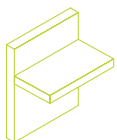
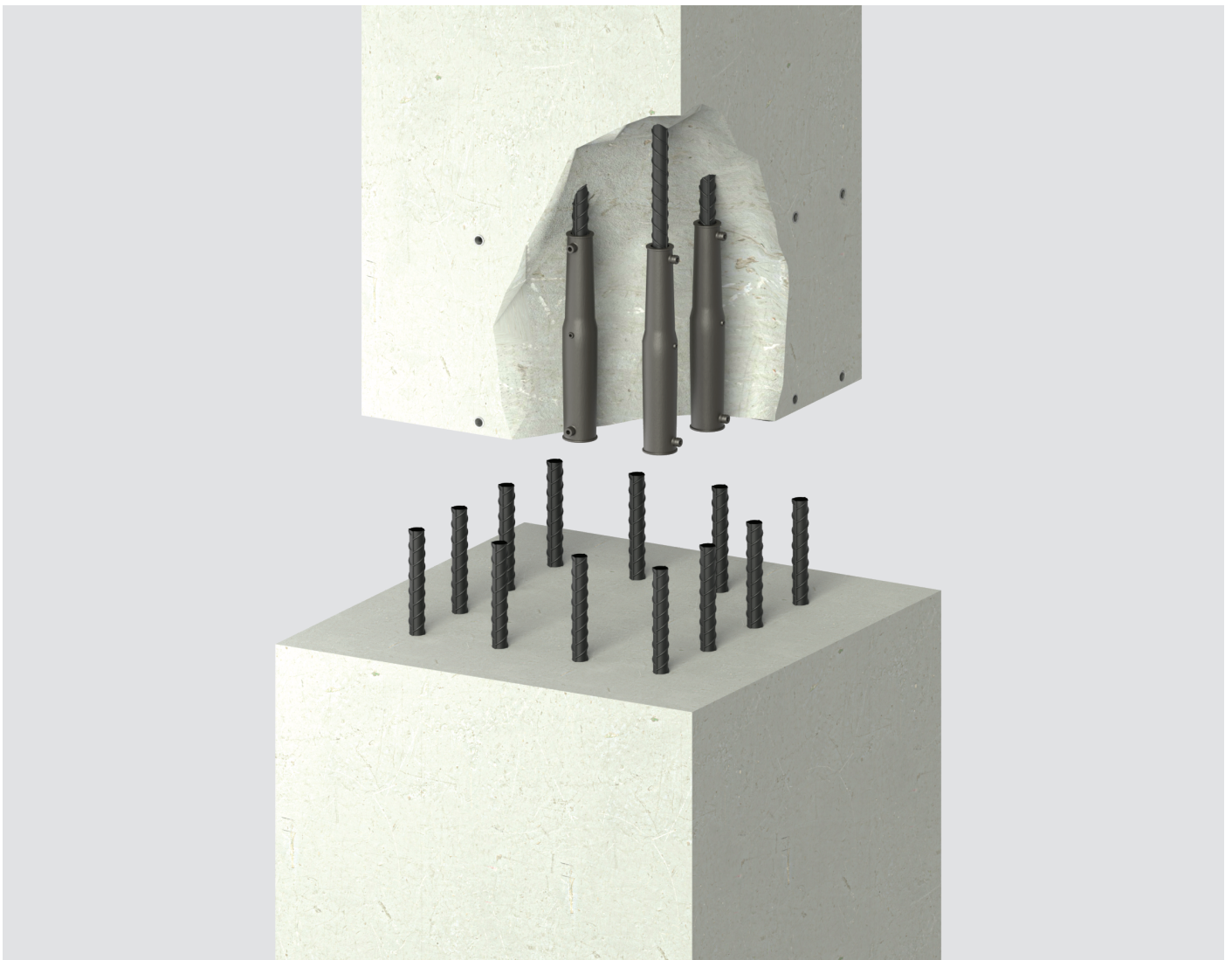


**Ancon**<sup>®</sup>

## **Ancon MGC-F Grout Coupler**

For joining precast concrete elements



**Structural Connections**  
**Insulated Balcony Connectors**

**Australia Edition**



We imagine, model and make engineered products and innovative construction solutions that help turn architectural visions into reality and enable our construction partners to build better, safer, stronger and faster.

