

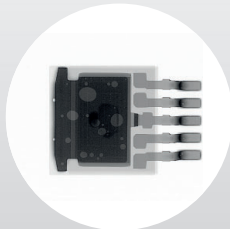


QUALITY „MADE IN GERMANY“
VACUUM REFLOW SOLDERING SYSTEM
SMT QUATTRO PEAK® VAC

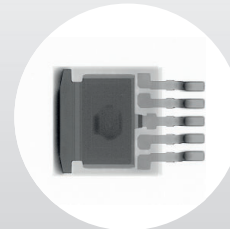


INLINE VACUUM REFLOW SOLDERING SYSTEM

WITH NEW SOFTWARE
THERMAL TOOLS!



PROCESS WITHOUT VACUUM



PROCESS WITH VACUUM

Void-free soldering since 2009 !

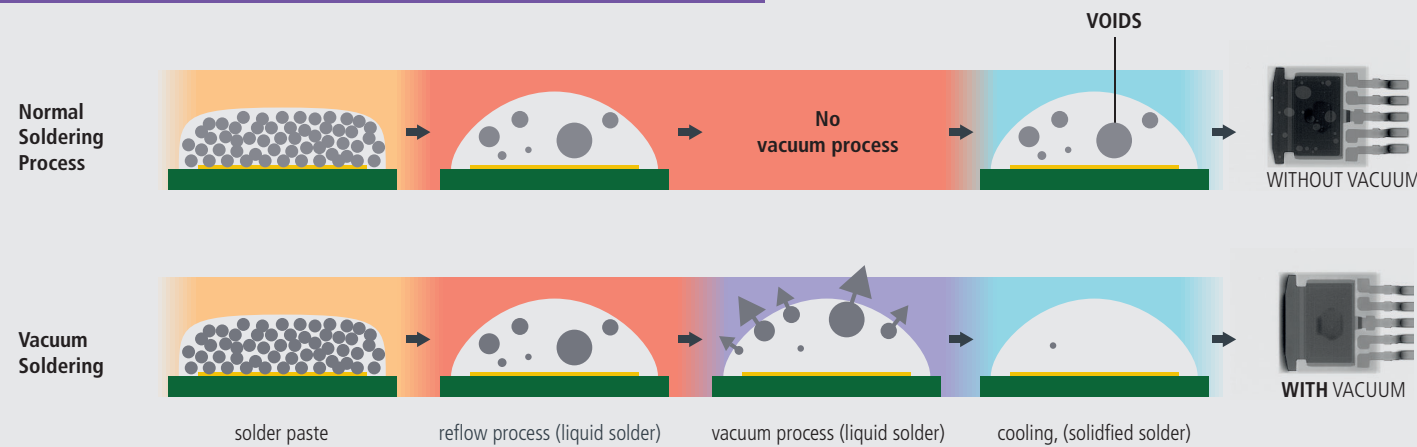
- ✓ Lowest Maintenance Effort
- ✓ Lowest Nitrogen Consumption
- ✓ Lowest Energy Consumption
- + Tool-free maintenance of all SMT systems
- + CATalysis - process gas cleaning
- + Sustainable energy and nitrogen saving concept
- + Proven Vacuum Reflow Technology (since 2009)
- + Individual fan control in all zones
- + NEW Software Thermal Tools!

