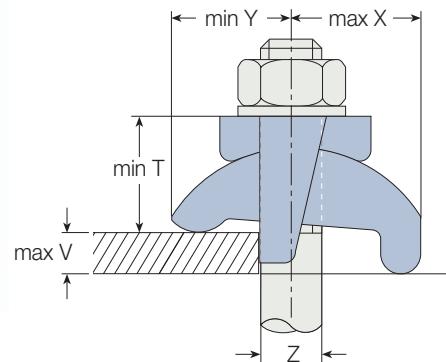
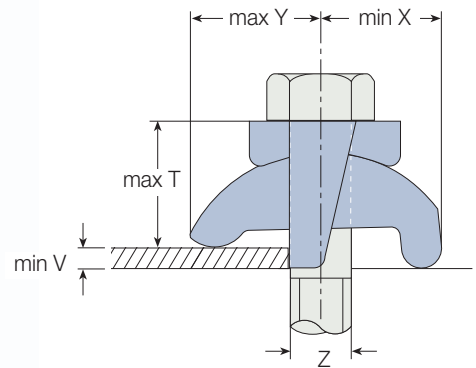
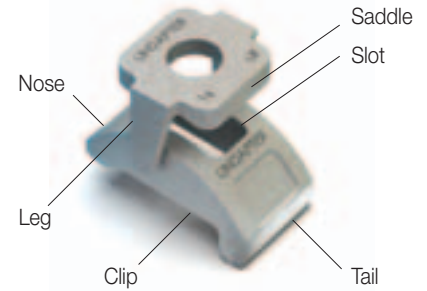
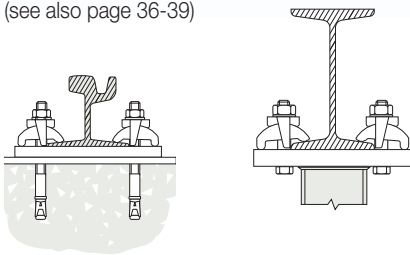


Type LR

Malleable iron, bright zinc plated / hot dip galvanised



Typical Applications
(see also page 36-39)



Self adjusting clamp for various flange thicknesses and slopes up to 15°. The leg of the saddle prevents the clamp rotating during installation. The LR tail spans slotted holes. For thicker flanges packings P1 long and P2 long are available. For correct tail length/packing combinations please see page 23.

Product Code	Bolt 8.8 Z	Safe Working Loads (5:1 Factor of Safety)			Torque Nm	Clamping Range		Dimensions		
		Tensile / 1 Bolt kN	Frictional / 2 Bolts kN	V mm		Y mm	X mm	T mm	Width with Saddle mm	
LR10	M10	1.5	-	20	3 - 10	21 - 24	24 - 26	21 - 24	33	
LR12	M12	5.8	0.7	69	3 - 12	26 - 29	25 - 31	25 - 29	39	
LR16	M16	7.3	1.5	147	3 - 16	30 - 35	34 - 37	30 - 36	46	
LR20	M20	14.7	3	285	3 - 20	42 - 49	46 - 51	41 - 48	57	
LR24	M24	19.7	4.5	491	3 - 24	47 - 57	52 - 58	44 - 54	76	

Order example: LR10 BZP

Location and End Plates

- L_1 = Plate length
- L_2 = Plate width
- l_{1M}, l_{2M} = Hole centres
- b_1, b_2 = Flange width
- d = Hole \varnothing
- s = Plate thickness

