March 2010

MY100-Series P&P Specification

MY100SX™

MYDATA®

MY100-SERIES P&P SPECIFICATION – MY100SX

PLACEMENT SPEED AND ACCURACY

PLACEMENT SPEED AND ACCURACY – MY100SX 10/14	
Rated Speed [1]	21 500 CPH
IPC 9850 Chip Net Throughput [2,3]	17 800 CPH
IPC 9850 Chip Tact Time [3]	0.180 s
IPC 9850 Chip Repeatability 3σ (X, Y, Theta) [3,6]	57 µm, 1.8°
IPC 9850 Chip Accuracy @ Cpk = 1.33 (X, Y, Theta) [5,7]	95 µm, 2.6°
IPC 9850 Fine Pitch Net Throughput [2,4]	3 200 CPH
IPC 9850 Fine Pitch Tact Time [4]	0.958 s
IPC 9850 Fine Pitch Repeatability 3σ (X, Y, Theta) [4]	21 µm, 0.05°
IPC 9850 Fine Pitch Accuracy @ Cpk = 1.33 (X, Y, Theta) [4,5]	35 µm, 0.09°

The above specification achieved with a machine configuration including high precision mounthead (Midas), high speed mounthead (HYDRA Z8), line scan vision system (LVS) and inline conveyor T3.
The IPC 9850 net throughput and accuracy numbers are obtained simultaneously, with the same machine settings.
The rated Speed value is obtained under conditions optimized for speed.

1) Depending on component and application.
2) According to IPC 9850. Net Throughput = (no of parts x 3600) / (board build time + board transfer time).
3) According to IPC 9850 0402C verification panel.
4) According to IPC 9850 QFP64/QFP100 verification panel.
5) According to IPC 9850 Cpk 1.33 = 4σ + offset.
6) Chip Repeatability with high precision head, 36 µm, 1.5°.
7) Chip Accuracy with high precision head, 63 µm, 2.2°.

SYSTEM FEATURES

SYSTEM FEATURES MY100SX
On-the-fly mount order optimization
Vision autoteach with snap-to-grid
Automatic illumination settings
Intelligent feeder concept – Agilis
On-the-fly feeder loading
Automatic feeder and component recognition
Dynamic feeder positions
Automatic board stretch compensation
Automatic conveyor width adjustment
Intelligent surface impact control
Tool collision avoidance
Multi-user, multi-tasking system software
Open software interfaces for factory integration
SQL database engine

COMPONENT RANGE

HIGH PRECISION MOUNTHEAD – MIDAS	
Component Range	Chip (from 01005), SOIC, PLCC, TSOP, QFP, BGA, flip chip, odd-shape, surface-mount connectors, through-hole components, CSP, CCGA, DPAK, Alcap, Tantalum.
Component Specification	Min: 0.4 x 0.2 mm (0.016” x 0.008”) (01005) Max: 56 x 56 x 15 mm (2.20” x 2.20” x 0.59”) [1] Max: component weight: 140 g [2]

1) Customized larger component capabilty available: 76 x 66 x 15 mm (2.9” x 2.6” x 0.59”) or 151 x 26 x 15 mm (5.9” x 1.0” x 0.59”). Customized tall component capability 22 mm (0.86”) available. Contact MYDATA sales for detailed customization information.
2) Depending on mounthead, mount tool, package, and production altitude.

HIGH SPEED MOUNTHEAD – HYDRA Z8	
Component Range	Chip (from 0201), SO28, SOT223, SOJ20, PLCC32, MELF, SOD, TSOP
Component Specification	Min: 0.6 x 0.3 mm (0.02 x 0.01”) (0201) Max: 18.6 x 18.6 x 5.6 mm (0.73 x 0.73 x 0.22”) (PLCC44)

ELECTRICAL VERIFIER (OPTIONAL)	
Component Range	Resistor, Capacitor, Unipolar Capacitor, Diode (forward voltage, reverse current), Zener diode (voltage drop), Transistor (current gain)
Verification Time	On-the-fly

