



Baptism of Fire

Blown air optimizes combustion

The compact blowers presented in the 2/2000 KAESER Report are now proving their worth in the field. One example is to be found in the Steuler company in Höhr-Grenzhausen where a model C blower is being used to enhance the baking of refractory products.

In 1908 the factory owner Georg Steuler came to the aid of the German agricultural industry with the development of acid-resistant materials and the design of an all-ceramic 'acid tower', which enabled large-scale production of nitric acid, a vital ingredient of fertilizer for which the industry had a desperate need at that time.

From the brick makers to the process engineering experts

From being a specialist supplier to

the construction industry the company developed a business sector that now supplies surface protection systems. The product range was soon expanded by the inclusion of refractory products. The company then moved into plant engineering, which started with

the construction of surface treatment plants and now includes exhaust air scrubbers and sewage treatment systems. The demand for plastic in the plant constructed by the company, such as containers, filters and scrubber towers, gave the impulse for the creation of the plastic engineering division. Steuler plastic engineering now produces thermoplastic linings for surface protection systems. Steuler Fliesen, one of Steulers subsidiaries, illustrates the company's versatility in yet another core activity; the production of tiles and design ceramics. The entire Steuler group now employs around 1,400 people.

Refractory systems for any temperature

Steuler is able to provide refractory materials with the right mechanical and chemical properties for use as kiln linings and furniture in such diverse industries as pottery, metals, building materials and waste incineration. Important criteria are the ability to withstand temperatures up to 1600°C and remain non-reactive with the material being fired. Steuler provides increased availability through

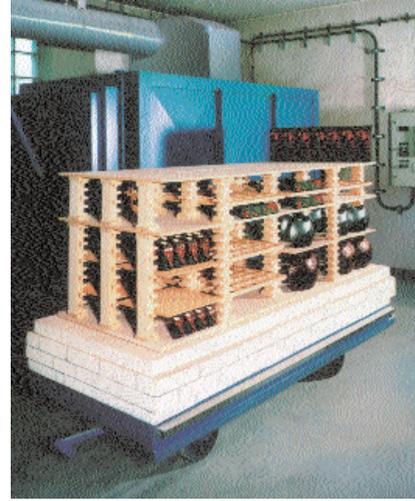
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highly durable products that are also available in special qualities.

Blowers increase productivity

For refractory materials to attain the characteristics described above, they must first themselves withstand a "baptism of fire". This takes place at Steuler in a 96-meter-long, gas-fired tunnel kiln. Material throughput is 1400 to 1700 tons per month, for which the kiln consumes gas at the rate of 6000 cubic meters per day. Nevertheless, the use of heat alone is not sufficient. The baking process requires even heat distribution, which is achieved by the use of venturi nozzles inside the kiln and a gas exhaust fan. They create a counter-flow of smoke gases, which reduces the temperature differential from around 140 down to about 20°C. The result is a significant improvement in quality, higher throughput and fewer rejects. The venturi nozzles are driven by blown air from a KAESER DB 130 C rotary blower.

For further information mark 03.



Kiln transport wagons with a variable stacking system are also part of Steuler's range of fireproof products



The DB 130 C blower provides the 600 cubic meters per hour of air needed for optimum firing conditions inside the tunnel kiln.



Among Steuler's products are refractory blocks in various formats and qualities