prebumping



Installation of stencil into prebumping tool.



Squeegee of solder paste to stencil



New prebumped QFN



## Improved Control

Up to 99 MiniOven profiles can be used and edited via a two-button interface. The integrated database makes it easy to find the optimal parameters. New features such as adjustable hold time, temperature offset, and temperature damping improve process stability.

## EXPERT MiniOven-04



### Technical Data

#### MiniOven-04 S

Dim. over all: 140 x 290 x 83 mm  
 Dim. Heating Chamber: 80 x 80 x 20 mm  
 Wattage (max.): 400 W  
 Process Temp-Range: 100°C - 260°C  
 Process Gas Inlet: not supported  
 Temp-Measurement: K-type Sensor  
 Programs: 99

### Technical Data

#### MiniOven-04 N

Dim. over all: 140 x 290 x 83 mm  
 Dim. Heating Chamber: 80 x 80 x 20 mm  
 Wattage (max.): 400 W  
 Process Temp-Range: 100°C - 260°C  
 Process Gas Inlet: 4 nozzles  
 Temp-Measurement: K-type Sensor  
 Programs: 99



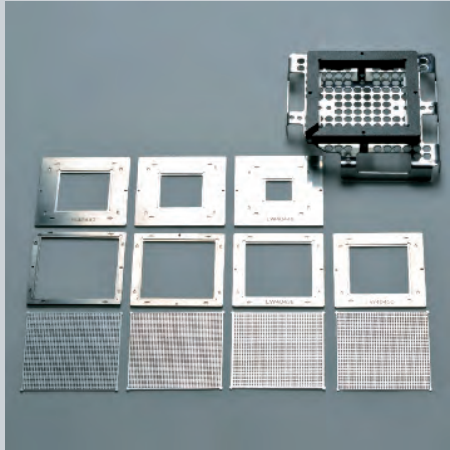
### Delivery Package MiniOven-04S / -04N

- MiniOven-04S / -04N Basis Unit
- SMD Hook, Brush, Lens
- Kapton Tape, Cutter
- Manual and Rework ABC

### Optional:

- Reball-04 Set Standard
- Reball-04 Set PS3
- Prebump-04 Set QFN

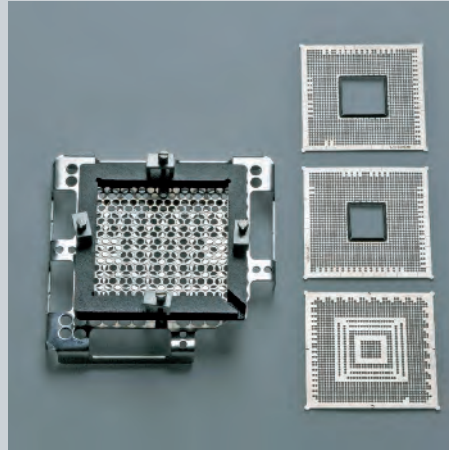
## Reball-04 Set Standard



### Includes:

- Reballing-Holder 45 x 45 mm<sup>2</sup>
- Reballing Frame Set for BGAs (7 pcs)
- 4 Reballing Masks for BGAs with Pitch 1.00 mm and 1.27 mm

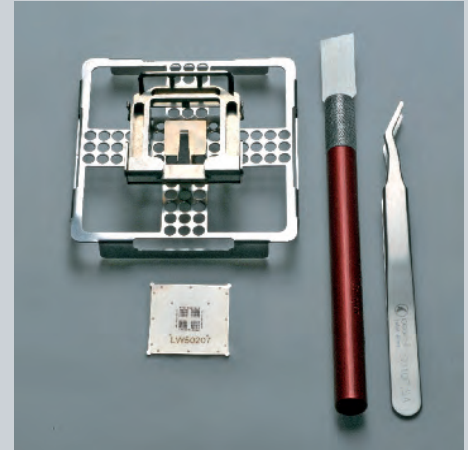
## Reball-04 Set PS3



### Includes:

- Reballing-Holder 45 x 45 mm<sup>2</sup> with Spring Loaded Clamps
- 3 Masks for PS3 BGA reballing, Pitch 1.00 mm

## Prebump-04 Set QFN



### Includes:

- Prebump Tool
- Squeegee Tool, Tweezers
- 1 Standard Stencil