

Beam Clamp®

A KEE SAFETY PRODUCT

SAFE STEELWORK CONNECTIONS

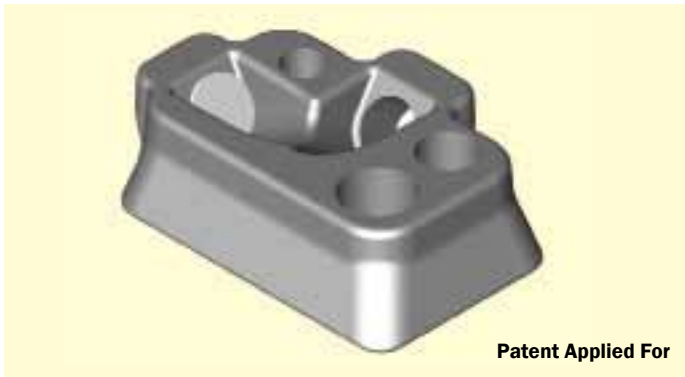
Suspension Fixings



- UNIQUE UNIVERSAL DECKING FIXING - BBA TESTED
- SF FLANGE CLAMP - FM APPROVED



Uni-Wedge - BN2



- One fixing suits seven most popular decking profiles
- Allows for manufacturing tolerances in the deck profile
- Single piece construction
- Separate fixing screw to ease final adjustment
- M06, M08 & M10 threaded fixing holes
- Requires no site power or skilled labour
- Tested at the British Board of Agrément

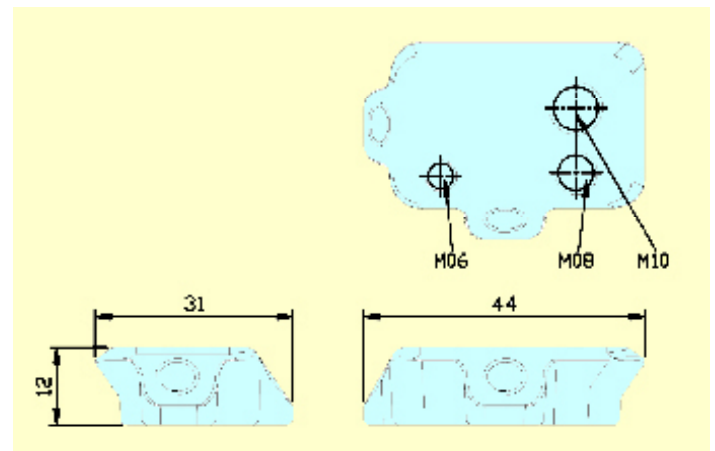
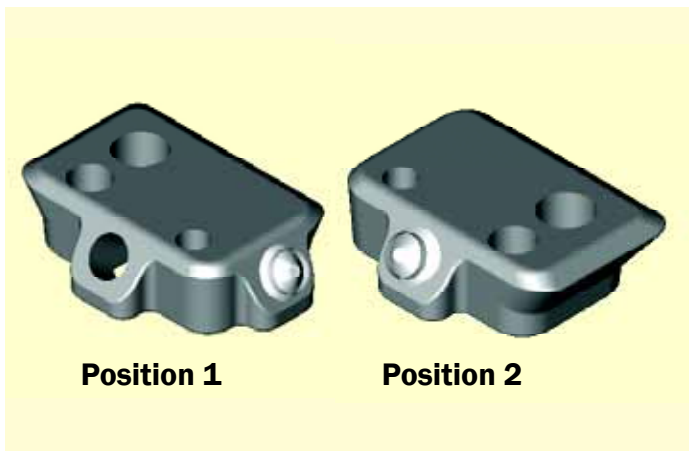
Uni-Wedge has been specifically designed as a single universal fixing suitable for the seven most popular deck profiles available in the UK. These decking profiles are nearly always present on steel constructed multi-storey buildings and Uni-Wedge provides a solution to fix building services equipment without penetrating the decking membrane. This fixing provides a guaranteed safe working load and simply requires a standard hexagon key and spanner with no requirement for power, special tools or highly skilled labour.

