



# BSI Rod Rigging System Marine Hardware Catalogue

S/Y Mondango  
Photo Courtesy of  
Chris Lewis

- Traceability of manufacturing and sourced base materials. Lowest grade used is AISI 316/EN 1.4401; Highest Grade is Inconel
- In house engineering and product development, FEA supported analysis by experienced sailors
- Forks, toggles and eyes are designed for maximum support of pins. Fatigue from dynamic loads is #1 enemy in rigging
- All components are manufactured in house in our Danish manufacturing facility. We have a modern machine park of 28 CNC machines and 90 dedicated people at Your disposal
- All components are electropolished for removal of waste particles from tooling/processing ensuring a long life and minimum corrosion
- BSI offers a complete or complementary deliveries from own swaging capability from 12 to 26 mm wire; both sizes included
- BSI offers a coldheading capacity from 40" to 1100" and the world's biggest coldheading press with a pressure of 1500T.
- BSI is supplying rigging components to all leading mast manufacturers & riggers
- Worldwide distribution; see the list at [www.bsdk.com/dealers](http://www.bsdk.com/dealers)



## Leading Player

With the progressively fast changes in our world and markets, customer service is becoming increasingly important for continued success. Whilst navigating the financial challenges the latest recession brought to our industry, BSI has been able to adapt our business model to successfully establish BSI as a market leader. BSI is the yacht rigging specialist that puts a premium on innovation, engineering using state of the art FEA, supreme quality and on time delivery.

## Our Product Range

BSI offers a complete program of rigging products for wire rigging, kevlar rigging, rod rigging as well as hardware to different suppliers of carbon rigging. Our continuous improvement program have led to products such as the patented BSI Twintang which simplifies installation and inspections of standing rigging. The SL5 high gloss polished Super Duplex turnbuckle blends beautifully with the minimalistic aesthetics of modern yachts. Toggle designs that streamlines the installation of large headstay furling systems is a direct result of input from our network of highly experienced riggers.

## Modern CNC Technology

BSI's philosophy to manage the complete process from product development to engineering, production and quality control in-house give us a unique position in the rigging industry. Our industry is becoming increasingly dependent upon flexibility and reliability BSI is uniquely positioned to meet these challenges. We work closely with our clients to continually adapt and update existing products as well as to develop new ones.

## Superyacht – custom, refit and service

Over the past few years BSI has seen continued growth in the custom and superyacht market, both for new builds and with service of the existing fleet. Our philosophy with in-house control of the whole process including reliable inventory levels for raw and rod materials have proved a success. For after sales service and maintenance we have developed a service program for yachts up to 300 feet. This is backed by a global network of service centers, riggers and agents to ensure that our clients get professional, reliable and fast support wherever in the world they might be. The refit market keeps growing and for every yacht we have supplied our database and experience keeps improving. The service program is based upon certain general recommendations but is also customized for each individual yacht taking into account its use, geographical location etc.

**GORI** PROPELLER

**moonlight**<sup>®</sup>

**easy**<sup>®</sup>



Brands manufactured by



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In addition to the listed items, BSI has more configurations and options available. Contact BSI for details.  
All technical specifications, design details, availability are provided “as is” and are subject to change without prior notice.

## BSI Recommended Standing Rigging Maintenance and Service Guidelines

BSI has developed a Rigging Service Program that protects the structural integrity of a yacht's rigging, enhances performance, longevity and safety of the yacht's guests and crew while maximizing the investment with limited service down-time. Yachts participating in the Rigging Service Program will have their maintenance records continually updated with the assurance this information is safely secured at BSI Headquarters in Denmark. (BSI Service Log)

BSI professionals, with years of rigging experience, know that all vessels are not built or treated equally.

Furthermore, our vast database of rigging equipment delivered and serviced give us a continually improving understanding of wear & tear over a yacht's life from the club racer to the largest blue water cruising yachts. BSI therefore offers flexibility in the program to coincide with the yacht's schedule refit plans. Preservice inspections are recommended as this allows both BSI and the yacht to plan in advance.

The life expectancy of a set of rigging, whether rod, fiber or wire, can be affected by many factors:

- Age of rigging
- Miles sailed
- Sailing conditions
- Designed safety factors
- Proper tune
- Adherence to maintenance schedules
- Traumatic events such as groundings, knock-downs and flying jibes
- Environmental conditions

BSI work with professionals, individual owners, captains and management companies to establish a customized service schedule tailored to the yacht's specific needs. Service recommendations are based on rigging manufacturer's specifications, the vessel's history of sailing and maintenance, future sailing plans, and the yacht's projected down time and budget. Therefore BSI have developed a series of Categories to help identify which classification the yacht falls into. These categories will tend to experience different mileage and sailing conditions.

Category 1 – Ocean Going with Professional Crew

- Yachts typically are of heavier displacement and do higher mileage and designed with good Safe Working Loads.

Category 2 – Offshore with Amateur Crew or Short handed

- Yachts typically are performance style Cruisers intended for Offshore and Blue Water use.

Category 3 – Coastal Cruising / Club Racing with Amateur Crew or Short handed

- Yachts typically are of lighter displacement and intended for Inshore and Coastal use

Category 4 – Racing with Professional Crew

- Yachts typically are of lightweight construction and intended for Performance use, with higher Safe Working Loads

### Service Recommendations for Category 1 + 2

- New Yacht – Six Month Inspection
- Annual Service
- BSI Rigging Service # 1
- BSI Rigging Service # 2
- BSI Rigging Service # 3
- BSI Rigging Service # 4

### Service Recommendations for Category 3 + 4

Contact BSI for service recommendations.

## BSI Rigging Service Program

### Initial Stepping of Rig(s)

Riggers, Spar manufacturers and boatyards use various procedures but BSI recommend that a complete specification is issued for the vessel at time of installation. Mast Jack loads, Stay Tensions, Turnbuckle settings etc. should be recorded and Mast(s) tuned to manufacturers' specifications. This information establishes the important baseline that should be kept on file, and updated every time work is done to the Rig System, in the yachts BSI Service Log.

### New Yacht – Six Month Inspection

Optional visual inspection of all Rigging and interfaces. This inspection is typically carried out four to six months after delivery. In cases where the yacht receives a comprehensive Sea Trial and Inspection prior to hand over, this inspection can be deferred to an Annual Service.

- Comprehensive Rigging System Inspection
- Adjust Mast Tune if Required
- Update BSI Service Log

### Routine Inspection by Crew

- Recommended Rigging System Inspection several times a year and before and after a long or heavy passage
- Contact BSI for advise if any concerns arise

### Annual Service

Recommended every Twelve to Fourteen months. The Rigging is slackened to enable Inspection and Servicing. The mast(s) will remain in the vessel throughout the process, which includes:

- Comprehensive Visual Inspection of the Sail & Rigging System
- Complete inspection of all accessible rod heads
- Re-lubrication of all accessible Rod Heads and Fittings
- Re-tuning the rig, as necessary
- Updating BSI Service Log

### BSI Rigging Service # 1 – Pre Inspection

To promote safety and maintain the structural integrity and reliability of the yacht's rigging. A refit is recommended before the end of Year Five of sailing. A preservice inspection is recommended, to record all rigging lengths, turnbuckle settings, plus any adjustments or modifications. This allows for a full technical review and a Bill of Materials to be generated in advance reducing the down time and cost to the vessel.

If the rigging was not manufactured by BSI a preservice inspection is required to enable a comprehensive technical review to be completed. All fittings and pin sizes, lengths, angles are recorded with the rig under load. A refit estimate and recommendations can be generated and service schedules reviewed to minimize the downtime of the vessel.

### BSI Rigging Service # 1

Refit services include:

- Un-stepping the rig and removing all rigging components
- Cleaning and inspecting all fittings, rigging and rod heads
- Non-destructive testing—(NDT) with dye penetrant, where determined necessary
- Re-heading and re-seating all Diagonals, Forward and Aft Rods, if deemed necessary
- Re-furbishing and polishing of all fittings in accordance with manufacturers guidelines
- Reviewing history of non-metallic rigging, bench testing or replacement according to manufacturer's recommendations. Generally Kevlar Stays are replaced at this time
- Full lubrication and dressing
- Re-stepping
- Dock tuning and sea trial
- Updating the BSI Service Log

## BSI Rigging Service # 2

To promote safety and maintain the structural integrity and reliability of the yacht's rigging. A refit is recommended before the end of Year Nine of sailing. A preservice inspection is recommended, to record all rigging lengths, turnbuckle settings, plus any adjustments or modifications. This allows for a full technical review and a Bill of Materials to be generated in advance reducing the down time and cost to the vessel. If the rigging was not manufactured by BSI a preservice inspection is required to enable a comprehensive technical review to be completed. All fittings and pin sizes, lengths, angles are recorded with the rig under load. A refit estimate and recommendations can be generated and service schedules reviewed to minimize the downtime of the vessel.

## BSI Rigging Service # 2

Refit services include:

- Un-stepping the rig and removing all rigging components
- Cleaning and inspecting all fittings, rigging and rod
- Non-destructive testing—(NDT) with dye penetrant, where determined necessary
- Re-heading or replacement of all vertical rods
- Re-heading and re-seating all Diagonals, Forward and Aft Rods
- Re-furbishing and polishing of all fittings of all fittings in accordance with manufacturers guidelines
- Reviewing history of non-metallic rigging, bench testing or replacement according to manufacturer's recommendations. Generally Kevlar Stays are replaced at this time
- Full lubrication and dressing
- Re-stepping
- Dock tuning and sea trial
- Updating the BSI Service Log

## BSI Rigging Service # 3

To promote safety and maintain the structural integrity and reliability of the yacht's rigging. A refit is recommended before the end of Year Twelve of sailing. A preservice inspection is recommended, to record all rigging lengths, turnbuckle settings, plus any adjustments or modifications. This allows for a full technical review and a Bill of Materials to be generated in advance reducing the down time and cost to the vessel.

If the rigging was not manufactured by BSI a preservice inspection is required to enable a comprehensive technical review to be completed. All fittings and pin sizes, lengths, angles are recorded with the rig under load. A refit estimate and recommendations can be generated and service schedules reviewed to minimize the downtime of the vessel.

## BSI Rigging Service # 3

Refit services include:

- Un-stepping the rig and removing all rigging components
- Cleaning and inspecting all fittings, rigging and rod
- Non-destructive testing—(NDT) with dye penetrant, where determined necessary
- Replacement of any rod(s) from original manufacture
- Re-heading and re-seating all Diagonals, Forward and Aft Rods
- Re-furbishing and polishing of all fittings of all fittings in accordance with manufacturers guidelines
- Reviewing history of non-metallic rigging, bench testing or replacement according to manufacturer's recommendations. Generally Kevlar Stays are replaced at this time
- Full lubrication and dressing
- Re-stepping
- Dock tuning and sea trial
- Updating the BSI Service Log

## BSI Rigging Service # 4

To promote safety and maintain the structural integrity and reliability of the yacht's rigging. A full review is recommended before the end of Year Sixteen of sailing. The complete service history can be reviewed along with future sailing plans and a BSI recommendation made.

The service recommendations are updated on BSI website. Contact BSI for a quote and recommendations for your refit with BSI.



X 35, X-Yachts  
Photo Courtesy of X-Yachts

# Bronze Inserted Turnbuckle w/ Ball Socket (197-)



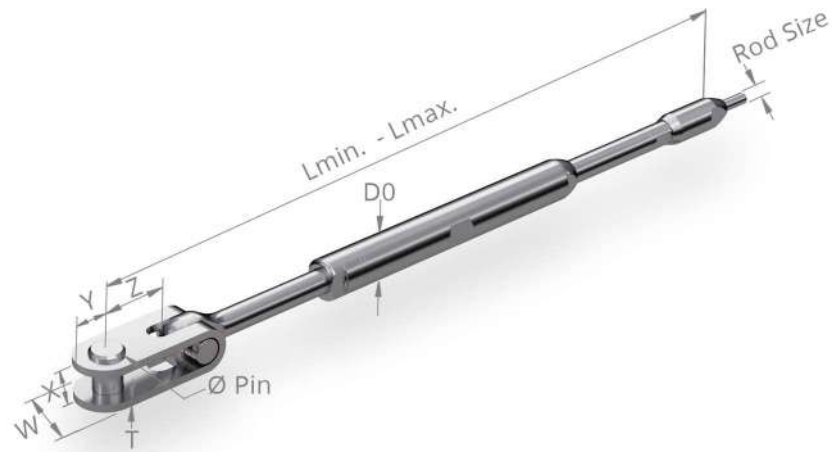
| Article No | Rod Size |      | D0 mm | D1 mm | R mm | D2 mm | Lmin. – Lmax. mm | Break Load Kg | Weight Kg |
|------------|----------|------|-------|-------|------|-------|------------------|---------------|-----------|
|            | Dash     | mm   |       |       |      |       |                  |               |           |
| 19704008   | -3       | 4.0  | 13,8  | 17.8  | 9.8  | 10.0  | 190 - 250        | 2100          | 0.19      |
| 19704409   | -4       | 4.4  | 15,6  | 17.5  | 8.8  | 9.8   | 223 - 289        | 2780          | 0.23      |
| 19704510   | -4       | 4.4  | 15,6  | 17.8  | 9.8  | 10.1  | 220 - 286        | 2750          | 0.23      |
| 19705010   | -6       | 5.0  | 15,6  | 17.8  | 9.8  | 10.1  | 220 - 290        | 3540          | 0.24      |
| 19705011   | -6       | 5.0  | 17,5  | 21.5  | 10.8 | 12.2  | 253 - 343        | 3675          | 0.37      |
| 19705711   | -8       | 5.7  | 17,5  | 21.5  | 10.8 | 12.2  | 253 - 343        | 4250          | 0.35      |
| 19706011   | -9       | 6.0  | 17,5  | 21.5  | 10.8 | 12.2  | 253 - 343        | 4250          | 0.35      |
| 19706012   | -9       | 6.0  | 20    | 21.5  | 10.8 | 13.2  | 263 - 362        | 4850          | 0.59      |
| 19706412   | -10      | 6.4  | 20    | 21.5  | 10.8 | 13.2  | 263 - 362        | 5850          | 0.59      |
| 19707112   | -12      | 7.1  | 20    | 21.5  | 10.8 | 13.2  | 263 - 362        | 7250          | 0.59      |
| 19707116   | -12      | 7.1  | 24,8  | 27.5  | 10.5 | 17.8  | 329 - 455        | 7250          | 1.26      |
| 19707516   | -15      | 7.5  | 24,8  | 27.5  | 10.5 | 17.8  | 329 - 455        | 7750          | 1.26      |
| 19708016   | -16      | 8.0  | 24,8  | 27.5  | 10.5 | 17.8  | 329 - 455        | 8550          | 1.26      |
| 19708416   | -17      | 8.4  | 24,8  | 27.5  | 13.8 | 17.8  | 329 - 455        | 10150         | 1.26      |
| 19708420   | -17      | 8.4  | 32,7  | 27.5  | 14.0 | 19.3  | 396 - 547        | 10150         | 1.94      |
| 19709520   | -22      | 9.5  | 32,7  | 27.5  | 14.0 | 19.3  | 396 - 547        | 12950         | 1.94      |
| 19711117   | -30      | 11.1 | 36    | 33.6  | 16.8 | 22.2  | 345 - 672        | 18500         | 3.00      |
| 19712725   | -40      | 12.7 | 43    | 43.2  | 21.8 | 26.6  | 493 - 675        | 23000         | 4.50      |
| 19714320   | -48      | 14.3 | 46    | 39.6  | 19.8 | 21.7  | 607 - 889        | 25625         | 6.05      |

# Bronze Inserted Turnbuckle w/ Eye Socket (198-)



| Article No | Rod Size |      | Ø Pin  |      | W mm | X mm | Y mm | Z mm | Lmin. – Lmax. mm | Break Load Kg | Weight Kg |
|------------|----------|------|--------|------|------|------|------|------|------------------|---------------|-----------|
|            | Dash     | mm   | inch   | mm   |      |      |      |      |                  |               |           |
| 19804008   | -3       | 4.0  | 5/16"  | 7.9  | 16.0 | 7.0  | 9.0  | 13.0 | 179 - 239        | 2100          | 0.173     |
| 19804510   | -4       | 4.4  | 3/8"   | 9.5  | 18.5 | 8.5  | 10.0 | 16.0 | 201 - 294        | 2900          | 0.23      |
| 19805011   | -6       | 5.0  | 7/16"  | 11.1 | 22.0 | 9.0  | 12.5 | 17.5 | 234 - 324        | 3600          | 0.348     |
| 19805711   | -8       | 5.7  | 7/16"  | 11.1 | 22.0 | 9.0  | 12.5 | 17.5 | 234 - 324        | 4650          | 0.347     |
| 19806011   | -9       | 6.0  | 7/16"  | 11.1 | 22.0 | 9.0  | 12.5 | 17.5 | 234 - 324        | 4650          | 0.346     |
| 19806012   | -9       | 6.0  | 1/2"   | 12.7 | 24.0 | 10.0 | 13.5 | 18.5 | 255 - 354        | 4850          | 0.628     |
| 19806412   | -10      | 6.4  | 1/2"   | 12.7 | 24.0 | 10.0 | 13.5 | 18.5 | 255 - 354        | 5850          | 0.627     |
| 19807116   | -12      | 7.1  | 5/8"   | 15.9 | 30.0 | 13.0 | 17.0 | 24.0 | 325 - 450        | 7250          | 1.277     |
| 19807516   | -15      | 7.5  | 5/8"   | 15.9 | 30.0 | 13.0 | 17.0 | 24.0 | 325 - 450        | 7750          | 1.278     |
| 19808016   | -16      | 8.0  | 5/8"   | 15.9 | 30.0 | 13.0 | 17.0 | 24.0 | 325 - 450        | 8550          | 1.276     |
| 19808416   | -17      | 8.4  | 5/8"   | 15.9 | 30.0 | 13.0 | 17.0 | 24.0 | 325 - 450        | 9000          | 1.275     |
| 19808420   | -17      | 8.4  | 3/4"   | 19.2 | 38.0 | 17.2 | 21.0 | 28.5 | 381 - 533        | 10150         | 2.018     |
| 19809520   | -22      | 9.5  | 3/4"   | 19.2 | 38.0 | 17.2 | 21.0 | 28.5 | 381 - 533        | 12950         | 2.014     |
| 19801122   | -30      | 11.1 | 7/8"   | 22.2 | 43.0 | 19.0 | 27.0 | 32.5 | 480 - 644        | 17700         | 2.577     |
| 19801225   | -40      | 12.7 | 1"     | 25.4 | 48.5 | 21.0 | 30.0 | 37.0 | 480 - 676        | 21400         | 3.793     |
| 19801428   | -48      | 14.3 | 1 1/8" | 28.6 | 55.0 | 25.0 | 30.0 | 43.0 | 515 - 723        | 28450         | 6.050     |
| 19801432   | -48      | 14.3 | 1 1/4" | 31.8 | 62.0 | 28.0 | 32.0 | 48.0 | 520 - 728        | 28450         | 6.240     |
| 19801632   | -60      | 16.8 | 1 1/4" | 31.8 | 62.0 | 29.0 | 33.0 | 47.5 | 530 - 754        | 34490         | 7.944     |

# Bronze Inserted Turnbuckle w/ Toggle & Socket (199-)



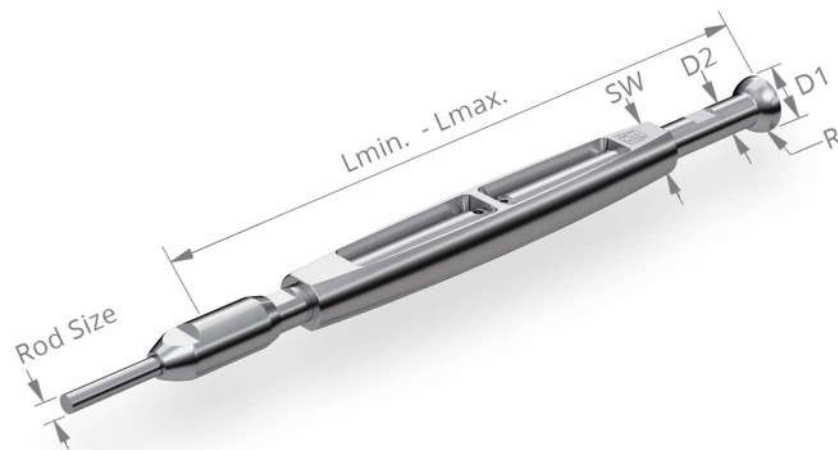
| Article No | Clevis Pin Options | Rod Size |     | Ø Pin |      | W mm | X mm       | Y mm | Z mm | D0 mm | Lmin. - Lmax. mm | Break Load Kg | Weight Kg |
|------------|--------------------|----------|-----|-------|------|------|------------|------|------|-------|------------------|---------------|-----------|
|            |                    | Dash     | mm  | inch  | mm   |      |            |      |      |       |                  |               |           |
| 19904008   | S/G                | -3       | 4.0 | 5/16" | 7.9  | 20.0 | 10.0 ± 0.5 | 11.0 | 28.0 | 13.8  | 215 - 275        | 2100          | 0.28      |
| 19904408   | S/G                | -4       | 4.4 | 5/16" | 7.9  | 20.0 | 10.0 ± 0.5 | 12.0 | 26.0 | 15.6  | 235 - 307        | 2750          | 0.31      |
| 19904510   | S/G                | -4       | 4.4 | 3/8"  | 9.5  | 25.0 | 11.0 ± 0.5 | 15.0 | 29.5 | 15.6  | 253 - 333        | 2750          | 0.38      |
| 19905010   | S/G                | -6       | 5.0 | 3/8"  | 9.5  | 25.0 | 11.0 ± 0.5 | 15.0 | 29.5 | 15.6  | 260 - 333        | 3600          | 0.46      |
| 19905011   | K/S/G              | -6       | 5.0 | 7/16" | 11.1 | 25.0 | 13.0 ± 0.5 | 15.0 | 31.5 | 17.5  | 277 - 368        | 3600          | 0.66      |
| 19905711   | K/S/G              | -8       | 5.7 | 7/16" | 11.1 | 25.0 | 13.0 ± 0.5 | 15.0 | 31.5 | 17.5  | 277 - 368        | 4650          | 0.54      |
| 19905712   | K/S/G              | -8       | 5.7 | 1/2"  | 12.7 | 30.0 | 14.0 ± 0.5 | 17.5 | 35.5 | 20.0  | 308 - 400        | 4650          | 0.76      |
| 19906011   | K/S/G              | -9       | 6.0 | 7/16" | 11.1 | 25.0 | 13.0 ± 0.5 | 15.0 | 32.0 | 17.5  | 277 - 368        | 4850          | 0.54      |
| 19906012   | K/S/G              | -9       | 6.0 | 1/2"  | 12.7 | 30.0 | 14.0 ± 0.5 | 17.5 | 35.5 | 20.0  | 304 - 393        | 4850          | 0.76      |
| 19906412   | K/S/G              | -10      | 6.4 | 1/2"  | 12.7 | 30.0 | 14.0 ± 0.5 | 17.5 | 35.5 | 20.0  | 304 - 393        | 5850          | 0.91      |
| 19907112   | K/S/G              | -12      | 7.1 | 1/2"  | 12.7 | 30.0 | 14.0 ± 0.5 | 17.5 | 35.5 | 24.8  | 369 - 495        | 5900          | 1.27      |
| 19907116   | K/S                | -12      | 7.0 | 5/8"  | 15.9 | 40.0 | 17.5 ± 0.5 | 23.0 | 35.0 | 24.8  | 375 - 502        | 7250          | 1.44      |
| 19907516   | K/S                | -15      | 7.5 | 5/8"  | 15.9 | 40.0 | 17.5 ± 0.5 | 23.0 | 35.0 | 24.8  | 375 - 502        | 7750          | 1.47      |

# Bronze Inserted Turnbuckle w/ Toggle & Socket (199-) continued



| Article No                                                                 | Clevis Pin Options | Rod Size |      | Ø Pin  |      | W mm | X mm       | Y mm | Z mm | D0 mm | Lmin. – Lmax. mm | Break Load Kg | Weight Kg |
|----------------------------------------------------------------------------|--------------------|----------|------|--------|------|------|------------|------|------|-------|------------------|---------------|-----------|
|                                                                            |                    | Dash     | mm   | inch   | mm   |      |            |      |      |       |                  |               |           |
| 19908016                                                                   | K/S                | -16      | 8.0  | 5/8"   | 15.9 | 40.0 | 17.5 ± 0.5 | 23.0 | 35.0 | 24.8  | 375 - 502        | 8550          | 1.46      |
| 19908416                                                                   | K/S                | -17      | 8.4  | 5/8"   | 15.9 | 40.0 | 17.5 ± 0.5 | 23.0 | 35.0 | 24.8  | 378 - 498        | 9130          | 1.45      |
| 19908420                                                                   | K/S                | -17      | 8.4  | 3/4"   | 19.0 | 50.0 | 21.5 ± 0.5 | 26.0 | 36.5 | 32.7  | 453 - 613        | 10150         | 2.76      |
| 19909520                                                                   | K/S                | -22      | 9.5  | 3/4"   | 19.0 | 50.0 | 21.5 ± 0.5 | 26.0 | 36.5 | 32.7  | 453 - 613        | 12950         | 2,79      |
| 19901122                                                                   | K/S                | -30      | 11.1 | 7/8"   | 22.2 | 60.0 | 24.0 ± 0.5 | 32.0 | 66.6 | 36.0  | 557 - 724        | 17700         | 4.13      |
| 19901225                                                                   | K/S                | -40      | 12.7 | 1"     | 25.4 | 60.0 | 28.0 ± 0.5 | 35.0 | 64.0 | 43.0  | 572 - 725        | 21400         | 5.92      |
| 19901428                                                                   | K/S                | -48      | 14.3 | 1 1/8" | 28.6 | 70.0 | 31.5 ± 0.8 | 37.0 | 71.6 | 46.0  | 638 - 820        | 28450         | 9.11      |
| 19901432                                                                   | K/S                | -48      | 14.3 | 1 1/4" | 31.8 | 70.0 | 35.0 ± 0.8 | 40.0 | 70.0 | 52.0  | 628 - 836        | 28450         | 9.52      |
| 19901632                                                                   | K/S                | -60      | 16.8 | 1 1/4" | 31.8 | 80.0 | 35.0 ± 0.8 | 42.0 | 81.6 | 52.0  | 662 - 842        | 36500         | 10.56     |
| 19904008                                                                   | S/G                | -3       | 4.0  | 5/16"  | 7.9  | 20.0 | 10.0 ± 0.5 | 11.0 | 28.0 | 13.8  | 215 - 275        | 2100          | 0.28      |
| Material: Acidproof Stainless Steel with bronze inserted thread.           |                    |          |      |        |      |      |            |      |      |       |                  |               |           |
| S: Clevis Pin w/Split; K: Clevis Pin Treaded w/Nut; G: Clevis Pin w/G-ring |                    |          |      |        |      |      |            |      |      |       |                  |               |           |

# Chrome Bronze Turnbuckle w/ Ball (1795-)



| Article No | Rod Size |      | D0 mm | D1 mm | R mm | D2 mm | Lmin. - Lmax. mm | Break Load Kg | Weight Kg |
|------------|----------|------|-------|-------|------|-------|------------------|---------------|-----------|
|            | Dash     | mm   |       |       |      |       |                  |               |           |
| 19704008   | -3       | 4.0  | 13,8  | 17.8  | 9.8  | 10.0  | 190 - 250        | 2100          | 0.19      |
| 19704409   | -4       | 4.4  | 15,6  | 17.5  | 8.8  | 9.8   | 223 - 289        | 2780          | 0.23      |
| 19704510   | -4       | 4.4  | 15,6  | 17.8  | 9.8  | 10.1  | 220 - 286        | 2750          | 0.23      |
| 19705010   | -6       | 5.0  | 15,6  | 17.8  | 9.8  | 10.1  | 220 - 290        | 3540          | 0.24      |
| 19705011   | -6       | 5.0  | 17,5  | 21.5  | 10.8 | 12.2  | 253 - 343        | 3675          | 0.37      |
| 19705711   | -8       | 5.7  | 17,5  | 21.5  | 10.8 | 12.2  | 253 - 343        | 4250          | 0.35      |
| 19706011   | -9       | 6.0  | 17,5  | 21.5  | 10.8 | 12.2  | 253 - 343        | 4250          | 0.35      |
| 19706012   | -9       | 6.0  | 20    | 21.5  | 10.8 | 13.2  | 263 - 362        | 4850          | 0.59      |
| 19706412   | -10      | 6.4  | 20    | 21.5  | 10.8 | 13.2  | 263 - 362        | 5850          | 0.59      |
| 19707112   | -12      | 7.1  | 20    | 21.5  | 10.8 | 13.2  | 263 - 362        | 7250          | 0.59      |
| 19707116   | -12      | 7.1  | 24,8  | 27.5  | 10.5 | 17.8  | 329 - 455        | 7250          | 1.26      |
| 19707516   | -15      | 7.5  | 24,8  | 27.5  | 10.5 | 17.8  | 329 - 455        | 7750          | 1.26      |
| 19708016   | -16      | 8.0  | 24,8  | 27.5  | 10.5 | 17.8  | 329 - 455        | 8550          | 1.26      |
| 19708416   | -17      | 8.4  | 24,8  | 27.5  | 13.8 | 17.8  | 329 - 455        | 10150         | 1.26      |
| 19708420   | -17      | 8.4  | 32,7  | 27.5  | 14.0 | 19.3  | 396 - 547        | 10150         | 1.94      |
| 19709520   | -22      | 9.5  | 32,7  | 27.5  | 14.0 | 19.3  | 396 - 547        | 12950         | 1.94      |
| 19711117   | -30      | 11.1 | 36    | 33.6  | 16.8 | 22.2  | 345 - 672        | 18500         | 3.00      |
| 19712725   | -40      | 12.7 | 43    | 43.2  | 21.8 | 26.6  | 493 - 675        | 23000         | 4.50      |
| 19714320   | -48      | 14.3 | 46    | 39.6  | 19.8 | 21.7  | 607 - 889        | 25625         | 6.05      |

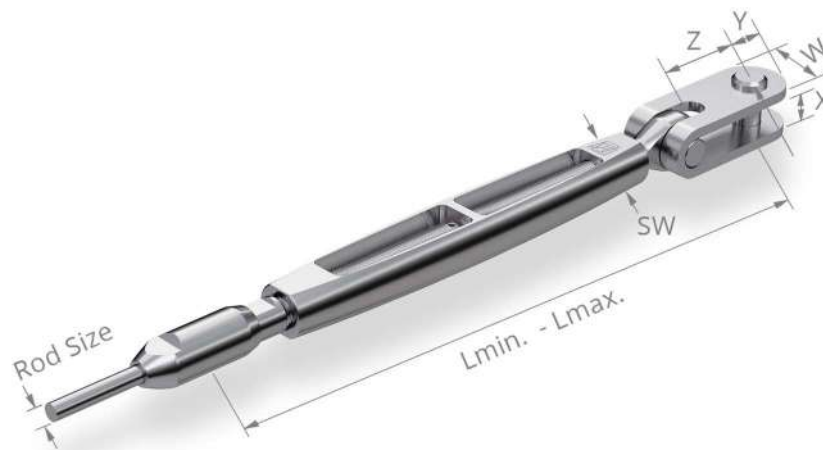
Material: Chrome Bronze and Acidproof Stainless Steel

# Chrome Bronze Turnbuckle w/ Eye (1790-)



| Article No                                            | Rod Size |      | Ø Pin |      | W mm | X mm | Y mm | Z mm | Lmin. - Lmax. mm | Break Load Kg | Weight Kg |
|-------------------------------------------------------|----------|------|-------|------|------|------|------|------|------------------|---------------|-----------|
|                                                       | Dash     | mm   | inch  | mm   |      |      |      |      |                  |               |           |
| 17904008                                              | -3       | 4.0  | 5/16" | 7.9  | 16.0 | 6.0  | 9.0  | 13.0 | 167 - 251        | 2100          | 0.14      |
| 17904510                                              | -4       | 4.4  | 3/8"  | 9.5  | 19.0 | 8.0  | 11.0 | 16.0 | 198 - 293        | 2750          | 0.29      |
| 17905011                                              | -6       | 5.0  | 7/16" | 11.1 | 22.0 | 9.0  | 12.5 | 17.5 | 217 - 324        | 3600          | 0.35      |
| 17905711                                              | -8       | 5.7  | 7/16" | 11.1 | 22.0 | 9.0  | 12.5 | 17.5 | 217 - 324        | 4650          | 0.35      |
| 17906011                                              | -9       | 6.0  | 7/16" | 11.1 | 22.0 | 9.0  | 12.5 | 17.5 | 217 - 324        | 4650          | 0.35      |
| 17906012                                              | -9       | 6.0  | 1/2"  | 12.7 | 24.0 | 10.0 | 13.5 | 18.5 | 235 - 354        | 4850          | 0.63      |
| 17906412                                              | -10      | 6.4  | 1/2"  | 12.7 | 24.0 | 10.0 | 13.5 | 18.5 | 235 - 354        | 5730          | 0.63      |
| 17907116                                              | -12      | 7.1  | 5/8"  | 15.9 | 30.0 | 13.0 | 17.0 | 24.0 | 299 - 450        | 7250          | 1.28      |
| 17907516                                              | -15      | 7.5  | 5/8"  | 15.9 | 30.0 | 13.0 | 17.0 | 24.0 | 299 - 450        | 7750          | 1.28      |
| 17908016                                              | -16      | 8.0  | 5/8"  | 15.9 | 30.0 | 13.0 | 17.0 | 24.0 | 299 - 450        | 8550          | 1.28      |
| 17908416                                              | -17      | 8.4  | 5/8"  | 15.9 | 30.0 | 13.0 | 17.0 | 24.0 | 298 - 440        | 9000          | 1.28      |
| 17908420                                              | -17      | 8.4  | 3/4"  | 19.2 | 38.0 | 17.2 | 21.0 | 28.5 | 351 - 533        | 10150         | 2.02      |
| 17909520                                              | -22      | 9.5  | 3/4"  | 19.2 | 38.0 | 17.2 | 21.0 | 28.5 | 353 - 518        | 12950         | 2.20      |
| 17901122                                              | -30      | 11.1 | 7/8"  | 22.2 | 43.0 | 19.0 | 27.0 | 32.5 | 446 - 644        | 17700         | 2.58      |
| Material: Chrome Bronze and Acidproof Stainless Steel |          |      |       |      |      |      |      |      |                  |               |           |

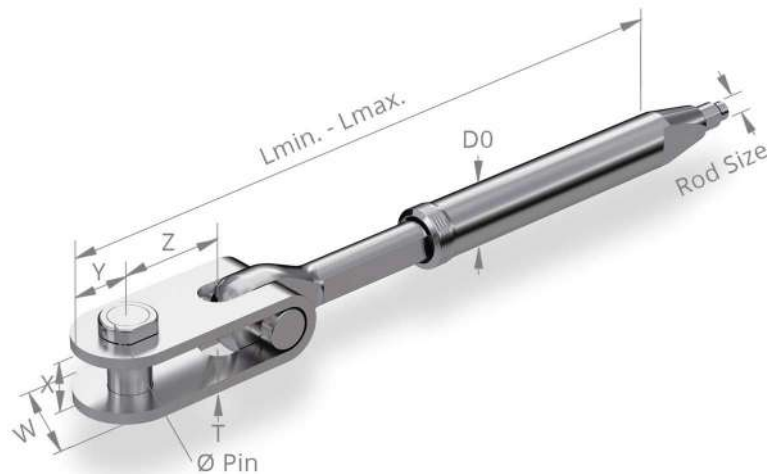
# Chrome Bronze Turnbuckle w/ Toggle (1890-)



| Article No | Rod Size |      | Ø Pin |      | W mm | X mm       | Y mm | Z mm | Lmin. - Lmax. mm | Break Load Kg | Weight Kg |
|------------|----------|------|-------|------|------|------------|------|------|------------------|---------------|-----------|
|            | Dash     | mm   | inch  | mm   |      |            |      |      |                  |               |           |
| 18904008   | -3       | 4.0  | 5/16" | 7.9  | 20.0 | 10.0 ± 0.5 | 12.0 | 26.0 | 200 - 284        | 2100          | 0.21      |
| 18904408   | -4       | 4.4  | 5/16" | 7.9  | 20.0 | 10.0 ± 0.5 | 12.0 | 26.0 | 223 - 307        | 2750          | 0.25      |
| 18904510   | -4       | 4.4  | 3/8"  | 9.5  | 25.0 | 11.0 ± 0.5 | 15.0 | 29.5 | 238 - 333        | 2750          | 0.33      |
| 18905010   | -6       | 5.0  | 3/8"  | 9.5  | 25.0 | 11.0 ± 0.5 | 13.0 | 32.8 | 252 - 333        | 3600          | 0.37      |
| 18905011   | -6       | 5.0  | 7/16" | 11.1 | 25.0 | 13.0 ± 0.5 | 15.0 | 31.5 | 260 - 368        | 3600          | 0.42      |
| 18905711   | -8       | 5.7  | 7/16" | 11.1 | 25.0 | 13.0 ± 0.5 | 13.0 | 35.2 | 268 - 362        | 4650          | 0.53      |
| 18905712   | -8       | 5.7  | 1/2"  | 12.7 | 30.0 | 14.0 ± 0.5 | 17.5 | 35.5 | 285 - 393        | 4650          | 0.71      |
| 18906011   | -9       | 6.0  | 7/16" | 11.1 | 25.0 | 13.0 ± 0.5 | 15.0 | 32.0 | 260 - 368        | 4850          | 0.42      |
| 18906012   | -9       | 6.0  | 1/2"  | 12.7 | 30.0 | 14.0 ± 0.5 | 16.0 | 38.9 | 284 - 393        | 4850          | 0.71      |
| 18906412   | -10      | 6.4  | 1/2"  | 12.7 | 30.0 | 14.0 ± 0.5 | 16.0 | 38.9 | 289 - 394        | 5730          | 0.76      |
| 18907112   | -12      | 7.1  | 1/2"  | 12.7 | 30.0 | 14.0 ± 0.5 | 16.0 | 38.9 | 290 - 399        | 5780          | 0.73      |
| 18907116   | -12      | 7.0  | 5/8"  | 15.9 | 40.0 | 17.5 ± 0.5 | 21.0 | 38.7 | 355 - 499        | 7250          | 1.39      |
| 18907516   | -15      | 7.5  | 5/8"  | 15.9 | 40.0 | 17.5 ± 0.5 | 21.0 | 38.7 | 355 - 499        | 7750          | 1.30      |
| 18908016   | -16      | 8.0  | 5/8"  | 15.9 | 40.0 | 17.5 ± 0.5 | 21.0 | 38.7 | 355 - 499        | 8550          | 1.38      |
| 18908416   | -17      | 8.4  | 5/8"  | 15.9 | 40.0 | 17.5 ± 0.5 | 21.0 | 38.7 | 355 - 499        | 9000          | 1.38      |
| 18908420   | -17      | 8.4  | 3/4"  | 19.0 | 50.0 | 21.5 ± 0.5 | 26.0 | 36.5 | 423 - 604        | 10150         | 2.18      |
| 18909520   | -22      | 9.5  | 3/4"  | 19.0 | 50.0 | 21.5 ± 0.5 | 26.0 | 36.5 | 408 - 589        | 12950         | 2.18      |
| 18909522   | -22      | 9.5  | 7/8"  | 22.2 | 60.0 | 24.0 ± 0.5 | 30.6 | 69.9 | 447 - 615        | 12602         | 2.75      |
| 18901122   | -30      | 11.1 | 7/8"  | 22.2 | 60.0 | 24.0 ± 0.5 | 32.0 | 65.0 | 512 - 708        | 17700         | 3.77      |

Material: Chrome Bronze and Acidproof Stainless Steel

# SL5 Turnbuckle w/ Toggle (RTT5-)



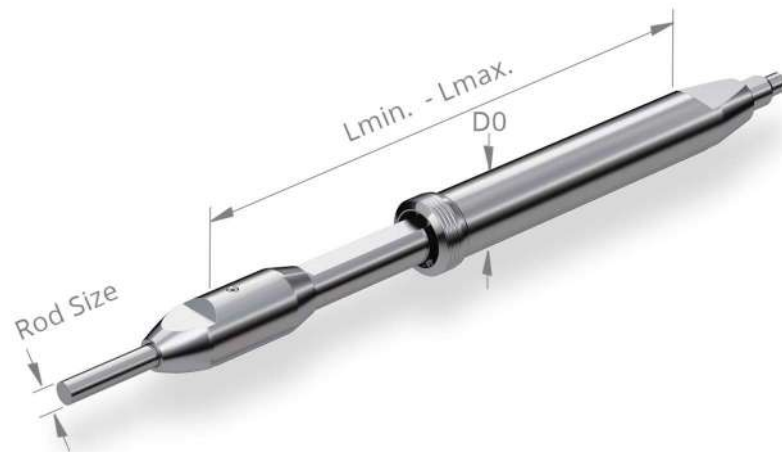
| Article No. | Clevis Pin Options | Rod Size |      | Ø Pin  |      | W mm | X mm     | Y mm | Z mm | D0 mm | T mm | Lmin. - Lmax mm | Break Load Kg | Weight Kg |
|-------------|--------------------|----------|------|--------|------|------|----------|------|------|-------|------|-----------------|---------------|-----------|
|             |                    | Dash     | mm   | inch   | mm   |      |          |      |      |       |      |                 |               |           |
| RTT5004-8   | S/G                | -4       | 4.4  | 5/16"  | 7.9  | 25   | 9.0±0.5  | 13   | 34.8 | 15.4  | 4    | 158-214         | 3140          | 0.28      |
| RTT5004     | S/G                | -4       | 4.4  | 3/8"   | 9.5  | 25   | 11.0±0.5 | 13   | 34.8 | 15.4  | 4    | 158-214         | 3140          | 0.28      |
| RTT5006     | S/G                | -6       | 5.0  | 3/8"   | 9.5  | 25   | 11.0±0.5 | 13   | 33.0 | 17.4  | 4    | 171-229         | 4240          | 0.33      |
| RTT5006-11  | K/S/G              | -6       | 5.0  | 7/16"  | 11.1 | 25   | 13.0±0.5 | 13   | 37.2 | 17.4  | 5    | 167-226         | 3952          | 0.38      |
| RTT5008     | K/S/G              | -8       | 5.7  | 7/16"  | 11.1 | 25   | 13.0±0.5 | 13   | 36.0 | 19.5  | 5    | 176-236         | 3952          | 0.44      |
| RTT5008-13  | K/S/G              | -8       | 5.7  | 1/2"   | 12.7 | 30   | 14.0±0.5 | 16   | 40.9 | 19.5  | 5    | 185-245         | 5485          | 0.51      |
| RTT5010     | K/S/G              | -10      | 6.4  | 1/2"   | 12.7 | 30   | 14.0±0.5 | 16   | 39.4 | 19.0  | 5    | 199-268         | 6285          | 0.57      |
| RTT5012     | K/S/G              | -12      | 7.1  | 1/2"   | 12.7 | 30   | 14.0±0.5 | 16   | 39.0 | 23.5  | 5    | 208-279         | 7885          | 0.73      |
| RTT5012-16  | K/S                | -12      | 7.1  | 5/8"   | 15.9 | 40   | 17.5±0.5 | 21   | 40.2 | 23.5  | 6    | 215-286         | 7925          | 0.98      |
| RTT5015     | K/S                | -15      | 7.5  | 5/8"   | 15.9 | 40   | 17.5±0.5 | 21   | 40.0 | 23.5  | 6    | 215-285         | 8260          | 0.98      |
| RTT5017     | K/S                | -17      | 8.4  | 5/8"   | 15.9 | 40   | 17.5±0.5 | 21   | 38.0 | 24.0  | 6    | 234-315         | 11000         | 1.10      |
| RTT5022     | K/S                | -22      | 9.5  | 3/4"   | 19.1 | 50   | 21.5±0.5 | 26   | 54.0 | 27.5  | 6    | 278-378         | 14000         | 1.72      |
| RTT5022-22  | K/S                | -22      | 9.5  | 7/8"   | 22.2 | 60   | 24.0±0.5 | 32   | 70.1 | 30.5  | 6    | 296-397         | 14500         | 2.20      |
| RTT5030     | K/S                | -30      | 11.1 | 7/8"   | 22.2 | 60   | 24.0±0.5 | 32   | 67.5 | 34.2  | 6    | 316-408         | 18650         | 2.61      |
| RTT5040     | K/S                | -40      | 12.7 | 1"     | 25.4 | 60   | 28.0±0.5 | 32   | 68.0 | 36.9  | 8    | 338-458         | 22605         | 3.55      |
| RTT5040-22  | K/S                | -40      | 12.7 | 7/8"   | 22.2 | 60   | 24.0±0.5 | 32   | 67.0 | 36.9  | 6    | 330-450         | 22605         | 3.53      |
| RTT5048     | K/S                | -48      | 14.3 | 1_1/8" | 28.6 | 70   | 31.5±0.5 | 37   | 62.7 | 40.9  | 8    | 365-496         | 28640         | 4.80      |
| RTT5060     | K/S                | -60      | 16.8 | 1_1/4" | 31.8 | 80   | 36.5±0.5 | 42   | 82.6 | 45.5  | 10   | 408-543         | 38000         | 6.80      |
| RTT5060 L   | K/S                | -60      | 16.8 | 1_1/4" | 31.8 | 80   | 36.5±0.5 | 42   | 98.5 | 45.5  | 10   | 424-564         | 38000         | 7.20      |

