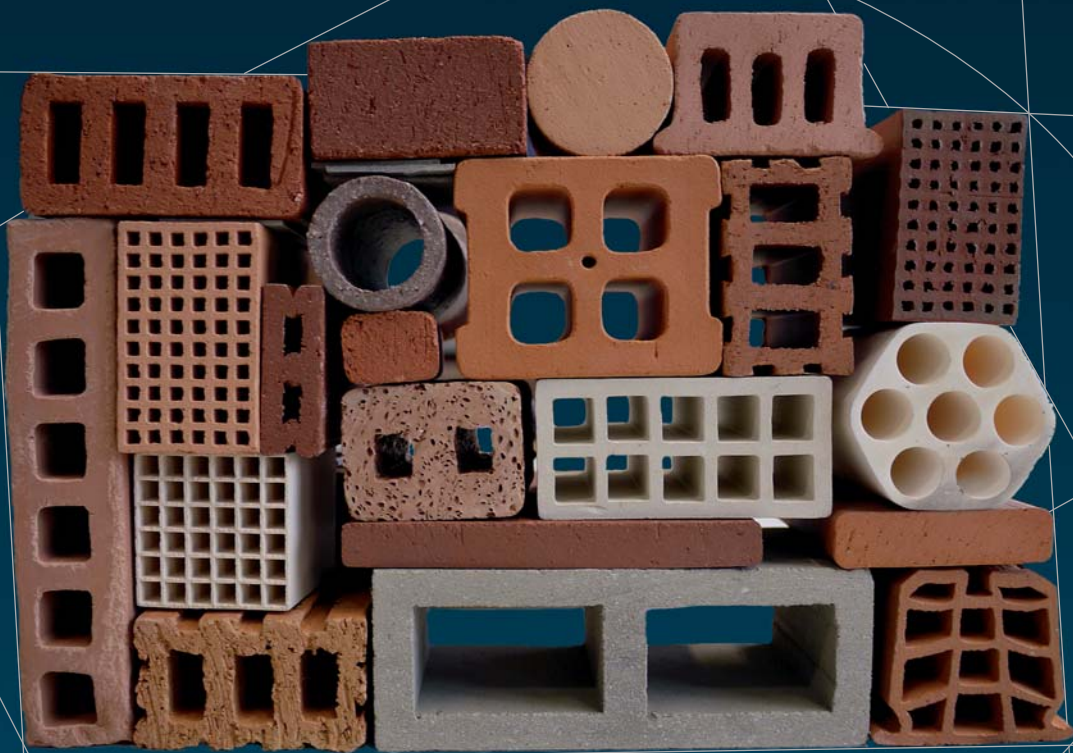


Supporting projects and providing services in the house of HÄNDLE for more than 60 years now. 60 – 80 tests annually at the laboratory, at the pilot plant and on the customers' own premises.

Laboratory and Pilot Plant



The HÄNDLE Laboratory & Pilot Plant

We work out body- and process-specific solutions for our customers in our own laboratory. For more than 60 years now, the HÄNDLE laboratory has enjoyed an especially good reputation for near-practice research.

The experience drawn from that work provides the know-how we need for on-target planning and implementation of new production facilities and for ensuring the optimal operation of existing plant and equipment. Our test spectrum covers a wide range of conventional and special ceramic products. Over the past few years, we have devised special tests for simulating the work of preparation and extrusion machines on

a laboratory scale. These tests allow dependable practical implementation of laboratory findings to give our customers optimally engineered, energy-efficient production processes. For example, HÄNDLE now uses a modernized and optimized Extruder Simulation Model (ESM) that shortens the test duration from four or five workdays to a single workday while still yielding well-founded, customer-specific, optimized process parameters for each machine tested. At the HÄNDLE pilot plant, our customers have access to semi-industrial ways & means of production.

Defining capabilities

- Testing of raw materials and bodies suitable for processing in HÄNDLE-built machines, e.g., for preparation and extrusion of heavy clay body, comminution of raw minerals, pelletizing of diverse raw / waste materials
- Proving of new processes and products in the areas of structural ceramics, cement extrusion, ecotechnology and raw-material refinement
- Rheological characterization of moldable materials with HÄNDLE's measuring laboratory extruder (LME) and design of customers' extruders using the Extruder Simulation Model (ESM) set for the established test data and desired performance data
- Semi-industrial mixing, extruding and drying tests at the pilot plant
- Analysis of raw materials and production bodies, e.g., determination of moisture content and plasticity by various methods, screen analysis and particle-size analysis with a Sedigraph 5120



A typical ESM test configuration