Uni-Wedge has a unique body style that allows it to fix to seven decking profiles, making it easy to use and specify. The specific type of

decking is not always easy to identify on site and has caused installers problems when trying to acquire the correct fixing to use, but Uni-Wedge provides the ideal solution (see table below).

Uni-Wedge has been designed for the end user to ensure that whatever the situation the right connection can be made as quickly as possible.

Uni-Wedge has a fixing screw that is assembled in the body and provides a positive location in the decking re-entrant channel. This screw is assembled as standard in position 1 but can easily be removed and placed in to position 2 to suit the other decking profiles, see table below:



FINISH: Zinc Plated to BS EN 12329:2000 Grade Fe//Zn5//A (Clear)

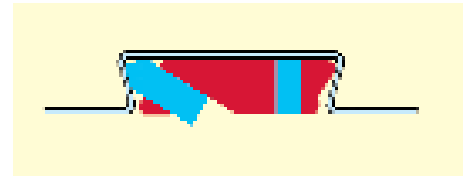
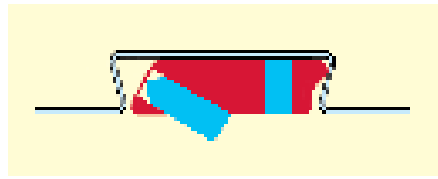
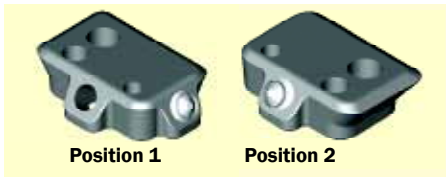
MATERIAL: SG (Ductile) Iron to BS EN 1563 Grade EN-GJS-450-10

Decking Manufacturer	Decking type	Screw position	M06, M08 & M10 Tensile SWL (kN) (3 to 1 Factor of safety)	Tightening torque (Nm) Use 4mm Hexagon key to tighten grub screw
KINGSPAN	Multi deck 60 - V2	1	1.0	8
	Multi deck 80 - V2	1	1.0	8
RICHARD LEES	Rib deck 80	1	1.0	8
	Rib deck AL	1	1.0	8
	Rib deck E60	1	1.0	8
SMD	TR60	2	1.0	8
	TR80	2	1.0	8

IMPORTANT!

- Only use one threaded bar per fixing
- The decking must not be damaged and have a fully formed re-entrant channel
- Ensure the cone point grub screw is fully engaged in to the corner of the re-entrant channel
- Do not screw the threaded bar any further in than the top surface of the fixing
- Ensure the fixing is a minimum 300mm from any edges of the decking

Uni-Wedge Installation Steps



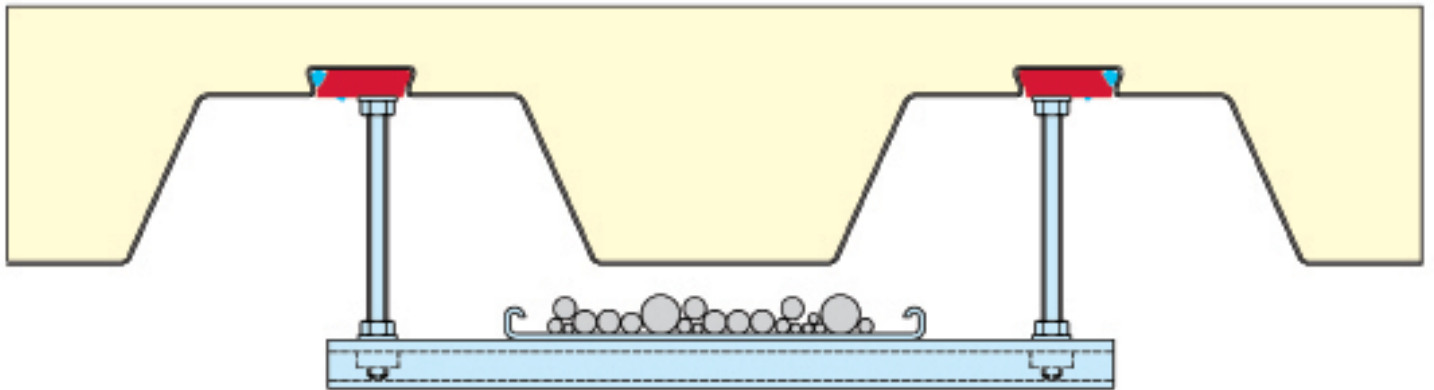
1. Select the correct position for the grub screw to suit the decking profile as shown above Position 1 or 2.

