

MYPro series MY300EX™

pick-and-place

Specifications
March 2022



Specifications MYPro series **MY300EX™**

PLACEMENT SPEED AND ACCURACY	
MY300EX-9/13	
Rated speed ⁽¹⁾	11 000CPH
IPC 9850 chip net throughput ^(2, 3)	10 000CPH
IPC 9850 chip takt time ⁽³⁾	0.36s
IPC 9850 chip repeatability 3σ (X, Y, Theta) ⁽³⁾	30μm, 1.8°
IPC 9850 chip accuracy @ Cpk = 1.33 (X, Y, Theta) ⁽⁵⁾	50μm, 2.6°
IPC 9850 fine pitch repeatability 3σ (X, Y, Theta) ⁽⁴⁾	21μm, 0.05°
IPC 9850 fine pitch accuracy @ Cpk = 1.33 (X, Y, Theta) ^(4, 5)	35μm, 0.09°

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) Optimal conditions.
- (2) According to IPC 9850. Net throughput = (no of parts x 3 600)/(board build time + board transfer time).
- (3) According to IPC 9850 0402C verification panel.
- (4) See document P-010-0112-EN for details.
- (5) According to IPC 9850 Cpk 1.33 = 4σ + offset.

SYSTEM FEATURES
MY300EX
On-the-fly mount order optimization
Vision autoteach with snap-to-grid
Automatic illumination settings
Intelligent feeder concept—Agilis
Automatic feeder and component recognition
On-the-fly feeder loading
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
Programmable light settings fiducial camera

COMPONENT RANGE	
HIGH PRECISION MOUNTHEAD—MIDAS	
Component range	Chip (from 03015), SOIC, PLCC, TSOP, QFP, BGA, flip chip, odd-shape, surface-mount connectors, through-hole components, CSP, CCGA, DPAK, Alcap, Tantalum
Component specification	Min: 0.3 x 0.15 (0.012" x 0.006") (03015) Max: 140 x 73 x 35mm (5.51" x 2.87" x 1.38") ⁽¹⁾ Max: component weight: 140g ⁽²⁾

- (1) With 4K vision. Max component size with 2K vision: 140 x 56 x 35mm (5.51" x 2.20" x 1.38").
- (2) Depending on mounthead, mount tool, package, and production altitude.

ELECTRICAL VERIFIER (OPTIONAL)	
Component range	Resistor, capacitor, unipolar capacitor, diode (forward voltage, reverse current), Zener diode (reverse voltage), bipolar transistor (current gain), FET/IGBT (gate threshold voltage). Smallest chip size 1.0 x 0.5 mm (0.04 x 0.02").

FEEDER CAPACITY		
8 MM TAPE	T460	T640
MY300EX-9	96	N/A
MY300EX-13	160	144

BOARD HANDLING		
INLINE CONVEYOR	T460	T640
Maximum board size	460 x 510mm (18 x 20")	640 x 510mm (25 x 20")
Minimum board size ⁽¹⁾	70 x 50mm (2.7 x 2")	70 x 50mm (2.7 x 2")
Maximum board train length	436mm (17.1")	472mm (18.5")
Board thickness range ⁽¹⁾	0.4–6.0mm (0.016–0.24")	0.4–6.0mm (0.016–0.24")
Board edge clearance top	3.2mm (0.13")	3.2mm (0.13")
Board edge clearance bottom ⁽²⁾	3.2mm (0.13")	3.2mm (0.13")
Top side clearance (max)	35mm (1.38")	35mm (1.38")
Bottom side clearance (max) ⁽³⁾	32mm (1.25")	32mm (1.25")
Maximum board weight	4kg (8.8lbs)	4kg (8.8lbs)
Board transfer height	Conforms to SMEMA standard for board transfer height. Height adjustable from 880 to 975mm (34.6 to 38.4").	
Operation mode	Inline, manual, inline odd-board, left-to-right/right-to-left.	

- (1) Board train specification: 90 x 50mm (3.5 x 2") min board size, 1.6mm (0.06") min thickness. Max warpage 1mm (0.04").
- (2) Edge clearance 5.5mm (0.22") if component taller than 6mm (0.24"). 14.3mm (0.56") if taller than 19mm (0.75").
- (3) 15mm (0.59") with support pins.

