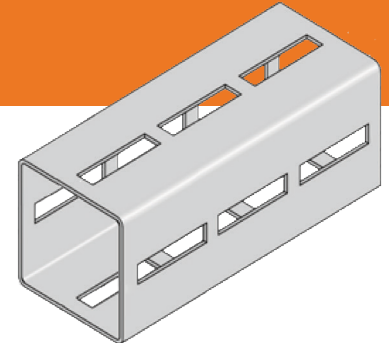


# SUPPORT FRAME SYSTEM 100

The Zip-Clip Atlas Support Frame System is a fully adjustable system designed to be an economical and time saving alternative to standard welded construction.



## TECHNICAL DATA

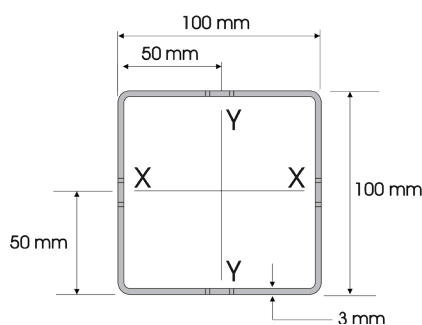
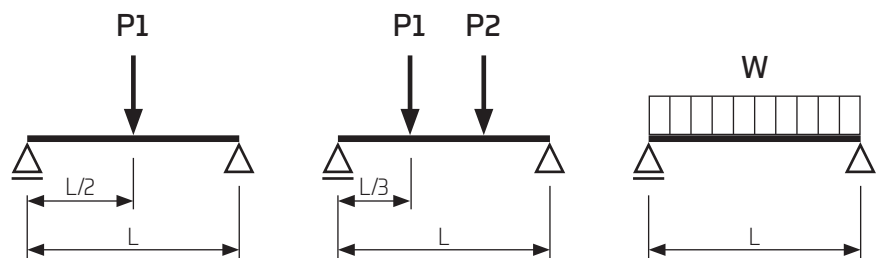
|                 |                                                            |
|-----------------|------------------------------------------------------------|
| ZCA System No:  | SFS100-BEAM                                                |
| S&T System No:  | P0112001                                                   |
| AON Listing No: | BB031<br><small>*refer to the NZS4541 design guide</small> |
| Material:       | Mild Steel                                                 |
| Material Type:  | 345 MPa                                                    |
| Finish:         | Hot-dip galvanised                                         |

## DATA SUMMARY

|               |               |
|---------------|---------------|
| Dimensions:   | 100 × 100 mm  |
| Thickness:    | 3 mm          |
| Slot Size:    | 15.5 × 65 mm  |
| Slot Spacing: | 80 mm centres |
| $f_y =$       | 345 MPa       |
| $E =$         | 200 GPa       |

## KEY SYSTEM ADVANTAGES

- Installation time and labour saving.
- Advanced modular bolting system with a maximum load capacity of 10 kN per bolt.
- High torsional stiffness.
- Fully dismountable.
- Comprehensive range of integrated fittings and components.
- Widely compatible with leading channel and pipe support systems.



|                    |                                                    |        |
|--------------------|----------------------------------------------------|--------|
| SECTION PROPERTIES | Part No./System                                    | SFS100 |
|                    | Weight, Kg/m                                       | 8.27   |
|                    | Area of Section, mm <sup>2</sup>                   | 955    |
| X-X AXIS           | Moment of Inertia, $I \times 10^6$ mm <sup>4</sup> | 1.55   |
|                    | Section Modulus, $Z \times 10^3$ mm <sup>3</sup>   | 30.996 |
|                    | Radius of Gyration, $r$ mm                         | 40.29  |
| Y-Y AXIS           | Moment of Inertia, $I \times 10^6$ mm <sup>4</sup> | 1.55   |
|                    | Section Modulus, $Z \times 10^3$ mm <sup>3</sup>   | 30.996 |
|                    | Radius of Gyration, $r$ mm                         | 40.29  |

| SPAN (L) | P1 Kg | P2 Kg | W Kg (Uniform) |
|----------|-------|-------|----------------|
| 1000     | 2549  | 1871  | 4550           |
| 1500     | 1695  | 1271  | 3390           |
| 2000     | 1267  | 950   | 2535           |
| 2500     | 1010  | 705*  | 1922*          |
| 3000     | 828*  | 486*  | 1325*          |
| 3500     | 602*  | 353*  | 963*           |
| 4000     | 455*  | 267*  | 727*           |
| 4500     | 353*  | 207*  | 564*           |
| 5000     | 279*  | 164*  | 446*           |
| 5500     | 224*  | 131*  | 358*           |
| 6000     | 182*  | 107*  | 290*           |

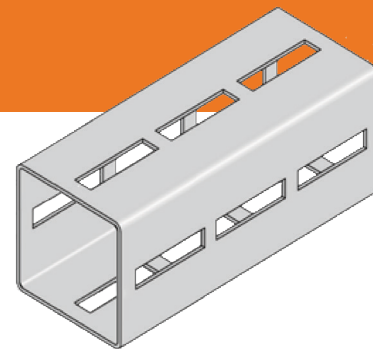
Capacity tables to AS4100. The allowable working loads calculated are based on the ultimate capacity of a simply supported beam, divided by a 1.5 factor. The mid-span deflection from working load has been limited to Span/200. The working loads include allowance for beam self-weight.

\* Indicates working load governed by deflection.

# SUPPORT FRAME SYSTEM 100

## TECHNICAL DATA

System No: SFS100-BEAM



### COMPRESSION CAPACITY

| Le (m) | ØNc (kN) |
|--------|----------|
| 0.0    | 294.5    |
| 0.5    | 294      |
| 1.0    | 285.7    |
| 1.5    | 273.5    |
| 2.0    | 256.5    |
| 2.5    | 233.7    |
| 3.0    | 204.8    |
| 3.5    | 173.1    |
| 4.0    | 143.4    |
| 4.5    | 118.4    |
| 5.0    | 98.5     |
| 5.5    | 82.9     |
| 6.0    | 70.5     |

#### ▲ NOTES:

1. Capacities calculated to AS4100 Steel Structures Standard.
2. The loads listed above are the ultimate compression capacity.
3. Listed capacities are for the effective column length with concentric loading only.
4. Effective length to be calculated in accordance with AS4100.
5. Any other load effects will de-rate these capacities. Compression bending interaction to be considered in accordance with AS4100.

### BENDING CAPACITY

ØMs (kNm)

9.39

### SHEAR CAPACITY

ØVv (kN)

43.3

#### ▲ NOTES:

1. Capacities calculated to AS4100 Steel Structures Standard.
2. The loads listed above are the ultimate section bending and shearing.
3. Deflection must be checked by others during engineering design.

### BEARING CAPACITY

ØRby (kN)

16.7

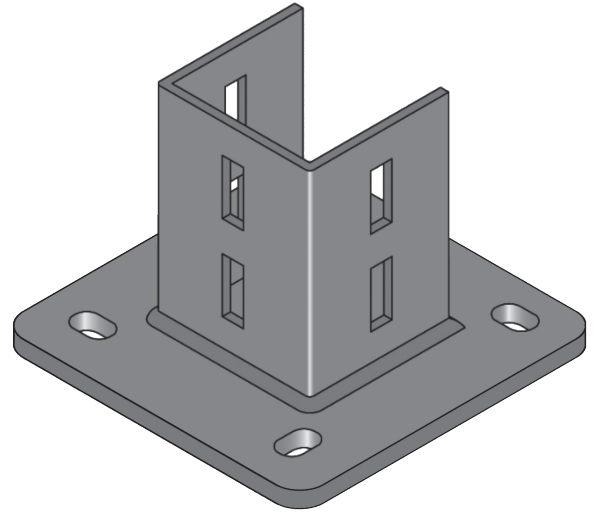
#### ▲ NOTES:

1. Capacities calculated to AS4100 Steel Structures Standard.
2. Capacity based on:
  - 100 mm stiff bearing length
  - Bearing at the end of member
  - Member end is not to be cut through slot (15 mm web length from cut end to slot).

## STANDARD BASE PLATE

### TECHNICAL DATA

|                |                    |
|----------------|--------------------|
| ZCA Part No:   | SFS100-STD-BP      |
| S&T Part No:   | P0112002           |
| Material:      | Mild Steel         |
| Material Type: | 235 MPa            |
| Finish:        | Hot-dip galvanised |



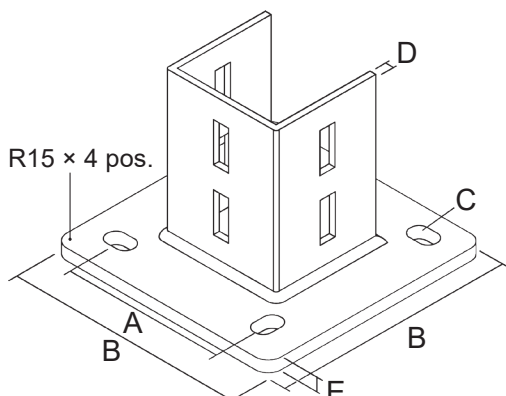
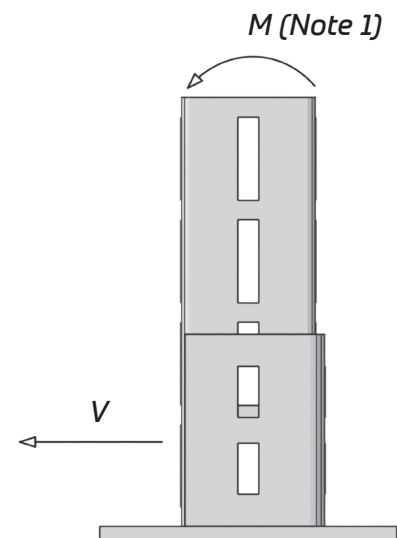
## LOADING

### NOTES:

1. The anchors and concrete slab must satisfy the ultimate loading requirements.
2. 6 No. SFSBOLT-M12S required to fix the channel to base plate.
3. Channel member to bear on base plate.
4. SFSBOLT-M12S torqued to 100 Nm.

### LOAD TYPE ULTIMATE CAPACITY

|          |         |
|----------|---------|
| <i>M</i> | 5.07 kN |
| <i>V</i> | 32.8 kN |



## DIMENSIONS

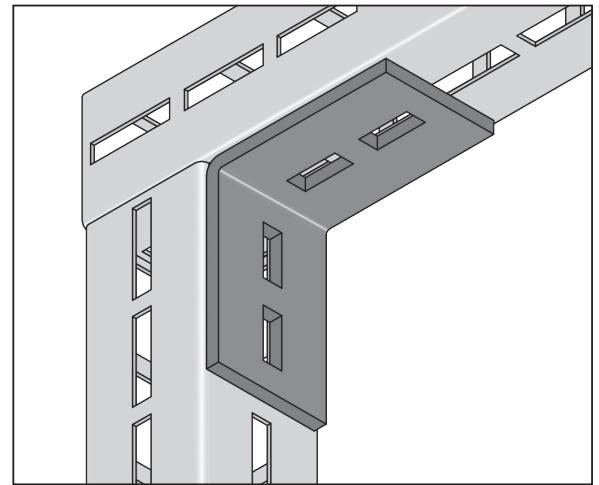
| PART NO.      | A (mm) | B (mm) | C (mm)  | D (mm) | E (mm) | SLOTS (mm) |
|---------------|--------|--------|---------|--------|--------|------------|
| SFS100-STD-BP | 150    | 220    | 18 x 27 | 6      | 12     | 15.5 x 40  |

6 x SFSBOLT-M12S REQUIRED UNLESS SPECIFIED IN DESIGN DRAWING.