2. Insert Uni-Wedge in to the re-entrant channel of the deck. Ensure the point of the grub screw is not exposed at the top of the hole as this will stop Uni-Wedge fitting.

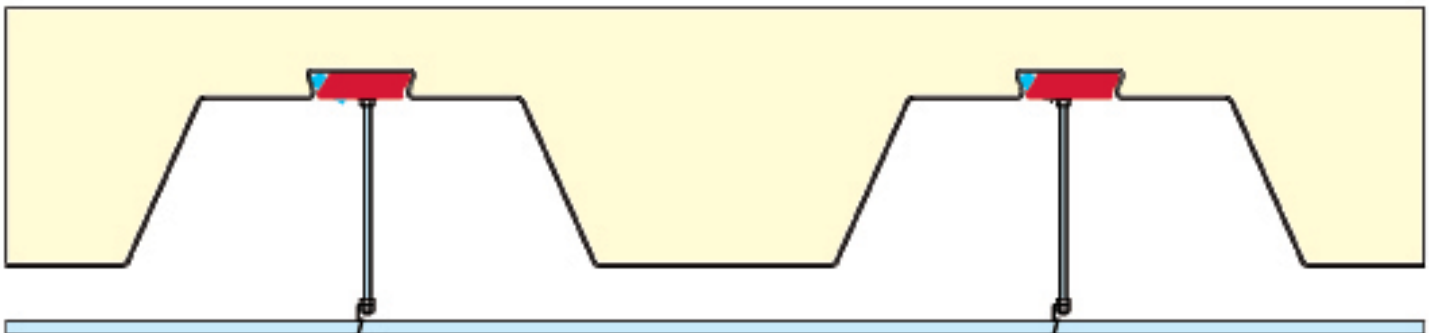
3. Tighten the grub screw to secure the fixing. We recommend a tightening torque of 8Nm to achieve a guaranteed SWL.

4. Once the grub screw is secured one of the M06, M08 or M10 threaded holes can be fixed to. This maybe threaded bar, eyebolts, J-bolts or any other threaded items used for suspending building services. We always recommend the threaded item is locked in to position using a lock nut to the underside of Uni-Wedge.