**Leviat is a world leader in connecting, fixing, lifting and anchoring technology.**

From the build of new schools, hospitals, homes and infrastructure, to the repair and maintenance of heritage structures, our engineering skills are making a difference around the world.

We provide technical design assistance at every stage of a project, from initial planning to installation and beyond.

Our technical support services range from simple product selection through to the development of a fully customised project-specific design solution.

Every promise we make locally, has the commitment and dedication of our global team behind it. We employ almost 3,000 people at 60 locations across North America, Europe and Asia-Pacific, providing an agile and responsive service worldwide.

**Leviat, a CRH company, is part of the world's leading building materials business.**

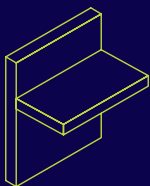




**>3,000**  
People

**60+**  
Locations

**~23**  
Countries

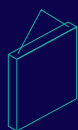


### Structural Connections

Systems to form robust, efficient connections, and continuity of concrete reinforcement as necessary, between walls, slabs, columns, beams and balconies, providing structural integrity as well as enhanced thermal and acoustic performance.

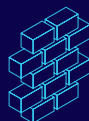
- Insulated balcony connectors
- Reinforcing bar couplers
- Concrete Connections
- Reinforcement continuity systems
- Punching shear reinforcement
- Shear load connectors
- Floor Joint Systems
- Precast / Reinforced Columns
- Infrastructure Products
- Precast Connections
- Acoustic dowels and bearings
- Prestress

### Other areas of expertise:



#### Lifting & Bracing

Systems for the safe and efficient transportation, lifting and temporary bracing of cast concrete elements and tilt-up panels before permanent structural connections are made.



#### Façade Support & Restraint

Systems for the safe and thermally-efficient fixing of the external building envelope, including brick and natural stone, insulated sandwich panels, curtain walling and suspended concrete façades, and also the repair and strengthening of existing masonry installations.



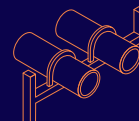
#### Anchoring & Fixing

Systems for fixing secondary fixtures to concrete, including anchor channels, bolts and inserts; also tension rod systems for roofs and canopies.



#### Formwork & Site Accessories

Non-structural accessories that complement our engineered solutions and help keep your construction environment operating safely and efficiently, including moulds for casting standard and special concrete elements and construction essentials such as reinforcing bar spacers.



#### Industrial Technology

Mounting channels, pipe clamps and other versatile framing systems that provide safe fixing in a wide range of industrial applications.

### Leviat product ranges:

Ancon | Aschwanden | Connolly | Halfen | Helifix | Isedio | Meadow Burke | Modersohn | Moment | Plaka | Scaldex | Thermomass



