

# POP<sup>®</sup>

## Riveting Systems



# Creating the Future ...Worldwide

**Creating the Future is about growth, it's about change,  
and it's about taking risks.**

At Emhart we believe in seeking ways to serve our customers better. We create the future by anticipating our customers needs. Through diversifying our product lines, creating unique assembly technologies and offering a breadth of service to the demands of industry worldwide, Emhart provides technological solutions to over 100 different industries.

Our product lines include:-

**POP® Riveting Systems**

**POP Nut™ Threaded Inserts**

**Tucker® Stud Welding**

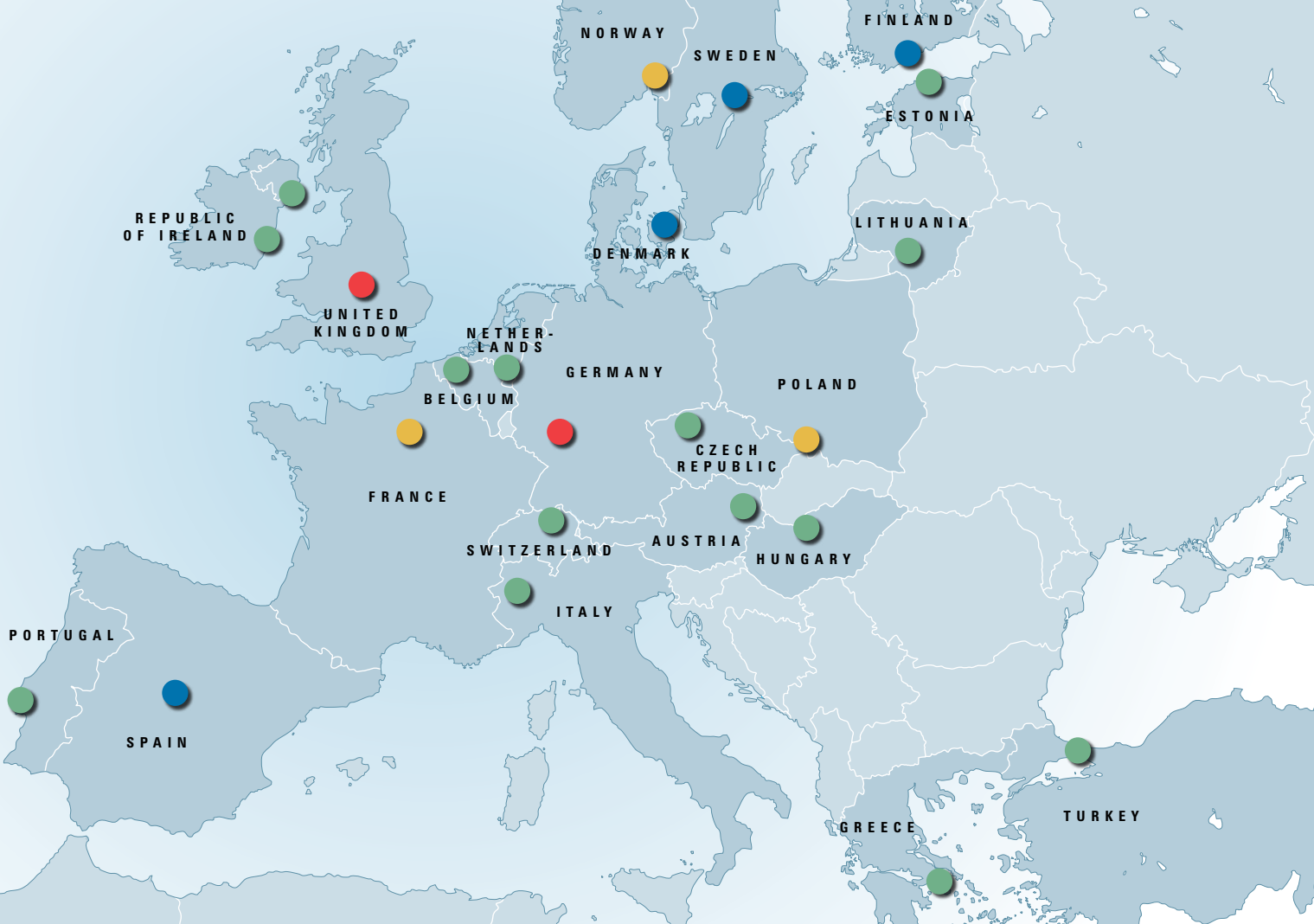
**Self Piercing Riveting Systems**







# Creating the Future throughout Europe

**Emhart's European facilities are ideally located to provide effective local coverage throughout the whole of Europe.**

Offering local expertise with the backing of a Global organisation, Emhart can proactively respond to the needs of a diverse range of customers from Construction to Electronics and from Automotive to Aerospace. Serving our European customers directly or through our network of experienced distributors we deliver quality products and services on time, every time.



-   
**Manufacturing**  
**Sales Office**  
**Warehouse**  
**Distribution Network**
-   
**Sales Office**  
**Warehouse**  
**Distribution Network**
-   
**Sales Office**  
**Distribution Network**
-   
**Distribution Network**

Further contact details can be found on the back cover



## POP® Rivets

**POP® Rivets have developed from their inception over 100 years ago and now include a vast range of high quality fasteners and setting tools that will meet the needs of your demanding manufacturing process.**

The POP® range now includes soft setting rivets and rivets with superior clamping performance and grip range capabilities. Available in Steel, Stainless Steel, Aluminium, Copper & Nickel Copper alloy, POP® Rivets are widely respected throughout the industry.

**Don't compromise - ask for Genuine POP®.**

## Hand Tools

**The POPSet™ Hand Tool range has been designed to offer the user the best features available in the market today.**

These tools offer the quality, durability and reliability that is expected from Genuine POP® Rivet Tools.



## Power Tools

**POP® ProSet® rivet power tools set a new standard for pneumatic rivet tools.**

With lightweight polymer construction and a high force-to-weight ratio, POP® ProSet® rivet tools keep your production lines running at full speed whilst reducing user fatigue. The POP® power tool range also includes MCS5800 Battery powered tool, MCS5250 In-Line tool and the PRG range of tools.



## Riveting Systems

**POP® riveting systems are available to increase the efficiency of your production lines.**

The range includes automatic rivet feeding, semi-automation, rivet set verification, multi-head riveting systems and rivet presenters.

## Riveting Systems

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[www.emhart.com](http://www.emhart.com)

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**The POP rivet installation sequence is simple.**

1. Place the mandrel of the POP® rivet into the nosepiece of the setting tool.
2. Insert the POP® rivet body through the hole of the materials to be fastened.
3. Pull the trigger of the setting tool. The POP® Rivet body clamps the materials together and expands to form a secondary head on the blind side of the joint. The mandrel breaks at a pre-determined force.
4. The materials are now fastened together.



# Rivet Types



## Break Stem Open

General purpose open rivet available in wide range of materials and head styles. Suitable for applications with low load bearing requirements.



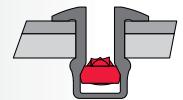
## Break Head Open

Open rivet that sets flush on both sides of the application when set into a double countersunk hole. This space saving rivet offers near zero protrusion and eliminates loose mandrels.



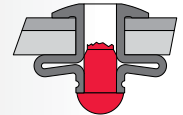
## Closed End

Designed with a completely closed body, this rivet is ideal for applications that need to be water/pressure tight or where mandrel retention is paramount.



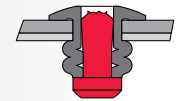
## LSR (Load Spreading Rivet)

Load spreading characteristics make this rivet ideal for use in vulnerable, friable and the softest of materials.



## MGR (Multi-Grip Rivet)

The Multi-Grip rivet is designed to accommodate a wider grip range than other rivets allowing for lower inventory levels. Also provides good, rattle free, joint construction even in irregular holes.



## Peel

Ideal for joining softer and more brittle materials such as plastics, rubber, wood, GFRP or laminates.



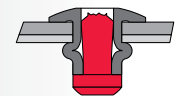
## T-Rivet

The T-Rivet offers all the features of a peel rivet with the added benefit of pull-up. Improved shear strength is also achieved due to mandrel head retention after setting.



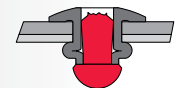
## F Series

F series provides excellent hole fill for superior vibration resistance combined with a locked, rattle free mandrel that results in great joint construction



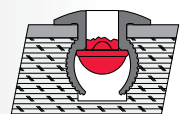
## HR (High Retention)

Exceptional pull-up capability and increased blind side expansion give the perfect combination for overcoming air gaps whilst spreading the load during setting. Excellent mandrel retention and rattle resistance after setting.



## Grooved

For fixing into wood and other soft/fibrous base materials. Suitable for use in blind non-through holes.



## TVD

This unique closed end stainless steel range provides additional support to assemblies where weak or thin blind side materials are present.



# Rivet Materials

**POP® Rivets are available in Steel, Stainless Steel, Nickel Copper Alloy, Copper and several grades of Aluminium to meet the requirements of a wide variety of applications.**

## Rivet Material Selection

Generally the rivet selected should have the same physical and mechanical properties as the components to be joined.

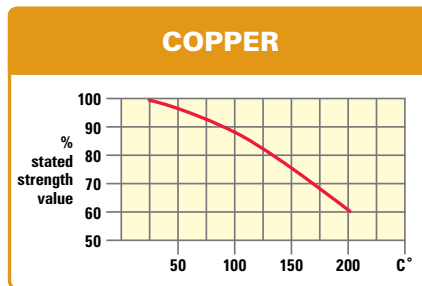
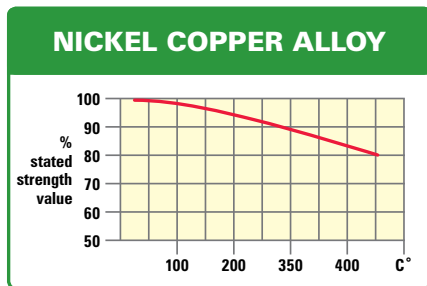
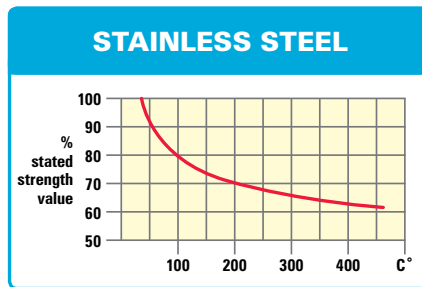
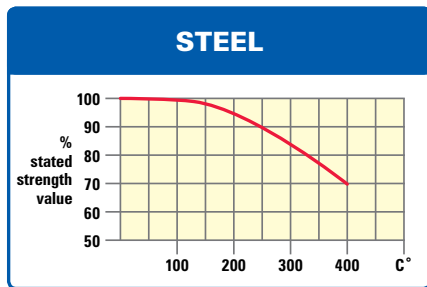
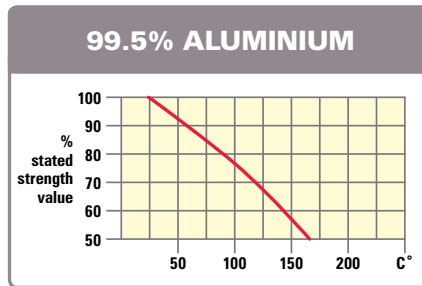
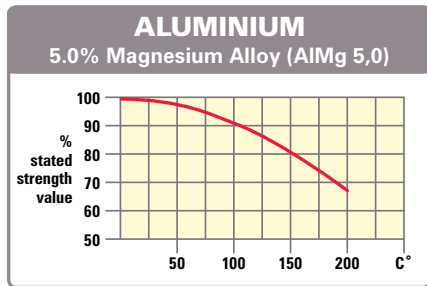
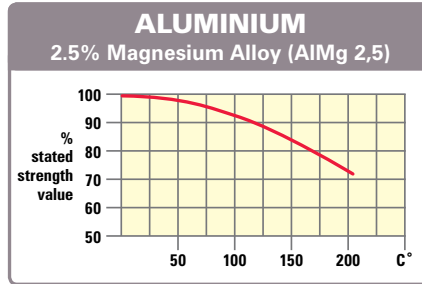
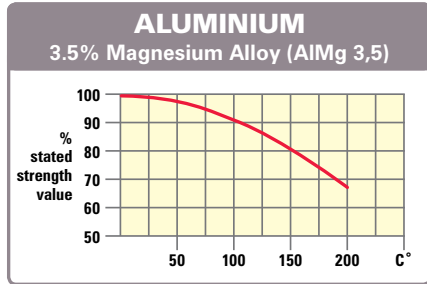
|   |   |
|---|---|
| <b>ALUMINIUM</b><br>3.5% Magnesium Alloy (AlMg 3,5) | General purpose use   |
| <b>ALUMINIUM</b><br>2.5% Magnesium Alloy (AlMg 2,5) | Softer setting aluminium suitable for more vulnerable materials                         |
| <b>99.5% ALUMINIUM</b>                              | Maleable aluminium suitable for extremely soft and/or brittle materials                 |
| <b>ALUMINIUM</b><br>5.0% Magnesium Alloy (AlMg 5,0) | Harder aluminium suitable for applications requiring higher shear and tensile strengths |
| <b>STEEL</b>  | General purpose use   |
| <b>STAINLESS STEEL</b>                              | Suitable for applications in hostile or clinical environments                           |
| <b>NICKEL COPPER ALLOY</b>                          | Suitable for extremely hostile and high temperature environments                        |
| <b>COPPER</b>                                       | Provides good electrical and thermal conductivity                                       |



# Elevated Temperature Performance

## Elevated Temperature Performance

Elevated temperature strengths will vary from the figures quoted in the data tables. The following performance curves are offered for guidance.



# Rivet Head Styles

## Head Styles

**POP® Rivets are available with the following flange configurations:**



### Standard Low Profile Domed Head

Standard low profile head, suitable for most applications.



### Large Flange

For use where thin or vulnerable materials are fastened to a rigid backing. The large flange is also useful for covering enlarged holes or slots in the upper component.



### 120° Countersunk

For use wherever a flush surface is required.

## Customer Specific Solutions\*

We support the design and application needs of our customers through highly skilled and experienced application and design engineers.

If you require a rivet with a special feature or if you need advice as to the best solution for your application please contact Emhart Customer Service with the following application details:-

- Application description
- Materials to be fastened - material types, thicknesses
- Hole sizes
- Annual volume
- Extraordinary fastener requirements

\* Subject to minimum order quantities

### Typical Customer Specific Solutions:



### Extended Length Grooved Mandrel



### Collar Assembly



### Splined Rivet Body

### Finishes

POP® Rivets in Steel are supplied with Zinc and Clear passivation as standard and are RoHS, EoIV and WEEE compliant.

POP® Rivets in Nickel Copper are supplied zinc plated.

There are a wide variety of other finishes also available for aesthetic and environmental needs including:- Xylan, Anodisation & Zinc Nickel.



### We offer the complete colour palette of paint finishes.

We can also match your application to a paint colour if required. Please enquire to Emhart Customer Service.

Subject to minimum order quantities.



**POP® Rivets are supplied with the following finishes as standard:-**

### Standard Finishes

| Finish Code | Description   | Colour  | Base Material                           | Thickness |
|-------------|---|---------|---|-----------|
| 001         | Clean   | Natural | Aluminium & Copper                      | –         |
| 448         | Cleaner & Torque Agent                                | Clear   | Aluminium & Copper<br>Closed End Rivets | –         |
| 460         | Cleaner & Torque Agent                                | Clear   | Aluminium (LSR)                         | –         |
| 375         | Zinc & Clear CrVI Free Passivate                      | Clear   | Steel                                   | 8 µm      |
| 002         | Zinc Plate and Clear Passivate<br>BS EN ISO 4042:2000 | Clear   | Nickel Copper                           | 3 µm      |

### Alternative Finishes

| Finish Code | Description        | Colour | Base Material | Thickness |
|-------------|--------------------|--------|---------------|-----------|
| 042         | Anodise            | Black  | Aluminium     | 1-2 µm    |
| 772         | Xylan Paint        | Black  | Aluminium     | 8 µm      |
| 275         | Epoxy Paint        | White  | Aluminium     | 8 µm      |
| 293         | Epoxy Paint        | Black  | Aluminium     | 8 µm      |
| 217         | Zinc & Xylan Paint | Black  | Steel         | 5+6 µm    |
| 222         | Zinc               | Clear  | Steel         | 8 µm      |
| 223         | Zinc Nickel        | Black  | Steel         | 8 µm      |
| 224         | Zinc Nickel        | Clear  | Steel         | 8 µm      |

Our corrosion resistant testing procedures conform to automotive industry standards. For corrosion resistance performance details please contact Emhart Customer Service.

# Technical Data

## Galvanic Corrosion

Galvanic corrosion can occur where two dissimilar metals are in contact in the presence of an electrolyte.

Where metals cannot be exactly matched, a coating such as zinc will help to minimise the area of contact.

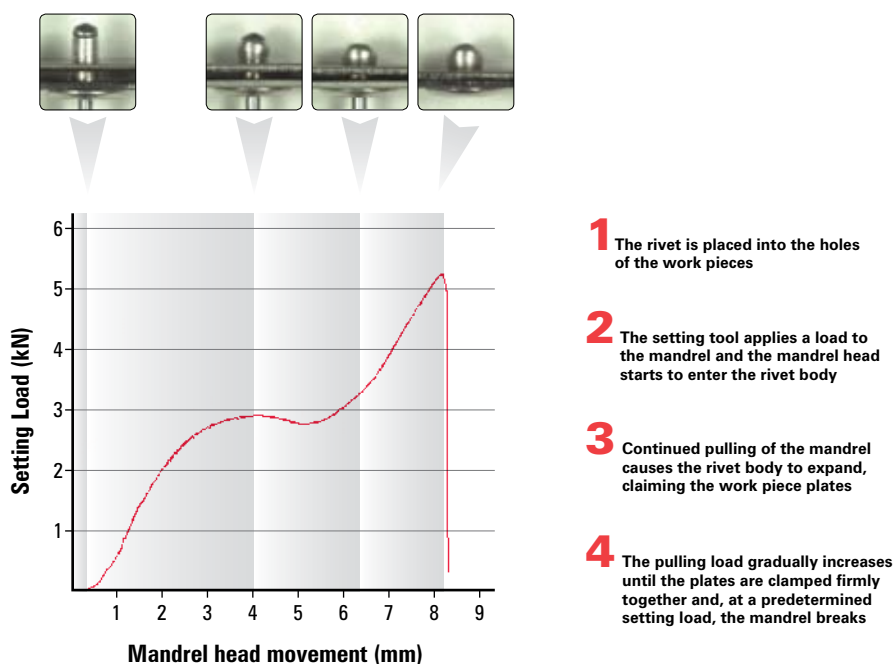
The following table is a general guide to the possible effect of corrosion on the rivet body when in contact with various component materials.

## Metal Contact Chart

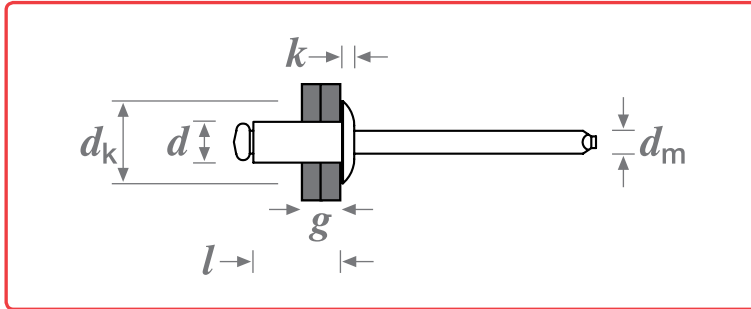
| RIVET MATERIAL                | CONTACT METAL |      |                  |                           |                   |                 |
|-------------------------------|---------------|------|------------------|---------------------------|-------------------|-----------------|
|                               | NC            | SS   | Cu               | CS                        | AL & A            | Zn              |
| Nickel Copper Alloy (NC)      | None          | None | None             | None                      | None              | None            |
| Stainless Steel (SS)          | None          | None | Slight Corrosion | Acceleration of Corrosion | High Acceleration | Not Recommended |
| Copper (Cu)                   | None          | None | None             | None                      | None              | None            |
| Carbon Steel (CS)             | None          | None | None             | None                      | None              | None            |
| Aluminium and Alloys (Al & A) | None          | None | None             | None                      | None              | None            |
| Zinc (Zn)                     | None          | None | None             | None                      | None              | None            |

Key: ■ None ■ Slight Corrosion ■ Acceleration of Corrosion ■ High Acceleration ■ Not Recommended

## Typical Setting Cycle for an Open Rivet



**Explanation of Table Legends**



|   |  |
|---|--|
| <p><b><math>d</math></b> <b>Nominal Diameter<br/>Min-Max Diameter</b><br/>The nominal diameter of the rivet body and the minimum and maximum diameter dimensions are stated.</p>                              | <p><b><math>l</math></b> <b>Body Length (+/- 0.5mm)</b><br/>The nominal rivet body length is stated. A tolerance of +/- 0.5mm should be allowed for.</p>   |
| <p><b><math>g</math></b> <b>Grip Range (Min-Max)</b><br/>This is the recommended thickness range over which the body length will consistently provide a good setting in a hole of the specified diameter.</p> | <p><b><math>d_h</math></b> <b>Hole Size</b><br/>This is the recommended diameter range of the drilled/punched hole which should be burr free.</p>  |
| <p><b><math>d_k</math></b> <b>Flange Diameter (Min-Max)</b><br/>The rivet flange diameter is stated at minimum and maximum dimensions.</p>  | <p><b><math>k</math></b> <b>Flange Thickness (Max)</b><br/>The maximum flange thickness is stated.</p>   |
| <p><b><math>d_m</math></b> <b>Nominal Mandrel Diameter</b><br/>The nominal (or maximum value for grooved mandrels) is shown to assist in the selection of the correct rivet tool nose piece.</p>              | <p><b>Shear / Tensile Performance</b><br/>The shear and tensile figures quoted are indicative of the performance of the rivet. Actual performance will depend on workpiece material types and thickness.</p> |

# Product Index

| BODY STYLE | MANDREL |                 |           |
|------------|---------|-----------------|-----------|
|            | Steel   | Stainless Steel | Aluminium |

## Break Stem Open

| Aluminium 3.5% |        |    |  |
|----------------|--------|----|--|
| Domed Head     | 15     | 20 |  |
| Large Flange   | 17     | 20 |  |
| Countersunk    | 18, 19 | 21 |  |
| Removable      | 37     |    |  |

| Aluminium 5% | Aluminium 2.5% |    |
|--------------|----------------|----|
| Domed Head   | 22             | 24 |
| Large Flange | 23             | 25 |
| Countersunk  | 23             | 26 |

| Aluminium 99.5% |  |    |
|-----------------|--|----|
| Domed Head      |  | 38 |

| Steel        |    |  |
|--------------|----|--|
| Domed Head   | 45 |  |
| Large Flange | 47 |  |
| Countersunk  | 48 |  |
| STR          | 51 |  |

| Stainless Steel |  |    |
|-----------------|--|----|
| Domed Head      |  | 57 |
| Large Flange    |  | 58 |
| Countersunk     |  | 58 |

| Nickel Copper Alloy |    |    |
|---------------------|----|----|
| Domed Head          | 62 | 65 |
| Large Flange        | 63 |    |
| Countersunk         | 63 | 66 |
| Reduced C/Sk        | 64 |    |

| Copper       | Steel      | Stainless Steel | Bronze |
|--------------|------------|-----------------|--------|
|              | Domed Head | 68              |        |
| Terminal Tag | 69         |                 |        |

| BODY STYLE | MANDREL |                 |           |
|------------|---------|-----------------|-----------|
|            | Steel   | Stainless Steel | Aluminium |

## FSR (Flush Setting Rivet)

| Steel       |    |  |
|-------------|----|--|
| Countersunk | 49 |  |

## Closed End

| Aluminium    |    |    |    |
|--------------|----|----|----|
| Domed Head   | 39 | 42 | 44 |
| Large Flange | 40 |    |    |
| Countersunk  | 41 | 43 |    |

| Steel      |        |  |
|------------|--------|--|
| Domed Head | 55, 56 |  |

| Stainless Steel |  |    |
|-----------------|--|----|
| Domed Head      |  | 60 |
| Countersunk     |  | 61 |

| Nickel Copper Alloy |    |  |
|---------------------|----|--|
| Domed Head          | 67 |  |

| Copper      |    |    |
|-------------|----|----|
| Domed Head  | 69 | 70 |
| Countersunk | 70 |    |

## TVD Closed End

| Stainless Steel |  |    |
|-----------------|--|----|
| Domed Head      |  | 61 |

| BODY STYLE | MANDREL |                 |           |
|------------|---------|-----------------|-----------|
|            | Steel   | Stainless Steel | Aluminium |

## MGR (Multi-Grip Rivet)

### Aluminium

|              |    |    |    |
|--------------|----|----|----|
| Domed Head   | 27 | 29 | 30 |
| Large Flange | 28 | 29 | 30 |
| Countersunk  | 28 |    |    |

### Steel

|              |    |
|--------------|----|
| Domed Head   | 50 |
| Large Flange | 50 |

## Grooved

### Aluminium

|             |    |
|-------------|----|
| Domed Head  | 36 |
| Countersunk | 36 |

## F Series

### Aluminium

|            |    |
|------------|----|
| Domed Head | 35 |
|------------|----|

### Steel

|              |    |
|--------------|----|
| Domed Head   | 52 |
| Large Flange | 52 |

| BODY STYLE | MANDREL |                 |           |
|------------|---------|-----------------|-----------|
|            | Steel   | Stainless Steel | Aluminium |

## LSR (Load Spreading Rivet)

### Aluminium

|              |    |
|--------------|----|
| Domed Head   | 31 |
| Large Flange | 31 |

### Steel

|            |    |
|------------|----|
| Domed Head | 51 |
|------------|----|

## Peel

### Aluminium

|              |    |
|--------------|----|
| Domed Head   | 32 |
| Large Flange | 33 |

## T-Rivet

### Aluminium

|              |    |
|--------------|----|
| Domed Head   | 34 |
| Large Flange | 34 |

## HR (High Retention)

### Steel

|              |    |
|--------------|----|
| Domed Head   | 53 |
| Large Flange | 54 |
| Countersunk  | 54 |

### Stainless Steel

|             |    |
|-------------|----|
| Domed Head  | 59 |
| Countersunk | 59 |

## Break Stem Open Domed Head

Aluminium 3.5% Magnesium Alloy  
Mandrel: Carbon Steel



• For general purpose use











|                           |      |             |  | DESCRIPTION       |             |             |      |      |      |      | BULK PACK |         | SMALL PACK |         |      |
|---------------------------|------|-------------|--|-------------------|-------------|-------------|------|------|------|------|-----------|---------|------------|---------|------|
|                           |      |             |  |                   |             |             |      |      |      |      | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |      |
| <b>2.0</b><br>2.08 - 2.13 | 4.6  | Up To 1.6   |  | <b>TAPD20M1BS</b> | 2.03 - 2.13 | 3.60 - 4.00 | 0.75 | 1.10 | 370  | 560  | 62996     | 1,000   |            |         | 0.43 |
|                           | 6.2  | 1.6 - 3.2   |  | <b>TAPD20M2BS</b> |             |             |      |      |      |      | 62997     | 1,000   |            |         | 0.46 |
|                           | 7.9  | 3.2 - 4.8   |  | <b>TAPD20M3BS</b> |             |             |      |      |      |      | 62998     | 1,000   |            |         | 0.50 |
|                           | 9.5  | 4.8 - 6.4   |  | <b>TAPD20M4BS</b> |             |             |      |      |      |      | 63132     | 1,000   |            |         | 0.54 |
|                           | 11.2 | 6.4 - 8.0   |  | <b>TAPD20M5BS</b> |             |             |      |      |      |      | 63118     | 1,000   |            |         | 0.57 |
| <b>2.4</b><br>2.30 - 2.48 | 3.5  | Up To 0.8   |  | <b>TAPD31BS</b>   | 2.5 - 2.6   | 4.40 - 5.00 | 0.90 | 1.42 | 400  | 500  | 23758     | 10,000  | 88145      | 500     | 0.53 |
|                           | 5.0  | 0.8 - 2.4   |  | <b>TAPD33BS</b>   |             |             |      |      |      |      | 22806     | 10,000  | 88013      | 500     | 0.54 |
|                           | 7.5  | 2.4 - 4.8   |  | <b>TAPD36BS</b>   |             |             |      |      |      |      | 22807     | 10,000  | 88009      | 500     | 0.59 |
| <b>3.0</b><br>2.90 - 3.08 | 5.0  | Up To 2.0   |  | <b>SNAD3050BS</b> | 3.1 - 3.2   | 5.70 - 6.30 | 1.10 | 1.83 | 800  | 1000 | 22486     | 10,000  | 88093      | 500     | 0.90 |
|                           | 6.5  | 2.0 - 3.5   |  | <b>SNAD3065BS</b> |             |             |      |      |      |      | 22487     | 10,000  | 88136      | 500     | 0.94 |
|                           | 8.0  | 3.5 - 5.0   |  | <b>SNAD3080BS</b> |             |             |      |      |      |      | 22489     | 10,000  | 88946      | 500     | 1.00 |
|                           | 10.0 | 5.0 - 7.0   |  | <b>SNAD3100BS</b> |             |             |      |      |      |      | 22490     | 10,000  | 88148      | 500     | 1.05 |
|                           | 12.0 | 7.0 - 9.0   |  | <b>SNAD3120BS</b> |             |             |      |      |      |      | 22492     | 8,000   | 88948      | 500     | 1.29 |
|                           | 15.0 | 9.0 - 12.0  |  | <b>SNAD3150BS</b> |             |             |      |      |      |      | 22493     | 5,000   | 89251      | 500     | 1.33 |
| <b>3.2</b><br>3.10 - 3.28 | 4.5  | Up To 1.6   |  | <b>TAPD42BS</b>   | 3.3 - 3.4   | 6.05 - 6.65 | 1.10 | 1.83 | 800  | 1200 | 20124     | 10,000  | 88077      | 1000    | 0.87 |
|                           | 6.0  | 1.6 - 3.2   |  | <b>TAPD44BS</b>   |             |             |      |      |      |      | 20125     | 10,000  | 88011      | 1000    | 0.92 |
|                           | 8.0  | 3.2 - 4.8   |  | <b>TAPD46BS</b>   |             |             |      |      |      |      | 20127     | 10,000  | 88004      | 1000    | 0.98 |
|                           | 9.7  | 4.8 - 6.4   |  | <b>TAPD48BS</b>   |             |             |      |      |      |      | 20128     | 10,000  | 88024      | 1000    | 1.04 |
|                           | 11.5 | 6.4 - 7.9   |  | <b>TAPD410BS</b>  |             |             |      |      |      |      | 20129     | 10,000  | 88020      | 1000    | 1.11 |
|                           | 13.5 | 7.9 - 9.5   |  | <b>TAPD412BS</b>  |             |             |      |      |      |      | 21196     | 8,000   | 88030      | 1000    | 1.20 |
|                           | 15.0 | 9.5 - 11.1  |  | <b>TAPD414BS</b>  |             |             |      |      |      |      | 20056     | 8,000   | 88328      | 1000    | 1.26 |
|                           | 17.0 | 11.1 - 12.7 |  | <b>TAPD416BS</b>  |             |             |      |      |      |      | 21305     | 8,000   | 88113      | 1000    | 1.36 |
|                           | 18.5 | 12.7 - 14.3 |  | <b>TAPD418BS</b>  |             |             |      |      |      |      | 21519     | 8,000   | 88100      | 1000    | 1.37 |
|                           | 20.0 | 14.3 - 16.7 |  | <b>TAPD421BS</b>  |             |             |      |      |      |      | 77898     | 7,000   | 88160      | 1000    | 1.47 |
|                           | 24.0 | 16.7 - 20.7 |  | <b>TAPD425BS</b>  |             |             |      |      |      |      | 25243     | 5,000   | 88209      | 500     | 1.65 |
| <b>4.0</b><br>3.90 - 4.08 | 5.0  | Up To 1.6   |  | <b>TAPD52BS</b>   | 4.1 - 4.2   | 7.62 - 8.22 | 1.22 | 2.29 | 1330 | 1910 | 21246     | 8,000   | 88104      | 1000    | 1.56 |
|                           | 7.0  | 1.6 - 3.2   |  | <b>TAPD54BS</b>   |             |             |      |      |      |      | 20130     | 8,000   | 88000      | 1000    | 1.54 |
|                           | 8.5  | 3.2 - 4.8   |  | <b>TAPD56BS</b>   |             |             |      |      |      |      | 20131     | 8,000   | 88001      | 1000    | 1.63 |
|                           | 10.5 | 4.8 - 6.4   |  | <b>TAPD58BS</b>   |             |             |      |      |      |      | 20132     | 8,000   | 88002      | 1000    | 1.73 |
|                           | 12.2 | 6.4 - 7.9   |  | <b>TAPD510BS</b>  |             |             |      |      |      |      | 20133     | 5,000   | 88008      | 1000    | 1.82 |
|                           | 14.0 | 7.9 - 9.5   |  | <b>TAPD512BS</b>  |             |             |      |      |      |      | 20134     | 5,000   | 88022      | 500     | 1.90 |
|                           | 15.7 | 9.5 - 11.1  |  | <b>TAPD514BS</b>  |             |             |      |      |      |      | 21262     | 5,000   | 88021      | 500     | 2.00 |
|                           | 17.5 | 11.1 - 12.7 |  | <b>TAPD516BS</b>  |             |             |      |      |      |      | 21250     | 5,000   | 88027      | 500     | 2.10 |
|                           | 18.5 | 12.7 - 13.5 |  | <b>TAPD517BS</b>  |             |             |      |      |      |      | 75003     | 5,000   | 88330      | 500     | 2.28 |
|                           | 19.4 | 12.7 - 14.5 |  | <b>TAPD518BS</b>  |             |             |      |      |      |      | 22112     | 5,000   | 89528      | 500     | 2.32 |
|                           | 20.2 | 13.5 - 15.9 |  | <b>TAPD520BS</b>  |             |             |      |      |      |      | 21186     | 5,000   | 88066      | 500     | 2.33 |
|                           | 22.5 | 15.9 - 17.4 |  | <b>TAPD522BS</b>  |             |             |      |      |      |      | 25316     | 5,000   | 88219      | 500     | 2.56 |
|                           | 24.7 | 17.4 - 19.8 |  | <b>TAPD525BS</b>  |             |             |      |      |      |      | 80911     | 5,000   | on request |         | 2.59 |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength



**Break Stem Open  
Domed Head**

Aluminium 3.5% Magnesium Alloy  
Mandrel: Carbon Steel

|                           |  |  |  | DESCRIPTION |  |  |  |  |  |  | BULK PACK |               | SMALL PACK |         | <br>kg |
|---------------------------|---|---|---|-------------|---|---|---|---|--|---|-----------|---------------|------------|---------|---|
|                           |   |   |   |             |   |   |   |   |  |   | ARTICLE   | BOX QTY       | ARTICLE    | BOX QTY |   |
|                           | mm  | mm  | mm  |             | mm  | mm  | mm  | mm  | N  | N   |           |               |            |         |   |
| <b>4.8</b><br>4.70 - 4.88 | 6.5   | Up To 2.4   | <b>TAPD63BS</b>   | 4.9 - 5.0   | 9.20 - 9.80   | 1.60  | 2.64  | 2020  | 2800   | 21313   | 5,000     | 88998         | 500        | 2.35    |   |
|                           | 7.5   | 2.4 - 3.2   | <b>TAPD64BS</b>   |             |   |   |   |   |  | 20136   | 5,000     | 88014         | 500        | 2.16    |   |
|                           | 9.2   | 3.2 - 4.8   | <b>TAPD66BS</b>   |             |   |   |   |   |  | 20137   | 5,000     | 88028         | 500        | 2.28    |   |
|                           | 11.0  | 4.8 - 6.4   | <b>TAPD68BS</b>   |             |   |   |   |   |  | 20138   | 5,000     | 88018         | 500        | 2.42    |   |
|                           | 12.7  | 6.4 - 7.9   | <b>TAPD610BS</b>  |             |   |   |   |   |  | 20139   | 5,000     | 88019         | 500        | 2.56    |   |
|                           | 14.7  | 7.9 - 9.5   | <b>TAPD612BS</b>  |             |   |   |   |   |  | 20140   | 4,000     | 88038         | 500        | 2.68    |   |
|                           | 16.5  | 9.5 - 11.1  | <b>TAPD614BS</b>  |             |   |   |   |   |  | 20141   | 4,000     | 88010         | 500        | 2.90    |   |
|                           | 19.0  | 11.1 - 13.5   | <b>TAPD617BS</b>  |             |   |   |   |   |  | 21190   | 4,000     | 88012         | 500        | 3.05    |   |
|                           | 21.0  | 13.5 - 15.5   | <b>TAPD621BS</b>  |             |   |   |   |   |  | 22928   | 3,000     | 88967         | 500        | 3.48    |   |
|                           | 23.0  | 15.5 - 17.5   | <b>TAPD623BS</b>  |             |   |   |   |   |  | 23248   | 3,000     | on request    |            | 3.63    |   |
|                           | 25.5  | 17.5 - 19.8   | <b>TAPD625BS</b>  |             |   |   |   |   |  | 22968   | 3,000     | 88046         | 500        | 3.47    |   |
| 32.5                      | 19.8 - 26.2   | <b>TAPD633BS</b>  | 23776   | 2,000       | 88078   | 500   | 4.10  |   |  |   |           |               |            |         |   |
| <b>5.0</b><br>4.94 - 5.08 | 6.5   | Up To 3.5   | <b>SNAD5065BS</b>   | 5.1 - 5.2   | 8.70 - 9.30   | 1.60  | 2.64  | 2200  | 2600   | 22976   | 5,000     | 88949         | 500        | 2.35    |   |
|                           | 8.0   | 3.5 - 4.5   | <b>SNAD5080BS</b>   |             |   |   |   |   |  | 22977   | 5,000     | 89238         | 500        | 2.47    |   |
|                           | 10.0  | 4.5 - 6.0   | <b>SNAD5100BS</b>   |             |   |   |   |   |  | 22978   | 5,000     | 89252         | 500        | 2.62    |   |
|                           | 12.0  | 6.0 - 7.5   | <b>SNAD5120BS</b>   |             |   |   |   |   |  | 22979   | 5,000     | 89257         | 500        | 2.77    |   |
|                           | 15.0  | 7.5 - 9.5   | <b>SNAD5140BS</b>   |             |   |   |   |   |  | 22980   | 5,000     | 88952         | 500        | 2.81    |   |
|                           | 16.0  | 9.5 - 11.5  | <b>SNAD5160BS</b>   |             |   |   |   |   |  | 22981   | 5,000     | 89265         | 500        | 3.04    |   |
|                           | 19.0  | 11.5 - 13.5   | <b>SNAD5180BS</b>   |             |   |   |   |   |  | 22982   | 5,000     | 88954         | 500        | 3.11    |   |
|                           | 20.0  | 13.5 - 15.5   | <b>SNAD5200BS</b>   |             |   |   |   |   |  | 22983   | 4,000     | 88955         | 500        | 3.18    |   |
|                           | 22.0  | 16.5 - 17.5   | <b>SNAD5220BS</b>   |             |   |   |   |   |  | 22984   | 3,000     | 88348         | 500        | 3.55    |   |
|                           | 25.0  | 17.5 - 20.5   | <b>SNAD5250BS</b>   |             |   |   |   |   |  | 22985   | 3,000     | 88350         | 500        | 3.77    |   |
|                           | <b>6.0</b><br>5.93 - 6.08   | 8.0   | 0.5 - 3.5   |             |   |   |   |   |  | <b>SNAD6080BS</b>   | 6.1 - 6.2 | 11.70 - 12.30 | 2.10       | 3.20    | 3000  |
| 10.0                      |   | 3.5 - 5.5   | <b>SNAD6100BS</b>   | 23345       | 2,000   | 89264   | 500   | 4.14  |  |   |           |               |            |         |   |
| 12.0                      |   | 5.5 - 7.5   | <b>SNAD6120BS</b>   | 23346       | 2,000   | 88520   | 500   | 4.58  |  |   |           |               |            |         |   |
| 15.0                      |   | 7.5 - 9.5   | <b>SNAD6140BS</b>   | 23347       | 2,000   | 88351   | 500   | 4.90  |  |   |           |               |            |         |   |
| 16.0                      |   | 9.5 - 11.5  | <b>SNAD6160BS</b>   | 23373       | 2,000   | 89258   | 500   | 5.00  |  |   |           |               |            |         |   |
| 19.0                      |   | 11.5 - 13.5   | <b>SNAD6180BS</b>   | 23389       | 2,000   | 88371   | 500   | 5.25  |  |   |           |               |            |         |   |
| 20.0                      | 13.5 - 15.5   | <b>SNAD6200BS</b>   | 23354   | 2,000       | 88372   | 500   | 5.34  |   |  |   |           |               |            |         |   |
| <b>6.4</b><br>6.25 - 6.48 | 12.7  | Up To 6.4   | <b>TAPD88BS</b>   | 6.5 - 6.6   | 12.40 - 13.00   | 2.10  | 3.66  | 3200  | 4525   | 22941   | 2,000     | 88061         | 500        | 5.58    |   |
|                           | 16.2  | 6.4 - 9.5   | <b>TAPD812BS</b>  |             |   |   |   |   |  | 75786   | 2,000     | on request    |            | 6.33    |   |
|                           | 19.5  | 9.5 - 12.7  | <b>TAPD816BS</b>  |             |   |   |   |   |  | 22730   | 2,000     | 88133         | 500        | 6.50    |   |
|                           | 26.2  | 12.7 - 19.8   | <b>TAPD824BS</b>  |             |   |   |   |   |  | 22234   | 2,000     | 88146         | 500        | 7.36    |   |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *d<sub>h</sub>*=Hole Size (Min - Max); *d<sub>k</sub>*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *d<sub>m</sub>*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

