



BTU INTERNATIONAL

VIP

VALUE INNOVATION PERFORMANCE



COST-EFFECTIVE • HIGH-PERFORMANCE
REFLOW SOLDER SYSTEMS



SMT REFLOW SOLDERING • SEMICONDUCTOR PACKAGING APPLICATIONS
ENCAPSULATION • CURING OF CONFORMAL COATINGS AND ADHESIVES

VIP

THE ULTIMATE IN PERFORMANCE FROM THE WORLD LEADER IN THERMAL TECHNOLOGY

BTU's VIP Series implements the design philosophies and proprietary technologies that have made the company an acknowledged leader in the manufacture of reflow soldering systems. Created to meet the demands of complex component and assembly mixes, VIP ovens are available for a variety of requirements, from low-cost applications to fully programmable, high-volume production.

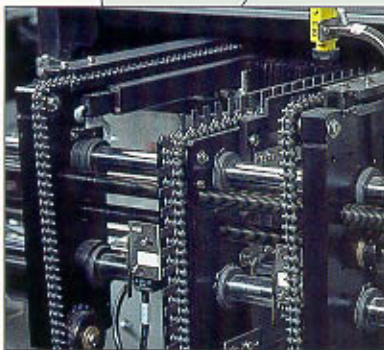
Forced Impingement Convection

The ultimate level of heating efficiency is achieved through BTU's forced impingement convection technology with side-to-side gas recirculation. Self-contained blower plenum modules direct heated gas through a perforated plate for optimized convection. Advantages of BTU's patented design include:

- Unequaled heat transfer and thermal uniformity
- Superior zone-to-zone temperature differentials
- Unmatched atmosphere control

Conveyor Solutions

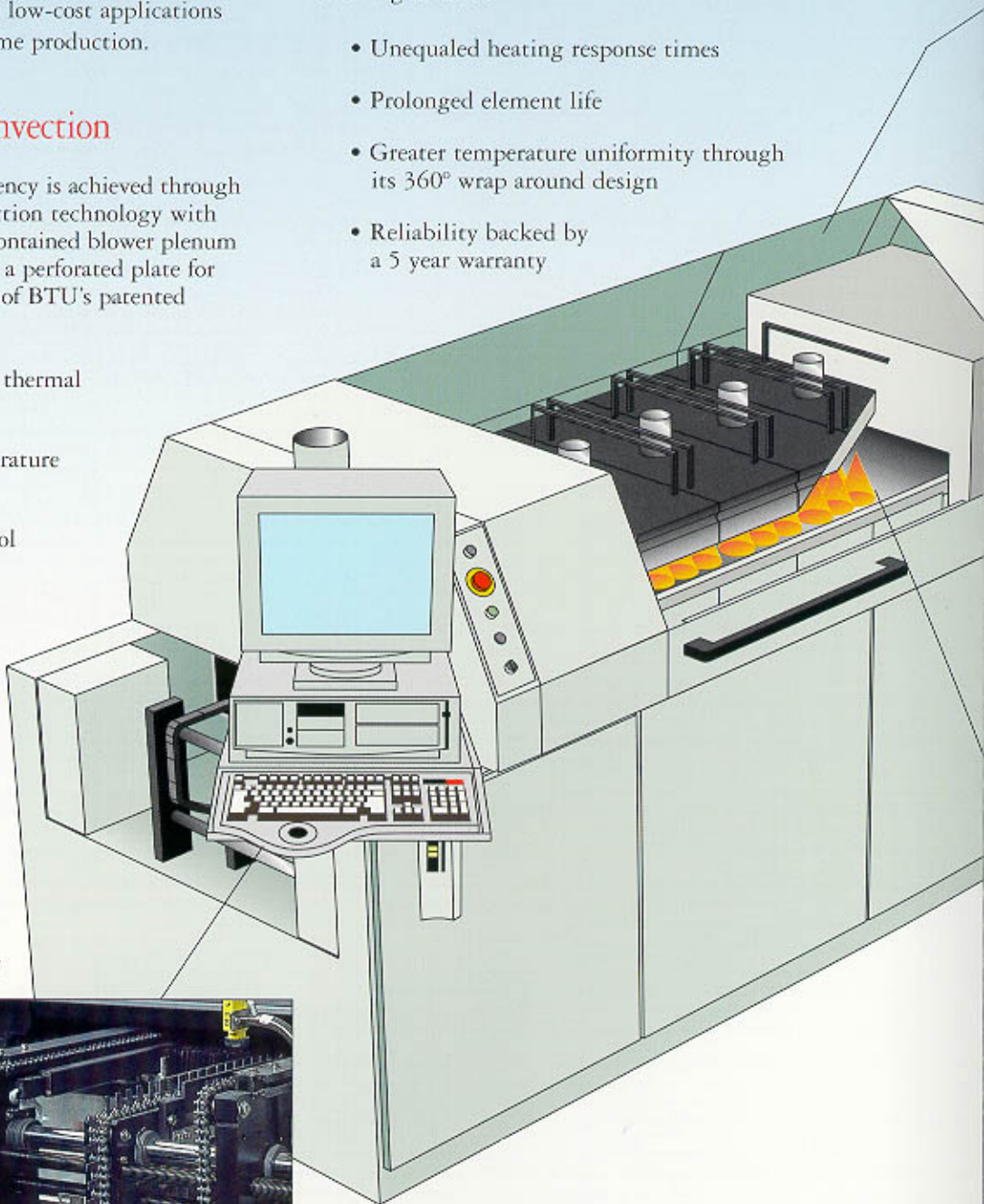
BTU's rail edge conveyor design has a low mass, a high surface area, and carries a low profile. This allows the extrusion to closely match the temperature of the heated zone, eliminating the need for rail heaters. BTU also offers a robust Retractable Center Support for processing thin boards or other products prone to deflection.