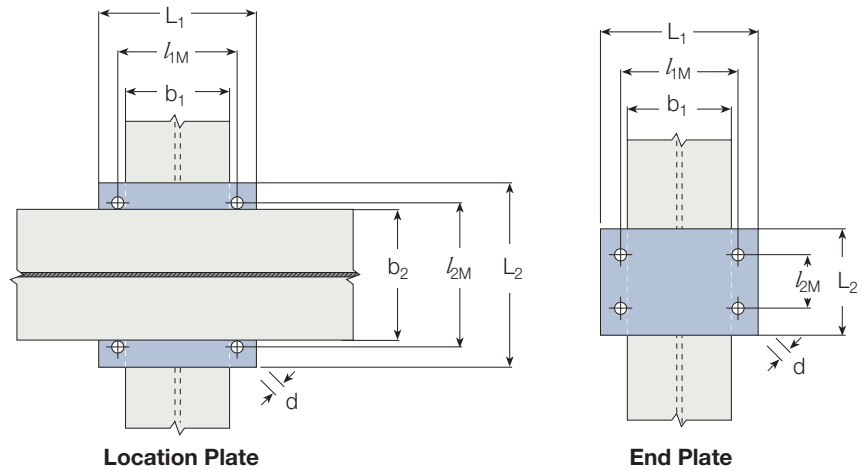


Plate Dimensions
Material: Mild Steel Grade S275 JR

Bolt Z	Hole \varnothing d	Location Plate			End Plate ¹⁾				
		Plate Thickness s	Hole Centres l_{1M}, l_{2M}	Length/Width min $L_1, \min L_2$	Plate Thickness s	Hole Centre l_{1M}	Length min L_1	Hole Centre min l_{2M}	Width min L_2
M10	11	12	$b + 11$	$b + 66$	15	$b_1 + 11$	$b_1 + 66$	70	$l_{2M} + 50$
M12	13	12	$b + 13$	$b + 81$	15	$b_1 + 13$	$b_1 + 81$	80	$l_{2M} + 60$
M16	18	15	$b + 18$	$b + 105$	20	$b_1 + 18$	$b_1 + 105$	100	$l_{2M} + 70$
M20	22	20	$b + 22$	$b + 132$	25	$b_1 + 22$	$b_1 + 132$	120	$l_{2M} + 90$
M24	26	25	$b + 26$	$b + 156$	30	$b_1 + 26$	$b_1 + 156$	150	$l_{2M} + 110$

¹⁾ Dependant on the use of the end plate the thickness might need to be increased.

Calculation of bolt length see page 11

Tail Length / Packing Combinations for Type LR

Parallel flanges

Type	M 10	M 12	M 16	M 20	M 24
Combinations	Clamping Range				
LR P1L P2L	mm	mm	mm	mm	mm
1 - -	3 - 10	3 - 12	3 - 16	3 - 20	3 - 24
1 1 -	8 - 15	9 - 18	11 - 24	13 - 30	15 - 36
1 - 1	13 - 20	15 - 24	19 - 32	23 - 40	27 - 48
1 1 1	18 - 25	21 - 30	27 - 40	33 - 50	39 - 60
1 - 2	23 - 30	27 - 36	35 - 48	43 - 60	51 - 72
1 1 2	28 - 35	33 - 42	43 - 56	53 - 70	63 - 84
1 - 3	33 - 40	39 - 48	51 - 64	63 - 80	75 - 96

Tail Length / Packing Combinations for Type D2 & D3

Parallel flanges and beams of up to 5° slope

Type	M 10	M 12	M 16	M 20	M 24
Combinations	Clamping Range				
D P1L P2L	mm	mm	mm	mm	mm
1 ¹⁾ - -	5 - 10	5 - 10	6.5 - 13	8.5 - 17	10 - 19
1 - -	10 - 20	10 - 22	13 - 20	17 - 24	19 - 30
1 1 -	15 - 25	16 - 28	21 - 28	27 - 34	31 - 42
1 - 1	20 - 30	22 - 34	29 - 36	37 - 44	43 - 54
1 1 1	25 - 35	28 - 40	37 - 44	47 - 54	55 - 66
1 - 2	30 - 40	34 - 46	45 - 52	57 - 64	67 - 78
1 1 2	35 - 45	40 - 52	53 - 60	67 - 74	79 - 90
1 - 3	40 - 50	46 - 58	61 - 68	77 - 84	91 - 102

¹⁾ Setscrew S inverted.

Tail Length / Packing Combinations for Type LR

For IPN-Beams of an 8° slope

IPN Profile	M10		M12		M16		M20		M24		
	LR	P1L P2L	LR	P1L P2L	LR	P1L P2L	LR	P1L P2L	LR	P1L P2L	
80	1	-	-	■	-	-	■	-	-	■	-
100	1	-	-	1	-	-	■	-	-	■	-
120	1	-	-	1	-	-	1	-	-	■	-
140	1	-	-	1	-	-	1	-	-	■	-
160	1	-	-	1	-	-	1	-	-	■	-
180	1	-	-	1	-	-	1	-	-	■	-
200	1	-	-	1	-	-	1	-	-	■	-
220	1	-	-	1	-	-	1	-	-	1	-
240	1	1	-	1	-	-	1	-	-	1	-
260	1	1	-	1	-	-	1	-	-	1	-
280	1	1	-	1	1	-	1	-	-	1	-
300	1	1	-	1	1	-	1	-	-	1	-
320	1	1	-	1	1	-	1	-	-	1	-
340	1	1	-	1	1	-	1	-	-	1	-
360	1	-	1	1	1	-	1	-	-	1	-
380	1	-	1	1	1	-	1	-	-	1	-
400	1	-	1	1	1	-	1	-	-	1	-
425	1	-	1	1	1	-	1	1	-	1	-
450	1	-	1	1	1	-	1	1	-	1	-
475	1	1	1	1	1	-	1	1	-	1	-
500	1	1	1	1	1	-	1	1	-	1	-
550	1	1	1	1	1	1	1	1	-	1	-
600	■	-	-	1	1	1	1	1	-	1	1

P1L = P1 long P2L = P2 long ■ = Type not applicable

For thicker flanges please contact Lindapter.

