Technical data sheet

EGCM
End Grain Connector (Medium Duty)

SIMPSON Strong-Tie

Suitable for solid timber and Glulam joists: EGCM is a two-piece system that provides a high-strength, hidden connection between timber members where the joist header or post is fastened into the end-grain of a carried joist. As the connector is concealed within the timbers, this method provides 30 minutes fire resistance. EGCM can be surface mounted or recess fitted. A routing template is available separately.

Features

Material

- Joist plate: 16mm aluminium
- Header plate: 16mm aluminium

Features

- Concealed connection
- Provides up to 30 mins fire resistance
- Can be routed for flush installation, or surface mounted
- Can be pre-installed off-site for rapid assembly
- Each component easy to pair due to identical width and height
- Light weight aluminium for ease of handling

Applications

Suitable For

- Solid timber
- Glulam

Use With

- Timber to timber connections as part of single or multi-storey construction projects

Installation

- Mounting connectors EGCM is simplified by the use of a jig available on stock.
- The slot can be routed by using a Ø16mm cutter with Ø30mm washer.
- CAUTION: EGCM should not be used for an assembly with a negative slope.

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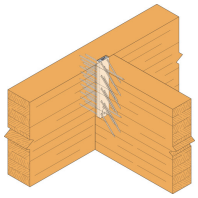
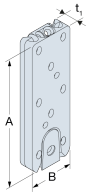
Technical Data

Product dimensions



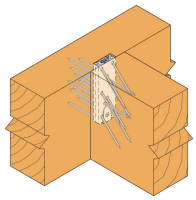


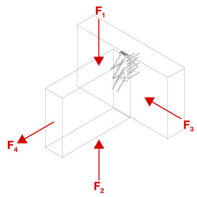
EGCM recess fit onto Glulam timber (cross-section)

References	Header Dimensions [mm]	Product Dimensions [mm]			Joist Dimensions [mm]				Header Holes [mm]	Joist Holes [mm]	Weight [kg]
	Post Width	A	B	t	Width	Height [mm]			Ø6.5	Ø6.5	
	Min				Min	β=0°		-15°<β<90°			
						Min	Max				
EGCM90	125	90	50	16	75	*	*	*	6	7	0.17
EGCM150	125	150	50	16	75	*	*	*	11	12	0.28
EGCM210	125	210	50	16	75	*	*	*	18	15	0.4
EGCM270	125	270	50	16	75	*	*	*	21	18	0.52

*Depends on CSFT screw length

Product Characteristic capacities - Timber Beam to Timber Beam





EGCM recess fit onto solid timber (cross-section)

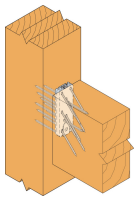
References	Product Characteristic Capacities - Timber Beam to Timber Beam													
	Fastener Qty		Characteristic Capacities - Timber C24 [kN]											
			CSFT6.0x85						CSFT6.0x110					
	Header	Joist	Joist Height [mm]		$R_{1,k}$	$R_{2,k}$	$R_{3,k}$	$R_{4,k}$	Joist Height [mm]		$R_{1,k}$	$R_{2,k}$	$R_{3,k}$	$R_{4,k}$
			Min	Max					Min	Max				
EGCM90	6	5 (7)	135	180	14.2	6.5	12.7	8.6	150	210	18.3	8.7	14	9.6
EGCM150	11	10 (12)	195	270	27.8	6.5	23.7	16.7	210	350	35.6	8.7	25.9	18.7
EGCM210	16	13 (15)	255	360	35.6	6.5	28.6	22.3	270	390	46	8.7	31.4	24.9
EGCM270	21	16 (18)	315	450	43.2	6.5	33	27.7	330	480	56.2	8.7	36.4	31

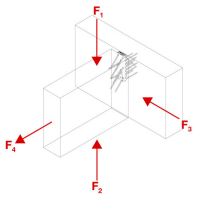
The quantities in brackets are the quantities of fixings in the supported beam plus the screws to prevent lifting. The top screws going from the joist par to the header must be installed to block the uplift.

Technical data sheet

EGCM
End Grain Connector (Medium Duty)

Product Characteristic Capacities - Timber Beam to Timber Post



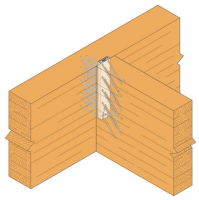


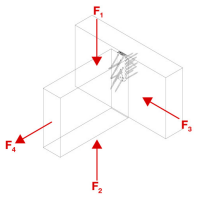
EGCM surface fit onto solid timber post (cross-section)