## Break Stem Open Large Flange

Aluminium 3.5% Magnesium Alloy  
Mandrel: Carbon Steel



- For general purpose use
- Large flange increases bearing surface for weaker, thinner materials
- Suitable for oversized holes or slots under the head

|                           |      |             |  | DESCRIPTION           |           |               |      |      |      |      | BULK PACK  |            | SMALL PACK |         |      |
|---------------------------|------|-------------|--|-----------------------|-----------|---------------|------|------|------|------|------------|------------|------------|---------|------|
|                           |      |             |  |                       |           |               |      |      |      |      | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY |      |
| <b>3.2</b><br>3.10 - 3.28 | 6.2  | 1.6 - 3.2   |  | <b>TAPD44BSLF9.5</b>  | 3.3 - 3.4 | 9.00 - 10.00  | 1.50 | 1.83 | 800  | 1200 | 22056      | 8,000      | 88189      | 500     | 1.07 |
|                           | 8.0  | 3.2 - 4.8   |  | <b>TAPD46BSFL9.5</b>  |           |               |      |      |      |      | 21930      | 8,000      | 88454      | 500     | 1.22 |
|                           | 9.7  | 4.8 - 6.4   |  | <b>TAPD48BSLF9.5</b>  |           |               |      |      |      |      | 22574      | 8,000      | 88228      | 500     | 1.25 |
|                           | 11.5 | 6.4 - 7.9   |  | <b>TAPD410BSLF9.5</b> |           |               |      |      |      |      | 22025      | 8,000      | 88457      | 500     | 1.31 |
|                           | 13.5 | 7.9 - 9.5   |  | <b>TAPD412BSLF9.5</b> |           |               |      |      |      |      | 21881      | 5,000      | 88458      | 500     | 1.44 |
|                           | 15.2 | 9.5 - 11.1  |  | <b>TAPD414BSLF9.5</b> |           |               |      |      |      |      | on request | on request |            |         | 1.46 |
|                           | 17.0 | 11.1 - 12.7 |  | <b>TAPD416BSLF9.5</b> |           |               |      |      |      |      | 21882      | 5,000      | 88459      | 500     | 1.48 |
|                           | 18.7 | 12.7 - 14.3 |  | <b>TAPD418BSLF9.5</b> |           |               |      |      |      |      | on request | on request |            |         | 1.77 |
| <b>4.0</b><br>3.94 - 4.08 | 8.5  | Up To 4.8   |  | <b>TAPD56BSLF12</b>   | 4.1 - 4.2 | 11.50 - 12.50 | 1.60 | 2.29 | 1330 | 1910 | 21523      | 5,000      | 88460      | 500     | 1.84 |
|                           | 10.5 | 4.8 - 6.4   |  | <b>TAPD58BSLF12</b>   |           |               |      |      |      |      | 22237      | 5,000      | 88069      | 500     | 1.98 |
|                           | 12.2 | 6.4 - 7.9   |  | <b>TAPD510BSLF12</b>  |           |               |      |      |      |      | 22033      | 5,000      | 88461      | 500     | 2.04 |
|                           | 14.0 | 7.9 - 9.5   |  | <b>TAPD512BSLF12</b>  |           |               |      |      |      |      | 23356      | 5,000      | 88462      | 500     | 2.16 |
|                           | 15.7 | 9.5 - 11.1  |  | <b>TAPD514BSLF12</b>  |           |               |      |      |      |      | 21886      | 5,000      | 88170      | 500     | 2.26 |
|                           | 17.5 | 11.1 - 12.7 |  | <b>TAPD516BSLF12</b>  |           |               |      |      |      |      | 23450      | 4,000      | 88738      | 500     | 2.45 |
|                           | 19.4 | 12.7 - 14.3 |  | <b>TAPD518BSLF12</b>  |           |               |      |      |      |      | 24680      | 4,000      | 88523      | 500     | 2.50 |
|                           | 20.3 | 14.3 - 15.9 |  | <b>TAPD520BSLF12</b>  |           |               |      |      |      |      | on request | on request |            |         | 2.65 |
| <b>4.8</b><br>4.70 - 4.88 | 9.2  | Up To 4.8   |  | <b>TAPD66BSLF14</b>   | 4.9 - 5.0 | 13.70 - 14.30 | 2.00 | 2.64 | 2020 | 2800 | 22020      | 4,000      | 88165      | 500     | 2.92 |
|                           | 11.0 | 4.8 - 6.4   |  | <b>TAPD68BSLF14</b>   |           |               |      |      |      |      | 22050      | 4,000      | 88097      | 500     | 3.14 |
|                           | 12.7 | 6.4 - 7.9   |  | <b>TAPD610BSLF14</b>  |           |               |      |      |      |      | 22021      | 3,000      | 88103      | 500     | 3.13 |
|                           | 14.5 | 7.9 - 9.5   |  | <b>TAPD612BSLF14</b>  |           |               |      |      |      |      | 22053      | 3,000      | 88070      | 500     | 3.38 |
|                           | 16.5 | 9.5 - 11.1  |  | <b>TAPD614BSLF14</b>  |           |               |      |      |      |      | 22052      | 3,000      | 88044      | 500     | 3.40 |
|                           | 18.2 | 11.1 - 12.7 |  | <b>TAPD616BSLF14</b>  |           |               |      |      |      |      | 22030      | 3,000      | 89162      | 500     | 3.50 |
|                           | 19.0 | 12.7 - 13.5 |  | <b>TAPD617BSLF14</b>  |           |               |      |      |      |      | 22042      | 3,000      | 88067      | 500     | 3.51 |
|                           | 25.5 | 13.5 - 19.8 |  | <b>TAPD625BSLF14</b>  |           |               |      |      |      |      | 23355      | 2,000      | 88099      | 500     | 4.00 |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

**Break Stem Open  
120° Countersunk**

Aluminium 3.5% Magnesium Alloy  
Mandrel: Carbon Steel



- For general purpose use
- For a flush surface after setting

| $d$                       | $l$  | $g$         | DESCRIPTION       | $d_h$     | $d_k$       | $k$ | $d_m$ | $S$  | $T$  | BULK PACK  |         | SMALL PACK |         | kg<br>/1000 |
|---------------------------|------|-------------|-------------------|-----------|-------------|-----|-------|------|------|------------|---------|------------|---------|-------------|
|                           |      |             |                   |           |             |     |       |      |      | ARTICLE    | BOX QTY | ARTICLE    | BOX QTY |             |
| mm                        | mm   | mm          |                   | mm        | mm          | mm  | mm    | N    | N    |            |         |            |         |             |
| <b>2.4</b><br>2.30 - 2.48 | 4.5  | Up To 1.6   | <b>TAPK31BS</b>   | 2.5 - 2.6 | 4.50 - 4.90 | -   | 1.42  | 400  | 500  | 81259      | 10,000  | 88345      | 500     | 0.53        |
|                           | 6.0  | 1.6 - 3.2   | <b>TAPK33BS</b>   |           |             |     |       |      |      | 23175      | 10,000  | 88031      | 500     | 0.53        |
|                           | 8.5  | 3.2 - 5.6   | <b>TAPK36BS</b>   |           |             |     |       |      |      | 23010      | 10,000  | 88035      | 500     | 0.57        |
| <b>3.0</b><br>2.94 - 3.08 | 5.2  | Up To 2.0   | <b>SNAK350BS</b>  | 3.1 - 3.2 | 5.70 - 6.30 | -   | 1.83  | 800  | 1000 | 23054      | 10,000  | on request |         | 0.91        |
|                           | 6.7  | 2.0 - 3.5   | <b>SNAK365BS</b>  |           |             |     |       |      |      | 22754      | 10,000  | on request |         | 1.00        |
|                           | 8.2  | 3.5 - 5.0   | <b>SNAK380BS</b>  |           |             |     |       |      |      | 22760      | 10,000  | 89138      | 500     | 1.02        |
|                           | 10.2 | 5.0 - 7.0   | <b>SNAK3100BS</b> |           |             |     |       |      |      | on request |         | on request |         | 1.05        |
|                           | 12.2 | 7.0 - 9.0   | <b>SNAK3120BS</b> |           |             |     |       |      |      | on request |         | on request |         | 1.12        |
|                           | 15.2 | 9.0 - 12.0  | <b>SNAK3150BS</b> |           |             |     |       |      |      | on request |         | on request |         | 1.35        |
| <b>3.2</b><br>3.10 - 3.28 | 5.5  | Up To 2.7   | <b>TAPK42BS</b>   | 3.3 - 3.4 | 6.05 - 6.65 | -   | 1.83  | 800  | 1200 | 21067      | 10,000  | 88346      | 500     | 0.91        |
|                           | 7.5  | 2.7 - 4.3   | <b>TAPK44BS</b>   |           |             |     |       |      |      | 24484      | 10,000  | 88243      | 500     | 0.93        |
|                           | 9.0  | 4.3 - 5.8   | <b>TAPK46BS</b>   |           |             |     |       |      |      | 20144      | 10,000  | 88088      | 500     | 1.02        |
|                           | 11.0 | 5.8 - 7.4   | <b>TAPK48BS</b>   |           |             |     |       |      |      | 21207      | 10,000  | 88193      | 500     | 1.05        |
|                           | 12.7 | 7.4 - 9.0   | <b>TAPK410BS</b>  |           |             |     |       |      |      | 20145      | 10,000  | 88176      | 500     | 1.14        |
|                           | 14.5 | 9.0 - 10.6  | <b>TAPK412BS</b>  |           |             |     |       |      |      | 21304      | 8,000   | 88190      | 500     | 1.29        |
|                           | 16.2 | 10.6 - 12.2 | <b>TAPK414BS</b>  |           |             |     |       |      |      | 20075      | 8,000   | 88388      | 500     | 1.31        |
|                           | 18.0 | 12.2 - 13.8 | <b>TAPK416BS</b>  |           |             |     |       |      |      | 21306      | 8,000   | 88521      | 500     | 1.34        |
|                           | 19.7 | 13.8 - 15.4 | <b>TAPK418BS</b>  |           |             |     |       |      |      | 21542      | 8,000   | 88347      | 500     | 1.39        |
|                           | 21.4 | 15.4 - 17.7 | <b>TAPK421BS</b>  |           |             |     |       |      |      | 81298      | 8,000   | 88349      | 500     | 1.46        |
|                           | 25.4 | 17.7 - 20.9 | <b>TAPK425BS</b>  |           |             |     |       |      |      | on request |         | on request |         | 1.54        |
| <b>4.0</b><br>3.90 - 4.08 | 6.5  | Up To 2.9   | <b>TAPK52BS</b>   | 4.1 - 4.2 | 7.75 - 8.05 | -   | 2.29  | 1330 | 1910 | 21248      | 8,000   | on request |         | 1.56        |
|                           | 8.5  | 2.9 - 4.5   | <b>TAPK54BS</b>   |           |             |     |       |      |      | 20146      | 8,000   | 88128      | 500     | 1.60        |
|                           | 10.0 | 4.5 - 6.1   | <b>TAPK56BS</b>   |           |             |     |       |      |      | 20147      | 8,000   | 88207      | 500     | 1.65        |
|                           | 12.0 | 6.1 - 7.7   | <b>TAPK58BS</b>   |           |             |     |       |      |      | 20148      | 8,000   | 88043      | 500     | 1.78        |
|                           | 13.5 | 7.7 - 9.3   | <b>TAPK510BS</b>  |           |             |     |       |      |      | 21312      | 5,000   | 88098      | 500     | 1.93        |
|                           | 15.5 | 9.3 - 10.9  | <b>TAPK512BS</b>  |           |             |     |       |      |      | 21069      | 5,000   | 88118      | 500     | 1.96        |
|                           | 17.0 | 10.9 - 12.4 | <b>TAPK514BS</b>  |           |             |     |       |      |      | 21070      | 5,000   | 88282      | 500     | 2.06        |
|                           | 19.0 | 12.4 - 14.0 | <b>TAPK516BS</b>  |           |             |     |       |      |      | 21071      | 5,000   | 88389      | 500     | 2.26        |
|                           | 20.0 | 14.0 - 14.8 | <b>TAPK517BS</b>  |           |             |     |       |      |      | 80685      | 5,000   | 88353      | 500     | 2.28        |
|                           | 22.0 | 14.8 - 17.2 | <b>TAPK520BS</b>  |           |             |     |       |      |      | 80858      | 5,000   | 88354      | 500     | 2.37        |

Continued overleaf

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

## Break Stem Open 120° Countersunk

Aluminium 3.5% Magnesium Alloy  
Mandrel: Carbon Steel

|                           |             |                   |                   | DESCRIPTION |             |   |      |      |      |            | BULK PACK  |            | SMALL PACK |            |      |
|---------------------------|-------------|-------------------|-------------------|-------------|-------------|---|------|------|------|------------|------------|------------|------------|------------|------|
|                           |             |                   |                   |             |             |   |      |      |      |            | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY    |      |
| <b>4.8</b><br>4.70 - 4.88 | 8.5         | Up To 1.6         | <b>TAPK63BS</b>   |             |             |   |      |      |      |            | 21314      | 5,000      | on request |            | 2.35 |
|                           | 9.5         | 1.6 - 4.8         | <b>TAPK64BS</b>   |             |             |   |      |      |      |            | 21279      | 5,000      | 88355      | 500        | 2.38 |
|                           | 11.0        | 4.8 - 6.4         | <b>TAPK66BS</b>   |             |             |   |      |      |      |            | 21256      | 5,000      | 88232      | 500        | 2.44 |
|                           | 13.0        | 6.4 - 7.9         | <b>TAPK68BS</b>   |             |             |   |      |      |      |            | 21269      | 5,000      | 88356      | 500        | 2.70 |
|                           | 14.5        | 7.9 - 9.5         | <b>TAPK610BS</b>  |             |             |   |      |      |      |            | 20150      | 5,000      | 88253      | 500        | 2.76 |
|                           | 16.5        | 9.5 - 11.1        | <b>TAPK612BS</b>  | 4.9 - 5.0   | 9.33 - 9.73 | - | 2.64 | 2020 | 2800 | 21072      | 4,000      | 88262      | 500        | 2.80       |      |
|                           | 18.2        | 11.1 - 12.7       | <b>TAPK614BS</b>  |             |             |   |      |      |      |            | 20151      | 4,000      | 88123      | 500        | 3.04 |
|                           | 20.0        | 12.7 - 14.3       | <b>TAPK616BS</b>  |             |             |   |      |      |      |            | on request | on request | on request | on request | 3.08 |
|                           | 21.0        | 14.3 - 15.1       | <b>TAPK617BS</b>  |             |             |   |      |      |      |            | 21174      | 4,000      | 88155      | 500        | 3.13 |
|                           | 27.5        | 15.1 - 21.4       | <b>TAPK625BS</b>  |             |             |   |      |      |      |            | 22969      | 3,000      | 88264      | 500        | 3.63 |
| 34.0                      | 21.4 - 27.8 | <b>TAPK633BS</b>  |                   |             |             |   |      |      |      | 81310      | 2,000      | 88357      | 500        | 4.08       |      |
| <b>5.0</b><br>4.85 - 5.08 | 6.7         | Up To 3.5         | <b>SNAK5065BS</b> |             |             |   |      |      |      |            | on request | on request | on request | on request | 2.47 |
|                           | 8.2         | 3.5 - 4.5         | <b>SNAK5080BS</b> |             |             |   |      |      |      |            | on request | on request | on request | on request | 2.58 |
|                           | 10.2        | 4.5 - 6.0         | <b>SNAK5100BS</b> |             |             |   |      |      |      |            | on request | on request | on request | on request | 2.71 |
|                           | 12.2        | 6.0 - 7.5         | <b>SNAK5120BS</b> |             |             |   |      |      |      |            | on request | on request | on request | on request | 2.88 |
|                           | 14.2        | 7.5 - 9.5         | <b>SNAK5140BS</b> |             |             |   |      |      |      |            | on request | on request | on request | on request | 2.93 |
|                           | 16.2        | 9.5 - 11.5        | <b>SNAK5160BS</b> | 5.1 - 5.2   | 8.50 - 9.00 | - | 2.64 | 2200 | 2600 | on request | on request | on request | on request | on request | 3.14 |
|                           | 18.2        | 11.5 - 13.5       | <b>SNAK5180BS</b> |             |             |   |      |      |      |            | on request | on request | on request | on request | 3.22 |
|                           | 20.2        | 13.5 - 15.5       | <b>SNAK5200BS</b> |             |             |   |      |      |      |            | on request | on request | on request | on request | 3.29 |
|                           | 22.2        | 15.5 - 17.5       | <b>SNAK5220BS</b> |             |             |   |      |      |      |            | on request | on request | on request | on request | 3.66 |
|                           | 25.2        | 17.5 - 20.5       | <b>SNAK5250BS</b> |             |             |   |      |      |      |            | on request | on request | on request | on request | 3.88 |
|                           | 28.2        | 19.5 - 23.5       | <b>SNAK5280BS</b> |             |             |   |      |      |      |            | on request | on request | on request | on request | 4.36 |
| 30.2                      | 20.5 - 25.5 | <b>SNAK5300BS</b> |                   |             |             |   |      |      |      | on request | on request | on request | on request | 4.67       |      |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

**Break Stem Open  
Domed Head**

Aluminium 3.5% Magnesium Alloy  
Mandrel: Stainless Steel



- For general purpose use
- **Stainless Steel mandrel for corrosion resistance**

|                           |             |                  |                  | DESCRIPTION     |             |             |      |      |      |       | BULK PACK  |            | SMALL PACK |         |  |
|---------------------------|-------------|------------------|------------------|-----------------|-------------|-------------|------|------|------|-------|------------|------------|------------|---------|--|
|                           |             |                  |                  |                 |             |             |      |      |      |       | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY |  |
| <b>2.4</b><br>2.30 - 2.48 |             | 5.0              | 0.8 - 2.4        | <b>TAPD33SS</b> | 2.5 - 2.6   | 4.40 - 5.00 | 0.90 | 1.42 | 400  | 500   | on request | on request | 0.58       |         |  |
| <b>3.2</b><br>3.10 - 3.28 | 4.5         | Up To 1.6        | <b>TAPD42SS</b>  |                 |             |             |      |      |      |       | 21992      | 10,000     | on request | 0.89    |  |
|                           | 6.0         | 1.6 - 3.2        | <b>TAPD44SS</b>  |                 |             |             |      |      |      |       | 21991      | 10,000     | 89117 500  | 0.93    |  |
|                           | 8.0         | 3.2 - 4.8        | <b>TAPD46SS</b>  |                 |             |             |      |      |      |       | 21189      | 10,000     | on request | 1.02    |  |
|                           | 9.7         | 4.8 - 6.4        | <b>TAPD48SS</b>  |                 |             |             |      |      |      |       | 21932      | 10,000     | on request | 1.04    |  |
|                           | 11.5        | 6.4 - 7.9        | <b>TAPD410SS</b> | 3.3 - 3.4       | 6.05 - 6.65 | 1.10        | 1.83 | 800  | 1200 | 21522 | 10,000     | on request | 1.08       |         |  |
|                           | 13.5        | 7.9 - 9.5        | <b>TAPD412SS</b> |                 |             |             |      |      |      |       | on request | on request | 1.28       |         |  |
|                           | 15.0        | 9.5 - 11.1       | <b>TAPD414SS</b> |                 |             |             |      |      |      |       | on request | on request | 1.30       |         |  |
|                           | 17.0        | 11.1 - 12.7      | <b>TAPD416SS</b> |                 |             |             |      |      |      |       | on request | on request | 1.32       |         |  |
| 18.5                      | 12.7 - 14.3 | <b>TAPD418SS</b> |                  |                 |             |             |      |      |      | 22576 | 8,000      | on request | 1.35       |         |  |
| <b>4.0</b><br>3.90 - 4.08 | 7.0         | 1.6 - 3.2        | <b>TAPD54SS</b>  |                 |             |             |      |      |      |       | 21144      | 8,000      | on request | 1.63    |  |
|                           | 8.5         | 3.2 - 4.8        | <b>TAPD56SS</b>  |                 |             |             |      |      |      |       | 20007      | 8,000      | on request | 1.64    |  |
|                           | 10.5        | 4.8 - 6.4        | <b>TAPD58SS</b>  |                 |             |             |      |      |      |       | 20061      | 8,000      | on request | 1.84    |  |
|                           | 12.2        | 6.4 - 7.9        | <b>TAPD510SS</b> | 4.1 - 4.2       | 7.62 - 8.22 | 1.35        | 2.29 | 1330 | 1910 | 20010 | 5,000      | on request | 1.94       |         |  |
|                           | 14.0        | 7.9 - 9.5        | <b>TAPD512SS</b> |                 |             |             |      |      |      |       | 21839      | 5,000      | on request | 2.01    |  |
|                           | 15.7        | 9.5 - 11.1       | <b>TAPD514SS</b> |                 |             |             |      |      |      |       | 21990      | 5,000      | on request | 2.12    |  |
|                           | 17.5        | 11.1 - 12.7      | <b>TAPD516SS</b> |                 |             |             |      |      |      |       | 21844      | 5,000      | on request | 2.28    |  |
|                           | 19.4        | 12.7 - 14.5      | <b>TAPD518SS</b> |                 |             |             |      |      |      |       | 24370      | 5,000      | on request | 2.31    |  |
| <b>4.8</b><br>4.70 - 4.88 | 7.5         | 2.4 - 3.2        | <b>TAPD64SS</b>  |                 |             |             |      |      |      |       | 22024      | 5,000      | on request | 2.44    |  |
|                           | 9.2         | 3.2 - 4.8        | <b>TAPD66SS</b>  |                 |             |             |      |      |      |       | 20013      | 5,000      | on request | 2.43    |  |
|                           | 11.0        | 3.8 - 6.4        | <b>TAPD68SS</b>  |                 |             |             |      |      |      |       | 20015      | 5,000      | on request | 2.66    |  |
|                           | 12.7        | 6.4 - 7.9        | <b>TAPD610SS</b> | 4.9 - 5.0       | 9.20 - 9.80 | 1.60        | 2.64 | 2020 | 2800 | 20016 | 5,000      | on request | 2.72       |         |  |
|                           | 14.7        | 7.9 - 9.5        | <b>TAPD612SS</b> |                 |             |             |      |      |      |       | 20017      | 4,000      | on request | 3.07    |  |
|                           | 16.5        | 9.5 - 11.1       | <b>TAPD614SS</b> |                 |             |             |      |      |      |       | 21286      | 4,000      | 89655 500  | 3.11    |  |
|                           | 19.0        | 11.1 - 13.5      | <b>TAPD617SS</b> |                 |             |             |      |      |      |       | 20050      | 4,000      | on request | 3.18    |  |
|                           | 21.0        | 13.5 - 16.0      | <b>TAPD621SS</b> |                 |             |             |      |      |      |       | 23586      | 4,000      | on request | 3.49    |  |

- For general purpose use
- **Large flange increases bearing surface for weaker, thinner materials**
- Suitable for oversized holes or slots under the head
- **Stainless Steel mandrel for corrosion resistance**



**Break Stem Open  
Large Flange**

Aluminium 3.5% Magnesium Alloy  
Mandrel: Stainless Steel

|                           |      |             |                       |           |               |      |      |      |      |  |            |            |            |      |
|---------------------------|------|-------------|-----------------------|-----------|---------------|------|------|------|------|--|------------|------------|------------|------|
| <b>4.8</b><br>4.70 - 4.88 | 9.2  | Up To 4.8   | <b>TAPD66SSSLF14</b>  |           |               |      |      |      |      |  | on request | on request | 2.92       |      |
|                           | 11.0 | 3.8 - 6.4   | <b>TAPD68SSSLF14</b>  |           |               |      |      |      |      |  | 22026      | 4,000      | on request | 3.03 |
|                           | 12.7 | 6.4 - 7.9   | <b>TAPD610SSSLF14</b> | 4.9 - 5.0 | 13.70 - 14.30 | 2.00 | 2.64 | 2020 | 2800 |  | on request | on request | 3.18       |      |
|                           | 14.7 | 7.9 - 9.5   | <b>TAPD612SSSLF14</b> |           |               |      |      |      |      |  | 77352      | 3,000      | on request | 3.37 |
|                           | 16.5 | 9.5 - 11.1  | <b>TAPD614SSSLF14</b> |           |               |      |      |      |      |  | on request | on request | 3.46       |      |
|                           | 19.0 | 11.1 - 13.5 | <b>TAPD617SSSLF14</b> |           |               |      |      |      |      |  | 23886      | 3,000      | on request | 3.52 |
|                           | 21.0 | 13.5 - 16.0 | <b>TAPD621SSSLF14</b> |           |               |      |      |      |      |  | on request | on request | 3.70       |      |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

## Break Stem Open 120° Countersunk

Aluminium 3.5% Magnesium Alloy  
Mandrel: Stainless Steel



- For general purpose use
- For a flush surface after setting
- Stainless Steel mandrel for corrosion resistance

|                           |            |            |            | DESCRIPTION               |           |             |    |      |      |      | BULK PACK  |            | SMALL PACK |            |           |
|---------------------------|------------|------------|------------|---------------------------|-----------|-------------|----|------|------|------|------------|------------|------------|------------|-----------|
|                           |            |            |            |                           |           |             |    |      |      |      | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY    |           |
| <b>2.4</b><br>2.30 - 2.48 | mm         | mm         | mm         | TAPK33SS                  | mm        | mm          | mm | mm   | N    | N    | on request | on request | on request | on request | kg        |
|                           |            |            |            |                           |           |             |    |      |      |      |            |            |            |            |           |
| <b>3.2</b><br>3.10 - 3.28 | mm         | mm         | mm         | TAPK42SS                  | 3.3 - 3.4 | 6.05 - 6.65 | -  | 1.83 | 800  | 1200 | on request | on request | on request | on request | 0.90      |
|                           |            |            |            | TAPK44SS                  |           |             |    |      |      |      | on request | on request | on request | 0.93       |           |
|                           |            |            |            | TAPK46SS                  |           |             |    |      |      |      | 22290      | 10,000     | on request | 1.03       |           |
|                           |            |            |            | TAPK48SS                  |           |             |    |      |      |      | on request | on request | on request | 1.04       |           |
|                           |            |            |            | TAPK410SS                 |           |             |    |      |      |      | on request | on request | on request | 1.13       |           |
|                           |            |            |            | TAPK412SS                 |           |             |    |      |      |      | on request | on request | on request | 1.23       |           |
|                           |            |            |            | TAPK414SS                 |           |             |    |      |      |      | on request | on request | on request | 1.28       |           |
|                           |            |            |            | TAPK416SS                 |           |             |    |      |      |      | on request | on request | on request | 1.32       |           |
|                           |            |            |            | TAPK418SS                 |           |             |    |      |      |      | on request | on request | on request | 1.39       |           |
|                           |            |            |            | TAPK421SS                 |           |             |    |      |      |      | on request | on request | on request | 1.46       |           |
| TAPK425SS                 | on request | on request | on request | 1.56                      |           |             |    |      |      |      |            |            |            |            |           |
| <b>4.0</b><br>3.90 - 4.08 | mm         | mm         | mm         | TAPK54SS                  | 4.1 - 4.2 | 7.75 - 8.05 | -  | 2.29 | 1330 | 1910 | 23934      | 8,000      | on request | on request | 1.59      |
|                           |            |            |            | TAPK56SS                  |           |             |    |      |      |      | on request | on request | on request | 1.65       |           |
|                           |            |            |            | TAPK58SS                  |           |             |    |      |      |      | on request | on request | on request | 1.79       |           |
|                           |            |            |            | TAPK510SS                 |           |             |    |      |      |      | 22336      | 5,000      | on request | 1.93       |           |
|                           |            |            |            | TAPK512SS                 |           |             |    |      |      |      | on request | on request | on request | 2.03       |           |
|                           |            |            |            | TAPK514SS                 |           |             |    |      |      |      | on request | on request | on request | 2.12       |           |
|                           |            |            |            | TAPK516SS                 |           |             |    |      |      |      | on request | on request | on request | 2.29       |           |
|                           |            |            |            | TAPK517SS                 |           |             |    |      |      |      | on request | on request | on request | 2.32       |           |
|                           |            |            |            | TAPK520SS                 |           |             |    |      |      |      | on request | on request | on request | 2.42       |           |
|                           |            |            |            | <b>4.8</b><br>4.70 - 4.88 |           |             |    |      |      |      | mm         | mm         | mm         | TAPK63SS   | 4.9 - 5.0 |
| TAPK64SS                  | on request | on request | on request |                           | 2.44      |             |    |      |      |      |            |            |            |            |           |
| TAPK66SS                  | on request | on request | on request |                           | 2.52      |             |    |      |      |      |            |            |            |            |           |
| TAPK68SS                  | on request | on request | on request |                           | 2.68      |             |    |      |      |      |            |            |            |            |           |
| TAPK610SS                 | on request | on request | on request |                           | 2.75      |             |    |      |      |      |            |            |            |            |           |
| TAPK612SS                 | on request | on request | on request |                           | 3.10      |             |    |      |      |      |            |            |            |            |           |
| TAPK614SS                 | on request | on request | on request |                           | 3.15      |             |    |      |      |      |            |            |            |            |           |
| TAPK616SS                 | on request | on request | on request |                           | 3.18      |             |    |      |      |      |            |            |            |            |           |
| TAPK617SS                 | on request | on request | on request |                           | 3.19      |             |    |      |      |      |            |            |            |            |           |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

**Break Stem Open  
Domed Head**

Aluminium 5% Magnesium Alloy  
Mandrel: Carbon Steel



- Increased Magnesium content for increased strength over 3.5% Magnesium alloy rivets

|                           |             |                | DESCRIPTION    |            |               |      |      |      |      | BULK PACK  |            | SMALL PACK |         |      |
|---------------------------|-------------|----------------|----------------|------------|---------------|------|------|------|------|------------|------------|------------|---------|------|
|                           |             |                |                |            |               |      |      |      |      | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY |      |
| mm                        | mm          | mm             |                | mm         | mm            | mm   | mm   | N    | N    |            |            |            |         | kg   |
| <b>2.4</b><br>2.34 - 2.44 | 5.7         | 0.8 - 3.2      | <b>AD32BS</b>  | 2.5 - 2.6  | 4.52 - 5.03   | 0.82 | 1.45 | 550  | 770  | 24559      | 10,000     | on request | 0.59    |      |
|                           | 8.9         | 3.2 - 6.4      | <b>AD34BS</b>  |            |               |      |      |      |      | 80679      | 10,000     | 88068      | 500     | 0.61 |
| <b>3.2</b><br>3.10 - 3.28 | 4.8         | 0.8 - 1.6      | <b>AD41BS</b>  | 3.3 - 3.4  | 6.05 - 6.65   | 1.10 | 1.93 | 930  | 1440 | on request |            | on request | 0.91    |      |
|                           | 6.5         | 1.6 - 3.2      | <b>AD42BS</b>  |            |               |      |      |      |      | 77137      | 10,000     | on request | 0.97    |      |
|                           | 8.0         | 3.2 - 4.8      | <b>AD43BS</b>  |            |               |      |      |      |      | on request | on request | 1.00       |         |      |
|                           | 9.5         | 4.8 - 6.5      | <b>AD44BS</b>  |            |               |      |      |      |      | on request | on request | 1.12       |         |      |
|                           | 11.1        | 6.5 - 7.9      | <b>AD45BS</b>  |            |               |      |      |      |      | on request | on request | 1.21       |         |      |
|                           | 12.7        | 7.9 - 9.5      | <b>AD46BS</b>  |            |               |      |      |      |      | on request | on request | 1.24       |         |      |
|                           | 15.9        | 9.5 - 12.7     | <b>AD48BS</b>  |            |               |      |      |      |      | on request | on request | 1.40       |         |      |
| 19.1                      | 12.7 - 15.9 | <b>AD410BS</b> | on request     | on request | 1.54          |      |      |      |      |            |            |            |         |      |
| <b>4.0</b><br>3.90 - 4.08 | 7.0         | 1.6 - 3.2      | <b>AD52BS</b>  | 4.1 - 4.2  | 7.52 - 8.40   | 1.22 | 2.41 | 1510 | 2180 | on request |            | on request | 1.54    |      |
|                           | 8.6         | 3.2 - 4.8      | <b>AD53BS</b>  |            |               |      |      |      |      | on request | on request | 1.70       |         |      |
|                           | 10.2        | 4.8 - 6.4      | <b>AD54BS</b>  |            |               |      |      |      |      | on request | on request | 1.93       |         |      |
|                           | 13.3        | 6.4 - 9.5      | <b>AD56BS</b>  |            |               |      |      |      |      | on request | on request | 2.07       |         |      |
| 16.5                      | 9.5 - 12.7  | <b>AD58BS</b>  | on request     | on request | 2.22          |      |      |      |      |            |            |            |         |      |
| <b>4.8</b><br>4.65 - 4.88 | 7.6         | 1.6 - 3.2      | <b>AD62BS</b>  | 4.9 - 5.0  | 9.06 - 9.98   | 1.40 | 2.90 | 1980 | 3200 | on request |            | on request | 2.12    |      |
|                           | 10.8        | 3.2 - 6.4      | <b>AD64BS</b>  |            |               |      |      |      |      | on request | on request | 2.41       |         |      |
|                           | 14.0        | 6.4 - 9.5      | <b>AD66BS</b>  |            |               |      |      |      |      | on request | on request | 2.81       |         |      |
|                           | 17.2        | 9.5 - 12.7     | <b>AD68BS</b>  |            |               |      |      |      |      | on request | on request | 3.20       |         |      |
|                           | 20.3        | 12.7 - 15.9    | <b>AD610BS</b> |            |               |      |      |      |      | 75192      | 4,000      | on request | 3.63    |      |
|                           | 23.5        | 15.9 - 19.1    | <b>AD612BS</b> |            |               |      |      |      |      | 75194      | 3,000      | on request | 3.87    |      |
|                           | 26.7        | 19.1 - 22.2    | <b>AD614BS</b> |            |               |      |      |      |      | 75195      | 3,000      | on request | 4.20    |      |
| 29.9                      | 22.2 - 25.4 | <b>AD616BS</b> | 75196          | 2,500      | on request    | 4.46 |      |      |      |            |            |            |         |      |
| <b>6.4</b><br>6.32 - 6.50 | 12.1        | 1.6 - 6.4      | <b>AD84BS</b>  | 6.5 - 6.6  | 12.07 - 13.34 | 1.85 | 3.84 | 3950 | 5330 | 75203      | 2,000      | on request | 5.89    |      |
|                           | 15.2        | 6.4 - 9.5      | <b>AD86BS</b>  |            |               |      |      |      |      | 75205      | 2,000      | on request | 6.35    |      |
|                           | 18.4        | 9.5 - 12.7     | <b>AD88BS</b>  |            |               |      |      |      |      | on request | on request | 6.69       |         |      |
|                           | 21.6        | 12.7 - 15.9    | <b>AD810BS</b> |            |               |      |      |      |      | on request | on request | 7.22       |         |      |
|                           | 24.8        | 15.9 - 19.1    | <b>AD812BS</b> |            |               |      |      |      |      | on request | on request | 7.66       |         |      |
|                           | 31.1        | 22.2 - 25.4    | <b>AD816BS</b> |            |               |      |      |      |      | 75281      | 1,500      | 88236      | 500     | 8.61 |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *dh*=Hole Size (Min - Max); *dk*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *dm*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

## Break Stem Open Large Flange

Aluminium 5% Magnesium Alloy  
Mandrel: Carbon Steel



- Increased Magnesium content for increased strength over 3.5% Magnesium alloy rivets
- Large flange increases bearing surface for weaker, thinner materials
- Suitable for oversized holes or slots under the head

|                           | $d$  | $l$         | $g$ | DESCRIPTION      | $d_h$     | $d_k$         | $k$  | $d_m$ | $S$  | $T$  | BULK PACK  |            | SMALL PACK |            | KG /1000 |
|---------------------------|------|-------------|-----|------------------|-----------|---------------|------|-------|------|------|------------|------------|------------|------------|----------|
|                           |      |             |     |                  |           |               |      |       |      |      | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY    |          |
|                           | mm   | mm          | mm  |                  | mm        | mm            | mm   | mm    | N    | N    |            |            |            |            | kg       |
| <b>3.2</b><br>3.10 - 3.28 | 6.5  | 1.6 - 3.2   |     | <b>AD42BSLF</b>  | 3.3 - 3.4 | 9.14 - 9.91   | 1.17 | 1.93  | 930  | 1440 | on request | on request | on request | 1.04       |          |
|                           | 8.0  | 3.2 - 4.8   |     | <b>AD43BSLF</b>  |           |               |      |       |      |      | on request | on request | on request | 1.30       |          |
|                           | 9.5  | 4.8 - 6.4   |     | <b>AD44BSLF</b>  |           |               |      |       |      |      | on request | on request | on request | 1.56       |          |
|                           | 11.1 | 6.4 - 7.9   |     | <b>AD45BSLF</b>  |           |               |      |       |      |      | on request | on request | on request | 1.84       |          |
| <b>4.0</b><br>3.90 - 4.08 | 10.2 | 4.8 - 6.4   |     | <b>AD54BSLF</b>  | 4.1 - 4.2 | 11.38 - 12.40 | 1.42 | 2.41  | 1510 | 2180 | 80221      | 5,000      | on request | 1.59       |          |
| <b>4.8</b><br>4.65 - 4.88 | 10.8 | 3.2 - 6.4   |     | <b>AD64BSLF</b>  | 4.9 - 5.0 | 15.24 - 16.51 | 2.34 | 2.90  | 1980 | 3200 | 75036      | 3,000      | 88474      | 500        | 3.43     |
|                           | 14.0 | 6.4 - 9.5   |     | <b>AD66BSLF</b>  |           |               |      |       |      |      | 80138      | 2,500      | 88222      | 500        | 3.68     |
|                           | 17.2 | 9.5 - 12.7  |     | <b>AD68BSLF</b>  |           |               |      |       |      |      | 80144      | 2,000      | 88526      | 500        | 3.94     |
|                           | 20.3 | 12.8 - 15.9 |     | <b>AD610BSLF</b> |           |               |      |       |      |      | 80137      | 2,000      | 88249      | 500        | 5.91     |
|                           | 23.5 | 15.9 - 19.1 |     | <b>AD612BSLF</b> |           |               |      |       |      |      | 80136      | 2,000      | 88272      | 500        | 6.42     |
|                           | 26.7 | 19.1 - 22.2 |     | <b>AD614BSLF</b> |           |               |      |       |      |      | on request | on request | on request | on request | 7.29     |
|                           | 29.9 | 22.2 - 25.4 |     | <b>AD616BSLF</b> |           |               |      |       |      |      | 75280      | 1,500      | 88164      | 500        | 7.38     |

## Break Stem Open 120° Countersunk

Aluminium 5% Magnesium Alloy  
Mandrel: Carbon Steel



- Increased Magnesium content for increased strength over 3.5% Magnesium alloy rivets
- For a flush surface after setting

|                           | $d$  | $l$        | $g$ | DESCRIPTION   | $d_h$     | $d_k$       | $k$ | $d_m$ | $S$  | $T$  | BULK PACK  |            | SMALL PACK |         | KG /1000 |
|---------------------------|------|------------|-----|---------------|-----------|-------------|-----|-------|------|------|------------|------------|------------|---------|----------|
|                           |      |            |     |               |           |             |     |       |      |      | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY |          |
|                           | mm   | mm         | mm  |               | mm        | mm          | mm  | mm    | N    | N    |            |            |            |         | kg       |
| <b>3.2</b><br>3.10 - 3.28 | 6.5  | 1.6 - 3.2  |     | <b>AK42BS</b> | 3.3 - 3.4 | 5.26 - 5.92 | -   | 1.93  | 930  | 1440 | on request | on request | on request | 1.01    |          |
|                           | 8.0  | 3.2 - 4.8  |     | <b>AK43BS</b> |           |             |     |       |      |      | on request | on request | on request | 1.09    |          |
|                           | 9.5  | 4.8 - 6.4  |     | <b>AK44BS</b> |           |             |     |       |      |      | on request | on request | on request | 1.12    |          |
|                           | 11.1 | 6.4 - 7.9  |     | <b>AK45BS</b> |           |             |     |       |      |      | on request | on request | on request | 1.21    |          |
|                           | 12.7 | 7.9 - 9.5  |     | <b>AK46BS</b> |           |             |     |       |      |      | on request | on request | on request | 1.24    |          |
|                           | 15.9 | 9.5 - 12.7 |     | <b>AK48BS</b> |           |             |     |       |      |      | on request | on request | on request | 1.40    |          |
| <b>4.0</b><br>3.90 - 4.08 | 7.0  | 1.6 - 3.2  |     | <b>AK52BS</b> | 4.1 - 4.2 | 6.76 - 7.52 | -   | 2.41  | 1510 | 2180 | on request | on request | on request | 1.54    |          |
|                           | 10.2 | 4.8 - 6.4  |     | <b>AK54BS</b> |           |             |     |       |      |      | on request | on request | on request | 1.93    |          |
|                           | 13.3 | 7.9 - 9.5  |     | <b>AK56BS</b> |           |             |     |       |      |      | on request | on request | on request | 2.07    |          |
| <b>4.8</b><br>4.65 - 4.88 | 10.8 | 3.2 - 6.4  |     | <b>AK64BS</b> | 4.9 - 5.0 | 8.46 - 9.22 | -   | 2.90  | 1980 | 3200 | on request | on request | on request | 2.41    |          |
|                           | 14.0 | 6.4 - 9.5  |     | <b>AK66BS</b> |           |             |     |       |      |      | on request | on request | on request | 2.81    |          |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

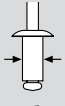
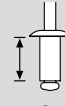
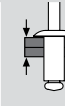