# SL5 Turnbuckle w/ Toggle (RTT5-) continued



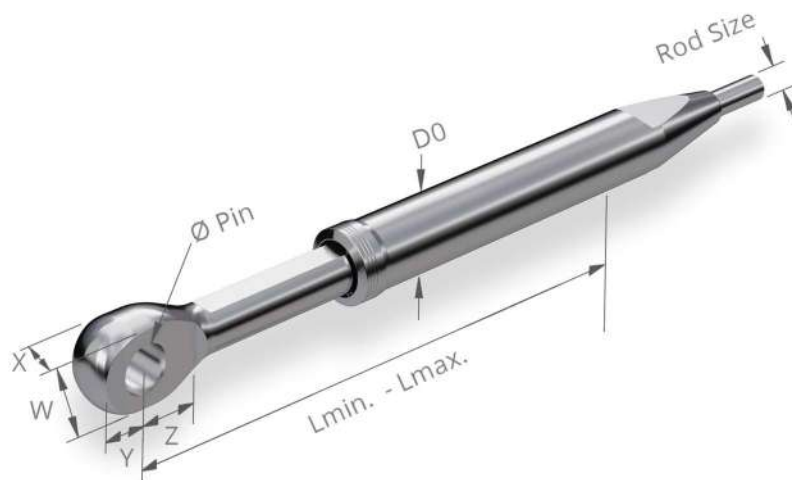
| Article No.                                                             | Clevis Pin Options | Rod Size |      | Ø Pin    |      | W mm | X mm      | Y mm | Z mm  | D0 mm | T mm | Lmin. – Lmax mm | Break Load Kg | Weight Kg |
|-------------------------------------------------------------------------|--------------------|----------|------|----------|------|------|-----------|------|-------|-------|------|-----------------|---------------|-----------|
|                                                                         |                    | Dash     | mm   | inch     | mm   |      |           |      |       |       |      |                 |               |           |
| RTT5076                                                                 | K/S                | -76      | 17.9 | 1_1/4"   | 31.8 | 80   | 36.5 ±0.8 | 42   | 82.0  | 49.3  | 10   | 417-573         | 43270         | 7.85      |
| RTT5091                                                                 | K/S                | -91      | 19.5 | 1_3/8"   | 34.9 | 90   | 42.0 ±0.8 | 47   | 96.7  | 50.6  | 10   | 446-606         | 51500         | 9.11      |
| RTT5115                                                                 | K/S                | -115     | 22.2 | 1_9/16"  | 39.7 | 110  | 44.0 ±0.8 | 58   | 116.5 | 56.8  | 10   | 452-577         | 64575         | 12.20     |
| RTT5150                                                                 | K/S                | -150     | 25.4 | 1_3/4"   | 44.5 | 110  | 52.0 ±0.8 | 58   | 132   | 63.3  | 15   | 548-718         | 83455         | 19.44     |
| RTT5170                                                                 | K/S                | -170     | 27.1 | 1_7/8"   | 47.6 | 110  | 52.0 ±0.8 | 58   | 131   | 69.5  | 20   | 564-739         | 95089         | 24.56     |
| RTT5195                                                                 | K/S                | -195     | 28.6 | 2_1/8"   | 54.0 | 150  | 62.0 ±1.0 | 78   | 177.0 | 73.0  | 12   | 587-724         | 107160        | 27.00     |
| RTT5220                                                                 | K/S                | -220     | 30.3 | 2_1/4"   | 57.2 | 165  | 62.0 ±1.0 | 86   | 159.0 | 79.0  | 12   | 666-851         | 122865        | 34.05     |
| RTT5260                                                                 | K/S                | -260     | 33.4 | 2_7/16"  | 61.9 | 165  | 66.0 ±1.5 | 86   | 157.4 | 82.4  | 15   | 610-758         | 144100        | 37.50     |
| RTT5320                                                                 | K/S                | -320     | 38.1 | 2_1/2"   | 63.5 | 195  | 72.5 ±1.5 | 102  | 137.5 | 91.8  | 15   | 715-910         | 179600        | 37.99     |
| RTT5360                                                                 | K/S                | -360     | 41.2 | 2_5/8"   | 66.7 | 205  | 72.5 ±1.5 | 107  | -     | -     | -    | -               | 195963        | -         |
| RTT5430                                                                 | K/S                | -430     | 44.5 | 2_13/16" | 71.4 | 205  | 72.5 ±1.5 | 107  | 223.0 | 109.0 | 20   | 820-1021        | 257130        | 81.20     |
| RTT5540                                                                 | K/S                | -540     | 50.8 | 3"       | 76.2 | 230  | 78.0 ±1.5 | 120  | 231.0 | 119.4 | 20   | 901-1153        | 299500        | 103.00    |
| S=Clevis Pin w/Split, K=Clevis Pin Treaded w/Nut, G=Clevis Pin w/G-ring |                    |          |      |          |      |      |           |      |       |       |      |                 |               |           |
| Material: Acidproof Stainless Steel with high mechanical strength       |                    |          |      |          |      |      |           |      |       |       |      |                 |               |           |

## SL5 Inline Turnbuckle (RI5-)



| Article No                                                        | Rod Size Dash | Size mm | D0 mm | Lmin. - Lmax. mm | Break Load Kg | Weight Kg |
|-------------------------------------------------------------------|---------------|---------|-------|------------------|---------------|-----------|
| RI5006                                                            | -6            | 5.0     | 17.4  | 136-195          | 4240          | 0.3       |
| RI5010                                                            | -10           | 6.4     | 21.5  | 155-221          | 5720          | 0,44      |
| RI5012                                                            | -12           | 7.1     | 23.5  | 173-243          | 9146          | 0.6       |
| RI5017                                                            | -17           | 8.4     | 26.4  | 203-295          | 11280         | 0.9       |
| RI5022                                                            | -22           | 9.5     | 30.5  | 230-330          | 15150         | 1.3       |
| RI5030                                                            | -30           | 11.1    | 34.2  | 238-348          | 17020         | 1.87      |
| RI5040                                                            | -40           | 12.7    | 36.9  | 257-377          | 22390         | 2.31      |
| RI5048                                                            | -48           | 14.3    | 41.0  | 272-402          | 26100         | 3.18      |
| RI5060                                                            | -60           | 16.8    | 45.5  | 322-462          | 37200         | 4.4       |
| Material: Acidproof Stainless Steel with high mechanical strength |               |         |       |                  |               |           |

# SL5 Turnbuckle w/ Barrel Eye (RBET5-)

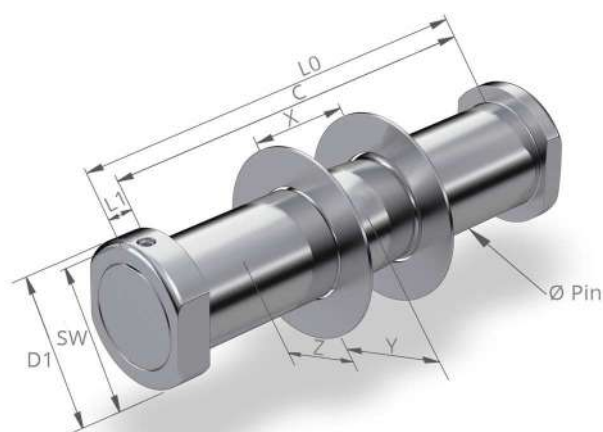


| Article No. | Rod Size |      | Ø Pin    |      | W mm  | X mm | Y mm | Z mm  | D0 mm | Lmin. – Lmax. mm | Break Load Kg | Weight kg |
|-------------|----------|------|----------|------|-------|------|------|-------|-------|------------------|---------------|-----------|
|             | Dash     | mm   | inch     | mm   |       |      |      |       |       |                  |               |           |
| RBET5004    | -4       | 4.4  | 3/8"     | 9.5  | 19.8  | —    | 10.4 | 14.6  | 15.4  | 115 - 171        | 3138          | 0.17      |
| RBET5006    | -6       | 5.0  | 7/16"    | 11.1 | 19.8  | —    | 10.3 | 16.6  | 17.4  | 122 - 180        | 4116          | 0.21      |
| RBET5008    | -8       | 5.7  | 7/16"    | 11.1 | 20.9  | —    | 10.9 | 16.6  | 19.5  | 126 - 186        | 4770          | 0.30      |
| RBET5010    | -10      | 6.4  | 1/2"     | 12.7 | 27.0  | -    | 14.0 | 19.1  | 21.5  | 147 - 213        | 7870          | 0.41      |
| RBET5012    | -12      | 7.1  | 1/2"     | 12.7 | 28    | —    | 14.5 | 19.1  | 23.5  | 156 - 231        | 8405          | 0.55      |
| RBET5012-16 | -12      | 7.1  | 5/8"     | 15.9 | 29.8  | —    | 15.5 | 23.8  | 23.5  | 161 - 237        | 8405          | 0.58      |
| RBET5015    | -15      | 7.5  | 5/8"     | 15.9 | 29.8  | —    | 15.5 | 23.8  | 23.5  | 161 - 236        | 8405          | 0.58      |
| RBET5017    | -17      | 8.4  | 5/8"     | 15.9 | 33.5  | —    | 17.5 | 23.8  | 24.0  | 181 - 262        | 11230         | 0.69      |
| RBET5022    | -22      | 9.5  | 3/4"     | 19.1 | 38.5  | —    | 20.0 | 28.6  | 30.5  | 209 - 299        | 15150         | 1.15      |
| RBET5030    | -30      | 11.1 | 7/8"     | 22.2 | 44.0  | —    | 22.5 | 33.4  | 34.2  | 225 - 335        | 17300         | 1.71      |
| RBET5030-25 | -30      | 11.1 | 1"       | 25.4 | 44.0  | —    | 22.5 | 38.1  | 34.2  | 222 - 332        | 17300         | 1.75      |
| RBET5040    | -40      | 12.7 | 1"       | 25.4 | 49.0  | —    | 25.5 | 38.1  | 36.8  | 254 - 365        | 22600         | 2.15      |
| RBET5048    | -48      | 14.3 | 1 1/8"   | 28.6 | 56.0  | —    | 29.0 | 42.9  | 38.4  | 270 - 400        | 27955         | 2.75      |
| RBET5060    | -60      | 16.8 | 1 1/4"   | 31.8 | 64.0  | —    | 33.0 | 47.6  | 44.7  | 307 - 434        | 40000         | 4.10      |
| RBET5076    | -76      | 17.9 | 1 1/4"   | 31.8 | 67.0  | —    | 34.5 | 47.6  | 46.8  | 321 - 457        | 44000         | 4.65      |
| RBET5076-35 | -76      | 17.9 | 1 3/8"   | 34.9 | 68.0  | —    | 35.0 | 52.4  | 46.8  | —                | 44000         | —         |
| RBET5091    | -91      | 19.5 | 1 3/8"   | 34.9 | 68.0  | —    | 35.0 | 52.4  | 50.6  | 329 - 489        | 51500         | 5.30      |
| RBET5115    | -115     | 22.2 | 1 9/16"  | 39.7 | 81.0  | —    | 42.5 | 59.5  | 56.9  | 333 - 455        | 65650         | 7.50      |
| RBET5150    | -150     | 25.4 | 1 3/4"   | 44.5 | 84.5  | —    | 43.5 | 68.0  | 63.3  | 345 - 475        | 81700         | 9.70      |
| RBET5170    | -170     | 27.1 | 1 7/8"   | 47.6 | 98.7  | —    | 51.0 | 71.4  | 68.6  | -                | 94500         | -         |
| RBET5195    | -195     | 28.6 | 2 1/8"   | 54.0 | 104.0 | —    | 53.5 | 84.5  | 73.8  | 435 - 616        | 108650        | 17.13     |
| RBET5220    | -220     | 30.3 | 2 1/4"   | 57.2 | 116.6 | —    | 60.0 | 87.5  | 79.9  | 460 - 645        | 117700        | 21.49     |
| RBET5260    | -260     | 33.4 | 2 7/16"  | 61.9 | 124.7 | —    | 64.0 | 94.6  | 82.4  | 486 - 677        | 141500        | 23.38     |
| RBET5320    | -320     | 38.1 | 2 1/2"   | 63.5 | 129.2 | —    | 66.5 | 95.3  | 91.8  | -                | 179600        | -         |
| RBET5360    | -360     | 41.2 | 2 5/8"   | 66.7 | 135.8 | —    | 70.0 | 100.1 | -     | -                | 195963        | -         |
| RBET5430    | -430     | 44.5 | 2 13/16" | 71.4 | 145.4 | —    | 75.0 | 107.2 | 108.3 | -                | 255800        | -         |
| RBET5540    | -540     | 50.8 | 3"       | 76.2 | 166.0 | —    | 85.5 | 114.3 | 119.0 | -                | 293900        | -         |

Material: Acidproof Stainless Steel with high mechanical strength.

# Barrel Pin

## Dimensions (RBA-)



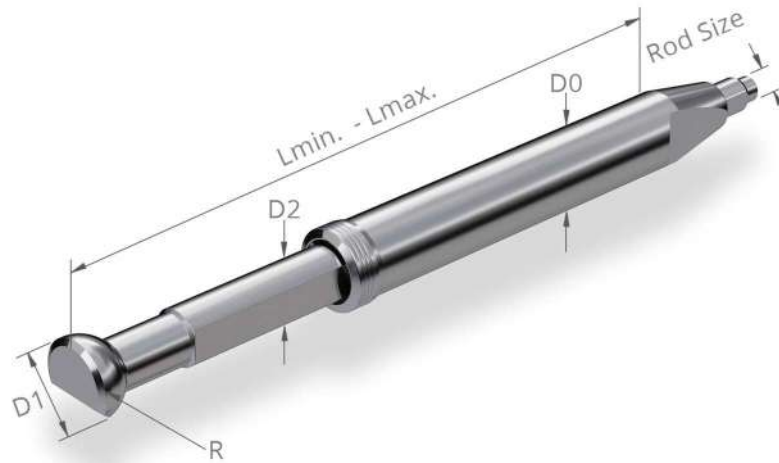
| Article No. | Rod Size |           | $\varnothing$ Pin |      | C mm  | L0 mm | X mm | Y_min mm | Z_max mm | L1 mm | D1 mm | SW mm |
|-------------|----------|-----------|-------------------|------|-------|-------|------|----------|----------|-------|-------|-------|
|             | Dash     | mm        | inch              | mm   |       |       |      |          |          |       |       |       |
| RBA111-54S  | -06/-08  | 5,0/5,7   | 7/16"             | 11,1 | 54    | 60,6  | 12,5 | 14,5     | 16,5     | 6,6   | -     | -     |
| RBA127-57S  | -10/-12  | 6,4/7,1   | 1/2"              | 12,7 | 57    | 64,1  | 14   | 16       | 19,0     | 6,6   | -     | -     |
| RBA159-65K  | -15/-17  | 7,5/8,4   | 5/8"              | 15,9 | 65    | 74,8  | 17   | 19       | 24,0     | 9,8   | 21,5  | 22    |
| RBA191-77K  | -22      | 9,5       | 3/4"              | 19,1 | 77    | 85    | 19,5 | 22       | 28,5     | 9,5   | 27    | -     |
| RBA222-90K  | -30      | 11,1      | 7/8"              | 22,2 | 90    | 99,8  | 22,5 | 25       | 33,5     | 9,5   | 30    | 27    |
| RBA254-105K | -40      | 12,7      | 1"                | 25,4 | 104,5 | 114,8 | 26   | 28       | 38,0     | 9,8   | 34,8  | 32    |
| RBA286-115K | -48      | 14,3      | 1 1/8"            | 28,6 | 115   | 124   | 29   | 32       | 43,0     | 11    | 38,5  | 32    |
| RBA318-128K | -60/-76  | 16,8/17,9 | 1 1/4"            | 31,8 | 127,5 | 136,5 | 32   | 36       | 47,5     | 11,5  | 41,5  | 36    |
| RBA349-140K | -91      | 19,5      | 1 3/8"            | 34,9 | 140   | 150,5 | 35   | 41       | 52,5     | 13    | 44,5  | -     |
| RBA397-160K | -115     | 22,2      | 1 9/16"           | 39,7 | 159,5 | 170,5 | 40   | 46       | 59,5     | 14    | 49,5  | -     |
| RBA445-178K | -150     | 25,4      | 1 3/4"            | 44,5 | 178   | 189   | 44,5 | 51       | 68,0     | 14,5  | 54    | -     |
| RBA476-191K | -170     | 27,1      | 1 7/8"            | 47,6 | 191   | 202   | 48   | 55       | 71,5     | 14,5  | 57,5  | -     |
| RBA540-216K | -195     | 28,6      | 2 1/8"            | 54   | 216   | 227   | 54   | 60       | 81,0     | 15    | 63,5  | -     |
| RBA572-229K | -220     | 30,3      | 2 1/4"            | 57,2 | 229   | 240   | 58,5 | 65       | 87,5     | 15    | 67    | -     |
| RBA619-248K | -260     | 33,4      | 2 7/16"           | 61,9 | 248   | 259   | 62   | 70       | 94,5     | 14    | 74,8  | 70    |
| RBA635-254K | -320     | 38,1      | 2 1/2"            | 63,5 | 254   | 265   | 64,5 | 72,0     | 95,5     | 15    | 73,5  | -     |
| RBA667-268K | -360     | 41,2      | 2 5/8"            | 66,7 | 267,5 | 278,5 | 67   | 75,0     | 100,0    | 15    | 76,5  | -     |
| RBA714-286K | -430     | 44,5      | 2 13/16"          | 71,4 | 286   | 299,5 | 71,5 | 80,0     | 107,0    | 17,5  | 81    | -     |
| RBA762-306K | -540     | 50,8      | 3"                | 76,2 | 305,5 | 319   | 76,5 | 90,0     | 114,0    | 17,5  | 86    | -     |

Material: Acidproof Stainless Steel with high mechanical strength.

- RBAxxx-xxK incl. Pin, cap, capscrews and washers. RBAxxx-xxS incl. pin, washers and split pin.

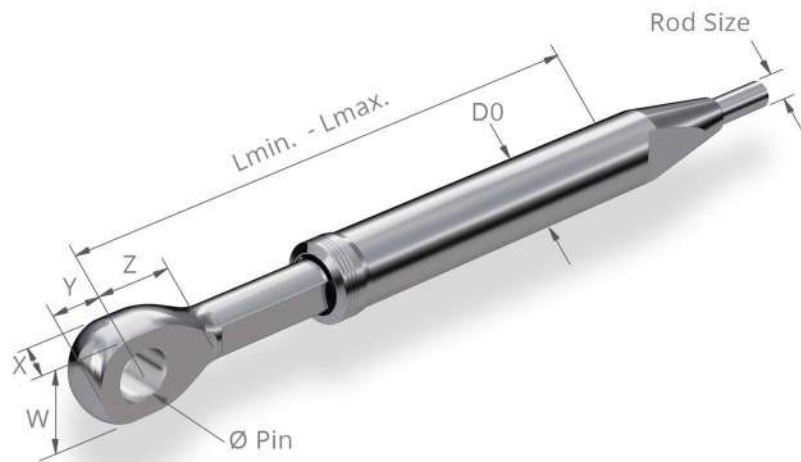
- Barrelpin length (Chainplate width "C") is available in extended versions upon request

# SL5 Diagonal Turnbuckle w/ Ball(RT5D-)



| Article No                                                        | Rod Size |      | D0 mm | D1 mm | D2 mm | R mm | Lmin. – Lmax. mm | Break Load Kg | Weight Kg |
|-------------------------------------------------------------------|----------|------|-------|-------|-------|------|------------------|---------------|-----------|
|                                                                   | Dash     | mm   |       |       |       |      |                  |               |           |
| RT5D004B078                                                       | -4       | 4.4  | 15.4  | 15.5  | 9.0   | 7.8  | 119-175          | 3138          | 0.16      |
| RT5D006B098                                                       | -6       | 5.0  | 17.4  | 19.5  | 9.3   | 9.8  | 129-187          | 3957          | 0.21      |
| RT5D008B098                                                       | -8       | 5.7  | 19.5  | 19.5  | 11.1  | 9.8  | 134-194          | 5529          | 0.30      |
| RT5D010B123                                                       | -10      | 6.4  | 21.5  | 24.5  | 12.5  | 12.3 | 154-219          | 6858          | 0.41      |
| RT5D012B123                                                       | -12      | 7.1  | 23.5  | 24.5  | 14.4  | 12.3 | 163-233          | 8405          | 0.54      |
| RT5D015B123                                                       | -15      | 7.5  | 23.5  | 24.5  | 14.4  | 12.3 | 163-233          | 8405          | 0.54      |
| RT5D017B148                                                       | -17      | 8.4  | 26.8  | 29.5  | 16.1  | 14.8 | 184-274          | 10880         | 0.83      |
| RT5D022B158                                                       | -22      | 9.5  | 30.5  | 31.5  | 19.1  | 15.8 | 211-311          | 13947         | 1.19      |
| RT5D030B178                                                       | -30      | 11.1 | 34.2  | 35.5  | 21.9  | 17.8 | 226-336          | 17291         | 1.65      |
| RT5D040B198                                                       | -40      | 12.7 | 36.9  | 39.5  | 23.9  | 19.8 | 247-367          | 22154         | 2.16      |
| RT5D048B218                                                       | -48      | 14.3 | 41.0  | 43.5  | 26.9  | 21.8 | 265-395          | 27954         | 2.90      |
| RT5D060B248                                                       | -60      | 16.8 | 45.5  | 49.5  | 30.8  | 24.8 | 290-431          | 35748         | 3.95      |
| RT5D076B268                                                       | -76      | 17.9 | 49.4  | 53.5  | 33.0  | 26.8 | 331-481          | 42529         | 5.21      |
| RT5D091B298                                                       | -91      | 19.5 | 51.1  | 59.5  | 33.0  | 29.8 | 323-483          | 50967         | 5.59      |
| RT5D115B328                                                       | -115     | 22.2 | 57.2  | 64.8  | 38.0  | 32.8 | 362-527          | 63794         | 7.62      |
| RT5D150B358                                                       | -150     | 25.4 | 63.5  | 71.3  | 42.5  | 35.8 | 386-556          | 83224         | 10.40     |
| Material: Acidproof Stainless Steel with high mechanical strength |          |      |       |       |       |      |                  |               |           |

# SL5 Turnbuckle w/ Eye (RET5-)



| Article No. | Rod Size |      | Ø Pin    |      | W mm  | X mm | Y mm | Z mm  | D0 mm | Lmin. – Lmax. mm | Break Load Kg | Weight kg |
|-------------|----------|------|----------|------|-------|------|------|-------|-------|------------------|---------------|-----------|
|             | Dash     | mm   | inch     | mm   |       |      |      |       |       |                  |               |           |
| RET5004-8   | -4       | 4.4  | 5/16"    | 7.9  | 15.8  | 7.0  | 8.5  | 12.5  | 15.4  | 110 - 167        | 3066          | 0.16      |
| RET5004     | -4       | 4.4  | 3/8"     | 9.5  | 19.0  | 8.5  | 10.0 | 15.5  | 15.4  | -                | 3138          | 0.17      |
| RET5006     | -6       | 5.0  | 3/8"     | 9.5  | 19.6  | 8.5  | 10.5 | 15.5  | 17.4  | 127 - 185        | 4240          | 0.21      |
| RET5006-11  | -6       | 5.0  | 7/16"    | 11.1 | -     | -    | -    | -     | -     | -                | -             | -         |
| RET5008     | -8       | 5.7  | 7/16"    | 11.1 | 21.5  | 10.0 | 11.5 | 18.0  | 19.5  | 129 - 189        | 5015          | 0.23      |
| RET5008-13  | -8       | 5.7  | 1/2"     | 12.7 | 23.5  | 11.0 | 12.0 | 20.5  | 19.5  | 132 - 192        | 5400          | 0.31      |
| RET5010     | -10      | 6.4  | 1/2"     | 12.7 | 25.5  | 11.0 | 13.5 | 21.5  | 21.5  | 146 - 215        | 6300          | 0.34      |
| RET5012     | -12      | 7.1  | 1/2"     | 12.7 | 27.2  | 11.0 | 14.0 | 21.5  | 23.5  | 155 - 226        | 7885          | 0.52      |
| RET5012-16  | -12      | 7.1  | 5/8"     | 15.9 | -     | -    | -    | -     | 23.5  | -                | 7925          | -         |
| RET5015     | -15      | 7.5  | 5/8"     | 15.9 | 29.5  | 14.0 | 15.5 | 25.5  | 23.5  | 159 - 230        | 8260          | 0.54      |
| RET5017     | -17      | 8.4  | 5/8"     | 15.9 | 33.5  | 14.0 | 17.5 | 25.5  | 24.0  | 179 - 260        | 11000         | 0.69      |
| RET5022     | -22      | 9.5  | 3/4"     | 19.1 | 39.0  | 17.0 | 20.0 | 30.5  | 27.5  | 202 - 296        | 14000         | 1.06      |
| RET5030     | -30      | 11.1 | 7/8"     | 22.2 | 46.0  | 19.5 | 23.0 | 36.0  | 31.5  | 228 - 330        | 18650         | 1.55      |
| RET5040     | -40      | 12.7 | 1"       | 25.4 | 48.5  | 22.0 | 25.5 | 41.0  | 34.2  | 251 - 364        | 22780         | 2.10      |
| RET5048     | -48      | 14.3 | 1 1/8"   | 28.6 | 56.0  | 25.0 | 29.0 | 45.0  | 38.4  | -                | 28400         | -         |
| RET5060     | -60      | 16.8 | 1 1/4"   | 31.8 | 63.5  | 28.5 | 33.0 | 51.0  | 44.7  | 299 - 428        | 40000         | 4.12      |
| RET5076     | -76      | 17.9 | 1 1/4"   | 31.8 | 66.5  | 28.5 | 34.5 | 51.0  | 46.8  | -                | 43000         | -         |
| RET5091     | -91      | 19.5 | 1 3/8"   | 34.9 | 72.5  | 31.5 | 37.5 | 56.5  | 50.6  | 313 - 434        | 50500         | 5.80      |
| RET5115     | -115     | 22.2 | 1 9/16"  | 39.7 | 81.0  | 35.5 | 42.5 | 63.5  | 55.7  | -                | 63600         | -         |
| RET5150     | -150     | 25.4 | 1 3/4"   | 44.5 | 82.5  | 40.0 | 42.5 | 71.5  | 63.3  | 343 - 473        | 81700         | 9.90      |
| RET5170     | -170     | 27.1 | 1 7/8"   | 47.6 | 87.5  | 44.5 | 45.0 | 76.5  | 68.6  | 359 - 484        | 92850         | 12.1      |
| RET5195     | -195     | 28.6 | 2 1/8"   | 54.0 | 97.0  | 50.0 | 50.0 | 81.5  | 73.0  | 377 - 507        | 107200        | 12.1      |
| RET5220     | -220     | 30.3 | 2 1/4"   | 57.2 | 114.5 | 53.0 | 60.0 | 91.5  | 79.9  | -                | 117700        | -         |
| RET5260     | -260     | 33.4 | 2 7/16"  | 61.9 | 111   | 57.5 | 57.0 | 100.9 | 82.4  | 413 - 543        | 141200        | 20.7      |
| RET5320     | -320     | 38.1 | 2 1/2"   | 63.5 | -     | -    | -    | -     | 91.8  | -                | 179600        | -         |
| RET5360     | -360     | 41.2 | 2 5/8"   | 66.7 | -     | -    | -    | -     | -     | -                | 195963        | -         |
| RET5400     | -400     | 44.5 | 2 13/16" | 71.4 | -     | -    | -    | -     | 108.3 | -                | 255800        | -         |
| RET5540     | -540     | 50.8 | 3"       | 76.2 | -     | -    | -    | -     | 119.0 | -                | 293900        | -         |

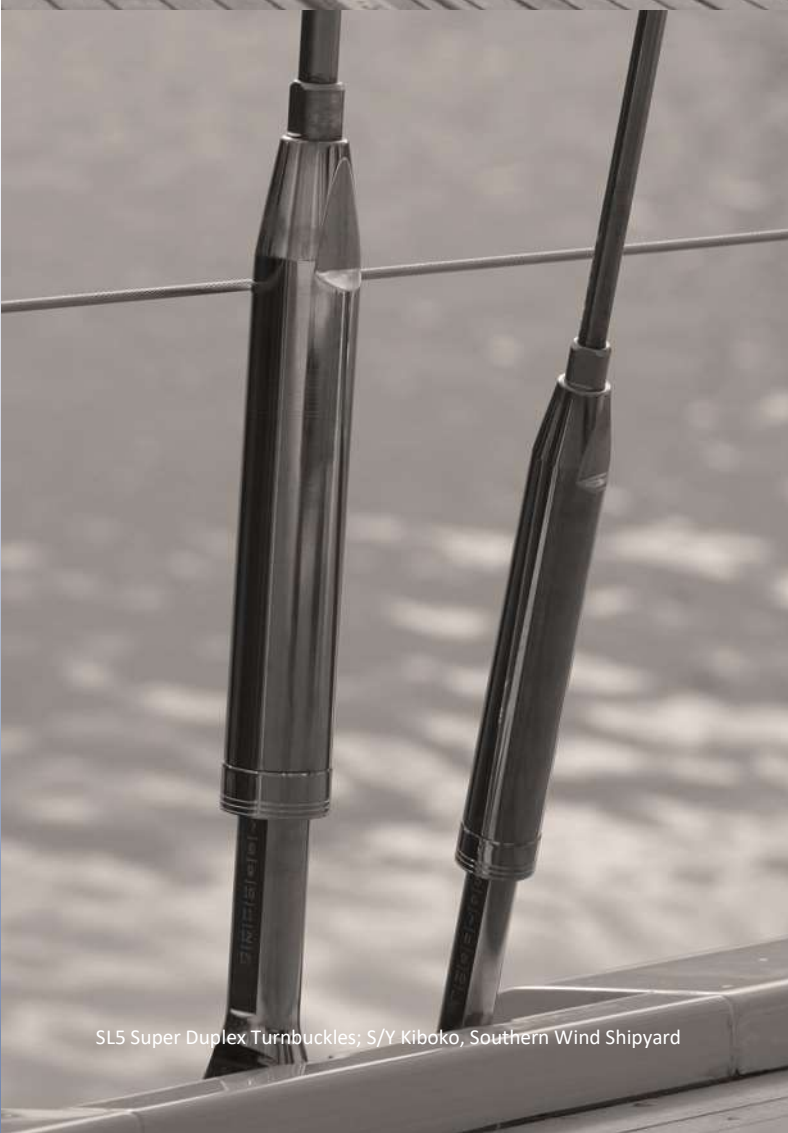
Material: Acidproof Stainless Steel with high mechanical strength.



BSI Kevlar and Rod Package, V1 dash 1100; S/Y Kokomo III, Dubois/Alloy



BSI Rodrigging Package w/ SL5 Turnbuckles; S/Y Wally B, Brenta/Wally



SL5 Super Duplex Turnbuckles; S/Y Kiboko, Southern Wind Shipyard

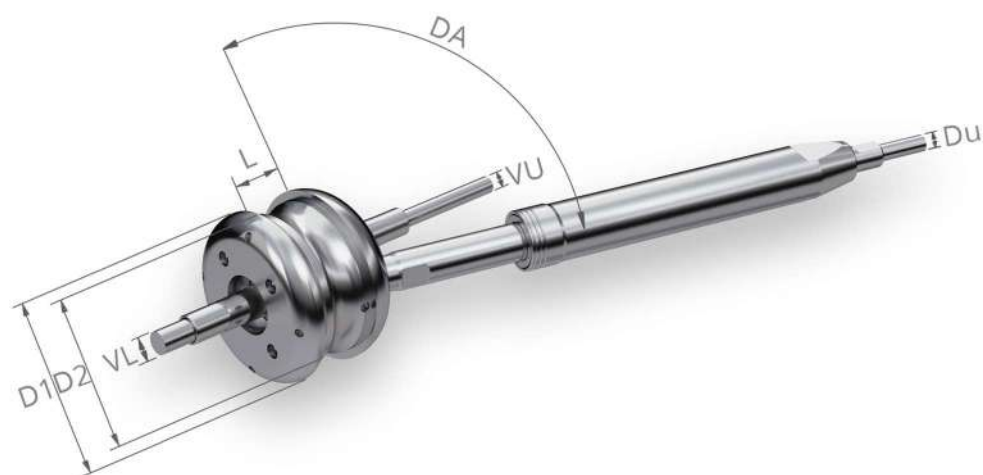


SL5 Super Duplex Turnbuckles; S/Y Wally B, Brenta/Wally



S/Y Mondango  
Photo Courtesy of Chris Lewis Photography

# Tipcup (63-)



| Article No. | VL Lower |      | VU Upper |      | DI Diagonal |      | DA Diagonal Degrees | D1 mm | D2 mm | L mm | Weight Kg |
|-------------|----------|------|----------|------|-------------|------|---------------------|-------|-------|------|-----------|
|             | Dash     | mm   | Dash     | mm   | Dash        | mm   |                     |       |       |      |           |
| 63604830C   | -60      | 16.8 | -48      | 14.3 | -30         | 11.1 | 75° ± 5°            | 98.0  | 88.0  | 38.0 | 367       |
| 63604822C   | -60      | 16.8 | -48      | 14.3 | -22         | 9.5  | 75° ± 5°            | 98.0  | 88.0  | 38.0 | 3.29      |
| 63604030C   | -60      | 16.8 | -40      | 12.7 | -30         | 11.1 | 75° ± 5°            | 98.0  | 88.0  | 38.0 | 3.61      |
| 63604022C   | -60      | 16.8 | -40      | 12.7 | -22         | 9.5  | 75° ± 5°            | 98.0  | 88.0  | 38.0 | 3.22      |
| 63484830C   | -48      | 14.3 | -48      | 14.3 | -30         | 11.1 | 75° ± 5°            | 98.0  | 88.0  | 38.0 | 3.63      |
| 63484022C   | -48      | 14.3 | -40      | 12.7 | -22         | 9.5  | 75° ± 5°            | 89.5  | 82.0  | 32.0 | 2.61      |
| 63484017C   | -48      | 14.3 | -40      | 12.7 | -17         | 8.4  | 75° ± 5°            | 89.5  | 82.0  | 32.0 | 2.61      |
| 63484012C   | -48      | 14.3 | -40      | 12.7 | -12         | 7.1  | 75° ± 5°            | 89.5  | 82.0  | 32.0 | 2.43      |
| 63483022C   | -48      | 14.3 | -30      | 11.1 | -22         | 9.5  | 75° ± 5°            | 89.5  | 82.0  | 32.0 | 2.57      |
| 63483017C   | -48      | 14.3 | -30      | 11.1 | -17         | 8.4  | 75° ± 5°            | 89.5  | 82.0  | 32.0 | 2.58      |
| 63404022C   | -40      | 12.7 | -40      | 12.7 | -22         | 9.5  | 75° ± 5°            | 89.5  | 82.0  | 32.0 | 2.55      |
| 63404017C   | -40      | 12.7 | -40      | 12.7 | -17         | 8.4  | 75° ± 5°            | 79.5  | 72.0  | 29.0 | 2.00      |
| 63403022C   | -40      | 12.7 | -30      | 11.1 | -22         | 9.5  | 75° ± 5°            | 89.5  | 82.0  | 32.0 | 2.51      |
| 63403017C   | -40      | 12.7 | -30      | 11.1 | -17         | 8.4  | 75° ± 5°            | 79.5  | 72.0  | 29.0 | 2.11      |
| 63403016C   | -40      | 12.7 | -30      | 11.1 | -16         | 8.0  | 75° ± 5°            | 79.5  | 72.0  | 29.0 | 1.92      |
| 63403015C   | -40      | 12.7 | -30      | 11.1 | -15         | 7.5  | 75° ± 5°            | 79.5  | 72.0  | 29.0 | 1.92      |
| 63403012C   | -40      | 12.7 | -30      | 11.1 | -12         | 7.1  | 75° ± 5°            | 79.5  | 72.0  | 29.0 | 1.92      |
| 63402217C   | -40      | 12.7 | -22      | 9.5  | -17         | 8.4  | 75° ± 5°            | 79.5  | 72.0  | 29.0 | 2.09      |
| 63402215C   | -40      | 12.7 | -22      | 9.5  | -15         | 7.5  | 75° ± 5°            | 79.5  | 72.0  | 29.0 | 1.88      |
| 63402212C   | -40      | 12.7 | -22      | 9.5  | -12         | 7.1  | 75° ± 5°            | 79.5  | 72.0  | 29.0 | 1.89      |
| 63303022C   | -30      | 11.1 | -30      | 11.1 | -22         | 9.5  | 75° ± 5°            | 89.5  | 82.0  | 32.0 | 3.30      |
| 63303017C   | -30      | 11.1 | -30      | 11.1 | -17         | 8.4  | 75° ± 5°            | 79.5  | 72.0  | 29.0 | 2.06      |
| 63303015C   | -30      | 11.1 | -30      | 11.1 | -15         | 7.5  | 75° ± 5°            | 79.5  | 72.0  | 29.0 | 1.86      |
| 63302217C   | -30      | 11.1 | -22      | 9.5  | -17         | 8.4  | 75° ± 5°            | 79.5  | 72.0  | 29.0 | 2.04      |
| 63302215C   | -30      | 11.1 | -22      | 9.5  | -15         | 7.5  | 75° ± 5°            | 69.0  | 62.0  | 26.0 | 1.42      |
| 63302212C   | -30      | 11.1 | -22      | 9.5  | -12         | 7.1  | 75° ± 5°            | 69.0  | 62.0  | 26.0 | 1.43      |
| 63302210C   | -30      | 11.1 | -22      | 9.5  | -10         | 6.4  | 75° ± 5°            | 69.0  | 62.0  | 26.0 | 1.24      |
| 63302208C   | -30      | 11.1 | -22      | 9.5  | -8          | 5.7  | 75° ± 5°            | 69.0  | 62.0  | 26.0 | 1.12      |
| 63301712C   | -30      | 11.1 | -17      | 8.4  | -12         | 7.1  | 75° ± 5°            | 69.0  | 62.0  | 26.0 | 1.42      |
| 63222215C   | -22      | 9.5  | -22      | 9.5  | -15         | 7.5  | 75° ± 5°            | 69.0  | 62.0  | 26.0 | 1.41      |
| 63222212C   | -22      | 9.5  | -22      | 9.5  | -12         | 7.1  | 75° ± 5°            | 69.0  | 62.0  | 26.0 | 1.41      |

# Tipcup (63-) continued



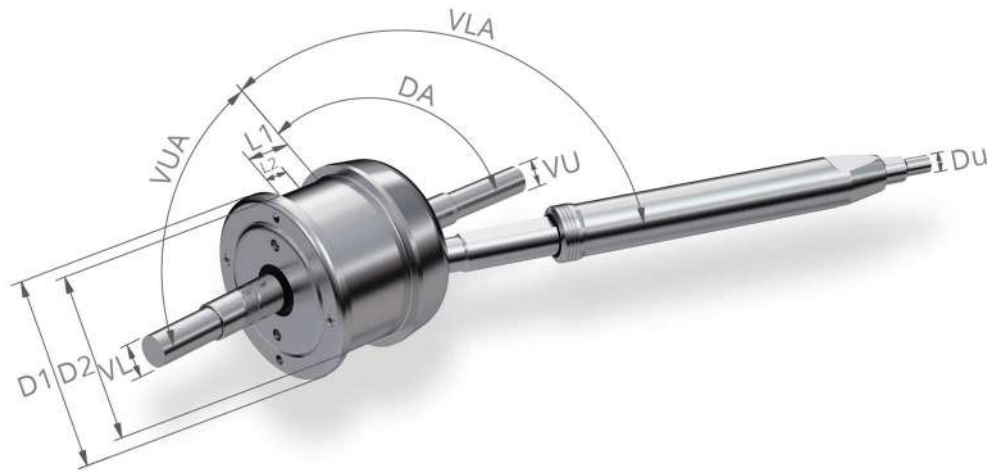
| Article No. | VL Lower |     | VU Upper |     | DI Diagonal |     | DA Diagonal Degrees | D1 mm | D2 mm | L mm | Weight Kg |
|-------------|----------|-----|----------|-----|-------------|-----|---------------------|-------|-------|------|-----------|
|             | Dash     | mm  | Dash     | mm  | Dash        | mm  |                     |       |       |      |           |
| 63221712C   | -22      | 9.5 | -17      | 8.4 | -12         | 7.1 | 75° ± 5°            | 69.0  | 62.0  | 26.0 | 1.45      |
| 63221710C   | -22      | 9.5 | -17      | 8.4 | -10         | 6.4 | 75° ± 5°            | 64.0  | 56.0  | 22.0 | 1.03      |
| 63221708C   | -22      | 9.5 | -17      | 8.4 | -8          | 5.7 | 75° ± 5°            | 64.0  | 56.0  | 22.0 | 0.96      |
| 63221706C   | -22      | 9.5 | -17      | 8.4 | -6          | 5.0 | 75° ± 5°            | 64.0  | 56.0  | 22.0 | 0.90      |
| 63221210C   | -22      | 9.5 | -12      | 7.1 | -10         | 6.4 | 75° ± 5°            | 64.0  | 56.0  | 22.0 | 1.01      |
| 63171710C   | -17      | 8.4 | -17      | 8.4 | -10         | 6.4 | 75° ± 5°            | 64.0  | 56.0  | 22.0 | 1.03      |
| 63171708C   | -17      | 8.4 | -17      | 8.4 | -8          | 5.7 | 75° ± 5°            | 64.0  | 56.0  | 22.0 | 0.96      |
| 63171515C   | -17      | 8.4 | -15      | 7.5 | -15         | 7.5 | 75° ± 5°            | 69.0  | 62.0  | 26.0 | 1.41      |
| 63171510C   | -17      | 8.4 | -15      | 7.5 | -10         | 6.4 | 75° ± 5°            | 64.0  | 56.0  | 22.0 | 1.03      |
| 63171508C   | -17      | 8.4 | -15      | 7.5 | -8          | 5.7 | 75° ± 5°            | 64.0  | 56.0  | 22.0 | 0.95      |
| 63171506C   | -17      | 8.4 | -15      | 7.5 | -6          | 5.0 | 75° ± 5°            | 64.0  | 56.0  | 22.0 | 0.91      |
| 63171212C   | -17      | 8.4 | -12      | 7.1 | -12         | 7.1 | 75° ± 5°            | 69.0  | 62.0  | 26.0 | 1.42      |
| 63171210C   | -17      | 8.4 | -12      | 7.1 | -10         | 6.4 | 75° ± 5°            | 59.0  | 52.0  | 22.0 | 0.89      |
| 63171208C   | -17      | 8.4 | -12      | 7.1 | -8          | 5.7 | 75° ± 5°            | 59.0  | 52.0  | 22.0 | 0.76      |
| 63171206C   | -17      | 8.4 | -12      | 7.1 | -6          | 5.0 | 75° ± 5°            | 59.0  | 52.0  | 22.0 | 0.76      |
| 63171008C   | -17      | 8.4 | -10      | 6.4 | -8          | 5.7 | 75° ± 5°            | 59.0  | 52.0  | 22.0 | 0.76      |
| 63171006C   | -17      | 8.4 | -10      | 6.4 | -6          | 5.0 | 75° ± 5°            | 59.0  | 52.0  | 22.0 | 0.76      |
| 63151510C   | -15      | 7.5 | -15      | 7.5 | -10         | 6.4 | 75° ± 5°            | 64.0  | 56.0  | 22.0 | 1.02      |
| 63151508C   | -15      | 7.5 | -15      | 7.5 | -8          | 5.7 | 75° ± 5°            | 64.0  | 56.0  | 22.0 | 0.90      |
| 63151208C   | -15      | 7.5 | -12      | 7.1 | -8          | 5.7 | 75° ± 5°            | 59.0  | 52.0  | 22.0 | 0.76      |
| 63151206C   | -15      | 7.5 | -12      | 7.1 | -6          | 5.0 | 75° ± 5°            | 59.0  | 52.0  | 22.0 | 0.78      |
| 63121212C   | -12      | 7.1 | -12      | 7.1 | -12         | 7.1 | 75° ± 5°            | 69.0  | 62.0  | 26.0 | 1.45      |
| 63121210C   | -12      | 7.1 | -12      | 7.1 | -10         | 6.4 | 75° ± 5°            | 59.0  | 52.0  | 22.0 | 0.90      |
| 63121208C   | -12      | 7.1 | -12      | 7.1 | -8          | 5.7 | 75° ± 5°            | 59.0  | 52.0  | 22.0 | 0.74      |
| 63121206C   | -12      | 7.1 | -12      | 7.1 | -6          | 5.0 | 75° ± 5°            | 59.0  | 52.0  | 22.0 | 0.78      |
| 63121010C   | -12      | 7.1 | -10      | 6.4 | -10         | 6.4 | 75° ± 5°            | 59.0  | 52.0  | 22.0 | 0.90      |
| 63121008C   | -12      | 7.1 | -10      | 6.4 | -8          | 5.7 | 75° ± 5°            | 52.0  | 46.0  | 19.0 | 0.58      |
| 63121006C   | -12      | 7.1 | -10      | 6.4 | -6          | 5.0 | 75° ± 5°            | 52.0  | 46.0  | 19.0 | 0.58      |
| 63121004C   | -12      | 7.1 | -10      | 6.4 | -4          | 4.4 | 75° ± 5°            | 52.0  | 46.0  | 19.0 | 0.51      |
| 63120806C   | -12      | 7.1 | -8       | 5.7 | -6          | 5.0 | 75° ± 5°            | 52.0  | 46.0  | 19.0 | 0.58      |
| 63120804C   | -12      | 7.1 | -8       | 5.7 | -4          | 4.4 | 75° ± 5°            | 52.0  | 46.0  | 19.0 | 0.51      |
| 63101006C   | -10      | 6.4 | -10      | 6.4 | -6          | 5.0 | 75° ± 5°            | 52.0  | 46.0  | 19.0 | 0.57      |
| 63101004C   | -10      | 6.4 | -10      | 6.4 | -4          | 4.4 | 75° ± 5°            | 52.0  | 46.0  | 19.0 | 0.50      |
| 63100806C   | -10      | 6.4 | -8       | 5.7 | -6          | 5.0 | 75° ± 5°            | 52.0  | 46.0  | 19.0 | 0.58      |
| 63100804C   | -10      | 6.4 | -8       | 5.7 | -4          | 4.4 | 75° ± 5°            | 52.0  | 46.0  | 16.0 | 0.51      |
| 63100606C   | -10      | 6.4 | -6       | 5.0 | -6          | 5.0 | 75° ± 5°            | 52.0  | 46.0  | 16.0 | 0.57      |
| 63100604C   | -10      | 6.4 | -6       | 5.0 | -4          | 4.4 | 75° ± 5°            | 52.0  | 46.0  | 16.0 | 0.51      |
| 63080806C   | -8       | 5.7 | -8       | 5.7 | -6          | 5.0 | 75° ± 5°            | 52.0  | 46.0  | 16.0 | 0.58      |
| 63080804C   | -8       | 5.7 | -8       | 5.7 | -4          | 4.4 | 75° ± 5°            | 52.0  | 46.0  | 16.0 | 0.49      |
| 63080606C   | -8       | 5.7 | -6       | 5.0 | -6          | 5.0 | 75° ± 5°            | 52.0  | 46.0  | 16.0 | 0.56      |
| 63080604C   | -8       | 5.7 | -6       | 5.0 | -4          | 4.4 | 75° ± 5°            | 48.0  | 42.0  | 12.0 | 0.42      |

