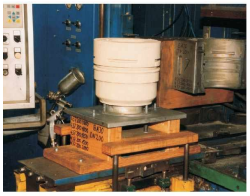
TECHNICAL INFORMATION

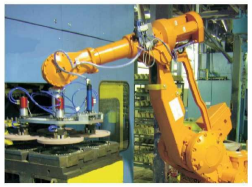
Equipment for core shops



















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Founded by Hans-Otto Klann in 1974, KLANN began as an engineering office for control and automation systems for the steel and foundry industries. As a later partner of the former foundry machinery manufacturer Vogel & Schemmann in Hagen, KLANN has supplied foundry equipment worldwide for more than 30 years.

Since 2017, KLANN has planned, designed and assembled modern core shop equipment and processing systems in two assembly halls at its Schwerte site. In addition to core shooting machines of its own design, the company offers the full core shop programme, from raw-material delivery to fully automatic removal and storage of the finished sand cores.

Planning, manufacture and assembly

Alongside individual components, KLANN designs and plans core shops through to turnkey delivery. This includes extensions to existing core shops and individual core production centres with different processes operating in parallel.

Core shooting machines

The range includes conventional machines with table discharge and automatic machines that place cores on a conveyor belt, in different shooting capacities. Conveyor-discharge machines achieve machine cycles from 5 seconds and are used, for example, for series production of valve and fitting cores. Process-dependent curing, pin withdrawal, shooting and venting times are additional.

The machines are suitable for Hot-Box, Cold-Box, inorganic/CO2 and Croning processes, as well as combined processes such as Hot-/Cold-Box.

Core sand mixers

PKM mixers are batch mixers that discharge by tilting the bowl. Discharge flaps and slides, which can otherwise become blocked, are unnecessary. Tilting allows the mixer to stand at floor level and discharge into a container lift.

Standard mixing volumes are 30, 40 and 50 litres, with mixing capacities up to 3,600 kg/h. Sand can be dosed gravimetrically or volumetrically.

Binder storage and dosing

Storage and dosing systems are matched to the application. Binder can be conveyed from drums or containers over long distances to the dosing cabinet. Precise, bubble-free addition into the mixer supports accurate dosing and economical consumption.

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Core sand distribution

Fully automatic distribution systems can take sand from mixers at floor level or from mixers on platforms. Containers move horizontally and vertically to supply the core shooting machines. A mixer platform above the machines is therefore no longer required.

Core handling and further processing

Robot systems with the necessary equipment are offered for core removal and stacking, deburring, assembling cores, and applying and drying refractory coatings.

Core breakage recycling

Compact reclamation systems process broken cores or core sand residues in several stages into reusable base sand. After breaking down the agglomerates, coarse contaminants are screened out and an airflow separates the dust. The capacity can also serve larger core shops, reducing disposal quantities and saving corresponding amounts of new sand.

Base sand classification and conveying

Fluidised-bed sand coolers, heaters and classifiers support core quality. They compensate for seasonal sand-temperature fluctuations and remove dust that would increase binder consumption and reduce permeability. Gentle low-pressure pneumatic conveying is available for quartz sand and additives.

Translated and typeset from original KLANN documents; technical data as published. Contact: Schwerte.

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