Kastmaster

VIHY Kastmaster 150/200 • VIHY Kastmaster 150/250 • VIHY Kastmaster 200/250

Hawkeye Pedershaab
Concrete Technologies Worldwide ™

• Fully automatic operation • Linear production flow

• Manufacturing flexibility • Production versatility

• No overhead crane required

K a s t m a s t e r

Produce manholes and concrete pipe with production-line efficiency.

The Kastmaster brings an automatic, linear production-line approach to concrete pipe and manhole manufacture. Within the architecture of the Kastmaster machine is an integrated infeed shuttle that automatically feeds pallets and reinforcement to the production station as a corresponding outfeed shuttle transports finished products to a pickup position.

Designed for use as a stand-alone machine or as part of a totally automatic factory, the Kastmaster permits concrete pipe and a wide range of manhole products to be efficiently produced with just one or two production personnel. It's robust four-column machine frame, flexible vibration styles, and form rotator capability accommodates many different form types, permitting the Kastmaster to efficiently manufacture a wide range of standard and specialty products.

System Benefits

Fully automatic operation. Kastmaster's automatic operation cuts labor costs and permits precisely repeatable production cycles, assuring that each product is as high-quality as the next.

Linear production flow. Twin shuttles organize the feeding of pallets and cages into the machine and discharge finished products for easy removal.

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Manufacturing flexibility. To maximize production flexibility, molds are designed as self-contained modules coupled with hydraulic mold-to-machine locks to permit 30-minute mold changes.

Production versatility. The Kastmaster can be equipped to manufacture round, oval, arch, and box-shaped products in diameters up to 2000mm (78") x 2.5M (8') lengths, and a full range of manhole riser, cone, and base products.

No overhead crane required. Products are produced and demolded within the machine, saving building and equipment costs by eliminating the need for a factory overhead crane.

Capacity

The VIHY Kastmaster offers an annual production capacity of 50,000 - 60,000 tons of product in a one-shift operation. For production rates, see chart on back page.

Operation

The VIHY Kastmaster is controlled by one operator without the need of extensive training. The machine features fully-automated production, including the demolding and discharging of the finished product. Also included in the automatic operation is the feeding of the pallet and reinforcing steel into the machine. Finished products can be manually removed with a product cart or with automatic robotics. A subterranean casting station provides a safe working environment for the machine operator and comfortable noise levels.

Standard Features

The VIHY Kastmaster can be equipped with VIHY central core vibration, form core-vibration and vertical vibration; or a combination in accordance with specific customer needs.

- Swipe feed system
- Presshead system
- Operator Console
- Integrated demolder
- Pallet/Cage feed shuttle
- Product offbearer shuttle
- Product transport cart

Optional Features

The VIHY Kastmaster can be equipped with the following additional features:

- Quick mold change components
- Pallet oiling
- Automatic pallet feeding magazine
- Automatic header/top ring feeder
- Cast-in lifting anchors
- Reinforcement centering

To permit manhole production, the following additional features are available:

- Manhole module
- Vertical vibration unit for slab-type products
- Automatic mold rotation module for base production
- Integrated hoop steel placement
- Cast-in steps or rungs