## ANGLE BRACKET

### TECHNICAL DATA

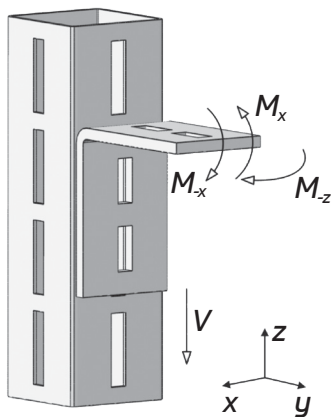
|                |                    |
|----------------|--------------------|
| ZCA Part No:   | SFS100-AB1         |
| S&T Part No:   | P0112003           |
| Material:      | Mild Steel         |
| Material Type: | 235 MPa            |
| Finish:        | Hot-dip galvanised |



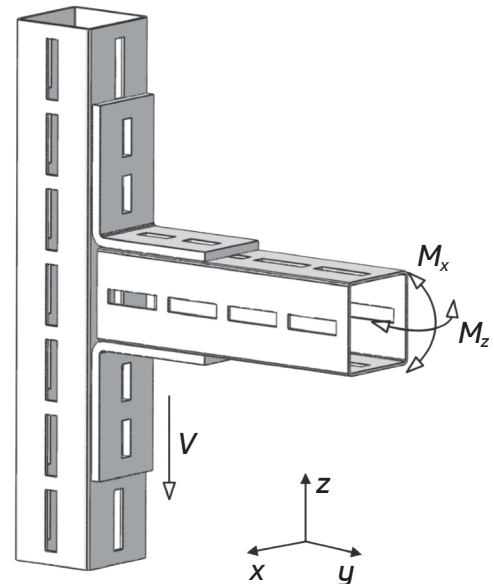
## LOADING

### NOTES:

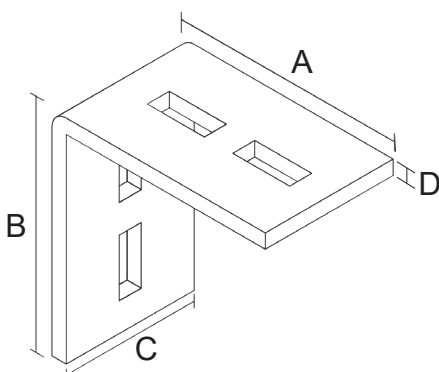
1. SFSBOLT-M12S torqued to 100 Nm.



| LOAD TYPE  | ULTIMATE CAPACITY |
|------------|-------------------|
| $M_x$      | 0.47 kNm          |
| $M_y$      | 0.39 kNm          |
| $M_z, M_z$ | 0.35 kNm          |
| $V$        | 28.0 kN           |



| LOAD TYPE  | ULTIMATE CAPACITY |
|------------|-------------------|
| $M_x, M_y$ | 1.61 kNm          |
| $M_z, M_z$ | 0.71 kNm          |
| $V$        | 36.7 kN           |

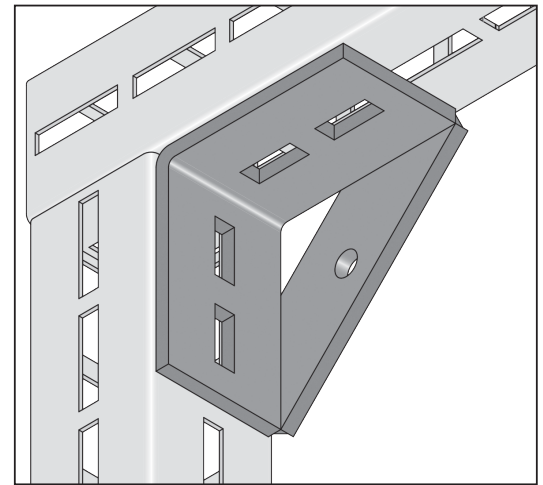


## DIMENSIONS

| PART NO.   | A (mm) | B (mm) | C (mm) | D (mm) | SLOTS (mm) |
|------------|--------|--------|--------|--------|------------|
| SFS100-AB1 | 150    | 150    | 90     | 10     | 15.5 × 40  |

4 × SFSBOLT-M12S REQUIRED UNLESS SPECIFIED IN DESIGN DRAWING.

## ANGLE BRACKET WITH GUSSET



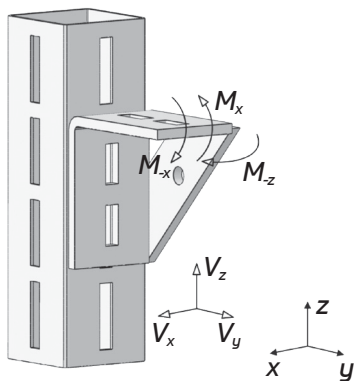
### TECHNICAL DATA

|                |                    |
|----------------|--------------------|
| ZCA Part No:   | SFS100-AB1G        |
| S&T Part No:   | P0112004           |
| Material:      | Mild Steel         |
| Material Type: | 235 MPa            |
| Finish:        | Hot-dip galvanised |

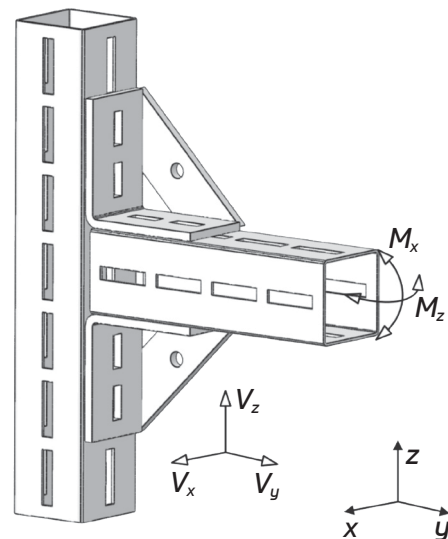
## LOADING

### NOTES:

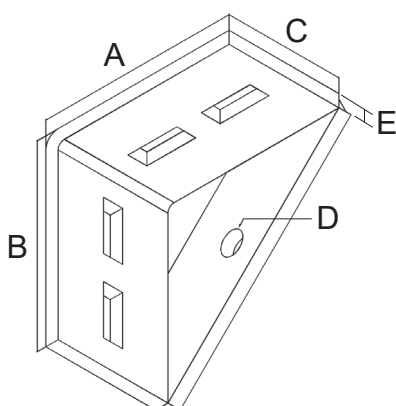
1. SFSBOLT-M12S torqued to 100 Nm.



| LOAD TYPE     | ULTIMATE CAPACITY |
|---------------|-------------------|
| $M_x$         | 0.57 kNm          |
| $M_{-x}$      | 0.66 kNm          |
| $M_z, M_{-z}$ | 0.42 kNm          |
| $V_x$         | 28.0 kN           |
| $V_y$         | 9.6 kN            |
| $V_z$         | 28.0 kN           |



| LOAD TYPE     | ULTIMATE CAPACITY |
|---------------|-------------------|
| $M_x, M_{-x}$ | 1.84 kNm          |
| $M_z, M_{-z}$ | 0.85 kNm          |
| $V_x$         | 56.0 kN           |
| $V_y$         | 19.2 kN           |
| $V_z$         | 37.6 kN           |



## DIMENSIONS

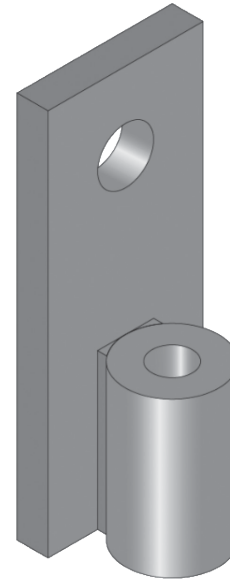
| PART NO.    | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | SLOTS (mm) |
|-------------|--------|--------|--------|--------|--------|------------|
| SFS100-AB1G | 150    | 150    | 90     | 18 Ø   | 10     | 15.5 × 40  |

4 × SFSBOLT-M12S REQUIRED UNLESS SPECIFIED IN DESIGN DRAWING.

## TENSIONING BRACKET

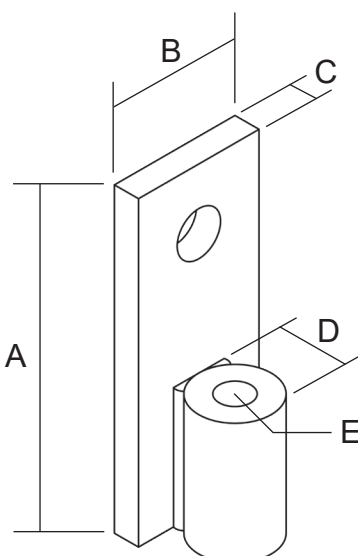
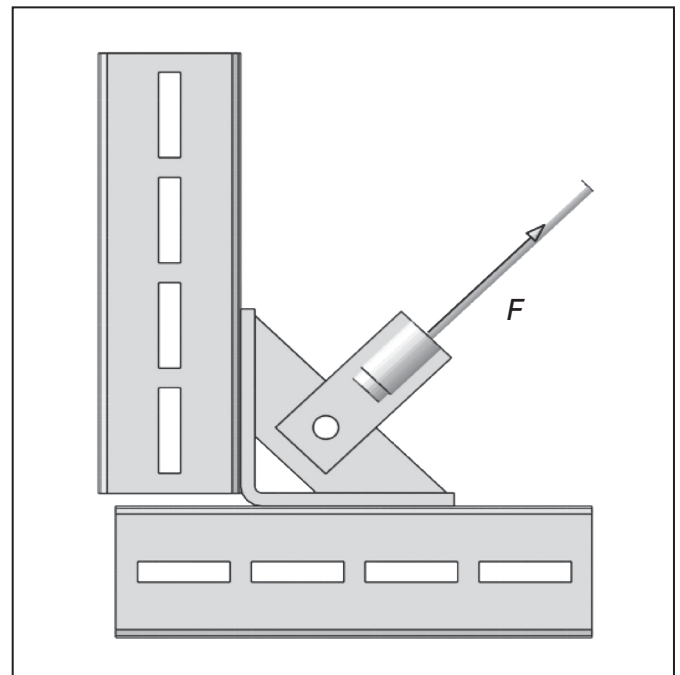
### TECHNICAL DATA

|                |                    |
|----------------|--------------------|
| ZCA Part No:   | SFS100-TB          |
| S&T Part No:   | P0112021           |
| Material:      | Mild Steel         |
| Material Type: | 235 MPa            |
| Finish:        | Hot-dip galvanised |
| For Profile:   | SFS100 and SFS80   |



## LOADING

| PART NO.  | THREADED ROD  | ULTIMATE CAPACITY (F)           |
|-----------|---------------|---------------------------------|
| SFS100-TB | M12 Class 4.6 | 25.0 kN                         |
|           | M12 Class 8.8 | 28.6 kN<br>(M16 Class 4.6 bolt) |
|           |               | 30.0 kN<br>(M16 Class 8.8 bolt) |



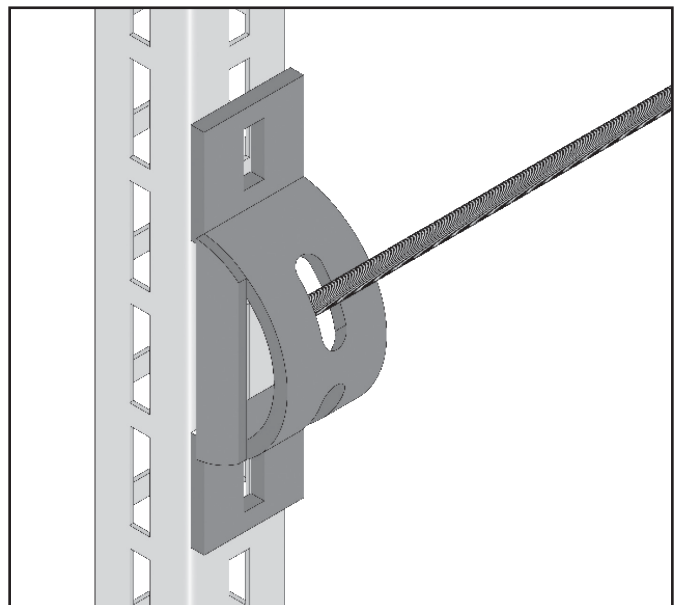
## DIMENSIONS

| PART NO.  | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) |
|-----------|--------|--------|--------|--------|--------|
| SFS100-TB | 125    | 50     | 10     | 30 Ø   | 13 Ø   |

