



71 Daggett Drive
San Jose, CA 95134
Ph: (408) 416-2400
Fax: (408) 416-2410
Web: www.AmericanTech.com

AT-1045 FP Automatic SOP Lead Conditioning System

SOP Device Types

The following devices can be accommodated:

- SOIC
- SSOP
- TSOP
- TSSOP *
- MSOP *
- QSOP

SOP Input Capacity

- Maximum lead counts and deviations:
 - Pitch: 0.025 inches * Leads: 56 * Maximum Lead Deviation: 0.012 inches
 - Pitch: 0.400 mm * Leads: 80 * Maximum Lead Deviation: 0.200 mm
 - Pitch: 0.500 mm * Leads: 80 * Maximum Lead Deviation: 0.250 mm
 - Pitch: 0.650 mm * Leads: 56 * Maximum Lead Deviation: 0.304 mm
 - Pitch: 0.800 mm * Leads: 50 * Maximum Lead Deviation: 0.400 mm
 - Pitch: 1.020 mm * Leads: 40 * Maximum Lead Deviation: 0.510 mm
 - Pitch: 0.050 inches * Leads: 32 * Maximum Lead Deviation: 0.025 inches
- Body widths: 0.150 - 0.450 inches - specify size (1 set of tooling included)
- Throughput: 3200 parts per hour (16 lead device on 0.050 inch centers)

Output Tube Specifications

- Width: 0.300 - 0.800 inches
- Thickness: 0.125 - 0.250 inches
- Length: 6 inches minimum

SOP Output Correction Accuracy

- Pitch correction capability:
 - Pitch: 0.025 inches * Correction to within: 0.003 inches
 - Pitch: 0.650 mm * Correction to within: 0.076 mm
 - Pitch: 0.800 mm * Correction to within: 0.076 mm
 - Pitch: 1.020 mm * Correction to within: 0.076 mm
 - Pitch: 0.050 inches * Correction to within: 0.003 inches
- Pin-to-pin sweep: +/- 0.003 inches
- Coplanarity: < 0.0015 inches
- Body offset: 0.000 - 0.013 inches; micrometer adjustable



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Changeover time

Total: 35 minutes
Pitch changeover: 15 minutes
Body width changeover: 20 minutes

Maintenance

Jam Rate	1 : 1 hour of operation
MTBA	1 : 1000 devices
MTBF	1,000 hours (for non wear parts)
MTTR	15 minutes
MTTA	<1 minute
Uptime	97%

General

- Facilities:
 - Power: 90 - 260 VAC, 50/60 Hz, 250 VA
 - Air: 1 CFM @ 85 PSI minimum (60 PSI optional)
- Weight: 120 lbs.

TSSOP Device Processing Option

- Components:
 - Body width: 0.150 - 0.300 inches (3.810 - 7.620 mm)
 - Body thickness: 0.035 inches (0.889 mm)
 - Lead pitch: 0.0256 inches (0.650 mm)
 - Lead width: 0.013 inches (0.330 mm)
 - Lead count: 8 - 56
- Input / Output Tubes:
 - Tube length: > 6 inches (> 150.0 mm)
 - Tube width: 0.240 inches (6.096 mm)
 - Tube height: 0.094 inches (2.388 mm)
- Machine:
 - Throughput: 3000 uph (typical)

The standard TSSOP upgrade is a combination of hardware and software changes - as well as a new set of guide rails / trackways that guide fragile TSSOP parts through the machine by both the top and bottom of the component body, these changes include modifications to the singulation and coplanarity adjustment stations.

MSOP Device Processing Option

- Components:



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- Body width: 0.118 inches (3.000 mm)
- Body thickness: 0.035 inches (0.889 mm)
- Lead pitch: 0.0256 inches (0.650 mm)
- Lead width: 0.013 inches (0.330 mm)
- Lead count: 8
- Input / Output Tubes:
 - Tube length: > 6 inches (> 150.0 mm)
 - Tube width: 0.240 inches (6.096 mm)
 - Tube height: 0.094 inches (2.388 mm)
- Machine:
 - Throughput: 3000 uph (typical)
 - Rail kit installation: < 8 hours

The MSOP option is recommended as a factory installed option only.