VOID-FREE SOLDERING SINCE 2009

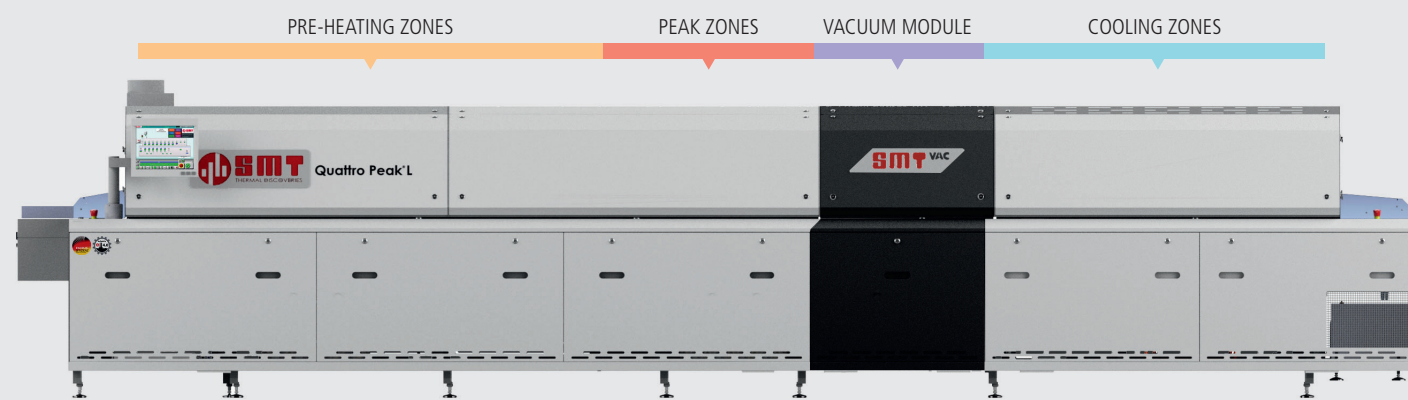
Void-free soldering is a basic requirement in the high-performance electronics. Life-sustaining devices, control systems on the plane and driving assistance systems in the automotive sector have one thing in common: They have to run completely safe and error-free over an extended period of time. Basic requirement for accomplishing this is an almost **void-free solder joint**. Voids in a solder joint have to be reduced to an acceptable minimum.



SOLDERING PROCESS WITH AND WITHOUT VACUUM



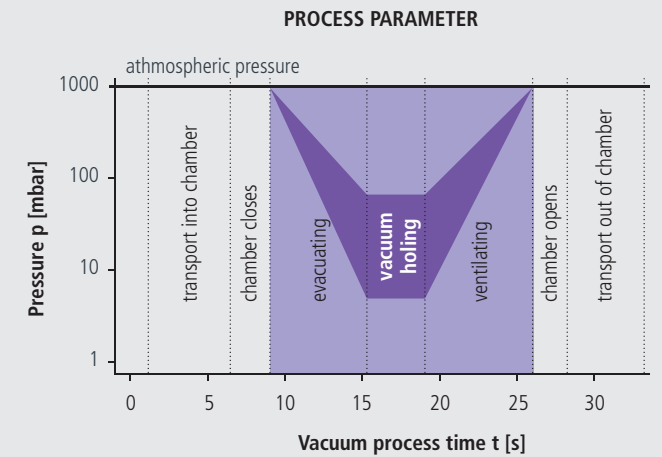
STRUCTURE OF A VACUUM REFLOW SYSTEM



- Vacuum module between peak and cooling zone
- Stainless steel vacuum chamber
- Inline system
- Nitrogen-capable
- Vacuum and non-vacuum process possible
- All vacuum parameters are individually adjustable

VACUUM HIGHLIGHTS

- ★ **Optimized transfer**
→ increased process stability
- Heavy load transport with optimized profile coating
→ up to 10 kg/m in the vacuum system
- ★ **Easy access** for maintenance
- Product with a length of 100 mm possible
- ★ **Cycle evacuation** for complex components possible
- Profiles can be set with or without vacuum
- ★ **Continuously center support** (plate link chain)

