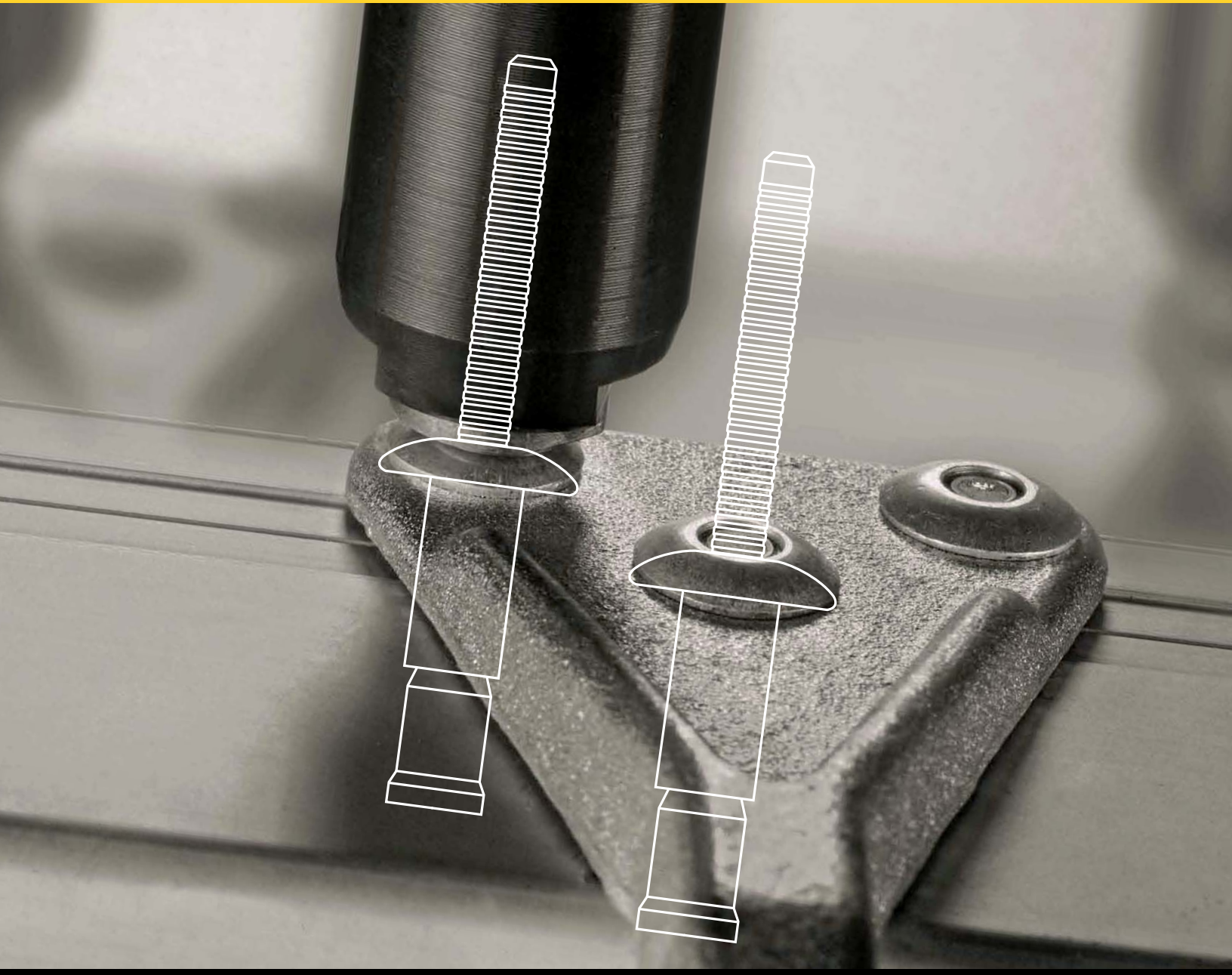
STANLEY®
Engineered Fastening



Breakstem Riveting Systems

POP® Avdel®

Breakstem Riveting Systems

Intelligent Systems for versatile Fastening

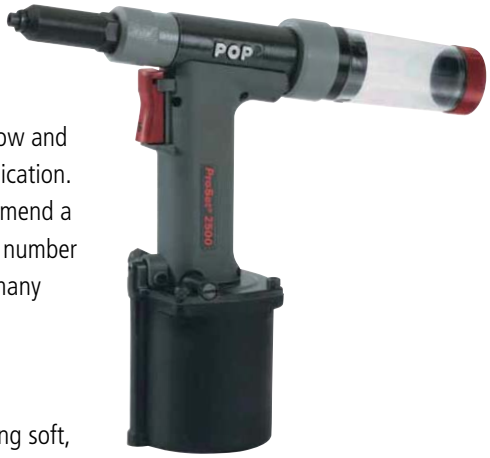
Holding your world together®

Breakstem fasteners

Joining components and diverse materials that vary in thickness and composition is a fundamental aspect of our breakstem fastening systems. The flexibility to meet a wide range of customer requirements ensures that an optimal fastening solution can be tailored to the needs of the application.

Breakstem fasteners are produced from high quality, durable materials manufactured using the cold forming process. Elements of the fastener design, cold forming process and additional operations produce each fastener's specific performance features and characteristics.

Installation



Our breakstem fasteners conform to the requirements of modern installation systems. They can be installed manually or automatically and can easily be integrated into existing installation processes. Breakstem fastening solutions can be used to simplify production flow and reduce assembly time while simultaneously improving quality and performance in the application. Whether you specialize in high volume production or small volume batches, we can recommend a fastening solution to match. Our customized Multi-head Assembly Stations can fasten any number of joints in a single operation while our hand tools provide flexible assembly solutions in many environments.

Applications

The wide range of breakstem fasteners can be used to fasten a variety of materials including soft, brittle and thin metals and plastics. They are designed to meet the highest quality standards and built to resist the toughest environmental extremities.

Our products have often been designed and developed in collaboration with our customers, assuring they've been designed with function and practicality at the forefront of the development.

Mission

With fastening technology nothing should be left to chance, from conceptual design to the finished product every decision is significant and must be made with the end result in mind. This is inherent to the STANLEY Engineered Fastening culture, we have highly skilled applications engineers on hand to support your fastening requirements and recommend the best solution for your joining needs. In every case we see ourselves as not only a provider of fasteners, tools and machines but as a fastening solution partner with the ability to support our customers and help to improve their assembly performance.

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Breakstem Riveting Systems

Our breakstem fasteners and installation tools are a high performance blind fastening system. For more than 100 years the POP and Avdel brands have been synonymous with world-leading, blind fastening systems. Used in all manufacturing industries throughout the world, there is a breakstem fastener and installation tool to suit virtually every assembly requirement. Key features and benefits include:

Benefits of assembly

Extensive Product Choice

The breakstem range is now more extensive than ever. A wide choice of head styles, finishes and sizes are available as standard and new products have been introduced to expand the steel and stainless steel product ranges.

Installation Tools

A comprehensive range of high performance tools ensure reliable and accurate installation of our breakstem fasteners. Combining the latest design and engineering technology with robust and durable construction, the range includes hydro-pneumatic hand tools, a battery powered tool as well as fully automated, customized equipment for high volume production.

Multi-grip Capability

Stavex®, Avex®, Avibulb® XT, Avinox® XT, Monobolt® and Klamp-Tite® breakstem fasteners offer multi-grip capability. By accommodating many variations in material thickness, just one fastener can be used in several assembly applications, reducing inventory, time and costs.

Complete Hole Fill

Monobolt®, Stavex® and Avex® fasteners offer exceptional hole fill. Expanding to fill oversize, irregular, slotted or misaligned holes they create a high strength, vibration resistant joint.

Consistent, High Performance

Designed and manufactured to tight tolerances, our breakstem fastening systems ensure consistently accurate and secure, high strength assembly.

Retained and Locked Stems

Most breakstem fasteners have a retained stem which provides strong, vibration resistant joints without electrical problems or rattling often caused by loose stems. For additional strength, Monobolt®, Interlock® and Klamp-Tite® stems are mechanically locked into the shell head while the splined stems of Hemlok® and Q Rivet fasteners form interference locks.

Structural Assembly

Where load-bearing, structural joints are required, Avibulb® XT, Avinox® XT, Hemlok®, Q Rivet, Interlock® and Monobolt® breakstem fasteners have been designed to offer high shear and tensile strength.

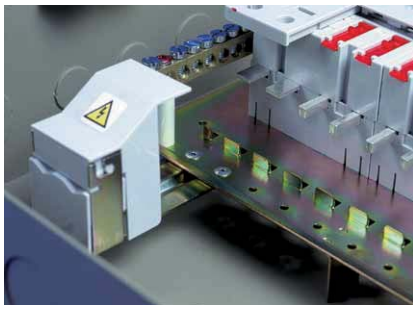
Customized Designs

As you would expect from a global leader in fastening solutions, we have extensive experience in engineering and developing breakstem fasteners and tooling to unique customer requirements with many examples detailed in this catalog. Please contact us to discuss your special requirements.

Domestic appliances

Car chassis

Electronic components



Selecting a Breakstem Fastener

Selecting a breakstem fastener is a simple process.
The factors detailed below are designed to help you select a fastener suitable for your application:

Fastener Selection

Grip Range
The fastener should be selected to ensure that the thickness of the parent material(s) falls within the grip range. Most of our breakstem fasteners offer multi-grip capability, with Monobolt®, Stavex® and Avex® fasteners offering exceptional multi-grip performance.

Hole Size
This is specified on the relevant technical data sheet for the fastener. It is important to control the hole size accurately in order to ensure optimum fastener performance.

Hole Fill
Monobolt® and Interlock® fasteners provide excellent hole fill via a radially expanded body. Avex®, Stavex®, and Avibulb® fasteners also provide good hole fill.

Fully Sealed Fastening
Closed End Rivets should be specified for all of the many applications where a fully sealed fastening is essential. This rivet design produces a seal that prevents passage of liquid or vapor at pressures up to 100 psi.

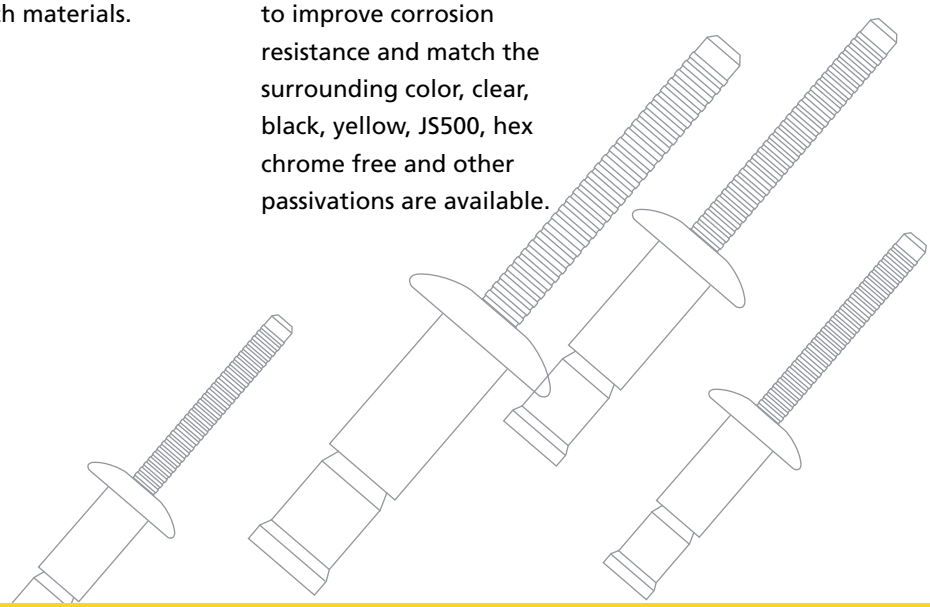
Strength Characteristics
Hemlok®, Monobolt®, Klamp-Tite® (structural), Stavex®, Avinox® XT and Avibulb® XT fasteners all offer high shear and tensile strength. Please refer to the technical data sheets for typical strength values. For heavy duty applications, the Avbolt® blind structural fastener is the first choice. Details on Avbolt® can be found on our website or in the Lockbolt Systems catalog.

Load Spreading
Most of our breakstem fasteners have a large blind side bearing area. Bulbex® and Klamp-Tite® fasteners provide exceptional load spreading capability and are ideal for use in thin sheet or low strength materials.

Corrosion Resistance
The selection of the material type and finish of the breakstem fastener should be made on the basis of the corrosion resistance required. Corrosion is best reduced by selecting a fastener material which is the same as the parent material(s). Stainless steel fasteners offer the best corrosion resistance.

Special Surface Coatings
For improved corrosion resistance we can apply many protective coatings, including: Delta-Seal®, extra zinc plating, zinc-nickel plating and anodized finishes for aluminum alloy fasteners, with or without dyeing. Where it is important to improve corrosion resistance and match the surrounding color, clear, black, yellow, JS500, hex chrome free and other passivations are available.

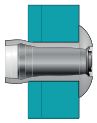
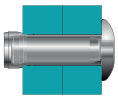
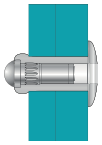
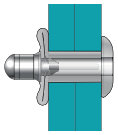
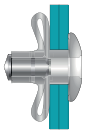
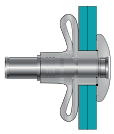
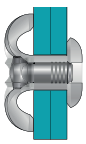
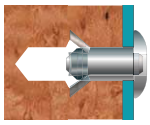
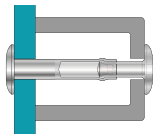
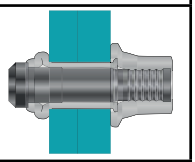
Important Information
The information on this page should be used in conjunction with the technical data sheets for the individual fasteners. All test and performance data detailed on the data sheets reflect the ultimate strength of the fasteners, determined with representative samples and over multiple tests.
We recommend that you use this data as a guide only, since other factors may affect the performance of the fastener. We strongly recommend you test the fastener in your application to determine exact performance levels.



Product Capabilities

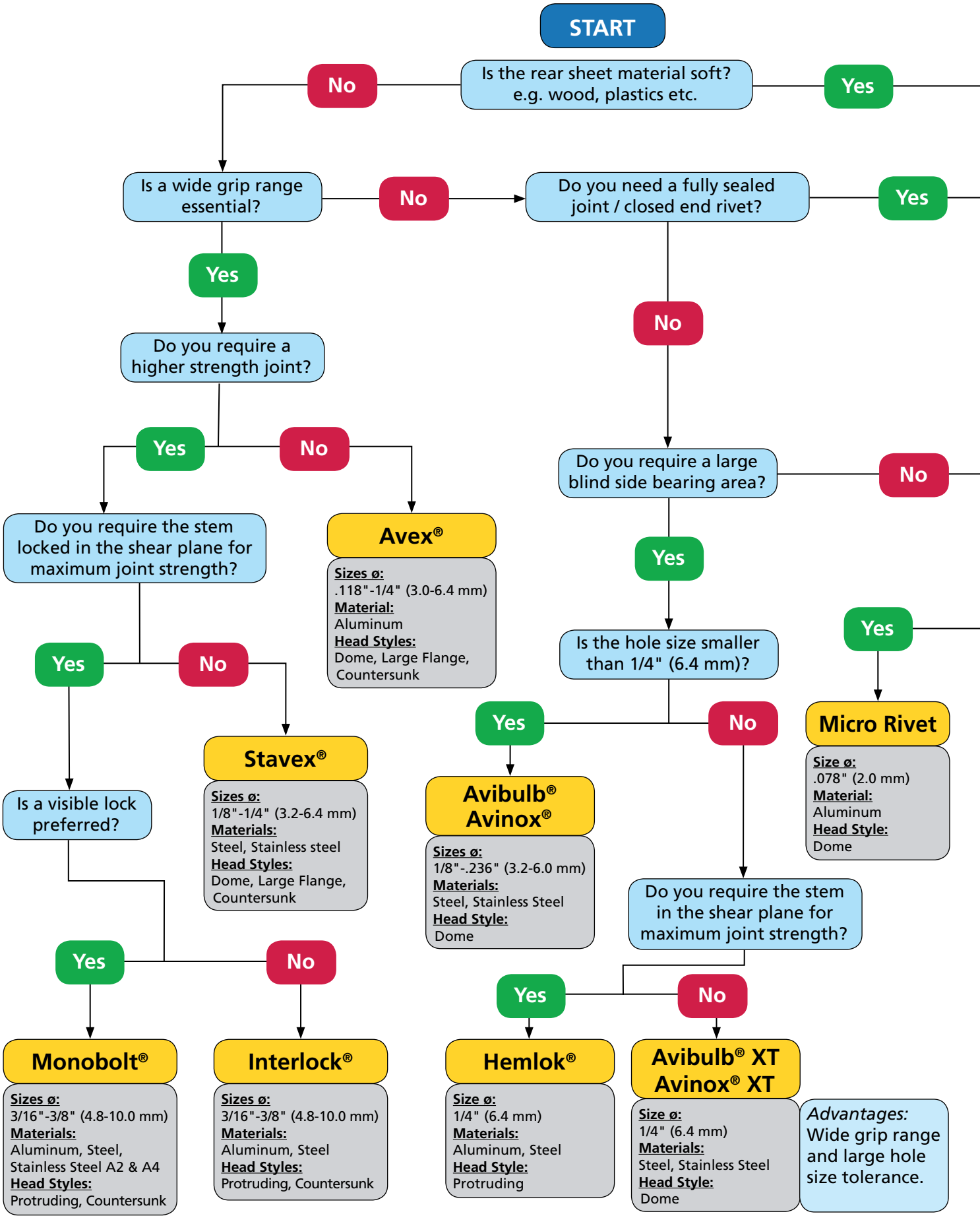
Blindside Head Type	Rivet Type	Placing Characteristics						Typical cross-section of placed fastener
		Blind side head size	Grip range	Hole fill ability	Clamp	Load-bearing stem	Vibration resistance	
Basic form	Open End	*	*	*	*	*	*	
	Soft Set	*	*	*	*	*	*	
	Micro Rivet	*	*	*	*	*	*	
Flush	Pull-Thru (PT)	**	*	**	*	–	*	
Sealed	Closed End	*	*	*	*	*	*	
Large bearing surface	Avex®	**	***	***	**	*	**	
	Stavex®	**	***	***	**	*	**	
	Avibulb® Avinox®	***	*	**	**	**	**	
	Avibulb® XT Avinox® XT	***	**	**	***	**	**	
	Hemlok®	***	*	**	***	***	**	

* = good performance, ** = better performance, *** = best performance, – = not applicable

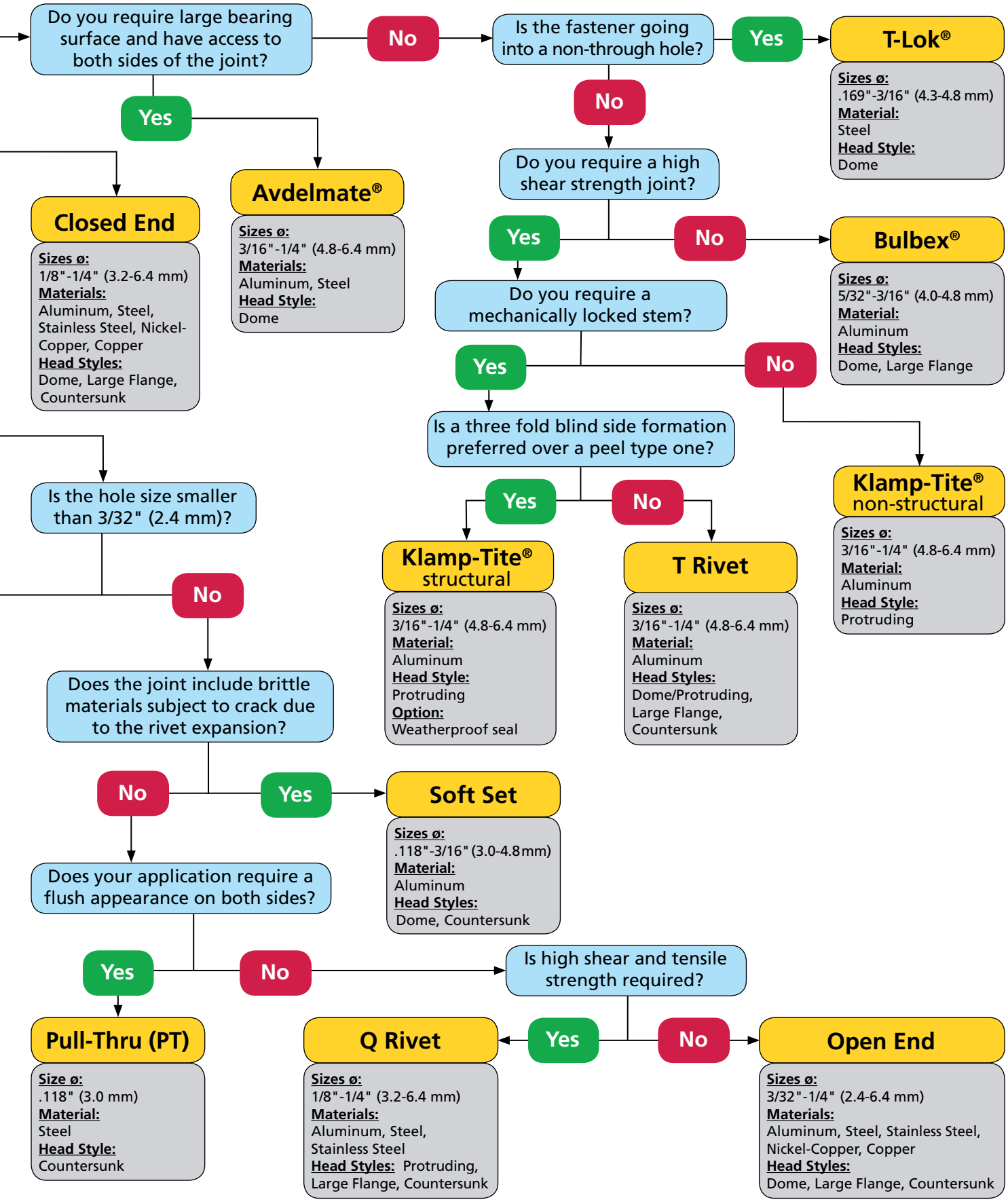
Blindside Head Type	Rivet Type	Placing Characteristics						Typical cross-section of placed fastener
		Blind side head size	Grip range	Hole fill ability	Clamp	Load-bearing stem	Vibration resistance	
Conical form	**Monobolt®**	*	***	***	**	***	**	
	Interlock®	*	***	***	**	***	**	
	Q Rivet	*	*	*	**	**	**	
Folding leg formation	**Bulbex®**	***	***	*	*	*	*	
	Klamp-Tite® (non-structural)	***	***	*	**	*	*	
	Klamp-Tite® (structural)	***	***	*	**	**	**	
Peel type	**T Rivet**	***	*	*	*	**	*	
	T-Lok®	***	**	*	*	**	*	
Low profile	**Avdelmate®**	***	***	*	*	*	*	
Blind Lockbolt	**Avbolt®**	If higher strengths or larger diameters are required, please refer to the POP Avdel Lockbolt Systems catalog.						