Complete including Tip Turnbuckle and Stemballs. Material: Acidproof Stainless Steel with high mechanical strength

Note: When washers are used as isolator against the Spreader; thickness must not exceed 3mm

Tipcup Diameter = D2 ± 0.1mm; Spreader Thickness = L ± 1.0mm

# Tipcup Aligned (TAL-)



| Article No.   | VL Lower Rod Size |      | VLA Lower Rod Angle Degrees | VU Upper Rod Size |      | VUA Upper Rod Angle Degrees | DU Diagonal Rod Size |     | DA Diagonal Rod Angle Degrees | D1 mm | D2 mm | D3 mm | L1 mm | L2 mm | Weight kg |
|---------------|-------------------|------|-----------------------------|-------------------|------|-----------------------------|----------------------|-----|-------------------------------|-------|-------|-------|-------|-------|-----------|
|               | Dash              | mm   |                             | Dash              | mm   |                             | Dash                 | mm  |                               |       |       |       |       |       |           |
| TAL100604 BAA | -10               | 6.4  | 85° ± 5°                    | -6                | 5.0  | 90° ± 5°                    | -4                   | 4.4 | 75° ± 5°                      | 48.5  | 41.0  | 8.5   | 22.0  | 11.0  | 0.57      |
| TAL151006 BAA | -15               | 7.5  | 85° ± 5°                    | -10               | 6.4  | 90° ± 5°                    | -6                   | 5.0 | 75° ± 5°                      | 54.5  | 48.0  | 8.5   | 30.0  | 15.0  | 0.89      |
| TAL151008 BEE | -15               | 7.5  | 85° ± 5°                    | -10               | 6.4  | 85° ± 5°                    | -8                   | 5.7 | 70° ± 5°                      | 54.5  | 48.0  | 5.0   | 30.0  | 15.0  | 0.94      |
| TAL151010 BEF | -15               | 7.5  | 85° ± 5°                    | -10               | 6.4  | 85° ± 5°                    | -10                  | 6.4 | 65° ± 5°                      | 54.5  | 48.0  | 8.5   | 30.0  | 15.0  | 1.05      |
| TAL171206 AAB | -17               | 8.4  | 90° ± 5°                    | -12               | 7,1  | 90° ± 5°                    | -6                   | 5.0 | 80° ± 5°                      | 54.5  | 48.0  | 8.5   | 30.0  | 15.0  | 0.89      |
| TAL171210 BAB | -17               | 8.4  | 85° ± 5°                    | -12               | 7,1  | 90° ± 5°                    | -10                  | 6.4 | 80° ± 5°                      | 59.0  | 52.0  | 8.5   | 32.0  | 16.0  | 1.15      |
| TAL171210 BAE | -17               | 8.4  | 85° ± 5°                    | -12               | 7,1  | 90° ± 5°                    | -10                  | 6.4 | 70° ± 5°                      | 59.0  | 52.0  | 8.5   | 32.0  | 16.0  | 1.15      |
| TAL171210 BEA | -17               | 8.4  | 85° ± 5°                    | -12               | 7,1  | 85° ± 5°                    | -10                  | 6.4 | 75° ± 5°                      | 59.0  | 52.0  | 8.5   | 32.0  | 16.0  | 1.15      |
| TAL171212 BAA | -17               | 8.4  | 85° ± 5°                    | -12               | 7,1  | 90° ± 5°                    | -12                  | 7.1 | 75° ± 5°                      | 59.0  | 52.0  | 8.5   | 32.0  | 16.0  | 1.30      |
| TAL221510 BAA | -22               | 9.5  | 85° ± 5°                    | -15               | 7,5  | 90° ± 5°                    | -10                  | 6.4 | 75° ± 5°                      | 59.0  | 52.0  | 8.5   | 32.0  | 16.0  | 1.20      |
| TAL221708 BBE | -22               | 9.5  | 85° ± 5°                    | -17               | 8.4  | 95° ± 5°                    | -8                   | 5.7 | 70° ± 5°                      | 59.0  | 52.0  | 8.5   | 35.0  | 17.5  | 1.13      |
| TAL221710 BAB | -22               | 9.5  | 85° ± 5°                    | -17               | 8.4  | 90° ± 5°                    | -10                  | 6.4 | 80° ± 5°                      | 64.5  | 56.5  | 8.5   | 32.0  | 16.0  | 1.42      |
| TAL301710 BAA | -30               | 11.1 | 85° ± 5°                    | -17               | 8.4  | 90° ± 5°                    | -10                  | 6.4 | 75° ± 5°                      | 64.5  | 56.5  | 8.5   | 32.0  | 16.0  | 1.41      |
| TAL301712 BAB | -30               | 11.1 | 85° ± 5°                    | -17               | 8.4  | 90° ± 5°                    | -12                  | 7,1 | 80° ± 5°                      | 64.5  | 56.5  | 8.5   | 32.0  | 16.0  | 1,55      |
| TAL302210 BAA | -30               | 11.1 | 85° ± 5°                    | -22               | 9.5  | 90° ± 5°                    | -10                  | 6.4 | 75° ± 5°                      | 68.5  | 59.0  | 8.5   | 35.0  | 17.5  | 1.61      |
| TAL302210 AEA | -30               | 11.1 | 90° ± 5°                    | -22               | 9.5  | 85° ± 5°                    | -10                  | 6.4 | 75° ± 5°                      | 68.5  | 60.0  | 8.5   | 35.0  | 17.5  | 1.64      |
| TAL403010 AAE | -40               | 12.7 | 90° ± 5°                    | -30               | 11.1 | 90° ± 5°                    | -10                  | 6.4 | 70° ± 5°                      | 73.5  | 64.5  | 10.0  | 40.0  | 20.0  | 1.92      |
| TAL403012 BAA | -40               | 12.7 | 85° ± 5°                    | -30               | 11.1 | 90° ± 5°                    | -12                  | 7.1 | 75° ± 5°                      | 73.5  | 64.5  | 10.0  | 40.0  | 20.0  | 2.05      |
| TAL403012 AAA | -40               | 12.7 | 90° ± 5°                    | -30               | 11.1 | 90° ± 5°                    | -12                  | 7.1 | 75° ± 5°                      | 73.5  | 64.5  | 10.0  | 40.0  | 20.0  | 2.05      |
| TAL403015 BEE | -40               | 12.7 | 85° ± 5°                    | -30               | 11.1 | 85° ± 5°                    | -15                  | 7.5 | 70° ± 5°                      | 73.5  | 64.5  | 10.0  | 40.0  | 20.0  | 2.04      |

# Tipcup Aligned (TAL-) continued



| Article No.   | VL<br>Lower Rod Size |      | VLA<br>Lower Rod Angle Degrees | VU<br>Upper Rod Size |      | VUA<br>Upper Rod Angle Degrees | DU<br>Diagonal Rod Size |      | DA<br>Diagonal Rod Angle Degrees | D1<br>mm | D2<br>mm | D3<br>mm | L1<br>mm | L2<br>mm | Weight<br>kg |
|---------------|----------------------|------|--------------------------------|----------------------|------|--------------------------------|-------------------------|------|----------------------------------|----------|----------|----------|----------|----------|--------------|
|               | Dash                 | mm   |                                | Dash                 | mm   |                                | Dash                    | mm   |                                  |          |          |          |          |          |              |
| TAL403015 AAE | -40                  | 12.7 | 90° ± 5°                       | -30                  | 11.1 | 90° ± 5°                       | -15                     | 7.5  | 70° ± 5°                         | 73.5     | 64.5     | 10.0     | 40.0     | 20.0     | 2.05         |
| TAL483022 BAA | -48                  | 14.3 | 85° ± 5°                       | -30                  | 11.1 | 90° ± 5°                       | -22                     | 9.5  | 75° ± 5°                         | 79.5     | 70.0     | 10.0     | 45.0     | 22.5     | 3.10         |
| TAL483022 BAB | -48                  | 14.3 | 85° ± 5°                       | -30                  | 11.1 | 90° ± 5°                       | -22                     | 9.5  | 80° ± 5°                         | 79.5     | 70.0     | 10.0     | 45.0     | 22.5     | 3.10         |
| TAL484012 AEA | -48                  | 14.3 | 90° ± 5°                       | -40                  | 12.7 | 85° ± 5°                       | -12                     | 7.1  | 75° ± 5°                         | 79.5     | 71.0     | 10.0     | 45.0     | 22.5     | 2.53         |
| TAL484015 BAE | -48                  | 14.3 | 85° ± 5°                       | -40                  | 12.7 | 90° ± 5°                       | -15                     | 7.5  | 70° ± 5°                         | 79.5     | 71.0     | 10.0     | 45.0     | 22.5     | 2.51         |
| TAL484015 BAF | -48                  | 14.3 | 85° ± 5°                       | -40                  | 12.7 | 90° ± 5°                       | -15                     | 7.5  | 65° ± 5°                         | 79.5     | 71.0     | 10.0     | 45.0     | 22.5     | 2.51         |
| TAL484017 BAA | -48                  | 14.3 | 85° ± 5°                       | -40                  | 12.7 | 90° ± 5°                       | -17                     | 8.4  | 75° ± 5°                         | 79.5     | 71.0     | 10.0     | 45.0     | 22.5     | 2.80         |
| TAL604030 AAA | -60                  | 16.8 | 90° ± 5°                       | -40                  | 12.7 | 90° ± 5°                       | -30                     | 11.1 | 75° ± 5°                         | 89.0     | 79.0     | 10.0     | 50.0     | 25.0     | 4.48         |
| TAL604030 BAB | -60                  | 16.8 | 85° ± 5°                       | -40                  | 12.7 | 90° ± 5°                       | -30                     | 11.1 | 80° ± 5°                         | 89.0     | 79.0     | 6.0      | 50.0     | 25.0     | 4.19         |
| TAL604817 BAA | -60                  | 16.8 | 85° ± 5°                       | -48                  | 14.3 | 90° ± 5°                       | -17                     | 8.4  | 75° ± 5°                         | 89.0     | 79.0     | 10.0     | 50.0     | 25.0     | 3.70         |
| TAL604822 BAE | -60                  | 16.8 | 85° ± 5°                       | -48                  | 14.3 | 90° ± 5°                       | -22                     | 9.5  | 70° ± 5°                         | 89.5     | 80.0     | 10.0     | 50.0     | 25.0     | 4.10         |
| TAL604822 AAE | -60                  | 16.8 | 90° ± 5°                       | -48                  | 14.3 | 90° ± 5°                       | -22                     | 9.5  | 70° ± 5°                         | 89.5     | 80.0     | 10.0     | 50.0     | 25.0     | 4.10         |
| TAL604822 BAA | -60                  | 16.8 | 85° ± 5°                       | -48                  | 14.3 | 90° ± 5°                       | -22                     | 9.5  | 75° ± 5°                         | 89.5     | 80.0     | 10.0     | 50.0     | 25.0     | 4.10         |
| TAL604830 BAA | -60                  | 16.8 | 85° ± 5°                       | -48                  | 14.3 | 90° ± 5°                       | -30                     | 11.1 | 75° ± 5°                         | 98.0     | 84.0     | 8.0      | 50.0     | 25.0     | 4.60         |
| TAL604830 AAB | -60                  | 16.8 | 90° ± 5°                       | -48                  | 14.3 | 90° ± 5°                       | -30                     | 11.1 | 80° ± 5°                         | 98.0     | 84.0     | 8.0      | 50.0     | 25.0     | 4.65         |
| TAL604830 AEE | -60                  | 16.8 | 90° ± 5°                       | -48                  | 14.3 | 85° ± 5°                       | -30                     | 11.1 | 70° ± 5°                         | 98.0     | 84.0     | 8.0      | 50.0     | 25.0     | 4.60         |
| TAL604840 BAA | -60                  | 16.8 | 85° ± 5°                       | -48                  | 14.3 | 90° ± 5°                       | -40                     | 12.7 | 75° ± 5°                         | 104.0    | 88.0     | 8.0      | 55.0     | 27.5     | 6.00         |
| TAL764830 BAB | -76                  | 17.9 | 85° ± 5°                       | -48                  | 14.3 | 90° ± 5°                       | -30                     | 11.1 | 80° ± 5°                         | 98.0     | 84.0     | 8.0      | 55.0     | 27.5     | 4.85         |
| TAL764840 BAA | -76                  | 17.9 | 85° ± 5°                       | -48                  | 14.3 | 90° ± 5°                       | -40                     | 12.7 | 75° ± 5°                         | 104.0    | 88.0     | 8.0      | 55.0     | 27.5     | 6.00         |
| TAL766022 AAA | -76                  | 17.9 | 90° ± 5°                       | -60                  | 16.8 | 90° ± 5°                       | -22                     | 9.5  | 75° ± 5°                         | 98.0     | 84.0     | 13.0     | 55.0     | 27.5     | 4.90         |
| TAL766022 BAE | -76                  | 17.9 | 85° ± 5°                       | -60                  | 16.8 | 90° ± 5°                       | -22                     | 9.5  | 70° ± 5°                         | 98.0     | 85.0     | 13.0     | 55.0     | 27.5     | 4.85         |
| TAL766030 BAA | -76                  | 17.9 | 85° ± 5°                       | -60                  | 16.8 | 90° ± 5°                       | -30                     | 11.1 | 75° ± 5°                         | 99.5     | 88.0     | 13.0     | 55.0     | 27.5     | 5.60         |
| TAL766030 AAA | -76                  | 17.9 | 90° ± 5°                       | -60                  | 16.8 | 90° ± 5°                       | -30                     | 11.1 | 75° ± 5°                         | 104.0    | 88.0     | 8.0      | 55.0     | 27.5     | 5.63         |
| TAL766030 AAF | -76                  | 17.9 | 90° ± 5°                       | -60                  | 16.8 | 90° ± 5°                       | -30                     | 11.1 | 65° ± 5°                         | 104.0    | 88.0     | 8.0      | 55.0     | 27.5     | 5.50         |
| TAL766030 BAB | -76                  | 17.9 | 85° ± 5°                       | -60                  | 16.8 | 90° ± 5°                       | -30                     | 11.1 | 80° ± 5°                         | 99.5     | 89.0     | 13.0     | 55.0     | 27.5     | 5.68         |
| TAL914848 BAF | -91                  | 19.5 | 85° ± 5°                       | -48                  | 14.3 | 90° ± 5°                       | -48                     | 14.3 | 65° ± 5°                         | 109.5    | 98.0     | 13.0     | 60.0     | 30.0     | 7.60         |
| TAL916030 BAE | -91                  | 19.5 | 85° ± 5°                       | -60                  | 16.8 | 90° ± 5°                       | -30                     | 11.1 | 70° ± 5°                         | 104.0    | 88.0     | 8.0      | 55.0     | 27.5     | 5.60         |
| TAL917630 BAA | -91                  | 19.5 | 85° ± 5°                       | -76                  | 17.9 | 90° ± 5°                       | -30                     | 11.1 | 75° ± 5°                         | 104.5    | 92.0     | 13.0     | 60.0     | 30.0     | 6.19         |
| TAL917640 BAB | -91                  | 19.5 | 85° ± 5°                       | -76                  | 17.9 | 90° ± 5°                       | -40                     | 12.7 | 80° ± 5°                         | 109.5    | 99.0     | 13.0     | 60.0     | 30.0     | 7.10         |

# Tipcup Aligned (TAL-) continued



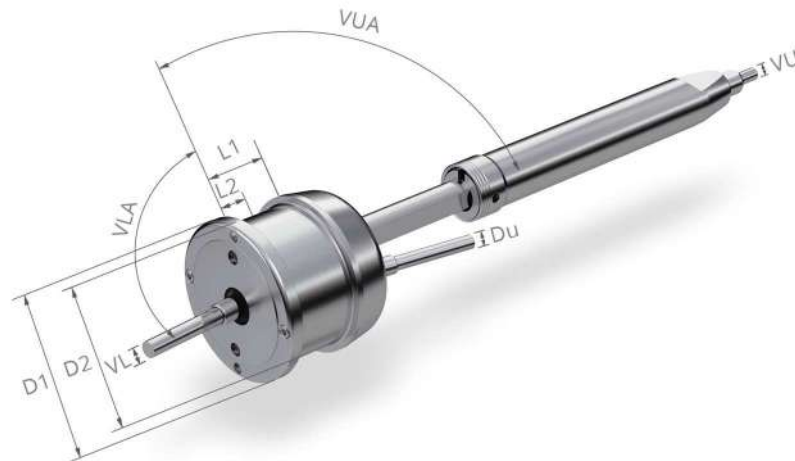
| Article No.     | VL<br>Lower Rod Size |      | VLA<br>Lower Rod Angle Degrees | VU<br>Upper Rod Size |      | VUA<br>Upper Rod Angle Degrees | DU<br>Diagonal Rod Size |      | DA<br>Diagonal Rod Angle Degrees | D1<br>mm | D2<br>mm | D3<br>mm | L1<br>mm | L2<br>mm | Weight<br>kg |
|-----------------|----------------------|------|--------------------------------|----------------------|------|--------------------------------|-------------------------|------|----------------------------------|----------|----------|----------|----------|----------|--------------|
|                 | Dash                 | mm   |                                | Dash                 | mm   |                                | Dash                    | mm   |                                  |          |          |          |          |          |              |
| TAL917660 BAA   | -91                  | 19.5 | 85° ± 5°                       | -76                  | 17.9 | 90° ± 5°                       | -60                     | 16.8 | 75° ± 5°                         | 129.0    | 109.0    | 8.0      | 65.0     | 32.5     | 9.90         |
| TAL115763 OBBE  | -115                 | 22.2 | 85° ± 5°                       | -76                  | 17.9 | 95° ± 5°                       | -30                     | 11.1 | 70° ± 5°                         | 108.5    | 92.0     | 8.0      | 60.0     | 30.0     | 5.80         |
| TAL115764 OBAE  | -115                 | 22.2 | 85° ± 5°                       | -76                  | 17.9 | 90° ± 5°                       | -40                     | 12.7 | 70° ± 5°                         | 114.5    | 98.0     | 8.0      | 60.0     | 30.0     | 7.45         |
| TAL115764 8BAE  | -115                 | 22.2 | 85° ± 5°                       | -76                  | 17.9 | 90° ± 5°                       | -48                     | 14.3 | 70° ± 5°                         | 118.5    | 100.0    | 8.0      | 65.0     | 32.5     | 7.75         |
| TAL115764 8BBE  | -115                 | 22.2 | 85° ± 5°                       | -76                  | 17.9 | 95° ± 5°                       | -48                     | 14.3 | 70° ± 5°                         | 118.5    | 100.0    | 8.0      | 65.0     | 32.5     | 7.90         |
| TAL115764 8AAA  | -115                 | 22.2 | 90° ± 5°                       | -76                  | 17.9 | 90° ± 5°                       | -48                     | 14.3 | 75° ± 5°                         | 123.0    | 100.0    | 8.0      | 60.0     | 30.0     | 8.25         |
| TAL115766 OBAA  | -115                 | 22.2 | 85° ± 5°                       | -76                  | 17.9 | 90° ± 5°                       | -60                     | 16.8 | 75° ± 5°                         | 129.0    | 109.0    | 8.0      | 65.0     | 32.5     | 10.3         |
| TAL115766 OAAA  | -115                 | 22.2 | 90° ± 5°                       | -76                  | 17.9 | 90° ± 5°                       | -60                     | 16.8 | 75° ± 5°                         | 129.0    | 109.0    | 8.0      | 65.0     | 32.5     | 10.3         |
| TAL115766 OAAAB | -115                 | 22.2 | 90° ± 5°                       | -76                  | 17.9 | 90° ± 5°                       | -60                     | 16.8 | 80° ± 5°                         | 128.5    | 108.0    | 8.0      | 65.0     | 32.5     | 10.1         |
| TAL115913 OBAF  | -115                 | 22.2 | 85° ± 5°                       | -91                  | 19.5 | 90° ± 5°                       | -91                     | 19.5 | 65° ± 5°                         | 114.5    | 98.0     | 8.0      | 60.0     | 30.0     | 6.92         |
| TAL115914 OBAA  | -115                 | 22.2 | 85° ± 5°                       | -91                  | 19.5 | 90° ± 5°                       | -40                     | 12.7 | 75° ± 5°                         | 118.5    | 98.0     | 8.0      | 65.0     | 32.5     | 7.20         |
| TAL115914 OBBA  | -115                 | 22.2 | 85° ± 5°                       | -91                  | 19.5 | 95° ± 5°                       | -40                     | 12.7 | 75° ± 5°                         | 118.5    | 100.0    | 8.0      | 65.0     | 32.5     | 7.35         |
| TAL115914 OAAE  | -115                 | 22.2 | 90° ± 5°                       | -91                  | 19.5 | 90° ± 5°                       | -40                     | 12.7 | 70° ± 5°                         | 123.0    | 100.0    | 8.0      | 60.0     | 30.0     | 8.00         |
| TAL115914 OAAA  | -115                 | 22.2 | 90° ± 5°                       | -91                  | 19.5 | 90° ± 5°                       | -40                     | 12.7 | 75° ± 5°                         | 118.5    | 100.0    | 8.0      | 65.0     | 32.5     | 7.35         |
| TAL150914 8BAA  | -150                 | 25.4 | 85° ± 5°                       | -91                  | 19.5 | 90° ± 5°                       | -48                     | 14.3 | 75° ± 5°                         | 128.5    | 109.0    | 8.0      | 65.0     | 32.5     | 9.40         |
| TAL150916 OBAB  | -150                 | 25.4 | 85° ± 5°                       | -91                  | 19.5 | 90° ± 5°                       | -60                     | 16.8 | 80° ± 5°                         | 137.0    | 115.0    | 10.0     | 70.0     | 35.0     | 11.7         |
| TAL150916 OBBA  | -150                 | 25.4 | 85° ± 5°                       | -91                  | 19.5 | 95° ± 5°                       | -60                     | 16.8 | 80° ± 5°                         | 136.0    | 114.0    | 10.0     | 70.0     | 35.0     | 11.5         |
| TAL150115 4OBBA | -150                 | 25.4 | 85° ± 5°                       | -115                 | 22.2 | 95° ± 5°                       | -40                     | 12.7 | 75° ± 5°                         | 128.5    | 110.0    | 8.0      | 70.0     | 35.0     | 9.05         |
| TAL150115 48BAA | -150                 | 25.4 | 85° ± 5°                       | -115                 | 22.2 | 90° ± 5°                       | -48                     | 14.3 | 75° ± 5°                         | 133.5    | 112.0    | 8.0      | 70.0     | 35.0     | 10.3         |
| TAL150115 60BAA | -150                 | 25.4 | 85° ± 5°                       | -115                 | 22.2 | 90° ± 5°                       | -60                     | 16.8 | 75° ± 5°                         | 137.5    | 116.0    | 10.0     | 70.0     | 35.0     | 11.8         |
| TAL150115 60BAE | -150                 | 25.4 | 85° ± 5°                       | -115                 | 22.2 | 90° ± 5°                       | -60                     | 16.8 | 70° ± 5°                         | 137.5    | 116.0    | 10.0     | 70.0     | 35.0     | 12.2         |
| TAL150150 91BAA | -150                 | 25.4 | 85° ± 5°                       | -150                 | 25.4 | 90° ± 5°                       | -91                     | 19.5 | 75° ± 5°                         | 157.5    | 133.0    | 10.0     | 80.0     | 40.0     | 17.3         |
| TAL150150 91BAB | -150                 | 25.4 | 85° ± 5°                       | -150                 | 25.4 | 90° ± 5°                       | -91                     | 19.5 | 80° ± 5°                         | 157.5    | 133.0    | 10.0     | 80.0     | 40.0     | 17.4         |
| TAL170115 76BAE | -170                 | 27.1 | 85° ± 5°                       | -115                 | 22.2 | 90° ± 5°                       | -76                     | 17.9 | 70° ± 5°                         | 153.0    | 130.0    | 10.0     | 75.0     | 37.5     | 15.3         |
| TAL170150 48AAE | -170                 | 27.1 | 90° ± 5°                       | -150                 | 25.4 | 90° ± 5°                       | -48                     | 14.3 | 70° ± 5°                         | 143.0    | 130.0    | 10.0     | 75.0     | 37.5     | 12.3         |
| TAL195150 60BAA | -195                 | 28.6 | 85° ± 5°                       | -150                 | 25.4 | 90° ± 5°                       | -60                     | 16.8 | 75° ± 5°                         | 153.0    | 130.0    | 10.0     | 80.0     | 40.0     | 15.2         |
| TAL195150 60BAE | -195                 | 28.6 | 85° ± 5°                       | -150                 | 25.4 | 90° ± 5°                       | -60                     | 16.8 | 70° ± 5°                         | 153.0    | 130.0    | 10.0     | 80.0     | 40.0     | 15.3         |
| TAL195150 60BBA | -195                 | 28.6 | 85° ± 5°                       | -150                 | 25.4 | 95° ± 5°                       | -60                     | 16.8 | 75° ± 5°                         | 153.0    | 130.0    | 10.0     | 80.0     | 40.0     | 15.1         |
| TAL220170 91BAE | -220                 | 30.3 | 85° ± 5°                       | -170                 | 27.1 | 90° ± 5°                       | -91                     | 19.5 | 70° ± 5°                         | 159.5    | 144.0    | 10.0     | 85.0     | 42.5     | 21.1         |

# Tipcup Aligned (TAL-) continued



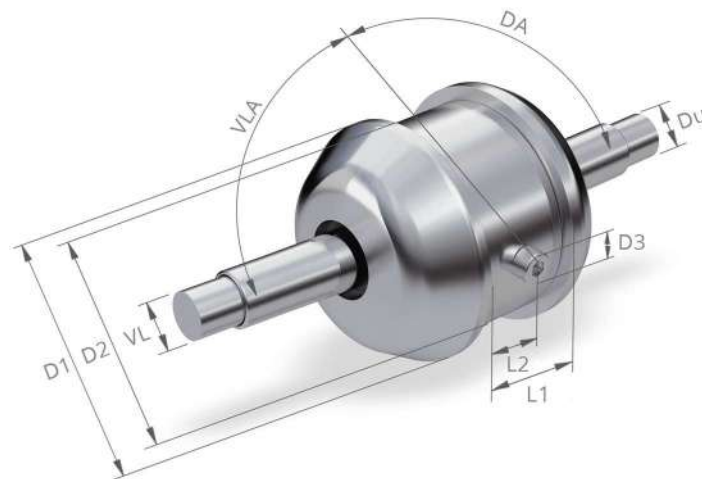
| Article No.                                                                                                                   | VL Lower Rod Size |      | VLA Lower Rod Angle Degrees | VU Upper Rod Size |      | VUA Upper Rod Angle Degrees | DU Diagonal Rod Size |      | DA Diagonal Rod Angle Degrees | D1 mm | D2 mm | D3 mm | L1 mm | L2 mm | Weight kg |
|-------------------------------------------------------------------------------------------------------------------------------|-------------------|------|-----------------------------|-------------------|------|-----------------------------|----------------------|------|-------------------------------|-------|-------|-------|-------|-------|-----------|
|                                                                                                                               | Dash              | mm   |                             | Dash              | mm   |                             | Dash                 | mm   |                               |       |       |       |       |       |           |
| TAL260195 60BBA                                                                                                               | -260              | 33.4 | 85° ± 5°                    | -195              | 28.6 | 95° ± 5°                    | -60                  | 16.8 | 75° ± 5°                      | 174.0 | 150.0 | 10.0  | 90.0  | 45.0  | 21.4      |
| TAL320220 115BAA                                                                                                              | -320              | 38.1 | 85° ± 5°                    | -220              | 30.3 | 90° ± 5°                    | -115                 | 22.2 | 75° ± 5°                      | 196.0 | 168.0 | 12.0  | 100.0 | 50.0  | 34.1      |
| TAL430320 91BAA                                                                                                               | -430              | 44.5 | 85° ± 5°                    | -320              | 38.1 | 90° ± 5°                    | -91                  | 19.5 | 75° ± 5°                      | 204.5 | 180.0 | 10.0  | 110.0 | 55.0  | 38.3      |
| TAL400320 115BAE                                                                                                              | -430              | 44.5 | 85° ± 5°                    | -320              | 38.1 | 90° ± 5°                    | -115                 | 22.2 | 70° ± 5°                      | 218.0 | 190.0 | 12.0  | 115.0 | 57.5  | 46.8      |
| TAL540400 115BAE                                                                                                              | -540              | 50.8 | 85° ± 5°                    | -400              | 44.5 | 90° ± 5°                    | -115                 | 22.2 | 70° ± 5°                      | 238.0 | 210.0 | 12.0  | 125.0 | 62.5  | 58.8      |
| TAL640540 150-888876                                                                                                          | -640              | 57.2 | 88° ± 5°                    | -540              | 50.8 | 88° ± 5°                    | -150                 | 25.4 | 76° ± 5°                      | 234.0 | 210.0 | 12.0  | 130.0 | 65.0  | 56.5      |
| TAL750640 220BAE                                                                                                              | -750              | 63.5 | 85° ± 5°                    | -640              | 57.2 | 90° ± 5°                    | -220                 | 30.3 | 70° ± 5°                      | 259.5 | 236.0 | 12.0  | 135.0 | 67.5  | 76.2      |
| TAL910750 260-8893E                                                                                                           | -910              | 69.9 | 88° ± 5°                    | -750              | 63.5 | 93° ± 5°                    | -260                 | 33.4 | 70° ± 5°                      | 279.5 | 256.5 | 12.0  | 140.0 | 70.0  | 89.1      |
| TAL108091 0260AA67                                                                                                            | -1080             | 74.5 | 90° ± 5°                    | -910              | 69.9 | 90° ± 5°                    | -260                 | 33.4 | 67° ± 5°                      | 299.5 | 275.0 | 12.0  | 150.0 | 75.0  | 107.3     |
| Complete including High Grade Tip-Turnbuckle and Stemballs. Material: Acidproof Stainless Steel with high mechanical strength |                   |      |                             |                   |      |                             |                      |      |                               |       |       |       |       |       |           |
| – Note: When washers used as Isolator against the Spreader; thickness must NOT exceed 3mm.                                    |                   |      |                             |                   |      |                             |                      |      |                               |       |       |       |       |       |           |
| TALxxxxxx is with longstroke turnbuckle. Tolerances: Tipcup Diameter = D2 ± 0.1mm; High adjustable = L1 ± 1.0mm               |                   |      |                             |                   |      |                             |                      |      |                               |       |       |       |       |       |           |

# Tipcup Cathedral Aligned (TCA-)



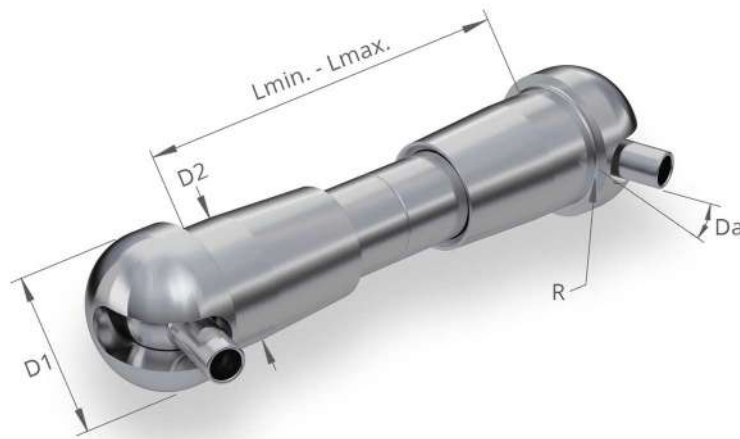
| Article No.                                                                                     | VL   |      | VLA<br>Lower Rod Angle<br>Degrees | VU<br>Upper Rod Size |      | VUA<br>Upper Rod Angle<br>Degrees | DI<br>Diagonal Rod Size |      | DA<br>Diagonal Rod Angle<br>Degrees | D1<br>mm | D2<br>mm | D3<br>mm | L1<br>mm | L2<br>mm | Weight<br>kg |
|-------------------------------------------------------------------------------------------------|------|------|-----------------------------------|----------------------|------|-----------------------------------|-------------------------|------|-------------------------------------|----------|----------|----------|----------|----------|--------------|
|                                                                                                 | Dash | mm   |                                   | Dash                 | mm   |                                   | Dash                    | mm   |                                     |          |          |          |          |          |              |
| TCA080608<br>BAB                                                                                | -8   | 5.7  | 85° ± 5°                          | -6                   | 5.0  | 90 ± 5°                           | -8                      | 5.7  | 80 ± 5°                             | 48.0     | 43.0     | 5.0      | 22.0     | 11.0     | 0.63         |
| TCA121008<br>BEA                                                                                | -12  | 7.1  | 85° ± 5°                          | -10                  | 6.35 | 85 ± 5°                           | -8                      | 5.7  | 75 ± 5°                             | 54.5     | 48.0     | 5.0      | 26.0     | 13.0     | 0.95         |
| TCA121010<br>BEA                                                                                | -12  | 7.1  | 85° ± 5°                          | -10                  | 6.35 | 85 ± 5°                           | -10                     | 6.35 | 75 ± 5°                             | 54.7     | 48.0     | 5.0      | 26.0     | 13.0     | 1.00         |
| TCA121210<br>BEA                                                                                | -12  | 7.1  | 85° ± 5°                          | -12                  | 7.1  | 85 ± 5°                           | -10                     | 6.35 | 75 ± 5°                             | 59.0     | 52.0     | 5.0      | 26.0     | 13.0     | 1.22         |
| TCA121210<br>BEE                                                                                | -12  | 7.1  | 85° ± 5°                          | -12                  | 7.1  | 85 ± 5°                           | -10                     | 6.35 | 70 ± 5°                             | 54.7     | 48.0     | 5.0      | 26.0     | 13.0     | 1.11         |
| TCA121210<br>BEF                                                                                | -12  | 7.1  | 85° ± 5°                          | -12                  | 7.1  | 85 ± 5°                           | -10                     | 6.35 | 65 ± 5°                             | 59.0     | 52.0     | 5.0      | 26.0     | 13.0     | 1.22         |
| TCA151008<br>BEA                                                                                | -15  | 7.5  | 85° ± 5°                          | -10                  | 6.35 | 85 ± 5°                           | -8                      | 5.7  | 75 ± 5°                             | 54.7     | 48.0     | 5.0      | 26.0     | 13.0     | 0.98         |
| TCA151010<br>BAB                                                                                | -15  | 7.5  | 85° ± 5°                          | -10                  | 6.35 | 90 ± 5°                           | -10                     | 6.35 | 80 ± 5°                             | 54.7     | 48.0     | 5.0      | 26.0     | 13.0     | 1.00         |
| TCA171012<br>BEA                                                                                | -17  | 8.4  | 85° ± 5°                          | -10                  | 6.35 | 85 ± 5°                           | -12                     | 7.1  | 75 ± 5°                             | 59.0     | 52.0     | 6.0      | 32.0     | 16.0     | 1.20         |
| TCA301722<br>AEA                                                                                | -30  | 11.1 | 90° ± 5°                          | -17                  | 8.4  | 85 ± 5°                           | -22                     | 9.5  | 75 ± 5°                             | 73.0     | 64.0     | 6.0      | 40.0     | 20.0     | 2.10         |
| Complete including Stemballs. Material: Acidproof Stainless Steel with high mechanical strength |      |      |                                   |                      |      |                                   |                         |      |                                     |          |          |          |          |          |              |
| Note: when washers used as isolator against the spreader; the thickness must not exceed 3mm     |      |      |                                   |                      |      |                                   |                         |      |                                     |          |          |          |          |          |              |

# Tipcup Single in Line (TSS-)



| Article No.                                                                                     | VL Lower Rod Size |      | VLA Lower Rod Angle | DU Diagonal Rod Size |      | DA Diagonal Rod Angle | D1 mm | D2 mm      | L1 mm     | L2 mm | D3 mm | Weight kg |
|-------------------------------------------------------------------------------------------------|-------------------|------|---------------------|----------------------|------|-----------------------|-------|------------|-----------|-------|-------|-----------|
|                                                                                                 | Dash              | mm   | Degrees             | Dash                 | mm   | Degrees               |       |            |           |       |       |           |
| TSS2222BE                                                                                       | -22               | 9.5  | 85° ± 5°            | -22                  | 9.5  | 85° ± 5°              | 49.5  | 42.0± 0.1  | 25.0± 1   | 12.5  | 8.5   | 0.45      |
| TSS3030AE                                                                                       | -30               | 11.1 | 90° ± 5°            | -30                  | 11.1 | 85° ± 5°              | 62.0  | 52.0± 0.1  | 25.0± 1   | 12.5  | 6.0   | 0.79      |
| TSA4040                                                                                         | -40               | 12.7 | 90° ± 5°            | -40                  | 12.7 | 80° ± 5°              | 63.3  | 53.9± 0.1  | 41.5± 1   | 20.75 | 10.0  | 1.00      |
| TSS40AE                                                                                         | -40               | 12.7 | 90° ± 5°            | -40                  | 12.7 | 85° ± 5°              | 64.5  | 57.0± 0.1  | 30.0± 1   | 15.0  | 8.5   | 1.05      |
| TSS40AF                                                                                         | -40               | 12.7 | 90° ± 5°            | -40                  | 12.7 | 80° ± 5°              | 64.5  | 57.0± 0.1  | 30.0± 1   | 15.0  | 8.5   | 1.05      |
| TS4040                                                                                          | -40               | 12.7 | 90° ± 5°            | -40                  | 12.7 | 83° ± 5°              | 69.5  | 59.5± 0.1  | 25.0± 1   | -     | -     | 1.36      |
| TSS4040FF                                                                                       | -40               | 12.7 | 80° ± 5°            | -40                  | 12.7 | 80° ± 5°              | 64.5  | 57.0± 0.1  | 30.0± 1   | 15.0  | 5.0   | 1.02      |
| TSS4848BE                                                                                       | -48               | 14.3 | 85° ± 5°            | -48                  | 14.3 | 85° ± 5°              | 69.0  | 60.0± 0.1  | 35.0± 1   | 17.5  | 6.0   | 1.34      |
| TSS4848BF                                                                                       | -48               | 14.3 | 85° ± 5°            | -48                  | 14.3 | 80° ± 5°              | 69.0  | 60.0± 0.1  | 35.0± 1   | 17.5  | 6.0   | 1.31      |
| TSS60FF                                                                                         | -60               | 16.8 | 80° ± 5°            | -60                  | 16.8 | 80° ± 5°              | 79.5  | 70.0± 0.1  | 45.0± 1   | 22.5  | 10.0  | 1.93      |
| TSS6060BE                                                                                       | -60               | 16.8 | 85° ± 5°            | -60                  | 16.8 | 85° ± 5°              | 79.0  | 70.0± 0.1  | 40.0± 1   | 20.0  | 6.0   | 1.85      |
| TSS7676AA                                                                                       | -76               | 17.9 | 90° ± 5°            | -76                  | 17.9 | 90° ± 5°              | 84.0  | 75.0± 0.1  | 45.0± 1   | -     | -     | 2.35      |
| TSS7676AE                                                                                       | -76               | 17.9 | 90° ± 5°            | -76                  | 17.9 | 85° ± 5°              | 84.0  | 75.0± 0.1  | 45.0± 1   | 22.5  | 6.0   | 2.28      |
| TSS7676BE                                                                                       | -76               | 17.9 | 85° ± 5°            | -76                  | 17.9 | 85° ± 5°              | 84.0  | 75.0± 0.1  | 45.0± 1   | 22.5  | 6.0   | 2.28      |
| TSS9191AF                                                                                       | -91               | 19.5 | 90° ± 5°            | -91                  | 19.5 | 80° ± 5°              | 94.0  | 82.0± 0.1  | 50.0± 1   | 25.0  | 6.0   | 3.42      |
| TSS9191BE                                                                                       | -91               | 19.5 | 85° ± 5°            | -91                  | 19.5 | 85° ± 5°              | 98.0  | 86.0± 0.1  | 50.0± 1   | 25.0  | 6.0   | 3.42      |
| TSS115AE                                                                                        | -115              | 22.2 | 90° ± 5°            | -115                 | 22.2 | 85° ± 5°              | 99.5  | 90.0± 0.1  | 60.0± 1   | 30.0  | 10.0  | 4.25      |
| TSS115BL                                                                                        | -115              | 22.2 | 85° ± 5°            | -115                 | 22.2 | 87.5° ± 5°            | 99.5  | 90.0± 0.1  | 60.0± 1   | 30.0  | 10.0  | 4.15      |
| TSS115115BF                                                                                     | -115              | 22.2 | 80° ± 5°            | -115                 | 22.2 | 85° ± 5°              | 99.5  | 90.0± 0.1  | 60.0± 1   | 30.0  | 6.0   | 4.00      |
| TSS115115FG                                                                                     | -115              | 22.2 | 80° ± 5°            | -115                 | 22.2 | 75° ± 5°              | 107.5 | 97.5± 0.1  | 60.0± 1   | 30.0  | 8.0   | 5.20      |
| TSS150150BE                                                                                     | -150              | 25.4 | 85° ± 5°            | -150                 | 25.4 | 85° ± 5°              | 107.5 | 97.5± 0.1  | 60.0± 1   | 30.0  | 8.0   | 5.25      |
| TS170170AA                                                                                      | -170              | 27.1 | 90° ± 5°            | -170                 | 27.1 | 88° ± 5°              | 124.0 | 110.0± 0.1 | 55.0± 1   | 27.5  | 8.0   | 5.50      |
| TSS170170BE                                                                                     | -170              | 27.1 | 85° ± 5°            | -170                 | 27.1 | 85° ± 5°              | 109.5 | 99.5± 0.1  | 65.0± 1.5 | 32.5  | 8.0   | 5.50      |
| TSS220220BE                                                                                     | -220              | 30.3 | 85° ± 5°            | -220                 | 30.3 | 85° ± 5°              | 137.0 | 121.0± 0.1 | 75.0± 1.5 | 37.5  | 8.0   | 10.4      |
| TSS260260BE                                                                                     | -260              | 33.4 | 85° ± 5°            | -260                 | 33.4 | 85° ± 5°              | 153.0 | 136.0± 0.1 | 82.0± 1.5 | 41.0  | 8.0   | 14.4      |
| Complete including Stemballs. Material: Acidproof Stainless Steel with high mechanical strength |                   |      |                     |                      |      |                       |       |            |           |       |       |           |
| Note: when washers used as isolator against the spreader; the thickness must not exceed 3mm     |                   |      |                     |                      |      |                       |       |            |           |       |       |           |

