

🔥 INTEGRATED MULTIZONE PULSING SYSTEM (IMPS)

IMPS® stands for Nutec Bickley's unique firing and cooling pulsing control system.



- Individual burners are pulsed From high fire to low fire at a controlled rate to give the required heat input.
- The additional burner velocity at precise gas to air ratios gives a perfect solution for temperature uniformity as well as fuel efficiency.
- The hardware and software which is now used to make IMPS® possible has been developed by Nutec Bickley for over 20 years and has been used in ceramic firing in hundreds of installations.
- IMPS Allows different firing modes at any part of a firing cycle to create the perfect firing cycle for the required firing parameters.

• IMPS Firing modes include:-

- *Steaming- prolonged, controlled low temperature hold as low as 100C*
- *Excess Air- perfect for very tight temperature uniformity*
- *On Ratio - The most fuel efficient option available*
- *Reduction - Specific requirement for certain products and processes*
- *Rapid Cooling -When speed of cooling is most important*
- *Normal cooling - Where some control is required*
- *Slow or extra controlled cooling - for times when cooling rate is critical.*
- *Controlled cooling using burners - for sensitive products where temperature needs to be held during the cooling process.*

🔥 INSULATION SYSTEMS

Nutec Bickley's reputation as world leader in insulation systems is well deserved. Our patented ceramic fiber Jointless™ modules (US Patent 6,422,862 B1) for temperatures up to 1,350°C (2,462°F), provides for minimal maintenance, fuel economy, and extended service life.

Our Jointless™ system consists of monolithic ceramic fiber modules engineered to cover a complete furnace wall, door, or roof. It's a one piece construction continuously shaped with ceramic fiber blanket folded and anchored. Our Jointless™ modules not only eliminate the joints between smaller modules (as commonly found in ceramic fiber linings), but also eliminate the gaps typically located around the flues which require higher maintenance.

For higher temperature applications, our retained brick-floating anchoring system, using Nutec Bickley's proprietary tongue and groove brick design, greatly extends the life of the refractory linings. This system allows the refractory to expand and contract parallel to the kiln walls, while refractory alloy anchor hooks and dense alumina anchor bricks restrict movement of brick away from the kiln shell. Nutec Bickley's retained brick - floating anchoring system has proven to be an excellent solution for high temperature applications.