* = good performance, ** = better performance, *** = best performance, – = not applicable

Breakstem Riveting Systems



This selection guide is designed to illustrate which fasteners may be the most suitable for your application. This guide does not include the full range of POP Avdel products; our Applications Engineers are available to advise as to the best solution for your specific application needs.



Selection Guide

This table is designed as a guide to help you select the most suitable breakstem fastener for your particular application. Full technical and performance data for each breakstem fastener can also be found on our website or contact your local STANLEY Engineered Fastening representative.

Product Range	Material								Head Style			Fastener Size (nom)										Page No.	
	Body					Stem																	
	Aluminum	Steel	Stainless Steel	Copper	Monel	Aluminum	Steel	Stainless Steel	Dome/ Protruding	Large Flange	Countersunk	.078" (2.0 mm)	3/32" (2.4 mm)	7/64" (2.8 mm)	.118" (3.0 mm)	1/8" (3.2 mm)	5/32" (4.0 mm)	3/16" (4.8 mm)	.236" (6.0 mm)	1/4" (6.4 mm)	Series No.	Description	Data sheets
Open End	●					●			●				●			●	●	●		●	AD ABS	12	51
	●					●				●						●	●	●			AD ABSLF	12	51
	●					●					●					●					AK ABS	12	51
	●						●		●				●			●	●	●		●	AD BS	12	54
	●						●			●						●	●	●			AD BSLF	12	54
	●						●				●					●	●	●			AK BS	12	54
		●					●		●				●			●	●	●		●	SD BS	12	56
		●					●			●						●	●	●			SD BSLF	12	56
		●					●				●		●			●	●	●			SK BS	12	56
			●					●	●				●			●	●	●			SSD SSBS	12	59
			●					●		●						●		●			SSD SSBSLF	12	59
			●					●			●					●		●			SSK SSBS	12	59
			●				●		●							●	●	●			SSD BS	12	61
			●				●			●						●		●			SSD BSLF	12	61
			●				●				●					●		●			SSK BS	12	61
				●			●		●							●					CD BS	12	63
					●		●		●					●		●	●	●		●	MD / TLPD	12	64
					●		●				●			●		●	●	●			MK / TLPK	12	66
Soft Set	●					●			●						●	●	●	●			PAD	13	68
	●					●					●					●					PAK	13	68
Micro	●						●		●			●									TAPD BS	14	69
Pull-Thru		●					●				●				●						SKK	15	70
Closed End	●					●			●							●	●	●			AD AH	16	71
	●						●		●							●	●	●		●	AD H	16	72
	●						●				●					●	●	●			AK H	16	72
	●							●	●									●			AD SSH	16	74
	●							●			●					●	●	●			AK SSH	16	74
			●					●	●							●	●	●			SSD SSH	16	75
				●			●		●							●					CD H	16	76
Avex®	●						●		●						●	●	●	●		●	1661	17	77
	●						●			●						●	●	●			1641	17	79
	●						●				●					●	●	●			1604	17	80
	●							●	●						●	●	●	●			1663	17	81
	●							●		●								●			1643	17	82
Stavex®		●					●		●							●	●	●		●	BS01	18	83
		●					●				●					●		●			BS04	18	84
		●					●			●								●			BE34	18	85
			●					●	●							●	●	●			BS11	18	86
Avibulb®		●					●		●							●	●	●	●		BN01	19	87
Avinox®			●					●	●							●	●	●			BE61	19	88

Product Range	Material						Head Style			Fastener Size (nom)							Page No	
	Body			Stem														
	Aluminum	Steel	Stainless Steel	Aluminum	Steel	Stainless Steel	Dome/ Protruding	Large Flange	Countersunk	1/8" (3.2 mm)	5/32" (4.0 mm)	.169" (4.3 mm)	3/16" (4.8 mm)	1/4" (6.4 mm)	3/8" (10.0 mm)	Series No.	Description	Data sheet
Avibulb® XT		●			●		●							●		BN01	20	89
Avinox® XT			●			●	●							●		BE61	20	90
Hemlok®		●			●		●							●		2221	21	91
	●			●			●							●		2241	21	92
Monobolt®	●			●			●						●	●	●	2774 / BAPV	22	93
	●			●					●				●	●		2764 / BACV	22	94
		●			●		●						●	●	●	2771 / SSPV	22	95
		●			●				●				●	●		2761 / SSCV	22	96
			●			●	●						●	●	●	2711 / CCPV	22	97
			A4			A4	●						●	●		2717	22	98
			●			●			●				●	●		2721	22	99
Interlock®	●			●			●						●	●		BAPI	23	100
		●			●		●						●	●	●	SSPI	23	101
		●			●				●				●	●		SSCI	23	102
			●			●	●						●	●		CCPI	23	103
Q Rivet	●			●			●			●	●		●	●		AAPQ	24	104
	●			●				●		●	●		●	●		AALQ	24	104
	●			●					●	●	●		●	●		AACQ	24	104
	●				●		●			●	●		●	●		BSPQ	24	106
	●				●			●		●	●		●	●		BSLQ	24	106
	●				●				●	●	●		●	●		BSCQ	24	106
		●			●		●			●	●		●	●		SSPQ	24	108
		●			●			●		●	●		●	●		SSLQ	24	108
		●			●				●	●	●		●	●		SSCQ	24	108
			●			●	●			●	●		●	●		CCPQ	24	110
			●			●			●	●	●		●	●		CCCQ	24	110
Bulbex®	●			●			●			●	●		●			BF01 / AD ALS	25	112
	●			●				●					●			BF41 / AD ALSLF	25	113
Klamp-Tite®	●			●			●						●	●		BAPK	26	114
	●			●			●						●	●		BAPKTR	27	115
T Rivet	●				●		●						●			BSPTS	28	116
	●				●			●					●			BSLTS	28	116
	●				●				●				●			BSCTS	28	116
	●				●		●						●	●		AD TFBS	28	117
T-Lok®		●			●		●					●	●			BM01	29	118
Avdelmate®	●			●			●						●	●		BALMS	30	119
	●				●		●						●	●		BSLMS	30	121
		●			●		●						●	●		SSLMS	30	123
Avex® Splined		●			●		●				●		●			1610	31	125
Earth Tab Rivet		●			●		●				●					BN11	31	126

Open End Rivets

Non-structural blind breakstem rivet designed for a wide range of applications. Available in a variety of materials and combinations.

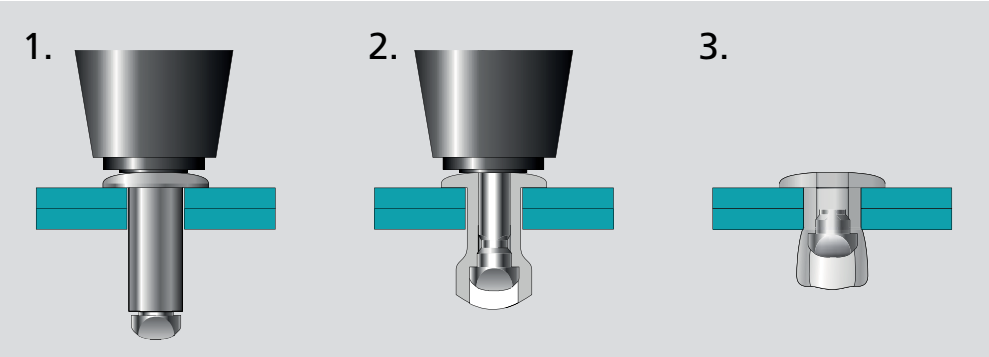
Key features and benefits

- Cost effective standard rivet
- Installed quickly and easily
- Design of the stem head ensures positive retention after installation

Specifications

Sizes:
3/32" – 1/4"
(2.4 mm – 6.4 mm)
Materials:
Aluminum, Steel, Stainless Steel, Copper, Nickel Copper Alloy
Head Styles:
Dome, Large Flange, Countersunk

Typical placing sequence



Please visit our website for fastener placing animations and technical data.

Assembly applications

- White goods
- Automotive
- Building & construction
- Furniture
- Lighting
- Hearth, grill
- Patio furniture
- Renewable energies

Automotive

White goods

Snowmobile trailer

Lighting equipment

Conference room furnishings

Gutter

Soft Set Rivets

Almost identical in appearance as the open end, this rivet is engineered with a soft aluminum alloy body and stem preventing installation fractures on brittle materials.

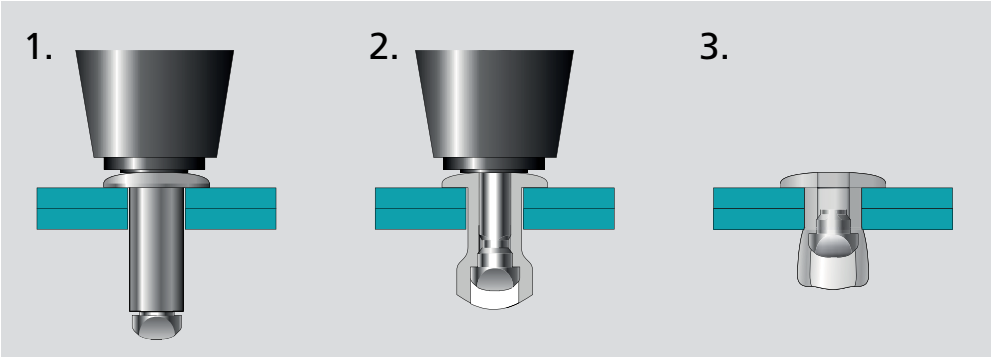
Key features and benefits

- Designed for soft or brittle materials
- Incorporates a special aluminum alloy
- Low clamping force

Specifications

Sizes:
.118" – 3/16"
(3.0 mm – 4.8 mm)
Materials:
Aluminum
Head Styles:
Dome, Countersunk

Typical placing sequence



Please visit our website for fastener placing animations and technical data.

Assembly applications

- Office furniture
- Mobile homes, caravans
- Public transportation
- Plastic components
- Electrical engineering
- Lighting

Conference room furnishings

Plastic school chair

Recreational vehicle

Plastic valve

Angle section to PCB

Playground equipment

Micro Rivets

2 mm aluminum open end rivet designed for small micro-electronic applications.

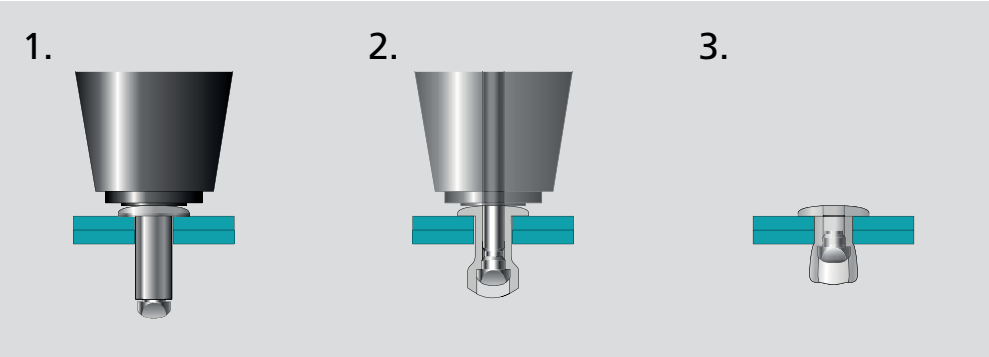
Key features and benefits

- Smallest blind rivet available
- Suitable for tight places
- Accommodates very small holes
- Requires access to primary side only
- Very low secondary side clearance
- Low head height
- Soft set body will not damage work piece
- Ideal for thin metal and printed circuit boards

Specifications

Size:
.078" (2.0 mm)
Material:
Aluminum
Head Style:
Dome

Typical placing sequence



Please visit our website for fastener placing animations and technical data.

Assembly applications

- Electronic devices
- Telecommunications
- Vehicle electronics
- Entertainment systems

Electronics applications

Computer and mobile devices

Car entertainment

Automotive electronics

Pull-Thru (PT) Rivets

Unique double countersunk steel blind rivet provides a flush setting surface on both sides of the application.

Key features and benefits

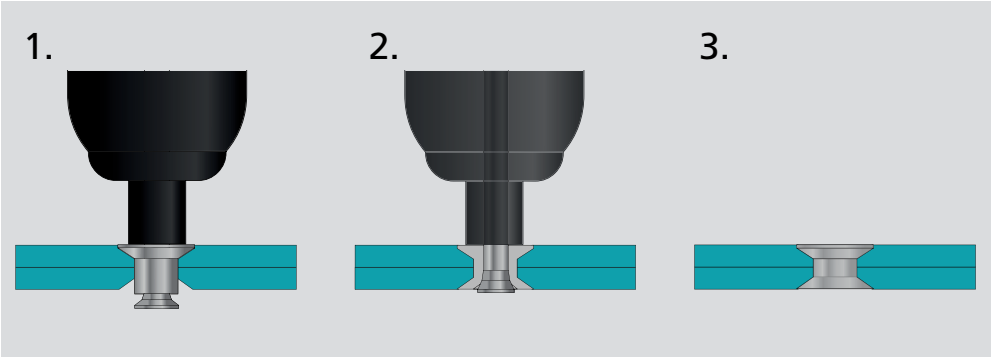
- Flush Set on both sides of the application on countersunk materials
- Insertion can be reversed improving rivet tool access
- Unique "Pull-Thru" mandrel
- No loose mandrel heads remain anywhere in the application
- Mandrel head never breaks away from the mandrel
- Consistent clamp force
- Tight radial set provides increased structural rigidity
- Colored mandrels for quick visual identification of different part sizes
- High speed automation with POP Rivet Presenter facilitates a cycle time as fast as 2 seconds

* Rear sheet tail protrusion of installed fastener up to .016" (0.4 mm) is permissible

Specifications

Size:
.118" (3.0 mm)
Material:
Steel
Head Style:
Countersunk

Typical placing sequence



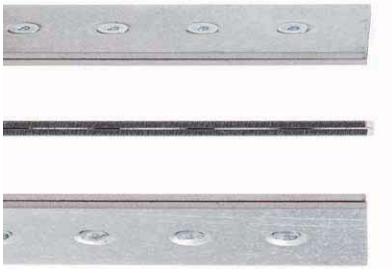
Please visit our website for fastener placing animations and technical data.

Assembly applications

- Electronic enclosures
- Computer Servers
- Lighting

Server blade assembly

Flush setting surface on both sides of the application



Closed End Rivets

Exclusive rivet design featuring a cup shaped end configuration ideal for applications that need to be water tight or when stem retention is paramount.

Key features and benefits

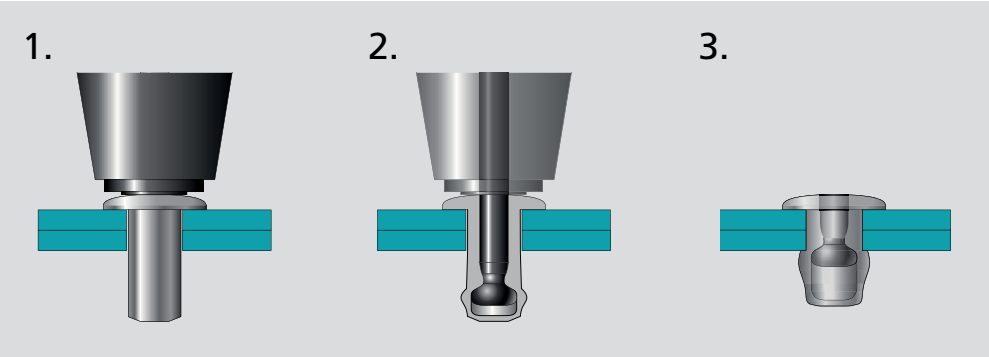
- Seals out moisture, air and other contaminants
- Higher tensile and shear strength than the equivalent open end rivet
- 100% stem retention

Blindside set view

Specifications

Sizes:
1/8" – 1/4"
(3.2 mm – 6.4 mm)
Materials:
Aluminum, Steel, Stainless Steel
Head Styles:
Dome, Countersunk

Typical placing sequence



Please visit our website for fastener placing animations and technical data.

Assembly applications

- White goods
- Electronic enclosure
- Signs
- Outdoor cases
- Scoreboards
- LED signs
- Recreational vehicles

White goods

Lawn and garden

School bus

Electronic enclosure

Electronic switch

Sunroof

Avex®

Multi-grip, aluminum alloy breakstem fasteners with a long and reliable track record in a wide range of applications and industries.

