



# BRACING INSERTS

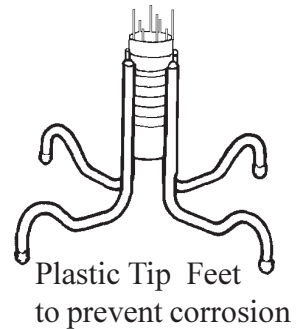
## WALL BRACE INSERT

COMPLIES WITH AS 3850

Specifically designed for use with SUPER BRACES.  
19MM DIAMETER COIL BOLT.

125mm  
150mm  
175mm  
200mm

High strength, heat treated coil. PVC caps on chair.  
Can also be used as a fixing ferrule for strong backs  
and structural fixings/members with greater ease  
and flexibility. Rolled thread in insert and matching  
coil bolt gives quick attachment.



*For Working Load Limits on Inserts please refer to Annexure A at back of catalogue.*

PANEL THICKNESS					
150mm		175mm		200mm	
Initial Failure	Safe Working Loads	Initial Failure	Safe Working Loads	Initial Failure	Safe Working Loads
16433 (lbs)	29.24 (kN)	24467 (lbs)	43.53 (kN)	18500 (lbs)	32.92 (kN)

- The loads shown above are tensile loads at 28 MPa concrete strength.

## GROUND BRACE INSERT

COMPLIES WITH AS 3850

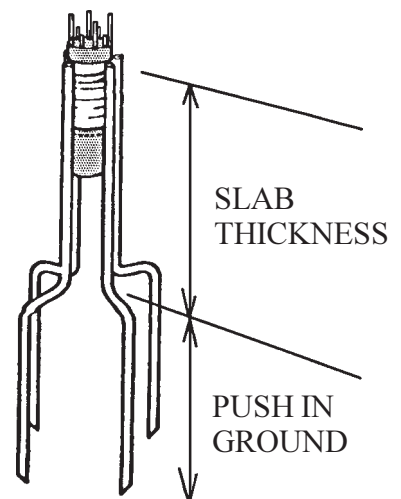
Designed for maximum stability during concrete pour  
and maximum resistance to pull out during bracing.  
The insert is positioned by pushing down into sub  
strata as far as crank in wire.

Ground brace inserts are the safest method of fixing  
braces to the floor slab. If one is accidentally  
omitted, use a SUPERBOLT. (See SUPERBOLT  
page in this catalogue for further information).  
Where waterproof membrane is used under the slab,  
it is recommended that a wall brace insert be used.

Working Load Limit 11.15 kN. Safety Factor (2.5:1)

- The loads are based on 102mm slab, 13.8 MPa concrete strength.
- The loads increase with the square root of the concrete strength and by the sheared concrete cone surface as the slab thickness.

125mm  
150mm  
175mm



**ADVANCED BUILDING  
SYSTEMS PTY. LTD.**

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# BRACING INSERTS

## INVERTED WALL BRACE INSERT

**ONE SIZE FITS ALL  
PANEL THICKNESSES.**

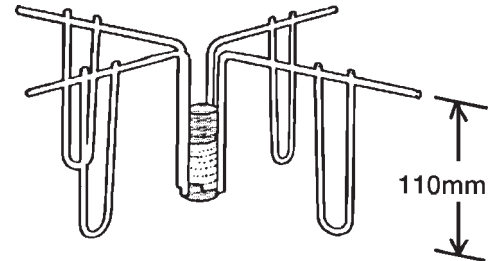
COMPLIES WITH AS 3850

Designed for use when panels are to be braced externally, or when panels to be braced internally are cast external face up.

Also used when fixing awnings to the outside (under face) of a panel.

Working Load Limit (2.5:1) Tension 20.82 kN, Shear 43.23 kN

- Loads are based on 21 MPa concrete strength.
- The load increases with square root of the concrete strength.



## COIL BOLTS

Coil bolts are made from high strength steel, maximum tensile strength = 689 MPa for all sizes except 3/4" minimum 500 MPa. These have fast acting, self-cleaning coil threads which fit into the helix coils of coil ties and coil inserts.

Coil Bolts require correspondingly small holes in forms, are fast to apply, do not bend in removal, and may be backed out for reuse without removing waler.

Coil bolts should penetrate two full thread lengths beyond the end of the coil in order to develop full strength.

## TIE-BACK APPLICATION

Continuous Threaded Coil Rod develops the full strength of standard rod when embedded length is 30 times the rod diameter in 13.8 MPa.



## COIL NUT

Heavy hex-shaped Coil Nuts are available for all sizes of coil rod. One nut will develop the full strength of standard coil rod. TWO NUTS ARE REQUIRED TO DEVELOP THE FULL STRENGTH OF HIGH STRENGTH ROD.

With the addition of a Plate Washer and Hex Nut or a Coil Nut Washer, it becomes a Coil bolt of flexible length that easily adjusts to different sizes of form lumber.

COIL BOLT Nominal Dia.	Working Loads Safe factor = 2.5 Tension	Working Loads Safe factor = 5 Tension	Min. Coil Penetration	Threads Per cm
19mm (3/4")	40 kN	20 kN	38mm	1.75
25mm (1")	64.1 kN	32 kN	51mm	1.38
32mm (1-1/4")	96.8 kN	48.4 kN	51mm	1.38

COIL ROD	STANDARD ROD	HIGH STRENGTH ROD		
Nominal Dia.	Working Loads Safety Factor = 2.5 Tension	Working Loads Safety Factor = 5 Tension	Working Loads Safety Factor = 2.5 Tension	Working Loads Safety Factor = 5 Tension
12mm (1/2")	21.3 kN	10.6 kN	32.2 kN	16.1 kN
19mm (3/4")	32.2 kN	16.1 kN	64.0 kN	32.0 kN
25mm (1")	64.0 kN	32.0 kN	133.4 kN	66.7 kN

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