# Cap Tang System (RCTS-)



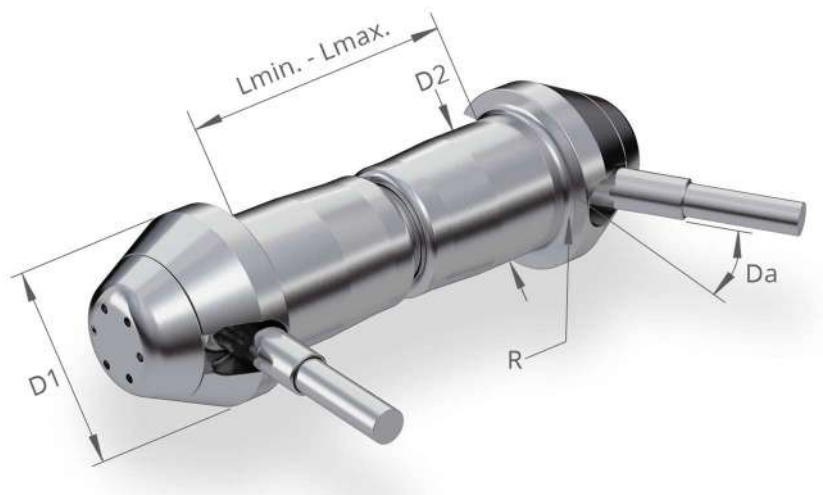
| Article No | Rod Size |     | Da<br>Diagonal Rod<br>Angle<br>Degrees | D1<br>mm | D2<br>mm   | R<br>mm | Lmin - Lmax<br>mm | Break<br>Load<br>Kg | Weight<br>Kg |
|------------|----------|-----|----------------------------------------|----------|------------|---------|-------------------|---------------------|--------------|
|            | Dash     | mm  |                                        |          |            |         |                   |                     |              |
| RCTS04065  | -4       | 4.4 | 19° ± 12°                              | 29.5     | 23.0 ± 0.1 | 1.0     | 65 - 85           | 2790                | 0.26         |
| RCTS04080  | -4       | 4.4 | 19° ± 12°                              | 29.5     | 23.0 ± 0.1 | 1.0     | 80 - 100          | 2790                | 0.27         |
| RCTS04095  | -4       | 4.4 | 19° ± 12°                              | 29.5     | 23.0 ± 0.1 | 1.0     | 95 - 115          | 2790                | 0.28         |
| RCTS040110 | -4       | 4.4 | 19° ± 12°                              | 29.5     | 23.0 ± 0.1 | 1.0     | 110 - 130         | 2790                | 0.29         |
| RCTS04125  | -4       | 4.4 | 19° ± 12°                              | 29.5     | 23.0 ± 0.1 | 1.0     | 125 - 145         | 2790                | 0.30         |
| RCTS04140  | -4       | 4.4 | 19° ± 12°                              | 29.5     | 23.0 ± 0.1 | 1.0     | 140 - 160         | 2790                | 0.31         |
| RCTS06065  | -6       | 5.0 | 19° ± 12°                              | 29.5     | 23.0 ± 0.1 | 1.0     | 65 - 85           | 3600                | 0.26         |
| RCTS06080  | -6       | 5.0 | 19° ± 12°                              | 29.5     | 23.0 ± 0.1 | 1.0     | 80 - 100          | 3600                | 0.27         |
| RCTS06095  | -6       | 5.0 | 19° ± 12°                              | 29.5     | 23.0 ± 0.1 | 1.0     | 95 - 115          | 3600                | 0.28         |
| RCTS060110 | -6       | 5.0 | 19° ± 12°                              | 29.5     | 23.0 ± 0.1 | 1.0     | 110 - 130         | 3600                | 0.29         |
| RCTS060125 | -6       | 5.0 | 19° ± 12°                              | 29.5     | 23.0 ± 0.1 | 1.0     | 125 - 145         | 3600                | 0.30         |
| RCTS060140 | -6       | 5.0 | 19° ± 12°                              | 29.5     | 23.0 ± 0.1 | 1.0     | 140 - 160         | 3600                | 31           |
| RCTS08065  | -8       | 5.7 | 19° ± 12°                              | 29.5     | 23.0 ± 0.1 | 1.0     | 65 - 85           | 4680                | 0.26         |
| RCTS08080  | -8       | 5.7 | 19° ± 12°                              | 29.5     | 23.0 ± 0.1 | 1.0     | 80 - 100          | 4680                | 0.27         |
| RCTS08095  | -8       | 5.7 | 19° ± 12°                              | 29.5     | 23.0 ± 0.1 | 1.0     | 95 - 115          | 4680                | 0.26         |
| RCTS080110 | -8       | 5.7 | 19° ± 12°                              | 29.5     | 23.0 ± 0.1 | 1.0     | 110 - 130         | 4680                | 0.29         |
| RCTS080125 | -8       | 5.7 | 19° ± 12°                              | 29.5     | 23.0 ± 0.1 | 1.0     | 125 - 145         | 4680                | 0.30         |
| RCTS080140 | -8       | 5.7 | 19° ± 12°                              | 29.5     | 23.0 ± 0.1 | 1.0     | 140 - 160         | 4680                | 0.31         |
| RCTS9083   | -9       | 6.0 | 14° ± 6°                               | 36.8     | 30.0 ± 0.1 | 1.0     | 83 - 110          | 4850                | 0.51         |
| RCTS90103  | -9       | 6.0 | 14° ± 6°                               | 36.8     | 30.0 ± 0.1 | 1.0     | 103 - 130         | 4850                | 0.53         |
| RCTS90123  | -9       | 6.0 | 14° ± 6°                               | 36.8     | 30.0 ± 0.1 | 1.0     | 123 - 150         | 4850                | 0.56         |
| RCTS90143  | -9       | 6.0 | 14° ± 6°                               | 36.8     | 30.0 ± 0.1 | 1.0     | 143 - 170         | 4850                | 0.58         |
| RCTS90163  | -9       | 6.0 | 14° ± 6°                               | 36.8     | 30.0 ± 0.1 | 1.0     | 163 - 190         | 4850                | 0.60         |
| RCTS90183  | -9       | 6.0 | 14° ± 6°                               | 36.8     | 30.0 ± 0.1 | 1.0     | 183 - 210         | 4850                | 0.63         |
| RCTS10083  | -10      | 6.4 | 14° ± 6°                               | 36.8     | 30.0 ± 0.1 | 1.0     | 83 - 110          | 5850                | 0.51         |
| RCTS100103 | -10      | 6.4 | 14° ± 6°                               | 36.8     | 30.0 ± 0.1 | 1.0     | 103 - 130         | 5850                | 0.53         |
| RCTX100123 | -10      | 6.4 | 19° ± 11°                              | 34.8     | 27.9 ± 0.1 | 1.0     | 122 - 126         | 5850                | 0.44         |
| RCTS100123 | -10      | 6.4 | 14° ± 6°                               | 36.8     | 30.0 ± 0.1 | 1.0     | 123 - 150         | 5850                | 0.55         |

# Cap Tang System (RCTS-) continued



| Article No                                                                 | Rod Size |     | Da<br>Diagonal Rod<br>Angle<br>Degrees | D1<br>mm | D2<br>mm   | R<br>mm | Lmin - Lmax<br>mm | Break<br>Load<br>Kg | Weight<br>Kg |
|----------------------------------------------------------------------------|----------|-----|----------------------------------------|----------|------------|---------|-------------------|---------------------|--------------|
|                                                                            | Dash     | mm  |                                        |          |            |         |                   |                     |              |
| RCTS100143                                                                 | -10      | 6.4 | 14° ± 6°                               | 36.8     | 30.0 ± 0.1 | 1.0     | 143 - 170         | 5850                | 0.58         |
| RCTS100163                                                                 | -10      | 6.4 | 14° ± 6°                               | 36.8     | 30.0 ± 0.1 | 1.0     | 163 - 190         | 5850                | 0.60         |
| RCTS100183                                                                 | -10      | 6.4 | 14° ± 6°                               | 36.8     | 30.0 ± 0.1 | 1.0     | 183 - 210         | 5850                | 0.63         |
| RCTS12083                                                                  | -12      | 7.1 | 14° ± 6°                               | 36.8     | 30.0 ± 0.1 | 1.0     | 83 - 110          | 7250                | 0.51         |
| RCTS120103                                                                 | -12      | 7.1 | 14° ± 6°                               | 36.8     | 30.0 ± 0.1 | 1.0     | 103 - 130         | 7250                | 0.53         |
| RCTS120123                                                                 | -12      | 7.1 | 14° ± 6°                               | 36.8     | 30.0 ± 0.1 | 1.0     | 123 - 150         | 7250                | 0.56         |
| RCTS120143                                                                 | -12      | 7.1 | 14° ± 6°                               | 36.8     | 30.0 ± 0.1 | 1.0     | 143 - 170         | 7250                | 0.58         |
| RCTS120163                                                                 | -12      | 7.1 | 14° ± 6°                               | 36.8     | 30.0 ± 0.1 | 1.0     | 163 - 190         | 7250                | 0.60         |
| RCTS120183                                                                 | -12      | 7.1 | 14° ± 6°                               | 36.8     | 30.0 ± 0.1 | 1.0     | 183 - 210         | 7250                | 0.63         |
| RCTS150099                                                                 | -15      | 7.5 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 099 - 114         | 7750                | 1.05         |
| RCTS150105                                                                 | -15      | 7.5 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 105 - 145         | 7750                | 1.14         |
| RCTS150140                                                                 | -15      | 7.5 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 140 - 180         | 7750                | 1.23         |
| RCTS150175                                                                 | -15      | 7.5 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 175 - 215         | 7750                | 1.31         |
| RCTS150210                                                                 | -15      | 7.5 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 210 - 250         | 7750                | 1.39         |
| RCTS160105                                                                 | -16      | 8.0 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 105 - 145         | 8550                | 1.14         |
| RCTS160140                                                                 | -16      | 8.0 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 140 - 180         | 8550                | 1.23         |
| RCTS160175                                                                 | -16      | 8.0 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 175 - 215         | 8550                | 1.31         |
| RCTS160210                                                                 | -16      | 8.0 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 210 - 250         | 8550                | 1.39         |
| RCTS170105                                                                 | -17      | 8.4 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 105 - 145         | 10150               | 1.14         |
| RCTS170140                                                                 | -17      | 8.4 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 140 - 180         | 10150               | 1.23         |
| RCTS170175                                                                 | -17      | 8.4 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 175 - 215         | 10150               | 1.31         |
| RCTS170210                                                                 | -17      | 8.4 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 210 - 250         | 10150               | 1.39         |
| RCTS180105                                                                 | -18      | 8.5 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 105 - 145         | 10150               | 1.14         |
| RCTS180140                                                                 | -18      | 8.5 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 140 - 180         | 10150               | 1.22         |
| RCTS180175                                                                 | -18      | 8.5 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 175 - 215         | 10150               | 1.31         |
| RCTS180210                                                                 | -18      | 8.5 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 210 - 250         | 10150               | 1.39         |
| RCTS220105                                                                 | -22      | 9.5 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 105 - 145         | 12950               | 1.14         |
| RCTS220140                                                                 | -22      | 9.5 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 140 - 180         | 12950               | 1.22         |
| RCTS220175                                                                 | -22      | 9.5 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 175 - 215         | 12950               | 1.31         |
| RCTS220210                                                                 | -22      | 9.5 | 14° ± 6°                               | 49.0     | 39.0 ± 0.1 | 1.0     | 210 - 250         | 12950               | 1.39         |
| Material: Acidproof Stainless Steel with high mechanical strength          |          |     |                                        |          |            |         |                   |                     |              |
| Lock one threaded end with Loctite; centermark threaded tube in mastcenter |          |     |                                        |          |            |         |                   |                     |              |
| Weight including Stemball and Adapterbar                                   |          |     |                                        |          |            |         |                   |                     |              |

# Twin Tang System (RTTS-)



| Article No  | Rod Size |      | DA<br>Diagonal Rod<br>Angle<br>Degrees | D1<br>mm | D2<br>mm    | R<br>mm | Lmin – Lmax<br>mm | Break Load<br>Kg | Weight<br>Kg |
|-------------|----------|------|----------------------------------------|----------|-------------|---------|-------------------|------------------|--------------|
|             | Dash     | mm   |                                        |          |             |         |                   |                  |              |
| RTTS300125  | -30      | 11.1 | 17° ± 13°                              | 62.0     | 46.4 ± 0.1  | 3.0     | 125 - 155         | 17700            | 2.10         |
| RTTS300150  | -30      | 11.1 | 17° ± 13°                              | 62.0     | 46.4 ± 0.1  | 3.0     | 150 - 200         | 17700            | 2.30         |
| RTTS300195  | -30      | 11.1 | 17° ± 13°                              | 62.0     | 46.4 ± 0.1  | 3.0     | 195 - 245         | 17700            | 2.40         |
| RTTS300240  | -30      | 11.1 | 17° ± 13°                              | 62.0     | 46.4 ± 0.1  | 3.0     | 240 - 290         | 17700            | 2.50         |
| RTTS400162  | -40      | 12.7 | 17° ± 13°                              | 68.6     | 52.4 ± 0.1  | 4.0     | 162 - 214         | 22450            | 3.20         |
| RTTS400210  | -40      | 12.7 | 17° ± 13°                              | 68.6     | 52.4 ± 0.1  | 4.0     | 210 - 262         | 22450            | 3.40         |
| RTTS400258  | -40      | 12.7 | 17° ± 13°                              | 68.6     | 52.4 ± 0.1  | 4.0     | 258 - 310         | 22450            | 3.60         |
| RTTS480175  | -48      | 14.3 | 17° ± 13°                              | 76.0     | 57.2 ± 0.1  | 4.0     | 175 - 230         | 28450            | 4.20         |
| RTTS480225  | -48      | 14.3 | 17° ± 13°                              | 76.0     | 57.2 ± 0.1  | 4.0     | 225 - 280         | 28450            | 4.40         |
| RTTS480275  | -48      | 14.3 | 17° ± 13°                              | 76.0     | 57.2 ± 0.1  | 4.0     | 275 - 330         | 28450            | 4.70         |
| RTTS600190  | -60      | 16.8 | 17° ± 13°                              | 85.0     | 65.2 ± 0.1  | 5.0     | 190 - 255         | 39250            | 5.70         |
| RTTS600245  | -60      | 16.8 | 17° ± 13°                              | 85.0     | 65.2 ± 0.1  | 5.0     | 245 - 310         | 39250            | 6.10         |
| RTTS600300  | -60      | 16.8 | 17° ± 13°                              | 85.0     | 65.2 ± 0.1  | 5.0     | 300 - 365         | 39250            | 6.20         |
| RTTS760205  | -76      | 17.9 | 17° ± 13°                              | 95.0     | 74.2 ± 0.1  | 5.0     | 205 - 270         | 43050            | 7.70         |
| RTTS760260  | -76      | 17.9 | 17° ± 13°                              | 95.0     | 74.2 ± 0.1  | 5.0     | 260 - 325         | 43050            | 8.00         |
| RTTS760315  | -76      | 17.9 | 17° ± 13°                              | 95.0     | 74.2 ± 0.1  | 5.0     | 315 - 380         | 43050            | 8.50         |
| RTTS760370  | -76      | 17.9 | 17° ± 13°                              | 95.0     | 74.2 ± 0.1  | 5.0     | 370 - 435         | 43050            | 8.90         |
| RTTS910225  | -91      | 19.5 | 17° ± 13°                              | 103.0    | 81.2 ± 0.1  | 5.0     | 225 - 300         | 49500            | 10.0         |
| RTTS910290  | -91      | 19.5 | 17° ± 13°                              | 103.0    | 81.2 ± 0.1  | 5.0     | 290 - 365         | 49500            | 10.5         |
| RTTS1150255 | -115     | 22.2 | 17° ± 13°                              | 118.0    | 94.2 ± 0.1  | 5.0     | 255 - 340         | 63650            | 14.9         |
| RTTS1150330 | -115     | 22.2 | 17° ± 13°                              | 118.0    | 94.2 ± 0.1  | 5.0     | 330 - 415         | 63650            | 15.7         |
| RTTS1500275 | -150     | 25.4 | 17° ± 13°                              | 132.5    | 104.6 ± 0.1 | 6.0     | 275 - 360         | 81600            | 20.2         |

# Twin Tang System (RTTS-) continued



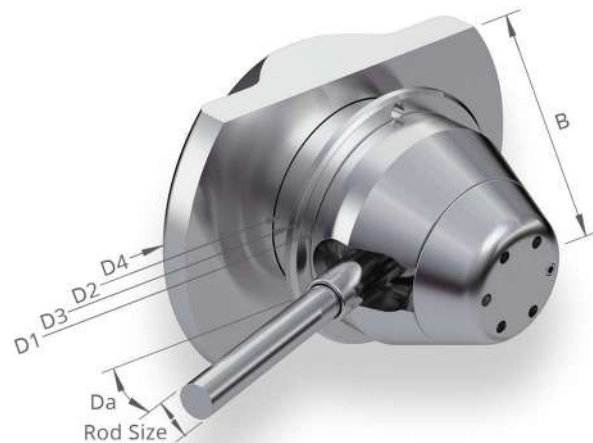
| Article No                                                                        | Rod Size |       | DA Diagonal Rod Angle Degrees | D1 mm | D2 mm       | R mm | Lmin – Lmax mm | Break Load Kg | Weight Kg |
|-----------------------------------------------------------------------------------|----------|-------|-------------------------------|-------|-------------|------|----------------|---------------|-----------|
|                                                                                   | Dash     | mm    |                               |       |             |      |                |               |           |
| RTTS1500355                                                                       | -150     | 25.4  | 17° ± 13°                     | 132.5 | 104.6 ± 0.1 | 6.0  | 355 - 440      | 81600         | 21.2      |
| RTTS1700295                                                                       | -170     | 27.1  | 17° ± 13°                     | 137.5 | 108.6 ± 0.1 | 6.0  | 295 - 380      | 92500         | 23.8      |
| RTTS1700375                                                                       | -170     | 27.1  | 17° ± 13°                     | 137.5 | 108.6 ± 0.1 | 6.0  | 375 - 460      | 92500         | 24.9      |
| RTTS1950310                                                                       | -195     | 28.6  | 17° ± 13°                     | 145.0 | 115.7 ± 0.1 | 7.0  | 310 - 400      | 106100        | 29.3      |
| RTTS1950395                                                                       | -195     | 28.6  | 17° ± 13°                     | 145.0 | 115.7 ± 0.1 | 7.0  | 395 - 485      | 106100        | 30.4      |
| RTTS2200325                                                                       | -220     | 30.25 | 15° ± 11°                     | 158.5 | 127.0 ± 0.2 | 7.0  | 325 - 415      | 118500        | 37.4      |
| RTTS2200410                                                                       | -220     | 30.25 | 15° ± 11°                     | 158.5 | 127.0 ± 0.2 | 7.0  | 410 - 500      | 118500        | 37.4      |
| RTTS2200495                                                                       | -220     | 30.25 | 15° ± 11°                     | 158.5 | 127.0 ± 0.2 | 7.0  | 495 - 585      | 118500        | 37.4      |
| RTTS2600255                                                                       | -260     | 33.35 | 15° ± 11°                     | 174.0 | 139.7 ± 0.2 | 7.0  | 255 - 330      | 147700        | 46.1      |
| RTTS2600325                                                                       | -260     | 33.35 | 15° ± 11°                     | 174.0 | 139.7 ± 0.2 | 7.0  | 325 - 400      | 147700        | 46.1      |
| RTTS2600395                                                                       | -260     | 33.35 | 15° ± 11°                     | 174.0 | 139.7 ± 0.2 | 7.0  | 395 - 470      | 147700        | 46.1      |
| RTTS2600465                                                                       | -260     | 33.35 | 15° ± 11°                     | 174.0 | 139.7 ± 0.2 | 7.0  | 465 - 530      | 147700        | 46.2      |
| Material: Acidproof Stainless Steel with high mechanical strength; Patent Pending |          |       |                               |       |             |      |                |               |           |
| Lock one threaded end with Loctite; centermark threaded tube in mastcenter        |          |       |                               |       |             |      |                |               |           |
| Weight including Stemball and Adapterbar                                          |          |       |                               |       |             |      |                |               |           |

# Bushing for Tang System (RTTS-)



| Article No                                                                           | D1 mm       | D2 mm       | D3 mm | L1 mm | L2 mm | R mm | Weight Kg |
|--------------------------------------------------------------------------------------|-------------|-------------|-------|-------|-------|------|-----------|
| RCTS84                                                                               | 25.9 ± 0.1  | 23.3 ± 0.1  | 29.7  | 14.0  | 1.0   | 0.4  | 0.01      |
| RCTS124                                                                              | 33.0 ± 0.2  | 30.2 ± 0.2  | 39.2  | 15.0  | 1.5   | 1    | 0.02      |
| RCTS224                                                                              | 43.0 ± 0.2  | 39.5 ± 0.2  | 49.0  | 15.0  | 1.5   | 1    | 0.03      |
| RTTS304-1                                                                            | 50.8 ± 0.2  | 46.8 ± 0.2  | 63.0  | 29.5  | 1.5   | 1    | 0.08      |
| RTTS404-1                                                                            | 57.8 ± 0.2  | 52.8 ± 0.2  | 69.0  | 33.0  | 1.6   | 1    | 0.12      |
| RTTS484                                                                              | 62.8 ± 0.2  | 57.6 ± 0.2  | 77.0  | 35.0  | 1.6   | 1    | 0.15      |
| RTTS604-1                                                                            | 71.8 ± 0.2  | 65.6 ± 0.2  | 86.0  | 35.0  | 1.6   | 1    | 0.19      |
| RTTS764                                                                              | 80.8 ± 0.2  | 74.6 ± 0.2  | 96.0  | 35.0  | 1.6   | 1    | 0.21      |
| RTTS914                                                                              | 87.8 ± 0.2  | 81.6 ± 0.2  | 104.0 | 36.0  | 1.8   | 1    | 0.25      |
| RTTS1154                                                                             | 100.8 ± 0.2 | 94.6 ± 0.2  | 119.0 | 39.0  | 1.9   | 1    | 0.32      |
| RTTS1504                                                                             | 113.8 ± 0.2 | 105.1 ± 0.2 | 133.5 | 44.0  | 2.0   | 1    | 0.56      |
| RTTS1704                                                                             | 117.8 ± 0.2 | 109.0 ± 0.2 | 138.0 | 46.0  | 2.0   | 1    | 0.61      |
| RTTS1954                                                                             | 126.8 ± 0.2 | 116.0 ± 0.2 | 145.0 | 53.0  | 2.5   | 1    | 0.90      |
| RTTS2204                                                                             | 139.6 ± 0.2 | 127.6 ± 0.2 | 159.0 | 58.0  | 2.5   | 1    | 1.20      |
| RTTS2604                                                                             | 152.0 ± 0.2 | 140.2 ± 0.2 | 174.5 | 62.0  | 2.7   | 1    | 1.40      |
| For carbon masts. Material: Acidproof Stainless Steel with high mechanical strength. |             |             |       |       |       |      |           |

# Clamp Tang System (RCTT-)



| Article No   | Rod Size |       | Da<br>Diagonal Rod<br>Angle<br>Lmin - Lmax | D1<br>mm | D2<br>mm   | D3<br>mm | D4<br>mm | R<br>mm | Mast<br>Thickness<br>Min - Max<br>mm | B<br>mm | Weight<br>Kg |
|--------------|----------|-------|--------------------------------------------|----------|------------|----------|----------|---------|--------------------------------------|---------|--------------|
|              | Dash     | mm    |                                            |          |            |          |          |         |                                      |         |              |
| RCTT017-0-10 | -17      | 8.38  | 4° - 30°                                   | 54.5     | 50.8 ±0.2  | 65.0     | 104      | 1.5     | 10-15                                | 66.5    | 0.99         |
| RCTT022-0-10 | -22      | 9.53  | 4° - 30°                                   | 54.5     | 50.8 ±0.2  | 65.0     | 104      | 1.5     | 10-15                                | 66.5    | 1.01         |
| RCTT030-0-12 | -30      | 11.10 | 4° - 30°                                   | 62.0     | 57.2 ±0.2  | 71.5     | 119.5    | 1.5     | 12-17                                | 76.0    | 1.34         |
| RCTT030-0-19 | -30      | 11.10 | 4° - 30°                                   | 62.0     | 57.2 ±0.2  | 71.5     | 119.5    | 1.5     | 19 - 24                              | 76.0    | 1.35         |
| RCTT040-0-12 | -40      | 12.70 | 4° - 30°                                   | 68.5     | 63.5 ±0.2  | 77.5     | 129.5    | 1.5     | 12-17                                | 85.5    | 1.69         |
| RCTT040-0-19 | -40      | 12.70 | 4° - 30°                                   | 68.5     | 63.5 ±0.2  | 77.5     | 129.5    | 1.5     | 19 - 24                              | 85.5    | 1.75         |
| RCTT048-0-12 | -48      | 14.27 | 4° - 27°                                   | 76.0     | 69.8 ±0.2  | 87.0     | 144.0    | 2.0     | 12-17                                | 91.5    | 2.27         |
| RCTT048-0-18 | -48      | 14.27 | 4° - 27°                                   | 76.0     | 69.8 ±0.2  | 87.0     | 144.0    | 2.0     | 18 - 23                              | 91.5    | 2.34         |
| RCTT060-0-18 | -60      | 16.76 | 4° - 30°                                   | 85.0     | 76.0 ±0.2  | 94.0     | 159.5    | 2.5     | 18 - 24                              | 102.0   | 3.12         |
| RCTT076-0-18 | -76      | 17.91 | 4° - 27°                                   | 95.0     | 85.0 ±0.2  | 107.0    | 179.0    | 3.0     | 18 - 24                              | 115.0   | 4.27         |
| RCTT091-0-23 | -91      | 19.51 | 4° - 27°                                   | 103.0    | 95.0 ±0.2  | 122.5    | 199.0    | 3.0     | 23 - 29                              | 125.0   | 5.84         |
| RCTT115-0-18 | -115     | 22.23 | 4° - 27°                                   | 118.0    | 114.3 ±0.2 | 143.0    | 219.0    | 3.0     | 18 - 24                              | 149.0   | 9.39         |
| RCTT115-0-23 | -115     | 22.23 | 4° - 27°                                   | 118.0    | 114.3 ±0.2 | 143.0    | 219.0    | 3.0     | 23 - 29                              | 149.0   | 9.53         |
| RCTT150-0-18 | -150     | 25.40 | 4° - 27°                                   | 132.5    | 127.0 ±0.2 | 154.5    | 234.0    | 3.0     | 18 - 24                              | 165.0   | 12.12        |
| RCTT150-0-23 | -150     | 25.40 | 4° - 27°                                   | 132.5    | 127.0 ±0.2 | 154.5    | 234.0    | 3.0     | 23 - 29                              | 165.0   | 12.39        |
| RCTT150-0-28 | -150     | 25.40 | 4° - 27°                                   | 132.5    | 127.0 ±0.2 | 154.5    | 234.0    | 3.0     | 28 - 34                              | 165.0   | 12.56        |
| RCTT170-0-28 | -170     | 27.08 | 4° - 27°                                   | 137.5    | 135.0 ±0.2 | 159.5    | 255.0    | 3.0     | 28 - 34                              | 174.5   | -            |
| RCTT195-0-28 | -195     | 28.58 | 4° - 27°                                   | 145.0    | 140.0 ±0.2 | 167.5    | 269.0    | 3.0     | 28 - 34                              | 179.0   | -            |
| RCTT220-0-28 | -220     | 30.25 | 4° - 30°                                   | 158.5    | 150.0 ±0.2 | 179.5    | 289.0    | 3.0     | 28 - 34                              | 198.0   | 23.70        |
| RCTT260-0-28 | -260     | 33.35 | 4° - 30°                                   | 174.0    | 165.0 ±0.2 | 194.5    | 309.0    | 3.0     | 28 - 34                              | 215.0   | 29.72        |
| RCTT320-0-28 | -320     | 38.10 | 4° - 30°                                   | 179.7    | 170.0 ±0.2 | 199.5    | 329.0    | 3.0     | 28 - 34                              | 235.0   | -            |
| RCTT360-0-28 | -360     | 41.20 | 4° - 30°                                   | 209.5    | 185.0 ±0.2 | 224.5    | 349.0    | 3.0     | 28 - 34                              | 254.0   | -            |
| RCTT430-0-28 | -430     | 44.45 | 4° - 30°                                   | 229.0    | 200.0 ±0.2 | 239.5    | 379.0    | 3.0     | 28 - 37                              | 269.0   | 55.88        |
| RCTT540-0-28 | -540     | 50.80 | 4° - 30°                                   | 254.0    | 230.0 ±0.2 | 279.5    | 439.0    | 3.0     | 28 - 37                              | 312.0   | 80.87        |

# Bushing for Clamp Tang System (RCTT-)



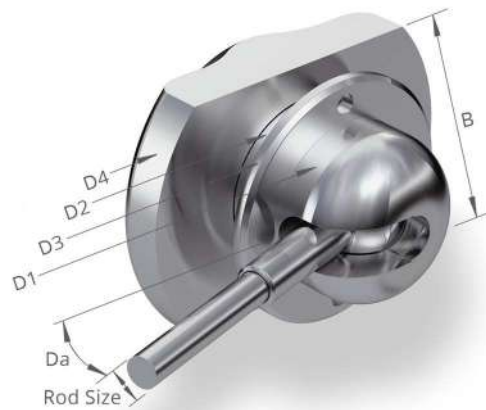
| Article No    | Dash | D1 mm     | D2 mm | L1 mm | L2 mm | L3 mm | Min – Max Mast Thickness mm | R mm | Weight Kg |
|---------------|------|-----------|-------|-------|-------|-------|-----------------------------|------|-----------|
| RCTT226-10    | -17  | 50.80±0.2 | 65.0  | 35.5  | 3.0   | 17.0  | 10 - 15                     | 1.5  | 0.264     |
| RCTT226-12    | -17  | 50.80±0.2 | 65.0  | 35.5  | 3.0   | 19.0  | 12 - 17                     | 1.5  | 0.278     |
| RCTT226-10    | -22  | 50.80±0.2 | 65.0  | 35.5  | 3.0   | 19.0  | 10 - 15                     | 1.5  | 0.278     |
| RCTT306-10    | -30  | 57.15±0.2 | 71.5  | 38.0  | 3.5   | 16.5  | 10 - 15                     | 1.5  | 0.270     |
| RCTT306-12    | -30  | 57.15±0.2 | 71.5  | 40.0  | 3.5   | 22.0  | 12 - 17                     | 1.5  | 0.283     |
| RCCT306-19    | -30  | 57.15±0.2 | 71.5  | 57.0  | 3.5   | 29.0  | 19 - 24                     | 1.5  | 0.331     |
| RCTT306-1970  | -30  | 57.15±0.2 | 71.5  | 73.5  | 3.5   | 25.0  | 14 - 19                     | 1.5  | 0.509     |
| RCTT406-12    | -40  | 63.50±0.2 | 77.5  | 41.5  | 3.5   | 21.8  | 12 - 17                     | 1.5  | 0.392     |
| RCTT406-19    | -40  | 63.50±0.2 | 77.5  | 48.5  | 3.5   | 29.0  | 19 - 24                     | 1.5  | 0.454     |
| RCTT406-1970  | -40  | 63.50±0.2 | 77.5  | 73.5  | 3.5   | 28.5  | 18.5 - 23.5                 | 1.5  | 0.681     |
| RCTT486-12    | -48  | 69.85±0.2 | 87.0  | 51.5  | 3.5   | 22.0  | 12 - 17                     | 2.0  | 0.560     |
| RCTT486-17    | -48  | 69.85±0.2 | 87.0  | 58.5  | 3.5   | 27.0  | 17 - 22                     | 2.0  | 0.613     |
| RCTT486-1978  | -48  | 69.85±0.2 | 87.0  | 81.5  | 3.5   | 28.5  | 18.5 - 23.5                 | 2.0  | 0.871     |
| RCTT606-18    | -60  | 76.00±0.2 | 94.0  | 52.5  | 4.0   | 29.0  | 18 - 24                     | 2.5  | 0.598     |
| RCTT606-0760  | -60  | 76.00±0.2 | 94.0  | 64.0  | 4.0   | 28.0  | 07 - 13                     | 2.5  | 0.721     |
| RCTT766-18    | -76  | 85.00±0.2 | 107.0 | 55.0  | 4.0   | 29.0  | 18 - 24                     | 3.0  | 0.695     |
| RCTT766-0760  | -76  | 85.00±0.2 | 107.0 | 64.0  | 4.0   | 18.0  | 07 - 13                     | 3.0  | 0.799     |
| RCTT766-1278  | -76  | 85.00±0.2 | 107.0 | 82.0  | 4.0   | 23.0  | 12 - 18                     | 3.0  | 1.008     |
| RCTT766-1867  | -76  | 85.00±0.2 | 107.0 | 71.0  | 4.0   | 29.0  | 18 - 24                     | 3.0  | 0.880     |
| RCTT916-23    | -91  | 95.00±0.2 | 122.5 | 74.0  | 4.5   | 34.0  | 23 - 29                     | 3.0  | 1.293     |
| RCTT916-0490  | -91  | 95.00±0.2 | 122.5 | 94.5  | 4.5   | 15.0  | 04 - 10                     | 3.0  | 1.623     |
| RCTT916-0861  | -91  | 95.00±0.2 | 122.5 | 65.5  | 4.5   | 19.0  | 08 - 14                     | 3.0  | 1.156     |
| RCTT916-0975  | -91  | 95.00±0.2 | 122.5 | 79.5  | 4.5   | 20.0  | 09 - 15                     | 3.0  | 1.381     |
| RCTT916-1490  | -91  | 95.00±0.2 | 122.5 | 94.5  | 4.5   | 25.0  | 14 - 20                     | 3.0  | 1.624     |
| RCTT1156-18   | -115 | 114.3±0.2 | 143.0 | 72.5  | 4.5   | 29.0  | 18 - 24                     | 3.0  | 2.100     |
| RCTT1156-23   | -115 | 114.3±0.2 | 143.0 | 77.5  | 4.5   | 34.0  | 23 - 29                     | 3.0  | 2.236     |
| RCTT1156-0970 | -115 | 114.3±0.2 | 143.0 | 74.5  | 4.5   | 20.0  | 09 - 15                     | 3.0  | 2.153     |
| RCTT1156-0980 | -115 | 114.3±0.2 | 143.0 | 84.5  | 4.5   | 20.0  | 09 - 15                     | 3.0  | 2.425     |
| RCTT1156-0995 | -115 | 114.3±0.2 | 143.0 | 99.5  | 4.5   | 20.0  | 09 - 15                     | 3.0  | 2.833     |

# Bushing for Clamp Tang System (RCTT-) continued



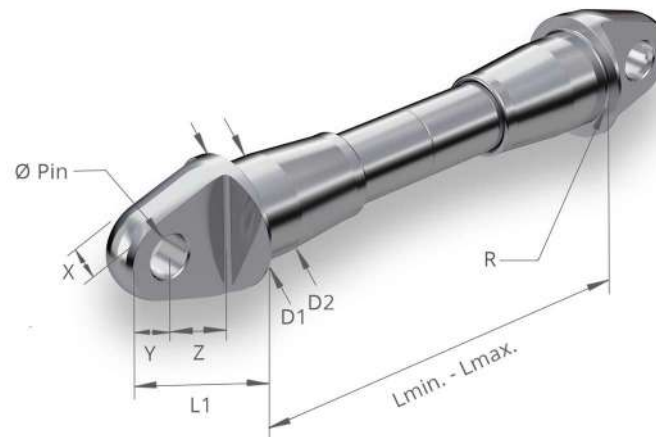
| Article No     | Dash | D1 mm     | D2 mm | L1 mm | L2 mm | L3 mm | Min – Max Mast Thickness mm | R mm | Weight Kg |
|----------------|------|-----------|-------|-------|-------|-------|-----------------------------|------|-----------|
| RCTT1156-14100 | -115 | 114.3±0.2 | 143.0 | 104.5 | 4.5   | 25.0  | 14 - 21                     | 3.0  | 2.970     |
| RCTT1156-1778  | -115 | 114.3±0.2 | 143.0 | 82.5  | 4.5   | 28.0  | 17 - 23                     | 3.0  | 2.372     |
| RCTT1506-18    | -150 | 127±0.2   | 154.5 | 80.0  | 5.0   | 29.5  | 18 - 24                     | 3.0  | 2.824     |
| RCTT1506-23    | -150 | 127±0.2   | 154.5 | 85.0  | 5.0   | 34.5  | 23 - 29                     | 3.0  | 2.992     |
| RCTT1506-28    | -150 | 127±0.2   | 154.5 | 90.0  | 5.0   | 39.5  | 28 - 34                     | 3.0  | 3.160     |
| RCTT1506-0980  | -150 | 127±0.2   | 154.5 | 85.0  | 5.0   | 20.0  | 09 - 15                     | 3.0  | 2.991     |
| RCTT1506-09110 | -150 | 127±0.2   | 154.5 | 115.0 | 5.0   | 20.0  | 09 - 15                     | 3.0  | 3.995     |
| RCTT1506-19100 | -150 | 127±0.2   | 154.5 | 105.0 | 5.0   | 30.5  | 19 - 25                     | 3.0  | 3.661     |
| RCTT1706-18    | -170 | 135±0.2   | 159.5 | -     | 5.0   | -     | 18 - 24                     | 3.0  | -         |
| RCTT1706-21100 | -170 | 135±0.2   | 159.5 | 105.0 | 5.0   | 33.0  | 21 - 27                     | 3.0  | 4.471     |
| RCTT1706-23105 | -170 | 135±0.2   | 159.5 | 110.0 | 5.0   | 35.0  | 23 - 29                     | 3.0  | 4.680     |
| RCTT1956-18    | -195 | 140±0.2   | 167.5 | -     | 5.0   | -     | 18 - 24                     | 3.0  | -         |
| RCTT1956-08125 | -195 | 140±0.2   | 167.5 | 130.0 | 5.0   | 20.0  | 08 - 14                     | 3.0  | 5.765     |
| RCTT2206-28    | -220 | 150±0.2   | 179.5 | 98.0  | 5.0   | 40.0  | 28 - 34                     | 3.0  | 4.424     |
| RCTT2206-08110 | -220 | 150±0.2   | 179.5 | 115.0 | 5.0   | 20.0  | 08 - 14                     | 3.0  | 5.168     |
| RCTT2206-13120 | -220 | 150±0.2   | 179.5 | 125.0 | 5.0   | 25.0  | 13 - 19                     | 3.0  | 5.609     |
| RCTT2206-13130 | -220 | 150±0.2   | 179.5 | 135.0 | 5.0   | 25.0  | 13 - 19                     | 3.0  | 6.049     |
| RCTT2206-18100 | -220 | 150±0.2   | 179.5 | 105.0 | 5.0   | 30.0  | 18 - 24                     | 3.0  | 4.730     |
| RCTT2606-28    | -260 | 165±0.2   | 194.5 | 103.0 | 5.0   | 40.0  | 28 - 34                     | 3.0  | 5.496     |
| RCTT2606-18110 | -260 | 165±0.2   | 194.5 | 115.0 | 5.0   | 30.0  | 18 - 24                     | 3.0  | 6.120     |
| RCTT2606-26120 | -260 | 165±0.2   | 194.5 | 125.0 | 5.0   | 38.0  | 26 - 32                     | 3.0  | 6.643     |
| RCTT3206-33    | -320 | 170±0.2   | 199.5 | -     | 5.0   | -     | 33 - 39                     | 3.0  | -         |
| RCTT3206-26130 | -320 | 170±0.2   | 199.5 | 135.0 | 5.0   | 38.0  | 26 - 32                     | 3.0  | 7.244     |
| RCTT3606-33    | -360 | 185±0.2   | 224.5 | -     | 5.0   | -     | 33 - 39                     | 3.0  | -         |
| RCTT3606-23130 | -360 | 185±0.2   | 224.5 | 135.0 | 5.0   | 35.0  | 23 - 29                     | 3.0  | 8.828     |
| RCTT4306-28    | -430 | 200±0.2   | 239.5 | 118.0 | 5.0   | 46.0  | 28 - 37                     | 3.0  | 9.065     |
| RCTT4306-12125 | -430 | 200±0.2   | 239.5 | 130.0 | 5.0   | 30.0  | 12 - 21                     | 3.0  | 9.959     |
| RCTT4306-17130 | -430 | 200±0.2   | 239.5 | 135.0 | 5.0   | 35.0  | 17 - 26                     | 3.0  | 10.334    |
| RCTT5406-28    | -540 | 230±0.2   | 279.5 | 128.0 | 5.0   | 46.0  | 28 - 37                     | 3.0  | 11.561    |
| RCTT5406-12140 | -540 | 230±0.2   | 279.5 | 145.0 | 5.0   | 30.0  | 12 - 21                     | 3.0  | 13.036    |

# Cap Clamp Tang System (RCLT-)



| Article No | Rod Size |      | Da<br>Diagonal<br>Rod Angle<br>Lmin - Lmax | D1<br>mm | D2<br>mm | D3<br>mm | D4<br>mm | R<br>mm | Mast<br>Thickness<br>Min - Max<br>mm | B<br>mm | Break<br>Load<br>Kg | Weight<br>Kg |
|------------|----------|------|--------------------------------------------|----------|----------|----------|----------|---------|--------------------------------------|---------|---------------------|--------------|
|            | Dash     | mm   |                                            |          |          |          |          |         |                                      |         |                     |              |
| RCLT010-06 | -10      | 6.35 | 7° - 21°                                   | 34.8     | 35±0.2   | 51.5     | 74       | 1.5     | 06 - 10                              | 50      | 5443                | 0.368        |
| RCLT010-09 | -10      | 6.35 | 5° - 35°                                   | 34.8     | 35±0.2   | 49.3     | 74.3     | 1.2     | 09 - 13                              | 47      | 5443                | 0.36         |
| RCLT012-07 | -12      | 7.14 | 5° - 35°                                   | 44.7     | 42±0.2   | 56.9     | 89.0     | 1.5     | 07 - 11                              | 55      | 7650                | 0.59         |
| RCLT012-10 | -12      | 7.14 | 5° - 35°                                   | 44.7     | 42±0.2   | 56.9     | 89.0     | 1.5     | 10 - 14                              | 55      | 7650                | 0.60         |
| RCLT015-07 | -15      | 7.52 | 5° - 35°                                   | 44.7     | 42±0.2   | 56.9     | 89.0     | 1.5     | 7 - 11                               | 55      | 7650                | 0.59         |
| RCLT015-10 | -15      | 7.52 | 5° - 35°                                   | 44.7     | 42±0.2   | 56.9     | 89.0     | 1.5     | 10 - 14                              | 55      | 7650                | 0.60         |