## FLAT BRACE

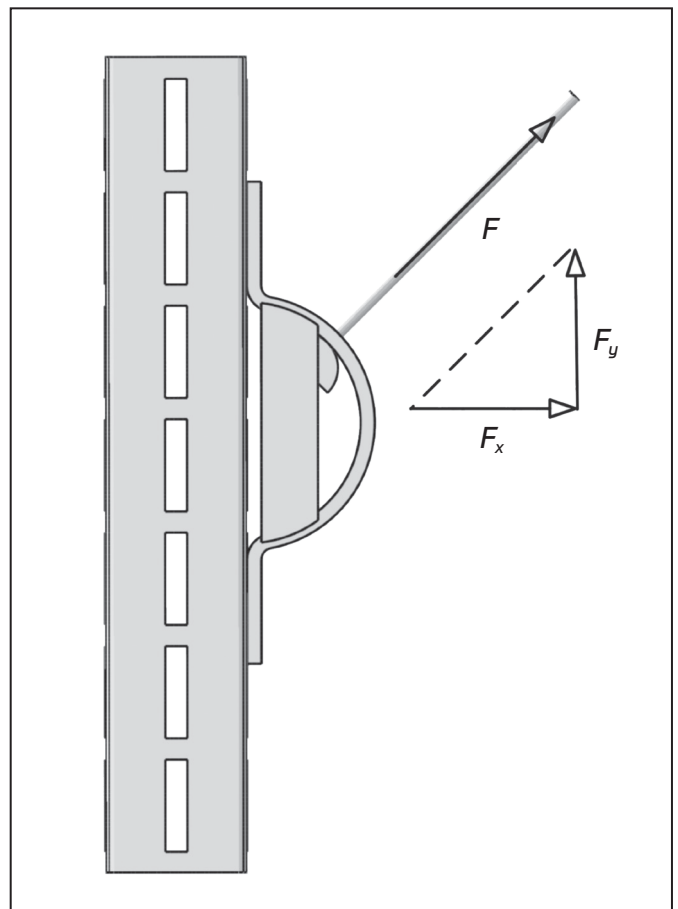
### TECHNICAL DATA

|                |                    |
|----------------|--------------------|
| ZCA Part No:   | SFS100-FB          |
| S&T Part No:   | P0112006           |
| Material:      | Mild Steel         |
| Material Type: | 235 MPa            |
| Finish:        | Hot-dip galvanised |

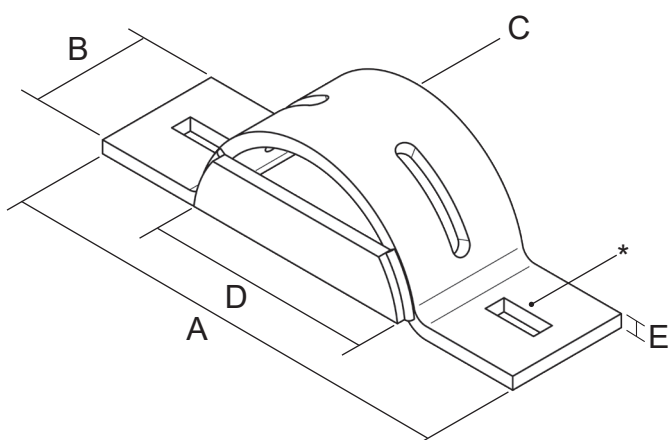


## LOADING

| PART No   | THREADED ROD  | ULTIMATE CAPACITY (F) |
|-----------|---------------|-----------------------|
| SFS100-FB | M12 Class 4.6 | 16.2 kN               |
|           | M12 Class 8.8 | 30.1 kN               |



## DIMENSIONS

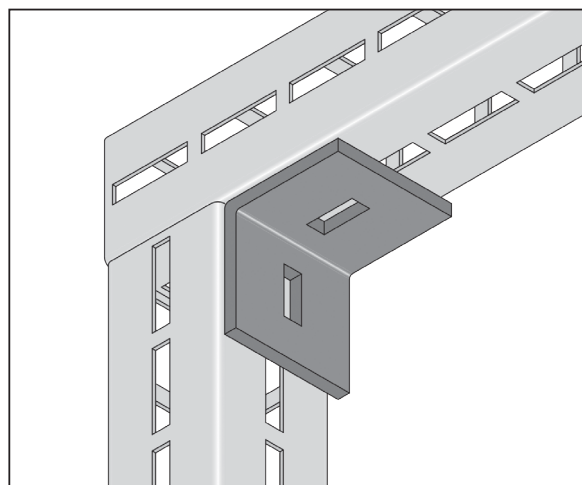


| PART NO.  | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | END SLOTS* (mm) |
|-----------|--------|--------|--------|--------|--------|-----------------|
| SFS100-FB | 340    | 90     | R90 Ø  | 169    | 10     | 15.5 × 40       |

## ANGLE BRACKET

### TECHNICAL DATA

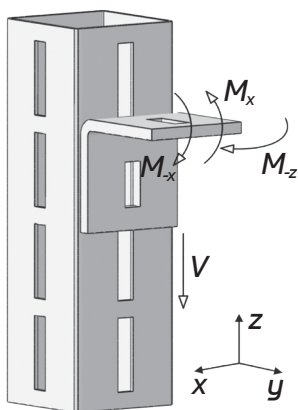
|                |                    |
|----------------|--------------------|
| ZCA Part No:   | SFS100-AB2         |
| S&T Part No:   | P0112007           |
| Material:      | Mild Steel         |
| Material Type: | 235 MPa            |
| Finish:        | Hot-dip galvanised |



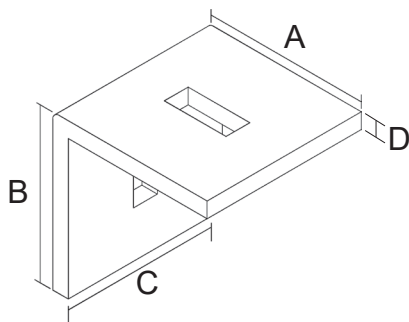
## LOADING

### NOTES:

1. SFSBOLT-M125 torqued to 100 Nm.



| LOAD TYPE  | ULTIMATE CAPACITY |
|------------|-------------------|
| $M_x$      | 0.26 kNm          |
| $M_y$      | 0.26 kNm          |
| $M_z, M_z$ | 0.22 kNm          |
| $V$        | 14.0 kN           |



## DIMENSIONS

| PART NO.   | A (mm) | B (mm) | C (mm) | D (mm) | SLOTS (mm) |
|------------|--------|--------|--------|--------|------------|
| SFS100-AB2 | 100    | 100    | 90     | 10     | 15.5 × 40  |

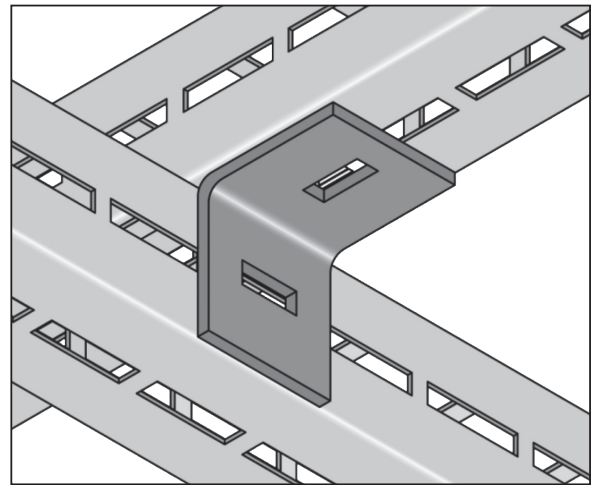
2 × SFSBOLT-M125 REQUIRED UNLESS SPECIFIED IN DESIGN DRAWING.



## ANGLE BRACKET

### TECHNICAL DATA

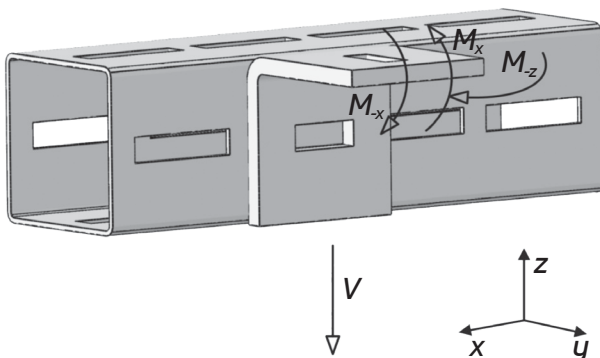
|                |                    |
|----------------|--------------------|
| ZCA Part No:   | SFS100-AB3         |
| S&T Part No:   | P0112008           |
| Material:      | Mild Steel         |
| Material Type: | 235 MPa            |
| Finish:        | Hot-dip galvanised |



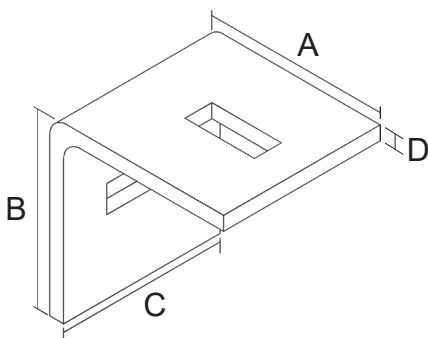
## LOADING

### NOTES:

1. SFSBOLT-M12S torqued to 80 Nm.



| LOAD TYPE     | ULTIMATE CAPACITY |
|---------------|-------------------|
| $M_x$         | 0.26 kNm          |
| $M_{-x}$      | 0.26 kNm          |
| $M_z, M_{-z}$ | 0.28 kNm          |
| $V$           | 14.0 kN           |



## DIMENSIONS

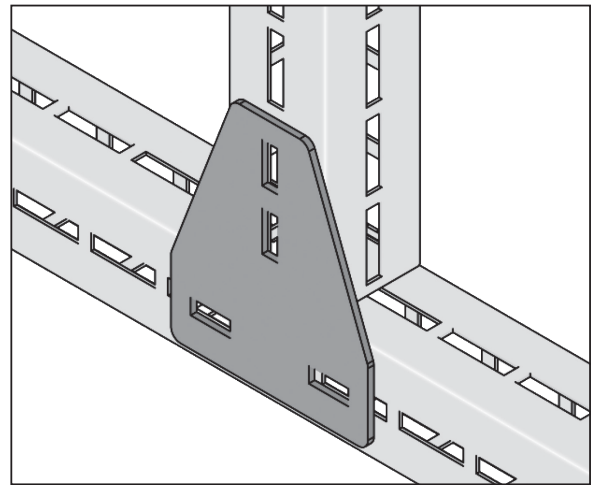
| PART NO.   | A (mm) | B (mm) | C (mm) | D (mm) | SLOTS (mm) |
|------------|--------|--------|--------|--------|------------|
| SFS100-AB3 | 100    | 100    | 90     | 10     | 15.5 × 40  |

2× SFSBOLT-M12S REQUIRED UNLESS SPECIFIED IN DESIGN DRAWING.

