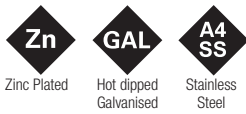




### Material Specification



## Description

Cast-In Anchor to suit various bolt type  
The TCM is a medium to heavy duty, cast-in ferrule. All steel threaded socket for casting into pre-cast concrete and institute concrete elements, giving a prefixed fastening point.

## Product Advantages

- Stress free anchoring close to edge and reduced anchor spacing
- Cast-in placement eliminates the need for drilling, this is particularly important where reinforcing is present in the fixing zone
- Ideal for shallow embedment as the anchor can be tied into the reinforcing to distribute the load over a wider area to become an intergral part of the reinforcing structure
- High tensile load carrying capacities as well as applications in tension zones
- Also available in A4 316 material for industrial environment

## Typical Applications

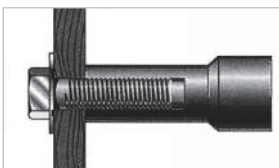
- Structural connections
- Curtain wall and facade fixings (concrete, GRC etc)
- Anchoring bracing and precast panels

## Substrates

- Concrete
- GRC

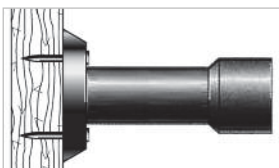
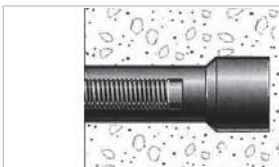


## Installation



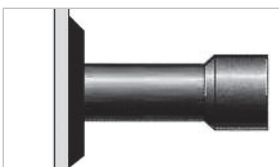
Concrete inserts can be set in wet concrete, attached into reinforcing through the cross hole (for reinforced case) or fastened to the inside of formwork with a bolt through the formwork.

1. Drill hole in formwork. Pass the bolt through the hole into the concrete insert and tighten. Tie the insert to the reinforcing system.
2. Pour the concrete. Remove the bolt and formwork leaving the concrete insert firmly embedded.



Options to use with nail plate and glue-on plate:

1. Nail plate
2. Glue-on plate (for steel formwork)



## TCM™ Cast-in Anchors (Stainless Steel) - Recommended Working Loads in 40N/mm<sup>2</sup> non-cracked Concrete

Thread Ø	Embedment Depth (mm)	Torque (Nm)	Unreinforced ferrule		Reinforced ferrule	
			Shear Load (kN)	Tensile Load (kN)	Shear Load (kN)	Tensile Load (kN)
M8	28	10	5.2	4.9	-	-
M10	29	17	8.3	5.3	8.3	6.3
M12	37	30	12.2	7.8	12.2	9.3
M16	52	75	23.4	14.4	23.4	17.2
M20	57	144	31.7	16.1	31.7	19.3
M24	101	250	42.7	35.5	42.7	43.1

\* Safety factor for all loads = 3

\* This table does not consider edge distance and anchor spacing effects. Please refer to Ramset Design Guide for more information.

\* Pull out test for single anchor = working load x 1.5

\* Reinforcing TCM is TCM connected to reinforcing bar of specified length.

## TCM™ Cast-in Anchors (Zn Plated / Hot Dipped Galv) - Recommended Working Loads in 40N/mm<sup>2</sup> non-cracked Concrete

Thread Ø	Embedment Depth (mm)	Torque (Nm)	Unreinforced ferrule		Reinforced ferrule	
			Shear Load (kN)	Tensile Load (kN)	Shear Load (kN)	Tensile Load (kN)
M8	28	10	5.2	4.9	-	-
M10	29	17	8.3	5.3	8.3	6.3
M12	37	30	12.2	7.8	12.2	9.3
M16	52	75	23.4	14.4	23.4	17.2
M20	57	144	29.3	16.1	29.3	19.3
M24	101	250	36.7	35.5	36.7	43.1

\* Safety factor for all loads = 3

\* This table does not consider edge distance and anchor spacing effects. Please refer to Ramset Design Guide for more information.

\* Pull out test for single anchor = working load x 1.5

\* Reinforcing TCM is TCM connected to reinforcing bar of specified length.

## TCM™ Cast-in Anchors

Part No.			Thread Ø (mm)	Overall Anchor Length (mm)	Thread Length (mm)	Cross Hole to suit (Reinforced ferrule) (mm)	Order Qty
Zn Plated	Galv	SS					
TCM8R	TCM8GH	TCM8RSS	M8	35	16	R8x300	50
TCM10R	TCM10GH	TCM10RSS	M10	44	20	R8x300	50
TCM12R	TCM12GH	TCM12RSS	M12	54	25	R8x300	50
TCM16R	TCM16GH	TCM16RSS	M16	75	32	Y12x300	50
TCM20R	TCM20GH	TCM20RSS	M20	80	38	Y12x300	25
TCM24R	TCM24GH	TCM24RSS	M24	125	50	Y12x300	25

## Metric Plastic Nail Plates

Part No.	Description	Qty (per box)
NP12	Nail Plate to suit M12 Cast-in Anchor	100
NP16	Nail Plate to suit M16 Cast-in Anchor	100
NP20	Nail Plate to suit M20 Cast-in Anchor	100
NP24	Nail Plate to suit M24 Cast-in Anchor	100



## Glue-on Metric Plate

Part No.	Description	Qty (per box)
NP12GLUE	Glue-on Plate 12mm Red	100
NP16GLUE	Glue-on Plate 16mm Green	100
NP20GLUE	Glue-on Plate 20mm Blue	100
NP24GLUE	Glue-on Plate 24mm Yellow	100
GPTAB	Double-sided Adhesive Tab	100

Note: All glue-on plates do not come with Adhesive Tab in the box.

