



# I-SYS







Carl Stahl is a leading worldwide manufacturer of cable and lifting equipment.

What started out in 1880 as a small rope maker specialised in agricultural products, serving only local customers, has now become a global enterprise with over 1000 employees operating from more than 50 subsidiaries around the world.

Classical applications for cables in mechanical engineering, ship building and the construction industry are today being complemented by new high-tech sectors from medical technology through to automotive industry.

Professional know-how and the motivation of our employees is our major strength; customer satisfaction as our main objective is not just a statement, it is our commitment! All activities are focused on providing customers with real benefits through the products and services we supply; our customers' requirements are our major concerns.

Our thoughts are always guided by the conviction that quality is the decisive factor in global competition. Therefore we are organized according to DIN ISO 9001:2008 (management system) and to DIN ISO 14001:2004 (environmental management).

One of the most recent areas of activity within the company is the development and design of the stainless steel cable system I-SYS, and the stainless steel cable mesh X-TEND, both targeted towards the world of architecture.

Quality, innovation and service from a customer-oriented organization: the right combination to meet future challenges.

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# I-SYS:

## Advice and Planning

I-SYS includes components, combinations and individual applications. Above all, I-SYS constitutes an invitation to cooperative action. The experts from Carl Stahl offer advice and plan small and large projects, they inspire architects to find the most aesthetically satisfying solutions and supply static calculations. A service which is as rapid as it is professional and which is in demand all over the world. The range of expertise of our specialists ranges from the first idea, through truly exceptional development, up to manufacture, assembly and subsequent service.

# I-SYS:

## Expertise and Creativity

I-SYS, the stainless steel architectural range, transforms visions into reality. I-SYS offers both form and function to the architect, with a superb range of literally thousands of components and assemblies. I-SYS products can be used for many applications from small decorative projects to high load cables for tensile structures.

I-SYS offers functionality, consistent quality, creativity of application and prize winning design. General planning authority approval of many components, successful test programs and a number of company patents typify the professionalism of the range. Stainless steel material allows durable, cost effective and low maintenance solutions to be created. I-SYS sets worldwide standards of modern construction for architects, engineers and fabricators.









## I-SYS: External Threads

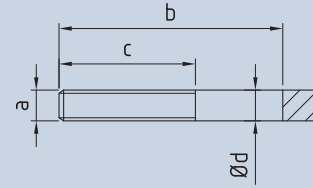
Stainless steel cables are turned into universal elements by means of useful connectors, fittings and guides. They have to be strong in order to take up the forces which occur and at the same time they must harmonise with the architecture. A performance which the individual components of I-SYS negotiate with the greatest of ease. Including the jewel in the crown, the F50, a hammered external thread which brings together different diameters of stainless steel cable and final connectors in a perfect interference fit.



**External thread F50 hammered**

| Part number<br>RH thread | Part number<br>LH thread | $\varnothing$ rope | a  | b   | c  | $\varnothing d^{+0,2}_0$ | kN   |
|--------------------------|--------------------------|--------------------|----|-----|----|--------------------------|------|
| 950-0400-30              | 951-0400-30              | 4                  | M4 | 55  | 30 | 4,4                      | 5,3  |
| 950-0400-60              | 951-0400-60              | 4                  | M4 | 85  | 60 | 4,4                      | 5,3  |
| 950-0500-30              | 951-0500-30              | 5                  | M5 | 60  | 30 | 5,5                      | 8,4  |
| 950-0500-60              | 951-0500-60              | 5                  | M5 | 90  | 60 | 5,5                      | 8,4  |
| 950-0600-30              | 951-0600-30              | 6                  | M6 | 66  | 30 | 6,6                      | 12,1 |
| 950-0600-60              | 951-0600-60              | 6                  | M6 | 96  | 60 | 6,6                      | 12,1 |
| 950-0800-30              | 951-0800-30              | 8                  | M8 | 90  | 30 | 8,8                      | 21,5 |
| 950-0800-60              | 951-0800-60              | 8                  | M8 | 120 | 60 | 8,8                      | 21,5 |

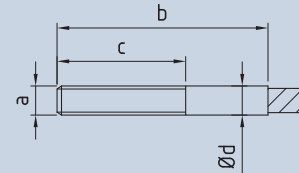
Material 1.4404 | Not suitable for strands



**External thread F30 hammered**

| Part number<br>RH thread | Part number<br>LH thread | $\varnothing$ rope | a   | b   | c  | $\varnothing d_{\pm 0,2}$ | kN   |
|--------------------------|--------------------------|--------------------|-----|-----|----|---------------------------|------|
| 948-0300-20              | 949-0300-20              | 3                  | M4  | 37  | 20 | 3,9                       | 4    |
| 948-0300-40              | 949-0300-40              | 3                  | M4  | 57  | 40 | 3,9                       | 4    |
| 948-0400-30              | 949-0400-30              | 4                  | M5  | 50  | 30 | 4,9                       | 7,1  |
| 948-0400-50              | 949-0400-50              | 4                  | M5  | 70  | 50 | 4,9                       | 7,1  |
| 948-0500-30              | 949-0500-30              | 5                  | M6  | 55  | 30 | 5,9                       | 11,2 |
| 948-0500-50              | 949-0500-50              | 5                  | M6  | 75  | 50 | 5,9                       | 11,2 |
| 948-0600-30              | 949-0600-30              | 6                  | M8  | 58  | 30 | 7,9                       | 16   |
| 948-0600-60              | 949-0600-60              | 6                  | M8  | 88  | 60 | 7,9                       | 16   |
| 948-0800-30              | 949-0800-30              | 8                  | M10 | 68  | 30 | 9,9                       | 25   |
| 948-0800-60              | 949-0800-60              | 8                  | M10 | 98  | 60 | 9,9                       | 25   |
| 948-1000-30              | 949-1000-30              | 10                 | M12 | 76  | 30 | 11,9                      | 41,6 |
| 948-1000-60              | 949-1000-60              | 10                 | M12 | 106 | 60 | 11,9                      | 41,6 |

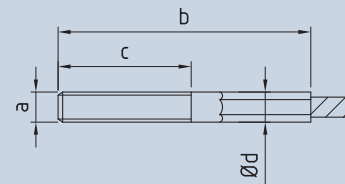
Material 1.4404 | Not suitable for strands



**External thread swaged**

| Part number<br>RH thread | Part number<br>LH thread | $\varnothing$ rope | a   | b   | c   | $\varnothing d$ | kN   |
|--------------------------|--------------------------|--------------------|-----|-----|-----|-----------------|------|
| 850-0100-020             | 855-0100-020             | 1                  | M4  | 35  | 20  | 4               | 0,5  |
| 850-0200-030             | 855-0200-030             | 2                  | M5  | 55  | 30  | 5               | 2,8  |
| 850-0200-060             | 855-0200-060             | 2                  | M5  | 85  | 60  | 5               | 2,8  |
| 850-0300-030             | 855-0300-030             | 3                  | M6  | 70  | 30  | 6               | 6,3  |
| 850-0300-060             | 855-0300-060             | 3                  | M6  | 100 | 60  | 6               | 6,3  |
| 850-0400-030             | 855-0400-030             | 4                  | M6  | 75  | 30  | 7               | 11,2 |
| 850-0400-060             | 855-0400-060             | 4                  | M6  | 105 | 60  | 7               | 11,2 |
| 850-0400-061             | 855-0400-061             | 4                  | M8  | 105 | 60  | 8               | 11,2 |
| 850-0500-030             | 855-0500-030             | 5                  | M8  | 80  | 30  | 8               | 17,5 |
| 850-0500-060             | 855-0500-060             | 5                  | M8  | 110 | 60  | 8               | 17,5 |
| 850-0500-080             | 855-0500-080             | 5                  | M8  | 130 | 80  | 8               | 17,5 |
| 850-0600-030             | 855-0600-030             | 6                  | M10 | 90  | 30  | 10              | 25,2 |
| 850-0600-060             | 855-0600-060             | 6                  | M10 | 120 | 60  | 10              | 25,2 |
| 850-0600-080             | 855-0600-080             | 6                  | M10 | 140 | 80  | 10              | 25,2 |
| 850-0800-080             | 855-0800-080             | 8                  | M12 | 170 | 80  | 13              | 39,5 |
| 850-0800-120             | 855-0800-120             | 8                  | M12 | 210 | 120 | 13              | 39,5 |
| 850-1000-115             | 855-1000-115             | 10                 | M16 | 225 | 115 | 18              | 61,7 |
| 850-1200-130             | 855-1200-130             | 12                 | M20 | 245 | 130 | 20              | 83,2 |
| 850-1600-160             | 855-1600-160             | 16                 | M24 | 290 | 160 | 27              | 140  |

Material 1.4404





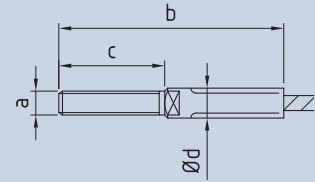


### External thread roll swaged

Part number

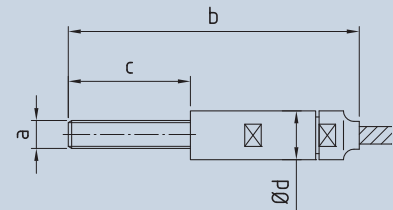
| RH thread    | LH thread    | ø rope a | b   | c   | ø d |      |
|--------------|--------------|----------|-----|-----|-----|------|
| 650-0600-045 | 655-0600-045 | 6        | M10 | 117 | 45  | 12,5 |
| 650-0800-060 | 655-0800-060 | 8        | M12 | 156 | 60  | 16,1 |
| 650-1000-076 | 655-1000-076 | 10       | M14 | 193 | 76  | 17,8 |
| 650-1200-090 | 655-1200-090 | 12       | M16 | 232 | 90  | 21,4 |
| 650-1400-110 | 655-1400-110 | 14       | M20 | 259 | 110 | 24,9 |
| 650-1600-130 | 655-1600-130 | 16       | M24 | 313 | 130 | 28   |
| 650-1800-140 | 655-1800-140 | 18       | M27 | 357 | 140 | 34,5 |
| 650-2200-170 | 655-2200-170 | 22       | M30 | 430 | 170 | 43   |
| 650-2600-170 | 655-2600-170 | 26       | M36 | 475 | 170 | 45,9 |

Material 1.4404 | General planning approval Z-14.7-435 granted



### External thread swageless connection

| Part number<br>RH thread | Part number<br>LH thread | ø rope a | ø d | b  | c   | kN   |
|--------------------------|--------------------------|----------|-----|----|-----|------|
| 826-0200-030             | 827-0200-030             | 2        | M6  | 13 | 85  | 2    |
| 826-0200-060             | 827-0200-060             | 2        | M6  | 13 | 115 | 2    |
| 826-0300-030             | 827-0300-030             | 3        | M6  | 13 | 85  | 4,5  |
| 826-0300-060             | 827-0300-060             | 3        | M6  | 13 | 115 | 4,5  |
| 826-0400-030             | 827-0400-030             | 4        | M6  | 13 | 85  | 8    |
| 826-0400-060             | 827-0400-060             | 4        | M6  | 13 | 115 | 8    |
| 826-0500-030             | 827-0500-030             | 5        | M8  | 15 | 87  | 12,6 |
| 826-0500-060             | 827-0500-060             | 5        | M8  | 15 | 117 | 12,6 |
| 826-0600-030             | 827-0600-030             | 6        | M8  | 15 | 87  | 18,1 |
| 826-0600-060             | 827-0600-060             | 6        | M8  | 15 | 117 | 18,1 |
| 826-0800-080             | 827-0800-080             | 8        | M10 | 20 | 167 | 32,2 |
| 826-1000-100             | 827-1000-100             | 10       | M14 | 28 | 223 | 46,8 |
| 826-1200-120             | 827-1200-120             | 12       | M16 | 30 | 257 | 67,6 |



Material 1.4404 | Not suitable for strand 1 x 19

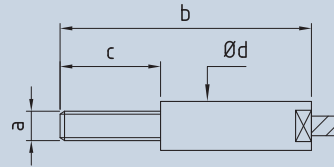




**External thread swivel swaged**

| Part number  | ø rope a | b   | c   | ø d | kN |      |
|--------------|----------|-----|-----|-----|----|------|
| 856-0300-030 | 3        | M6  | 88  | 30  | 10 | 4,5  |
| 856-0300-060 | 3        | M6  | 118 | 60  | 10 | 4,5  |
| 856-0400-030 | 4        | M6  | 88  | 30  | 10 | 8,1  |
| 856-0400-060 | 4        | M6  | 118 | 60  | 10 | 8,1  |
| 856-0400-061 | 4        | M8  | 118 | 60  | 10 | 8,1  |
| 856-0500-030 | 5        | M8  | 108 | 30  | 13 | 12,6 |
| 856-0500-080 | 5        | M8  | 158 | 80  | 13 | 12,6 |
| 856-0600-060 | 6        | M10 | 138 | 60  | 13 | 14,5 |

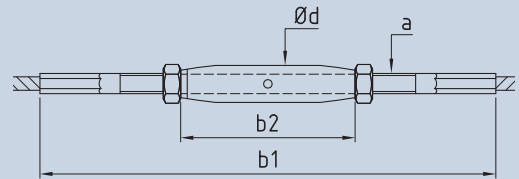
Material 1.4404 | Not suitable for strand 1 x 19



**Turnbuckle with external threads swaged**

| Part number | ø rope a | b1  | b2  | ø d | Adjustment | kN         |      |
|-------------|----------|-----|-----|-----|------------|------------|------|
| 829-0200-01 | 2        | M5  | 166 | 80  | 8          | +16   -26  | 2,8  |
| 829-0200-02 | 2        | M5  | 211 | 80  | 8          | +30   -40  | 2,8  |
| 829-0300-01 | 3        | M6  | 207 | 92  | 10         | +14   -26  | 6,3  |
| 829-0300-02 | 3        | M6  | 250 | 92  | 10         | +32   -44  | 6,3  |
| 829-0400-01 | 4        | M6  | 217 | 92  | 10         | +14   -26  | 11,2 |
| 829-0400-02 | 4        | M6  | 260 | 92  | 10         | +32   -44  | 11,2 |
| 829-0400-03 | 4        | M8  | 270 | 112 | 13,5       | +38   -54  | 11,2 |
| 829-0500-01 | 5        | M8  | 248 | 112 | 13,5       | +8   -24   | 17,5 |
| 829-0500-02 | 5        | M8  | 280 | 112 | 13,5       | +38   -54  | 17,5 |
| 829-0600-01 | 6        | M10 | 314 | 120 | 17,2       | +8   -50   | 25,2 |
| 829-0600-02 | 6        | M10 | 340 | 120 | 17,2       | +40   -60  | 25,2 |
| 829-0800-01 | 8        | M12 | 425 | 150 | 21,3       | +46   -70  | 39,5 |
| 829-1000-01 | 10       | M16 | 560 | 190 | 26,9       | +62   -94  | 61,7 |
| 829-1200-01 | 12       | M20 | 646 | 220 | 33,7       | +70   -110 | 83,2 |
| 829-1600-01 | 16       | M24 | 858 | 328 | 50         | +92   -140 | 140  |

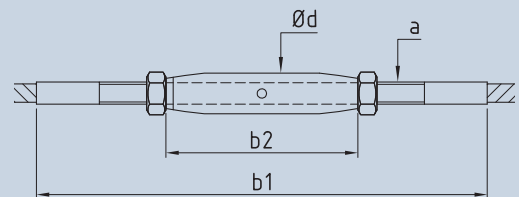
Material 1.4404 | Left/right swaged external threads are screwed half way into the turnbuckle. The minimum screw-in depth is 1.5 x thread ø (M8=12 mm).



**Turnbuckle with external threads F30 hammered**

| Part number | ø rope a | b1  | b2  | ø d | Adjustment | kN        |      |
|-------------|----------|-----|-----|-----|------------|-----------|------|
| 828-0400-02 | 4        | M5  | 160 | 80  | 8          | +38   -42 | 7,1  |
| 828-0500-02 | 5        | M6  | 178 | 92  | 10         | +32   -40 | 11,2 |
| 828-0600-02 | 6        | M8  | 214 | 112 | 13,5       | +36   -47 | 16   |
| 828-0800-02 | 8        | M10 | 236 | 120 | 17,2       | +30   -44 | 25   |
| 828-1000-02 | 10       | M12 | 280 | 150 | 21,3       | +24   -40 | 41,6 |

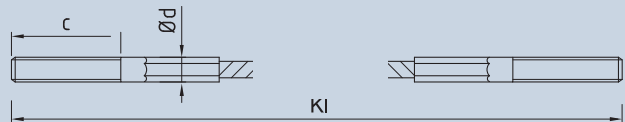
Material 1.4404 | Left/right hammered external threads are screwed half way into the turnbuckle. The minimum screw-in depth is 1.5 x thread ø (M8=12 mm).







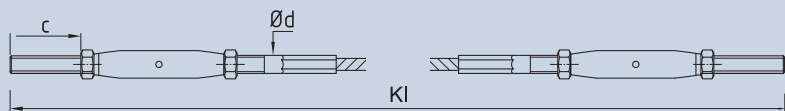
**Both sides external thread swaged**



| Part number<br>both sides<br>RH thread | Part number<br>one LH thread<br>one RH thread | Ø rope Sk | Thread<br>size x length c | Ø d |
|--|---|-----------|---------------------------|-----|
| IK 100-0200                            | IK 101-0200                                   | 2         | 7 x 7 M5 x 30             | 5   |
| IK 100-0201                            | IK 101-0201                                   | 2         | 7 x 7 M5 x 60             | 5   |
| IK 100-0300                            | IK 101-0300                                   | 3         | 7 x 7 M6 x 30             | 6   |
| IK 100-0301                            | IK 101-0301                                   | 3         | 7 x 7 M6 x 60             | 6   |
| IK 100-0400                            | IK 101-0400                                   | 4         | 7 x 7 M6 x 30             | 7   |
| IK 100-0401                            | IK 101-0401                                   | 4         | 7 x 7 M6 x 60             | 7   |
| IK 100-0500                            | IK 101-0500                                   | 5         | 7 x 7 M8 x 30             | 8   |
| IK 100-0501                            | IK 101-0501                                   | 5         | 7 x 7 M8 x 60             | 8   |
| IK 100-0600                            | IK 101-0600                                   | 6         | 7 x 7 M10 x 30            | 10  |
| IK 100-0601                            | IK 101-0601                                   | 6         | 7 x 7 M10 x 60            | 10  |
| IK 100-0800                            | IK 101-0800                                   | 8         | 7 x 7 M12 x 80            | 13  |
| IK 100-1000                            | IK 101-1000                                   | 10        | 7 x 19 M16 x 115          | 18  |
| IK 100-1200                            | IK 101-1200                                   | 12        | 7 x 19 M20 x 130          | 20  |
| IK 100-1600                            | IK 101-1600                                   | 16        | 7 x 19 M24 x 160          | 27  |



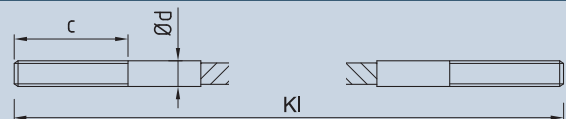
**Both sides turnbuckle  
with external thread swaged**



| Part number<br>both sides<br>RH thread | Ø rope Sk | Thread<br>size x length c | Adjustment  | Ø d |
|--|-----------|---------------------------|-------------|-----|
| IK 110-0200                            | 2         | 7 x 7 M5 x 60             | +52   -86   | 5   |
| IK 110-0300                            | 3         | 7 x 7 M6 x 60             | +56   -100  | 6   |
| IK 110-0400                            | 4         | 7 x 7 M6 x 60             | +56   -100  | 7   |
| IK 110-0500                            | 5         | 7 x 7 M8 x 60             | +68   -100  | 8   |
| IK 110-0600                            | 6         | 7 x 7 M10 x 60            | +60   -100  | 10  |
| IK 110-0800                            | 8         | 7 x 7 M12 x 60            | +92   -140  | 13  |
| IK 110-1000                            | 10        | 7 x 19 M16 x 60           | +96   -180  | 18  |
| IK 110-1200                            | 12        | 7 x 19 M20 x 60           | +120   -210 | 20  |
| IK 110-1600                            | 16        | 7 x 19 M24 x 60           | +180   -240 | 27  |



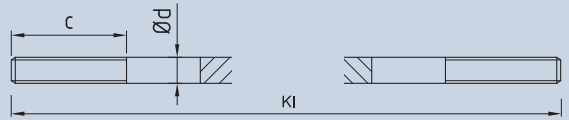
**Both sides external thread F30 hammered**



| Part number<br>both sides<br>RH thread | Part number<br>one LH thread<br>one RH thread | Ø rope Sk | Thread<br>size x length c | Ø d ±0,2 |
|--|---|-----------|---------------------------|----------|
| IK 120-0300                            | IK 121-0300                                   | 3         | 7 x 7 M4 x 20             | 3,9      |
| IK 120-0301                            | IK 121-0301                                   | 3         | 7 x 7 M4 x 40             | 3,9      |
| IK 120-0400                            | IK 121-0400                                   | 4         | 7 x 7 M5 x 30             | 4,9      |
| IK 120-0401                            | IK 121-0401                                   | 4         | 7 x 7 M5 x 50             | 4,9      |
| IK 120-0500                            | IK 121-0500                                   | 5         | 7 x 7 M6 x 30             | 5,9      |
| IK 120-0501                            | IK 121-0501                                   | 5         | 7 x 7 M6 x 50             | 5,9      |
| IK 120-0600                            | IK 121-0600                                   | 6         | 7 x 7 M8 x 30             | 7,9      |
| IK 120-0601                            | IK 121-0601                                   | 6         | 7 x 7 M8 x 60             | 7,9      |
| IK 120-0800                            | IK 121-0800                                   | 8         | 7 x 7 M10 x 30            | 9,9      |
| IK 120-0801                            | IK 121-0801                                   | 8         | 7 x 7 M10 x 60            | 9,9      |
| IK 120-1000                            | IK 121-1000                                   | 10        | 7 x 19 M12 x 30           | 11,9     |
| IK 120-1001                            | IK 121-1001                                   | 10        | 7 x 19 M12 x 60           | 11,9     |



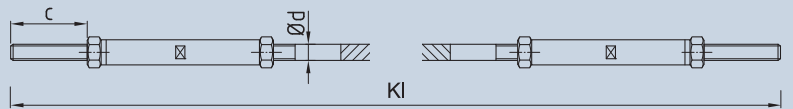
**Both sides external thread F50 hammered**



| Part number<br>both sides<br>RH thread | Part number<br>one LH thread<br>one RH thread | ø rope Sk |       | Thread<br>size x length c | ø d <sup>+0,2</sup> <sub>0</sub> |
|--|---|-----------|-------|---------------------------|----------------------------------|
| IK 125-0400                            | IK 126-0400                                   | 4         | 7 x 7 | M4 x 30                   | 4,4                              |
| IK 125-0401                            | IK 126-0401                                   | 4         | 7 x 7 | M4 x 60                   | 4,4                              |
| IK 125-0500                            | IK 126-0500                                   | 5         | 7 x 7 | M5 x 30                   | 5,5                              |
| IK 125-0501                            | IK 126-0501                                   | 5         | 7 x 7 | M5 x 60                   | 5,5                              |
| IK 125-0600                            | IK 126-0600                                   | 6         | 7 x 7 | M6 x 30                   | 6,6                              |
| IK 125-0601                            | IK 126-0601                                   | 6         | 7 x 7 | M6 x 60                   | 6,6                              |
| IK 125-0800                            | IK 126-0800                                   | 8         | 7 x 7 | M8 x 30                   | 8,8                              |
| IK 125-0801                            | IK 126-0801                                   | 8         | 7 x 7 | M8 x 60                   | 8,8                              |



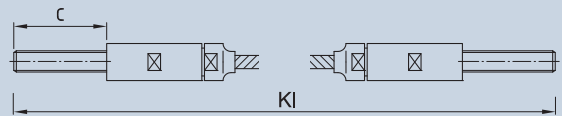
**Both sides turnbuckle with external thread F30 hammered**



| Part number<br>both sides<br>RH thread | ø rope Sk |       | Thread<br>size x length c | Adjustment | ø d ±0,2 |
|--|-----------|-------|---------------------------|------------|----------|
| IK 130-0400                            | 4         | 7 x 7 | M5 x 60                   | +60   -90  | 4,9      |
| IK 130-0500                            | 5         | 7 x 7 | M6 x 60                   | +74   -110 | 5,9      |
| IK 130-0600                            | 6         | 7 x 7 | M8 x 60                   | +74   -110 | 7,9      |



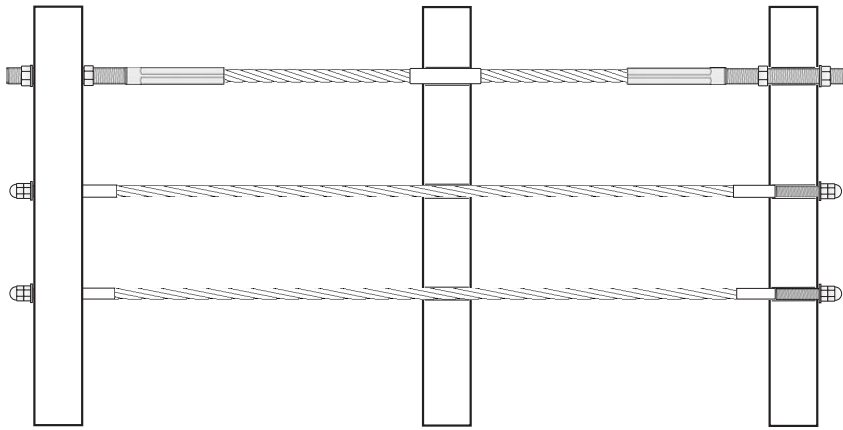
**Both sides external thread swageless connection**



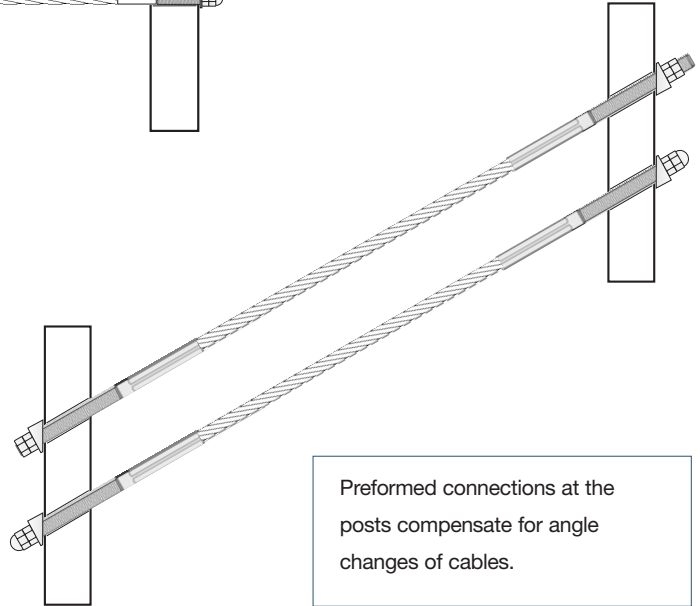
| Part number<br>both sides<br>RH thread | Part number<br>one LH thread<br>one RH thread | ø rope Sk |        | Thread<br>size x length c |
|--|---|-----------|--------|---------------------------|
| IK 140-0200                            | IK 141-0200                                   | 2         | 7 x 7  | M6 x 30                   |
| IK 140-0201                            | IK 141-0201                                   | 2         | 7 x 7  | M6 x 60                   |
| IK 140-0300                            | IK 141-0300                                   | 3         | 7 x 7  | M6 x 30                   |
| IK 140-0301                            | IK 141-0301                                   | 3         | 7 x 7  | M6 x 60                   |
| IK 140-0400                            | IK 141-0400                                   | 4         | 7 x 7  | M6 x 30                   |
| IK 140-0401                            | IK 141-0401                                   | 4         | 7 x 7  | M6 x 60                   |
| IK 140-0500                            | IK 141-0500                                   | 5         | 7 x 7  | M8 x 30                   |
| IK 140-0501                            | IK 141-0501                                   | 5         | 7 x 7  | M8 x 60                   |
| IK 140-0600                            | IK 141-0600                                   | 6         | 7 x 7  | M8 x 30                   |
| IK 140-0601                            | IK 141-0601                                   | 6         | 7 x 7  | M8 x 60                   |
| IK 140-0800                            | IK 141-0800                                   | 8         | 7 x 7  | M10 x 80                  |
| IK 140-1000                            | IK 141-1000                                   | 10        | 7 x 19 | M14 x 100                 |
| IK 140-1200                            | IK 141-1200                                   | 12        | 7 x 19 | M16 x 120                 |



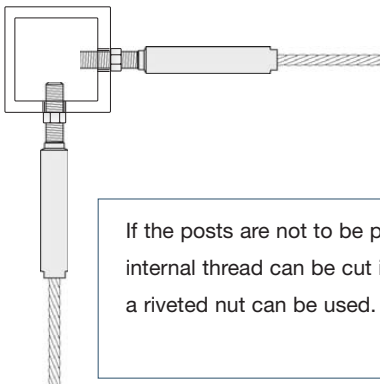




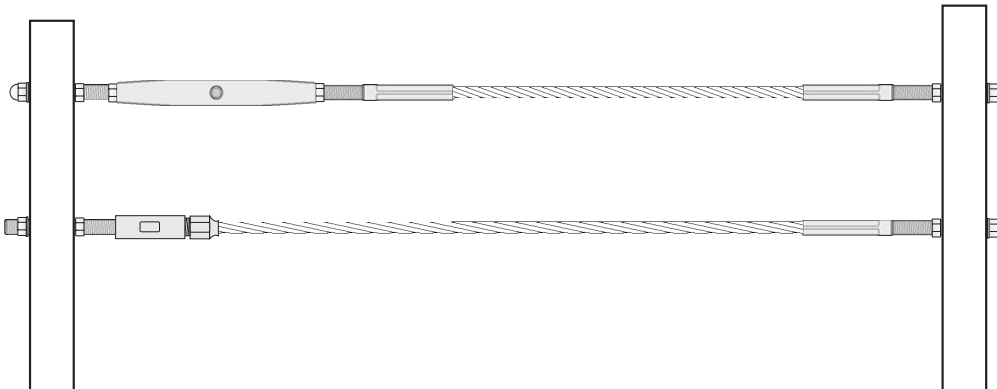
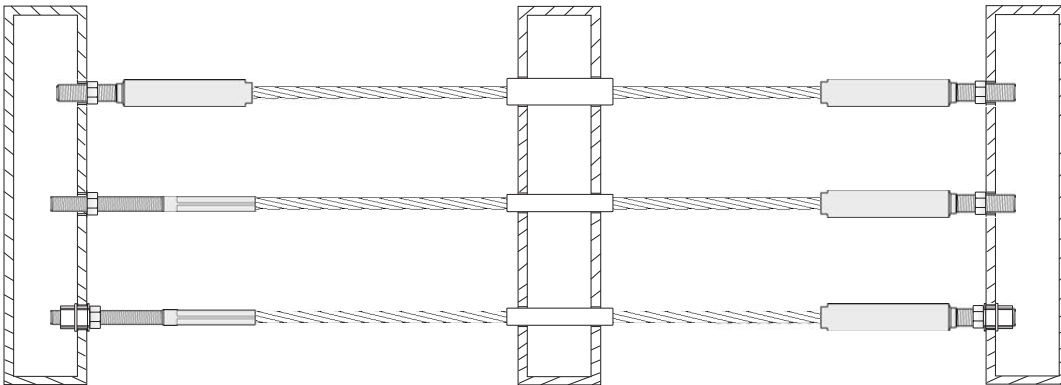
Tension is created within the cable by tightening the nuts. Loose sleeves serve to protect the cables and coated post profiles against abrasion.