## T-PLATE

### TECHNICAL DATA

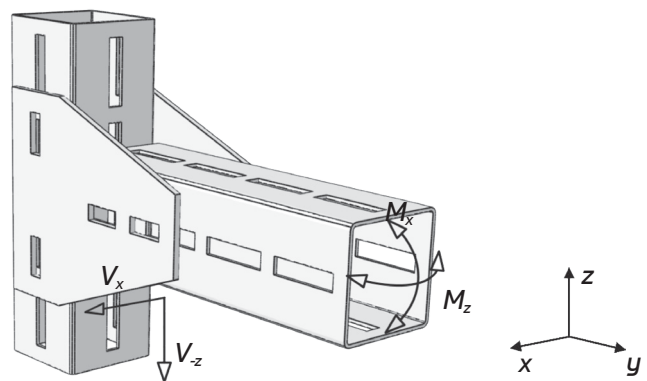
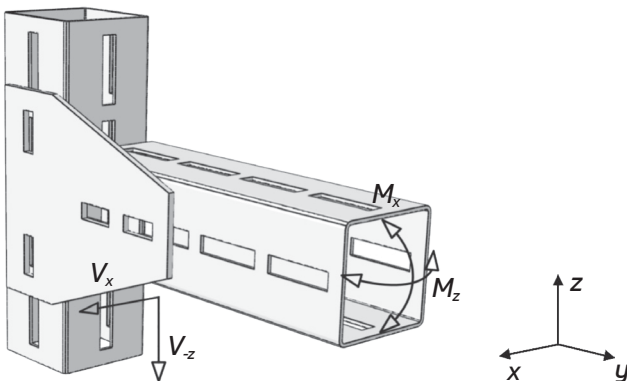
|                |                    |
|----------------|--------------------|
| ZCA Part No:   | SFS100-TP          |
| S&T Part No:   | P0112009           |
| Material:      | Mild Steel         |
| Material Type: | 235 MPa            |
| Finish:        | Hot-dip galvanised |
| For Profile:   | SFS80 and SFS100   |



## LOADING

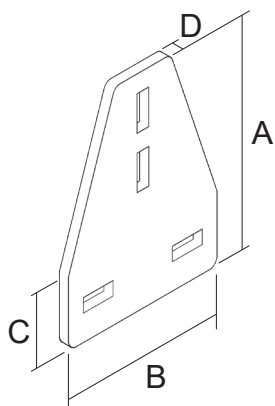
### NOTES:

1. 4 No. SFSBOLT-M125 required for each plate.
2. SFSBOLT-M125 torqued to 100 Nm.



| LOAD TYPE     | ULTIMATE CAPACITY |
|---------------|-------------------|
| $M_x, M_{-x}$ | 0.84 kNm          |
| $M_z, M_{-z}$ | 0.36 kNm          |
| $V_x$         | 13.9 kNm          |
| $V_{-x}$      | 11.4 kN           |
| $V_z, V_{-z}$ | 14.0 kN           |

| LOAD TYPE     | ULTIMATE CAPACITY |
|---------------|-------------------|
| $M_x, M_{-x}$ | 1.68 kNm          |
| $M_z, M_{-z}$ | 0.72 kNm          |
| $V_x, V_{-x}$ | 25.4 kN           |
| $V_z, V_{-z}$ | 28.0 kN           |



## DIMENSIONS

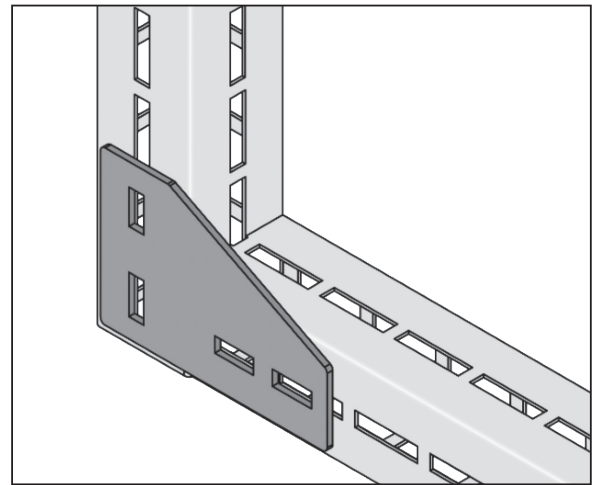
| PART NO.  | A (mm) | B (mm) | C (mm) | D (mm) | SLOTS (mm) |
|-----------|--------|--------|--------|--------|------------|
| SFS100-TP | 240    | 200    | 75     | 6      | 15.5 × 40  |

4 × SFSBOLT-M125 REQUIRED UNLESS SPECIFIED IN DESIGN DRAWING.

## L-PLATE

### TECHNICAL DATA

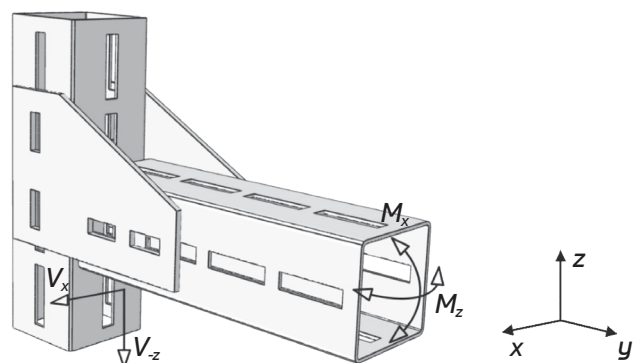
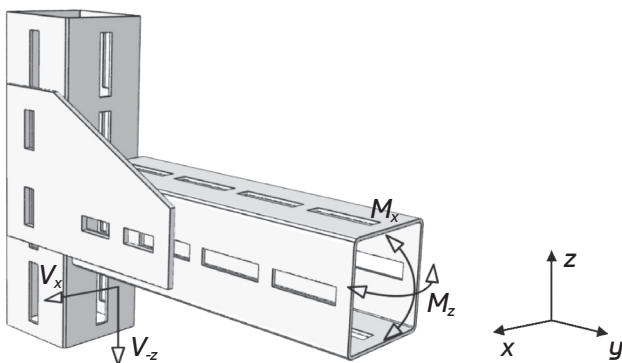
|                |                    |
|----------------|--------------------|
| ZCA Part No:   | SFS100-LP          |
| S&T Part No:   | P0112010           |
| Material:      | Mild Steel         |
| Material Type: | 235 MPa            |
| Finish:        | Hot-dip galvanised |
| For Profile:   | SFS80 and SFS100   |



## LOADING

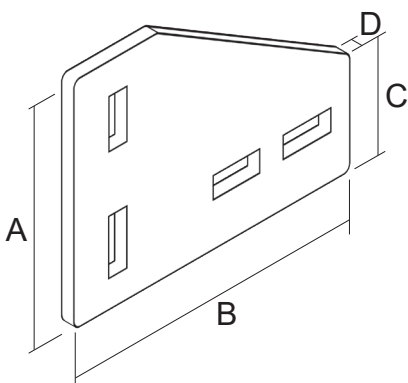
### NOTES:

1. 4 No. SFSBOLT-M12S required for each plate.
2. SFSBOLT-M12S torqued to 100 Nm.



| LOAD TYPE     | ULTIMATE CAPACITY |
|---------------|-------------------|
| $M_x, M_{-x}$ | 0.84 kNm          |
| $M_z, M_{-z}$ | 0.29 kNm          |
| $V_x$         | 13.9 kNm          |
| $V_{-x}$      | 11.4 kN           |
| $V_z, V_{-z}$ | 14.0 kN           |

| LOAD TYPE     | ULTIMATE CAPACITY |
|---------------|-------------------|
| $M_x, M_{-x}$ | 1.68 kNm          |
| $M_z, M_{-z}$ | 0.58 kNm          |
| $V_x, V_{-x}$ | 25.4 kN           |
| $V_z, V_{-z}$ | 28.0 kN           |



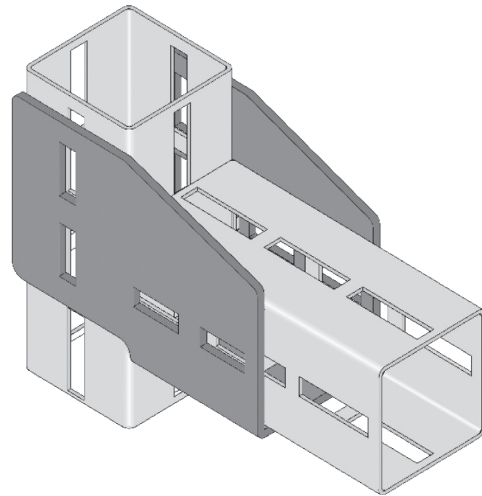
## DIMENSIONS

| PART NO.  | A (mm) | B (mm) | C (mm) | D (mm) | SLOTS (mm) |
|-----------|--------|--------|--------|--------|------------|
| SFS100-LP | 160    | 240    | 75     | 6      | 15.5 × 40  |

4 × SFSBOLT-M12S REQUIRED UNLESS SPECIFIED IN DESIGN DRAWING.

## SHOE

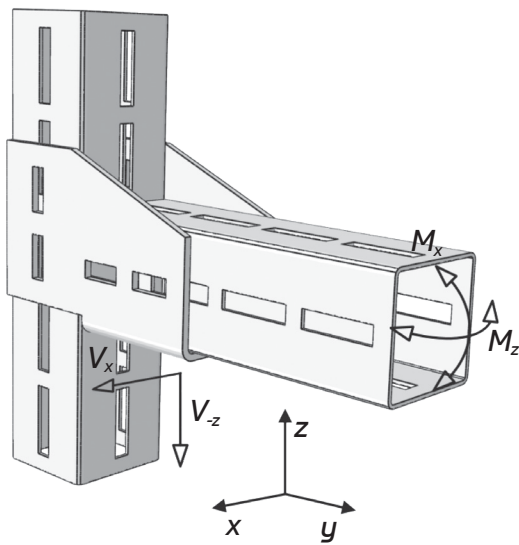
| TECHNICAL DATA |                    |
|----------------|--------------------|
| ZCA Part No:   | SFS100-SHOE        |
| S&T Part No:   | P0112011           |
| Material:      | Mild Steel         |
| Material Type: | 235 MPa            |
| Finish:        | Hot-dip galvanised |



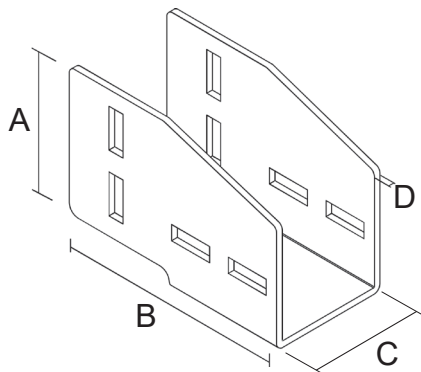
## LOADING

### NOTES:

1. SFSBOLT-M12S torqued to 100 Nm.



| LOAD TYPE     | ULTIMATE CAPACITY |
|---------------|-------------------|
| $M_x, M_{-x}$ | 1.68 kNm          |
| $M_z, M_{-z}$ | 0.53 kNm          |
| $V_x, V_{-x}$ | 22.1 kN           |
| $V_z, V_{-z}$ | 28.0 kN           |



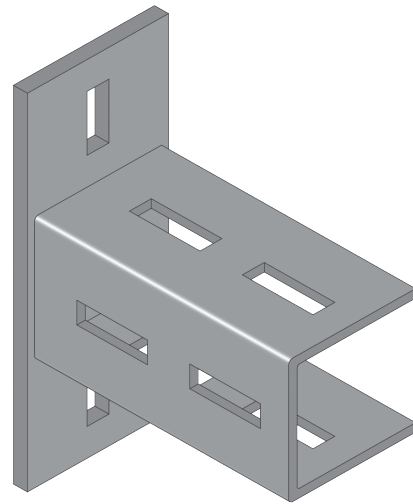
## DIMENSIONS

| PART NO.    | A (mm) | B (mm) | C (mm) | D (mm) | SLOTS (mm) |
|-------------|--------|--------|--------|--------|------------|
| SFS100-SHOE | 160    | 230    | 112    | 6      | 15.5 × 40  |

8 × SFSBOLT-M12S REQUIRED UNLESS SPECIFIED IN DESIGN DRAWING.

