

## SPECIFICATIONS

Models	1826MK5	1936MK5
Dimensions	465 cm x 150 cm x 164 cm*	589cm x 150cm x 164 cm*
Power Supply	380 VAC Option: 208/240/400/415/480 VAC	380 VAC Option: 208/240/400/415/480 VAC
Process Gasses	N2 Option: Formic Acid	N2 Option: Formic Acid
Heating Zones	Convection Heating Top 8 + Bottom 6	Convection Heating Top 10 + Bottom 8
Cooling Zones	2 Option: Bottom	3 Top Option: Bottom
Min. Vacuum Level	Standard: < 10 Torr Option: 1 Torr	Standard: < 10 Torr Option: 1 Torr
Max. Working Temperature	Standard: 350 °C Option: 400 °C/450 °C	Standard: 350 °C Option: 400 °C/450 °C
Max. Product Height	35mm Option: 60 mm	35mm Option: 60mm

# VACUUM ASSISTED REFLOW

在线式真空辅助回流焊

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**HELLER**  
**INDUSTRIES**  
THE TECHNOLOGY LEADER

**HELLER** 在线式真空辅助回流焊系统是大规模稳定量产的热风回流焊与真空焊接为一体，为客户提供自动化在线式、无空洞（总空洞面积小于1%）、高产量、环保型的焊接设备。在该系统中，真空模组安装在回流炉内，能精准调节抽真空的速度，并可完成普通回流炉的温度曲线，实现在线焊接。在线式真空辅助回流焊可帮助客户降低生产成本、提高产量。

**HELLER** Industries has developed a vacuum module that inserts directly in its reflow oven line to meet new rising demand of high volume, void-free, automated inline soldering. Vacuum module can be inserted in zone directly after reflow peak (liquidus) has occurred or an IR Panel can be added to the chamber to reach reflow peak under vacuum. Convection reflow with vacuum module is continuous and allows thermal profiles to be directly ported from non-vacuum reflow applications to achieve low COO and high UPH.

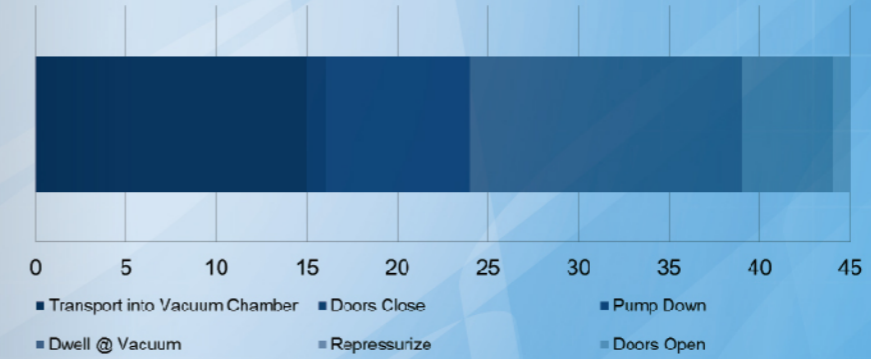


## Features

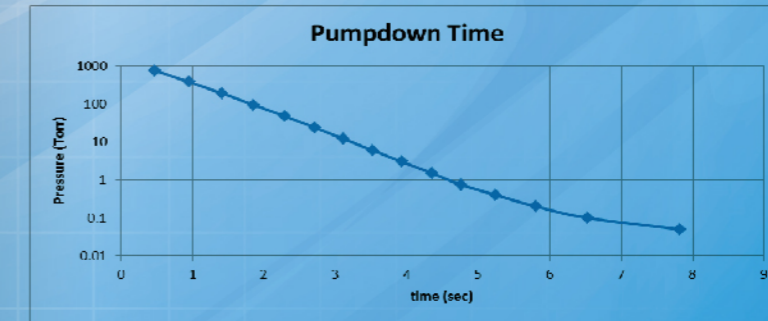
- 高效在线式生产能力：根据炉温曲线和抽真空速率调节生产节奏，生产节拍平均可控制在30s~60s。  
Heller Industries provides optimized cycle (average 30s~60s) to achieve super high UPH.

45s 焊接过程实例

Full Vacuum System Cycle Timing (in Seconds)

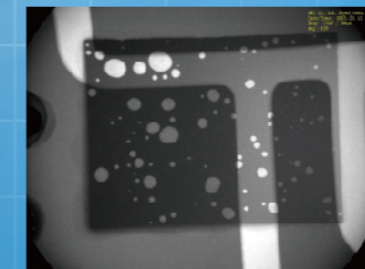


- 灵活温度曲线调整：多温区设计，更多温控点，满足不同温度曲线要求。  
Heller vacuum assisted reflow applies multi-zones to meet various thermal profile requirements.
- 高效无油真空泵机组：超高抽取量650立方米/小时，可实现最短降压时间。  
Heller Industries utilizes advanced pumping package with high capacity for fast pump down time.

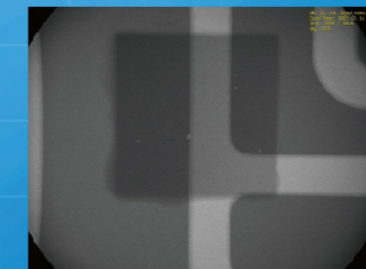


- 有效消除空洞：在真空情况下回流时间控制在15秒即可达到总空洞面积小于1%的要求。  
Reflow time under vacuum of 15 seconds was able to achieve <1% total void area spec.

No Vacuum



with 5 Torr for 30s



- 高效助焊剂回收系统：防止助焊剂残留在炉膛内，并特有不带机保养功能。  
Heller adopts high efficient flux collection system to collect the flux and keep tunnel clean. On-the-fly maintenance is available.
- 特殊防助焊剂凝结设计：真空模组内管道、球阀和蝶阀以及干式真空泵均可加热，保持高温，防止助焊剂凝结。  
Chamber exhaust foreline, ball valve, butterfly valve and dry vacuum pump are heated to 150°C to eliminate flux condensation.