



M 02-23 13000-4-ENG

## Product datasheet

# High-Temperature Shaft Kiln

The hottest shaft kiln on the market

### **Proven design – highest temperatures – best product qualities**

Delivering high thermal efficiency, high flexibility and low operating costs, our High-Temperature Shaft Kiln fulfils the complex and very specific requirements of the refractory industry. This sintering kiln is designed to achieve the high product quality the refractory industry demands, while also having the flexibility to cope with a wide range of raw materials, thermal profiles and temperature levels up to 2300°C.

The High-Temperature Shaft Kiln is fed with lumpy raw material (crushed, briquetted or pelletised), which is sintered at extremely high temperatures in the counterflow to the combustion gases. To obtain these high temperatures, preheated air that has previously been supplied for cooling the product at the discharge end of the kiln is used as secondary air. The fuel is injected via radially arranged burner lances that reach into the bed of material, in order to ensure an optimal temperature distribution. A variable-speed discharge mechanism controls the quantity of product discharged from the kiln.

# High-Temperature Shaft Kiln

## Technical specification

### Fields of application

Calcination of magnesite, dolomite, limestone, kaolin and bauxite

Direct sintering of natural magnesite, dolomite and kaolin

Sintering of calcined materials (magnesia, dolime, alumina, spinel)

### Main features

Uniquely high thermal efficiency

High flexibility regarding temperature levels and profiles for highest product quality

Operation at up to 2,300 °C

Suitable for liquid and gaseous fuels, including low calorific gas

Low maintenance and operating costs

### Specific heat consumption (kcal/kg)

**Raw magnesite/  
dolomite** 1,200 to 1,300

**Bauxite** 400 to 800

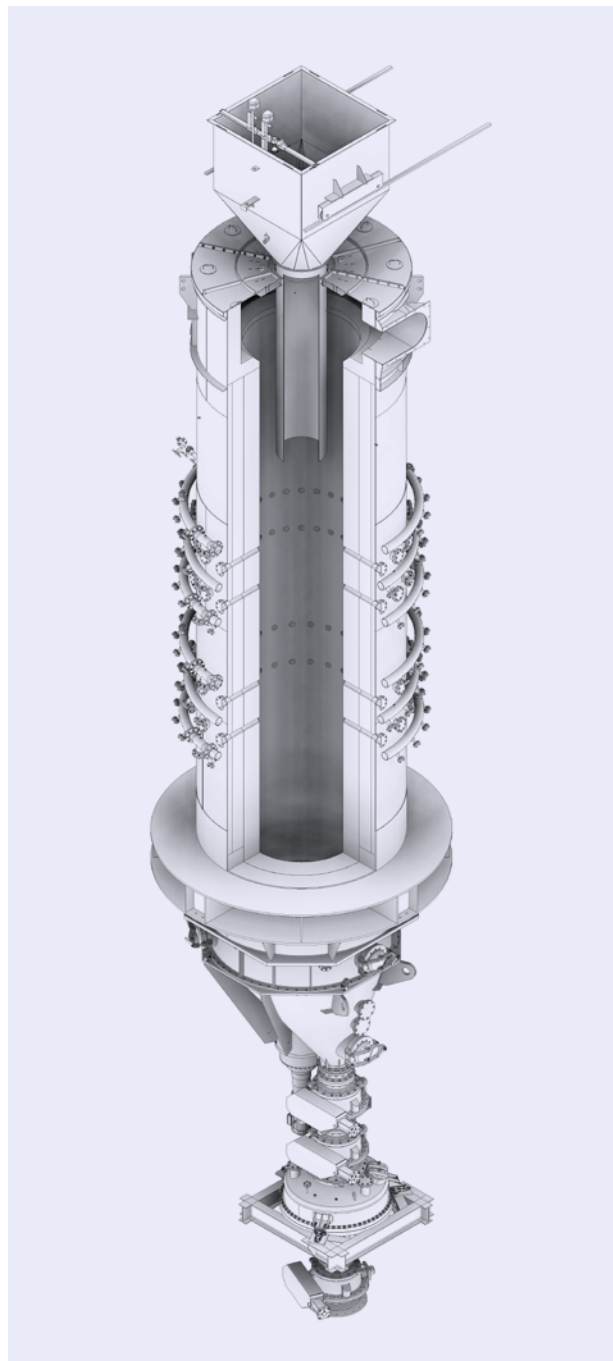
**Kaolin** 300 to 600

**Calcined magnesia/  
dolime/alumina** 200 to 400

### Design parameters

**Outside diameter** 2.1 to 3.6 m

**Daily output** 50 to 200 tons (depending on the type of application)



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