



R3450

Material

Steel (9SMnPb28), silver zinc plated. Stainless steel (A2, AISI 303).

Technical Notes

Designed for use with clevis joints.

Tips

For safety fasteners, see R3440-R3445.

R3450.004-ZP 4 3.2 6 10.5 8.5 1.0 0.64 0.5 0.5 R3450.005-ZP 5 4.0 8 13.0 10.5 1.5 0.74 0.5 0.5 R3450.006-ZP 6 5.0 9 15.5 12.5 1.5 0.74 0.5 0.75 R3450.008-ZP 8 6.0 12 20.0 16.5 2.0 0.94 1.0 1.0 R3450.010-ZP 10 8.0 14 25.0 20.5 2.0 1.05 1.0 1.0 R3450.012-ZP 12 9.0 17 30.0 24.5 3.0 1.15 1.25 1.25 R3450.014-ZP 14 10.0 19 33.0 27.5 3.0 1.15 1.25 1.5 R3450.016-ZP 16 12.0 20 38.5 32.5 3.0 1.35 1.5 1.5 R3450.020-ZP 20 17.5 26 46.0 <th< th=""><th>l_1 l_2 l_3 l_4 l_5 l_6 R We</th><th>l₃</th><th>وا</th><th>I_1</th><th>d_3</th><th>d_2</th><th>d_1</th><th>Order No.</th></th<>	l_1 l_2 l_3 l_4 l_5 l_6 R We	l ₃	وا	I_1	d_3	d_2	d_1	Order No.
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R3450.008-ZP 8 6.0 12 20.0 16.5 2.0 0.94 1.0 1.0 R3450.010-ZP 10 8.0 14 25.0 20.5 2.0 1.05 1.0 1.0 R3450.012-ZP 12 9.0 17 30.0 24.5 3.0 1.15 1.25 1.25 R3450.014-ZP 14 10.0 19 33.0 27.5 3.0 1.25 1.5 1.5 R3450.016-ZP 16 12.0 20 38.5 32.5 3.0 1.35 1.5 1.5 R3450.020-ZP 20 17.5 26 46.0 40.5 4.0 1.8 2.0 1.5 R3450.025-ZP 25 18.0 32 57.0 50.5 5.0 1.8 2.0 1.5 R3450.004-A2 4 3.2 6 10.5 8.5 1.0 0.64 0.5 0.5 R3450.006-A2 6 5.0 9 15.5 12.5 1.5 0.74 0.5 0.75	13.0 10.5 1.5 0.74 0.5 0.5 0.5	1.5	10.5	13.0	8	4.0	5	R3450.005-ZP
R3450.010-ZP 10 8.0 14 25.0 20.5 2.0 1.05 1.0 1.0 R3450.012-ZP 12 9.0 17 30.0 24.5 3.0 1.15 1.25 1.25 R3450.014-ZP 14 10.0 19 33.0 27.5 3.0 1.25 1.5 1.5 R3450.016-ZP 16 12.0 20 38.5 32.5 3.0 1.35 1.5 1.5 R3450.020-ZP 20 17.5 26 46.0 40.5 4.0 1.8 2.0 1.5 R3450.025-ZP 25 18.0 32 57.0 50.5 5.0 1.8 2.0 1.5 R3450.004-A2 4 3.2 6 10.5 8.5 1.0 0.64 0.5 0.5 R3450.005-A2 5 4.0 8 13.0 10.5 1.5 0.74 0.5 0.5 R3450.006-A2 6 5.0 9 15.5 12.5 1.5 0.74 0.5 0.75		1.5	12.5	15.5	9	5.0	6	R3450.006-ZP
R3450.012-ZP 12 9.0 17 30.0 24.5 3.0 1.15 1.25 1.25 R3450.014-ZP 14 10.0 19 33.0 27.5 3.0 1.25 1.5 1.5 R3450.016-ZP 16 12.0 20 38.5 32.5 3.0 1.35 1.5 1.5 R3450.020-ZP 20 17.5 26 46.0 40.5 4.0 1.8 2.0 1.5 R3450.025-ZP 25 18.0 32 57.0 50.5 5.0 1.8 2.0 1.5 R3450.004-A2 4 3.2 6 10.5 8.5 1.0 0.64 0.5 0.5 R3450.005-A2 5 4.0 8 13.0 10.5 1.5 0.74 0.5 0.5 R3450.006-A2 6 5.0 9 15.5 12.5 1.5 0.74 0.5 0.75		2.0	16.5	20.0	12	6.0	8	R3450.008-ZP
R3450.014-ZP 14 10.0 19 33.0 27.5 3.0 1.25 1.5 1.5 R3450.016-ZP 16 12.0 20 38.5 32.5 3.0 1.35 1.5 1.5 R3450.020-ZP 20 17.5 26 46.0 40.5 4.0 1.8 2.0 1.5 R3450.025-ZP 25 18.0 32 57.0 50.5 5.0 1.8 2.0 1.5 R3450.004-A2 4 3.2 6 10.5 8.5 1.0 0.64 0.5 0.5 R3450.005-A2 5 4.0 8 13.0 10.5 1.5 0.74 0.5 0.5 R3450.006-A2 6 5.0 9 15.5 12.5 1.5 0.74 0.5 0.75								
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R3450.020-ZP 20 17.5 26 46.0 40.5 4.0 1.8 2.0 1.5 R3450.025-ZP 25 18.0 32 57.0 50.5 5.0 1.8 2.0 1.5 R3450.004-A2 4 3.2 6 10.5 8.5 1.0 0.64 0.5 0.5 R3450.005-A2 5 4.0 8 13.0 10.5 1.5 0.74 0.5 0.5 R3450.006-A2 6 5.0 9 15.5 12.5 1.5 0.74 0.5 0.75								
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R3450.004-A2 4 3.2 6 10.5 8.5 1.0 0.64 0.5 0.5 R3450.005-A2 5 4.0 8 13.0 10.5 1.5 0.74 0.5 0.5 R3450.006-A2 6 5.0 9 15.5 12.5 1.5 0.74 0.5 0.75								
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R3450.006-A2 6 5.0 9 15.5 12.5 1.5 0.74 0.5 0.75			8.5		6	3.2	4	R3450.004-A2
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	20.0 16.5 2.0 0.94 1.0 1.0 0.5	2.0	16.5	20.0	12	6.0	8	R3450.008-A2
R3450.010-A2 10 8.0 14 25.0 20.5 2.0 1.05 1.0 1.0		2.0	20.5	25.0	14	8.0	10	R3450.010-A2
R3450.012-A2 12 9.0 17 30.0 24.5 3.0 1.15 1.25 1.25	30.0 24.5 3.0 1.15 1.25 1.25 0.5 3	3.0	24.5	30.0	17	9.0	12	R3450.012-A2
R3450.014-A2 14 10.0 19 33.0 27.5 3.0 1.25 1.5 1.5	33.0 27.5 3.0 1.25 1.5 1.5 1.0 4	3.0	27.5	33.0	19	10.0	14	R3450.014-A2
R3450.016-A2 16 12.0 20 38.5 32.5 3.0 1.35 1.5 1.5	38.5 32.5 3.0 1.35 1.5 1.5 1.0 6	3.0	32.5	38.5	20	12.0	16	R3450.016-A2
R3450.020-A2 20 17.5 26 46.0 40.5 4.0 1.8 2.0 1.5	46.0 40.5 4.0 1.8 2.0 1.5 1.0 13	4.0	40.5	46.0	26	17.5		R3450.020-A2
R3450.025-A2 25 18.0 32 57.0 50.5 5.0 1.8 2.0 1.5	57.0 50.5 5.0 1.8 2.0 1.5 1.0 20	5.0	50.5	57.0	32	18.0	25	R3450.025-A2





