



# MAC Industrial Heat Sealer

## Choose the MAC Industrial Heat Sealer for the best jar seals in the industry.

**The MAC Industrial Heat Sealer** is one of the industry's best cover-to-jar welding systems. The machine is available in an electro-pneumatic-driven automatic version (E-164) and a manual pneumatically driven version (E-157).

The system seals the battery covers to the battery jars using four independent welding assemblies, one for each side. The side-welding assemblies are pneumatically actuated and electrically heated.

Each assembly uses a Teflon coated blade that is heated and adjustable between 221 to 232° Celsius (400-450°F), to melt the jar and cover surfaces. This low temperature process produces a resilient weld in polypropylene material.

The machine cycle is about fifty seconds per cell; including twenty seconds of melt, ten seconds of process and twenty seconds of cooling. The melt and cooling times are adjustable.

The cover welder is also adjustable for a variety of battery jar sizes. The side guides on the carriage can be adjusted for three different widths:

Narrow: 157.22-158.75 mm  
(6.19-6.25 inch)  
DIN: 187.3 mm (7.37 inch)  
Wide: 218.94 mm (8.62 inch)

The front and back guides can be adjusted to accommodate 5 to 33 plate batteries, and the machine head can be adjusted to seal jars between 254 mm (10.00 inch) and 812 mm (32.00 inch) in height.

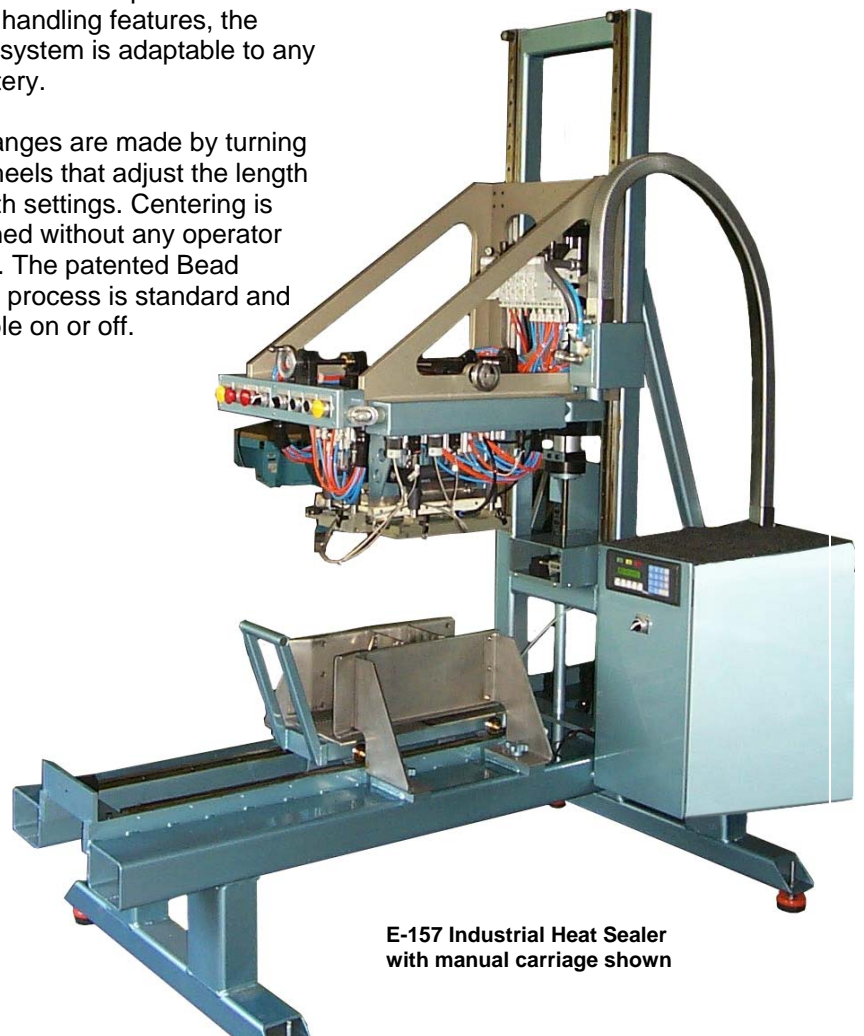
The cover welder uses a modular welding head design that is designed to minimize downtime. Each of the four side-welding assemblies can be removed and quickly replaced with a spare. This allows any side-welding assembly in question to be repaired offline.

Each side assembly is connected to the machine head by four plugs and four easily accessible screws. Changeover time is about three minutes. With the optional control and cell handling features, the welding system is adaptable to any size battery.

Size changes are made by turning hand-wheels that adjust the length and width settings. Centering is maintained without any operator concern. The patented Bead Forming process is standard and selectable on or off.

Bead Forming eliminates the need to trim the excess material away from the weld line and greatly increases the integrity of the weld. Cells processed using Bead Forming are slightly larger, about 0.5 mm (.020 inch), local to the weld line.

Timers and temperature control are PLC resident. Height adjustments are motor-driven and actuated by push buttons that are located on the operator's console.