**Break Stem Open  
Domed Head**

Aluminium 2.5% Magnesium Alloy  
Mandrel: Aluminium Alloy



- Provides a softer setting for more vulnerable components

| <br><i>d</i> | <br><i>l</i> | <br><i>g</i> | DESCRIPTION     | <br><i>d<sub>h</sub></i> | <br><i>d<sub>k</sub></i> | <br><i>k</i> | <br><i>d<sub>m</sub></i> | <br><i>S</i> | <br><i>T</i> | BULK PACK  |            | SMALL PACK |         | <br>kg |
|---|---|---|-----------------|---|---|---|---|--|---|------------|------------|------------|---------|---|
|   |   |   |                 |   |   |   |   |  |   | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY |   |
| <b>2.4</b><br>3.34 - 2.44   | 5.7   | 0.8 - 3.2   | <b>AD32ABS</b>  | 2.5 - 2.6   | 4.52 - 5.03   | 0.80  | 1.45  | 400  | 500   | 22146      | 10,000     | 88116      | 500     | 0.24  |
|   | 8.9   | 3.2 - 6.4   | <b>AD34ABS</b>  |   |   |   |   |  |   | 23657      | 10,000     | 88084      | 500     | 0.26  |
|   | 12.1  | 6.4 - 9.5   | <b>AD36ABS</b>  |   |   |   |   |  |   | 75180      | 10,000     | 88999      | 500     | 0.28  |
| <b>3.2</b><br>3.10 - 3.28   | 4.8   | 0.8 - 1.6   | <b>AD41ABS</b>  | 3.3 - 3.4   | 6.04 - 6.65   | 1.10  | 1.93  | 680  | 1040  | 23658      | 10,000     | 88904      | 500     | 0.42  |
|   | 6.5   | 1.6 - 3.2   | <b>AD42ABS</b>  |   |   |   |   |  |   | 81666      | 10,000     | 88055      | 500     | 0.44  |
|   | 8.0   | 3.2 - 4.8   | <b>AD43ABS</b>  |   |   |   |   |  |   | 77173      | 10,000     | 89401      | 500     | 0.46  |
|   | 9.5   | 4.8 - 6.4   | <b>AD44ABS</b>  |   |   |   |   |  |   | 77174      | 10,000     | 89400      | 500     | 0.51  |
|   | 11.1  | 6.4 - 7.9   | <b>AD45ABS</b>  |   |   |   |   |  |   | 21083      | 10,000     | 88125      | 500     | 0.54  |
|   | 12.7  | 7.9 - 9.5   | <b>AD46ABS</b>  |   |   |   |   |  |   | 21084      | 10,000     | 88085      | 500     | 0.56  |
|   | 15.9  | 9.5 - 12.7  | <b>AD48ABS</b>  |   |   |   |   |  |   | 75189      | 8,000      | 89000      | 500     | 0.65  |
| 19.0  | 12.7 - 15.9   | <b>AD410ABS</b>   | 23659           | 8,000   | 88124   | 500   | 0.70  |  |   |            |            |            |         |   |
| <b>4.0</b><br>3.88 - 4.08   | 7.0   | 1.6 - 3.2   | <b>AD52ABS</b>  | 4.1 - 4.2   | 7.51 - 8.40   | 1.20  | 2.41  | 1000   | 1550  | 21085      | 8,000      | 88139      | 500     | 0.76  |
|   | 8.6   | 3.2 - 4.8   | <b>AD53ABS</b>  |   |   |   |   |  |   | 75100      | 8,000      | 88411      | 500     | 0.82  |
|   | 10.2  | 4.8 - 6.4   | <b>AD54ABS</b>  |   |   |   |   |  |   | 75382      | 7,000      | 88051      | 500     | 0.87  |
|   | 13.3  | 6.4 - 9.5   | <b>AD56ABS</b>  |   |   |   |   |  |   | 20343      | 7,000      | 88082      | 500     | 0.95  |
|   | 16.5  | 9.5 - 12.7  | <b>AD58ABS</b>  |   |   |   |   |  |   | 21087      | 6,000      | 88119      | 500     | 1.06  |
|   | 19.7  | 12.7 - 15.9   | <b>AD510ABS</b> |   |   |   |   |  |   | on request | on request | on request | 500     | 1.18  |
| <b>4.8</b><br>4.65 - 4.88   | 7.6   | 1.6 - 3.2   | <b>AD62ABS</b>  | 4.9 - 5.0   | 9.06 - 9.98   | 1.40  | 2.90  | 1400   | 2220  | 25552      | 5,000      | 88167      | 500     | 1.15  |
|   | 10.8  | 3.2 - 6.4   | <b>AD64ABS</b>  |   |   |   |   |  |   | 77282      | 5,000      | 88050      | 500     | 1.20  |
|   | 14.0  | 6.4 - 9.5   | <b>AD66ABS</b>  |   |   |   |   |  |   | 81669      | 4,500      | 88094      | 500     | 1.45  |
|   | 17.2  | 9.5 - 12.7  | <b>AD68ABS</b>  |   |   |   |   |  |   | 23662      | 4,000      | 88075      | 500     | 1.60  |
|   | 20.3  | 12.7 - 15.9   | <b>AD610ABS</b> |   |   |   |   |  |   | 25661      | 4,000      | 88201      | 500     | 1.71  |
|   | 23.5  | 15.9 - 19.1   | <b>AD612ABS</b> |   |   |   |   |  |   | 81658      | 3,000      | 88218      | 500     | 1.86  |
|   | 26.7  | 19.1 - 22.2   | <b>AD614ABS</b> |   |   |   |   |  |   | 78141      | 3,000      | on request | 500     | 2.28  |
|   | 29.8  | 22.3 - 25.4   | <b>AD616ABS</b> |   |   |   |   |  |   | 75038      | 2,500      | 88535      | 500     | 3.64  |
| <b>6.4</b><br>6.17 - 6.48   | 8.9   | 1.6 - 3.8   | <b>AD82ABS</b>  | 6.5 - 6.6   | 12.07 - 13.33   | 1.85  | 3.80  | 2669   | 3336  | on request | on request | on request | 500     | 2.69  |
|   | 12.1  | 3.8 - 6.4   | <b>AD84ABS</b>  |   |   |   |   |  |   | 75202      | 2,000      | 89001      | 500     | 2.81  |
|   | 15.2  | 6.4 - 9.5   | <b>AD86ABS</b>  |   |   |   |   |  |   | 75204      | 2,000      | 89002      | 500     | 3.08  |
|   | 18.4  | 9.5 - 12.7  | <b>AD88ABS</b>  |   |   |   |   |  |   | on request | on request | on request | 500     | 3.29  |
|   | 21.6  | 12.7 - 15.9   | <b>AD810ABS</b> |   |   |   |   |  |   | on request | on request | on request | 500     | 3.58  |
|   | 24.8  | 15.9 - 19.1   | <b>AD812ABS</b> |   |   |   |   |  |   | 75027      | 1,500      | 88414      | 500     | 3.83  |
|   | 27.9  | 19.1 - 22.2   | <b>AD814ABS</b> |   |   |   |   |  |   | on request | on request | on request | 500     | 4.04  |
|   | 31.1  | 22.2 - 25.4   | <b>AD816ABS</b> |   |   |   |   |  |   | on request | on request | on request | 500     | 4.22  |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *d<sub>h</sub>*=Hole Size (Min - Max); *d<sub>k</sub>*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *d<sub>m</sub>*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

## Break Stem Open Large Flange

Aluminium 2.5% Magnesium Alloy  
Mandrel: Aluminium Alloy



- Provides a softer setting for more vulnerable components
- For a flush surface after setting
- Suitable for oversized holes or slots under the head

|                           |      |             |  | DESCRIPTION       |           |               |      |      |      |      | BULK PACK  |            | SMALL PACK |         |      |
|---------------------------|------|-------------|--|-------------------|-----------|---------------|------|------|------|------|------------|------------|------------|---------|------|
|                           |      |             |  |                   |           |               |      |      |      |      | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY |      |
| <b>3.2</b><br>3.10 - 3.28 | 6.5  | 1.6 - 3.2   |  | <b>AD42ABSLF</b>  | 3.3 - 3.4 | 9.14 - 9.91   | 1.14 | 1.93 | 680  | 1040 | 22350      | 10,000     | 88107      | 500     | 0.49 |
|                           | 8.0  | 3.2 - 4.8   |  | <b>AD43ABSLF</b>  |           |               |      |      |      |      | on request | on request | 0.54       |         |      |
|                           | 9.5  | 4.8 - 6.4   |  | <b>AD44ABSLF</b>  |           |               |      |      |      |      | 22351      | 8,000      | 88112      | 500     | 0.59 |
|                           | 12.7 | 7.9 - 9.5   |  | <b>AD46ABSLF</b>  |           |               |      |      |      |      | on request | on request | 0.64       |         |      |
| <b>4.0</b><br>3.90 - 4.08 | 10.2 | 3.2 - 6.4   |  | <b>AD54ABSLF</b>  | 4.1 - 4.2 | 11.38 - 12.40 | 1.42 | 2.41 | 1000 | 1550 | 23661      | 4,000      | 88183      | 500     | 0.98 |
|                           | 13.5 | 6.4 - 9.5   |  | <b>AD56ABSLF</b>  |           |               |      |      |      |      | on request | on request | 1.09       |         |      |
|                           | 16.5 | 9.5 - 12.7  |  | <b>AD58ABSLF</b>  |           |               |      |      |      |      | 81643      | 4,000      | 88267      | 500     | 1.25 |
| <b>4.8</b><br>4.65 - 4.88 | 10.8 | 3.2 - 6.4   |  | <b>AD64ABSLF</b>  | 4.9 - 5.0 | 15.24 - 16.51 | 2.30 | 2.90 | 1400 | 2220 | 25009      | 3,000      | 88248      | 500     | 1.84 |
|                           | 14.0 | 6.4 - 9.5   |  | <b>AD66ABSLF</b>  |           |               |      |      |      |      | 75369      | 2,500      | 88149      | 500     | 2.17 |
|                           | 17.2 | 9.5 - 12.7  |  | <b>AD68ABSLF</b>  |           |               |      |      |      |      | 81659      | 2,000      | 88214      | 500     | 2.25 |
|                           | 20.3 | 12.7 - 15.9 |  | <b>AD610ABSLF</b> |           |               |      |      |      |      | 81657      | 2,000      | 88166      | 500     | 2.31 |
|                           | 23.5 | 15.9 - 19.1 |  | <b>AD612ABSLF</b> |           |               |      |      |      |      | 22400      | 2,000      | 88463      | 500     | 2.47 |
|                           | 26.7 | 19.0 - 22.0 |  | <b>AD614ABSLF</b> |           |               |      |      |      |      | on request | on request |            |         |      |
|                           | 29.8 | 22.2 - 25.4 |  | <b>AD616ABSLF</b> |           |               |      |      |      |      | on request | on request |            |         |      |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

## Break Stem Open 120° Countersunk

Aluminium 2.5% Magnesium Alloy  
Mandrel: Aluminium Alloy



- Provides a softer setting for more vulnerable components
- For a flush surface after setting

|                           |      |             |    | DESCRIPTION     |            |             |      |      |      |      | BULK PACK  |            | SMALL PACK |         |  |
|---------------------------|------|-------------|----|-----------------|------------|-------------|------|------|------|------|------------|------------|------------|---------|--|
|                           |      |             |    |                 |            |             |      |      |      |      | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY |  |
|                           | mm   | mm          | mm |                 | mm         | mm          | mm   | mm   | N    | N    |            |            |            |         |  |
| <b>3.2</b><br>3.10 - 3.28 | 6.5  | 1.6 - 3.2   |    | <b>AK42ABS</b>  | 3.3 - 3.4  | 5.26 - 5.92 | -    | 1.93 | 680  | 1040 | 75566      | 10,000     | on request | 0.41    |  |
|                           | 8.0  | 3.2 - 4.8   |    | <b>AK43ABS</b>  |            |             |      |      |      |      | 75742      | 10,000     | on request | 0.46    |  |
|                           | 9.5  | 4.8 - 6.4   |    | <b>AK44ABS</b>  |            |             |      |      |      |      | on request | on request | 0.51       |         |  |
|                           | 11.1 | 6.4 - 7.9   |    | <b>AK45ABS</b>  |            |             |      |      |      |      | on request | on request | 0.54       |         |  |
|                           | 12.7 | 7.9 - 9.5   |    | <b>AK46ABS</b>  |            |             |      |      |      |      | on request | on request | 0.56       |         |  |
|                           | 19.1 | 12.8 - 15.9 |    | <b>AK410ABS</b> | on request | on request  | 0.70 |      |      |      |            |            |            |         |  |
| <b>4.0</b><br>3.90 - 4.08 | 7.0  | 1.6 - 3.2   |    | <b>AK52ABS</b>  | 4.1 - 4.2  | 6.76 - 7.52 | -    | 2.41 | 1000 | 1550 | on request | on request | 0.76       |         |  |
|                           | 10.2 | 4.8 - 6.4   |    | <b>AK54ABS</b>  |            |             |      |      |      |      | on request | on request | 0.87       |         |  |
|                           | 13.3 | 7.9 - 9.5   |    | <b>AK56ABS</b>  |            |             |      |      |      |      | on request | on request | 0.95       |         |  |
| <b>4.8</b><br>4.65 - 4.88 | 29.9 | 22.2 - 25.4 |    | <b>AK616ABS</b> | 4.9 - 5.0  | 8.46 - 9.22 | -    | 2.90 | 1400 | 2220 | on request | on request | 3.64       |         |  |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

## Multi-Grip Domed Head

Aluminium 2.5% Magnesium Alloy  
Mandrel: Carbon Steel



- Extended grip range capability
- Good, rattle free, joint construction even in irregular holes

|                    |                      |  | DESCRIPTION |           |               |      |      |      |      | BULK PACK  |         | SMALL PACK |         |      |
|--------------------|----------------------|--|-------------|-----------|---------------|------|------|------|------|------------|---------|------------|---------|------|
|                    |                      |  |             |           |               |      |      |      |      | ARTICLE    | BOX QTY | ARTICLE    | BOX QTY |      |
| 3.2<br>3.10 - 3.28 | 7.9<br>11.5<br>15.1  | Up To 4.8<br>4.8 - 7.9<br>6.4 - 11.1   | EBD406BS    | 3.3 - 3.4 | 6.00 - 6.60   | 1.10 | 1.83 | 690  | 930  | 82786      | 10,000  | 88444      | 500     | 1.02 |
|                    |                      |  | EBD410BS    | 3.3 - 3.4 | 6.00 - 6.60   | 1.10 | 1.83 | 690  | 930  | 82785      | 10,000  | 88445      | 500     | 1.14 |
|                    |                      |  | AD45-47BS   | 3.3 - 3.6 | 6.00 - 6.65   | 1.02 | 1.93 | 670  | 980  | 78135      | 8,000   | on request |         | 1.26 |
| 4.0<br>3.85 - 4.08 | 10.3<br>14.0<br>18.2 | Up To 6.4<br>3.0 - 9.5<br>6.4 - 12.7   | EBD508BS    | 4.1 - 4.2 | 7.74 - 8.10   | 1.25 | 2.29 | 1000 | 1570 | 82784      | 8,000   | 88446      | 500     | 1.83 |
|                    |                      |  | EBD512BS    | 4.1 - 4.2 | 7.74 - 8.10   | 1.25 | 2.29 | 1000 | 1570 | 82783      | 5,000   | 88447      | 500     | 1.97 |
|                    |                      |  | AD56-58BS   | 4.1 - 4.3 | 7.54 - 8.30   | 1.25 | 2.40 | 1100 | 1601 | on request |         | on request |         | 2.12 |
| 4.8<br>4.65 - 4.88 | 11.0<br>16.5<br>26.5 | 0.8 - 6.4<br>6.4 - 11.1<br>11.1 - 19.1 | EBD608BS    | 4.9 - 5.0 | 9.20 - 9.80   | 1.60 | 2.64 | 1570 | 2250 | 82782      | 5,000   | 88448      | 500     | 2.66 |
|                    |                      |  | EBD614BS    | 4.9 - 5.0 | 9.20 - 9.80   | 1.60 | 2.64 | 1570 | 2250 | 82781      | 4,000   | 88449      | 500     | 3.10 |
|                    |                      |  | AD68-612BS  | 4.9 - 5.0 | 9.14 - 9.91   | 1.40 | 2.90 | 1550 | 2250 | 78493      | 2,500   | 89461      | 500     | 3.40 |
| 6.4<br>6.32 - 6.53 | 15.2                 | 2.0 - 8.9                              | AD82-86BS   | 6.6 - 7.0 | 12.06 - 13.34 | 1.87 | 3.84 | 2040 | 2490 | on request |         | on request |         | 4.85 |

## Multi-Grip Domed Head

Aluminium 3.5% Magnesium Alloy  
Mandrel: Carbon Steel



- Extended grip range capability
- Good, rattle free, joint construction even in irregular holes

|                    |              |                        | DESCRIPTION |           |               |      |      |      |      | BULK PACK |         | SMALL PACK |         |      |
|--------------------|--------------|------------------------|-------------|-----------|---------------|------|------|------|------|-----------|---------|------------|---------|------|
|                    |              |                        |             |           |               |      |      |      |      | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |      |
| 6.4<br>6.25 - 6.48 | 11.0<br>16.4 | 2.0 - 4.8<br>3.5 - 8.5 | TAVD806BS   | 6.5 - 6.9 | 10.60 - 11.20 | 2.10 | 3.70 | 2800 | 4000 | 77807     | 2,000   | on request |         | 5.75 |
|                    |              |                        | TAVD812BS   | 6.5 - 6.9 | 12.40 - 13.00 |      |      |      |      | 78287     | 2,000   | on request |         | 6.04 |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

- Extended grip range capability
- Good, rattle free, joint construction even in irregular holes
- **Large flange increases bearing surface for weaker, thinner materials**
- Suitable for oversized holes or slots under the head



**Multi-Grip  
Large Flange**

Aluminium 2.5% Magnesium Alloy  
Mandrel: Carbon Steel

|                           |                      |  | DESCRIPTION   |           |               |      |      |      |      | BULK PACK               |                         | SMALL PACK                   |              |                      |
|---------------------------|----------------------|--|---|-----------|---------------|------|------|------|------|-------------------------|-------------------------|------------------------------|--------------|----------------------|
|                           |                      |  |   |           |               |      |      |      |      | ARTICLE                 | BOX QTY                 | ARTICLE                      | BOX QTY      |                      |
| mm                        | mm                   | mm                                     |   | mm        | mm            | mm   | mm   | N    | N    |                         |                         |                              |              |                      |
| <b>3.2</b><br>3.10 - 3.28 | 8.0<br>11.5          | 1.0 - 4.8<br>4.0 - 7.9                 | <b>AD41-43BSLF</b><br><b>AD43-45BSLF</b>                        | 3.3 - 3.6 | 9.14 - 9.91   | 1.33 | 1.93 | 680  | 980  | on request<br>77161     | 7,000                   | on request<br>on request     | 1.08<br>1.43 |                      |
| <b>4.0</b><br>3.85 - 4.08 | 10.2<br>12.3         | 1.2 - 6.4<br>3.2 - 7.9                 | <b>AD52-54BSLF</b><br><b>AD53-55BSLF</b>                        | 4.1 - 4.3 | 11.38 - 12.50 | 1.80 | 2.41 | 1100 | 1600 | 75637<br>on request     | 4,000                   | 88468<br>on request          | 500<br>2.67  | 2.07                 |
| <b>4.8</b><br>4.64 - 4.88 | 10.8<br>18.2<br>26.7 | 1.6 - 6.4<br>6.4 - 12.7<br>11.1 - 19.1 | <b>AD62-64BSLF</b><br><b>AD66-68BSLF</b><br><b>AD68-612BSLF</b> | 4.9 - 5.2 | 15.24 - 16.52 | 2.10 | 2.90 | 1550 | 2240 | 75665<br>82773<br>77587 | 2,000<br>2,000<br>2,000 | 88451<br>88452<br>on request | 500<br>500   | 3.40<br>3.96<br>4.42 |

- Extended grip range capability
- Good, rattle free, joint construction even in irregular holes
- **For a flush surface after setting**



**Multi-Grip  
120° Countersunk**

Aluminium 2.5% Magnesium Alloy  
Mandrel: Carbon Steel

|                           |              |                         | DESCRIPTION                                  |           |             |    |      |      |      | BULK PACK                |                          | SMALL PACK               |              |  |
|---------------------------|--------------|-------------------------|--|-----------|-------------|----|------|------|------|--------------------------|--------------------------|--------------------------|--------------|--|
|                           |              |                         |  |           |             |    |      |      |      | ARTICLE                  | BOX QTY                  | ARTICLE                  | BOX QTY      |  |
| mm                        | mm           | mm                      |  | mm        | mm          | mm | mm   | N    | N    |                          |                          |                          |              |  |
| <b>3.2</b><br>3.10 - 3.28 | 9.0<br>12.7  | Up To 4.8<br>3.0 - 9.0  | <b>EBK406BSSF5.5</b><br><b>EBK410BSSF5.5</b> | 3.3 - 3.4 | 5.00 - 5.60 | -  | 1.83 | 690  | 930  | 77581<br>77802           | 10,000<br>10,000         | on request<br>on request | 1.00<br>1.12 |  |
| <b>4.0</b><br>3.90 - 4.08 | 11.4<br>15.1 | Up To 7.7<br>3.0 - 10.9 | <b>EBK508BSSF6.4</b><br><b>EBK512BSSF6.4</b> | 4.1 - 4.2 | 6.20 - 6.60 | -  | 2.29 | 1000 | 1500 | 77717<br>77728           | 8,000<br>5,000           | on request<br>on request | 1.80<br>2.04 |  |
| <b>4.8</b><br>4.65 - 4.88 | 13.0<br>18.2 | Up To 7.9<br>3.0 - 12.7 | <b>EBK608BSSF7.5</b><br><b>EBK614BSSF7.5</b> | 4.9 - 5.0 | 7.30 - 7.70 | -  | 2.64 | 1570 | 2250 | 77536<br>77801           | 5,000<br>4,000           | on request<br>on request | 2.55<br>3.07 |  |
| <b>3.2</b><br>3.10 - 3.28 | 9.5          | 1.0 - 6.4               | <b>AK41-44BS</b>                             | 3.3 - 3.6 | 5.26 - 5.92 | -  | 1.93 | 660  | 980  | 78193                    | 10,000                   | on request               | 1.14         |  |
| <b>4.0</b><br>4.65 - 4.88 | 14.4<br>18.2 | 3.2 - 9.6<br>6.4 - 12.7 | <b>AK64-66BS</b><br><b>AK66-68BS</b>         | 4.9 - 5.2 | 8.45 - 9.22 | -  | 2.90 | 1550 | 2240 | on request<br>on request | on request<br>on request | on request<br>on request | 2.16<br>2.40 |  |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *dh*=Hole Size (Min - Max); *dk*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *dm*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

## Multi-Grip Domed Head

Aluminium 2.5% Magnesium Alloy  
Mandrel: Stainless Steel



- Extended grip range capability
- Good, rattle free, joint construction even in irregular holes
- **Stainless Steel mandrel for corrosion resistance**

| $d$                       | $l$  | $g$        | DESCRIPTION        | $d_h$     | $d_k$       | $k$  | $d_m$ | $S$  | $T$  | BULK PACK  |         | SMALL PACK |         | KG<br>/1000 |
|---------------------------|------|------------|--------------------|-----------|-------------|------|-------|------|------|------------|---------|------------|---------|-------------|
|                           |      |            |                    |           |             |      |       |      |      | ARTICLE    | BOX QTY | ARTICLE    | BOX QTY |             |
| mm                        | mm   | mm         |                    | mm        | mm          | mm   | mm    | N    | N    |            |         |            |         | kg          |
| <b>3.2</b><br>3.10 - 3.28 | 7.9  | 3.2 - 4.8  | <b>EBD406SS</b>    | 3.3 - 3.4 | 6.00 - 6.60 | 1.00 | 1.83  | 690  | 930  | 76349      | 8,000   | on request |         | 1.03        |
| <b>4.0</b><br>3.85 - 4.08 | 10.5 | Up To 6.4  | <b>EBD508SS</b>    | 4.1 - 4.2 | 7.74 - 8.10 | 1.25 | 2.29  | 1000 | 1570 | 76168      | 8,000   | 89744      | 500     | 1.78        |
|                           | 14.1 | 6.4 - 9.5  | <b>EBD512SS</b>    | 4.1 - 4.2 | 7.74 - 8.10 | 1.25 | 2.29  | 1000 | 1570 | 76169      | 8,000   | on request |         | 1.94        |
|                           | 18.2 | 6.4 - 12.7 | <b>AD56-58SSBS</b> | 4.1 - 4.3 | 7.54 - 8.30 | 1.25 | 2.40  | 1100 | 1600 | on request |         | on request |         | 2.12        |
| <b>4.8</b><br>4.65 - 4.88 | 11.0 | 0.8 - 6.4  | <b>EBD608SS</b>    | 4.9 - 5.0 | 9.20 - 9.80 | 1.60 | 2.64  | 1570 | 2250 | 77532      | 5,000   | on request |         | 2.66        |
|                           | 16.5 | 6.4 - 11.1 | <b>EBD614SS</b>    |           |             |      |       |      |      | on request |         | on request |         | 3.10        |

## Multi-Grip Large Flange

Aluminium 2.5% Magnesium Alloy  
Mandrel: Stainless Steel



- Extended grip range capability
- Good, rattle free, joint construction even in irregular holes
- **Large flange increases bearing surface for weaker, thinner materials**
- Suitable for oversized holes or slots under the head
- **Stainless Steel mandrel for corrosion resistance**

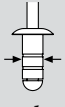
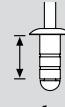
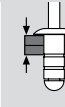

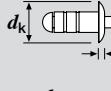





| $d$                       | $l$  | $g$         | DESCRIPTION           | $d_h$     | $d_k$         | $k$  | $d_m$ | $S$  | $T$  | BULK PACK  |         | SMALL PACK |         | KG<br>/1000 |
|---------------------------|------|-------------|-----------------------|-----------|---------------|------|-------|------|------|------------|---------|------------|---------|-------------|
|                           |      |             |                       |           |               |      |       |      |      | ARTICLE    | BOX QTY | ARTICLE    | BOX QTY |             |
| mm                        | mm   | mm          |                       | mm        | mm            | mm   | mm    | N    | N    |            |         |            |         | kg          |
| <b>4.8</b><br>4.65 - 4.88 | 10.8 | 1.6 - 6.4   | <b>AD62-64SSBSLF</b>  | 4.9 - 5.2 | 15.24 - 16.52 | 2.10 | 2.90  | 1550 | 2240 | 79038      | 2,000   | on request |         | 3.35        |
|                           | 18.2 | 3.2 - 12.7  | <b>AD64-68SSBSLF</b>  |           |               |      |       |      |      | 76158      | 2,000   | on request |         | 3.92        |
|                           | 26.7 | 11.1 - 19.1 | <b>AD68-612SSBSLF</b> |           |               |      |       |      |      | on request |         | on request |         | 4.37        |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

**Multi-Grip  
Domed Head**

Aluminium 2.5% Magnesium Alloy  
Mandrel: Aluminium Alloy

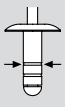
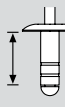
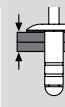

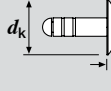





- Extended grip range capability
- Provides a softer setting for more vulnerable components

|  |  |  | DESCRIPTION        |  |  |  |  |  |  | BULK PACK  |            | SMALL PACK |            | <br>kg |
|---|---|---|--------------------|---|---|---|---|--|---|------------|------------|------------|------------|---|
|   |   |   |                    |   |   |   |   |  |   | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY    |   |
| mm  | mm  | mm  |                    | mm  | mm  | mm  | mm  | N  | N   |            |            |            |            |   |
| <b>3.2</b><br>3.10 - 3.25   | 8.0   | 1.0 - 4.7   | <b>AD41-43ABS</b>  | 3.3 - 3.6   | 6.05 - 6.65   | 1.00  | 1.93  | 280  | 370   | on request | on request |            |            |   |
|   | 11.5  | 4.0 - 7.9   | <b>AD43-45ABS</b>  |   |   |   |   |  |   | on request | on request |            |            |   |
|   | 15.1  | 6.4 - 11.1  | <b>AD45-47ABS</b>  |   |   |   |   |  |   | on request | on request |            |            |   |
| <b>4.0</b><br>3.85 - 4.04   | 14.1  | 1.2 - 6.4   | <b>AD52-54ABS</b>  | 4.1 - 4.4   | 7.54 - 8.30   | 1.10  | 2.41  | 460  | 640   | on request | on request |            |            |   |
| <b>4.8</b><br>4.65 - 4.85   | 10.8  | 1.6 - 6.4   | <b>AD62-64ABS</b>  | 4.9 - 5.2   | 9.14 - 9.91   | 1.40  | 2.90  | 640  | 910   | 78565      | 4,500      | on request | on request |   |
|   | 15.4  | 4.8 - 9.5   | <b>AD63-66ABS</b>  |   |   |   |   |  |   | on request | on request |            |            |   |
|   | 18.2  | 6.4 - 12.7  | <b>AD66-68ABS</b>  |   |   |   |   |  |   | on request | on request |            |            |   |
|   | 26.7  | 11.1 - 19.1   | <b>AD68-612ABS</b> |   |   |   |   |  |   | on request | on request |            |            |   |

**Multi-Grip  
Large Flange**

Aluminium 2.5% Magnesium Alloy  
Mandrel: Aluminium Alloy

- Extended grip range capability
- Provides a softer setting for more vulnerable components
- Large flange increases bearing surface for weaker, thinner materials
- Suitable for oversized holes or slots under the head

|  |  |  | DESCRIPTION          |  |  |  |  |  |  | BULK PACK  |            | SMALL PACK |         | <br>kg |
|---|---|---|----------------------|---|---|---|---|--|---|------------|------------|------------|---------|---|
|   |   |   |                      |   |   |   |   |  |   | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY |   |
| mm  | mm  | mm  |                      | mm  | mm  | mm  | mm  | N  | N   |            |            |            |         |   |
| <b>3.2</b><br>3.10 - 3.25   | 8.0   | 1.0 - 4.7   | <b>AD41-43ABSLF</b>  | 3.3 - 3.6   | 9.14 - 9.91   | 1.32  | 1.93  | 280  | 370   | on request | on request |            |         |   |
|   |   |   |                      |   |   |   |   |  |   |            |            |            |         |   |
| <b>4.8</b><br>4.65 - 4.85   | 10.5  | 1.6 - 6.4   | <b>AD62-64ABSLF</b>  | 4.9 - 5.2   | 15.24 - 16.21   | 2.11  | 2.90  | 640  | 910   | on request | on request |            |         |   |
|   | 15.4  | 4.8 - 9.5   | <b>AD63-66ABSLF</b>  |   |   |   |   |  |   | on request | on request |            |         |   |
|   | 26.7  | 11.1 - 19.1   | <b>AD68-612ABSLF</b> |   |   |   |   |  |   | on request | on request |            |         |   |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

## LSR (Load Spreading Rivet)

### Domed Head

Aluminium 3.5% Magnesium Alloy  
Mandrel: Aluminium Alloy



- For use in soft, vulnerable or brittle materials
- Controlled setting for reliability and neat appearance
- Excellent in over sized holes
- Wide grip range

|                           |      |            | DESCRIPTION      |           |             |      |      |      |      | BULK PACK |         | SMALL PACK |         |      |
|---------------------------|------|------------|------------------|-----------|-------------|------|------|------|------|-----------|---------|------------|---------|------|
|                           |      |            |                  |           |             |      |      |      |      | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |      |
| mm                        | mm   | mm         |                  | mm        | mm          | mm   | mm   | N    | N    |           |         |            |         |      |
| <b>3.2</b><br>3.15 - 3.28 | 17.0 | Up To 6.35 | <b>ACD408AS</b>  | 3.4 - 3.5 | 6.05 - 6.65 | 1.00 | 1.83 | 550  | 900  | 75161     | 8,000   | 89254      | 500     | 0.59 |
| <b>4.0</b><br>3.94 - 4.18 | 17.5 | Up To 6.35 | <b>ACD508ASM</b> | 4.2 - 4.3 | 7.60 - 8.25 | 1.34 | 2.29 | 700  | 900  | 80579     | 5,000   | 88442      | 500     | 0.94 |
|                           | 21.3 | 3.0 - 9.5  | <b>ACD512ASM</b> |           |             |      |      |      |      | 76416     | 3,000   | 89297      | 500     | 1.07 |
|                           | 25.0 | 5.0 - 12.0 | <b>ACD516ASM</b> |           |             |      |      |      |      | 80574     | 5,000   | 88443      | 500     | 1.14 |
| <b>4.8</b><br>4.70 - 4.97 | 17.5 | Up To 6.35 | <b>ACD608ASM</b> | 5.0 - 5.2 | 9.23 - 9.83 | 1.57 | 2.64 | 1000 | 1400 | 77467     | 4,000   | 77546      | 500     | 1.26 |
|                           | 19.8 | 3.0 - 9.5  | <b>ACD612ASM</b> |           |             |      |      |      |      | 77553     | 4,000   | 77554      | 500     | 1.43 |
|                           | 23.5 | 5.0 - 12.0 | <b>ACD616ASM</b> |           |             |      |      |      |      | 77470     | 3,000   | 77562      | 500     | 1.52 |

## LSR (Load Spreading Rivet)

### Large Flange

Aluminium 3.5% Magnesium Alloy  
Mandrel: Aluminium Alloy



- For use in soft, vulnerable or brittle materials
- Controlled setting for reliability and neat appearance
- Wide grip range
- **Large flange increases bearing surface for weaker, thinner materials**
- Suitable for oversized holes or slots under the head

|                           |      |            | DESCRIPTION           |           |               |      |      |      |      | BULK PACK |         | SMALL PACK |         |  |
|---------------------------|------|------------|-----------------------|-----------|---------------|------|------|------|------|-----------|---------|------------|---------|--|
|                           |      |            |                       |           |               |      |      |      |      | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |  |
| mm                        | mm   | mm         |                       | mm        | mm            | mm   | mm   | N    | N    |           |         |            |         |  |
| <b>4.8</b><br>4.70 - 4.97 | 17.5 | Up To 6.35 | <b>ACD608ASM LF12</b> | 5.0 - 5.2 | 11.70 - 12.25 | 1.90 | 2.64 | 1000 | 1400 | 77468     | 3,000   | on request | 1.47    |  |
|                           | 19.8 | 3.0 - 9.5  | <b>ACD612ASM LF12</b> |           |               |      |      |      |      | 77469     | 3,000   | on request | 1.54    |  |
|                           | 23.5 | 5.0 - 12.0 | <b>ACD616ASM LF12</b> |           |               |      |      |      |      | 77567     | 3,000   | on request | 1.68    |  |
| <b>4.8</b><br>4.70 - 4.97 | 17.5 | Up To 6.35 | <b>ACD608ASM LF14</b> | 5.0 - 5.2 | 13.70 - 14.30 | 1.90 | 2.64 | 1000 | 1400 | 77549     | 3,000   | on request | 1.60    |  |
|                           | 19.8 | 3.0 - 9.5  | <b>ACD612ASM LF14</b> |           |               |      |      |      |      | 78254     | 3,000   | on request | 1.77    |  |
|                           | 23.5 | 5.0 - 12.0 | <b>ACD616ASM LF14</b> |           |               |      |      |      |      | 77568     | 2,000   | on request | 1.82    |  |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength



## Peel Rivet Domed Head

Aluminium 3.5% Magnesium Alloy  
Mandrel: Carbon Steel



- Suitable for joining plastics, rubber, wood, GFRP and laminates
- Peel function provides excellent pull-up properties
- "Petals" resist high pull out loads
- Tolerant of oversized holes

|                           |      |             |                  | DESCRIPTION |             |      |      |      |      |       | BULK PACK |            | SMALL PACK |         |  |
|---------------------------|------|-------------|------------------|-------------|-------------|------|------|------|------|-------|-----------|------------|------------|---------|--|
|                           |      |             |                  |             |             |      |      |      |      |       | ARTICLE   | BOX QTY    | ARTICLE    | BOX QTY |  |
|                           | mm   | mm          | mm               |             | mm          | mm   | mm   | mm   | N    | N     |           |            |            |         |  |
| <b>3.2</b><br>3.15 - 3.28 | 6.2  | 1.0 - 1.8   | <b>TAPD404SW</b> | 3.4 - 3.5   | 6.15 - 6.65 | 1.20 | 1.83 | 800  | 800  | 76149 | 10,000    | on request |            | 1.05    |  |
|                           | 8.0  | 1.0 - 3.5   | <b>TAPD406SW</b> |             |             |      |      |      |      | 23559 | 10,000    | on request |            | 1.06    |  |
|                           | 10.0 | 1.0 - 5.0   | <b>TAPD408SW</b> |             |             |      |      |      |      | 23554 | 10,000    | 88487      | 500        | 1.06    |  |
|                           | 11.7 | 3.0 - 7.0   | <b>TAPD410SW</b> |             |             |      |      |      |      | 23557 | 10,000    | 88493      | 500        | 1.14    |  |
|                           | 13.4 | 3.0 - 9.0   | <b>TAPD412SW</b> |             |             |      |      |      |      | 78150 | 8,000     | on request |            | 1.30    |  |
|                           | 15.2 | 3.0 - 10.5  | <b>TAPD414SW</b> |             |             |      |      |      |      | 23556 | 8,000     | on request |            | 1.30    |  |
|                           | 17.0 | 7.0 - 12.0  | <b>TAPD416SW</b> |             |             |      |      |      |      | 23230 | 8,000     | 88514      | 500        | 1.35    |  |
|                           | 18.7 | 7.0 - 14.0  | <b>TAPD418SW</b> |             |             |      |      |      |      | 23555 | 8,000     | 88516      | 500        | 1.38    |  |
| <b>4.0</b><br>3.85 - 4.08 | 8.7  | Up To 4.0   | <b>TAPD506SW</b> | 4.2 - 4.3   | 7.62 - 8.22 | 1.35 | 2.45 | 1000 | 1000 | 22683 | 8,000     | 88172      | 500        | 1.84    |  |
|                           | 10.5 | 4.0 - 5.5   | <b>TAPD508SW</b> |             |             |      |      |      |      | 22685 | 8,000     | 88153      | 500        | 2.00    |  |
|                           | 12.3 | 5.5 - 6.5   | <b>TAPD510SW</b> |             |             |      |      |      |      | 76442 | 5,000     | 88121      | 500        | 2.16    |  |
|                           | 14.0 | 6.5 - 8.0   | <b>TAPD512SW</b> |             |             |      |      |      |      | 85017 | 5,000     | 88071      | 500        | 2.19    |  |
|                           | 16.0 | 8.0 - 9.5   | <b>TAPD514SW</b> |             |             |      |      |      |      | 22688 | 5,000     | 88115      | 500        | 2.23    |  |
|                           | 17.5 | 9.5 - 11.0  | <b>TAPD516SW</b> |             |             |      |      |      |      | 22689 | 5,000     | 88251      | 500        | 2.53    |  |
|                           | 19.5 | 11.0 - 12.5 | <b>TAPD518SW</b> |             |             |      |      |      |      | 22690 | 5,000     | 89266      | 500        | 2.55    |  |
|                           | 20.3 | 12.5 - 14.0 | <b>TAPD520SW</b> |             |             |      |      |      |      | 22988 | 5,000     | 88246      | 500        | 2.59    |  |
| <b>4.8</b><br>4.65 - 4.88 | 9.3  | Up To 4.5   | <b>TAPD606SW</b> | 5.0 - 5.2   | 9.20 - 9.80 | 1.60 | 2.64 | 2000 | 2000 | 22692 | 5,000     | 88175      | 500        | 2.50    |  |
|                           | 11.1 | 4.5 - 5.8   | <b>TAPD608SW</b> |             |             |      |      |      |      | 22693 | 5,000     | 88895      | 500        | 2.55    |  |
|                           | 12.9 | 5.8 - 7.2   | <b>TAPD610SW</b> |             |             |      |      |      |      | 22500 | 5,000     | 88072      | 500        | 2.82    |  |
|                           | 14.7 | 7.2 - 9.3   | <b>TAPD612SW</b> |             |             |      |      |      |      | 22694 | 4,000     | 88182      | 500        | 2.83    |  |
|                           | 16.4 | 9.3 - 10.6  | <b>TAPD614SW</b> |             |             |      |      |      |      | 22594 | 4,000     | 88416      | 500        | 2.89    |  |
|                           | 19.1 | 10.6 - 13.5 | <b>TAPD617SW</b> |             |             |      |      |      |      | 22696 | 4,000     | 88041      | 500        | 3.20    |  |
|                           | 21.2 | 13.5 - 16.0 | <b>TAPD621SW</b> |             |             |      |      |      |      | 22942 | 4,000     | on request |            | 3.30    |  |
|                           | 25.5 | 16.0 - 19.8 | <b>TAPD625SW</b> |             |             |      |      |      |      | 22943 | 3,000     | 98123      | 500        | 3.63    |  |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

## Peel Rivet Large Flange

Aluminium 3.5% Magnesium Alloy  
Mandrel: Carbon Steel



- Suitable for joining plastics, rubber, wood, GFRP and laminates
- Peel function provides excellent pull-up properties
- "Petals" resist high pull out loads
- **Large flange increases bearing surface for weaker, thinner materials**
- Suitable for oversized holes or slots under the head

|                           |      |             |                | DESCRIPTION |               |       |      |      |      |   | BULK PACK      |            | SMALL PACK |         |      |      |
|---------------------------|------|-------------|----------------|-------------|---------------|-------|------|------|------|---|----------------|------------|------------|---------|------|------|
|                           |      |             |                |             |               |       |      |      |      |   | ARTICLE        | BOX QTY    | ARTICLE    | BOX QTY |      | kg   |
|                           | mm   | mm          | mm             |             | mm            | mm    | mm   | mm   | N    | N |                |            |            |         |      |      |
| <b>4.8</b><br>4.65 - 4.88 | 9.3  | Up To 4.5   | TAPD606SW LF11 | 5.0 - 5.2   | 10.70 - 11.30 | 2.00  | 2.64 | 2000 | 2000 |   | 22570          | 4,000      | 88986      | 500     | 2.49 |      |
|                           | 11.0 | 4.5 - 5.8   | TAPD608SW LF11 |             |               |       |      |      |      |   | on request     | on request | 2.72       |         |      |      |
|                           | 13.0 | 5.8 - 7.2   | TAPD610SW LF11 |             |               |       |      |      |      |   | 88234          | 500        | 2.90       |         |      |      |
|                           | 14.7 | 7.2 - 9.3   | TAPD612SW LF11 |             |               |       |      |      |      |   | 22565          | 4,000      | 88519      | 500     | 3.07 |      |
|                           | 16.5 | 9.3 - 10.6  | TAPD614SW LF11 |             |               |       |      |      |      |   | 85045          | 3,000      | 88208      | 500     | 3.15 |      |
|                           | 19.2 | 10.6 - 13.5 | TAPD617SW LF11 | 85047       | 3,000         | 88117 | 500  | 3.47 |      |   |                |            |            |         |      |      |
| <b>4.8</b><br>4.65 - 4.88 | 9.3  | Up To 4.5   | TAPD606SW LF14 | 5.0 - 5.2   | 13.70 - 14.30 | 2.00  | 2.64 | 2000 | 2000 |   | 25138          | 4,000      | 88517      | 500     | 2.61 |      |
|                           | 11.0 | 4.5 - 5.8   | TAPD608SW LF14 |             |               |       |      |      |      |   | 22656          | 4,000      | 88518      | 500     | 2.84 |      |
|                           | 13.0 | 5.8 - 7.2   | TAPD610SW LF14 |             |               |       |      |      |      |   | 85010          | 3,000      | 89237      | 500     | 3.18 |      |
|                           | 14.7 | 7.2 - 9.3   | TAPD612SW LF14 |             |               |       |      |      |      |   | 22658          | 3,000      | 88268      | 500     | 3.40 |      |
|                           | 16.5 | 9.3 - 10.6  | TAPD614SW LF14 |             |               |       |      |      |      |   | 22659          | 3,000      | 88224      | 500     | 3.56 |      |
|                           |      | 19.2        | 10.6 - 13.5    |             |               |       |      |      |      |   | TAPD617SW LF14 | 22660      | 3,000      | 88418   | 500  | 3.94 |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