Preformed connections at the posts compensate for angle changes of cables.



If the posts are not to be penetrated, an internal thread can be cut in the wall or a riveted nut can be used.



Compensation for large tolerances allows use of ready assembled parts with turnbuckles and end connections for self assembly.



# I-SYS: Internal Threads



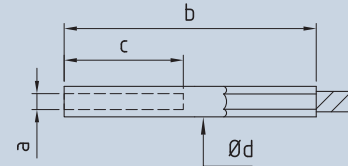
Long lengths of splendid cable can be seen in bridges and on stairways. They provide safety, divide different areas of use from one another or mark structures in public spaces. Generous forms require the cables to be strung in the right rhythm. Internal threads do sterling service here. Reduced to a minimum as regards form, they secure the cable fixing, maintain cables at the right lengths and keep them parallel to one another.



**Internal thread swaged**

| Part number<br>RH thread | Part number<br>LH thread | ø rope | a   | b   | c   | ø d | kN   |
|--------------------------|--------------------------|--------|-----|-----|-----|-----|------|
| 860-0200-015             | 861-0200-015             | 2      | M4  | 45  | 15  | 6   | 2,9  |
| 860-0300-020             | 861-0300-020             | 3      | M5  | 60  | 20  | 7   | 6,7  |
| 860-0300-035             | 861-0300-035             | 3      | M5  | 90  | 35  | 7   | 6,7  |
| 860-0400-020             | 861-0400-020             | 4      | M6  | 65  | 20  | 8   | 11,8 |
| 860-0400-035             | 861-0400-035             | 4      | M6  | 90  | 35  | 8   | 11,8 |
| 860-0500-020             | 861-0500-020             | 5      | M6  | 70  | 20  | 8   | 12   |
| 860-0500-035             | 861-0500-035             | 5      | M6  | 100 | 35  | 8   | 12   |
| 860-0600-025             | 861-0600-025             | 6      | M8  | 90  | 25  | 10  | 16,5 |
| 860-0600-050             | 861-0600-050             | 6      | M8  | 120 | 50  | 10  | 16,5 |
| 860-0800-060             | 861-0800-060             | 8      | M10 | 180 | 60  | 13  | 26   |
| 860-1000-080             | 861-1000-080             | 10     | M12 | 170 | 80  | 18  | 69,5 |
| 860-1000-081             | 861-1000-081             | 10     | M14 | 185 | 80  | 20  | 69,5 |
| 860-1200-100             | 861-1200-100             | 12     | M16 | 210 | 100 | 24  | 93,6 |
| 860-1600-120             | 861-1600-120             | 16     | M20 | 250 | 120 | 30  | 159  |

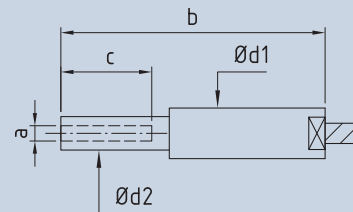
Material 1.4404



**Internal thread swivel swaged**

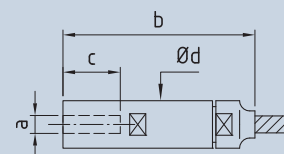
| Part number  | ø rope | a  | b   | c  | ø d1 | ø d2 | kN   |
|--------------|--------|----|-----|----|------|------|------|
| 857-0300-020 | 3      | M5 | 91  | 20 | 10   | 8    | 4,6  |
| 857-0300-035 | 3      | M5 | 113 | 35 | 10   | 8    | 4,6  |
| 857-0400-020 | 4      | M6 | 91  | 20 | 10   | 8    | 8,1  |
| 857-0400-035 | 4      | M6 | 113 | 35 | 10   | 8    | 8,1  |
| 857-0500-020 | 5      | M6 | 111 | 20 | 13   | 10   | 12   |
| 857-0500-035 | 5      | M6 | 133 | 35 | 13   | 10   | 12   |
| 857-0600-025 | 6      | M8 | 116 | 25 | 13   | 10   | 12,5 |
| 857-0600-050 | 6      | M8 | 148 | 50 | 13   | 10   | 12,5 |

Material 1.4404 | Not suitable for strand 1 x 19



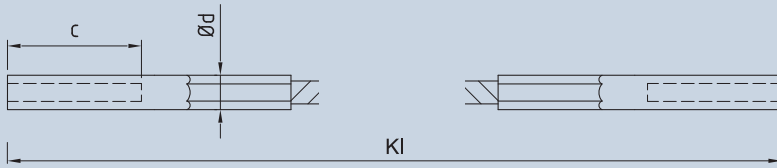
**Internal thread swageless connection**

| Part number<br>RH thread | Part number<br>LH thread | ø rope | a   | b   | c  | ø d | kN   |
|--------------------------|--------------------------|--------|-----|-----|----|-----|------|
| 831-0200                 | 832-0200                 | 2      | M6  | 55  | 18 | 13  | 2    |
| 831-0300                 | 832-0300                 | 3      | M6  | 55  | 18 | 13  | 4,5  |
| 831-0400                 | 832-0400                 | 4      | M6  | 55  | 18 | 13  | 8    |
| 831-0500                 | 832-0500                 | 5      | M8  | 57  | 20 | 15  | 12,6 |
| 831-0600                 | 832-0600                 | 6      | M8  | 57  | 20 | 15  | 18,1 |
| 831-0800                 | 832-0800                 | 8      | M10 | 87  | 40 | 20  | 32,2 |
| 831-1000                 | 832-1000                 | 10     | M14 | 123 | 60 | 28  | 46,8 |
| 831-1200                 | 832-1200                 | 12     | M16 | 137 | 60 | 30  | 67,6 |



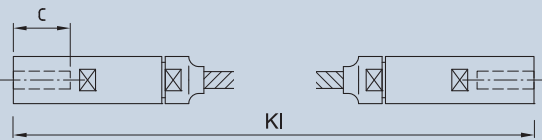
Material 1.4404 | Not suitable for strand 1 x 19





**Both sides internal thread swaged**

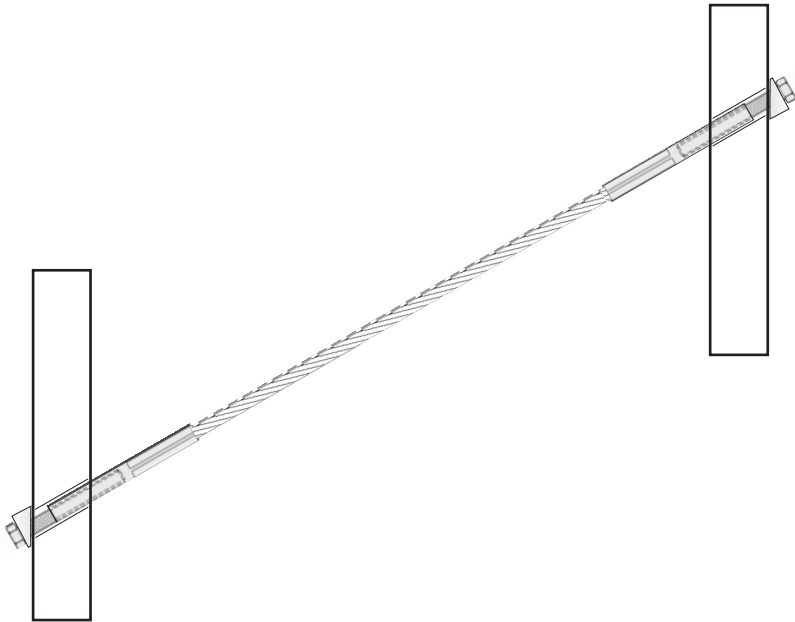
| Part number<br>both sides<br>RH thread | Part number<br>one LH thread<br>one RH thread | $\varnothing$ rope Sk | Thread<br>size x length c | $\varnothing$ d |
|--|---|-----------------------|---------------------------|-----------------|
| IK 200-0200                            | IK 201-0200                                   | 2 7 x 7               | M4 x 15                   | 6               |
| IK 200-0300                            | IK 201-0300                                   | 3 7 x 7               | M5 x 20                   | 7               |
| IK 200-0301                            | IK 201-0301                                   | 3 7 x 7               | M5 x 35                   | 7               |
| IK 200-0400                            | IK 201-0400                                   | 4 7 x 7               | M6 x 20                   | 8               |
| IK 200-0401                            | IK 201-0401                                   | 4 7 x 7               | M6 x 35                   | 8               |
| IK 200-0500                            | IK 201-0500                                   | 5 7 x 7               | M6 x 20                   | 8               |
| IK 200-0501                            | IK 201-0501                                   | 5 7 x 7               | M6 x 35                   | 8               |
| IK 200-0600                            | IK 201-0600                                   | 6 7 x 7               | M8 x 25                   | 10              |
| IK 200-0601                            | IK 201-0601                                   | 6 7 x 7               | M8 x 50                   | 10              |
| IK 200-0800                            | IK 201-0800                                   | 8 7 x 7               | M10 x 60                  | 13              |
| IK 200-1000                            | IK 201-1000                                   | 10 7 x 19             | M12 x 80                  | 18              |
| IK 200-1200                            | IK 201-1200                                   | 12 7 x 19             | M16 x 100                 | 24              |
| IK 200-1600                            | IK 201-1600                                   | 16 7 x 19             | M20 x 120                 | 30              |



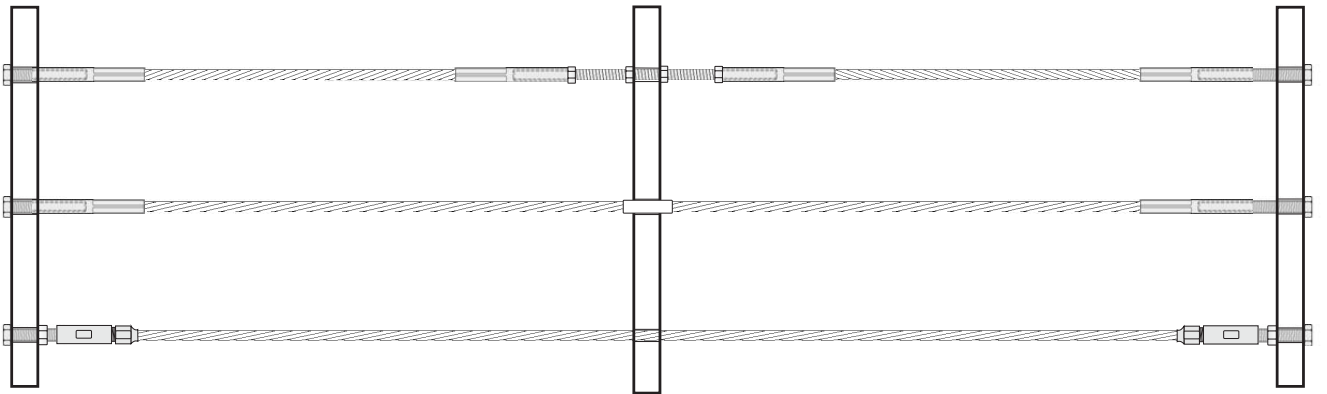
**Both sides internal thread swageless connection**

| Part number<br>both sides<br>RH thread | Part number<br>one LH thread<br>one RH thread | $\varnothing$ rope Sk | Thread<br>size x length c |
|--|---|-----------------------|---------------------------|
| IK 210-0200                            | IK 211-0200                                   | 2 7 x 7               | M6 x 18                   |
| IK 210-0300                            | IK 211-0300                                   | 3 7 x 7               | M6 x 18                   |
| IK 210-0400                            | IK 211-0400                                   | 4 7 x 7               | M6 x 18                   |
| IK 210-0500                            | IK 211-0500                                   | 5 7 x 7               | M8 x 20                   |
| IK 210-0600                            | IK 211-0600                                   | 6 7 x 7               | M8 x 20                   |
| IK 210-0800                            | IK 211-0800                                   | 8 7 x 7               | M10 x 40                  |
| IK 210-1000                            | IK 211-1000                                   | 10 7 x 19             | M14 x 60                  |
| IK 210-1200                            | IK 211-1200                                   | 12 7 x 19             | M16 x 60                  |

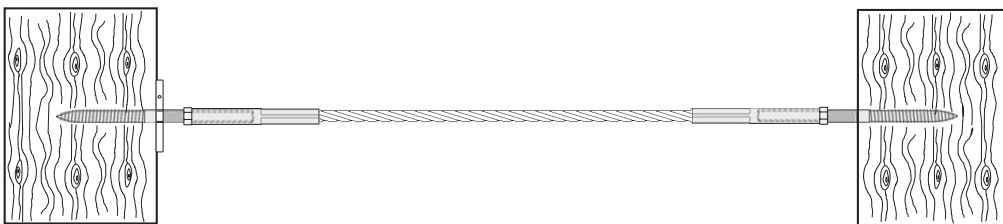




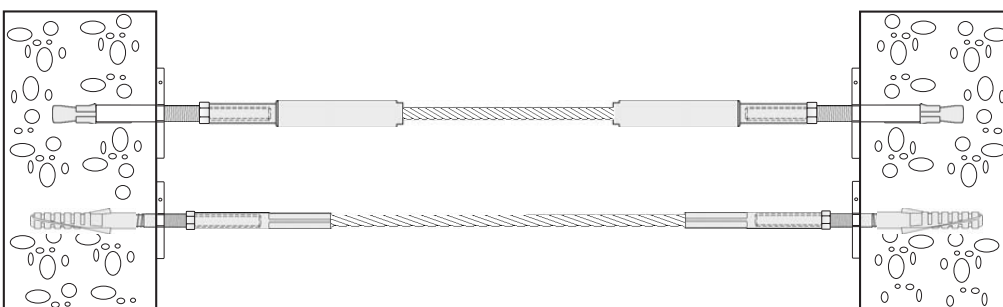
Preformed connections at the posts compensate for the angle changes.



A cable stop with internal thread at the post fixes the cable up to 10 metres each in length (top). Loose sleeves protect the cable and finish of the post (centre). Tensioning at the end posts is sufficient for short lengths (below).



I-SYS accessories are available for fixing cable assemblies with internal thread to the different bases.





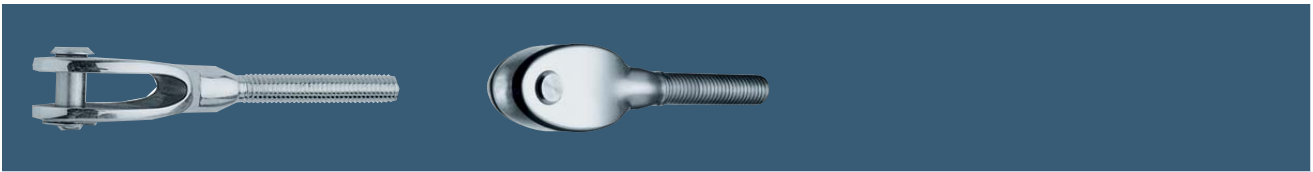






## I-SYS: Forks

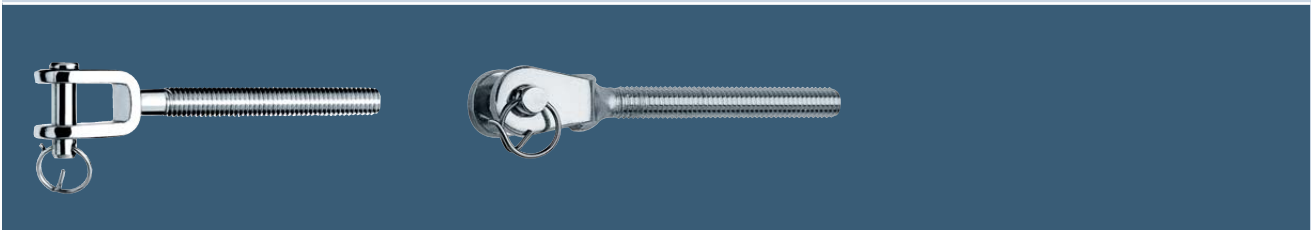
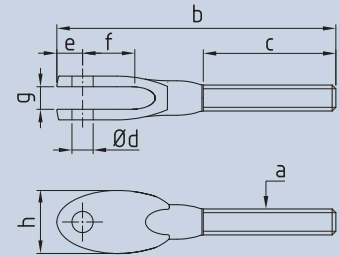
Slim and elegant, but strong and long lived: these are the requirements placed on connections between cable and building. Intelligent design is absolutely essential. The I-SYS range impresses with its unique aesthetic qualities. Refined technical processing of the stainless steel in conjunction with organic forms are typical of CS-Forks and CS-Eyes. The international jury of the leading architectural journal AIT awarded the range the highly-regarded „Innovation Prize for Architecture and Construction“, recognising the new elegance of these industrial elements.



**CS-Fork with external thread**

| Part number<br>RH thread | Part number<br>LH thread | a   | b   | c  | ød | e   | f  | g   | h  |
|--------------------------|--------------------------|-----|-----|----|----|-----|----|-----|----|
| 945-0600                 | 946-0600                 | M6  | 77  | 35 | 6  | 7,5 | 14 | 6,5 | 20 |
| 945-0800                 | 946-0800                 | M8  | 77  | 35 | 6  | 7,5 | 14 | 6,5 | 20 |
| 945-0801                 | 946-0801                 | M8  | 106 | 50 | 8  | 10  | 19 | 8,5 | 24 |
| 945-1000                 | 946-1000                 | M10 | 106 | 50 | 8  | 10  | 19 | 8,5 | 24 |

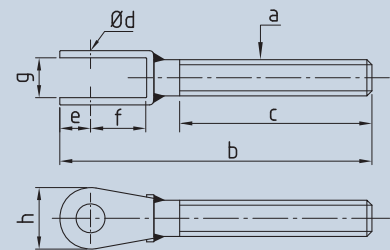
Material 1.4401 | CS-Fork is compatible with CS-Eye



**Fork with external thread**

| Part number<br>RH thread | Part number<br>LH thread | a   | b   | c   | ød | e  | f  | g   | h    |
|--------------------------|--------------------------|-----|-----|-----|----|----|----|-----|------|
| 871-0500-01              | 872-0500-01              | M5  | 55  | 30  | 5  | 6  | 12 | 7,5 | 12,5 |
| 871-0500                 | 872-0500                 | M5  | 66  | 41  | 5  | 6  | 12 | 7,5 | 12,5 |
| 871-0600-01              | 872-0600-01              | M6  | 56  | 30  | 5  | 6  | 12 | 7,5 | 12,5 |
| 871-0600                 | 872-0600                 | M6  | 73  | 47  | 5  | 6  | 12 | 7,5 | 12,5 |
| 871-0800-01              | 872-0800-01              | M8  | 64  | 35  | 6  | 7  | 13 | 10  | 14,5 |
| 871-0800                 | 872-0800                 | M8  | 86  | 57  | 6  | 7  | 13 | 10  | 14,5 |
| 871-1000                 | 872-1000                 | M10 | 99  | 63  | 8  | 9  | 15 | 11  | 18   |
| 871-1200                 | 872-1200                 | M12 | 133 | 80  | 12 | 14 | 25 | 14  | 26   |
| 871-1400                 | 872-1400                 | M14 | 143 | 90  | 12 | 14 | 25 | 14  | 26   |
| 871-1600                 | 872-1600                 | M16 | 167 | 100 | 14 | 18 | 31 | 22  | 34   |
| 871-2000                 | 872-2000                 | M20 | 214 | 119 | 19 | 22 | 42 | 24  | 42   |
| 871-2400                 | 872-2400                 | M24 | 286 | 170 | 25 | 28 | 50 | 30  | 50   |

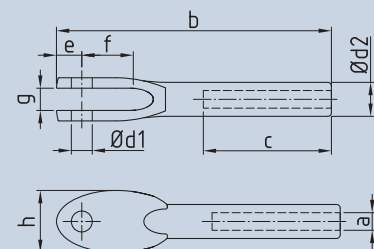
Material 1.4401



**CS-Fork with internal thread**

| Part number<br>RH thread | Part number<br>LH thread | a   | b   | c  | ød1 | ød2 | e   | f  | g   | h  |
|--------------------------|--------------------------|-----|-----|----|-----|-----|-----|----|-----|----|
| 917-0500                 | 918-0500                 | M5  | 78  | 40 | 6   | 10  | 7,5 | 14 | 6,5 | 20 |
| 917-0600                 | 918-0600                 | M6  | 78  | 40 | 6   | 10  | 7,5 | 14 | 6,5 | 20 |
| 917-0800                 | 918-0800                 | M8  | 78  | 40 | 6   | 10  | 7,5 | 14 | 6,5 | 20 |
| 917-0801                 | 918-0801                 | M8  | 106 | 55 | 8   | 13  | 10  | 19 | 8,5 | 24 |
| 917-1000                 | 918-1000                 | M10 | 106 | 55 | 8   | 13  | 10  | 19 | 8,5 | 24 |

Material 1.4401 | CS-Fork is compatible with CS-Eye

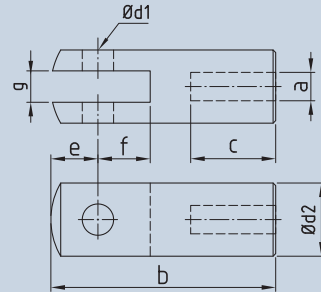




**Fork with internal thread**

| Part number<br>RH thread | Part number<br>LH thread | a   | b   | c  | ø d1 | ø d2 | e  | f    | g  |
|--------------------------|--------------------------|-----|-----|----|------|------|----|------|----|
| 817-0500                 | 818-0500                 | M5  | 36  | 13 | 5    | 12   | 8  | 9    | 5  |
| 817-0600                 | 818-0600                 | M6  | 43  | 18 | 6    | 14   | 9  | 10   | 6  |
| 817-0800                 | 818-0800                 | M8  | 54  | 24 | 8    | 18   | 12 | 12,5 | 7  |
| 817-1000                 | 818-1000                 | M10 | 69  | 30 | 10   | 22   | 15 | 15   | 8  |
| 817-1200                 | 818-1200                 | M12 | 81  | 36 | 12   | 26   | 17 | 18   | 10 |
| 817-1600                 | 818-1600                 | M16 | 100 | 40 | 16   | 34   | 22 | 22   | 12 |
| 817-2000                 | 818-2000                 | M20 | 122 | 40 | 20   | 42   | 27 | 27   | 15 |
| 817-2400                 | 818-2400                 | M24 | 150 | 40 | 22   | 52   | 34 | 34   | 18 |

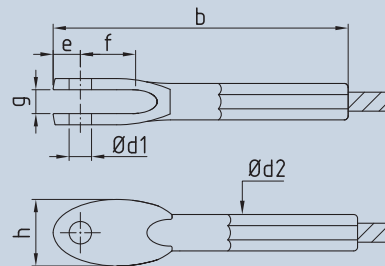
Material 1.4401 | Fork with internal thread is compatible with eye with internal thread



**CS-Fork swaged**

| Part number | ø rope | b   | ø d1 | ø d2 | e   | f  | g   | h  | kN   |
|-------------|--------|-----|------|------|-----|----|-----|----|------|
| 947-0400    | 4      | 78  | 6    | 7,8  | 7,5 | 14 | 6,5 | 20 | 11,8 |
| 947-0500    | 5      | 78  | 6    | 7,8  | 7,5 | 14 | 6,5 | 20 | 12   |
| 947-0600    | 6      | 106 | 8    | 9,8  | 10  | 19 | 8,5 | 24 | 16,5 |

Material 1.4401

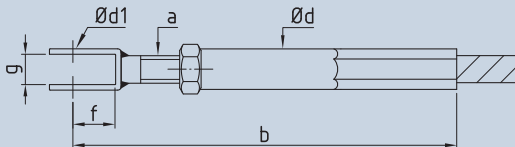
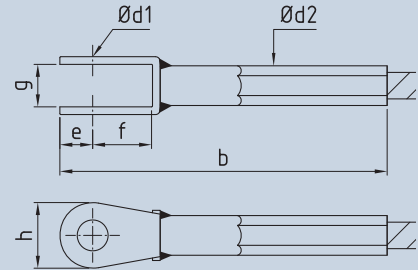




