Competence in gas
Heat treatment processes in the ceramics industry
Economy and efficiency which pay off
Safety, lower energy consumption and active environmental protection are issues of utmost importance for operators of industrial kilns.

Safety
Kromschröder gas control and safety systems often do more than make industrial gas installations safe. They provide operating personnel with optimum protection to a much higher level than is required by the relevant standards and regulations.

Systems
High quality in combustion processes are achieved with systems designed by Kromschröder. Field bus components with communication capability control these systems. Existing installations can thus be easily modernised and extended at low cost.

Straightforward start-up procedures
Kromschröder systems are a key cost-cutting factor because they are easy to assemble and install. Start-up procedures are accordingly short and straightforward. We also offer special courses of instructions for various customer and product groups, should you want extra support. Our competent Service Team is also there to help.

Optimum price/performance ratio
Kromschröder offers technically optimum concepts for your process engineering applications in the ceramics industry with a favourable price/performance ratio.

High reliability due to the very best technology available and first-class service
The design and robust construction of the Kromschröder systems ensure a long service life. As preventive maintenance is essential for trouble-free operation, reliability and economy. The Kromschröder Service Team can offer you tailor-made maintenance contracts.

Consumption measurements
Exact consumption measurements on the gas and air side are now state of the art. Kromschröder offers a new generation of flow meters equipped with the most modern electronics and optional M-bus interface. The current consumption can be read off directly.

Simple operation
Multilingual leaflets and operating instructions, planning folders and Kromschröder systems engineering manuals make it easy for you to operate products from our diversified range – from manual valves, gas filters and gas governors etc. to complete systems. You can download up-to-date Kromschröder information from the Internet at any time.

http://www.kromschroeder.de
Heat treatment processes in the ceramics industry

Quality
The production of high-grade products depends to a high degree on the quality of the systems used. Kromschröder is certified as complying with Standard DIN ISO 9001 for quality management systems. Our organisational and technical processes and procedures are qualified to develop, manufacture and deliver products and services of assured quality.

Kiln atmosphere and temperature distribution
Using Kromschröder impulse burners with air/gas ratio control, it is possible to achieve an homogeneous temperature distribution throughout the kiln atmosphere. Based on an efficient counter-current principle, our burners ensure optimum mixing of gas and air.

Lambda control and correction
Kromschröder demonstrates its value as a competent partner in individual solutions – be it for constant lambda correction or as switchable oxidation/reduction cycles in a burner control system.

Hot air compensation
Flue gas temperatures must be kept as low as possible if a gas-fired installation is to work with a high level of efficiency. To do so, the heat in the flue gas can be returned to the process by directing it through heat exchangers in order to raise the temperature of the combustion air. Kromschröder can supply the necessary control valves for gas and air.

Types of gas
All Kromschröder systems are suitable for town gas, natural gas and LPG. In addition, we can supply a large assortment of reliable gas control valves for sewage gas, landfill gas, biologically produced methane, generator gas and coal gas.

Modular design
The specially coordinated product range offers excellent modular design options. For years now, we have been very successfully taking these important steps into the future of the modular system in systems engineering.

Competence in gas
Owing to the use of modern technologies, Kromschröder allows you an innovative partnership in the fine ceramics and heavy clay industry. We develop individual solutions in close cooperation with industrial kiln builders.
Step-by-step control
(Impulse control)
The industrial kiln systems built for heavy clay production are mostly equipped with impulse control. With this type of control, the output impulse from the burner is strong enough to produce a uniform distribution of temperature in the kiln atmosphere and a good level of circulation.

Integrated pneumatics ① offers maximum safety thanks to air deficiency cut-out. A constant lambda value is maintained when subject to changing air pressures. Step-by-step control without integrated pneumatics ② also offers the option of central lambda adjustment.

Overhead firing with BIC burners
Continuous control

Intermittent shuttle kilns and tunnel kilns equipped with this control system are the low-cost solutions typically used in the production of heavy clay and fine ceramics. Continuous control combined with hot air is used to reach very high temperatures (e.g. engineering ceramics). Continuous control with integrated pneumatics offers the advantage of constant lambda value over a broad control range with simultaneous air deficiency cut-out. Continuous control of the gas flow rate at constant air flow rate allows capacity adjustment with virtually constant outlet velocity at the burner.