**T-Rivet**

**Domed Head**

Aluminium 5% Magnesium Alloy  
Mandrel: Carbon Steel



- Exceptional pull-up capability
- Provides large secondary bearing surface
- Increased shear strength

|                           |             |             |                   | DESCRIPTION       |           |               |             |      |       |       | BULK PACK |            | SMALL PACK |            |      |
|---------------------------|-------------|-------------|-------------------|-------------------|-----------|---------------|-------------|------|-------|-------|-----------|------------|------------|------------|------|
|                           |             |             |                   |                   |           |               |             |      |       |       | ARTICLE   | BOX QTY    | ARTICLE    | BOX QTY    |      |
| <b>4.8</b><br>4.72 - 4.89 | 11.4        | 0.8 - 3.6   |                   | <b>AD6140TFBS</b> |           |               |             |      | 4220  | 2670  | 62680     | 4,500      | 89100      | 500        | 3.06 |
|                           | 13.0        | 3.6 - 4.8   |                   | <b>AD6187TFBS</b> |           |               |             |      | 4560  | 2670  | 75380     | 4,300      | 88511      | 500        | 3.28 |
|                           | 14.5        | 4.8 - 6.4   |                   | <b>AD6250TFBS</b> |           |               |             |      | 4670  | 2670  | 75245     | 4,300      |            | on request | 3.32 |
|                           | 16.1        | 6.4 - 7.9   |                   | <b>AD6321TFBS</b> | 4.9 - 5.0 | 9.52 - 10.37  | 2.10 - 2.62 | 2.95 | 5000  | 2670  |           | on request |            | on request | 3.43 |
|                           | 17.7        | 8.0 - 9.5   |                   | <b>AD6375TFBS</b> |           |               |             |      | 5340  | 2670  | 75256     | 3,600      | 88709      | 500        | 3.55 |
|                           | 19.3        | 9.5 - 11.1  |                   | <b>AD6437TFBS</b> |           |               |             |      | 5670  | 2670  | 75246     | 3,500      |            | on request | 3.75 |
| 20.9                      | 11.1 - 13.2 |             | <b>AD6519TFBS</b> |                   |           |               |             | 6000 | 2670  | 75247 | 3,500     | 89101      | 500        | 3.82       |      |
| <b>6.4</b><br>6.30 - 6.50 | 12.7        | 0.8 - 3.6   |                   | <b>AD8140TFBS</b> |           |               |             |      | 6340  | 4940  | 62691     | 2,600      | 88513      | 500        | 6.07 |
|                           | 14.0        | 3.6 - 4.8   |                   | <b>AD8187TFBS</b> |           |               |             |      | 7000  | 4940  | 76448     | 2,400      | 88152      | 500        | 6.14 |
|                           | 15.6        | 4.8 - 6.4   |                   | <b>AD8250TFBS</b> |           |               |             |      | 7340  | 4940  | 62684     | 2,000      | 88200      | 500        | 6.67 |
|                           | 17.2        | 6.4 - 7.9   |                   | <b>AD8312TFBS</b> |           |               |             |      | 7900  | 4940  | 62685     | 2,000      | 88515      | 500        | 6.87 |
|                           | 18.8        | 8.0 - 9.5   |                   | <b>AD8375TFBS</b> | 6.53-6.63 | 12.32 - 13.70 | 2.70 - 3.23 | 3.84 | 9120  | 4940  | 62686     | 2,000      | 88081      | 500        | 7.10 |
|                           | 20.4        | 9.5 - 11.1  |                   | <b>AD8437TFBS</b> |           |               |             |      | 9570  | 4940  | 62687     | 2,000      | 88120      | 500        | 7.22 |
|                           | 22.0        | 11.1 - 13.2 |                   | <b>AD8519TFBS</b> |           |               |             |      | 10350 | 4940  | 62688     | 2,000      | 88102      | 500        | 7.34 |
|                           | 23.8        | 13.2 - 15.8 |                   | <b>AD8620TFBS</b> |           |               |             |      | 10680 | 4940  | 75257     | 1,900      | 88213      | 500        | 7.46 |

- Exceptional pull-up capability
- Provides large secondary bearing surface
- Increased shear strength
- **Large flange increases bearing surface for weaker, thinner materials**
- Suitable for oversized holes or slots under the head

**T-Rivet**

**Large Flange**

Aluminium 5% Magnesium Alloy  
Mandrel: Carbon Steel

|                           |      |           |                      |           |               |             |      |      |      |            |            |  |
|---------------------------|------|-----------|----------------------|-----------|---------------|-------------|------|------|------|------------|------------|--|
| <b>4.8</b><br>4.72 - 4.89 | 11.4 | 0.8 - 3.6 | <b>AD6140TFBS LF</b> | 4.9 - 5.0 | 13.80 - 14.92 | 2.10 - 2.62 | 2.95 | 4220 | 2670 | on request | on request |  |
|                           | 12.7 | 0.8 - 3.6 | <b>AD8140TFBS LF</b> | 6.53-6.63 | 18.28 - 19.81 | 2.70 - 3.23 | 3.84 | 6340 | 4940 | on request | on request |  |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *d<sub>h</sub>*=Hole Size (Min - Max); *d<sub>k</sub>*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *d<sub>m</sub>*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

## F-Series Rivet

### Domed Head

Aluminium 2.5% Magnesium Alloy  
Mandrel: Carbon Steel



- Excellent hole fill for good joint construction
- Locked, rattle free mandrel
- Good vibration resistance

|                           |                      |                                     | DESCRIPTION  |           |             |      |      |                      |                      | BULK PACK               |                         | SMALL PACK                             |                      |  |
|---------------------------|----------------------|-------------------------------------|--|-----------|-------------|------|------|----------------------|----------------------|-------------------------|-------------------------|--|----------------------|--|
|                           |                      |                                     |  |           |             |      |      |                      |                      | ARTICLE                 | BOX QTY                 | ARTICLE                                | BOX QTY              |  |
| <b>4.8</b><br>4.70 - 4.88 | 11.0<br>14.0<br>16.0 | 1.5 - 3.5<br>3.5 - 6.0<br>6.0 - 8.5 | <b>FAD4811BS</b><br><b>FAD4814BS</b><br><b>FAD4816BS</b> | 4.9 - 5.0 | 9.20 - 9.85 | 1.60 | 3.20 | 1850<br>2100<br>3100 | 2050<br>2200<br>2200 | 76901<br>76899<br>76900 | 4,000<br>4,000<br>4,000 | on request<br>on request<br>on request | 3.13<br>3.43<br>3.70 |  |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *d<sub>h</sub>*=Hole Size (Min - Max); *d<sub>k</sub>*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *d<sub>m</sub>*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

**Grooved  
Domed Head**

Aluminium 3.5% Magnesium Alloy  
Mandrel: Carbon Steel



- For fixing into wood and other soft/fibrous base materials
- For use in blind/non-through holes

|                           |      |                  | DESCRIPTION      |           |             |      |      |   |   | BULK PACK |         | SMALL PACK |         |      |
|---------------------------|------|------------------|------------------|-----------|-------------|------|------|---|---|-----------|---------|------------|---------|------|
|                           |      |                  |                  |           |             |      |      |   |   | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |      |
| mm                        | mm   | mm               |                  | mm        | mm          | mm   | mm   | N | N |           |         |            |         | kg   |
| <b>3.3</b><br>3.30 - 3.45 | 9.7  | -                | <b>TASD48BS</b>  | 3.5 - 3.6 | 6.05 - 6.65 | 1.10 | 1.83 | - | - | 24657     | 10,000  | 88191      | 500     | 1.07 |
| <b>4.1</b><br>4.00 - 4.28 | 7.0  | -                | <b>TASD54BS</b>  | 4.3 - 4.4 | 7.62 - 8.22 | 1.34 | 2.29 | - | - | 20387     | 8,000   | on request |         | 1.60 |
|                           | 8.5  | -                | <b>TASD56BS</b>  |           |             |      |      |   |   | 24682     | 8,000   | 88441      | 500     | 1.69 |
|                           | 12.1 | -                | <b>TASD510BS</b> |           |             |      |      |   |   | 24658     | 5,000   | 88241      | 500     | 2.02 |
| <b>5.0</b><br>4.85 - 5.15 | 7.9  | -                | <b>TASD64BS</b>  | 5.2 - 5.3 | 9.22 - 9.82 | 1.60 | 2.64 | - | - | 24926     | 5,000   | 88888      | 500     | 2.37 |
|                           | 11.3 | -                | <b>TASD68BS</b>  |           |             |      |      |   |   | 24660     | 5,000   | 88178      | 500     | 2.71 |
|                           | 13.4 | -                | <b>TASD610BS</b> |           |             |      |      |   |   | 82582     | 5,000   | 88464      | 500     | 2.80 |
|                           | 15.0 | -                | <b>TASD612BS</b> |           |             |      |      |   |   | 24656     | 4,000   | 88156      | 500     | 3.06 |
|                           | 19.5 | -                | <b>TASD617BS</b> |           |             |      |      |   |   | 75385     | 4,000   | on request |         | 3.23 |
|                           | 21.5 | -                | <b>TASD621BS</b> |           |             |      |      |   |   | 70905     | 3,000   | on request |         | 3.44 |
| 26.0                      | -    | <b>TASD625BS</b> | 24512            | 3,000     | 88169       | 500  | 3.66 |   |   |           |         |            |         |      |

**Grooved  
120° Countersunk**

Aluminium 3.5% Magnesium Alloy  
Mandrel: Carbon Steel



- For fixing into wood and other soft/fibrous base materials
- For use in blind/non-through holes
- For a flush surface after setting

|                           |      |                  | DESCRIPTION      |           |             |     |      |   |   | BULK PACK  |         | SMALL PACK |         |      |
|---------------------------|------|------------------|------------------|-----------|-------------|-----|------|---|---|------------|---------|------------|---------|------|
|                           |      |                  |                  |           |             |     |      |   |   | ARTICLE    | BOX QTY | ARTICLE    | BOX QTY |      |
| mm                        | mm   | mm               |                  | mm        | mm          | mm  | mm   | N | N |            |         |            |         | kg   |
| <b>3.3</b><br>3.30 - 3.45 | 11.0 | -                | <b>TASK48BS</b>  | 3.5 - 3.6 | 6.05 - 6.65 | -   | 1.83 | - | - | 24960      | 10,000  | 89154      | 500     | 1.04 |
| <b>4.1</b><br>4.09 - 4.27 | 10.0 | -                | <b>TASK56BS</b>  | 4.3 - 4.4 | 8.05        | -   | 2.29 | - | - | 82577      | 8,000   | on request |         | 1.64 |
|                           | 13.6 | -                | <b>TASK510BS</b> |           |             |     |      |   |   | 82578      | 5,000   | on request |         | 1.98 |
| <b>5.0</b><br>4.85 - 5.15 | 9.4  | -                | <b>TASK64BS</b>  | 5.2 - 5.3 | 9.22 - 9.82 | -   | 2.64 | - | - | on request |         | on request |         | 2.56 |
|                           | 13.1 | -                | <b>TASK68BS</b>  |           |             |     |      |   |   | 82585      | 5,000   | 89209      | 500     | 2.73 |
|                           | 14.9 | -                | <b>TASK610BS</b> |           |             |     |      |   |   | on request |         | on request |         | 2.90 |
|                           | 16.8 | -                | <b>TASK612BS</b> |           |             |     |      |   |   | 82587      | 4,000   | on request |         | 3.07 |
|                           | 21.3 | -                | <b>TASK617BS</b> |           |             |     |      |   |   | on request |         | on request |         | 3.29 |
| 27.8                      | -    | <b>TASK625BS</b> | 82588            | 3,000     | 88550       | 500 | 3.64 |   |   |            |         |            |         |      |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *dh*=Hole Size (Min - Max); *dk*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *dm*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

## Removable Rivet Slotted Domed Head

Aluminium 3.5% Magnesium Alloy  
Mandrel: Carbon Steel



- Slots in flange enable set rivet to be removed by drilling out
- Ideal for locating or securing components while curing adhesives

|                           |      |             |                 | DESCRIPTION |           |      |      |      |      |       | BULK PACK  |            | SMALL PACK |         |  |
|---------------------------|------|-------------|-----------------|-------------|-----------|------|------|------|------|-------|------------|------------|------------|---------|--|
|                           |      |             |                 |             |           |      |      |      |      |       | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY |  |
|                           | mm   | mm          | mm              |             | mm        | mm   | mm   | mm   | N    | N     |            |            |            |         |  |
| <b>3.2</b><br>3.10 - 3.28 | 4.4  | Up To 1.6   | TAPS42BS SF5.5  |             |           |      |      |      |      |       | on request | on request | 0.83       |         |  |
|                           | 6.2  | 1.6 - 3.2   | TAPS44BS SF5.5  |             |           |      |      |      |      |       | 77832      | 10,000     | on request | 0.92    |  |
|                           | 8.0  | 3.2 - 4.8   | TAPS46BS SF5.5  |             |           |      |      |      |      |       | 77833      | 10,000     | on request | 1.01    |  |
|                           | 9.8  | 4.8 - 6.4   | TAPS48BS SF5.5  |             |           |      |      |      |      |       | 77834      | 10,000     | on request | 1.04    |  |
|                           | 11.6 | 6.4 - 7.9   | TAPS410BS SF5.5 | 3.3 - 3.4   | 5.0 - 6.0 | 1.00 | 1.86 | 800  | 980  | 77828 | 10,000     | on request | 1.13       |         |  |
|                           | 13.4 | 7.9 - 9.5   | TAPS412BS SF5.5 |             |           |      |      |      |      |       | 77829      | 8,000      | on request | 1.30    |  |
|                           | 16.9 | 11.1 - 12.7 | TAPS416BS SF5.5 |             |           |      |      |      |      |       | 77830      | 8,000      | on request | 1.35    |  |
|                           | 18.7 | 12.7 - 14.3 | TAPS418BS SF5.5 |             |           |      |      |      |      |       | 77831      | 8,000      | on request | 1.38    |  |
|                           | 20.3 | 14.3 - 16.7 | TAPS421BS SF5.5 |             |           |      |      |      |      |       | on request | on request | on request | 1.44    |  |
|                           | 24.3 | 16.7 - 20.7 | TAPS425BS SF5.5 |             |           |      |      |      |      |       | on request | on request | on request | 1.54    |  |
| <b>4.0</b><br>3.90 - 4.08 | 7.0  | 1.6 - 3.2   | TAPS54BS SF7.0  |             |           |      |      |      |      |       | 77842      | 8,000      | on request | 1.58    |  |
|                           | 8.7  | 3.2 - 4.8   | TAPS56BS SF7.0  |             |           |      |      |      |      |       | 77843      | 8,000      | on request | 1.61    |  |
|                           | 10.5 | 4.8 - 6.4   | TAPS58BS SF7.0  |             |           |      |      |      |      |       | 77845      | 8,000      | on request | 1.76    |  |
|                           | 12.3 | 6.4 - 7.9   | TAPS510BS SF7.0 | 4.1 - 4.2   | 6.5 - 7.5 | 1.22 | 2.29 | 1330 | 1550 | 77835 | 5,000      | on request | 1.86       |         |  |
|                           | 14.1 | 7.9 - 9.5   | TAPS512BS SF7.0 |             |           |      |      |      |      |       | 77837      | 5,000      | on request | 1.96    |  |
|                           | 15.9 | 9.5 - 11.1  | TAPS514BS SF7.0 |             |           |      |      |      |      |       | 77841      | 5,000      | on request | 2.02    |  |
| <b>4.8</b><br>4.70 - 4.88 | 7.5  | 2.4 - 3.2   | TAPS64BS SF8.5  |             |           |      |      |      |      |       | 77850      | 5,000      | on request | 2.36    |  |
|                           | 9.2  | 3.2 - 4.8   | TAPS66BS SF8.5  |             |           |      |      |      |      |       | on request | on request | on request | 2.58    |  |
|                           | 11.0 | 4.8 - 6.4   | TAPS68BS SF8.5  |             |           |      |      |      |      |       | 77851      | 5,000      | on request | 2.70    |  |
|                           | 12.7 | 6.4 - 7.9   | TAPS610BS SF8.5 | 4.9 - 5.0   | 8.0 - 9.0 | 1.60 | 2.64 | 2020 | 2440 | 77849 | 5,000      | on request | 2.74       |         |  |
|                           | 14.7 | 7.9 - 9.5   | TAPS612BS SF8.5 |             |           |      |      |      |      |       | on request | on request | on request | 2.80    |  |

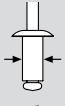
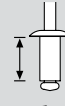
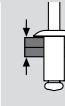







$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

**Soft Set  
Domed Head**

Aluminium 99.5%  
Mandrel: Aluminium Alloy



- Soft setting for fragile materials
- Low break load aluminium mandrel
- Ideal for use in PCBs

| <br><i>d</i><br>mm | <br><i>l</i><br>mm | <br><i>g</i><br>mm | DESCRIPTION       | <br><i>d<sub>h</sub></i><br>mm | <br><i>d<sub>k</sub></i><br>mm | <br><i>k</i><br>mm | <br><i>d<sub>m</sub></i><br>mm | <br><i>S</i><br>N | <br><i>T</i><br>N | BULK PACK |         | SMALL PACK |         | <br>kg |
|---|---|---|-------------------|---|---|---|---|---|--|-----------|---------|------------|---------|---|
|   |   |   |                   |   |   |   |   |   |  | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |   |
| <b>2.5</b><br>2.41 - 2.56   | 7.3   | 3.2 - 4.8   | <b>PAD25M3ABS</b> | 2.60  | 4.10 - 4.40   | 0.71  | 1.50  | 270   | 330  | 62999     | 1,000   | on request | 0.40    |   |
|   | 8.9   | 4.8 - 6.4   | <b>PAD25M4ABS</b> |   |   |   |   |   |  | 62947     | 1,000   | on request | 0.43    |   |
|   | 11.4  | 6.4 - 8.0   | <b>PAD25M5ABS</b> |   |   |   |   |   |  | 62948     | 1,000   | on request | 0.47    |   |
| <b>3.0</b><br>2.92 - 3.07   | 8.0   | 3.2 - 4.8   | <b>PAD30M3ABS</b> | 3.10  | 5.70 - 6.30   | 1.10  | 1.80  | 310   | 420  | 62949     | 1,000   | on request | 0.48    |   |
|   | 9.8   | 4.8 - 6.4   | <b>PAD30M4ABS</b> |   |   |   |   |   |  | 62956     | 1,000   | on request | 0.51    |   |
|   | 11.6  | 6.4 - 8.0   | <b>PAD30M5ABS</b> |   |   |   |   |   |  | 62957     | 1,000   | on request | 0.55    |   |
| <b>3.2</b><br>3.10 - 3.28   | 4.8   | Up To 1.6   | <b>PAD41ABS</b>   | 3.3 - 3.4   | 6.10 - 6.70   | 1.10  | 1.93  | 360   | 490  | 76292     | 10,000  | on request | 0.39    |   |
|   | 6.4   | 1.6 - 3.2   | <b>PAD42ABS</b>   |   |   |   |   |   |  | 76293     | 10,000  | on request | 0.41    |   |
|   | 8.0   | 3.2 - 4.8   | <b>PAD43ABS</b>   |   |   |   |   |   |  | 75209     | 10,000  | on request | 0.43    |   |
|   | 9.5   | 4.8 - 6.4   | <b>PAD44ABS</b>   |   |   |   |   |   |  | 81664     | 10,000  | on request | 0.48    |   |
|   | 12.7  | 6.4 - 9.5   | <b>PAD46ABS</b>   |   |   |   |   |   |  | 75210     | 10,000  | on request | 0.54    |   |
| 15.9  | 9.5 - 12.7  | <b>PAD48ABS</b>   | 75211             | 8,000   | on request  | 0.62  |   |   |  |           |         |            |         |   |
| <b>4.0</b><br>3.88 - 4.08   | 10.2  | 4.8 - 6.4   | <b>PAD54ABS</b>   | 4.1 - 4.2   | 7.60 - 8.40   | 1.20  | 2.41  | 460   | 640  | 75368     | 7,000   | on request | 0.83    |   |
|   | 13.3  | 6.4 - 9.5   | <b>PAD56ABS</b>   |   |   |   |   |   |  | 75213     | 7,000   | on request | 0.87    |   |
| <b>4.8</b><br>4.65 - 4.88   | 10.8  | 3.2 - 6.4   | <b>PAD64ABS</b>   | 4.9 - 5.0   | 9.10 - 10.00  | 1.40  | 2.90  | 640   | 910  | 76294     | 5,000   | on request | 1.38    |   |
|   | 14.0  | 6.4 - 9.5   | <b>PAD66ABS</b>   |   |   |   |   |   |  | 76415     | 4,500   | on request | 1.51    |   |
|   | 17.2  | 9.5 - 12.7  | <b>PAD68ABS</b>   |   |   |   |   |   |  | 75093     | 4,000   | on request | 1.65    |   |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *d<sub>h</sub>*=Hole Size (Min - Max); *d<sub>k</sub>*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *d<sub>m</sub>*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

## Closed End Domed Head

Aluminium 5% Magnesium Alloy  
Mandrel: Carbon Steel



- Moisture and pressure tight
- Guaranteed mandrel head retention
- Good hole filling for good joint construction

|                           |      |            |                | DESCRIPTION |               |      |      |      |      |       | BULK PACK |         | SMALL PACK |         |  |
|---------------------------|------|------------|----------------|-------------|---------------|------|------|------|------|-------|-----------|---------|------------|---------|--|
|                           |      |            |                |             |               |      |      |      |      |       | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |  |
| <b>3.2</b><br>3.10 - 3.28 | 6.0  | Up To 1.6  | <b>AD42SB</b>  | 3.3 - 3.4   | 5.70 - 6.30   | 1.10 | 1.63 | 1110 | 1400 | 80387 | 10,000    | 88110   | 500        | 0.75    |  |
|                           | 7.5  | 1.6 - 3.2  | <b>AD44SB</b>  |             |               |      |      |      |      | 80392 | 10,000    | 88092   | 500        | 0.77    |  |
|                           | 9.0  | 3.2 - 4.8  | <b>AD46SB</b>  |             |               |      |      |      |      | 80402 | 10,000    | 88056   | 500        | 0.80    |  |
|                           | 11.0 | 4.8 - 6.4  | <b>AD48SB</b>  |             |               |      |      |      |      | 80407 | 10,000    | 88042   | 500        | 0.88    |  |
|                           | 12.5 | 6.4 - 7.9  | <b>AD410SB</b> |             |               |      |      |      |      | 80448 | 10,000    | 88059   | 500        | 0.90    |  |
| <b>4.0</b><br>3.90 - 4.08 | 8.0  | Up To 3.2  | <b>AD54SB</b>  | 4.1 - 4.2   | 7.62 - 8.22   | 1.50 | 2.18 | 1640 | 2220 | 80414 | 8,000     | 88062   | 500        | 1.59    |  |
|                           | 9.5  | 3.2 - 4.8  | <b>AD56SB</b>  |             |               |      |      |      |      | 80419 | 8,000     | 88029   | 500        | 1.61    |  |
|                           | 11.0 | 4.8 - 6.4  | <b>AD58SB</b>  |             |               |      |      |      |      | 80423 | 8,000     | 88111   | 500        | 1.65    |  |
|                           | 12.5 | 6.4 - 7.9  | <b>AD510SB</b> |             |               |      |      |      |      | 80376 | 5,000     | 88034   | 500        | 1.68    |  |
| <b>4.8</b><br>4.73 - 4.88 | 8.3  | Up To 3.2  | <b>AD64SB</b>  | 4.9 - 5.0   | 9.20 - 9.85   | 1.75 | 2.64 | 2260 | 3110 | 80427 | 5,000     | 88141   | 500        | 2.38    |  |
|                           | 10.0 | 3.2 - 4.8  | <b>AD66SB</b>  |             |               |      |      |      |      | 80434 | 5,000     | 88054   | 500        | 2.44    |  |
|                           | 11.5 | 4.8 - 6.4  | <b>AD68SB</b>  |             |               |      |      |      |      | 80442 | 5,000     | 88033   | 500        | 2.48    |  |
|                           | 13.0 | 6.4 - 7.9  | <b>AD610SB</b> |             |               |      |      |      |      | 80458 | 5,000     | 88025   | 500        | 2.54    |  |
|                           | 14.5 | 7.9 - 9.5  | <b>AD612SB</b> |             |               |      |      |      |      | 80466 | 5,000     | 88007   | 500        | 2.72    |  |
|                           | 18.0 | 9.5 - 12.7 | <b>AD616SB</b> |             |               |      |      |      |      | 80472 | 4,000     | 88023   | 500        | 2.93    |  |
| <b>6.4</b><br>6.32 - 6.48 | 13.0 | Up To 6.4  | <b>AD84H</b>   | 6.5 - 6.6   | 12.06 - 13.34 | 2.51 | 3.66 | 4000 | 4800 | 23481 | 2,000     | 88205   | 500        | 4.80    |  |
|                           | 16.0 | 6.4 - 9.5  | <b>AD86H</b>   |             |               |      |      |      |      | 80258 | 2,000     | 89012   | 500        | 5.12    |  |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

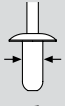
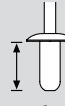
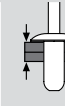









- Moisture and pressure tight with lead-in feature
- Guaranteed mandrel head retention
- Good hole filling for good joint construction
- Large flange increases bearing surface for weaker, thinner materials
- Suitable for oversized holes or slots under the head



## Closed End Large Flange

Aluminium 5% Magnesium Alloy  
Mandrel: Carbon Steel

| <br><i>d</i><br>mm | <br><i>l</i><br>mm | <br><i>g</i><br>mm | DESCRIPTION           | <br><i>d<sub>h</sub></i><br>mm | <br><i>d<sub>k</sub></i><br>mm | <br><i>k</i><br>mm | <br><i>d<sub>m</sub></i><br>mm | <br><i>S</i><br>N | <br><i>T</i><br>N | BULK PACK  |         | SMALL PACK |         | <br>kg |
|---|---|---|-----------------------|---|---|---|---|---|--|------------|---------|------------|---------|---|
|   |   |   |                       |   |   |   |   |   |  | ARTICLE    | BOX QTY | ARTICLE    | BOX QTY |   |
| <b>3.2</b><br>3.10 - 3.28   | 6.7   | Up To 1.6   | <b>AD402SBM LF 8</b>  | 3.3 - 3.4   | 7.50 - 8.50   | 1.20  | 1.65  | 1110  | 1400   | 76232      | 5,000   | on request | 0.88    |   |
|   | 8.3   | 1.6 - 3.2   | <b>AD404SBM LF 8</b>  |   |   |   |   |   |  | 76233      | 5,000   | on request | 0.90    |   |
|   | 9.9   | 3.2 - 4.8   | <b>AD406SBM LF 8</b>  |   |   |   |   |   |  | 76234      | 5,000   | on request | 0.92    |   |
|   | 11.5  | 4.8 - 6.4   | <b>AD408SBM LF 8</b>  |   |   |   |   |   |  | on request |         | on request | 0.94    |   |
| <b>4.0</b><br>3.90 - 4.08   | 8.5   | Up To 3.2   | <b>AD504SBM LF 10</b> | 4.1 - 4.2   | 9.50 - 10.50  | 1.70  | 2.19  | 1640  | 2220   | 76611      | 5,000   | on request | 1.90    |   |
|   | 10.2  | 3.2 - 4.8   | <b>AD506SBM LF 10</b> |   |   |   |   |   |  | 76235      | 5,000   | on request | 1.94    |   |
|   | 11.8  | 4.8 - 6.4   | <b>AD508SBM LF 10</b> |   |   |   |   |   |  | 75753      | 5,000   | on request | 1.96    |   |
|   | 13.4  | 6.4 - 7.9   | <b>AD510SBM LF 10</b> |   |   |   |   |   |  | 76236      | 5,000   | on request | 2.00    |   |
| <b>4.8</b><br>4.70 - 4.88   | 8.9   | Up To 3.2   | <b>AD604SBM LF 11</b> | 4.9 - 5.0   | 10.50 - 11.50   | 1.95  | 2.64  | 2260  | 3110   | 76237      | 5,000   | on request | 2.78    |   |
|   | 10.5  | 3.2 - 4.8   | <b>AD606SBM LF 11</b> |   |   |   |   |   |  | 76238      | 5,000   | on request | 2.82    |   |
|   | 12.1  | 4.8 - 6.4   | <b>AD608SBM LF 11</b> |   |   |   |   |   |  | 76239      | 5,000   | on request | 2.84    |   |
|   | 13.5  | 6.4 - 7.9   | <b>AD610SBM LF 11</b> |   |   |   |   |   |  | 76240      | 5,000   | on request | 2.86    |   |
|   | 15.1  | 7.9 - 9.5   | <b>AD612SBM LF 11</b> |   |   |   |   |   |  | 76241      | 5,000   | on request | 2.98    |   |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *d<sub>h</sub>*=Hole Size (Min - Max); *d<sub>k</sub>*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *d<sub>m</sub>*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

## Closed End 120° Countersunk

Aluminium 5% Magnesium Alloy  
Mandrel: Carbon Steel



- Moisture and pressure tight
- Guaranteed mandrel head retention
- Good hole filling for good joint construction
- **For a flush surface after setting**

|                           |             |                |                | DESCRIPTION |             |     |      |      |      |       | BULK PACK |         | SMALL PACK |         |  |
|---------------------------|-------------|----------------|----------------|-------------|-------------|-----|------|------|------|-------|-----------|---------|------------|---------|--|
|                           |             |                |                |             |             |     |      |      |      |       | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |  |
|                           | mm          | mm             | mm             |             | mm          | mm  | mm   | mm   | N    | N     |           |         |            |         |  |
| <b>3.2</b><br>3.10 - 3.28 | 7.0         | Up To 2.5      | <b>AK42SB</b>  | 3.3 - 3.4   | 5.69 - 6.29 | -   | 1.65 | 1110 | 1400 | 80493 | 10,000    | 88258   | 500        | 0.75    |  |
|                           | 8.5         | 2.5 - 4.1      | <b>AK44SB</b>  |             |             |     |      |      |      | 80499 | 10,000    | 88256   | 500        | 0.77    |  |
|                           | 10.0        | 4.1 - 5.6      | <b>AK46SB</b>  |             |             |     |      |      |      | 80505 | 10,000    | 88188   | 500        | 0.80    |  |
|                           | 11.7        | 5.6 - 7.2      | <b>AK48SB</b>  |             |             |     |      |      |      | 80508 | 10,000    | 88257   | 500        | 0.88    |  |
|                           | 13.3        | 7.2 - 8.8      | <b>AK410SB</b> |             |             |     |      |      |      | 80536 | 10,000    | 88488   | 500        | 0.90    |  |
| <b>4.0</b><br>3.90 - 4.08 | 9.5         | Up To 4.4      | <b>AK54SB</b>  | 4.1 - 4.2   | 7.62 - 8.22 | -   | 2.18 | 1640 | 2220 | 80512 | 8,000     | 88225   | 500        | 1.59    |  |
|                           | 11.0        | 4.4 - 6.0      | <b>AK56SB</b>  |             |             |     |      |      |      | 80516 | 8,000     | 88489   | 500        | 1.61    |  |
|                           | 12.5        | 6.0 - 7.6      | <b>AK58SB</b>  |             |             |     |      |      |      | 80520 | 8,000     | 88280   | 500        | 1.65    |  |
|                           | 14.0        | 7.6 - 9.2      | <b>AK510SB</b> |             |             |     |      |      |      | 80540 | 5,000     | 88912   | 500        | 1.68    |  |
| <b>4.8</b><br>4.70 - 4.88 | 10.0        | Up To 4.7      | <b>AK64SB</b>  | 5.0 - 5.1   | 9.25 - 9.85 | -   | 2.62 | 2260 | 3110 | 80524 | 5,000     | 88570   | 500        | 2.38    |  |
|                           | 11.5        | 4.7 - 6.3      | <b>AK66SB</b>  |             |             |     |      |      |      | 80528 | 5,000     | 88247   | 500        | 2.44    |  |
|                           | 13.0        | 6.3 - 7.9      | <b>AK68SB</b>  |             |             |     |      |      |      | 80533 | 5,000     | 88229   | 500        | 2.48    |  |
|                           | 14.7        | 7.9 - 9.4      | <b>AK610SB</b> |             |             |     |      |      |      | 80544 | 5,000     | 88522   | 500        | 2.54    |  |
|                           | 16.3        | 9.4 - 11.0     | <b>AK612SB</b> |             |             |     |      |      |      | 80549 | 5,000     | 88158   | 500        | 2.72    |  |
|                           | 19.5        | 11.0 - 14.2    | <b>AK616SB</b> |             |             |     |      |      |      | 80551 | 4,000     | 88258   | 500        | 2.93    |  |
| 23.5                      | 14.2 - 18.4 | <b>AK620SB</b> | 80553          | 4,000       | 88215       | 500 | 3.35 |      |      |       |           |         |            |         |  |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

## Closed End Domed Head

Aluminium 5% Magnesium Alloy  
Mandrel: Stainless Steel



- Moisture and pressure tight
- Guaranteed mandrel head retention
- Good hole filling for good joint construction
- **Stainless Steel mandrel for corrosion resistance**

|                           |                           |             |                | DESCRIPTION |             |       |      |      |      |               | BULK PACK |             | SMALL PACK |         |      |
|---------------------------|---------------------------|-------------|----------------|-------------|-------------|-------|------|------|------|---------------|-----------|-------------|------------|---------|------|
|                           |                           |             |                |             |             |       |      |      |      |               | ARTICLE   | BOX QTY     | ARTICLE    | BOX QTY |      |
| <b>3.2</b><br>3.10 - 3.28 | 6.0                       | Up To 1.6   | <b>AD42SS</b>  | 3.3 - 3.4   | 5.70 - 6.30 | 1.10  | 1.63 | 1110 | 1400 | 80389         | 10,000    | 88901       | 500        | 0.83    |      |
|                           | 7.5                       | 1.6 - 3.2   | <b>AD44SS</b>  |             |             |       |      |      |      | 80397         | 10,000    | 88483       | 500        | 0.86    |      |
|                           | 9.0                       | 3.2 - 4.8   | <b>AD46SS</b>  |             |             |       |      |      |      | 80406         | 10,000    | 88484       | 500        | 0.88    |      |
|                           | 11.0                      | 4.8 - 6.4   | <b>AD48SS</b>  |             |             |       |      |      |      | 80410         | 10,000    | 88713       | 500        | 0.90    |      |
|                           | 12.5                      | 6.4 - 7.9   | <b>AD410SS</b> |             |             |       |      |      |      | 80450         | 10,000    | 88595       | 500        | 0.93    |      |
| <b>4.0</b><br>3.90 - 4.08 | 8.0                       | Up To 3.2   | <b>AD54SS</b>  | 4.1 - 4.2   | 7.62 - 8.22 | 1.50  | 2.18 | 1640 | 2220 | 80256         | 8,000     | 88471       | 500        | 1.59    |      |
|                           | 9.5                       | 3.2 - 4.8   | <b>AD56SS</b>  |             |             |       |      |      |      | 80254         | 8,000     | 89177       | 500        | 1.61    |      |
|                           | 11.0                      | 4.8 - 6.4   | <b>AD58SS</b>  |             |             |       |      |      |      | 80253         | 8,000     | 88475       | 500        | 1.65    |      |
|                           | 12.5                      | 6.4 - 7.9   | <b>AD510SS</b> |             |             |       |      |      |      | 75135         | 5,000     | 88470       | 500        | 1.68    |      |
|                           | <b>4.8</b><br>4.73 - 4.88 | 8.3         | Up To 3.2      |             |             |       |      |      |      | <b>AD64SS</b> | 4.9 - 5.0 | 9.20 - 9.85 | 1.75       | 2.64    | 2260 |
| 10.0                      |                           | 3.2 - 4.8   | <b>AD66SS</b>  | 80439       | 5,000       | 88485 | 500  | 2.44 |      |               |           |             |            |         |      |
| 11.5                      |                           | 4.8 - 6.4   | <b>AD68SS</b>  | 80447       | 5,000       | 88161 | 500  | 2.48 |      |               |           |             |            |         |      |
| 13.0                      |                           | 6.4 - 7.9   | <b>AD610SS</b> | 80463       | 5,000       | 88181 | 500  | 2.54 |      |               |           |             |            |         |      |
| 14.5                      |                           | 7.9 - 9.5   | <b>AD612SS</b> | 80471       | 5,000       | 88486 | 500  | 2.74 |      |               |           |             |            |         |      |
| 18.0                      |                           | 9.5 - 12.7  | <b>AD616SS</b> | 80475       | 4,000       | 88159 | 500  | 2.98 |      |               |           |             |            |         |      |
| 22.0                      |                           | 12.7 - 15.9 | <b>AD620SS</b> | 80478       | 4,000       | 88278 | 500  | 3.30 |      |               |           |             |            |         |      |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

## Closed End 120° Countersunk

Aluminium 5% Magnesium Alloy  
Mandrel: Stainless Steel



- Moisture and pressure tight
- Guaranteed mandrel head retention
- Good hole filling for good joint construction
- **For a flush surface after setting**
- **Stainless Steel mandrel for corrosion resistance**

|                           |             |                |                | DESCRIPTION |             |     |      |      |      |       | BULK PACK |         | SMALL PACK |         | KG<br>/1000 |
|---------------------------|-------------|----------------|----------------|-------------|-------------|-----|------|------|------|-------|-----------|---------|------------|---------|-------------|
|                           |             |                |                |             |             |     |      |      |      |       | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |             |
| <b>3.2</b><br>3.10 - 3.28 | 7.0         | Up To 2.5      | <b>AK42SS</b>  | 3.3 - 3.4   | 5.69 - 6.29 | -   | 1.65 | 1110 | 1400 | 80495 | 10,000    | 89122   | 500        | 0.83    |             |
|                           | 8.5         | 2.5 - 4.1      | <b>AK44SS</b>  |             |             |     |      |      |      | 80501 | 10,000    | 88605   | 500        | 0.86    |             |
|                           | 10.0        | 4.1 - 5.6      | <b>AK46SS</b>  |             |             |     |      |      |      | 80507 | 10,000    | 88609   | 500        | 0.88    |             |
|                           | 11.7        | 5.6 - 7.2      | <b>AK48SS</b>  |             |             |     |      |      |      | 80240 | 10,000    | 88873   | 500        | 0.90    |             |
|                           | 13.3        | 7.2 - 8.8      | <b>AK410SS</b> |             |             |     |      |      |      | 80321 | 10,000    | 88874   | 500        | 0.95    |             |
| <b>4.0</b><br>3.90 - 4.08 | 9.5         | Up To 4.4      | <b>AK54SS</b>  | 4.1 - 4.2   | 7.62 - 8.22 | -   | 2.18 | 1640 | 2220 | 75653 | 8,000     | 88875   | 500        | 1.59    |             |
|                           | 11.0        | 4.4 - 6.0      | <b>AK56SS</b>  |             |             |     |      |      |      | 75919 | 8,000     | 88876   | 500        | 1.61    |             |
|                           | 12.5        | 6.0 - 7.6      | <b>AK58SS</b>  |             |             |     |      |      |      | 76460 | 8,000     | 88877   | 500        | 1.65    |             |
|                           | 14.0        | 7.6 - 9.2      | <b>AK510SS</b> |             |             |     |      |      |      | 75394 | 8,000     | 88907   | 500        | 1.69    |             |
| <b>4.8</b><br>4.70 - 4.88 | 10.0        | Up To 4.7      | <b>AK64SS</b>  | 5.0 - 5.1   | 9.25 - 9.85 | -   | 2.62 | 2260 | 3110 | 80338 | 5,000     | 89067   | 500        | 2.38    |             |
|                           | 11.5        | 4.7 - 6.3      | <b>AK66SS</b>  |             |             |     |      |      |      | 80530 | 5,000     | 88915   | 500        | 2.44    |             |
|                           | 13.0        | 6.3 - 7.9      | <b>AK68SS</b>  |             |             |     |      |      |      | 80535 | 5,000     | 89069   | 500        | 2.48    |             |
|                           | 14.7        | 7.9 - 9.4      | <b>AK610SS</b> |             |             |     |      |      |      | 80546 | 5,000     | 88614   | 500        | 2.54    |             |
|                           | 16.3        | 9.4 - 11.0     | <b>AK612SS</b> |             |             |     |      |      |      | 80378 | 5,000     | 88616   | 500        | 2.74    |             |
|                           | 19.5        | 11.0 - 14.2    | <b>AK616SS</b> |             |             |     |      |      |      | 80339 | 4,000     | 88617   | 500        | 2.98    |             |
| 23.5                      | 14.2 - 18.4 | <b>AK620SS</b> | 77860          | 4,000       | 89518       | 500 | 3.30 |      |      |       |           |         |            |         |             |

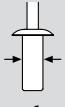
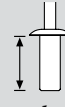
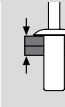