**Fork swaged**

| Part number | ø rope | b     | ø d1 | ø d2 | e   | f  | g   | h    | kN   |
|-------------|--------|-------|------|------|-----|----|-----|------|------|
| 881-0200    | 2      | 65    | 5    | 5,5  | 6   | 12 | 7,5 | 12,5 | 2,9  |
| 881-0300    | 3      | 70    | 5    | 6,3  | 6   | 12 | 7,5 | 12,5 | 6,6  |
| 881-0400    | 4      | 80    | 6    | 7,5  | 7   | 13 | 10  | 14,5 | 9,5  |
| 881-0401    | 4      | 77    | 5    | 7,5  | 6   | 12 | 7,5 | 12,5 | 9,5  |
| 881-0500    | 5      | 93    | 8    | 9    | 9   | 15 | 11  | 17,5 | 14,5 |
| 881-0501    | 5      | 87,5  | 6    | 9    | 7,5 | 13 | 9,5 | 14,5 | 14,5 |
| 881-0600    | 6      | 112   | 9,5  | 12,5 | 11  | 20 | 12  | 20,5 | 23,5 |
| 881-0601    | 6      | 106,5 | 8    | 12,5 | 9,5 | 15 | 11  | 17,5 | 23,5 |
| 881-0800    | 8      | 143   | 12   | 16   | 14  | 25 | 14  | 26   | 31,5 |
| 881-1000    | 10     | 167   | 14   | 17,8 | 18  | 31 | 22  | 34   | 62   |
| 881-1200    | 12     | 205   | 16   | 20   | 18  | 31 | 22  | 34   | 87   |
| 881-1201    | 12     | 227   | 19   | 20   | 22  | 38 | 24  | 42   | 87   |
| 881-1600    | 16     | 309   | 25,4 | 28   | 28  | 48 | 30  | 42   | 142  |

Material 1.4401

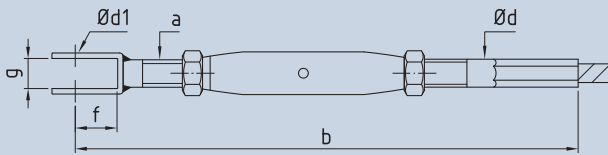


**Fork with internal thread swaged**

| Part number<br>RH thread | Part number<br>LH thread | ø rope | a   | b   | ø d | ø d1 | f  | g   | Adjustment | kN   |
|--------------------------|--------------------------|--------|-----|-----|-----|------|----|-----|------------|------|
| 812-0300-01              | 811-0300-01              | 3      | M5  | 100 | 7   | 5    | 12 | 7,5 | +5   -10   | 6,7  |
| 812-0300-02              | 811-0300-02              | 3      | M5  | 136 | 7   | 5    | 12 | 7,5 | +12   -17  | 6,7  |
| 812-0400-01              | 811-0400-01              | 4      | M6  | 106 | 8   | 5    | 12 | 7,5 | +4   -10   | 9,5  |
| 812-0400-02              | 811-0400-02              | 4      | M6  | 135 | 8   | 5    | 12 | 7,5 | +11   -17  | 9,5  |
| 812-0500-01              | 811-0500-01              | 5      | M6  | 110 | 8   | 5    | 12 | 7,5 | +4   -10   | 12   |
| 812-0500-02              | 811-0500-02              | 5      | M6  | 145 | 8   | 5    | 12 | 7,5 | +11   -17  | 12   |
| 812-0600-01              | 811-0600-01              | 6      | M8  | 135 | 10  | 6    | 13 | 10  | +4   -12   | 16,5 |
| 812-0600-02              | 811-0600-02              | 6      | M8  | 173 | 10  | 6    | 13 | 10  | +17   -25  | 16,5 |
| 812-0800-01              | 811-0800-01              | 8      | M10 | 248 | 13  | 8    | 15 | 11  | +17   -27  | 26   |
| 812-1000-01              | 811-1000-01              | 10     | M14 | 295 | 20  | 12   | 25 | 14  | +26   -40  | 62   |
| 812-1200-01              | 811-1200-01              | 12     | M16 | 345 | 25  | 14   | 31 | 22  | +26   -42  | 77   |
| 812-1600-01              | 811-1600-01              | 16     | M20 | 410 | 32  | 19   | 42 | 24  | +30   -50  | 142  |

Material 1.4401





### Turnbuckle with fork swaged

| Part number | ø rope | a   | b   | ø d | ø d1 | f  | g   | Adjustment | kN   |
|-------------|--------|-----|-----|-----|------|----|-----|------------|------|
| 870-0200    | 2      | M5  | 190 | 5   | 5    | 12 | 7,5 | +26   -43  | 2,9  |
| 870-0300    | 3      | M6  | 220 | 6   | 5    | 12 | 7,5 | +28   -50  | 6,6  |
| 870-0400    | 4      | M6  | 225 | 7   | 5    | 12 | 7,5 | +28   -50  | 11,5 |
| 870-0401    | 4      | M8  | 248 | 8   | 6    | 13 | 10  | +34   -50  | 11,8 |
| 870-0500    | 5      | M8  | 254 | 8   | 6    | 13 | 10  | +34   -50  | 18,5 |
| 870-0600    | 6      | M10 | 283 | 10  | 8    | 15 | 11  | +30   -50  | 26,7 |
| 870-0800    | 8      | M12 | 368 | 13  | 12   | 25 | 14  | +46   -70  | 31,5 |
| 870-1000    | 10     | M16 | 490 | 18  | 14   | 31 | 22  | +48   -90  | 69,4 |
| 870-1200    | 12     | M20 | 580 | 20  | 19   | 42 | 24  | +60   -105 | 93,6 |
| 870-1600    | 16     | M24 | 680 | 27  | 25   | 50 | 30  | +90   -120 | 158  |

Material 1.4401

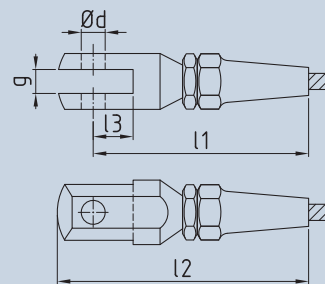


### BW-Fork swageless connection

| Part number | ø rope | g  | ø d | l1  | l2  | l3 | kN  |
|-------------|--------|----|-----|-----|-----|----|-----|
| 754-0300    | 3      | 6  | 6   | 55  | 63  | 11 | 7   |
| 754-0400    | 4      | 8  | 8   | 62  | 73  | 12 | 13  |
| 754-0500    | 5      | 10 | 10  | 72  | 83  | 15 | 20  |
| 754-0600    | 6      | 12 | 12  | 82  | 95  | 18 | 29  |
| 754-0800    | 8      | 14 | 14  | 103 | 118 | 21 | 52  |
| 754-1000    | 10     | 16 | 16  | 115 | 133 | 24 | 82  |
| 754-1200    | 12     | 18 | 19  | 137 | 157 | 27 | 118 |



Material 1.4401

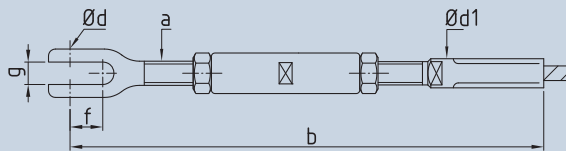
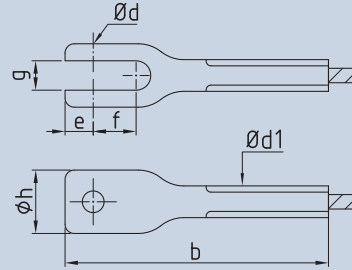




**Fork roll swaged**

| Part number | ø rope | b   | ø d | ø d1 | e  | f  | g  | h    |
|-------------|--------|-----|-----|------|----|----|----|------|
| 681-0600    | 6      | 116 | 10  | 12,5 | 14 | 18 | 10 | 22   |
| 681-0800    | 8      | 151 | 12  | 16,1 | 16 | 24 | 12 | 28   |
| 681-1000    | 10     | 185 | 16  | 17,8 | 20 | 29 | 14 | 34   |
| 681-1200    | 12     | 220 | 20  | 21,4 | 25 | 35 | 17 | 41   |
| 681-1400    | 14     | 238 | 23  | 24,9 | 28 | 41 | 20 | 48   |
| 681-1600    | 16     | 286 | 26  | 28   | 33 | 48 | 22 | 54,5 |
| 681-1800    | 18     | 335 | 29  | 34,5 | 38 | 53 | 28 | 69,5 |
| 681-2200    | 22     | 379 | 33  | 43   | 40 | 61 | 30 | 72   |
| 681-2600    | 26     | 445 | 36  | 45,9 | 45 | 71 | 33 | 83   |

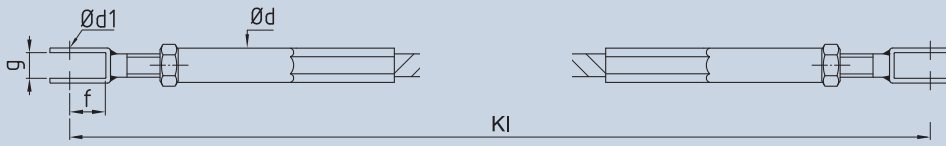
Material 1.4404 | General planning approval Z-14.7-435 granted



**Turnbuckle with fork fitting**

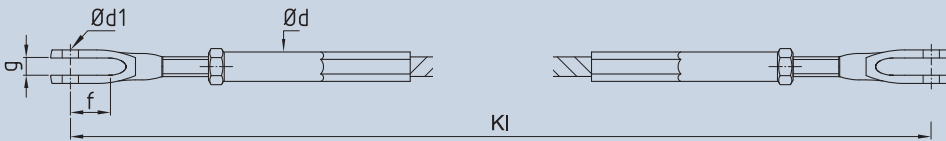
| Part number | ø rope | a   | b   | e  | f  | g  | ø d | ø d1 | Adjustment |
|-------------|--------|-----|-----|----|----|----|-----|------|------------|
| 670-0600    | 6      | M10 | 231 | 14 | 18 | 10 | 10  | 12,5 | +13   -43  |
| 670-0800    | 8      | M12 | 307 | 16 | 24 | 12 | 12  | 16,1 | +22   -58  |
| 670-1000    | 10     | M14 | 346 | 20 | 29 | 14 | 16  | 17,8 | +31   -73  |
| 670-1200    | 12     | M16 | 458 | 25 | 35 | 17 | 20  | 21,4 | +39   -87  |
| 670-1400    | 14     | M20 | 535 | 28 | 41 | 20 | 23  | 24,9 | +46   -106 |
| 670-1600    | 16     | M24 | 644 | 33 | 48 | 22 | 26  | 28   | +60   -126 |
| 670-1800    | 18     | M27 | 712 | 38 | 53 | 28 | 29  | 34,5 | +54   -135 |
| 670-2200    | 22     | M30 | 850 | 40 | 61 | 30 | 33  | 43   | +74   -164 |
| 670-2600    | 26     | M36 | 913 | 45 | 71 | 33 | 36  | 45,9 | +56   -164 |

Material 1.4404 | General planning approval Z-14.7-435 granted



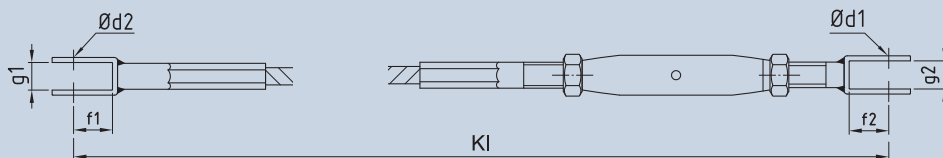
**Both sides fork with internal thread swaged**

| Part number | ø rope | Sk     | Thread | Adjustment | ø d | f  | g   | ø d1 |
|-------------|--------|--------|--------|------------|-----|----|-----|------|
| IK 300-0300 | 3      | 7 x 7  | M5     | +10   -20  | 7   | 12 | 7,5 | 5    |
| IK 300-0301 | 3      | 7 x 7  | M5     | +24   -34  | 7   | 12 | 7,5 | 5    |
| IK 300-0400 | 4      | 7 x 7  | M6     | +8   -20   | 8   | 12 | 7,5 | 5    |
| IK 300-0401 | 4      | 7 x 7  | M6     | +22   -34  | 8   | 12 | 7,5 | 5    |
| IK 300-0500 | 5      | 7 x 7  | M6     | +8   -20   | 8   | 12 | 7,5 | 5    |
| IK 300-0501 | 5      | 7 x 7  | M6     | +22   -34  | 8   | 12 | 7,5 | 5    |
| IK 300-0600 | 6      | 7 x 7  | M8     | +8   -24   | 10  | 13 | 10  | 6    |
| IK 300-0601 | 6      | 7 x 7  | M8     | +34   -50  | 10  | 13 | 10  | 6    |
| IK 300-0800 | 8      | 7 x 7  | M10    | +34   -54  | 13  | 15 | 11  | 8    |
| IK 300-1000 | 10     | 7 x 19 | M14    | +52   -80  | 20  | 25 | 14  | 12   |
| IK 300-1200 | 12     | 7 x 19 | M16    | +52   -84  | 25  | 31 | 22  | 14   |
| IK 300-1600 | 16     | 7 x 19 | M20    | +60   -100 | 32  | 42 | 24  | 19   |



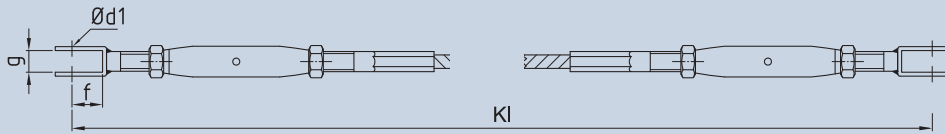
**Both sides CS-Fork with internal thread swaged**

| Part number | ø rope | Sk    | Thread | Adjustment | ø d | f  | g   | ø d1 |
|-------------|--------|-------|--------|------------|-----|----|-----|------|
| IK 305-0400 | 4      | 7 x 7 | M6     | +14   -22  | 8   | 14 | 6,5 | 6    |
| IK 305-0500 | 5      | 7 x 7 | M6     | +14   -22  | 8   | 14 | 6,5 | 6    |
| IK 305-0600 | 6      | 7 x 7 | M8     | +22   -42  | 10  | 19 | 8,5 | 8    |
| IK 305-0800 | 8      | 7 x 7 | M10    | +22   -42  | 13  | 19 | 8,5 | 8    |



**One side turnbuckle with fork, other side with fork swaged**

| Part number | ø rope | Sk     | Thread | Adjustment | f1 | g1  | ø d1 | f2 | g2  | ø d2 |
|-------------|--------|--------|--------|------------|----|-----|------|----|-----|------|
| IK 310-0200 | 2      | 7 x 7  | M5     | +26   -43  | 12 | 7,5 | 5    | 12 | 7,5 | 5    |
| IK 310-0300 | 3      | 7 x 7  | M6     | +28   -50  | 12 | 7,5 | 5    | 12 | 7,5 | 5    |
| IK 310-0400 | 4      | 7 x 7  | M6     | +28   -50  | 13 | 10  | 5    | 12 | 7,5 | 5    |
| IK 310-0401 | 4      | 7 x 7  | M8     | +34   -50  | 13 | 10  | 6    | 13 | 10  | 6    |
| IK 310-0500 | 5      | 7 x 7  | M8     | +34   -50  | 15 | 11  | 6    | 13 | 10  | 6    |
| IK 310-0600 | 6      | 7 x 7  | M10    | +30   -50  | 20 | 12  | 8    | 15 | 11  | 9,5  |
| IK 310-0800 | 8      | 7 x 7  | M12    | +46   -70  | 25 | 14  | 12   | 25 | 14  | 12   |
| IK 310-1000 | 10     | 7 x 19 | M16    | +48   -90  | 31 | 22  | 14   | 31 | 22  | 14   |
| IK 310-1200 | 12     | 7 x 19 | M20    | +60   -105 | 31 | 22  | 19   | 42 | 24  | 16   |
| IK 310-1600 | 16     | 7 x 19 | M24    | +90   -120 | 42 | 30  | 25   | 42 | 30  | 25,4 |

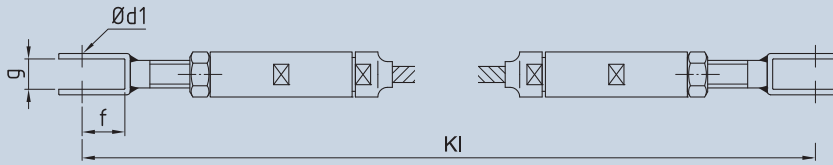


**Both sides turnbuckle with fork swaged**

| Part number | ø rope | Sk     | Thread | Adjustment  | ø d1 | f  | g    |
|-------------|--------|--------|--------|-------------|------|----|------|
| IK 320-0200 | 2      | 7 x 7  | M5     | +52   -86   | 5    | 12 | 7,5  |
| IK 320-0300 | 3      | 7 x 7  | M6     | +56   -100  | 5    | 12 | 7,5  |
| IK 320-0400 | 4      | 7 x 7  | M6     | +56   -100  | 5    | 12 | 7,5  |
| IK 320-0401 | 4      | 7 x 7  | M8     | +68   -100  | 6    | 13 | 10   |
| IK 320-0500 | 5      | 7 x 7  | M8     | +68   -100  | 6    | 13 | 10   |
| IK 320-0600 | 6      | 7 x 7  | M10    | +60   -100  | 8    | 15 | 11   |
| IK 320-0800 | 8      | 7 x 7  | M12    | +92   -140  | 12   | 25 | 14   |
| IK 320-1000 | 10     | 7 x 19 | M16    | +96   -180  | 14   | 32 | 22   |
| IK 320-1200 | 12     | 7 x 19 | M20    | +120   -210 | 19   | 42 | 24   |
| IK 320-1600 | 16     | 7 x 19 | M24    | +180   -240 | 25   | 42 | 25,4 |

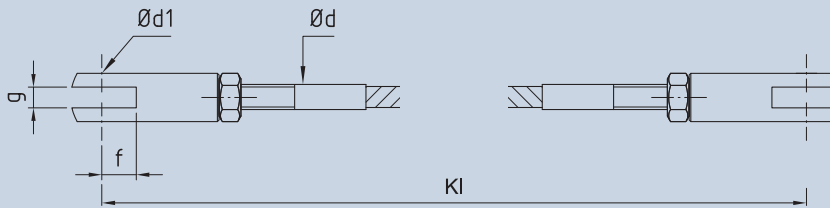






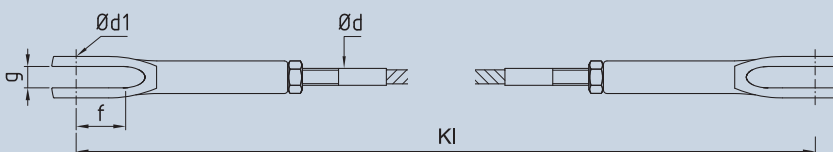
**Both sides fork with internal thread swageless connection**

| Part number | ø rope | Sk     | Thread | Adjustment | ø d1 | f  | g   |
|-------------|--------|--------|--------|------------|------|----|-----|
| IK 330-0200 | 2      | 7 x 7  | M6     | +8   -20   | 5    | 12 | 7,5 |
| IK 330-0300 | 3      | 7 x 7  | M6     | +8   -20   | 5    | 12 | 7,5 |
| IK 330-0400 | 4      | 7 x 7  | M6     | +8   -20   | 5    | 12 | 7,5 |
| IK 330-0500 | 5      | 7 x 7  | M8     | +8   -20   | 6    | 13 | 10  |
| IK 330-0600 | 6      | 7 x 7  | M8     | +8   -20   | 6    | 13 | 10  |
| IK 330-0800 | 8      | 7 x 7  | M10    | +10   -40  | 8    | 15 | 11  |
| IK 330-1000 | 10     | 7 x 19 | M14    | +30   -60  | 12   | 25 | 14  |
| IK 330-1200 | 12     | 7 x 19 | M16    | +30   -60  | 14   | 31 | 22  |



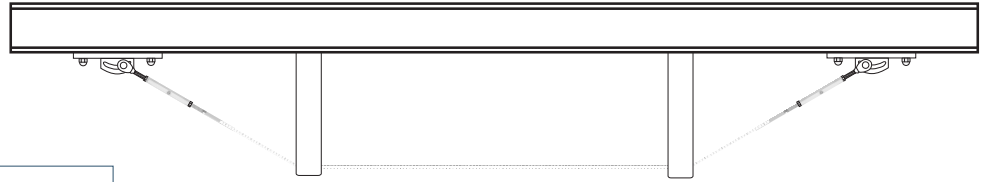
**Both sides with external thread F30 complete with fork with internal thread**

| Part number | ø rope | Sk     | Thread | Adjustment | ø d  | f    | g  | ø d1 |
|-------------|--------|--------|--------|------------|------|------|----|------|
| IK 340-0400 | 4      | 7 x 7  | M5     | +6   -14   | 4,9  | 9    | 5  | 5    |
| IK 340-0500 | 5      | 7 x 7  | M6     | +6   -18   | 5,9  | 10   | 6  | 6    |
| IK 340-0600 | 6      | 7 x 7  | M8     | +8   -30   | 7,9  | 12,5 | 7  | 8    |
| IK 340-0800 | 8      | 7 x 7  | M10    | +10   -44  | 9,9  | 15   | 8  | 10   |
| IK 340-1000 | 10     | 7 x 19 | M12    | +16   -40  | 11,9 | 18   | 10 | 12   |



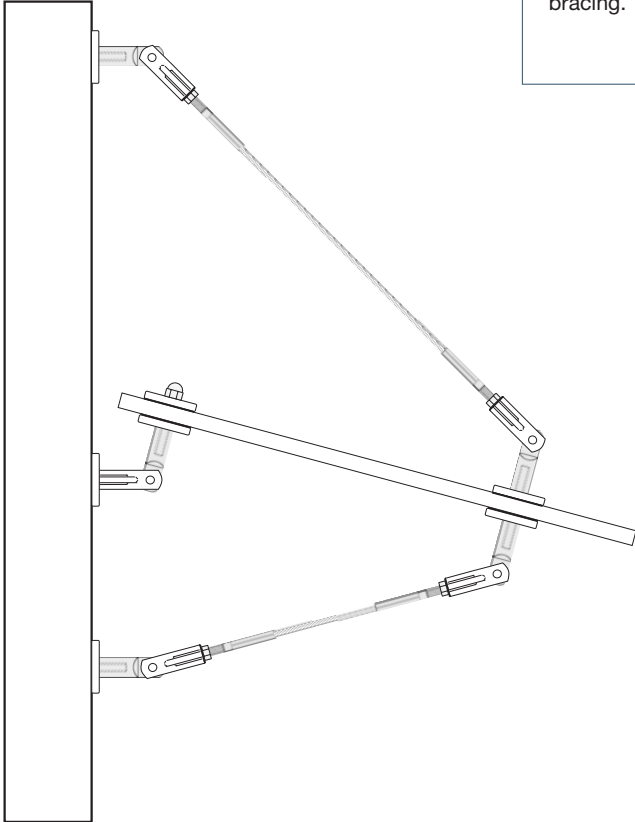
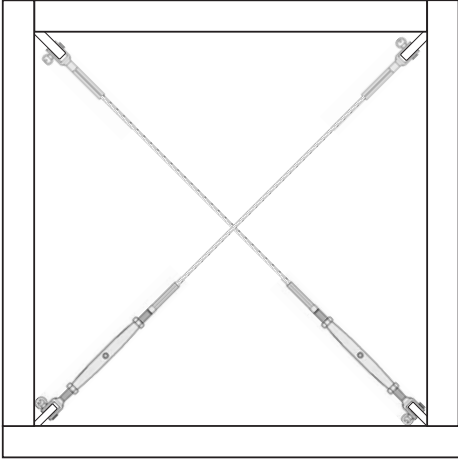
**Both sides with external thread F30 complete with CS-Fork with internal thread**

| Part number | ø rope | Sk    | Thread | Adjustment | ø d | f  | g   | ø d1 |
|-------------|--------|-------|--------|------------|-----|----|-----|------|
| IK 345-0400 | 4      | 7 x 7 | M5     | +29   -34  | 4,9 | 14 | 6,5 | 6    |
| IK 345-0500 | 5      | 7 x 7 | M6     | +29   -34  | 5,9 | 14 | 6,5 | 6    |
| IK 345-0600 | 6      | 7 x 7 | M8     | +30   -49  | 7,9 | 19 | 8,5 | 8    |
| IK 345-0800 | 8      | 7 x 7 | M10    | +30   -49  | 9,9 | 19 | 8,5 | 8    |

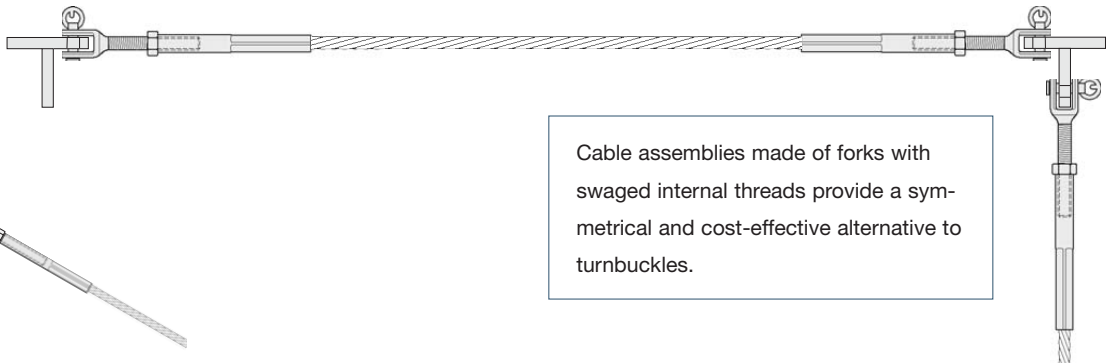


The cable assemblies with turnbuckle and forks on both sides are suitable for truss arrangements.

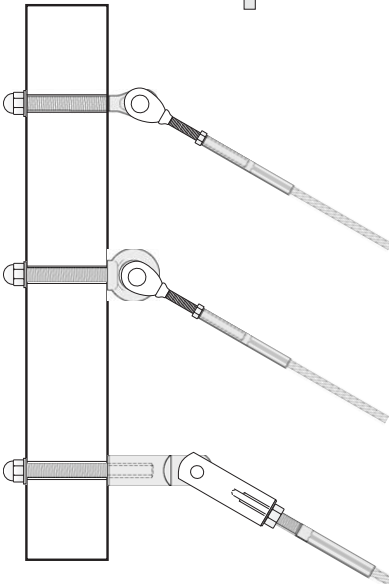
Cable assemblies with turnbuckle on one side are useful for bracing.



Combination of forks and eyes allow angled connections to be freely selected.

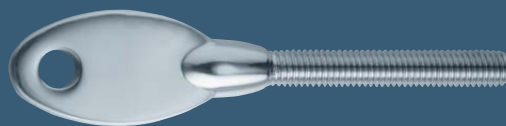


Cable assemblies made of forks with swaged internal threads provide a symmetrical and cost-effective alternative to turnbuckles.



Examples for combinations with eyes and forks.



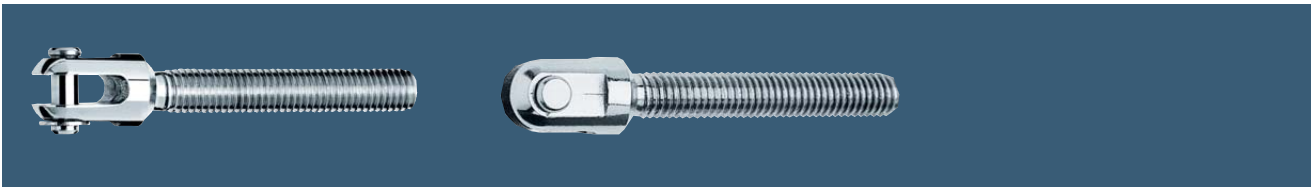


## I-SYS: Eyes

As a counterpart to the forks, eyes complete the pair as regards detailed design and long lifetime. Offering a strong connection, yet also flexibly jointed, this type of coupling even goes around corners. Applied alone, eyes can also be used to guide cables or for anchorage within the shell of the building.