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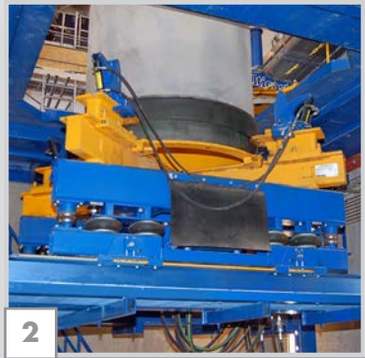
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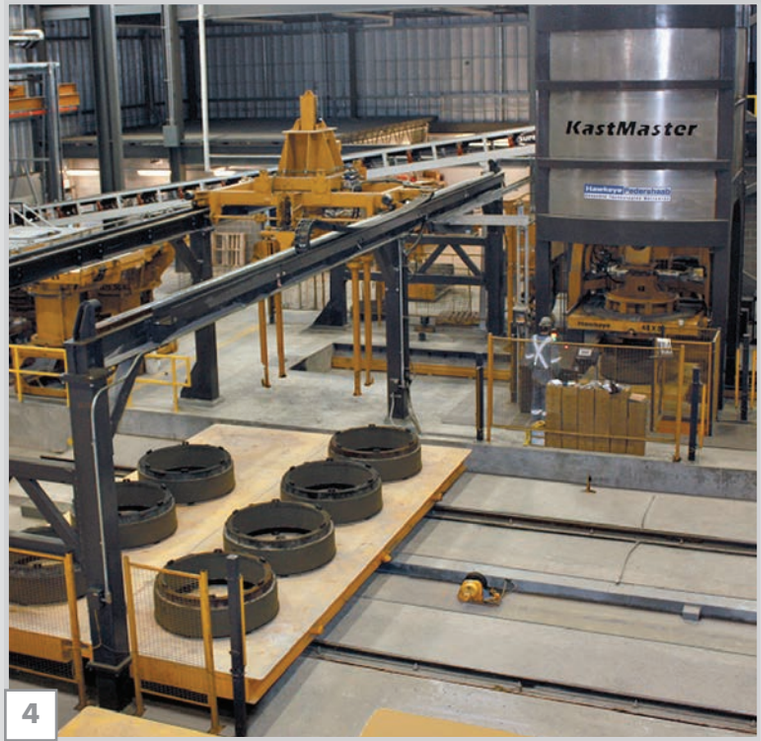

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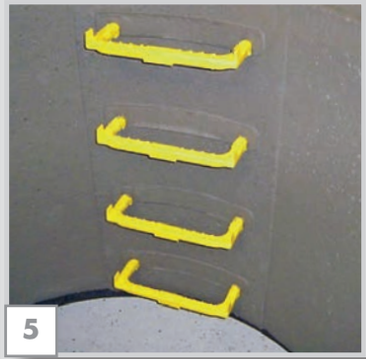
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1. Swipe Feeder
As concrete is fed to the form, a rotor evenly distributes concrete into the form. After the form is filled, the feed pan retracts, automatically removing and retaining excess concrete for the next product.

2. Vertical Vibration Unit
A vertical vibration unit allows for the optimal compaction of flat and irregular shaped products that are difficult to achieve with traditional core vibration. Unit maximizes production flexibility, enabling the production of a vast array of concrete products.

3. Form Rotator Module
An integrated mold rotator module inverts molds to permit the manufacture of slabs and products with monolithically poured bottoms. Rotator module interfaces with the Kastmaster for seamless filling and demolding within the machine.

4. Kastmaster with Automatic Offbearer
The Kastmaster is designed for use as a stand-alone machine or as part of a totally automatic factory. The Kastmaster's outfeed shuttle advances finished products to a fixed pickup point. An automatic crane/manipulator can transfer and position the finished products in an open-floor curing area or to a moving floor system. When used as a stand-alone machine, a forklift truck or product removal cart is used to transfer the finished products to the curing area.

5. Cast-In-Place Manhole Steps
Manhole steps are automatically loaded into the form set and cast into the product wall. System includes a step pre-load fixture to permit uninterrupted production.

6. Optional Stay-In-Place Top Rings
For the production of spigots with precise tolerances and glass-like finishes, the Kastmaster can be equipped with an automatic feeder that permits the use of stay-in-place top rings.

Kastmaster		Model 150/200		Model 150/250		Model 200/250	
Diameter		Products/Hour		Products/Hour		Products/Hour	
mm	inch	Form Configuration		Form Configuration		Form Configuration	
		1 Mode	2 Mode	1 Mode	2 Mode	1 Mode	2 Mode
Pipe x 2.5 ML							
300 – 400	12 – 15	x	x	13	26	13	26
500 – 600	18 – 24	x	x	13	27	13	27
800	30 – 33	x	x	13	x	13	26
1000	36 – 42	x	x	12	x	12	x
1200	45 – 48	x	x	11	x	11	x
1500	54 – 60	x	x	10	x	10	x
2000	72 – 78	x	x	x	x	8	x
Riser x 1ML							
800	30 – 33	24	x	24	x	24	x
1000	36 – 42	22	x	22	x	22	x
1200	45 – 48	20	x	20	x	20	x
1500	54 – 60	17	x	17	x	17	x
1800	72 – 78	x	x	x	x	14	x

Production rates are based on the manufacture of ASTM C76(M) B-Wall x 2.5M (8') concrete pipe and ASTM C478(M) B-Wall manholes.
Production rates may vary for specific applications and plants.

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