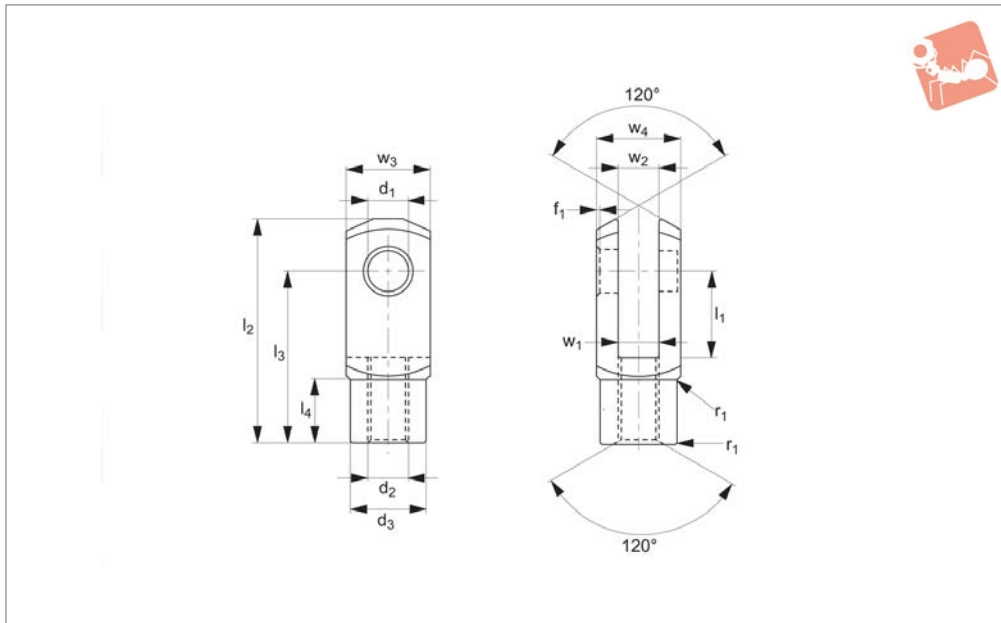




Steel Clevis Joints

silver zinc plated

Clevis Joints



65630

CLEVIS JOINTS

Material

Steel 1.0718 (11SMnPb30k), silver zinc plated.

Technical Notes

M4-M16: DIN 71 752/DIN ISO 8140.
M18-M48: Similar to DIN 71 752/DIN ISO 8140 and according to CETOP standard.

Tips

For yellow zinc plated version see R3393, standard thread is right hand, (for left

hand, see 65631).

Important Notes

For sizes M4-M12, f_1 and $r_1 = 0,5$, for sizes M14-M16, f_1 and $r_1 = 1$
For sizes M18-M20, $f_1 = 1, r_1 = 1,5$, for M24 f_1 and $r_1 = 1,5$, for sizes M27-M30, $f_1 = 1,5, r_1 = 2$
For M36 $f_1 = 2, r_1 = 3$, for sizes M42-M48, $f_1 = 3, r_1 = 5$, for r_1 , radius or 45° bevelling.
Other Tolerances:-

w_4 : M4-M16 = $+0,3 -0,16$
M18-M48 = $+0,5 -0,2$
 w_2 : size 4x8-10x20 = B13
All others $+0,7 +0,15$
 d_3 : M4-M16 = $\pm 0,3$
 l_2 : size 4x8-6x12 = $\pm 0,3$
All others $\pm 0,4$
 l_3 : M4-M16 = $\pm 0,2$
M18-M48 = $\pm 0,3$
 r_1 : M18-M48 = $\pm 0,5$