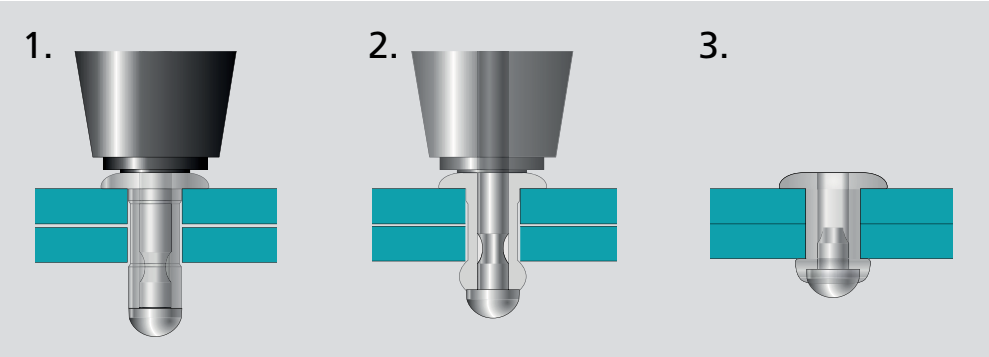
Key features and benefits

- Multi-grip capability accommodates wide variations in material thickness
- One fastener can be used to replace several standard grip fasteners thus reduced fastener inventory and simpler stock control
- Good hole fill provides strong, vibration resistant joints
- Compensates for irregular, oversized, slotted or misaligned holes
- Can stop sheet movement in non-standard holes
- Retained stem avoids damage, electrical problems or rattling caused by loose stems
- Provides a large blind side bearing area against the rear sheet
- Spreads the tail bearing load/clamp load on the rear sheet making it ideal for use in thin sheet materials

Specifications

Sizes:
.118" – 1/4"
(3.0 mm – 6.4 mm)
Materials:
Aluminum
Head Styles:
Dome, Large Flange, Countersunk

Typical placing sequence



Please visit our website for fastener placing animations and technical data.

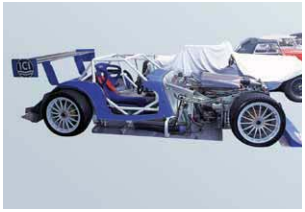
Assembly applications

- Automotive
- Commercial vehicles
- Domestic appliances
- Electronics
- Electrical equipment
- General light industrial
- Heating and ventilation

Garage doors

Domestic heating systems

Car chassis



Stavex®

Multi-grip, high strength steel and stainless steel break-stem fasteners.

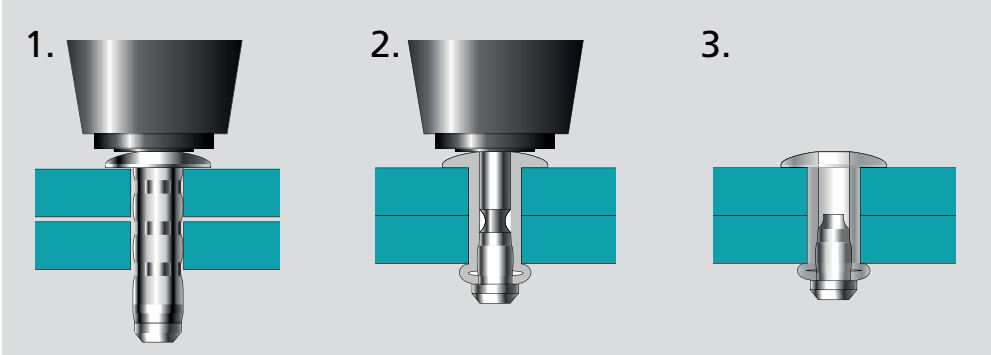
Key features and benefits

- High shear and tensile strength provides strong, vibration resistant joints
- Stainless steel option provides high corrosion resistance and is ideal for applications requiring elevated temperatures
- Multi-grip capability accommodates wide variations in material thickness
- One fastener can be used to replace several standard grip fasteners thus reduced fastener inventory and simpler stock control
- Good hole fill compensates for irregular, oversized, slotted or misaligned holes and can stop movement in non-standard holes
- Retained stem avoids damage, electrical problems or rattling caused by loose stems
- Provides a large blind side bearing area against the rear sheet
- Spreads the tail bearing load/clamp load on the rear sheet making it ideal for use in thin sheet materials

Specifications

Sizes:
1/8" – 1/4"
(3.2 mm – 6.4 mm)
Materials:
Steel, Stainless Steel
Head Styles:
Dome, Large Flange, Countersunk

Typical placing sequence



Please visit our website for fastener placing animations and technical data.

Assembly applications

- Automotive
- Commercial vehicles
- Domestic appliances
- Electronics
- Electrical equipment
- General light industrial
- Heating and ventilation

Snowmobile

Passenger air bag

Roll-up security door

Avibulb® & Avinox®

High strength steel (Avibulb®) and stainless steel (Avinox®) breakstem fasteners with excellent bulbing tail formation. Ideal for thin sheet materials.

Avibulb®

Avinox®

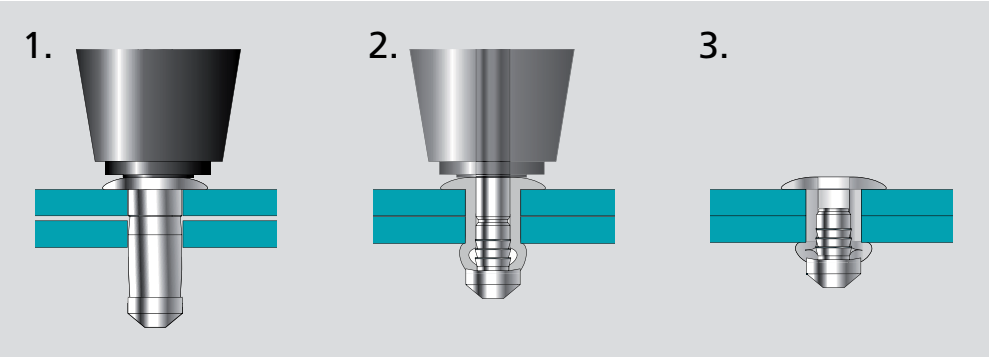
Key features and benefits

- High shear and tensile strength providing strong, vibration resistant joints
- Stainless steel Avinox® for high corrosion resistance and applications requiring elevated temperatures
- Provides a large blind side bearing area against the rear sheet
- Spreads the tail bearing load/clamp load on the rear sheet making it ideal for use in thin sheet materials
- Good hole fill compensates for irregular, oversized, slotted or misaligned holes
- Retained stem avoids damage, electrical problems or rattling caused by loose stems

Specifications

Sizes:
1/8" – 3/16"
(3.2 mm – 4.8 mm)
Avibulb® up to 6.0 mm
Material:
Steel, Stainless Steel
Head Style:
Dome

Typical placing sequence



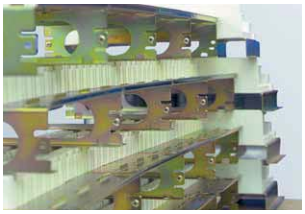
Please visit our website for fastener placing animations and technical data.

Assembly applications

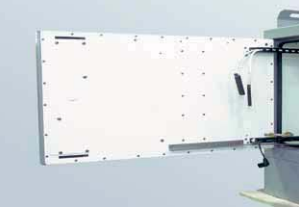
- Automotive
- Cabinets and enclosures
- Heating and ventilation
- Telecommunications
- General light industrial

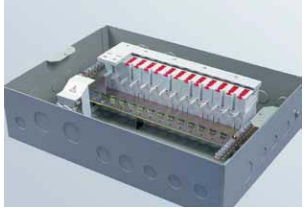
Telecommunications cabinets

Electronic components



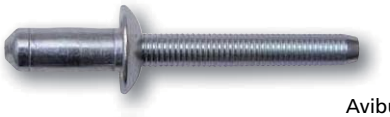
Ladders



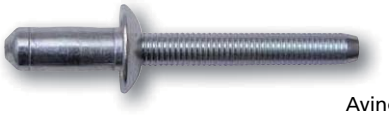


Avibulb® XT & Avinox® XT

Avibulb® XT (steel) and Avinox® XT (stainless steel) are high performance structural breakstem fasteners with excellent bulbing tail formation, ideal for thin sheet materials. The new fasteners feature a wide grip range, especially suited for applications with varying sheet thicknesses.



Avibulb® XT



Avinox® XT

Key features and benefits

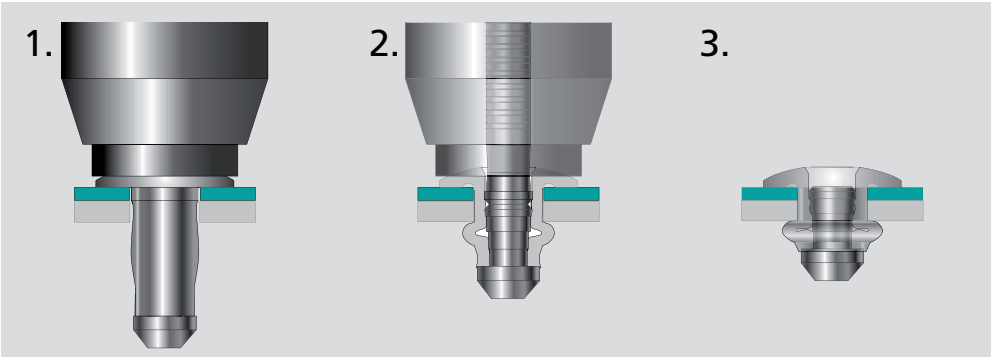
- High shear and tensile strength and high residual clamp load providing strong, vibration resistant joints
- Multi-grip capability accommodates wide variations in material thickness
- Spreads the tail bearing load/clamp load on the rear sheet making it ideal for use in thin sheet materials
- Suitable also in softer materials
- Retained stem avoids damage, electrical problems or rattling caused by loose stems
- Underhead recess accommodates burrs around holes and spreads the load evenly on the top sheet
- Stainless steel Avinox® XT for high corrosion resistance and applications requiring elevated temperatures

Specifications

Size:
1/4" (6.4 mm)
Materials:
Steel, Stainless Steel
Head Style:
Dome

Avdel Patent Protected

Typical placing sequence



Please visit our website for fastener placing animations and technical data.

Assembly applications

- Automotive
- Truck and trailer
- Cabinets and enclosures
- Heating and ventilation
- Telecommunications
- Domestic appliances
- Renewable energies
- Industrial equipment

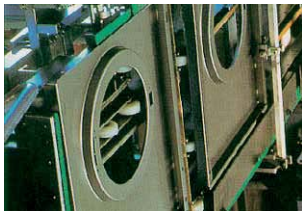
Telecommunications cabinets

Industrial refrigeration

Vehicle panels

Solar panels

Washing machine



Heating and ventilation

Hemlok®

Structural breakstem fasteners with exceptional shear and tensile strength and a large blind side bearing area against the rear sheet.

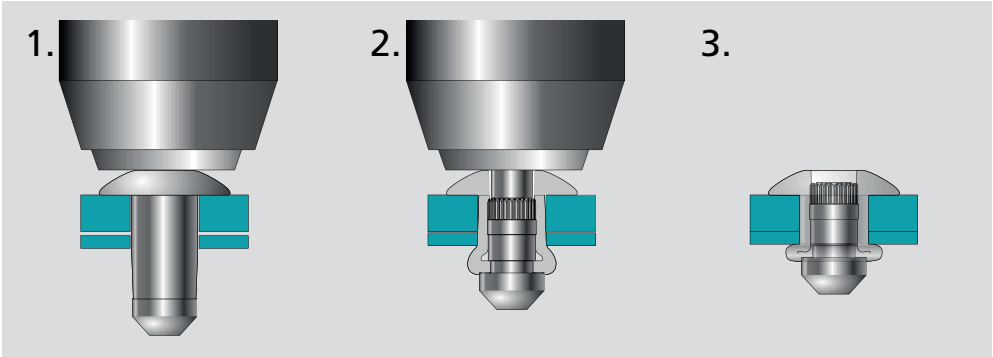
Key features and benefits

- All steel version provides exceptional shear and tensile strength
- Large blind side bearing area spreads the tail bearing load/clamp load on the rear sheet reducing creep e.g. in plastic material
- Interference lock formed by a splined stem provides strong, vibration resistant joints
- No damage, electrical problems or rattling caused by loose stems

Specifications

Size:
1/4" (6.4 mm)
Materials:
Aluminum, Steel
Head Style:
Protruding

Typical placing sequence



Please visit our website for fastener placing animations and technical data.

Assembly applications

- Automotive
- Warehouse racking
- Ladders

Scaffold tower

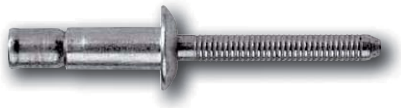
Step ladder

Car seat base

Vehicle mud flaps

Monobolt®

Multi-grip structural breakstem fasteners providing a fully sealed joint and visible lock.



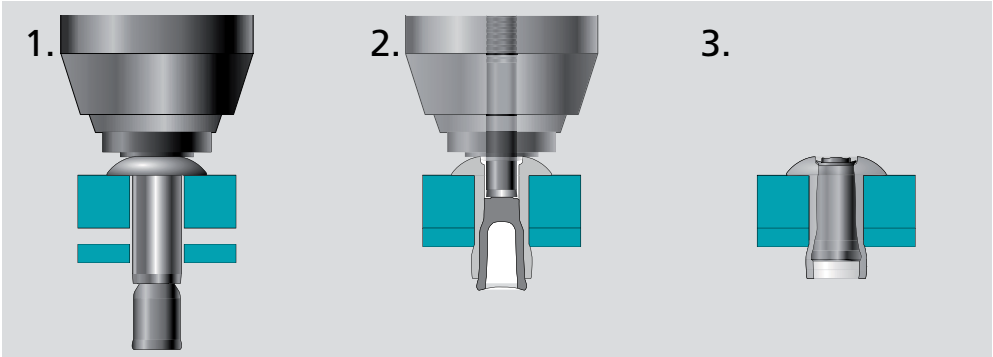
Key features and benefits

- Excellent hole fill via radially expanded body provides very strong, vibration resistant joints and compensates for irregular, oversized, slotted or misaligned holes
- Good sheet take-up performance for large gap closing capability
- Stem mechanically locked into body avoids damage, electrical problems or rattling caused by loose stems
- Multi-grip capability
- High shear and tensile strength
- Visible lock for quick and easy inspection

Specifications

Sizes:
3/16" – 3/8"
(4.8 mm – 10 mm)
Materials:
Aluminum, Steel,
Stainless Steel
Head Styles:
Protruding, Countersunk

Typical placing sequence



Please visit our website for fastener placing animations and technical data.

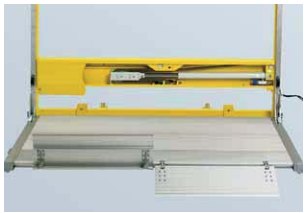
Assembly applications

- Automotive
- Cabinets and enclosures
- Commercial vehicles
- Domestic appliances
- Heating and ventilation

Car chassis

Column tail lifts

Product cooler



Interlock®

Multi-grip structural breakstem fasteners providing a fully sealed joint.

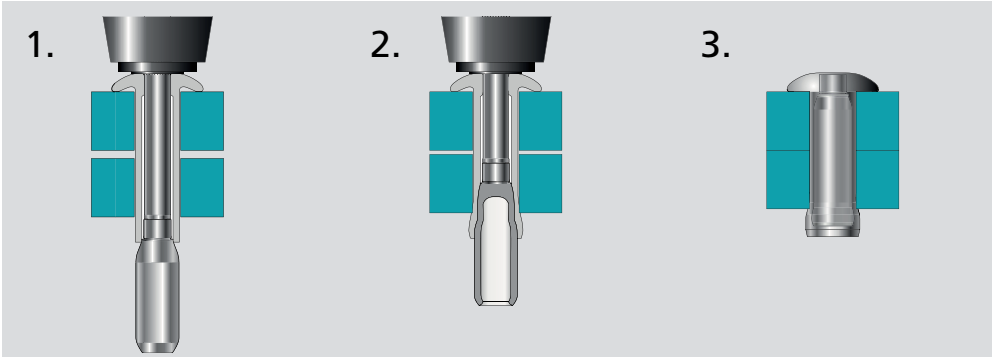
Key features and benefits

- Excellent hole fill via radially expanded body provides greater joint integrity, added water resistance and compensates for irregular, oversized, slotted or misaligned holes
- Can stop sheet movement in non-standard holes
- Good sheet take-up performance for large gap closing capability
- Stem mechanically locked into body avoids damage, electrical problems or rattling caused by loose stems
- Multi-grip capability accommodates wide variations in material thickness
- High shear and tensile strength requires fewer rivets per assembly

Specifications

Sizes:
3/16" – 3/8"
(4.8 mm – 10 mm)
Materials:
Aluminum, Steel
Head Styles:
Protruding, Countersunk

Typical placing sequence



Please visit our website for fastener placing animations and technical data.

Assembly applications

- Automotive
- Cabinets and enclosures
- Commercial vehicles
- Domestic appliances
- Heating and ventilation

Truck trailer

Heat exchanger

Q Rivet

Structural breakstem fasteners with an internal interference lock and a weatherproof feature.

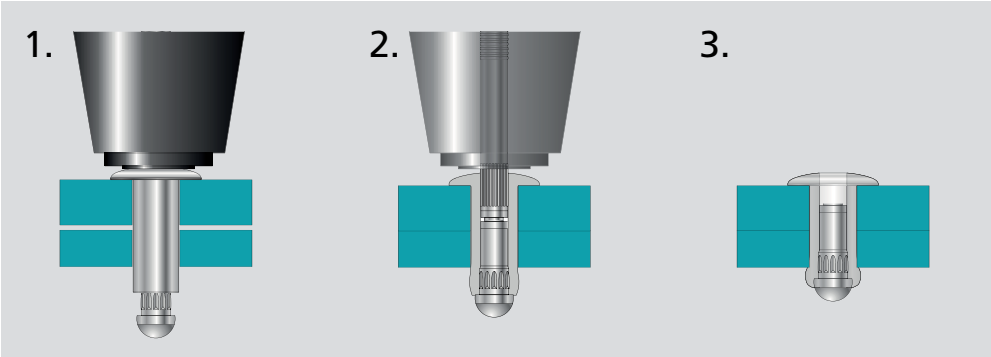
Key features and benefits

- Interference lock formed by a splined stem provides powerful locking strength and hole filling
- Weatherproof fastener because the splined stem plugs the entire length of the shell
- High shear and tensile strength
- All stainless steel option for high corrosion resistance and applications requiring elevated temperatures

Specifications

Sizes:
1/8" – 1/4"
(3.2 mm – 6.4 mm)
Materials:
Aluminum, Steel, Stainless Steel
Head Styles:
Protruding, Large Flange, Countersunk

Typical placing sequence



Please visit our website for fastener placing animations and technical data.

Assembly applications

- Automotive
- Building industries
- Commercial vehicles
- Domestic appliances
- Heating and ventilation

Car seat base

Vehicle mud flaps

Step ladder

Bulbex®

Aluminum alloy breakstem fasteners with a split tail formation providing a very large blind side bearing area against the rear sheet. Ideal for use with plastic and low strength material.

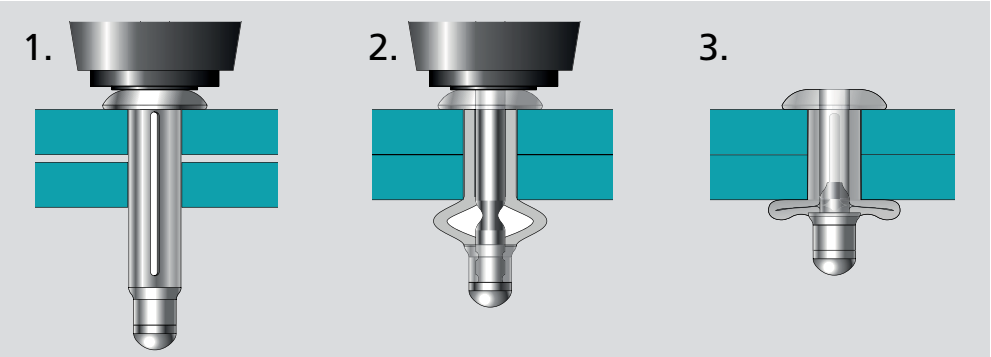
Key features and benefits

- Split tail formation provides a very large blind side bearing area against the rear sheet
- Spreads the tail bearing load/clamp load on the rear sheet providing high resistance to pull-out loads
- Multi-grip capability accommodates wide variations in material thickness
- Retained stem avoids damage, electrical problems or rattling caused by loose stems

Specifications

Sizes:
5/32" – 3/16"
(4.0 mm – 4.8 mm)
Material:
Aluminum alloy
Head Styles:
Dome, Large Flange

Typical placing sequence



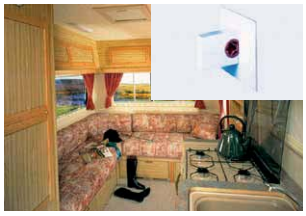
Please visit our website for fastener placing animations and technical data.