## 2-WAY BRACKET

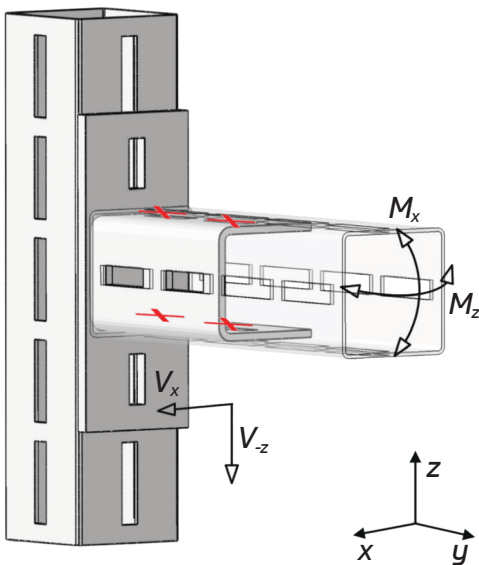
| TECHNICAL DATA |                    |
|----------------|--------------------|
| ZCA Part No:   | SFS100-B2WAY       |
| S&T Part No:   | P0112012           |
| Material:      | Mild Steel         |
| Material Type: | 235 MPa            |
| Finish:        | Hot-dip galvanised |



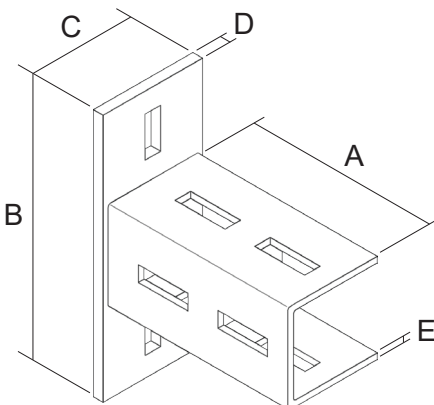
## LOADING

### NOTES:

1. 4 No. SFSBOLT-M12S required on the "U" channel on opposite sides (✕).
2. SFSBOLT-M12S torqued to 100 Nm.



| LOAD TYPE  | ULTIMATE CAPACITY |
|------------|-------------------|
| $M_x, M_x$ | 1.26 kNm          |
| $M_z, M_z$ | 0.55 kNm          |
| $V_x, V_x$ | 28.0 kN           |
| $V_z, V_z$ | 28.0 kN           |



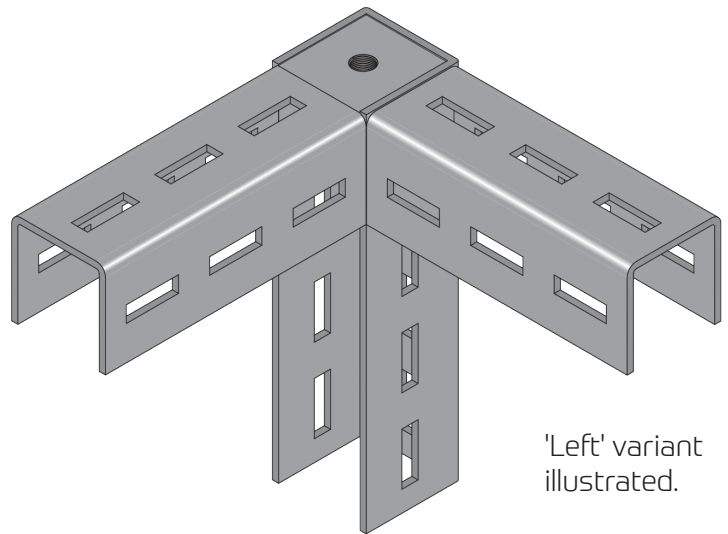
## DIMENSIONS

| PART NO.     | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | SLOTS (mm) |
|--------------|--------|--------|--------|--------|--------|------------|
| SFS100-B2WAY | 170    | 250    | 90     | 10     | 6      | 15.5 × 50  |

6 × SFSBOLT-M12S REQUIRED UNLESS SPECIFIED IN DESIGN DRAWING.

## 3-WAY BRACKET

| TECHNICAL DATA |                                     |
|----------------|-------------------------------------|
| ZCA Part Nos:  | SFS100-B3WAY R<br>SFS100-B3WAY L    |
| S&T Part Nos:  | Right - P0112013<br>Left - P0112028 |
| Material:      | Mild Steel                          |
| Material Type: | 235 MPa                             |
| Finish:        | Hot-dip galvanised                  |

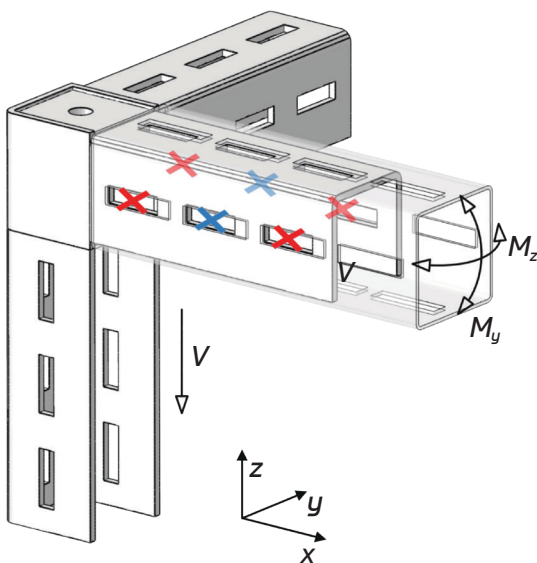


'Left' variant illustrated.

## LOADING

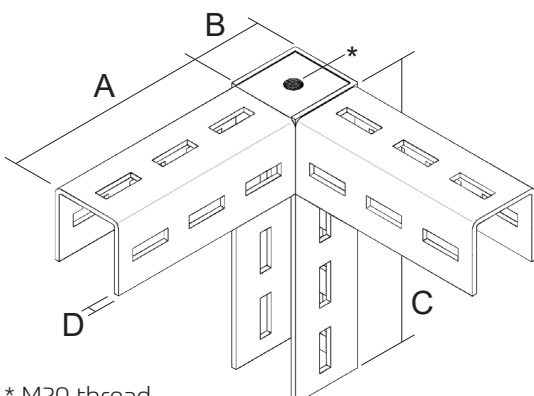
### NOTES:

1. SFSBOLT-M12S torqued to 100 Nm.
2. 4 No. SFSBOLT-M12S set on opposite sides (✕), 6 No. SFSBOLT-M12S set on opposite sides (✕✕).
3. Bottom branch is a different direction for Left and Right 3-way brackets.



| 4 No. SFSBOLT-M12S (✕) |                   |
|------------------------|-------------------|
| LOAD TYPE              | ULTIMATE CAPACITY |
| $M_y, M_y$             | 3.81 kNm          |
| $M_z, M_z$             | 2.52 kNm          |
| V                      | 28.0 kN           |

| 6 No. SFSBOLT-M12S (✕✕) |                   |
|-------------------------|-------------------|
| LOAD TYPE               | ULTIMATE CAPACITY |
| $M_y, M_y$              | 3.81 kNm          |
| $M_z, M_z$              | 3.78 kNm          |
| V                       | 28.0 kN           |



\* M20 thread

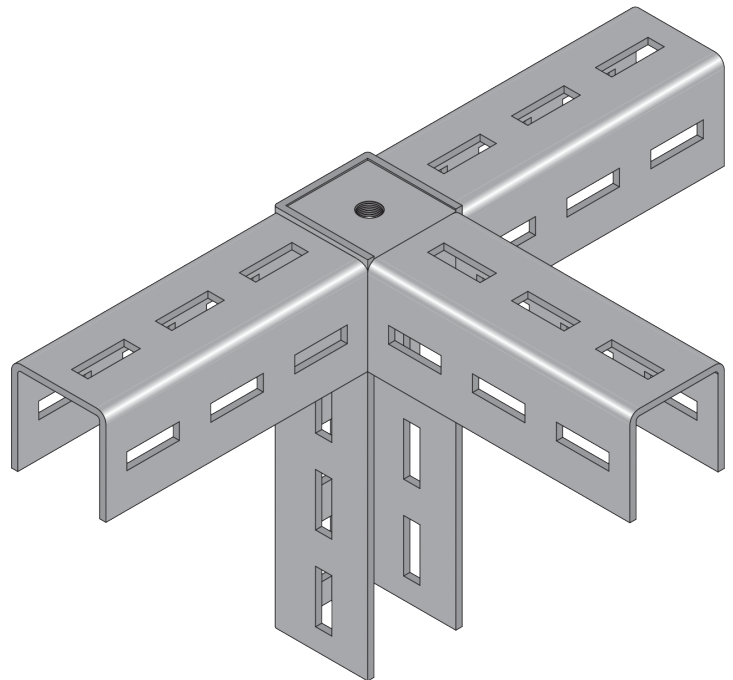
## DIMENSIONS

| PART NO.     | A (mm) | B (mm) | C (mm) | D (mm) | SLOTS (mm) |
|--------------|--------|--------|--------|--------|------------|
| SFS100-B3WAY | 250    | 100    | 350    | 6      | 15.5 × 50  |

18 × SFSBOLT-M12S REQUIRED UNLESS SPECIFIED IN DESIGN DRAWING.

## 4-WAY BRACKET

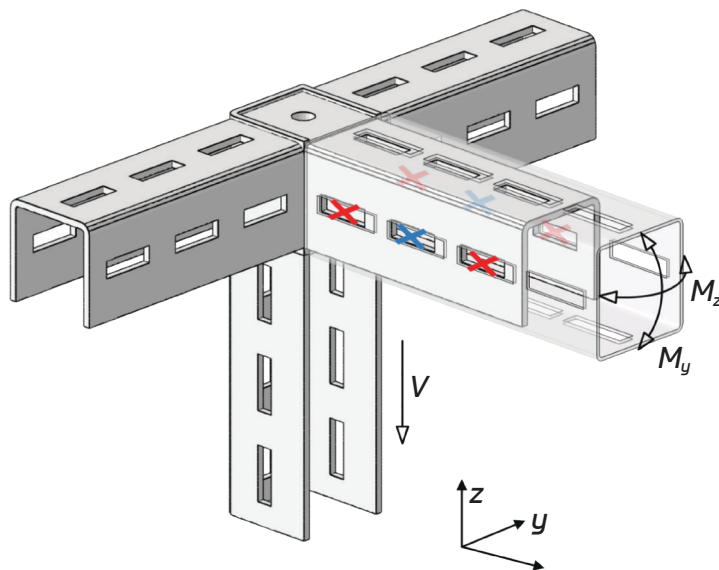
| TECHNICAL DATA |                    |
|----------------|--------------------|
| ZCA Part No:   | SFS100-B4WAY       |
| S&T Part No:   | P0112014           |
| Material:      | Mild Steel         |
| Material Type: | 235 MPa            |
| Finish:        | Hot-dip galvanised |



## LOADING

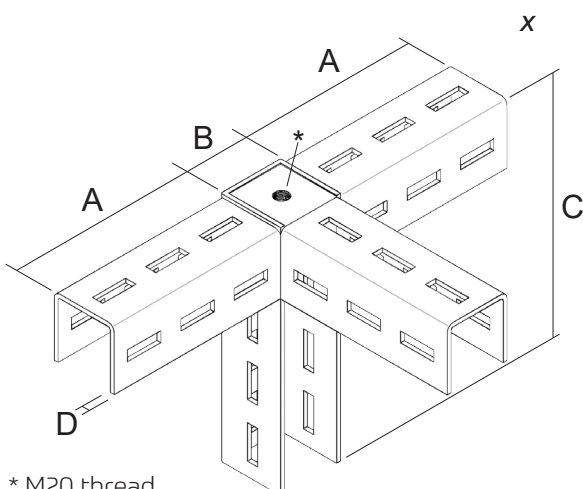
### NOTES:

1. SFSBOLT-M12S torqued to 100 Nm.
2. 4 No. SFSBOLT-M12S set on opposite sides (✕), 6 No. SFSBOLT-M12S set on opposite sides (✕✕).