$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

## Closed End Domed Head

Aluminium 99.5%  
Mandrel: Aluminium Alloy



- Moisture and pressure tight
- Guaranteed mandrel head retention
- Provides a softer setting for more vulnerable components

| <br><i>d</i><br>mm | <br><i>l</i><br>mm | <br><i>g</i><br>mm | DESCRIPTION    | <br><i>d<sub>h</sub></i><br>mm | <br><i>d<sub>k</sub></i><br>mm | <br><i>k</i><br>mm | <br><i>d<sub>m</sub></i><br>mm | <br><i>S</i><br>N | <br><i>T</i><br>N | BULK PACK  |         | SMALL PACK |         | <br>kg |
|---|---|---|----------------|---|---|---|---|---|--|------------|---------|------------|---------|---|
|   |   |   |                |   |   |   |   |   |  | ARTICLE    | BOX QTY | ARTICLE    | BOX QTY |   |
| <b>3.2</b><br>3.15 - 3.24   | 6.0   | 0.8 - 1.6   | <b>AD41AH</b>  | 3.3 - 3.4   | 5.69 - 6.30   | 1.30  | 1.83  | 460   | 660  | on request |         | on request |         | 0.43  |
|   | 7.6   | 1.6 - 3.2   | <b>AD42AH</b>  |   |   |   |   |   |  | 81688      | 10,000  | 89241      | 500     | 0.42  |
|   | 9.2   | 3.2 - 4.8   | <b>AD43AH</b>  |   |   |   |   |   |  | 20330      | 10,000  | 88177      | 500     | 0.43  |
|   | 10.8  | 4.8 - 6.4   | <b>AD44AH</b>  |   |   |   |   |   |  | 75186      | 10,000  | 88496      | 500     | 0.47  |
| <b>4.0</b><br>3.94 - 4.08   | 8.0   | Up To 3.2   | <b>PD504AS</b> | 4.1 - 4.2   | 7.89 - 7.95   | 1.34  | 2.18  | 500   | 500  | on request |         | on request |         | 0.72  |
|   | 9.5   | 3.2 - 4.8   | <b>PD506AS</b> |   |   |   |   |   |  | on request |         | on request |         | 0.76  |
|   | 11.2  | 4.8 - 6.4   | <b>PD508AS</b> |   |   |   |   |   |  | 78655      | 5,000   | on request |         | 0.80  |
| <b>4.8</b><br>4.73 - 4.88   | 8.4   | Up To 3.2   | <b>PD604AS</b> | 4.9 - 5.0   | 9.50 - 9.56   | 1.58  | 2.64  | 670   | 670  | on request |         | on request |         | 0.89  |
|   | 11.6  | 3.2 - 6.4   | <b>PD608AS</b> |   |   |   |   |   |  | on request |         | on request |         | 1.00  |
|   | 14.7  | 6.4 - 9.5   | <b>PD612AS</b> |   |   |   |   |   |  | on request |         | on request |         | 1.10  |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *d<sub>h</sub>*=Hole Size (Min - Max); *d<sub>k</sub>*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *d<sub>m</sub>*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

## Break Stem Open

### Domed Head

Carbon Steel  
Mandrel: Carbon Steel













• General purpose rivet

|                           |             |                   | DESCRIPTION       |           |             |      |      |      |      | BULK PACK  |         | SMALL PACK |         |      |
|---------------------------|-------------|-------------------|-------------------|-----------|-------------|------|------|------|------|------------|---------|------------|---------|------|
|                           |             |                   |                   |           |             |      |      |      |      | ARTICLE    | BOX QTY | ARTICLE    | BOX QTY |      |
| <b>2.8</b><br>2.73 - 2.88 | 5.3         | 0.5 - 2.9         | <b>TSPD33BS</b>   | 2.9 - 3.0 | 5.24 - 5.84 | 1.32 | 1.83 | 715  | 930  | 78619      | 10,000  | 89648      | 500     | 1.06 |
| <b>3.0</b><br>2.94 - 3.08 | 5.0         | Up To 2.0         | <b>SNSD3050BS</b> | 3.1 - 3.2 | 5.70 - 6.30 | 1.10 | 1.83 | 1100 | 1400 | 78446      | 10,000  | on request |         | 1.12 |
|                           | 6.5         | 2.0 - 3.5         | <b>SNSD3065BS</b> |           |             |      |      |      |      | 78441      | 10,000  | on request |         | 1.18 |
|                           | 8.0         | 3.5 - 5.0         | <b>SNSD3080BS</b> |           |             |      |      |      |      | 78442      | 10,000  | 89683      | 500     | 1.30 |
|                           | 10.0        | 5.0 - 7.0         | <b>SNSD3100BS</b> |           |             |      |      |      |      | 78443      | 10,000  | on request |         | 1.47 |
|                           | 12.0        | 7.0 - 9.0         | <b>SNSD3120BS</b> |           |             |      |      |      |      | 78444      | 8,000   | on request |         | 1.54 |
| 15.0                      | 9.0 - 12.0  | <b>SNSD3150BS</b> | 78445             | 5,000     | on request  |      | 1.70 |      |      |            |         |            |         |      |
| <b>3.2</b><br>3.10 - 3.28 | 4.5         | Up To 1.6         | <b>TSPD42BS</b>   | 3.3 - 3.4 | 6.05 - 6.65 | 1.10 | 1.93 | 1150 | 1550 | 81939      | 10,000  | 89454      | 500     | 1.17 |
|                           | 6.0         | 1.6 - 3.2         | <b>TSPD44BS</b>   |           |             |      |      |      |      | 81796      | 10,000  | 89631      | 1,000   | 1.27 |
|                           | 8.0         | 3.2 - 4.8         | <b>TSPD46BS</b>   |           |             |      |      |      |      | 81728      | 10,000  | 89452      | 500     | 1.39 |
|                           | 9.5         | 4.8 - 6.4         | <b>TSPD48BS</b>   |           |             |      |      |      |      | 75645      | 10,000  | on request |         | 1.77 |
|                           | 11.5        | 6.4 - 7.9         | <b>TSPD410BS</b>  |           |             |      |      |      |      | 77994      | 8,000   | 89657      | 1,000   | 1.60 |
|                           | 13.5        | 7.9 - 9.5         | <b>TSPD412BS</b>  |           |             |      |      |      |      | 75647      | 8,000   | 89756      | 500     | 1.81 |
|                           | 15.0        | 9.5 - 11.1        | <b>TSPD414BS</b>  |           |             |      |      |      |      | 81780      | 8,000   | on request |         | 1.85 |
|                           | 17.0        | 11.1 - 12.7       | <b>TSPD416BS</b>  |           |             |      |      |      |      | 81779      | 8,000   | 89659      | 500     | 1.93 |
| 19.0                      | 12.7 - 14.3 | <b>TSPD418BS</b>  | 77996             | 6,000     | on request  |      | 2.03 |      |      |            |         |            |         |      |
| <b>4.0</b><br>3.85 - 4.08 | 5.0         | Up To 1.6         | <b>TSPD52BS</b>   | 4.1 - 4.2 | 7.72 - 8.22 | 1.35 | 2.29 | 1730 | 2500 | 78719      | 6,000   | on request |         | 2.00 |
|                           | 7.0         | 1.6 - 3.2         | <b>TSPD54BS</b>   |           |             |      |      |      |      | 77932      | 6,000   | 89479      | 500     | 2.10 |
|                           | 8.5         | 3.2 - 4.8         | <b>TSPD56BS</b>   |           |             |      |      |      |      | 78009      | 6,000   | 89678      | 500     | 2.22 |
|                           | 10.5        | 4.8 - 6.4         | <b>TSPD58BS</b>   |           |             |      |      |      |      | 81789      | 5,000   | 89679      | 500     | 2.45 |
|                           | 12.2        | 6.4 - 7.9         | <b>TSPD510BS</b>  |           |             |      |      |      |      | 75650      | 5,000   | 89662      | 500     | 2.62 |
|                           | 14.0        | 7.9 - 9.5         | <b>TSPD512BS</b>  |           |             |      |      |      |      | 81769      | 5,000   | 89664      | 500     | 2.78 |
|                           | 15.9        | 9.5 - 11.1        | <b>TSPD514BS</b>  |           |             |      |      |      |      | 81768      | 5,000   | on request |         | 2.99 |
|                           | 17.6        | 11.1 - 12.7       | <b>TSPD516BS</b>  |           |             |      |      |      |      | 78004      | 4,000   | 89751      | 500     | 3.18 |
|                           | 19.5        | 12.7 - 13.5       | <b>TSPD517BS</b>  |           |             |      |      |      |      | on request |         | on request |         | 3.27 |
| <b>4.8</b><br>4.65 - 4.88 | 6.5         | Up To 2.4         | <b>TSPD63BS</b>   | 4.9 - 5.0 | 9.22 - 9.82 | 1.60 | 2.90 | 2620 | 3500 | 78585      | 4,000   | 89680      | 500     | 3.35 |
|                           | 7.5         | 2.4 - 3.2         | <b>TSPD64BS</b>   |           |             |      |      |      |      | 78042      | 4,000   | 89402      | 500     | 3.40 |
|                           | 9.3         | 3.2 - 4.8         | <b>TSPD66BS</b>   |           |             |      |      |      |      | 78049      | 4,000   | 89642      | 500     | 3.55 |
|                           | 11.0        | 4.8 - 6.4         | <b>TSPD68BS</b>   |           |             |      |      |      |      | 81727      | 4,000   | 89411      | 500     | 3.88 |
|                           | 12.7        | 6.4 - 7.9         | <b>TSPD610BS</b>  |           |             |      |      |      |      | 77939      | 3,000   | on request |         | 4.00 |
|                           | 14.5        | 7.9 - 9.5         | <b>TSPD612BS</b>  |           |             |      |      |      |      | 78032      | 3,000   | on request |         | 4.53 |
|                           | 16.5        | 9.5 - 11.1        | <b>TSPD614BS</b>  |           |             |      |      |      |      | 77942      | 3,000   | 89410      | 500     | 4.67 |
|                           | 18.3        | 11.1 - 12.7       | <b>TSPD616BS</b>  |           |             |      |      |      |      | 77944      | 3,000   | on request |         | 4.83 |
|                           | 19.0        | 12.7 - 13.5       | <b>TSPD617BS</b>  |           |             |      |      |      |      | 78038      | 3,000   | 89435      | 500     | 4.90 |
|                           | 20.3        | 12.7 - 15.9       | <b>SD610BS</b>    |           |             |      |      |      |      | 78518      | 2,000   | on request |         | 4.00 |
|                           | 23.5        | 15.9 - 19.1       | <b>SD612BS</b>    |           |             |      |      |      |      | 78519      | 2,500   | on request |         | 4.44 |
|                           | 26.7        | 19.1 - 22.2       | <b>SD614BS</b>    |           |             |      |      |      |      | on request |         | on request |         | 5.36 |
|                           | 29.8        | 22.3 - 25.4       | <b>SD616BS</b>    |           |             |      |      |      |      | 78520      | 2,000   | on request |         | 6.25 |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

**Break Stem Open  
Domed Head**

Carbon Steel  
Mandrel: Carbon Steel

|                           |  |  |  | DESCRIPTION |  |  |  |  |  |  | BULK PACK  |            | SMALL PACK |         | <br>/1000<br>kg |
|---------------------------|---|---|---|-------------|---|---|---|---|--|---|------------|------------|------------|---------|--|
|                           |   |   |   |             |   |   |   |   |  |   | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY |  |
|                           | mm  | mm  | mm  |             | mm  | mm  | mm  | mm  | N  | N   |            |            |            |         |  |
| <b>5.0</b><br>4.85 - 5.08 | 6.5   | Up To 2.5   | <b>SNSD5065BS</b>   | 5.1 - 5.2   | 8.70 - 9.30   | 1.60  | 2.90  | 2880  | 3790   | 77928   | 4,000      | on request | 3.40       |         |  |
|                           | 8.0   | 2.5 - 4.0   | <b>SNSD5080BS</b>   |             |   |   |   |   |  | 78463   | 4,000      | on request | 3.55       |         |  |
|                           | 10.5  | 4.0 - 6.0   | <b>SNSD5100BS</b>   |             |   |   |   |   |  | 78464   | 4,000      | on request | 3.88       |         |  |
|                           | 12.0  | 6.0 - 8.0   | <b>SNSD5120BS</b>   |             |   |   |   |   |  | 78468   | 3,000      | on request | 4.00       |         |  |
|                           | 14.0  | 8.0 - 10.0  | <b>SNSD5140BS</b>   |             |   |   |   |   |  | 78469   | 3,000      | on request | 4.43       |         |  |
|                           | 16.0  | 10.0 - 12.0   | <b>SNSD5160BS</b>   |             |   |   |   |   |  | 78470   | 3,000      | on request | 4.67       |         |  |
|                           | 18.0  | 12.0 - 14.0   | <b>SNSD5180BS</b>   |             |   |   |   |   |  | 78471   | 3,000      | on request | 4.83       |         |  |
| 22.0                      | 16.0 - 18.0   | <b>SNSD5220BS</b>   | on request  | on request  | 5.17  |   |   |   |  |   |            |            |            |         |  |
| <b>6.0</b><br>5.85 - 6.08 | 8.0   | Up To 2.0   | <b>SNSD6080BS</b>   | 6.1 - 6.2   | 11.70 - 12.30   | 2.10  | 3.65  | 4200  | 5500   | on request  | on request | on request | 6.40       |         |  |
|                           | 10.0  | 2.0 - 4.0   | <b>SNSD6100BS</b>   |             |   |   |   |   |  | 78450   | 2,000      | on request | 6.74       |         |  |
|                           | 12.0  | 4.0 - 6.0   | <b>SNSD6120BS</b>   |             |   |   |   |   |  | 78452   | 2,000      | on request | 7.56       |         |  |
|                           | 14.0  | 6.0 - 8.0   | <b>SNSD6140BS</b>   |             |   |   |   |   |  | 78454   | 2,000      | on request | 7.70       |         |  |
|                           | 16.0  | 8.0 - 10.0  | <b>SNSD6160BS</b>   |             |   |   |   |   |  | on request  | on request | 7.88       |            |         |  |
|                           | 18.0  | 10.0 - 12.0   | <b>SNSD6180BS</b>   |             |   |   |   |   |  | on request  | on request | 8.02       |            |         |  |
|                           | 20.0  | 12.0 - 14.0   | <b>SNSD6200BS</b>   |             |   |   |   |   |  | on request  | on request | 8.20       |            |         |  |
| <b>6.4</b><br>6.40 - 6.51 | 9.5   | 0.5 - 3.8   | <b>TSPD8095BS</b>   | 6.53 - 6.63 | 10.55 - 11.15   | 1.55  | 3.86  | 5000  | 5700   | 78620   | 2,000      | on request | 6.80       |         |  |
|                           | 13.0  | 3.8 - 7.6   | <b>TSPD8130BS</b>   |             |   |   |   |   |  | 78586   | 1,500      | on request | 8.25       |         |  |
|                           | 18.5  | 7.6 - 12.7  | <b>TSPD8185BS</b>   |             |   |   |   |   |  | 78607   | 1,500      | on request | 8.47       |         |  |
|                           | 21.6  | 12.7 - 15.9   | <b>SD810BS</b>  |             |   |   |   |   |  | 78521   | 1,000      | on request | 9.20       |         |  |
|                           | 24.8  | 15.9 - 19.1   | <b>SD812BS</b>  |             |   |   |   |   |  | 78522   | 1,000      | on request | 9.92       |         |  |
|                           | 27.9  | 19.1 - 22.2   | <b>SD814BS</b>  |             |   |   |   |   |  | on request  | on request | 10.60      |            |         |  |
|                           | 31.1  | 22.2 - 25.4   | <b>SD816BS</b>  |             |   |   |   |   |  | 78562   | 1,000      | on request | 11.30      |         |  |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

## Break Stem Open Large Flange

Carbon Steel  
Mandrel: Carbon Steel



- General purpose rivet
- **Large flange increases bearing surface for weaker, thinner materials**
- Suitable for oversized holes or slots under the head

|                           | $d$<br>mm | $l$<br>mm   | $g$<br>mm | DESCRIPTION    | $d_h$<br>mm | $d_k$<br>mm   | $k$<br>mm | $d_m$<br>mm | $S$<br>N | $T$<br>N | BULK PACK  |            | SMALL PACK |            | KG<br>/1000 |
|---------------------------|-----------|-------------|-----------|----------------|-------------|---------------|-----------|-------------|----------|----------|------------|------------|------------|------------|-------------|
|                           |           |             |           |                |             |               |           |             |          |          | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY    |             |
| <b>3.2</b><br>3.15 - 3.28 | 6.2       | 1.6 - 3.2   |           | TSPD44BSLF9.5  | 3.3 - 3.4   | 9.20 - 9.80   | 1.50      | 1.91        | 1150     | 1550     | 78679      | 8,000      | 89681      | 500        | 1.86        |
|                           | 8.0       | 3.2 - 4.8   |           | TSPD46BSLF9.5  |             |               |           |             |          |          | 78472      | 6,000      | on request | 2.02       |             |
|                           | 9.8       | 4.8 - 6.4   |           | TSPD48BSLF9.5  |             |               |           |             |          |          | 78473      | 6,000      | on request | 2.10       |             |
|                           | 11.6      | 6.4 - 7.9   |           | TSPD410BSLF9.5 |             |               |           |             |          |          | on request | on request | 2.18       |            |             |
|                           | 13.4      | 7.9 - 9.5   |           | TSPD412BSLF9.5 |             |               |           |             |          |          | on request | on request | 2.30       |            |             |
|                           | 15.1      | 9.5 - 11.1  |           | TSPD414BSLF9.5 |             |               |           |             |          |          | on request | on request | 2.38       |            |             |
| <b>4.0</b><br>3.85 - 4.08 | 7.0       | 1.6 - 3.2   |           | TSPD54BSLF12   | 4.1 - 4.2   | 11.70 - 12.30 | 1.65      | 2.29        | 1730     | 2500     | on request | on request | on request | 500        | 3.14        |
|                           | 8.5       | 3.2 - 4.8   |           | TSPD56BSLF12   |             |               |           |             |          |          | 78477      | 4,000      | 89682      | 500        | 3.28        |
|                           | 10.5      | 4.8 - 6.4   |           | TSPD58BSLF12   |             |               |           |             |          |          | 78478      | 4,000      | on request | 3.50       |             |
|                           | 12.2      | 6.4 - 7.9   |           | TSPD510BSLF12  |             |               |           |             |          |          | 78474      | 4,000      | on request | 3.73       |             |
|                           | 14.0      | 7.9 - 9.5   |           | TSPD512BSLF12  |             |               |           |             |          |          | 78475      | 4,000      | on request | 3.83       |             |
|                           | 15.9      | 9.5 - 11.1  |           | TSPD514BSLF12  |             |               |           |             |          |          | 78476      | 3,000      | on request | 4.07       |             |
| <b>4.8</b><br>4.65 - 4.88 | 7.5       | Up To 3.2   |           | TSPD64BSLF14   | 4.9 - 5.0   | 13.70 - 14.30 | 2.00      | 2.90        | 2620     | 3500     | 78661      | 3,000      | on request | on request | 4.60        |
|                           | 9.3       | 3.2 - 4.8   |           | TSPD66BSLF14   |             |               |           |             |          |          | on request | on request | 4.85       |            |             |
|                           | 11.0      | 4.8 - 6.4   |           | TSPD68BSLF14   |             |               |           |             |          |          | 78459      | 3,000      | on request | 5.08       |             |
|                           | 12.7      | 6.4 - 7.9   |           | TSPD610BSLF14  |             |               |           |             |          |          | 78448      | 3,000      | on request | 5.21       |             |
|                           | 14.5      | 7.9 - 9.5   |           | TSPD612BSLF14  |             |               |           |             |          |          | 78479      | 2,000      | on request | 5.75       |             |
|                           | 16.5      | 9.5 - 11.1  |           | TSPD614BSLF14  |             |               |           |             |          |          | 78480      | 2,000      | on request | 5.90       |             |
|                           | 19.0      | 11.1 - 13.5 |           | TSPD617BSLF14  |             |               |           |             |          |          | 78481      | 2,000      | on request | 6.35       |             |

## Break Stem Open Extended Large Flange

Carbon Steel  
Mandrel: Carbon Steel

- **Extended large flange further increases the bearing surface for weaker, thinner materials**

|                           |      |             |             |             |               |      |      |      |      |            |            |       |
|---------------------------|------|-------------|-------------|-------------|---------------|------|------|------|------|------------|------------|-------|
| <b>4.8</b><br>4.65 - 4.85 | 20.3 | 12.7 - 15.9 | SD610BSLF16 | 4.88 - 4.98 | 15.24 - 16.51 | 2.11 | 2.90 | 2620 | 3620 | on request | on request | 6.44  |
|                           | 23.5 | 15.9 - 19.1 | SD612BSLF16 |             |               |      |      |      |      | on request | on request | 6.85  |
| <b>6.4</b><br>6.32 - 6.48 | 15.2 | 6.4 - 9.5   | SD86BSLF19  | 6.53 - 6.63 | 18.30 - 19.80 | 2.72 | 2.90 | 5530 | 6690 | on request | on request | 11.92 |
|                           | 21.6 | 12.7 - 15.9 | SD810BSLF19 |             |               |      |      |      |      | on request | on request | 12.60 |
|                           | 27.9 | 19.1 - 22.2 | SD814BSLF19 |             |               |      |      |      |      | on request | on request | 13.30 |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength



**Break Stem Open  
120° Countersunk**

Carbon Steel  
Mandrel: Carbon Steel



- General purpose rivet
- For a flush surface after setting

|                           |             |                  | DESCRIPTION      |           |             |            |       |      |      | BULK PACK |         | SMALL PACK |            |            |      |      |
|---------------------------|-------------|------------------|------------------|-----------|-------------|------------|-------|------|------|-----------|---------|------------|------------|------------|------|------|
|                           |             |                  |                  |           |             |            |       |      |      | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY    |            | kg   |      |
| mm                        | mm          | mm               |                  | mm        | mm          | mm         | mm    | N    | N    |           |         |            |            |            |      |      |
| <b>2.4</b><br>2.33 - 2.48 | 6.1         | 0.8 - 3.2        | <b>TSPK33BS</b>  | 2.5 - 2.6 | 4.40 - 5.00 | -          | 1.42  | 700  | 1000 | 77570     | 10,000  | 89531      | 500        | 0.78       |      |      |
|                           | 8.5         | 3.2 - 6.0        | <b>TSPK36BS</b>  |           |             |            |       |      |      |           |         | on request |            | 0.81       |      |      |
| <b>3.2</b><br>3.15 - 3.28 | 5.4         | 0.8 - 2.7        | <b>TSPK42BS</b>  | 3.3 - 3.4 | 6.05 - 6.65 | -          | 1.93  | 1150 | 1550 | 78490     | 10,000  | 89742      | 500        | 1.20       |      |      |
|                           | 7.3         | 2.7 - 4.3        | <b>TSPK44BS</b>  |           |             |            |       |      |      |           |         | 89453      | 500        | 1.26       |      |      |
|                           | 9.0         | 4.3 - 5.8        | <b>TSPK46BS</b>  |           |             |            |       |      |      |           |         | 89812      | 500        | 1.42       |      |      |
|                           | 10.8        | 5.8 - 7.4        | <b>TSPK48BS</b>  |           |             |            |       |      |      |           |         | 89641      | 500        | 1.50       |      |      |
|                           | 12.6        | 7.4 - 9.0        | <b>TSPK410BS</b> |           |             |            |       |      |      |           |         | on request |            | 1.67       |      |      |
|                           | 14.4        | 9.0 - 10.6       | <b>TSPK412BS</b> |           |             |            |       |      |      |           |         | 81749      | 8,000      | 89741      | 500  | 1.82 |
|                           | 16.1        | 10.6 - 12.2      | <b>TSPK414BS</b> |           |             |            |       |      |      |           |         | 78447      | 8,000      | on request | 1.85 |      |
|                           | 17.9        | 12.2 - 13.8      | <b>TSPK416BS</b> |           |             |            |       |      |      |           |         | on request | on request | 1.94       |      |      |
| 19.7                      | 13.8 - 15.4 | <b>TSPK418BS</b> |                  |           | on request  | on request | 1.99  |      |      |           |         |            |            |            |      |      |
| <b>4.0</b><br>3.92 - 4.08 | 6.5         | Up To 2.9        | <b>TSPK52BS</b>  | 4.1 - 4.2 | 7.63 - 8.23 | -          | 2.29  | 1730 | 2500 | 78483     | 6,000   | on request |            | 2.00       |      |      |
|                           | 8.5         | 2.9 - 4.5        | <b>TSPK54BS</b>  |           |             |            |       |      |      |           |         | 89660      | 500        | 2.10       |      |      |
|                           | 10.0        | 4.5 - 6.1        | <b>TSPK56BS</b>  |           |             |            |       |      |      |           |         | 89738      | 500        | 2.22       |      |      |
|                           | 12.0        | 6.1 - 7.7        | <b>TSPK58BS</b>  |           |             |            |       |      |      |           |         | 81746      | 5,000      | 89737      | 500  | 2.44 |
|                           | 13.5        | 7.7 - 9.3        | <b>TSPK510BS</b> |           |             |            |       |      |      |           |         | 81745      | 5,000      | 89736      | 500  | 2.66 |
|                           | 15.5        | 9.3 - 10.9       | <b>TSPK512BS</b> |           |             |            |       |      |      |           |         | 78488      | 5,000      | 89735      | 500  | 2.77 |
|                           | 17.0        | 10.9 - 12.4      | <b>TSPK514BS</b> |           |             |            |       |      |      |           |         | 78440      | 5,000      | on request | 3.00 |      |
|                           | 19.0        | 12.4 - 14.0      | <b>TSPK516BS</b> |           |             |            |       |      |      |           |         | on request | on request | 3.11       |      |      |
| 20.0                      | 14.0 - 14.8 | <b>TSPK518BS</b> |                  |           | on request  | on request | 3.20  |      |      |           |         |            |            |            |      |      |
| <b>4.8</b><br>4.60 - 4.83 | 8.4         | Up To 2.4        | <b>TSPK63BS</b>  | 4.9 - 5.0 | 9.20 - 9.80 | -          | 2.90  | 2620 | 3500 | 78484     | 4,000   | on request |            | 3.35       |      |      |
|                           | 9.3         | 2.4 - 4.8        | <b>TSPK64BS</b>  |           |             |            |       |      |      |           |         | 89456      | 500        | 3.40       |      |      |
|                           | 11.1        | 4.8 - 6.4        | <b>TSPK66BS</b>  |           |             |            |       |      |      |           |         | on request |            | 3.55       |      |      |
|                           | 12.8        | 6.4 - 7.9        | <b>TSPK68BS</b>  |           |             |            |       |      |      |           |         | 81743      | 4,000      | 89455      | 500  | 3.88 |
|                           | 14.6        | 7.9 - 9.5        | <b>TSPK610BS</b> |           |             |            |       |      |      |           |         | 78599      | 3,000      | on request | 4.00 |      |
|                           | 16.4        | 9.5 - 11.1       | <b>TSPK612BS</b> |           |             |            |       |      |      |           |         | 75954      | 4,000      | on request | 3.97 |      |
|                           | 18.2        | 11.1 - 12.7      | <b>TSPK614BS</b> |           |             |            |       |      |      |           |         | 78466      | 3,000      | on request | 4.67 |      |
|                           | 20.0        | 12.7 - 14.3      | <b>TSPK616BS</b> |           |             |            |       |      |      |           |         | 78467      | 3,000      | 89739      | 500  | 4.83 |
| 21.0                      | 14.3 - 15.1 | <b>TSPK617BS</b> |                  |           | 78061       | 3,000      | 89740 | 500  | 4.90 |           |         |            |            |            |      |      |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *d<sub>h</sub>*=Hole Size (Min - Max); *d<sub>k</sub>*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *d<sub>m</sub>*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

## FSR Pull Through (Flush Setting Rivet)

120° Countersunk

Carbon Steel  
Mandrel: Carbon Steel



- For flush setting on both sides of the application
- Pull through mandrel guarantees no interference with subsequent componentry

|    |    |    | DESCRIPTION |    |    |    |    |   |   | BULK PACK |         | SMALL PACK |         | KG /1000 |
|----|----|----|-------------|----|----|----|----|---|---|-----------|---------|------------|---------|----------|
|    |    |    |             |    |    |    |    |   |   | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |          |
| mm | mm | mm |             | mm | mm | mm | mm | N | N |           |         |            |         | kg       |

|                           |     |           |                |           |             |   |      |     |     |       |        |  |  |  |
|---------------------------|-----|-----------|----------------|-----------|-------------|---|------|-----|-----|-------|--------|--|--|--|
| <b>3.0</b><br>2.90 - 3.08 | 2.5 | 1.5 - 2.0 | SNSK3025PTM466 | 3.3 - 3.4 | 4.90 - 5.50 | - | 1.83 | 800 | 700 | 79131 | 10,000 |  |  |  |
|                           | 2.8 | 2.0 - 2.5 | SNSK3030PTM467 |           |             |   |      |     |     | 79132 | 10,000 |  |  |  |
|                           | 3.3 | 2.5 - 3.0 | SNSK3035PTM465 |           |             |   |      |     |     | 79133 | 10,000 |  |  |  |
|                           | 3.8 | 3.0 - 3.5 | SNSK3040PTM466 |           |             |   |      |     |     | 79134 | 10,000 |  |  |  |
|                           | 4.3 | 3.5 - 4.0 | SNSK3045PTM467 |           |             |   |      |     |     | 79135 | 10,000 |  |  |  |
|                           | 4.8 | 4.0 - 4.5 | SNSK3050PTM465 |           |             |   |      |     |     | 79136 | 10,000 |  |  |  |
|                           | 5.3 | 4.5 - 5.0 | SNSK3055PTM466 |           |             |   |      |     |     | 79137 | 10,000 |  |  |  |
|                           | 5.8 | 5.0 - 5.5 | SNSK3060PTM467 |           |             |   |      |     |     | 79138 | 10,000 |  |  |  |
|                           | 6.3 | 5.5 - 6.0 | SNSK3065PTM465 |           |             |   |      |     |     | 79139 | 10,000 |  |  |  |

To ensure ultimate performance this product requires a double countersunk hole

## FSR (Flush Setting Rivet)

120° Countersunk

Carbon Steel  
Mandrel: Carbon Steel



- For flush setting on both sides of the application
- Break head mandrel ensures high clamp force and head ejection

|    |    |    | DESCRIPTION |    |    |    |    |   |   | BULK PACK |         | SMALL PACK |         | KG /1000 |
|----|----|----|-------------|----|----|----|----|---|---|-----------|---------|------------|---------|----------|
|    |    |    |             |    |    |    |    |   |   | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |          |
| mm | mm | mm |             | mm | mm | mm | mm | N | N |           |         |            |         | kg       |

|                           |     |           |                |           |             |      |      |     |     |       |        |            |      |
|---------------------------|-----|-----------|----------------|-----------|-------------|------|------|-----|-----|-------|--------|------------|------|
| <b>3.0</b><br>2.90 - 3.08 | 2.5 | 1.5 - 2.0 | SNSK3025BHM452 | 3.3 - 3.4 | 4.90 - 5.50 | 1.00 | 1.83 | 800 | 700 | 78820 | 10,000 | on request | 0.88 |
|                           | 2.8 | 2.0 - 2.4 | SNSK3030BHM428 |           |             |      |      |     |     | 78514 | 10,000 | on request | 0.90 |
|                           | 3.3 | 2.5 - 3.0 | SNSK3035BHM446 |           |             |      |      |     |     | 78763 | 10,000 | on request | 0.91 |
|                           | 3.8 | 3.0 - 3.5 | SNSK3040BHM452 |           |             |      |      |     |     | 78821 | 10,000 | on request | 0.93 |
|                           | 4.3 | 3.5 - 4.0 | SNSK3045BHM428 |           |             |      |      |     |     | 78750 | 10,000 | on request | 0.95 |
|                           | 4.8 | 4.0 - 4.5 | SNSK3050BHM446 |           |             |      |      |     |     | 78822 | 10,000 | on request | 0.97 |
|                           | 5.3 | 4.5 - 5.0 | SNSK3055BHM452 |           |             |      |      |     |     | 78760 | 10,000 | on request | 0.99 |
|                           | 5.8 | 5.0 - 5.5 | SNSK3060BHM428 |           |             |      |      |     |     | 78819 | 10,000 | on request | 1.01 |
|                           | 6.3 | 5.5 - 6.0 | SNSK3065BHM446 |           |             |      |      |     |     | 78823 | 10,000 | on request | 1.02 |

To ensure ultimate performance this product requires a double countersunk hole

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.3mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

- Extended grip range capability
- Mandrel head retention
- Good, rattle free, joint construction even in irregular holes



**Multi-Grip  
Domed Head**

Carbon Steel  
Mandrel: Carbon Steel

| d                  | l            | g                       | DESCRIPTION    | d <sub>h</sub> | d <sub>k</sub> | k    | d <sub>m</sub> | S    | T    | BULK PACK |         | SMALL PACK |         | kg /1000 |
|--------------------|--------------|-------------------------|----------------|----------------|----------------|------|----------------|------|------|-----------|---------|------------|---------|----------|
|                    |              |                         |                |                |                |      |                |      |      | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |          |
| 3.2<br>3.05 - 3.28 | 8.5<br>12.5  | 1.5 - 5.0<br>4.0 - 8.0  | MG21-03208-510 | 3.3 - 3.4      | 5.80 - 6.60    | 1.20 | 1.93           | 1200 | 1600 | 78663     | 10,000  | 89665      | 500     | 1.42     |
|                    |              |                         | MG21-03212-510 |                |                |      |                |      |      | 78664     | 8,000   | 89666      | 500     | 1.64     |
| 4.0<br>3.85 - 4.08 | 10.5<br>16.5 | 1.5 - 6.0<br>4.0 - 12.0 | MG21-04010-510 | 4.1 - 4.2      | 7.40 - 8.30    | 1.40 | 2.29           | 1650 | 2400 | 78665     | 6,000   | 89667      | 500     | 2.48     |
|                    |              |                         | MG21-04016-510 |                |                |      |                |      |      | 78666     | 3,000   | 89668      | 500     | 3.10     |
| 4.8<br>4.65 - 4.89 | 10.5<br>16.5 | 1.5 - 6.0<br>4.0 - 11.0 | MG21-04810-510 | 4.9 - 5.0      | 9.00 - 9.80    | 1.60 | 2.90           | 2700 | 3200 | 78667     | 4,000   | 89669      | 500     | 3.80     |
|                    |              |                         | MG21-04816-510 |                |                |      |                |      |      | 78668     | 3,000   | 89670      | 500     | 4.70     |

- Extended grip range capability
- Mandrel head retention
- Good, rattle free, joint construction even in irregular holes
- Large flange increases bearing surface for weaker, thinner materials
- Suitable for oversized holes or slots under the head



**Multi-Grip  
Large Flange**

Carbon Steel  
Mandrel: Carbon Steel

| d                  | l            | g                       | DESCRIPTION    | d <sub>h</sub> | d <sub>k</sub> | k    | d <sub>m</sub> | S    | T    | BULK PACK |         | SMALL PACK |         | kg /1000 |
|--------------------|--------------|-------------------------|----------------|----------------|----------------|------|----------------|------|------|-----------|---------|------------|---------|----------|
|                    |              |                         |                |                |                |      |                |      |      | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |          |
| 3.2<br>3.05 - 3.28 | 8.5<br>12.5  | 1.5 - 5.0<br>4.0 - 8.0  | MG22-03208-510 | 3.3 - 3.4      | 9.03 - 10.03   | 1.47 | 1.93           | 1200 | 1600 | 78669     | 8,000   | 89671      | 500     | 2.60     |
|                    |              |                         | MG22-03212-510 |                |                |      |                |      |      | 78670     | 6,000   | 89672      | 500     | 3.15     |
| 4.0<br>3.85 - 4.08 | 10.5<br>16.5 | 1.5 - 6.5<br>4.0 - 12.0 | MG22-04010-510 | 4.1 - 4.2      | 11.43 - 12.43  | 1.78 | 2.29           | 1650 | 2400 | 78671     | 4,000   | 89673      | 500     | 4.20     |
|                    |              |                         | MG22-04016-510 |                |                |      |                |      |      | 78672     | 3,000   | 89674      | 500     | 5.10     |
| 4.8<br>4.65 - 4.89 | 10.5<br>16.5 | 1.5 - 6.0<br>4.0 - 11.0 | MG22-04810-510 | 4.9 - 5.0      | 15.50 - 16.50  | 2.13 | 2.90           | 2700 | 3200 | 78673     | 2,000   | 89675      | 500     | 5.60     |
|                    |              |                         | MG22-04816-510 |                |                |      |                |      |      | 78674     | 2,000   | 89676      | 500     | 6.40     |

d=Nominal Diameter, Min - Max Diameter; l=Body Length (+/- 0.5mm); g=Grip Range (Min - Max); d<sub>h</sub>=Hole Size (Min - Max); d<sub>k</sub>=Flange Diameter (Min - Max); k=Flange Thickness (Max); d<sub>m</sub>=Nominal Mandrel Diameter; S=Nominal Shear Strength; T=Nominal Tensile Strength

## LSR (Load Spreading Rivet)

### Domed Head

Carbon Steel  
Mandrel: Carbon Steel



- Wide blindside setting to support thin vulnerable materials
- Ideal for setting in composite assemblies
- Excellent in over sized holes

|                           |              |                         | DESCRIPTION                       |           |             |      |      |      |      | BULK PACK |         | SMALL PACK |         |      |
|---------------------------|--------------|-------------------------|-----------------------------------|-----------|-------------|------|------|------|------|-----------|---------|------------|---------|------|
|                           |              |                         |                                   |           |             |      |      |      |      | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |      |
| <b>4.8</b><br>4.70 - 4.97 | 17.2<br>19.5 | Up To 6.35<br>3.0 - 8.5 | <b>SCD68BS</b><br><b>SCD612BS</b> | 5.0 - 5.2 | 9.60 - 9.90 | 1.60 | 2.90 | 2000 | 2500 | 78596     | 3,000   | on request | 4.63    | 4.77 |

## STR

### Domed Head

Carbon Steel  
Mandrel: Carbon Steel



- Peeling rivet body ideal for use in wood
- High resistance to pull out loads
- Mandrel head retention

|                    |     |   | DESCRIPTION     |           |             |      |      |   |   | BULK PACK  |            | SMALL PACK |         |  |
|--------------------|-----|---|-----------------|-----------|-------------|------|------|---|---|------------|------------|------------|---------|--|
|                    |     |   |                 |           |             |      |      |   |   | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY |  |
| <b>4.0</b><br>4.28 | 9.0 | - | <b>STR506RM</b> | 4.3 - 4.4 | 7.62 - 8.22 | 1.35 | 2.29 | - | - | on request | on request | on request | 2.37    |  |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

- Excellent hole fill for good joint construction
- Locked, rattle free mandrel
- Good vibration resistance
- High shear & tensile strength



**F Series**  
**Domed Head**

Carbon Steel  
Mandrel: Carbon Steel

|                    |                      |                                     | DESCRIPTION |           |             |      |      |      |      | BULK PACK |         | SMALL PACK |         |      |
|--------------------|----------------------|-------------------------------------|-------------|-----------|-------------|------|------|------|------|-----------|---------|------------|---------|------|
|                    |                      |                                     |             |           |             |      |      |      |      | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |      |
| 4.0<br>3.80 - 3.98 | 10.0<br>12.0         | 1.5 - 3.5<br>3.5 - 6.0              | FSD4010BS   | 4.1 - 4.2 | 7.60 - 8.22 | 1.35 | 2.64 | 3000 | 2800 | 77573     | 5,000   | 89685      | 500     | 2.56 |
|                    |                      |                                     | FSD4012BS   |           |             |      |      |      |      | 77910     | 5,000   | 89684      | 500     | 2.82 |
| 4.8<br>4.65 - 4.88 | 12.0<br>15.0<br>17.0 | 1.5 - 3.5<br>3.5 - 6.0<br>6.0 - 8.5 | FSD4812BS   | 4.9 - 5.0 | 9.24 - 9.80 | 1.60 | 3.20 | 3600 | 4250 | 78243     | 3,000   | 89757      | 500     | 4.17 |
|                    |                      |                                     | FSD4815BS   |           |             |      |      | 4600 | 4000 | 77317     | 3,000   | 77527      | 500     | 4.60 |
|                    |                      |                                     | FSD4817BS   |           |             |      |      | 5700 | 3550 | 78605     | 3,000   | on request |         | 4.83 |

- Excellent hole fill for good joint construction
- Locked, rattle free mandrel
- Good vibration resistance
- **Large flange increases bearing surface for weaker, thinner materials**
- Suitable for oversized holes or slots under the head



**F Series**  
**Large Flange**

Carbon Steel  
Mandrel: Carbon Steel

|                    |              |                        | DESCRIPTION   |           |               |      |      |      |      | BULK PACK  |            | SMALL PACK |            |      |
|--------------------|--------------|------------------------|---------------|-----------|---------------|------|------|------|------|------------|------------|------------|------------|------|
|                    |              |                        |               |           |               |      |      |      |      | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY    |      |
| 4.8<br>4.65 - 4.88 | 12.0<br>15.0 | 1.5 - 3.5<br>3.5 - 6.0 | FSD4812BSLF14 | 4.9 - 5.0 | 14.00 - 14.60 | 2.00 | 3.20 | 3600 | 4250 | 78272      | 2,000      | on request | on request | 5.35 |
|                    |              |                        | FSD4815BSLF14 |           |               |      |      | 4600 | 4000 | on request | on request | 5.78       |            |      |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *dh*=Hole Size (Min - Max); *dk*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *dm*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