Assembly applications

- Automotive
- Caravans/RV
- Mobile homes
- Domestic appliances
- Plastic components

Caravans/RV

Mobile homes



Speaker systems

Klamp-Tite® non-structural

Aluminum alloy fasteners with a very large blind side bearing area against the rear sheet. Ideal for use in thin sheet or low strength materials.

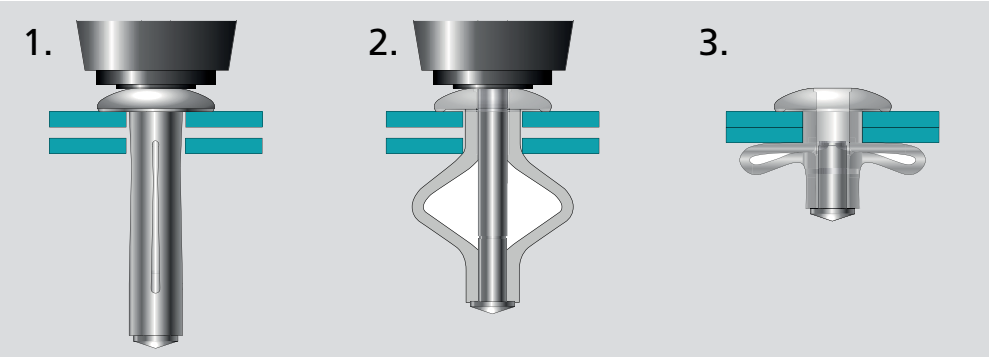
Key features and benefits

- Split tail formation spreads the tail bearing load/clamp load on the rear sheet
- Ideal for use in thin sheet materials offering high resistance to pull-out loads
- Multi-grip capability accommodates wide variations in material thickness
- Retained stem provides very strong, vibration resistant joints avoiding problems caused by loose stems

Specifications

Sizes:
3/16" – 1/4"
(4.8 mm – 6.4 mm)
Material:
Aluminum
Head Style:
Protruding

Typical placing sequence



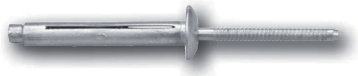
Please visit our website for fastener placing animations and technical data.

Assembly applications

- Automotive
- Caravans/RV
- Domestic appliances
- Plastic components

Klamp-Tite® structural

Aluminum fasteners with a very large blind side bearing area against the rear sheet. Ideal for use in thin sheet or low strength materials.



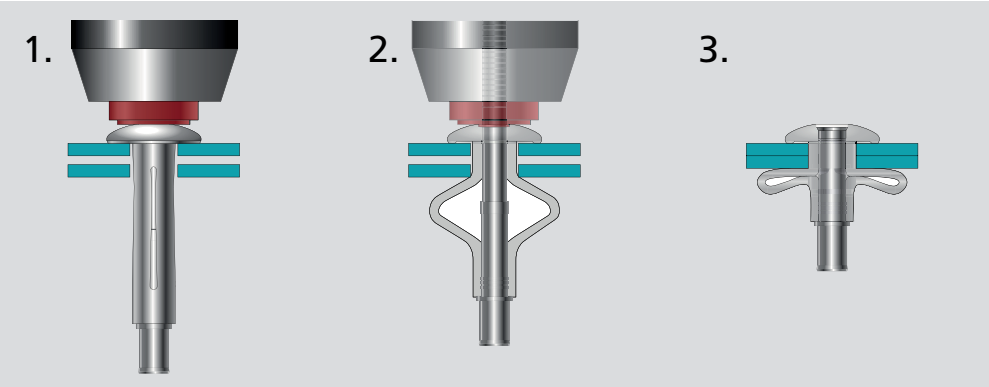
Key features and benefits

- Split tail formation spreads the tail bearing load/clamp load on the rear sheet
- Ideal for use in thin sheet materials offering high resistance to pull-out loads
- Multi-grip capability accommodates wide variations in material thickness
- Stem is mechanically locked into body providing very strong, vibration resistant joints
- Visible lock for quick and easy inspection
- Optional underhead washer provides a weather-proof seal

Specifications

Sizes:
3/16" – 1/4"
(4.8 mm – 6.4 mm)
Material:
Aluminum
Head Style:
Protruding

Typical placing sequence



Please visit our website for fastener placing animations and technical data.

Assembly applications

- Container
- Cladding
- Commercial vehicles

Refrigerated truck

Refrigerated truck

T Rivets

Peel-type structural breakstem rivet providing good vibration resistance and shear and tensile strength.

Key features and benefits

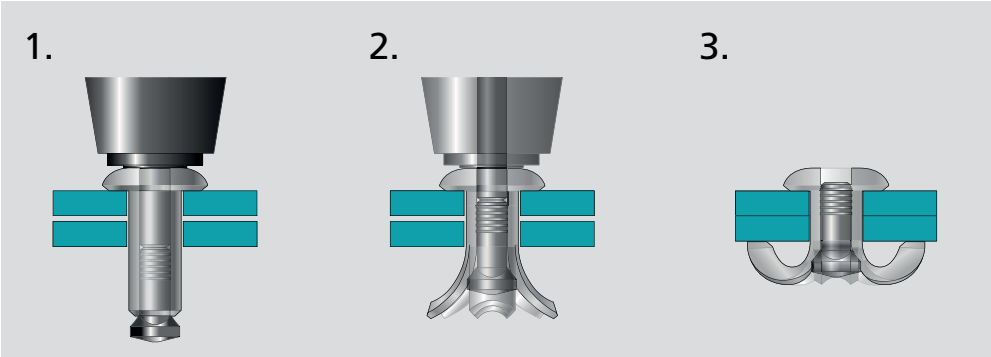
- High clamp-up where there is sheet separation
- Visible lock - T Rivet can withstand severe vibration without loss of the stem's plug section
- Multi-grip version available

Peel-type closing head of a T Rivet

Specifications

Sizes:
3/16" – 1/4"
(4.8 mm – 6.4 mm)
Material:
Aluminum
Head Styles:
Dome/Protruding, Large Flange, Countersunk

Typical placing sequence



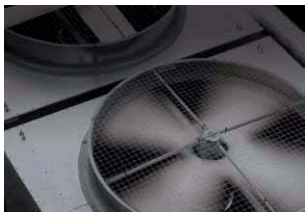
Please visit our website for fastener placing animations and technical data.

Assembly applications

- Automotive
- Cabinets and enclosures
- Commercial vehicles
- Heating and ventilation
- Car door
- Honeycomb materials
- Car chassis

Commercial vehicles

Heating and ventilation



Automotive seat back

T-Lok®

Cost-effective and efficient method of attaching metal to wood or other soft material without through holes.

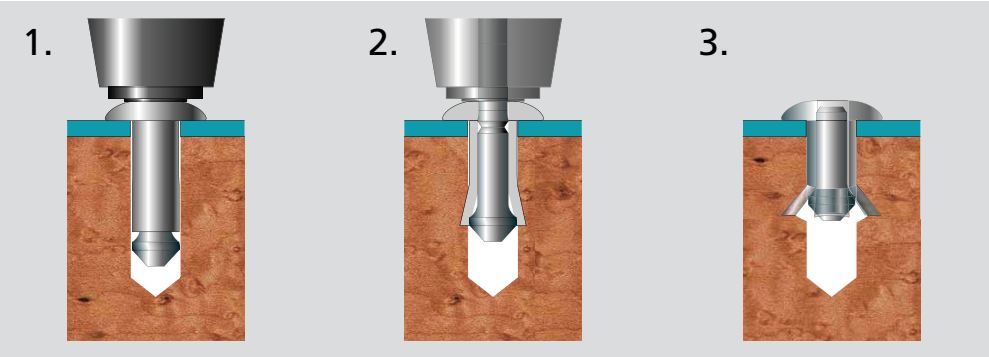
Key features and benefits

- 'Peel-type' tail formation makes it ideal for joining metal to wood, board or low density plastic
- Large bearing surface expands into blind hole providing superior pull-out force
- Ideal replacement for wood screws or self-tapping screws
- Multi-grip capability accommodates wide variations in material thickness

Specifications

Sizes:
.169" – 3/16"
(4.3 mm – 4.8 mm)
Material:
Steel
Head Style:
Dome

Typical placing sequence



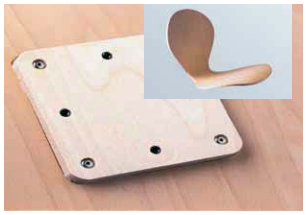
Please visit our website for fastener placing animations and technical data.

Assembly applications

- Garage doors
- Furniture

Garage doors

Furnitures



Avdelmate®

A two-piece breakstem fastener consisting of a rivet and tubular section which provide a wide grip range, controlled clamp and a large bearing area on both sides of the application. Ideal for use in thin sheet, soft, brittle or low strength materials.

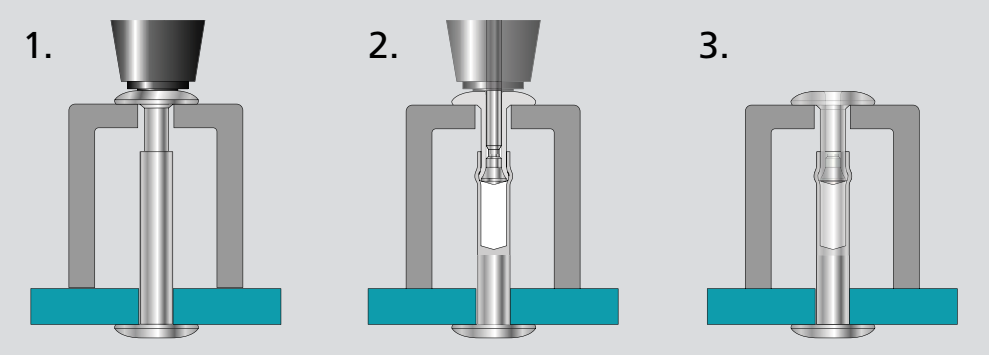
Key features and benefits

- Extra-wide grip range from 15.8 mm to 98.4 mm (5/8" to 3-7/8")
- Large bearing area against both sides of the application spreads the tail bearing load/clamp load on the rear sheet to prevent damage
- Clamps tightly and securely without crushing parent material
- Excellent hole fill via radially expanded rivet body for a strong and vibration resistant joint
- Rivet stem retained in tubular component avoids loose stems
- Low profile head style on both sides of the application for a neat appearance

Specifications

Sizes:
3/16" – 1/4"
(4.8 mm – 6.4 mm)
Materials:
Aluminum, Steel
Head Style:
Dome

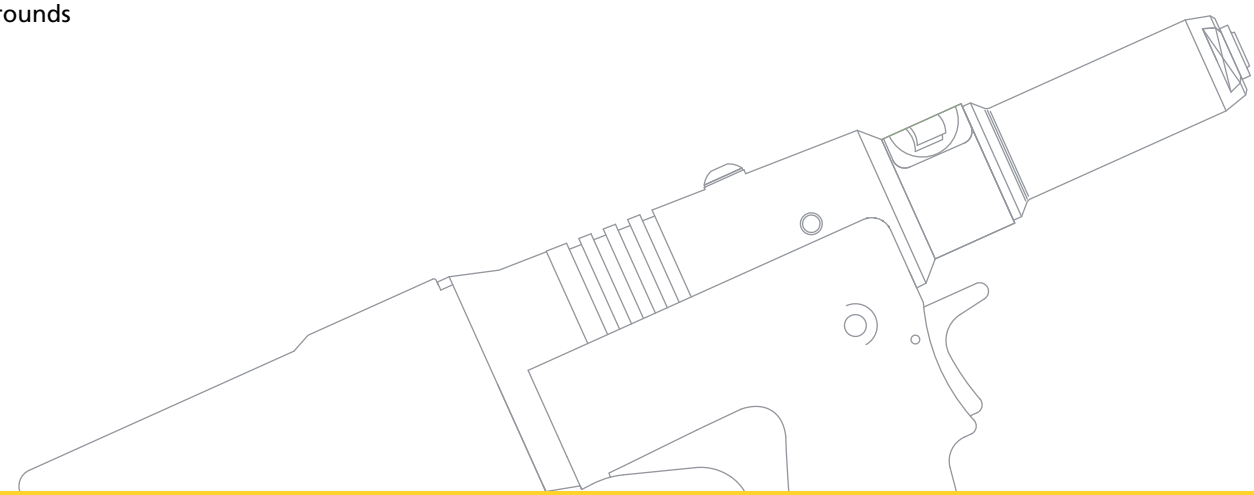
Typical placing sequence



Please visit our website for fastener placing animations and technical data.

Assembly applications

- Toys for playgrounds
- Furniture
- Racks



Other Breakstem Fasteners

Earth Tab Rivet

Cost effective earthing point for thin sheet metal, with paint piercing capability to ensure good electrical conductivity.

- Twin tabs allow one or two connections
- Fast installation of a one piece assembly
- Works on a single phase power supply of 240 volts or below
- Provides a resistance to or below 0.1 ohms
- Tested and approved to EN 60335-1 and BS 3456 Parts 201, clauses 27, 28, 31
- For 5.2 mm holes and a material thickness of 1.0 – 1.5 mm
- Steel body and stem with brass tab

Avex® Splined

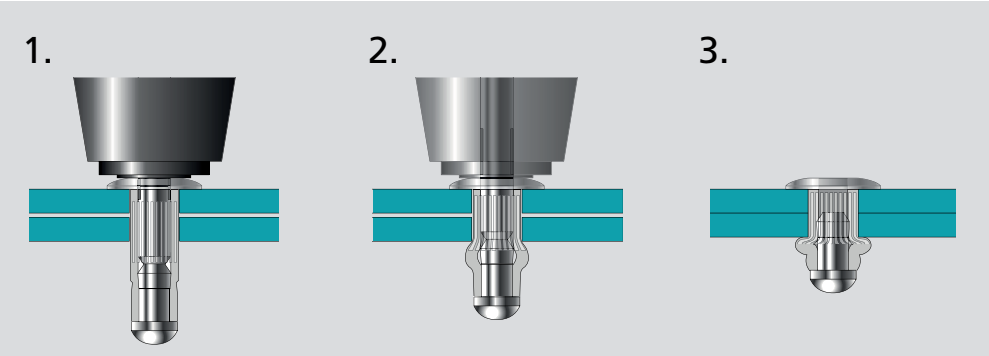
Designed with steel splines for electrical continuity in earthing applications.

- Steel splines break through a coating thickness of up to 0.3 mm
- Multi-grip capability
- Good hole fill for a strong and vibration resistant joint
- Retained stem – no damage, electrical problems or rattling caused by loose stems

Specifications

Sizes:
5/32" – 3/16"
(4.0 mm – 4.8 mm)
Material:
Steel
Head Style:
Dome

Typical placing sequence

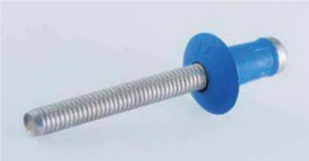


Please visit our website for technical data.

Customized Designs

As you would expect from a leader in fastening solutions, we can design and manufacture breakstem rivets with a wide variety of forms and finishes to meet your unique assembly requirements. Shown below are just a few examples of our customized capabilities. Whether you require custom fastener geometry, a particular finish, different fastener material, limited access placing tooling, or anything else we don't offer as standard, please contact us to discuss your special requirements.

Avinox® Breakstem Fastener - Special Body Design
- Special underhead shoulder for automotive application for fixation inclusive compensation of different heat expansion of metal and plastic materials
- Stainless steel material resists corrosion by road salts



Hemlok® Structural Breakstem Fastener - Blue Delta Seal® Coating
- Steel, Delta Seal® blue
- High performance coating & blue colour for identifaction

Stavex® - Dedicated Grip Range
- Stainless Steel
- Dedicated grip range and very short stem to suit a customer's restricted access application

Stavex® Breakstem Fastener - RoHS Compliant Zinc & Black Finish
- Steel, Zinc & black finish
- Complies with RoHS standards & normally used in automotive interiors

Monobolt® Structural Breakstem Fastener - Grade 316 Stainless Steel
- Grade 316 / A4 Stainless Steel (see Monobolt 2717 series data sheet)
- High corrosion resistant grade rivet

Monobolt® Structural Breakstem Fastener - Cone Stem
- Steel
- Cone stem for easy hole access, for automated installation

Open End Cap Rivets
- Aluminum
- Pre-assembled rivet with plastic cap
- For waterproof applications

Open End Painted Rivets
- Aluminum or Steel
- Match the rivet color to your specific color application

Installation Tools

Power Tool Selection Guide

This table is designed as a guide to help you select the most suitable tool for your particular breakstem rivet.
Full technical data can also be found on our website or contact your STANLEY Engineered Fastening representative.

Fastener Type	Ø Inch (mm)	Power Tool						
		ProSet® 1600 MCS	ProSet® 2500 MCS	ProSet® 3400 MCS	ProSet® PB2500	510A	540	5250A
Open End	3/32" (2.4)	●			●	●		
	1/8" (3.0 & 3.2)	●	●	●	●	●	●	●
	5/32" (4.0)	●	●	●	●	●	●	●
	3/16" (4.8 & 5.0)		●	●	●	●	●	●
	1/4" (6.0 & 6.4)			●			●	
Micro Rivet	0.078" (2.0)	●						
Pull-Thru (PT)	1/8" (3.2)	●	●	●	●	●	●	●
Closed End	1/8" (3.2)	●	●	●	●	●	●	●
	5/32" (4.0)	●	●	●	●	●	●	●
	3/16" (4.8)		●	●	●		●	●
	1/4" (6.4)			●				
Avex®	(3.0)	●	●		●	●		
	1/8" (3.2)	●	●	●	●	●	●	●
	5/32" (4.0)	●	●	●	●		●	●
	3/16" (4.8)		●	●	●		●	●
	1/4" (6.4)			●			●	
Stavex®	1/8" (3.2)	●	●	●	●	●	●	●
	5/32" (4.0)		●	●	●		●	●
	3/16" (4.8)		●	●	●		●	●
	1/4" (6.4)			●			●	
Avibulb®	1/8" (3.2)	●	●	●	●	●	●	●
	5/32" (4.0)		●	●	●		●	●
	3/16" (4.8)		●	●	●		●	●
	(6.0)			●				
Avinox®	1/8" (3.2)	●	●	●	●	●	●	●
	5/32" (4.0)		●	●	●		●	●
	3/16" (4.8)		●	●	●		●	●
Avibulb® XT	1/4" (6.4)			●[1]				
Avinox® XT	1/4" (6.4)			●[1]				
Hemlok®	1/4" (6.4)			●			●	
Monobolt®	3/16" (4.8)		●	●	●		●	
	1/4" (6.4)			●			●	
	3/8" (10.0)							
Interlock®	3/16" (4.8)		●	●	●		●	●
	1/4" (6.4)			●			●	
	3/8" (10.0)							
Q Rivet	1/8" (3.2)	●	●	●	●	●	●	●
	5/32" (4.0)	●	●	●	●		●	●
	3/16" (4.8)		●	●	●		●	●
	1/4" (6.4)			●			●	
Bulbex®	1/8" (3.2)	●	●	●	●	●	●	●
	5/32" (4.0)	●	●	●	●	●	●	●
	3/16" (4.8)		●	●	●	●	●	●
Klamp-Tite® BAPK & BAPKTR series	3/16" (4.8)		●	●	●		●	●
	1/4" (6.4)			●			●	
T Rivet	3/16" (4.8)		●	●	●		●	●
	1/4" (6.4)			●			●	
T-Lok®	(4.3)		●	●	●		●	●
	3/16" (4.8)		●	●	●		●	●
Avdelmate®	3/16" (4.8)	●	●	●	●		●	●
	1/4" (6.4)		●	●	●		●	●

[1] Requires ProSet 3400-8HT

Hand Tools

PS15-CS

PS25

PS45

PS15-CS Professional Hand Plier Rivet Tool

- Professional standard, robust cast aluminum 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 3/32" (2.4mm), 1/8" (3.2mm), 5/32" (4.0mm) and 3/16" (4.8mm) rivets
- Supplied with nosepiece wrench