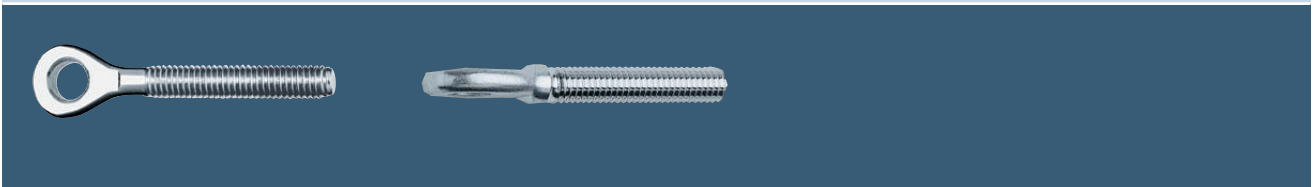
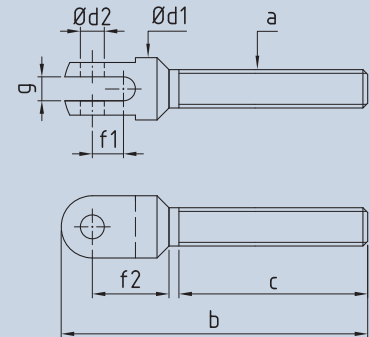




**Eye counterpiece**

| Part number | a  | b  | c  | ød1 | ød2 | f1  | f2 | g |
|-------------|----|----|----|-----|-----|-----|----|---|
| 887-0800    | M8 | 72 | 48 | 13  | 5   | 6,5 | 16 | 5 |

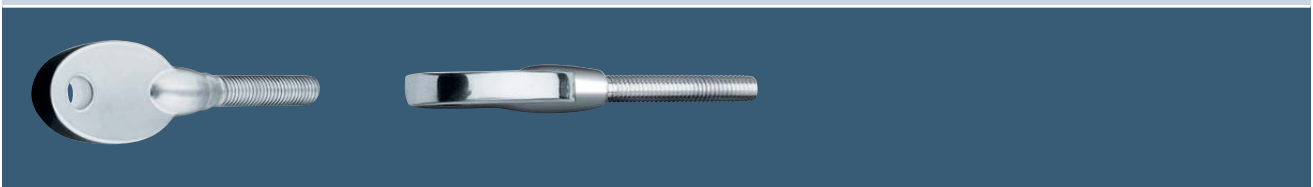
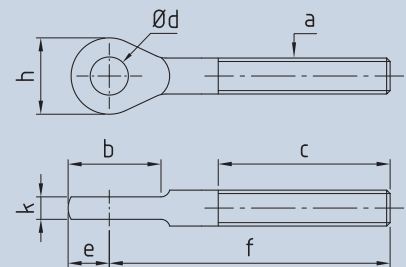
Material 1.4401



**Eye with external thread**

| Part number<br>RH thread | Part number<br>LH thread | a   | b  | c   | ød   | e    | f    | h  | k  |
|--------------------------|--------------------------|-----|----|-----|------|------|------|----|----|
| 885-0500                 | 886-0500                 | M5  | 14 | 41  | 5,5  | 6    | 63   | 12 | 3  |
| 885-0500-01              | 886-0500-01              | M5  | 15 | 25  | 5,5  | 6    | 46   | 12 | 3  |
| 885-0600                 | 886-0600                 | M6  | 16 | 47  | 6,5  | 7    | 61   | 14 | 4  |
| 885-0600-01              | 886-0600-01              | M6  | 16 | 30  | 6,5  | 7    | 44   | 14 | 4  |
| 885-0800                 | 886-0800                 | M8  | 21 | 57  | 8,5  | 8,5  | 78   | 17 | 5  |
| 885-0800-01              | 886-0800-01              | M8  | 21 | 35  | 8,5  | 9,5  | 55,5 | 17 | 5  |
| 885-1000                 | 886-1000                 | M10 | 29 | 63  | 10,5 | 12   | 90   | 22 | 6  |
| 885-1200                 | 886-1200                 | M12 | 31 | 80  | 13   | 14   | 110  | 25 | 8  |
| 885-1400                 | 886-1400                 | M14 | 34 | 90  | 13   | 14   | 124  | 28 | 9  |
| 885-1600                 | 886-1600                 | M16 | 37 | 100 | 14,5 | 15,5 | 133  | 31 | 10 |
| 885-2000                 | 886-2000                 | M20 | 49 | 120 | 19,5 | 21   | 164  | 40 | 15 |

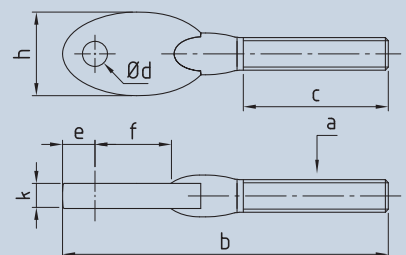
Material 1.4401



**CS-Eye with external thread**

| Part number<br>RH thread | Part number<br>LH thread | a   | b   | c  | ød | e  | f  | h    | k |
|--------------------------|--------------------------|-----|-----|----|----|----|----|------|---|
| 985-0600                 | 986-0600                 | M6  | 78  | 32 | 6  | 8  | 19 | 20   | 6 |
| 985-0800                 | 986-0800                 | M8  | 78  | 32 | 6  | 8  | 19 | 20   | 6 |
| 985-0801                 | 986-0801                 | M8  | 106 | 47 | 8  | 10 | 23 | 24,5 | 8 |
| 985-1000                 | 986-1000                 | M10 | 106 | 47 | 8  | 10 | 23 | 24,5 | 8 |

Material 1.4401 | CS-Eye is compatible with CS-Fork

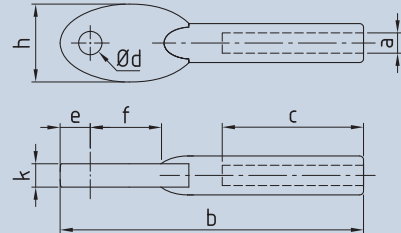




### CS-Eye with internal thread

| Part number<br>RH thread | Part number<br>LH thread | a   | b   | c  | ø d | e  | f  | h    | k |
|--------------------------|--------------------------|-----|-----|----|-----|----|----|------|---|
| 906-0500                 | 907-0500                 | M5  | 78  | 40 | 6   | 8  | 19 | 20   | 6 |
| 906-0600                 | 907-0600                 | M6  | 78  | 40 | 6   | 8  | 19 | 20   | 6 |
| 906-0800                 | 907-0800                 | M8  | 78  | 40 | 6   | 8  | 19 | 20   | 6 |
| 906-0801                 | 907-0801                 | M8  | 106 | 55 | 8   | 10 | 23 | 24,5 | 8 |
| 906-1000                 | 907-1000                 | M10 | 106 | 55 | 8   | 10 | 23 | 24,5 | 8 |

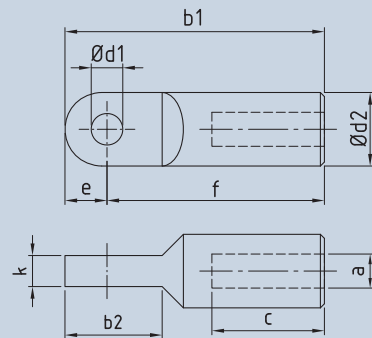
Material 1.4401 | CS-Eye is compatible with CS-Fork



### Eye with internal thread

| Part number<br>RH thread | Part number<br>LH thread | a   | b1  | b2   | c  | ø d1 | ø d2 | e    | f    | k    |
|--------------------------|--------------------------|-----|-----|------|----|------|------|------|------|------|
| 806-0500                 | 807-0500                 | M5  | 39  | 16   | 16 | 5    | 12   | 7    | 32   | 4,9  |
| 806-0600                 | 807-0600                 | M6  | 46  | 18,5 | 17 | 6    | 14   | 8    | 38   | 5,9  |
| 806-0800                 | 807-0800                 | M8  | 62  | 24,5 | 25 | 8    | 18   | 10,5 | 51,5 | 6,9  |
| 806-1000                 | 807-1000                 | M10 | 74  | 30   | 30 | 10   | 22   | 13   | 61   | 7,9  |
| 806-1200                 | 807-1200                 | M12 | 88  | 35   | 35 | 12   | 26   | 15   | 73   | 9,9  |
| 806-1600                 | 807-1600                 | M16 | 112 | 44   | 40 | 16   | 34   | 19   | 93   | 11,9 |
| 806-2000                 | 807-2000                 | M20 | 140 | 55   | 40 | 20   | 42   | 24   | 116  | 14,9 |
| 806-2400                 | 807-2400                 | M24 | 168 | 68   | 40 | 22   | 52   | 30   | 138  | 17,9 |

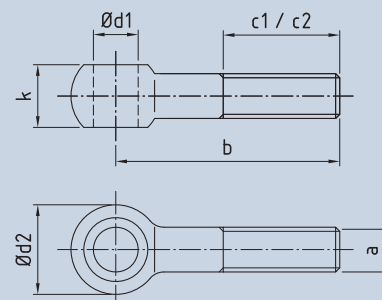
Material 1.4404

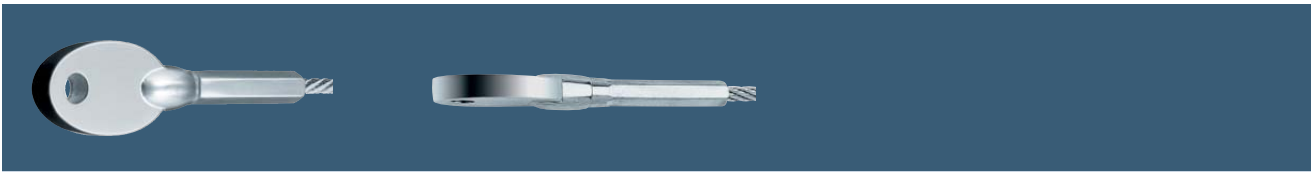


### Eye bolt

| Part number<br>RH thread | Part number<br>LH thread | a   | b  | c1 | c2 | ø d1 | ø d2 | k  |
|--------------------------|--------------------------|-----|----|----|----|------|------|----|
| 888-0600-03              | 888-0600-04              | M6  | 40 |    | 30 | 6,1  | 14   | 7  |
| 888-0800-03              | 888-0800-04              | M8  | 40 |    | 30 | 8,1  | 18   | 9  |
| 888-1000-03              | 888-1000-04              | M10 | 50 |    | 40 | 10   | 20   | 12 |
| 888-1200-03              | 888-1200-04              | M12 | 50 |    | 35 | 12,1 | 25   | 14 |
| 888-1600-03              | 888-1600-04              | M16 | 60 |    | 40 | 16,1 | 32   | 17 |
| 888-2000-03              | 888-2000-04              | M20 | 80 |    | 55 | 18,1 | 40   | 22 |

Material 1.4301

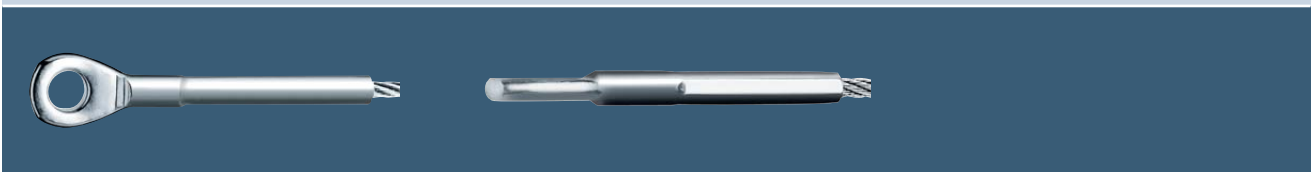
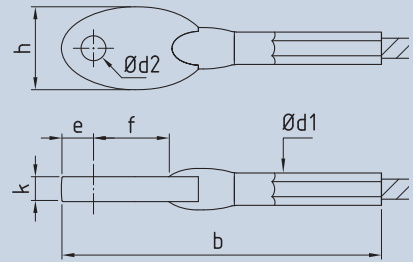




**CS-Eye swaged**

| Part number | ø rope | b   | ø d1 | ø d2 | e  | k | f  | h    | kN   |
|-------------|--------|-----|------|------|----|---|----|------|------|
| 980-0400    | 4      | 78  | 7,8  | 6    | 8  | 6 | 19 | 20   | 11,8 |
| 980-0500    | 5      | 78  | 7,8  | 6    | 8  | 6 | 19 | 20   | 12   |
| 980-0600    | 6      | 106 | 9,8  | 8    | 10 | 8 | 23 | 24,5 | 16,5 |

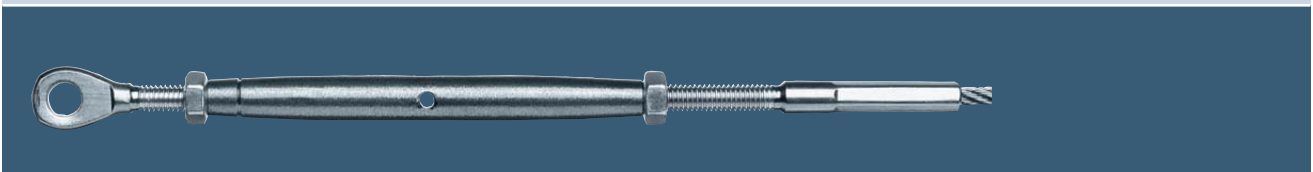
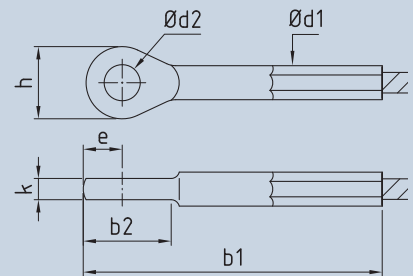
Material 1.4401 | CS-Eye is compatible with CS-Fork



**Eye swaged**

| Part number | ø rope | b1  | b2 | ø d1 | ø d2 | e    | h    | k  | kN    |
|-------------|--------|-----|----|------|------|------|------|----|-------|
| 880-0200    | 2      | 57  | 16 | 5,5  | 5,5  | 6,5  | 12,5 | 3  | 2,9   |
| 880-0300    | 3      | 62  | 17 | 6,3  | 6,5  | 6,5  | 13,5 | 4  | 6,7   |
| 880-0400    | 4      | 77  | 22 | 7,5  | 8,5  | 9    | 17   | 5  | 11,9  |
| 880-0500    | 5      | 87  | 27 | 9    | 10,5 | 11   | 21   | 6  | 18,5  |
| 880-0600    | 6      | 108 | 29 | 12,5 | 13   | 12,5 | 25   | 8  | 26,7  |
| 880-0800    | 8      | 133 | 37 | 16   | 14,5 | 15   | 30   | 10 | 44,5  |
| 880-1000    | 10     | 159 | 45 | 17,8 | 16,3 | 18   | 35   | 11 | 69,5  |
| 880-1200    | 12     | 181 | 49 | 20   | 19,3 | 20   | 40   | 15 | 93,6  |
| 880-1600    | 16     | 245 | 72 | 28,2 | 25,5 | 31,7 | 44   | 24 | 158,4 |

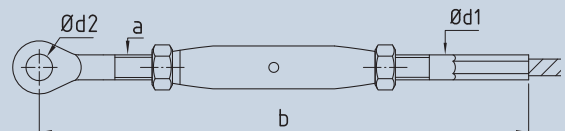
Material 1.4401

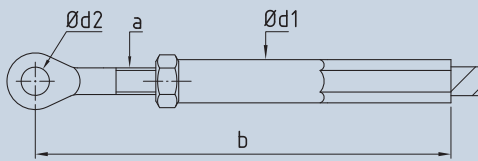


**Turnbuckle with eye swaged**

| Part number | ø rope | a   | b   | ø d1 | ø d2 | Adjustment | kN   |
|-------------|--------|-----|-----|------|------|------------|------|
| 889-0200    | 2      | M5  | 193 | 5    | 5,5  | +26   -43  | 2,9  |
| 889-0300    | 3      | M6  | 215 | 6    | 6,5  | +28   -50  | 6,7  |
| 889-0400    | 4      | M6  | 220 | 7    | 6,5  | +28   -50  | 11,9 |
| 889-0401    | 4      | M8  | 248 | 8    | 8,5  | +34   -50  | 11,9 |
| 889-0500    | 5      | M8  | 254 | 8    | 8,5  | +34   -50  | 18,5 |
| 889-0600    | 6      | M10 | 288 | 10   | 10,5 | +30   -50  | 26,7 |
| 889-0800    | 8      | M12 | 368 | 13   | 13   | +46   -70  | 44,5 |
| 889-1000    | 10     | M16 | 490 | 18   | 14,5 | +48   -90  | 69,5 |
| 889-1200    | 12     | M20 | 570 | 20   | 19,5 | +60   -105 | 93,6 |

Material 1.4401





### Eye with internal thread swaged

| Part number<br>RH thread | Part number<br>LH thread | ø rope | a   | b   | ø d1 | ø d2 | Adjustment | kN   |
|--------------------------|--------------------------|--------|-----|-----|------|------|------------|------|
| 814-0300-01              | 813-0300-01              | 3      | M5  | 100 | 7    | 5,5  | +5   -10   | 6,7  |
| 814-0300-02              | 813-0300-02              | 3      | M5  | 136 | 7    | 5,5  | +12   -17  | 6,7  |
| 814-0400-01              | 813-0400-01              | 4      | M6  | 106 | 8    | 6,5  | +4   -10   | 11,8 |
| 814-0400-02              | 813-0400-02              | 4      | M6  | 135 | 8    | 6,5  | +11   -17  | 11,8 |
| 814-0500-01              | 813-0500-01              | 5      | M6  | 110 | 8    | 6,5  | +4   -10   | 12   |
| 814-0500-02              | 813-0500-02              | 5      | M6  | 145 | 8    | 6,5  | +11   -17  | 12   |
| 814-0600-01              | 813-0600-01              | 6      | M8  | 135 | 10   | 8,5  | +4   -12   | 16,5 |
| 814-0600-02              | 813-0600-02              | 6      | M8  | 173 | 10   | 8,5  | +17   -25  | 16,5 |
| 814-0800-01              | 813-0800-01              | 8      | M10 | 248 | 13   | 10,5 | +17   -27  | 26   |
| 814-1000-01              | 813-1000-01              | 10     | M14 | 295 | 20   | 13   | +26   -40  | 69,5 |
| 814-1200-01              | 813-1200-01              | 12     | M16 | 345 | 25   | 14,5 | +26   -42  | 93,6 |
| 814-1600-01              | 813-1600-01              | 16     | M20 | 410 | 32   | 19,3 | +30   -50  | 159  |

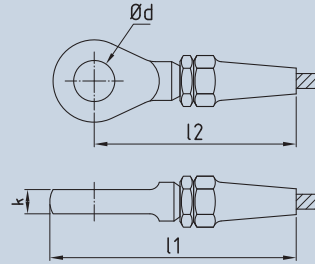
Material 1.4401



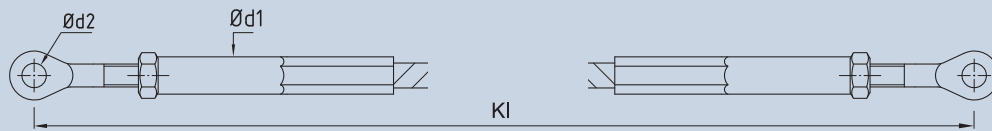
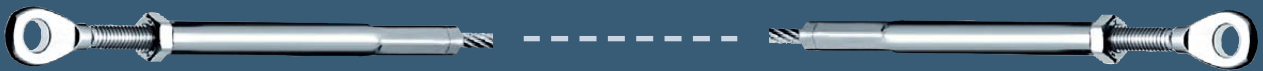


### BW-Eye swageless connection

| Part number | ø rope k |      | ø d  | l1  | l2  | kN  |
|-------------|----------|------|------|-----|-----|-----|
| 753-0300    | 3        | 5,5  | 6,3  | 58  | 50  | 7   |
| 753-0400    | 4        | 7    | 8,3  | 68  | 58  | 13  |
| 753-0500    | 5        | 8    | 10,3 | 81  | 70  | 20  |
| 753-0600    | 6        | 9    | 12,3 | 97  | 83  | 29  |
| 753-0800    | 8        | 10,5 | 14,3 | 121 | 103 | 52  |
| 753-1000    | 10       | 13   | 16,3 | 133 | 114 | 82  |
| 753-1200    | 12       | 15   | 19,5 | 155 | 132 | 118 |

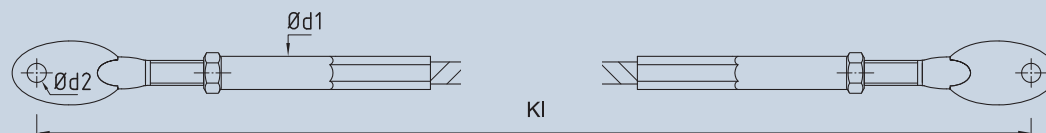


Material 1.4401



### Both sides eye with internal thread swaged

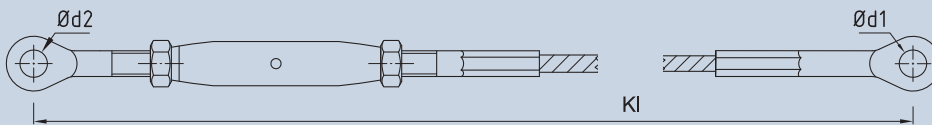
| Part number | ø rope Sk |        | Thread | Adjustment |      | ø d1 | ø d2 |
|-------------|-----------|--------|--------|------------|------|------|------|
| IK 400-0300 | 3         | 7 x 7  | M5     | +10        | -20  | 7    | 5,5  |
| IK 400-0301 | 3         | 7 x 7  | M5     | +24        | -34  | 7    | 5,5  |
| IK 400-0400 | 4         | 7 x 7  | M6     | +8         | -20  | 8    | 6,5  |
| IK 400-0401 | 4         | 7 x 7  | M6     | +22        | -34  | 8    | 6,5  |
| IK 400-0500 | 5         | 7 x 7  | M6     | +8         | -20  | 8    | 6,5  |
| IK 400-0501 | 5         | 7 x 7  | M6     | +22        | -34  | 8    | 6,5  |
| IK 400-0600 | 6         | 7 x 7  | M8     | +8         | -24  | 10   | 8,5  |
| IK 400-0601 | 6         | 7 x 7  | M8     | +34        | -50  | 10   | 8,5  |
| IK 400-0800 | 8         | 7 x 7  | M10    | +34        | -54  | 13   | 10,5 |
| IK 400-1000 | 10        | 7 x 19 | M14    | +52        | -80  | 20   | 13   |
| IK 400-1200 | 12        | 7 x 19 | M16    | +52        | -84  | 25   | 14,5 |
| IK 400-1600 | 16        | 7 x 19 | M20    | +60        | -100 | 32   | 19,3 |



### Both sides CS-Eye with internal thread swaged

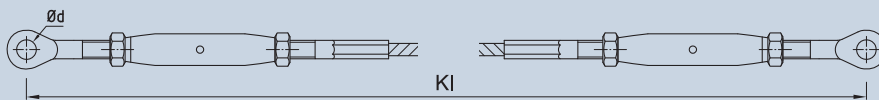
| Part number | ø rope Sk |       | Thread | Adjustment |     | ø d1 | ø d2 |
|-------------|-----------|-------|--------|------------|-----|------|------|
| IK 405-0400 | 4         | 7 x 7 | M6     | +14        | -22 | 8    | 6    |
| IK 405-0500 | 5         | 7 x 7 | M6     | +14        | -22 | 8    | 6    |
| IK 405-0600 | 6         | 7 x 7 | M8     | +22        | -42 | 10   | 8    |
| IK 405-0800 | 8         | 7 x 7 | M10    | +22        | -42 | 13   | 8    |





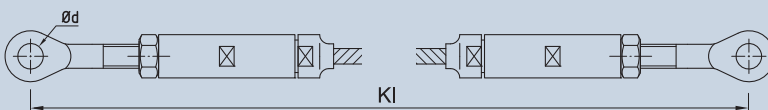
**One side turnbuckle with eye, other side with eye swaged**

| Part number | $\varnothing$ rope | Sk     | Thread | Adjustment | $\varnothing d1$ | $\varnothing d2$ |
|-------------|--------------------|--------|--------|------------|------------------|------------------|
| IK 410-0200 | 2                  | 7 x 7  | M5     | +26   -43  | 5,5              | 5,5              |
| IK 410-0300 | 3                  | 7 x 7  | M6     | +28   -50  | 6,5              | 6,5              |
| IK 410-0400 | 4                  | 7 x 7  | M6     | +28   -50  | 8,5              | 6,5              |
| IK 410-0401 | 4                  | 7 x 7  | M8     | +34   -50  | 8,5              | 8,5              |
| IK 410-0500 | 5                  | 7 x 7  | M8     | +34   -50  | 10,5             | 8,5              |
| IK 410-0600 | 6                  | 7 x 7  | M10    | +30   -50  | 13               | 10,5             |
| IK 410-0800 | 8                  | 7 x 7  | M12    | +46   -70  | 14,5             | 13               |
| IK 410-1000 | 10                 | 7 x 19 | M16    | +48   -90  | 16,3             | 14,5             |
| IK 410-1200 | 12                 | 7 x 19 | M20    | +60   -105 | 19,3             | 19,5             |



**Both sides turnbuckle with eye swaged**

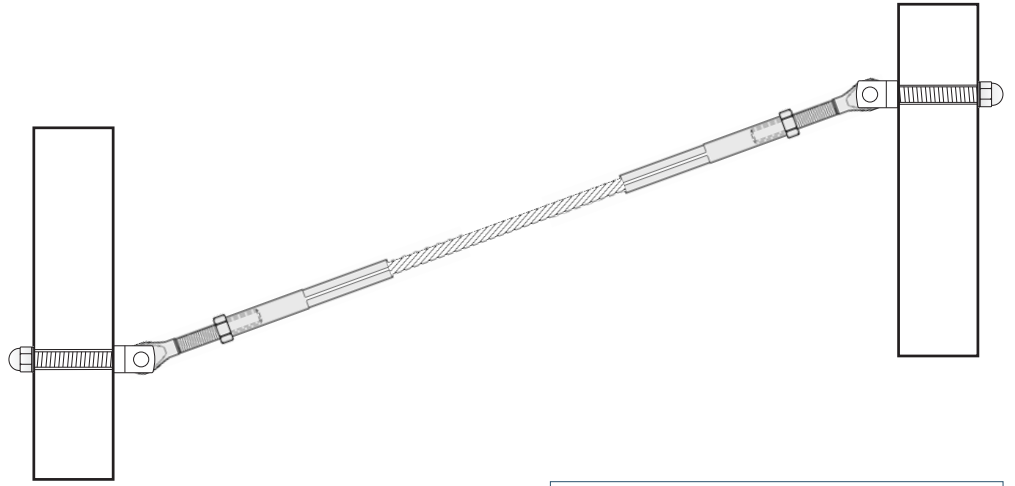
| Part number | $\varnothing$ rope | Sk     | Thread | Adjustment  | $\varnothing d$ |
|-------------|--------------------|--------|--------|-------------|-----------------|
| IK 420-0200 | 2                  | 7 x 7  | M5     | +52   -86   | 5,5             |
| IK 420-0300 | 3                  | 7 x 7  | M6     | +56   -100  | 6,5             |
| IK 420-0400 | 4                  | 7 x 7  | M6     | +56   -100  | 6,5             |
| IK 420-0401 | 4                  | 7 x 7  | M8     | +68   -100  | 8,5             |
| IK 420-0500 | 5                  | 7 x 7  | M8     | +68   -100  | 8,5             |
| IK 420-0600 | 6                  | 7 x 7  | M10    | +60   -100  | 10,5            |
| IK 420-0800 | 8                  | 7 x 7  | M12    | +92   -140  | 13              |
| IK 420-1000 | 10                 | 7 x 19 | M16    | +96   -180  | 14,5            |
| IK 420-1200 | 12                 | 7 x 19 | M20    | +120   -210 | 19,5            |