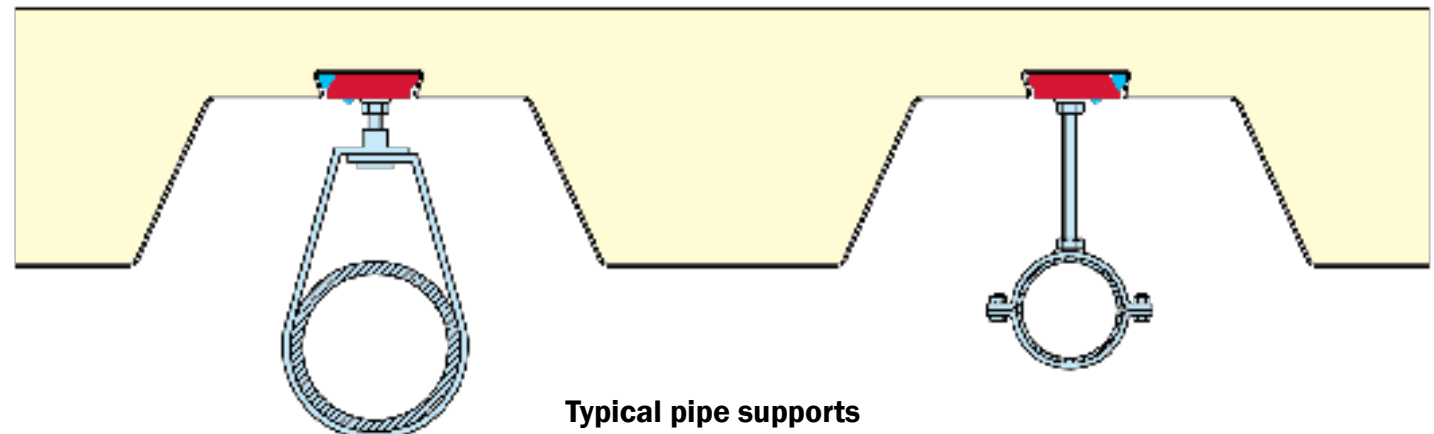
Uni-Wedge Applications



Strut support for cable tray



Suspended ceiling detail using hook bolts



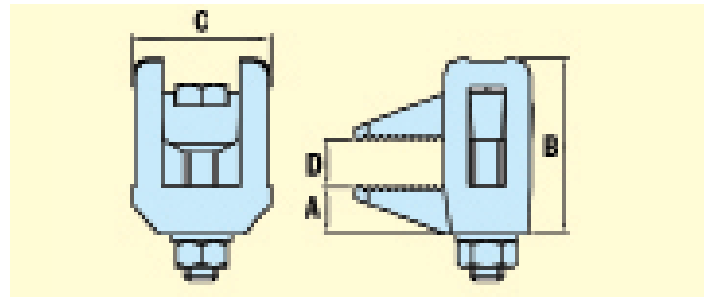
Typical pipe supports

BL Flange Clamp



- Only requires one tool for installation
- Hot Dip Galvanised
- Can accommodate clips/brackets
- Extensive fixing range
- Tested for Tensile and Lateral loading

MATERIAL: Cast Steel to ASTM A27 : Grade 70 – 36
FINISH: Hot Dip Galvanised to BS : 1461



The **BL Flange Clamp** is a versatile clamp used for a wide variety of applications. It can be used with clips and brackets underneath the nut and washer side for fixing conduit or even pipe work. It can also be used for fixing down the lids of pressure vessels or clamping steel together without the need for drilling or welding.