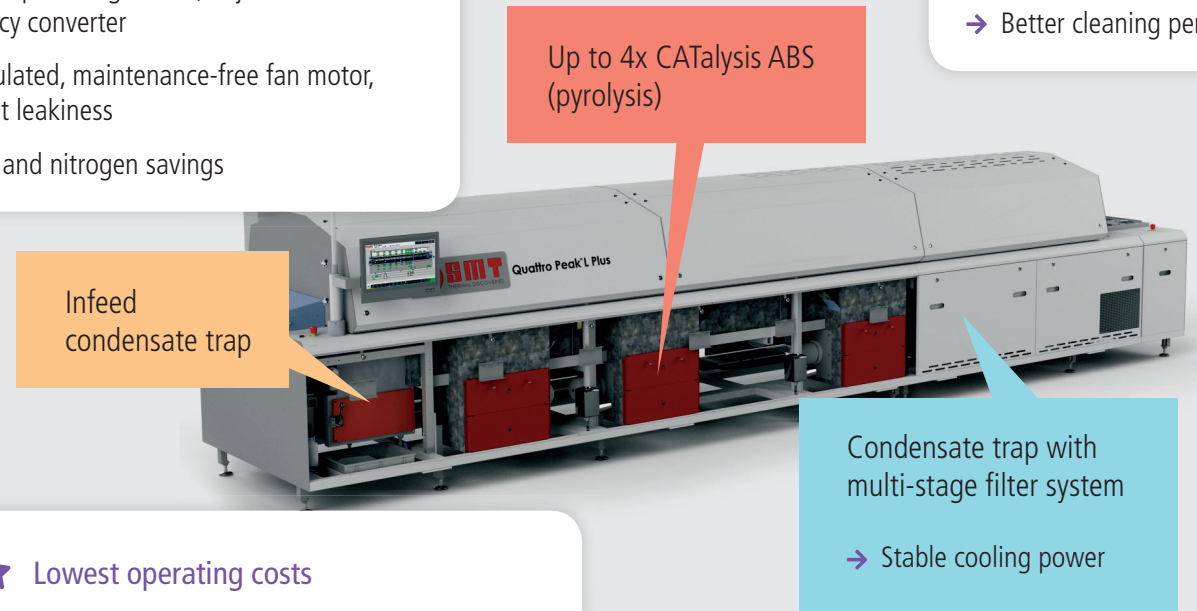


REFLOW-HIGHLIGHTS

- ★ **Gas-tight fan units**
 - Constant process gas flow, adjustable via frequency converter
 - Encapsulated, maintenance-free fan motor, no slight leakiness
 - Energy and nitrogen savings

- ★ **Precise nitrogen control**
By integrated lambda sensor technology and real-time continuous measurements of residual oxygen value
→ Less nitrogen consumption
→ Easy calibration (exchange can be done by customer)

- ★ **CATalysis**
Use of catalyst granulates
→ Better cleaning performance



- ★ **Lowest operating costs**
 - Lowest energy and media consumption
 - Lowest consumption of spare and wear parts (e.g. rails, chain, fan motors, heating elements)

- ★ **New software Thermal Tools**
 - Intuitive 2-click strategy

YOUR BENEFIT

FOLLOW US: WWW.SMT-WERTHEIM.COM
WWW.LINKEDIN.COM/COMPANY/SMT-THERMAL-DISCOVERIES/

- + **Voids will be reduced up to 99 %**
→ optimized solder joint quality
- + 2- and 3-lane transport systems possible
- + **Reliable transport transfer in the system**
- + Suitable for PCBs, DCB, stamping grid and carrier
- + **Powerful vacuum pump (300 m³/h)**
→ **fast and reliable vacuum process**
- + **Parameter individually adjustable:** evacuation time; vacuum hold time; ventilation time, vacuum pressure
- + Trainings from our vacuum process specialists possible

TECHNICAL DATA

VACUUM	Pre-heating zones	Peak zones	VAC	Cooling zones	Heating zones	∅ Transport speed	Cycle time/per product	Active cooling length ^{1.)}	Energy consumption system at full load/vacuum module ^{2.)}
S	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	3.0 m	0.80 m/min	59 s	1057 mm	approx. 10 kW h/7 kW h
M	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	3.4 m	0.95 m/min	50 s	1057 mm	approx. 10 kW h/7 kW h
L	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	4.1 m	1.15 m/min	42 s	1531 mm	approx. 11 kW h/7 kW h
L Plus	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	4.6 m	1.30 m/min	37 s	1531 mm	approx. 12 kW h/7 kW h
XL Plus	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	5.6 m	1.60 m/min	30 s	1531 mm	approx. 14 kW h/7 kW h

● Vacuum time without holding time, 250 mm product size, 100 mbar, transport speed based on a 4 minutes reflow profile

1.) Up to 5 cooling zones possible. Each additional cooling zone: 474 mm
 2.) Chain conveyor, 220 mm transport width, fan speed reduction and no other options

The vacuum systems are individually configurable. You can choose from different lengths for the heating zone, the vacuum module and the cooling zone. Additionally there is a choice between single, dual or triple lane.

ASK US, WE HAVE THE PERFECT SOLUTION FOR YOUR APPLICATION!

Subject to change without notice, March 27, 2020

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