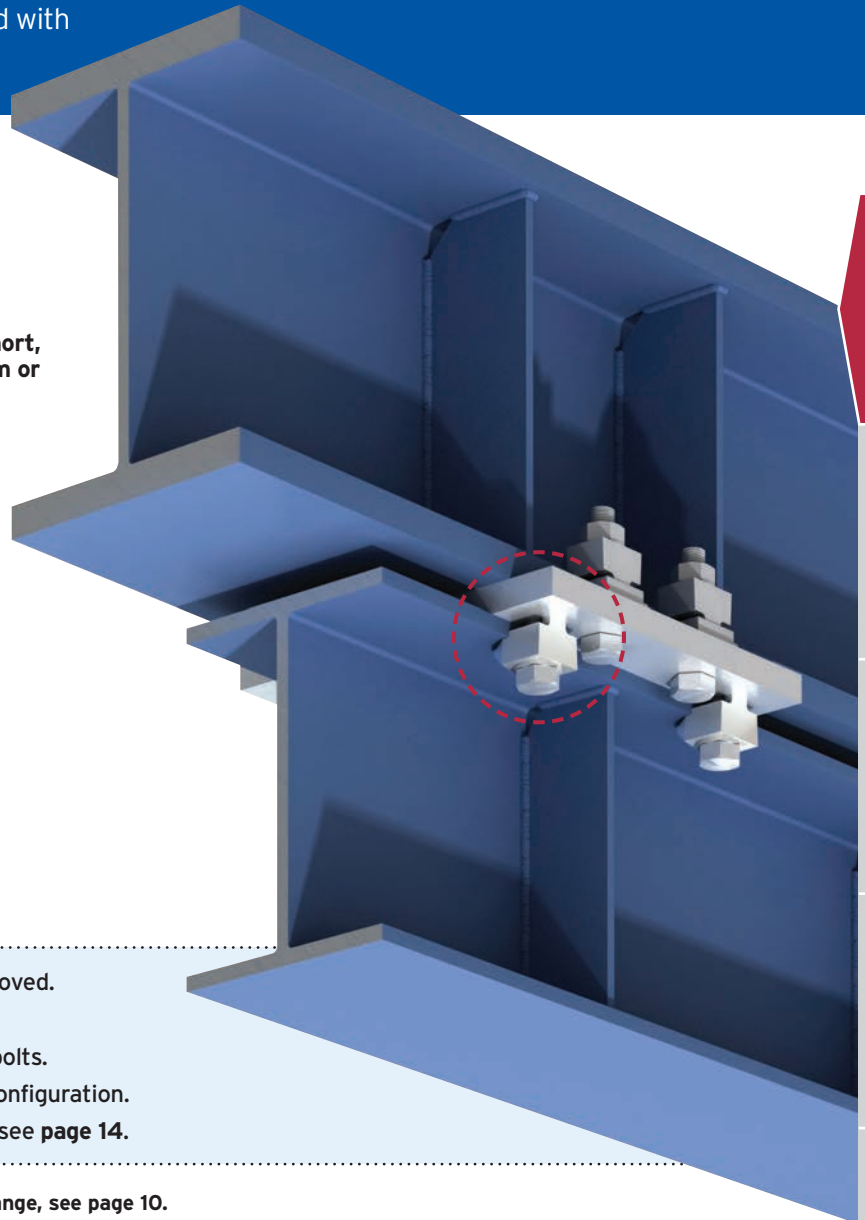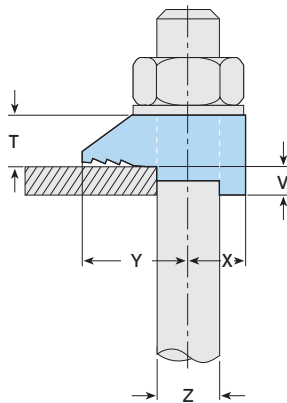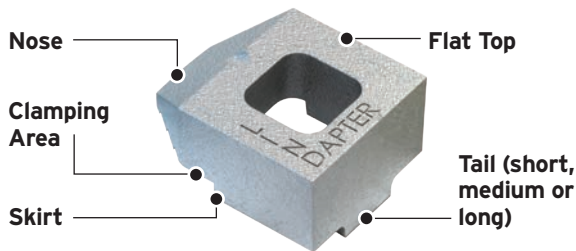# Type B

The flat-top version of Lindapter's standard clamp, for moderate tensile loading. Can also be used with Type A in a Girder Clamp configuration.