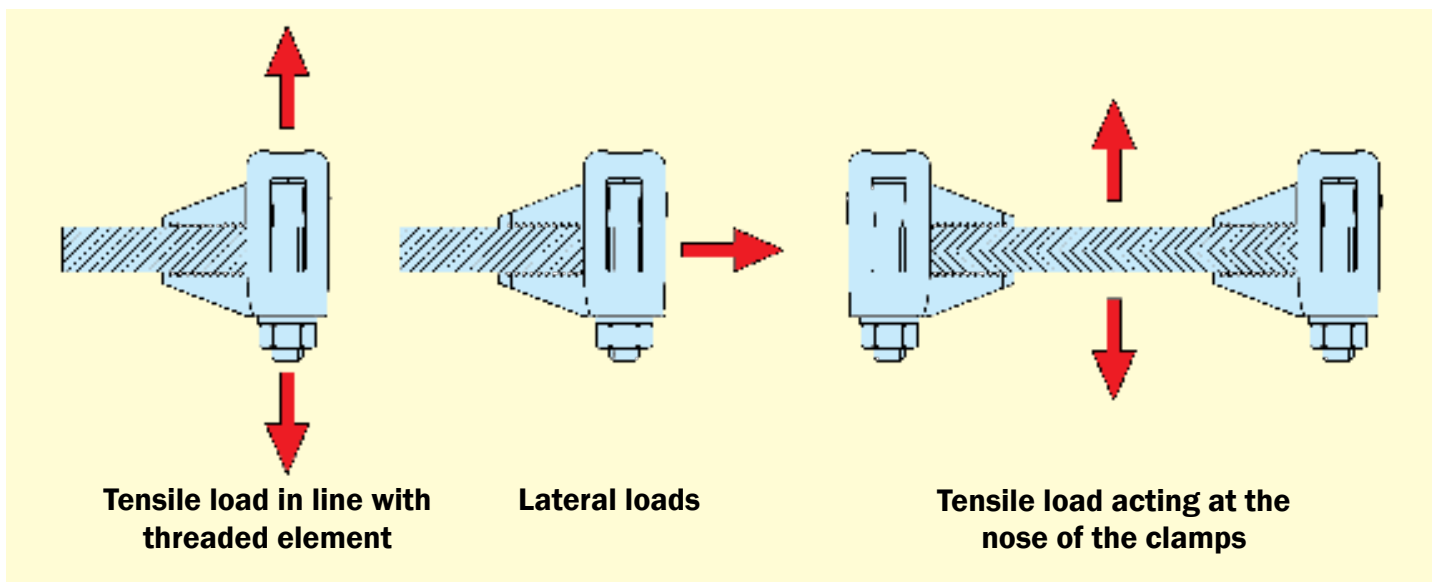
sheet below. The recessed part is specifically designed to grip the head of a bolt or nut which means the clamp can always be fixed with one spanner only. The central bolt can be replaced with other threaded items such as threaded bar, eyebolts or J-bolts to provide a suspension element.

The fixing is tested for tensile and lateral loads, please see data

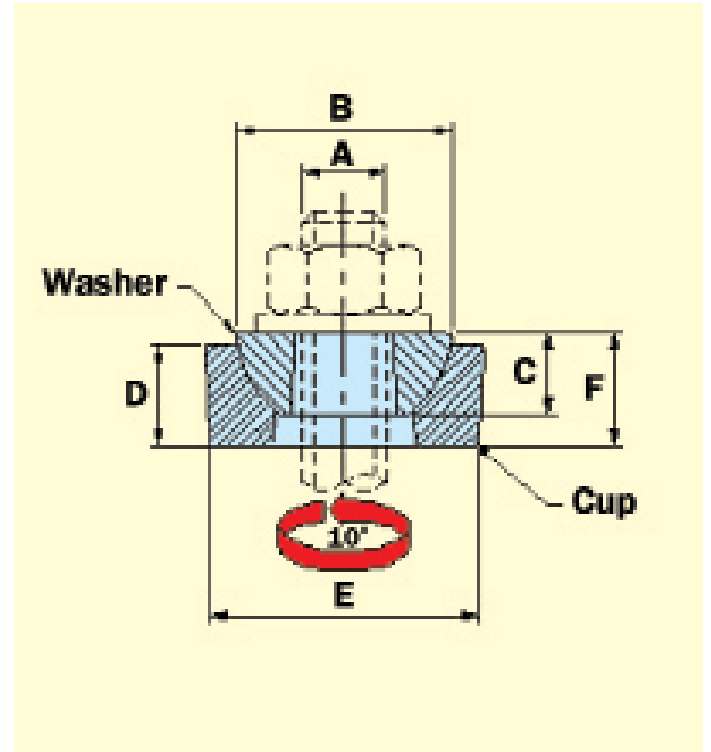
The Safe working loads are based on assemblies tested in typical conditions for an individual clamp unless stated.

