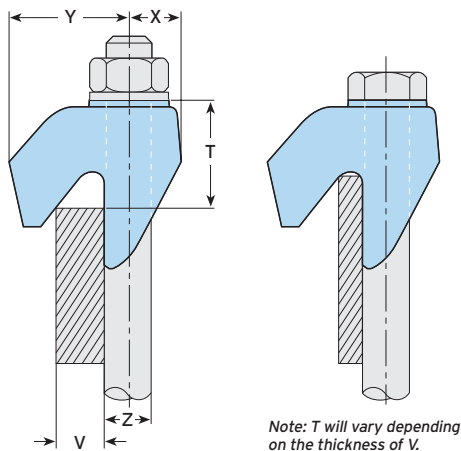
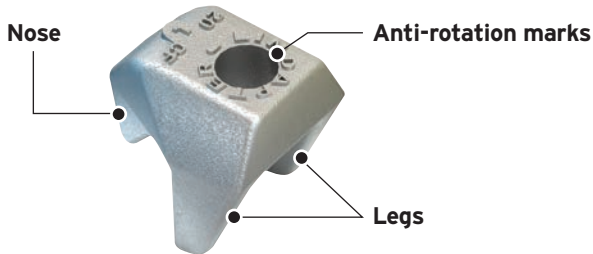


Type CF

Hooks over the flanges of beams, angles and channels to connect steel sections that do not face, such as connecting horizontal beams with vertical columns.



- Can be combined with any Lindapter HSR clamps when used with property class 8.8 bolts; see table below for safe working loads.
- Suitable for parallel and tapered flanges up to 8°.

➔ Location plate / end plate details can be found on page 17.

Material: SG iron, hot dip galvanised.



Product Code	Bolt 8.8 Z	Safe Working Loads			Tightening Torque*	Clamping Range V	Dimensions			
		Tensile / 1 Bolt (FOS 5:1)	Slip ¹⁾ / 2 Bolts (FOS 2:1)				Y	X	T	Width
			kN	Painted Steelwork ²⁾						
CF12	M12	8.5	3.4	3.9	90	6 - 13	32	14	21 - 29	46
CF16	M16	16.0	8.0	10.0	240	8 - 16	44	18	25 - 33	56
CF20	M20	26.3	13.0	16.0	470	10 - 19	53	22	30 - 41	65

CF combinations with other Lindapter clamps	CF / A ³⁾	M12	5.8	0.7	0.7	69
	CF / A ³⁾	M16	7.3	1.5	1.7	147
	CF / A ³⁾	M20	14.7	3.0	3.0	285
	CF / AF / AAF	M12	8.5	3.4	3.9	90
	CF / AF / AAF	M16	16.0	8.0	10.0	240
	CF / AF / AAF	M20	26.3	13.0	16.0	470

1) Slip Resistance figures are based on Type CF and Location Plates in hot dip galvanised finish calculated against slip (movement exceeding 0.1mm).

2) Shot blast and painted steelwork.

3) Also applies to Type B (page 9), Type LR (page 18), Type D2 (page 19) and Type BR (page 31).

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



For Characteristic Resistances when designing a connection to Eurocode 3, please refer to DoP No.011 on the website www.Lindapter.com/About/CE

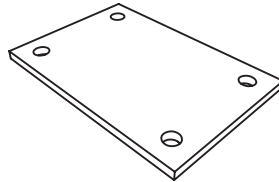
Location and End Plates for Types AF, AAF and CF

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?

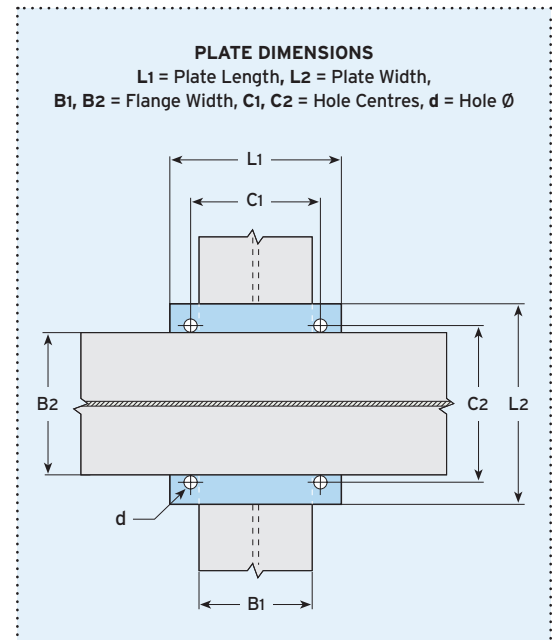
Location plates are simple fabricated items designed to sit between the two sections to be clamped together to ensure the bolts are fixed at the correct centres.



Material: Structural steel grade S355 JR, JO or J2.
For other grades contact Lindapter.

Bolt Size	Hole Ø d mm	Plate Thickness		Hole Centres C1 mm	Length / Width min L1 mm	Hole Centres C2 mm	Length / Width min L2 mm
		8.8 mm	10.9 mm				
M12	14	10	12	B ₁ + 14	B ₁ + 90	B ₂ + 14	B ₂ + 90
M16	18	15	15	B ₁ + 18	B ₁ + 110	B ₂ + 18	B ₂ + 110
M20	22	20	20	B ₁ + 22	B ₁ + 150*	B ₂ + 22	B ₂ + 150*
M24	26	25	25	B ₁ + 26	B ₁ + 180	B ₂ + 26	B ₂ + 180

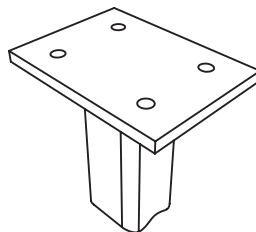
* Plate width for Type AF size M20 can be reduced to 130mm if required.



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.

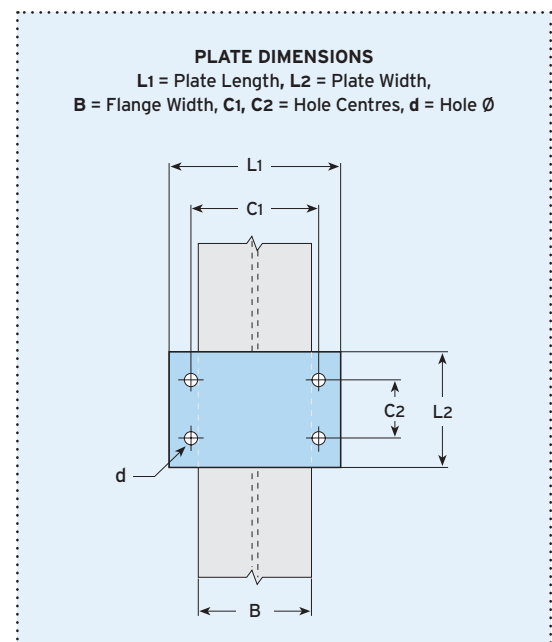


Material: Structural steel grade S355 JR, JO or J2.
For other grades contact Lindapter.

Bolt Size	Hole Ø d mm	Plate Thickness ¹⁾		Hole Centres C1 mm	Length min L1 mm	Hole Centres min C2 mm	Width min L2 mm
		8.8 mm	10.9 mm				
M12	14	15	20	B + 14	B + 90	80	C ₂ + 80
M16	18	20	25	B + 18	B + 110	100	C ₂ + 100
M20	22	25	25	B + 22	B + 150*	180	C ₂ + 180
M24	26	30	30	B + 26	B + 180	200	C ₂ + 200

* Plate width for Type AF size M20 can be reduced to 130 if required.

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.