FEEDER CAPACITY

FEEDER CAPACITY 8 MM TAPE				
	T3	T4	T5	T6
MY100SX-10	112	96	-	-
MY100SX-14	176	160	144	128

BOARD HANDLING

INLINE CONVEYOR				
	T3	T4	T5 (1)	T6 (1)
Maximum Board Size	443 x 508 mm (17.4" x 20")	575 x 508 mm (22.6" x 20")	736 x 609 mm (29" x 24")	914 x 609 mm (36" x 24")
Maximum Board Size with ML adaptor (2)	419 x 443 mm (16.5" x 17.4")	554 x 443 mm (21.8" x 17.4")	725 x 556 mm (28" x 22")	905 x 556 mm (35.5" x 22")
Minimum Board Size (3)	70 x 50 mm (2.7" x 2")	70 x 50 mm (2.7" x 2")	70 x 50 mm (2.7" x 2")	70 x 50 mm (2.7" x 2")
Board Thickness Range	0.4 - 6.0 mm (0.016" - 0.24")	0.4 - 6.0 mm (0.016" - 0.24")	0.8 - 12.5 mm (0.03" - 0.5")	0.8 - 12.5 mm (0.03" - 0.5")
Board Edge Clearance Top and Bottom	3.2 mm (0.13")	3.2 mm (0.13")	3.2 mm (0.13")	3.2 mm (0.13")
Top Side Clearance (max) (4)	15 mm (0.59")	15 mm (0.59")	15 mm (0.59")	15 mm (0.59")
Bottom Side Clearance (max)	32 mm (1.25")	32 mm (1.25")	32 mm (1.25")	32 mm (1.25")
Maximum Board Weight	5 kg (11 lbs)	8 kg (17 lbs)	15 kg (33 lbs) (5)	15 kg (33 lbs) (5)
Board Transfer Height	Conforms to SMEMA standard for board transfer height. Height adjustable from 880 to 975 mm (34.6" to 38.4").			
Operation Mode	Inline, manual, inline odd-board, left-to-right / right-to-left			

1) Available for MY100SX-14.
2) Optional. Suitable for irregular sized and odd shaped boards.
3) Recommended board train specification: 90 x 50 mm (3.5" x 2") board size, 1.6 mm (0.06") thickness.
4) Customized tall component capability 22 mm (0.86")
5) Greater weight capability available on request.

VISION CAPABILITY

DUAL VISION SYSTEM				
COMPONENT TYPE	CAMERA	MAX ACTIVE FIELD OF VIEW	MIN PITCH	MIN LEAD WIDTH
Leaded Components	SVC(1)	56 x 52 mm (2.20" x 2.04")	0.40 mm (16 mil)	0.20 mm (8 mil)
	HRC(2)	15 x 15 mm (0.59" x 0.59")	0.10 mm (4 mil)	0.05 mm (2 mil)
Bumped Components	SVC(1)	56 x 52 mm (2.20" x 2.04")	0.50 mm (20 mil)	0.25 mm (10 mil)
	HRC(2)	15 x 15 mm (0.59" x 0.59")	0.16 mm (6.3 mil)	0.08 mm (3.1 mil)

1) Standard vision camera in dual vision system (DVS).
2) High resolution camera in dual vision system (DVS).

LINESCAN VISION SYSTEM				
COMPONENT TYPE	CAMERA	MAX ACTIVE FIELD OF VIEW	MIN PITCH	MIN LEAD WIDTH
Leaded Components	LVC(1)	56 x 56 mm (2.2" x 2.2")	0.20 mm (8 mil)	0.10 mm (4 mil)
Bumped Components	LVC(1)	56 x 56 mm (2.2" x 2.2")	0.30 mm (12 mil)	0.15 mm (6 mil)

1) Line scan vision camera.