**Both sides eye with internal thread swageless connection**

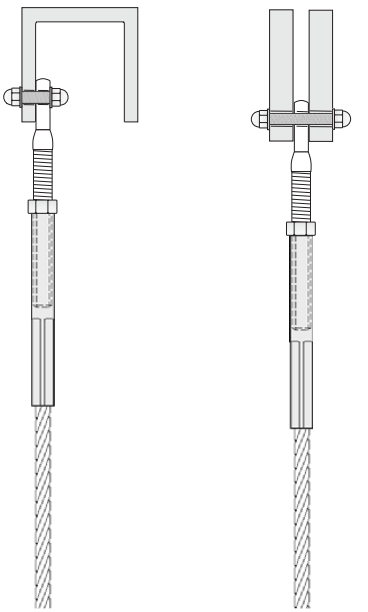
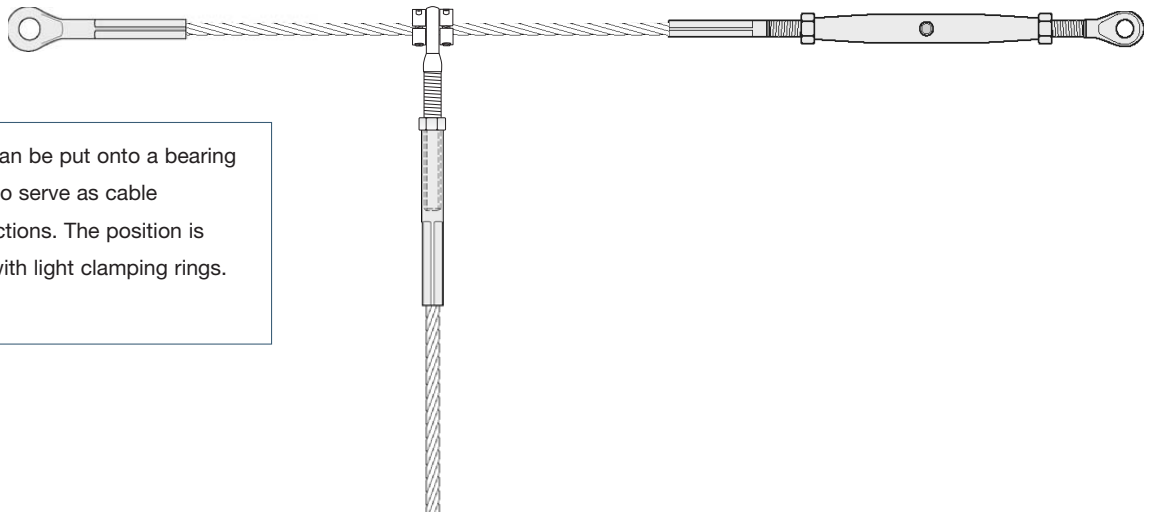
| Part number | $\varnothing$ rope | Sk     | Thread | Adjustment | $\varnothing d$ |
|-------------|--------------------|--------|--------|------------|-----------------|
| IK 430-0200 | 2                  | 7 x 7  | M6     | +8   -20   | 6,5             |
| IK 430-0300 | 3                  | 7 x 7  | M6     | +8   -20   | 6,5             |
| IK 430-0400 | 4                  | 7 x 7  | M6     | +8   -20   | 6,5             |
| IK 430-0500 | 5                  | 7 x 7  | M8     | +8   -20   | 8,5             |
| IK 430-0600 | 6                  | 7 x 7  | M8     | +8   -20   | 8,5             |
| IK 430-0800 | 8                  | 7 x 7  | M10    | +10   -40  | 10,5            |
| IK 430-1000 | 10                 | 7 x 19 | M14    | +30   -60  | 13              |
| IK 430-1200 | 12                 | 7 x 19 | M16    | +30   -60  | 14,5            |





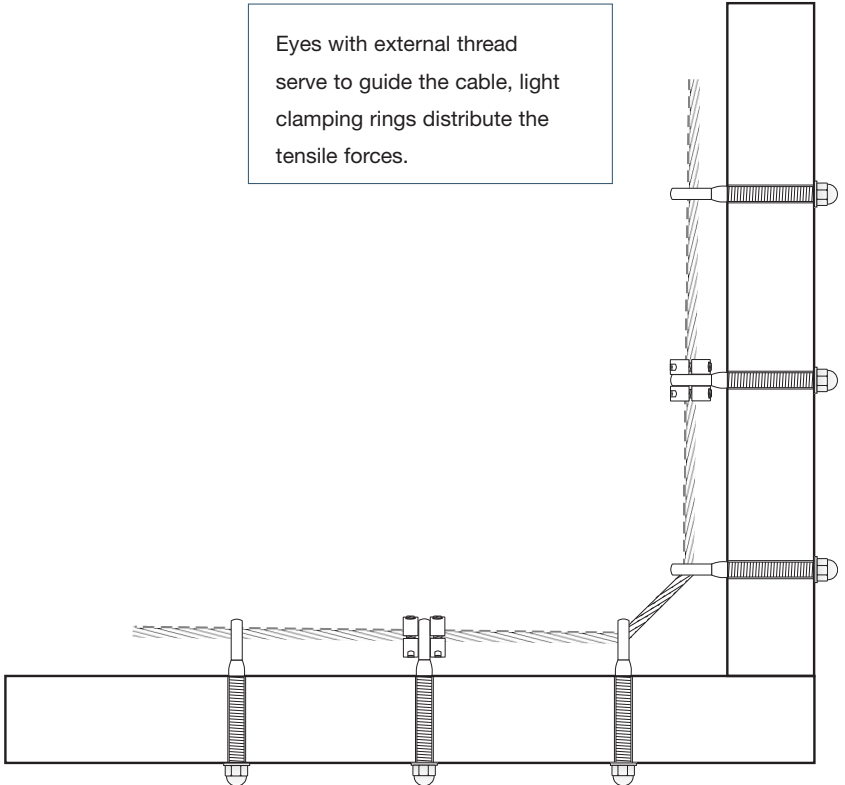
Assemblies with eye can be combined with eye counterpieces.

Eyes can be put onto a bearing cable to serve as cable connections. The position is fixed with light clamping rings.

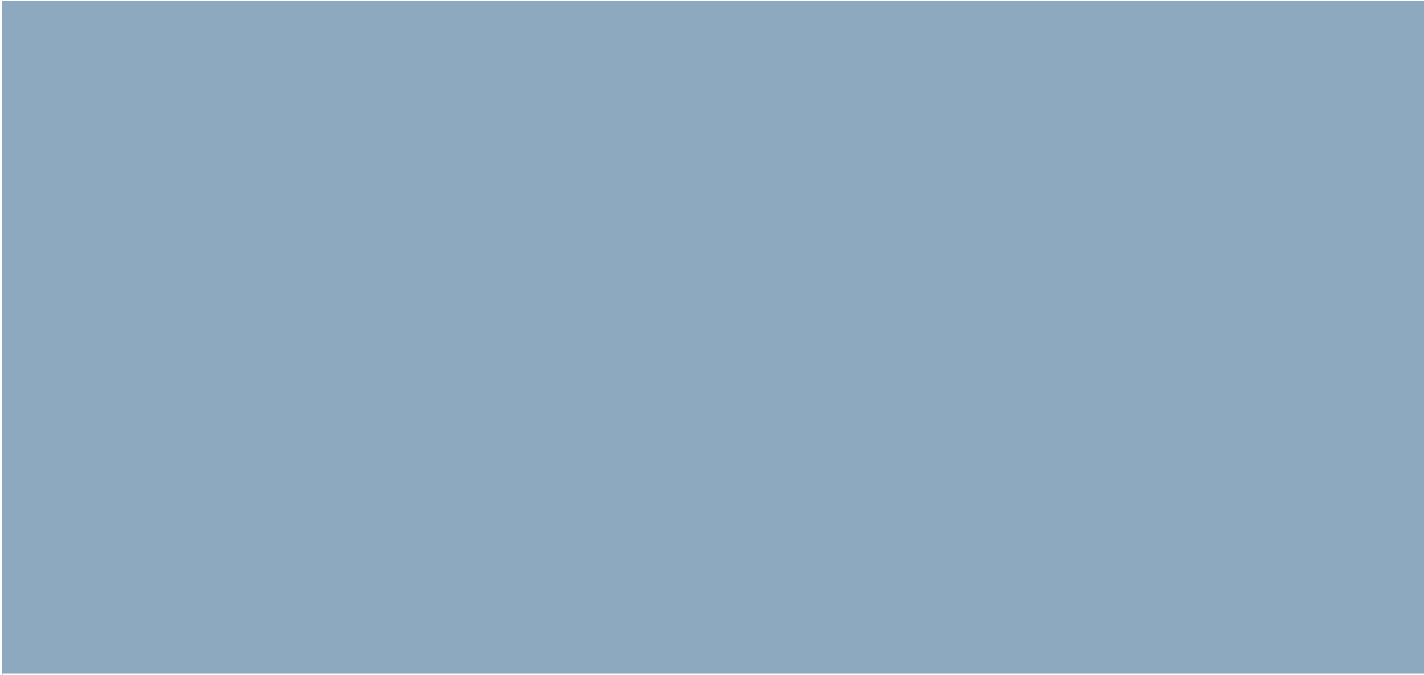


Assemblies with eyes allow connection to standard profiles.

Eyes with external thread serve to guide the cable, light clamping rings distribute the tensile forces.





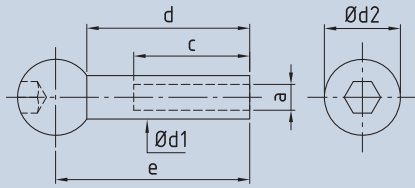




## I-SYS: End Stops

End stops ensure secure fixing. Along with preformed parts they offer secure connections for sloping cable runs. Balls and sockets are also among the exceptional products offered in the I-SYS range. This rounded duo is a technical innovation for end connections at angles of slope of up to 60 degrees and is the subject of a current patent application. The principle of movement between ball and socket originates from nature: the ball sits firmly on the socket, which is round and therefore invariably fits. Rapid and formally consistent solutions which fit flexibly into the angle are the result.

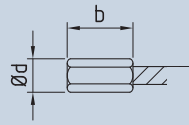




**Ball head with internal thread**

| Part number | a  | Ød1 | c  | d  | e    | Ød2 |
|-------------|----|-----|----|----|------|-----|
| 868-0400    | M4 | 6   | 15 | 25 | 31,3 | 14  |
| 868-0500    | M5 | 7   | 20 | 30 | 36   | 14  |
| 868-0600    | M6 | 8   | 20 | 30 | 35,7 | 14  |

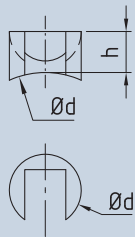
Material 1.4401



**End stop swaged**

| Part number | Ø rope b | Ø d | kN |      |
|-------------|----------|-----|----|------|
| 865-0200    | 2        | 12  | 8  | 2    |
| 865-0300    | 3        | 15  | 8  | 4,5  |
| 865-0400    | 4        | 20  | 13 | 8,1  |
| 865-0500    | 5        | 20  | 13 | 12,6 |
| 865-0600    | 6        | 30  | 18 | 18,1 |
| 865-0800    | 8        | 40  | 18 | 23,2 |

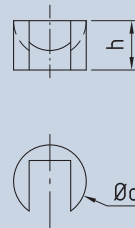
Material 1.4404



**Pivot base for ball head**

| Part number | Ø d | h   | Ø tube p |
|-------------|-----|-----|----------|
| 868-034     | 14  | 9,5 | 33,7     |
| 868-043     | 14  | 9,5 | 42,4     |
| 868-060     | 14  | 9,5 | 60       |

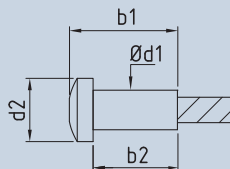
Material 1.4401 | for round profile



**Pivot base for ball head**

| Part number | Ø d | h   |
|-------------|-----|-----|
| 868-456     | 14  | 9,5 |

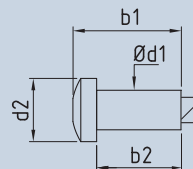
Material 1.4401 | for flat profile



**Swaged radiused head end stop**

| Part number | Ø rope | b1 | b2 | Ø d1 | Ø d2 | kN   |
|-------------|--------|----|----|------|------|------|
| 869-0200    | 2      | 24 | 21 | 5    | 8    | 2,9  |
| 869-0300    | 3      | 35 | 31 | 6    | 10   | 6,7  |
| 869-0400    | 4      | 40 | 36 | 7    | 12   | 11,9 |
| 869-0500    | 5      | 47 | 42 | 8    | 14   | 18,5 |
| 869-0600    | 6      | 58 | 52 | 10   | 16   | 26,7 |
| 869-0800    | 8      | 70 | 62 | 13   | 22   | 44,5 |

Material 1.4404



**Low profile swaged radius head end stop**

| Part number | Ø rope | b1    | b2   | Ø d1 | Ø d2 | kN   |
|-------------|--------|-------|------|------|------|------|
| 869-0200-04 | 2      | 9,08  | 6,2  | 3    | 6    | 1,6  |
| 869-0300-04 | 3      | 10,83 | 9    | 4,5  | 8    | 3,5  |
| 869-0400-04 | 4      | 14,09 | 12   | 5    | 10   | 6,3  |
| 869-0500-04 | 5      | 19,35 | 16   | 6    | 12   | 9,8  |
| 869-0600-04 | 6      | 24,14 | 18   | 8    | 16   | 14,1 |
| 869-0800-04 | 8      | 29,51 | 23,5 | 10,2 | 20   | 25,1 |

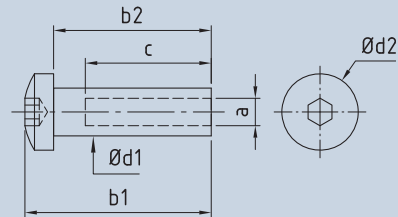
Material 1.4404



### Radius head end stop with internal thread right hand

| Part number | a  | b1 | b2 | c  | ø d1 | ø d2 |
|-------------|----|----|----|----|------|------|
| 869-0400-02 | M4 | 29 | 25 | 15 | 6    | 10   |
| 869-0500-02 | M5 | 34 | 30 | 20 | 7    | 12   |
| 869-0600-02 | M6 | 35 | 30 | 20 | 8    | 14   |
| 869-0800-02 | M8 | 40 | 34 | 25 | 10   | 16   |

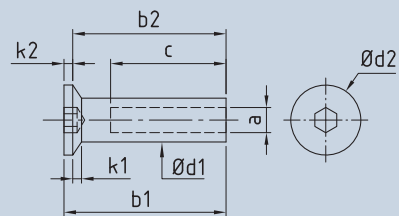
Material 1.4404



### 90° countersunk stop with internal thread right hand

| Part number | a  | b1   | b2 | c  | ø d1 | ø d2 | k1  | k2 |
|-------------|----|------|----|----|------|------|-----|----|
| 866-0400-02 | M4 | 30,2 | 26 | 15 | 6    | 10,4 | 2,2 | 2  |
| 866-0500-02 | M5 | 33,7 | 30 | 20 | 7    | 10,4 | 1,7 | 2  |
| 866-0600-02 | M6 | 34,2 | 30 | 20 | 8    | 12,4 | 2,2 | 2  |
| 866-0800-02 | M8 | 40,2 | 37 | 25 | 10   | 12,4 | 1,2 | 2  |

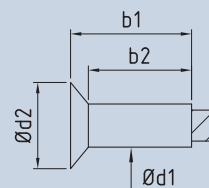
Material 1.4404



### Low profile swaged radius head end stop 90°

| Part number | ø rope | b1   | b2   | ø d1 | ø d2 | kN   |
|-------------|--------|------|------|------|------|------|
| 866-0200-04 | 2      | 8,7  | 6,2  | 3    | 6    | 1,6  |
| 866-0300-04 | 3      | 10   | 9    | 4,5  | 8    | 3,5  |
| 866-0400-04 | 4      | 13,5 | 12   | 5    | 10   | 6,3  |
| 866-0500-04 | 5      | 18,3 | 15   | 6    | 12   | 9,8  |
| 866-0600-04 | 6      | 22,4 | 18   | 8    | 16   | 14,1 |
| 866-0800-04 | 8      | 27,4 | 23,5 | 10,2 | 20   | 25,1 |

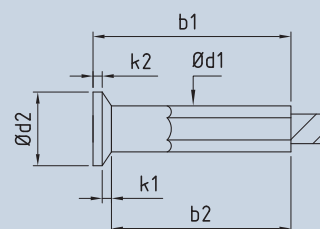
Material 1.4404

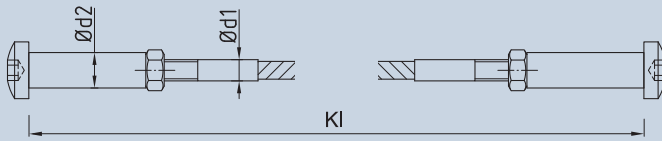
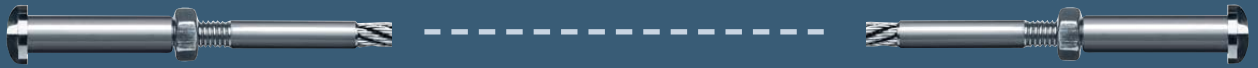


### Swage end stop 90° countersunk head

| Part number | ø rope | b1   | b2 | ø d1 | ø d2 | k1  | k2  | kN   |
|-------------|--------|------|----|------|------|-----|-----|------|
| 866-0200    | 2      | 24,2 | 21 | 5    | 8,3  | 1,7 | 1,5 | 2,9  |
| 866-0300    | 3      | 35,2 | 31 | 6    | 10,4 | 2,2 | 2   | 6,7  |
| 866-0400    | 4      | 39,7 | 36 | 7    | 10,4 | 1,7 | 2   | 11,9 |
| 866-0500    | 5      | 46,2 | 42 | 8    | 12,4 | 2,2 | 2   | 18,9 |
| 866-0600    | 6      | 55,2 | 52 | 10   | 12,4 | 1,2 | 2   | 26,7 |
| 866-0800    | 8      | 68,8 | 62 | 13   | 20,5 | 3,8 | 3   | 44,5 |

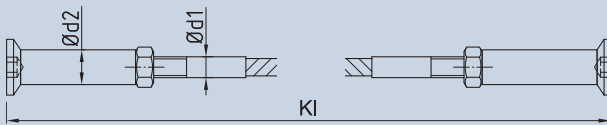
Material 1.4404





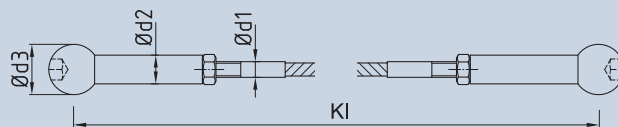
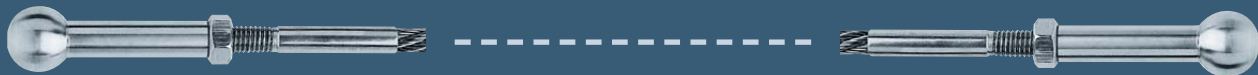
**Both sides with external thread F30 and swageless-on radiused end stop**

| Part number | $\varnothing$ rope | Sk    | Thread | Adjustment | $\varnothing d1 \pm 0,2$ | $\varnothing d2$ |
|-------------|--------------------|-------|--------|------------|--------------------------|------------------|
| IK 170-0400 | 4                  | 7 x 7 | M5     | +6   -24   | 4,9                      | 7                |
| IK 170-0500 | 5                  | 7 x 7 | M6     | +6   -22   | 5,9                      | 8                |
| IK 170-0600 | 6                  | 7 x 7 | M8     | +8   -26   | 7,9                      | 10               |



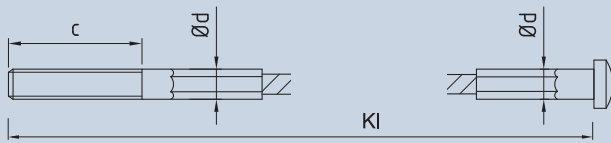
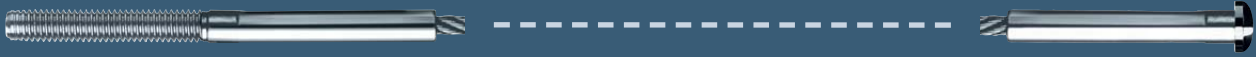
**Both sides with external thread F30 and swageless-on countersunk end stops**

| Part number | $\varnothing$ rope | Sk    | Thread | Adjustment | $\varnothing d1 \pm 0,2$ | $\varnothing d2$ |
|-------------|--------------------|-------|--------|------------|--------------------------|------------------|
| IK 180-0400 | 4                  | 7 x 7 | M5     | +6   -24   | 4,9                      | 7                |
| IK 180-0500 | 5                  | 7 x 7 | M6     | +6   -22   | 5,9                      | 8                |
| IK 180-0600 | 6                  | 7 x 7 | M8     | +8   -26   | 7,9                      | 10               |



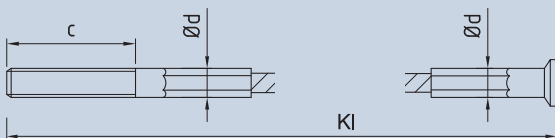
**Both sides with external thread F30 and swageless-on ball head**

| Part number | $\varnothing$ rope | Sk    | Thread | Adjustment | $\varnothing d1 \pm 0,2$ | $\varnothing d2$ | $\varnothing d3$ |
|-------------|--------------------|-------|--------|------------|--------------------------|------------------|------------------|
| IK 190-0300 | 3                  | 7 x 7 | M4     | +4   -15   | 3,9                      | 6                | 14               |
| IK 190-0400 | 4                  | 7 x 7 | M5     | +5   -20   | 4,9                      | 7                | 14               |
| IK 190-0500 | 5                  | 7 x 7 | M6     | +5   -20   | 5,9                      | 8                | 14               |



### One side external thread swaged, other side radiused head end stop swaged

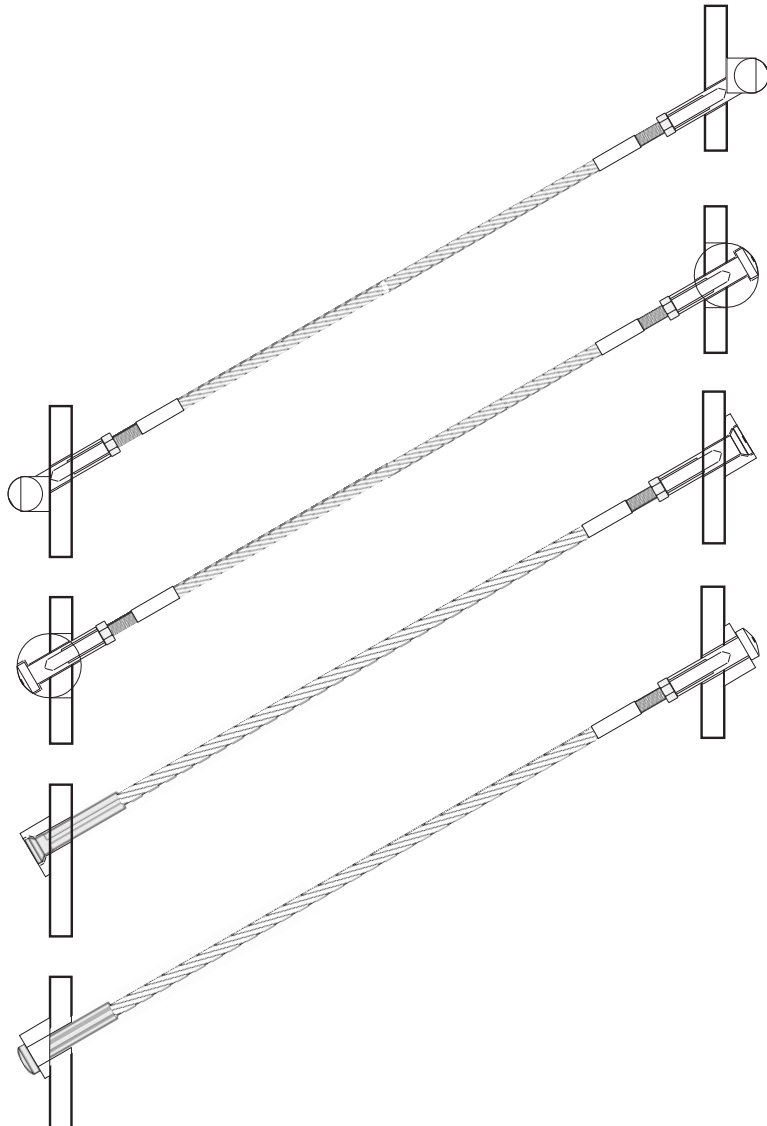
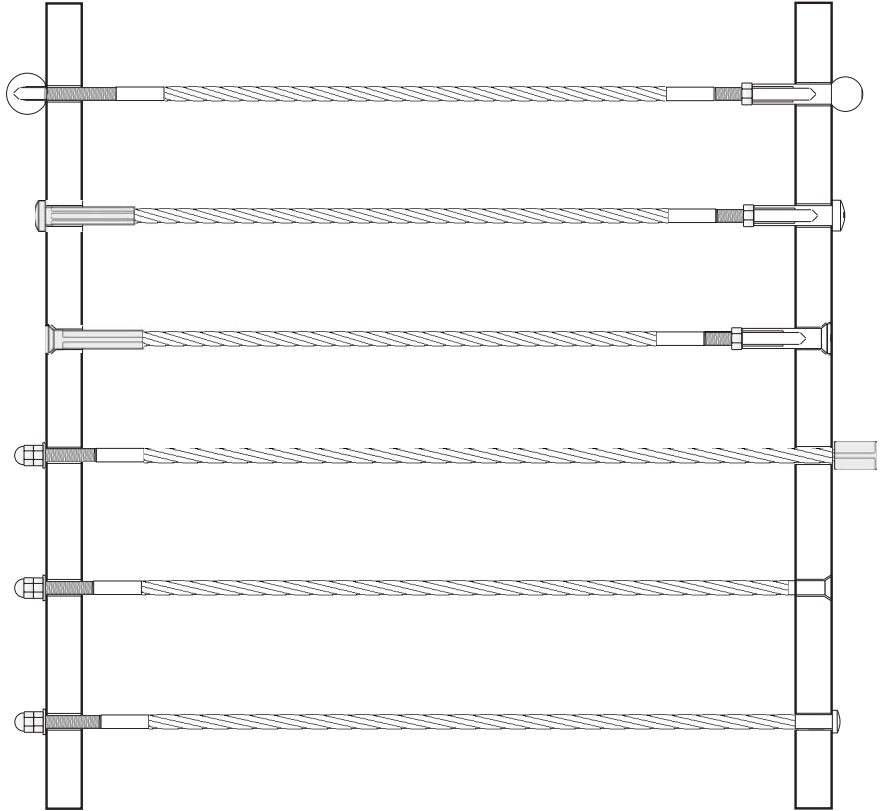
| Part number | Ø rope | Sk    | Thread size x length c | Ø d |
|-------------|--------|-------|------------------------|-----|
| IK 150-0200 | 2      | 7 x 7 | M5 x 30                | 5   |
| IK 150-0201 | 2      | 7 x 7 | M5 x 60                | 5   |
| IK 150-0300 | 3      | 7 x 7 | M6 x 30                | 6   |
| IK 150-0301 | 3      | 7 x 7 | M6 x 60                | 6   |
| IK 150-0400 | 4      | 7 x 7 | M6 x 30                | 7   |
| IK 150-0401 | 4      | 7 x 7 | M6 x 60                | 7   |
| IK 150-0500 | 5      | 7 x 7 | M8 x 30                | 8   |
| IK 150-0501 | 5      | 7 x 7 | M8 x 60                | 8   |
| IK 150-0600 | 6      | 7 x 7 | M10 x 30               | 10  |
| IK 150-0601 | 6      | 7 x 7 | M10 x 60               | 10  |
| IK 150-0800 | 8      | 7 x 7 | M12 x 80               | 13  |