## HR (High Retention)

### Domed Head

Carbon Steel

Mandrel: Carbon Steel



- Excellent pull-up capability
- Excellent mandrel head retention
- Increased blind side expansion

|                           |      |           | DESCRIPTION   |           |               |      |      |      |      | BULK PACK |         | SMALL PACK |         |       |
|---------------------------|------|-----------|---------------|-----------|---------------|------|------|------|------|-----------|---------|------------|---------|-------|
|                           |      |           |               |           |               |      |      |      |      | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |       |
| <b>3.2</b><br>3.15 - 3.37 | 8.0  | 1.6 - 3.2 | <b>SD42HR</b> | 3.4 - 3.6 | 6.10 - 6.70   | 1.30 | 2.20 | 1450 | 1700 | 75250     | 1,000   |            |         | 1.70  |
|                           | 9.6  | 3.2 - 4.8 | <b>SD43HR</b> |           |               |      |      |      |      | 89686     | 1,000   |            |         | 1.75  |
|                           | 11.2 | 4.8 - 6.4 | <b>SD44HR</b> |           |               |      |      |      |      | 89687     | 1,000   |            |         | 1.80  |
| <b>4.0</b><br>3.95 - 4.17 | 9.0  | 1.6 - 3.2 | <b>SD52HR</b> | 4.2 - 4.4 | 7.70 - 8.30   | 1.70 | 2.80 | 2000 | 2600 | 89688     | 1,000   |            |         | 2.80  |
|                           | 10.6 | 3.2 - 4.8 | <b>SD53HR</b> |           |               |      |      |      |      | 78501     | 1,000   |            |         | 3.00  |
|                           | 12.2 | 4.8 - 6.4 | <b>SD54HR</b> |           |               |      |      |      |      | 89689     | 1,000   |            |         | 3.20  |
| <b>4.8</b><br>4.75 - 4.97 | 9.2  | 1.6 - 3.2 | <b>SD62HR</b> | 5.0 - 5.4 | 9.20 - 10.00  | 2.10 | 3.40 | 3100 | 3400 | 89690     | 1,000   |            |         | 4.30  |
|                           | 10.8 | 3.2 - 4.8 | <b>SD63HR</b> |           |               |      |      |      |      | 89691     | 1,000   |            |         | 4.60  |
|                           | 12.4 | 4.8 - 6.4 | <b>SD64HR</b> |           |               |      |      |      |      | 89692     | 1,000   |            |         | 4.90  |
|                           | 14.0 | 6.4 - 8.0 | <b>SD65HR</b> |           |               |      |      |      |      | 89693     | 500     |            |         | 5.32  |
| <b>6.4</b><br>6.35 - 6.57 | 11.3 | 1.2 - 4.8 | <b>SD83HR</b> | 6.6 - 7.0 | 12.50 - 13.50 | 2.70 | 4.60 | 3900 | 5350 | 89694     | 1,000   |            |         | 10.10 |
|                           | 14.5 | 4.8 - 8.0 | <b>SD85HR</b> |           |               |      |      |      |      | 89695     | 500     |            |         | 10.90 |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

- Excellent pull-up capability
- Excellent mandrel head retention
- Increased blind side expansion
- **Large flange increases bearing surface for weaker, thinner materials**
- Suitable for oversized holes or slots under the head



**HR (High Retention)**  
**Large Flange**

Carbon Steel  
Mandrel: Carbon Steel

|                           |      |           | DESCRIPTION     |           |               |      |      |      |      | BULK PACK |         | SMALL PACK |         |       |
|---------------------------|------|-----------|-----------------|-----------|---------------|------|------|------|------|-----------|---------|------------|---------|-------|
|                           |      |           |                 |           |               |      |      |      |      | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |       |
| mm                        | mm   | mm        |                 | mm        | mm            | mm   | mm   | N    | N    |           |         |            |         | kg    |
| <b>4.8</b><br>4.75 - 4.97 | 9.2  | 1.6 - 3.2 | <b>SD62HRLF</b> | 5.0 - 5.4 | 15.40 - 16.40 | 2.20 | 3.40 | 3100 | 3400 | 89696     | 500     |            |         | 5.60  |
|                           | 10.8 | 3.2 - 4.8 | <b>SD63HRLF</b> |           |               |      |      |      |      | 89697     | 500     |            |         | 5.90  |
|                           | 12.4 | 4.8 - 6.4 | <b>SD64HRLF</b> |           |               |      |      |      |      | 89698     | 500     |            |         | 6.20  |
|                           | 14.0 | 6.4 - 8.0 | <b>SD65HRLF</b> |           |               |      |      |      |      | 89699     | 500     |            |         | 6.50  |
| <b>6.4</b><br>6.35 - 6.57 | 11.3 | 1.2 - 4.8 | <b>SD83HRLF</b> | 6.6 - 7.0 | 15.50 - 16.50 | 3.20 | 4.60 | 3900 | 5350 | 89700     | 1,000   |            |         | 11.10 |
|                           | 19.2 | 4.8 - 8.0 | <b>SD85HRLF</b> |           |               |      |      |      |      | 89701     | 1,000   |            |         | 11.90 |

- Excellent pull-up capability
- Excellent mandrel head retention
- Increased blind side expansion
- **For a flush surface after setting**



**HR (High Retention)**  
**120° Countersunk**

Carbon Steel  
Mandrel: Carbon Steel

|                           |      |           | DESCRIPTION   |           |             |    |      |      |      | BULK PACK |         | SMALL PACK |         |      |
|---------------------------|------|-----------|---------------|-----------|-------------|----|------|------|------|-----------|---------|------------|---------|------|
|                           |      |           |               |           |             |    |      |      |      | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |      |
| mm                        | mm   | mm        |               | mm        | mm          | mm | mm   | N    | N    |           |         |            |         | kg   |
| <b>3.2</b><br>3.15 - 3.37 | 8.0  | 2.0 - 3.2 | <b>SK42HR</b> | 3.4 - 3.5 | 5.00 - 5.60 | -  | 2.10 | 950  | 1200 | 89702     | 1,000   |            |         | 1.80 |
|                           | 9.6  | 3.2 - 4.8 | <b>SK43HR</b> |           |             |    |      |      |      | 89703     | 1,000   |            |         | 1.85 |
|                           | 11.2 | 4.8 - 6.4 | <b>SK44HR</b> |           |             |    |      |      |      | 89704     | 1,000   |            |         | 1.90 |
| <b>4.0</b><br>3.95 - 4.17 | 9.0  | 2.0 - 3.2 | <b>SK52HR</b> | 4.2 - 4.3 | 6.10 - 6.70 | -  | 2.80 | 1300 | 2000 | 89705     | 1,000   |            |         | 2.90 |
|                           | 10.6 | 3.2 - 4.8 | <b>SK53HR</b> |           |             |    |      |      |      | 89706     | 1,000   |            |         | 3.10 |
|                           | 12.2 | 4.8 - 6.4 | <b>SK54HR</b> |           |             |    |      |      |      | 89707     | 1,000   |            |         | 3.30 |
| <b>4.8</b><br>4.75 - 4.97 | 10.8 | 2.4 - 4.8 | <b>SK63HR</b> | 5.0 - 5.2 | 7.80 - 8.60 | -  | 3.40 | 3100 | 3400 | 89708     | 1,000   |            |         | 4.90 |
|                           | 12.4 | 4.8 - 6.8 | <b>SK64HR</b> |           |             |    |      |      |      | 89709     | 1,000   |            |         | 5.00 |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *d<sub>h</sub>*=Hole Size (Min - Max); *d<sub>k</sub>*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *d<sub>m</sub>*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

## Closed End Domed Head

Carbon Steel  
Mandrel: Carbon Steel



- Moisture and pressure tight
- Lead-in feature
- Excellent hole fill for good joint construction
- Guaranteed mandrel head retention
- Grooved mandrel for increased tool jaw life

|                           |      |           | DESCRIPTION      |           |             |      |      |      |      | BULK PACK  |            | SMALL PACK |         |  |
|---------------------------|------|-----------|------------------|-----------|-------------|------|------|------|------|------------|------------|------------|---------|--|
|                           |      |           |                  |           |             |      |      |      |      | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY |  |
| mm                        | mm   | mm        |                  | mm        | mm          | mm   | mm   | N    | N    |            |            |            |         |  |
| <b>3.2</b><br>3.10 - 3.28 | 9.4  | Up To 4.8 | <b>SED406GSM</b> | 3.3 - 3.4 | 5.69 - 6.29 | 1.20 | 1.65 | 1400 | 1800 | 76319      | 10,000     | on request | 1.26    |  |
|                           | 11.0 | 4.8 - 6.4 | <b>SED408GSM</b> |           |             |      |      |      |      | 76320      | 10,000     | on request | 1.34    |  |
|                           | 14.1 | 6.4 - 9.5 | <b>SED412GSM</b> |           |             |      |      |      |      | 76321      | 10,000     | on request | 1.48    |  |
| <b>4.0</b><br>3.90 - 4.08 | 9.2  | Up To 4.2 | <b>SED505GSM</b> | 4.1 - 4.2 | 7.62 - 8.22 | 1.70 | 2.20 | 2000 | 2700 | 77479      | 6,000      | on request | 2.24    |  |
|                           | 11.4 | 4.2 - 6.4 | <b>SED508GSM</b> |           |             |      |      |      |      | 78195      | 5,000      | on request | 2.30    |  |
|                           | 13.0 | 6.4 - 7.9 | <b>SED510GSM</b> |           |             |      |      |      |      | on request | on request | 2.54       |         |  |
|                           | 14.6 | 7.9 - 9.5 | <b>SED512GSM</b> |           |             |      |      |      |      | on request | on request | 2.63       |         |  |
|                           |      |           |                  |           |             |      |      |      |      |            |            |            |         |  |
| <b>4.8</b><br>4.70 - 4.88 | 8.6  | Up To 3.2 | <b>SED604GSM</b> | 4.9 - 5.0 | 9.23 - 9.83 | 2.05 | 2.66 | 3000 | 4000 | on request | on request | on request | 2.19    |  |
|                           | 10.2 | 3.2 - 4.8 | <b>SED606GSM</b> |           |             |      |      |      |      | on request | on request | 2.52       |         |  |
|                           | 11.8 | 4.8 - 6.4 | <b>SED608GSM</b> |           |             |      |      |      |      | on request | on request | 3.57       |         |  |
|                           | 13.4 | 6.4 - 7.9 | <b>SED610GSM</b> |           |             |      |      |      |      | on request | on request | 3.88       |         |  |
|                           | 15.0 | 7.9 - 9.5 | <b>SED612GSM</b> |           |             |      |      |      |      | on request | on request | 4.20       |         |  |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

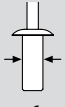
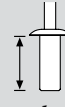
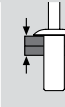









**Closed End  
Domed Head**

Carbon Steel  
Mandrel: Carbon Steel



- Moisture and pressure tight
- Excellent hole fill for good joint construction

| <br><i>d</i><br>mm | <br><i>l</i><br>mm | <br><i>g</i><br>mm | DESCRIPTION    | <br><i>d<sub>h</sub></i><br>mm | <br><i>d<sub>k</sub></i><br>mm | <br><i>k</i><br>mm | <br><i>d<sub>m</sub></i><br>mm | <br><i>S</i><br>N | <br><i>T</i><br>N | BULK PACK    |            | SMALL PACK |         | <br>kg |
|---|---|---|----------------|---|---|---|---|---|--|--------------|------------|------------|---------|---|
|   |   |   |                |   |   |   |   |   |  | ARTICLE      | BOX QTY    | ARTICLE    | BOX QTY |   |
| <b>3.2</b><br>3.10 - 3.28   | 8.0<br>9.7<br>11.3  | Up To 3.2<br>3.2 - 4.8<br>4.8 - 6.4   | <b>SD44SB</b>  | 3.3 - 3.4   | 6.12 - 6.58   | 1.00  | 1.93  | 1150  | 1200   | on request   | on request | 1.46       |         |   |
|   |   |   | <b>SD46SB</b>  |   |   |   |   |   |  | 78641 10,000 | 89677 500  | 1.48       |         |   |
|   |   |   | <b>SD48SB</b>  |   |   |   |   |   |  | on request   | on request | 1.56       |         |   |
| <b>4.0</b><br>3.85 - 4.08   | 8.6<br>10.2<br>11.8   | Up To 3.2<br>1.6 - 4.8<br>4.8 - 6.4   | <b>SD54SB</b>  | 4.1 - 4.2   | 7.62 - 8.22   | 1.20  | 2.29  | 1730  | 1860   | on request   | on request | 2.27       |         |   |
|   |   |   | <b>SD56SB</b>  |   |   |   |   |   |  | 77341 6,000  | 89661 500  | 2.35       |         |   |
|   |   |   | <b>SD58SB</b>  |   |   |   |   |   |  | on request   | on request | 2.41       |         |   |
| <b>4.8</b><br>4.65 - 4.88   | 9.2<br>10.8<br>12.4<br>15.5   | Up To 3.2<br>3.2 - 4.8<br>4.8 - 6.4<br>6.4 - 9.5  | <b>SD64SB</b>  | 4.9 - 5.0   | 9.23 - 9.83   | 1.30  | 2.90  | 2420  | 2840   | 77414 4,000  | 89519 500  | 3.64       |         |   |
|   |   |   | <b>SD66SB</b>  |   |   |   |   |   |  | on request   | on request | 3.71       |         |   |
|   |   |   | <b>SD68SB</b>  |   |   |   |   |   |  | 78591 4,000  | on request | 3.78       |         |   |
|   |   |   | <b>SD612SB</b> |   |   |   |   |   |  | on request   | on request | 4.02       |         |   |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *d<sub>h</sub>*=Hole Size (Min - Max); *d<sub>k</sub>*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *d<sub>m</sub>*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

## Break Stem Open

### Domed Head

Stainless Steel  
Mandrel: Stainless Steel



- High strength at high temperatures
- Good corrosion resistance

|                           |      |             |                   | DESCRIPTION |             |      |      |      |      |            | BULK PACK |            | SMALL PACK |         |  |
|---------------------------|------|-------------|-------------------|-------------|-------------|------|------|------|------|------------|-----------|------------|------------|---------|--|
|                           |      |             |                   |             |             |      |      |      |      |            | ARTICLE   | BOX QTY    | ARTICLE    | BOX QTY |  |
|                           | mm   | mm          | mm                |             | mm          | mm   | mm   | mm   | N    | N          |           |            |            |         |  |
| <b>3.2</b><br>3.10 - 3.28 | 4.8  | 0.8 - 1.6   | <b>SSD41SSBS</b>  | 3.3 - 3.4   | 6.04 - 6.65 | 1.10 | 1.93 | 2400 | 3000 | 75234      | 10,000    | on request |            | 1.18    |  |
|                           | 6.4  | 1.6 - 3.2   | <b>SSD42SSBS</b>  |             |             |      |      |      |      | 22000      | 10,000    | 88064      | 500        | 1.23    |  |
|                           | 8.0  | 3.2 - 4.8   | <b>SSD43SSBS</b>  |             |             |      |      |      |      | 22001      | 10,000    | 88076      | 500        | 1.30    |  |
|                           | 9.5  | 4.8 - 6.4   | <b>SSD44SSBS</b>  |             |             |      |      |      |      | 22002      | 10,000    | 88052      | 500        | 1.40    |  |
|                           | 11.1 | 6.4 - 7.9   | <b>SSD45SSBS</b>  |             |             |      |      |      |      | on request |           | on request |            | 1.46    |  |
|                           | 12.7 | 7.9 - 9.5   | <b>SSD46SSBS</b>  |             |             |      |      |      |      | 78525      | 9,000     | 88105      | 500        | 1.52    |  |
|                           | 15.9 | 9.5 - 12.7  | <b>SSD48SSBS</b>  |             |             |      |      |      |      | 24499      | 8,000     | 89011      | 500        | 1.66    |  |
| <b>4.0</b><br>3.88 - 4.08 | 7.0  | 1.6 - 3.2   | <b>SSD52SSBS</b>  | 4.1 - 4.2   | 7.53 - 8.33 | 1.20 | 2.41 | 4000 | 5000 | 78526      | 7,000     | 88079      | 500        | 2.04    |  |
|                           | 8.6  | 3.2 - 4.7   | <b>SSD53SSBS</b>  |             |             |      |      |      |      | on request |           | on request |            | 2.06    |  |
|                           | 10.2 | 3.2 - 6.4   | <b>SSD54SSBS</b>  |             |             |      |      |      |      | 78528      | 6,000     | 88039      | 500        | 2.08    |  |
|                           | 13.3 | 6.4 - 9.5   | <b>SSD56SSBS</b>  |             |             |      |      |      |      | 78592      | 5,000     | 88065      | 500        | 2.56    |  |
| <b>4.8</b><br>4.65 - 4.88 | 7.6  | 1.6 - 3.2   | <b>SSD62SSBS</b>  | 4.9 - 5.0   | 9.06 - 9.98 | 1.40 | 2.90 | 4400 | 6100 | 78531      | 4,000     | 88106      | 500        | 3.20    |  |
|                           | 10.8 | 3.2 - 6.4   | <b>SSD64SSBS</b>  |             |             |      |      |      |      | 78534      | 4,000     | 88087      | 500        | 3.58    |  |
|                           | 14.0 | 6.4 - 9.5   | <b>SSD66SSBS</b>  |             |             |      |      |      |      | 78495      | 4,000     | 88109      | 500        | 3.80    |  |
|                           | 17.2 | 9.5 - 12.7  | <b>SSD68SSBS</b>  |             |             |      |      |      |      | 78496      | 3,000     | 88151      | 500        | 3.98    |  |
|                           | 20.3 | 12.7 - 15.9 | <b>SSD610SSBS</b> |             |             |      |      |      |      | on request |           | on request |            | 4.18    |  |
|                           | 29.7 | 22.3 - 25.4 | <b>SSD616SSBS</b> |             |             |      |      |      |      | on request |           | on request |            | 4.58    |  |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

- High strength at high temperatures
- Good corrosion resistance
- **Large flange increases bearing surface for weaker, thinner materials**
- **Suitable for oversized holes or slots under the head**



**Break Stem Open  
Large Flange**

Stainless Steel  
Mandrel: Stainless Steel

|                           |      |             |  | DESCRIPTION         |            |               |            |      |      |      | BULK PACK  |         | SMALL PACK |         |      |
|---------------------------|------|-------------|--|---------------------|------------|---------------|------------|------|------|------|------------|---------|------------|---------|------|
|                           |      |             |  |                     |            |               |            |      |      |      | ARTICLE    | BOX QTY | ARTICLE    | BOX QTY |      |
| <b>3.2</b><br>3.10 - 3.28 | 4.8  | 0.8 - 1.6   |  | <b>SSD41SSBSLF</b>  | 3.3 - 3.4  | 9.22 - 9.98   | 1.65       | 1.93 | 2400 | 3000 | on request |         | on request |         | 1.39 |
|                           | 6.4  | 1.6 - 3.2   |  | <b>SSD42SSBSLF</b>  |            |               |            |      |      |      | 81525      | 10,000  | 88405      | 500     | 1.43 |
|                           | 8.0  | 3.2 - 4.8   |  | <b>SSD43SSBSLF</b>  |            |               |            |      |      |      | 76468      | 9,000   | 88406      | 500     | 1.47 |
|                           | 9.5  | 4.8 - 6.4   |  | <b>SSD44SSBSLF</b>  |            |               |            |      |      |      | 81524      | 8,000   | 88407      | 500     | 1.62 |
|                           | 12.7 | 6.4 - 9.5   |  | <b>SSD46SSBSLF</b>  |            |               |            |      |      |      | on request |         | on request |         | 1.83 |
|                           | 15.9 | 9.5 - 12.7  |  | <b>SSD48SSBSLF</b>  | on request |               | on request |      | 2.05 |      |            |         |            |         |      |
| <b>4.0</b><br>3.89 - 4.04 | 13.3 | 6.4 - 9.5   |  | <b>SSD56SSBSLF</b>  | 4.1 - 4.2  | 11.38 - 12.40 | 1.90       | 2.41 | 4000 | 5020 | on request |         | on request |         |      |
| <b>4.8</b><br>4.65 - 4.85 | 17.2 | 9.6 - 12.7  |  | <b>SSD68SSBSLF</b>  | 4.9 - 5.0  | 15.24 - 16.51 | 2.30       | 2.90 | 4440 | 6110 | 77653      | 2,000   | on request |         |      |
|                           | 20.3 | 12.7 - 15.9 |  | <b>SSD610SSBSLF</b> |            |               |            |      |      |      | on request |         | on request |         |      |
|                           | 23.5 | 15.9 - 19.1 |  | <b>SSD612SSBSLF</b> |            |               |            |      |      |      | on request |         | on request |         |      |

- High strength at high temperatures
- Good corrosion resistance
- **For a flush surface after setting**



**Break Stem Open  
120° Countersunk**

Stainless Steel  
Mandrel: Stainless Steel

|                           |      |            |  | DESCRIPTION      |           |             |   |      |      |      | BULK PACK  |         | SMALL PACK |         |      |
|---------------------------|------|------------|--|------------------|-----------|-------------|---|------|------|------|------------|---------|------------|---------|------|
|                           |      |            |  |                  |           |             |   |      |      |      | ARTICLE    | BOX QTY | ARTICLE    | BOX QTY |      |
| <b>3.2</b><br>3.10 - 3.28 | 6.4  | 1.6 - 3.2  |  | <b>SSK42SSBS</b> | 3.3 - 3.4 | 5.26 - 5.92 | - | 1.93 | 2440 | 3110 | 77204      | 10,000  | on request |         | 1.22 |
|                           | 8.0  | 3.2 - 4.8  |  | <b>SSK43SSBS</b> |           |             |   |      |      |      | 75243      | 10,000  | on request |         | 1.28 |
|                           | 9.5  | 4.8 - 6.4  |  | <b>SSK44SSBS</b> |           |             |   |      |      |      | 75244      | 10,000  | on request |         | 1.33 |
| <b>4.8</b><br>4.65 - 4.85 | 10.8 | 3.2 - 6.4  |  | <b>SSK64SSBS</b> | 4.9 - 5.0 | 8.46 - 9.22 | - | 2.90 | 4440 | 6110 | on request |         | on request |         |      |
|                           | 17.1 | 9.6 - 12.7 |  | <b>SSK68SSBS</b> |           |             |   |      |      |      | on request |         | on request |         |      |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *d<sub>h</sub>*=Hole Size (Min - Max); *d<sub>k</sub>*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *d<sub>m</sub>*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

## HR (High Retention)

### Domed Head

Stainless Steel  
Mandrel: Stainless Steel



- Excellent pull-up capability
- Excellent mandrel head retention
- High strength at high temperatures
- Good corrosion resistance

|                           |      |           | DESCRIPTION      |           |              |      |      |      |      | BULK PACK |         | SMALL PACK |         |      |
|---------------------------|------|-----------|------------------|-----------|--------------|------|------|------|------|-----------|---------|------------|---------|------|
|                           |      |           |                  |           |              |      |      |      |      | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |      |
| mm                        | mm   | mm        |                  | mm        | mm           | mm   | mm   | N    | N    |           |         |            |         |      |
| <b>3.2</b><br>3.15 - 3.37 | 8.0  | 1.3 - 3.2 | <b>SSD42SSHR</b> | 3.4 - 3.6 | 6.10 - 6.70  | 1.30 | 2.20 | 1900 | 2500 | 89710     | 1,000   | on request |         |      |
|                           | 9.6  | 3.2 - 4.8 | <b>SSD43SSHR</b> |           |              |      |      |      |      | 78502     | 1,000   | on request |         |      |
|                           | 11.3 | 4.8 - 6.4 | <b>SSD44SSHR</b> |           |              |      |      |      |      | 89711     | 1,000   | on request |         |      |
| <b>4.0</b><br>3.95 - 4.17 | 9.0  | 1.6 - 3.2 | <b>SSD52SSHR</b> | 4.2 - 4.4 | 7.70 - 8.30  | 1.70 | 2.80 | 2800 | 3800 | 89712     | 1,000   | on request |         |      |
|                           | 10.6 | 3.2 - 4.8 | <b>SSD53SSHR</b> |           |              |      |      |      |      | 89713     | 1,000   | on request |         |      |
|                           | 12.2 | 4.8 - 6.4 | <b>SSD54SSHR</b> |           |              |      |      |      |      | 89714     | 1,000   | on request |         |      |
| <b>4.8</b><br>4.75 - 4.97 | 9.2  | 1.3 - 3.2 | <b>SSD62SSHR</b> | 5.0 - 5.4 | 9.20 - 10.00 | 2.10 | 3.40 | 4700 | 5000 | 89715     | 1,000   | on request |         | 4.30 |
|                           | 10.8 | 3.2 - 4.8 | <b>SSD63SSHR</b> |           |              |      |      |      |      | 89716     | 1,000   | on request |         | 4.60 |
|                           | 12.4 | 4.8 - 6.4 | <b>SSD64SSHR</b> |           |              |      |      |      |      | 89717     | 1,000   | on request |         | 4.90 |

## HR (High Retention)

### 120° Countersunk

Stainless Steel  
Mandrel: Stainless Steel



- Excellent pull-up capability
- Excellent mandrel head retention
- High strength at high temperatures
- Good corrosion resistance
- For a flush surface after setting

|                           |      |           | DESCRIPTION      |           |             |    |      |      |      | BULK PACK |         | SMALL PACK |         |      |
|---------------------------|------|-----------|------------------|-----------|-------------|----|------|------|------|-----------|---------|------------|---------|------|
|                           |      |           |                  |           |             |    |      |      |      | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |      |
| mm                        | mm   | mm        |                  | mm        | mm          | mm | mm   | N    | N    |           |         |            |         |      |
| <b>3.2</b><br>3.15 - 3.37 | 8.0  | 2.0 - 3.2 | <b>SSK42SSHR</b> | 3.4 - 3.5 | 5.00 - 5.60 | -  | 2.10 | 1400 | 2000 | 89718     | 1,000   | on request |         |      |
|                           | 9.6  | 3.2 - 4.8 | <b>SSK43SSHR</b> |           |             |    |      |      |      | 89719     | 1,000   | on request |         |      |
|                           | 11.2 | 4.8 - 6.4 | <b>SSK44SSHR</b> |           |             |    |      |      |      | 89720     | 1,000   | on request |         |      |
| <b>4.0</b><br>3.95 - 4.17 | 9.0  | 2.0 - 3.2 | <b>SSK52SSHR</b> | 4.2 - 4.3 | 6.10 - 6.70 | -  | 2.80 | 2100 | 3000 | 89721     | 1,000   | on request |         |      |
|                           | 10.6 | 3.2 - 4.8 | <b>SSK53SSHR</b> |           |             |    |      |      |      | 89722     | 1,000   | on request |         |      |
|                           | 12.2 | 4.8 - 6.4 | <b>SSK54SSHR</b> |           |             |    |      |      |      | 89723     | 1,000   | on request |         |      |
| <b>4.8</b><br>4.75 - 4.97 | 10.8 | 2.4 - 4.8 | <b>SSK63SSHR</b> | 5.0 - 5.2 | 7.80 - 8.60 | -  | 3.40 | 3700 | 5000 | 89724     | 1,000   | on request |         | 4.70 |
|                           | 12.4 | 4.8 - 6.4 | <b>SSK64SSHR</b> |           |             |    |      |      |      | 89725     | 1,000   | on request |         | 5.00 |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

## Closed End Domed Head

Stainless Steel  
Mandrel: Stainless Steel



- Moisture and pressure tight
- High strength at high temperatures
- Good corrosion resistance

|                           |      |            |                | DESCRIPTION |               |      |      |      |      |       | BULK PACK |         | SMALL PACK |         |  |
|---------------------------|------|------------|----------------|-------------|---------------|------|------|------|------|-------|-----------|---------|------------|---------|--|
|                           |      |            |                |             |               |      |      |      |      |       | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |  |
|                           | mm   | mm         | mm             |             | mm            | mm   | mm   | mm   | N    | N     |           |         |            |         |  |
| <b>3.2</b><br>3.15 - 3.28 | 6.6  | Up To 1.6  | <b>TD42GT</b>  | 3.3 - 3.4   | 6.12 - 6.65   | 0.87 | 2.00 | 2100 | 2220 | 76462 | 10,000    | 89304   | 500        | 1.45    |  |
|                           | 8.0  | 1.6 - 3.2  | <b>TD44GT</b>  |             |               |      |      |      |      | 82068 | 10,000    | 89306   | 500        | 1.46    |  |
|                           | 9.7  | 3.2 - 4.8  | <b>TD46GT</b>  |             |               |      |      |      |      | 82067 | 10,000    | 89305   | 500        | 1.47    |  |
|                           | 11.3 | 4.8 - 6.4  | <b>TD48GT</b>  |             |               |      |      |      |      | 82066 | 10,000    | 89307   | 500        | 1.52    |  |
|                           | 12.9 | 6.4 - 7.9  | <b>TD410GT</b> |             |               |      |      |      |      | 78235 | 8,000     | 89303   | 500        | 1.60    |  |
| <b>4.0</b><br>3.94 - 4.08 | 8.6  | Up To 3.2  | <b>TD54GT</b>  | 4.1 - 4.2   | 7.62 - 8.22   | 1.00 | 2.36 | 3300 | 4000 | 77425 | 6,000     | 89308   | 500        | 2.30    |  |
|                           | 10.2 | 3.2 - 4.8  | <b>TD56GT</b>  |             |               |      |      |      |      | 77424 | 6,000     | 89309   | 500        | 2.36    |  |
|                           | 11.8 | 4.8 - 6.4  | <b>TD58GT</b>  |             |               |      |      |      |      | 77423 | 6,000     | 89318   | 500        | 2.41    |  |
|                           | 13.4 | 6.4 - 7.9  | <b>TD510GT</b> |             |               |      |      |      |      | 76463 | 5,000     | 89433   | 500        | 2.47    |  |
| <b>4.8</b><br>4.73 - 4.88 | 9.2  | Up To 3.2  | <b>TD64GT</b>  | 4.9 - 5.0   | 9.23 - 9.83   | 1.25 | 2.97 | 4300 | 4400 | 77422 | 4,000     | 89312   | 500        | 3.42    |  |
|                           | 10.8 | 3.2 - 4.8  | <b>TD66GT</b>  |             |               |      |      |      |      | 77421 | 4,000     | 89313   | 500        | 3.56    |  |
|                           | 12.5 | 4.8 - 6.4  | <b>TD68GT</b>  |             |               |      |      |      |      | 77426 | 4,000     | 89314   | 500        | 3.66    |  |
|                           | 15.5 | 6.4 - 9.5  | <b>TD612GT</b> |             |               |      |      |      |      | 77415 | 4,000     | 89462   | 500        | 3.88    |  |
|                           | 18.5 | 9.5 - 12.7 | <b>TD616GT</b> |             |               |      |      |      |      | 76447 | 3,000     | 89311   | 500        | 5.03    |  |
| <b>6.4</b><br>3.38 - 6.48 | 14.2 | Up To 6.4  | <b>TD88GT</b>  | 6.5 - 6.6   | 12.40 - 13.00 | 1.35 | 3.93 | 6800 | 8700 | 25870 | 2,000     | 89015   | 500        | 7.13    |  |
|                           | 15.7 | 6.4 - 7.9  | <b>TD810GT</b> |             |               |      |      |      |      | 77427 | 1,500     | 89016   | 500        | 8.43    |  |
|                           | 20.5 | 7.9 - 12.7 | <b>TD816GT</b> |             |               |      |      |      |      | 77428 | 1,500     | 89017   | 500        | 9.03    |  |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

## Closed End 120° Countersunk

Stainless Steel  
Mandrel: Stainless Steel



- Moisture and pressure tight
- High strength at high temperatures
- Good corrosion resistance
- For a flush surface after setting

|                           |      |            | DESCRIPTION |           |             |    |      |      |      | BULK PACK |         | SMALL PACK |         |      |
|---------------------------|------|------------|-------------|-----------|-------------|----|------|------|------|-----------|---------|------------|---------|------|
|                           |      |            |             |           |             |    |      |      |      | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |      |
| mm                        | mm   | mm         |             | mm        | mm          | mm | mm   | N    | N    |           |         |            |         | kg   |
| <b>3.2</b><br>3.15 - 3.25 | 8.9  | 2.5 - 4.1  | TK44GT      | 3.3 - 3.4 | 6.05 - 6.65 | -  | 2.00 | 2100 | 2200 | 78179     | 10,000  | on request |         | 1.45 |
|                           | 10.5 | 4.1 - 5.6  | TK46GT      |           |             |    |      |      |      | 77274     | 10,000  | on request |         | 1.47 |
|                           | 12.1 | 5.8 - 7.4  | TK48GT      |           |             |    |      |      |      | 76885     | 10,000  | on request |         | 1.52 |
| <b>4.8</b><br>4.73 - 4.88 | 13.5 | 5.0 - 8.2  | TK68GT      | 4.9 - 5.0 | 9.23 - 9.83 | -  | 2.90 | 4300 | 4400 | 77418     | 4,000   | 89550      | 500     | 3.66 |
|                           | 16.6 | 8.2 - 11.3 | TK612GT     |           |             |    |      |      |      | 77419     | 4,000   | on request |         | 3.88 |

## TVD Closed End Domed Head

Stainless Steel  
Mandrel: Stainless Steel



- Wide blind side expansion
- Moisture and pressure tight
- High strength at high temperatures
- Good corrosion resistance
- Pull-up capability

|                           |      |            | DESCRIPTION |           |             |      |      |      |      | BULK PACK |         | SMALL PACK |         |      |
|---------------------------|------|------------|-------------|-----------|-------------|------|------|------|------|-----------|---------|------------|---------|------|
|                           |      |            |             |           |             |      |      |      |      | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |      |
| mm                        | mm   | mm         |             | mm        | mm          | mm   | mm   | N    | N    |           |         |            |         | kg   |
| <b>4.8</b><br>4.73 - 4.88 | 12.3 | 2.0 - 4.5  | TVD603GT    | 5.0 - 5.1 | 9.10 - 9.95 | 1.25 | 2.97 | 4300 | 4800 | 77695     | 4,000   | 89746      | 500     | 3.75 |
|                           | 13.7 | 3.5 - 6.0  | TVD605GT    |           |             |      |      |      |      | 76897     | 3,000   | 89315      | 500     | 3.83 |
|                           | 15.3 | 5.0 - 7.5  | TVD607GT    |           |             |      |      |      |      | 77697     | 3,000   | 89747      | 500     | 4.87 |
|                           | 16.8 | 6.5 - 9.0  | TVD609GT    |           |             |      |      |      |      | 77698     | 3,000   | 89316      | 500     | 4.80 |
|                           | 19.7 | 9.0 - 11.5 | TVD613GT    |           |             |      |      |      |      | 77699     | 3,000   | 89317      | 500     | 5.13 |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

**Break Stem Open  
Domed Head**

Nickel Copper Alloy  
Mandrel: Carbon Steel



- **Extremely corrosion resistant**
- Excellent for marine and other hostile environments

|                           |   |   | DESCRIPTION      |           |               |      |      |      |      | BULK PACK  |         | SMALL PACK |         |      |
|---------------------------|---|---|------------------|-----------|---------------|------|------|------|------|------------|---------|------------|---------|------|
|                           |   |   |                  |           |               |      |      |      |      | ARTICLE    | BOX QTY | ARTICLE    | BOX QTY |      |
| mm                        | mm  | mm  |                  | mm        | mm            | mm   | mm   | N    | N    |            |         |            |         |      |
| <b>2.8</b><br>2.74 - 2.88 | 5.0<br>5.5  | Up To 1.8<br>1.8 - 2.3  | <b>TLPD319BS</b> | 2.9 - 3.0 | 4.70 - 5.06   | 0.60 | 1.83 | 1150 | 1300 | 78717      | 10,000  | on request |         | 0.95 |
|                           |   |   | <b>TLPD321BS</b> |           |               |      |      |      |      | 78685      | 10,000  | on request |         | 0.95 |
| <b>3.2</b><br>3.15 - 3.25 | 3.5<br>5.0<br>6.2<br>7.5<br>9.0<br>10.3                   | Up To 0.8<br>0.5 - 1.8<br>1.8 - 3.1<br>3.1 - 4.3<br>4.3 - 5.8<br>5.8 - 7.1                                | <b>TLED413BS</b> | 3.3 - 3.4 | 5.80 - 6.65   | 1.10 | 1.93 | 1750 | 2500 | on request |         | on request |         | 0.73 |
|                           |   |   | <b>TLED419BS</b> |           |               |      |      |      |      | 77076      | 10,000  | 89391      | 500     | 1.26 |
|                           |   |   | <b>TLED424BS</b> |           |               |      |      |      |      | 76862      | 10,000  | 89358      | 500     | 1.30 |
|                           |   |   | <b>TLED429BS</b> |           |               |      |      |      |      | 76924      | 10,000  | 89373      | 500     | 1.45 |
|                           |   |   | <b>TLED435BS</b> |           |               |      |      |      |      | 76925      | 10,000  | 89383      | 500     | 1.51 |
|                           |   |   | <b>TLED440BS</b> |           |               |      |      |      |      | 77088      | 10,000  | 89389      | 500     | 1.56 |
| <b>4.0</b><br>3.85 - 4.08 | 6.2<br>6.6<br>7.8<br>9.5<br>10.3<br>11.5<br>13.0          | 1.3 - 2.5<br>2.3 - 2.7<br>2.5 - 4.1<br>4.1 - 5.8<br>5.8 - 6.6<br>6.6 - 7.9<br>7.9 - 9.4                   | <b>TLED524BS</b> | 4.1 - 4.2 | 7.62 - 8.22   | 1.35 | 2.29 | 3000 | 4000 | 77601      | 6,000   | 89483      | 500     | 2.10 |
|                           |   |   | <b>TLED525BS</b> |           |               |      |      |      |      | on request |         | on request |         | 2.22 |
|                           |   |   | <b>TLED530BS</b> |           |               |      |      |      |      | 77529      | 6,000   | 89484      | 500     | 2.24 |
|                           |   |   | <b>TLED537BS</b> |           |               |      |      |      |      | 77602      | 6,000   | 89485      | 500     | 2.51 |
|                           |   |   | <b>TLED540BS</b> |           |               |      |      |      |      | 77603      | 6,000   | 89486      | 500     | 2.58 |
|                           |   |   | <b>TLED545BS</b> |           |               |      |      |      |      | 78104      | 6,000   | 89487      | 500     | 2.66 |
|                           |   |   | <b>TLED551BS</b> |           |               |      |      |      |      | on request |         | on request |         | 2.77 |
| <b>4.8</b><br>4.70 - 4.88 | 6.2<br>7.7<br>9.3<br>10.0<br>12.8<br>16.5<br>19.0<br>21.7 | 0.5 - 2.3<br>2.3 - 3.8<br>3.8 - 5.1<br>5.1 - 5.8<br>5.8 - 8.6<br>8.6 - 12.5<br>12.5 - 15.0<br>15.0 - 17.5 | <b>TLPD624BS</b> | 4.9 - 5.0 | 7.85 - 8.40   | 1.27 | 2.90 | 3300 | 3750 | 78072      | 4,000   | 89004      | 500     | 3.18 |
|                           |   |   | <b>TLPD630BS</b> |           |               |      |      |      |      | 78073      | 4,000   | 89292      | 500     | 3.22 |
|                           |   |   | <b>TLPD636BS</b> |           |               |      |      |      |      | 77614      | 4,000   | 88150      | 500     | 3.32 |
|                           |   |   | <b>TLPD639BS</b> |           |               |      |      |      |      | 77619      | 4,000   | 88212      | 500     | 3.72 |
|                           |   |   | <b>TLPD650BS</b> |           |               |      |      |      |      | 77623      | 4,000   | 88080      | 500     | 3.90 |
|                           |   |   | <b>TLPD665BS</b> |           |               |      |      |      |      | 77671      | 3,000   | 88083      | 500     | 4.51 |
|                           |   |   | <b>TLPD675BS</b> |           |               |      |      |      |      | 77678      | 3,000   | 88126      | 500     | 4.68 |
|                           |   |   | <b>TLPD685BS</b> |           |               |      |      |      |      | 82226      | 3,000   | 89155      | 500     | 5.02 |
| <b>6.4</b><br>6.32 - 6.48 | 15.0<br>21.0<br>25.0                                      | 5.7 - 8.9<br>11.4 - 14.6<br>15.9 - 18.0   | <b>TLED815BS</b> | 6.5 - 6.7 | 10.50 - 11.10 | 1.60 | 3.86 | 7000 | 8000 | on request |         | on request |         | 8.17 |
|                           |   |   | <b>TLED821BS</b> |           |               |      |      |      |      | on request |         | on request |         | 8.58 |
|                           |   |   | <b>TLED825BS</b> |           |               |      |      |      |      | on request |         | on request |         | 8.83 |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *dh*=Hole Size (Min - Max); *dk*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *dm*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

## Break Stem Open Large Flange

Nickel Copper Alloy  
Mandrel: Carbon Steel



- Extremely corrosion resistant
- Excellent for marine and other hostile environments
- **Large flange increases bearing surface for weaker, thinner materials**
- Suitable for oversized holes or slots under the head

|                           |      |             | DESCRIPTION |           |               |         |         |      |      | BULK PACK |       | SMALL PACK |     |      |
|---------------------------|------|-------------|-------------|-----------|---------------|---------|---------|------|------|-----------|-------|------------|-----|------|
|                           |      |             |             |           | ARTICLE       | BOX QTY | ARTICLE |      |      | BOX QTY   | kg    |            |     |      |
| mm                        | mm   | mm          |             | mm        | mm            | mm      | mm      | N    | N    |           |       |            |     |      |
| <b>4.8</b><br>4.70 - 4.88 | 16.5 | Up To 12.4  | TLPD665BSLF | 4.9 - 5.0 | 10.30 - 10.90 | 1.34    | 2.90    | 3300 | 3750 | 77673     | 3,000 | 88318      | 500 | 4.77 |
|                           | 19.0 | 12.4 - 15.0 | TLPD675BSLF |           |               |         |         |      |      | 77680     | 3,000 | 89115      | 500 | 4.97 |
|                           | 21.5 | 15.0 - 17.5 | TLPD685BSLF |           |               |         |         |      |      | 78070     | 2,000 | 88823      | 500 | 5.30 |

