

Total Solutions

for Soldering Processes and
Automated Production Lines

SEHO StartSelective

Selective Soldering System SEHO STARTSELECTIVE



Reflow | Selective | Wave | Handling Solutions | AOI | Know How & Training

Your Perfect Start

STARTS SELECTIVE

- **Selective soldering made easy:**
The perfect plug-and-produce selective soldering system for those just entering into automated soldering, or to increase in capacity quickly.
- **Ideal solution for production islands or to be placed in the corner of the production floor:** Compact design providing technology of the large SEHO systems.
- **100 % flexible starting from a batch size of 1, for assemblies up to 508 x 508 mm (20" x 20").**
- **Simple operation - no special skills required.**
- **One-piece-flow with fully automated and controlled process.**
- **Energy-efficient preheat area with up-to-date pulsar heater technology.**
- **Low-maintenance electromagnetic soldering unit.**
- **Non-wetted miniwave solder nozzles and a 7° soldering angle guarantee perfect results.**
- **Maintenance-free solder nozzles with nearly unlimited lifetime: No follow-up costs.**
- **Maximum process reliability:**
Fluxer spray jet control, wave height control, solder level monitoring with automated solder wire supply and many more.
- **Maximum machine availability:**
Programming independent from the machine.



Connect, power on, produce: SEHO StartSelective

The StartSelective is the perfect plug-and-produce selective soldering system for those just entering into automated soldering. It is fully equipped to start production immediately: Simply connect, power on, produce!

The StartSelective is thought through down to the last detail, from its ease of operation to many technical highlights. With a footprint of only 2.5 m², the machine provides maximum quality and reproducibility of soldering results for assemblies up to 508 x 508 mm (20" x 20") and an outstanding return on investment.

The compact design allows users to integrate the StartSelective in any production island with minimum footprint requirements, or to place it as stand-alone system in the corner of the production floor: Loading and unloading of assemblies is done from the front side, and all setup, retooling and maintenance are easily accessible on the right side of the machine.

Just like the high volume selective soldering systems from SEHO, the StartSelective is equipped with a complete package for automated process control.

Simply connect, power on, produce!



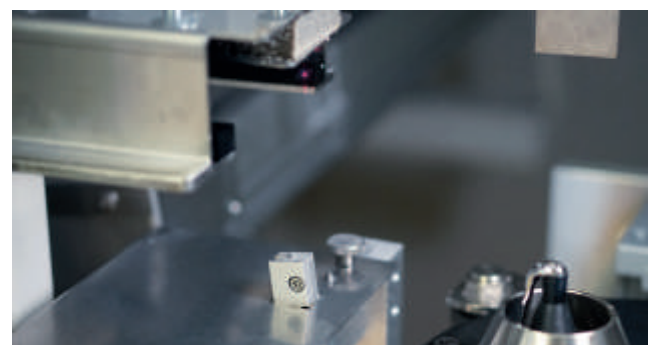
The Operation: Simple!

The StartSelective is designed for maximum efficiency. Programming is 100 % offline at any PC workplace so that the machine is always available for production.

Using an USB stick or network connection, the soldering programs that have been edited offline are transferred to the machine easily and quickly.

The machine is equipped with a touch HMI panel that convinces with high functionality and its ease of operation: No special skills are required.

While all process steps are fully automated and monitored, loading and unloading of assemblies is done manually.



precise micro drop jet fluxer with automatic function and position control



The Process Stations: Maximum Soldering Quality

Flux deposition is made with SEHO's proven micro drop jet fluxing system featuring outstanding precision.

The preheat section of the StartSelective is equipped with up-to-date pulsar heaters over the full area that score with high energy density and quick reaction time.

Depending on board size, the heaters are activated in groups of each two. This allows optimum temperature management on the PCB surface and moreover enables a remarkable reduction in energy consumption.

An additional temperature-controlled top-side heating ensures constant process conditions even in long soldering cycles.

Another highlight is the optimized soldering area with non-



up-to-date pulsar bottom-side heating



controlled process

wetted miniwave solder nozzles, featuring a 7° soldering angle. The result: An ideal solder peel-off and effective reduction of possible soldering defects.

The nozzles convince with stable and reproducible flow properties resulting in outstanding soldering quality. They allow minimal distances between vias so that difficult geometries can also be soldered easily.

Non-wetted nozzles provide even more benefits: They are maintenance-free and feature a nearly unlimited lifetime, thus avoiding follow-up costs. Additionally, they do not require any chemicals for activation. An advantage for both the health of the production staff and the environment.

The soldering unit itself convinces as well: The electromagnetic drive features an extremely stable wave height. Simultaneously it requires minimal maintenance and there is virtually no wear of parts.

100 % Process Control: Reliable Results

Of course, the all-round carefree package for the Start Selective also includes continuous monitoring and automatic control of all relevant process steps.

The spray jet monitoring in the fluxing area, automatic wave height control, solder level monitoring with automated solder wire supply or nitrogen flow quantity control are only some of the monitoring functions that ensure precise, high quality soldering results.



maintenance-free and wear-free nozzles ensure perfect results



Technical Data and Options

Fluxer

micro drop jet fluxer	●
wetting width on PCB	2 - 4 mm
monitoring of the drop jet fluxer function	●
level control in the flux container	●
flux types, alcohol or water based	up to 5 % solids content

Preheating

pulsar bottom-side preheating, 508 x 508 mm [20" x 20"]	●
activation in groups of each 2 heaters	●
IR top-side heating, 508 x 508 mm [20" x 20"]	●

Soldering Unit

soldering unit with electromagnetic pump system	●
miniwave soldering process	●
soldering angle	7°
maintenance-free, non-wetted nozzles with directed flow	○
nitrogen operation with permanent flow quantity measurement	●
automatic wave height control	●
automatic solder level control and solder wire supply	●

Control Unit and Operation

Simatic PLC	●
comfortable Simatic HMI comfort panel	●
offline teach programm for programming	●
process visualization	○

Board Handling

stand-alone system with carrier handling	●
max. PCB dimensions	508 x 508 mm [20" x 20"]
universal workpiece carrier	1 pce included
manual loading/unloading of assemblies, automated process	●

Axis System

interpolating spindle axes with AC servomotor drive (x, y, z axis)	●
soldering angle for x axis	7°

Connections and Dimensions

nitrogen connection	R 1/4", to be supplied locally, min. 4 bar
nitrogen quality	5.0 recommended
nitrogen flow quantity control	●
exhaust volume	250 m³/h
exhaust control	●
available voltages	230/400 V - 50 Hz - 3 phase + N + PE 3 x 208 V - 60 Hz - 4 wire
power rating	approx. 13 kW
dimensions l x w x h	2202 x 1350 x 1629 mm [86.69" x 53.15" x 64.13"]

Further options upon request. ● Standard ○ Option

Headquarters Germany

SEHO Systems GmbH

Frankenstrasse 7 - 11
97892 Kreuzwertheim
Germany
Phone +49 (0) 93 42-889-0
Fax +49 (0) 93 42-889-200
E-Mail info@seho.de
Website www.seho.de

Americas

SEHO North America, Inc.

1445 Jamike Avenue, Suite # 1
Erlanger, KY 41018
USA
Phone +1-859-371-7346
Fax +1-859-282-6718
E-Mail sehona@sehona.com
Website www.sehona.com

Korea

SEHO Systems Korea Ltd.

125-5, Saneop-ro 156beon-gil,
Gwonseon-gu, Suwon-si,
Gyeonggi-do, Korea 441-360
Phone +82 (0) 10 6877 0872
E-Mail office@sehokr.com
Website www.sehokr.com

