# **eCo CLEATS**

creating the advantage in timber fasteners



All Cleats are clearly marked for ease of identification



### eCo Heavy Duty Cleats type H

**Eco Heavy Duty type H Cleats** are designed to ensure sound connections at truss and girder junctions. These cleats can be specified in a variety of different configurations to suit different loads and structural arrangements. Three alternative flanges to cater for either 5, 8, or 12 bolts of 12 mm diameter are available and long flange plate, designed to prevent rotation of the incoming truss or girder. The length of the bolts must be chosen to suit the thickness of the girder, truss and washers to be connected.

Incoming girders or trusses must be securely strapped to the main girder with eCo Bracing strap or punched eCo Hoop iron.

The cleat is specified using an acronym which comprises the following:

indicates the cleat type

**F, A:** indicates the flange angle

Eg. **A90, A60, A45 or any specified angle**: indicates the angle of the flange plate to the cleat. The flange will be offset 20mm from the centre of the cleat

**V**: indicates the vertical flange type.

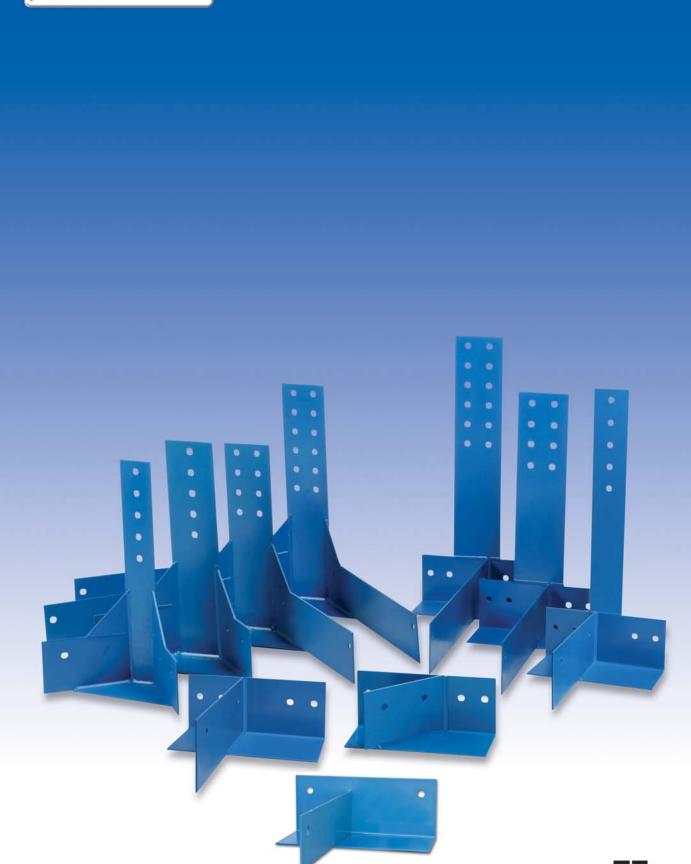
Eg. **V5**, **V8**, **V12 or none**: specifies the vertical flange number of bolts.

→ See Girder Requirement for Bolting note on last page





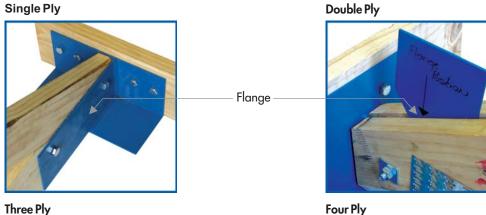
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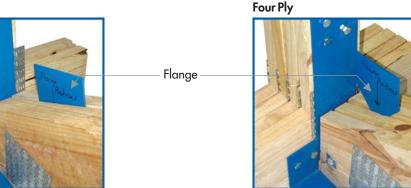


#### Girder Requirement for Bolting:

Vertical web of girder to which flange is to be bolted is recommended to be minimum 111 graded timber for single row bolting and minimum 149 graded timber for double row bolting.

## "CLEAT" 90°





## "CLEAT" 45°







# MiTek®

#### creating the advantage

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#### **HFA90V5 CLEAT**

Code: HFAV5

Description of type "H" Cleat	Width of base plate (mm)	Length of base plate (mm)	Height of Flange (mm)	Maximum Load (kN)
HFA90V5	300	125	650	20



#### **HFA45 CLEAT**

Code: HFA45

Description of type "H" Cleat	Width of base plate (mm)	Length of base plate (mm)	Height of Flange (mm)	Maximum Load (kN)
HFA45	300	125	125	6.8



#### **HFA90 CLEAT MINI**

Code: HFA90M

Description of type "H" Cleat	Width of base plate (mm)	Length of base plate (mm)	Height of Flange (mm)	Maximum Load (kN)
HFA90M	250	100	75	3.4

Bottom chord of girder to which cleat is to be bolted must be a minimum of 111 graded timber for HFA90 Cleat.



#### **HFA90V8 CLEAT**

Code: HFAV8

Description of type "H" Cleat	Width of base plate (mm)	Length of base plate (mm)	Height of Flange (mm)	Maximum Load (kN)
HFA90V8	300	125	600	33



Code: H45V5P1

**H45V5P2 CLEAT** Code: H45V5P2

Description of

Cleat

H45V5P2

Description of Cleat	Width of base plate (mm)	Length of base plate (mm)	Height of Flange (mm)	Maximum Load (kN)
H45V5P1	260	100	325	15

Length of

base plate

(mm)

125

Height of

Flange

(mm)

325

Height of

Flange

(mm)

575

Maximum

Load (kN)

15

Width of

base plate

(mm)

360



#### **HFA90 CLEAT**

Code: HFA90

Description of type "H" Cleat	Width of base plate (mm)	Length of base plate (mm)	Height of Flange (mm)	Maximum Load (kN)
HFA90	280	125	100	6.8

Bottom chord of girder to which cleat is to be bolted must be a minimum of 111 graded timber for HFA90 Cleat.



Code: HFAV12

Description of type "H" Cleat	Width of base plate (mm)	Length of base plate (mm)	Height of Flange (mm)	Maximum Load (kN)
HFA90V12	300	125	700	45



H45V12P2 CLEAT

Description of type

"H"

Cleat

H45V12P2

Code: H45V12P2

Code: H45V8P2

Description of type "H" Cleat	Width of base plate (mm)	Length of base plate (mm)	Height of Flange (mm)	Maximum Load (kN)
H45V8P2	360	125	475	25

Width of Length of

base plate | base plate

(mm)

125

(mm)

360



#### **HFA90H2 CLEAT**

Code: HFA90H2

Description of type "H" Cleat	Width of base plate (mm)	Length of base plate (mm)	Height of Flange (mm)	Maximum Load (kN)
HFA90H2	300	125	200	10

Bottom chord of girder to which cleat is to be bolted must be a minimum of 225 graded timber for HFA90H2 Cleat.



**eCo 45° heavy duty cleats** are designed to form a sound connection between the hip trusses, jack truss and the main girder on a  $45^{\circ}$  hip system.

The cleats are available in widths to suit single ply (40mm thick) or double ply (80mm thick) hip trusses with vertical flanges to cater for either 5, 8, 12 bolts of 12 mm diameter. The length of the bolts must be chosen to suit the number of plies or thickness of the girder including the washers.

P1 and P2 in the cleat description indicates the width to match either 1 ply or 2 ply incoming hip trusses respectively.

Incoming hip trusses and jack trusses must be securely strapped to the main girder with *eCo Bracing strap* or punched *eCo Hoop iron*.

→ See Girder Requirement for Bolting note on last page





Maximum

Load (kN)

37