# Ancon MGC-F Grout Coupler

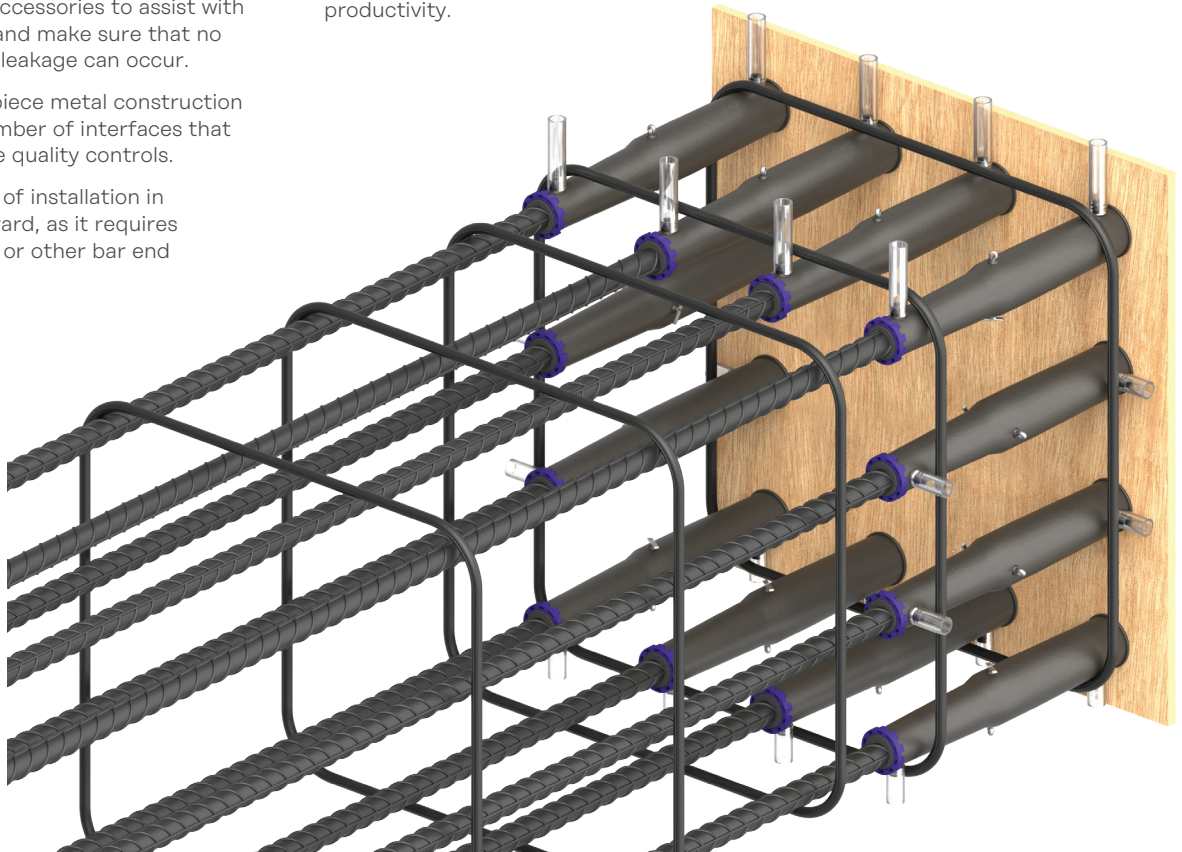
Specifically made for precast concrete connections

The Ancon MGC-F Grout Coupler is used for joining together precast concrete elements. It consists of a sturdy one piece metal sleeve suitable for all construction applications, which is then filled with a high strength, flow-able, shrinkage equalized grout to provide a bond between the starter bar and the grout coupler sleeve. Different sizes available to match the exact design conditions of the project. Each of which has a series of accessories to assist with the installation and make sure that no excessive grout leakage can occur.

- Robust one piece metal construction limits the number of interfaces that would require quality controls.
- Provide ease of installation in the precast yard, as it requires no threading or other bar end preparation.

The on-site grouting of the columns can be achieved in two different ways:

- Single component grouting to provide flexibility on the grout that is then used for filling the mortar bed underneath the column.
- Mass grouting of all the grout couplers and bed joint in one process and with the same grout, to reduce overall installation times and increase productivity.



## Advantages for the Procurement

- Leviat's broad range of specialist precast products mean that all the necessary precast accessories can be acquired from a single source, significantly simplifying the logistics, paperwork and liability.

## Advantages for the Precast Element Producer

- Full set of accessories to enable fast and secure connection of the grout coupler to the formwork.
- Fast and simple assembly with no bar end preparation required.

## Advantages for the Design Engineer

- 'Bar Break' system up to 715 MPa Equivalent stress in the reinforcing bar.
- Tested to meet the Category B requirements for strength, ductility, and slip under static forces, in accordance with ISO 15835, for grade B500B reinforcing bar.
- Tested for 'Static & Cyclic tensile' and 'Low Cycle Fatigue', in accordance with IS16172, for grade FE550D reinforcing bar.