### One side external thread swaged, other side countersunk end stop swaged

| Part number | Ø rope | Sk    | Thread size x length c | Ø d |
|-------------|--------|-------|------------------------|-----|
| IK 160-0200 | 2      | 7 x 7 | M5 x 30                | 5   |
| IK 160-0201 | 2      | 7 x 7 | M5 x 60                | 5   |
| IK 160-0300 | 3      | 7 x 7 | M6 x 30                | 6   |
| IK 160-0301 | 3      | 7 x 7 | M6 x 60                | 6   |
| IK 160-0400 | 4      | 7 x 7 | M6 x 30                | 7   |
| IK 160-0401 | 4      | 7 x 7 | M6 x 60                | 7   |
| IK 160-0500 | 5      | 7 x 7 | M8 x 30                | 8   |
| IK 160-0501 | 5      | 7 x 7 | M8 x 60                | 8   |
| IK 160-0600 | 6      | 7 x 7 | M10 x 30               | 10  |
| IK 160-0601 | 6      | 7 x 7 | M10 x 60               | 10  |
| IK 160-0800 | 8      | 7 x 7 | M12 x 80               | 13  |

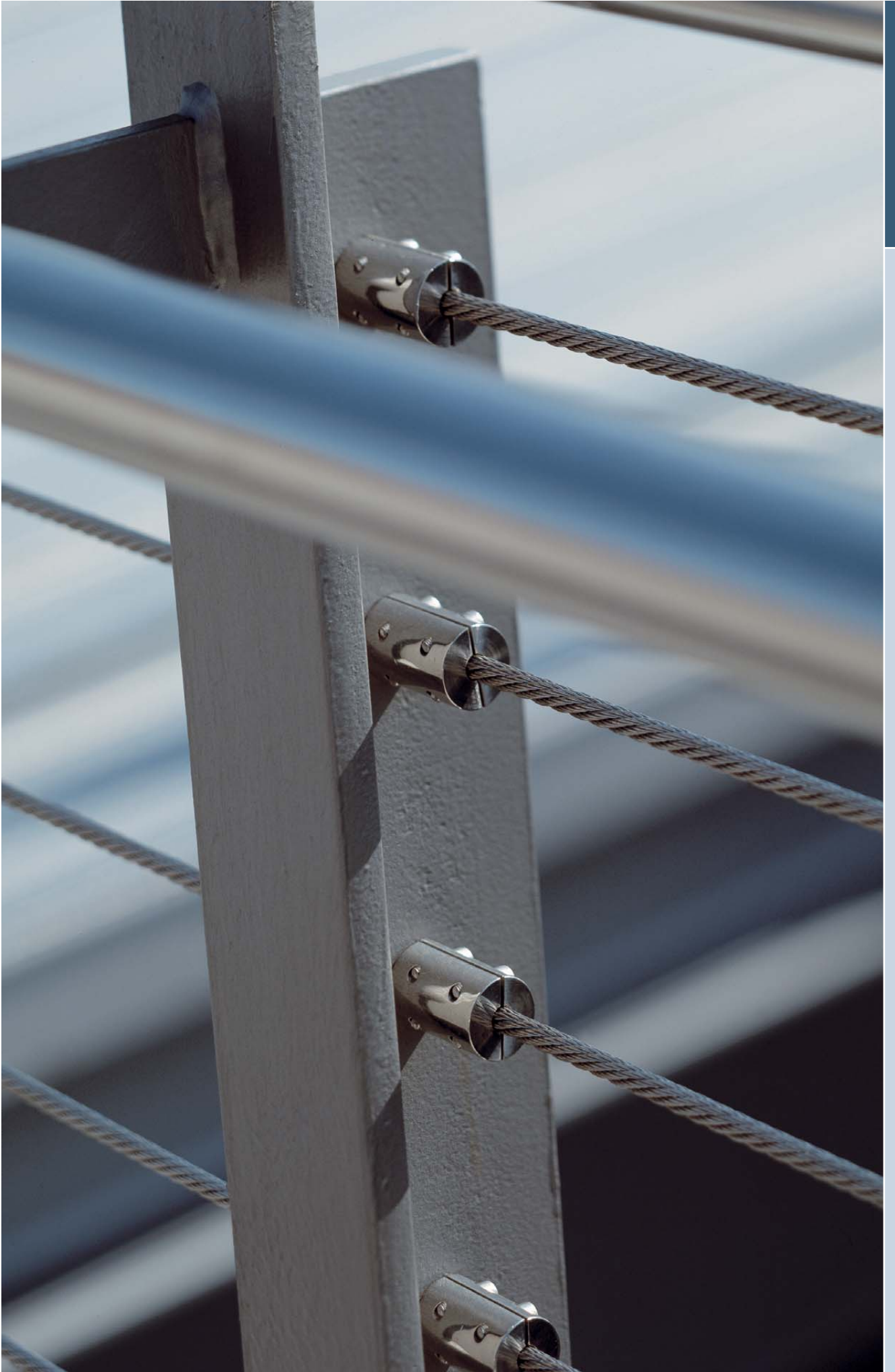
Possible connections and combinations for end stops in rectangular situations.



Possible connections and combinations for end stops in angled situations.









# I-SYS: Cables, Loops, Clamps, Accessories

Stainless steel cables are some of the most adaptable elements within architecture. Of static significance or decorative, fine or functional, discreetly integrated or designed to be eye-catching - cables really add to the creative possibilities of building. With diameters of between 1 and 26 millimeters and end connections from M4 to M36, I-SYS offers the right range for individual applications. With I-SYS, the formal unit of cable and connection becomes a perfect architectural detail.

Ready-assembled or ready to assembly - Carl Stahl follows the individual wishes of its clients. For the end result is what matters. The professional team of I-SYS advisors will find suitable solutions for all questions of planning, pre-assembly, manufacture and final erection and assembly.



**Strand 1 x 19**

| Part number | ø  | kN    | MQ mm <sup>2</sup> |
|-------------|----|-------|--------------------|
| 810-0200    | 2  | 3,30  | 2,39               |
| 810-0300    | 3  | 7,42  | 5,37               |
| 810-0400    | 4  | 13,20 | 9,55               |
| 810-0500    | 5  | 20,60 | 14,92              |
| 810-0600    | 6  | 29,70 | 21,49              |
| 810-0800    | 8  | 49,40 | 38,20              |
| 810-1000    | 10 | 77,20 | 59,69              |
| 810-1200    | 12 | 104   | 85,95              |
| 810-1400    | 14 | 131   | 116,99             |
| 810-1600    | 16 | 176   | 152,81             |
| 810-1900    | 19 | 233   | 215,48             |
| 810-2200    | 22 | 299   | 288,90             |
| 810-2600    | 26 | 416   | 403,51             |

Material 1.4401



**Rope 7 x 7**

| Part number | ø | kN    | MQ mm <sup>2</sup> |
|-------------|---|-------|--------------------|
| 820-0100    | 1 | 0,56  | 0,43               |
| 820-0200    | 2 | 2,24  | 1,71               |
| 820-0300    | 3 | 5,03  | 3,85               |
| 820-0400    | 4 | 8,94  | 6,85               |
| 820-0500    | 5 | 14    | 10,70              |
| 820-0600    | 6 | 20,10 | 15,42              |
| 820-0800    | 8 | 35,80 | 27,40              |

Material 1.4401



**Strand 1 x 37 | 1 x 61\***

| Part number | ø  | kN    | MQ mm <sup>2</sup> |
|-------------|----|-------|--------------------|
| 610-1600    | 16 | 184,6 | 150,8              |
| 610-1800    | 18 | 227,5 | 190,8              |
| 610-2200*   | 22 | 322   | 285,1              |
| 610-2600*   | 26 | 445   | 398,2              |

Material 1.4401



**Rope 7 x 19**

| Part number | ø  | kN   | MQ mm <sup>2</sup> |
|-------------|----|------|--------------------|
| 830-0200    | 2  | 2,84 | 1,66               |
| 830-0300    | 3  | 4,69 | 3,73               |
| 830-0400    | 4  | 8,34 | 6,63               |
| 830-0500    | 5  | 13   | 10,36              |
| 830-0600    | 6  | 18,8 | 14,92              |
| 830-0800    | 8  | 33,4 | 26,53              |
| 830-1000    | 10 | 52,1 | 41,45              |
| 830-1200    | 12 | 75,1 | 59,69              |
| 830-1400    | 14 | 102  | 81,25              |
| 830-1600    | 16 | 133  | 106,12             |

Material 1.4401



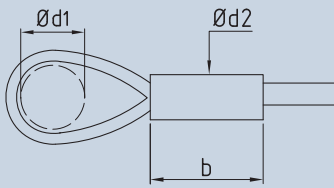
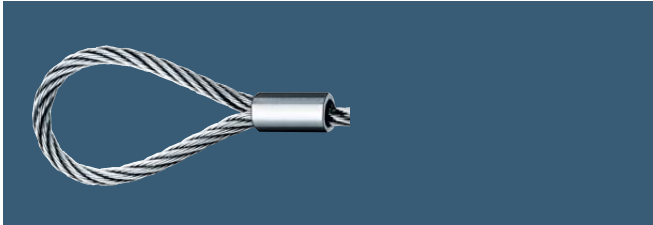
**Rod with both sides external thread**

| Part number | ø  | Thread size x length c | kN*   |
|-------------|----|------------------------|-------|
| IS-625      | 6  | M6 x 25                | 3,88  |
| IS-830      | 8  | M8 x 30                | 7,08  |
| IS-1040     | 10 | M10 x 40               | 11,22 |
| IS-1250     | 12 | M12 x 50               | 16,31 |
| IS-1660     | 16 | M16 x 60               | 30,38 |

Material 1.4571 | Rod length maximum 2 m

\*permissible load

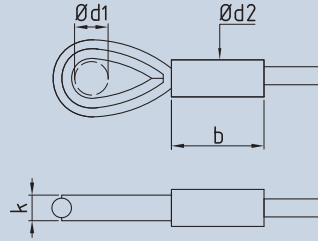
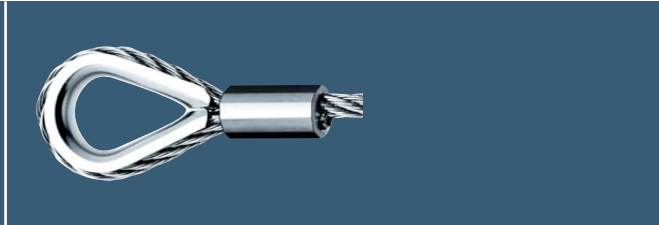




**Loop swaged without thimble**

| Part number | ø rope | b  | ø d1 | ø d2 | kN    |
|-------------|--------|----|------|------|-------|
| 803-0200    | 2      | 10 | x    | 4    | 2     |
| 803-0300    | 3      | 13 | x    | 6    | 4,5   |
| 803-0400    | 4      | 16 | x    | 8    | 8,1   |
| 803-0500    | 5      | 20 | x    | 10   | 12,6  |
| 803-0600    | 6      | 28 | x    | 12   | 18,1  |
| 803-0800    | 8      | 40 | x    | 16   | 32,2  |
| 803-1000    | 10     | 50 | x    | 20   | 46,9  |
| 803-1200    | 12     | 60 | x    | 24   | 67,6  |
| 803-1400    | 14     | 70 | x    | 28   | 91,8  |
| 803-1600    | 16     | 80 | x    | 32   | 119,7 |

Inox-ferrule | Material 1.4404 | Dimension ø d1 variable.  
Not suitable for strands



**Loop swaged with thimble**

| Part number | ø rope | b  | ø d1 | ø d2 | k   | kN    |
|-------------|--------|----|------|------|-----|-------|
| 804-0200    | 2      | 10 | 6,5  | 7    | 4   | 2     |
| 804-0300    | 3      | 13 | 9,5  | 9    | 5,5 | 4,5   |
| 804-0400    | 4      | 16 | 10,5 | 13   | 6,5 | 8,1   |
| 804-0500    | 5      | 20 | 12,5 | 15   | 8   | 12,6  |
| 804-0600    | 6      | 28 | 15,5 | 13   | 9   | 18,1  |
| 804-0800    | 8      | 40 | 17,5 | 16   | 12  | 32,2  |
| 804-1000    | 10     | 50 | 23,5 | 20   | 14  | 46,9  |
| 804-1200    | 12     | 60 | 25,5 | 24   | 20  | 67,6  |
| 804-1400    | 14     | 70 | 33,5 | 28   | 22  | 91,8  |
| 804-1600    | 16     | 80 | 36,5 | 32   | 24  | 119,7 |

Inox-ferrule | Material 1.4404  
Not suitable for strands



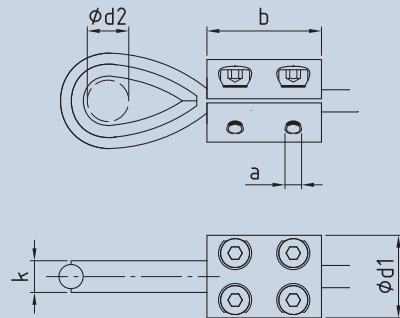




**Loop clamp ring with thimble**

| Part number | ø rope | a  | b  | ø d1 | ø d2 | k   | kN  |
|-------------|--------|----|----|------|------|-----|-----|
| 874-0300    | 3      | M4 | 27 | 22   | 9,5  | 5,5 | 4,9 |
| 874-0400    | 4      | M4 | 27 | 22   | 10,5 | 6,5 | 5,1 |
| 874-0500    | 5      | M4 | 42 | 28   | 12,5 | 8   | 7,8 |
| 874-0600    | 6      | M4 | 42 | 28   | 15,5 | 9   | 12  |
| 874-0800    | 8      | M4 | 42 | 28   | 17,5 | 12  | 13  |

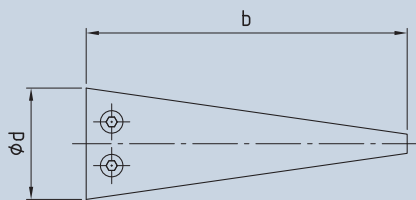
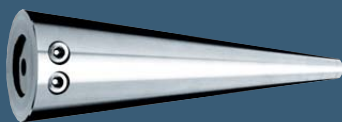
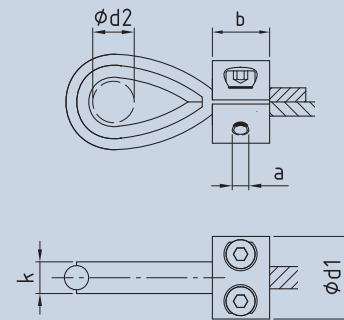
Material 1.4401 | Not suitable for strands



**Light clamp ring with thimble**

| Part number | ø rope | a  | b  | ø d1 | ø d2 | k   | kN  |
|-------------|--------|----|----|------|------|-----|-----|
| 874-0200-01 | 2      | M3 | 10 | 15   | 6,5  | 4   | 1,1 |
| 874-0300-01 | 3      | M3 | 10 | 15   | 9,5  | 5,5 | 2,4 |
| 874-0400-01 | 4      | M4 | 10 | 20   | 10,5 | 6,5 | 4   |

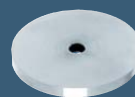
Material 1.4401 | Not suitable for strands



**Rope clamp cone**

| Part number | ø rope | F ax | b  | ø d |
|-------------|--------|------|----|-----|
| 859-0300-03 | 3      | 1,3  | 90 | 30  |
| 859-0400-03 | 4      | 1,5  | 90 | 30  |

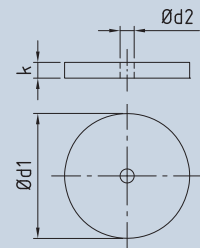
Material 1.4401 | Not suitable for strands



**Cover disk for rope clamp cone**

| Part number | ø d1 | ø d2 | k |
|-------------|------|------|---|
| 859-03-04   | 30   | 4,5  | 4 |

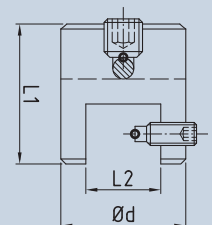
Material 1.4571

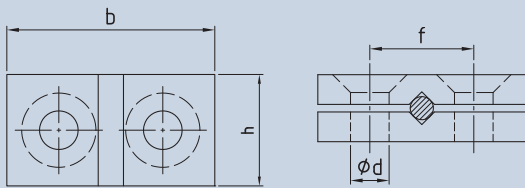


**Cross clamp with connection**

| Part number | ø rope | l1 | l2 | ø d |
|-------------|--------|----|----|-----|
| 858-0400-04 | 3/4    | 28 | 15 | 25  |
| 858-0600-04 | 5/6    | 32 | 15 | 25  |

Material 1.4401

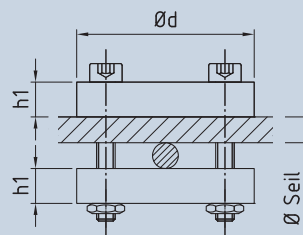




**Two part side clamp**

| Part number | ø rope | b  | h  | f  | ød  |
|-------------|--------|----|----|----|-----|
| 833-0200    | 2      | 28 | 15 | 14 | 5,2 |
| 833-0300    | 3      | 28 | 15 | 14 | 5,2 |
| 833-0400    | 4      | 28 | 15 | 14 | 5,2 |
| 833-0500    | 5+6    | 28 | 15 | 14 | 5,2 |

Material 1.4404 | Not suitable for strands

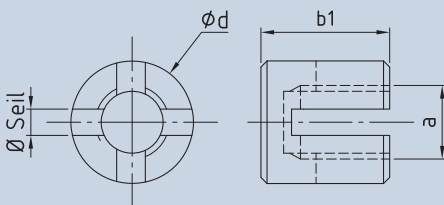


**CS-Cross clamp adjustable**

| Part number | ø rope | ød | h1 | h2 |
|-------------|--------|----|----|----|
| 858-36      | 4-6    | 36 | 6  | 6  |
| 858-42      | 8-12   | 42 | 8  | 8  |



Material 1.4401

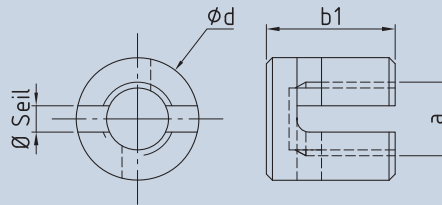


**Cross clamp 90°**

| Part number | ø rope | a   | b1 | ød |
|-------------|--------|-----|----|----|
| 858-0400    | 4      | M12 | 21 | 20 |
| 858-0600    | 6      | M12 | 25 | 20 |



Material 1.4401



**Cross clamp adjustable**

| Part number | ø rope | a   | b1   | ød |
|-------------|--------|-----|------|----|
| 858-0400-01 | 4      | M12 | 19,5 | 20 |
| 858-0600-01 | 6      | M12 | 23,5 | 20 |



Material 1.4401

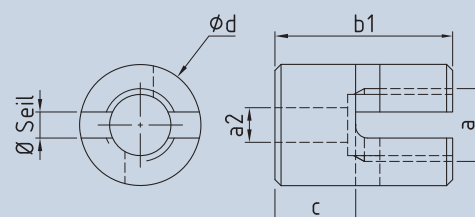


**Cross clamp with internal thread adjustable**

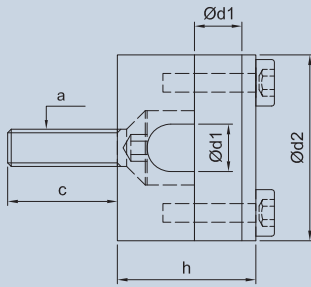
| Part number | ø rope | a1  | a2 | b1 | ød | c  |
|-------------|--------|-----|----|----|----|----|
| 858-0400-02 | 4      | M12 | M8 | 31 | 20 | 15 |
| 858-0600-02 | 6      | M12 | M8 | 35 | 20 | 15 |



Material 1.4401

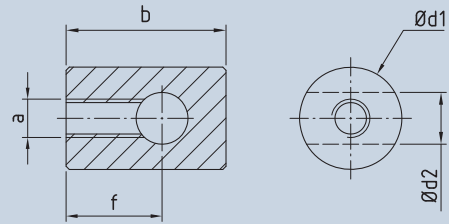
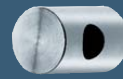


## Clamps



### Adjustable screw on cross clamp

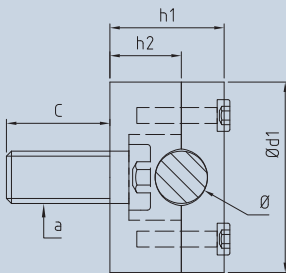
| Part number  | a  | c  | h  | Ød1  | Ød2 |
|--------------|----|----|----|------|-----|
| 1858-1000-07 | M8 | 19 | 30 | 10,2 | 40  |



### Rod/Rope holder

| Part number | a   | b  | Ød1 | Ød2  | f  |
|-------------|-----|----|-----|------|----|
| 921-0600-12 | M6  | 25 | 16  | 8,1  | 15 |
| 921-1000-12 | M12 | 35 | 28  | 11,5 | 19 |
| 921-1200-12 | M12 | 35 | 28  | 15   | 19 |

Material 1.4404

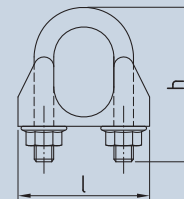


### Screw on cross clamp

| Part number | Ø rope | a   | c  | h1 | h2   | Ød1 |
|-------------|--------|-----|----|----|------|-----|
| 858-0800-06 | 8      | M8  | 16 | 25 | 15   | 40  |
| 858-1000-06 | 10     | M8  | 16 | 25 | 15   | 40  |
| 858-1200-06 | 12     | M8  | 16 | 25 | 15   | 40  |
| 858-1600-06 | 16     | M10 | 16 | 32 | 19,5 | 48  |



Material 1.4404



### Wire rope grip

| Part number | Grips  |          | h  | l  |
|-------------|--------|----------|----|----|
|             | Ø rope | per Loop |    |    |
| 800-0200    | 2      | 3        | 18 | 14 |
| 800-0300    | 3      | 3        | 24 | 17 |
| 800-0400    | 4      | 3        | 24 | 19 |
| 800-0500    | 5      | 4        | 33 | 24 |
| 800-0600    | 6      | 4        | 33 | 28 |
| 800-0800    | 8      | 4        | 40 | 34 |
| 800-1000    | 10     | 4        | 50 | 45 |
| 800-1200    | 12     | 4        | 60 | 51 |
| 800-1400    | 14     | 4        | 65 | 53 |
| 800-1600    | 16     | 4        | 75 | 60 |

Material 1.4401 | Not suitable for strands

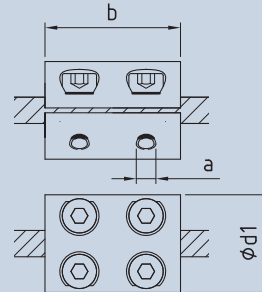




### Clamp ring

| Part number | ø rope | F ax | a  | b  | ø d1 |
|-------------|--------|------|----|----|------|
| 873-0300    | 3      | 3    | M4 | 27 | 22   |
| 873-0400    | 4      | 3,6  | M4 | 27 | 22   |
| 873-0500    | 5      | 5,8  | M5 | 42 | 28   |
| 873-0600    | 6      | 6,5  | M5 | 42 | 28   |
| 873-0800    | 8      | 9,4  | M5 | 42 | 28   |

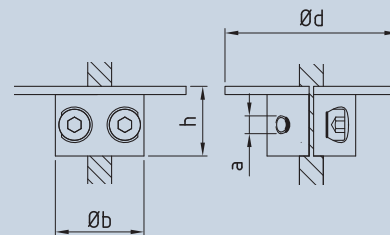
Material 1.4401 | Not suitable for strands



### Light clamp ring with adapter

| Part number | ø rope | F ax | ø b | ø d | h    | a  |
|-------------|--------|------|-----|-----|------|----|
| 863-0200-02 | 2      | 1    | 15  | 30  | 11,5 | M3 |
| 863-0300-02 | 3      | 1,3  | 15  | 30  | 11,5 | M3 |
| 863-0400-02 | 4      | 1,5  | 15  | 30  | 11,5 | M3 |
| 863-0500-02 | 5      | 2    | 20  | 35  | 11,5 | M4 |
| 863-0600-02 | 6      | 2,2  | 20  | 35  | 11,5 | M4 |
| 863-0800-02 | 8      | 2,2  | 20  | 35  | 11,5 | M4 |

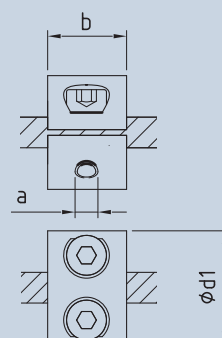
Material 1.4401 | Not suitable for strands



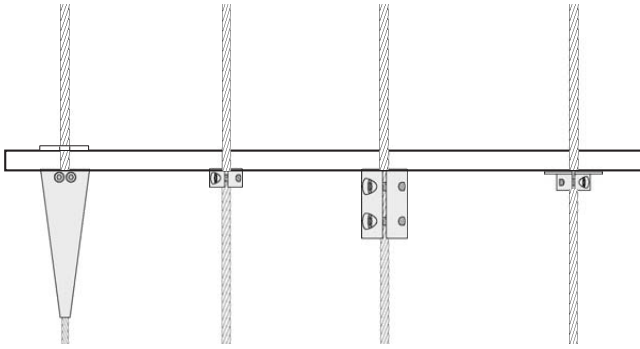
### Light clamp ring

| Part number | ø rope | F ax | a  | b  | ø d1 |
|-------------|--------|------|----|----|------|
| 863-0200    | 2      | 1    | M3 | 10 | 15   |
| 863-0300    | 3      | 1,3  | M3 | 10 | 15   |
| 863-0400    | 4      | 1,5  | M3 | 10 | 15   |
| 863-0500    | 5      | 2    | M4 | 10 | 24   |
| 863-0600    | 6      | 2,2  | M4 | 10 | 24   |
| 863-0800    | 8      | 2,2  | M4 | 10 | 24   |

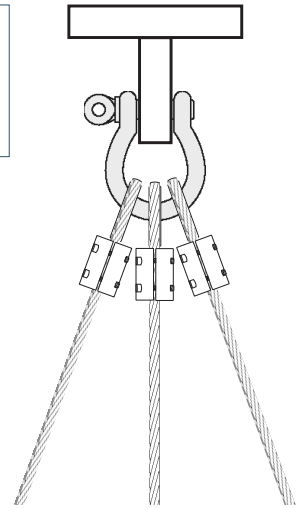
Material 1.4401 | Not suitable for strands



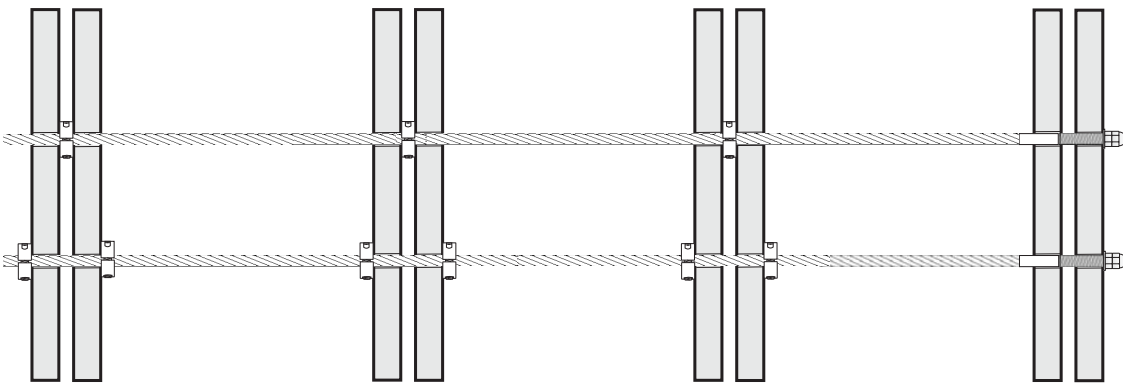
Loops, Clamps | Assembly



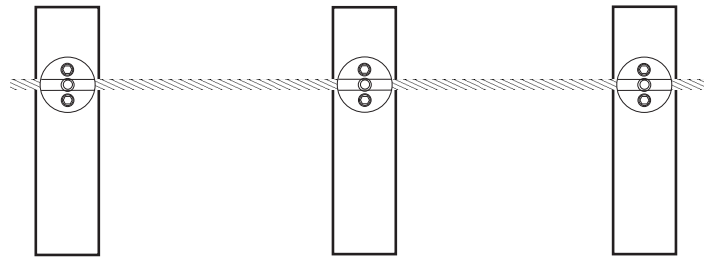
Loop clamps attached to bow shackle.



