Founded in 1974 by Hans-Otto Klann, the company started as an engineering office for control and automation systems for the steel and foundry industry.

As a partner of the former foundry equipment supplier Vogel & Schemmann AG in Hagen/Germany, KLANN supplies foundry equipment since more than 20 years.

Situated in the former Vogel & Schemmann AG office in Hagen/Germany, KLANN Anlagentechnik GmbH today offers advanced core shop and robot handling equipment. Beside core shooting machines based on it's own technology, KLANN is offering the complete range for core shops from sand processing to core handling.



# Anlagentechnik

Product Range Core Shop Equipment





Klann Anlagentechnik GmbH Schwerter Str. 200 58099 Hagen

Tel.: +49 (0)2331 9680-00 Fax: +49 (0)2331 9680-18 info@klann-anlagentechnik.de

# Engineering and Consulting Service

KLANN offers consulting and engineering services for the turn-key supply of core shops or for the extension of existing shops. This includes core shops with individual core production centres or different, in parallel operating core production processes.



Core shooters with sliding table core discharge or fully automated core shooters with core discharge on belt conveyors, so called core belters, are offered in varous shooting volumes. With a cycle time of down to 5 seconds, the core belters are one of the most productive core shooters used for example for the production of fitting cores.

KLANN core shooters are used for:

- Hot-Box
- Cold-Box
- Anorganic/CO<sub>3</sub>-processes
- Croning
- Combination shooters (i.e. Hot-/Cold-Box)

#### Core Sand Mixers

The KLANN Core-Sand-Mixers are compact batch mixers with a high productivity, which are offered in various volumes. The sand output is done by tilting the mixer drum. This design has no flaps or slides which could plugg or block.

Due to the tilting drum design the mixer can be installed on the floor level and the core sand directly discharged in a bucket lift in front of the mixer and can be distributed to the core shooters. The mixer is available in standard sizes of 30, 40 or 50 litres with a capacity of up to 3.6 tons per hour.

The PKM mixers are available with volumetric or gravimetric dosing devices.

## Binder Storage and Dosing Equipment

For the storage and dosing of binder, special systems are offered. Barrel or container storage units pump the binder from a central storage area to the binder dosing cabinet close to the mixer. The design of the binder dosing equipment allows an accurate and economic feeding of the binder into the mixer without air bubbles.

















# Core Sand Distribution Systems

To achieve maximum core quality, KLANN is offering a special crab rail conveyor system for the core-sand mixture transport. This systems is specially adapted to the core production as it offers a smooth transport with minimum air contact.

These batch transport systems allow to supply several coreshooting machines over a long horizontal and vertical distance with core sand without large floor space requirements. They can also easily adapted for installation in existing facilities.

## Core Handling and Processing

Robot systems are offered for the handling and/or processing of cores with the necessary equipment. Applications are stacking, deburring, coating or drying of cores.

## Core Fraction Recycling Units

To avoid disposal costs for core residues, KLANN developed a special recycling unit which recovers the sand in different process steps.

After grinding of the aggregates, the impurities are separated by screening and the dust fraction is removed by air flow separation.

The capacity of this recycling process is sufficient for normal core shops and replaces up to  $10\,\%$  of the raw sand feed.

# Fluidised Bed Deduster and Pneumatic Transport Units

To increase the raw sand quality, KLANN offers fluidised bed separators, which can also be used to cool or heat raw sand. Removing the dust fraction from the sand decreases binder consumption and improves the gassing ability of the cores.

For the pneumatic transport of raw sand and additives, low pressure systems are offered.