## Advantages for the Assembly Crew on site

- Leviat's long standing experience in selling grouted couplers makes us the ideal partner to provide bespoke advice on the most efficient grouting process for you to use.
- Optimised grouting will not only reduce the manpower required on site but will also reduce the construction programme.

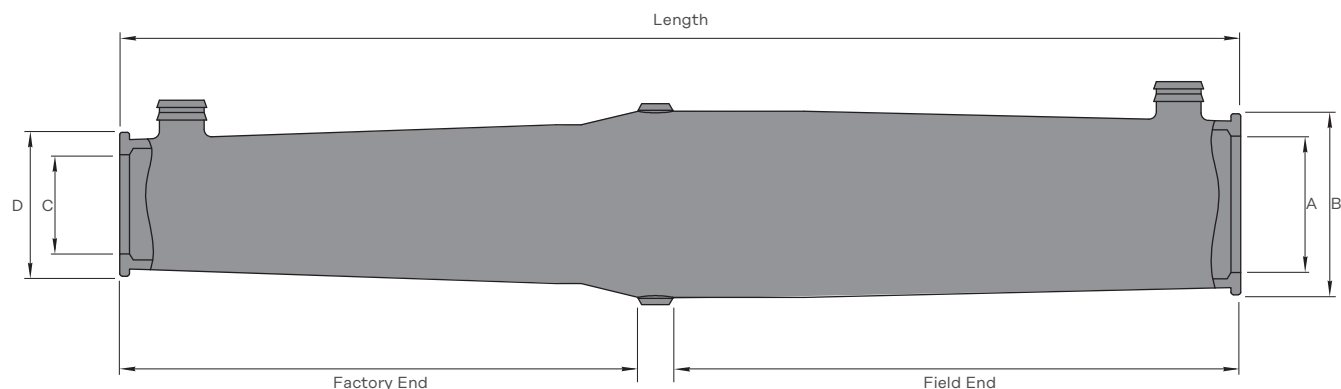
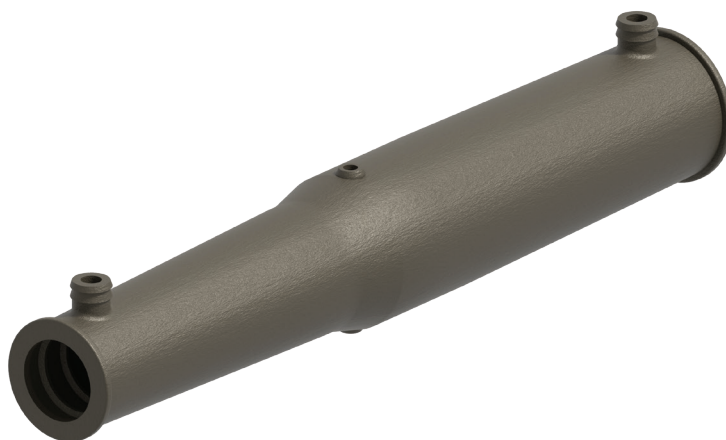


The Ancon MGC-F Grout Coupler is ideal for precast connections where additional tolerance is needed.

To ensure the correct engagement of the bars inside the coupler, the Ancon MGC-F Grout Coupler comes with a centre pin that acts as a bar stop.

#### Grout Requirement

- Fosroc Conbextra HS
- ULTRATECH NS1 Power Grout



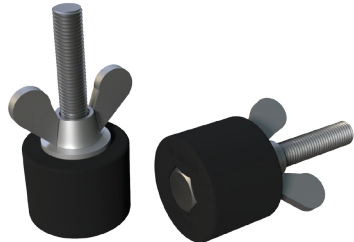
Product Code	Rebar	A (mm)	B (mm)	C (mm)	D (mm)	Length (mm)	Minimum Bar Insertion (mm)	Maximum Bar Insertion (mm)	
								Factory End	Field End
MGC-F12	12	28	46	18	36	187	78	83	97
MGC-F16	16	32	50	22	40	239	104	108	123
MGC-F20	20	37	56	26	45	291	130	134	150
MGC-F24*	24	48	67	33	52	361	162.5	167	187
MGC-F32	28/32	55	75	40	60	452	208	212	323
MGC-F40	36/40	66	87	51	72	556	260	264	284

