

Simem S.p.a., 37046 Minerbe (VR), Italy

Solutions for concrete distribution in precast plants

Concrete distribution is a crucial phase in the precast production process. Speed is essential to maintain workability and ensure that production and curing times are respected. At the same time, system modularity, movement agility, and the ability to minimize waste while ensuring high quality standards are key factors. Below are the main systems offered by SIMEMSPIL, the Simem division dedicated to concrete distribution in the precast sector.

Pelican or Districrete Bucket

The rail-mounted bucket is available in both the Pelican version and the Districrete bucket variant.

Pelican

Allows unloading of the entire content with a single movement. It offers faster unloading, making it ideal for applications requiring strict cycle times, such as feeding extruders, dosing units, or other machines in the plant.

Districrete Bucket

Allows partial dosing and ensures a more accurate and controlled discharge, ideal when the flow must be regulated or delivered at different rates.

Both systems can be equipped with a parking area washing station, featuring high pressure nozzles for automated cleaning.

Depending on the model and application, they can reach a speed of 60 m/minute and can travel along any track layout, including 45° or 90° curves and inclined sections. Available in various sizes from 1 m³ to 3.5 m³.

Kangaroo

The Kangaroo system runs on rails and consists of a receiving bucket that moves vertically, allowing uniform concrete distribution even with variable heights or obstacles.

- Ground radio control or fully automatic sensor-based operation
- Power supply via cable reel or conductor bar
- Speed: 40 m/minute
- Capacity: 3 m³



Concrete distribution with Pelican flying bucket

- Vertical travel: from 90 cm to 2.2 m
- PU lined bucket with vibrators to facilitate material flow

Iguana

Iguana expands the capabilities of the Kangaroo system. In addition to longitudinal travel, it integrates an orthogonal dosing system with lateral discharge both left and right. This is achieved through two reversible belts:



Orthogonal dosing system with Iguana

- one fixed belt located under the bucket
- one extendable lateral belt that moves according to distribution needs

This configuration is particularly effective in setups with molds or panel beds arranged in double rows. It improves distribution across a wider working area and can be integrated with an automated distribution system directly interfaced with the batching plant.

- Capacity up to 3.5 m³ of concrete distributed in approximately 3.5 minutes, depending on the type of concrete and the type of mold
- Speed: 40 m/minute

All models feature PU oil-resistant hopper linings to ensure better flow during discharge and easier cleaning.

Integration with the concrete plant

Thanks to extensive experience in batching plant design, SIMEM has developed methods and automation systems that ensure perfect communication between the batching plant and the distribution system.

Various integration systems can be used, from industrial radio controls to full connection with the plant-wide supervision and control system.

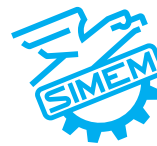
For example, once the system has completed discharge at a given position, it sends a signal to the batching plant to start preparing the next batch. This synchronizes production phases, optimizes cycle times, and reduces inefficiencies and downtime.

Safety also plays a key role: dedicated sensors detect personnel around the working area and automatically stop the machinery when necessary. ■



Precast plant integration

FURTHER INFORMATION



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