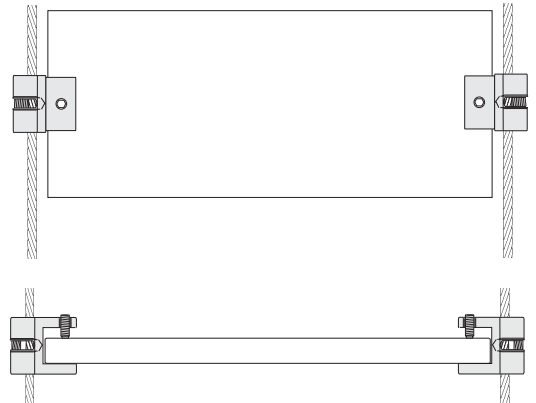
Cable cone clamp with cover disc, light clamp ring, clamp ring, light clamp ring with support for horizontal hanging of shelves and tablets.



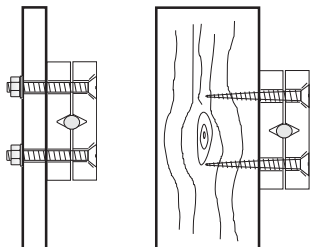
Light clamp rings for distribution of tensile forces over several profiles.



Two-part screw clamp for cable guide and clamping.



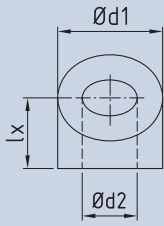
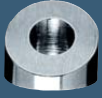
Double cable junction with clamping holder for horizontal and vertical hanging of displays and shelves.



Two-part clamping plate for horizontal and vertical hanging of displays and shelves.





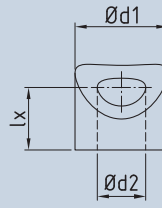
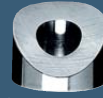


**Angle stand off washer for external thread, flat profile**

| Part number | Thread | $\varnothing d1$ | $\varnothing d2$ |
|-------------|--------|------------------|------------------|
| 862-04-0    | M4     | 10               | 4,3              |
| 862-05-0    | M5     | 10               | 5,5              |
| 862-06-0    | M6     | 13               | 7,3              |
| 862-08-0    | M8     | 18               | 8,3              |
| 862-10-0    | M10    | 22               | 10,5             |
| 862-12-0    | M12    | 24               | 12,5             |
| 862-16-0    | M16    | 32               | 17               |

Material 1.4301

Please specify the required angle when ordering.

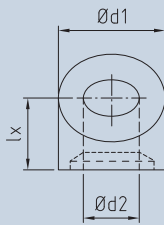


**Angle stand off washer for external thread, round profile**

| Part number | Thread | $\varnothing d1$ | $\varnothing d2$ |
|-------------|--------|------------------|------------------|
| 862-04-1    | M4     | 10               | 4,3              |
| 862-05-1    | M5     | 10               | 5,5              |
| 862-06-1    | M6     | 13               | 7,3              |
| 862-08-1    | M8     | 18               | 8,3              |
| 862-10-1    | M10    | 22               | 10,5             |
| 862-12-1    | M12    | 24               | 12,5             |
| 862-16-1    | M16    | 32               | 17               |

Material 1.4301

Please specify diameter of post and required angle when ordering.

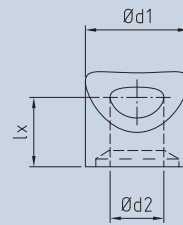


**Angle washer for countersunk end stop 90°, flat profile**

| Part number | $\varnothing rope$ | $\varnothing d1$ | $\varnothing d2$ |
|-------------|--------------------|------------------|------------------|
| 862-03-2    | 3                  | 13               | 7,3              |
| 862-04-2    | 4                  | 13               | 8,3              |
| 862-05-2    | 5                  | 18               | 8,3              |
| 862-06-2    | 6                  | 18               | 10,5             |
| 862-08-2    | 8                  | 24               | 13,5             |

Material 1.4301

Please specify the required angle when ordering.

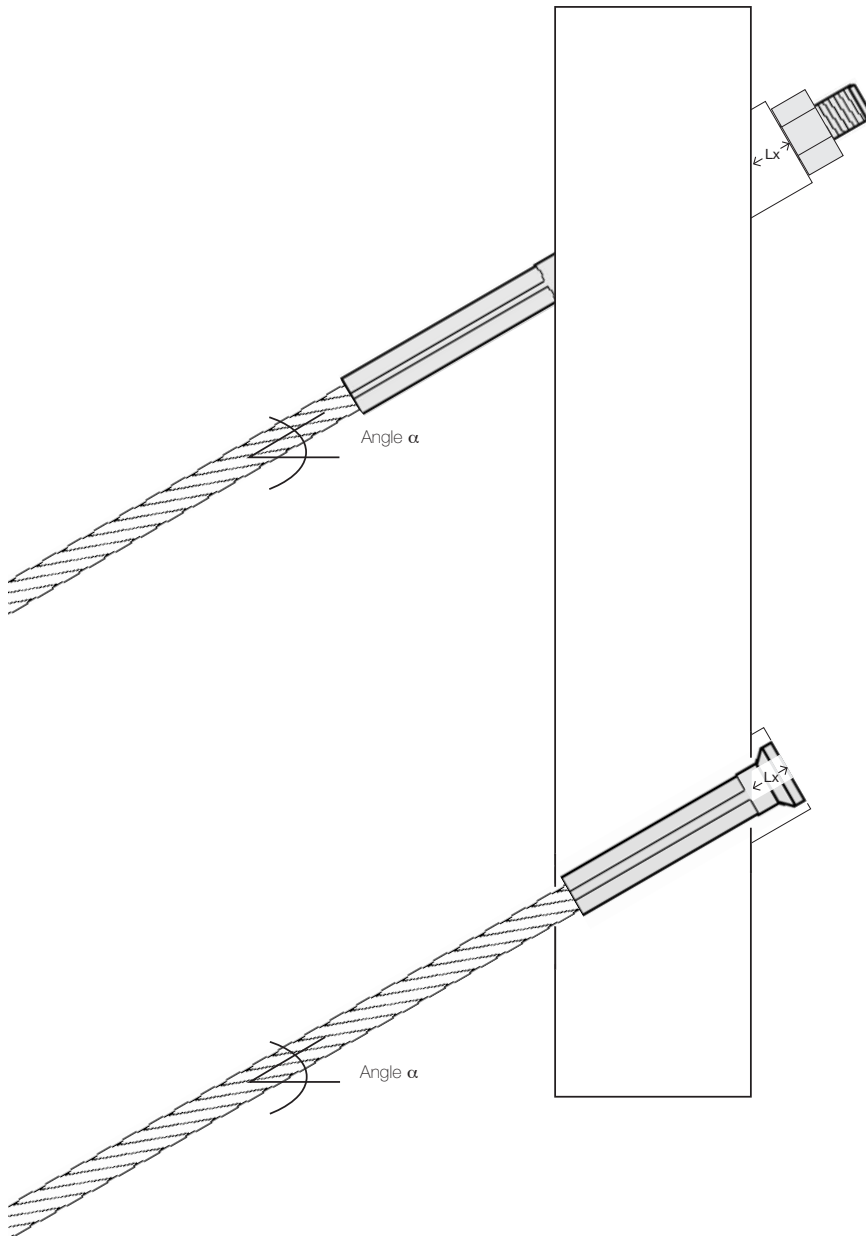


**Angle washer for countersunk end stop 90°, round profile**

| Part number | $\varnothing rope$ | $\varnothing d1$ | $\varnothing d2$ |
|-------------|--------------------|------------------|------------------|
| 862-03-3    | 3                  | 13               | 7,3              |
| 862-04-3    | 4                  | 13               | 8,3              |
| 862-05-3    | 5                  | 18               | 8,3              |
| 862-06-3    | 6                  | 18               | 10,5             |
| 862-08-3    | 8                  | 24               | 13,5             |

Material 1.4301

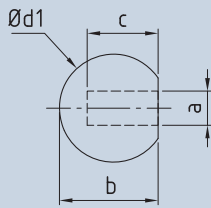
Please specify diameter of post and required angle when ordering.



**Length Lx for angled stand off washers**

| Angle<br>$\alpha$ | $\varnothing d1$<br>(8 mm) | $\varnothing d1$<br>(10 mm) | $\varnothing d1$<br>(13 mm) | $\varnothing d1$<br>(18 mm) | $\varnothing d1$<br>(22 mm) | $\varnothing d1$<br>(24 mm) | $\varnothing d1$<br>(32 mm) |
|-------------------|----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| 0°                | 3,0                        | 3,0                         | 3,0                         | 3,0                         | 3,0                         | 7,0                         | 7,0                         |
| 5°                | 3,4                        | 3,4                         | 4,6                         | 4,0                         | 4,0                         | 7,9                         | 8,4                         |
| 10°               | 3,7                        | 3,9                         | 4,6                         | 4,6                         | 4,9                         | 8,4                         | 9,8                         |
| 15°               | 4,1                        | 4,3                         | 5,0                         | 5,4                         | 5,9                         | 9,1                         | 11,3                        |
| 20°               | 4,5                        | 4,8                         | 5,5                         | 6,3                         | 7,0                         | 9,8                         | 12,8                        |
| 25°               | 4,9                        | 5,3                         | 6,0                         | 7,2                         | 8,1                         | 10,2                        | 14,5                        |
| 30°               | 5,3                        | 5,9                         | 7,0                         | 8,2                         | 9,4                         | 11,2                        | 16,2                        |
| 32°               | 5,5                        | 6,1                         | 7,1                         | 8,6                         | 9,9                         | 11,5                        | 17                          |
| 35°               | 5,8                        | 6,5                         | 7,6                         | 9,3                         | 10,7                        | 12,5                        | 18,2                        |
| 37°               | 6,0                        | 6,8                         | 7,9                         | 9,8                         | 11,3                        | 13,0                        | 19,1                        |
| 40°               | 6,4                        | 7,2                         | 8,5                         | 10,6                        | 12,2                        | 13,5                        | 20,4                        |
| 45°               | 7,0                        | 8,0                         | 9,5                         | 12,0                        | 14,0                        | 15,0                        | 23                          |
| 50°               | 7,8                        | 9,0                         | 10,7                        | 13,7                        | 16,1                        | 17,3                        | 26,1                        |
| 55°               | 8,7                        | 10,1                        | 12,3                        | 15,9                        | 18,7                        | 20,1                        | 30                          |
| 60°               | 9,9                        | 11,7                        | 14,3                        | 18,6                        | 22,0                        | 23,8                        | 34,7                        |

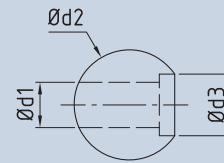
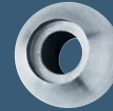
For round post profiles specify the angle as well as the outside diameter of the post.



**Ball end with internal thread**

| Part number<br>RH thread | Part number<br>LH thread | a   | b    | c  | Ød1 |
|--------------------------|--------------------------|-----|------|----|-----|
| 898-0400-01              | 898-0400-02              | M4  | 15   | 9  | 16  |
| 898-0500-01              | 898-0500-02              | M5  | 15   | 9  | 16  |
| 898-0600-01              | 898-0600-02              | M6  | 18,8 | 10 | 20  |
| 898-0800-01              | 898-0800-02              | M8  | 22,4 | 12 | 24  |
| 898-1000-01              | 898-1000-02              | M10 | 21,4 | 12 | 24  |

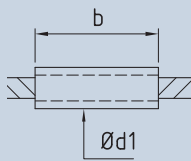
Material 1.4401



**Ball for internal thread radius head**

| Part number | Ød1 | Ød2 | Ød3 |
|-------------|-----|-----|-----|
| 899-06      | 6,5 | 20  | 10  |
| 899-07      | 7,5 | 20  | 12  |
| 899-08      | 9   | 25  | 14  |
| 899-10      | 11  | 25  | 16  |

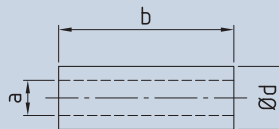
Material 1.4401



**Loose sleeve**

| Part number | Ø rope | Ø d | b  |
|-------------|--------|-----|----|
| 864-0205    | 2      | 5   | 30 |
| 864-0206    | 2      | 6   | 30 |
| 864-0306    | 3      | 6   | 30 |
| 864-0307    | 3      | 7   | 30 |
| 864-0310    | 3      | 10  | 30 |
| 864-0407    | 4      | 7   | 30 |
| 864-0407 M  | 4      | 7   | 40 |
| 864-0407 L  | 4      | 7   | 55 |
| 864-0408    | 4      | 8   | 30 |
| 864-0408 M  | 4      | 8   | 40 |
| 864-0408 L  | 4      | 8   | 55 |
| 864-0410    | 4      | 10  | 30 |
| 864-0508    | 5      | 8   | 30 |
| 864-0508 M  | 5      | 8   | 40 |
| 864-0508 L  | 5      | 8   | 55 |
| 864-0513    | 5      | 13  | 30 |
| 864-0610    | 6      | 10  | 30 |
| 864-0610 M  | 6      | 10  | 40 |
| 864-0610 L  | 6      | 10  | 55 |
| 864-0613    | 6      | 13  | 30 |
| 864-0813    | 8      | 13  | 30 |
| 864-1018    | 10     | 18  | 50 |
| 864-1020    | 10     | 20  | 50 |
| 864-1222    | 12     | 22  | 50 |
| 864-1225    | 12     | 25  | 50 |
| 864-1424    | 14     | 24  | 50 |
| 864-1627    | 16     | 27  | 50 |
| 864-1632    | 16     | 32  | 50 |

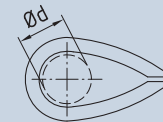
Material 1.4404 | The sleeve can slide along the length of the cable. Secure the sleeve to the post profile not the rope.



**Thread sleeve**

| Part number | a   | b  | Ø d |
|-------------|-----|----|-----|
| 876-0625    | M6  | 25 | 10  |
| 876-0830    | M8  | 30 | 11  |
| 876-1030    | M10 | 30 | 13  |
| 876-1230    | M12 | 30 | 15  |
| 876-1640    | M16 | 40 | 25  |

Material 1.4401



**Thimble**

| Part number | Ø rope | d1   |
|-------------|--------|------|
| 5970.00.02  | 2      | 6,5  |
| 5970.00.03  | 3      | 9,5  |
| 5970.00.04  | 4      | 10,5 |
| 5970.00.05  | 5      | 12,5 |
| 5970.00.06  | 6      | 15,5 |
| 5970.00.08  | 8      | 17,5 |
| 5970.00.10  | 10     | 23,5 |
| 5970.00.12  | 12     | 25,5 |
| 5970.00.14  | 14     | 33,5 |
| 5970.00.16  | 16     | 36,5 |

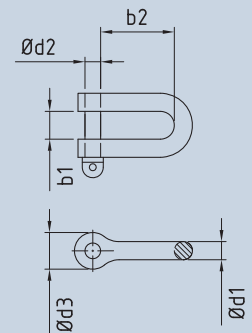
Material 1.4401

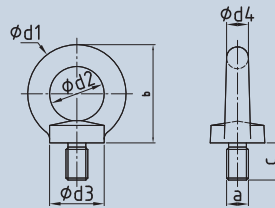


**Shackle**

| Part number | kN     | b1 | b2 | Ø d1 | Ø d2 | Ø d3 |
|-------------|--------|----|----|------|------|------|
| 835-0032    | 10,79  | 8  | 17 | 4    | 4    | 9    |
| 835-0039    | 15,01  | 12 | 21 | 5    | 5    | 11   |
| 835-0050    | 28,45  | 13 | 23 | 6    | 6    | 13   |
| 835-0090    | 44,15  | 15 | 30 | 8    | 8    | 17   |
| 835-0120    | 59,84  | 20 | 36 | 9    | 9    | 19   |
| 835-0140    | 88,29  | 26 | 45 | 12   | 12   | 24   |
| 835-0200    | 112,82 | 32 | 61 | 16   | 16   | 32   |
| 835-0340    | 152,06 | 38 | 76 | 19   | 19   | 38   |

Material 1.4401

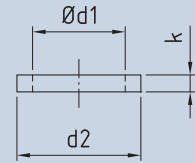




**Eye bolt**

| Part number | kN   | a   | b  | c  | $\phi d1$ | $\phi d2$ | $\phi d3$ | $\phi d4$ |
|-------------|------|-----|----|----|-----------|-----------|-----------|-----------|
| 837-0600*   | 4,2  | M6  | 36 | 13 | 36        | 20        | 20        | 8         |
| 837-0800    | 8,4  | M8  | 36 | 13 | 36        | 20        | 20        | 8         |
| 837-1000    | 13,8 | M10 | 45 | 17 | 45        | 25        | 25        | 10        |
| 837-1200    | 19,8 | M12 | 53 | 21 | 54        | 30        | 30        | 12        |
| 837-1600    | 41,4 | M16 | 62 | 27 | 63        | 35        | 35        | 14        |
| 837-2000    | 70,8 | M20 | 71 | 30 | 72        | 40        | 40        | 16        |
| 837-2400    | 106  | M24 | 90 | 36 | 90        | 50        | 50        | 20        |

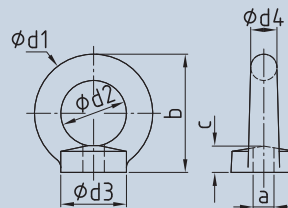
Material 1.4401, DIN 580, \*similar to DIN 580



**Flat washer**

| Part number | $\phi d1$ | $\phi d2$ | k   |
|-------------|-----------|-----------|-----|
| 896-0400    | M4        | 8         | 0,5 |
| 896-0500    | M5        | 9         | 1   |
| 896-0600    | M6        | 11        | 1,6 |
| 896-0800    | M8        | 15        | 1,6 |
| 896-1000    | M10       | 18        | 1,6 |
| 896-1200    | M12       | 20        | 2   |
| 896-1600    | M16       | 28        | 2,5 |
| 896-2000    | M20       | 34        | 3   |
| 896-2200    | M22       | 39        | 3   |
| 896-2400    | M24       | 44        | 4   |
| 896-3000    | M30       | 56        | 4   |

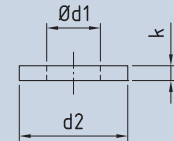
Material 1.4301



**Eye nut**

| Part number | kN   | a   | b  | c  | $\phi d1$ | $\phi d2$ | $\phi d3$ | $\phi d4$ |
|-------------|------|-----|----|----|-----------|-----------|-----------|-----------|
| 838-0600*   | 4,2  | M6  | 36 | 8  | 36        | 20        | 20        | 8         |
| 838-0800    | 8,4  | M8  | 36 | 8  | 36        | 20        | 20        | 8         |
| 838-1000    | 13,8 | M10 | 45 | 10 | 45        | 25        | 25        | 10        |
| 838-1200    | 19,8 | M12 | 53 | 11 | 54        | 30        | 30        | 12        |
| 838-1600    | 41,4 | M16 | 62 | 13 | 63        | 35        | 35        | 14        |
| 838-2000    | 70,8 | M20 | 71 | 15 | 72        | 40        | 40        | 16        |
| 838-2400    | 106  | M24 | 90 | 20 | 90        | 50        | 50        | 20        |

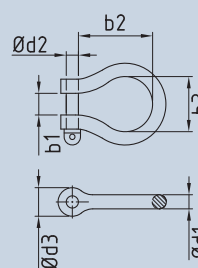
Material 1.4401, DIN 582, \*similar to DIN 582



**Washer for wood**

| Part number | $\phi d1$ | $\phi d2$ | k   |
|-------------|-----------|-----------|-----|
| 896-0400-12 | M4        | 12        | 1   |
| 896-0500-15 | M5        | 15        | 1,2 |
| 896-0600-18 | M6        | 18        | 1,6 |
| 896-0800-24 | M8        | 24        | 2   |
| 896-1000-30 | M10       | 30        | 2,5 |
| 896-1200-37 | M12       | 37        | 3   |
| 896-1600-50 | M16       | 50        | 3   |
| 896-2000-60 | M20       | 60        | 4   |

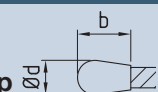
Material 1.4301



**Bow shackle**

| Part number | kN    | b1 | b2 | b3 | $\phi d1$ | $\phi d2$ | $\phi d3$ |
|-------------|-------|----|----|----|-----------|-----------|-----------|
| 835-0016-01 | 5,89  | 8  | 18 | 14 | 4         | 4         | 8         |
| 835-0024-01 | 10,20 | 10 | 23 | 17 | 5         | 5         | 10        |
| 835-0036-01 | 14,13 | 12 | 26 | 21 | 6         | 6         | 12        |
| 835-0056-01 | 27,47 | 16 | 36 | 28 | 8         | 8         | 16        |
| 835-0086-01 | 42,38 | 20 | 46 | 34 | 10        | 10        | 20        |
| 835-0130-01 | 56,51 | 24 | 54 | 42 | 12        | 12        | 24        |

Material 1.4401

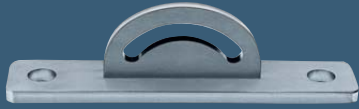


**Wire rope end cap**

| Part number | $\phi$ rope | b    | $\phi d$ |
|-------------|-------------|------|----------|
| 904-0200    | 2           | 10,2 | 6,3      |
| 904-0300    | 3           | 8,8  | 5,5      |
| 904-0400    | 4           | 8,8  | 5,5      |
| 904-0500    | 5           | 8    | 7,5      |
| 904-0600    | 6           | 12   | 7,5      |
| 904-0800    | 8           | 13   | 11,5     |
| 904-1000    | 10          | 14,6 | 13,4     |

Black plastic

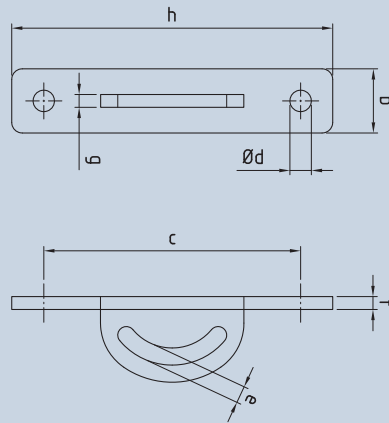




**Fork bracket**

| Part number | h   | c   | b  | ød | e  | g  | k  |
|-------------|-----|-----|----|----|----|----|----|
| 834-006     | 150 | 120 | 30 | 12 | 8  | 6  | 40 |
| 834-012     | 262 | 210 | 53 | 14 | 14 | 12 | 70 |

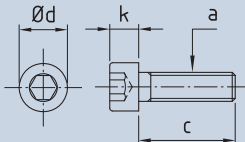
Material 1.4404



**Socket head screw**

| Part number | a   | c  | ød  | k  |
|-------------|-----|----|-----|----|
| 844-0400    | M4  | 25 | 7   | 4  |
| 844-0500    | M5  | 25 | 8,5 | 5  |
| 844-0600    | M6  | 30 | 10  | 6  |
| 844-0800    | M8  | 35 | 13  | 8  |
| 844-1000    | M10 | 40 | 16  | 10 |
| 844-1200    | M12 | 50 | 18  | 12 |
| 844-1600    | M16 | 60 | 24  | 16 |
| 844-2000    | M20 | 70 | 30  | 20 |

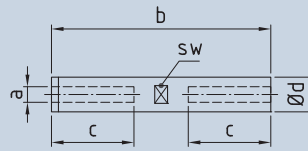
Material 1.4301



**Cylindrical turnbuckle barrel LH/RH**

| Part number | a  | b   | c  | ød | sw |
|-------------|----|-----|----|----|----|
| 875-0500-01 | M5 | 60  | 25 | 8  | 7  |
| 875-0500-02 | M5 | 100 | 45 | 8  | 7  |
| 875-0600-01 | M6 | 70  | 30 | 10 | 9  |
| 875-0600-02 | M6 | 120 | 55 | 10 | 9  |
| 875-0800-01 | M8 | 70  | 30 | 12 | 11 |
| 875-0800-02 | M8 | 120 | 55 | 12 | 11 |

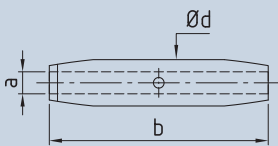
Material 1.4401



**Turnbuckle barrel with internal thread LH/RH**

| Part number | a   | b   | ød   |
|-------------|-----|-----|------|
| 875-0500    | M5  | 80  | 8    |
| 875-0600    | M6  | 92  | 10   |
| 875-0800    | M8  | 112 | 13,5 |
| 875-1000    | M10 | 120 | 17,2 |
| 875-1200    | M12 | 150 | 21,3 |
| 875-1400    | M14 | 170 | 21,3 |
| 875-1600    | M16 | 190 | 26,9 |
| 875-2000    | M20 | 220 | 33,7 |
| 875-2400    | M24 | 328 | 50   |

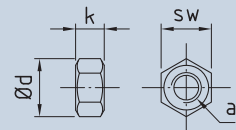
Material 1.4401

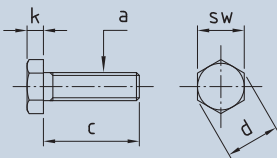


**Hexagon nut**

| Part number | Part number | a   | d    | k   | sw |
|-------------|-------------|-----|------|-----|----|
| RH thread   | LH thread   |     |      |     |    |
| 892-0400    | 893-0400    | M4  | 7,7  | 3,2 | 7  |
| 892-0500    | 893-0500    | M5  | 8,8  | 4   | 8  |
| 892-0600    | 893-0600    | M6  | 11,1 | 5   | 10 |
| 892-0800    | 893-0800    | M8  | 14,4 | 6,5 | 13 |
| 892-1000    | 893-1000    | M10 | 18,9 | 8   | 17 |
| 892-1200    | 893-1200    | M12 | 21,1 | 10  | 19 |
| 892-1400    | 893-1400    | M14 | 24,5 | 11  | 22 |
| 892-1600    | 893-1600    | M16 | 26,8 | 13  | 24 |
| 892-2000    | 893-2000    | M20 | 33,5 | 16  | 30 |
| 892-2200    | 893-2200    | M22 | 35   | 18  | 32 |
| 892-2400    | 893-2400    | M24 | 39,5 | 19  | 36 |
| 892-2700    | 893-2700    | M27 | 48   | 24  | 41 |
| 892-3000    | 893-3000    | M30 | 50,8 | 24  | 46 |
| 892-3600    | 893-3600    | M36 | 64   | 31  | 55 |