**Notes:** These dimensions are indicative and may vary from time to time. Any variations will not affect the compliance to test requirements. MGC-F24 will be physically marked as MGC-F25

# Ancon MGC-F Grout Coupler

Specifically made for precast concrete connections

## Accessories



### Position Plug (MGC PP)

Position plugs are used to secure Ancon MGC-F Grout Coupler onto the formwork at the precast factory. This item is reusable and should be visually inspected before each use. This item is not supplied together with the grout coupler.



### End Seal (MGC ES)

The end seal is used when the contractor opts for individual grouting method. The purpose of the end seal is to prevent grout egress on site. It can only be used once. This item is not supplied together with the grout coupler.



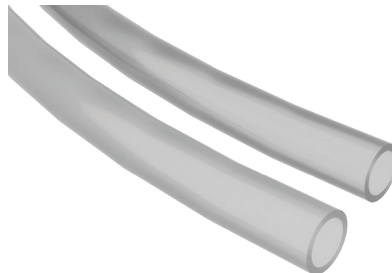
### End Cap (MGC EC)

The end cap is specifically used for Ancon MGC-F Grout Coupler. This one-time use accessory will be supplied along with the Ancon MGC-F Grout Coupler. The end cap is designed to prevent concrete from entering the grout coupler during the casting phase at the precast factory.



### Dust Cap (MGC DC)

Dust cap is used in precast factory after demoulding to cover the end of the grout coupler and prevent dirt from entering before site installation. This single use item will be supplied along with Ancon MGC-F Grout Coupler.



### Clear Hose (MGC CH)

The clear hose with an internal diameter of 19mm is used to create a grouting channel from the outside of the precast element to the grout coupler. This will be done in the precast factory. The clear hose can only be used once. This item is not supplied together with the grout coupler.

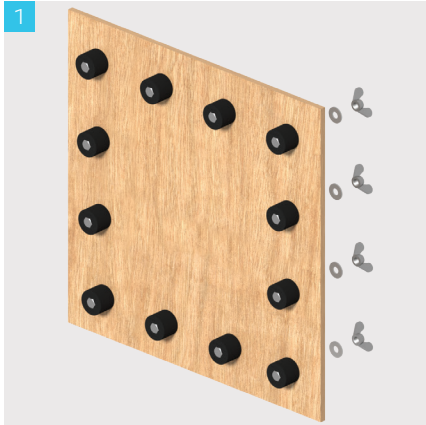


### Hose Cap (MGC HC)

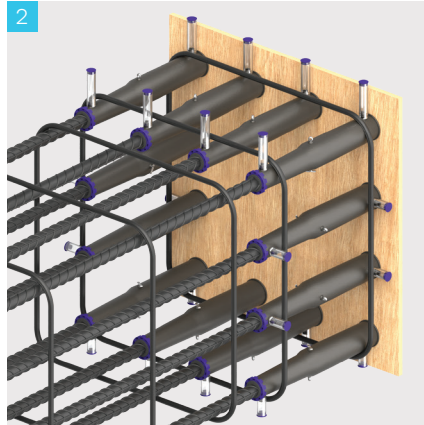
Hose cap is a stopper for the clear hose that is used to prevent grout from overflowing. This single-use item will be used on site after grouting. This item is not supplied together with the grout coupler.

