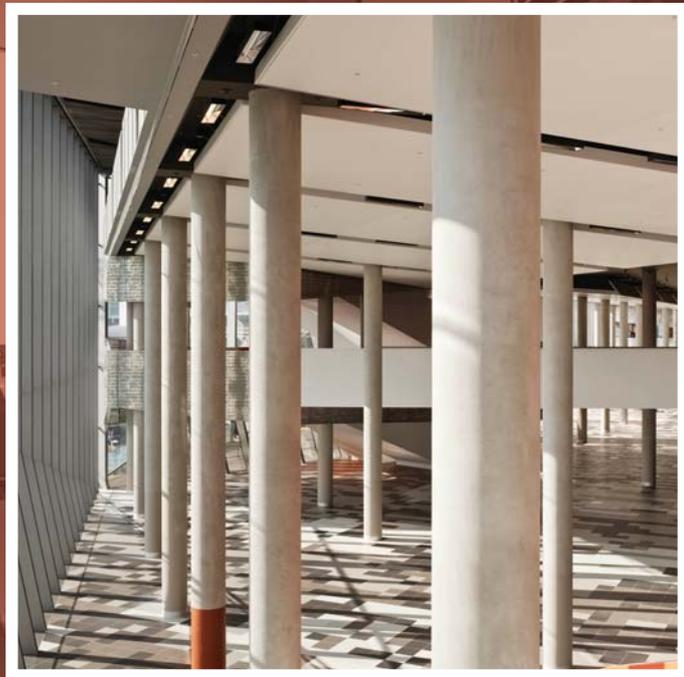




Spun Concrete Structural Columns



BUILDING COLUMNS

Rocla® spun columns speed up construction



Rocla® Building Columns are delivered to site to fit the construction schedule.

Connections at base, intermediate levels and top are accurately built-in, allowing erection of unpropped structural columns in minutes and the next stage of construction to proceed without delay.

Rocla® multi-level columns, installed in a single lift, reduce activities that need to be organised at each floor level, including materials, trades and cranes, and are less likely to be affected by inclement weather.

Rocla® spun concrete columns provide a smooth off steel form surface finish, void free and requiring minimal preparation for finishing.

There is no formwork, reinforcement or concrete waste to be collected and removed from site.

Spun concrete more than spin

Rocla® Building Columns are manufactured by spinning to a maximum speed of 700 rpm and then steam cured, delivering a dense, highly compacted concrete product with unique benefits, including:

- High strength (65 MPa minimum) and high durability.
- Efficient production of long structural columns (to 24m) or multiple short lengths.
- A smooth off steel form finish without voids or spiral marks, typically Class 1-2 finish with mould joint seams.
- A wide range of connections, fittings and services that can be built-in under quality controlled manufacture.
- A hollow core, allowing running of services and access, and providing a product up to 25% lighter.



**Multi-storey structural
columns installed in minutes**

Proven performance for all building applications



- Offices and retail
- Carparks
- Residential
- Schools and hospitals
- Public buildings
- Industrial
- Single level or multi-storey

Rocla® spun structural columns speed up construction with their ease of installation and connection to other building elements.

- Compatible with various beam and floor systems
- Raking feature columns
- 260-810mm standard diameter size range.
- Larger sizes available
- Tapered
- FRL to 4 hour
- High strength and durability
- Smooth finish

**Easy to install, easy to connect
to other building elements**

Typical Connection Options



Base Connection

Multi-storey Rocla® Building Columns can be installed unpropped using four M-24 hold down bolts and proprietary connectors built into the column base. Typically the unpropped height is up to 4 storeys or 12m on four HD bolts.

Where a higher moment capacity connection is required, additional connectors can be used or higher strength connectors are available. These higher strength connectors allow raking columns or single-length vertical columns up to 24m to be installed without propping

A further option is to cast starter bars into the foundation within the column core area and concrete fill. Rocla® Building Columns can also be used with traditional dowel and grout tube systems, but require propping.



Beam and Floor Systems

Rocla® Building Columns are compatible with most beam and floor systems. Block-outs can be located in columns at each floor level to suit flat slab and beam systems.

For steel beam composite concrete systems, steel plates are cast into columns and fin plates site welded. The beams are bolted to the fin plates and the floor system installed over.

Pre-cast beams are fixed to the top of columns via ferrules or starter bars cast into the column walls.

Other options are available, such as casting block-outs into columns so that beams can be in-situ formed.



Top Connection

Steel roof or beam structures can be bolted to ferrules or studs cast into the top of columns. Where an in-situ concrete floor or roof is required, starter bars can be cast into the top of columns. Starter bars are left either

straight for site bending or factory bent inwards for transport.

End plates or fabricated sections with starter bars can be spun integrally with the columns, providing a base for connection to steel structures.

If required, additional ferrules may be cast into the column top and threaded rod installed to connect the next level of columns over once the floor slab is poured.

Fast and simple multi-storey column installation

On-time delivery

Rocla® Building Columns are delivered to site to fit the construction program, ready to install with base, intermediate and top connections built-in.

Lifting

Lifting anchors are cast into each column at the top or into side walls, depending on the design, to allow quick connection to and release from the crane.

Freestanding Base Connection

In most cases 4 hold down bolts allow multi-storey Rocla® Building Columns to be installed in minutes, without propping, from proprietary base connectors. The hold down bolts provide vertical and alignment adjustment.

Grouting

The gap under the column bases must be grouted immediately after installation with a non shrink cementitious grout placed to manufacturer's instructions. The same grout is used for bolt cavities.

Refer to Rocla for specific installation details for individual projects





Spun Concrete Structural Columns

For further information on Rocla® Building Columns and other spun concrete products such as power distribution and transmission poles, lighting poles, CCTV poles, communications poles, or bridge and marina piles, contact your nearest Rocla branch.

Rocla Building Columns

National 1800 257 311

E-mail your inquiry

solutions@rocla.com.au

Or visit our website

www.rocla.com.au



Rocla Pty Limited

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