# Eye Tang System (RETS-)



| Article No                                                                                                 | Ø Pin |      | X mm | Y mm | Z mm | D1 mm | D2 mm      | L1 mm | R mm | Lmin – Lmax mm | Break Load Kg | Weight Kg |
|------------------------------------------------------------------------------------------------------------|-------|------|------|------|------|-------|------------|-------|------|----------------|---------------|-----------|
|                                                                                                            | Inch  | mm   |      |      |      |       |            |       |      |                |               |           |
| RETS095070-1                                                                                               | 3/8"  | 9.5  | 9.0  | 9.7  | 16.0 | 29.5  | 23.0 ± 0.1 | 31.0  | 1.0  | 70 - 85        | 3800          | 0.25      |
| RETS095085-1                                                                                               | 3/8"  | 9.5  | 9.0  | 9.7  | 16.0 | 29.5  | 23.0 ± 0.1 | 31.0  | 1.0  | 85 - 100       | 3800          | 0.26      |
| RETS095100-1                                                                                               | 3/8"  | 9.5  | 9.0  | 9.7  | 16.0 | 29.5  | 23.0 ± 0.1 | 31.0  | 1.0  | 100 - 115      | 3800          | 0.27      |
| RETS095115-1                                                                                               | 3/8"  | 9.5  | 9.0  | 9.7  | 16.0 | 29.5  | 23.0 ± 0.1 | 31.0  | 1.0  | 115 - 130      | 3800          | 0.28      |
| RETS095130-1                                                                                               | 3/8"  | 9.5  | 9.0  | 9.7  | 16.0 | 29.5  | 23.0 ± 0.1 | 31.0  | 1.0  | 130 - 145      | 3600          | 0.29      |
| RETS127085-1                                                                                               | 1/2"  | 12.7 | 12.0 | 14.2 | 18.6 | 39.5  | 30.0 ± 0.1 | 39.0  | 1.0  | 85 - 110       | 7300          | 0.53      |
| RETS127105-1                                                                                               | 1/2"  | 12.7 | 12.0 | 14.2 | 18.6 | 39.5  | 30.0 ± 0.1 | 39.0  | 1.0  | 105 - 135      | 7300          | 0.55      |
| RETS127125-1                                                                                               | 1/2"  | 12.7 | 12.0 | 14.2 | 18.6 | 39.5  | 30.0 ± 0.1 | 39.0  | 1.0  | 125 - 155      | 7300          | 0.58      |
| RETS127145-1                                                                                               | 1/2"  | 12.7 | 12.0 | 14.2 | 18.6 | 39.5  | 30.0 ± 0.1 | 39.0  | 1.0  | 145 - 175      | 7300          | 0.60      |
| RETS159105-1                                                                                               | 5/8"  | 15.9 | 15.0 | 16.7 | 24.3 | 48.5  | 39.0 ± 0.1 | 48.0  | 1.0  | 105 - 145      | 10500         | 1.04      |
| RETS159140-1                                                                                               | 5/8"  | 15.9 | 15.0 | 16.7 | 24.3 | 48.5  | 39.0 ± 0.1 | 48.0  | 1.0  | 140 - 180      | 10500         | 1.12      |
| RETS159175-1                                                                                               | 5/8"  | 15.9 | 15.0 | 16.7 | 24.3 | 48.5  | 39.0 ± 0.1 | 48.0  | 1.0  | 175 - 215      | 10500         | 1.20      |
| RETS159210-1                                                                                               | 5/8"  | 15.9 | 15.0 | 16.7 | 24.3 | 48.5  | 39.0 ± 0.1 | 48.0  | 1.0  | 210 - 250      | 10500         | 1.28      |
| RETS191115                                                                                                 | 3/4"  | 19.1 | 18.0 | 20.5 | 29.0 | 58.5  | 46.3 ± 0.1 | 57.5  | 3.0  | 115 - 154      | 14500         | 1.15      |
| RETS191150-1                                                                                               | 3/4"  | 19.1 | 18.0 | 20.5 | 29.0 | 58.5  | 46.3 ± 0.1 | 57.5  | 3.0  | 150 - 200      | 14500         | 1.22      |
| RETS191170-1                                                                                               | 3/4"  | 19.1 | 18.0 | 20.5 | 29.0 | 58.5  | 46.3 ± 0.1 | 57.5  | 3.0  | 170 - 245      | 14500         | 1.36      |
| RETS222140-1                                                                                               | 7/8"  | 22.2 | 20.5 | 22.6 | 34.3 | 67.5  | 52.4 ± 0.1 | 65.0  | 4.0  | 140 - 193      | 17700         | 1.62      |
| RETS222185-1                                                                                               | 7/8"  | 22.2 | 20.5 | 22.6 | 34.3 | 67.5  | 52.4 ± 0.1 | 65.0  | 4.0  | 185 - 242      | 17700         | 1.85      |
| Material: Acidproof compelte. For version *-1, Acidprrof Stainless Steel and Bronze Adapterbar             |       |      |      |      |      |       |            |       |      |                |               |           |
| Lock one threaded end with Loctite; centermark threaded tube in mastcenter. Weight included in Adapterbar. |       |      |      |      |      |       |            |       |      |                |               |           |



BSI Patented Twintang; SWS 110, Southern Wind Shipyard



BSI Patented Twintang; SWS 100, Southern Wind Shipyard



Asymmetric Toggle Assembly; SWS 100, Southern Wind Shipyard

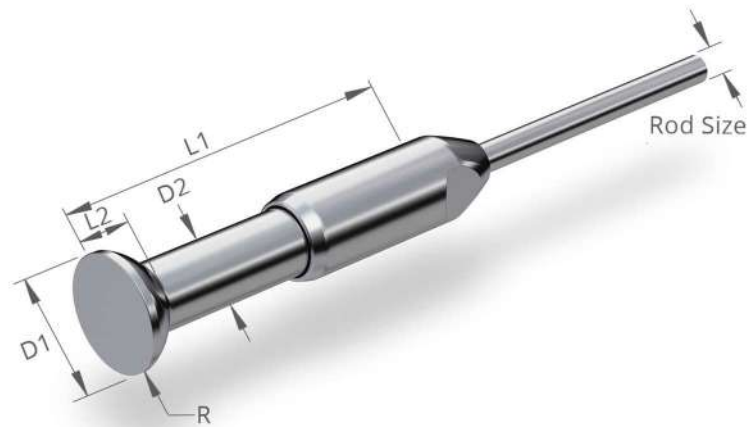


BSI Patented Twintang; SWS 110, Southern Wind Shipyard



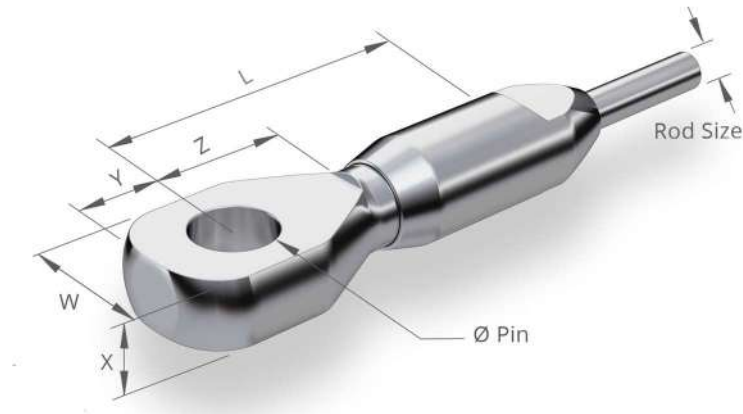
S/Y Judel/Vrolijk 78  
Photo Courtesy of Baltic Yachts

## Ball w/ Socket (57-)



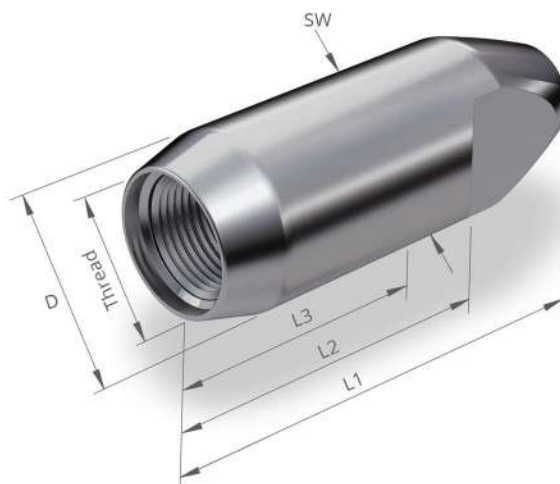
| Article No                                                | Rod Size |      | D1 mm | D2 mm | L0 mm | L1 mm | L2 mm | R mm | Break Load Kg | Weight Kg |
|-----------------------------------------------------------|----------|------|-------|-------|-------|-------|-------|------|---------------|-----------|
|                                                           | Dash     | mm   |       |       |       |       |       |      |               |           |
| 57516040                                                  | -3       | 4.0  | 15.5  | 8.9   | 53.0  | 63.5  | 5.5   | 7.8  | 2100          | 0.039     |
| 57380045                                                  | -4       | 4.4  | 18.5  | 10.4  | 64.5  | 75.5  | 6.1   | 9.8  | 2750          | 0.053     |
| 57716050                                                  | -6       | 5.0  | 21.5  | 11.6  | 69.7  | 85.7  | 8.6   | 10.8 | 3600          | 0.083     |
| 57716057                                                  | -8       | 5.7  | 21.5  | 11.6  | 69.0  | 86.7  | 8.6   | 10.8 | 4650          | 0.082     |
| 57716060                                                  | -9       | 6.0  | 21.5  | 11.6  | 68.1  | 87.7  | 8.6   | 10.8 | 4750          | 0.082     |
| 57120064                                                  | -10      | 6.4  | 21.5  | 13.2  | 72.7  | 89.8  | 8.1   | 10.8 | 5850          | 0.113     |
| 57120071                                                  | -12      | 7.1  | 21.5  | 13.2  | 70.6  | 91.2  | 8.1   | 10.8 | 6400          | 0.113     |
| 57580071                                                  | -12      | 7.1  | 27.4  | 17.3  | 87.0  | 106.5 | 8.4   | 14.8 | 7250          | 0.223     |
| 57580075                                                  | -15      | 7.5  | 27.4  | 17.3  | 87.5  | 106.5 | 8.4   | 14.8 | 7750          | 0.224     |
| 57580080                                                  | -16      | 8.0  | 27.4  | 17.3  | 87.5  | 107.5 | 8.4   | 14.8 | 8550          | 0.222     |
| 57580084                                                  | -17      | 8.4  | 27.4  | 17.3  | 86.4  | 108.1 | 8.4   | 14.8 | 9850          | 0.221     |
| 57340095                                                  | -22      | 9.5  | 27.6  | 20.0  | 90.2  | 116.6 | 9.6   | 14.8 | 12950         | 0.327     |
| 57780111                                                  | -30      | 11.1 | 34.8  | 22.3  | 106.9 | 140.5 | 11.9  | 19.8 | 17700         | 0.496     |
| 57100127                                                  | -40      | 12.7 | 39.8  | 25.8  | 112.5 | 144.1 | 13.4  | 24.8 | 22450         | 0.715     |
| Material: Acidproof Stainless Steel                       |          |      |       |       |       |       |       |      |               |           |
| For Socket outer diameter see Socket (50-) same Dash Size |          |      |       |       |       |       |       |      |               |           |

# Eye w/ Socket (54-)



| Article No                                                         | Rod Size |      | Ø Pin  |      | W mm | X mm | Y mm | Z mm | L mm  | Break Load Kg | Weight Kg |
|--------------------------------------------------------------------|----------|------|--------|------|------|------|------|------|-------|---------------|-----------|
|                                                                    | Dash     | mm   | Inch   | mm   |      |      |      |      |       |               |           |
| 54516040                                                           | -3       | 4.0  | 5/16"  | 8.1  | 16.0 | 7.0  | 9.0  | 14.5 | 46.0  | 2000          | 0.042     |
| 54380045                                                           | -4       | 4.4  | 3/8"   | 9.6  | 20.0 | 8.5  | 10.0 | 17.0 | 56.0  | 2650          | 0.056     |
| 54716045                                                           | -4       | 4.4  | 7/16"  | 11.2 | 24.0 | 10.0 | 13.0 | 19.0 | 53.0  | 2900          | 0.090     |
| 54716050                                                           | -6       | 5.0  | 7/16"  | 11.2 | 24.0 | 10.0 | 13.0 | 19.0 | 57.0  | 3450          | 0.099     |
| 54716057                                                           | -8       | 5.7  | 7/16"  | 11.2 | 24.0 | 10.0 | 13.0 | 18.0 | 57.0  | 4450          | 0.098     |
| 54120050                                                           | -6       | 5.0  | 1/2"   | 12.8 | 28.0 | 11.0 | 15.0 | 21.5 | 57.0  | 3450          | 0.140     |
| 54120057                                                           | -8       | 5.7  | 1/2"   | 12.8 | 28.0 | 11.0 | 15.0 | 21.5 | 57.0  | 4500          | 0.139     |
| 54120060                                                           | -9       | 6.0  | 1/2"   | 12.8 | 28.0 | 11.0 | 15.0 | 21.5 | 57.0  | 4650          | 0.138     |
| 54120064                                                           | -10      | 6.4  | 1/2"   | 12.8 | 28.0 | 11.0 | 15.0 | 21.5 | 57.0  | 5650          | 0.137     |
| 54580064                                                           | -10      | 6.4  | 5/8"   | 16.0 | 32.8 | 14.0 | 17.0 | 24.5 | 74.0  | 6950          | 0.220     |
| 54120071                                                           | -12      | 7.1  | 1/2"   | 12.8 | 28.0 | 11.0 | 15.0 | 21.5 | 57.0  | 6400          | 0.137     |
| 54580071                                                           | -12      | 7.1  | 5/8"   | 16.0 | 32.8 | 14.0 | 18.0 | 24.5 | 77.0  | 6950          | 0.237     |
| 54580075                                                           | -15      | 7.5  | 5/8"   | 16.0 | 32.8 | 14.0 | 18.0 | 24.5 | 76.0  | 7400          | 0.238     |
| 54580080                                                           | -16      | 8.0  | 5/8"   | 16.0 | 32.8 | 14.0 | 18.0 | 24.5 | 76.0  | 8200          | 0.236     |
| 54580084                                                           | -17      | 8.4  | 5/8"   | 16.0 | 32.8 | 14.0 | 18.0 | 24.5 | 76.0  | 9700          | 0.235     |
| 54340084                                                           | -17      | 8.4  | 3/4"   | 19.1 | 37.5 | 17.0 | 20.0 | 30.0 | 85.0  | 9700          | 0.404     |
| 54340095                                                           | -22      | 9.5  | 3/4"   | 19.1 | 37.5 | 17.0 | 20.0 | 30.0 | 85.0  | 12450         | 0.400     |
| 54780111                                                           | -30      | 11.1 | 7/8"   | 22.3 | 44.0 | 19.5 | 26.0 | 35.0 | 100.0 | 17000         | 0.607     |
| 54100127                                                           | -40      | 12.7 | 1"     | 25.6 | 49.5 | 22.0 | 27.5 | 39.5 | 108.0 | 21500         | 0.838     |
| 54118143                                                           | -48      | 14.3 | 1 1/8" | 28.8 | 57.0 | 25.0 | 31.5 | 46.5 | 118.0 | 27250         | 1.253     |
| Material: Acidproof Stainless Steel                                |          |      |        |      |      |      |      |      |       |               |           |
| For Socket outer diameter see Socket (50-) page 36, same Dash size |          |      |        |      |      |      |      |      |       |               |           |

# Socket (50-)



| Article No | Rod Size |      | Thread Inch | D mm | L1 mm | L2 mm | L3 mm | SW mm | Break Load Kg | Weight Kg |
|------------|----------|------|-------------|------|-------|-------|-------|-------|---------------|-----------|
|            | Dash     | mm   |             |      |       |       |       |       |               |           |
| 50516040   | -3       | 4.0  | 5/16"-24    | 12.0 | 38.0  | 23.0  | 15.0  | 8     | 2100          | 0.018     |
| 50380045   | -4       | 4.4  | 3/8"-24     | 14.0 | 41.0  | 26.0  | 18.0  | 9     | 2750          | 0.018     |
| 50716050   | -6       | 5.0  | 7/16"-20    | 16.0 | 43.0  | 28.0  | 20.0  | 11    | 3600          | 0.033     |
| 50120050   | -6       | 5.0  | 1/2"-20     | 18.0 | 46.0  | 30.0  | 22.0  | 11    | 3600          | 0.047     |
| 50716057   | -8       | 5.7  | 7/16"-20    | 16.0 | 43.0  | 28.0  | 20.0  | 11    | 4650          | 0.033     |
| 50120057   | -8       | 5.7  | 1/2"-20     | 18.0 | 46.0  | 30.0  | 22.0  | 13    | 4650          | 0.047     |
| 50120060   | -9       | 6.0  | 1/2"-20     | 18.0 | 46.0  | 30.0  | 22.0  | 13    | 4850          | 0.046     |
| 50120064   | -10      | 6.4  | 1/2"-20     | 18.0 | 46.0  | 30.0  | 22.0  | 13    | 5850          | 0.045     |
| 50340064   | -10      | 6.4  | 3/4"-16     | 26.0 | 68.0  | 43.0  | 32.0  | 16    | 5850          | 0.140     |
| 50340070   | -11      | 7.0  | 3/4"-16     | 26.0 | 68.0  | 43.0  | 32.0  | 16    | 6850          | 0.138     |
| 50120071   | -12      | 7.1  | 1/2"-20     | 18.0 | 46.0  | 27.0  | 46.0  | 14    | 7200          | 0.045     |
| 50580071   | -12      | 7.1  | 5/8"-18     | 22.0 | 60.0  | 38.0  | 27.0  | 16    | 7250          | 0.087     |
| 50580075   | -15      | 7.5  | 5/8"-18     | 22.0 | 60.0  | 38.0  | 27.0  | 16    | 7750          | 0.088     |
| 50580080   | -16      | 8.0  | 5/8"-18     | 22.0 | 60.0  | 38.0  | 27.0  | 16    | 8550          | 0.086     |
| 50580084   | -17      | 8.4  | 5/8"-18     | 22.0 | 60.0  | 38.0  | 27.0  | 16    | 9850          | 0.085     |
| 50340084   | -17      | 8.4  | 3/4"-16     | 26.0 | 68.0  | 43.0  | 32.0  | 19    | 10150         | 0.136     |
| 50780084   | -17      | 8.4  | 7/8"-14     | 30.0 | 82.0  | 52.0  | 37.0  | 19    | 10150         | 0.200     |
| 50340095   | -22      | 9.5  | 3/4"-16     | 26.0 | 68.0  | 43.0  | 32.0  | 19    | 12950         | 0.132     |
| 50780111   | -30      | 11.1 | 7/8"-14     | 30.0 | 82.0  | 52.0  | 37.0  | 22    | 17700         | 0.205     |
| 50100127   | -40      | 12.7 | 1"-12       | 35.0 | 88.0  | 56.0  | 41.0  | 24    | 22450         | 0.316     |
| 50118143   | -48      | 14.3 | 1 1/8"-12   | 38.5 | 93.0  | 61.0  | 46.0  | 27    | 28450         | 0.379     |
| 50114168   | -60      | 16.8 | 1 1/4"-12   | 44.0 | 111.0 | 61.0  | 51.0  | 32    | 37200         | 0.635     |
| 50138179   | -76      | 17.9 | 1 3/8"-12   | 48   | 127   | 75    | 64    | 36    | 43050         | 0.927     |
| 50112195   | -91      | 19.5 | 1 1/2"-12   | 52   | 135   | 79    | 69    | 41    | 49500         | 1.148     |
| 5011116222 | -115     | 22.2 | 1 11/16"-12 | 59   | 155   | 91    | 80    | 41    | 63650         | 1.610     |
| 50178254   | -150     | 25.4 | 1 7/8"-8    | 66   | 173   | 99    | 85    | 50    | 80600         | 2.345     |
| 50200271   | -170     | 27.1 | 2"-8        | 70   | 186   | 107   | 92    | 50    | 92500         | 2.792     |

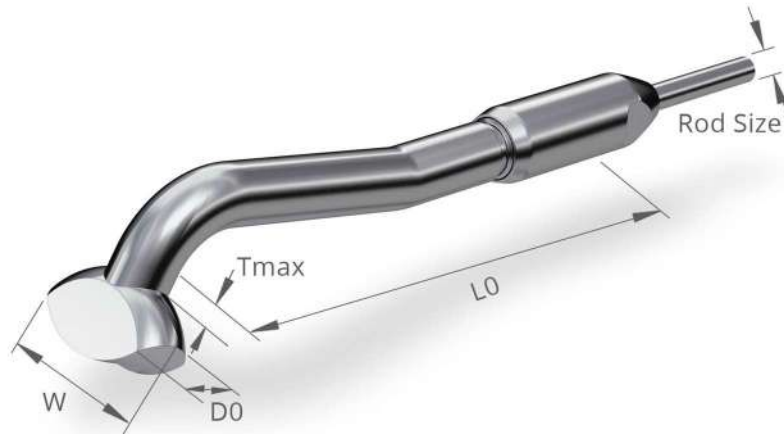
Material: Acidproof Stainless Steel

# Stud w/ Socket (53-)



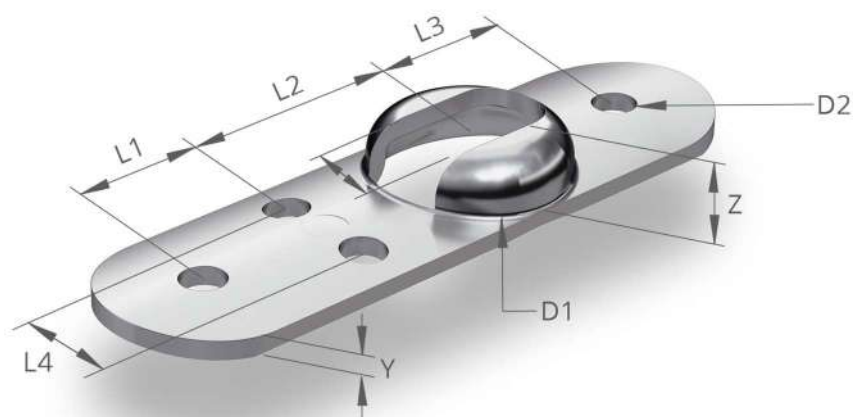
| Article No                                                        | Rod Size |      | Thread Inch | D mm | L1 mm | L2 mm | L3 mm | SW mm | Break Load Kg | Weight Kg |
|-------------------------------------------------------------------|----------|------|-------------|------|-------|-------|-------|-------|---------------|-----------|
|                                                                   | Dash     | mm   |             |      |       |       |       |       |               |           |
| 53516040                                                          | -3       | 4.0  | 5/16"-24RH  | 2.5  | 83.5  | 55.0  | 4.5   | 6     | 2100          | 0.04      |
| 53380045                                                          | -4       | 4.4  | 3/8"-24     | 2.5  | 10.0  | 71.5  | 6.0   | 8     | 2750          | 0.07      |
| 53716050                                                          | -6       | 5.0  | 7/16"-20    | 3.3  | 113.0 | 76.0  |       |       | 3600          | 0.10      |
| 53716057                                                          | -8       | 5.7  | 7/16"-20    | 3.3  | 113.0 | 76.0  |       |       | 4650          | 0.10      |
| 53120057                                                          | -8       | 5.7  | 1/2"-20     | 4.0  | 120.0 | 80.0  |       |       | 4650          | 0.14      |
| 53716060                                                          | -9       | 6.0  | 7/16"-20RH  | 3.3  | 113.0 | 76.0  |       |       | 4750          | 0.10      |
| 53120060                                                          | -9       | 6.0  | 1/2"-20     | 4.0  | 120.0 | 80.0  |       |       | 4850          | 0.14      |
| 53120064                                                          | -10      | 6.4  | 1/2"-20     | 4.0  | 120.0 | 80.0  |       |       | 5850          | 0.14      |
| 53120071                                                          | -12      | 7.1  | 1/2"-20     | 4.0  | 120.0 | 80.0  |       |       | 6260          | 0.14      |
| 53580071                                                          | -12      | 7.1  | 5/8"-18     | 4.0  | 156.0 | 101.0 |       |       | 7250          | 0.28      |
| 53580075                                                          | -15      | 7.5  | 5/8"-18     | 4.0  | 156.0 | 101.0 |       |       | 7750          | 0.28      |
| 53580080                                                          | -16      | 8.0  | 5/8"-18     | 4.0  | 156.0 | 101.0 |       |       | 8550          | 0.280     |
| 53580084                                                          | -17      | 8.4  | 5/8"-18     | 4.0  | 156.0 | 101.0 |       |       | 9850          | 0.28      |
| 53340084                                                          | -17      | 8.4  | 3/4"-16     | 4.0  | 180.0 | 120.0 |       |       | 10150         | 0.47      |
| 53340095                                                          | -22      | 9.5  | 3/4"-16     | 4.0  | 180.0 | 120.0 |       |       | 12950         | 0.46      |
| 53780111                                                          | -30      | 11.1 | 7/8"-14     | 5.0  | 233.0 | 156.0 |       |       | 17700         | 0.79      |
| 53100127                                                          | -40      | 12.7 | 1"-12-RH    | 5.0  | 242.5 | 166.5 | 8.6   | 22    | 21280         | 1.26      |
| 53114143                                                          | -48      | 14.3 | 1 1/4"-12RH | 5.0  | 258.5 | 175.0 |       |       | 28450         | 1.90      |
| 53114168                                                          | -60      | 16.8 | 1 1/4"-12   | 5.0  | 266.0 | 175.0 |       |       | 37200         | 2.12      |
| Material: Acidproof Stainless Steel                               |          |      |             |      |       |       |       |       |               |           |
| - For Socket outer diameter see under Socket (50-) same Dash Size |          |      |             |      |       |       |       |       |               |           |

## T w/ Socket (56-)



| Article No                                                      | Rod Size |     | Thread Inch  | W mm | D0 mm | L0 mm | Safe Work Load Kg | Break Load Kg | Weight Kg |
|-----------------------------------------------------------------|----------|-----|--------------|------|-------|-------|-------------------|---------------|-----------|
|                                                                 | Dash     | mm  |              |      |       |       |                   |               |           |
| 56516040                                                        | -3       | 4.0 | 5/16"-24 UNF | 17.5 | 8.0   | 79.5  | 750               | 2025          | 0.055     |
| 56380045                                                        | -4       | 4.4 | 3/8"-24 UNF  | 20.5 | 9.0   | 88.5  | 1150              | 2675          | 0.071     |
| 56716050                                                        | -6       | 5.0 | 7/16"-20 UNF | 31.5 | 12.7  | 109.5 | 1650              | 3380          | 0.170     |
| 56120050                                                        | -6       | 5.0 | 1/2"-20 UNF  | 31.5 | 12.7  | 105.5 | 1650              | 3380          | 0.185     |
| 56716057                                                        | -8       | 5.7 | 7/16"-20 UNF | 31.5 | 12.7  | 109.5 | 1650              | 4340          | 0.169     |
| 56120057                                                        | -8       | 5.7 | 1/2"-20 UNF  | 31.5 | 12.7  | 105.5 | 1650              | 4340          | 0.184     |
| 56120060                                                        | -9       | 6.0 | 1/2"-20 UNF  | 31.5 | 12.7  | 105.5 | 1650              | 4690          | 0.183     |
| 56120064                                                        | -10      | 6.4 | 1/2"-20 UNF  | 32.5 | 14.0  | 112.0 | 2050              | 5395          | 0.182     |
| 56580071                                                        | -12      | 7.1 | 5/8"-18 UNF  | 34.5 | 16.0  | 124.0 | 2500              | 6570          | 0.349     |
| 56580075                                                        | -15      | 7.5 | 5/8"-18 UNF  | 34.5 | 16.0  | 124.0 | 2500              | 7435          | 0.350     |
| 56580080                                                        | -16      | 8.0 | 5/8"-18 UNF  | 39.0 | 18.0  | 130.0 | 2500              | 8210          | 0.348     |
| 56580084                                                        | -17      | 8.4 | 5/8"-18 UNF  | 39.0 | 18.0  | 130.0 | 2500              | 9130          | 0.347     |
| Material: Acidproof Stainless Steel                             |          |     |              |      |       |       |                   |               |           |
| For Socket outer diameter see under Socket (50-) same Dash Size |          |     |              |      |       |       |                   |               |           |

## Back Plate (70-)

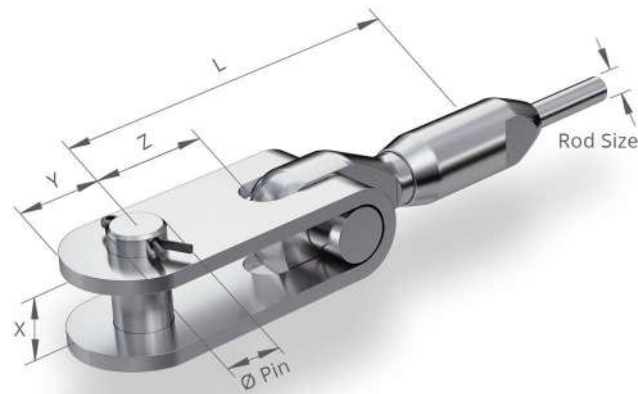


| Article No. | Rod Size |           | X mm | Y mm | Z mm | D1 mm | D2 mm | L1 mm | L2 mm | L3 mm | L4 mm |
|-------------|----------|-----------|------|------|------|-------|-------|-------|-------|-------|-------|
|             | Dash     | mm        |      |      |      |       |       |       |       |       |       |
| 700034      | -3       | 3.0 / 4.0 | 9.0  | 3.0  | 5.0  | 20.5  | 5.2   | 17.0  | 21.5  | 21.5  | -     |
| 700005      | -4       | 4.4       | 10.0 | 3.0  | 5.0  | 20.5  | 5.2   | 17.0  | 21.5  | 21.5  | -     |
| 700006      | -6/-9    | 5.0 / 6.0 | 13.5 | 3.0  | 6.5  | 30.6  | 6.8   | 22.0  | 28.0  | 30.0  | -     |
| 700007      | -10      | 6.4       | 15.0 | 4.0  | 10.5 | 39.2  | 6.8   | 20.0  | 37.0  | 34.0  | 23.0  |
| 700008      | -12/-15  | 7.1 / 7.5 | 17.0 | 4.0  | 10.5 | 39.2  | 6.8   | 20.0  | 37.0  | 34.0  | 23.0  |

Material: Acidproof Stainless Steel

BSI recommends that its backplates only be used with mast thickness of 1.20\*diameter for wire. 1.35\*diameter for dyeformwire. 1.50\*diameter for rod.

# Toggle w/ Eye & Socket (51-)



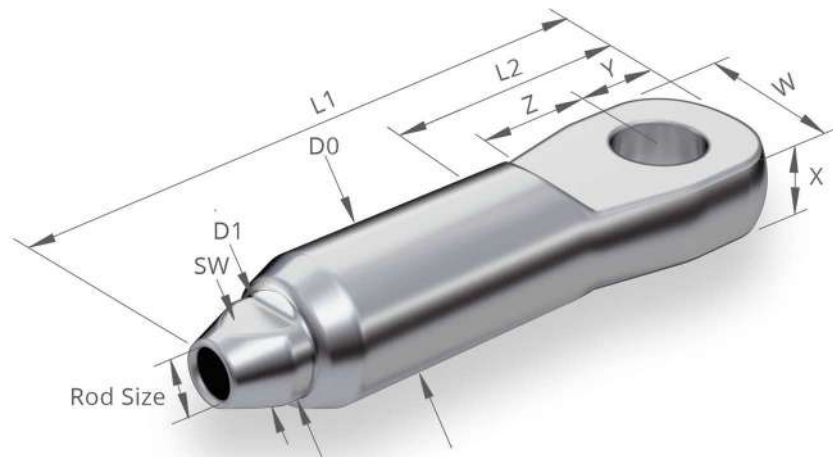
| Article No                                                         | Rod Size |      | Ø Pin  |      | W mm | X mm       | Y mm | Z mm | L mm  | Break Load Kg | Weight Kg |
|--------------------------------------------------------------------|----------|------|--------|------|------|------------|------|------|-------|---------------|-----------|
|                                                                    | Dash     | mm   | Inch   | mm   |      |            |      |      |       |               |           |
| 51516040S                                                          | -3       | 4.0  | 5/16"  | 7.9  | 20.0 | 9.0 ± 0.5  | 12.0 | 26.0 | 82.0  | 2000          | 0.10      |
| 51380045S                                                          | -4       | 4.4  | 3/8"   | 9.5  | 25.0 | 11.0 ± 0.5 | 15.0 | 29.5 | 95.0  | 2650          | 0.17      |
| 51716050S                                                          | -6       | 5.0  | 7/16"  | 11.1 | 25.0 | 13.0 ± 0.5 | 15.0 | 31.5 | 101.0 | 3450          | 0.25      |
| 51716057S                                                          | -8       | 5.7  | 7/16"  | 11.1 | 25.0 | 13.0 ± 0.5 | 15.0 | 31.5 | 101.0 | 4450          | 0.25      |
| 51716060S                                                          | -9       | 6.0  | 7/16"  | 11.1 | 25.0 | 13.0 ± 0.5 | 15.0 | 31.5 | 101.0 | 4650          | 0.25      |
| 51120060S                                                          | -9       | 6.0  | 1/2"   | 12.7 | 30.0 | 14.0 ± 0.5 | 17.5 | 35.0 | 113.0 | 4650          | 0.35      |
| 51120064S                                                          | -10      | 6.4  | 1/2"   | 12.7 | 30.0 | 14.0 ± 0.5 | 17.5 | 35.0 | 113.0 | 5650          | 0.35      |
| 51120071S                                                          | -12      | 7.1  | 1/2"   | 12.7 | 30.0 | 14.0 ± 0.5 | 17.5 | 35.0 | 113.0 | 6400          | 0.35      |
| 51580071S                                                          | -12      | 7.1  | 5/8"   | 15.9 | 40.0 | 17.5 ± 0.5 | 21.0 | 34.5 | 128.5 | 6950          | 0.63      |
| 51580071LS                                                         | -12      | 7.1  | 5/8"   | 15.9 | 40.0 | 17.5 ± 0.5 | 21.0 | 46.7 | 138.9 | 7250          | 0.67      |
| 51580075S                                                          | -15      | 7.5  | 5/8"   | 15.9 | 40.0 | 17.5 ± 0.5 | 23.0 | 34.5 | 128.5 | 7400          | 0.63      |
| 51580080S                                                          | -16      | 8.0  | 5/8"   | 15.9 | 40.0 | 17.5 ± 0.5 | 23.0 | 34.5 | 128.5 | 8200          | 0.63      |
| 51580084S                                                          | -17      | 8.4  | 5/8"   | 15.9 | 40.0 | 17.5 ± 0.5 | 23.0 | 34.5 | 128.5 | 9700          | 0.63      |
| 51340095S                                                          | -22      | 9.5  | 3/4"   | 19.1 | 50.0 | 21.5 ± 0.5 | 26.0 | 37.0 | 145.5 | 12450         | 0.96      |
| 51340095LS                                                         | -22      | 9.5  | 3/4"   | 19.1 | 50.0 | 21.5 ± 0.5 | 26.0 | 53.5 | 159.0 | 13000         | 1.07      |
| 51780111S                                                          | -30      | 11.1 | 7/8"   | 22.2 | 60.0 | 24.0 ± 0.5 | 32.0 | 46.0 | 172.0 | 17000         | 1.66      |
| 51100127S                                                          | -40      | 12.7 | 1"     | 25.4 | 60.0 | 28.0 ± 0.5 | 35.0 | 60.5 | 199.0 | 21500         | 2.08      |
| 51118143S                                                          | -48      | 14.3 | 1 1/8" | 28.6 | 70.0 | 31.5 ± 0.5 | 40.0 | 54.5 | 208.5 | 27250         | 2.95      |
| Material: Acidproof Stainless Steel                                |          |      |        |      |      |            |      |      |       |               |           |
| For Socket outer diameter see Socket (50-) page 36, same Dash size |          |      |        |      |      |            |      |      |       |               |           |

# Furling Connector (RCFL-)



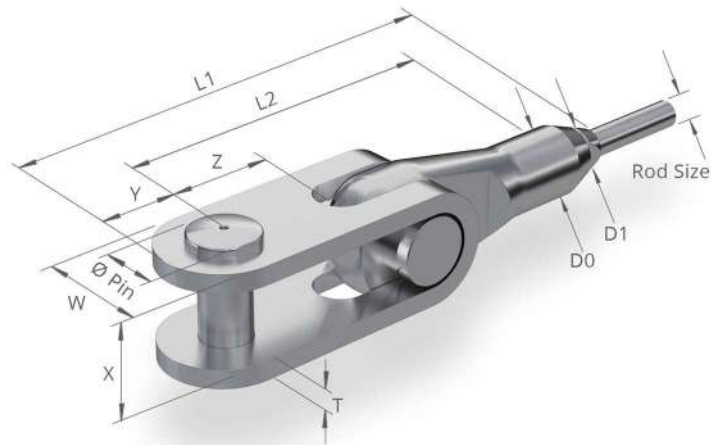
| Article                                                                                                       | Rod Size |      | D0   | D1   | L1  | L2 | SW    | Break Load | Weight |
|---------------------------------------------------------------------------------------------------------------|----------|------|------|------|-----|----|-------|------------|--------|
| No                                                                                                            | Dash     | mm   | mm   | mm   | mm  | mm | mm    | Kg         | Kg     |
| RCFL048                                                                                                       | -48      | 14.3 | 33.1 | 26.3 | 133 | 4  | 18/24 | 30757      | 0.62   |
| RCFL060                                                                                                       | -60      | 16.8 | 38.7 | 31.1 | 154 | 4  | 27/21 | 36560      | 0.97   |
| RCFL076                                                                                                       | -76      | 17.9 | 40.4 | 31.1 | 155 | 4  | 27/24 | 43245      | 0.98   |
| RCFL091                                                                                                       | -91      | 19.5 | 44.1 | 34.2 | 171 | 5  | 30/27 | 49853      | 1.28   |
| RCFL115                                                                                                       | -115     | 22.2 | 50.3 | 39.0 | 190 | 5  | 36/30 | 64404      | 1.85   |
| RCFL150                                                                                                       | -150     | 25.4 | 58.0 | 45.4 | 218 | 6  | 41/32 | 81100      | 2.83   |
| RCFL170                                                                                                       | -170     | 27.1 | 63.2 | 49.9 | 239 | 5  | 41/36 | 94429      | 3.95   |
| RCFL195                                                                                                       | -195     | 28.6 | 66.2 | 51.6 | 247 | 5  | 46/41 | 108550     | 4.60   |
| RCFL220                                                                                                       | -220     | 30.3 | 69.8 | 54.8 | 264 | 6  | 50/41 | 120400     | 5.08   |
| RCFL260                                                                                                       | -260     | 33.4 | 77.7 | 61.2 | 294 | 5  | 55/50 | 144215     | 7.50   |
| Material: High Grade Stainless Steel                                                                          |          |      |      |      |     |    |       |            |        |
| D1: max. outer diameter of the Furling Connector Body; D2: max. outer diameter of the Furling Socket Diameter |          |      |      |      |     |    |       |            |        |

# Furling Eye w/ Socket (RFE-)



| Article No                                                        | Rod Size |      | Ø Pin   |      | W mm  | X mm | Y mm | Z mm | D0 mm | D1 mm | L1 mm | L2 mm | SW mm | Break Load Kg | Weight Kg |
|-------------------------------------------------------------------|----------|------|---------|------|-------|------|------|------|-------|-------|-------|-------|-------|---------------|-----------|
|                                                                   | Dash     | mm   | Inch    | mm   |       |      |      |      |       |       |       |       |       |               |           |
| RFE49                                                             | -4       | 4.4  | 3/8"    | 9.5  | 20.0  | 8.5  | 11.0 | 14.3 | 14.0  | 10.6  | 61.2  | 21.2  | 6.0   | 2700          | 0.05      |
| RFE611                                                            | -6       | 5.0  | 7/16"   | 11.1 | 23.0  | 10.0 | 12.7 | 16.7 | 16.0  | 12.3  | 70.8  | 23.0  | 7.0   | 3600          | 0.08      |
| RFE811                                                            | -8       | 5.7  | 7/16"   | 11.1 | 23.0  | 10.0 | 12.7 | 16.7 | 16.0  | 12.3  | 74.8  | 25.8  | 7.0   | 4600          | 0.08      |
| RFE911                                                            | -9       | 6.0  | 7/16"   | 11.1 | 23.0  | 10.0 | 12.7 | 16.7 | 16.0  | 12.3  | 75.8  | 26.0  | 8.0   | 4800          | 0.08      |
| RFE1012                                                           | -10      | 6.4  | 1/2"    | 12.7 | 28.0  | 11.0 | 15.4 | 19.1 | 18.8  | 13.9  | 83.7  | 30.0  | 8.0   | 5800          | 0.12      |
| RFE1212                                                           | -12      | 7.1  | 1/2"    | 12.7 | 28.0  | 11.0 | 15.4 | 19.1 | 18.8  | 13.9  | 84.7  | 29.0  | 9.0   | 7200          | 0.13      |
| RFE1216                                                           | -12      | 7.1  | 5/8"    | 15.9 | 30.0  | 14.0 | 16.5 | 23.9 | 20.7  | 15.6  | 96.3  | 34.5  | 9.0   | 7200          | 0.18      |
| RFE1516                                                           | -15      | 7.5  | 5/8"    | 15.9 | 30.0  | 14.0 | 15.5 | 21.0 | 20.7  | 15.6  | 96.3  | 35.0  | 10.0  | 7700          | 0.18      |
| RFE1616                                                           | -16      | 8.0  | 5/8"    | 15.9 | 34.0  | 14.0 | 18.7 | 23.9 | 23.5  | 17.2  | 105.1 | 39.4  | 10.0  | 8500          | 0.24      |
| RFE1716                                                           | -17      | 8.4  | 5/8"    | 15.9 | 34.0  | 14.0 | 18.7 | 23.9 | 23.5  | 15.9  | 108.1 | 39.6  | 11.0  | 10100         | 0.24      |
| RFE1719                                                           | -17      | 8.4  | 3/4"    | 19.1 | 34.5  | 17.0 | 19.0 | 28.6 | 23.5  | 15.9  | 113.5 | 44.8  | 11.0  | 10100         | 0.30      |
| RFE2219                                                           | -22      | 9.5  | 3/4"    | 19.1 | 40.0  | 17.0 | 22.0 | 28.6 | 27.5  | 20.5  | 121.6 | 44.0  | 12.0  | 13000         | 0.40      |
| RFEL03019                                                         | -30      | 11.1 | 3/4"    | 19.1 | 43.0  | 18.0 | 22.0 | 34.0 | 29.6  | 21.6  | 133.0 | 45.5  | 14.0  | 17575         | 0.57      |
| RFEL03022                                                         | -30      | 11.1 | 7/8"    | 22.2 | 43.0  | 19.5 | 22.0 | 34.0 | 29.6  | 21.6  | 132.0 | 45.0  | 14.0  | 17575         | 0.57      |
| RFEL03025                                                         | -30      | 11.1 | 1"      | 25.4 | 44.8  | 22.0 | 22.9 | 41.0 | 29.6  | 21.6  | 139.0 | 50.5  | 14    | 18017         | 0.64      |
| RFEL04022                                                         | -40      | 12.7 | 7/8"    | 22.2 | 47.6  | 19.5 | 24.3 | 34.0 | 34.8  | 23.1  | 145.0 | 49.6  | 16.0  | 23355         | 0.78      |
| RFEL04025                                                         | -40      | 12.7 | 1"      | 25.4 | 49.0  | 22.0 | 25.0 | 39.0 | 34.8  | 23.1  | 149.0 | 54.0  | 16.0  | 23865         | 0.85      |
| RFEL04825                                                         | -48      | 14.3 | 1"      | 25.4 | 53.8  | 25.0 | 27.4 | 43.0 | 37.6  | 26.3  | 164.0 | 58.0  | 18.0  | 30800         | 1.13      |
| RFEL04828                                                         | -48      | 14.3 | 1 1/8"  | 28.6 | 53.8  | 25.0 | 27.4 | 43.0 | 37.6  | 26.3  | 164.0 | 57.5  | 18.0  | 29020         | 1.12      |
| RFEL04832                                                         | -48      | 14.3 | 1 1/4"  | 31.8 | 59.8  | 25.0 | 30.4 | 48.0 | 37.6  | 26.3  | 172.0 | 63.0  | 18.0  | 30800         | 1.28      |
| RFEL060286                                                        | -60      | 16.8 | 1 1/8"  | 28.6 | 64.8  | 27.0 | 32.9 | 43.0 | 44.7  | 31.1  | 185.2 | 62.0  | 21.0  | 43740         | 1.71      |
| RFEL06032                                                         | -60      | 16.8 | 1 1/4"  | 31.8 | 64.8  | 28.3 | 32.9 | 48.0 | 44.8  | 31.1  | 189.0 | 66.5  | 21.0  | 43675         | 1.83      |
| RFEL06035                                                         | -60      | 16.8 | 1 3/8"  | 34.9 | 64.8  | 33.0 | 32.9 | 53.0 | 44.8  | 31.1  | 191.6 | 68.4  | 21.0  | 43880         | 1.97      |
| RFEL07632                                                         | -76      | 17.9 | 1 1/4"  | 31.8 | 64.8  | 28.3 | 32.9 | 48.0 | 44.8  | 31.1  | 187.0 | 63.3  | 24.0  | 43675         | 1.81      |
| RFEL07635                                                         | -76      | 17.9 | 1 3/8"  | 34.9 | 64.8  | 33.0 | 32.9 | 53.0 | 44.8  | 31.1  | 190.0 | 66.0  | 24.0  | 43880         | 1.93      |
| RFEL09135                                                         | -91      | 19.5 | 1 3/8"  | 34.9 | 69.8  | 31.5 | 35.4 | 53.0 |       | 34.2  | 207.7 | 80.1  | 25.0  | 51120         | 2.42      |
| RFEL11540                                                         | -115     | 22.2 | 1 9/16" | 39.7 | 79.8  | 35.5 | 40.4 | 60.0 |       | 39.0  | 231.6 | 90.1  | 28.0  | 66450         | 3.47      |
| RFEL11544                                                         | -115     | 22.2 | 1 3/4"  | 44.5 | 82.0  | 40.0 | 41.5 | 67.0 |       | 39.0  | 237.4 | 94.9  | 28.0  | 68485         | 3.75      |
| RFEL15044                                                         | -150     | 25.4 | 1 3/4"  | 44.5 | 89.8  | 40.0 | 45.4 | 67.0 |       | 45.4  | 262.8 | 100.0 | 32.0  | 84865         | 5.03      |
| RFEL17048                                                         | -170     | 27.1 | 1 7/8"  | 47.6 | 94.8  | 44.5 | 47.9 | 72.0 |       | 49.9  | 284.8 | 97.5  | 36.0  | 92740         | 6.41      |
| RFEL19554                                                         | -195     | 28.6 | 2 1/8"  | 54.0 | 102.0 | 50.0 | 51.5 | 81.0 |       | 51.6  | 301.3 | 105.5 | 41.0  | 108330        | 7.58      |
| RFEL22057                                                         | -220     | 30.3 | 2 1/4"  | 57.2 | 109.8 | 53.0 | 55.4 | 86.0 |       | 54.8  | 321.5 | 119.9 | 41.0  | 119700        | 9.06      |
| RFEL26062                                                         | -260     | 33.4 | 2 7/16" | 61.9 | 119.8 | 57.5 | 60.4 | 93.0 |       | 61.2  | 354.6 | 120.9 | 50.0  | 145080        | 12.1      |
| RFEL32063                                                         | -320     | 38.1 | 2 1/2"  | 63.5 | 133.0 | 59.0 | 67.0 | 96.0 |       | 67.6  | 384.5 | 144.8 | 46.0  | 190460        | 16.3      |
| Material: Acidproof Stainless Steel with high mechanical strength |          |      |         |      |       |      |      |      |       |       |       |       |       |               |           |
| D1 is the max. outer diameter on the Furling Socket Diameter      |          |      |         |      |       |      |      |      |       |       |       |       |       |               |           |

