

ELEMATIC

SMART EVOLUTION



HIGH CAPACITY IN COMPACT FORMAT
BATTERY MOLD



Casting to desired size with smart side forms



Furnishing cold shutter plates



BENEFITS AT A GLANCE:

High flexibility

- Casting to desired product size
- Easy to install
- Movable

Top-rate efficiency

- High capacity
- Fits into restricted floor area
- All handling in vertical position

Best end products

- Smooth surfaces on both sides of the product

Easy to expand

- Possible to add casting cells
- Cold shutter system
 - Double capacity
 - Fast production cycle

Cold shutter system in use



Elematic Battery Mold: EFFICIENCY FOR RESTRICTED SPACES

A battery mold is the most efficient way to produce all kinds of **solid wall** and **floor slabs**. It offers high production capacity in a very compact format, meaning that it does not take much factory floor space. All handling is also done in vertical position.

Elematic battery mold is **fast to install** and **movable**. It is available in both, one-sided and two-sided versions. In two-sided versions, both sides can be used independently.

Elematic battery mold is **easy to customize**. The number and size of its casting cells as well as the mold furnishing can be chosen to meet the individual needs of the factory. It is also possible to add more casting cells to an existing mold if needed, or to upgrade a traditional mold into a cold shuttering version.

Double the capacity, double the castings

Elematic **cold shuttering system** doubles the capacity of a traditional battery mold. The system also speeds up the production cycle and allows two castings per day.

How?

A cold shuttering system means that a casting cell of a traditional battery mold is divided into two separate cells with a partition plate.

The partition plate – a shutter plate – moves most of the process steps outside of the actual battery mold, therefore significantly speeding up the production process.

Furnishing, final curing and de-molding all take place in special rack holders outside of the mold. Only casting and a 4-hour pre-curing process are done inside the battery mold



“Battery mold is the only possible way in a restricted space to get the capacity we needed. Afterwards we knew that this would also increase quality, because the mold surface is then on both sides of the slab.”