Material 1.4301

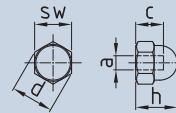




**Hexagon head screw**

| Part number | a   | c   | d    | k    | sw |
|-------------|-----|-----|------|------|----|
| 843-0400    | M4  | 25  | 7,7  | 2,8  | 7  |
| 843-0500    | M5  | 30  | 8,8  | 3,5  | 8  |
| 843-0600    | M6  | 30  | 11,1 | 4    | 10 |
| 843-0800    | M8  | 40  | 14,4 | 5,3  | 13 |
| 843-1000    | M10 | 50  | 18,9 | 6,4  | 17 |
| 843-1200    | M12 | 70  | 21,1 | 7,5  | 19 |
| 843-1400    | M14 | 70  | 24,5 | 8,8  | 22 |
| 843-1600    | M16 | 90  | 26,8 | 10   | 24 |
| 843-2000    | M20 | 100 | 33,5 | 12,5 | 30 |

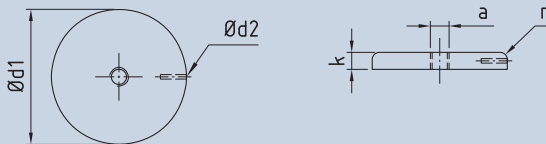
Material 1.4301



**Dome nut RH**

| Part number | a   | c    | h  | d    | sw |
|-------------|-----|------|----|------|----|
| 894-0400    | M4  | 4,1  | 8  | 7,7  | 7  |
| 894-0500    | M5  | 5,9  | 10 | 8,8  | 8  |
| 894-0600    | M6  | 6    | 12 | 11,1 | 10 |
| 894-0800    | M8  | 8,5  | 15 | 14,4 | 13 |
| 894-1000    | M10 | 10   | 18 | 18,9 | 17 |
| 894-1200    | M12 | 11,7 | 22 | 21,1 | 19 |
| 894-1400    | M14 | 13   | 25 | 24,5 | 22 |
| 894-1600    | M16 | 16   | 28 | 26,8 | 24 |
| 894-2000    | M20 | 19,7 | 34 | 33,5 | 30 |

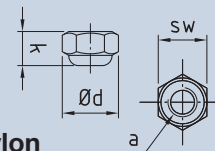
Material 1.4301



**Cover disk with internal thread**

| Part number | Part number | a   | Ød1 | Ød2 | r   | k |
|-------------|-------------|-----|-----|-----|-----|---|
| RH thread   | LH thread   |     |     |     |     |   |
| 836-0500-05 | 836-0500-06 | M5  | 35  | 1,5 | 2,5 | 4 |
| 836-0600-05 | 836-0600-06 | M6  | 35  | 1,5 | 2,5 | 4 |
| 836-0800-05 | 836-0800-06 | M8  | 50  | 3,5 | 3   | 6 |
| 836-1000-05 | 836-1000-06 | M10 | 50  | 3,5 | 3   | 6 |

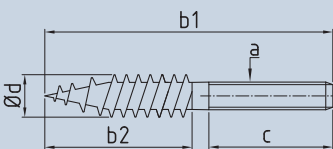
Material 1.4404



**Lock nut with nylon insert RH**

| Part number | a   | d    | k  | sw |
|-------------|-----|------|----|----|
| 892-0400-02 | M4  | 7,7  | 5  | 7  |
| 892-0500-02 | M5  | 8,8  | 5  | 8  |
| 892-0600-02 | M6  | 11,1 | 6  | 10 |
| 892-0800-02 | M8  | 14,4 | 8  | 13 |
| 892-1000-02 | M10 | 18,9 | 10 | 17 |
| 892-1200-02 | M12 | 21,1 | 12 | 19 |
| 892-1400-02 | M14 | 24,5 | 14 | 22 |
| 892-1600-02 | M16 | 26,8 | 16 | 24 |
| 892-2000-02 | M20 | 33   | 20 | 30 |

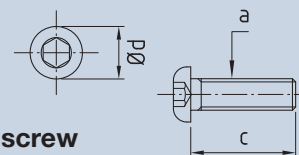
Material 1.4301



**Dual thread screw**

| Part number | Part number | a  | b1  | b2 | c  | Ød  |
|-------------|-------------|----|-----|----|----|-----|
| RH thread   | LH thread   |    |     |    |    |     |
| 878-0500    | 877-0500    | M5 | 50  | 30 | 20 | 4,3 |
| 878-0600    | 877-0600    | M6 | 70  | 40 | 30 | 5,2 |
| 878-0800    | 877-0800    | M8 | 100 | 60 | 40 | 6,9 |

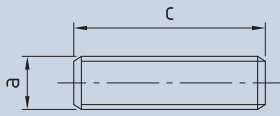
Material 1.4301 | Ød = for wall plug



**Pan head screw**

| Part number  | a  | c  | Ød   |
|--------------|----|----|------|
| 890-0400-025 | M4 | 25 | 7,5  |
| 890-0500-020 | M5 | 20 | 9,5  |
| 890-0500-025 | M5 | 25 | 9,5  |
| 890-0500-030 | M5 | 30 | 9,5  |
| 890-0600-020 | M6 | 20 | 10,5 |
| 890-0600-025 | M6 | 25 | 10,5 |
| 890-0600-030 | M6 | 30 | 10,5 |
| 890-0800-030 | M8 | 30 | 14   |
| 890-0800-040 | M8 | 40 | 14   |

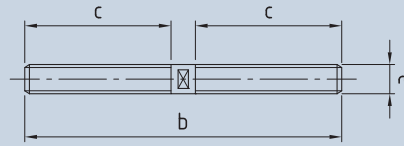
Material 1.4301



**Threaded rod**

| Part number<br>RH thread | Part number<br>LH thread | a   | c   |
|--------------------------|--------------------------|-----|-----|
| 882-0500-060             | 883-0500-060             | M5  | 60  |
| 882-0500-100             | 883-0500-100             | M5  | 100 |
| 882-0600-060             | 883-0600-060             | M6  | 60  |
| 882-0600-100             | 883-0600-100             | M6  | 100 |
| 882-0800-060             | 883-0800-060             | M8  | 60  |
| 882-0800-120             | 883-0800-120             | M8  | 120 |
| 882-0800-220             | 883-0800-220             | M8  | 220 |
| 882-1000-060             | 883-1000-060             | M10 | 60  |
| 882-1200-080             | 883-1200-080             | M12 | 80  |
| 882-1200-180             | 883-1200-180             | M12 | 180 |
| 882-1200-220             | 883-1200-220             | M12 | 220 |
| 882-1600-080             | 883-1600-080             | M16 | 80  |

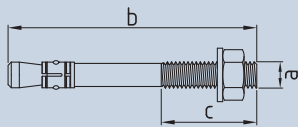
Material 1.4305



**Headless screw RH/LH**

| Part number | a   | b   | c  |
|-------------|-----|-----|----|
| 884-0400    | M4  | 45  | 20 |
| 884-0500    | M5  | 65  | 30 |
| 884-0600    | M6  | 65  | 30 |
| 884-0800    | M8  | 65  | 30 |
| 884-1000    | M10 | 85  | 40 |
| 884-1200    | M12 | 105 | 50 |
| 884-1400    | M14 | 105 | 50 |
| 884-1600    | M16 | 125 | 60 |
| 884-2000    | M20 | 125 | 60 |

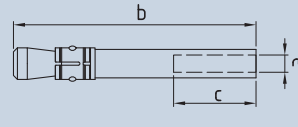
Material 1.4305



**Wall Anchor B A4**

| Part number | a   | b   | c  |
|-------------|-----|-----|----|
| 803-0600-08 | M6  | 67  | 20 |
| 803-0800-08 | M8  | 75  | 25 |
| 803-1000-08 | M10 | 80  | 30 |
| 803-1200-08 | M12 | 180 | 80 |

Material 1.4401 | Assembly instructions on request



**Wall Anchor Z-IG A4**

| Part number | a   | b  | c  |
|-------------|-----|----|----|
| 803-0600-07 | M6  | 50 | 20 |
| 803-0800-07 | M8  | 62 | 22 |
| 803-1000-07 | M10 | 70 | 23 |
| 803-1200-07 | M12 | 86 | 27 |

Material 1.4401

Assembly instructions on request



**Plastic wall plug for dual thread screw**

| Part number | b x d   | $\varnothing$ S |
|-------------|---------|-----------------|
| 803-0700-03 | 6 x 36  | 4,3 - 5         |
| 803-0800-03 | 8 x 51  | 5 - 6           |
| 803-1000-03 | 10 x 61 | 6 - 8           |

b x d =  $\varnothing$  Drill hole x Plug length | S = Dual thread screw  
 Assembly instructions on request



**Wire rope cutter**

| Part number | up to $\varnothing$ rope | Length |
|-------------|--------------------------|--------|
| 740-0500    | 5                        | 190    |
| 740-0800    | 8                        | 500    |



### Thread lock fluid

Part number 879-0001

Thread fixing material: lacquer-type coating of two micro encapsulated components of a modified acrylate system. The characteristic as locking and sealing elements are active when the coated threaded part is screwed in and tensioned. In this process, the microcapsules are destroyed, their contents are mixed together and harden completely within an extremely short time. The connection is completely sealed and vibration-proof. This ensures that the tension is maintained and the fastener cannot become loose of its own accord. The locking of the thread is an integral part of the fastener.



### Special adhesive for metal

Part number 879-0003

Special adhesive for metal: For fixing of high-strength cylindrical parts e.g. movable cable sleeves

Temperature range -50°C to +150°C  
final fixing after 12 hours.



### Injection mortar VM

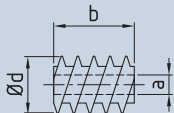
| Part number | contents |
|-------------|----------|
| 803-150     | 150 ml   |
| 803-345     | 345 ml   |

Injection mortar: on vinyl ester base | styrene free  
Assembly instructions on request



### Insertion tool for wall anchor Z-IG A4

| Part number | for thread |
|-------------|------------|
| 803-0600-09 | M6         |
| 803-0800-09 | M8         |
| 803-1000-09 | M10        |
| 803-1200-09 | M12        |



### Rampa screw for wood

| Part number | a   | b  | Ø d  | ø x  |
|-------------|-----|----|------|------|
| 803-0400-04 | M4  | 12 | 8    | 6,9  |
| 803-0500-04 | M5  | 14 | 10   | 8,9  |
| 803-0600-04 | M6  | 15 | 12   | 10,4 |
| 803-0601-04 | M6  | 25 | 12   | 10,4 |
| 803-0800-04 | M8  | 18 | 16   | 14,5 |
| 803-0801-04 | M8  | 30 | 16   | 14,5 |
| 803-1000-04 | M10 | 25 | 18,5 | 16,7 |
| 803-1001-04 | M10 | 40 | 18,5 | 16,7 |

Blue galvanised steel | Type SK hexagon socket (~DIN 7965)  
ø x = Pilot hole in wood



### Perforated sleeve VM-SH for hollow stones

| Part number | for thread |
|-------------|------------|
| 803-68      | M6-M8      |
| 803-812     | M8-M12     |

Plastic  
Assembly instructions on request

## Greenery

### Greenery

Green façades are an expression of responsible contact with nature; they enrich our daily living environment. With light and transparent cable and net solutions, greenery can be taken to the city.

In the field of façade renovation as well as construction of new buildings, greenery is perfectly suitable for creating green spaces, concealing areas, or for designing a natural green ambiance.

Greeneries using the I-SYS, X-TEND and GREENCABLE product lines from Carl Stahl are clearly designed, easy to plan, simple to install, and harmonised to different kinds of façades and plants. Their exclusive design decorates the architecture even without plants, and later, together with the green building cover, the entire system will last for decades.

A coordinated construction kit of individual parts sets the basis to allow free play in creative ideas with stainless steel cables and stainless steel cable mesh.

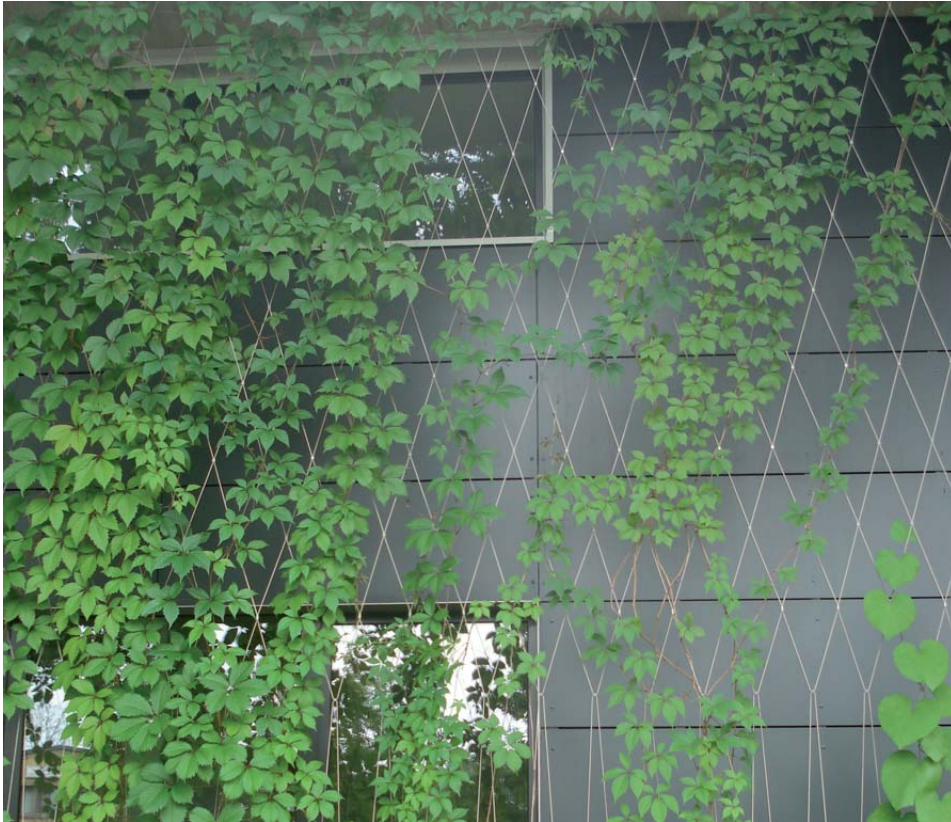
The systems are characterised by a long lifetime and low maintenance.



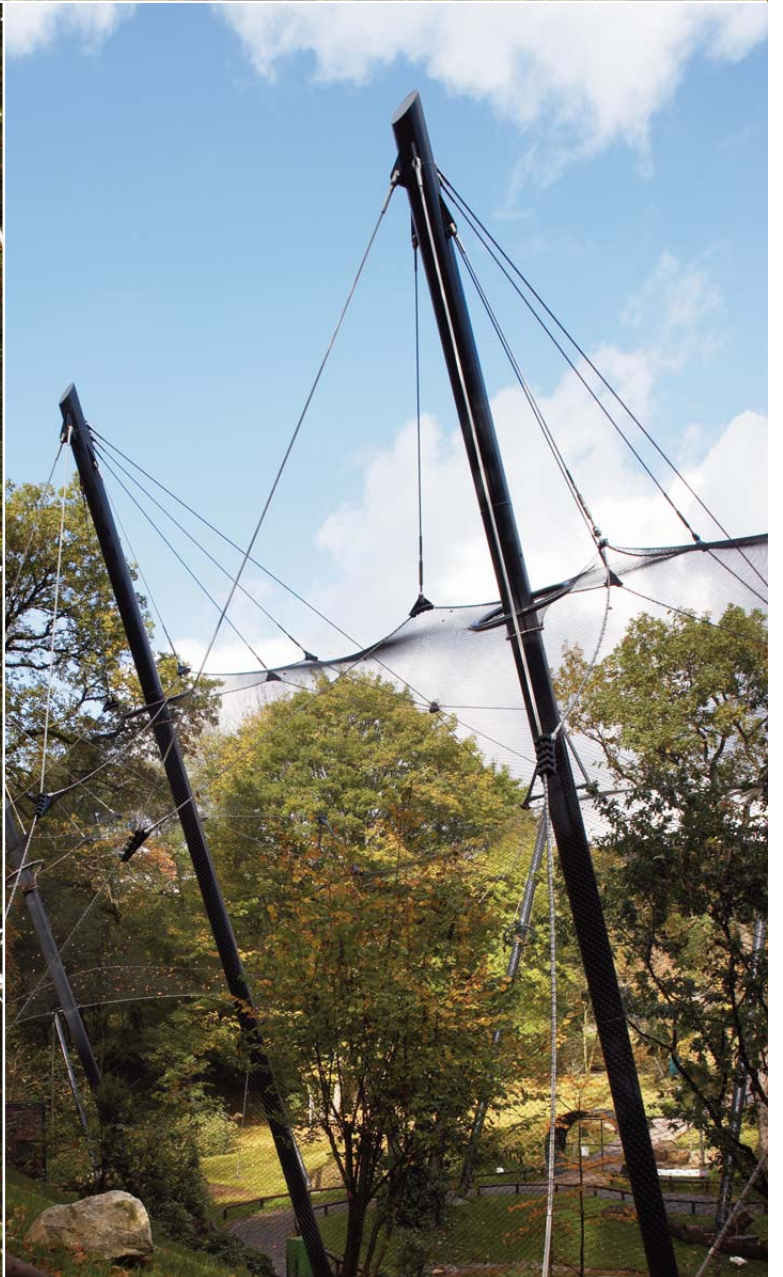
Catalogue request:  
[www.carlstahl-architektur.de](http://www.carlstahl-architektur.de)













## Carl Stahl Architecture: Assured safety

The German Institute for Building Technology in Berlin granted general planning approval for different types of I-SYS end connections and X-TEND mesh with different types and diameters of stainless steel cables.

This approval corresponds to a quality seal, bearing witness to the quality of I-SYS and X-TEND and facilitating implementation of the products.

All the latest information is available in the brochure: Carl Stahl General Planning Approval.



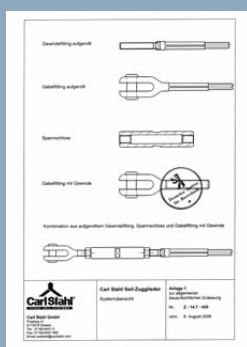
Stainless steel external threads, forks and turnbuckles for rope diameter 6-26 mm

European Organisation for Technical Approvals No.: ETA-10/0358



Stainless steel mesh in different types and diameters of stainless steel cables

General Planning Approval No.: Z-14.7-506  
(in German only)



Download of CAD drawings of rope connections [www.carlstahl-architektur.de](http://www.carlstahl-architektur.de)

# I-SYS: Technology

## **Material**

I-SYS cables and end connections are manufactured of stainless steel. This material is corrosion-resistant to marine standards. We will be pleased to supply you with more details on the material characteristics on request.

## **Forces**

Cables sag because of the weight of the cable itself and additional external forces such as wind or the weight of snow. This affects fixing at end connections. Cable forces can be very high, depending on how much the sag is reduced, and they must be transferred into the fixing profile. In case of very high forces, it is also useful to distribute the cable forces which affect the starting and final fixing points among intermediate fixings.

## **Selection**

Pretensioning forces plus external forces result in the effective cable force. A safety factor to be added at the planner's discretion. The result of these calculations leads to selection of a cable or wire with corresponding minimum breaking load.

## **Securing**

End connections have to be secured against the possibility that they may loosen by themselves. This is achieved by means of countered hexagonal or locking nuts or liquid thread locking materials.

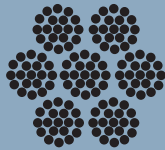
## **Certification**

Carl Stahl is certified to DIN ISO 9001:2008, DIN EN ISO 14001:2004.



### Strand 1 x 19 | 1 x 37 | 1 x 61

|                 |  |
|-----------------|--|
| Characteristics | Rigid, low stretch characteristics, high minimum breaking load   |
| Use             | Structural applications, for example wind stiffening structures, general stiffening structures, suspension of canopies |



### Rope 7 x 7 und 7 x 19

|                 |   |
|-----------------|---|
| Characteristics | Medium flexibility, can be angled and directionally reversed, for universal use                   |
| Use             | Use for architectural feature, for example stairway and walkway fillings, greenery, shelf hanging |

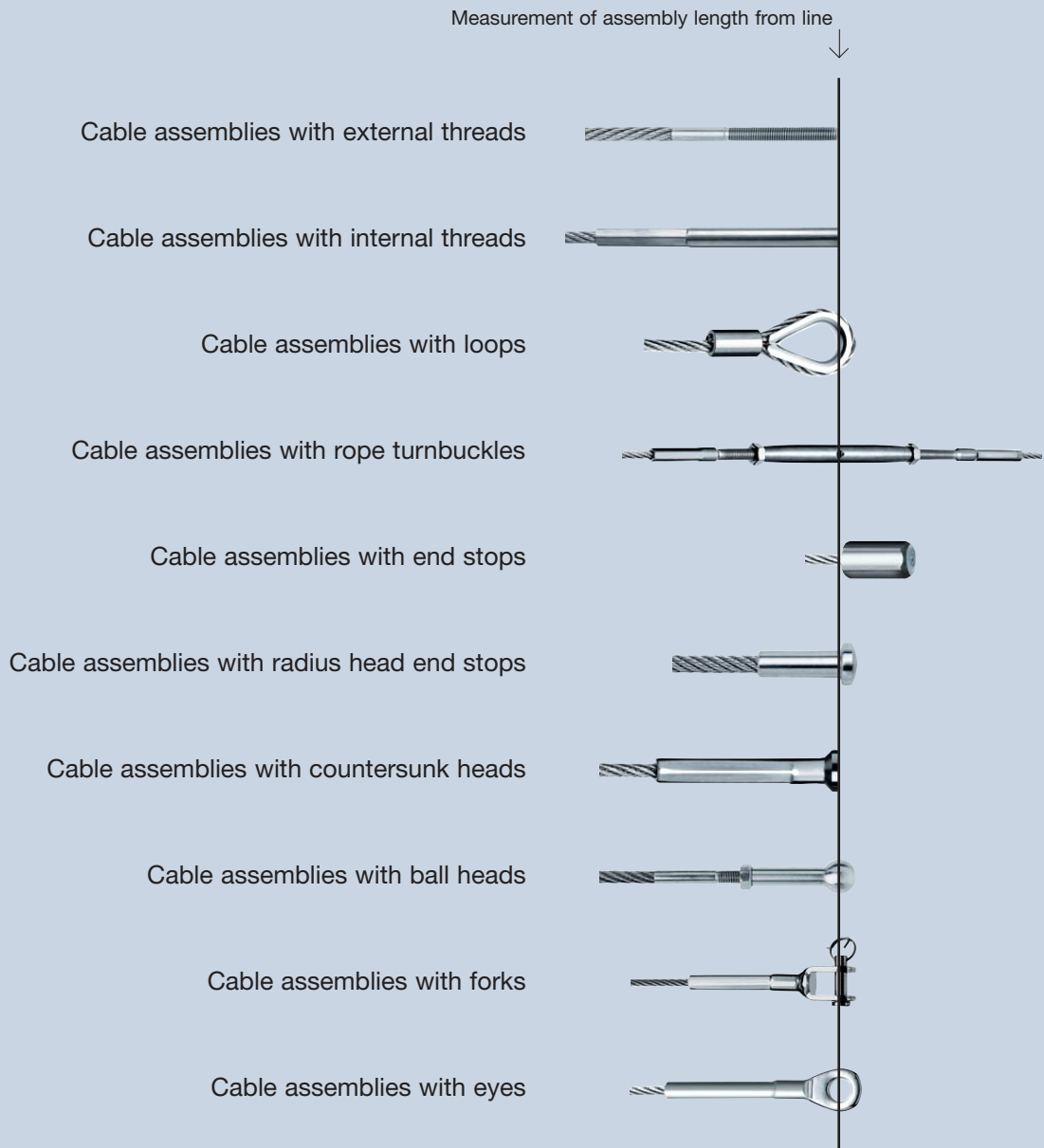
### E-Module: The elasticity module states the average values

wire rope  $1.0 \times 10^5 \text{ N} / \text{mm}^2$

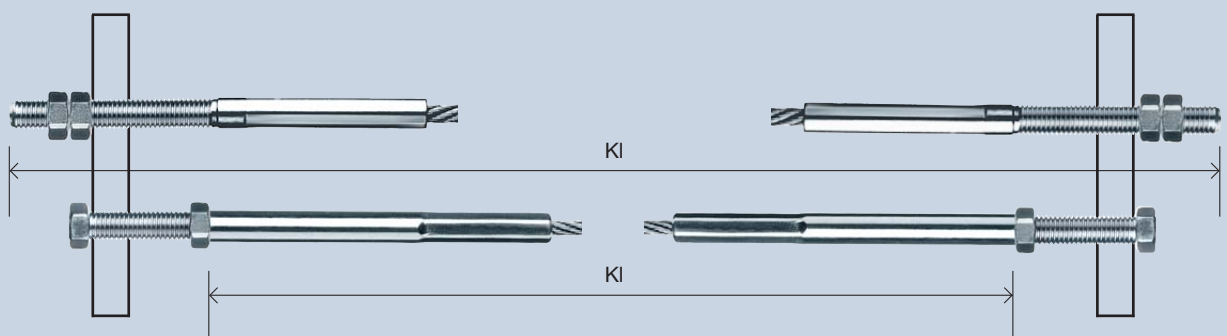
strands  $1.3 \times 10^5 \text{ N} / \text{mm}^2$



# I-SYS: Dimensions




## Examples



# I-SYS: Key

All information regarding diameters, adjustments etc. are given in millimeters.

|   |              |   |
|---|--------------|---|
| <b>c</b>  |              | <b>kN</b>   |
| Measurement of screw-in depth for internal threads in millimeters   |              | Kilo Newton<br>unit of measurement for minimum breaking loads in cables and end connections   |
| <b>Fax</b>  | <b>Se</b>    | <b>MQ</b>   |
| Maximum axial force in kN   | End of cable | Metal cross-section of cables and wires in mm <sup>2</sup> .<br>The metal cross-section is the sum of the nominal diameters of all the individual wires |
| <b>Adjustment</b>   |              |    |
| Starting point for adjustment:<br>+ means lengthening by untensioning<br>- means shortening by tensioning |              | Self-assembly:<br>Individual components and cables for on-site-mounting<br>For self-assembly the cables need to be degreased first                      |
| <b>Sk</b>   |              | <b>KI</b>   |
| Rope constructions<br>The cable assemblies are generally made from wire ropes, not strands                |              | Assembly lengths<br>Position for measuring  |

Further information, general terms and conditions of business, tenders: [www.carlstahl-architektur.de](http://www.carlstahl-architektur.de).

# Carl Stahl: System solutions



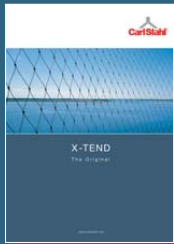
# Carl Stahl: custom-made products



## Specials

The know-how of the experts from Carl Stahl allows development of special parts, manufacturing or turned and stainless steel cast parts according to drawings, as well as supply of individual standard parts. Our portfolio for special requirements extends from initial idea to delivery of the finished product.

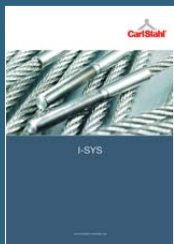
## Carl Stahl architectural product program



**X-TEND,**  
The flexible stainless steel net.  
Nets consisting of stainless steel cables  
Ø 1 - 4 mm and mesh width  
of 25 - 400 mm.



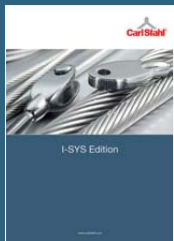
**General planning approval for  
cable mesh constructions**  
(available in German only)



**I-SYS,**  
the stainless steel cable system.  
Cables of Ø 1 - 26 mm  
and about 1200 fitting parts.



**General planning approval for  
cable bars**



**I-SYS Edition,**  
a choice of the most established  
I-SYS components.



**POSILOCK,**  
the delicate cable system for interior  
work, booth and store construction.  
Cables of Ø 1 - 3 mm and  
individually combinable fitting parts.



**Green Wall Systems,**  
Wall holder, cables and nets for  
delicate and abiding green areas.



**X-LED,**  
the cable net combined  
with a LED-light module system.



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