Parts overview

Clevis Joints

Stocked to DIN 71752 in steel and stainless steel. Plain clevis joints available in right and left hand threads zinc plated steel and stainless steel. Steel sizes from M4 up to M48. Stainless sizes from M4 up to M27.







Clevis Mating Pieces

These are designed to fit in between our clevis joints to create a linkage where an angular offset is required. Available in zinc plated steel and stainless steel. Sizes M4 up to M20.



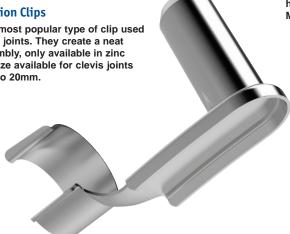
Clevis Pins and Clips

Various styles of pins and clips to suit clevis joints in zinc plated steel and stainless steel. Sizes available to suit all sizes of clevis joints that we offer.



Clevis Retention Clips

These are the most popular type of clip used with our clevis joints. They create a neat compact assembly, only available in zinc plated steel. Size available for clevis joints from 4mm up to 20mm.



Male Clevis Joints

Stocked in zinc plated steel and stainless steel, right and left hand threads. Sizes M6 up to M20.





Clevis Joints

set-up options



Clevis with retention clip 65630 and 65684





Clevis with clevis pin 65664 Safety fastener 65680

Clevis with clevis pin, washer and cotter pin 65660 and 65674



Zinc plated steel

Stainless steel





Clevis with clevis pin, washer and cotter pin 65661 and 65675



Assembly options





Clevis with 65880 rod end and 65684 clevis retention clip



Tensile tests, statistically to failure (break)

Clevis joints axially loaded.

Leaded low carbon steel (AISI 12L14, 1.0718).

Clevis size	F min (kN)	F max (kN)	F average value (kN)	Avg. force when clevis starts to deform (kN)
6 x 24 M 6	16,0	19,5	17,6	15,3
8 x 32 M 8	33,2	35,6	34,6	29,3
10 x 40 M10	42,0	52,0	47,5	41,3
12 x 48 M12	53,0	68,5	61,1	50,2
14 x 56 M14	60,5	64,5	63,0	48,8
16 x 64 M16	133,5	146,0	140,2	115
20 x 40 M20	194,5	234,0	213,5	176
25 x 50 M25	311,0	336,0	328,0	260
30 x 60 M30	428,0	450,0	440,6	343
36 x 72 M36	566,0	573,0	569,5	300
35 x 72 M36	561,2	567,9	564,6	370
42 x 84 M42	904,6	904,6	904,6	420

Clevises M6 - M42

Material

Important note: values in this table are indicative only and should only be used as a rough guide. The **Company cannot foresee** the intended applications of their products and we accept no liability for any actions taken by third parties. Customers are advised to use their own safety factors and/or perform their own testing on the clevis joint to ensure it meets requirements for their application.