Nose

Flat Top

Clamping Area

Skirt

Tail (short, medium or long)

- CE Mark, DIBt, Lloyd's Register and TÜV approved.
- Flat top allows the bolt head or nut to rotate.
- Suitable for use with bolts, studs, tie rods, J-bolts.
- Supports up to 78.8kN in a tensile four bolt configuration.
- For higher loads the Type AF should be used, see **page 14**.

Material: Malleable iron, zinc plated / hot dip galvanised.

Product Code	Bolt 8.8 Z	Safe Working Loads (FOS 5:1)		Tightening Torque*	Dimensions							
		Tensile / 1 Bolt	Slip / 2 Bolts		Y	X	Tail Length V			T	Width
							short	medium	long		
		kN	kN	Nm	mm	mm	mm	mm	mm	mm	mm
B08	M8	1.0	-	6	16	8	-	4	-	8	20
B10	M10	1.5	-	20	20	11	4	5	7	10	26
B12	M12	5.8	0.7	69	26	13	4.5	6	9.5	12	29
B16	M16	7.3	1.5	147	30	16	5.5	8	11	16	36
B20	M20	14.7	3.0	285	36	19	7	10	12.5	20	46
B24	M24	19.7	4.5	491	48	25	9	12	16	24	55

* Torque figures based on bolts / setscrews in an unlubricated condition. For further information on lubricated fasteners see page 70.

CE For Characteristic Resistances when designing a connection to Eurocode 3, please refer to DoP No.003 on the website www.Lindapter.com/About/CE

GIRDER CLAMPS

RAIL FIXINGS

LIFTING POINTS

HOLLO-BOLT

FLOOR FIXINGS

SUPPORT FIXINGS

DECKING FIXINGS

Packing Pieces for Types A and B

These packing pieces are compatible with the Type A and Type B clamps and are used to increase the clamping range to suit flange thicknesses. Types A and B are available with three different tail lengths (short, medium or long) and the correct combination of packing pieces should be used.

Packing Pieces

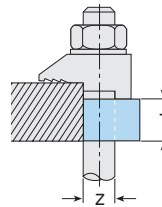### Type CW
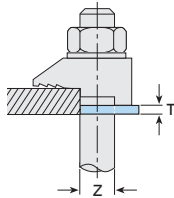
Mild steel, zinc plated / hot dip galvanised.

Product Code	Bolt Size Z	Dimension T (mm)
CW08*	M8	2
CW10	M10	2
CW12	M12	2.5
CW16	M16	3
CW20	M20	4
CW24	M24	4

* CW08 is only available zinc plated.

Type P1 / P2 short

Mild steel, malleable iron, zinc plated / hot dip galv.

Product Code	Bolt Size Z	Dimension T (mm)
P1S08	M8	4
P1S10	M10	5
P1S12	M12	6
P1S16	M16	8
P1S20	M20	10
P1S24	M24	12
P2S10	M10	10
P2S12	M12	12
P2S16	M16	16
P2S20	M20	20
P2S24	M24	24

Also Available

Type W
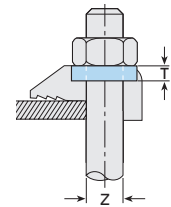
Mild steel, malleable iron, zinc plated / hot dip galv.

| Product Code	Bolt Size Z	Dimension T (mm)
W08	M8	4
W10	M10	5.5
W12	M12	6
W16	M16	8
W20	M20	10

Note: The Type W is used to fill the recess in the Type A to convert it into a flat top clamp to enable the bolt head or nut to be rotated.

Tail Length / Packing Piece Combinations for Types A and B

Choose the correct Type A/B configuration for your application using the table below. Please note these calculations are for beams **up to and including 5° sloped flanges.**

For example, a M24 Type A/B on a 26mm flange requires 1 x Type A/B short tail (S), 1 x Type CW (CW) and 1 x Type P1 short (P1S).