Heaters

BTU's industry leading heating technology delivers exceptional thermal efficiency. The BTU Heater has the following features:

- Unequaled heating response times
- Prolonged element life
- Greater temperature uniformity through its 360° wrap around design
- Reliability backed by a 5 year warranty



Flux Management System



BTU's patented flux management system is available as an option. The system consists of a condensation trap that circulates the flux-laden gas through a series of filters before being circulated back into

the oven process chamber. This highly effective design offers the following benefits:

- Reduces up to 90% of the flux contamination in the process chamber
- Provides one location for the trapping and safe removal of flux residues
- True "on-the-fly" servicing - maximizing uptime
- Lowers maintenance costs, reducing cost-of-ownership

Low Nitrogen Options

Dynamic Gas Idle

Matches nitrogen usage to oven utilization. Reduces nitrogen consumption up to 50% when product is not being processed.

Low Nitrogen Option

Reduces nitrogen consumption by as much as 50% during processing, depending on oxygen PPM desired.



Blower Plenum Module

BTU's blower plenum module consists of the blower motor, impeller wheel, four-outlet impeller shroud, heater, and a perforated plate — all in one assembly that is easy to maintain and upgrade.

WINCON® Oven Control Software

WINCON is an advanced Windows®-based software system for controlling oven operation. The software features data logging, and a multi-level security database for user-friendly interfacing. Programmable event sequencing and multi-tasking enhance oven performance. WINCON is also available with GEM communications protocol.

Recirculation Cooling Water Supply



BTU's recirculating cooling water supply eliminates the need for supplying facility water to the oven. A highly efficient heat exchanger design includes a robust reservoir and pump arrangement. Exhausted heat may be dissipated to facility exhaust or vented to the room.

5-3-1 Warranty

BTU's extensive warranty provides the following protection:

- 5 Years on heaters and blowers
- 3 Years on system
- 1 Year labor

VIP Models

- VIP 70A
- VIP 70N
- VIP 98A
- VIP 98N
- VIP 148A

Standard Features

- WINCON oven control software
- Forced impingement convection
- Side-to-side gas recirculation
- Blower plenum module
- Modular zone construction
- Hinged clamshell design
- Automatic shutdown
- 5-3-1 Warranty

Options

- Rail edge conveyor
- Rail edge/belt combination
- Retractable center support
- Programmable rail width adjust
- Light tower
- Product tracker
- Smart tracker
- Electric power hood lifts
- UPS backup
- GEM

Nitrogen models may be configured with these additional options:

- Dynamic N₂ Idle
- Flux Management
- Atmosphere-to-water exchanger cooling
- Manual and automatic gas sampling
- Oxygen analyzer
- Programmable atmosphere selector
- Low nitrogen consumption

VIP

THERMAL PROCESS SOLUTIONS BEGIN WITH BTU.

APPLICATION		VIP SERIES	PARAGON	DR SERIES	TRS	TCAS	TCA	TFFH	TCD	VM/VMCA	PUSHER	WALKING BEAM	INDEXING
<i>Electronics Assembly</i>	REFLOW SOLDERING	•	•										
	CURING	•	•	•									
	THICK FILM - NON-NOBLE									•			
	THICK FILM - NOBLE							•		•			
	METALLIZATION FIRING							•			•		
	CAPACITOR TERMINATION							•		•			
<i>Semiconductor Packaging</i>	WAFER BUMP		•		•	•							
	FLIP CHIP	•	•		•	•							
	AREA ARRAY SPHERE ATTACH	•											
	ADHESIVE FLOW/CURING	•		•									
	LID SEALING					•	•						
	CONDUCTIVE POLYMERS	•		•									
<i>Engineered Products</i>	FLAT PANEL DISPLAY												•
	PHOTO-VOLTAICS								•				
	CERAMICS PARTS FIRING										•		
	LO-TEMP CERAMIC CO-FIRING									•			
	HIGH-TEMP CERAMIC CO-FIRING									•	•	•	
	POWDERED METAL SINTERING							•			•	•	
	BRAZING							•			•	•	
	ANNEALING							•	•				
NUCLEAR FUEL SINTERING										•	•		



BTU International

For 50 years, BTU has been a world leader in oven and furnace engineering. The company's commitment to quality and value ensures that its customers receive the best materials, superior customer service, and the most advanced design and manufacturing technology in the industry. With the purchase of a BTU oven or furnace comes access to an entire team of engineers, service technicians, and customer support personnel for the life of the system. BTU's comprehensive warranty is unmatched in the industry and reflects the company's confidence in the long-term performance of its products.

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