

Dedicated Wedge Bonder for Single-Row TO Package

Power-C™ Wedge Bonder is built specifically for single-row TO package power devices. These bonders are driven by proven and powerful direct-drive motion systems, bondheads, ultrasonic generator systems and wire feeding mechanisms, that are on the PowerFusion™ and Asterion™ platforms. In addition, expanded pattern recognition capabilities deliver industry leading productivity and reliability.

Key Features

Productivity

Horizontal Moving Anvil

- Robust clamping solution for single-row TO application
- Horizontal Anvil movement supports leads including overhanging leads
- Clamping scheme similar to Orthodyne M360CHD model

Improved MTBA with Enhanced Pattern Recognition

- Improved Hardware
 - High resolution digital camera
 - Improved Optics - image clarity
 - Co-axial ring light - less susceptible to die tilt
- Enhanced Pattern Recognition Modes - Feature Find Mode
 - Robust & easy to program
 - Less line stoppages despite surface variations

Bond Quality Control and Assessment

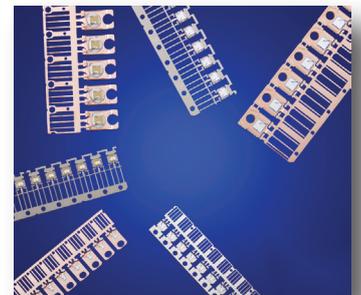
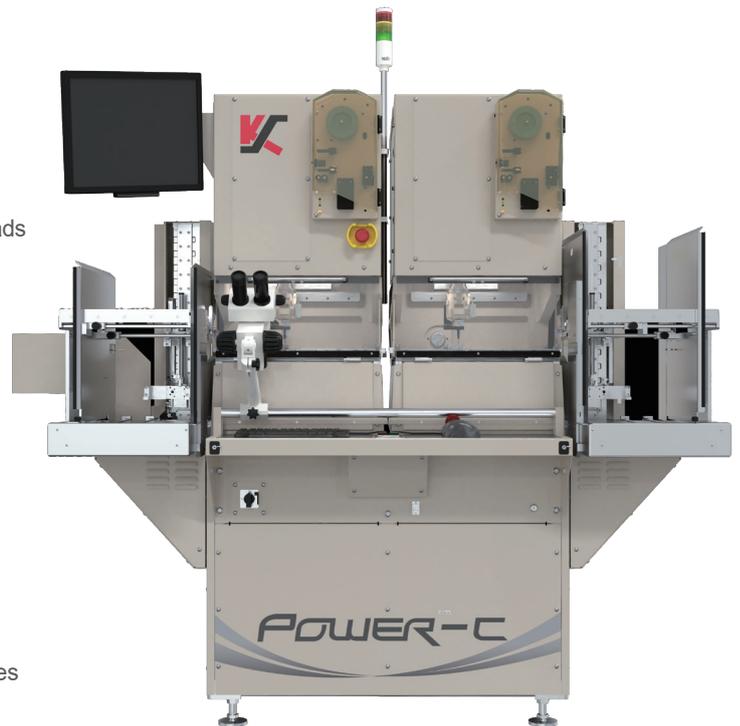
- Multi-segment bonding for enhanced process control on sensitive dies
- Bonded device review enables visual bond assessment
 - Turn on / off on the go
 - Displays up to 9 images
- Bond head ALC non-destructive pull test
- In-line non-destructive pull test system - supports maximum 4x per bond head
- Bond Process Monitoring (BPM) enables monitoring within defined limits

Ease of Use

- Gaugeless wedge tool replacement
 - Consistent tool replacement
- Global parameter change
 - Change specific bond parameters across multiple process programs with the click of few buttons

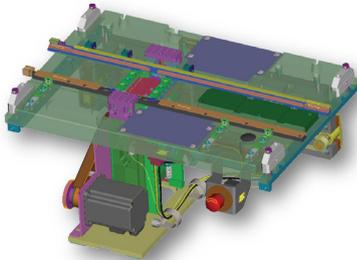
Maintenance & Reliability

- Reduced maintenance
 - X, Y, Z & T direct drive servo system with fewer moving parts
- Better accessibility with modular design
- Proven field performance

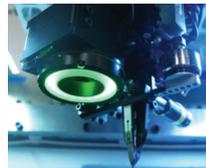


POWER™-C

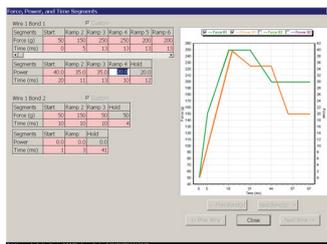
Enhancements



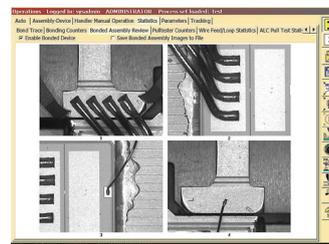
Horizontal moving anvil



Robust Pattern Recognition system



Multi-Segment bonding feature



Bonded Device Review

Options

- Graphical Tooling Setup Aid option reduces tooling setup time and improves clamp positioning
- Bond Process Monitoring (BPM) verifies bonding process consistency
- SECS-GEM option for factory automation and communication
- Non-destructive Pull Testers for bond quality checks
- Leadframe and magazine orientation kits to minimize operator error during material loading



Specifications

Name	Power-C
Power Requirement	Electrical 180-240 VAC, Single Phase, 50/60HZ, 4.0kVA
Compressed Air	85 liter/min, 5.5 bar, Clean Dry Air
Foot Print	1,828mm x 1,219mm x 1,676mm
Weight	800kg
X, Y Axis	Linear Motors, 0.1µm Resolution
Bond Area (X x Y)	80mm (X) x 68mm (Y)
Z Axis	Voice Coil, 0.1µm Resolution; 50mm Z-Stroke
Theta	Direct Drive; ±220°, 0.0057° Resolution
Wire Range and Material	4mil - 20mil; Al Wire
Vision System	GS4 Pattern Recognition System
Pattern Recognition Modes	Feature Find, Single Point PR with Angle
Magazine Size (Length x Width x Height)	115 - 305mm (L) x 20 - 115mm (W) x 50 - 200mm (H)
Leadframe Size (Length x Width x Thickness)	110 - 300mm (L) x 15 - 50mm(W) x 2mm max. (T)
Downset	3mm Max.
L/F Positioning Repeatability	±35µm @ 3 sigma
Clamp Station	Horizontal Moving Anvil (HMA)
Inline Pull Tester	1x per Transport (Standard)
Bond Head Pull Test	Yes (ALC Bond Head)

Configurable Options

Non-Destructive Pull Testers	Maximum 4x per Transport
Graphical Tolling Setup Aid	License Dongle Needed
SECS-GEM	G84, E142 Compatible
	License Dongle Needed
Bond Process Monitoring (BPM)	License Dongle Needed
Tooling Kit	Universal Tooling Kit
Leadframe Orientation Sensor	Hardware Part Add on
Magazine Orientation Kit	Hardware Part Add on