

Industrial kilns

Advanced
firing technology
for all sectors
of ceramic industry

NUTEC Bickley today

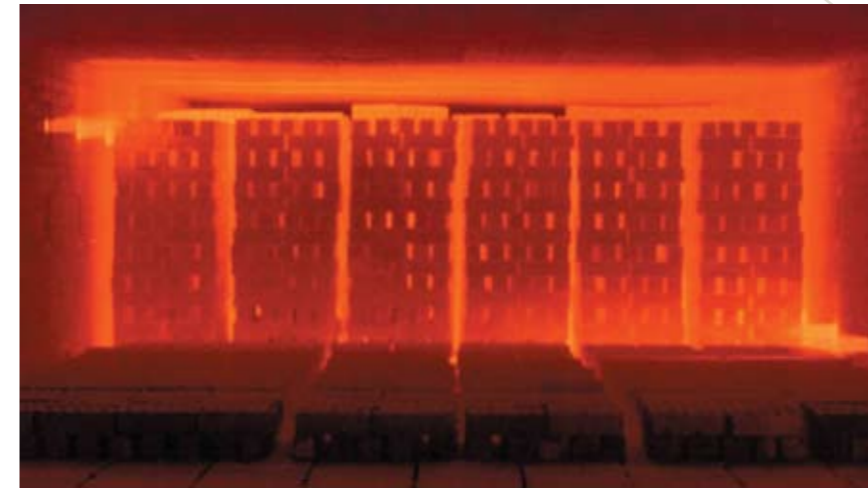


“A Tradition of Excellence Worldwide” - Nutec Bickley was created when Bickley joined Nutec, and is committed to carrying on the tradition of excellence that began with the delivery of the first Bickley kiln in 1958. This merger created a company with a special synergy and approach to the medium and high temperature kiln market. When this synergy is coupled with Nutec Bickley's high quality and low cost manufacturing capabilities, the result is a family owned and managed company that can offer top quality, high tech equipment at very competitive prices. With over 1600 high temperature kilns sold and installed all over the world, Nutec Bickley, has established itself as one of the premier kiln engineering / manufacturing companies in the world.

Furthermore, in year 2008, Nutec Bickley acquired the Intellectual Property from **GFC Kilns International Pty Ltd**, an Australia & China based kiln company with 38 years of experience in the ceramic industry. GFC's Integrated Multizone Pulsing System (IMPS®) and other well recognized features of their design, are now available as part of Nutec Bickley's technology.

Table of contents

04	Shuttle Kilns
06	Carbell® Kilns
08	Tunnel Kilns
010	Elevator Kilns
011	Ovens & Dryers
012	Control Data Acquisition Systems
013	Insulation Systems
014	Spare parts, Service and Retrofits



Industries Served:

- Abrasives
- Technical Ceramics
- Electronic Ceramics
- Electroporcelain (Insulators)
- Sanitaryware
- Dinnerware
- Refractories
- Heavy Clay Products

Nutec Bickley is focused on understanding our customer's thermal equipment needs and working to supply the best equipment to meet those needs at the most competitive price. By applying the latest proven technology, Nutec Bickley is able to provide innovative solutions that meet or exceed our customer's expectations in equipment quality, production efficiency, and operational economy.

If you have any questions or need additional information do not hesitate to contact one of our qualified sales personnel. We have the experience and the expertise to meet your firing requirements.



Shuttle Kilns

Batch firing of products offers the manufacturer the greatest flexibility. Nutec Bickley's shuttle kilns define batch firing for the ceramic industry. The kilns come in a wide range of capacities and with a choice of door, insulation, combustion system, and control designs. Having built shuttle kilns with capacities in excess of 490 m³ (17,300 ft³) Nutec Bickley is capable of designing and building a kiln to meet your precise needs. Multi-Kiln arrangements with automatic car handling systems are also available.



04



05

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Carbell® kilns



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06

07

Nutec Bickley developed this concept and has delivered over 500 Carbell® kilns to a variety of ceramic product manufacturers worldwide. The downdraft exhaust design provides for excellent temperature uniformity, atmosphere control as well as easy integration of afterburners and heat recuperators.