References	Product Characteristic Capacities - Timber Beam to Timber Post													
	Fastener Qty		Characteristic capacities - Timber C24 [kN]											
			CSFT6.0x85						CSFT6.0x110					
	Header	Joist	Joist Height [mm]		$R_{1,k}$	$R_{2,k}$	$R_{3,k}$	$R_{4,k}$	Joist Height [mm]		$R_{1,k}$	$R_{2,k}$	$R_{3,k}$	$R_{4,k}$
			Min	Max					Min	Max				
EGCM90	6	5 (7)	135	180	14.2	6.5	12.7	8.6	150	210	18.3	8.7	14	9.6
EGCM150	11	10 (12)	195	270	27.8	6.5	23.7	16.7	210	350	31.6	8.7	25.9	18.7
EGCM210	16	13 (15)	255	360	35.6	6.5	28.6	22.3	270	390	41.1	8.7	31.4	24.9
EGCM270	21	16 (18)	315	450	43.2	6.5	33	27.7	330	480	56.2	8.7	36.4	31

The quantities in brackets are the quantities of fixings in the supported beam plus the screws to prevent lifting. The top screws going from the joist par to the header must be installed to block the uplift.

Product Characteristic Capacities - Timber Beam to Wall Plate





EGCM recess fit onto Glulam timber (cross-section)

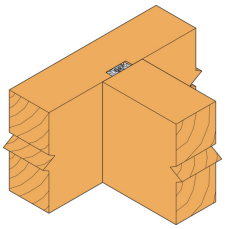
References	Product Characteristic Capacities - Timber Beam to Wall Plate														
	Fasteners				Characteristic Capacities - Timber C24 [kN]										
	Header [mm]		Joist		CSFT6.0x85					CSFT6.0x110					
	Type	Qty	Qty	Type	Joist Height [mm]		$R_{1,k}$	$R_{2,k}$	$R_{3,k}$	$R_{4,k}$	Joist Height [mm]		$R_{1,k}$	$R_{2,k}$	$R_{3,k}$	$R_{4,k}$
					Min	Max					Max	Min				
EGCM90	TTUFS5,0x50	6	CSFT	5 (7)	135	180	14.2	6.5	4	8.6	150	210	15.2	8.7	4	9.6
EGCM150	TTUFS5,0x50	11	CSFT	10 (12)	195	270	27.8	6.5	7.3	16.7	210	350	27.9	8.7	7.3	18.7
EGCM210	TTUFS5,0x50	16	CSFT	13 (15)	255	360	35.6	6.5	10.6	22.3	270	390	40.6	8.7	10.6	24.9
EGCM270	TTUFS5,0x50	21	CSFT	16 (18)	315	450	43.2	6.5	13.9	27.7	330	480	53.3	8.7	13.9	31

The quantities in brackets are the quantities of fixings in the supported beam plus the screws to prevent lifting. The top screws going from the joist par to the header must be installed to block the uplift.

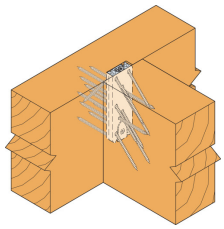
Installation

Fasteners

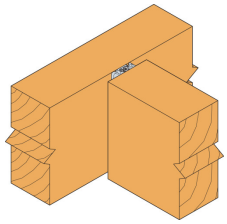
- On header, TTUFS Ø5mm according to ETA-21/0670 (for header <80mm) and CSFT Ø6mm screws.
- On joist, CSFT Ø6mm screws.



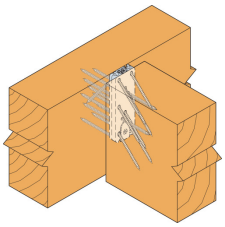
EGCM recess fit onto solid timber



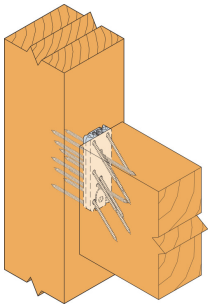
EGCM recess fit onto solid timber (cross-section)



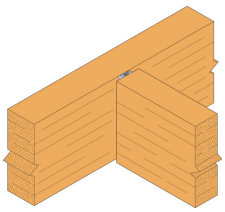
EGCM surface fit onto solid timber



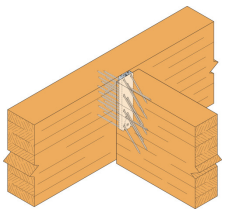
EGCM surface fit onto solid timber (cross-section)



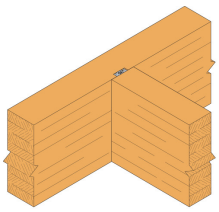
EGCM surface fit onto solid timber post (cross-section)



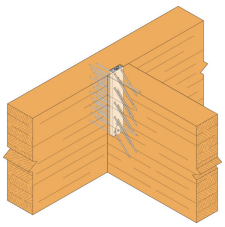
EGCM surface fit onto Glulam timber



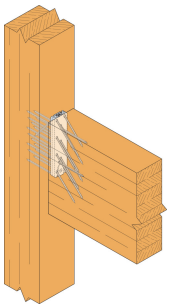
EGCM surface fit onto Glulam timber (cross-section)



EGCM recess fit onto Glulam timber



EGCM recess fit onto Glulam timber (cross-section)



EGCM surface fit onto Glulam post