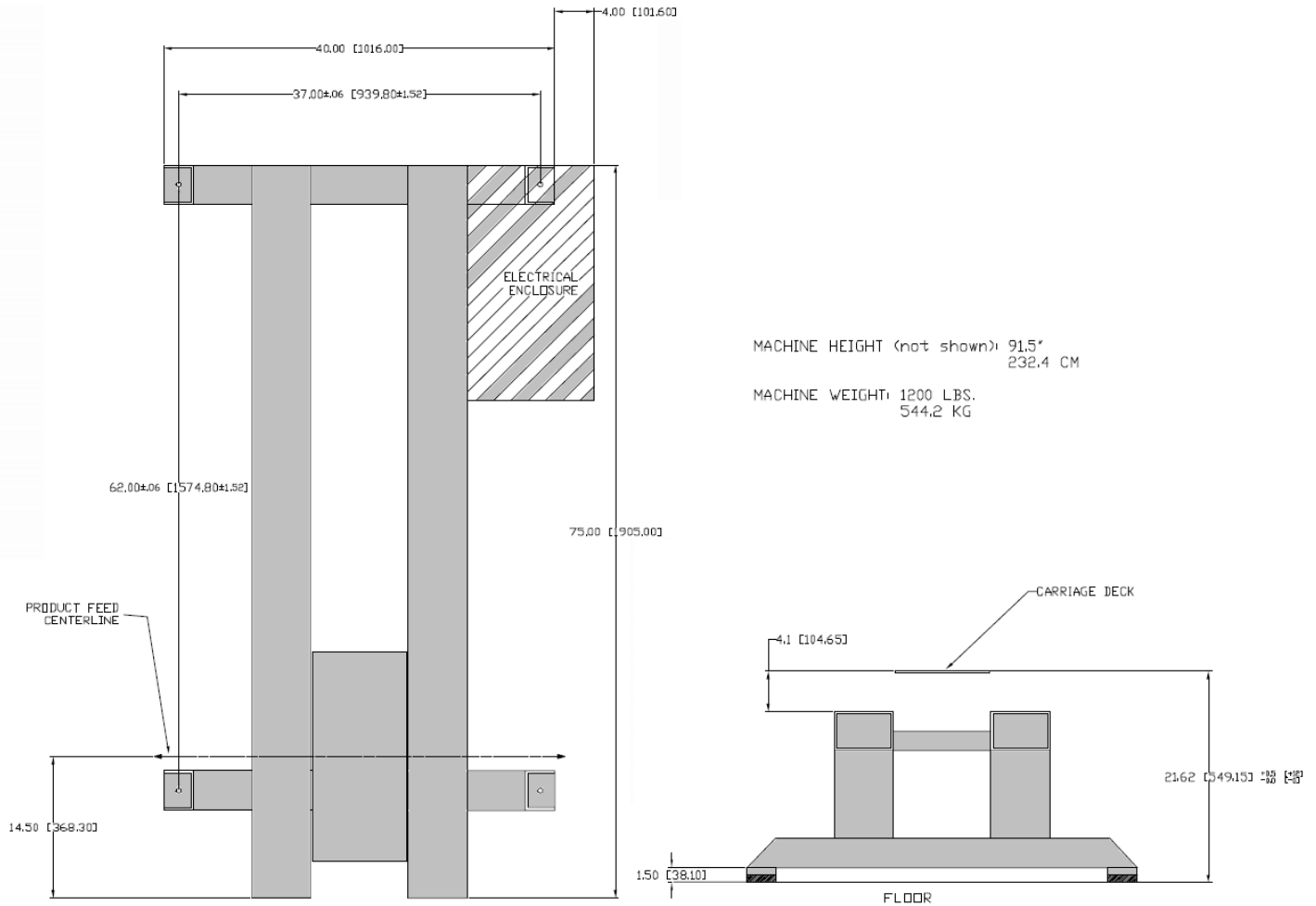


E-157 Industrial Heat Sealer with manual carriage shown

**For precise and dependable seal consistency, choose the MAC Industrial Heat Sealer for your jar sealing needs.**

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## TECHNICAL SPECIFICATIONS



MACHINE HEIGHT (not shown): 91.5"  
232.4 CM

MACHINE WEIGHT: 1200 LBS.  
544.2 KG

<b>Required User Data:</b> <ul style="list-style-type: none"> <li>▪ Specify electrical requirements</li> <li>▪ Submit jar and cover designs or samples</li> </ul>		<b>Foundation requirements:</b> The Cover Welder should be leveled using the Sunnex machine mounts provided. Care should be taken to distribute the weight of the machine as equally as possible across the machine mounts.	
<b>Production Rate:</b> One cycle is about fifty seconds per cell; including twenty seconds of melt, ten seconds of process and twenty seconds of cooling. The melt and cooling times are adjustable. Actual production rates are dependent on jar and cover specifications.			
<b>Side guide carriage widths:</b> Narrow – 157.22-158.75 mm (6.19-6.25 inch) DIN – 187.3 mm (7.374 inch) Wide – 218.94 mm (8.62 inch)			
The front and back guides can be adjusted to accommodate 5 to 33 plate batteries, The machine head can be adjusted to seal jars between 254 mm (10.00 inch) and 812 mm (32.00-inch) in height.			
<b>Operational Requirements:</b>			
<b>Personnel:</b> One, semi-skilled worker for the manual version, none for the automatic version.		<b>Control Voltage:</b> 24 VDC	
<b>Electrical:</b> 220-480V, 3Ph, 50-60 Hz Ground and single phase AC as indicated on the machine I.D. plate.		<b>Compressed Air:</b> Clean compressed air, 80 PSI minimum, should be brought to the pneumatic shut-off at the rear of the machine. The shut-off is threaded 3/8 NPTF.	



*Helping to make the best batteries...yours.*  
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