TM SOLDERING SOLUTIONS

TM Soldering Solutions

Introducing the **PHOENIX** Selective Soldering Machine designed to elevate your manufacturing processes. Engineered with precision and efficiency in mind, the **PHOENIX** offers unparalleled accuracy in applying solder to specific components on PCB's, significantly reducing the risk of defects and improving overall quality. The **PHOENIX** is equipped with the new **EmberX** software controls, enabling seamless integration into existing production lines and offering user-friendly interface for effortless operation. With its superior performance and reliability, the **PHOENIX** is designed to ensure your products meet the highest standards of excellence.

Standard Features:

♦ **Windows™ 11** operating system with the **EmberX** Software

♦ **Dual Monitors** For simultaneous video feed

♦ **Fiducial recognition** for automatic position and rotation correction

♦ **HD1080p Cameras** for high resolution process viewing and PCB programming

♦ **Offline Programming**

♦ **Automated wave height check/adjust**

♦ **Atomizing flux applicator**

♦ **Lead alloy solder pot and pump assembly** (lead free available)

♦ **Automated solder level verification**

♦ **Warranty** one year covering the entire machine

Phone: 509-638-1118
Email: Sales@tmssolutions.us
www.tmsolderingsolutions.com

Model **PHOENIX**

Manual Load Selective Soldering Machine   24" x 20"

(600mm x 500mm)

The **PHOENIX** performs the soldering process by holding the PCB stationary while a high-precision XYZ axis mechanism executes the flux and soldering procedures with flawless accuracy. This fully automated selective soldering machine features the mini-solder wave technology, delivering exceptional performance and consistency

The **PHOENIX** excels at fluxing and soldering through-hole components on SMT boards, even in close proximity to adjacent components. This innovative machine eliminates the limitations and high labor costs associated with operator-dependent soldering, thanks to its flexible, fully automated flux application and molten solder delivery system.

The **PHOENIX** seamlessly combines high throughput with precise process controls, ensuring top-tier performance. Its programmable features allow for meticulous setting of all process parameters, including travel distances and speeds, solder temperature, wave height, pre-heat dwells, and immersion depths. Once configured, the system guarantees consistent, repeatable results with pinpoint accuracy.
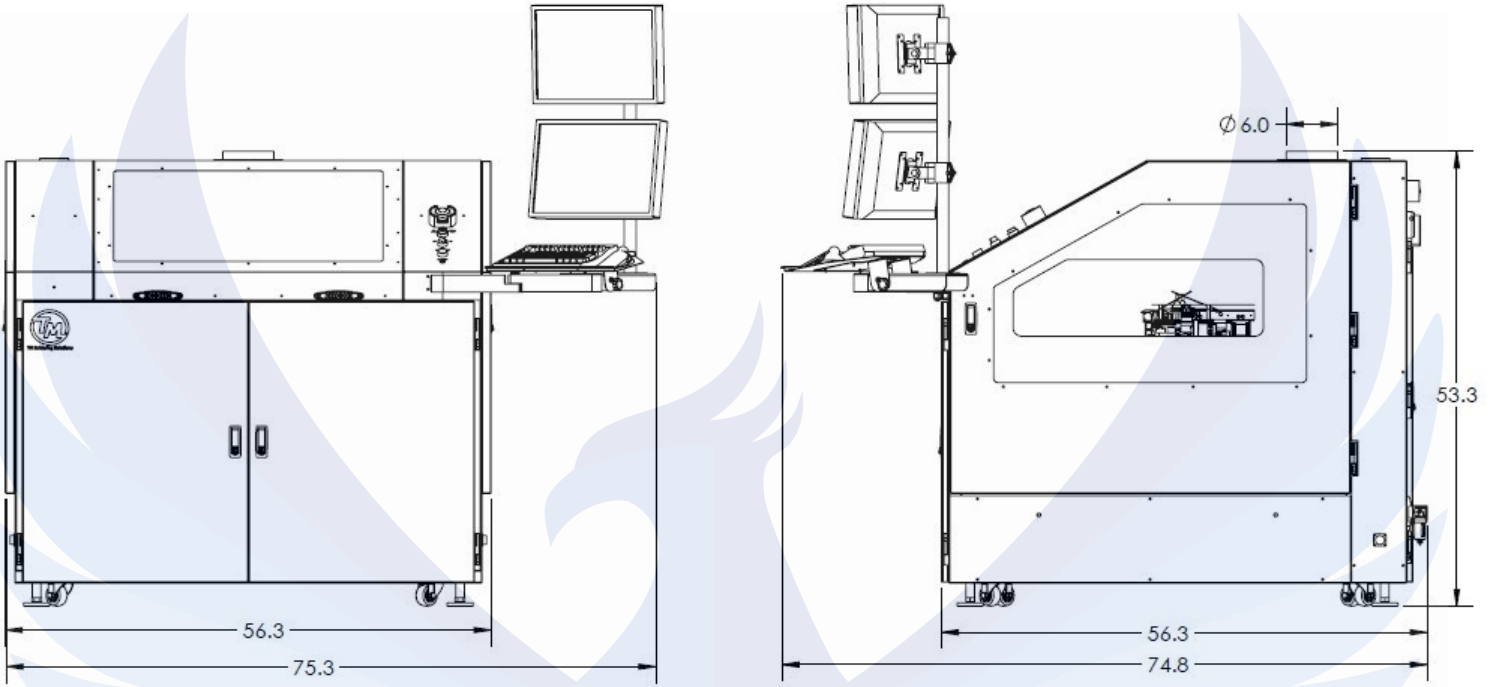
Available Options:

♦ **Top Side IR Preheat**

♦ **Precision Micro Drop Fluxer**

♦ **Lead Free Alloy Pot & Pump**

♦ **Dual Nozzle Pot & Pump (Lead & Lead Free)**

♦ **3" Wave Pump for Lead and Lead-Free Applications**

♦ **Custom Fixtures and Nozzles**

♦ **Automated Solder Level Fill**

Made in America

Ø 6.0

53.3

56.3
75.3

56.3
74.8

Dimension:

Length:	56.3"	1430mm
Depth:	56.3"	1430mm
Height:	53.4"	1356mm
Weight:	1200 Lbs.	

Solder Pot:

Solder Pot Material:	316 SST
Solder Pot Material:	Optional Titanium for LF
Solder Nozzle:	Conical Single Point
Solder Nozzle Dia.	Range 3mm-25mm
Solder Volume:	27 Lbs. Lead 24 Lbs. LF
Solder Temperature:	Max 350°C
Heating Time:	Approx 75 Min.

Fluxer:

Spray Fluxer:	XYZ controllable
Spray Width:	7-25mm
Drop Jet Fluxer:	Optional
Flux reservoir:	500 ml (16 oz)

Preheat Module: Optional

Heaters:	Top Side IR
Temperature Range:	0-120°C
Board Coverage:	24" x 20"

Nitrogen:

Supply:	Local Supplier
Purity:	.9995
Consumption:	30 SCFH
Min/Max:	40 Min 90 Max

Batch Rail:

Edge Clearance:	3mm
Min Opening:	2"
Max Opening:	20"
Max Pallet/PCB board:	12 Lbs
Board Clearance:	3" below/4" above

Air:

Compressed Air:	Customer Supplied
Min/Max Pressure:	70 Min 120 Max

Exhaust:

Exhaust Flange:	1 ea. at 6" Dia.
Exhaust Draw:	Customer supplied
Min Draw Required:	150 m³/h (90 SCFM)

Control:

Computer:	64 Bit
Microsoft™ OS:	Windows 11 Pro
Password Controlled	Optional
Dual 22" Monitors:	UHD 2K
Online Teach Camera:	1080P HD
Daily Solder Scheduler:	Included

Electrical:

Power:	208-240V 3 wire
Frequency:	50/60 Hz
Breaker:	50 AMP

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