Weight	1.3 lb	(0.6 kg)
Length	9.65 in	(245 mm)

Rivet Material	Rivet Diameter [in/(mm)]			
	3/32" (2.4)	1/8" (3.0, 3.2)	5/32" (4.0)	3/16" (4.8)
Aluminum	•	•	•	•
Steel	•	•	•	
Stainless Steel	•	•	•	

PS25 Heavy Duty Lazy Tong Rivet Tool

- Professional heavy duty grade, robust aluminum and steel construction
- Supplied with nosepieces for 1/8" (3.2mm), 5/32" (4.0mm), 3/16" (4.8mm), 6.0mm and 1/4" (6.4mm) rivets
- Supplied with nosepiece wrench that doubles as a lever lock

Weight	5.1 lb	(2.30 kg)
Length closed	12 in	(305 mm)
Length extended	31.7 in	(805 mm)

Rivet Material	Rivet Diameter [in/(mm)]			
	1/8" (3.0, 3.2)	5/32" (4.0)	3/16" (4.8)	1/4" (6.0, 6.4)
Aluminum	•	•	•	•
Steel	•	•	•	•
Stainless Steel	•	•	•	•

PS45 Heavy Duty Lever Rivet Tool

- Telescopic levered high-capacity rivet tool
- Professional standard, heavy duty steel construction
- Two-position telescopic levers extend to maximize leverage and pulling force
- Non-extended position makes tool more compact
- Integral removable stem collector
- Supplied with nosepieces for 1/8" (3.2mm), 5/32" (4.0mm), 3/16" (4.8mm), 6.0mm and 1/4" (6.4mm) rivets
- Supplied with nosepiece wrench

Weight	5.7 lb	(2.60 kg)
Length	19.3 in	(490 mm)
Length extended	26.2 in	(665 mm)

Rivet Material	Rivet Diameter [in/(mm)]			
	1/8" (3.0, 3.2)	5/32" (4.0)	3/16" (4.8)	1/4" (6.0, 6.4)
Aluminum	•	•	•	•
Steel	•	•	•	•
Stainless Steel	•	•	•	•

Hand Tools

PS15-KIT Rivet Tool Kit

- Lightweight, professional grade PS15-CS tool
- Contains 200 assorted rivets, 60 back-up plates & wrench
- Accessories include:
  - Nosepieces for 3/32-3/16" (2.4-4.8mm) rivets
  - Jaws for 3/32-3/16" (2.4-4.8mm)
  - Jaw Pusher Spring for 3/32-3/16" (2.4-4.8mm)

Weight	1.3 lb	(0.6 kg)
Length	9.65 in	(245 mm)

PRP26A Sheet Metal Rivet Tool

- Ideal tool for sheet metal, ducting and HVAC jobs
- Offset nosepiece to easy access corners and close to wall applications
- Supplied with nosepiece to set 1/8" (3.2mm) rivets

Weight	0.91 lb	(0.41 kg)
Length	8.75 in	(222 mm)

Rivet Material	Rivet Diameter [in/(mm)]		
	3/32" (2.4)	1/8" (3.0, 3.2)	5/32" (4.0)
Aluminum	•	•	•
Steel	•	•	
Stainless Steel	•		

Power Tools

ProSet® 1600

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

For setting rivets from 2.0mm and 3/32"-5/32" (2.4-4.0mm). High force to weight ratio and innovative ergonomic design for maximum user efficiency and comfort.

Features and Benefits

- Lightweight robust construction
- Comfortable two finger, low activation force trigger
- Directionable air exhaust
- Quick disconnect front-end assembly & Stem Collection System (MCS)
- Spring return for a reliable fast setting cycle
- Energy saving On/Off, left or right swivel air fitting
- Rivet Presenter compatible
- Suitable for use with Remote Stem Collection System (MCS5000)
- Air-isolation switch during MCS removal

Specifications ProSet® 1600MCS

Weight	2.29 lb (1.04 kg)
Length	10.71 in (272 mm)
Height	8.94 in (227 mm)
Tool stroke	0.71 in (18 mm)
Working air pressure	72.5 - 100 psi (5.0 - 6.9 bar) dry, filtered
Pulling force	1,090 lb @ 90 psi (4,850 N @ 6.2 bar)
Force/Weight ratio	476 lbf/lb (4.6 kN/kg)
Air consumption	2.47 scfm (max) [70 liters/min (max)]

Optional Accessories

Part Number	Description
PRN214	Nosepiece for 2.0 mm Micro Rivets
PRG402-02	Jaws for 2.0 mm Micro Rivets
FA203-408	Adaptor Kit for MCS5000 (remote MCS)
FAN239-177	Stem Collection System Retrofit Kit
RP4-486 Rivet	Rivet Presenter Receptacle

Optional Special Front Ends

FAN239-174	Front End 5" Length Extension Kit

Extended Nose Housing

Power Tools

ProSet® 2500

Setting a new standard for pneumatic/hydraulic rivet tools.

ProSet 2500 comes with a reduced diameter (.685") and extended (5.3") front end for better access in tight spaces to set 2.0mm to 5/32" (4.0mm) rivets. ProSet 2500 for setting rivets from 1/8" to 3/16" (3.0-4.8mm). High force to weight ratio and innovative ergonomic design for maximum user efficiency and comfort.

Features and Benefits

- Lightweight robust construction
- Comfortable two finger, low activation force trigger
- Directionable air exhaust
- Quick disconnect front-end assembly & Stem Collection System (MCS)
- Energy saving On/Off, left or right swivel air fitting
- Spring return for reliable fast setting cycle
- Rivet Presenter compatible
- Suitable for use with Remote Stem Collection System (MCS5000)
- Air isolation during MCS removal

Specifications ProSet® 2500MCS

Weight	2.89 lb (1.31 kg)
Length	11.97 in (304 mm)
Height	10.20 in (259 mm)
Tool stroke	0.71 in (18 mm)
Working air pressure	72.5 - 100 psi (5.0 - 6.9 bar) dry, filtered
Pulling force	2,110 lb @ 90 psi (9,400 N @ 6.2 bar)
Force/Weight ratio	730 lbf/lb (7.18 kN/kg)
Air consumption	2.47 scfm (max) [70 liters/min (max)]

Optional Accessories

Part Number	Description
FAN275-133	ProSet® 2500 Seal Kit
FA203-408	Adaptor kit for Remote MCS (MCS5000)
FAN275-134	Stem Collection System Retrofit Kit
RP4-350	RP4 / RP5 Receptacle
RP6-350	RP6 Receptacle

Optional Special Front Ends

FAN275-132	Front End 5" (140mm) Extension Kit for 1/8", 5/32" & 3/16"
FAN275-198	Reduced diameter .686" (17.4mm) Front End Kit for 2mm, 3/32", 1/8" & 5/32"
FAN275-222	Conversion Kit for 3/16" Aluminum
FAN275-229	Reduced diameter .686" (17.4mm) Front End Kit for 3/16" Aluminum-Steel rivets
PRH830-2500	PRH830 & A1 Head Adaptor
PRH840-2500	PRH840 Corner Head Adaptor

MCS Retrofit Kit

Extended Nose Housing

Power Tools

ProSet® 3400

High capacity pneumatic/hydraulic rivet tool

Capable of setting the full range of rivets up to 1/4" (6.4mm) Stainless Steel.
Includes all of the design features and benefits of the 1600 and 2500.

Features and Benefits

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

Specifications ProSet® 3400MCS

Weight	4.41 lb (2.00 kg)
Length	13.15 in (334 mm)
Height	12.44 in (316 mm)
Tool stroke	1.02 in (26 mm)
Working air pressure	72.5 - 100 psi (5.0 - 6.9 bar) dry, filtered
Pulling force	4,160 lb @ 90 psi (18,200 N @ 6.2 bar)
Force/Weight ratio	943 lbf/lb (9.2 kN/kg)
Air consumption	2.83 scfm (max) [80 liters/min (max)]

Optional Accessories

Part Number	Description
FA203-408	MCS5000 Adaptor Kit for 4, 5, 6 Size Rivets
FA203-414	MCS5000 Adaptor Kit for 8 Size Rivets
FAN276-152	ProSet® 3400 Seal Kit
FAN276-165	Stem Collection System Retrofit Kit
RP4-501	RP4 / RP5 Receptacle
RP6-501	RP6 Receptacle

MCS Retrofit Kit

Optional Special Front Ends

FAN276-075	ProSet® 3400 8" Front End Extension Kit
PRH840-3400	PRH840 Corner Head Adaptor
PRH850-3400	PRH850 Corner Head Adaptor

Power Tools

ProSet® PB2500

Cordless tool for blind rivets

Gain the Advantage!

The PB2500 boasts a brushless motor design leading to longer run times, a quicker response and prolonged tool life. It's force to weight ratio highest in its category with capabilities of setting steel rivets up to 3/16" (4.8mm).

Features and Benefits

- High capacity, compact and lightweight, with lithium ion battery
- Tough and Solid; built to withstand industrial conditions
- Easy to use, well balanced and comfortable
- Spent stems automatically drop into large capacity collector
- Award winning ergonomic design
- Quick charge 18V Li-Ion battery charges in 30 minutes

Specifications ProSet® PB2500

Dimensions	12.6 in (320 mm) x 9.4 in. (240 mm) H
Battery	18V Li-Ion 1.5 Ah slim battery pack 30 minute charge time
Charger	20V Li-Ion, with progress lamp display
Stroke	0.98 in (25 mm)
Sound	73.7 dB(A)
Pulling force	1,900 lbf (8,500 N)
Weight	3.7 lbs. (1.69 kg) including battery

Optional Accessories

Part Number	Description
EBC181-NA	1.5Ah PB2500 Battery
EBC180-NA	3.0Ah PB2500 Battery
EBC101-NA	PB2500 Battery Charger

Power Tools

PRG510A / MCS510A

Robust, heavy duty pneumatic riveting tool for setting up to 3/16" (4.8mm) aluminum rivets. Available in standard style with deflector (PRG) or equipped with Stem Collection System (MCS).

Specifications PRG510A / MCS510A

	Type	510A	511A
Weight	PRG	3.6 lb (1.63 kg)	3.8 lb (1.72 kg)
	MCS	4.0 lb (1.81 kg)	4.1 lb (1.85 kg)
Length	PRG	6.7 in (170 mm)	8.5 in (216 mm)
	MCS	11.3 in (286 mm)	13.5 in (343 mm)
Height		9.63 in (244 mm)	
Front end length		2.5 in (64 mm)	4.5 in (114 mm)
Working air pressure		85 psi (5.8 bars)	
Pulling force		1,000 lbf (4,448 N)	
Tool stroke		0.625 in (15.87 mm)	

Note:
PRG510A-PLUS includes air line, extra jaws, jaw pusher and spring;
PRG510A includes tool only.

PRG540 / MCS540

Robust, heavy duty pneumatic hydraulic riveting tool for setting up to 1/4" (6.4mm) rivets.

Specifications PRG 540 / MCS540

	Type	540/544	541
Weight	PRG	4.85 lb (2.2 kg)	5.25 lb (2.38 kg)
	MCS	4.96 lb (2.25 kg)	5.39 lb (2.44 kg)
Length	PRG	9.0 in (229 mm)	11.5 in (292 mm)
	MCS	13.5 in (343 mm)	16 in (406 mm)
Height		11.5 in (292.1 mm)	
Front end length		3.5 in (88 mm)	5.9 in (151 mm)
Working air pressure		85 psi (5.8 bars) dry, filtered	
Pulling force		3,000 lbf (13,345 N)	
Tool stroke		0.685 in (17.4 mm)	

Note:
540 and 541 models are set up for 3/16" (4.8 mm) rivets;
544 model is set up for 1/4" (6.4 mm) rivets.

Optional Accessory

Part Number	Description
PRG541-001	Extended 5.5 in (140 mm) Front End Kit

Power Tools

PRT5250A / MCS5250A

In-Line Pneumatic-Hydraulic rivet tool design for suspension and riveting in a vertical plane. The MCS5250A system is complete with the remote vacuum stem collector MCS5000, (see below). PRT5250A includes tool only.

Specifications PRT5250A

Weight	3.9 lb (1.8 kg)
Length	15.62 in (397 mm)
Width	4.44 in (113 mm)
Tool stroke	0.625 in (15.87 mm)
Working air pressure	85 psi (5.8 bars) dry, filtered
Pulling force	1,900 lbf (8,454 N)
Air consumption	0.011 cf/rivet (0.31 l/rivet)

Optional Accessories

Part Number	Description
MCS5000-5250A	Adaptor for MCS5000
PRT5251-22	4 in (100 mm) Reduced diameter front end

MCS5000

The MCS5000 remote vacuum rivet stem collector can hold up to 8500 spent stems increasing production line efficiency and promoting easy removal and recycling of scrap stems. The MCS5000 is compatible with all pneumatic POP tools. Adapter kits are required and sold separately, (see below).

Specifications MCS5000

Weight	4.8 lb (2.2kg)
Length	16.3 in (414 mm)
Diameter	14.0 in (356 mm)
Air pressure	90 psi (6.1 bar max.)
Air consumption	12 scfm (317 litres/min)
Max tube length	14.7 ft (4.5 m)
Max rise	5.9 ft (1.8 m)
Max stem length	2 in (50 mm)
Capacity	Up to 8500 spent stems

MCS5000 Adapter Kits

Tool	Adapter Kit Part No
ProSet® 1600MCS	FA203-408
ProSet® 2500MCS	FA203-408
ProSet® 3400MCS	FA203-408(*)
MCS510A	MCS5000-510
MCS540/541	MCS5000-540(*)
PRT5250A	MCS5000-5250A(†)

(*) Additional kit (Part No MCS5000-6) is required for 1/4" (6.4mm) rivets.
(†) Adapter included with MSC5250A.

Riveting Systems

Rivet Presenter

Rotary bowl rivet feeding system

Used in conjunction with our rivet tools the Rivet Presenter System offers single-handed, high-speed rivet feeding and setting. Automatic rivet stem collection of up to 8500 stems can be achieved by adding the MCS5000 remote stem 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 and 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 stem collection help keep working environment free from spilt rivets and stems
- For use with 1/8"-3/16" (3.2 mm-4.8 mm) rivets

Specifications

Model Number	For Rivet Diameter	Rivet Capacity
RP4	1/8" (3.2 mm)	1000 Rivets
RP5	5/32" (4.0 mm)	600 Rivets
RP6	3/16" (4.8 mm)	400 Rivets
Height	13.25" (337 mm)	
Length	21.75" (553 mm)	
Width	8.75" (223 mm)	
Weight	23 lb (10.5 kg)	
Air pressure	70-90psi (4.8-6.1 bar), dry filtered	
Power supply	110 VAC, 50-60 Hz (0.5 Amp) standard flange	

Receptacle

Tool Series	Rivet Diameter [in/(mm)] 1/8" (3.2)	5/32" (4.0)	3/16" (4.8)
ProSet 1600MCS & MCS510A	RP4-486		RP6-486
ProSet 2500MCS	RP4-350		RP6-350
ProSet 3400MCS & MCS540	RP4-501		RP6-501

In addition to the RP unit you must order a receptacle specific to each POP tool. eg; to set a 1/8" rivet with PROSET1600MCS order RP4-486 receptacle.

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 POP Avdel brand blind 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 Thru's and Remote Stem 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

SmartSet Operator Control Unit

Specifications Control Unit

Electrical Power	Adapter Input: 110-230VAC 50/60 Hz. 0.5Amp Adapter Output: 24VDC 0.62Amp. 15W I/0 6 Inputs, 4 Outputs
Dimensions	7.5" (L) x 4.25" (W) x 3" (H) 195mm (L) x 144 mm (W) x 77 mm (H)
Weight	1.98 lb (0.9 kg)
Custom Cable Length	Application Specific

Note:
SmartSet® is customized for your specific application.
Contact your representative for assistance.

SmartSet Operator Interface

Riveting Systems

Point&Set®

Automatic riveting system

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

The Point&Set® can be integrated into a fully automated robotic rivet setting cell. STANLEY Engineered Fastening engineers can assist in the provision and integration of the PLC program. The riveting tool assembly is available with an in-line tool, pistol tool or a 4-point mounting plate for straightforward mounting on a robotic or pantograph arm.

Features and 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 Avdel rivet ranges
- For use with rivet diameters 1/8" to 3/16" (3.2mm - 4.8mm)
- Sets up to 35 rivets per minute
- Collects spent rivet stems for easy recycling

Specifications Point&Set®

Console Dimensions	30" x 17" x 28" (762mm x 432mm x 711mm)
Tool Dimensions Pistol Tool In-Line Tool	 8" x 2.25" x 13" (203mm x 57mm x 330mm) 6" x 2.25" x 13" (152mm x 57mm x 330mm)
Console Weight	185lb (84 kg)
Tool Weight	5lb 4oz (2.3 kg)
Feeder Capacity	Up to 2500 rivets
Stem Capacity	Up to 8000 stems
Electrical	120 VAC 60Hz
Air Pressure	90 psi (6.2 bar) @ 12 scfm (340 liter/min) dry filtered

In-line tool

Pistol tool

Riveting Systems

Customized Assembly Systems

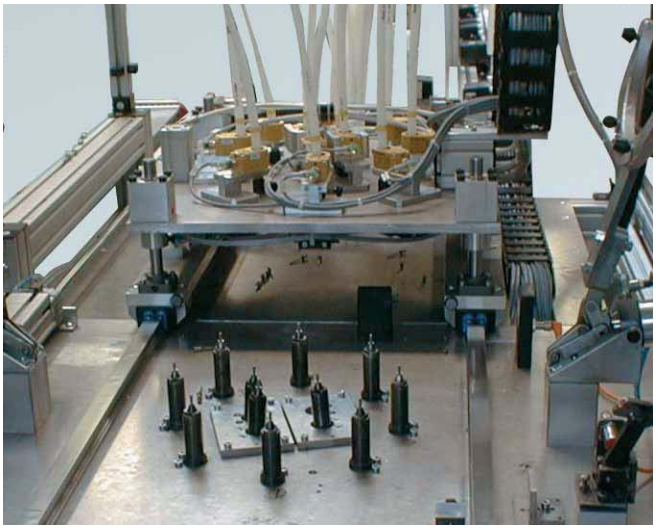
From simple twin-headed modules to multi-headed, customized equipment, these systems can dramatically reduce assembly time and costs while improving consistency of placing. These systems can be designed for virtually any application or assembly environment and process monitoring equipment or clamping modules can be easily integrated. The direction, type and number of assembly heads can all be customized. We have designed equipment with two heads to over eighty heads but the configurations are virtually limitless.