## Break Stem Open 120° Countersunk

Nickel Copper Alloy  
Mandrel: Carbon Steel



- Extremely corrosion resistant
- Excellent for marine and other hostile environments
- **For a flush surface after setting**

|                           |             |            | DESCRIPTION |           |               |         |         |      |      | BULK PACK  |        | SMALL PACK |     |      |
|---------------------------|-------------|------------|-------------|-----------|---------------|---------|---------|------|------|------------|--------|------------|-----|------|
|                           |             |            |             |           | ARTICLE       | BOX QTY | ARTICLE |      |      | BOX QTY    | kg     |            |     |      |
| mm                        | mm          | mm         |             | mm        | mm            | mm      | mm      | N    | N    |            |        |            |     |      |
| <b>2.8</b><br>2.70 - 2.88 | 5.5         | 0.5 - 2.3  | TLPK319BS   | 2.9 - 3.0 | 4.70 - 5.10   | -       | 1.83    | 1150 | 1300 | 79096      | 10,000 | 88304      | 500 | 0.96 |
|                           | 6.0         | 2.3 - 2.8  | TLPK321BS   |           |               |         |         |      |      | 79097      | 10,000 | 88305      | 500 | 0.97 |
| <b>3.2</b><br>3.15 - 3.28 | 4.5         | Up To 0.8  | TLEK413BS   | 3.3 - 3.4 | 6.05 - 6.65   | -       | 1.93    | 1750 | 2500 | on request |        | on request |     | 1.19 |
|                           | 5.8         | 0.8 - 2.5  | TLEK419BS   |           |               |         |         |      |      | 77078      | 10,000 | 89463      | 500 | 1.26 |
|                           | 7.0         | 2.5 - 3.8  | TLEK424BS   |           |               |         |         |      |      | 77079      | 10,000 | 89464      | 500 | 1.31 |
|                           | 8.5         | 3.8 - 5.1  | TLEK429BS   |           |               |         |         |      |      | 77080      | 10,000 | 89466      | 500 | 1.44 |
|                           | 10.0        | 5.1 - 6.6  | TLEK435BS   |           |               |         |         |      |      | 77081      | 10,000 | 89470      | 500 | 1.50 |
| 11.2                      | 6.6 - 7.9   | TLEK440BS  | 77082       | 10,000    | 89471         | 500     | 1.55    |      |      |            |        |            |     |      |
| <b>4.0</b><br>3.92 - 4.08 | 5.9         | Up To 2.0  | TLEK519BS   | 4.1 - 4.2 | 7.63 - 8.23   | -       | 2.29    | 3000 | 4000 | 77645      | 6,000  | on request |     | 1.98 |
|                           | 7.2         | 2.0 - 3.3  | TLEK524BS   |           |               |         |         |      |      | 77646      | 6,000  | on request |     | 2.10 |
|                           | 8.7         | 3.3 - 4.8  | TLEK530BS   |           |               |         |         |      |      | 77647      | 6,000  | 89534      | 500 | 2.24 |
|                           | 10.5        | 4.8 - 6.6  | TLEK537BS   |           |               |         |         |      |      | 77648      | 6,000  | on request |     | 2.51 |
|                           | 11.3        | 6.6 - 7.4  | TLEK540BS   |           |               |         |         |      |      | 77649      | 6,000  | on request |     | 2.58 |
| 12.5                      | 7.4 - 8.6   | TLEK545BS  | 78108       | 5,000     | on request    |         | 2.66    |      |      |            |        |            |     |      |
| <b>4.8</b><br>4.70 - 4.88 | 7.5         | 1.3 - 3.1  | TLPK624BS   | 4.9 - 5.0 | 7.85 - 8.40   | -       | 2.90    | 3300 | 3750 | on request |        | on request |     | 3.20 |
|                           | 9.0         | 3.1 - 4.6  | TLPK630BS   |           |               |         |         |      |      | 78075      | 4,000  | 88308      | 500 | 3.18 |
|                           | 10.5        | 4.6 - 5.8  | TLPK636BS   |           |               |         |         |      |      | 78896      | 4,000  | 88261      | 500 | 3.32 |
|                           | 11.0        | 5.8 - 6.6  | TLPK639BS   |           |               |         |         |      |      | 77634      | 4,000  | 88309      | 500 | 3.72 |
|                           | 14.0        | 6.6 - 9.4  | TLPK650BS   |           |               |         |         |      |      | on request |        | 89816      | 500 | 4.87 |
|                           | 18.0        | 9.4 - 13.2 | TLPK665BS   |           |               |         |         |      |      | 77683      | 3,000  | 88204      | 500 | 4.51 |
| 20.5                      | 13.2 - 15.8 | TLPK675BS  | 77685       | 3,000     | 88260         | 500     | 4.67    |      |      |            |        |            |     |      |
| <b>6.4</b><br>6.40 - 6.50 | 14.5        | 4.6 - 8.4  | TLPK850BS   | 6.6 - 6.7 | 10.60 - 11.10 | -       | 3.86    | 5400 | 6750 | 78611      | 1,500  | 89006      | 500 | 7.87 |
|                           | 19.4        | 8.4 - 13.5 | TLPK870BS   |           |               |         |         |      |      | 78612      | 1,500  | 88259      | 500 | 8.60 |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength





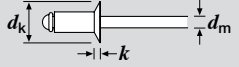







**Break Stem Open**

**120° Countersunk - Reduced Diameter Flange**

Nickel Copper Alloy  
Mandrel: Carbon Steel

- Extremely corrosion resistant
- Excellent for marine and other hostile environments
- For a flush surface after setting
- **Reduced flange diameter**

|  |  |  | DESCRIPTION  |  |  |  |  |  |  | BULK PACK |         | SMALL PACK |         | <br>kg |
|---|---|---|--|---|---|---|---|--|---|-----------|---------|------------|---------|---|
|   |   |   |  |   |   |   |   |  |   | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |   |
| <b>3.2</b><br>3.15 - 3.28   | 5.8<br>7.0<br>8.5   | 0.8 - 2.5<br>2.5 - 3.8<br>3.8 - 5.1   | <b>TLEK419BSSF</b><br><b>TLEK424BSSF</b><br><b>TLEK429BSSF</b> | 3.3 - 3.4   | 5.00 - 5.60   | -   | 1.93  | 1750   | 2500  | 77979     | 10,000  | 89522      | 500     | 1.21  |
|   |   |   |  |   |   |   |   |  |   | 77963     | 10,000  | 89523      | 500     | 1.26  |
|   |   |   |  |   |   |   |   |  |   | 77980     | 10,000  | 89524      | 500     | 1.39  |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *d<sub>h</sub>*=Hole Size (Min - Max); *d<sub>k</sub>*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *d<sub>m</sub>*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

## Break Stem Open

### Domed Head

Nickel Copper Alloy  
Mandrel: Stainless Steel



- Extremely corrosion resistant
- Excellent for marine and other hostile environments
- **Stainless Steel mandrel for further corrosion resistance**

|                           |      |             |  | DESCRIPTION      |           |             |      |      |      |      | BULK PACK  |         | SMALL PACK |         |      |
|---------------------------|------|-------------|--|------------------|-----------|-------------|------|------|------|------|------------|---------|------------|---------|------|
|                           |      |             |  |                  |           |             |      |      |      |      | ARTICLE    | BOX QTY | ARTICLE    | BOX QTY |      |
| <b>3.2</b><br>3.15 - 3.25 | 3.5  | Up To 0.8   |  | <b>TLED413SS</b> | 3.3 - 3.4 | 5.80 - 6.65 | 1.10 | 1.93 | 1750 | 2500 | on request |         | on request |         | 1.19 |
|                           | 5.0  | 0.5 - 1.8   |  | <b>TLED419SS</b> |           |             |      |      |      |      | 77096      | 10,000  | 89488      | 500     | 1.25 |
|                           | 6.2  | 1.8 - 3.1   |  | <b>TLED424SS</b> |           |             |      |      |      |      | 77097      | 10,000  | 89489      | 500     | 1.31 |
|                           | 7.5  | 3.1 - 4.3   |  | <b>TLED429SS</b> |           |             |      |      |      |      | 77098      | 10,000  | 89490      | 500     | 1.44 |
|                           | 9.0  | 4.3 - 5.8   |  | <b>TLED435SS</b> |           |             |      |      |      |      | 77099      | 10,000  | 89491      | 500     | 1.50 |
|                           | 10.3 | 5.8 - 7.1   |  | <b>TLED440SS</b> |           |             |      |      |      |      | 77100      | 10,000  | 89492      | 500     | 1.55 |
| <b>4.0</b><br>3.85 - 4.08 | 6.2  | 1.3 - 2.5   |  | <b>TLED524SS</b> | 4.1 - 4.2 | 7.62 - 8.22 | 1.35 | 2.29 | 3000 | 4000 | 77731      | 6,000   | 89507      | 500     | 2.08 |
|                           | 7.8  | 2.5 - 4.1   |  | <b>TLED530SS</b> |           |             |      |      |      |      | 77733      | 6,000   | 89508      | 500     | 2.22 |
|                           | 9.5  | 4.1 - 5.8   |  | <b>TLED537SS</b> |           |             |      |      |      |      | 77734      | 6,000   | 89509      | 500     | 2.48 |
|                           | 10.3 | 5.8 - 6.6   |  | <b>TLED540SS</b> |           |             |      |      |      |      | 77735      | 6,000   | 89510      | 500     | 2.57 |
|                           | 11.5 | 6.6 - 7.9   |  | <b>TLED545SS</b> |           |             |      |      |      |      | 77736      | 6,000   | 89511      | 500     | 2.67 |
|                           | 13.0 | 7.9 - 9.4   |  | <b>TLED551SS</b> |           |             |      |      |      |      | on request |         | on request |         | 2.78 |
| <b>4.8</b><br>4.70 - 4.88 | 6.2  | 0.5 - 2.3   |  | <b>TLPD624SS</b> | 4.9 - 5.0 | 7.85 - 8.40 | 1.27 | 2.90 | 3300 | 3750 | on request |         | on request |         | 3.01 |
|                           | 7.7  | 2.3 - 3.8   |  | <b>TLPD630SS</b> |           |             |      |      |      |      | 78074      | 4,000   | 88321      | 500     | 3.18 |
|                           | 9.3  | 3.8 - 5.1   |  | <b>TLPD636SS</b> |           |             |      |      |      |      | 77617      | 4,000   | 88791      | 500     | 3.37 |
|                           | 10.0 | 5.1 - 5.8   |  | <b>TLPD639SS</b> |           |             |      |      |      |      | 77621      | 4,000   | 88323      | 500     | 3.72 |
|                           | 12.8 | 5.8 - 8.6   |  | <b>TLPD650SS</b> |           |             |      |      |      |      | 77627      | 4,000   | 88324      | 500     | 3.90 |
|                           | 16.5 | 8.6 - 12.5  |  | <b>TLPD665SS</b> |           |             |      |      |      |      | 77675      | 3,000   | 88325      | 500     | 4.51 |
|                           | 19.0 | 12.5 - 15.0 |  | <b>TLPD675SS</b> |           |             |      |      |      |      | 77681      | 3,000   | 88326      | 500     | 4.68 |
|                           | 21.7 | 15.0 - 17.5 |  | <b>TLPD685SS</b> |           |             |      |      |      |      | 82151      | 3,000   | on request |         | 5.76 |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

**Break Stem Open  
120° Countersunk**

Nickel Copper Alloy  
Mandrel: Stainless Steel



- Extremely corrosion resistant
- Excellent for marine and other hostile environments
- **For a flush surface after setting**
- **Stainless Steel mandrel for further corrosion resistance**

|                           |      |             |                  | DESCRIPTION |             |    |      |      |      |            | BULK PACK  |         | SMALL PACK |         |  |
|---------------------------|------|-------------|------------------|-------------|-------------|----|------|------|------|------------|------------|---------|------------|---------|--|
|                           |      |             |                  |             |             |    |      |      |      |            | ARTICLE    | BOX QTY | ARTICLE    | BOX QTY |  |
|                           | mm   | mm          | mm               |             | mm          | mm | mm   | mm   | N    | N          |            |         |            |         |  |
| <b>3.2</b><br>3.15 - 3.28 | 4.5  | Up To 0.8   | <b>TLEK413SS</b> | 3.3 - 3.4   | 6.05 - 6.65 | -  | 1.93 | 1750 | 2500 | on request | on request | 1.19    |            |         |  |
|                           | 5.8  | 0.8 - 2.5   | <b>TLEK419SS</b> |             |             |    |      |      |      | 77090      | 10,000     | 89472   | 500        | 1.26    |  |
|                           | 7.0  | 2.5 - 3.8   | <b>TLEK424SS</b> |             |             |    |      |      |      | 77091      | 10,000     | 89473   | 500        | 1.31    |  |
|                           | 8.5  | 3.8 - 5.1   | <b>TLEK429SS</b> |             |             |    |      |      |      | 77092      | 10,000     | 89474   | 500        | 1.46    |  |
|                           | 10.0 | 5.1 - 6.6   | <b>TLEK435SS</b> |             |             |    |      |      |      | 77093      | 10,000     | 89475   | 500        | 1.53    |  |
|                           | 11.2 | 6.6 - 7.9   | <b>TLEK440SS</b> |             |             |    |      |      |      | 77094      | 10,000     | 89476   | 500        | 1.57    |  |
| <b>4.0</b><br>3.92 - 4.08 | 5.9  | Up To 2.0   | <b>TLEK519SS</b> | 4.1 - 4.2   | 7.63 - 8.23 | -  | 2.29 | 3000 | 4000 | on request | on request | 1.92    |            |         |  |
|                           | 7.2  | 2.0 - 3.3   | <b>TLEK524SS</b> |             |             |    |      |      |      | 77737      | 6,000      | 89512   | 500        | 2.08    |  |
|                           | 8.7  | 3.3 - 4.8   | <b>TLEK530SS</b> |             |             |    |      |      |      | 77738      | 6,000      | 89513   | 500        | 2.22    |  |
|                           | 10.5 | 4.8 - 6.6   | <b>TLEK537SS</b> |             |             |    |      |      |      | 77739      | 6,000      | 89514   | 500        | 2.48    |  |
|                           | 11.0 | 6.6 - 7.4   | <b>TLEK540SS</b> |             |             |    |      |      |      | 77740      | 6,000      | 89515   | 500        | 2.57    |  |
|                           | 12.5 | 7.4 - 8.6   | <b>TLEK545SS</b> |             |             |    |      |      |      | 77741      | 6,000      | 89516   | 500        | 2.67    |  |
| <b>4.8</b><br>4.70 - 4.88 | 7.5  | 1.3 - 3.1   | <b>TLPK624SS</b> | 4.9 - 5.0   | 7.85 - 8.40 | -  | 2.90 | 3300 | 3750 | on request | on request | 3.12    |            |         |  |
|                           | 9.0  | 3.1 - 4.6   | <b>TLPK630SS</b> |             |             |    |      |      |      | 78076      | 4,000      | 89148   | 500        | 3.18    |  |
|                           | 10.5 | 4.6 - 5.8   | <b>TLPK636SS</b> |             |             |    |      |      |      | 77632      | 4,000      | 89149   | 500        | 3.38    |  |
|                           | 11.0 | 5.8 - 6.6   | <b>TLPK639SS</b> |             |             |    |      |      |      | 77635      | 4,000      | 89150   | 500        | 3.73    |  |
|                           | 14.0 | 6.6 - 9.4   | <b>TLPK650SS</b> |             |             |    |      |      |      | on request | on request | 4.23    |            |         |  |
|                           | 18.0 | 9.4 - 13.2  | <b>TLPK665SS</b> |             |             |    |      |      |      | 77684      | 3,000      | 89151   | 500        | 4.49    |  |
|                           | 20.5 | 13.2 - 15.8 | <b>TLPK675SS</b> |             |             |    |      |      |      | 77686      | 3,000      | 89152   | 500        | 4.67    |  |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *dh*=Hole Size (Min - Max); *dk*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *dm*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

## Closed End Domed Head

Nickel Copper Alloy  
Mandrel: Carbon Steel



- Moisture and pressure tight
- Extremely corrosion resistant
- Excellent for marine and other hostile environments
- Guaranteed mandrel head retention

|                           |      |           | DESCRIPTION    |           |             |      |      |      |      | BULK PACK  |         | SMALL PACK |         |      |
|---------------------------|------|-----------|----------------|-----------|-------------|------|------|------|------|------------|---------|------------|---------|------|
|                           |      |           |                |           |             |      |      |      |      | ARTICLE    | BOX QTY | ARTICLE    | BOX QTY |      |
| mm                        | mm   | mm        |                | mm        | mm          | mm   | mm   | N    | N    |            |         |            |         |      |
| <b>3.2</b><br>3.10 - 3.28 | 8.0  | Up To 3.2 | <b>LD44SB</b>  | 3.3 - 3.4 | 6.12 - 6.58 | 1.00 | 1.93 | 1500 | 1900 | 82112      | 10,000  | 88501      | 500     | 1.45 |
|                           | 9.7  | 3.2 - 4.8 | <b>LD46SB</b>  |           |             |      |      |      |      | 24570      | 10,000  | 88502      | 500     | 1.56 |
|                           | 11.3 | 4.8 - 6.4 | <b>LD48SB</b>  |           |             |      |      |      |      | 78233      | 8,000   | 88503      | 500     | 1.59 |
|                           | 13.0 | 6.4 - 7.9 | <b>LD410SB</b> |           |             |      |      |      |      | 78232      | 8,000   | 88504      | 500     | 1.64 |
| <b>4.0</b><br>3.85 - 4.08 | 8.5  | Up To 3.2 | <b>LD54SB</b>  | 4.1 - 4.2 | 7.67 - 8.17 | 1.20 | 2.29 | 2200 | 3000 | 77430      | 6,000   | 88480      | 500     | 2.40 |
|                           | 10.2 | 3.2 - 4.8 | <b>LD56SB</b>  |           |             |      |      |      |      | 77406      | 6,000   | 88162      | 500     | 2.45 |
|                           | 11.8 | 4.8 - 6.4 | <b>LD58SB</b>  |           |             |      |      |      |      | 77429      | 6,000   | 89220      | 500     | 2.50 |
|                           | 13.4 | 6.4 - 7.9 | <b>LD510SB</b> |           |             |      |      |      |      | 82108      | 5,000   | 88479      | 500     | 2.59 |
| <b>4.8</b><br>4.65 - 4.88 | 9.2  | Up To 3.2 | <b>LD64SB</b>  | 4.9 - 5.0 | 9.23 - 9.83 | 1.30 | 2.90 | 3300 | 3750 | 77407      | 4,000   | 88505      | 500     | 3.62 |
|                           | 10.8 | 3.2 - 4.8 | <b>LD66SB</b>  |           |             |      |      |      |      | 77713      | 4,000   | 88481      | 500     | 3.85 |
|                           | 12.4 | 4.8 - 6.4 | <b>LD68SB</b>  |           |             |      |      |      |      | 77408      | 4,000   | 88266      | 500     | 3.97 |
|                           | 15.5 | 6.4 - 9.5 | <b>LD612SB</b> |           |             |      |      |      |      | on request |         | on request |         | 4.19 |

$d$ =Nominal Diameter, Min - Max Diameter;  $l$ =Body Length (+/- 0.5mm);  $g$ =Grip Range (Min - Max);  $d_h$ =Hole Size (Min - Max);  $d_k$ =Flange Diameter (Min - Max);  $k$ =Flange Thickness (Max);  $d_m$ =Nominal Mandrel Diameter;  $S$ =Nominal Shear Strength;  $T$ =Nominal Tensile Strength

**Break Stem Open  
Domed Head**

- Good electrical and thermal conductivity
- Excellent for use in electrical assemblies



Copper  
Mandrel: Carbon Steel

|                           |      |           |                  | DESCRIPTION |             |      |      |      |      |       | BULK PACK |         | SMALL PACK |         |  |
|---------------------------|------|-----------|------------------|-------------|-------------|------|------|------|------|-------|-----------|---------|------------|---------|--|
|                           |      |           |                  |             |             |      |      |      |      |       | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |  |
|                           | mm   | mm        | mm               |             | mm          | mm   | mm   | mm   | N    | N     |           |         |            |         |  |
| <b>3.2</b><br>3.10 - 3.28 | 4.5  | Up To 1.3 | <b>TCPD42BS</b>  | 3.3 - 3.4   | 6.05 - 6.65 | 1.10 | 1.83 | 800  | 1200 | 22379 | 10,000    | 88567   | 500        | 1.23    |  |
|                           | 5.3  | 1.3 - 2.1 | <b>TCPD43BS</b>  |             |             |      |      |      |      | 81624 | 10,000    | 89211   | 500        | 1.30    |  |
|                           | 6.3  | 2.1 - 2.9 | <b>TCPD44BS</b>  |             |             |      |      |      |      | 22375 | 10,000    | 88968   | 500        | 1.24    |  |
|                           | 8.0  | 2.9 - 4.5 | <b>TCPD46BS</b>  |             |             |      |      |      |      | 22380 | 10,000    | 88970   | 500        | 14.28   |  |
|                           | 9.8  | 4.5 - 6.1 | <b>TCPD48BS</b>  |             |             |      |      |      |      | 22235 | 10,000    | 88972   | 500        | 15.51   |  |
| <b>4.0</b><br>3.85 - 4.08 | 7.0  | Up To 3.2 | <b>TCPD54BS</b>  | 4.1 - 4.2   | 7.75 - 8.15 | 1.25 | 2.29 | 1330 | 1910 | 78120 | 8,000     | 88202   | 500        | 13.10   |  |
|                           | 10.5 | 3.2 - 6.4 | <b>TCPD58BS</b>  |             |             |      |      |      |      | 24107 | 5,000     | 88270   | 500        | 12.72   |  |
|                           | 14.0 | 6.4 - 9.5 | <b>TCPD512BS</b> |             |             |      |      |      |      | 81632 | 5,000     | 88903   | 500        | 14.41   |  |

**Break Stem Open  
Domed Head**

- Good electrical and thermal conductivity
- Excellent for use in electrical assemblies
- Phosphor Bronze mandrel for corrosion resistance



Copper  
Mandrel: Phosphor Bronze

|                           |      |           |                  | DESCRIPTION |             |      |      |      |      |       | BULK PACK |         | SMALL PACK |         |  |
|---------------------------|------|-----------|------------------|-------------|-------------|------|------|------|------|-------|-----------|---------|------------|---------|--|
|                           |      |           |                  |             |             |      |      |      |      |       | ARTICLE   | BOX QTY | ARTICLE    | BOX QTY |  |
|                           | mm   | mm        | mm               |             | mm          | mm   | mm   | mm   | N    | N     |           |         |            |         |  |
| <b>3.2</b><br>3.10 - 3.28 | 4.5  | Up To 1.3 | <b>TCPD42CS</b>  | 3.3 - 3.4   | 6.05 - 6.65 | 1.10 | 1.83 | 800  | 1200 | 23011 | 10,000    | 88386   | 500        | 1.27    |  |
|                           | 5.3  | 1.3 - 2.1 | <b>TCPD43CS</b>  |             |             |      |      |      |      | 81629 | 10,000    | 89233   | 500        | 1.29    |  |
|                           | 6.3  | 2.1 - 2.9 | <b>TCPD44CS</b>  |             |             |      |      |      |      | 22289 | 10,000    | 88284   | 500        | 1.32    |  |
|                           | 8.0  | 2.9 - 4.5 | <b>TCPD46CS</b>  |             |             |      |      |      |      | 22320 | 10,000    | 88969   | 500        | 1.47    |  |
|                           | 9.8  | 4.5 - 6.1 | <b>TCPD48CS</b>  |             |             |      |      |      |      | 22243 | 10,000    | 88971   | 500        | 1.55    |  |
| <b>4.0</b><br>3.85 - 4.08 | 7.0  | Up To 3.2 | <b>TCPD54CS</b>  | 4.1 - 4.2   | 7.75 - 8.15 | 1.25 | 2.29 | 1330 | 1910 | 78119 | 6,000     | 88387   | 500        | 2.32    |  |
|                           | 10.5 | 3.2 - 6.4 | <b>TCPD58CS</b>  |             |             |      |      |      |      | 23013 | 5,000     | 88973   | 500        | 2.69    |  |
|                           | 14.0 | 6.4 - 9.5 | <b>TCPD512CS</b> |             |             |      |      |      |      | 23495 | 5,000     | 88992   | 500        | 3.02    |  |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *dh*=Hole Size (Min - Max); *dk*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *dm*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

## Terminal Tag

### Domed Head

Copper  
Mandrel: Carbon Steel (Copper Finish)



- Copper body and tag assembly for electrical conductivity
- Splines aid efficient earthing connection in pre-painted sheets
- Range of single or multiple tag assemblies available

| d   | l   | g         | DESCRIPTION | d <sub>h</sub> | t | sw   | tw  | tl | d <sub>m</sub> | S    | T    | BULK PACK  |            | SMALL PACK |         | KG /1000 |
|-----|-----|-----------|-------------|----------------|---|------|-----|----|----------------|------|------|------------|------------|------------|---------|----------|
|     |     |           |             |                |   |      |     |    |                |      |      | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY |          |
| mm  | mm  | mm        |             | mm             |   | mm   | mm  | mm | mm             | N    | N    |            |            |            |         | kg       |
| 4.0 | 5.3 | Up To 2.0 | PMC46/01    | 5.15 - 5.20    | 1 | 10.5 | 6.3 | 8  | 2.3            | 1330 | 1910 | on request | 88005      | 500        |         |          |
| 4.0 | 5.3 | Up To 2.0 | PMC2/6.3    | 5.15 - 5.20    | 2 | 21   |     |    |                |      |      | on request | 88003      | 500        |         |          |
|     | 5.3 | Up To 2.0 | PMC4/6.3    |                | 4 | 42   | 6.3 | 8  | 2.3            | 1330 | 1910 | on request | 88026      | 500        |         |          |
|     | 5.3 | Up To 2.0 | PMC6/6.3    |                | 6 | 63   |     |    |                |      |      |            | on request | 88138      | 500     |          |
| 4.0 | 5.3 | Up To 2.0 | PMC6/6.3-2  | 5.15 - 5.20    | 6 | 63   | 6.3 | 8  | 2.3            | 1330 | 1910 | on request | 88390      | 500        |         |          |
|     | 5.3 | Up To 2.0 | PMC8/6.3-2  |                | 8 | 84   |     |    |                |      |      | on request | 88245      | 500        |         |          |

## Closed End

### Domed Head

Copper  
Mandrel: Carbon Steel



- Moisture and pressure tight
- Excellent for use in electrical assemblies
- Guaranteed mandrel head retention

| d                  | l    | g          | DESCRIPTION | d <sub>h</sub> | d <sub>k</sub> | k    | d <sub>m</sub> | S    | T    | BULK PACK  |         | SMALL PACK |         | KG /1000 |
|--------------------|------|------------|-------------|----------------|----------------|------|----------------|------|------|------------|---------|------------|---------|----------|
|                    |      |            |             |                |                |      |                |      |      | ARTICLE    | BOX QTY | ARTICLE    | BOX QTY |          |
| mm                 | mm   | mm         |             | mm             | mm             | mm   | mm             | N    | N    |            |         |            |         | kg       |
| 3.2<br>3.10 - 3.28 | 6.0  | Up To 1.6  | CD42SB      | 3.3 - 3.4      | 5.70 - 6.30    | 1.10 | 1.65           | 1020 | 1420 | 75338      | 10,000  | 88491      | 500     | 1.08     |
|                    | 7.5  | 1.6 - 3.2  | CD44SB      |                |                |      |                |      |      | 75339      | 10,000  | 89171      | 500     | 1.23     |
|                    | 9.0  | 3.2 - 4.8  | CD46SB      |                |                |      |                |      |      | 75340      | 10,000  | 88939      | 500     | 1.24     |
|                    | 12.3 | 4.8 - 7.9  | CD410SB     |                |                |      |                |      |      | 75341      | 10,000  | 89013      | 500     | 1.46     |
| 4.0<br>3.85 - 4.08 | 9.5  | Up To 4.8  | CD56SB      | 4.1 - 4.2      | 7.62 - 8.22    | 1.50 | 2.18           | 1550 | 2260 | 77474      | 6,000   | 88122      | 500     | 2.42     |
|                    | 12.7 | 4.8 - 7.9  | CD510SB     |                |                |      |                |      |      | 75343      | 5,000   | 88534      | 500     | 2.58     |
| 4.8<br>4.70 - 4.88 | 8.5  | Up To 3.2  | CD64SB      | 4.9 - 5.0      | 9.23 - 9.83    | 1.75 | 2.64           | 2130 | 3110 | 77476      | 4,000   | 88478      | 500     | 3.45     |
|                    | 11.5 | 3.2 - 6.4  | CD68SB      |                |                |      |                |      |      | 77477      | 4,000   | 89239      | 500     | 3.82     |
|                    | 13.0 | 6.4 - 7.9  | CD610SB     |                |                |      |                |      |      | 75346      | 5,000   | on request |         | 3.91     |
|                    | 14.5 | 7.9 - 9.5  | CD612SB     |                |                |      |                |      |      | 77475      | 3,000   | 89014      | 500     | 4.21     |
|                    | 18.0 | 9.5 - 12.7 | CD616SB     |                |                |      |                |      |      | on request |         | on request |         | 4.74     |

d=Nominal Diameter, Min - Max Diameter; l=Body Length (+/- 0.5mm); g=Grip Range (Min - Max); d<sub>h</sub>=Hole Size (Min - Max); d<sub>k</sub>=Flange Diameter (Min - Max); k=Flange Thickness (Max); d<sub>m</sub>=Nominal Mandrel Diameter; S=Nominal Shear Strength; T=Nominal Tensile Strength; t=Number of Tags; sw=Shoulder Width; tw=Tag Width; tl=Tag Length

- Moisture and pressure tight
- Excellent for use in electrical assemblies
- Guaranteed mandrel head retention
- **For a flush surface after setting**



**Closed End  
120° Countersunk**

Copper  
Mandrel: Carbon Steel

|                    |      |            | DESCRIPTION    |             |             |   |      |      |      | BULK PACK  |            | SMALL PACK |         |  |
|--------------------|------|------------|----------------|-------------|-------------|---|------|------|------|------------|------------|------------|---------|--|
|                    |      |            |                |             |             |   |      |      |      | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY |  |
| 3.2<br>3.15 - 3.28 | 6.9  | Up To 2.5  | <b>CK42SB</b>  | 3.3 - 3.4   | 5.70 - 6.30 | - | 1.63 | 1020 | 1420 | on request | on request | 0.98       |         |  |
|                    | 8.5  | 2.5 - 4.1  | <b>CK44SB</b>  |             |             |   |      |      |      | on request | on request | 1.09       |         |  |
|                    | 10.1 | 4.1 - 5.6  | <b>CK46SB</b>  |             |             |   |      |      |      | on request | on request | 1.15       |         |  |
|                    | 13.3 | 7.2 - 8.8  | <b>CK410SB</b> |             |             |   |      |      |      | on request | on request | 1.23       |         |  |
| 4.0<br>3.94 - 4.01 | 10.9 | 4.4 - 6.0  | <b>CK56SB</b>  | 4.06 - 4.17 | 7.62 - 8.22 | - | 2.18 | 1550 | 2260 | on request | on request | 2.31       |         |  |
|                    | 14.1 | 7.6 - 9.2  | <b>CK510SB</b> |             |             |   |      |      |      | on request | on request | 2.58       |         |  |
| 4.8<br>4.73 - 4.82 | 9.9  | Up To 4.7  | <b>CK64SB</b>  | 4.88 - 4.99 | 9.23 - 9.83 | - | 2.64 | 2130 | 3110 | on request | on request | 3.65       |         |  |
|                    | 13.1 | 6.3 - 7.9  | <b>CK68SB</b>  |             |             |   |      |      |      | on request | on request | 3.82       |         |  |
|                    | 16.3 | 9.4 - 11.0 | <b>CK612SB</b> |             |             |   |      |      |      | on request | on request | 3.91       |         |  |

- Moisture and pressure tight
- Excellent for use in electrical assemblies
- Guaranteed mandrel head retention
- **Stainless Steel mandrel for further corrosion resistance**



**Closed End  
Domed Head**

Copper  
Mandrel: Stainless Steel

|                    |      |           | DESCRIPTION    |           |             |      |      |      |      | BULK PACK  |            | SMALL PACK |         |      |
|--------------------|------|-----------|----------------|-----------|-------------|------|------|------|------|------------|------------|------------|---------|------|
|                    |      |           |                |           |             |      |      |      |      | ARTICLE    | BOX QTY    | ARTICLE    | BOX QTY |      |
| 3.2<br>3.10 - 3.28 | 6.0  | Up To 1.6 | <b>CD42SS</b>  | 3.3 - 3.4 | 5.70 - 6.30 | 1.10 | 1.65 | 1020 | 1420 | 24341      | 10,000     | 89111      | 500     | 1.16 |
|                    | 7.5  | 1.6 - 3.2 | <b>CD44SS</b>  |           |             |      |      |      |      | 23312      | 10,000     | 88476      | 500     | 1.22 |
|                    | 9.0  | 3.2 - 4.8 | <b>CD46SS</b>  |           |             |      |      |      |      | 23384      | 10,000     | 88477      | 500     | 1.33 |
|                    | 12.0 | 6.4 - 7.9 | <b>CD410SS</b> |           |             |      |      |      |      | 25538      | 10,000     | 89255      | 500     | 1.49 |
| 4.0<br>3.85 - 4.08 | 9.5  | Up To 4.8 | <b>CD56SS</b>  | 4.1 - 4.2 | 7.62 - 8.22 | 1.50 | 2.18 | 1550 | 2260 | on request | on request | 2.11       |         |      |
|                    | 12.7 | 4.8 - 7.9 | <b>CD510SS</b> |           |             |      |      |      |      | on request | on request | 2.28       |         |      |
| 4.8<br>4.70 - 4.88 | 8.5  | Up To 3.2 | <b>CD64SS</b>  | 4.9 - 5.0 | 4.23 - 4.83 | 1.75 | 2.64 | 2130 | 3110 | 78423      | 4,000      | on request | 3.38    |      |

*d*=Nominal Diameter, Min - Max Diameter; *l*=Body Length (+/- 0.5mm); *g*=Grip Range (Min - Max); *dh*=Hole Size (Min - Max); *dk*=Flange Diameter (Min - Max); *k*=Flange Thickness (Max); *dm*=Nominal Mandrel Diameter; *S*=Nominal Shear Strength; *T*=Nominal Tensile Strength

# Hand Tools

## POPSet™



### PS15 Professional Hand Plier Rivet Tool

- Professional standard, robust cast aluminium and steel design
- Contoured handle grips for comfort
- Rivet retaining handle design for one-handed riveting
- Handle spring and clasp upgrade available separately
- Supplied with nosepieces for 2.4mm, 3.2mm, 4.0mm & 4.8mm rivets
- Supplied with nosepiece wrench

#### Specifications

|               |        |
|---------------|--------|
| <b>Weight</b> | 0.6 kg |
| <b>Length</b> | 245 mm |

#### Capacity

|  |                 |     |     |     |
|--|-----------------|-----|-----|-----|
|  | Aluminium       | 3.2 | 4.0 | 4.8 |
|  | Steel           | 3.2 | 4.0 | 4.8 |
|  | Stainless Steel | 3.2 | 4.0 | 4.8 |

Article Number: **17492**

### PS20 Lazy Tong Rivet Tool

- Professional standard, robust aluminium and steel construction
- Supplied with nosepieces for 2.4mm, 3.2mm, 4.0mm, 4.8mm & 6.4mm rivets
- Supplied with nosepiece wrench that doubles as a lever lock

#### Specifications

|                        |         |
|------------------------|---------|
| <b>Weight</b>          | 2.10 kg |
| <b>Length closed</b>   | 305 mm  |
| <b>Length extended</b> | 805 mm  |

#### Capacity

|  |                 |     |     |     |     |
|--|-----------------|-----|-----|-----|-----|
|  | Aluminium       | 3.2 | 4.0 | 4.8 | 6.4 |
|  | Steel           | 3.2 | 4.0 | 4.8 |     |
|  | Stainless Steel | 3.2 | 4.0 | 4.8 |     |

Article Number: **17495**

### PS25 Heavy Duty Lazy Tong Rivet Tool

- Professional standard, robust aluminium and steel construction
- Supplied with nosepieces for 2.4mm, 3.2mm, 4.0mm, 4.8mm & 6.4mm rivets
- Supplied with nosepiece wrench that doubles as a lever lock

#### Specifications

|                        |         |
|------------------------|---------|
| <b>Weight</b>          | 2.30 kg |
| <b>Length closed</b>   | 305 mm  |
| <b>Length extended</b> | 805 mm  |

#### Capacity

|  |                 |     |     |     |     |
|--|-----------------|-----|-----|-----|-----|
|  | Aluminium       | 3.2 | 4.0 | 4.8 | 6.4 |
|  | Steel           | 3.2 | 4.0 | 4.8 | 6.4 |
|  | Stainless Steel | 3.2 | 4.0 | 4.8 | 6.4 |

Article Number: **17496**



**PS40 Lever Rivet Tool**

- Professional standard, robust steel construction
- Supplied with nosepiece wrench
- Integral removable mandrel collector

**Specifications**

|               |         |
|---------------|---------|
| <b>Weight</b> | 1.95 kg |
| <b>Length</b> | 515 mm  |

**Capacity**

Article Number: **17493**

|                        |     |     |     |     |
|------------------------|-----|-----|-----|-----|
| <b>Aluminium</b>       | 3.2 | 4.0 | 4.8 | 6.4 |
| <b>Steel</b>           | 3.2 | 4.0 | 4.8 |     |
| <b>Stainless Steel</b> | 3.2 | 4.0 | 4.8 |     |

**PS45 Heavy Duty Lever Rivet Tool**

- Telescopic levered high-capacity rivet tool
- Professional standard, heavy duty steel construction
- Two-position telescopic levers extend to maximise leverage and pulling force
- Non-extended position makes tool more compact
- Integral removable mandrel collector
- Supplied with nosepiece wrench

**Specifications**

|                        |         |
|------------------------|---------|
| <b>Weight</b>          | 2.60 kg |
| <b>Length</b>          | 490 mm  |
| <b>Length extended</b> | 665 mm  |

**Capacity**

Article Number: **17494**

|                        |     |     |     |     |
|------------------------|-----|-----|-----|-----|
| <b>Aluminium</b>       | 3.2 | 4.0 | 4.8 | 6.4 |
| <b>Steel</b>           | 3.2 | 4.0 | 4.8 | 6.4 |
| <b>Stainless Steel</b> | 3.2 | 4.0 | 4.8 | 6.4 |



**TT55D Robust Lightweight Hand Plier Rivet Tool**

- Ideal for on-site or low production use
- Mandrel gripping mechanism
- Easy to maintain with full set of spares available
- Supplied with nosepieces for 2.4mm, 3.2mm & 4.0mm rivets

**Specifications**

|               |        |
|---------------|--------|
| <b>Weight</b> | 0.4 kg |
| <b>Length</b> | 229 mm |

**Capacity**

Article Number: **15370**

|                        |     |     |
|------------------------|-----|-----|
| <b>Aluminium</b>       | 3.2 | 4.0 |
| <b>Steel</b>           | 3.2 | 4.0 |
| <b>Stainless Steel</b> | 3.2 | 4.0 |

**Rivet Hand Plier Kits are available, please contact Emhart Customer Service for details.**

# Power Tools

## ProSet® 1600

**Compact, lightweight and reliable pneumatic power tool, ideal for production line environments.**

For setting rivets from 2.0 to 4.0mm. High force to weight ratio and innovative ergonomic design for maximum user efficiency and comfort.

### Features & Benefits:

- Lightweight polymer construction
- Comfortable two finger, low activation force trigger
- Quick disconnect front-end assembly
- Energy saving On/Off, left or right swivel air fitting
- POP® Rivet Presenter compatible
- Available in deflector or MCS versions

### Specifications

|                             | ProSet® 1600      | ProSet® 1600 MCS    |
|-----------------------------|-------------------|---------------------|
| <b>Weight</b>               | 0.97 kg           | 1.04 kg             |
| <b>Length</b>               | 275 mm            | 272 mm              |
| <b>Height</b>               | 227 mm            | 227 mm              |
| <b>Tool stroke</b>          | 18 mm             | 18 mm               |
| <b>Working air pressure</b> | 5.0 - 6.9 bar     | 5.0 - 6.9 bar       |
| <b>Pulling force</b>        | 4850 N @ 6.2 bar  | 4850 N @ 6.2 bar    |
| <b>Force/Weight ratio</b>   | 5 kN/kg           | 4.6 kN/kg           |
| <b>Air consumption</b>      | 1.22 litres/rivet | 70 litres/min (max) |



**ProSet® 1600**  
Article Number: 13491

**ProSet® 1600 MCS**  
Article Number: 13492

### Rivet Capacity

| Rivet Type                                      | Material<br>(Body – Mandrel) | Rivet Diameter |              |        |
|---|------------------------------|----------------|--------------|--------|
|   |                              | 2.4 mm*        | 3.0 - 3.2 mm | 4.0 mm |
| <b>Open End &amp; Multi-Grip™</b>               | Aluminium – Aluminium        | ✓              | ✓            | ✓      |
|   | Aluminium – Steel/St. Steel  | ✓              | ✓            | ✓      |
|   | Steel – Steel                | ✓              | ✓            | ✓†     |
|   | St. Steel – St. Steel        | ✓              | ✓            | ✓      |
|   | Monel – Steel/St. Steel      | ✓              | ✓            |        |
| <b>Closed End</b>                               | Aluminium – Aluminium        | ✓              | ✓            | ✓      |
|   | Aluminium – Steel/St. Steel  | ✓              | ✓            | ✓‡     |
|   | Copper – Steel               | ✓              | ✓            | ✓‡     |
|   | Steel – Steel                | ✓              | ✓            |        |
|   | St. Steel – St. Steel        | ✓              | ✓            |        |
| <b>LSR Rivets</b>                               | Aluminium – Aluminium        | ✓              | ✓            | ✓      |
| <b>HR™ Rivets</b>                               | Steel – Steel                | ✓              | ✓            |        |
| <b>T-Rivet</b>                                  | Aluminium – Steel            | ✓              | ✓            | ✓      |
| <b>Self Plugger</b>                             | Steel – Steel                | ✓              | ✓            |        |
| <b>MCS Collector Capacity (No. of Mandrels)</b> |                              | 300            | 120          | 90     |

\* Use FAN239-176 Jaw pusher set up

† Excludes Multi-Grip™

‡ Set air pressure at 6.2 bar

NOTE: St. Steel = Stainless Steel

### Optional Accessories

| Part Number | Description                            |
|-------------|--|
| PRN214      | Nosepiece for 2.0 mm Micro Rivets      |
| PRG402-02   | Jaws for 2.0 mm Micro Rivets           |
| FAN239-174  | Extended 125mm Front End Kit           |
| FA203-408   | Adapter Kit for MCS5000 (remote MCS)   |
| FAN239-177  | Mandrel Collection System Retrofit Kit |



Extended Nose Housing

### ProSet® 2500

#### Sets a new standard for pneumatic rivet tools.

For setting rivets from 3.0mm to 4.8mm. High force to weight ratio and innovative ergonomic design for maximum user efficiency and comfort.

