



DAGE-SERIES-4300

SEMI-AUTOMATIC BONDTESTING OF BUMPS ON 300mm WAFERS

SUITABLE FOR:

- 200mm and 300mm bumping lines, Foundry's, Bumping houses, Subcontractors, Production bondtesting and R&D.

APPLICATION:

- Protective "Frame" handling of 300mm bumped wafers – standard format.
- Optional automatic wafer load/unload capability using customers robot handler and other SMIL/FOUP equipment – custom format.



FEATURES:

- Shear testing using the Dage air bearing patented frictionless intelligent loadcartridge system.
- Joystick manipulation of 100% of wafer surface under the test head without any need to re-position the wafer on the chuck.
- Semi-automatic test routines for the bondtesting of the entire wafer surface without the need to re-position the wafer on the chuck. (no camera system needed). 2 reference points needed per wafer.
- 460mm x 300mm XY stage.
- Optional image capture system 90x to 180x.
- 360 degree manual chuck rotation.
- 360 degree loadtool rotation. Automatic during auto test, manual when under joystick control.
- Safety interlocks on wafer chuck.
- Frame protection for 300mm wafer.

- On board results package including Stats,CpK, and some SPC functions.
- ODBC compliant.
- Automatic calibration and linearity checks.

SPECIFICATION

4300 specification General	Size (W x D x H)	Without Image Capture: 1100mm (excluding PC) x 850mm x 670mm With Image Capture : 1250mm (excluding PC) x 850mm x 670mm
	Weight (unpacked)	170 KG
	Power supply	100 /110V, 220/240V AC, 50/60Hz switchable
	Pneumatic supply (machine)	4 bar, 6mm OD/4mm ID plastic pipe
	Interfaces	RS232, optional network card, centronics
	Illumination	20W Halogen Floodlight
	Vacuum supply (workholders)	Min 500mm Hg plastic pipe
Wafer Chuck	Vacuum	Suitable for both 200mm and 300mm wafers
Loadcartridge	Bump Shear	250Grm and 250Grm with 360 deg rotating tool.
	Solder Ball	5KG and 5KG with 360 deg rotating tool.
Loadcartridges Special Order	CBP	Up to 5KG.
Loadcartridges General Spec.		All loadcartridges have 4 software selectable loadranges as standard. All shear cartridges have intelligent Z positioning.
	Accuracy	Total system accuracy +/- 0.25% of load range selected. Maximum loadcartridge accuracy and repeatability to within 0.01% (100PPM).
Test Parameters	Programmable	Shear speed, stepback height, landing speed, fallback, overtravel, loop height, grade list and product group fields.
Calibration		Automatic and software controlled on all cartridges, automatic alarm notification.
Operator Interfaces	PC	Please consult factory.
	Monitor	15 inch LCD
Compliance		European CE regulations- EMC directive, low voltage directive and mechanical safety directive.
Analysis Features	Statistics	Results, min, max, mean, range, standard deviation, m-3s,Cpk,Cp
	Charts / SPC	Histogram, Trend, Parento, Force vs Displacement or Time .
	Z (Stepback)	Total stepback accuracy (BS250 cartridge over a 25 micron travel) +/- 1 micron.
Image Capture System	Optional	Please consult factory for details.
Workholder / Adapter Plates	Optional	Please consult factory for details.
General	Specification	In accordance with the DAGE-SERIES-4000 except shear which is limited to 20KG.

SYSTEM OPTIONS:

1. Manual wafer load / no image capture – Standard configuration.
2. Manual wafer load / with image capture – Standard configuration
3. Customer robot load / with or without image capture – Custom configuration.

STANDARDS:

- CBP JEITA EIAJ ET-7407 (max pull force 2 KG due to chuck limitations)
- BUMP SHEAR JEDEC JESD22-B117.
- BALL SHEAR JEDEC JESD22-B116 and ASTM F1269.

For additional information, please contact:
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