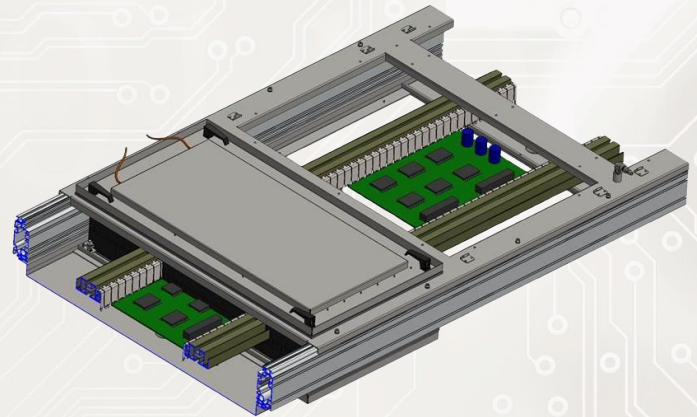


Tunnel Heater Option

**Enhancing preheat capabilities
for complex designs in the same
machine footprint!**



As the demand for advanced thermal PCB designs grows across EV, solar, data infrastructure and industrial market segments, manufacturers face challenges with increasingly complex PTH board designs. Dense components requiring higher heat often coexist with temperature sensitive components, necessitating careful thermal management. To meet this demand, PCB manufacturers need extended preheat capabilities to minimize ramp up slopes without compromising line efficiency or increasing equipment footprint.

Electrovert's new Tunnel Heater option is a cutting-edge solution designed to extend the heated length within a full N2 tunnel without increasing the machine's overall length. This patent-pending preheat technology leverages flexible silicone heating elements, seamlessly integrated into the existing space of the full N2 tunnel atmosphere isolation zone. The Tunnel Heater option expands the total preheat length to 2.4 meters while maintaining the exceptional inerting performance of the full N2 tunnel, all without altering the machine's footprint.

Key Features and Benefits:

- Extended heated length accommodates demanding PCB designs
- Enhances capabilities without changing machine footprint
- Recipe controlled temperature setpoints integrate with MES systems for advanced data management
- Minimizes thermal stress for compliance to component temperature specifications



TUNNEL HEATER OPTION	
Compatibility	Electra (EC4) with Full N2 Tunnel IsoThermal Forced Convection (any zone and any position) IR Platen Preheat (any zone and any position) N2 tunnel quick purge Rapid solder joint cool down
Full N2 Tunnel	Ability to inert to <100 ppm in a dynamic state Ability to inert to <100 ppm in 2 minutes or less