> **For thicker flanges contact Lindapter.**
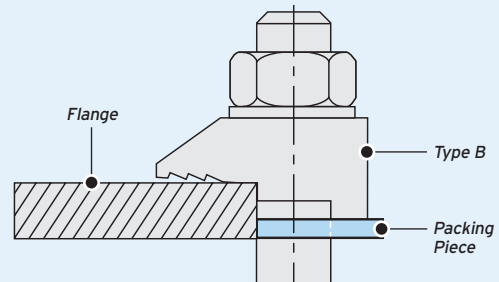
Flange Thickness	M12				M16				M20				M24			
mm	A/B	CW	P1S	P2S	A/B	CW	P1S	P2S	A/B	CW	P1S	P2S	A/B	CW	P1S	P2S
5	S	-	-	-	S	-	-	-	-	-	-	-	-	-	-	-
6	M	-	-	-	S	-	-	-	-	-	-	-	-	-	-	-
7	S	1	-	-	M	-	-	-	S	-	-	-	-	-	-	-
8	S	1	-	-	M	-	-	-	S	-	-	-	-	-	-	-
9	M	1	-	-	S	1	-	-	M	-	-	-	S	-	-	-
10	L	-	-	-	L	-	-	-	M	-	-	-	S	-	-	-
11	M	2	-	-	L	-	-	-	S	1	-	-	M	-	-	-
12	L	1	-	-	S	2	-	-	S	1	-	-	M	-	-	-
13	S	1	1	-	S	-	1	-	L	-	-	-	S	1	-	-
14	S	1	1	-	L	-	1	-	M	1	-	-	S	1	-	-
15	L	2	-	-	S	3	-	-	S	2	-	-	L	-	-	-
16	L	-	1	-	M	-	1	-	S	2	-	-	L	-	-	-

Flange Thickness	M12				M16				M20				M24			
mm	A/B	CW	P1S	P2S	A/B	CW	P1S	P2S	A/B	CW	P1S	P2S	A/B	CW	P1S	P2S
17	M	2	1	-	L	2	-	-	S	-	1	-	S	2	-	-
18	M	-	-	1	L	2	-	-	M	2	-	-	S	2	-	-
19	S	1	-	1	L	-	1	-	S	3	-	-	L	1	-	-
20	S	1	-	1	L	3	-	-	M	-	1	-	L	1	-	-
21	M	1	-	1	L	3	-	-	S	1	1	-	S	-	1	-
22	L	-	-	1	L	1	1	-	M	3	-	-	S	1	-	-
23	S	-	1	1	L	1	1	-	L	-	1	-	M	-	1	-
24	M	-	1	1	M	-	-	1	M	1	1	-	M	-	1	-
25	S	1	1	1	L	2	1	-	S	2	1	-	S	1	1	-
26	S	1	1	1	L	2	1	-	S	2	1	-	S	1	1	-
28	L	-	1	1	S	2	-	1	M	2	1	-	L	-	1	-
30	M	-	2	1	L	1	-	1	M	-	1	1	S	2	1	-

A/B = Type A/B **S** = A/B short **M** = A/B medium **L** = A/B long **CW** = Type CW **P1S** = Type P1 short **P2S** = Type P2 short

Location and End Plates for Types A and B

These plates ensure the clamps and bolts are located in the correct position relative to the supporting steelwork. If you would like help choosing a suitable plate, please contact Lindapter.
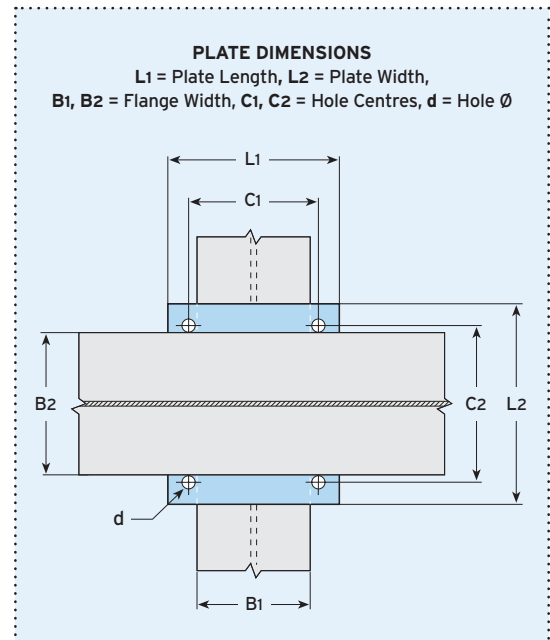
Location Plate