## Installation Instruction

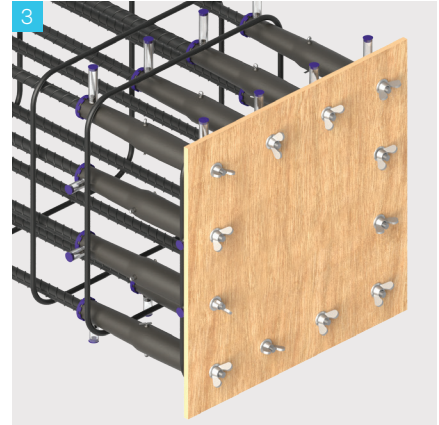
At the Precast Yard



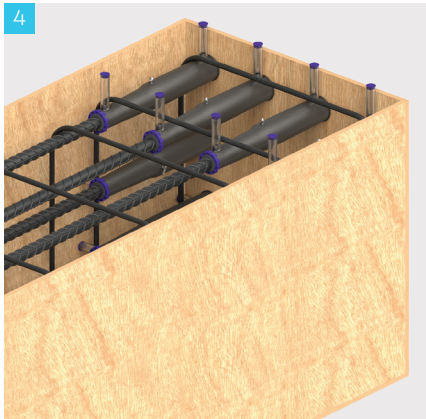
1 Install the position plugs onto the formwork. Secure using washer and wing nut, do not over tighten.



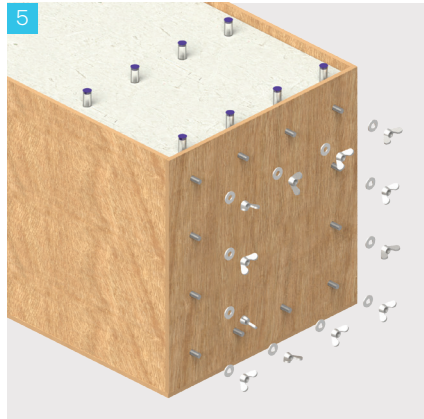
2 Install the clear hoses on the Ancon MGC-F Grout Couplers. Install the hose caps on all the clear hoses. Then, slide the grout couplers onto the position plug.



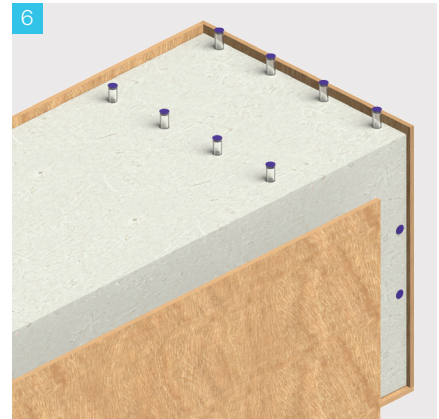
3 Tighten the wing nuts.



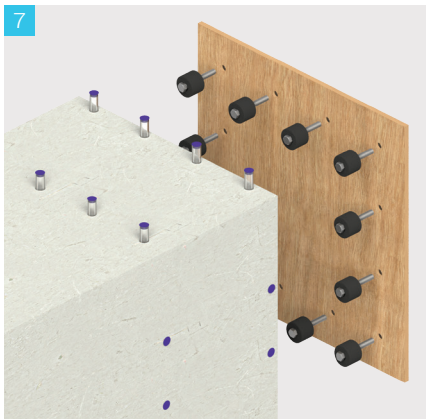
4 Attach the rest of the formwork. (Additional grouting hoses are necessary for mass grouting method).



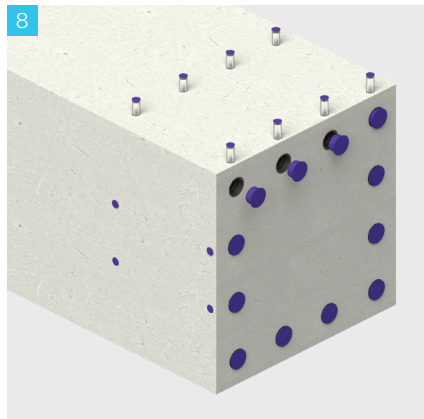
5 After curing, remove the wing nuts and washers.



