

Mastercast



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Automated production machine for manhole component products

The VIHY Mastercast machine series is ideal for high output production of manhole components products – and many other complementary concrete products.

Capacity

Depending on the machine model and the product being produced the Mastercast machine can produce up to 20-25 cycles per hour – or up to 30-35.000 tons per year – in single shift production.

System Benefits

High output

The Mastercast machine is an automatic machine allowing high output with a minimum of labor input. Standard products, such as manhole risers, can be manufactured in quantities up to 150 pieces per shift but also more special products can be produced in high numbers.

The concrete producer can therefore expect to cover all his demand for manhole component products with just one machine and just one production crew.

Wide range of concrete products

Because of its very flexible design, the Mastercast machines can accommodate virtually any kind of product, e.g. hollow products, solid products, flat products, tall products, circular products, non-circular products, reinforced products and non-reinforced products. Because the vibrations are transferred from below through a universal mold clamping system, basically any kind of mold can be fixed to the vibration table. The VIHY vibration system delivers true vertical vibration to

the mold - maximizing the energy transferred to the concrete and minimizes the wear on the molds.

This makes this machine ideal for producing the complete range of manhole component products.

Ergonomic machine design

The Mastercast machine is designed so that the top edge of the mold always is +800mm from the floor. This ensures optimum working height for arranging reinforcement, lifting anchors, or any other cast-in items in the mold. For products of different heights the machine is equipped with an elevation system which permits any length of mold equipment to have the top edge +800mm from the floor.

This makes this machine perfect for producing all products where different items need to be cast into the concrete and which requires some manual operations around the mold – without compromising the work environment or the safety.

In-machine demold

The machine uses drymix concrete which is filled into the mold and compacted. When finished, the machine demolds the product immediately outside the machine allowing the mold to return to the machine for the next cycle while the product is moved to the curing area. The machine can even be equipped with a mold turning device so that products made in turn-over molds can be flipped 180° before demolding.

The in-machine demolding feature eliminates the need for an overhead crane, and

the Mastercast machine can therefore be installed in most existing buildings reducing the capital building costs when investing in this machine.

Designed for total plant automation

The design and operation of the VIHY Mastercast machine is ideal for total plant automation. The machine comes with automatic demolding and automatic pallet feeding. These functions can be combined with further automation so that the entire production plant can be operated with as little as 1-2 operators. This secures consistent high output, lowest possible production costs, and uniform product quality.

Operation

The production on the VIHY Mastercast machine runs full-automatic and is monitored and controlled from a control desk next to the machine. The semidry concrete mix is filled into the mold by a belt feeder and the concrete is compacted by vertical vibration from a VIHY vibration table. The top surface of the concrete is automatically finished off by the hydraulic press. The machine automatically demolds the product outside of the machine so the mold immediately can return to the machine for the next cycle while the fresh product is taken to the kiln by either a cart or automatic handling equipment.

All operations as well as the safety system are controlled from a PLC at the machine.

Models Available

- VIHY Mastercast SC 120
- VIHY Mastercast SC 150



- High output
- Wide range of concrete products
- Ergonomic machine design
- In-machine demolding
- Designed for total plant automation



The AFINITAS family of brands

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