- High speed assembly
- Assembly of any configuration
- Fastening at any angle
- Synchronous fastener placement
- Highly controlled assembly
- Process flexibility
- Integration into assembly lines
- Improved product quality

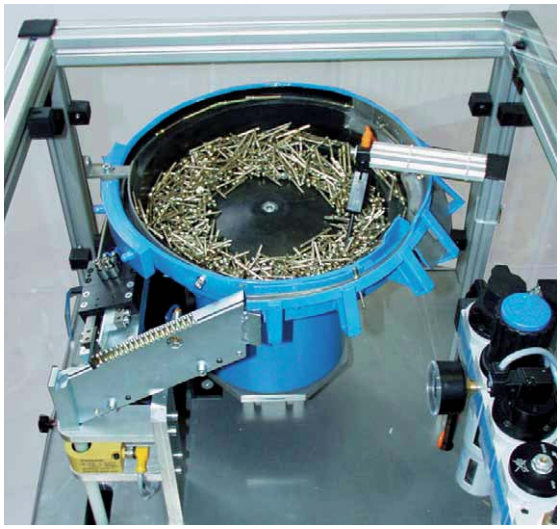
Assembly of any Configurations

Multi-head Assembly Station

Blow Feed Unit



12 rivets placed in one assembly cycle



Fasteners are transferred from the bowl feeder to the placing head via the blow feeder

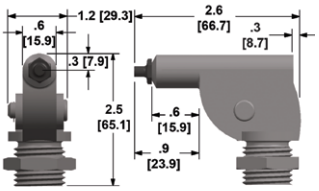
Power Tool Accessories

Special Front-End Accessories

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

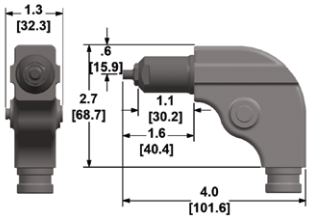
PRH830 Very compact 90° Corner Head

- Designed for extremely restricted access
- Sets all POP Avdel rivets up to and including aluminum alloy 5/32" (4.0mm) diameter
- Weight: 0.68lb (0.31 kg)



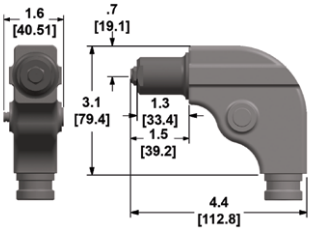
PRH840 Robust 90° Corner Head

- Suitable for use with wide range of riveting tools
- Recommended for setting POP Avdel rivets up to and including steel 3/16" (4.8mm) diameter
- Weight: 1.1lb (0.5 kg)



PRH850 Heavy Duty 90° Corner Head

- Designed for high volume usage with higher capacity POP Avdel setting tools
- Sets all POP Avdel rivets up to and including open end 1/4" (6.4mm) diameter
- Weight: 1.68lb (0.76 kg)

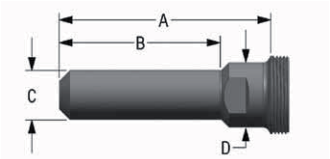


Special Setting Head Kits

Setting Head	Adapter Kits for Tool Series				
	ProSet® 1600	ProSet® 2500	ProSet® 3400	510A	540
PRH830	not available	PRH830-2500	PRH830-3400	PRA967	PRA965
PRH840	not available	PRH840-2500	PRH840-3400	PRH840-510	PRH840-540
PRH850	not available	-	PRH850-3400	-	PRH850-540

Front End Kits

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



Tool Series	Part Number	A		B		C		D	
		in	mm	in	mm	in	mm	in	mm
ProSet® 1600	FAN239-174[1)]	5.12	130.0	3.78	96.0	0.68	17.3	1.10	28.0
ProSet® 2500	FAN275-132[1)]	5.49	139.5	3.78	96.0	0.81	20.6	1.26	32.0
	FAN275-198[1) 2)] (up to 5/32")	5.30	134.5	2.17	55.0	0.68	17.3	1.26	32.0
	FAN275-229[1) 2)] (3/16" Al-St)	5.30	134.5	2.17	55.0	0.68	17.3	1.26	32.0
ProSet® 3400	FAN276-075[1)]	7.87	200.0	6.10	155.0	0.88	22.4	1.50	38.0
510A	PRG511-003 (std.set up on 511A)	4.09	103.9	3.00	76.2	0.68	17.4	0.88	22.2
5250A	PRG5201-001[2)] (std. set up on 5251A)	3.38	85.7	1.86	47.1	0.68	17.4	0.90	22.9
540	PRG541-001 (std. setup on 541)	5.60	142.1	3.55	90.1	0.90	22.8	1.25	31.8

[1)] Quick disconnect
[2)] Reduced diameter version

Nosepieces & Jaws

Hand Tools

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

PS15-CS

Rivet Diameter in	Rivet Diameter mm	Nosepieces Part No.	Jaws Part No.	Jaw Pusher Part No.
3/32"	2.4	DPM400-A08	DPM400-084	DPM400-086
1/8"	3.0 - 3.2	DPM400-B08		
5/32"	4.0	DPM400-C08		
3/16"	4.8 - 5.0	DPM400-D08		

PS25

Rivet Diameter in	Rivet Diameter mm	Nosepieces Part No.	Jaws Part No.	Jaw Pusher Part No.
1/8"	3.0 - 3.2	DPM400-B10	FAM400-020	DPM400-047
5/32"	4.0	DPM400-C10		
3/16"	4.8 - 5.0	DPM400-D10		
	6.0	DPM400-E10		
1/4"	6.4	DPM400-F10		

PS45

Rivet Diameter in	Rivet Diameter mm	Nosepieces Part No.	Jaws Part No.	Jaw Pusher Part No.
1/8"	3.0 - 3.2	DPM400-B10	FAM400-020	DPM400-047
5/32"	4.0	DPM400-C10		
3/16"	4.8 - 5.0	DPM400-D10		
	6.0	DPM400-E10		
1/4"	6.4	DPM400-F10		

PRP26A

Rivet Diameter in	Rivet Diameter mm	Nosepieces Part No.	Jaws Part No.	Jaw Pusher Part No.
3/32"	2.4	PRP31	PRP27	PRP30
1/8"*	3.0 - 3.2*	PRP39		
1/8"**	3.0 - 3.2**	PRP32	PRP11	
5/32"	4.0	PRP33A	PRP12A	

Note: Tool furnished with PRP32 and PRP11 and PRP30 parts only.
* Closed End
** Open End

Nosepieces & Jaws

Power Tools

POP Avdel 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 and jaw pushers, select from the list below.
Note: Part Numbers marked with [1)] are supplied with the tool.

ProSet® 1600 Series

Rivet Diameter		Nosepieces - Rivet Types				Jaws	Jaw Pusher
		Open End, Avex®, Stavex®, Q Rivet, Bulbex®	Closed End		Avibulb®, Avinox®		
			Steel Stem	Aluminum Stem			
in	mm	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.
	2.0	PRN214	-	-	-	PRG402-02	FAN239-176[1)]
3/32"	2.4	PRN314[1)]	-	-	-	PRG402-8A[1)]	FAN239-176[1)]
1/8"	2.8 - 3.2	PRN414[1)]	PRN424	PRN434	PRN4HR	PRG402-8A[1)]	DPN239-144[1)]
5/32"	4.0	PRN514[1)]	PRN524	PRN534	-	PRG402-8A[1)]	DPN239-144[1)]

1) Item supplied with the tool

ProSet® 2500 Series

Rivet Diameter		Nosepieces - Rivet Types				Jaws	Jaw Pusher
		Open End, Avex®, Stavex®, Q Rivet, Bulbex®, Interlock®	Closed End		Avibulb®, Avinox®		
			Steel Stem	Aluminum Stem			
in	mm	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.
	2.0	PRN214	-	-	-	PRG402-02	FAN239-172
3/32"	2.4	PRN314	-	-	-	PRG402-8A	FAN239-172
1/8"	2.8 - 3.2	PRN414[1)]	PRN424	PRN434	PRN4HR	13300[1)]	FAN275-028[1)]
5/32"	4.0	PRN514[1)]	PRN524	PRN534	PRN5HR*	13300[1)]	FAN275-028[1)]
3/16"	4.8	PRN614[1)]	PRN624	PRN624	PRN6HR	13300[1)]	FAN275-028[1)]

1) Item supplied with the tool
*Use DPN275-027 Jaw pusher
Note: When installing Monobolt, use N-410 nose piece for 3/16"

ProSet® 3400 Series

Rivet Diameter		Nosepieces - Rivet Types				Jaws	Jaw Pusher
		Open End, Avex®, Stavex®, Q Rivet, Bulbex®, Interlock®	Closed End		Avibulb®, Avinox®, Hemlok®		
			Steel Stem	Aluminum Stem			
in	mm	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.
1/8"	2.8 - 3.2	PRN414[1)]	PRN424	PRN434	PRN4HR	PRG540-46[1)]	FAN276-064[1)]
5/32"	4.0	PRN514[1)]	PRN524	PRN534	PRN5HR	PRG540-46[1)]	FAN276-064[1)]
3/16"	4.8	PRN614[1)]	PRN624	PRN534	PRN6HR	PRG540-46[1)]	DPN276-006[1)]
1/4"	6.4	PRN811*[1)]	PRN822	-	#	PRG540-44[1)]	DPN276-006[1)]

1) Item supplied with the tool
*Except Stavex
Must use ProSet 3400-8HT Base tool for 1/4" Stavex, Avibulb, Avinox, Hemlok; utilizes different nosepiece/jaw pusher combination
Note: When installing Monobolt, use N-410 nose piece for 3/16" and N-414 for 1/4"

Nosepieces & Jaws

510A Series

Rivet Diameter		Nosepieces - Rivet Types				Jaws	Jaw Pusher
		Open End, Avex®, Stavex®	Closed End		Avibulb®, Avinox®		
			Steel Stem	Aluminum Stem			
in	mm	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.
	2.0	PRN214	-	-	-	PRG402-02	PRG520-33[1)]
3/32"	2.4	PRN314	-	-	-	PRG402-8A[1)]	PRG520-33[1)]
1/8"	2.8 - 3.2	PRN414[1)]	PRN424	PRN434	PRN4HR	PRG402-8A[1)]	PRG520-33[1)]
5/32"	4.0	PRN514*[1)]	PRN524	PRN534	PRN5HR	PRG402-8A[1)]	PRG520-33[1)]
3/16"	4.8	PRN614**[1)]	PRN624	-	-	PRG402-8A[1)]	PRG520-33[1)]

1) Item supplied with the tool
*Except stainless steel rivets ** Except steel and stainless steel rivets and all Avex & Stavex rivets materials

540 Series

Rivet Diameter		Nosepieces - Rivet Types				Jaws	Jaw Pusher
		Open End, Avex®, Stavex®, Q Rivet, Bulbex®, Interlock®	Closed End		Avibulb®, Avinox®		
			Steel Stem	Aluminum Stem			
in	mm	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.
1/8"	2.8 - 3.2	PRN414[1)]	PRN424	PRN434	PRN4HR	PRG540-46[1)]	PRG14[1)]
5/32"	4.0	PRN514[1)]	PRN524	PRN534	PRN5HR	PRG540-46[1)]	PRG14[1)]
3/16"	4.8	PRN614[1)]	PRN624	PRN634	PRN6HR	PRG540-46[1)]	PRG14[1)]
1/4"	6.4	PRN811*[1)]	PRN822	-	#	PRG540-44[1)]	PRG740-7A[1)]

1) Item supplied with the tool
*Except Stavex
Must use ProSet 3400-8HT Base tool for 1/4" Stavex, Avibulb, Avinox, Hemlok; utilizes different nosepiece/jaw pusher combination
Note: When installing Monobolt, use N-410 nose piece for 3/16" and N-414 for 1/4"

5250A Series

Rivet Diameter		Nosepieces - Rivet Types				Jaws	Jaw Pusher
		Open End, Avex®, Stavex®, Q Rivet, Bulbex®, Interlock®	Closed End		Avibulb®, Avinox®		
			Steel Stem	Aluminum Stem			
in	mm	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.
1/8"	2.8 - 3.2	PRN414[1)]	PRN424	PRN434	PRN4HR	PRG540-46[1)]	PRG520-33[1)]
5/32"	4.0	PRN514[1)]	PRN524	PRN534	PRN5HR	PRG540-46[1)]	PRG520-33[1)]
3/16"	4.8	PRN614[1)]	PRN624	PRN634	-	PRG540-46[1)]	PRG520-33[1)]

1) Item supplied with the tool

Nosepieces & Jaws

PB2500 Series

Rivet Diameter		Nosepieces - Rivet Types				Jaws	Jaw Pusher
		Open End, Avex®, Stavex®, Q Rivet, Bulbex®, Interlock®	Closed End		Avibulb®, Avinox®		
in	mm	Part No.	Steel Stem Part No.	Aluminum Stem Part No.	Part No.	Part No.	Part No.
3/32"	2.4	TP124-539	-	-	-	13300[1)]	TP124-548[1)]
1/8"	2.8 - 3.2	TP124-540[1)]	TP124-544	TP124-615	TP124-541[1)]	13300[1)]	TP124-548[1)]
5/32"	4.0	TP124-541[1)]	TP124-545	TP124-545	TP124-542[1)]	13300[1)]	TP124-548[1)]
3/16"	4.8	TP124-542[1)]	TP124-546	TP124-546	TP124-543	13300[1)]	TP124-549[1)]
Recommended Parts for Stainless Steel Rivets							
3/32"	2.4	TP124-539	-	-	-	PRG540-46B	TP124-547
1/8"	2.8 - 3.2	TP124-540[1)]	-	-	TP124-541[1)]	PRG540-46B	TP124-618
5/32"	4.0	TP124-541[1)]	-	-	TP124-542[1)]	PRG540-46B	TP124-618
3/16"	4.8	TP124-542[1)]	-	-	TP124-543	PRL650-01	TP124-620

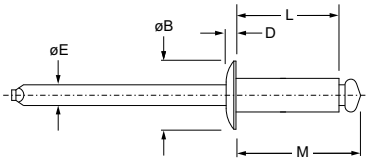
1) Item supplied with the tool

Open End AD ABS / AK ABS Series

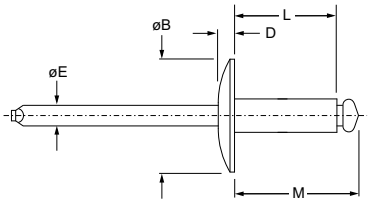
Aluminum / Aluminum

English	Français	Deutsch	Italiano	Español
Body: Aluminum* Natural	Corps: Aluminium* Brut	Hülse: Aluminium* Unbehandelt	Corpo: Alluminio* Nessuna finitura	Cuerpo: Aluminio* Natural
Body: Aluminum Natural	Corps: Aluminium Brut	Hülse: Aluminium Unbehandelt	Corpo: Alluminio Nessuna finitura	Cuerpo: Aluminio Natural

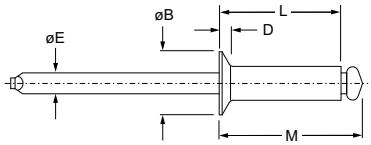
*: 5052



AD ■ ABS
Dome head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



AD ■ ABS LF
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha



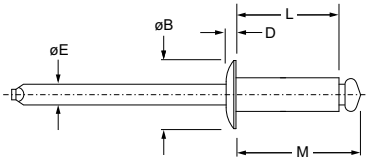
AK ■ ABS
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø					L	M	øE	AD ■ ABS			AD ■ ABS LF			AK ■ ABS		
								øB	D	Part No.	øB	D	Part No.	øB	D	Part No.
nom.	min.	max.	min.	max.	ref.	ref.	ref.	max.	max.	■	max.	max.	■	max.	max.	■
	.032 (0.8)	.125 (3.2)			.225 (5.7)	.325 (8.3)				32						
3/32" (2.4)	.126 (3.2)	.250 (6.4)	.097 (2.46)	.100 (2.54)	.350 (8.9)	.450 (11.4)	.057 (1.5)	.198 (5.1)	.032 (0.9)	34						
	.251 (6.4)	.375 (9.5)			.475 (12.1)	.575 (14.6)				36						
	.032 (0.8)	.062 (1.6)			.188 (4.8)	.308 (7.8)				41						
	.063 (1.6)	.125 (3.2)			.250 (6.4)	.370 (9.4)				42			42			42
	.126 (3.2)	.187 (4.8)			.313 (8.0)	.433 (11.0)				43			43			43
1/8" (3.2)	.188 (4.8)	.250 (6.4)	.129 (3.28)	.133 (3.38)	.375 (9.5)	.495 (12.6)	.076 (1.9)	.262 (6.7)	.040 (1.1)	44	.390 (10.0)	.046 (1.2)	44	.233 (6.0)	.051 (1.3)	44
	.251 (6.4)	.312 (7.9)			.438 (11.1)	.558 (14.2)				45						45
	.313 (7.9)	.375 (9.5)			.500 (12.7)	.620 (15.7)				46			46			46
	.376 (9.5)	.500 (12.7)			.625 (15.9)	.745 (18.9)				48						
	.501 (12.7)	.625 (15.9)			.750 (19.1)	.870 (22.1)				410						

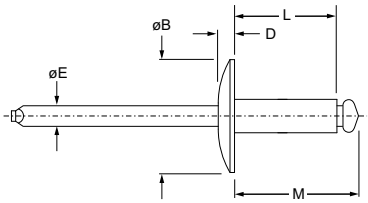
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

Open End AD ABS / AK ABS Series

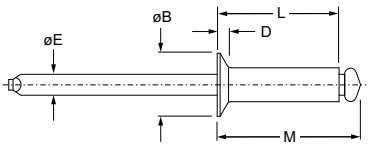
Aluminum / Aluminum



AD ■ ABS
Dome head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



AD ■ ABS LF
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha



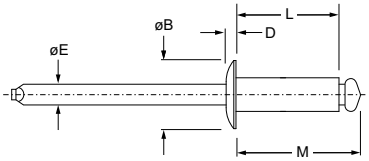
AK ■ ABS
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø					L	M	øE	AD ■ ABS			AD ■ ABS LF			AK ■ ABS		
								øB	D	Part No.	øB	D	Part No.	øB	D	Part No.
nom.	min.	max.	min.	max.	ref.	ref.	ref.	max.	max.	■	max.	max.	■	max.	max.	■
	.063 (1.6)	.125 (3.2)			.275 (7.0)	.415 (10.5)				52						
	.126 (3.2)	.187 (4.8)			.338 (8.6)	.478 (12.1)				53						
5/32" (4.0)	.188 (4.8)	.250 (6.4)	.160 (4.06)	.164 (4.17)	.400 (10.2)	.540 (13.7)	.095 (2.4)	.328 (8.4)	.047 (1.2)	54	.488 (12.4)	.056 (1.5)	54			
	.251 (6.4)	.375 (9.5)			.525 (13.3)	.665 (16.9)				56			56			
	.376 (9.5)	.500 (12.7)			.650 (16.5)	.790 (20.1)				58			58			
	.063 (1.6)	.125 (3.2)			.300 (7.6)	.460 (11.7)				62						
	.126 (3.2)	.250 (6.4)			.425 (10.8)	.585 (14.9)				64			64			
	.251 (6.4)	.375 (9.5)			.550 (14.0)	.710 (18.0)				66			66			
	.376 (9.5)	.500 (12.7)			.675 (17.2)	.835 (21.2)				68			68			
3/16" (4.8)	.501 (12.7)	.625 (15.9)	.192 (4.88)	.196 (4.98)	.800 (20.3)	.960 (24.4)	.114 (2.9)	.393 (10.0)	.055 (1.4)	610	.650 (16.6)	.083 (2.2)	610			
	.626 (15.9)	.750 (19.1)			.925 (23.5)	1.085 (27.6)				612			612			
	.751 (19.1)	.875 (22.2)			1.050 (26.7)	1.210 (30.7)				614						
	.876 (22.3)	1.000 (25.4)			1.175 (29.8)	1.335 (33.9)				616			616			

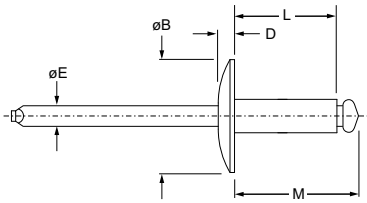
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

Open End AD ABS / AK ABS Series

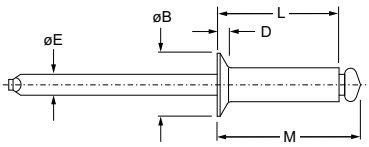
Aluminum / Aluminum



AD ■ ABS
Dome head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



AD ■ ABS LF
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha



AK ■ ABS
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø					L	M	øE	AD ■ ABS			AD ■ ABS LF			AK ■ ABS		
								øB	D	Part No.	øB	D	Part No.	øB	D	Part No.
nom.	min.	max.	min.	max.	ref.	ref.	ref.	max.	max.	■	max.	max.	■	max.	max.	■
	.062 (1.6)	.125 (3.2)			.350 (8.9)	.585 (14.9)				82						
	.126 (3.2)	.250 (6.4)			.475 (12.1)	.710 (18.0)				84						
	.251 (6.4)	.375 (9.5)			.600 (15.2)	.835 (21.2)				86						
1/4" (6.4)	.376 (9.5)	.500 (12.7)	.257 (6.53)	.261 (6.63)	.725 (18.4)	.960 (24.4)	.151 (3.8)	.525 (13.4)	.073 (1.85)	88						
	.501 (12.7)	.625 (15.9)			.850 (21.6)	1.085 (27.6)				810						
	.626 (15.9)	.750 (19.1)			.975 (24.8)	1.210 (30.7)				812						
	.876 (22.3)	1.000 (25.4)			1.225 (31.1)	1.460 (37.1)				816						