#### Features & Benefits:

- Lightweight polymer construction
- Comfortable two finger, low activation force trigger
- Quick disconnect front-end assembly
- Energy saving On/Off, left or right swivel air fitting
- Spring return for reliable fast setting cycle
- POP® Rivet Presenter and SmartSet rivet monitor compatible
- Air isolation during MCS removal
- Available in deflector or MCS versions

#### Specifications

|                      | ProSet® 2500      | ProSet® 2500 MCS    |
|----------------------|-------------------|---------------------|
| Weight               | 1.20 kg           | 1.31 kg             |
| Length               | 290 mm            | 304 mm              |
| Height               | 259 mm            | 259 mm              |
| Tool stroke          | 18 mm             | 18 mm               |
| Working air pressure | 5.0 - 6.9 bar     | 5.0 - 6.9 bar       |
| Pulling force        | 9400 N @ 6.2 bar  | 9400 N @ 6.2 bar    |
| Force/Weight ratio   | 7.83 kN/kg        | 7.18 kN/kg          |
| Air consumption      | 2.15 litres/rivet | 70 litres/min (max) |



**ProSet® 2500**  
Article Number: **14062**

**ProSet® 2500 MCS**  
Article Number: **14063**

#### Rivet Capacity

| Rivet Type                        | Material<br>(Body – Mandrel) | Rivet Diameter |         |          |
|-----------------------------------|------------------------------|----------------|---------|----------|
|                                   |                              | 3.0-3.2 mm*    | 4.0 mm* | 4.8 mm** |
| <b>Open End &amp; Multi-Grip™</b> | Aluminium – Aluminium        | ✓              | ✓       | ✓        |
|                                   | Aluminium – Steel/St. Steel  | ✓              | ✓       | ✓        |
|                                   | Steel – Steel                | ✓              | ✓       | ✓        |
|                                   | St. Steel – St. Steel        | ✓              | ✓       | ✓        |
|                                   | Monel – Steel/St. Steel      | ✓              | ✓       | ✓        |
| <b>Closed End</b>                 | Aluminium – Aluminium        | ✓              | ✓       | ✓        |
|                                   | Aluminium – Steel/St. Steel  | ✓              | ✓       | ✓        |
|                                   | Copper – Steel               | ✓              | ✓       | ✓        |
|                                   | Steel – Steel                | ✓              | ✓       | ✓        |
|                                   | St. Steel – St. Steel        | ✓              | ✓       | ✓        |
| <b>LSR Rivets</b>                 | Aluminium – Aluminium        | ✓              | ✓       | ✓        |
| <b>HR™ Rivets</b>                 | Steel – Steel                | ✓              | ✓**     | ✓        |
| <b>F Series</b>                   | Aluminium – Aluminium        | ✓              | ✓       | ✓        |
|                                   | Steel – Steel                | ✓              | ✓       | ✓        |
| <b>T-Rivet</b>                    | Aluminium – Steel            | ✓              | ✓       | ✓        |
| <b>Self Plugger</b>               | Steel – Steel                | ✓              | ✓       | ✓        |
| <b>UltraGrip™</b>                 | Aluminium – Aluminium        |                |         | ✓        |
|                                   | Steel – Steel                |                |         | ✓        |
|                                   | St. Steel – St. Steel        |                |         | ✓        |

#### Optional Accessories

| Part Number | Description                            |
|-------------|--|
| DPN239-110  | 17 mm Hex. Socket Screw Key            |
| FAN275-132  | Extended 140mm Front End Kit           |
| FAN275-133  | ProSet® 2500 Seal Kit                  |
| FA203-408   | Adaptor kit for Remote MCS (MCS5000)   |
| FAN275-134  | Mandrel Collection System Retrofit Kit |
| FAN275-198  | Reduced Ø Extended 140mm Front End Kit |



MCS Retrofit Kit



Extended Nose Housing

\* Use FAN275-028 Jaw pusher set up

\*\* Use DPN275-027 Jaw pusher set up

† Exclude Multi-Grip™

NOTE: St. Steel = Stainless Steel

# Power Tools

## ProSet® 3400

### High capacity pneumatic rivet tool.

Capable of setting the full range of POP® rivets up to 6.4mm Stainless Steel. Includes all of the design features and benefits of the 1600 and 2500.

#### Features & Benefits:

- Lightweight strong polymer construction
- Comfortable two finger, low activation force trigger
- Directionable air exhaust (MCS model)
- High force-to-weight ratio
- Quick disconnect nosehousing, front end assembly & Mandrel Collection System
- On/Off, left or right swivel air fitting
- Spring return for a reliable fast setting cycle
- POP® Rivet Presenter (RP), SmartSet rivet monitor compatibility
- Suitable for use with POP® Remote Mandrel Collection System (MCS5000)
- POP® Speciality Heads available
- Air-isolation switch during MCS removal

#### Specifications

|                           | ProSet® 3400      | ProSet® 3400 MCS    |
|---------------------------|-------------------|---------------------|
| <b>Weight</b>             | 1.90 kg           | 2.00 kg             |
| <b>Length</b>             | 309 mm            | 334 mm              |
| <b>Height</b>             | 316 mm            | 316 mm              |
| <b>Tool stroke</b>        | 26 mm             | 26 mm               |
| <b>Pulling force</b>      | 4148 lbs @ 90 PSI | 4148 lbs @ 90 PSI   |
| <b>Force/Weight ratio</b> | 9.74 kN/kg        | 9.25 kN/kg          |
| <b>Air consumption</b>    | 4.86 litres/rivet | 80 litres/min (max) |

#### Rivet Capacity

| Rivet Type                        | Material<br>(Body – Mandrel) | Rivet Diameter |         |         |        |
|-----------------------------------|------------------------------|----------------|---------|---------|--------|
|                                   |                              | 3.2 mm*        | 4.0 mm* | 4.8 mm* | 6.4 mm |
| <b>Open End &amp; Multi-Grip™</b> | Aluminium – Aluminium        | ✓              | ✓       | ✓       | ✓      |
|                                   | Aluminium – Steel/St. Steel  | ✓              | ✓       | ✓       | ✓      |
|                                   | Steel – Steel                | ✓              | ✓       | ✓       | ✓      |
|                                   | St. Steel – St. Steel        | ✓              | ✓       | ✓       | ✓      |
|                                   | Monel – Steel/St. Steel      | ✓              | ✓       | ✓       | ✓      |
| <b>Closed End</b>                 | Aluminium – Aluminium        | ✓              | ✓       | ✓       | ✓      |
|                                   | Aluminium – Steel/St. Steel  | ✓              | ✓       | ✓       | ✓      |
|                                   | Copper – Steel               | ✓              | ✓       | ✓       | ✓      |
|                                   | Steel – Steel                | ✓              | ✓       | ✓       | ✓      |
|                                   | St. Steel – St. Steel        | ✓              | ✓       | ✓       | ✓      |
| <b>LSR Rivets</b>                 | Aluminium – Aluminium        | ✓              | ✓       | ✓       | ✓      |
| <b>HR™ Rivets</b>                 | Steel – Steel                | ✓              | ✓       | ✓       |        |
| <b>T-Rivet</b>                    | Aluminium – Steel            | ✓              | ✓       | ✓       | ✓      |
| <b>Self Plugger</b>               | Steel – Steel                | ✓              | ✓       | ✓       | ✓      |
| <b>HS Rivets</b>                  | Aluminium – Aluminium        | –              | –       | ✓       | ✓      |
|                                   | Steel – Steel                | –              | –       | ✓       | ✓      |
| <b>UltraGrip™</b>                 | Aluminium – Aluminium        | –              | –       | ✓       | ✓      |
|                                   | Steel – Steel                | –              | –       | ✓       | ✓      |
|                                   | St. Steel – St. Steel        | –              | –       | ✓       | ✓      |

\* Use FAN276-064 Jaw pusher set up with PRG540-46 Jaws

NOTE: St. Steel = Stainless Steel



**ProSet® 3400**  
Article Number: **63407**

**ProSet® 3400 MCS**  
Article Number: **63408**

#### Optional Accessories

| Part Number | Description                            |
|-------------|--|
| FA203-408   | Adaptor kit for Remote MCS (MCS5000)   |
| FAN276-152  | ProSet® 3400 Seal kit                  |
| FAN276-075  | Extended 200mm Front End Kit           |
| FAN276-165  | Mandrel Collection System Retrofit kit |



Compatible with MCS5000 Remote Mandrel Collection System

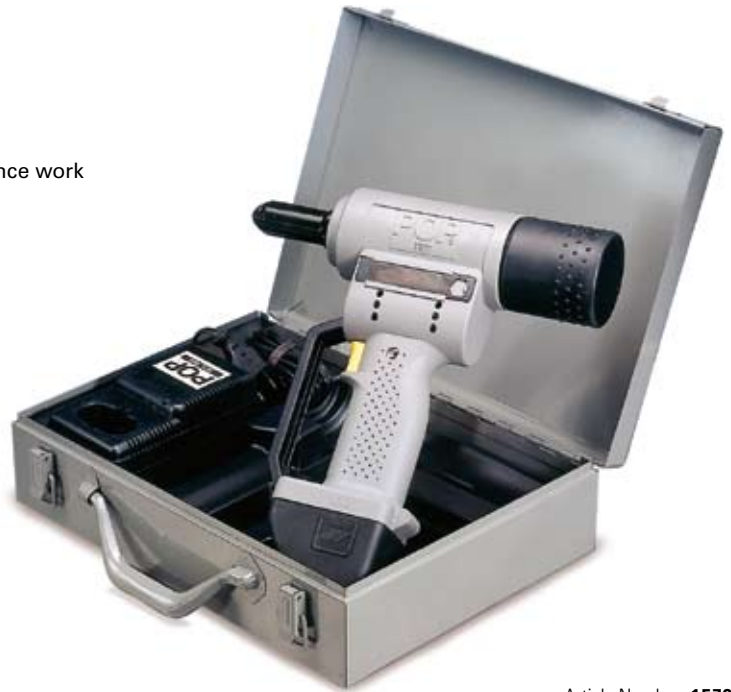
# MCS5800

## Cordless rechargeable battery tool.

For setting rivets up to 5.0mm. Ideal for site and maintenance work and applications where compressed air is not available.

### Features & Benefits:

- High capacity, rechargeable battery pack included
- Supplied with or without steel carry case and charger
- Mandrel collection system included



### Specifications

|                    |        |
|--------------------|--------|
| <b>Weight</b>      | 2.2 kg |
| <b>Length</b>      | 265 mm |
| <b>Height</b>      | 300 mm |
| <b>Tool stroke</b> | 20 mm  |

Article Number: **15700**  
(UK Version)

Article Number: **15701**  
(EU Version)

### Capacity

|                        |     |     |     |
|------------------------|-----|-----|-----|
| <b>Aluminium</b>       | 3.2 | 4.0 | 4.8 |
| <b>Steel</b>           | 3.2 | 4.0 | 4.8 |
| <b>Stainless Steel</b> | 3.2 | 4.0 | 4.8 |

### Optional Accessories

| Part Number           | Description                                   |
|-----------------------|---|
| MCS5800-40            | Battery                                       |
| MCS5800 Budget Option | Tool plus Battery only (no case, no charger). |

## Power Tools

### PRG510 / MCS510

Robust, heavy duty pneumatic riveting tool for setting POP® Rivets up to 4.0mm.



#### Specifications

|                    |   |
|--------------------|---|
| <b>Weight</b>      | 1.8 kg                                      |
| <b>Length</b>      | 166 mm (PRG)<br>310 mm with collector (MCS) |
| <b>Height</b>      | 293 mm                                      |
| <b>Tool stroke</b> | 15.87 mm                                    |

#### Capacity

|                        |     |     |
|------------------------|-----|-----|
| <b>Aluminium</b>       | 3.2 | 4.0 |
| <b>Steel</b>           | 3.2 | 4.0 |
| <b>Stainless Steel</b> | 3.2 |     |

#### PRG510

Article Number: **16260**

#### MCS510

Article Number: **16317**

#### Tool version with 51mm Extended Front End

PRG511A: **16230**

MCS511: **16608**

### PRG540 / MCS540

Robust, heavy duty pneumatic hydraulic riveting tool for setting the full range of POP® Rivets.



#### Specifications

|                    |   |
|--------------------|---|
| <b>Weight</b>      | 2.2 kg                                      |
| <b>Length</b>      | 230 mm (PRG)<br>343 mm with collector (MCS) |
| <b>Height</b>      | 293 mm                                      |
| <b>Tool stroke</b> | 17.4 mm                                     |

#### Capacity

|                        |     |     |     |     |
|------------------------|-----|-----|-----|-----|
| <b>Aluminium</b>       | 3.2 | 4.0 | 4.8 | 6.4 |
| <b>Steel</b>           | 3.2 | 4.0 | 4.8 | 6.4 |
| <b>Stainless Steel</b> | 3.2 | 4.0 | 4.8 | 6.4 |

#### PRG540

Article Number: **16500**

#### MCS540

Article Number: **16450**

#### Optional Accessories

| Part Number | Description                  |
|-------------|------------------------------|
| PRG541-001  | Extended 140mm Front End Kit |

### MCS5250

In-Line Pneumatic-Hydraulic rivet tool design for suspension and riveting in a vertical plane.

The MCS5250 system is complete with the remote vacuum mandrel collector MCS5000.

#### Specifications

|             |          |
|-------------|----------|
| Weight      | 1.8 kg   |
| Length      | 397 mm   |
| Width       | 113 mm   |
| Tool stroke | 15.87 mm |

#### Capacity

|                 |     |     |     |
|-----------------|-----|-----|-----|
| Aluminium       | 3.2 | 4.0 | 4.8 |
| Steel           | 3.2 | 4.0 | 4.8 |
| Stainless Steel | 3.2 | 4.0 | 4.8 |



Article Number: 15685

### MCS5000

Supplied with the MCS5250, the MCS5000 remote vacuum mandrel collector can hold upto 8500 spent mandrels increasing production line efficiency and promoting easy removal and recycling of scrap mandrels.

#### Specifications

|                    |                          |
|--------------------|--------------------------|
| Weight             | 2.2 kg                   |
| Height             | 414 mm                   |
| Diameter           | 527 mm                   |
| Air pressure       | 6.1 bar max.             |
| Air consumption    | 317 litres/min           |
| Max tube length    | 4.5 m                    |
| Max rise           | 1.8 m                    |
| Max mandrel length | 50 mm                    |
| Capacity           | upto 8500 spent mandrels |



Article Number: 15684

Also compatible with the full range of POP® Rivet Power tools:-

| MCS5000 Adaptors | Article |
|------------------|---------|
| ProSet® 1600     | 16637   |
| ProSet® 2500     | 16637   |
| ProSet® 3400     | 16637   |
| PRG510           | 15686   |
| PRG540           | 15687   |

# Tool Accessories

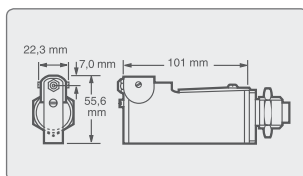
## Special Front-end Accessories

Where limited access or awkward applications make it impossible to use POP® riveting tools in their standard configurations, a series of specialised setting heads and front end kits are available.

### A1 (U)

Narrow nose diameter, for setting rivets in tight corners

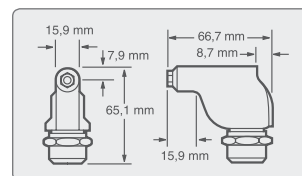
- Head sets rivets within 7mm of a right-angled section
- Recommended for setting POP® rivets up to and including aluminium alloy 4.8 diameter
- Weight: 0.63 kg



### PRH830 Corner Head

Very compact 90° corner head

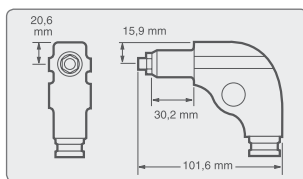
- Designed for extremely restricted access
- Sets all POP® rivets up to and including 3.2mm diameter, plus some 4.0mm
- Weight: 0.31 kg



### PRH840 Corner Head

Robust 90° corner head

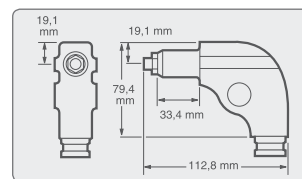
- Suitable for use with wide range of riveting tools
- Recommended for setting POP® rivets up to and including steel 4.8mm diameter
- Weight: 0.5 kg



### PRH850 Heavy Duty Corner Head

Heavy duty 90° corner head

- Designed for high volume usage with higher capacity POP® setting tools
- Sets all POP® rivets up to and including open 6.4mm diameter
- Weight: 0.76 kg

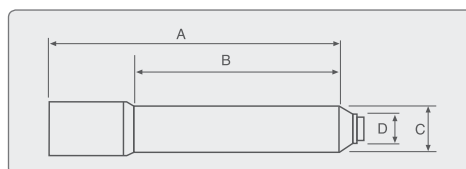


## Special Setting Head Kits

| Setting Head |         | Adaptor Kits  |              |              |                    |                    |
|--------------|---------|---------------|--------------|--------------|--------------------|--------------------|
| Description  | Article | ProSet® 1600  | ProSet® 2500 | ProSet® 3400 | 510                | 540                |
| A1 (U)       | 19756   | Not Available | 18731        | –            | PRA967 (19490)     | PRA965 (19488)     |
| PRH830       | 19480   | Not Available | 18731        | –            | PRA967 (19490)     | PRA965 (19488)     |
| PRH840       | 19024   | Not Available | 18737        | 18750        | PRH840-510 (19153) | PRH840-540 (19145) |
| PRH850       | 19240   | Not Available | –            | 18869        | –                  | PRH850-540 (19254) |

## Front End Kits

A wide range of front end kits ensures that the POP® setting tool range is able to reliably set rivets even in deep or narrow access applications.



| Tool         | Article | Description         | A   | B   | C    | D  |
|--------------|---------|---------------------|-----|-----|------|----|
| ProSet® 1600 | 13495   | FAN239-174 Extended | 140 | 96  | 17.4 | 11 |
| ProSet® 2500 | 13163   | FAN275-132 Extended | 140 | 100 | 20.5 | 11 |
|              | 13164   | FAN275-198 Reduced  | 140 | 100 | 17.4 | 11 |
| ProSet® 3400 | TBA     | FAN276-075 Extended | 200 | 155 | 22.4 | 11 |





# Nosepieces & Jaws

## Hand Tools

POP® Hand Tools are designed to be easily maintained. The full range of spare parts is available - see the tool manuals for details. To order replacement nosepieces & jaws, select from the list below.

### Nosepieces

#### PS15

| Rivet Dia | Description | Article No. |
|-----------|-------------|-------------|
| 2.4       | DPM400-A08  | 12213       |
| 3.0 - 3.2 | DPM400-B08  | 12214       |
| 4.0       | DPM400-C08  | 12216       |
| 4.8 - 5.0 | DPM400-D08  | 12218       |

#### PS20

|           |            |       |
|-----------|------------|-------|
| 3.0 - 3.2 | DPM400-B10 | 12215 |
| 4.0       | DPM400-C10 | 12217 |
| 4.8 - 5.0 | DPM400-D10 | 12219 |
| 6.0       | DPM400-E10 | 12220 |

#### PS25

|           |            |       |
|-----------|------------|-------|
| 3.0 - 3.2 | DPM400-B10 | 12215 |
| 4.0       | DPM400-C10 | 12217 |
| 4.8 - 5.0 | DPM400-D10 | 12219 |
| 6.0       | DPM400-E10 | 12220 |
| 6.4       | DPM400-F10 | 12221 |

#### PS40

|           |            |       |
|-----------|------------|-------|
| 3.0 - 3.2 | DPM400-B10 | 12215 |
| 4.0       | DPM400-C10 | 12217 |
| 4.8 - 5.0 | DPM400-D10 | 12219 |
| 6.0       | DPM400-E10 | 12220 |

#### PS45

|           |            |       |
|-----------|------------|-------|
| 3.0 - 3.2 | DPM400-B10 | 12215 |
| 4.0       | DPM400-C10 | 12217 |
| 4.8 - 5.0 | DPM400-D10 | 12219 |
| 6.0       | DPM400-E10 | 12220 |
| 6.4       | DPM400-F10 | 12221 |

#### TT55D

|           |                     |       |
|-----------|---------------------|-------|
| 2.4       | TT55 NOSEPIECE 3/32 | 15371 |
| 3.0 - 3.2 | TT55 NOSEPIECE 1/8  | 15372 |
| 4.0       | TT55 NOSEPIECE 5/32 | 15373 |

### Jaws

| Rivet Dia | Description | Article No. |
|-----------|-------------|-------------|
| All       | DPM400-084  | 12185       |

|     |            |       |
|-----|------------|-------|
| All | FAM400-020 | 12224 |
|-----|------------|-------|

|     |            |       |
|-----|------------|-------|
| All | FAM400-020 | 12224 |
|-----|------------|-------|

|     |            |       |
|-----|------------|-------|
| All | FAM400-020 | 12224 |
|-----|------------|-------|

|     |            |       |
|-----|------------|-------|
| All | FAM400-020 | 12224 |
|-----|------------|-------|

|     |               |       |
|-----|---------------|-------|
| All | TT55 JAW SETS | 15383 |
|-----|---------------|-------|

# Nosepieces & Jaws

## Power Tools

POP® Power Tools are designed to be easily maintained. The full range of spare parts is available - see the tool manuals for details. To order replacement nosepieces & jaws, select from the list below.

### ProSet® 1600

| Rivet Dia | Nosepieces - Rivet Types |         |               |       |                   |       |            |       | Jaws        |            | Jaw Pusher  |            |       |
|-----------|--------------------------|---------|---------------|-------|-------------------|-------|------------|-------|-------------|------------|-------------|------------|-------|
|           | Open End                 |         | Closed End    |       |                   |       | HR Rivets  |       | Description | Article    | Description | Article    |       |
|           | Description              | Article | Steel Mandrel |       | Aluminium Mandrel |       | Steel Body |       |             |            |             |            |       |
| 2.0       | PRN214                   | 15801   |               |       |                   |       |            |       |             | PRG402-02  | 15803       | FAN239-176 | 13484 |
| 2.4       | PRN314                   | 17595   |               |       |                   |       |            |       |             | PRG402-08A | 16210       | FAN239-176 | 13484 |
| 2.8 - 3.2 | PRN414                   | 16216   | PRN424        | 16213 | PRN434            | 16548 | PRN4HR     | 19422 |             | PRG402-08A | 16210       | DPN239-144 | 12830 |
| 4.0       | PRN514                   | 16214   | PRN524        | 16215 | PRN534            | 17597 |            |       |             | PRG402-08A | 16210       | DPN239-144 | 12830 |

### ProSet® 2500

| Rivet Dia | Nosepieces - Rivet Types |         |               |       |                   |       |            |       | Jaws        |              | Jaw Pusher  |            |       |
|-----------|--------------------------|---------|---------------|-------|-------------------|-------|------------|-------|-------------|--------------|-------------|------------|-------|
|           | Open End                 |         | Closed End    |       |                   |       | HR Rivets  |       | Description | Article      | Description | Article    |       |
|           | Description              | Article | Steel Mandrel |       | Aluminium Mandrel |       | Steel Body |       |             |              |             |            |       |
| 2.8 - 3.2 | PRN414                   | 16216   | PRN424        | 16213 | PRN434            | 16548 | PRN4HR     | 19422 |             | 3 Piece Jaws | 13300       | FAN275-028 | 14494 |
| 4.0       | PRN514                   | 16214   | PRN524        | 16215 | PRN534            | 17597 | PRN5HR     | 19423 |             | 3 Piece Jaws | 13300       | FAN275-028 | 14494 |
| 4.8       | PRN614                   | 17623   | PRN624        | 17598 | PRN634            | 16549 | PRN6HR     | 19424 |             | 3 Piece Jaws | 13300       | DPN275-028 | 14467 |

### ProSet® 3400

| Rivet Dia | Nosepieces - Rivet Types |         |               |       |                   |  |            |       | Jaws        |           | Jaw Pusher  |            |       |
|-----------|--------------------------|---------|---------------|-------|-------------------|--|------------|-------|-------------|-----------|-------------|------------|-------|
|           | Open End                 |         | Closed End    |       |                   |  | HR Rivets  |       | Description | Article   | Description | Article    |       |
|           | Description              | Article | Steel Mandrel |       | Aluminium Mandrel |  | Steel Body |       |             |           |             |            |       |
| 4.8       | PRN614                   | 17623   | PRN624        | 17598 | PRN534            |  | PRN6HR     | 19424 |             | PRG540-46 | 18407       | FAN276-064 | 63511 |
| 6.0       | 6mm Nosepiece            | 16489   |               |       |                   |  |            |       |             | PRG540-44 | 11446       | DPN276-006 | 63415 |
| 6.4       | PRN811                   | 17623   | PRN822        | 16547 |                   |  | PRN8HR     | 19425 |             | PRG540-44 | 11446       | DPN276-006 | 63415 |

- Items supplied with the tool
- Tool not specified for this rivet size
- Rivet not available

# Nosepieces & Jaws

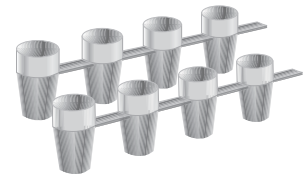
| Nosepieces                         |                        |         | Jaws        |         | Rivet Material and Type |        |         |        |         |        |         |        |         |        |
|------------------------------------|------------------------|---------|-------------|---------|-------------------------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| Rivet Dia                          | Description            | Article | Description | Article | AL / AL                 |        | AL / ST |        | ST / ST |        | NC / ST |        | SS / SS |        |
|                                    |                        |         |             |         | Open                    | Closed | Open    | Closed | Open    | Closed | Open    | Closed | Open    | Closed |
| <b>PRG / MCS510A, PRG / MCS540</b> |                        |         |             |         |                         |        |         |        |         |        |         |        |         |        |
| 2.4                                | PRN314                 | 17595   | PRG402-8A   | 16210   | ●                       |        | ●       |        | ●       |        | ●       |        |         |        |
| 2.8                                | PRN414                 | 16216   |             |         | ●                       |        | ●       |        | ●       |        | ●       |        |         |        |
| 3.0 - 3.2                          | PRN414                 | 16216   |             |         | ●                       |        | ●       |        | ●       |        | ●       |        | ●       |        |
| 3.0 - 3.2                          | PRN424                 | 16213   |             |         |                         |        | ●       | ●      |         | ●      | ●       |        |         | ●      |
| 3.0 - 3.2                          | PRN434                 | 16548   |             |         |                         |        |         | ●      |         |        |         |        |         | ●      |
| 4.0                                | PRN514                 | 16214   |             |         |                         |        | ●       |        | ●       |        | ●       |        | ●       |        |
| 4.0                                | PRN524                 | 16215   |             |         |                         |        |         |        | ●       |        | ●       |        | ●       |        |
| 4.0                                | PRN534                 | 17597   |             |         |                         |        | ●       |        |         |        |         |        | ●       |        |
| <b>PRG / MCS540</b>                |                        |         |             |         |                         |        |         |        |         |        |         |        |         |        |
| 4.8 / 5.0                          | PRN614                 | 17623   | PRG540-46   | 18407   | ●                       |        | ●       |        |         |        |         |        |         |        |
| 4.8 / 5.0                          | PRN624                 | 17598   |             |         | ●                       |        |         | ●      |         |        |         |        |         |        |
| 6.4                                | PRN811                 | 16546   | PRG540-44   | 11446   | ●                       |        | ●       |        | ●       |        | ●       |        | ●       |        |
| 6.4                                | PRN822                 | 16547   |             |         |                         |        |         | ●      |         |        | ●       |        |         | ●      |
| <b>MCS5250 / 5400 / 5400LS</b>     |                        |         |             |         |                         |        |         |        |         |        |         |        |         |        |
| 2.4                                | PRN314                 | 17595   | PRG540-46   | 18407   | ●                       |        | ●       |        | ●       |        | ●       |        |         |        |
| 2.8                                | PRN414                 | 16216   |             |         | ●                       |        | ●       |        | ●       |        | ●       |        | ●       |        |
| 3.0 - 3.2                          | PRN414                 | 16216   |             |         | ●                       |        | ●       |        | ●       |        | ●       |        | ●       |        |
| 3.0 - 3.2                          | PRN424                 | 16213   |             |         |                         |        | ●       | ●      |         | ●      | ●       |        |         | ●      |
| 3.0 - 3.2                          | Nosepiece              | 17596   |             |         |                         |        | ●       |        |         |        |         |        | ●       |        |
| 4.0                                | PRN514                 | 16214   | PRG540-46SS | 16540   | ●                       |        | ●       |        | ●       |        | ●       |        | ●       |        |
| 4.0                                | PRN524                 | 16215   |             |         |                         |        |         | ●      |         |        | ●       |        |         | ●      |
| 4.0                                | PRN534                 | 17597   |             |         |                         |        |         | ●      |         |        |         |        |         | ●      |
| 4.8 / 5.0                          | PRN614                 | 17623   |             |         |                         |        |         | ●      |         | ●      |         | ●      |         |        |
| 4.8 / 5.0                          | PRN624                 | 17598   |             |         |                         |        |         |        |         |        | ●       |        |         | ●      |
| 4.8 / 5.0                          | PRN634                 | 16549   |             |         |                         |        |         |        |         |        |         |        |         | ●      |
| <b>MCS5400 / 5400LS</b>            |                        |         |             |         |                         |        |         |        |         |        |         |        |         |        |
| 4.8 / 5.0                          | PRN634                 | 16549   | PRG540-46   | 18407   | ●                       |        |         |        |         |        |         |        |         |        |
| 4.8 / 5.0                          | PRN614                 | 17623   |             |         | 18407                   |        | ●       |        | ●       |        | ●       |        | ●       |        |
| 4.8 / 5.0                          | PRN624                 | 17598   | PRG540-44   | 11446   |                         |        | ●       | ●      |         | ●      |         | ●      |         |        |
| 6.4                                | PRN811                 | 16546   |             |         | 16498                   | ●      |         | ●      |         | ●      |         | ●      |         | ●      |
| 6.4                                | PRN822                 | 16547   |             |         |                         |        |         | ●      |         |        |         |        | ●       |        |
| <b>MCS5800</b>                     |                        |         |             |         |                         |        |         |        |         |        |         |        |         |        |
| 2.4                                | Available upon request |         | MCS5800-11  | 15706   | ●                       | ●      | ●       | ●      |         |        |         |        |         |        |
| 3.0 - 3.2                          | MCS5800-14             | 15709   |             |         | ●                       |        |         |        |         |        |         |        |         |        |
| 3.0 - 3.2                          | MCS5800-15             | 15711   |             |         | ●                       |        |         |        |         |        |         |        |         |        |
| 3.0 - 3.2                          | MCS5800-16             | 15713   |             |         | ●                       |        |         |        |         | ●      |         |        |         |        |
| 4.0                                | MCS5800-17             | 15715   |             |         |                         | ●      | ●       |        | ●       |        | ●       |        | ●       |        |
| 4.8 / 5.0                          | MCS5800-18             | 15717   |             |         |                         | ●      |         |        | ●       |        | ●       |        | ●       |        |

# Accessories

## POP® Plastic Plugs

- For standard rivets
- For easy assembly the plugs come in strips of 100

| RIVET<br>DIAMETER | DESCRIPTION            | RIVET<br>MATERIAL               | SMALL BOX |         |
|-------------------|------------------------|---------------------------------|-----------|---------|
|                   |                        |                                 | ARTICLE   | BOX QTY |
| 3.2               | <b>101 C/4P White</b>  | Al, Nickel-Copper, Steel, St-St | 82077     | 1,000   |
| 4.8               | <b>101 C/6AP Gray</b>  | Aluminium                       | 82080     | 1,000   |
| 4.8               | <b>101 C/6LP White</b> | Nickel-Copper, Steel, St-St     | 82079     | 1,000   |
| 6.4               | <b>101 C/8LP White</b> | Al, Nickel-Copper, Steel, St-St | 82081     | 1,000   |



**AutoSet™****High speed tape-fed riveting tool**

AutoSet™ offers rapid, automatic rivet feeding and setting in a lightweight system that can be operated with a single hand. Rivets are supplied pre-loaded on plastic tape with up to 100 rivets per tape.

An indexing mechanism pulls each rivet into position in front of a retracting nose-housing. As the nose-housing moves forward the rivet is loaded, ready to be set into the chosen application. Rivets can be set at a rate of approximately 30 per minute.

**Features & Benefits:**

- Sets POP® rivets from 3.2mm to 4.8mm diameter (4.8mm aluminium only)
- Weight: 2.3kg
- Quick and easy reload procedure
- Length: 355.6mm
- Height: 266.7mm
- Tool Stroke: 18mm
- Cycle Rate: 32 cycles per minute
- Air Flow: 150 litre/min



**AutoSet™ 5** (3.2 / 4.0mm Rivets)  
Article Number: **61761**

**AutoSet™ 6** (4.8mm Rivets)  
Article Number: **61762**

# Riveting Systems

## Rivet Presenter



### Rotary bowl rivet feeding system

Used in conjunction with a POP® rivet tool the Rivet Presenter System offers single-handed, high-speed rivet feeding and setting. Automatic mandrel collection of up to 8500 mandrels can be achieved by adding the MCS5000 remote mandrel collector.

Each time the front of the rivet tool is inserted into the receptacle at the front of the Rivet Presenter a rivet is automatically and instantaneously loaded into the front of the tool. Rivets are stored in a rotary feeder bowl and continuously fed down a track into the receptacle ready for the next cycle.

#### Features & Benefits:

- Feeder bowl capacity up to 1000 rivets
- Feeder bowl refilled in a few seconds
- Significant reductions in riveting cycle times possible
- Manual rivet feeding is eliminated enabling a white glove environment
- Single-handed operation leaves one hand free for other operations
- Enclosed feeder bowl and mandrel collection help keep working environment free from spilt rivets and mandrels

- For use with 3.2 mm - 4.8mm rivets
- Height: 336mm, Length: 546mm, Width: 222mm, Weight: 10.4 kg
- Air pressure: 5.8 bar

| DESCRIPTION | FOR RIVET DIAMETER | ARTICLE NUMBER | RIVET CAPACITY |
|-------------|--------------------|----------------|----------------|
| <b>RP4E</b> | 3.2mm              | <b>14960</b>   | 1000 Rivets    |
| <b>RP5E</b> | 4.0mm              | <b>14961</b>   | 600 Rivets     |
| <b>RP6E</b> | 4.8mm              | <b>14962</b>   | 400 Rivets     |

**Multi-Head**



**Multiple rivet setting and assembly fixture workstations**

Emhart's Multi-Head riveting systems are purpose-built solutions designed to suit specific customer applications.

Using modular components, complete workstations are designed and built for individual customer needs. A single pneumatic-hydraulic intensifier provides hydraulic power to multiple rivet-setting heads. Any number of setting heads can be incorporated into the design\*.

Single or multiple rivet setting heads are mounted onto a plate or rail and can be configured in different positions in the X and Y axes to suit the location of rivets in a given application.



**Features & Benefits:**

- Riveting workstation doubles as fixture for building complex assemblies
- De-cluttered working environment
- Simultaneous rivet setting saves time and equalises stress throughout the assembly, preserving product quality
- Foot operated trigger frees up both hands for rivet loading and component assembly to reduce assembly cycle time and limit operator fatigue
- High reliability minimises downtime
- Integral assembly jiggig ensures accuracy of fastening
- Integral bulk mandrel collection eliminates hazard of dropped mandrels

*\*Note: as the number of heads increases, multiple intensifiers may become necessary.*

# Riveting Systems

## SmartSet™



### Process monitoring for rivets

SmartSet™ gives manufacturers an off-the-shelf and affordable system for monitoring the resulting joint or fastening integrity when setting rivets.

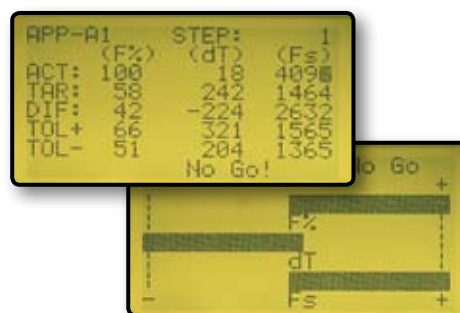
A Micro Strain Sensor connected to the rivet tool takes readings during the rivet setting cycle and sends them to a Control Unit. In RUN mode the system will monitor each sequential setting and compare this with the sample settings, to determine a GO or NO GO result. Outputs from the Control Unit can be connected to an audible or visual alarm to alert the user to NO GO results.

#### Application Capability:

- Riveting failures: Head Ejection, Pull Throughs and Remote Mandrel Breakage
- Rivet set in air detection
- Use of incorrect rivet type

#### System Capability:

- Rivet accountability
- Sequencing
- Program Multiple Grips within the Application - PLC selectable
- Input/Output communication available (PLC compatible)
- User defined GO and NO GO signal output





**Point&Set®**



**Automatic riveting system**

Point&Set® is the ultimate in portable auto-feed POP® riveting. High speed and operator controlled, the Point&Set® system is the best solution for high volume POP® riveting where freedom of movement is required.

The Point&Set® can be integrated into a fully automated robotic rivet setting cell. Emhart engineers can assist in the provision and integration of the PLC program.

The riveting tool assembly is available with an in-line, pistol tool or a 4-point mounting plate for straightforward mounting on a robotic or pantograph arm.

**Features & Benefits:**

- External feed mechanism gives reliable and jam-free loading
- Modular construction enables easy service and maintenance
- Operator Interface module for programming and self diagnostics
- Uses all standard POP® rivet ranges
- For use with rivet diameters 3.2mm - 4.8mm
- Console Dimensions: 762mm x 342mm x 711mm
- Tool Dimensions: 203mm x 51mm x 330mm
- Console Weight: 61.24Kg
- Tool Weight: 1.5Kg
- Feeder Capacity: 2500 rivets
- Mandrel Capacity: 8000 mandrels

**4 size system (3.2mm rivets)**

|                |       |
|----------------|-------|
| Console        | 16084 |
| 2.4m Umbilical | 16145 |
| 3.2mm size kit | 18789 |

**5 size system (4.0mm rivets)**

|                 |       |
|-----------------|-------|
| Console         | 16084 |
| 2.4m Umbilical  | 17477 |
| 4.00mm size kit | 17253 |

**6 size system (4.8mm rivets)**

|                |       |
|----------------|-------|
| Console        | 16084 |
| 2.4m Umbilical | 16085 |
| 4.8mm size kit | 16086 |

**6 size system for integration (4.8mm rivets)**

|                                 |       |
|---------------------------------|-------|
| Console                         | 16084 |
| 3m Umbilical with machine mount | 16803 |
| 4.8mm size kit                  | 16086 |

|                                 |       |
|---------------------------------|-------|
| Optional Remote Activation Kit* | 17250 |
|                                 | 17251 |

\* Compatible with all systems

## Marketing Support

**Emhart partners its' distributors by offering many innovative marketing initiatives.**

### **www.emhartmedia.com**

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Register today and have access to our full range of professional product photography ready to download in low, medium and high resolution sizes.



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Places POP® products where your customers can get their hands on them. Items include: Counter Display, Midi-System, Wobblers, Posters and Door Stickers.

### **Branded Advertising**

#### **Proud to stock POP®**

Be proud to stock POP® Rivets and Tools, with our joint branded advertising and literature.





### **United Kingdom**

**Emhart Teknologies**  
177 Walsall Road  
Birmingham, B42 1BP  
United Kingdom  
Tel: +44 (0) 121 331 2460  
Fax: +44 (0) 121 356 1598

### **The Netherlands**

**Emhart Teknologies**  
Vrijthof 23  
6211 LE, Maastricht  
The Netherlands  
Tel: +31 (0) 43 850 6400  
Fax: +31 (0) 43 850 6418

### **Spain**

**Black & Decker Iberica SCA  
Sistemas de Fijacion Tucker**  
Carretera M-300  
KM. 29,700  
28802 Alcala de Henares  
Madrid, Spain  
Tel: +34 91 887 1470  
Fax: +34 91 882 3602

### **France**

**Emhart Fastening & Assembly S.N.C.**  
ZA des Petits Carreaux  
2 Bis Avenue des Coquelicots  
94835 Bonnueil-sur-Marne  
Cèdex, France  
Tel: +33 1 56 71 24 37  
Fax: +33 1 49 80 42 93

### **Germany**

**Emhart Teknologies (Tucker Fasteners Ltd)**  
Max-Eyth-Strasse 1  
D-35394 Giessen  
Germany  
Tel: +49 641 405 0  
Fax: +49 641 405 366

### **Norway**

**Emhart Sjong**  
PO Box 153 Leirdal  
NO-1009 Oslo  
Norway  
Tel: +47 22 90 99 90  
Fax: +47 22 90 99 80

### **Denmark**

**Emhart Harttung A/S**  
Farverland 1B  
DK-2600 Glostrup  
Denmark  
Tel: +45 44 84 11 00  
Fax: +45 44 84 62 12

### **Sweden**

**Emhart Teknik AB**  
Skjutbanevägen 6  
PO Box 203  
S-701 44 Örebro  
Sweden  
Tel: +46 19 205 800  
Fax: +46 19 260 038

### **Finland**

**Emhart Finland**  
Hyttimestarinkuja 4  
PL 25  
FI-02781, Espoo  
Finland  
Tel: +358 9 819 0060  
Fax: +358 9 812 428

### **Poland**

**Emhart Teknologies**  
Katowice  
Tel: +48 32 749 70 75  
Fax: +48 32 749 70 75

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Quality systems approvals from the world's household names in manufacturing serve to reinforce accreditation to QS9000 / ISO9001 / TS16949.

As a result of our continuous design improvement, POP® fastening products are subject to modification.

The latest technical data and drawings are available for any specific products on request.