



Bonding Heads

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

AMADA WELD TECH 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 minimizes space requirements. The robust bonding heads offer the highest connection accuracy for finepitch 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

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.



Desktop series

TECHNICAL SPECIFICATIONS

	Force		Stroke	Throat Depth / Weight	Outer Dimensions
	Min (N)	Max (N)	(mm)	(mm) / (kg)	W x D x H (mm)
SH-080A (pneumatic)	8	80	50	111/2.5	57 x 114 x 296 (490)
SH-500A (pneumatic)	30	500	50	111/2.7	64 (83) x 126 x 448
SH-1250A (pneumatic)	250	1250	50	111/3.6	90 x 146 x 448
BH-2500A (pneumatic)	20	2500	50	111/4.4	133 x 146 x 448
PH-080A (stepper motor)	8	80	25	111/2.5	57 x 114 x 296 (490)
PH-500A (stepper motor)	30	500	25	111/3.0	64 (83) x 126 x 448
PH-1250A (stepper motor)	250	1250	25	111/3.6	90 x 146 x 448
PH-2500A (stepper motor)	250	2500	50	111/4.4	133 x 146 x 448

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

BONDING HEAD CONFIGURATION OPTIONS

	SH-080A	PH-080A	SH-500A	PH-500A	SH-1250A	PH-1250A	BH-2500A	PH-2500A
Desktop series	X	X	X	X	-	-	-	-
Stand-alone series	X	X	X	X	X	X	X	X
Customized systems	X	X	X	X	X	X	X	X
Pneumatic force control module	-	-	X	-	X	-	X	-
Ready for MG-300A HB	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

1 - bonding head with MG-300A HB, upon request

THERMODE-QCB CONFIGURATIONS & WEIGHT*

Thermode	SH-080A	PH-080A	SH-500A	PH-500A	SH-1250A	PH-1250A	BH-2500A	PH-2500A
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



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