

Cerno® Series: Model 300S

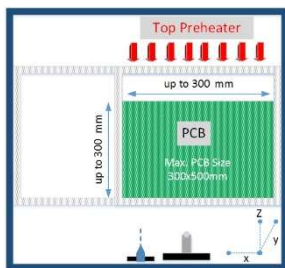
Selective Soldering with Compact Footprint for Small Batch In-Line Production

Features and Benefits

- Compact in-line platform with combined fluxing, preheating and soldering ideal for small batch production requirements
- Entry level selective soldering with compact footprint requiring less than 1.1 square meters of factory floor space
- Full titanium solder pot compatible with all solder alloys plus easy tool-free maintenance
- Modular platform design allows options to be added as application needs change
- Entry level selective soldering system with capability to solder printed circuit boards at the same speed as larger or expensive machines

Designed for a wide variety of selective soldering applications, the Cerno® 300S offers exceptional value with superior process capabilities and is ideal for prototype, small batch production or cell manufacturing. The Cerno® 300S has many unique features, including drop-jet fluxing, IR preheating and selective soldering with quick and easy programming and fast machine setup.

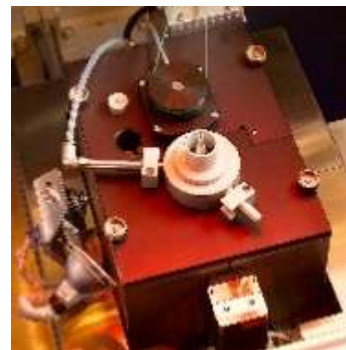
Versatility. With its compact form, single drop-jet fluxer and all titanium solder pot, the Cerno® 300S is a versatile selective soldering platform and has a soldering area of 300 x 300 mm. The Cerno® 300S can also process printed circuit boards as large as 500 x 300 mm (19.6 x 11.8 in.) with an in-line SMEMA edge chain conveyor.



Cerno® 300S flux, preheat and soldering configuration



Value. With a reputation for innovation, comprehensive process solutions from Nordson SELECT ensure a maximum return on investment and low cost of ownership. From initial process development through full-scale production, you are supported by our experienced worldwide engineering, applications development and technical service network.



Cerno® 300S compact selective soldering pot

Specifications: Cerno® 300S

Motion System

Z accuracy	±100 µm (0.004 in.)
Z repeatability ⁽¹⁾ :	±50 µm (0.002 in.), 3 sigma
Z velocity:	0.05 m/s peak (2 in./s)
X-Y accuracy	±100 µm (0.004 in.)
X-Y repeatability ⁽¹⁾ :	±50 µm (0.002 in.), 3 sigma
X-Y velocity:	0.2 m/s peak (8 in./s)

Computer

PC with Windows® operating system

Software

PhotoScan “point-and-click” programming editor and machine control software

Solder Pot Capacity and Weight

Capacity ⁽²⁾: Approx. 12.0 kg (26.4 lbs.)

Max. temperature: 320°C

Solderable Area (X-Y)

Max. 300 x 300 mm (11.8 x 11.8 in.)

Preheating

Selectable infrared preheating from 1.5 kW to 4.5 kW

Board Handling Capability

Max. board size: 500 x 300 mm (19.6 x 11.8 in.)

Min. board size: 50 x 50 mm (2.0 x 2.0 in.)

Conveyor

Max. board/carrier length: 500 mm (19.6 in.)

Min. board/carrier length: 50 mm (2.0 in.)

Max. board/carrier width: 300 mm (11.8 in.)

Min. board/carrier width ⁽³⁾: 50 mm (2.0 in.)

Max. board/carrier thickness: 15.2 mm (0.6 in.)

Max. overboard clearance: 120 mm (4.7 in.)

Max. underboard clearance: 40 mm (1.5 in.)