6 Remove the side formwork.



7 Remove the position plugs. This part is reusable.



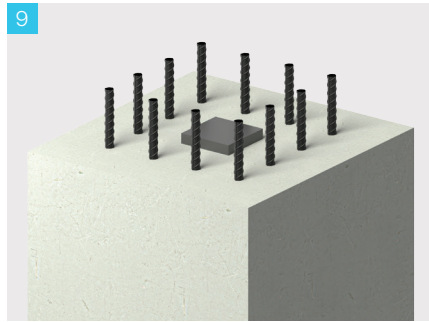
8 Install the dust caps.



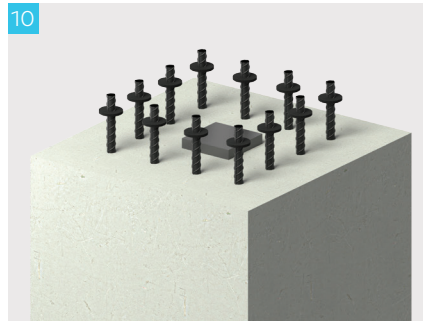
# Ancon MGC-F Grout Coupler

Specifically made for precast concrete connections

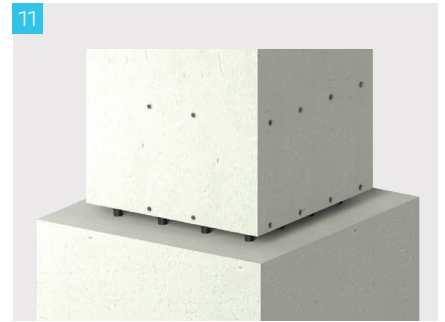
## Option A: Individual grouting on the construction site



Cast starter bars into the foundation using a suitable template to ensure the location and verticality of the bars.



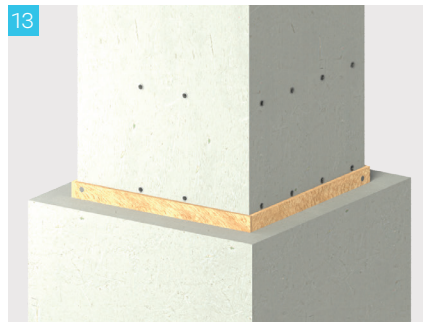
For individual coupler grouting method, insert the end seal onto the starter bar.



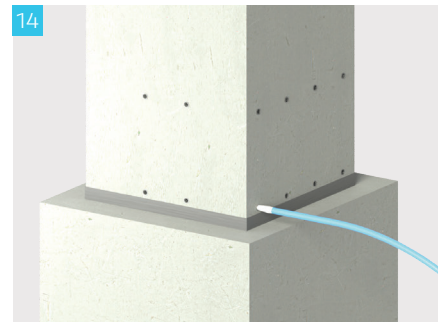
Remove the dust caps. Lower the column onto the starter bars, leaving a small gap to the foundation. Apply any temporary braces as necessary.



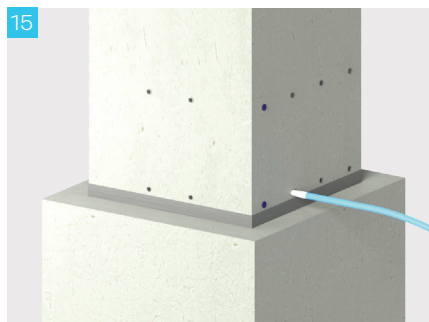
Attach the base formwork and start pumping the grout into the base.



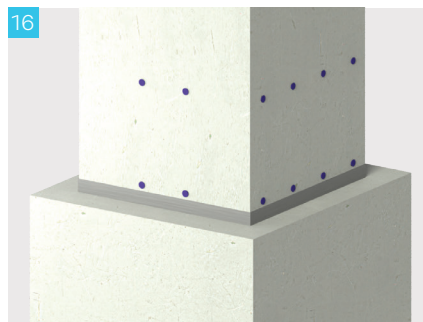
Once the grout overflows from the formwork hole, close both holes using a suitable method.



