

# SO2000

## Modular Gravity Handler for Small Devices



Bowl to Bulk Configuration



Tube to Tube Configuration

### Productivity

- Throughput up to 14,400 UPH
- Up to x4 test site parallelism
- Small footprint, low weight

### Flexibility

- SOT 49 mil to SO 300 mil
- QFN 1.4 mm to QFN 12 mm
- SIP devices
- Device thickness down to 0.4 mm
- Input and output: tube and bowl/bulk



Automotive



Mobility



IoT/IoV & Optoelectronics



Computing & Network



Industrial & Medical



Consumer

- Full tri-temp range -60°C to +175°C
- Index time down to 450 ms
- Wide package range (small QFN, SO, SIP)
- Full split kit capability

# SO2000

## Modular Gravity Handler for Small Devices

### Specifications

#### Platform

#### Performance Characteristics

- Throughput standard kits up to 14,400 UPH
- Index time (belly bar) down to 450 ms
- Index time (real plunge-to-board) down to 760 ms
- Bent leads ( $\pm$ ): 0.001 inch
- MTBF: min. 500 h
- MTTR: 0.5 h
- MTBA: typ. 30 min
- Uptime: 95%

#### Jam Rates

- Down to 1:10,000 (under controlled conditions)

#### Temperature Characteristics

- Range: -60° to +160°C
- Extended Version Range (optional): -60°C to +175°C
- Soak Track Accuracy:  $\pm 2^\circ\text{C}$
- Test Site Accuracy<sup>6</sup>:  $\pm 2^\circ\text{C}$
- Soak Capacity (standard kits): 2 x 320 mm

#### Device Specifications

- Body width (SO types): 49 mil to 300 mil
- Body width (QFN types): 1.4 mm to 12 mm
- Body length: 1.4 mm to 18 mm
- Body height: 0.4 mm to 3 mm
- Length/width ratio: down to 0.8

#### Input / Output Characteristics

- Input tube: stack height: 2 x 170 mm
- Output tube: stack height: 2 x 170 mm
- Tube width: 4 mm to 16 mm
- Tube length: 160 mm to 575 mm
- Tube height: 2.5 mm to 6 mm
- Input bowl: capacity 10,000 devices (e.g. SOT23)
- Output bulk: 8 x 10,000 devices (e.g. SOT23, standard box)
- Output bulk: 16 x 3,000 devices (e.g. SOT23, Cohu box)

#### Facility Requirements

- Nominal supply voltage: 208 - 230 VAC, 50/60 Hz, 1x16 A
- Air pressure: 5 bar (72 psi) to 9 bar (130 psi)
- Air consumption: up to 300 l/min
- LN<sub>2</sub> pressure: 1.1 bar (16 psi) to 6 bar (86 psi)
- LN<sub>2</sub> consumption: 10 l/hour

#### ESD Protection

- Field strength at device: 100 Volt (max.)
- Ground strap jack: 1 M-Ohm to ground
- Device path: conductive and grounded

#### Physical Dimensions

	Bowl to Bulk	Tube to Tube
• Height:	1,812 mm	1,970 mm
• Width:	810 mm	810 mm
• Depth:	780 mm	1,021 mm
• Weight:	240 kg	220 kg

#### Electrical Interface

- TTL parallel standard
- RS 232 standard
- IEEE 488 optional
- Network standard
- USB at OPI standard

#### Change Kit

#### Device Types

- SOT 49 mil to SO 300 mil
- QFN 1.4 x 1.4 mm to 12 x 12 mm
- Conversion kits for other packages upon request

#### Kit Changeover

- < 4h typical

#### Contactors

- Cohu offers contact socket for all package versions and application, i.e. high frequency, high power, high voltage, Kelvin and MEMS test

Specifications subject to change without notice. For detailed performance specifications, please contact Cohu.