SOFTWARE

SOFTWARE MODULES (OPTIONAL)
Shared Databases
Line Mode
PCB ID (2D barcode)
Electrical Measurement Log
Pre-Pick Inspection
Barcode Software

OFFLINE SOFTWARE TOOLS (OPTIONAL)
Data Preparation – MYCam
Machine Programming – MYCenter
Optimization and Scheduling – MYPlan
Inventory Management and Kitting – MYLabel
Traceability – MYTrace
Line Automation – FlowLine

MISCELLANEOUS

INSTALLATION REQUIREMENTS	
Power Requirements	Three phase AC 6.6 kVA (3 x 2.2 kVA)
Power Consumption	1.5 kW (average)
Voltages	3 x 200, 210, 220, 230, 240, 250 +-10%, Y or Delta
Air Supply	No air required
Noise	65 dBA
Air Temperature	+18 to +35 °C (65 to 95 °F)
Air Humidity	< 95% RH non condensing

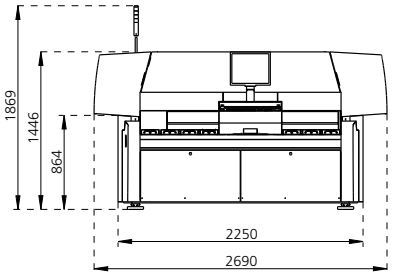
MACHINE WEIGHT (1)	
MY100SX-10	1 400 kg (3 100 lbs)
MY100SX-14	1 700 kg (3 700 lbs)

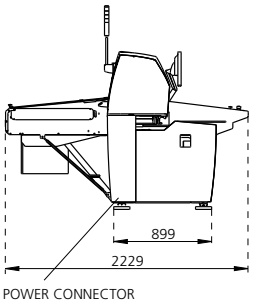
1) Total machine weight excluding magazines.

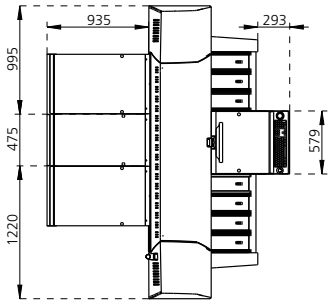
DIMENSIONS

in mm.

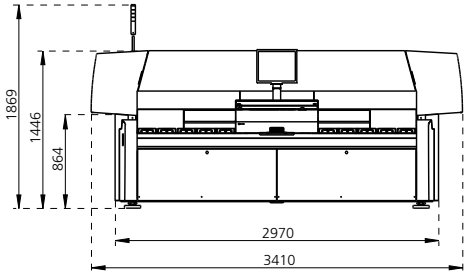
MY100SX-10 T3

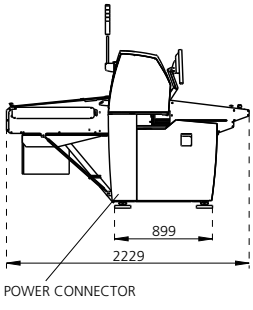


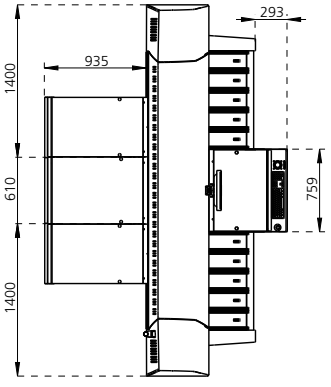




MY100SX-14 T4







MYDATA®

www.mydata.com
info@mydata.com

Micronic Mydata AB
PO Box 3141
SE-183 03 Täby
Sweden
Visit: Nytorpsvägen 9, Täby
Tel: +46 8 638 52 00
Fax: +46 8 638 52 90

MYDATA Asia
Tel: +65 6281 7997
Fax: +65 6281 7667

MYDATA Benelux
Tel: +31 402 62 06 67
Fax: +31 402 62 06 68

MYDATA China
Tel: +86 21 6485 5389
Fax: +86 21 6485 7208

MYDATA France
Tel: +33 1 6959 2434
Fax: +33 1 6928 7100

MYDATA Germany
Tel: +49 8102 749090
Fax: +49 8102 749098

MYDATA Japan
Tel: +81 42 354 1334
Fax: +81 42 354 1335

MYDATA UK
Tel: +44 1 202 723 585
Fax: +44 1 202 723 269

MYDATA USA
Tel: +1 978 948 6919
Fax: +1 978 948 6915

P-001-0206/rev March 2010