



Bonding Heads

Hot Bar Reflow Soldering/ Heat-Seal Bonding ACF Laminating/Heat Staking

Amada Miyachi Europe offers a full range of bonding heads available for the Hot Bar product line.

The bonding heads can be used for Hot Bar Reflow Soldering, ACF Laminating, Heat-Seal Bonding and Heat Staking. The bonding heads offer maximum productivity and consistent process control. The designs are modular, compact, rigid and easily adjustable.

This modular approach enables easy upgrade or system reconfiguration when needed. The compact unit minimises space requirements. The robust bonding heads offer the highest connection accuracy for fine-pitch applications and long thermode lengths at the highest bonding forces.

To achieve optimum force accuracy and consistency, the bonding heads are available in both pneumatic and motorized types and offer a complete bonding force range from 8 to 2500 N.

KEY FEATURES

- Force-fired sensor for accurate force control and consistent process stability
- Optional integrated force load cell and displacement sensor for additional control and process data traceability
- Integrated mechanical module for planarity adjustment
- Rigid design for maximum productivity and highest possible connection accuracy
- Modular design for optimum system integration



Desktop series

PNEUMATIC BONDING HEADS

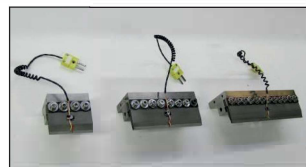
The pneumatic bonding heads offer maximum productivity and consistent process control. The bonding heads are activated through an air-pressure controlled cylinder. Bonding forces can be adjusted directly on the bonding head through a pre-set spring adjustment or via the option pneumatic force control module. A force-fired control switch detects the correct bond force and enables the bond cycle.

MOTORIZED BONDING HEADS

The motorized bonding heads are activated through a PLC controlled stepper-motor. Parameters including bonding force, search levels and travel speed can be programmed directly on the system PLC-controller. A force-fired control switch detects the correct bonding force and enables the bonding cycle.



Pneumatic force control module



*Thermo-plane thermode
(Hot Bar series)*

TECHNICAL SPECIFICATIONS

	Force		Stroke	Throat Depth / Weight	Outer Dimensions
	Min (N)	Max (N)	(mm)	(mm) / (kg)	HxDxW(mm)
SH80 (pneumatic)	8	80	50	111 / 2,5	296 (490)x114x57
SH500 (pneumatic)	30	500	50	111 / 2,7	448x126x64 (83)
SH1250 (pneumatic)	250	1250	50	111 / 3,6	448x146x90
BH2500 (pneumatic)	20	2500	50	111 / 4,4	448x146x133
PH80 (stepper motor)	8	80	25	111 / 2.5	296 (490)x114x57
PH500 (stepper motor)	30	500	25	111 / 3.0	448x126x64 (83)
PH1250 (stepper motor)	250	1250	25	111 / 3.6	448x146x90
PH2500 (stepper motor)	250	2500	50	111 / 4.4	448x146x133

Air pressure 6 Bar-90 PSI / Bonding head weight (in kg excluding thermode-QCB)

BONDING HEAD CONFIGURATION OPTIONS

	SH80	PH80	SH500	PH500	SH1250	PH1250	BH2500	PH2500
Desktop series	X	X	X	X	-	-	-	-
Stand-alone series	X	X	X	X	X	X	X	X
Emerald series	-	-	X	X	X	X	X	X
Customised systems	X	X	X	X	X	X	X	X
Pneumatic force control module	-	-	X	-	X	-	X	-
Ready for MG3HB	X	1	X	1	1	1	1	1
Integrated displacement sensor	X	1	X	1	1	1	1	1
Integrated force sensor	X	1	X	1	1	1	1	1

THERMODE-QCB CONFIGURATIONS & WEIGHT*):

Thermode	SH80	PH80	SH500	PH500	SH1250	PH1250	BH2500	PH2500
3-D thermode <50 mm length / <4 mm width	69Q0015 (0,15 kg)	69Q0001 (0,6 kg)						
3-D thermode <100 mm length / <4 mm width	69Q0002 (0,9 kg)							
3-D thermode < 150 mm length / <4 mm width	69Q0003 (1,3 kg)							
2-D thermode < 50 mm length / <3 mm width	69Q0016 (0,6 kg)							
Heatstake thermode Single-tip	69Q0023 (0,6 kg)							

*) Custom Hot Bar sizes available upon request
 Note 1: bonding head with MG3 Hot Bar, upon request
 - = not available x = available