BATTERY MOULDS

Vollert

PRECAST CONCRETE PRODUCTION

KNOW-HOW, TECHNOLOGY AND EXPERIENCE MADE IN GERMANY

The latest system technology and outstanding expertise in stationary precast concrete production make us your first choice of contact. We provide the technically leading mould systems for manufacturing walls and slabs, but also for structural concrete elements, such as all kinds of columns, beams, joists or modern staircase components.

THE PRECAST CONCRETE PLANT OF TOMORROW

As one of the leading manufacturers in precast formwork technology, we provide stationary solutions for the production of laminary and structural precast concrete parts. High performance tilting tables and battery moulds for solid and semi-finished parts or column and beam moulds for structural precast elements – for every project requirement we will find a suitable and cost-effective plant concept.

The precast concrete plant of tomorrow will be based on the latest mould technology, optimised process flows and new manufacturing processes. Innovations provide for more rational working steps, a reduced material usage and a high quality of the precast part.

In this, we always see ourselves as a reliable partner, from the initial design to the turnkey, forward-looking plant concept. We incorporate on an individual basis what the customer wants and we create tailor-made concepts. This is what makes our customers successful on a long-term basis in their markets.

Alexander Kaspar

Senior Sales Manager
Precast Concrete Plants

PRECAST CONCRETE ARCHITECTURE SETS THE TREND WORLDWIDE

The precast building system is state-of-the-art and setting trends worldwide. From the latest designs of single-family homes and multifunctional residential and office complexes through to logistics centres and multi-storey car parks, it is shaping urban architecture all over the world.

HIGH-PERFORMANCE BATTERY MOULDS

Vollert high-performance battery moulds are suitable for the vertical production of single layer, large area wall and slab elements or other large area precast concrete parts with both side mould finish. A large mould area is provided on a relatively small base area. Shuttering work is minimal, the use of space is maximized, which provides a high system productivity. Due to the optional integration of the partitions in a chamber, several concrete elements can be manufactured at the same time. Access to the open casting panels and demoulding are simple due to the construction. Opening and closing of the chambers is either done mechanically or electrically. A specially designed hydraulic system for tightening the individual casting panels as well as its more solid construction even bears the hydrostatic pressure during concreting. A sophisticated vibration system provides the effective compaction of the concrete.

Battery moulds are constructed as mono or duplex configurations. In the duplex version, the fixed centre casting panel is between the moveable casting panels so that the relevant chamber sections can be filled independently. Alternatively, if a production of precast concrete is required close to the construction site, we can provide a semi-mobile battery mould system. Due to the modular construction, it can be dismantled at any time and re-constructed for the next building project again at another site.

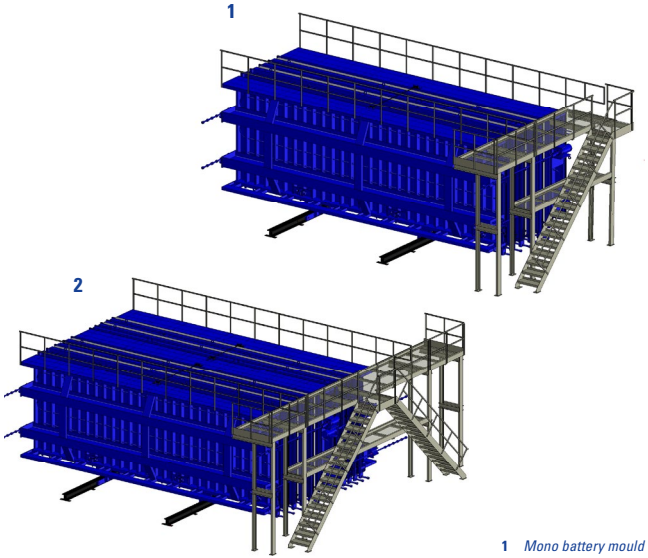
1 *With battery moulds from Vollert, walls and slabs can be produced extremely efficiently and economically*
2 *State-of-the-art precast architecture sets trends*

TECHNOLOGY FOR EFFICIENT PRODUCTION PROCESSES

VARIABLE BASIC CONSTRUCTION ENSURES MAXIMUM FLEXIBILITY

Innovative technology makes Vollert high performance battery moulds the first choice for manufacturing reinforced precast elements of various sizes:

- Chamber length up to 10 m, chamber height up to 4.50 m, number of chambers varies
- Construction as mono or duplex battery mould; alternatively as a semi-mobile battery mould
- Gangways and stairways for simple access and working
- Bottom formwork and side shutters made of steel or as a mould grid for ply-wood covering
- High frequency vibrators, optionally with vibration control, ensure a superb compaction result and highest surface qualities. The vibrators are integrated into the walls of the battery mould, so that their effect is 3D and simultaneously active in two chambers. This arrangement is significantly quieter compared to battery moulds with external vibrators
- Heating system can be integrated into the construction for local supply with hot water, thermo oil and steam; optionally available with heating control system. Our laying pattern and system ensures extremely efficient and uniform heating of the entire concrete element
- Dosing bucket with electrical lock and spiked roller or portal concrete spreader for the efficient spreading of the concrete



1 *Mono battery mould*
2 *Duplex battery mould*

FLEXIBLE CONSTRUCTION FOR VERSATILE PRECAST CONCRETE ELEMENTS

WALLS AND SLABS IN CONCRETE QUALITY

The concrete chambers are attached with coupling rods for the production process. The intermediate chambers absorb hydrostatic pressure during concreting. The external panels are moved mechanically; an electrically motorised drive can be integrated as an option. The bottom formwork is adjustable in height, which means concrete elements of different heights are possible.

The outer side formwork is rotatable, which makes the demoulding process easier. Intermediate side shutters can also be integrated without any problem, in addition to insulation, window and door recesses. If required, the individual panels can be reinforced, so that it is possible to fill the chambers successively in a single procedure, or even individual chambers can be filled. The benefit: better quality surface finishes, shorter concreting times and the cost-effective production of small series.

1 *Chassis of a shutter panel*
2 *High-performance battery mould*
3 *Electrically operated vibrator system*
4 *Hydraulic system for tensioning the chambers*

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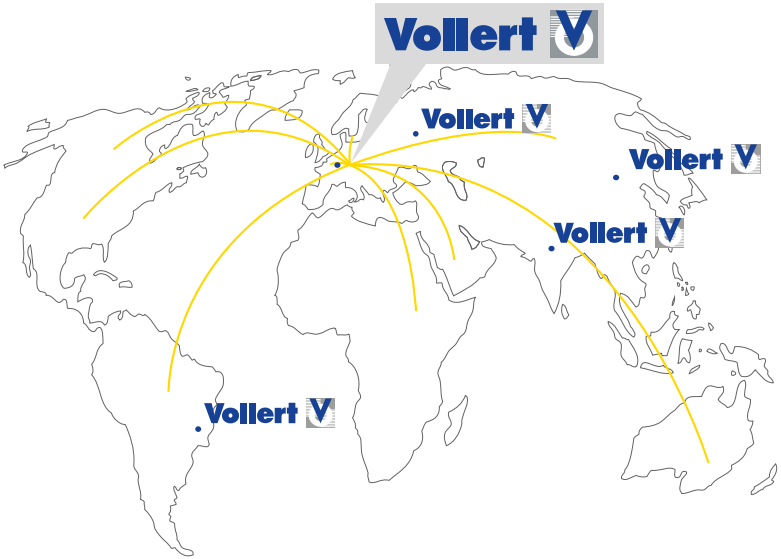

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