

TCM Cast In Anchors

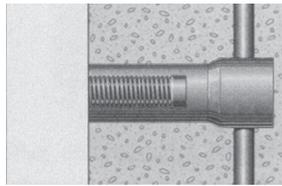
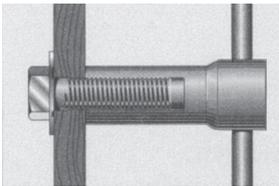
Cast-In Anchor to suit various bolt type

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.



Substrates

- Concrete • GRC



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 reinforcement to distribute the load over a wider area to become an integral part of the reinforcing structure
- High tensile load carrying capacities as well as applications in tension zones

Applications

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

Installation

Concrete inserts can be set in wet concrete, attached into reinforcing through the cross hole 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.

TCM Cast-in Anchors - Recommended Working Loads in 40N/mm² non-cracked Concrete

Thread Ø	Embedment Depth (mm)	Torque (Nm)	(Zn Plated / Hot Dip Galv)				(Stainless Steel A4)			
			Unreinforced ferrule		Reinforced ferrule		Unreinforced ferrule		Reinforced ferrule	
			Shear Load (kN)*	Tensile Load (kN)*	Shear Load (kN)*	Tensile Load (kN)*	Shear Load (kN)*	Tensile Load (kN)*	Shear Load (kN)*	Tensile Load (kN)*
M8	28	10	5.2	4.9	-	-	5.2	4.9	-	-
M10	29	17	8.3	5.3	8.3	6.3	8.3	5.3	8.3	6.3
M12	37	30	12.2	7.8	12.2	9.3	12.2	7.8	12.2	9.3
M16	52	75	23.4	14.4	23.4	17.2	23.4	14.4	23.4	17.2
M20	57	144	29.3	16.1	29.3	19.3	31.7	16.1	31.7	19.3
M24	101	250	36.7	35.5	36.7	43.1	42.7	35.5	42.7	43.1

* Safety factor for all loads = 3

* Shear load is calculated by using Grade 8.8 steel or A4-80 stainless steel bolt

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

* Reinforced ferrule = TCM is connected to reinforcing bar of specified length.

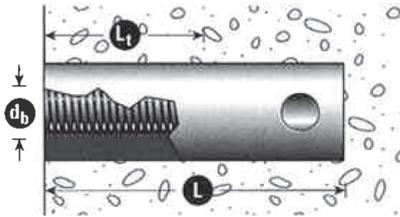
TCM Cast-in Anchors

Part No.			Thread Ø (mm)	Overall Anchor Length (mm)	Thread Length (mm)	Cross Hole to suit (Reinforced ferrule) (mm)	Fixture Hole Ø (mm)	Order Qty
Zn Plated	HDG	SS316(A4)						
TCM08R	TCM08GH	TCM08RSS	M8	35	16	R8x300	9	50
TCM10R	TCM10GH	TCM10RSS	M10	44	20	R8x300	12	50
TCM12R	TCM12GH	TCM12RSS	M12	54	25	R8x300	14	50
TCM16R	TCM16GH	TCM16RSS	M16	75	32	Y12x300	18	50
TCM20R	TCM20GH	TCM20RSS	M20	80	38	Y12x300	22	25
TCM24R	TCM24GH	TCM24RSS	M24	125	50	Y12x300	27	25

CIM Cast In Anchors

Cast-In Anchor to suit various bolt type

The CIM is a medium to heavy duty, cast-in ferrule.



Substrates

- Concrete • GRC

Product Advantages

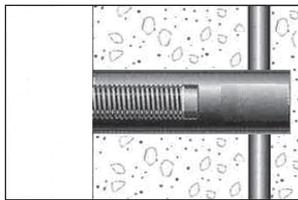
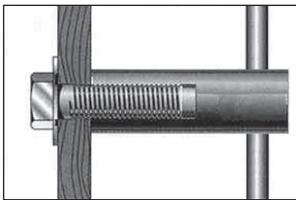
- Stress free anchoring close to edge and reduced anchor spacing
- Cast-in placement eliminates the need for drilling, this is particularly important where reinforcing is present in the fixing zone
- Ideal for shallow embedment as the anchor can be tied into the reinforcing to distribute the load over a wider area to become an integral part of the reinforcing structure
- High tensile load carrying capacities as well as applications in tension zones
- Simple cost effective design with finish ranging from ZP, HDG, A2 and A4

Applications

- Structural connections
- Curtain wall and facade fixings (concrete, GRC, etc.)
- Panel to panel connection
- High shear load applications
- Cooking bench
- Temporary precast panel bracing points

Installation

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



CIM Cast-in Anchors - Recommended Working Loads in 40N/mm² non-cracked Concrete

Thread Ø	Embedment Depth (mm)	Torque (Nm)	(Zn Plated / Hot Dip Galv)				(Stainless Steel A2/A4)			
			Unreinforced ferrule		Reinforced ferrule		Unreinforced ferrule		Reinforced ferrule	
			Shear Load (kN)*	Tensile Load (kN)*	Shear Load (kN)*	Tensile Load (kN)*	Shear Load (kN)*	Tensile Load (kN)*	Shear Load (kN)*	Tensile Load (kN)*
M6	26	5	2.8	3.2	2.8	3.9	2.8	3.2	2.8	3.9
M8	26	10	5.1	4.9	5.1	5.9	5.2	4.9	5.2	5.9
M10	35	17	8.3	5.0	8.3	6.3	8.3	5.0	8.3	6.3
M12	46	30	11.6	7.3	11.6	9.1	12.0	7.3	12.0	9.1
M16	57	75	20.9	12.3	20.9	15.3	22.1	12.3	22.1	15.3
M20	67	144	23.3	13.9	23.3	17.4	26.0	13.9	26.0	17.4
M24	112	250	29.0	32.5	29.0	40.7	33.7	32.5	33.7	40.7

* Safety factor for all loads = 3

* Shear load is calculated by using Grade 8.8 steel or A4-80 stainless steel bolt

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

* Reinforced ferrule = CIM is supplied without pin but large cross hole to allow insertion of Y12 rebar

CIM Cast-in Anchors

Part No.				Thread Ø (mm)	Overall Anchor Length (mm)	Thread Length (mm)	Fixture Hole Ø (mm)	Order Qty
Zn Plated	HDG	SS304	SS316					
CIM06	CIM06GH	CIM06SS	CIM06SS316	M6	35	14	7	50
CIM08	CIM08GH	CIM08SS	CIM08SS316	M8	35	16	9	50
CIM10	CIM10GH	CIM10SS	CIM10SS316	M10	44	22	12	50
CIM12	CIM12GH	CIM12SS	CIM12SS316	M12	55	25	14	50
CIM16	CIM16GH	CIM16SS	CIM16SS316	M16	70	32	18	50
CIM20	CIM20GH	CIM20SS	CIM20SS316	M20	80	38	22	25
CIM24	CIM24GH	CIM24SS	CIM24SS316	M24	125	50	27	25