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

ø		
nom.	lbf *(kN)*[1]	lbf *(kN)*[1]
3/32" *(2.4)*	85 *(0.38)*	135 *(0.60)*
1/8" *(3.2)*	155 *(0.69)*	235 *(1.05)*
5/32" *(4.0)*	225 *(1.00)*	350 *(1.56)*
3/16" *(4.8)*	315 *(1.40)*	500 *(2.22)*
1/4" *(6.4)*	600 *(2.67)*	750 *(3.34)*

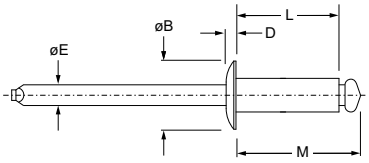
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Open End AD BS / AK BS Series

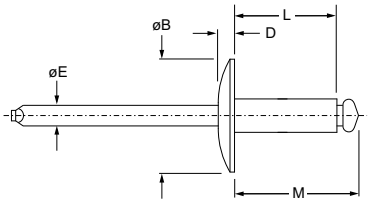
Aluminum / Steel

English	Français	Deutsch	Italiano	Español
Body: Aluminum* Natural	Corps: Aluminium* Brut	Hülse: Aluminium* Unbehandelt	Corpo: Alluminio* Nessuna finitura	Cuerpo: Aluminio* Natural
Stem: Steel Protective coating	Tige: Acier Revêtement de protection	Dorn: Stahl Schutzüberzug	Gambo: Acciaio Rivestimento protettivo	Vástago: Acero Revestimiento preservador

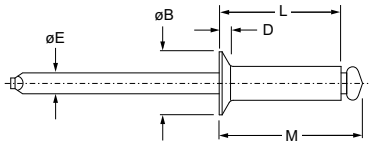
*: 5056



AD ■ BS
Dome head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



AD ■ BS LF
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha



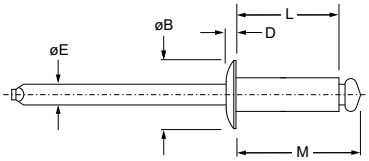
AK ■ BS
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø					L	M	øE	AD ■ BS			AD ■ BS LF			AK ■ BS		
								øB	D	Part No.	øB	D	Part No.	øB	D	Part No.
nom.	min.	max.	min.	max.	ref.	ref.	ref.	max.	max.	■	max.	max.	■	max.	max.	■
3/32" (2.4)	.031 (0.8)	.125 (3.2)	.097 (2.46)	.100 (2.54)	.225 (5.7)	.325 (8.3)	.057 (1.5)	.198 (5.1)	.032 (0.9)	32						
	.126 (3.2)	.250 (6.4)			.350 (8.9)	.450 (11.4)				34						
1/8" (3.2)	.032 (0.8)	.062 (1.6)	.129 (3.28)	.133 (3.38)	.188 (4.8)	.308 (7.8)	.076 (1.9)	.262 (6.7)	.040 (1.1)	41	.390 (10.0)	.065 (1.7)		.233 (6.0)	.051 (1.3)	
	.063 (1.6)	.125 (3.2)			.250 (6.4)	.370 (9.4)				42			42			42
	.126 (3.2)	.187 (4.8)			.313 (8.0)	.433 (11.0)				43			43			43
	.188 (4.8)	.250 (6.4)			.375 (9.5)	.495 (12.6)				44			44			44
	.251 (6.4)	.312 (7.9)			.438 (11.1)	.558 (14.2)				45						45
	.313 (7.9)	.375 (9.5)			.500 (12.7)	.620 (15.7)				46			46			46
	.376 (9.5)	.500 (12.7)			.625 (15.9)	.745 (18.9)				48						48
	.501 (12.7)	.625 (15.9)			.750 (19.1)	.870 (22.1)				410						
5/32" (4.0)	.063 (1.6)	.125 (3.2)	.160 (4.06)	.164 (4.17)	.275 (7.0)	.415 (10.5)	.095 (2.4)	.328 (8.4)	.047 (1.2)	52	.488 (12.4)	.075 (1.9)		.296 (7.6)	.063 (1.6)	52
	.126 (3.2)	.187 (4.8)			.338 (8.6)	.478 (12.1)				53						
	.188[1)] (4.8)[1)]	.250 (6.4)			.400 (10.2)	.540 (13.7)				54			54			54
	.251 (6.4)	.375 (9.5)			.525 (13.3)	.665 (16.9)				56						56
	.376 (9.5)	.500 (12.7)			.650 (16.5)	.790 (20.1)				58						

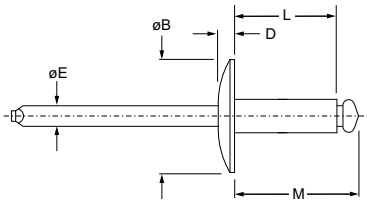
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) AK 54 BS: .126 *(3.2)*

Open End AD BS / AK BS Series

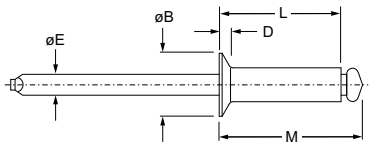
Aluminum / Steel



AD ■ BS
Dome head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



AD ■ BS LF
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha



AK ■ BS
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø					L	M	øE	AD ■ BS			AD ■ BS LF			AK ■ BS		
								øB	D	Part No.	øB	D	Part No.	øB	D	Part No.
nom.	min.	max.	min.	max.	ref.	ref.	ref.	max.	max.	■	max.	max.	■	max.	max.	■
	.063 (1.6)	.125 (3.2)			.300 (7.6)	.460 (11.7)				62			62			
	.126 (3.2)	.250 (6.4)			.425 (10.8)	.585 (14.9)				64			64			64
	.251 (6.4)	.375 (9.5)			.550 (14.0)	.710 (18.0)				66			66			64
	.376 (9.5)	.500 (12.7)			.675 (17.2)	.835 (21.2)				68			68			
3/16" (4.8)	.501 (12.7)	.625 (15.9)	.192 (4.88)	.196 (4.98)	.800 (20.3)	.960 (24.4)	.114 (2.9)	.393 (10.0)	.055 (1.4)	610	.650 (16.6)	.092 (2.4)	610	.363 (9.3)	.071 (1.8)	
	.626 (15.9)	.750 (19.1)			.925 (23.5)	1.085 (27.6)				612			612			
	.751 (19.1)	.875 (22.2)			1.050 (26.7)	1.210 (30.7)				614			614			
	.876 (22.3)	1.000 (25.4)			1.175 (29.8)	1.335 (33.9)				616			616			
	.063 (1.6)	.250 (6.4)			.475 (12.1)	.710 (18.0)				84						
	.251 (6.4)	.375 (9.5)			.600 (15.2)	.835 (21.2)				86						
	.376 (9.5)	.500 (12.7)			.725 (18.4)	.960 (24.4)				88						
1/4" (6.4)	.501 (12.7)	.625 (15.9)	.257 (6.53)	.261 (6.63)	.850 (21.6)	1.085 (27.6)	.151 (3.8)	.525 (13.4)	.073 (1.85)	810						
	.626 (15.9)	.750 (19.1)			.975 (24.8)	1.210 (30.7)				812						
	.876 (22.3)	1.000 (25.4)			1.225 (31.1)	1.460 (37.1)				816						

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

ø		
nom.	lbf *(kN)*[2)]	lbf *(kN)*[2)]
3/32" *(2.4)*	125 *(0.57)*	175 *(0.78)*
1/8" *(3.2)*	210 *(0.93)*	325 *(1.45)*
5/32" *(4.0)*	340 *(1.51)*	490 *(2.18)*
3/16" *(4.8)*	445 *(1.98)*	720 *(3.20)*
1/4" *(6.4)*	890 *(3.96)*	1200 *(5.34)*

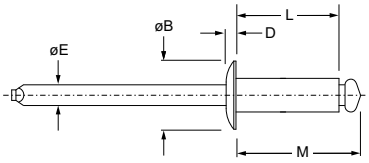
2) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Open End SD BS / SK BS Series

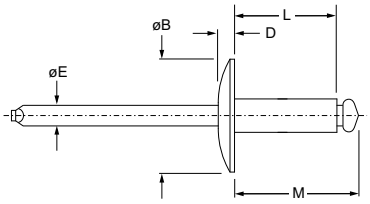
Steel / Steel

English	Français	Deutsch	Italiano	Español
Body: Steel* Zinc plated	Corps: Acier* Revêtement zingué	Hülse: Stahl* Verzinkt	Corpo: Acciaio* Zincato	Cuerpo: Acero* Zincado
Stem: Steel Protective coating	Tige: Acier Revêtement de protection	Dorn: Stahl Schutzüberzug	Gambo: Acciaio Rivestimento protettivo	Vástago: Acero Revestimiento preservador

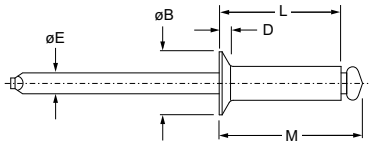
*: C1006-C1010



SD ■ BS
Dome head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



SD ■ BS LF
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha



SK ■ BS
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø					L	M	øE	SD ■ BS			SD ■ BS LF			SK ■ BS		
								øB	D	Part No.	øB	D	Part No.	øB	D	Part No.
nom.	min.	max.	min.	max.	ref.	ref.	ref.	max.	max.	■	max.	max.	■	max.	max.	■
3/32" (2.4)	.032[1)] (0.8)[1)]	.125 (3.2)	.097 (2.46)	.100 (2.54)	.225 (5.7)	.325 (8.3)	.057 (1.5)	.198 (5.1)	.032 (0.9)	32				.187 (4.8)	.039 (1.0)	32
	.126 (3.2)	.250 (6.4)			.350 (8.9)	.450 (11.4)				34						
1/8" (3.2)	.032 (0.8)	.062 (1.6)	.129 (3.28)	.133 (3.38)	.188 (4.8)	.308 (7.8)	.076 (1.9)	.262 (6.7)	.040 (1.1)	41	.390 (10.0)	.046 (1.2)		.233 (6.0)	.051 (1.3)	
	.063 (1.6)	.125 (3.2)			.250 (6.4)	.370 (9.4)				42			42			42
	.126 (3.2)	.187 (4.8)			.313 (8.0)	.433 (11.0)				43			43			43
	.188 (4.8)	.250 (6.4)			.375 (9.5)	.495 (12.6)				44			44			44
	.251 (6.4)	.312 (7.9)			.438 (11.1)	.558 (14.2)				45						
	.313[2)] (7.9)[2)]	.375 (9.5)			.500 (12.7)	.620 (15.7)				46			46			46
	.376 (9.5)	.500 (12.7)			.625 (15.9)	.745 (18.9)				48						

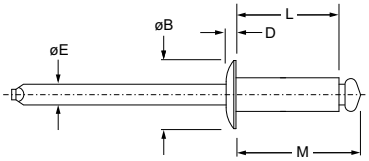
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) SK 32 BS: .036 *(1.6)*

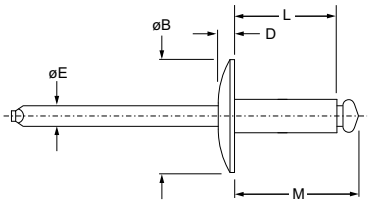
2) SD 46 BS LF: .251 *(6.4)*

Open End SD BS / SK BS Series

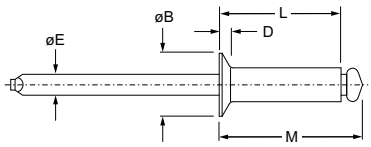
Steel / Steel



SD ■ BS
Dome head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



SD ■ BS LF
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha



SK ■ BS
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

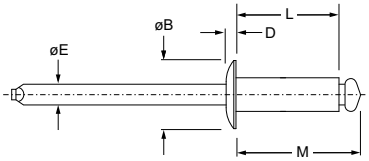
ø					L	M	øE	SD ■ BS			SD ■ BS LF			SK ■ BS		
								øB	D	Part No.	øB	D	Part No.	øB	D	Part No.
nom.	min.	max.	min.	max.	ref.	ref.	ref.	max.	max.	■	max.	max.	■	max.	max.	■
	.063 (1.6)	.125 (3.2)			.275 (7.0)	.415 (10.5)				52						
	.126 (3.2)	.187 (4.8)			.338 (8.6)	.478 (12.1)				53						
5/32" (4.0)	.188 (4.8)	.250 (6.4)	.160 (4.06)	.164 (4.17)	.400 (10.2)	.540 (13.7)	.095 (2.4)	.328 (8.4)	.047 (1.2)	54	.488 (12.4)	.056 (1.5)	54	.296 (7.6)	.063 (1.6)	54
	.251 (6.4)	.375 (9.5)			.525 (13.3)	.665 (16.9)				56			56			
	.376 (9.5)	.500 (12.7)			.650 (16.5)	.790 (20.1)				58						
	.032 (0.8)	.062 (1.6)			.238 (6.0)	.398 (10.1)							61			
	.063 (1.6)	.125 (3.2)			.300 (7.6)	.460 (11.7)				62			62			62
	.126 (3.2)	.187 (4.8)			.362 (9.2)	.522 (13.3)				63						63
	.188[3] (4.8)[3]	.250 (6.4)			.425 (10.8)	.585 (14.9)				64			64			64
	.251 (6.4)	.375 (9.5)			.550 (14.0)	.710 (18.0)				66			66			66
3/16" (4.8)	.376 (9.5)	.500 (12.7)	.192 (4.88)	.196 (4.98)	.675 (17.2)	.835 (21.2)	.114 (2.9)	.393 (10.0)	.057 (1.5)	68	.650 (16.6)	.092 (2.4)	68	.363 (9.3)	.071 (1.8)	
	.501 (12.7)	.625 (15.9)			.800 (20.3)	.960 (24.4)				610			610			
	.626 (15.9)	.750 (19.1)			.925 (23.5)	1.085 (27.6)				612			612			
	.751 (19.1)	.875 (22.2)			1.050 (26.7)	1.210 (30.7)				614						
	.876 (22.3)	1.000 (25.4)			1.175 (29.8)	1.335 (33.9)				616						

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

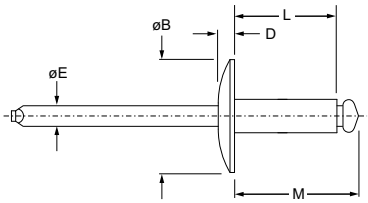
3) SD 64 BS LF: .126 *(3.2)*

Open End SD BS / SK BS Series

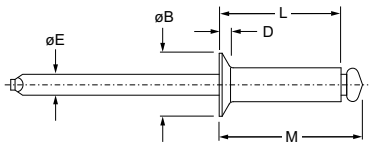
Steel / Steel



SD ■ BS
Dome head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



SD ■ BS LF
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha



SK ■ BS
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø					L	M	øE	SD ■ BS			SD ■ BS LF			SK ■ BS		
								øB	D	Part No.	øB	D	Part No.	øB	D	Part No.
nom.	min.	max.	min.	max.	ref.	ref.	ref.	max.	max.	■	max.	max.	■	max.	max.	■
	.063 (1.6)	.250 (6.4)			.475 (12.1)	.710 (18.0)				84						
	.251 (6.4)	.375 (9.5)			.600 (15.2)	.835 (21.2)				86						
	.376 (9.5)	.500 (12.7)			.725 (18.4)	.960 (24.4)				88						
1/4" (6.4)	.501 (12.7)	.625 (15.9)	.257 (6.53)	.261 (6.63)	.850 (21.6)	1.085 (27.6)	.151 (3.8)	.525 (13.4)	.073 (1.85)	810						
	.626 (15.9)	.750 (19.1)			.975 (24.8)	1.210 (30.7)				812						
	.751 (19.1)	.875 (22.2)			1.100 (27.9)	1.335 (33.9)				814						
	.876 (22.3)	1.000 (25.4)			1.225 (31.1)	1.460 (37.1)				816						

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

ø		
nom.	lbf *(kN)*[4]	lbf *(kN)*[4]
3/32" *(2.4)*	150 *(0.67)*	205 *(0.91)*
1/8" *(3.2)*	295 *(1.31)*	425 *(1.89)*
5/32" *(4.0)*	410 *(1.82)*	570 *(2.54)*
3/16" *(4.8)*	590 *(2.62)*	815 *(3.63)*
1/4" *(6.4)*	1245 *(5.54)*	1505 *(6.69)*

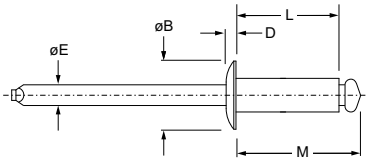
4) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Open End SSD SSBS / SSK SSBS Series

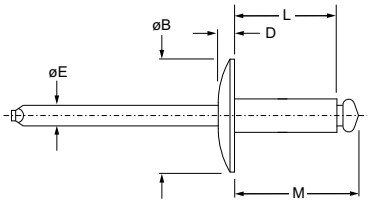
Stainless Steel / Stainless Steel

English	Français	Deutsch	Italiano	Español
Body: Stainless steel* Natural	Corps: Inox* Brut	Hülse: Edelstahl* Unbehandelt	Corpo: Acciaio inox* Nessuna finitura	Cuerpo: Acero inoxidable* Natural
Stem: Stainless steel Natural	Tige: Inox Brut	Dorn: Edelstahl Unbehandelt	Gambo: Acciaio inox Nessuna finitura	Vástago: Acero inoxidable Natural

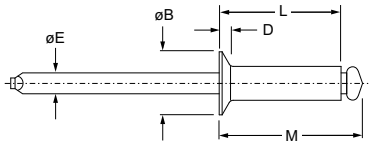
*: 300 Series



SSD ■ SSBS
Dome head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



SSD ■ SSBS LF
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha



SSK ■ SSBS
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

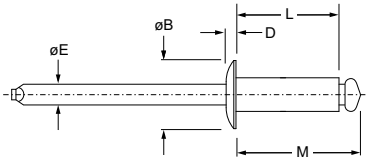
ø					L	M	øE	SSD ■ SSBS			SSD ■ SSBS LF			SSK ■ SSBS		
								øB	D	Part No.	øB	D	Part No.	øB	D	Part No.
nom.	min.	max.	min.	max.	ref.	ref.	ref.	max.	max.	■	max.	max.	■	max.	max.	■
3/32" (2.4)	.063 (1.6)	.125 (3.2)	.097 (2.46)	.100 (2.54)	.240 (6.1)	.340 (8.6)	.057 (1.5)	.198 (5.1)	.032 (0.9)	32						
	.032 (0.8)	.062 (1.6)			.188 (4.8)	.308 (7.8)				41						
	.063 (1.6)	.125 (3.2)			.250[1)] (6.4)[1)]	.370 (9.4)				42			42			42
	.126 (3.2)	.187 (4.8)			.313 (8.0)	.433 (11.0)				43			43			43
1/8" (3.2)	.188 (4.8)	.250 (6.4)	.129 (3.28)	.133 (3.38)	.375 (9.5)	.495 (12.6)	.076 (1.9)	.262 (6.7)	.040 (1.1)	44	.390 (10.0)	.046 (1.2)	44	.233 (6.0)	.051 (1.3)	44
	.251 (6.4)	.312 (7.9)			.438 (11.1)	.558 (14.2)				45						
	.313 (7.9)	.375 (9.5)			.500 (12.7)	.620 (15.7)				46						
	.376 (9.5)	.500 (12.7)			.625 (15.9)	.745 (18.9)				48						
	.063 (1.6)	.125 (3.2)			.275 (7.0)	.415 (10.5)				52						
	.126 (3.2)	.187 (4.8)			.338 (8.6)	.478 (12.1)				53						
5/32" (4.0)	.188 (4.8)	.250 (6.4)	.160 (4.06)	.164 (4.17)	.400 (10.2)	.540 (13.7)	.095 (2.4)	.328 (8.4)	.047 (1.2)	54						
	.251 (6.4)	.375 (9.5)			.525 (13.3)	.665 (16.9)				56						