Carbell® kilns are built in sizes of 1 to 40+ m³ (35 to 1400+ ft³) and can be fired up to 1800°C (3272°F). The absence of a door (an efficient seal is designed into the car / bell interface) makes this a very low maintenance design. Although initially designed for high temperature operation, many customers also choose this design for lower temperature firing taking advantage of the low maintenance requirements and good controllability.

Tunnel Kilns

Nutec Bickley offers a wide variety of Tunnel Kilns and car handling equipment for firing high volume ceramic production at temperatures of up to 1850°C (3360°F). Each system is designed to meet the customer's needs as determined by their process and layout requirements.

Nutec Bickley's innovative design features, such as flexible zoning, balanced input/output cooling, and recuperative arch for ultra high temperature kilns, put Nutec Bickley in the forefront of modern tunnel kiln design. We offer a wide variety of combustion and control schemes that will meet any customer's requirements.

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Elevator Kilns

Ovens & Dryers



Nutec Bickley's Elevator Kilns are available with updraft or downdraft exhaust designs and are ideally suited for high temperature firing of small batches. These kilns are used extensively in the technical ceramics industry and for pilot production of refractories and specialty ceramics. Elevator kilns are available in sizes of 0.34 to 1.36 m³ (12 to 48 ft³) and fire as a standard design up to 1800°C (3272°F). As with the Carbell® kiln, here also the absence of a door provides a low maintenance design.

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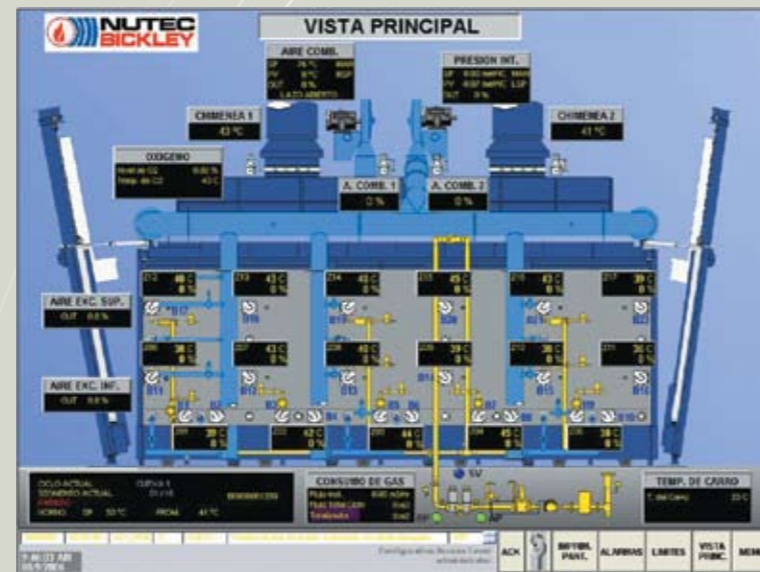
Fuel efficiency and temperature uniformity are mainstays of Nutec Bickley's designs. When high convection is required, we determine the best circulation air flow pattern (reversing, vertical, or horizontal end/side flow) for uniform heat transfer to the pieces, minimizing losses and improving product quality. When required, afterburners can be incorporated to the exhaust stream for emission control purposes. With Nutec Bickley's equipment, process variables are under tight control from the beginning to the end of the cycle.



Control and Data Acquisition Systems

Insulation Systems

Nutec Bickley's broad control systems design experience permits exactly the appropriate level of control sophistication required to meet our customer's needs. Systems span include controllers, hybrid systems, PLC's, operator interfaces, industrial panel PC's, desktop computers, customized supervisory control data acquisition software (SCADA), and more. In addition to full control over the process, Nutec Bickley's control systems allow for faster service and trouble shooting by providing networking and remote monitoring capabilities.



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.



Spare Parts, Service and Retrofits

Nutec Bickley's Service and Parts Group offers quick response times and outstanding technical service to all kiln owners. You are assured of always getting the correct components on time, every time. Nutec Bickley can also provide regularly scheduled surveys and maintenance visits that will keep your kiln at the peak of operating efficiency.

If advances in firing technology, kiln linings materials, and instrumentation have made your kiln obsolete, Nutec Bickley can update kilns to provide "as new or better" performance for a modest capital investment. Nutec Bickley offers a full range of kiln retrofit services including combustion systems upgrades, heat recovery systems design and installation, full construction and commissioning services, and upgrades of instrumentation.



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