



# DESIGNED FOR SECURE ANCHORING IN HOLLOW BLOCK BASE MATERIALS.



The **Cavity Set Drop-In Anchor** features a slotted, tapered expansion sleeve and a serrated expansion cone in its design. When fastening in hollow masonry materials with a maximum outer wall thickness of ~35mm, the drilling process may lead to spalling on the back side of the blockwork, reducing the blockwork wall thickness for anchoring to 25mm or less. This poses a challenge for traditional anchors that struggle to function effectively in base materials of such reduced thickness. The Cavity Set Drop-In Anchor addresses this issue by tailoring the expansion sleeve length to be compatible with the outer wall thickness of most hollow block base materials. The expansion sleeve is designed to minimise compression forces exerted on the base material during expansion. As the anchor is tightened, the specially tapered cone is drawn into the expansion sleeve, creating a locking action against the drill hole walls.

## CAVITY SET DROP-IN ANCHOR



Part No.	Description	Drill Diameter mm	Overall Length mm	Anchor Body Length mm	Internal Thread (Metric)	Box qty	Carton qty
<b>DXTMHSM10</b>	Cavity Set Drop-in anchor M10	16	30	24	M10	50	300

## SETTING TOOL:



Part No.	Description	Box qty
<b>DXTMHSM10-ST</b>	To Suit M10 Cavity Set Drop-in anchor	1



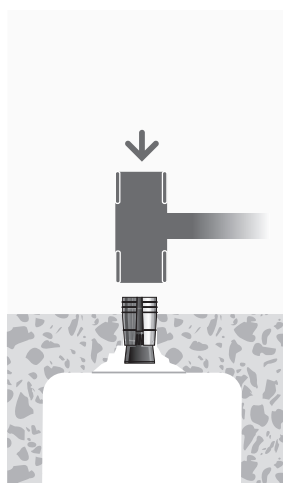
## MATERIAL SPECIFICATIONS

Anchor Component	Material
Anchor Body	Zamac Alloy
Expander Cone	AISI 12L
Plating (Cone Only)	Electroplated zinc with clear passivation (Coating Thickness 5 microns min.)

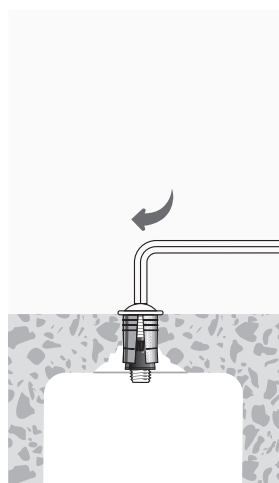
## INSTALLATION IN HOLLOW MASONRY BLOCKWORK:



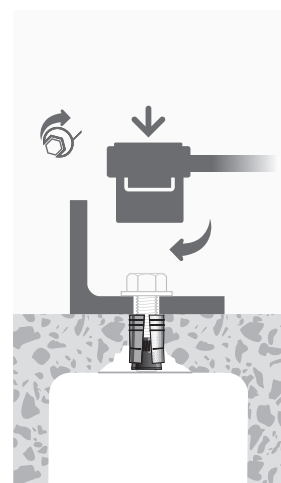
Drill a hole through the concrete into the core using a masonry bit of the correct diameter and tolerance.



Insert cone end and tap until anchor is flush to the concrete surface.



Attach setting tool or bolt and washer onto anchor and expand it by turning the hollow setting tool or bolt 3 to 4 turns or until snug.



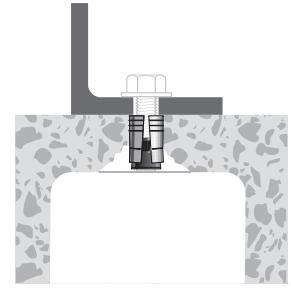
Remove setting tool or bolt and attach fixture using appropriate bolt.

## SETTING TOOL:





## PERFORMANCE DATA



### Allowable Working Loads - Hollow Masonry Blockwork

Anchor Size	Hole Size (mm)	Drill Depth (Min.)* (mm)	Embed. Depth (mm)	Tension (kN)	Shear (kN)
M10	16	30	30	1.2	1.2

\*Based on installation in blockwork face shell with min. thickness 30mm. Characteristic unconfined compressive strength  $\geq 10$  MPa.

### Limit State Design Loads - Hollow Masonry Blockwork

Anchor Size	Hole Size (mm)	Drill Depth (Min.)* (mm)	Embed. Depth (mm)	Tension (kN)	Shear (kN)
M10	16	30	30	2.1	2.1

\*Based on installation in blockwork face shell with min. thickness 30mm. Characteristic unconfined compressive strength  $\geq 10$  MPa.

### Edge Distance and Spacing Parameters for Hollow Masonry Blockwork

Rod Size	M10
Edge Distance (min.)	135mm
Spacing (min.)	200mm [one anchor per masonry block]

## DESIGN GUIDELINES

The performance of anchoring systems into masonry may vary greatly depending on the masonry base material, job site testing and is recommended to verify actual performance. The above data is intended for guidance only and based on installation in accordance with ICCONS® installation instructions.

- When fixing into hollow masonry blockwork, position anchors a minimum edge distance from wall end or wall opening as per table guidelines above.
- Minimum recommended spacing between anchors should be as per table guidelines above.
- Embedment is based on installation into face shell of the blockwork only.
- Anchors should be positioned 2 block courses down from the top of an unrestrained wall.
- Avoid fixing into mortar joints unless site testing has been conducted to verify performance.

## COMBINED TENSION & SHEAR LOADING

For Combined Tension and Shear load applications the following equations shall be satisfied

$$N_{\text{applied}} / N_{\text{rec}} \leq 1$$

$$V_{\text{applied}} / V_{\text{rec}} \leq 1$$

$$(N_{\text{applied}} / N_{\text{rec}}) + (V_{\text{applied}} / V_{\text{rec}}) \leq 1.2$$

Where:

$N_{\text{applied}}$  = Applied Tension Load

$V_{\text{applied}}$  = Applied Shear Load

$N_{\text{rec}}$  = Recommended Tension Load

$V_{\text{rec}}$  = Recommended Shear Load

# CAVITY SET DROP-IN ANCHOR



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Serious Connections®

TDS | 1048.1



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