| 4 No. SFSBOLT-M12S (✕) |                   |
|------------------------|-------------------|
| LOAD TYPE              | ULTIMATE CAPACITY |
| $M_y, M_{-y}$          | 3.81 kNm          |
| $M_z, M_{-z}$          | 2.52 kNm          |
| V                      | 28.0 kN           |

| 6 No. SFSBOLT-M12S (✕✕) |                   |
|-------------------------|-------------------|
| LOAD TYPE               | ULTIMATE CAPACITY |
| $M_y, M_{-y}$           | 3.81 kNm          |
| $M_z, M_{-z}$           | 3.78 kNm          |
| V                       | 28.0 kN           |



\* M20 thread

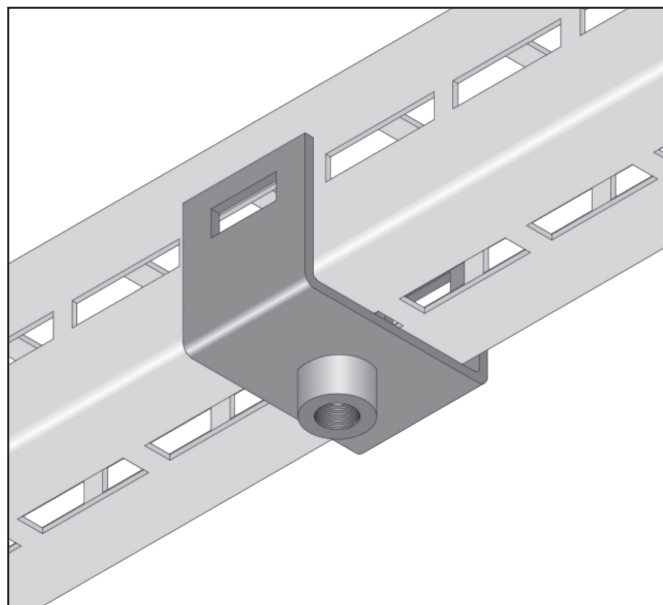
## DIMENSIONS

| PART NO.     | A (mm) | B (mm) | C (mm) | D (mm) | SLOTS (mm) |
|--------------|--------|--------|--------|--------|------------|
| SFS100-B4WAY | 250    | 100    | 350    | 6      | 15.5 × 50  |

## THREAD CONNECTOR M16

### TECHNICAL DATA

|                |                    |
|----------------|--------------------|
| ZCA Part No:   | SFS100-TC-M16      |
| S&T Part No:   | P0112015           |
| Material:      | Mild Steel         |
| Material Type: | 235 MPa            |
| Finish:        | Hot-dip galvanised |

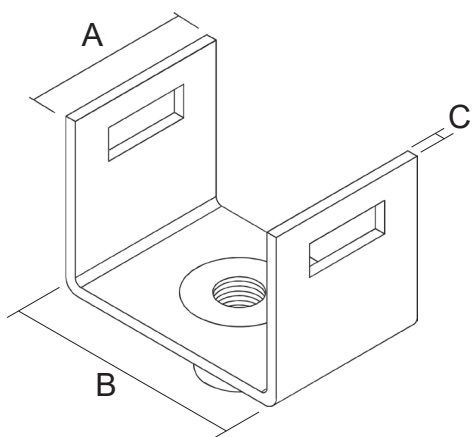
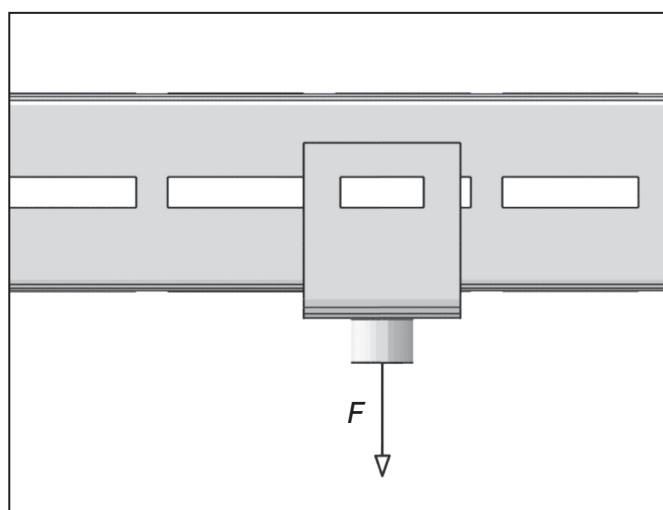


## LOADING

| LOAD TYPE | ULTIMATE CAPACITY |
|-----------|-------------------|
| F         | 26.2 kN           |

### NOTES:

1. 2 No. SFSBOLT-M12S required to fix to channel.
2. SFSBOLT-M12S torqued to 100 Nm.



## DIMENSIONS

| PART NO.      | A (mm) | B (mm) | C (mm) | THREAD (mm) | SLOTS (mm) |
|---------------|--------|--------|--------|-------------|------------|
| SFS100-TC-M16 | 75     | 112    | 6      | 16          | 15.5 × 40  |

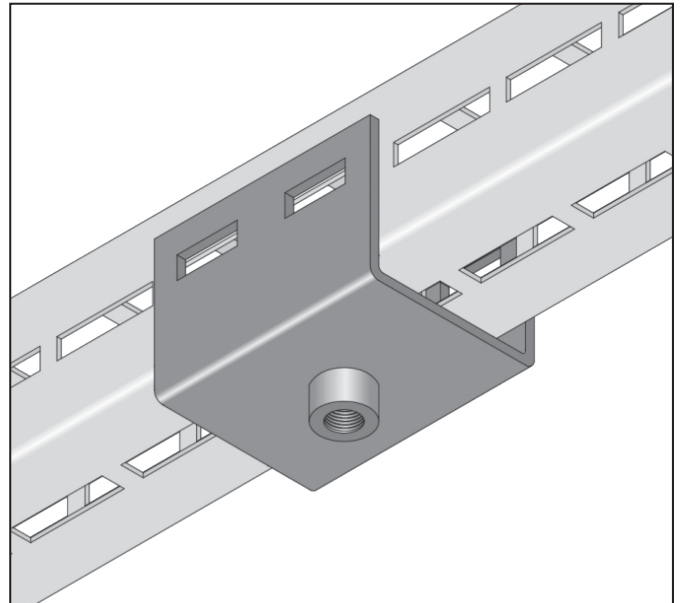
2 × SFSBOLT-M12S REQUIRED UNLESS SPECIFIED IN DESIGN DRAWING.



## THREAD CONNECTOR M20

### TECHNICAL DATA

|                |                    |
|----------------|--------------------|
| ZCA Part No:   | SFS100-TC-M20      |
| S&T Part No:   | P0112016           |
| Material:      | Mild Steel         |
| Material Type: | 235 MPa            |
| Finish:        | Hot-dip galvanised |

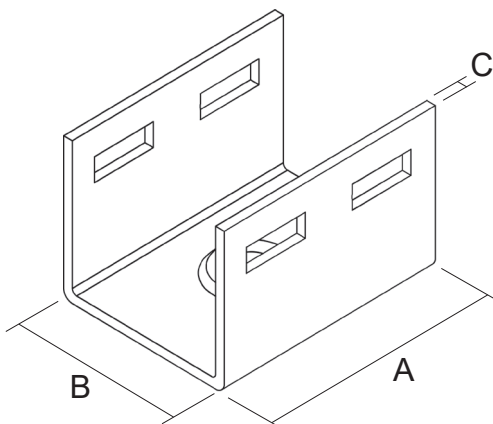
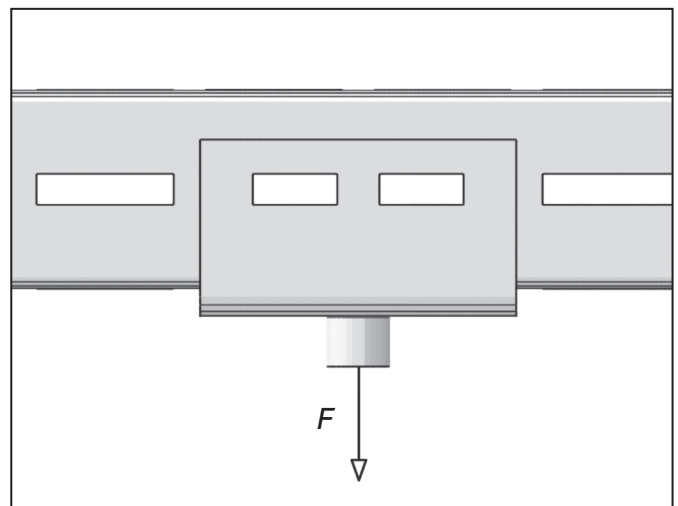


## LOADING

| LOAD TYPE | ULTIMATE CAPACITY |
|-----------|-------------------|
| F         | 37.5 kN           |

### NOTES:

1. 4 No. SFSBOLT-M12S required to fix to channel.
2. SFSBOLT-M12S torqued to 100 Nm.



## DIMENSIONS

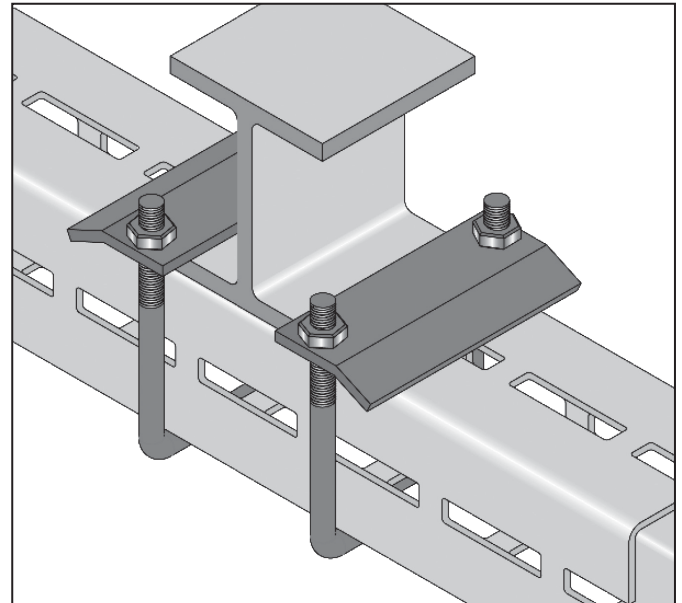
| PART NO.      | A (mm) | B (mm) | C (mm) | THREAD (mm) | SLOTS (mm) |
|---------------|--------|--------|--------|-------------|------------|
| SFS100-TC-M16 | 150    | 112    | 6      | 20          | 15.5 × 40  |

4 × SFSBOLT-M12S REQUIRED UNLESS SPECIFIED IN DESIGN DRAWING.