Product Code	A (mm)	B (mm)	C (mm)	D (mm)	Tightening torque (Nm)	Tensile load in line with rod (kN)	Tensile load at nose (kN) (per pair)	Lateral Loads (kN)
BL1G08A	12.5	45	40	0 to 20	10	1.0	3.3	0.25
BL1G10A	14	58	47	0 to 30	20	2.5	4.4	0.40
BL1G12A	15	65	51.5	0 to 35	40	5.0	5.0	0.60
BL1G16A	20	95	58	0 to 55	90	7.5	9.2	0.70
BL1G20A	23	116	66	0 to 70	180	9.0	10.5	0.75
BL1G24A	26	147	75	0 to 95	200	10.5	15.5	0.80

All of the above loads have been subject to a 3:1 Factor of Safety. Do not exceed the Safe Working Load (SWL) specified.



Hemispherical Cups and Washers - BV1 & BU1



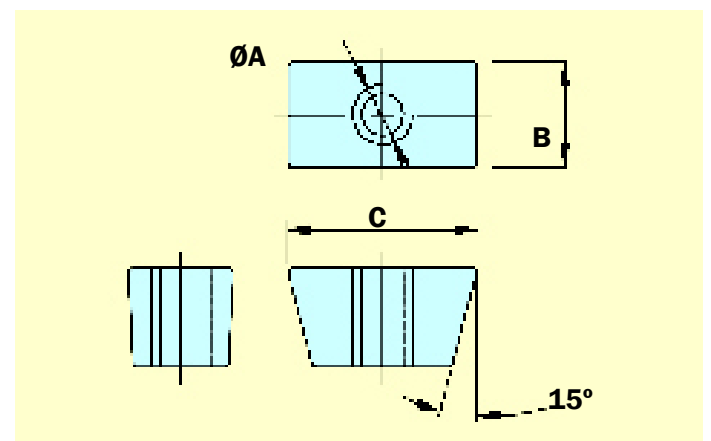
- Allows a swing of 10° in all directions
- Prevents the need to bend threaded bar
- Provides pivotable element for adjustment

The hemispherical washers (BU1) and cups (BV1) provide a pivotable action when used with threaded bar. They allow a 10 degree swing in all directions from vertical and when used in pairs can provide a locked connection as shown opposite. Typical applications would be connecting to a roof rafter where the threaded bar needs to be hanging perpendicular to the floor or for making a ball socket on the legs of air conditioning support frames to allow adjustability for sloping roofs.

Washer part code	Cup part code	A Bolt dia	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Tensile load (kN)
BU1G08	n/a	8	22	8	n/a	n/a	n/a	1.25
BU1G10	BV1G10	10	25	10	12	32	14	2.5
BU1G12	BV1G12	12	29	12	12	35	14	4.12
BU1G16	BV1G16	16	34	14	16	41	19	6.6
BU1G20	BV1G20	20	44	19	20	54	23.5	9.57
BU1G24	BV1G24	24	57	24	25	67	29	12.75

All of the above loads have been subject to a 5:1 Factor of Safety.
Material: Ductile Iron to BS EN 1563:1997 Finish: Galvanised to BS EN ISO 1461:1999