| Order No. | Size | Thread hand | Thread type | d_1 tol. H9 | l_1 $\pm 0,5$ | d_2 | d_3 | l_2 $\pm 0,5$ | l_3 | l_4 | w_1 tol. B13 | w_2 | w_3 tol. h11 | w_4 | Weight g |
|-------------|-------|-------------|-------------|------------------|--------------------|----------|-------|--------------------|-------|-------|-------------------|-------|-------------------|-------|-------------|
| 65630.W0040 | 4x8 | Right | Coarse | 4 | 8 | M4 | 8 | 21 | 16 | 6.0 | 4 | 4 | 8 | 8 | 5 |
| 65630.W0041 | 4x16 | Right | Coarse | 4 | 16 | M4 | 8 | 29 | 24 | 6.0 | 4 | 4 | 8 | 8 | 7 |
| 65630.W0051 | 5x10 | Right | Coarse | 5 | 10 | M5 | 9 | 26 | 20 | 7.5 | 5 | 5 | 10 | 10 | 9 |
| 65630.W0052 | 5x20 | Right | Coarse | 5 | 20 | M5 | 9 | 36 | 30 | 7.5 | 5 | 5 | 10 | 10 | 13 |
| 65630.W0061 | 6x12 | Right | Coarse | 6 | 12 | M6 | 10 | 31 | 24 | 9.0 | 6 | 6 | 12 | 12 | 15 |
| 65630.W0062 | 6x24 | Right | Coarse | 6 | 24 | M6 | 10 | 43 | 36 | 9.0 | 6 | 6 | 12 | 12 | 21 |
| 65630.W0081 | 8x16 | Right | Coarse | 8 | 16 | M8 | 14 | 42 | 32 | 12.0 | 8 | 8 | 16 | 16 | 37 |
| 65630.W0082 | 8x16 | Right | Fine | 8 | 16 | M8x1 | 14 | 42 | 32 | 12.0 | 8 | 8 | 16 | 16 | 37 |
| 65630.W0083 | 8x32 | Right | Coarse | 8 | 32 | M8 | 14 | 58 | 48 | 12.0 | 8 | 8 | 16 | 16 | 54 |
| 65630.W0084 | 8x32 | Right | Fine | 8 | 32 | M8x1 | 14 | 58 | 48 | 12.0 | 8 | 8 | 16 | 16 | 54 |
| 65630.W0102 | 10x20 | Right | Coarse | 10 | 20 | M10 | 18 | 52 | 40 | 15.0 | 10 | 10 | 20 | 20 | 74 |
| 65630.W0103 | 10x20 | Right | Fine | 10 | 20 | M10x1,25 | 18 | 52 | 40 | 15.0 | 10 | 10 | 20 | 20 | 74 |
| 65630.W0104 | 10x40 | Right | Coarse | 10 | 40 | M10 | 18 | 72 | 60 | 15.0 | 10 | 10 | 20 | 20 | 116 |
| 65630.W0105 | 10x40 | Right | Fine | 10 | 40 | M10x1,25 | 18 | 72 | 60 | 15.0 | 10 | 10 | 20 | 20 | 116 |
| 65630.W0122 | 12x24 | Right | Coarse | 12 | 24 | M12 | 20 | 62 | 48 | 18.0 | 12 | 12 | 24 | 24 | 121 |
| 65630.W0123 | 12x24 | Right | Fine | 12 | 24 | M12x1,25 | 20 | 62 | 48 | 18.0 | 12 | 12 | 24 | 24 | 121 |
| 65630.W0124 | 12x48 | Right | Coarse | 12 | 48 | M12 | 20 | 86 | 72 | 18.0 | 12 | 12 | 24 | 24 | 175 |
| 65630.W0125 | 12x48 | Right | Fine | 12 | 48 | M12x1,25 | 20 | 86 | 72 | 18.0 | 12 | 12 | 24 | 24 | 175 |
| 65630.W0142 | 14x28 | Right | Coarse | 14 | 28 | M14 | 24 | 72 | 56 | 22.5 | 14 | 14 | 27 | 27 | 178 |
| 65630.W0143 | 14x28 | Right | Fine | 14 | 28 | M14x1,5 | 24 | 72 | 56 | 22.5 | 14 | 14 | 27 | 27 | 178 |
| 65630.W0145 | 14x56 | Right | Coarse | 14 | 56 | M14 | 24 | 101 | 85 | 22.5 | 14 | 14 | 27 | 27 | 258 |
| 65630.W0146 | 14x56 | Right | Fine | 14 | 56 | M14x1,5 | 24 | 101 | 85 | 22.5 | 14 | 14 | 27 | 27 | 258 |
| 65630.W0163 | 16x32 | Right | Coarse | 16 | 32 | M16 | 26 | 83 | 64 | 24.0 | 16 | 16 | 32 | 32 | 282 |
| 65630.W0164 | 16x32 | Right | Fine | 16 | 32 | M16x1,5 | 26 | 83 | 64 | 24.0 | 16 | 16 | 32 | 32 | 282 |
| 65630.W0166 | 16x64 | Right | Coarse | 16 | 64 | M16 | 26 | 115 | 96 | 24.0 | 16 | 16 | 32 | 32 | 411 |
| 65630.W0167 | 16x64 | Right | Fine | 16 | 64 | M16x1,5 | 26 | 115 | 96 | 24.0 | 16 | 16 | 32 | 32 | 411 |



