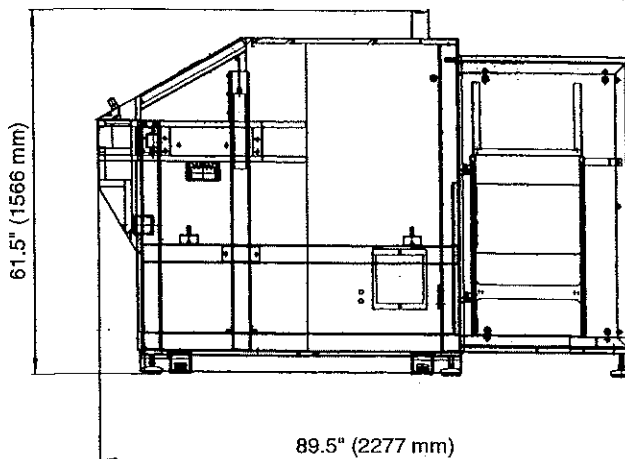
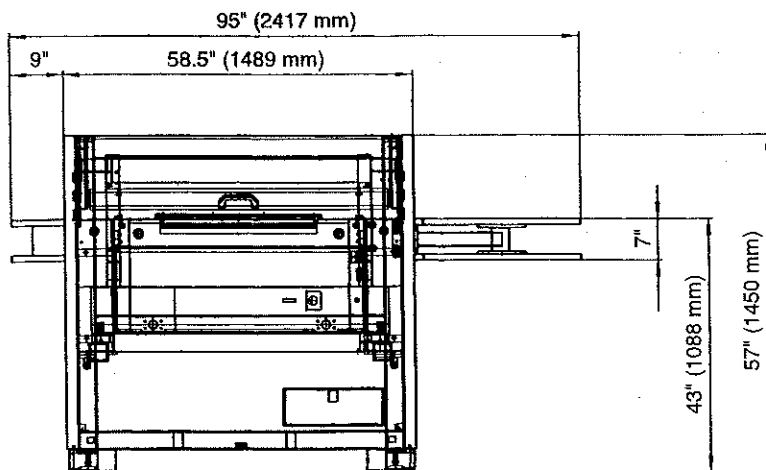


# Specifications A 2



## System Configuration

Probes: Up to 16 flying probes  
(8 top side, 8 bottom side)

Alignment system: CCD B/W cameras for both product sides

Board fixing: Manual loading with shuttle suitable for multi-samples automation available September 1998

Automation: Option

## Positioning control for flying probes

Positioning accuracy:  $< \pm 20 \mu\text{m}$

Repetition accuracy:  $\pm 5 \mu\text{m}$

Resolution measurement systems:  $5 \mu\text{m}$

Minimal test point diameter:  $50 \mu\text{m}$

Contacting distance:  $> 0,15 \text{ mm}$  (6 mil)

Stroke z-axis (programmable):  $0,25 \text{ mm} - 10 \text{ mm}$

Contacting pressure on whole test area:  $10 \text{ g} - 100 \text{ g} \pm 6 \text{ g}$ , programmable and controlled

Accuracy:  $\pm 20 \mu\text{m}$  ( $4 \sigma$ )

## Camera system

Measuring of board position and shift

Resolution:  $18 \mu\text{m}/\text{Pixel}$ , (option  $10 \mu\text{m}/\text{pixel}$ )

Lighting: Adjustable to all PCB surfaces

## Products

Max. product size:  $670 \text{ mm} \times 650 \text{ mm}$   
( $670 \text{ mm} \times 850 \text{ mm}$  option)

Max. test area:  $620 \text{ mm} \times 600 \text{ mm}$   
( $620 \text{ mm} \times 800 \text{ mm}$  option)

Board thickness: max.  $10 \text{ mm}$

## Test field size

$465 \text{ mm} \times 600 \text{ mm}$   $18,3" \times 23,6"$  (A 2/12 with 12 probes)

$620 \text{ mm} \times 600 \text{ mm}$   $24,4" \times 23,6"$  (A 2/16 with 16 probes)

Other test field sizes on inquiry

## Test data:

ATF-data (+EPC-data), IPC-D-356A,  
IPC-D-356 (+EPC-data)

## Test parameters

Test current:  $0,01 \text{ mA} - 30 \text{ mA}$

Test voltage:  $4 \text{ V}$   
High-voltage measurement up to  $500 \text{ V}$  (option)

Continuity test:  $1 \text{ Ohm} - 1 \text{ KOhm}$

Short circuit test:  $500 \text{ KOhm} - 10 \text{ MOhm}$ ,  
option  $100 \text{ MOhm}$  selective

## Measurement methods

**Isolation test:** 100% test by Field Measuring method, this means shorts test between all layers (no adjacency required!). No comparison measurement – therefore short test time

**Continuity test:** 2-point measurement, test range from min.  $1 \text{ Ohm}$

**Test speed:** 100 % test of board with 4000 TP / 1000 nets in approx. 3.5 min. (depends on board) when using all probes (with software version V1.4.0; permanent increase of test speed by new software releases)

## Features

- 100% isolation test  
(Standard: test without adjacency), if required test with adjacency in different variations
- Continuity test (min.  $1 \text{ Ohm}$ )
- Adjustable and controlled pressure of probes and z-axis speed
- Multi panel test, Multi sample test
- Independent optical scanning of both product sides
- Shrinkage compensation
- Component test (resistance test)
- High voltage measurement with HV500-card
- LA test of conduction (option)
- Interface to external measurement devices
- Automatic self diagnosis
- Simultaneous data preparation (dps) of a new product during test  
(external data preparation optional)
- Comfortable user interface under Windows NT 4.0

## Environmental conditions

Temperature:  $19^\circ \text{ C} - 27^\circ \text{ C}$   
( $21^\circ \text{ C} \pm 2 \text{ K}$  for highest accuracy)

Relative humidity:  $40 \% - 60 \%$

## Energy requirements

Power:  $230 \text{ V}, 50 \text{ Hz}$   
 $115 \text{ V}, 60 \text{ Hz}$  (option)

Compressed air:  $6 \text{ bar}$ , approx.  $90 \text{ psi}$ , filtered

## Weight

A 2/12 approx.  $1900 \text{ kg}$

A 2/16 approx.  $2000 \text{ kg}$



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