# Furling Toggle w/ Eye & Socket (RFT-)



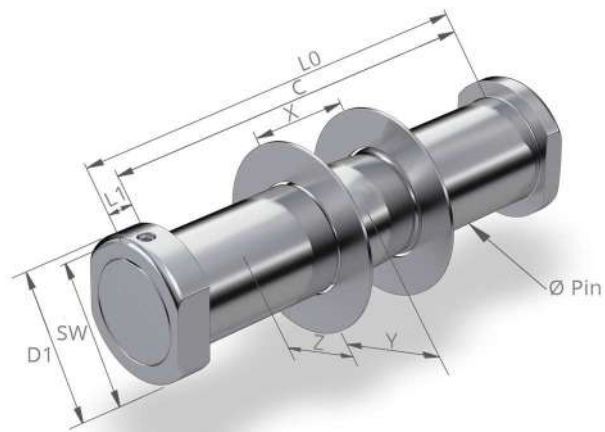
| Article No | Clevis Pin Options | Rod Size |      | Ø Pin  |      | W mm | X mm         | Y mm | Z mm | D1 mm | T mm | L1 mm | L2 mm | SW mm | Break Load Kg | Weight Kg |
|------------|--------------------|----------|------|--------|------|------|--------------|------|------|-------|------|-------|-------|-------|---------------|-----------|
|            |                    | Dash     | mm   | Inch   | mm   |      |              |      |      |       |      |       |       |       |               |           |
| RFT49      | S/G                | -4       | 4.4  | 3/8"   | 9.5  | 25   | 11.0<br>±0.5 | 13   | 33   | 10.6  | 4    | 108   | 69    | 6     | 2700          | 0.17      |
| RFT611     | K/S/G              | -6       | 5.0  | 7/16"  | 11.1 | 25   | 13.0<br>±0.5 | 13   | 36   | 12.3  | 5    | 120   | 77    | 7     | 3600          | 0.24      |
| RFT811     | K/S/G              | -8       | 5.7  | 7/16"  | 11.1 | 25   | 13.0<br>±0.5 | 13   | 36   | 12.3  | 5    | 124   | 77    | 7     | 4600          | 0.24      |
| RFT911     | K/S/G              | -9       | 6.0  | 7/16"  | 11.1 | 25   | 13.0<br>±0.5 | 13   | 36   | 12.3  | 5    | 125   | 77    | 8     | 4800          | 0.24      |
| RFT1012    | K/S/G              | -10      | 6.4  | 1/2"   | 12.7 | 30   | 14.0<br>±0.5 | 16   | 38   | 13.9  | 5    | 138   | 86    | 8     | 5800          | 0.34      |
| RFT1212    | K/S/G              | -12      | 7.1  | 1/2"   | 12.7 | 30   | 14.0<br>±0.5 | 16   | 38   | 13.9  | 5    | 139   | 86    | 9     | 7200          | 0.34      |
| RFT1216    | K/S                | -12      | 7.1  | 5/8"   | 15.9 | 40   | 17.5<br>±0.6 | 22   | 39   | 15.6  | 6    | 157   | 93    | 9     | 7200          | 0.58      |
| RFT1516    | K/S                | -15      | 7.5  | 5/8"   | 15.9 | 40   | 17.5<br>±0.6 | 22   | 39   | 15.6  | 6    | 157   | 93    | 10    | 7700          | 0.58      |
| RFT1616    | K/S                | -16      | 8.0  | 5/8"   | 15.9 | 40   | 17.5<br>±0.6 | 22   | 38   | 17.2  | 6    | 164   | 99    | 10    | 8500          | 0.64      |
| RFT1716    | K/S                | -17      | 8.4  | 5/8"   | 15.9 | 40   | 17.5<br>±0.6 | 21   | 38   | 15.9  | 6    | 167   | 99    | 11    | 10100         | 0.64      |
| RFT2219    | K/S                | -22      | 9.5  | 3/4"   | 19.1 | 50   | 21.5<br>±0.6 | 26   | 53   | 20.5  | 6    | 201   | 122   | 12    | 13000         | 0.99      |
| RFT3019    | K/S                | -30      | 11.1 | 3/4"   | 19.1 | 50   | 21.5<br>±0.6 | 26   | 52   | 22.0  | 6    | 211   | 123   | 14    | 17700         | 1.07      |
| RFTL03022  | K/S                | -30      | 11.1 | 7/8"   | 22.2 | 60   | 24.0<br>±0.6 | 32   | 69   | 21.5  | 6    | 233   | 139   | 14    | 17700         | 1.61      |
| RFTL04025  | K/S                | -40      | 12.7 | 1"     | 25.4 | 60   | 28.0<br>±0.8 | 32   | 68   | 23.1  | 8    | 249   | 152   | 16    | 23864         | 2.25      |
| RFTL04828  | K/S                | -48      | 14.3 | 1 1/8" | 28.6 | 70   | 31.5<br>±0.8 | 37   | 75   | 26.3  | 8    | 276   | 166   | 18    | 28400         | 2.98      |
| RFTL06032  | K/S                | -60      | 16.8 | 1 1/4" | 31.8 | 80   | 36.5<br>±1.0 | 42   | 83   | 31.1  | 10   | 314   | 189   | 21    | 43675         | 4.71      |
| RFTL07632  | K/S                | -76      | 17.9 | 1 1/4" | 31.8 | 80   | 36.5<br>±0.5 | 42   | 83   | 31.1  | 10   | 312   | 188   | 24    | 43675         | 4.70      |
| RFTL07635  | K/S                | -76      | 17.9 | 1 3/8" | 34.9 | 80   | 36.5<br>±1.0 | 42   | 80   | 31.1  | 12   | 270   | 187   | 24    | 43880         | 5.23      |

# Furling Toggle w/ Eye & Socket (RFT-) continued



| Article No                                                                 | Clevis Pin Options | Rod Size |      | Ø Pin   |      | W mm | X mm         | Y mm | Z mm | D1 mm | T mm | L1 mm | L2 mm    | SW mm | Break Load Kg | Weight Kg |
|----------------------------------------------------------------------------|--------------------|----------|------|---------|------|------|--------------|------|------|-------|------|-------|----------|-------|---------------|-----------|
|                                                                            |                    | Dash     | mm   | Inch    | mm   |      |              |      |      |       |      |       |          |       |               |           |
| RFTL09135                                                                  | K/S                | -91      | 19.5 | 1_3/8"  | 34.9 | 85   | 42.0<br>±1.2 | 45   | 100  | 34.2  | 12   | 308   | 216      | 27    | 51120         | 6.41      |
| RFTL11538                                                                  | K/S                | -115     | 22.2 | 1_1/2"  | 38.1 | 95   | 42.0<br>±1.5 | 50   | 121  | 39.0  | 15   | 352   | -<br>243 | 30    | 66445         | 9.68      |
| RFTL11540                                                                  | K/S                | -115     | 22.2 | 1_9/16" | 39.7 | 95   | 44.0<br>±1.5 | 50   | 119  | 39.0  | 15   | 401   | 251      | 30    | 66445         | 9.86      |
| RFTL15044                                                                  | K/S                | -150     | 25.4 | 1_3/4"  | 44.5 | 110  | 52.0<br>±1.5 | 58   | 132  | 45.5  | 15   | 395   | 279      | 32    | 82050         | 13.2      |
| RFTL17048                                                                  | K/S                | -170     | 27.1 | 1_7/8"  | 47.6 | 110  | 52.0<br>±2.0 | 58   | 131  | 49.9  | 20   | 473   | 286      | 36    | 92740         | 17.0      |
| RFTL19554                                                                  | K/S                | -195     | 28.6 | 2_1/8"  | 54.0 | 150  | 62.0<br>±2.0 | 78   | 175  | 45.7  | 12   | 594   | 358      | 36    | 106100        | 20.1      |
| RFTL22057                                                                  | K/S                | -220     | 30.3 | 2_1/4"  | 57.2 | 130  | 62.0<br>±2.0 | 68   | 151  | 54.8  | 20   | 473   | 317      | 41    | 120630        | 24.4      |
| RFTL26062                                                                  | K/S                | -260     | 33.4 | 2_7/16" | 61.9 | 150  | 66.0<br>±2.0 | 77   | 155  | 61.2  | 20   | 510   | 337      | 50    | 144780        | 29.2      |
| RFT32063                                                                   | K/S                | -320     | 38.1 | 2_1/2"  | 63.5 | 250  | 72.5<br>±3.0 | 102  | 140  | 63.2  | 15   | 680   | 368      | 46    | 185000        | 37.1      |
| Material: Acidproof Stainless Steel with high mechanical strength          |                    |          |      |         |      |      |              |      |      |       |      |       |          |       |               |           |
| S: Clevis Pin w/Split; K: Clevis Pin Treaded w/Nut; G: Clevis Pin w/G-ring |                    |          |      |         |      |      |              |      |      |       |      |       |          |       |               |           |
| D is the max. outer diameter on the Furling Socket Diameter                |                    |          |      |         |      |      |              |      |      |       |      |       |          |       |               |           |

# Barrelpin (RBA-)



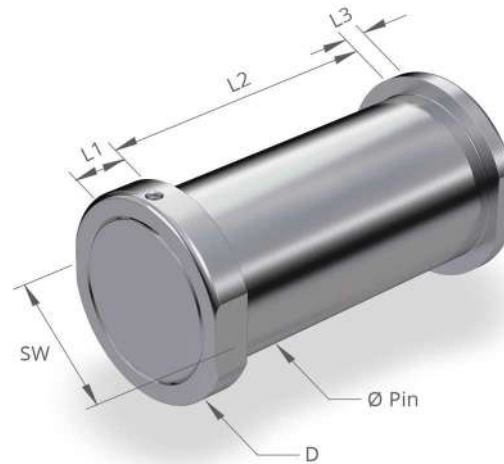
| Article No. | Rod Size |            | Ø Pin    |      | C mm  | L0 mm | X mm | Y_min mm | Z_max mm | L1 mm | D1 mm | SW mm |
|-------------|----------|------------|----------|------|-------|-------|------|----------|----------|-------|-------|-------|
|             | Dash     | mm         | Inch     | mm   |       |       |      |          |          |       |       |       |
| RBA111-54S  | -06/-08  | 5,0/ 5,7   | 7/16"    | 11,1 | 54    | 60,6  | 12,5 | 14,5     | 16,5     | 6,6   | -     | -     |
| RBA127-57S  | -10/-12  | 6,4/ 7,1   | 1/2"     | 12,7 | 57    | 64,1  | 14   | 16       | 19,0     | 6,6   | -     | -     |
| RBA159-65K  | -15/-17  | 7,5/ 8,4   | 5/8"     | 15,9 | 65    | 74,8  | 17   | 19       | 24,0     | 9,8   | 21,5  | 22    |
| RBA191-77K  | -22      | 9,5        | 3/4"     | 19,1 | 77    | 85    | 19,5 | 22       | 28,5     | 9,5   | 27    | -     |
| RBA222-90K  | -30      | 11,1       | 7/8"     | 22,2 | 90    | 99,8  | 22,5 | 25       | 33,5     | 9,5   | 30    | 27    |
| RBA254-105K | -40      | 12,7       | 1"       | 25,4 | 104,5 | 114,8 | 26   | 28       | 38,0     | 9,8   | 34,8  | 32    |
| RBA286-115K | -48      | 14,3       | 1 1/8"   | 28,6 | 115   | 124   | 29   | 32       | 43,0     | 11    | 38,5  | 32    |
| RBA318-128K | -60/-76  | 16,8/ 17,9 | 1 1/4"   | 31,8 | 127,5 | 136,5 | 32   | 36       | 47,5     | 11,5  | 41,5  | 36    |
| RBA349-140K | -91      | 19,5       | 1 3/8"   | 34,9 | 140   | 150,5 | 35   | 41       | 52,5     | 13    | 44,5  | -     |
| RBA397-160K | -115     | 22,2       | 1 9/16"  | 39,7 | 159,5 | 170,5 | 40   | 46       | 59,5     | 14    | 49,5  | -     |
| RBA445-178K | -150     | 25,4       | 1 3/4"   | 44,5 | 178   | 189   | 44,5 | 51       | 68,0     | 14,5  | 54    | -     |
| RBA476-191K | -170     | 27,1       | 1 7/8"   | 47,6 | 191   | 202   | 48   | 55       | 71,5     | 14,5  | 57,5  | -     |
| RBA540-216K | -195     | 28,6       | 2 1/8"   | 54   | 216   | 227   | 54   | 60       | 81,0     | 15    | 63,5  | -     |
| RBA572-229K | -220     | 30,3       | 2 1/4"   | 57,2 | 229   | 240   | 58,5 | 65       | 87,5     | 15    | 67    | -     |
| RBA619-248K | -260     | 33,4       | 2 7/16"  | 61,9 | 248   | 259   | 62   | 70       | 94,5     | 14    | 74,8  | 70    |
| RBA635-254K | -320     | 38,1       | 2 1/2"   | 63,5 | 254   | 265   | 64,5 | 72,0     | 95,5     | 15    | 73,5  | -     |
| RBA667-268K | -360     | 41,2       | 2 5/8"   | 66,7 | 267,5 | 278,5 | 67   | 75,0     | 100,0    | 15    | 76,5  | -     |
| RBA714-286K | -430     | 44,5       | 2 13/16" | 71,4 | 286   | 299,5 | 71,5 | 80,0     | 107,0    | 17,5  | 81    | -     |
| RBA762-306K | -540     | 50,8       | 3"       | 76,2 | 305,5 | 319   | 76,5 | 90,0     | 114,0    | 17,5  | 86    | -     |

Material: Acidproof Stainless Steel with high mechanical strength

RBAxxx-xxK incl. Pin, cap, capscrews and washers. RBAxxx-xxS incl. pin, washers and split pin

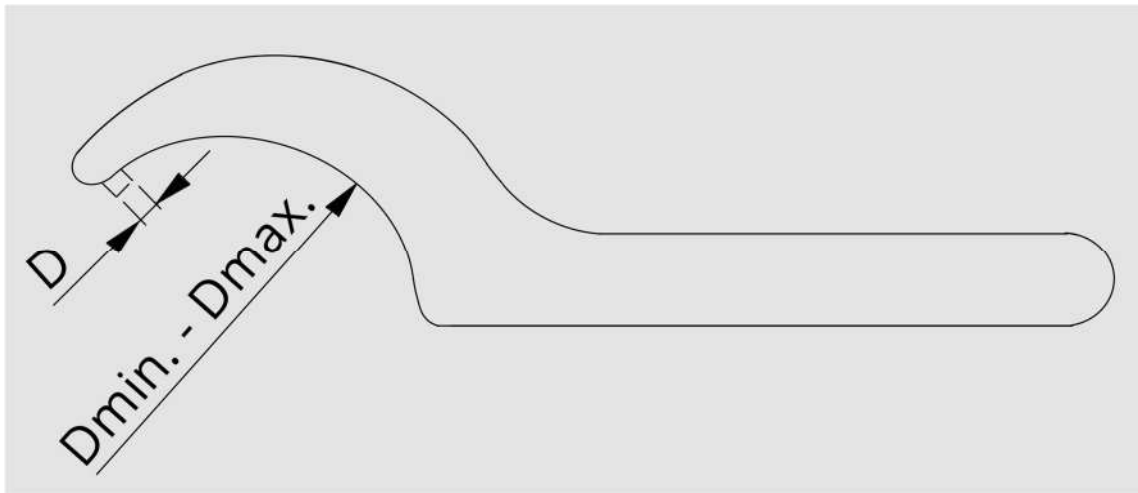
Barrelpin length (Chainplate width "C") is available in extended versions upon request

# Clevis Pin Threaded (WCT-)



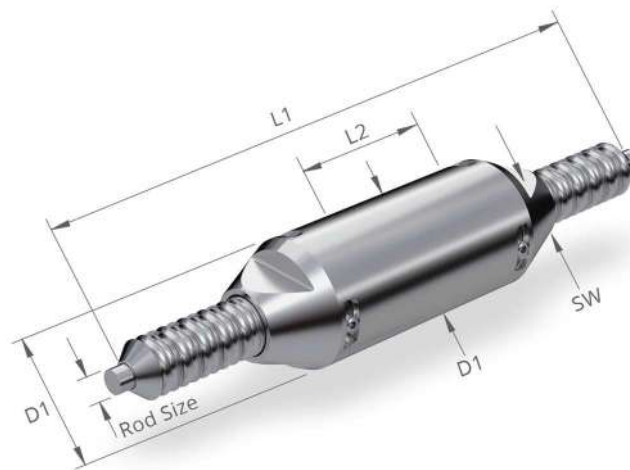
| Article No.                                                                | Ø Pin    |      | D mm | L1 mm | L2 mm       | L3 mm | SW mm | Break Load Kg | Weight Kg |
|----------------------------------------------------------------------------|----------|------|------|-------|-------------|-------|-------|---------------|-----------|
|                                                                            | Inch     | mm   |      |       |             |       |       |               |           |
| WCT095195K                                                                 | 3/8"     | 9.5  | 18.0 | 7.2   | 19.5 ± 0.75 | 9.8   | 16    | 3800          | 0.041     |
| WCT111235K                                                                 | 7/16"    | 11.1 | 18.0 | 7.2   | 23.5 ± 0.75 | 9.8   | 16    | 4900          | 0.048     |
| WCT111245K                                                                 | 7/16"    | 11.1 | 18.0 | 7.2   | 24.5 ± 0.75 | 9.8   | 16    | 4900          | 0.049     |
| WCT127245K                                                                 | 1/2"     | 12.7 | 18.0 | 7.2   | 24.5 ± 0.75 | 9.8   | 16    | 7300          | 0.055     |
| WCT159300K                                                                 | 5/8"     | 15.9 | 24.8 | 7.3   | 30.0 ± 0.75 | 9.8   | 22    | 10200         | 0.104     |
| WCT159355K                                                                 | 5/8"     | 15.9 | 24.8 | 7.3   | 35.5 ± 0.75 | 9.8   | 22    | 10200         | 0.112     |
| WCT191340K                                                                 | 3/4"     | 19.1 | 24.8 | 7.3   | 34.0 ± 0.75 | 9.8   | 22    | 14000         | 0.134     |
| WCT191360K                                                                 | 3/4"     | 19.1 | 24.8 | 7.3   | 36.0 ± 0.75 | 9.8   | 22    | 14000         | 0.139     |
| WCT222365K                                                                 | 7/8"     | 22.2 | 29.8 | 7.3   | 36.5 ± 0.75 | 9.8   | 27    | 17800         | 0.197     |
| WCT254445K                                                                 | 1"       | 25.4 | 34.8 | 7.3   | 44.5 ± 0.75 | 9.8   | 32    | 22500         | 0.296     |
| WCT286465K                                                                 | 1 1/8"   | 28.6 | 37.8 | 7.3   | 46.5 ± 0.75 | 9.8   | 32    | 29500         | 0.371     |
| WCT286480K                                                                 | 1 1/8"   | 28.6 | 37.8 | 7.3   | 48.0 ± 0.75 | 9.8   | 32    | 29500         | 0.379     |
| WCT286595K                                                                 | 1 1/8"   | 28.6 | 37.8 | 7.3   | 59.5 ± 0.75 | 9.8   | 32    | 29500         | 0.437     |
| WCT318570K                                                                 | 1 1/4"   | 31.8 | 39.8 | 7.7   | 57.0 ± 1.0  | 10.3  | 36    | 43100         | 0.519     |
| WCT318630K                                                                 | 1 1/4"   | 31.8 | 39.8 | 7.7   | 63.0 ± 1.0  | 10.3  | 36    | 43100         | 0.557     |
| WCT318680K                                                                 | 1 1/4"   | 31.8 | 39.8 | 7.7   | 68.0 ± 1.0  | 10.3  | 36    | 43100         | 0.588     |
| WCT349625K                                                                 | 1 3/8"   | 34.9 | 44.8 | 7.7   | 62.5 ± 1.0  | 10.3  | 41    | 49600         | 0.678     |
| WCT397645K                                                                 | 1 9/16"  | 39.7 | 54.0 | 9.7   | 64.5 ± 1.5  | 13.0  | 50    | 63700         | 1.004     |
| WCT445765K                                                                 | 1 3/4"   | 44.5 | 54.0 | 9.7   | 76.5 ± 1.5  | 13.0  | 50    | 81700         | 1.294     |
| WCT445825K                                                                 | 1 3/4"   | 44.5 | 54.0 | 9.7   | 82.5 ± 1.5  | 13.0  | 50    | 81700         | 1.367     |
| WCT476765K                                                                 | 1 7/8"   | 47.6 | 59.0 | 9.7   | 76.5 ± 1.5  | 13.0  | 55    | 92600         | 1.502     |
| WCT540865K                                                                 | 2 1/8"   | 54.0 | 64.8 | 9.7   | 86.5 ± 1.5  | 13.0  | 60    | 106200        | 2.114     |
| WCT572865K                                                                 | 2 1/4"   | 57.2 | 69.8 | 9.7   | 86.5 ± 1.5  | 13.0  | 65    | 119800        | 2.391     |
| WCT619965K                                                                 | 2 7/16"  | 61.9 | 74.8 | 10.5  | 96.5 ± 2.0  | 14.0  | 70    | 141600        | 3.088     |
| WCT6351030K                                                                | 2 1/2"   | 63.5 | 74.8 | 10.5  | 103.0 ± 2.0 | 14.0  | 70    | 185100        | 3.374     |
| WCT7141130K                                                                | 2 13/16" | 71.4 | 84.8 | 10.5  | 113.0 ± 2.0 | 14.0  | 80    | 255900        | 4.605     |
| WCT7621185K                                                                | 3"       | 76.2 | 91.2 | 13.0  | 118.5 ± 2.0 | 17.3  | 85    | 294000        | 5.760     |
| Material: Acidproof Stainless Steel with high mechanical strength          |          |      |      |       |             |       |       |               |           |
| S: Clevis Pin w/Split; K: Clevis Pin Treaded w/Nut; G: Clevis Pin w/G-ring |          |      |      |       |             |       |       |               |           |

# Hook Spanner w/ Stud (0472-)



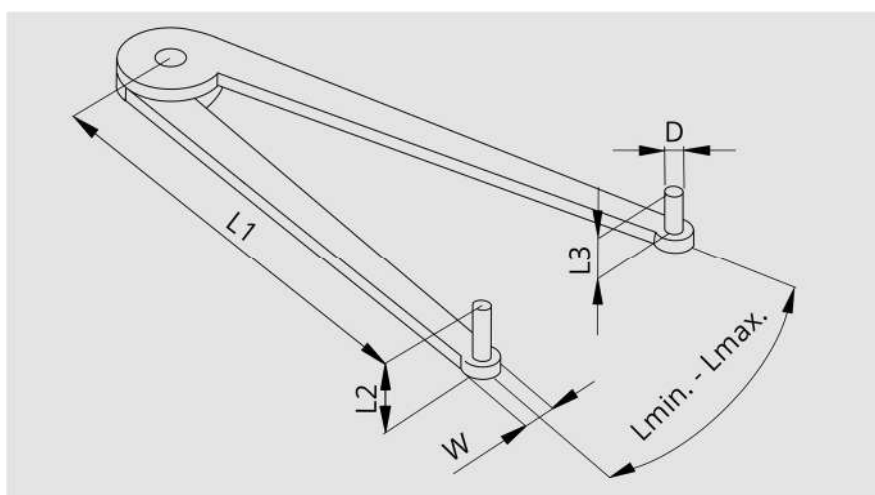
| Article No. | D mm | Dmin – Dmax mm |
|-------------|------|----------------|
| 47205       | 2.0  | 12 - 14        |
| 47210       | 2.5  | 16 - 18        |
| 47215       | 2.5  | 20 - 22        |
| 47220       | 3.0  | 25 - 28        |
| 47225       | 4.0  | 30 - 32        |
| 47230       | 4.0  | 34 - 36        |
| 47235       | 4.0  | 40 - 42        |
| 47240       | 5.0  | 45 - 50        |
| 47245       | 5.0  | 52 - 55        |
| 47250       | 5.0  | 58 - 62        |
| 47255       | 6.0  | 68 - 75        |
| 47260       | 6.0  | 80 - 90        |
| 47265       | 8.0  | 95 - 10        |
| 47270       | 8.0  | 110 - 115      |
| 47275       | 8.0  | 120 - 130      |

# Insulator (RI-)



| Article No.                                                       | Rod Size |      | D1 mm | D2 mm | L1 mm | L2 mm | SW mm | Break Load Kg | Weight Kg |
|-------------------------------------------------------------------|----------|------|-------|-------|-------|-------|-------|---------------|-----------|
|                                                                   | Dash     | mm   |       |       |       |       |       |               |           |
| RI6                                                               | -6       | 5.0  | 38.0  | 18.0  | 196.0 | 15.8  | 24.0  | 3600          | 0.580     |
| RI8                                                               | -8       | 5.7  | 38.0  | 18.0  | 196.0 | 17.4  | 24.0  | 4600          | 0.580     |
| RI10                                                              | -10      | 6.4  | 38.0  | 18.0  | 196.0 | 17.2  | 24.0  | 5800          | 0.570     |
| RI12                                                              | -12      | 7.1  | 38.0  | 18.0  | 196.0 | 19.4  | 24.0  | 7200          | 0.570     |
| RI15                                                              | -15      | 7.5  | 45.0  | 20.0  | 224.0 | 19.3  | 26.0  | 7700          | 0.910     |
| RI16                                                              | -16      | 8.0  | 45.0  | 20.0  | 224.0 | 19.3  | 26.0  | 8500          | 0.900     |
| RI17                                                              | -17      | 8.4  | 45.0  | 20.0  | 224.0 | 19.7  | 26.0  | 10100         | 0.900     |
| RI18                                                              | -18      | 8.5  | 45.0  | 20.0  | 224.0 | 20.5  | 26.0  | 10100         | 0.900     |
| RI22                                                              | -22      | 9.5  | 56.0  | 25.0  | 252.0 | 18.7  | 32.0  | 12900         | 1.810     |
| RI30                                                              | -30      | 11.1 | 56.0  | 25.0  | 252.0 | 19.5  | 32.0  | 17700         | 1.790     |
| RI40                                                              | -40      | 12.7 | 69.5  | 30.0  | 296.0 | 29.6  | 36.0  | 22400         | 3.450     |
| RI48                                                              | -48      | 14.3 | 69.5  | 30.0  | 296.0 | 31.2  | 36.0  | 28400         | 3.420     |
| RI60                                                              | -60      | 16.8 | 82.0  | 30.0  | 341.0 | 32.9  | 41.0  | 39200         | 5.940     |
| RI76                                                              | -76      | 17.9 | 82.0  | 30.0  | 341.0 | 33.7  | 41.0  | 43000         | 5.900     |
| RI91                                                              | -91      | 19.5 | 94.0  | 35.0  | 378.0 | 35.4  | 46.0  | 49500         | 9.110     |
| RI115                                                             | -115     | 22.2 | 94.0  | 35.0  | 378.0 | 37.2  | 46.0  | 63600         | 8.980     |
| Material: Acidproof Stainless Steel with high mechanical strength |          |      |       |       |       |       |       |               |           |

# Pin Spanner for 63- Series Spreader Tip Cup (VP-)



| Article No. | D mm | Lmin – Lmax mm | W mm | L1 mm | L2 mm | L3 mm |
|-------------|------|----------------|------|-------|-------|-------|
| VP2         | 2.0  | 7-55           | 6.0  | 105.0 | 9.0   | 3.5   |
| VP3         | 3.0  | -10-80         | 9.0  | 145.0 | 10.5  | 4.0   |
| VP4         | 4.0  | -10-80         | 9.0  | 145.0 | 11.5  | 5.0   |
| VP5         | 5.0  | 13 - 105       | 12.0 | 195.0 | 14.0  | 6.0   |
| VP6         | 6.0  | 13 - 105       | 12.0 | 195.0 | 15.5  | 6.5   |
| VP8         | 8.0  | 21 -130        | 20.0 | 235.0 | 17.5  | 8.5   |

# Spreader Bend (58-)



| Article No.                                                       | Rod Size |      | L1 mm | L2 mm | D1 mm | D2 mm | Weight Kg |
|-------------------------------------------------------------------|----------|------|-------|-------|-------|-------|-----------|
|                                                                   | Dash     | mm   |       |       |       |       |           |
| 58000040                                                          | -3       | 4.0  | 13.5  | 34.0  | 7.0   | 10.0  | 0.008     |
| 58000045                                                          | -4       | 4.4  | 17.7  | 39.0  | 7.6   | 11.0  | 0.011     |
| 58000050                                                          | -6       | 5.0  | 18.5  | 39.0  | 8.0   | 11.0  | 0.010     |
| 58000057                                                          | -8       | 5.7  | 23.5  | 46.0  | 9.0   | 12.0  | 0.016     |
| 58000060                                                          | -9       | 6.0  | 23.5  | 46.0  | 9.0   | 12.0  | 0.014     |
| 58000064                                                          | -10      | 6.4  | 33.5  | 56.0  | 10.0  | 13.0  | 0.021     |
| 58000071                                                          | -12      | 7.1  | 33.5  | 56.0  | 10.0  | 13.0  | 0.019     |
| 58000075                                                          | -15      | 7.5  | 38.6  | 63.0  | 11.0  | 14.0  | 0.026     |
| 58000080                                                          | -16      | 8.0  | 38.6  | 63.0  | 11.0  | 14.0  | 0.025     |
| 58000084                                                          | -17      | 8.4  | 38.6  | 63.0  | 11.0  | 14.0  | 0.018     |
| 58000095                                                          | -22      | 9.5  | 43.6  | 70.0  | 13.0  | 16.0  | 0.032     |
| 58000111                                                          | -30      | 11.1 | 53.6  | 80.0  | 15.0  | 18.0  | 0.060     |
| 58000127                                                          | -40      | 12.7 | 58.6  | 85.0  | 17.0  | 20.0  | 0.060     |
| 58000143                                                          | -48      | 14.3 | 61.4  | 90.0  | 19.0  | 22.0  | 0.080     |
| 58000168                                                          | -60      | 16.8 | 66.5  | 95.0  | 21.0  | 25.0  | 0.086     |
| 58000179                                                          | -76      | 17.9 | 70.0  | 100.0 | 22.0  | 26.5  | 0.092     |
| Material: Acidproof Stainless Steel with high mechanical strength |          |      |       |       |       |       |           |

# Stemball (57-, RS-, RSA-, RSL-)



| Article No. | Rod Size |     | D1 mm | D2 mm | L mm | R mm | Weight Kg |
|-------------|----------|-----|-------|-------|------|------|-----------|
|             | Dash     | mm  |       |       |      |      |           |
| 57000040    | -3       | 4.0 | 12.1  | 8.3   |      | 7.5  | 0.01      |
| 57000045    | -4       | 4.4 | 12.1  | 8.3   |      | 7.5  | 0.01      |
| RS409       | -4       | 4.4 | 17.2  | 7.4   |      | 8.8  | 0.01      |
| RSL0410     | -4       | 4.4 | 18.4  | 7.9   |      | 9.8  | 0.01      |
| 57000050    | -6       | 5.0 | 14.0  | 8.8   |      | 8.0  | 0.01      |
| RS609       | -6       | 5.0 | 17.2  | 8.0   |      | 8.8  | 0.01      |
| 57005750    | -6       | 5.0 | 17.3  | 10.9  |      | 9.5  | 0.02      |
| RSL0610     | -6       | 5.0 | 18.7  | 8.2   |      | 9.8  | 0.01      |
| RSA0610     | -6       | 5.0 | 17.8  | 8.6   |      | 9.8  | 0.01      |
| RS611       | -6       | 5.0 | 21.4  | 9.4   |      | 10.8 | 0.02      |
| RS809       | -8       | 5.7 | 17.2  | 8.7   |      | 8.8  | 0.01      |
| 57000057    | -8       | 5.7 | 17.3  | 10.9  |      | 9.5  | 0.01      |
| RSA0810     | -8       | 5.7 | 16.8  | 9.1   | 25   | 9.8  | 0.02      |
| RSL0810     | -8       | 5.7 | 18.7  | 9.7   | 25   | 9.8  | 0.01      |
| RS811       | -8       | 5.7 | 21.4  | 10.2  |      | 10.8 | 0.02      |
| 57000060    | -9       | 6.0 | 17.3  | 10.9  |      | 9.5  | 0.02      |
| RS911       | -9       | 6.0 | 21.4  | 10.7  |      | 10.8 | 0.02      |
| 57990060    | -9       | 6.0 | 27.4  | 16.5  |      | 14.0 | 0.07      |
| 57000064    | -10      | 6.4 | 17.3  | 11.0  |      | 9.5  | 0.01      |
| RSL1010     | -10      | 6.4 | 18.6  | 10.5  |      | 9.8  | 0.01      |
| RS1011      | -10      | 6.4 | 21.4  | 10.5  |      | 10.8 | 0.02      |
| RSA1013     | -10      | 6.4 | 19.8  | 9.9   |      | 12.3 | 0.02      |
| RSL1013     | -10      | 6.4 | 23.4  | 9.9   |      | 12.3 | 0.02      |
| 57990064    | -10      | 6.4 | 27.4  | 16.5  |      | 14.0 | 0.06      |
| RS1211      | -12      | 7.1 | 21.4  | 11.7  |      | 10.8 | 0.02      |
| 57000071    | -12      | 7.1 | 19.6  | 13.2  |      | 11.0 | 0.02      |
| RSL1213     | -12      | 7.1 | 23.4  | 11.7  |      | 12.3 | 0.02      |
| RSA1213     | -12      | 7.1 | 19.9  | 11.1  |      | 12.3 | 0.02      |
| 57980071    | -12      | 7.1 | 23.1  | 16.3  |      | 12.5 | 0.05      |
| RSL1214     | -12      | 7.1 | 26.8  | 12.4  |      | 13.8 | 0.04      |
| 57990071    | -12      | 7.1 | 27.4  | 16.5  |      | 14.0 | 0.06      |
| RSL1513     | -15      | 7.5 | 23.8  | 12.2  |      | 12.3 | 0.02      |

# Stemball (57-, RS-, RSA-, RSL-) continued



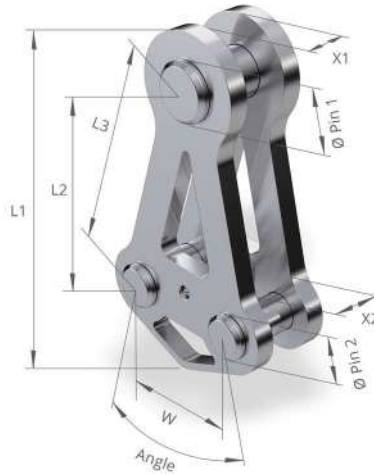
| Article No. | Rod Size |      | D1 mm | D2 mm | L mm | R mm | Weight Kg |
|-------------|----------|------|-------|-------|------|------|-----------|
|             | Dash     | mm   |       |       |      |      |           |
| 57000075    | -15      | 7.5  | 23.1  | 16.3  |      | 12.5 | 0.05      |
| RS1514      | -15      | 7.5  | 27.3  | 13.3  |      | 13.8 | 0.05      |
| RSA1515     | -15      | 7.5  | 24.8  | 11.9  |      | 14.8 | 0.03      |
| 57000080    | -16      | 8.0  | 23.1  | 16.3  |      | 12.5 | 0.04      |
| RS1614      | -16      | 8.0  | 27.3  | 14.0  |      | 13.8 | 0.05      |
| 57000084    | -17      | 8.4  | 23.1  | 16.3  |      | 12.5 | 0.04      |
| RS1814      | -17      | 8.4  | 27.3  | 13.6  |      | 13.8 | 0.05      |
| RSL1714     | -17      | 8.4  | 26.7  | 13.6  |      | 13.8 | 0.03      |
| RSA1715     | -17      | 8.4  | 24.8  | 12.7  |      | 14.8 | 0.02      |
| RS2214      | -22      | 9.5  | 27.3  | 14.8  |      | 13.8 | 0.05      |
| RSL2214     | -22      | 9.5  | 26.7  | 14.7  |      | 13.8 | 0.03      |
| RSL2215     | -22      | 9.5  | 28.6  | 15.8  |      | 14.8 | 0.04      |
| 57000095    | -22      | 9.5  | 25.8  | 17.3  |      | 15.5 | 0.05      |
| RSA2216     | -22      | 9.5  | 26.2  | 14.2  |      | 15.8 | 0.04      |
| 57980095    | -22      | 9.5  | 32    | 17.3  |      | 17   | 0.08      |
| RS3016      | -30      | 11.1 | 31.3  | 16.7  |      | 15.8 | 0.07      |
| RSL3016     | -30      | 11.1 | 30.6  | 16.9  |      | 15.8 | 0.05      |
| 57950111    | -30      | 11.1 | 33.8  | 17.4  |      | 17.0 | 0.07      |
| RSA3018     | -30      | 11.1 | 29.6  | 15.8  |      | 17.8 | 0.05      |
| 57000111    | -30      | 11.1 | 30.0  | 18.6  |      | 19.0 | 0.07      |
| RS4018      | -40      | 12.7 | 35.2  | 18.9  |      | 17.8 | 0.10      |
| RSL4018     | -40      | 12.7 | 34.7  | 18.7  |      | 17.8 | 0.07      |
| RSA4020     | -40      | 12.7 | 32.8  | 17.7  |      | 19.8 | 0.07      |
| 57000127    | -40      | 12.7 | 35.0  | 20.9  |      | 21.5 | 0.11      |
| RS4022      | -40      | 12.7 | 43.1  | 19.0  |      | 21.8 | 0.17      |
| RS4820      | -48      | 14.3 | 39.2  | 20.6  |      | 19.8 | 0.13      |
| RSL4820     | -48      | 14.3 | 37.7  | 21.3  |      | 19.8 | 0.10      |
| RSA4822     | -48      | 14.3 | 35.9  | 19.6  |      | 21.8 | 0.09      |
| 57000143    | -48      | 14.3 | 44.0  | 20.6  |      | 24.8 | 0.17      |
| RS6022      | -60      | 16.8 | 43.2  | 25.2  |      | 21.8 | 0.18      |
| RSL6022     | -60      | 16.8 | 42.1  | 23.6  |      | 21.8 | 0.13      |
| RSA6025     | -60      | 16.8 | 41.8  | 22.9  |      | 24.8 | 0.13      |
| RS6025      | -60      | 16.8 | 49.1  | 24.1  |      | 24.8 | 0.26      |
| 57000168    | -60      | 16.8 | 42.2  | 27.5  |      | 27.0 | 0.21      |
| RS7622      | -76      | 17.9 | 43.2  | 25.2  |      | 21.8 | 0.18      |
| RS7625      | -76      | 17.9 | 49.1  | 24.8  |      | 24.8 | 0.25      |
| RSL7625     | -76      | 17.9 | 47.9  | 24.8  |      | 24.8 | 0.19      |
| RSA7627     | -76      | 17.9 | 43.9  | 24.7  |      | 26.8 | 0.17      |
| RS9125      | -91      | 19.5 | 49.1  | 27.0  |      | 24.8 | 0.25      |
| RSL9127     | -91      | 19.5 | 51.0  | 26.8  |      | 16.8 | 0.23      |
| RSA9130     | -91      | 19.5 | 49.4  | 27.1  |      | 29.8 | 0.30      |
| RS11530     | -115     | 22.2 | 59.0  | 30.6  |      | 29.8 | 0.42      |

