

# EMERALD SERIES

## CONSTANT HEAT TECHNOLOGY

### FLAT PANEL BONDING AND REPAIR APPLICATIONS

- *Small to large LCD/PDP panels*
- *Supporting all TAB/COG/Flex sizes*
- *Fine pitch alignment*
- *ACF Tacking, Heat Seal Bonding and Hot Bar Soldering all in one system*



*Emerald-65CH*

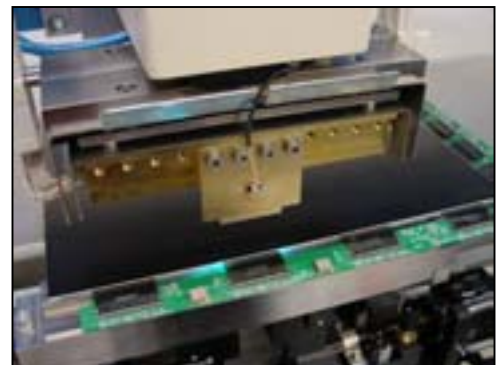
**UNITEK EAPRO** offers a full product line of LCD/PDP Bonding and Repair systems. The Emerald Series are designed for a wide variety TAB/COG/Flex sizes and can handle panel sizes ranging from 1" up to 65". The Emerald highly flexible system can be used for ACF Tacking, ACF Final Bonding and Hot Bar Soldering.

#### **Main Features:**

- Constant heat bonding technology with temperature controller and programmable timer.
- High precision pneumatic bonding head, with adjustable force, ensures consistent process results.
- Dual Look-Up cameras for fine pitch alignment down to 30 microns. Track and marker recognition while Hot Bar is on top of the bonding position.
- Flipper X-Y-Z-Phi module for accurate positioning of the TAB/COG/Flex.
- Multiple thermode dimensions are available.
- Quick Connect Block enables fast and easy thermode change.

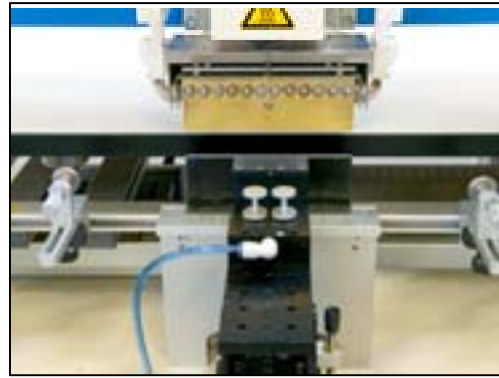
#### **Options include:**

- High precision motorized bonding head upgrade package.
- High force range upgrade package.
- PDP upgrade package including dual Look-Down cameras and metal support block.
- COG upgrade package including chip holder.
- Screen splitter function with PC.
- Manual or automatic interposer system.



<b>SYSTEM SPECIFICATIONS</b>	<b>EMERALD-25CH</b>	<b>EMERALD-45CH</b>	<b>EMERALD-65CH</b>
<b>Dimensions H x W x D</b>			
<i>mm</i>	2050 x 1200 x 900	2050 x 2250 x 1405	2050 x 3050 x 1705
<i>Inches</i>	80.7 x 47.2 x 35.4	80.7 x 88.6 x 55.3	80.7 x 120.1 x 67.1
<b>Weight Kg (Lbs)</b>	600 (1323)	650 (1433)	650 (1433)
<b>Panel sizes mm (Inches)</b>	25.4 – 635 (1 – 25)	25.4 – 1143 (1 – 45)	25.4 – 1651 (1 – 65)
<b>TAB sizes minimum L x W mm (Inches)</b>		8 x 5 (0.31 x 0.20)	
<b>TAB sizes maximum L x W mm (Inches)</b>		150 x 66 (5.91 x 2.60)	
<b>Chip (COG) sizes minimum L x W mm (Inches)</b>		5 x 1 (0.20 x 0.04)	
<b>Chip (COG) sizes maximum L x W mm (Inches)</b>		50 x 10 (1.97 x 0.40)	
<b>Flex sizes minimum L x W mm (Inches)</b>		8 x 5 (0.31 x 0.20)	
<b>Flex sizes maximum L x W mm (Inches)</b>		150 x 50 (5.91 x 1.97)	
<b>Customized shapes</b>	customized shapes and sizes out of min/max on request		
<b>Product Handling Standard</b>	PHS-25	PHS-45	PHS-65
<b>Optional</b>	PHS-45 PHS-65	PHS-65	
<b>Thermode (Hot Bar) Type</b>	Metal Constant Hot Bar		
<b>Thermocouple type</b>	K-type		
<b>Temperature Controller</b>	Constant Heat Temperature Controller		
<b>Air supply bar (PSI)</b>	6 – 8 (80 – 100), dry and filtered air		
<b>Power consumption</b>	16A, 230VAC, 50/60 Hz 16A, 110VAC, 50/60 Hz (Hot Bar ≤ 60 mm)		
<b>Operating temperature °C (°F)</b>	15 – 40 (60 – 104)		

<b>BONDING HEAD SPECIFICATIONS</b>					
<b>Features / Head Module</b>	SH500	PH500	SH1250	PH1250	BH2500
<b>Head actuation method</b>	Pneumatic	Motorized	Pneumatic	Motorized	Pneumatic
<b>Bonding Force</b>	Adjustable	Programmable	Adjustable	Programmable	Adjustable
<b>Force Range N</b>	20 – 500		20 – 1250		20 – 2500
<b>Lbs</b>	4 – 110		4 – 276		4 – 552
<b>Hot Bar Stroke mm (Inches)</b>	25 (0.98)				
<b>Hot Bar Sizes</b>					
<b>L min – L max mm (Inches)</b>	4 – 150 (0.16 – 5.9)				
<b>W min – W max mm (Inches)</b>	1 – 5 (0.04 – 0.20)				



Your local Representative

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