Vee Nuts - BX1



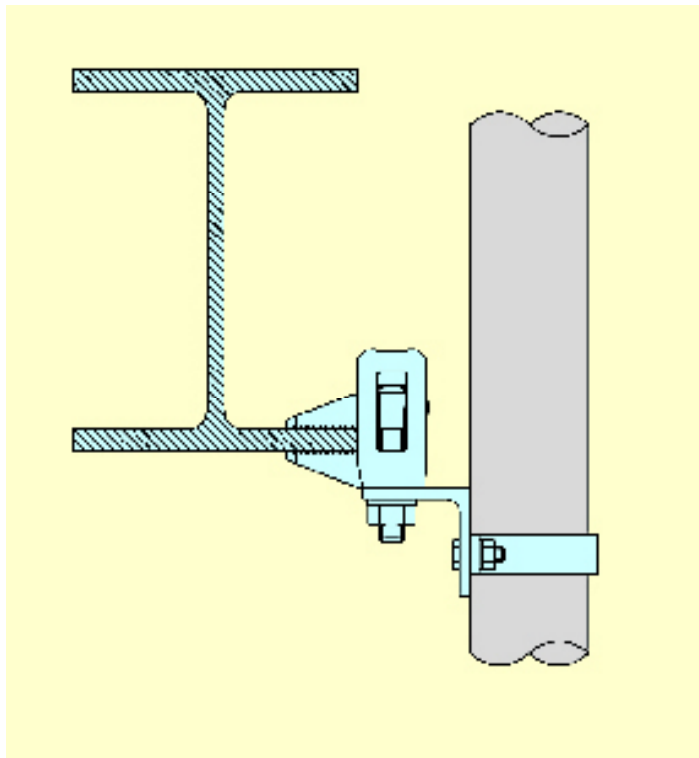
- M06, M08 and M10 tapped holes
- Allows easy fixing to decking
- No penetration of the deck required

Vee nuts have tapered sides at 15° to fit in to the re-entrant channels of metal decking. They are used for fixing light duty building services equipment to the underside of the decking profile.

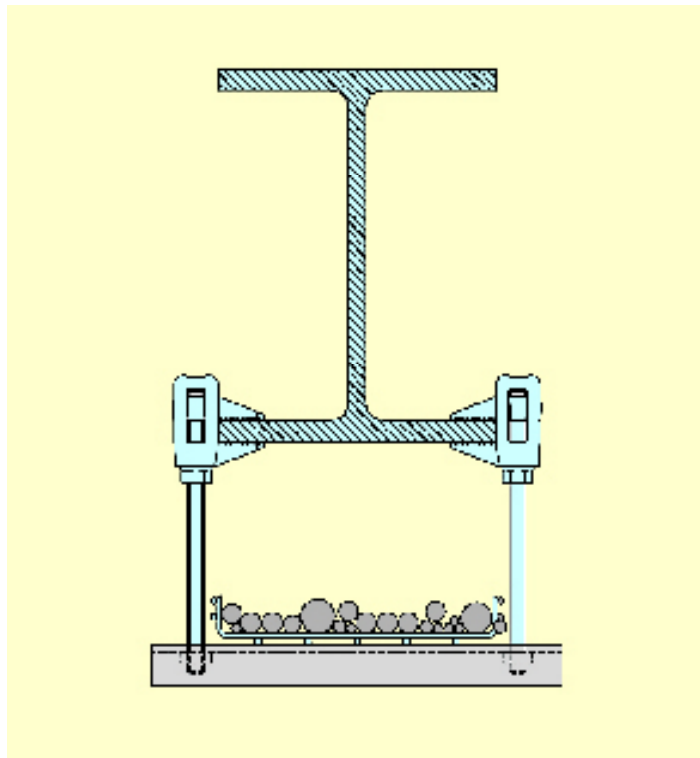
Part code	A Bolt dia	B (mm)	C (mm)	Tensile load (kN)
BX1Z06	M06	13	25	2.4
BX1Z08	M08	13	25	2.4
BX1Z10	M10	13	25	2.4

All of the above loads have been subject to a 3:1 Factor of Safety. Material: Mild steel to BS EN 10025:1993 Grade S275JR
Finish: Zinc Plated to BS EN 12329:2000 Grade Fe//Zn5//A (Clear)