# Stemball (57-, RS-, RSA-, RSL-) continued



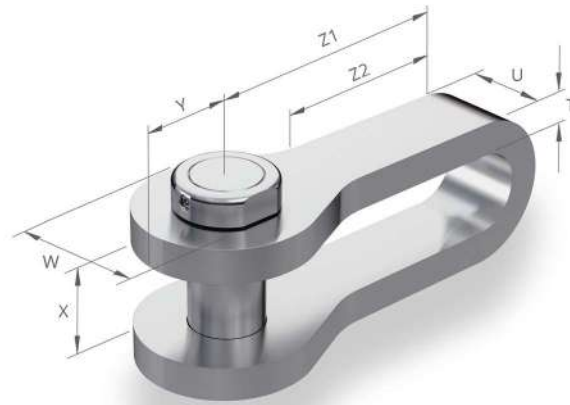
| Article No.                                                       | Rod Size |      | D1 mm | D2 mm | L mm | R mm | Weight Kg |
|-------------------------------------------------------------------|----------|------|-------|-------|------|------|-----------|
|                                                                   | Dash     | mm   |       |       |      |      |           |
| RSL11530                                                          | -115     | 22.2 | 57.6  | 30.6  |      | 29.8 | 0.33      |
| RS11533                                                           | -115     | 22.2 | 65.0  | 31.0  |      | 32.8 | 0.57      |
| RSA11533                                                          | -115     | 22.2 | 54.7  | 30.6  |      | 32.8 | 0.30      |
| RS15033                                                           | -150     | 25.4 | 64.9  | 34.6  |      | 32.8 | 0.55      |
| RSL15033                                                          | -150     | 25.4 | 63.4  | 34.3  |      | 32.8 | 0.42      |
| RSA15036                                                          | -150     | 25.4 | 59.7  | 33.8  |      | 35.8 | 0.39      |
| RS17036                                                           | -170     | 27.1 | 70.9  | 37.2  |      | 35.8 | 0.72      |
| RSL17036                                                          | -170     | 27.1 | 69.2  | 35.9  |      | 35.8 | 0.48      |
| RSA17038                                                          | -170     | 27.1 | 62.7  | 36.2  |      | 37.8 | 0.42      |
| RSL19538                                                          | -195     | 28.6 | 73.0  | 39.3  |      | 37.8 | 0.62      |
| RS19538                                                           | -195     | 28.6 | 74.8  | 39.4  |      | 37.8 | 0.86      |
| RSA19540                                                          | -195     | 28.6 | 66.4  | 38.0  |      | 39.8 | 0.53      |
| RS22040                                                           | -220     | 30.3 | 78.8  | 41.9  |      | 39.8 | 1.01      |
| RSA22045                                                          | -220     | 30.3 | 74.7  | 39.4  |      | 44.8 | 0.75      |
| RS22045                                                           | -220     | 30.3 | 88.7  | 42.1  |      | 44.8 | 1.46      |
| RS26045                                                           | -260     | 33.4 | 88.7  | 46.6  |      | 44.8 | 1.44      |
| RSA26051                                                          | -260     | 33.4 | 84.7  | 44.7  |      | 50.8 | 1.15      |
| RS32051                                                           | -320     | 38.1 | 100.6 | 53.6  |      | 50.8 | 2.08      |
| RSA32055                                                          | -320     | 38.1 | 94.5  | 50.5  |      | 54.8 | 1.59      |
| RSA36060                                                          | -360     | 41.3 | 99.7  | 56.1  |      | 59.8 | 1.95      |
| RS40060                                                           | -400     | 44.5 | 118.4 | 63.3  |      | 59.8 | 3.32      |
| RSA43066                                                          | -430     | 44.5 | 109.7 | 59.3  |      | 65.8 | 2.74      |
| RS54066                                                           | -540     | 50.8 | 129.5 | 72.7  |      | 65.8 | 4.61      |
| RSA54070                                                          | -540     | 50.8 | 114.7 | 67.8  |      | 69.8 | 3.08      |
| Material: Acidproof Stainless Steel with high mechanical strength |          |      |       |       |      |      |           |

# Triangle Toggle (RT-)



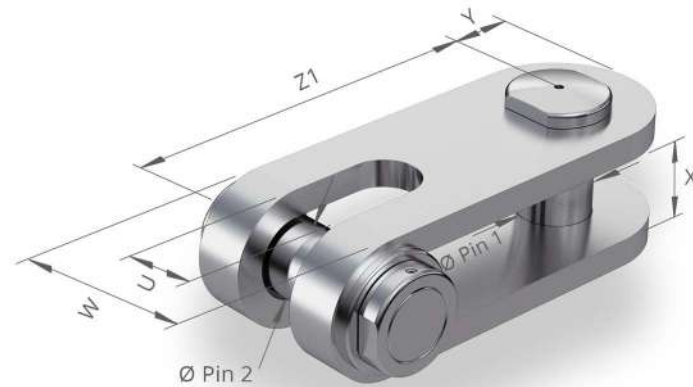
| Article No.                                                             | Ø Pin 1 |      | Ø Pin 2 |      | Angle Degrees | W mm  | X1 mm | X2 mm | L1 mm | L2 mm | L3 mm | Break Load Kg | Weight Kg |
|-------------------------------------------------------------------------|---------|------|---------|------|---------------|-------|-------|-------|-------|-------|-------|---------------|-----------|
|                                                                         | Inch    | mm   | Inch    | mm   |               |       |       |       |       |       |       |               |           |
| RT0606S                                                                 | 1/4"    | 6.4  | 1/4"    | 6.4  | 30° ± 20°     | 17.6  | 5.3   | 5.3   | 52.7  | 32.9  | 34.1  | 1200          | 0.058     |
| RT0806S                                                                 | 5/16"   | 7.9  | 1/4"    | 6.4  | 30° ± 20°     | 17.6  | 7.4   | 5.3   | 52.7  | 32.9  | 34.1  | 2600          | 0.060     |
| RT0808S                                                                 | 5/16"   | 7.9  | 5/16"   | 7.9  | 30° ± 20°     | 21.8  | 7.4   | 7.4   | 65.0  | 40.7  | 42.1  | 2700          | 0.113     |
| RT1008S                                                                 | 3/8"    | 9.5  | 5/16"   | 7.9  | 30° ± 20°     | 21.8  | 9.0   | 7.4   | 65.0  | 40.7  | 42.1  | 3800          | 0.115     |
| RT1010S                                                                 | 3/8"    | 9.5  | 3/8"    | 9.5  | 30° ± 20°     | 27.3  | 9.0   | 9.0   | 79.9  | 51.0  | 52.8  | 3800          | 0.168     |
| RT1110S                                                                 | 7/16"   | 11.1 | 3/8"    | 9.5  | 30° ± 20°     | 27.3  | 10.5  | 9.0   | 79.9  | 51.0  | 52.8  | 4600          | 0.171     |
| RT1111S                                                                 | 7/16"   | 11.1 | 7/16"   | 11.1 | 30° ± 20°     | 31.5  | 10.5  | 10.5  | 92.2  | 58.8  | 60.9  | 4600          | 0.315     |
| RT1311S                                                                 | 1/2"    | 12.7 | 7/16"   | 11.1 | 30° ± 20°     | 31.5  | 12.1  | 10.5  | 92.2  | 58.8  | 60.9  | 7500          | 0.318     |
| RT1313S                                                                 | 1/2"    | 12.7 | 1/2"    | 12.7 | 30° ± 20°     | 36.6  | 12.1  | 12.1  | 107.8 | 68.3  | 70.7  | 7500          | 0.461     |
| RT1613S                                                                 | 5/8"    | 15.9 | 1/2"    | 12.7 | 30° ± 20°     | 36.6  | 14.7  | 12.1  | 107.8 | 68.3  | 70.7  | 10500         | 0.446     |
| RT1616S                                                                 | 5/8"    | 15.9 | 5/8"    | 15.9 | 30° ± 20°     | 43.0  | 14.7  | 14.7  | 128.2 | 80.3  | 83.1  | 10500         | 0.860     |
| RT1916S                                                                 | 3/4"    | 19.1 | 5/8"    | 15.9 | 30° ± 20°     | 43.0  | 17.9  | 14.7  | 128.2 | 80.3  | 83.1  | 14500         | 0.867     |
| RT1919S                                                                 | 3/4"    | 19.1 | 3/4"    | 19.1 | 30° ± 20°     | 50.1  | 17.9  | 17.9  | 150.0 | 93.5  | 96.8  | 14500         | 1.190     |
| RT2216S                                                                 | 7/8"    | 22.2 | 5/8"    | 15.9 | 30° ± 20°     | 50.1  | 20.5  | 14.7  | 150.0 | 93.5  | 96.8  | 18900         | 1.220     |
| RT2219S                                                                 | 7/8"    | 22.2 | 3/4"    | 19.1 | 30° ± 20°     | 50.1  | 20.5  | 17.9  | 150.0 | 93.5  | 96.8  | 18900         | 1.220     |
| RT2222S                                                                 | 7/8"    | 22.2 | 7/8"    | 22.2 | 30° ± 20°     | 61.6  | 20.5  | 20.5  | 180.9 | 115.0 | 119.1 | 18900         | 2.020     |
| RT2522S                                                                 | 1"      | 25.4 | 7/8"    | 22.2 | 30° ± 20°     | 61.6  | 23.1  | 20.5  | 180.9 | 115.0 | 119.1 | 23100         | 2.040     |
| RT2525S                                                                 | 1"      | 25.4 | 1"      | 25.4 | 30° ± 20°     | 65.9  | 23.1  | 23.1  | 196.9 | 123.0 | 127.3 | 23100         | 2.610     |
| RT2922S                                                                 | 1 1/8"  | 28.6 | 7/8"    | 22.2 | 30° ± 20°     | 65.9  | 26.3  | 20.5  | 196.9 | 123.0 | 127.3 | 30700         | 2.610     |
| RT2925S                                                                 | 1 1/8"  | 28.6 | 1"      | 25.4 | 30° ± 20°     | 65.9  | 26.3  | 23.1  | 196.9 | 123.0 | 127.3 | 30700         | 2.620     |
| RT2929S                                                                 | 1 1/8"  | 28.6 | 1 1/8"  | 28.6 | 30° ± 20°     | 78.0  | 26.3  | 26.3  | 229.1 | 145.6 | 150.7 | 30700         | 4.740     |
| RT3229S                                                                 | 1 1/4"  | 31.8 | 1 1/8"  | 28.6 | 30° ± 20°     | 78.0  | 30.0  | 26.3  | 229.1 | 145.6 | 150.7 | 43000         | 4.750     |
| RT3232S                                                                 | 1 1/4"  | 31.8 | 1 1/4"  | 31.8 | 30° ± 20°     | 80.9  | 20.0  | 30.0  | 242.2 | 151.0 | 156.3 | 43000         | 5.630     |
| RT3532S                                                                 | 1 3/8"  | 34.9 | 1 1/4"  | 31.8 | 30° ± 20°     | 80.9  | 33.1  | 30.0  | 242.2 | 151.0 | 156.3 | 49500         | 5.670     |
| RT3535S                                                                 | 1 3/8"  | 34.9 | 1 3/8"  | 34.9 | 30° ± 20°     | 86.6  | 33.1  | 33.1  | 263.1 | 161.6 | 167.3 | 49500         | 6.940     |
| RT4035S                                                                 | 1 9/16" | 39.7 | 1 3/8"  | 34.9 | 30° ± 20°     | 86.6  | 37.3  | 33.1  | 263.1 | 161.6 | 167.3 | 63600         | 7.000     |
| RT4040S                                                                 | 1 9/16" | 39.7 | 1 9/16" | 39.7 | 30° ± 20°     | 100.8 | 37.3  | 37.3  | 303.2 | 188.1 | 194.7 | 63600         | 11.710    |
| RT4440S                                                                 | 1 3/4"  | 44.5 | 1 9/16" | 39.7 | 30° ± 20°     | 100.8 | 42.0  | 37.3  | 303.2 | 188.1 | 194.7 | 81600         | 11.760    |
| RT0606S                                                                 | 1/4"    | 6.4  | 1/4"    | 6.4  | 30° ± 20°     | 17.6  | 5.3   | 5.3   | 52.7  | 32.9  | 34.1  | 1200          | 0.058     |
| RT0806S                                                                 | 5/16"   | 7.9  | 1/4"    | 6.4  | 30° ± 20°     | 17.6  | 7.4   | 5.3   | 52.7  | 32.9  | 34.1  | 2600          | 0.060     |
| Material: Acidproof Stainless Steel                                     |         |      |         |      |               |       |       |       |       |       |       |               |           |
| S:Clevis Pin w/Split; K:Clevis Pin Treaded w/Nut; G:Clevis Pin w/G-ring |         |      |         |      |               |       |       |       |       |       |       |               |           |

# Strap Toggle (51-)



| Article No.                                                                | Locking Option | Ø Pin  |      | U mm | W mm | X mm       | Y mm | Z1 mm | T mm | Break Load Kg | Weight Kg |
|----------------------------------------------------------------------------|----------------|--------|------|------|------|------------|------|-------|------|---------------|-----------|
|                                                                            |                | Inch   | mm   |      |      |            |      |       |      |               |           |
| 51000516s                                                                  | S              | 5/16"  | 7.9  | 8.0  | 17.0 | 9.0 ± 0.5  | 9.5  | 36.0  | 3    | 2125          | 0.024     |
| 51000516g                                                                  | G              | 5/16"  | 7.9  | 8.0  | 17.0 | 9.0 ± 0.5  | 9.5  | 36.0  | 3    | 2125          | 0.024     |
| 51000038s                                                                  | S              | 3/8"   | 9.5  | 9.0  | 19.5 | 11.0 ± 0.5 | 10.8 | 40.0  | 4    | 3625          | 0.039     |
| 51000038g                                                                  | G              | 3/8"   | 9.5  | 9.0  | 19.5 | 11.0 ± 0.5 | 10.8 | 40.0  | 4    | 3625          | 0.039     |
| 51000716s                                                                  | S              | 7/16"  | 11.1 | 11.0 | 23.0 | 13.0 ± 0.5 | 12.5 | 45.0  | 4    | 4100          | 0.055     |
| 51000716g                                                                  | G              | 7/16"  | 11.1 | 11.0 | 23.0 | 13.0 ± 0.5 | 12.5 | 45.0  | 4    | 4100          | 0.055     |
| 51000716k                                                                  | K              | 7/16"  | 11.1 | 11.0 | 23.0 | 13.0 ± 0.5 | 12.5 | 45.0  | 4    | 4100          | 0.103     |
| 51000012s                                                                  | S              | 1/2"   | 12.7 | 12.5 | 26.0 | 14.0 ± 0.5 | 14.0 | 50.0  | 6    | 6800          | 0.105     |
| 51000012g                                                                  | G              | 1/2"   | 12.7 | 12.5 | 26.0 | 14.0 ± 0.5 | 14.0 | 50.0  | 6    | 6800          | 0.105     |
| 51000012k                                                                  | K              | 1/2"   | 12.7 | 12.5 | 26.0 | 14.0 ± 0.5 | 14.0 | 50.0  | 6    | 6800          | 0.171     |
| 51000058s                                                                  | S              | 5/8"   | 15.9 | 16.7 | 32.0 | 17.5 ± 0.5 | 17.0 | 60.0  | 8    | 11650         | 0.210     |
| 51000058k                                                                  | K              | 5/8"   | 15.9 | 16.7 | 32.0 | 17.5 ± 0.5 | 17.0 | 60.0  | 8    | 11650         | 0.328     |
| 51000034s                                                                  | S              | 3/4"   | 19.1 | 18.5 | 38.5 | 21.5 ± 0.5 | 20.3 | 70.0  | 8    | 14000         | 0.291     |
| 51000034k                                                                  | K              | 3/4"   | 19.1 | 18.5 | 38.5 | 21.5 ± 0.5 | 20.3 | 70.0  | 8    | 14000         | 0.389     |
| 51000078s                                                                  | S              | 7/8"   | 22.2 | 23.3 | 47.0 | 24.0 ± 0.5 | 24.5 | 80.0  | 10   | 22370         | 0.542     |
| 51000078k                                                                  | K              | 7/8"   | 22.2 | 23.3 | 47.0 | 24.0 ± 0.5 | 24.5 | 80.0  | 10   | 22370         | 0.641     |
| 51000010s                                                                  | S              | 1"     | 25.4 | 25.0 | 51.0 | 28.0 ± 0.5 | 26.5 | 90.0  | 12   | 29100         | 1.05      |
| 51000010k                                                                  | K              | 1"     | 25.4 | 25.0 | 51.0 | 28.0 ± 0.5 | 26.5 | 90.0  | 12   | 29100         | 1.06      |
| 51000118s                                                                  | S              | 1 1/8" | 28.6 | 29.6 | 59.0 | 31.5 ± 0.5 | 30.5 | 104.0 | 12   | 34500         | 1.42      |
| 51000118K                                                                  | K              | 1 1/8" | 28.6 | 29.6 | 59.0 | 31.5 ± 0.5 | 30.5 | 104.0 | 12   | -             | 1.42      |
| 51000114s                                                                  | S              | 1 1/4" | 31.8 | 32.8 | 66.0 | 35.0 ± 0.8 | 34.0 | 115.0 | 15   | 47850         | 1.63      |
| 51000114k                                                                  | K              | 1 1/4" | 31.8 | 32.8 | 66.0 | 35.0 ± 0.8 | 34.0 | 115.0 | 15   | 47850         | 1.71      |
| S: Clevis Pin w/Split; K: Clevis Pin Treaded w/Nut; G: Clevis Pin w/G-ring |                |        |      |      |      |            |      |       |      |               |           |

# Double Jaw Toggle (52-)



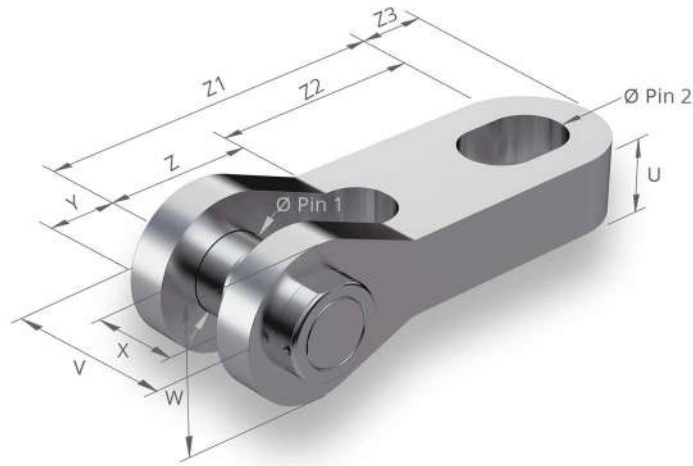
| Article No. | Pin Options | Ø Pin 1 |      | Ø Pin 2 |      | U mm       | W mm | X mm       | Y mm | Z1 mm | Break Load Kg | Weight Kg |
|-------------|-------------|---------|------|---------|------|------------|------|------------|------|-------|---------------|-----------|
|             |             | Inch    | mm   | Inch    | mm   |            |      |            |      |       |               |           |
| 52014000    | G/S         | 1/4"    | 6,4  | 1/4"    | 6,4  | 6,3 ± 0,3  | 15   | 7,5 ± 0,5  | 8    | 26    | 1400          | 0,03      |
| 52516000    | G/S         | 5/16"   | 7,9  | 5/16"   | 7,9  | 8,1 ± 0,3  | 20   | 9,0 ± 0,5  | 11   | 37    | 3030          | 0,07      |
| 52038000    | G/S         | 3/8"    | 9,5  | 3/8"    | 9,5  | 8,9 ± 0,3  | 25   | 11,0 ± 0,5 | 13   | 44    | 5400          | 0,13      |
| 52716000    | G/S/K       | 7/16"   | 11,1 | 7/16"   | 11,1 | 11,1 ± 0,3 | 25   | 13,0 ± 0,5 | 13   | 48    | 5400          | 0,18      |
| 52012000    | G/S/K       | 1/2"    | 12,7 | 1/2"    | 12,7 | 12,1 ± 0,3 | 30   | 14,0 ± 0,5 | 16   | 53    | 7600          | 0,25      |
| 52058000    | S/K         | 5/8"    | 15,9 | 5/8"    | 15,9 | 15,1 ± 0,3 | 40   | 17,5 ± 0,6 | 21   | 56    | 12860         | 0,46      |
| 52058000L   | S/K         | 5/8"    | 15,9 | 5/8"    | 15,9 | 15,1 ± 0,3 | 40   | 17,5 ± 0,6 | 21   | 64    | 12860         | 0,49      |
| 52058001    | S/K         | 5/8"    | 15,9 | 3/4"    | 19,1 | 18,2 ± 0,3 | 50   | 21,5 ± 0,6 | 26   | 59    | 16892         | 0,60      |
| 52034000    | S/K         | 3/4"    | 19,1 | 3/4"    | 19,1 | 18,6 ± 0,3 | 50   | 21,5 ± 0,6 | 25,5 | 58    | 16560         | 0,66      |
| 52034001    | S/K         | 3/4"    | 19,1 | 3/4"    | 19,1 | 18,4 ± 0,3 | 50   | 21,5 ± 0,6 | 26   | 74    | 16560         | 0,74      |
| 52078000-0  | S/K         | 7/8"    | 22,2 | 7/8"    | 22,2 | 20,9 ± 0,3 | 60   | 24,0 ± 0,6 | 31   | 72    | 20300         | 0,98      |
| 52078000    | S/K         | 7/8"    | 22,2 | 7/8"    | 22,2 | 20,9 ± 0,3 | 60   | 24,0 ± 0,6 | 31   | 91    | 20300         | 1,11      |
| 52078000XL  | S/K         | 7/8"    | 22,2 | 7/8"    | 22,2 | 20,9 ± 0,3 | 60   | 24,0 ± 0,6 | 31   | 110   | 20300         | 1,20      |
| 52100000    | S/K         | 1"      | 25,4 | 1"      | 25,4 | 22,7 ± 0,3 | 60   | 28,0 ± 0,8 | 31   | 93    | 29480         | 1,50      |
| 52118000    | S/K         | 1 1/8"  | 28,6 | 1 1/8"  | 28,6 | 26,2 ± 0,3 | 70   | 31,5 ± 0,8 | 36   | 102   | 29480         | 2,00      |
| 52118000L   | S/K         | 1 1/8"  | 28,6 | 1 1/8"  | 28,6 | 26,0 ± 0,3 | 70   | 31,5 ± 0,8 | 37   | 109   | 32200         | 2,10      |
| 52118002    | S/K         | 1 1/8"  | 28,6 | 1 1/8"  | 28,6 | 26,3 ± 0,3 | 70   | 31,5 ± 0,8 | 36   | 129   | 29480         | 2,20      |
| 52114000    | S/K         | 1 1/4"  | 31,8 | 1 1/4"  | 31,8 | 30,5 ± 0,3 | 80   | 36,5 ± 1,0 | 40,6 | 116   | 43185         | 3,02      |
| 52114000L   | S/K         | 1 1/4"  | 31,8 | 1 1/4"  | 31,8 | 29,8 ± 0,4 | 75   | 36,5 ± 1,2 | 38,1 | 132   | 46560         | 3,44      |
| 52138000    | S/K         | 1 3/8"  | 34,9 | 1 3/8"  | 34,9 | 33,3 ± 0,4 | 85   | 42,0 ± 1,2 | 43,1 | 120   | 54080         | 4,20      |
| 52138000L   | S/K         | 1 3/8"  | 34,9 | 1 3/8"  | 34,9 | 33,3 ± 0,4 | 85   | 42,0 ± 1,2 | 43,1 | 133   | 54080         | 4,40      |
| 52191601    | S/K         | 1 9/16" | 39,7 | 1 9/16" | 39,7 | 36,9 ± 0,4 | 95   | 44,0 ± 1,5 | 48,1 | 158   | 61415         | 6,80      |
| 52158001    | S/K         | 1 5/8"  | 41,3 | 1 5/8"  | 41,3 | 38,5 ± 0,4 | 110  | 44,0 ± 1,5 | 55,6 | 147   | 86100         | 7,50      |
| 52134000    | S/K         | 1 3/4"  | 44,5 | 1 3/4"  | 44,5 | 41,4 ± 0,4 | 110  | 52,0 ± 1,5 | 55,6 | 175   | 84362         | 9,20      |
| 52134001    | S/K         | 1 3/4"  | 44,5 | 1 3/4"  | 44,5 | 41,4 ± 0,4 | 110  | 52,0 ± 1,5 | 55,6 | 195   | 84362         | 9,50      |
| 52178000    | S/K         | 1 7/8"  | 47,6 | 1 7/8"  | 47,6 | 45,9 ± 0,4 | 125  | 52,0 ± 1,5 | 63,5 | 177   | 97140         | 10,90     |
| 52218000    | S/K         | 2 1/8"  | 54   | 2 1/8"  | 54   | 51,5 ± 0,5 | 120  | 62,0 ± 2,0 | 61   | 204   | 112300        | 15,00     |
| 52214001    | S/K         | 2 1/4"  | 57,2 | 2 1/4"  | 57,2 | 54,5 ± 0,5 | 130  | 62,0 ± 2,0 | 66   | 219   | 132565        | 17,20     |
| 52271600    | S/K         | 2 7/16" | 61,9 | 2 7/16" | 61,9 | 59,1 ± 0,5 | 150  | 66,0 ± 2,0 | 76,5 | 214   | 144780        | 20,40     |

Material: Acidproof Stainless Steel

S:Clevis Pin w/Split; K:Clevis Pin Treaded w/Nut; G:Clevis Pin w/G-ring

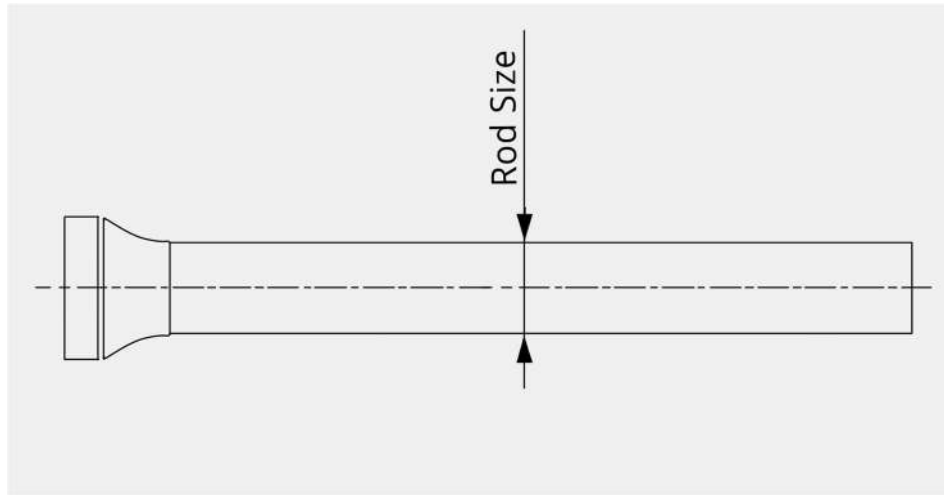
The tolerances on bent toggles may vary by ± 0.3mm

# Eye Jaw Toggle (REJ-)



| Article No.                                                                | Locking Option | Ø Pin 1  |      | Ø Pin 2  |      | U mm | V mm | W mm | X mm | Y mm | Z mm  | Z1 mm | Break Load Kg | Weight Kg |
|----------------------------------------------------------------------------|----------------|----------|------|----------|------|------|------|------|------|------|-------|-------|---------------|-----------|
|                                                                            |                | Inch     | mm   | Inch     | mm   |      |      |      |      |      |       |       |               |           |
| REJ32S                                                                     | S              | 1 1/4"   | 31.8 | 1 1/4"   | 31.8 | 32.0 | 67.5 | 67.5 | 35.0 | 33.8 | 86.5  | 153.0 | 39650         | 2.51      |
| REJ32K                                                                     | K              | 1 1/4"   | 31.8 | 1 1/4"   | 31.8 | 32.0 | 67.5 | 67.5 | 35.0 | 33.8 | 86.5  | 153.0 | 39650         | 3.02      |
| REJ35S                                                                     | S              | 1 3/8"   | 34.9 | 1 3/8"   | 34.9 | 38.0 | 70.5 | 72.0 | 37.0 | 36.0 | 72.0  | 160.0 | 57000         | 3.90      |
| REJ35-2K                                                                   | K              | 1 3/8"   | 34.9 | 1 3/8"   | 34.9 | 38.0 | 70.5 | 72.0 | 37.0 | 36.0 | 72.0  | 160.0 | 57000         | 4.14      |
| REJ38S                                                                     | S              | 1 1/2"   | 38.1 | 1 1/2"   | 38.1 | 41.5 | 68.0 | 71.5 | 31.0 | 35.7 | 84.3  | 176.0 | 60615         | 3.31      |
| REJ38K                                                                     | K              | 1 1/2"   | 38.1 | 1 1/2"   | 38.1 | 41.5 | 68.0 | 71.5 | 31.0 | 35.7 | 84.3  | 176.0 | 60615         | 3.55      |
| REJ40S                                                                     | S              | 1 9/16"  | 39.7 | 1 9/16"  | 39.7 | 43.0 | 86.0 | 86.0 | 46.0 | 43.0 | 107.5 | 202.0 | 61050         | 6.49      |
| REJ40K                                                                     | K              | 1 9/16"  | 39.7 | 1 9/16"  | 39.7 | 43.0 | 86.0 | 86.0 | 46.0 | 43.0 | 107.5 | 202.0 | 61050         | 6.68      |
| REJ45S                                                                     | S              | 1 3/4"   | 44.5 | 1 3/4"   | 44.5 | 45.0 | 88.0 | 96.0 | 46.0 | 48.0 | 103.0 | 200.0 | 92200         | 7.54      |
| REJ45K                                                                     | K              | 1 3/4"   | 44.5 | 1 3/4"   | 44.5 | 45.0 | 88.0 | 96.0 | 46.0 | 48.0 | 103.0 | 200.0 | 92200         | 7.78      |
| REJ48S                                                                     | S              | 1 7/8"   | 47.6 | 1 7/8"   | 47.6 | 47.0 | 90.0 | 100  | 45.9 | 50.0 | 101.0 | 207.0 | 92500         | 8.30      |
| REJ48K                                                                     | K              | 1 7/8"   | 47.6 | 1 7/8"   | 47.6 | 47.0 | 90.0 | 100  | 45.9 | 50.0 | 101.0 | 207.0 | 92500         | 9.05      |
| REJ54S                                                                     | S              | 2 1/8"   | 54.0 | 2 1/8"   | 54.0 | 53.0 | 100  | 110  | 51.5 | 55.0 | 110.0 | 230.0 | 117500        | 11.4      |
| REJ54K                                                                     | K              | 2 1/8"   | 54.0 | 2 1/8"   | 54.0 | 53.0 | 100  | 110  | 51.5 | 55.0 | 110.0 | 230.0 | 117500        | 11.6      |
| REJ62S                                                                     | S              | 2 7/16"  | 61.9 | 2 7/16"  | 61.9 | 62.0 | 110  | 120  | 56.0 | 60.0 | 80.0  | 237.0 | 145520        | 15.2      |
| REJ62K                                                                     | K              | 2 7/16"  | 61.9 | 2 7/16"  | 61.9 | 62.0 | 110  | 120  | 56.0 | 60.0 | 80.0  | 237.0 | 145520        | 15.5      |
| REJ64S                                                                     | S              | 2 1/2"   | 63.5 | 2 1/2"   | 63.5 | 64.0 | 130  | 124  | 60.0 | 63.0 | 138.0 | 233.0 | 202900        | 20.2      |
| REJ64K                                                                     | K              | 2 1/2"   | 63.5 | 2 1/2"   | 63.5 | 64.0 | 130  | 124  | 60.0 | 63.0 | 138.0 | 233.0 | 202900        | 20.6      |
| REJ71S                                                                     | S              | 2 13/16" | 71.4 | 2 13/16" | 71.4 | 64.0 | 148  | 133  | 68.0 | 67.5 | 142.9 | 285.8 | 285700        | 26.9      |
| REJ71K                                                                     | K              | 2 13/16" | 71.4 | 2 13/16" | 71.4 | 64.0 | 148  | 133  | 68.0 | 67.5 | 142.9 | 285.8 | 285700        | 27.2      |
| Material: Acidproof Stainless Steel                                        |                |          |      |          |      |      |      |      |      |      |       |       |               |           |
| S: Clevis Pin w/Split; K: Clevis Pin Treaded w/Nut; G: Clevis Pin w/G-ring |                |          |      |          |      |      |      |      |      |      |       |       |               |           |

# Standard Rod Rigging



| Article No. | Rod Size |      |      | Break Load |        |         | Weight |         | Length m/kg |
|-------------|----------|------|------|------------|--------|---------|--------|---------|-------------|
|             | Dash     | mm   | Inch | kN         | Kg     | lbs.    | Kg/m   | lbs./ft |             |
| R04S        | -4       | 4.4  | 0.17 | 21.0       | 2140   | 4718    | 0.12   | 0.08    | 8.47        |
| R06S        | -6       | 5.0  | 0.20 | 27.9       | 2850   | 6283    | 0.16   | 0.11    | 6.49        |
| R08S        | -8       | 5.7  | 0.23 | 36.3       | 3700   | 8157    | 0.20   | 0.13    | 5.00        |
| R010S       | -10      | 6.4  | 0.25 | 45.8       | 4670   | 10296   | 0.25   | 0.17    | 3.95        |
| R012S       | -12      | 7.1  | 0.28 | 55.6       | 5670   | 12500   | 0.32   | 0.21    | 3.22        |
| R015S       | -15      | 7.5  | 0.30 | 64.7       | 6600   | 14551   | 0.35   | 0.25    | 2.63        |
| R016S       | -16      | 8.0  | 0.31 | 68.6       | 7000   | 15432   | 0.40   | 0.27    | 2.52        |
| R017S       | -17      | 8.4  | 0.33 | 77.5       | 7900   | 17417   | 0.44   | 0.29    | 2.30        |
| R022S       | -22      | 9.5  | 0.38 | 100.0      | 10200  | 22487   | 0.56   | 0.38    | 1.80        |
| R030S       | -30      | 11.1 | 0.44 | 133.3      | 13600  | 30644   | 0.76   | 0.52    | 1.32        |
| R040S       | -40      | 12.7 | 0.50 | 178.0      | 18150  | 40014   | 1.00   | 0.67    | 1.01        |
| R048S       | -48      | 14.3 | 0.56 | 213.7      | 21800  | 48061   | 1.27   | 0.85    | 0.79        |
| R060S       | -60      | 16.8 | 0.66 | 290.3      | 29611  | 65281   | 1.74   | 1.17    | 0.57        |
| R076S       | -76      | 17.9 | 0.70 | 338.0      | 34475  | 76004   | 1.99   | 1.34    | 0.50        |
| RPB091      | -91      | 19.5 | 0.77 | 404.7      | 41278  | 91002   | 2.36   | 1.58    | 0.42        |
| RPB115      | -115     | 22.2 | 0.88 | 511.5      | 52165  | 115004  | 3.06   | 2.06    | 0.33        |
| RPB150      | -150     | 25.4 | 1.00 | 663.7      | 67686  | 149222  | 4.00   | 2.69    | 0.25        |
| RPB170      | -170     | 27.1 | 1.07 | 775.1      | 77012  | 169782  | 4.54   | 3.05    | 0.22        |
| RPB195      | -195     | 28.6 | 1.13 | 840.7      | 85744  | 189033  | 5.06   | 3.40    | 0.20        |
| RPB220      | -220     | 30.3 | 1.19 | 978.5      | 99792  | 220003  | 5.67   | 3.81    | 0.18        |
| RPB260      | -260     | 33.4 | 1.31 | 1147       | 116981 | 257899  | 6.89   | 4.63    | 0.15        |
| RPB320      | -320     | 38.1 | 1.50 | 1493       | 152293 | 335748  | 8.99   | 6.04    | 0.11        |
| RPB360      | -360     | 41.3 | 1.63 | 1601       | 163300 | 360015  | 10.64  | 7.12    | 0.09        |
| RPB430      | -430     | 44.5 | 1.75 | 2036       | 207655 | 457800  | 12.25  | 8.23    | 0.08        |
| RPB540      | -540     | 50.8 | 2.00 | 2402       | 245009 | 540152  | 16.05  | 10.73   | 0.06        |
| RPB640      | -640     | 57.2 | 2.25 | 2891       | 294835 | 648637  | -      | -       | -           |
| RPB750      | -750     | 63.5 | 2.50 | 3336       | 340200 | 748440  | -      | -       | -           |
| RPB910      | -910     | 68.5 | 2.70 | 4047       | 412769 | 908091  | -      | -       | -           |
| RPB1080     | -1080    | 74.5 | 2.93 | 4803       | 489888 | 1077753 | -      | -       | -           |

Where no tolerances are given, tolerances on rodsizes given by the supplier applies

Yield strength is 80-85% of the Break Load

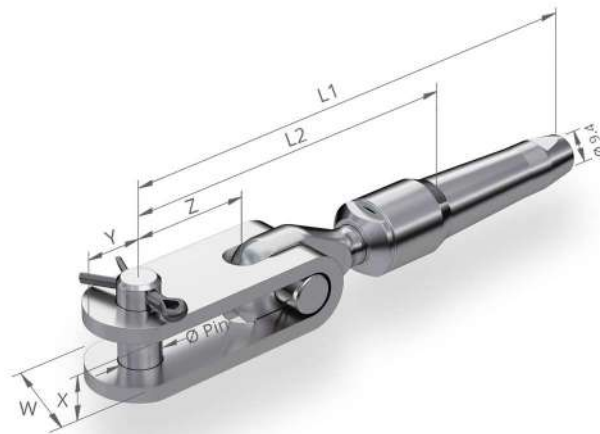


# Kevlar Cable (KC-)



| Article No. | Color | Break Load |        | Diameter<br>±0.3 mm | Weight<br>kg/m |
|-------------|-------|------------|--------|---------------------|----------------|
|             |       | Tonnes     | Lbs    |                     |                |
| KCB003      | Black | 3.0        | 6612   | 7.1                 | 0.040          |
| KCB005      | Black | 5.0        | 11020  | 8.9                 | 0.058          |
| KCW005      | White | 5.0        | 11020  | 8.9                 | 0.058          |
| KCB007      | Black | 7.0        | 15428  | 10.2                | 0.083          |
| KCB009      | Black | 9.0        | 19836  | 11.2                | 0.112          |
| KCB012      | Black | 12.0       | 26448  | 14.7                | 0.150          |
| KCB015      | Black | 15.0       | 33060  | 17.3                | 0.260          |
| KCW015      | White | 15.0       | 33060  | 17.3                | 0.260          |
| KCB020      | Black | 20.0       | 44080  | 20.6                | 0.330          |
| KCB025      | Black | 25.0       | 55100  | 22.9                | 0.400          |
| KCB035      | Black | 35.0       | 77140  | 28.7                | 0.671          |
| KCB045      | Black | 45.0       | 99180  | 32.5                | 0.845          |
| KCB055      | Black | 55.0       | 121275 | 36.0                | 0.982          |
| KCB065      | Black | 65.0       | 143325 | 38.0                | 1.176          |
| KCB080      | Black | 80.0       | 176400 | 41.0                | 1.299          |

# Kevlar Socket w/ Toggle & Eye (KSJ-)



| Article No.                                                             | Kevlar Size |      | Ø Pin |      | W mm | X mm | Y mm | Z mm | L2 mm | Weight Kg |
|-------------------------------------------------------------------------|-------------|------|-------|------|------|------|------|------|-------|-----------|
|                                                                         | Tonnes      | mm   | Inch  | mm   |      |      |      |      |       |           |
| KSJ005127s                                                              | 5           | 8,6  | 1/2   | 12,7 | 30   | 14   | 16   | 37,9 | 108   | 0,47      |
| KSJ007158s                                                              | 7           | 10,2 | 5/8   | 15,9 | 40   | 17,5 | 21   | 38,7 | 125   | 0,815     |
| KSJ009158s                                                              | 9           | 11,2 | 5/8   | 15,9 | 40   | 17,5 | 21   | 38,7 | 130   | 0,917     |
| KSJ009191s                                                              | 9           | 11,2 | 3/4   | 19,1 | 50   | 21,5 | 26   | 52,5 | 152   | 1,186     |
| KSJ012191s                                                              | 12          | 14,7 | 3/4   | 19,1 | 50   | 21,5 | 26   | 52,5 | 156   | 1,427     |
| KSJ015222s                                                              | 15          | 17,3 | 7/8   | 22,2 | 60   | 24   | 32   | 64,6 | 178   | 2,057     |
| KSJ020222s                                                              | 20          | 20,6 | 7/8   | 22,2 | 60   | 24   | 32   | 65,4 | 194   | 2,728     |
| KSJ020254s                                                              | 20          | 20,6 | 1     | 25,4 | 60   | 28   | 32   | 65,4 | 200   | 3,03      |
| KSJ020254k                                                              | 20          | 20,6 | 1     | 25,4 | 60   | 28   | 32   | 65,4 | 200   | 3,042     |
| KSJ025286s                                                              | 25          | 22,9 | 1_1/8 | 28,6 | 70   | 31,5 | 37   | 59,1 | 201   | 4,193     |
| KSJ035318s                                                              | 35          | 28,7 | 1_1/4 | 31,9 | 80   | 36,5 | 42   | 82,6 | 230   | 6,65      |
| KSJ045349s                                                              | 45          | 32,5 | 1_3/8 | 34,9 | 90   | 42   | 47   | 83,1 | 268   | 9,317     |
| S:Clevis Pin w/Split; K:Clevis Pin Treaded w/Nut; G:Clevis Pin w/G-ring |             |      |       |      |      |      |      |      |       |           |

# Kevlar Socket (KS-)



| Article No. | Cable Size Tonnes | Thread UNF      | D1 mm | D2 mm | L mm | Weight Kg |
|-------------|-------------------|-----------------|-------|-------|------|-----------|
| KS003-U12   | 3                 | 3/8" - 24 UNF   | 18.0  | 7.5   | 86.5 | 0.08      |
| KS005-U14   | 5                 | 7/16" - 20 UNF  | 25.2  | 9.0   | 96.5 | 0.17      |
| KS005-U16   | 5                 | 1/2" - 20 UNF   | 25.2  | 9.0   | 96.5 | 0.16      |
| KSL007-U16  | 7                 | 1/2" - 20UNF    | 27,5  | 12,6  | 132  | 0.30      |
| KS007-U16   | 7                 | 1/2" - 20UNF    | 28.0  | 10.5  | 112  | 0.23      |
| KSL007-U20  | 7                 | 5/8" - 18UNF    | 27,5  | 12,6  | 132  | 0.29      |
| KS007-U20   | 7                 | 5/8" - 18UNF    | 28.0  | 10.5  | 112  | 0.23      |
| KS009-U20   | 9                 | 5/8" - 18UNF    | 32.0  | 11,7  | 128  | 0.36      |
| KS009-U24   | 9                 | 3/4" - 16UNF    | 32.0  | 11.7  | 128  | 0.32      |
| KS012-U20   | 12                | 5/8" - 18UNF    | 37.0  | 15.0  | 150  | 0.57      |
| KSL012-U24  | 12                | 3/4" - 16UNF    | 34.0  | 16.1  | 152  | 0.52      |
| KS012-U24   | 12                | 3/4" - 16UNF    | 37.0  | 15.0  | 150  | 0.55      |
| KS015-U24   | 15                | 3/4" - 16UNF    | 39.5  | 17.8  | 163  | 0.75      |
| KSL015-U26  | 15                | 13/16" - 16 UNF | 39.8  | 18.3  | 188  | 0.90      |
| KS015-U28   | 15                | 7/8" - 14 UNF   | 39.5  | 17.8  | 163  | 0.72      |
| KS020-U28   | 20                | 7/8" - 14 UNF   | 45.5  | 20.9  | 201  | 1.20      |
| KS020-U32   | 20                | 1" - 12 UNF     | 45.5  | 20.9  | 201  | 1.17      |
| KS025-U32   | 25                | 1" - 12 UNF     | 49.5  | 23.3  | 226  | 1.55      |
| KSL025-U36  | 25                | 1_1/8" - 12 UNF | 49.7  | 23.4  | 230  | 1.74      |
| KS025-U36   | 25                | 1_1/8" - 12 UNF | 49.5  | 23.3  | 226  | 1.50      |
| KSL035-U36  | 35                | 1_1/8" - 12 UNF | 59.7  | 28.7  | 258  | 2.84      |
| KS035-U36   | 35                | 1_1/8" - 12 UNF | 59.0  | 29.6  | 268  | 1.65      |
| KSL035-U40  | 35                | 1_1/4" - 12 UNF | 59.7  | 28.7  | 258  | 2.78      |
| KS035-U40   | 35                | 1_1/4"-12 UNF   | 59.0  | 29.6  | 268  | 1.60      |
| KS035-U44   | 35                | 1_3/8 - 12 UNF  | 59.0  | 29.6  | 268  | 1.57      |
| KS045-U40   | 45                | 1_1/4"-12 UNF   | 69,5  | 33,5  | 307  | 4.49      |
| KS045-U44   | 45                | 1_3/8 - 12 UNF  | 69,5  | 33,5  | 307  | 4.41      |
| KSL045-U48  | 45                | 1_1/2"-12 UNF   | 69.8  | 31.9  | 308  | 4.34      |
| KS045-U48   | 45                | 1_1/2"-12 UNF   | 69,5  | 33,5  | 307  | 4.33      |
| KSL055-U54  | 55                | 1_11/16"-12 UNF | 73.0  | 33.8  | 329  | 5.51      |
| KSL055-U56  | 55                | 1_3/4"-12 UNF   | 73.0  | 33.8  | 329  | 5.45      |