## BEAM CLAMP

### TECHNICAL DATA

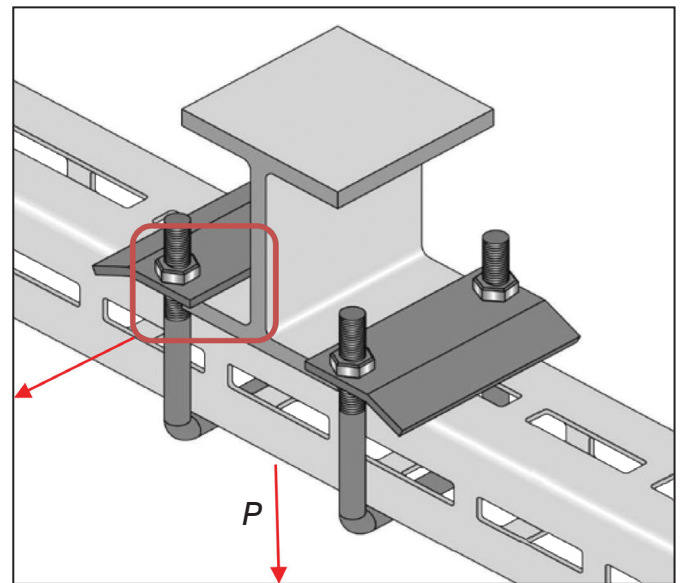
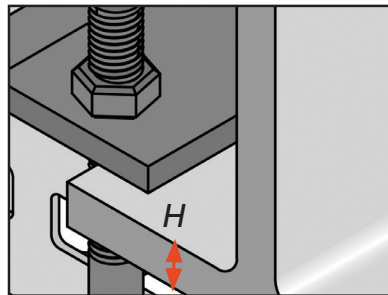
|                |                    |
|----------------|--------------------|
| ZCA Part No:   | SFS100-BC          |
| S&T Part No:   | P0112017           |
| Material:      | Mild Steel         |
| Material Type: | 235 MPa            |
| Finish:        | Hot-dip galvanised |



## LOADING

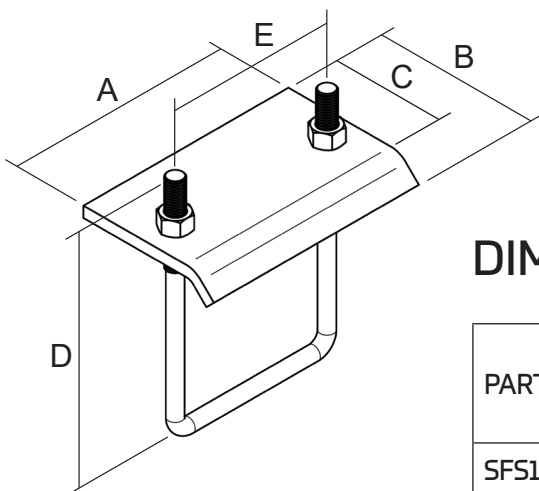
### NOTES:

1. SFS100 Beam Clamps must be used as a pair.
2. Beam must be supported at both ends.
3. For M12 Class 4.6 U-Bolts, nut installation torque 30 Nm.



Beam flange thickness (**H**): 8 - 20 mm.

Working Load (**P**) per pair: 13.1 kN.



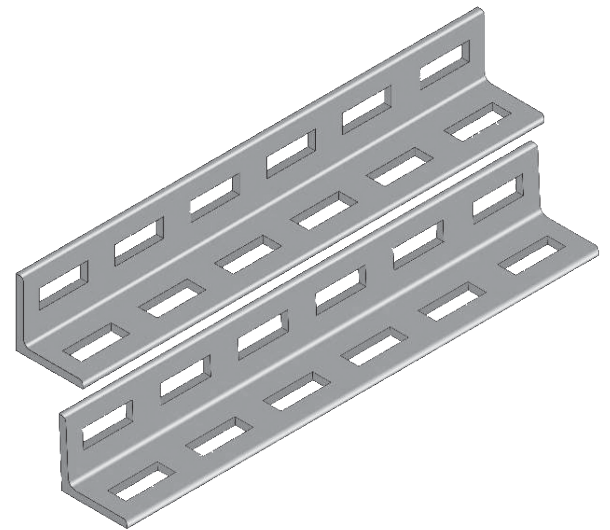
## DIMENSIONS

| PART NO.  | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | CLAMP MATERIAL (mm) | U-BOLT     |
|-----------|--------|--------|--------|--------|--------|---------------------|------------|
| SFS100-BC | 150    | 98     | 80.3   | 162    | 114    | 8                   | M12 × 1.75 |

## JOINER SET

### TECHNICAL DATA

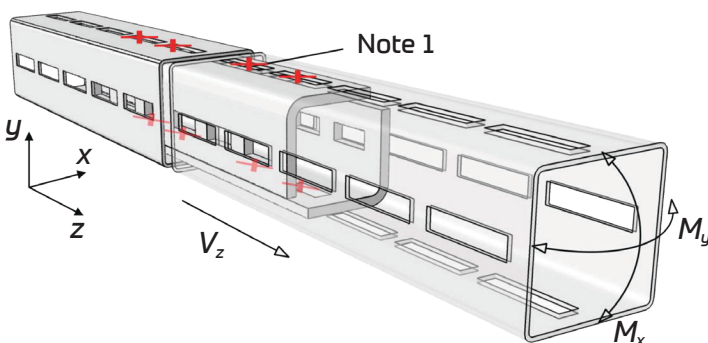
|                |                    |
|----------------|--------------------|
| ZCA Part No:   | SFS100-JOINER      |
| S&T Part No:   | P0112018           |
| Material:      | Mild Steel         |
| Material Type: | 235 MPa            |
| Finish:        | Hot-dip galvanised |



## LOADING

### NOTES:

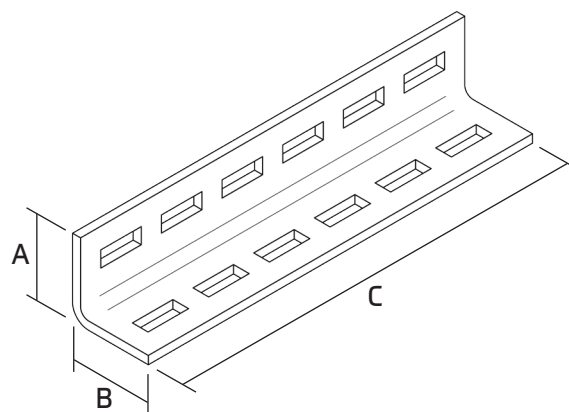
1. 8 No. SFSBOLT-M12S required to fix the joiner set (✗).
2. SFSBOLT-M12S torqued to 100 Nm.



| LOAD TYPE  | ULTIMATE CAPACITY |
|------------|-------------------|
| $M_x, M_y$ | 2.63 kNm          |
| $V$        | 56.0 kN           |

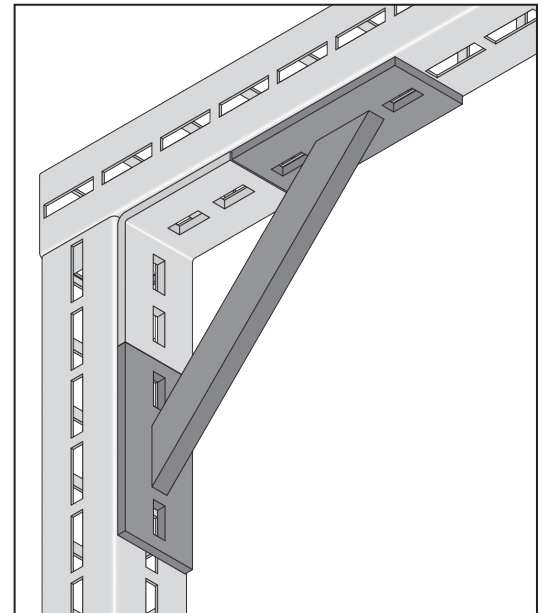
## DIMENSIONS

| PART NO.      | A and B (mm) | C (mm) | MATERIAL (mm) | SLOTS (mm) | SLOT SPACING (mm) |
|---------------|--------------|--------|---------------|------------|-------------------|
| SFS100-JOINER | 75           | 380    | 8             | 15.5 × 40  | 20                |



8 × SFSBOLT-M12S REQUIRED UNLESS SPECIFIED IN DESIGN DRAWING.

## BRACE

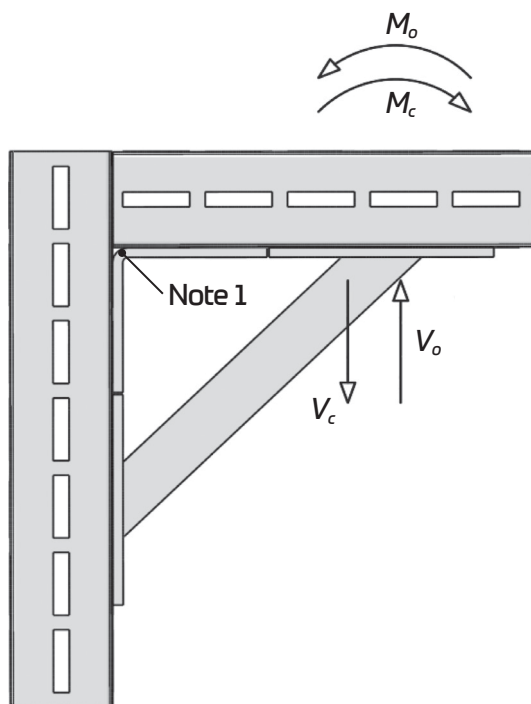


| TECHNICAL DATA |                    |
|----------------|--------------------|
| ZCA Part No:   | SFS100-BRACE       |
| S&T Part No:   | P0112019           |
| Material:      | Mild Steel         |
| Material Type: | 235 MPa            |
| Finish:        | Hot-dip galvanised |

## LOADING

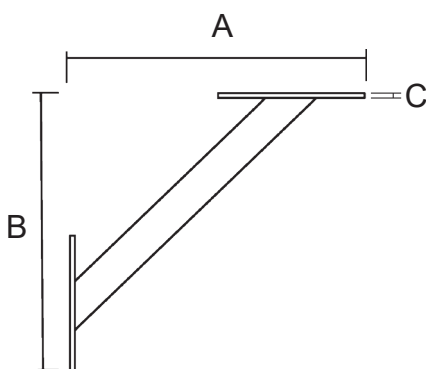
### NOTES:

1. To be used in conjunction with SFS100-AB1 or SFS100-AB1G.
2. SFSBOLT-M12S torqued to 100 Nm.



| Beam Case (Supported on both sides) |          |
|-------------------------------------|----------|
| $M_c$                               | 2.55 kNm |
| $M_o$                               | 1.85 kNm |
| $V_c$                               | 19.08 kN |
| $V_o$                               | 8.74 kN  |

| Cantilever Case (Supported on only one side) |          |
|----------------------------------------------|----------|
| $M_c$                                        | 1.61 kNm |
| $M_o$                                        | 1.85 kNm |
| $V_c$                                        | 6.88 kN  |
| $V_o$                                        | 8.74 kN  |



## DIMENSIONS

| PART NO.     | A (mm) | B (mm) | C (mm) | SLOTS (mm) |
|--------------|--------|--------|--------|------------|
| SFS100-BRACE | 370    | 370    | 10     | 15.5 × 40  |

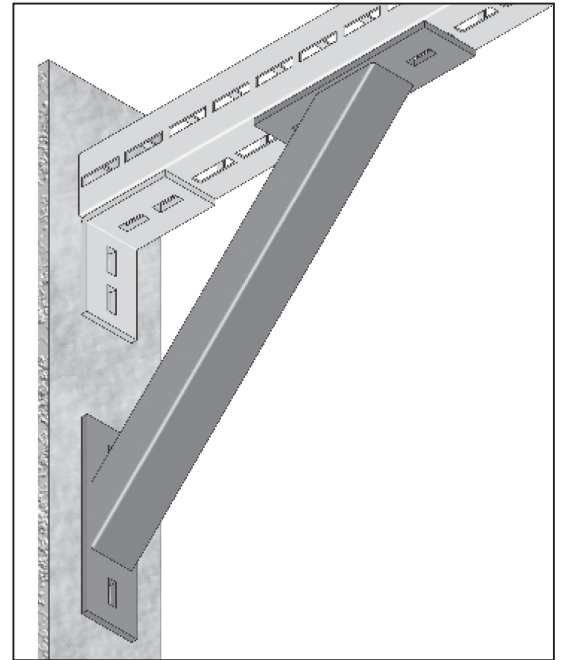
4 × SFSBOLT-M12S REQUIRED UNLESS SPECIFIED IN DESIGN DRAWING.

BRACE MUST BE USED IN CONJUNCTION WITH SFS100-AB1 OR SFS100-AB1G.