VISION CAPABILITY		
LINESCAN VISION SYSTEM—4K RESOLUTION		
Component type	Minimum pitch	Minimum lead width
Leaded components	0.10mm (4mil)	0.05mm (2mil)
Bumped components	0.15mm (6mil)	0.08mm (3mil)

LINESCAN VISION SYSTEM—2K RESOLUTION		
Component type	Minimum pitch	Minimum lead width
Leaded components	0.20mm (8mil)	0.10mm (4mil)
Bumped components	0.25mm (10mil)	0.13mm (5mil)

SOFTWARE
SOFTWARE MODULES (OPTIONAL)
Shared databases
Line mode
PCB ID (2D barcode)
Pre-pick inspection
Barcode software
PRM software

OFFLINE SOFTWARE TOOLS (OPTIONAL)
Data preparation—MYCenter
Optimization and scheduling—MYPlan
Inventory management and kitting—MYCenter
Traceability—MYTrace

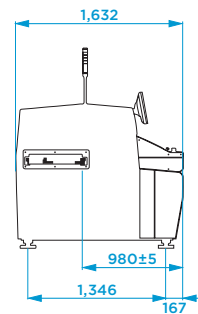
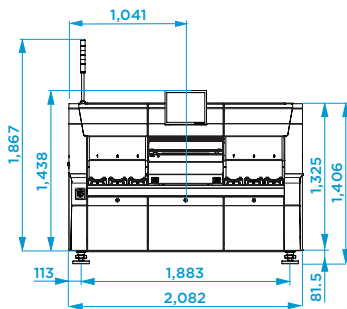
MISCELLANEOUS	
INSTALLATION REQUIREMENTS	
Power requirements	Three phase AC 6.6kVA (3x2.2kVA)
Power consumption	1.5kW (average)
Voltages	3x200, 210, 220, 230, 240, 250 ±10%, Y or Delta
Air supply	No air required
Noise	70dBA
Air temperature	+18 to +35°C (65 to 95°F)
Air humidity	<95% RH non condensing

MACHINE WEIGHT ⁽¹⁾	
MY300EX-9	1,500kg (3,300lbs)
MY300EX-13	1,600kg (3,500lbs)

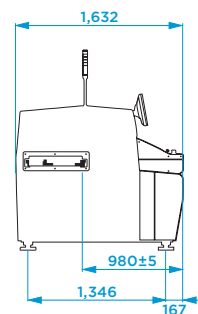
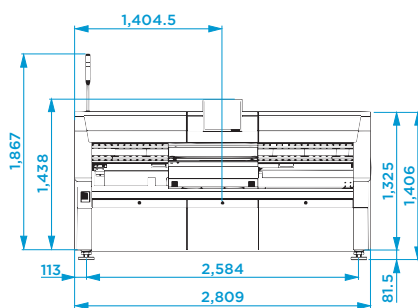
(1) Total machine weight excluding magazines.

DIMENSIONS [mm]

MY300EX-9



MY300EX-13



MYCRONIC

MYCRONIC.COM

SWEDEN
Mycronic AB
PO Box 3141
Nytorpsvägen 9
SE-183 03 Täby
Tel: +46 8 638 52 00

GERMANY
Mycronic GmbH
Tel: +49 89 45 24 24 8-0

UK
Mycronic Ltd.
Tel: +44 1202 723 585

FRANCE
Mycronic S.A.S.
Tel: +33 1 41 80 15 80

NETHERLANDS
Mycronic B.V.
Tel: +31 402 62 06 67

USA
Mycronic Inc.
Tel: +1 978 495 9799

SOUTH KOREA
Mycronic Co. Ltd.
Tel: +82 31 387 5111

CHINA
Mycronic Co., Ltd.
Tel: +86 21 3252 3785/86

SINGAPORE
Mycronic Pte Ltd.
Tel: +65 6281 7997

JAPAN
Mycronic Technologies Corporation
Tel: +81 42 433 9400

Specifications are subject to change without notice. Mycronic, MYDATA, MYDATA automation and MY: Mycronic 4.0; MyPro, MyPro Line, MY100, MY100e, MY200, MY200HX, MY200DX, MY200SX, MY200LX, MY300, MY300EX, MY300HX, MY300DX, MY300SX, MY300LX, MY500, MY600, MY600JD, MY600JP, MY600JX, MY700, MY700JD, MY700JP, MY700JX and MYSynergy; Mycronic 4.0; MYSmart, MYC50, MYD10, MYD50, MYT10, MYT50; Mycronic SMD Tower; MYTower; 5, 6, 6+, 7+, 5x, 6x; VI TECHNOLOGY; VIT; 5K, 5K3D, 8K, 8K3D, 9K, 9K3D; PI, PI Pico, PI Primo; SIGMA Link; HYDRA Speedmount, Midas, ISIC, Agilis, Agilis Linear Magazine (ALM), Agilis Linear Magazine Flex (ALM FLEX), Agilis Stick Magazine (ASM), Agilis Tray Magazine (ATM), Mycronic Tray Exchanger (TEX), Mycronic Tray Wagon Magazine (TWM); Mycronic Dip Unit (DPU); Mycronic Standard Vision System (SVS), Mycronic Dual Vision System (DVS), Mycronic Linescan Vision System (LVS), Mycronic HYDRA Vision System (HVS); Mycronic Assembly Process Management (APM) including: JPSys, TPSys, MYLabel, MYPlan, MYCenter, MYTrace, MYCam and FlowLine are registered trademarks or trademarks of Mycronic AB. Mycronic AB is ISO 9001:2015 and ISO 14001:2015 certified.