## Kevlar Socket (KS-) continued



| Article No.                         | Cable Size Tonnes | Thread UNF      | D1 mm | D2 mm | L mm | Weight Kg |
|-------------------------------------|-------------------|-----------------|-------|-------|------|-----------|
| KSL080-U52                          | 80                | 1_5/8" - 12 UNF | 89.5  | 40.0  | 421  | 10.62     |
| KS080-U60                           | 80                | 1_7/8" - 8 UN   | 84,7  | 40,9  | 408  | 8.97      |
| KSL080-U64                          | 80                | 2" - 8 UNF      | 89.5  | 40.0  | 421  | 10.24     |
| KSL090-U68                          | 90                | 2_1/8" - 8 UNF  | 99.7  | 42.8  | 445  | 14.36     |
| KSL150-U88                          | 150               | 2_3/4" - 8 UNF  | 109.5 | 49.5  | 541  | 19.33     |
| Material: Acidproof Stainless Steel |                   |                 |       |       |      |           |

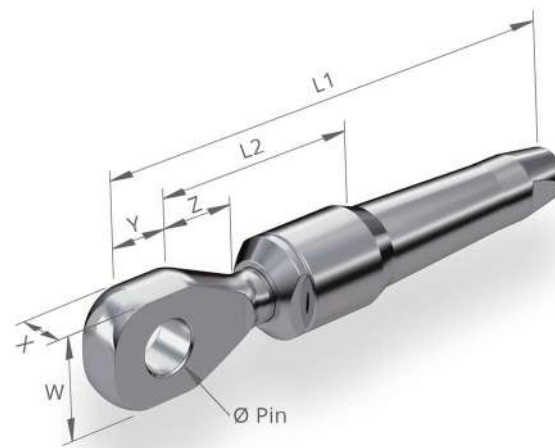
## Kevlar Socket w/ Ball Hanger (KSBH-)



| Article No. | Kevlar Size |      | D1 mm | D2 mm | R mm | SW mm | L1 mm | Tang Size Dash | Weight Kg |
|-------------|-------------|------|-------|-------|------|-------|-------|----------------|-----------|
|             | Tonnes      | mm   |       |       |      |       |       |                |           |
| KSBH01518   | 15          | 17,3 | 34    | 17,9  | 17,8 | 13    | 268   | -40            | 1,08      |
| KSBH02018   | 20T         | 20,6 | 34    | 17,9  | 17,8 | 13    | 308   | -40            | 1,58      |
| KSBH02020   | 20T         | 20,6 | 39    | 19    | 19,8 | 16    | 308   | -48            | 1,69      |

\*Fits for BSI Standard Twing & Clamptang head size

# Kevlar Socket w/ Eye (KSE-)



| Article No.  | Kevlar Size |      | Ø Pin |      | W mm | X mm | Y mm | Z mm | L2 mm | L1 mm | Weight Kg |
|--------------|-------------|------|-------|------|------|------|------|------|-------|-------|-----------|
|              | Tonnes      | mm   | Inch  | mm   |      |      |      |      |       |       |           |
| KSE003095    | 3T          | 7,1  | 3/8   | 9,5  | 19.0 | 8.5  | 10.0 | 17.0 | 56    | 129   | 0.12      |
| KSE005111    | 5T          | 8,6  | 7/16  | 11,2 | 24.0 | 10.0 | 12.0 | 19.0 | 68    | 139   | 0.23      |
| KSE005127    | 5T          | 8,6  | 1/2   | 12,8 | 28.0 | 11.0 | 15.0 | 21.5 | 56    | 141   | 0.25      |
| KSE007127    | 7T          | 10,2 | 1/2   | 12,8 | 28.0 | 11.0 | 15.0 | 21.5 | 58    | 156   | 0,3       |
| KSE007158    | 7T          | 10,2 | 5/8   | 16   | 32.8 | 14.0 | 17.0 | 24.5 | 70    | 170   | 0.40      |
| KSE009158    | 9T          | 11,2 | 5/8   | 16   | 32.8 | 14.0 | 17.0 | 24.5 | 75    | 186   | 0.50      |
| KSE009192    | 9T          | 11,2 | 3/4   | 19,1 | 37.5 | 17.0 | 21.0 | 29.5 | 79    | 194   | 0.59      |
| KSE012158    | 12T         | 14,7 | 5/8   | 16   | 32.8 | 14.0 | 17.0 | 24.5 | 79    | 209   | 0.73      |
| KSE012191    | 12T         | 14,7 | 3/4   | 19,1 | 37.5 | 17.0 | 21.0 | 29.5 | 83    | 217   | 0.82      |
| KSE015191    | 15T         | 17,3 | 3/4   | 19,1 | 44.0 | 17.0 | 23.0 | 35.0 | 84    | 234   | 1.11      |
| KSE015222    | 15T         | 17,3 | 7/8   | 22,2 | 44.0 | 19.5 | 26.0 | 35.0 | 87    | 240   | 1.15      |
| KSE015254-17 | 15T         | 17,3 | 1     | 25,4 | 44.0 | 17.0 | 25.5 | 39.5 | 87    | 239   | 1.14      |
| KSE020222    | 20T         | 20,6 | 7/8   | 22,2 | 44.5 | 24.0 | 24.0 | 38.0 | 100   | 279   | 1.76      |
| KSE020254    | 20T         | 20,6 | 1     | 25,4 | 49.5 | 22.0 | 27.5 | 39.5 | 105   | 288   | 1.78      |
| KSE025286    | 25T         | 22,9 | 1_1/8 | 28,6 | 57.0 | 25.0 | 31.5 | 46.5 | 111   | 318   | 2.42      |
| KSE035318    | 35T         | 28,7 | 1_1/4 | 31,8 | 64.8 | 28.5 | 33.0 | 40.5 | 133   | 379   | 3.93      |
| KSE045349    | 45T         | 32,5 | 1_3/8 | 35,2 | 68.5 | 31.5 | 37.0 | -    | -     | -     | 5.80      |

# Kevlar Socket w/ Lashing Eye (KSLE-)



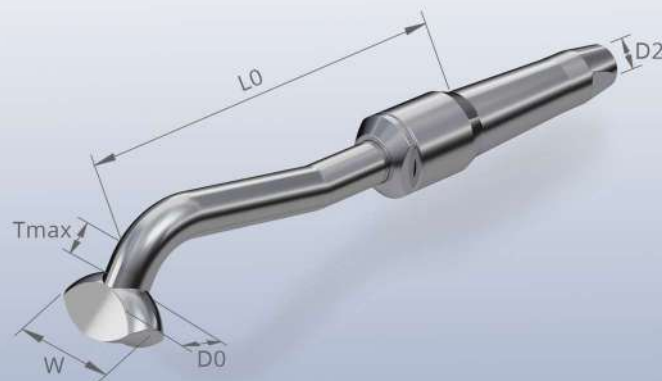
| Article No. | Kevlar Size |      | Ø Lash mm | W mm | X mm | Y0 mm | Y1 mm | L1 mm | L2 mm | Break Load Kg | Weight Kg |
|-------------|-------------|------|-----------|------|------|-------|-------|-------|-------|---------------|-----------|
|             | Tonnes      | mm   |           |      |      |       |       |       |       |               |           |
| KSELE00312  | 3           | 7,1  | 12        | 26,5 | 11,3 | 14    | 24    | 17,8  | 55,6  | 3000          | 0,148     |
| KSELE00515  | 5           | 8,6  | 15        | 29,7 | 12   | 15,5  | 30    | 131,3 | 68,5  | 5000          | 0,263     |
| KSELE00718  | 7           | 10,2 | 18        | 34,6 | 15   | 18    | 36    | 161,4 | 70,9  | 7000          | 0,405     |
| KSELE00918  | 9           | 11,2 | 18        | 34,6 | 15   | 18    | 36    | 178,6 | 75,5  | 9000          | 0,546     |
| KSELE01220  | 12          | 14,7 | 20        | 38,8 | 18   | 20    | 40    | 198,4 | 84    | 12000         | 0,76      |
| KSELE01522  | 15          | 17,3 | 22        | 41,6 | 20   | 21,5  | 44    | 215,4 | 87,2  | 15000         | 1,044     |
| KSELE02025  | 20          | 20,3 | 25        | 48,8 | 22   | 25    | 50    | 258,1 | 106,1 | 20000         | 1,594     |
| KSELE02529  | 25          | 22,9 | 29        | 57,5 | 24   | 29,5  | 58    | 301   | 117,3 | 25000         | 2,373     |
| KSELE03532  | 35          | 28,7 | 32        | 61,5 | 27   | 31,5  | 64    | 338,6 | 133,2 | 35000         | 3,473     |
| KSELE04536  | 45          | 32,5 | 36        | 69,8 | 30   | 35,5  | 72    | 390   | 157,8 | 45000         | 5,587     |
| KSELE05540  | 55          | 35,8 | 40        | 79,5 | 33   | 40,5  | 80    | 407,9 | 165,7 | 55000         | 7,267     |

## Kevlar Socket w/ Swiver Bail (KSSB-)



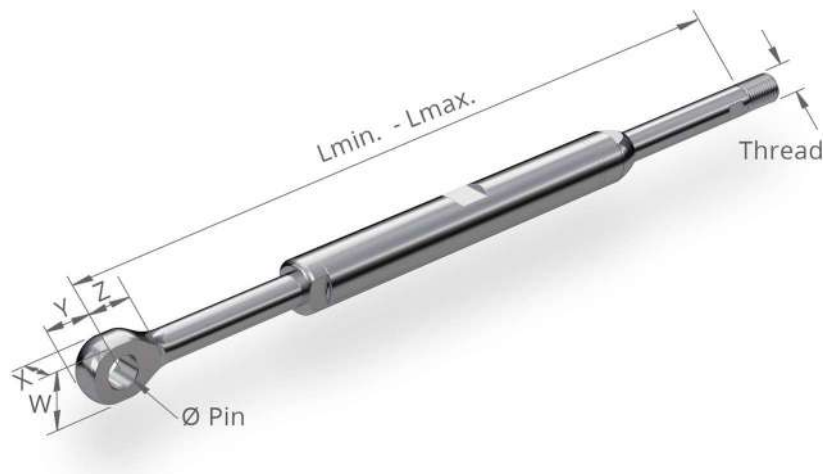
| Article No. | Kevlar Size |      | W mm | L0 mm | Weight Kg |
|-------------|-------------|------|------|-------|-----------|
|             | Tonnes      | mm   |      |       |           |
| KSSB003     | 3           | 7,1  | 42,2 | 132   | 0,15      |
| KSSB005     | 5           | 8,9  | 47,4 | 148   | 0,271     |
| KSSB007     | 7           | 10,2 | 62   | 178   | 0,473     |
| KSSB009     | 9           | 11,2 | 83   | 216   | 0,905     |
| KSSB012     | 12          | 14,7 | 83   | 238   | 1,08      |
| KSSB015     | 15          | 17,3 | 110  | 285   | 1,83      |
| KSSB020     | 20          | 20,6 | 134  | 345   | 3,32      |
| KSSB025     | 25          | 22,9 | 160  | 413   | 4,85      |

## Kevlar Socket w/ T-terminal (KST-)



| Article No. | Kevlar Size |      | Thread Size  | W mm | D0 mm | D2 mm | Safe Work Load Kg | Break Load Kg | Weight Kg |
|-------------|-------------|------|--------------|------|-------|-------|-------------------|---------------|-----------|
|             | Tonnes      | mm   |              |      |       |       |                   |               |           |
| KST003      | 3           | 7,1  | 7/16"-20 UNF | 31,5 | 12,7  | 7,5   | 1650              | 3500          | 0.228     |
| KST005      | 5           | 8,9  | 1/2"-20 UNF  | 31,4 | 12,7  | 9,2   | 1850              | 4700          | 0,369     |
| KST007      | 7           | 10,2 | 5/8"-18 UNF  | 34,5 | 16    | 10,5  | 2500              | 7500          | 0,532     |

## Kevlar Turnbuckle w/ Eye (1980-)



| Article No.  | Thread Size   | Ø pin  |      | W mm | X mm | Y mm | Z mm | Lmin – Lmax mm | Break Load Kg | Weight Kg |
|--------------|---------------|--------|------|------|------|------|------|----------------|---------------|-----------|
|              |               | Inch   | mm   |      |      |      |      |                |               |           |
| 19800222-U28 | 7/8"-14UNF    | 7/8"   | 22.2 | 45.5 | 19.5 | 24.0 | 37.0 | 397 - 616      | 17800         | 2.94      |
| 19800222-U32 | 1"-12UNF      | 7/8"   | 22.2 | 47.0 | 19.5 | 25.0 | 32.5 | 421 - 637      | 22500         | 4.31      |
| 19800254-U32 | 1"-12UNF      | 1"     | 25.4 | 50.0 | 21.6 | 38.0 | 25.0 | 423 - 639      | 23000         | 4.40      |
| 19800286-U36 | 1_1/8"-12 UNF | 1_1/8" | 28.6 | 55.4 | 25.0 | 29.0 | 51.0 | 489 - 759      | 28830         | 5.80      |

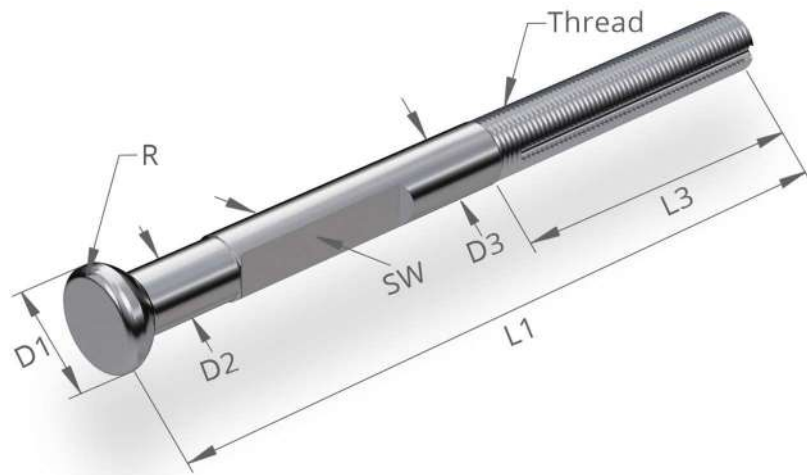
## Kevlar Turnbuckle w/ Toggle (1990-)



| Article No.  | Thread Size  | Pin option | Ø Pin   |      | W mm | X mm | Y mm | Z mm | T mm | Lmin – Lmax mm | Break Load Kg | Weight Kg |
|--------------|--------------|------------|---------|------|------|------|------|------|------|----------------|---------------|-----------|
|              |              |            | Inch    | mm   |      |      |      |      |      |                |               |           |
| 19900222-U28 | 7/8"-14UNF   | K/S        | 7/8"    | 22.2 | 60   | 24   | 32   | 66,6 | 6    | 448-707        | 17800         | 3.95      |
| 19900349-U44 | 1_3/8"-12UNF | K/S        | 1_3/8"  | 34.9 | 90   | 39   | 47   | 98   | 10   | 776-1116       | 43050         | 14.9      |
| 19900397-U52 | 1_5/8"-12UNF | K/S        | 1_9/16" | 39.7 | 95   | 44   | 50   | 116  | 15   | 820 - 1156     | 65600         | 23.3      |
| 19900540-U68 | 2_1/8"-8UN   | K/S        | 2_1/8"  | 54.0 | 130  | 47   | 68   | 131  | 12   | 1070-1570      | 88000         | 44.6      |

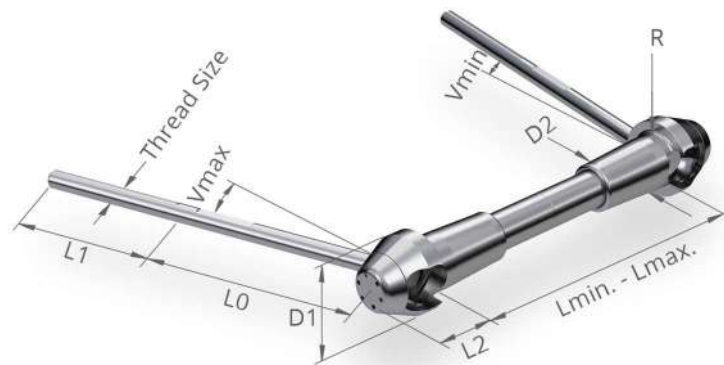
S:Clevis Pin w/Split; K:Clevis Pin Treaded w/Nut; G:Clevis Pin w/G-ring

# Fiber Tang Hanger (FH-)



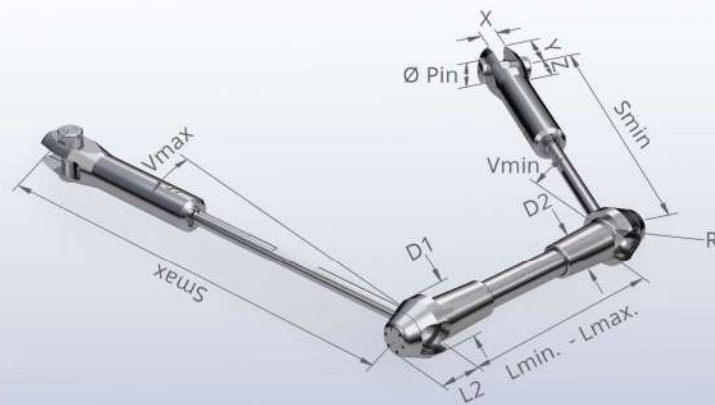
| Article No.   | Thread Inch   | Rod Equilant Size | Adjusted for | D1 mm | D2 mm | D3 mm | L1 mm | L3 mm | R mm | SW mm | Break Load Kg | Weight Kg |
|---------------|---------------|-------------------|--------------|-------|-------|-------|-------|-------|------|-------|---------------|-----------|
| FH01714-U16-0 | 1/2-20 UNF    | -17               | RxTx170xxx   | 29.0  | 12.7  | 12.7  | 265   | 103.5 | 15   | 11    | 10400         | 0.30      |
| FH02215-U18-0 | 9/16-18 UNF   | -22               | RxTx220xxx   | 29.0  | 14.3  | 14.3  | 269   | 99.5  | 15   | 11    | 13500         | 0.37      |
| FH03016-U24-0 | 3/4-16 UNF    | -30               | RxTx300xxx   | 29.0  | 15    | 19.5  | 283   | 108.0 | 16   | 12.7  | 19700         | 0.61      |
| FH04018-U24-0 | 3/4-16 UNF    | -40               | RxTx400xxx   | 34.0  | 18.0  | 19.0  | 285   | 105.0 | 18   | 13    | 26600         | 0.65      |
| FH04820-U28-0 | 7/8-14 UNF    | -48               | RxTx480xxx   | 39.0  | 19.0  | 22.2  | 295   | 107.5 | 20   | 16    | 34000         | 0.90      |
| FH06022-U32   | 1-12 UNF      | -60               | RxTx600xxx   | 40.0  | 21.8  | 24.0  | 263   | 137.0 | 22   | 17    | 43400         | 0.98      |
| FH07622-U32-0 | 1-12 UNF      | -76               | RxTx760xxx   | 40.0  | 24.0  | 25.4  | 320   | 135.5 | 22   | 18    | 49900         | 1.30      |
| FH09125-U36-0 | 1 1/8-12 UNF  | -91               | RxTx910xxx   | 46.5  | 25.7  | 28.6  | 345   | 164.0 | 25   | 22    | 62300         | 1.71      |
| FH11530-U40-0 | 1 1/4-12 UNF  | -115              | RxTx1150xxx  | 53.0  | 29.0  | 31.8  | 355   | 168.0 | 30   | 24    | 75600         | 2.21      |
| FH15033-U44-0 | 1 3/8-12 UNF  | -150              | RxTx1500xxx  | 60.0  | 33.0  | 34.9  | 390   | 197.0 | 33   | 24    | 89800         | 2.95      |
| FH17036-U48-0 | 1 1/2-12 UNF  | -170              | RxTx1700xxx  | 70.5  | 34.5  | 38.1  | 395   | 200.5 | 36   | 27    | 100200        | 3.67      |
| FH19538-U50-0 | 1 9/16-12 UNF | -195              | RxTx1950xxx  | 70.5  | 36.0  | 39.7  | 420   | 202.0 | 38   | 30    | 107900        | 4.10      |

## Fiber Fork Clamp Singletang (FFCS-)



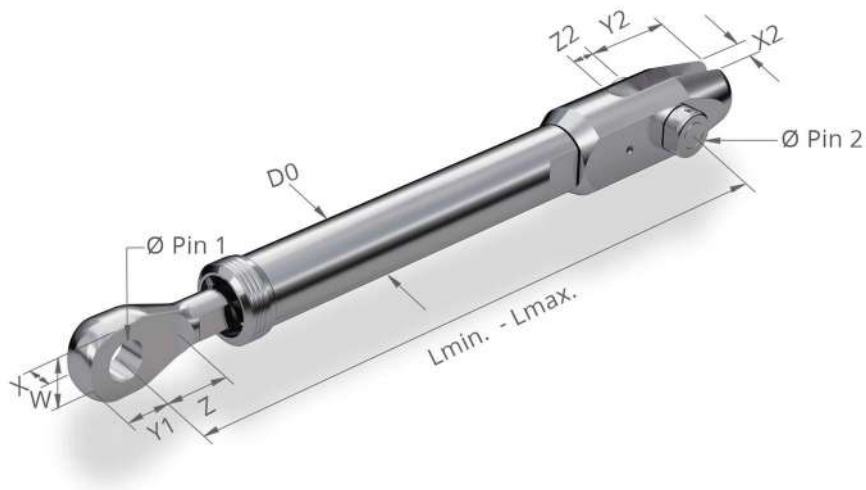
| Article No.     | Pin    |      | Z mm | X mm | Smin-Smax mm | D1 mm | D2 mm | L1 mm | L2 mm | Vmin-Vmax Degrees | Lmin-Lmax mm | Break Load kg | Weight kg |
|-----------------|--------|------|------|------|--------------|-------|-------|-------|-------|-------------------|--------------|---------------|-----------|
|                 | Inch   | mm   |      |      |              |       |       |       |       |                   |              |               |           |
| FFCS04818-28627 | 1_1/8" | 28,6 | 28,5 | 28   | 396-506      | 76    | 69,85 | 9,5   | 55,7  | 4-28              | 18 - 23      | 26200         | 5.60      |

## Fiber Fork Twintang System (FFTS-)



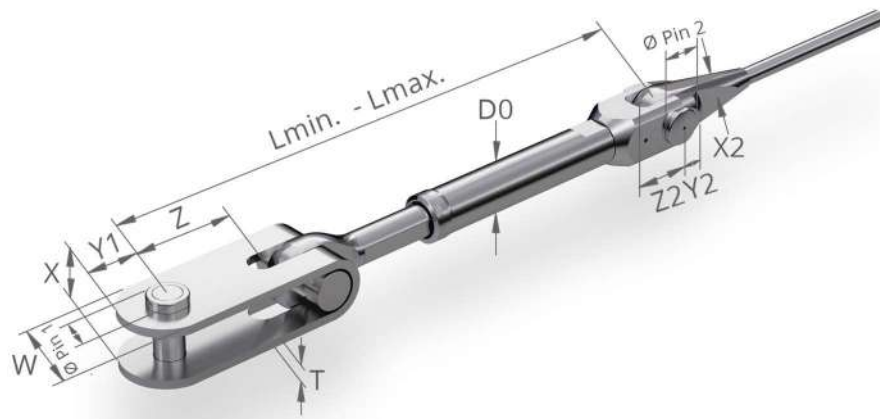
| Article No.      | Pin    |      | Z mm | X mm | Smin-Smax mm | D1 mm | D2 mm | L1 mm | L2 mm | Vmin-Vmax Degrees | Lmin-Lmax mm | Break Load kg | Weight kg |
|------------------|--------|------|------|------|--------------|-------|-------|-------|-------|-------------------|--------------|---------------|-----------|
|                  | Inch   | mm   |      |      |              |       |       |       |       |                   |              |               |           |
| FFTS022135-19118 | 3/4"   | 19,1 | 28,5 | 19   | 305-400      | 54,5  | 37,8  | 2,5   | 7     | 41                | 04-30        | 135-185       | 11980     |
| FFTS022180-19118 | 3/4"   | 19,1 | 28,5 | 19   | 305-400      | 54,5  | 37,8  | 2,5   | 7     | 41                | 04-30        | 180-230       | 11980     |
| FFTS022225-19118 | 3/4"   | 19,1 | 28,5 | 19   | 305-400      | 54,5  | 37,8  | 2,5   | 7     | 41                | 04-30        | 225-275       | 11980     |
| FFTS048175-28627 | 1_1/8" | 28,6 | 28,5 | 28   | 396-506      | 76    | 57,2  | 4     | 9,5   | 52,2              | 04-28        | 175-230       | 26200     |
| FFTS048225-28627 | 1_1/8" | 28,6 | 28,5 | 28   | 396-506      | 76    | 57,2  | 4     | 9,5   | 52,2              | 04-28        | 225-280       | 26200     |
| FFTS048275-28627 | 1_1/8" | 28,6 | 28,5 | 28   | 396-506      | 76    | 57,2  | 4     | 9,5   | 52,2              | 04-28        | 275-330       | 26200     |

# Fiber Turnbuckles w/ Barrel (FB3-)



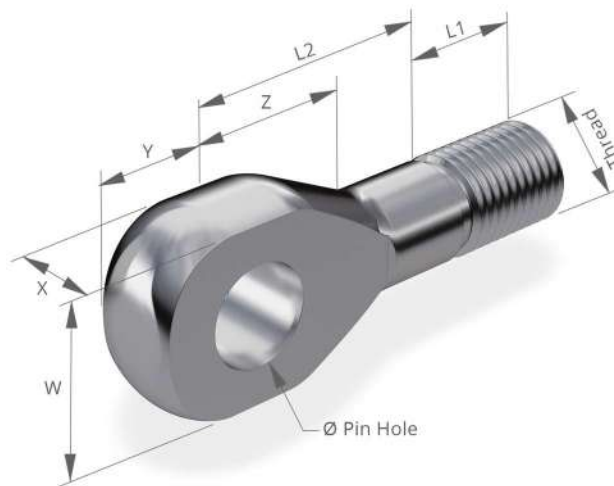
| Article No. | Rod Size Eqv. | Ø Pin 1 |      | W mm | X mm | Y1 mm | Z mm | Ø Pin 2 |      | X2 mm | Z2 mm | Lmin - Lmax mm | Break Load Kg | Weight Kg |
|-------------|---------------|---------|------|------|------|-------|------|---------|------|-------|-------|----------------|---------------|-----------|
|             |               | Inch    | mm   |      |      |       |      | Inch    | mm   |       |       |                |               |           |
| FB30811     | -12           | 1/2"    | 12,7 | 27,5 | 12   | 14,5  | 19   | 1/2"    | 12,7 | 12    | 17    | -              | 7380          | 1,09      |
| FB31411     | -22           | 3/4"    | 19,1 | 41,5 | 18   | 21,5  | 28   | 3/4"    | 19,1 | 12    | 25    | -              | 13780         | 2,54      |
| FB31913     | -30           | 7/8"    | 22,2 | 44   | 21   | 23    | 33   | 7/8"    | 22,2 | 14    | 25    | -              | 16330         | 2,94      |
| FBH34321    | -60           | 1_1/4"  | 32,3 | 67   | 30   | 34,5  | 47,6 | 1_1/4"  | 32,3 | 22    | 32,5  | 390-465        | 34820         | 6,82      |
| FB39835     | -150          | 1_3/4"  | 44,5 | 84,5 | 42   | 43,5  | 65,4 | 1_3/4"  | 44,5 | 36    | 49    | 578-718        | 81650         | 20,6      |
| FB13945     | -220          | 2_1/4"  | 57,2 | 122  | 59   | 63    | 89,9 | 2_1/4"  | 57,2 | 46    | 60    | 681-821        | 119760        | 29,3      |

# Fiber Turnbuckles w/ Toggle (FT3-)



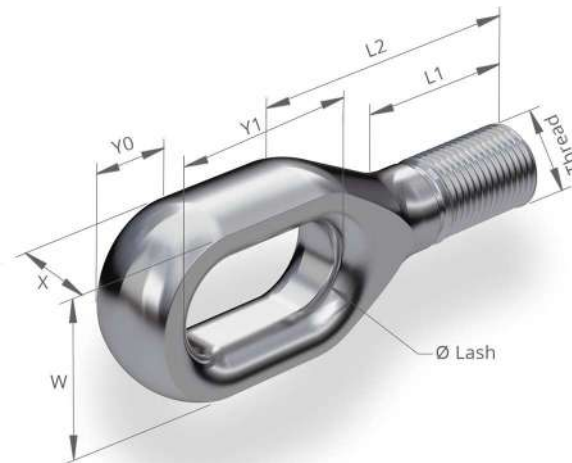
| Article No.  | Rod Size Eqv. | Ø Pin 1 |      | W mm | X mm | Y mm | Z mm | T mm | Ø Pin 2 |      | X2 mm | Z2 mm | Lmin - Lmax mm | Break Load Kg | Weight Kg |
|--------------|---------------|---------|------|------|------|------|------|------|---------|------|-------|-------|----------------|---------------|-----------|
|              |               | Inch    | mm   |      |      |      |      |      | Inch    | mm   |       |       |                |               |           |
| FT31115      | -17           | 5/8     | 16,1 | 40   | 17,5 | 21   | 38   | 6    | 5/8     | 16,1 | 16    | 17,5  | -              | 10500         | 1,9       |
| FT31411      | -22           | 3/4     | 19,1 | 50   | 21,5 | 26   | 53   | 6    | 3/4     | 19,1 | 12    | 25    | -              | 13700         | 3,1       |
| FT31913      | -30           | 7/8     | 22,2 | 60   | 24   | 32   | 67   | 6    | 7/8     | 22,2 | 14    | 25    | -              | 17700         | 4         |
| FT32417      | -40           | 1       | 25,4 | 60   | 28   | 32   | 68   | 8    | 1       | 25,4 | 18    | 29    | -              | 22800         | 5,4       |
| FT33116      | -48           | 1       | 25,4 | 60   | 28   | 32   | 63   | 8    | 1 1/8   | 28,6 | 17    | 32,5  | 465-565        | 31300         | 7         |
| FT33030      | -60           | 1 1/4   | 31,8 | 80   | 36,5 | 42   | 82   | 10   | 1 1/4   | 31,8 | 31    | 37,5  | 539-644        | 33400         | 10        |
| FT34035-150  | -76/-91       | 1 3/8   | 34,9 | 110  | 60   | 58   | 99,7 | 10   | 1 3/8   | 34,9 | 35,9  | 34,8  | 656-806        | 51160         | 17,4      |
| FT35040      | -115          | 1 9/16  | 39,7 | 120  | 60   | 63   | 165  | 12   | 1 9/16  | 39,7 | 40,9  | 40,1  | -              | 65700         | -         |
| FT35040-150  | -115          | 1 9/16  | 39,7 | 120  | 60   | 63   | 165  | 12   | 1 9/16  | 39,7 | 40,9  | 40,1  | 745-895        | 65700         | 26,8      |
| FT315064-250 | -320          | -       | 68,6 | 230  | 92   | 120  | 222  | 15   | 2 1/2"  | 63,5 | 64,5  | 70,3  | 1214-1464      | 187540        | 126       |
| FT325076-250 | -540          | -       | 83,3 | 290  | 125  | 151  | 266  | 15   | 3"      | 76,2 | 77,2  | 93    | 1434-1684      | 293950        | 229       |

# Eye Short UNF RH (54-, REL-)



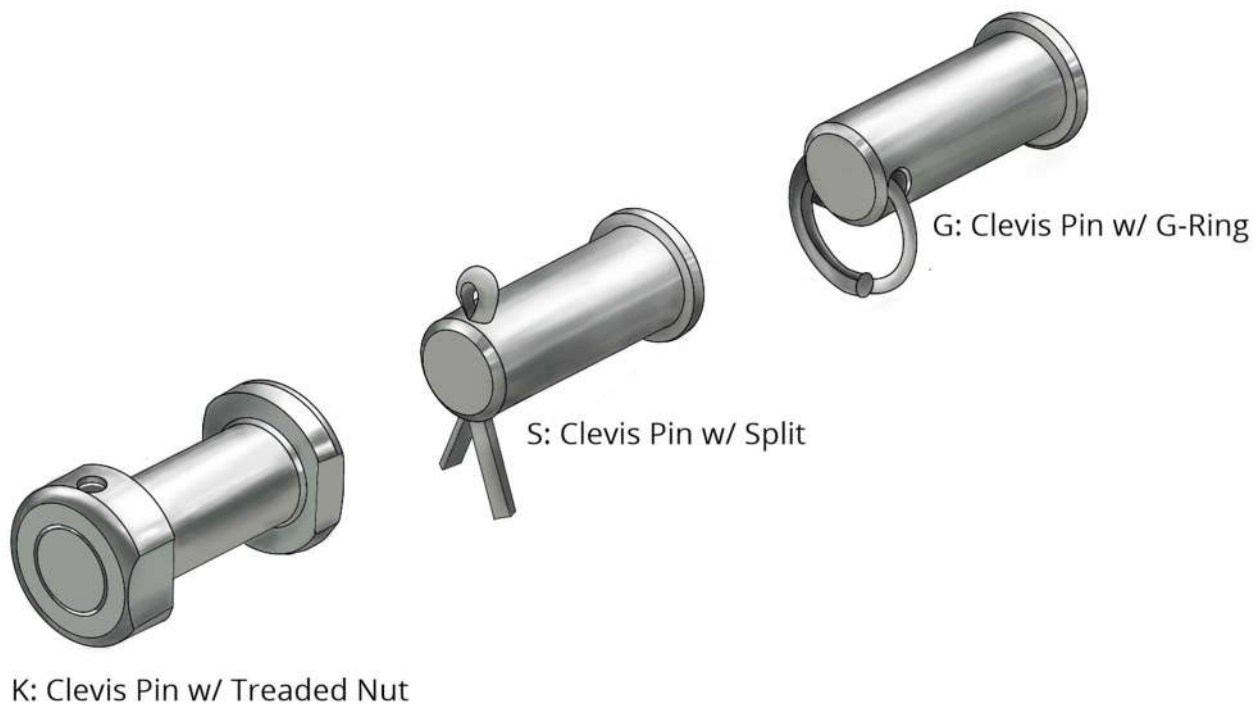
| Article No. | Thread UNF | Ø Pin Hole |      | W mm | X mm | Y mm | Z mm | L1 mm | L2 mm | Weight Kg | Break Load Kg |
|-------------|------------|------------|------|------|------|------|------|-------|-------|-----------|---------------|
|             |            | Inch       | mm   |      |      |      |      |       |       |           |               |
| 54516000    | 5/16"      | 5/16"      | 8.1  | 16.0 | 7.0  | 9.0  | 14.5 | 13.0  | 38.0  | 0.02      | 2500          |
| 54380000    | 3/8"       | 3/8"       | 9.6  | 20.0 | 8.5  | 10.0 | 17.0 | 15.0  | 47.0  | 0.04      | 3000          |
| 54716000    | 7/16"      | 7/16"      | 11.2 | 24.0 | 10.0 | 13.0 | 19.0 | 16.0  | 46.5  | 0.07      | 4385          |
| 54120000    | 1/2"       | 1/2"       | 12.8 | 28.0 | 11.0 | 15.0 | 21.5 | 18.5  | 48.0  | 0.09      | 7000          |
| 54580000    | 5/8"       | 5/8"       | 16.0 | 32.8 | 14.0 | 17.0 | 24.5 | 22.5  | 64.0  | 0.17      | 9750          |
| 54340000    | 3/4"       | 3/4"       | 19.1 | 37.5 | 17.0 | 20.0 | 30.0 | 26.0  | 72.0  | 0.25      | 12940         |
| 54780000    | 7/8"       | 7/8"       | 22.3 | 44.0 | 19.5 | 26.0 | 35.0 | 34.0  | 85.0  | 0.48      | 17450         |
| 54222-U32   | 1"         | 7/8"       | 22.3 | 48.0 | 19.5 | 25.5 | 35.5 | 38.0  | 90.5  | 0.53      | 21550         |
| 54100000    | 1"         | 1"         | 25.6 | 49.5 | 22.0 | 27.5 | 39.5 | 38.0  | 93.5  | 0.61      | 21550         |
| 54118000    | 1 1/8"     | 1 1/8"     | 28.8 | 57.0 | 25.0 | 31.5 | 46.5 | 43.0  | 103.5 | 0.89      | 27500         |
| REL32       | 1 1/4"     | 1 1/4"     | 32.1 | 64.0 | 28.5 | 34.0 | 44.0 | 48.2  | 114.0 | 1.12      | 35050         |
| REL32138    | 1 3/8"     | 1 1/4"     | 32.1 | 64.8 | 28.5 | 33.0 | 40.5 | 58.0  | 132.0 | 1.45      | 41600         |
| REL35138    | 1 3/8"     | 1 3/8"     | 35.2 | 64.8 | 28.5 | 35.0 | 52.8 | 65.0  | 135.0 | 1.45      | 41600         |
| REL35112    | 1 1/2"     | 1 3/8"     | 35.2 | 68.5 | 31.5 | 37.0 | 46.0 | 62.2  | 136.0 | 1.72      | 46900         |
| REL4011116  | 1 11/16"   | 1 9/16"    | 40.0 | 78.8 | 35.5 | 41.0 | 53.5 | 72.6  | 162.0 | 2.60      | 63300         |
| REL45178    | 1 7/8"     | 1 3/4"     | 44.7 | 88.7 | 40.0 | 49.0 | 66.0 | 78.3  | 181.0 | 3.81      | 78250         |
| REL482      | 2"         | 1 7/8"     | 47.9 | 94.0 | 44.5 | 50.0 | 65.0 | 85.0  | 190.0 | 4.70      | 88700         |

# Lashing Eye Oblong (FELE-)



| Article No. | Kevlar Size |      | Thread Size Inch | Ø Lash mm | W mm | X mm | Y0 mm | Y1 mm | L1 mm | L2 mm | Break Load Kg | Weight Kg |
|-------------|-------------|------|------------------|-----------|------|------|-------|-------|-------|-------|---------------|-----------|
|             | Tonnes      | mm   |                  |           |      |      |       |       |       |       |               |           |
| FELE12-U14  | 3           | 7,1  | 7/16-20          | 12        | 26,5 | 11,3 | 14,0  | 24    | 18,7  | 51,0  | 4413          | 0,074     |
| FELE15-U16  | 5           | 8,6  | 1/2-20           | 15        | 29,7 | 12,0 | 15,5  | 30    | 20,4  | 58,2  | 6062          | 0,098     |
| FELE18-U20  | 7           | 10,2 | 5/8-18           | 18        | 34,6 | 15,0 | 18,0  | 36    | 25,3  | 68,9  | 9716          | 0,169     |
| FELE18-U20  | 9           | 11,2 | 5/8-18           | 18        | 34,6 | 15,0 | 18,0  | 36    | 25,3  | 68,9  | 9716          | 0,169     |
| FELE20-U24  | 12          | 14,7 | 3/4-16           | 20        | 38,8 | 18,0 | 20,0  | 40    | 29,7  | 77,5  | 14400         | 0,259     |
| FELE22-U28  | 15          | 17,3 | 7/8-14           | 22        | 41,6 | 20,0 | 21,5  | 44    | 34,5  | 85,6  | 19600         | 0,352     |
| FELE25-U32  | 20          | 20,3 | 1-12             | 25        | 48,8 | 22,0 | 25,0  | 50    | 39,3  | 98,6  | 25599         | 0,531     |
| FELE29-U36  | 25          | 22,9 | 1_1/8-12         | 29        | 57,5 | 24,0 | 29,5  | 58    | 43,4  | 113,4 | 33436         | 0,792     |
| FELE32-U40  | 35          | 28,7 | 1_1/4-12         | 32        | 61,5 | 27,0 | 31,5  | 64    | 47,6  | 122,7 | 39494         | 1,024     |
| FELE36-U48  | 45          | 32,5 | 1_1/2-12         | 36        | 69,8 | 30,0 | 35,5  | 72    | 55,8  | 139,3 | 49634         | 1,534     |
| FELE40-U56  | 55          | 35,8 | 1_3/4-12         | 40        | 79,5 | 33,0 | 40,5  | 80    | 64,1  | 157,6 | 63719         | 2,270     |

# Clevis Pin Options



## SL5 Assembly Instruction for Bronze Bushing

Technical drawing of the SL5 assembly showing exploded views and cross-sections A-A and B-B. The drawing includes dimensions for pins, bushing, and thread, along with a list of assembly steps and a technical specification table.

**Assembly Steps:**

- 1) Clean carefully both thread surface.
- 2) Mount the ball in the tipcup / deckcup.
- 3) From rod size OD 4 to 7.5 (-4 to -15) mount the Turnbuckle lock.
- 4) Ad strong Locktite or equal thread locking secure and mount the bushing.
- 5) Drill carefully and parallel to thread in massiv+rolled splitpin length depth.
- 6) Mount first the massiv and then the rolled pin.

**Technical Specification Table:**

| Weight:           | Material:                               | Surface treatment: |
|-------------------|-----------------------------------------|--------------------|
| 1.561 kg          | Turnbuckle                              | Surface treatment  |
| Test, Break Load: | Edges Breaker:                          | Projection:        |
|                   | 0.5x45° R0.5                            | (0,5) 10           |
|                   |                                         | (0) 30             |
|                   |                                         | (0) 120            |
| Drawn:            | Date:                                   | 14-11-2010         |
| 14-11-2010        | (120)                                   | 400                |
| 14-11-2010        | (400)                                   | 1000               |
| 14-11-2010        | (1200)                                  | 2000               |
| CAD file:         | N:\IN\WROO\Sambing\SL5Ball-assembly.ltw |                    |

**BSI Logo**

**SL5Ball-assembly**

**Scale:** 1:1

## Toggle Dimensions



| D<br>mm       | A<br>mm | B<br>mm | C<br>mm | E<br>mm |
|---------------|---------|---------|---------|---------|
| 6.35 - 1/4"   | 14.0    | 8.0     | 14.0    | 15      |
| 8.00 - 5/16"  | 26.0    | 10.5    | 16.5    | 20      |
| 9.50 - 3/8"   | 29.0    | 10.5    | 18.5    | 25      |
| 11.00 - 7/16" | 31.5    | 14.0    | 24.0    | 25      |
| 12.70 - 1/2"  | 35.5    | 15.5    | 25.5    | 30      |
| 16.00 - 5/8"  | 34.5    | 18.0    | 30.0    | 40      |
| 19.00 - 3/4"  | 36.5    | 22.0    | 34.0    | 50      |
| 22.00 - 7/8"  | 40.0    | 24.0    | 36.0    | 60      |
| 25.00 - 1"    | 43.0    | 27.5    | 43.5    | 60      |
| 28.5 - 1 1/8" | 62.0    | 31.5    | 47.5    | 70      |
| 31.8 - 1 1/4" | 70.5    | 36.5    | 56.5    | 80      |
| 35.0 - 1 3/8" | 85.5    | 42.0    | 62.0    | 90      |

## Fork Dimensions

| D<br>mm       | A<br>mm | B<br>mm | C<br>mm | E<br>mm |
|---------------|---------|---------|---------|---------|
| 5.00          | 11.5    | 7.0     | 13.0    | 12      |
| 6.35 - 1/4"   | 13.0    | 7.0     | 13.0    | 14      |
| 8.00 - 5/16"  | 17.0    | 8.0     | 16.5    | 18      |
| 9.50 - 3/8"   | 19.0    | 10.0    | 18.0    | 21      |
| 11.00 - 7/16" | 24.0    | 12.0    | 22.0    | 24      |
| 12.70 - 1/2"  | 25.0    | 14.5    | 24.5    | 27      |
| 12.70 - 1/2"  | 32.5    | 17.0    | 29.0    | 29      |
| 16.00 - 5/8"  | 37.0    | 17.0    | 29.0    | 32      |
| 16.00 - 5/8"  | 39.5    | 20.0    | 36.0    | 36      |
| 19.00 - 3/4"  | 45.0    | 20.0    | 36.0    | 40      |
| 22.00 - 7/8"  | 54.0    | 24.0    | 44.0    | 45      |
| 25.00 - 1"    | 66.0    | 26.0    | 50.0    | 50      |



## Global Presence

Based in Haderslev Denmark, BSI has designed, engineered and manufactured leading rigging, deck hardware and hatch solutions for the yachting industry since the beginning of 1978. Additionally, BSI's expertise in hatches has led to the development of products for the wind energy sector.

In conjunction with our customers, BSI provides results through the use of best practices, solution oriented experts, and our commitment to integrity. BSI's collaboration with our customers begins with analyzing their needs, continues through in-house design, manufacture, installation and service for the entire lifespan of our products. The BSI Group's customer focused management philosophy makes product innovation a hallmark that is reflected in our design and engineering accomplishments.



S/Y Pherusa  
Photo Courtesy of Conyplex B.V.

S/Y Kaori  
Photo Courtesy of SunBaked Photography

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