After the base grout is cured, removed the formwork. Start pumping the grout into the lower grouting hole of the coupler.

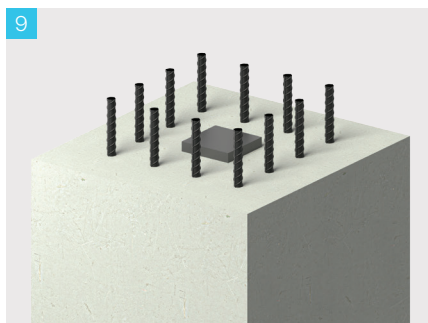


Then, after the grout overflows from the upper grouting hole of the coupler, close the upper and lower hole using a hose cap. Repeat steps 14 and 15 for the remaining couplers.

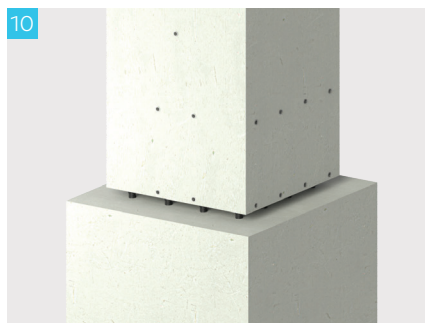


The braces may be removed 3 days after the completion of grouting.

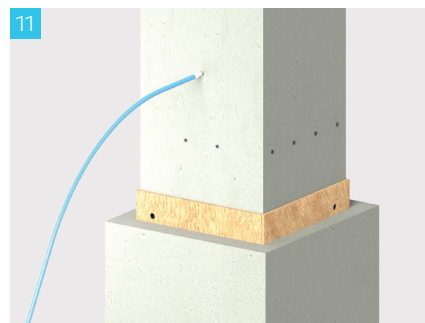
## Option B: Mass grouting on the construction site



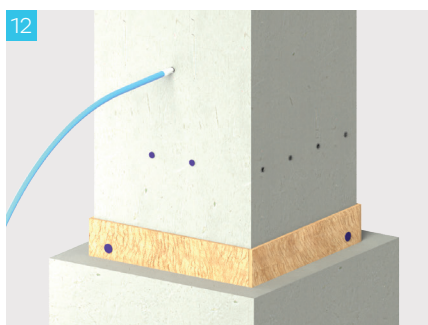
9  
Cast the starter bars into the foundation using a suitable template to ensure the location and verticality of the bars.



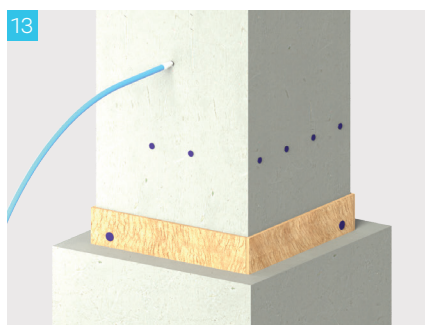
10  
Remove the dust caps. Lower the column onto the starter bars, leaving a small gap to the foundation. Apply any temporary braces as necessary.



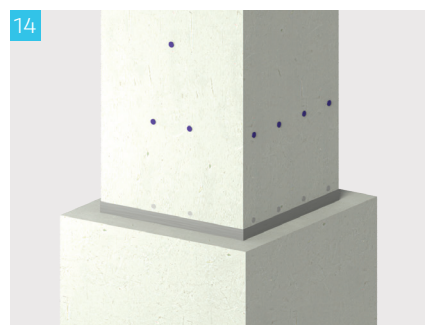
11  
Attach the base formwork to cover the bottom grouting holes and start pumping the grout into the grouting hose.



12  
As the grout overflows from the upper grouting holes and the formwork holes in the corner of the couplers, close the holes using hose caps.



13  
Continue pumping until the grout overflows from the opposite side grouting hose. Then, close the grouting hose holes using a hose caps.



14  
The braces may be removed 3 days after the completion of grouting.

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Tel: 1300 304 320  
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