| Order No. | Size | Thread hand | Thread type | d ₁ tol. H9 | l ₁ ±0.5 | d ₂ | d ₃ | l ₂ ±0.5 | l ₃ | l ₄ | w ₁ tol. B13 | w ₂ | w ₃ tol. h11 | w ₄ | Weight g |
|-------------|-------|-------------|-------------|---------------------------|------------------------|----------------|----------------|------------------------|----------------|----------------|----------------------------|----------------|----------------------------|----------------|-------------|
| 65630.W0183 | 18x36 | Right | Coarse | 18 | 36 | M18 | 30 | 94 | 72 | 27.0 | 18 | 18 | 36 | 36 | 390 |
| 65630.W0184 | 18x36 | Right | Fine | 18 | 36 | M18x1,5 | 30 | 94 | 72 | 27.0 | 18 | 18 | 36 | 36 | 390 |
| 65630.W0204 | 20x40 | Right | Coarse | 20 | 40 | M20 | 34 | 105 | 80 | 30.0 | 20 | 20 | 40 | 40 | 550 |
| 65630.W0205 | 20x40 | Right | Fine | 20 | 40 | M20x1,5 | 34 | 105 | 80 | 30.0 | 20 | 20 | 40 | 40 | 550 |
| 65630.W0208 | 20x80 | Right | Coarse | 20 | 80 | M20 | 34 | 145 | 120 | 30.0 | 20 | 20 | 40 | 40 | 800 |
| 65630.W0209 | 20x80 | Right | Fine | 20 | 80 | M20x1,5 | 34 | 145 | 120 | 30.0 | 20 | 20 | 40 | 40 | 800 |
| 65630.W0255 | 25x50 | Right | Coarse | 25 | 50 | M24 | 42 | 132 | 100 | 36.0 | 25 | 25 | 50 | 50 | 1100 |
| 65630.W0256 | 25x50 | Right | Fine | 25 | 50 | M24x2 | 42 | 132 | 100 | 36.0 | 25 | 25 | 50 | 50 | 1100 |
| 65630.W0285 | 28x56 | Right | Coarse | 28 | 56 | M27 | 48 | 148 | 112 | 40.0 | 28 | 28 | 55 | 55 | 1500 |
| 65630.W0286 | 28x56 | Right | Fine | 28 | 56 | M27x2 | 48 | 148 | 112 | 40.0 | 28 | 28 | 55 | 55 | 1500 |
| 65630.W0305 | 30x54 | Right | Fine | 30 | 54 | M27x2 | 48 | 148 | 110 | 40.0 | 30 | 30 | 55 | 55 | 1440 |
| 65630.W0306 | 30x60 | Right | Coarse | 30 | 60 | M30 | 52 | 160 | 120 | 42.0 | 30 | 30 | 60 | 60 | 1970 |
| 65630.W0307 | 30x60 | Right | Fine | 30 | 60 | M30x2 | 52 | 160 | 120 | 42.0 | 30 | 30 | 60 | 60 | 1970 |
| 65630.W0355 | 35x54 | Right | Fine | 35 | 54 | M36x2 | 60 | 188 | 144 | 54.0 | 35 | 35 | 70 | 70 | 2930 |
| 65630.W0357 | 35x72 | Right | Coarse | 35 | 72 | M36 | 60 | 188 | 144 | 54.0 | 35 | 35 | 70 | 70 | 2930 |
| 65630.W0358 | 35x72 | Right | Fine | 35 | 72 | M36x2 | 60 | 188 | 144 | 54.0 | 35 | 35 | 70 | 70 | 2930 |
| 65630.W0367 | 36x72 | Right | Coarse | 35 | 72 | M36 | 60 | 188 | 144 | 54.0 | 36 | 36 | 70 | 70 | 2930 |
| 65630.W0368 | 36x72 | Right | Fine | 35 | 72 | M36x2 | 60 | 188 | 144 | 54.0 | 36 | 36 | 70 | 70 | 2930 |
| 65630.W0408 | 40x84 | Right | Fine | 40 | 84 | M42x2 | 70 | 232 | 168 | 63.5 | 40 | 40 | 85 | 85 | 5640 |
| 65630.W0428 | 42x84 | Right | Coarse | 42 | 84 | M42 | 70 | 232 | 168 | 63.5 | 42 | 42 | 85 | 85 | 5340 |
| 65630.W0429 | 42x84 | Right | Fine | 42 | 84 | M42x2 | 70 | 232 | 168 | 63.5 | 42 | 42 | 85 | 85 | 5340 |
| 65630.W0509 | 50x96 | Right | Coarse | 50 | 96 | M48 | 82 | 265 | 192 | 73.0 | 50 | 50 | 96 | 96 | 7860 |
| 65630.W0510 | 50x96 | Right | Fine | 50 | 96 | M48x2 | 82 | 265 | 192 | 73.0 | 50 | 50 | 96 | 96 | 7860 |



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.





Zinc plated steel

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



Stainless steel

Clevis with clevis pin
and circlips 65666
and 65678



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



Assembly options

Clevis with 65652
mating piece
and 65684 clevis
retention clip



Clevis with 65880
rod end and 65684
clevis retention clip



Tensile tests, statistically to failure (break)

Clevises M6 - M42

Clevis joints axially loaded.

Material

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

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.

| 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 |