## WALL BRACE

### TECHNICAL DATA

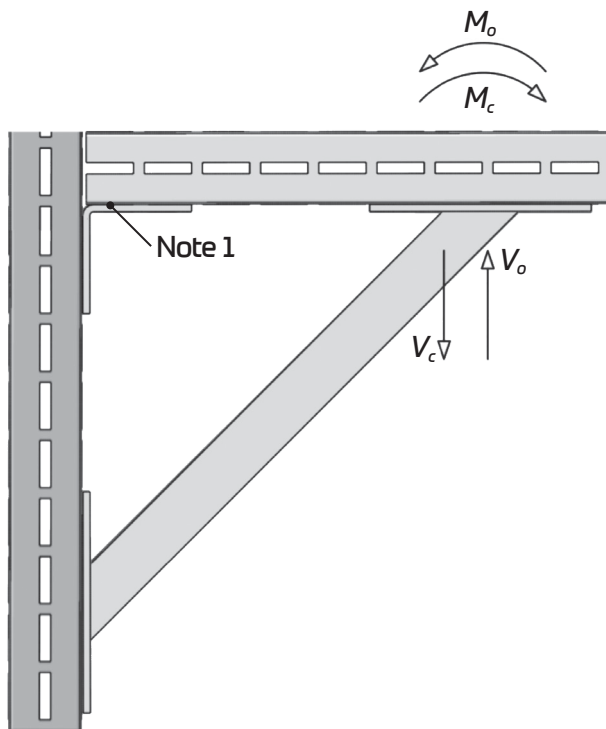
|                |                    |
|----------------|--------------------|
| ZCA Part No:   | SFS100-WALLBRACE   |
| S&T Part No:   | P0112020           |
| Material:      | Mild Steel         |
| Material Type: | 235 MPa            |
| Finish:        | Hot-dip galvanised |



## LOADING

### NOTES:

1. To be used in conjunction with SFS100-AB1 or SFS100-AB1G.
2. SFSBOLT-M12S torqued to 100 Nm.

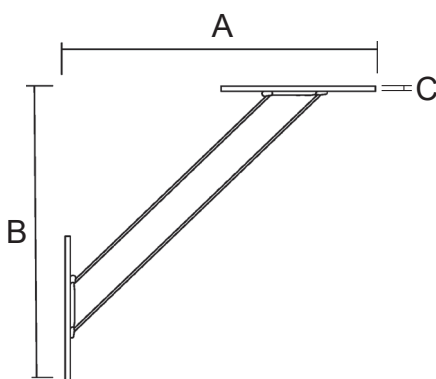


### Beam Case (Supported on both sides)

|       |          |
|-------|----------|
| $M_c$ | 4.85 kNm |
| $M_o$ | 2.95 kNm |
| $V_c$ | 24.62 kN |
| $V_o$ | 9.59 kN  |

### Cantilever Case (Supported on only one side)

|       |          |
|-------|----------|
| $M_c$ | 2.40 kNm |
| $M_o$ | 2.95 kNm |
| $V_c$ | 13.13 kN |
| $V_o$ | 9.59 kN  |



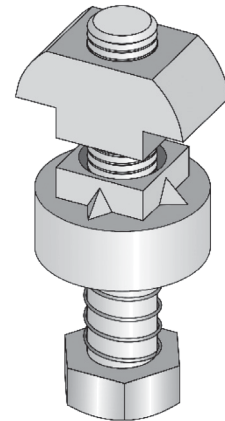
## DIMENSIONS

| PART NO.         | A (mm) | B (mm) | C (mm) | SLOTS (mm) |
|------------------|--------|--------|--------|------------|
| SFS100-WALLBRACE | 700    | 700    | 10     | 15.5 × 40  |

4 × SFSBOLT-M12S REQUIRED UNLESS SPECIFIED IN DESIGN DRAWING.

BRACE MUST BE USED IN CONJUNCTION WITH SFS100-AB1 OR SFS100-AB1G.

## SPRING BOLTS

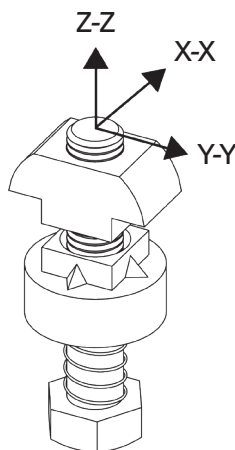


| TECHNICAL DATA |                         |
|----------------|-------------------------|
| ZCA Part Nos:  | SFSBOLT-M12S            |
| S&T Part Nos:  | P0112060                |
| Material:      | Mild Steel              |
| Material Type: | 10.9 Grade Steel        |
| Finish:        | Zinc-Nickel             |
| For Profile:   | SFS80 and SFS100        |
| Features:      | Form Locking Connection |

## LOADING

### NOTES:

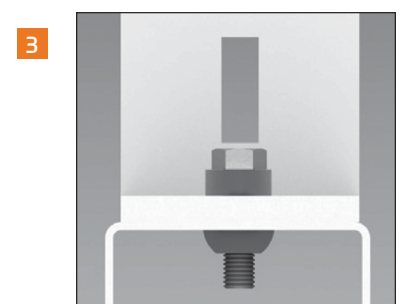
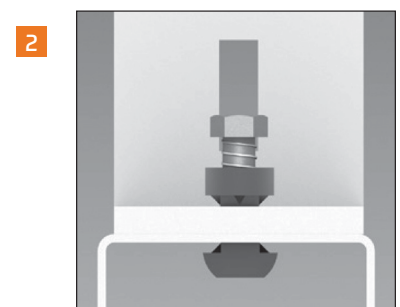
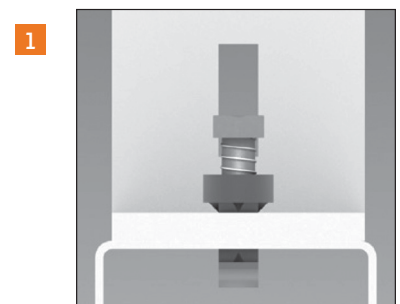
1. SFSBOLT-M12S (P0112060) for use with fixings that come with 15.5 mm slots to suit Support Frame Systems 80 and 100.
2. SFSBOLT-M12S torqued to 100 Nm.
3. Suitable for both indoor and outdoor applications.
4. Not for use in cases where the bolt is continually subject to corrosive atmosphere, e.g., tidal zones, high corrosive environments, etc.



| LOAD TYPE                   | ULTIMATE CAPACITY |
|-----------------------------|-------------------|
|                             | SFSBOLT-M12S      |
| X-X (along slot)            | 10 kNm            |
| Y-Y (perpendicular to slot) | 10 kNm            |
| Z-Z                         | 3 kN              |

## INSTALLATION

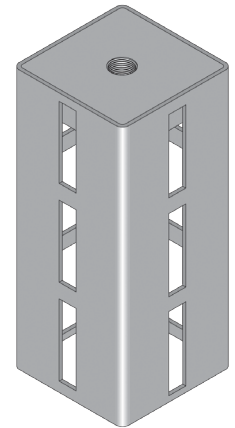
1. Insert bolt through fitting and section.
2. Push down bolt head and rotate 90° allowing it to lock in place.
3. Tighten to 100 Nm for M12.



## LIFTING ACCESSORIES

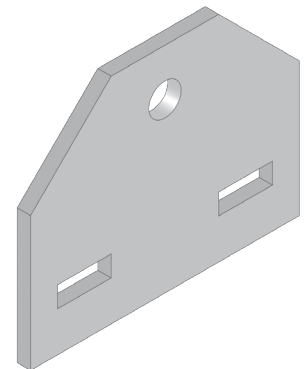
### WELDED LIFTING PLUG

| Part Nos:                        | Description                 | Thread | Finish             | Working Load Limit (kg) |
|----------------------------------|-----------------------------|--------|--------------------|-------------------------|
| ZCA: SFS50-WLP<br>S&T: P0095454  | SFS50 welded lifting plate  | M12    | Hot-dip galvanised | 1500                    |
| ZCA: SFS80-WLP<br>S&T: P0095454  | SFS80 welded lifting plate  | M20    | Hot-dip galvanised | 2000                    |
| ZCA: SFS100-WLP<br>S&T: P0095454 | SFS100 welded lifting plate | M20    | Hot-dip galvanised | 2000                    |



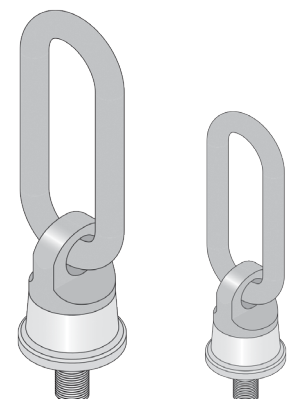
### LIFTING BRACKET

| Part No:                        | Description            | Hole (mm) | Finish             | Working Load Limit (kg) |
|---------------------------------|------------------------|-----------|--------------------|-------------------------|
| ZCA: SFS80-LB<br>S&T: P0096631  | SFS80 lifting bracket  | 24        | Hot-dip galvanised | 2000                    |
| ZCA: SFS100-LB<br>S&T: P0096631 | SFS100 lifting bracket | 24        | Hot-dip galvanised | 2000                    |



### LIFTING LUG

| Part No:                        | Description        | Thread | Finish  | Working Load Limit (kg) |
|---------------------------------|--------------------|--------|---------|-------------------------|
| ZCA: SFS50-LL<br>S&T: P0095030  | SFS50 lifting lug  | M12    | Painted | 1500                    |
| ZCA: SFS80-LL<br>S&T: P0095030  | SFS80 lifting lug  | M20    | Painted | 2000                    |
| ZCA: SFS100-LL<br>S&T: P0095030 | SFS100 lifting lug | M20    | Painted | 2000                    |



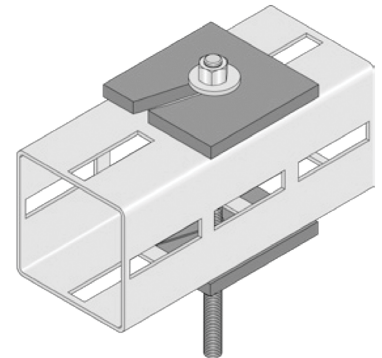
Contact Zip-Clip Technical Department to discuss appropriate lifting lug.



## OTHER ACCESSORIES

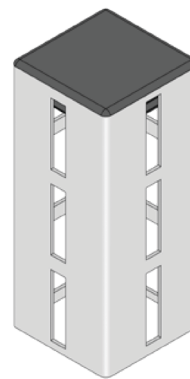
### REINFORCEMENT WASHER

| Part No.                        | Description                 | Dimensions (mm)                 | Compatible With | Finish             |
|---------------------------------|-----------------------------|---------------------------------|-----------------|--------------------|
| ZCA: SFS100-RW<br>S&T: P0111573 | SFS100 Reinforcement washer | 100 × 100 × 10<br>Slot width 14 | M10 and M12 rod | Hot-dip galvanised |



### END CAP

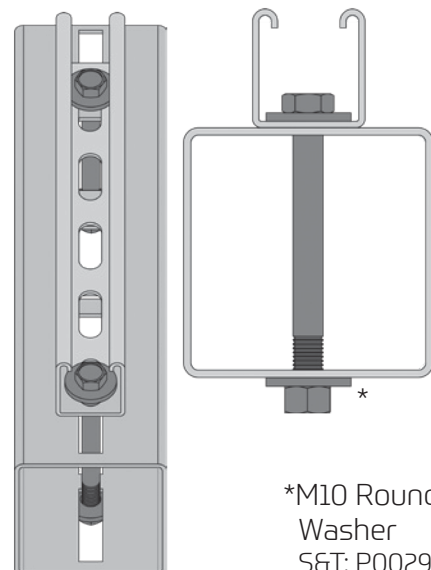
| Part No.                         | Description    | Colour |
|----------------------------------|----------------|--------|
| ZCA: SFS100-CAP<br>S&T: P0112022 | SFS100 end cap | Orange |



## STRUT CONNECTION GUIDE

Relevant for all systems – 50, 80 and 100

| System Size                  | Bolt and Nut | Washer* |
|------------------------------|--------------|---------|
| ZCA: SFS50<br>S&T: P0011791  | M10 × 75     | M10     |
| ZCA: SFS80<br>S&T: P0010713  | M10 × 110    | M10     |
| ZCA: SFS100<br>S&T: P0010838 | M10 × 130    | M10     |



\*M10 Round Washer  
S&T: P0029264

#### DISCLAIMER:

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