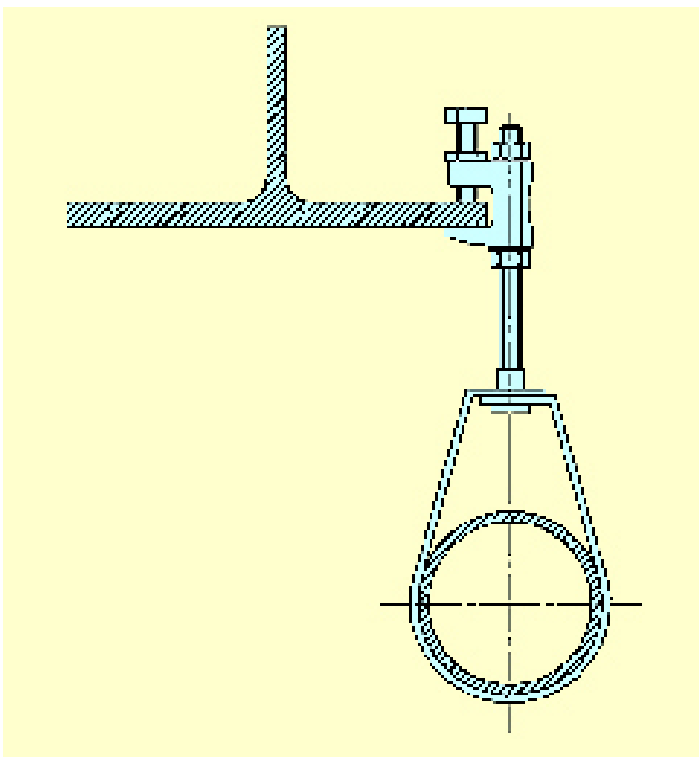
Applications



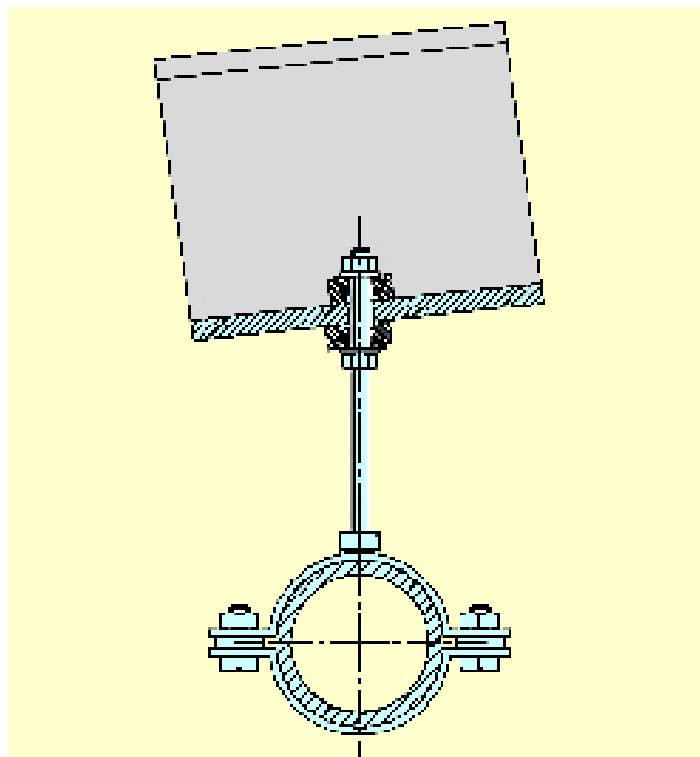
BL1 Flange Clamp with angle bracket connecting to a vertical pipe. Any style of bracket can be used underneath the nuts and washer for a variety of applications.



BL1 Flange Clamp with the bolt replaced by threaded bar for supporting strut and cable tray. The recessed part locates a top nut to allow the height to be adjusted and prevent the need for two spanners.



SF Flange Clamp connecting to a strap hanger for supporting a pipe run. The back hole allows the height of the threaded bar to be adjusted to the required position.



A pair of hemispherical cups and washers used to connect a threaded bar to a roof rafter. Using a cup and washer at both sides of the steel flange provides a locking device for the threaded bar. The pipe is then locked in to position and runs parallel to the floor.



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