What is it?
Location plates are simple fabricated items designed to sit between the two sections to be clamped together to ensure the bolts are fixed at the correct centres.
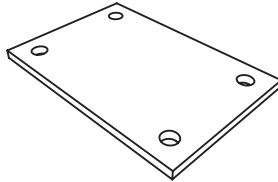
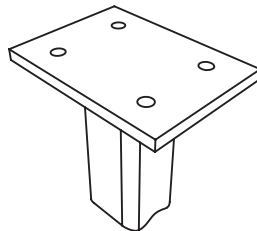Material: Structural steel grade S275 JR or JO. For other grades contact Lindapter.

Bolt Size	Hole Ø d mm	Plate Thick. mm	Hole Centres C1 mm	Length / Width min L1 mm	Hole Centres C2 mm	Length / Width min L2 mm
M8	9	6	B1 + 9	B1 + 36	B2 + 9	B2 + 36
M10	11	8	B1 + 11	B1 + 44	B2 + 11	B2 + 44
M12	14	8	B1 + 14	B1 + 54	B2 + 14	B2 + 54
M16	18	10	B1 + 18	B1 + 70	B2 + 18	B2 + 70
M20	22	12	B1 + 22	B1 + 88	B2 + 22	B2 + 88
M24	26	15	B1 + 26	B1 + 104	B2 + 26	B2 + 104

PLATE DIMENSIONS
L_1 = Plate Length, L_2 = Plate Width, B_1, B_2 = Flange Width, C_1, C_2 = Hole Centres, d = Hole Ø
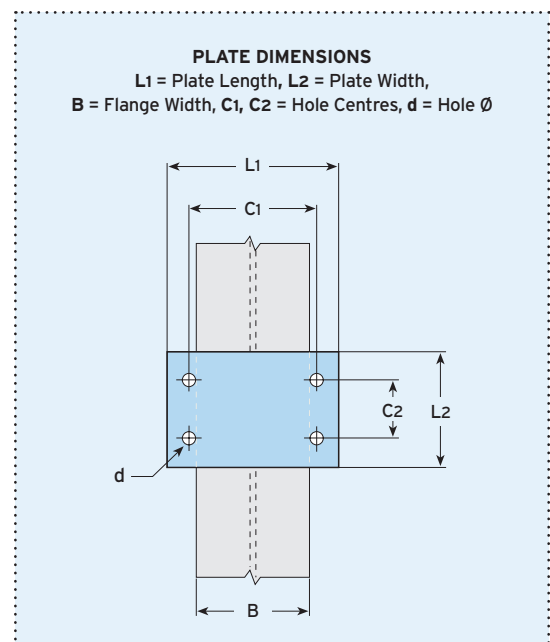
End Plate

What is it?
End plates are simple fabricated items that are pre-welded to support frames, bracket or sections, allowing connection to the supporting structure with standard Lindapter clamps.

Material: Structural steel grade S275 JR or JO. For other grades contact Lindapter.

Bolt Size	Hole Ø d mm	Plate Thick.[1] mm	Hole Centre C1 mm	Length min L1 mm	Hole Centre min C2 mm	Width min L2 mm
M8	9	10	B + 9	B + 36	40	C2 + 40
M10	11	12	B + 11	B + 44	50	C2 + 40
M12	14	12	B + 14	B + 54	60	C2 + 50
M16	18	15	B + 18	B + 70	70	C2 + 60
M20	22	20	B + 22	B + 88	90	C2 + 70
M24	26	25	B + 26	B + 104	110	C2 + 90

PLATE DIMENSIONS
L_1 = Plate Length, L_2 = Plate Width, B = Flange Width, C_1, C_2 = Hole Centres, d = Hole Ø

[1] Depending on the type of connection and associated end plate use, the thickness may need to be modified to comply with accepted local design codes.

▶ **To calculate the bolt length, add up the total distance that the bolt will pass through, plus half of the bolt diameter. Then round up the total to the nearest available bolt length. An example can be found on page 6.**

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