Continuous control with integrated electronics allows optional operation with constant lambda value over a broad control range, capacity adjustment with virtually constant outlet velocity at the burner and individual control of required O₂ or CO atmospheres.
Important products for your process

Pot burners
Using Kromschröder pot burners provides an homogeneous temperature distribution in reducing and oxidising kiln atmospheres. Existing gas lances can be exchanged easily without additional installation effort. It is possible to adapt the burners to any pot cover on the basis of the well-known Kromschröder high-velocity burners.

Ring slot burners
Regardless of the control method – be it impulse-controlled or modulating-controlled, the Kromschröder ring slot burner is designed for rapid-burn kilns with closed combustion chambers. The secondary air allows the flame temperature to be matched to the kiln temperature with high burner impulse. The two-stage combustion allows a broad control range both in oxidising atmospheres and in reducing atmospheres. The secondary air injection achieves short cooling times.

Lambda controls with linear flow control LFC
The ever more stringent requirements applicable to the control quality of kiln atmospheres necessitate high-quality but nevertheless low-cost regulating units. Kromschröder linear flow controls of the new generation meet these requirements. They can be used optimally for wide lambda and capacity ranges with continuous control for uninterrupted duty.

Automatic burner control units IFS 244/254
The requirements applicable to the ceramics industry have led to a new Series for burners with ionisation control. Automatic burner control units are mounted near to the burner. They feature a switch which allows each burner to be switched on and off individually. Kromschröder offers all-in systems.

Gear motors GT31/GT50
Kromschröder also makes an important contribution to production of high-quality products in the fine-ceramics and heavy clay industries by the use of high-quality kiln systems. This also includes gear motors of the GT Series for mounting on butterfly valves for gas, cold air and warm air up to 650°C. Control either by 3-point step signal or by analogue signal.

Reduction systems
Reduction systems with Kromschröder products allow low-pollutant production with uniform colour range without the additional use of coal and minerals. With our available know-how and an extensive range of products, we are capable of elaborating individual systems.
Goals:
Boosting Kromschröder’s good market position among builders of ceramic kilns.
Extension of our good position on our home markets to equipment suppliers of the European ceramics industry.

Kromschröder is committed to producing high quality and to being a supplier of leading-edge technology.

Competence in gas
Gas is considered to be one of the most important energy resources in today’s – and particularly tomorrow’s – world.
Kromschröder is a leading manufacturer of top products and systems for measurement and control of gases, for automation of industrial kilns and for control of heat treatment processes.
Through innovative research and development of trendsetting designs, Kromschröder is a regular source of new impetus for this interesting market.
Dedicated quality management and modern, staff-orientated product segments have made Kromschröder into such a competent partner.

Quality
Kromschröder’s quality policy is based on a globally acclaimed system for ensuring products and services of consistently high quality.
Certification in compliance with Standard DIN ISO 9001 confirms the efficiency of our system.
We are well aware, however, that a quality management system is not enough on its own. It is only with the active support of our staff that we are able to keep our ears close to the ground on the market in order to respond quickly to our customers’ needs. With a strategy of steady, continuous improvement of all the processes involved in the creation and distribution of our products, we want to actively implement the requirements and expectations raised by the market because customer satisfaction is the standard we strive to achieve.

Ecology and responsibility
Kromschröder has recognised that the ecological demands of our time must be reflected in a forward-looking management policy. One of the principles of our company philosophy, therefore, is to act with a sense of responsibility to our environment.
The environmental compatibility of a production system is a quality feature of its products. And quality is written with a capital Q at Kromschröder.
We know from experience that environmental protection and business efficiency are not mutually exclusive.

Inspection and certification
Approval or certification in accordance with ruling national or international standards and specifications is taken for granted with safety equipment and systems.
By participating in relevant international bodies and standards committees, Kromschröder ensures that our customers’ interests are represented in international standardisation activities.

We want to use the most modern technologies and treat our environment with all due care.

Our customers are satisfied if we meet their requirements and satisfy their expectations of our products.

Kromschröder understands quality to be the conformity of the properties and features of our products with market standards and expectations.

Kromschröder is committed to producing high quality and to being a supplier of leading-edge technology.