Pekka Huotari,
CEO, Kouvola Beton Oy

TRADITIONAL PROCESS



1. Shuttering with FaMe



2. Reinforcement and Inserts



3. Casting and Compaction



4. Curing with heating system

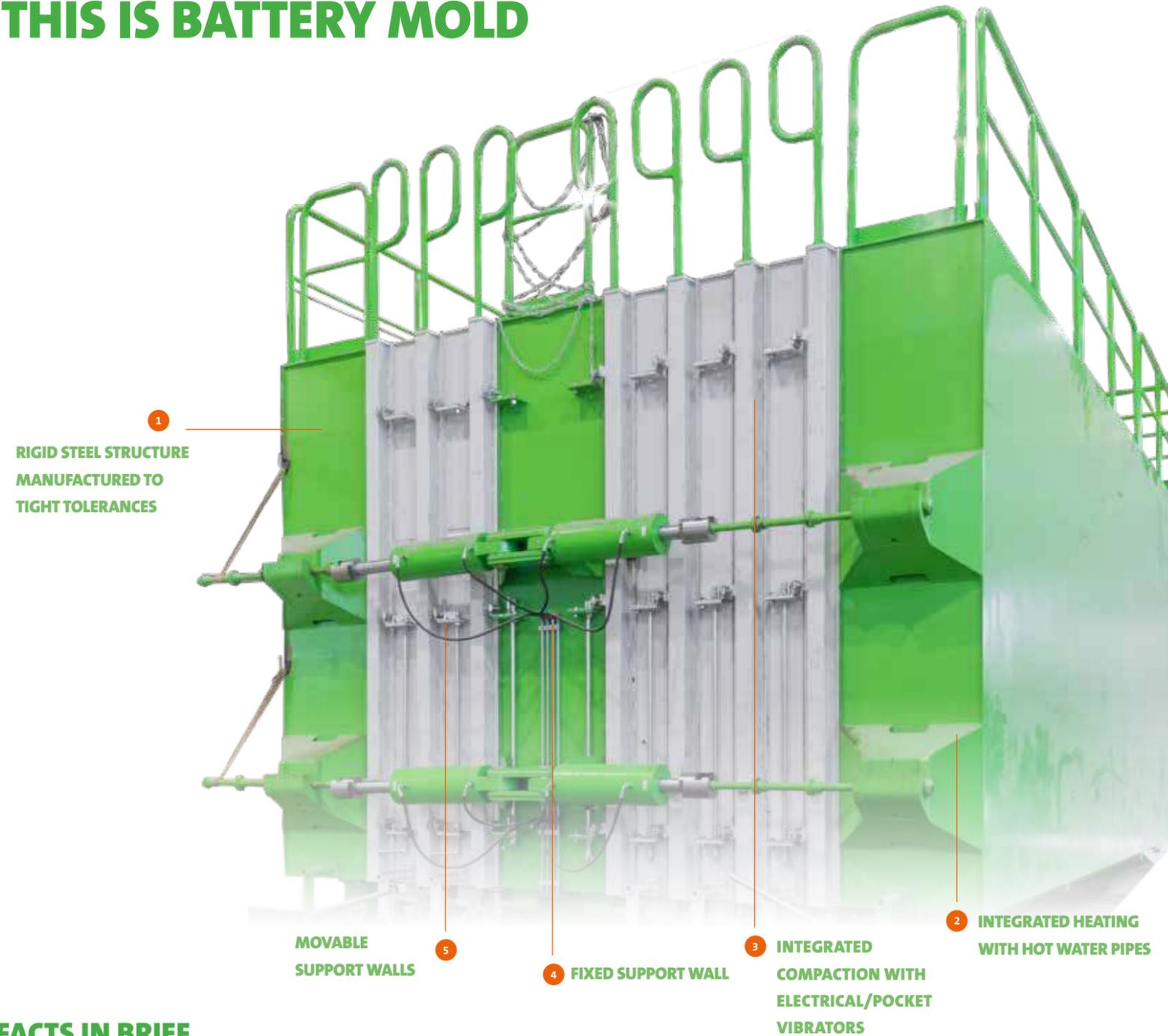


5. Demolding



6. Lifting to storage

THIS IS BATTERY MOLD



FACTS IN BRIEF

Traditional battery mold

Theoretical capacity	608 m ² per day* (one casting)
Personnel	10*
Production area	300 m ² *
Max. sizes with standard structure	≤ 3.2 x 10 m ≤ 3.6 x 9 m ≤ 4 x 8.4 m
Max. slab thickness	200 mm
Max. no of casting cells	10 + 10

* 10 + 10, 3,8 x 8,0 m

Cold shutter battery mold

Theoretical capacity	1 216 m ² per day* (one casting)
Personnel	20*
Production area	600 m ² *
Max. size	3.6 x 8.1 m
Max. weight (cold shutter plate+furnishing+slab)	25000 kg
Max. slab thickness	Max. height 3.1 m: B=160 mm Max. height 3.6 m: B=150 mm
Min. slab thickness	100 mm
Max. no of casting cells	5 + 5 (max. no of cold shutter plates 20 pcs)

COLD SHUTTER PROCESS



1. Shuttering, reinforcement, inserts



2. Lifting of cold shutter



3. Casting



4. Lifting of pre-cured panels



5. Final Curing



6. Lifting to storage

OPTION: OPENING AND CLOSING DEVICE

Elematic opening and closing device significantly improves work ergonomics. When the device is installed, the battery mold opens with a push-button control from a control cabin.

The device consists of a control cabin and a semiautomatic, fixed chain mechanism at the bottom of the battery mold. It can be installed into all existing mold types. There is also a radio-control option available for challenging spaces.

SMART SIDE FORM SYSTEM

Elematic offers different types of side forms for battery molds: modular steel + plywood, aluminum + plywood and steel as well as unique aluminum forms for window and door openings. The Elematic side forms are fixed with magnets. In other words, there is no need for welding, nailing or bolting.

“Previously, our team working on the battery mold experienced aches and stress on the upper arms and hands due to the strenuous opening and closing operations. Since we started using the new mechanism, these injuries have been history.”

Peter Palojärvi,
Production Supervisor, VaBe Oy



CARE. GROW. CREATE.

WORKING TOGETHER FOR CONCRETE RESULTS

Based on years of experience with the needs of precast factories around the world, we have created a range of services to support you in your precast operations and to provide you with concrete results: improved profitability, better efficiency and higher uptime.

EXPERT CARE

We offer continuing expert care to ensure higher uptime. A comprehensive range of services and technical support are available to you throughout the lifetime of your precast plant – from commissioning and maintenance, to upgrades and modernization.

SERVICE AGREEMENTS

The Elematic service agreement protects your equipment investment and increases uptime. The agreement covers the helpdesk support, regular maintenance visits, and machine and equipment audits and training.

HELPDESK

In the case of a sudden or unexpected production problem, the Elematic Helpdesk is your first point of contact. Swift, expert help is available 24/7 in multiple languages to resolve problems via remote access, phone, and email.

SPARE PARTS

Spare part availability is key to keeping a precast factory running smoothly, which is why we have over 3000 spare part items available in stock for fast delivery from three different locations: Finland, the UAE and the USA. It's not just the availability of spare parts, it's also their quality: our OEM wear parts have proved to be the highest performers, with the longest service life.

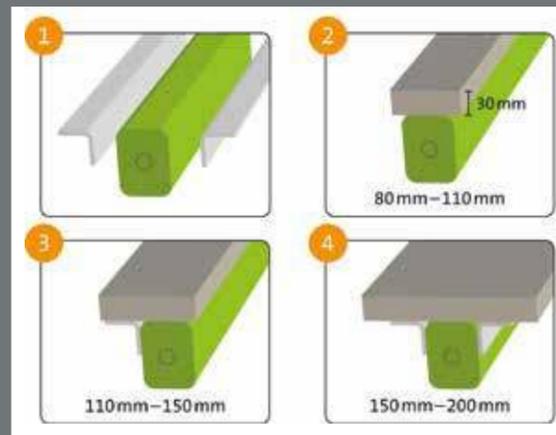
E-SHOP

The Elematic E-shop is open 24/7, enabling you to review and order high quality Elematic spare and wear parts at your convenience. For high levels of productivity, parts availability matters.



MODULAR SIDE FORMS

Modular side form system consists of three modular pieces - a smart trio – for covering any solid slab thicknesses from 80 to 200 mm. Instead of buying side forms for each of the slab thicknesses in production, only one set of three pieces per cassette is needed.



SMART SOLUTIONS FOR PRECAST CONCRETE PRODUCTION

Elematic provides precast concrete technology, production lines, equipment and related services that help customers succeed. We are the global technology and market leader in precast concrete technology for residential and non-residential buildings.

Our precast production technology is highly respected worldwide for its high quality, excellent productivity and efficiency, and advanced solutions. We believe in continuous improvement of our operations and offering to develop our customers' business in a smart way. That's why we are trusted by 40% of the world's precasters.

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SMART EVOLUTION

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