Edge clearance ⁽⁴⁾: 3 mm (0.12 in.), edge conveyor including on-rail clamps

Transport height ⁽⁵⁾: Conforms to SMEMA standard for conveyor height; height adjustable from 940-965 mm (37.0 - 38.0 in.) from floor to bottom of board

Load capacity ⁽⁶⁾: 7.5 kg (16.5 lbs.)

Operation modes: Automatic (SMEMA), manual or pass-through

Facilities Requirements

System footprint: 931 x 1235 mm (36.6 x 48.6 in.)

Compressed air: None required

Power (mains) ⁽⁷⁾: Power supply accommodates 230VAC, 50-60 Hz, single phase, 2 kW, 9 A without preheater, or 400VAC, 50-60 Hz, three phase, 10 kW, 16 A with preheater

Nitrogen: 99.99% (4.0) pure, 4-6 bar, 1.3 m³/hour

Ventilation: Rear 150 m³/hour (90 SCFM), one 100 mm (4.0 in.) dia. duct

System weight ^(8, 9): 350 kg (770 lbs.)

Standard Features

In-line SMEMA chain conveyor

MicroDrop drop-jet fluxer

Nitrogen preheating

All titanium solder pot and pump assembly

Quick change magnetically coupled solder nozzle

PhotoScan editor and machine control software

- Easy “point-and-click” programming
- Remote machine control
- Remote machine maintenance
- Network and FIS capability

TFT monitor

Optional Features

Fully-automated fiducial alignment and board mapping

Solder frame for printed circuit boards

Full surface topside infrared preheating

Process viewing camera

Automatic solder level sensing system

Wave height control sensing system

Automatic solder nozzle cleaning system

Flux level monitoring with information display

Data logging system with traceability of all process parameters

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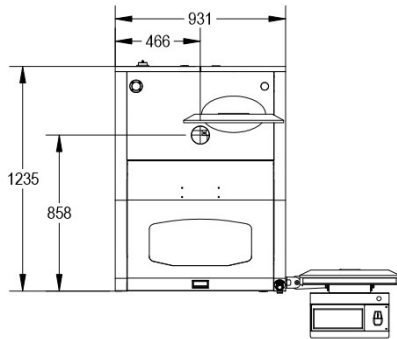
Standards Compliance

SMEMA, CE

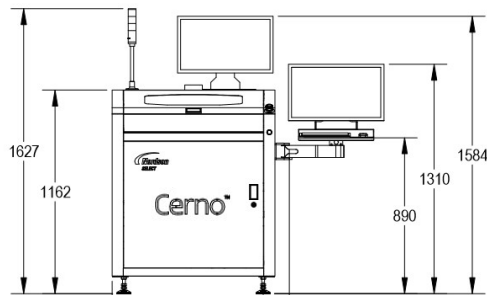
- (1) Repeatability is measured at full rated system speed.
- (2) Solder capacity and total weight of solder pot and pump assembly varies depending on solder alloy.
- (3) Contact factory regarding smaller or larger boards/carriers.
- (4) Edge conveyor conforms to SMEMA standards.
- (5) 900 mm (35.4 in.) non-SMEMA conveyor height available upon request.
- (6) Total weight of all parts on conveyor at one time.
- (7) Electrical power varies depending on configuration.
- (8) System weight varies depending on configuration.
- (9) Configuration dependent. Other configurations may be available. Contact Nordson SELECT.

Additional options may be available: contact Nordson SELECT for further information.

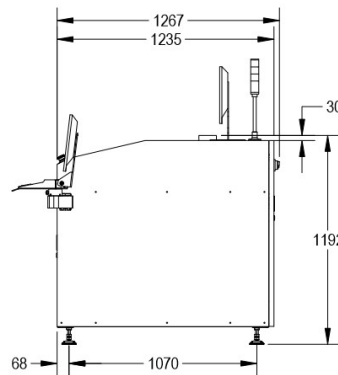
Dimensions are in millimeters



Top View (mm)



Front View (mm)



Side View (mm)

For more information, speak with your local representative or contact your regional office.

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