Combination linings and newly developed checkerwalls (which require sophisticated manufacturing processes) in a modular system for the catalyser filler area offer customers a high degree of flexibility in terms of the size and design of a plant. Standardised formats from STEULER-KCH in combination with a modern design are additional arguments for a cost-effective solution.

For the chemical industry, STEULER-KCH supplies products for thermal processing units, treatment plants, incinerators and waste disposal facilities. Depending on the specific loading conditions, the appropriate lining materials are used in rotary tube furnaces and in sulphur and thermal oxidation units for residual liquids and gases. Qualities based on bauxite, andalusite, chromium-andalusite, corundum or chromium-corundum serve as wear materials.

Claus plants
Claus plants are used for the industrial recovery of sulphur from sulphur hydroxides found in the flue gases generated while processing coal into coke. Claus plants are also used in the desulphurisation of crude oil in refineries. For the lining of a Claus furnace, the specially developed refractory ceramics supplied have to withstand different conditions depending on how they are installed in the furnace unit. Low-iron fireclay and andalusite are used here – and under extreme loadings also corundum grades.

**Above:** Schematic diagram of a Claus furnace

**Right:** Sulphuric acid cracking unit completely lined by STEULER-KCH refractory materials.
Pox reactor
The processing plants used in the petrochemical industry, such as primary and secondary reformers, cracking furnaces and POX reactors are subject to an extremely wide range of loading conditions and therefore also require different refractory materials.

These include complete fibre linings, combination linings with formed materials, and pure, high-quality speciality products made of synthetic corundum materials with an $\text{Al}_2\text{O}_3$ content of more than 99%. In combination with similarly high-quality insulation materials based on hollow bead corundum and very sophisticated engineering, STEULER-KCH offers complete concepts from a single source.
Together with its international subsidiaries and representations, STEULER-KCH offers its customers a worldwide network which develops and implements comprehensive system solutions.

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