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

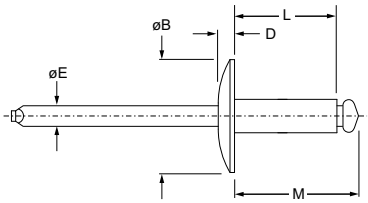
1) SSK 42 SSBS: .275 *(7.0)*

Open End SSD SSBS / SSK SSBS Series

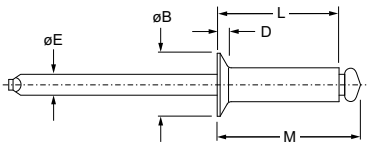
Stainless Steel / Stainless Steel



SSD ■ SSBS
Dome head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



SSD ■ SSBS LF
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha



SSK ■ SSBS
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø					L	M	øE	SSD ■ SSBS			SSD ■ SSBS LF			SSK ■ SSBS		
								øB	D	Part No.	øB	D	Part No.	øB	D	Part No.
nom.	min.	max.	min.	max.	ref.	ref.	ref.	max.	max.	■	max.	max.	■	max.	max.	■
	.063 (1.6)	.125 (3.2)			.300 (7.6)	.460 (11.7)				62						
	.126 (3.2)	.250 (6.4)			.425 (10.8)	.585 (14.9)				64			64			64
	.251 (6.4)	.375 (9.5)			.550 (14.0)	.710 (18.0)				66			66			
3/16" (4.8)	.376 (9.5)	.500 (12.7)	.192 (4.88)	.196 (4.98)	.675 (17.2)	.835 (21.2)	.114 (2.9)	.393 (10.0)	.055 (1.4)	68	.650 (16.6)	.083 (2.2)	68	.363 (9.3)	.071 (1.8)	68
	.501 (12.7)	.625 (15.9)			.800 (20.3)	.960 (24.4)				610			610			
	.626 (15.9)	.750 (19.1)			.925 (23.5)	1.085 (27.6)							612			
	.876 (22.3)	1.000 (25.4)			1.170 (29.7)	1.335 (33.9)				616						

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

ø		
nom.	lbf *(kN)*[2]	lbf *(kN)*[2]
3/32" *(2.4)*	230 *(1.02)*	280 *(1.25)*
1/8" *(3.2)*	550 *(2.45)*	700 *(3.12)*
5/32" *(4.0)*	900 *(4.01)*	1130 *(5.03)*
3/16" *(4.8)*	1000 *(4.45)*	1375 *(6.12)*

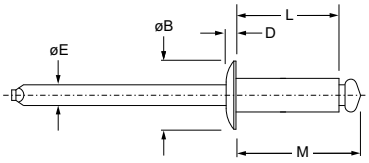
2) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Open End SSD BS / SSK BS Series

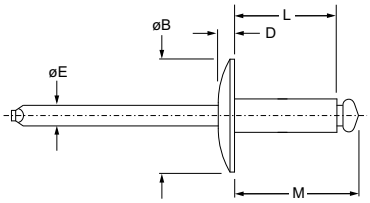
Stainless Steel / Steel

English	Français	Deutsch	Italiano	Español
Body: Stainless steel* Natural	Corps: Inox* Brut	Hülse: Edelstahl* Unbehandelt	Corpo: Acciaio inox* Nessuna finitura	Cuerpo: Acero inoxidable* Natural
Stem: Steel Protective coating	Tige: Acier Revêtement de protection	Dorn: Stahl Schutzüberzug	Gambo: Acciaio Rivestimento protettivo	Vástago: Acero Revestimiento preservador

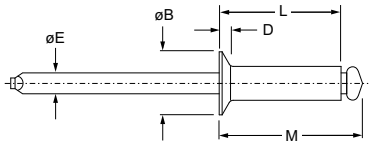
*: 300 Series



SSD ■ BS
Dome head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



SSD ■ BS LF
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha



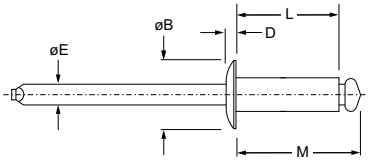
SSK ■ BS
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø					L	M	øE	SSD ■ BS			SSD ■ BS LF			SSK ■ BS		
								øB	D	Part No.	øB	D	Part No.	øB	D	Part No.
nom.	min.	max.	min.	max.	ref.	ref.	ref.	max.	max.	■	max.	max.	■	max.	max.	■
	.032 (0.8)	.062 (1.6)			.188 (4.8)	.308 (7.8)				41						
	.063 (1.6)	.125 (3.2)			.250[1] (6.4)[1]	.370 (9.4)				42			42			42
	.126 (3.2)	.187 (4.8)			.313 (8.0)	.433 (11.0)				43			43			43
1/8" (3.2)	.188 (4.8)	.250 (6.4)	.129 (3.28)	.133 (3.38)	.375 (9.5)	.495 (12.6)	.076 (1.9)	.262 (6.7)	.040 (1.1)	44	.390 (10.0)	.046 (1.2)	44	.233 (6.0)	.051 (1.3)	
	.251 (6.4)	.312 (7.9)			.438 (11.1)	.558 (14.2)				45						
	.313 (7.9)	.375 (9.5)			.500 (12.7)	.620 (15.7)				46						
	.376 (9.5)	.500 (12.7)			.625 (15.9)	.745 (18.9)				48						
	.063 (1.6)	.125 (3.2)			.275 (7.0)	.415 (10.5)				52						
5/32" (4.0)	.188 (4.8)	.250 (6.4)	.160 (4.06)	.164 (4.17)	.400 (10.2)	.540 (13.7)	.095 (2.4)	.328 (8.4)	.047 (1.2)	54						
	.251 (6.4)	.375 (9.5)			.525 (13.3)	.665 (16.9)				56						

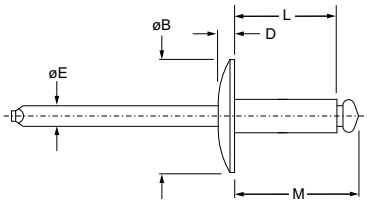
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) SSK 42 BS: .275 *(7.0)*

Open End SSD BS / SSK BS Series

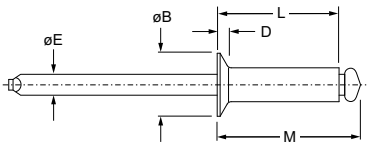
Stainless Steel / Steel



SSD ■ BS
Dome head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



SSD ■ BS LF
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha



SSK ■ BS
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø					L	M	øE	SSD ■ BS			SSD ■ BS LF			SSK ■ BS		
								øB	D	Part No.	øB	D	Part No.	øB	D	Part No.
nom.	min.	max.	min.	max.	ref.	ref.	ref.	max.	max.	■	max.	max.	■	max.	max.	■
	.063 (1.6)	.125 (3.2)			.300 (7.6)	.460 (11.7)				62						
	.126 (3.2)	.250 (6.4)			.425 (10.8)	.585 (14.9)				64						64
	.251 (6.4)	.375 (9.5)			.550 (14.0)	.710 (18.0)				66						
3/16" (4.8)	.376 (9.5)	.500 (12.7)	.192 (4.88)	.196 (4.98)	.675 (17.2)	.835 (21.2)	.114 (2.9)	.393 (10.0)	.055 (1.4)	68	.650 (16.6)	.083 (2.2)		.363 (9.3)	.071 (1.8)	
	.501 (12.7)	.625 (15.9)			.800 (20.3)	.960 (24.4)				610			610			
	.876 (22.3)	1.000 (25.4)			1.175 (29.8)	1.335 (33.9)						.092 (2.4)	616			

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

ø		
nom.	lbf *(kN)*[2]	lbf *(kN)*[2]
1/8" *(3.2)*	550 *(2.45)*	700 *(3.12)*
5/32" *(4.0)*	900 *(4.01)*	1130 *(5.03)*
3/16" *(4.8)*	1000[3] *(4.45)*[3]	1375[4] *(6.12)*[4]

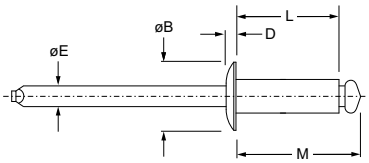
2) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos
3) SSD 616 BS LF: 590 *(2.62)*
4) SSD 616 BS LF: 815 *(3.63)*

Open End CD BS Series

Copper / Steel

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa Tonda	Cabeza alomada
Body: Copper* Natural	Corps: Cuivre* Brut	Hülse: Kupfer* Blank	Corpo: Rame* Nessuna finitura	Cuerpo: Cobre* Natural
Stem: Steel Protective coating	Tige: Acier Revêtement de protection	Dorn: Stahl Schutzüberzug	Gambo: Acciaio Rivestimento protettivo	Vástago: Acero Revestimiento preservador

*: 110



ø					L	M	øE	øB	D			Part No.
nom.	min.	max.	min.	max.	ref.	ref.	ref.	max.	max.	lbf *(kN)*[1]	lbf *(kN)*[1]	
1/8" *(3.2)*	*.063* *(1.6)*	*.125* *(3.2)*	.129 *(3.28)*	.133 *(3.38)*	.250 *(6.4)*	.370 *(9.4)*	.076 *(1.9)*	.262 *(6.7)*	.040 *(1.1)*	215 *(0.96)*	300 *(1.34)*	CD 42 BS
	.188 *(4.8)*	*.250* *(6.4)*			.375 *(9.5)*	.495 *(12.6)*						CD 44 BS

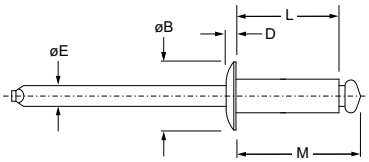
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Open End MD BS / TLPD BS Series

Nickel Copper Alloy / Steel

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa Tonda	Cabeza alomada
Body: Nickel Copper Alloy (Monel) Zinc plated	Corps: Alliage de nickel cuivre (Monel) Revêtement zingué	Hülse: Nickel Kupfer Legierung (Monel) Verzinkt	Corpo: Lega di nickel rame (Monel) Zincato	Cuerpo: Aleación de níquel cobre (Monel) Zincado
Stem: Steel Zinc plated	Tige: Acier Revêtement zingué	Dorn: Stahl Verzinkt	Gambo: Acciaio Zincato	Vástago: Acero Zincado



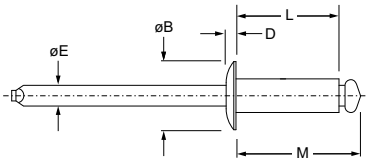
ø nom.	min.	max.	min.	max.	L ref.	M ref.	øE ref.	øB max.	D max.	lbf (kN)[1]	lbf (kN)[1]	Part No.
7/64" (2.8)	.020 (0.51)	.070 (1.8)	.113 (2.87)	.117 (2.97)	.195 (5.0)	.295 (7.5)	.072 (1.8)	.205 (5.3)	.028 (0.8)	258 (1.15)	292 (1.30)	MD 319 BS
	.070 (1.8)	.090 (2.3)			.217 (5.5)	.317 (8.1)						MD 321 BS
1/8" (3.2)	.071 (1.8)	.121 (3.1)	.130 (3.3)	.134 (3.4)	.242 (6.2)	.362 (9.2)	.076 (1.9)	.243 (6.2)	.028 (0.8)	337 (1.50)	427 (1.90)	TLPD 424 BS
	.121 (3.1)	.168 (4.3)			.293 (7.5)	.413 (10.5)						TLPD 429 BS
	.168 (4.3)	.227 (5.8)			.352 (9.0)	.472 (12.0)						TLPD 435 BS
	.227 (5.8)	.277 (7.1)			.402 (10.3)	.522 (13.3)						TLPD 440 BS
5/32" (4.0)	.098 (2.5)	.160 (4.1)	.161 (4.1)	.165 (4.2)	.305 (7.8)	.445 (11.3)	.090 (2.3)	.272 (6.9)	.031 (0.8)	495 (2.20)	674 (3.00)	TLPD 530 BS
	.160 (4.1)	.228 (5.8)			.375 (9.5)	.511 (13.0)						TLPD 537 BS
	.228 (5.8)	.260 (6.6)			.405 (10.3)	.542 (13.8)						TLPD 540 BS
	.260 (6.6)	.311 (7.9)			.453 (11.5)	.590 (15.0)						TLPD 545 BS

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Open End MD BS / TLPD BS Series

Nickel Copper Alloy / Steel



ø nom.	min.	max.	min.	max.	L ref.	M ref.	øE ref.	øB max.	D max.	lbf (kN)[1]	lbf (kN)[1]	Part No.
3/16" (4.8)	.090 (2.3)	.148 (3.8)	.192 (4.88)	.196 (4.98)	.301 (7.7)	.461 (11.7)	.114 (2.9)	.340 (8.7)	.055 (1.4)	742 (3.30)	844 (3.75)	MD 630 BS
	.148 (3.8)	.199 (5.1)			.363 (9.3)	.523 (13.3)						MD 636 BS
	.199 (5.1)	.227 (5.8)			.391 (10.0)	.551 (14.0)						MD 639 BS
	.227 (5.8)	.336 (8.6)			.500 (12.7)	.660 (16.8)						MD 650 BS
	.336 (8.6)	.488 (12.5)			.645 (16.5)	.805 (20.5)						MD 665 BS
	.488 (12.5)	.586 (15.0)			.742 (19.0)	.902 (22.9)						MD 675 BS
1/4" (6.4)	.0 (0)	.297 (7.6)	.257 (6.53)	.261 (6.63)	.500 (12.7)	.735 (18.7)	.152 (3.9)	.452 (11.5)	.068 (1.73)	1215 (5.40)	1519 (6.75)	MD 850 BS
	.297 (7.6)	.496 (12.7)			.703 (18.0)	.938 (23.8)						MD 870 BS

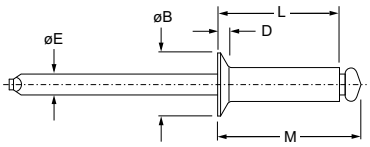
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Open End MK BS / TLPK BS Series

Nickel Copper Alloy / Steel

English	Français	Deutsch	Italiano	Español
Countersunk	Tête fraisée	Senkkopf	Testa svasata	Cabeza avellanada
Body: Nickel Copper Alloy (Monel) Zinc plated	Corps: Alliage de nickel cuivre (Monel) Revêtement zingué	Hülse: Nickel Kupfer Legierung (Monel) Verzinkt	Corpo: Lega di nickel rame (Monel) Zincato	Cuerpo: Aleación de níquel cobre (Monel) Zincado
Stem: Steel Zinc plated	Tige: Acier Revêtement zingué	Dorn: Stahl Verzinkt	Gambo: Acciaio Zincato	Vástago: Acero Zincado



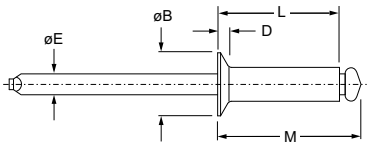
ø					L	M	øE	øB	D			Part No.
nom.	min.	max.	min.	max.	ref.	ref.	ref.	max.	max.	lbf *(kN)*[1]	lbf *(kN)*[1]	
7/64" *(2.8)*	.0 *(0)*	.090 *(2.3)*	.113 *(2.87)*	.117 *(2.97)*	.215 *(5.5)*	.315 *(8.0)*	.072 *(1.8)*	.205 *(5.3)*	.038 *(1.0)*	258 *(1.15)*	292 *(1.30)*	MK 319 BS
	.090 *(2.3)*	.109 *(2.8)*			.234 *(6.0)*	.334 *(8.5)*						MK 321 BS
1/8" *(3.2)*	.0 *(0)*	.098 *(2.5)*	.130 *(3.3)*	.134 *(3.4)*	.227 *(5.8)*	.347 *(8.8)*	.076 *(1.9)*	.244 *(6.2)*	.039 *(1.0)*	337 *(1.50)*	427 *(1.90)*	TLPK 419 BS
	.098 *(2.5)*	.148 *(3.8)*			.273 *(7.0)*	.393 *(10.0)*						TLPK 424 BS
	.148 *(3.8)*	.199 *(5.1)*			.332 *(8.5)*	.452 *(11.5)*						TLPK 429 BS
	.199 *(5.1)*	.259 *(6.6)*			.391 *(10.0)*	.511 *(13.0)*						TLPK 435 BS
	.259 *(6.6)*	.309 *(7.9)*			.438 *(11.2)*	.558 *(14.2)*						TLPK 440 BS
5/32" *(4.0)*	.129 *(3.3)*	.188 *(4.8)*	.161 *(4.1)*	.165 *(4.2)*	.340 *(8.7)*	.480 *(12.2)*	.090 *(2.3)*	.270 *(6.9)*	.042 *(1.1)*	495 *(2.20)*	674 *(3.00)*	TLPK 530 BS
	.188 *(4.8)*	.258 *(6.6)*			.410 *(10.5)*	.550 *(14.0)*						TLPK 537 BS
	.258 *(6.6)*	.289 *(7.4)*			.441 *(11.3)*	.581 *(14.8)*						TLPK 540 BS

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Open End MK BS / TLPK BS Series

Nickel Copper Alloy / Steel



ø nom.	min.	max.	min.	max.	L ref.	M ref.	øE ref.	øB max.	D max.	lbf *(kN)*[1]	lbf *(kN)*[1]	Part No.
3/16" *(4.8)*	.0 *(0)*	.180 *(4.6)*	.192 *(4.88)*	.196 *(4.98)*	.383 *(9.0)*	.543 *(13.8)*	.114 *(2.9)*	.340 *(8.7)*	.055 *(1.4)*	742 *(3.30)*	844 *(3.75)*	MK 630 BS
	.180 *(4.6)*	.227 *(5.8)*			.410 *(10.5)*	.570 *(14.5)*						MK 636 BS
	.227 *(5.8)*	.259 *(6.6)*			.430 *(11.0)*	.590 *(15.0)*						MK 639 BS
	.259 *(6.6)*	.367 *(9.4)*			.547 *(14.0)*	.707 *(18.0)*						MK 650 BS
	.367 *(9.4)*	.516 *(13.2)*			.703 *(18.0)*	.863 *(21.9)*						MK 665 BS
	.516 *(13.2)*	.617 *(15.7)*			.801 *(20.5)*	.961 *(24.4)*						MK 675 BS

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

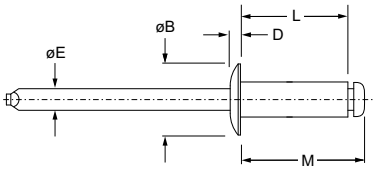
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Soft Set PAD / PAK Series

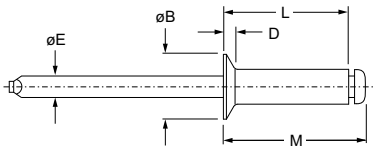
Aluminum / Aluminum

English	Français	Deutsch	Italiano	Español
Body: Aluminum* Natural	Corps: Aluminium* Brut	Hülse: Aluminium* Blank	Corpo: Alluminio* Nessuna finitura	Cuerpo: Aluminio* Natural
Stem: Aluminum Natural	Tige: Aluminium Brut	Dorn: Aluminium Blank	Gambo: Alluminio Nessuna finitura	Vástago: Aluminio Natural

* 1100



PAD ■ ABS
Dome head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



PAK ■ ABS
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø nom.	min.	max.	min.	max.	L ref.	M ref.	øE ref.	lbf (kN)[1]	lbf (kN)[1]	PAD ■ ABS øB max.	PAD ■ ABS D max.	PAD ■ ABS Part No. ■	PAK ■ ABS øB max.	PAK ■ ABS D max.	PAK ■ ABS Part No. ■
.118" (3.0)	.126 (3.2)	.189 (4.8)	.120 (3.05)	.124 (3.15)	.315 (8.1)	.492 (12.5)	.071 (1.8)	69 (0.31)	94 (0.42)	.246 (6.3)	.043 (1.1)	30M3			
	.189 (4.8)	.252 (6.4)			.385 (9.8)	.559 (14.2)						30M4			
	.252 (6.4)	.315 (8.0)			.456 (11.6)	.630 (16.0)						30M5			
1/8" (3.2)	.032 (1.1)	.062 (1.6)	.129 (3.28)	.133 (3.38)	.188 (4.8)	.308 (7.8)	.076 (1.9)	65 (0.29)	85 (0.38)	.262 (6.7)	.040 (1.1)	41	.230 (5.9)	.051 (1.3)	
	.063 (1.6)	.125 (3.2)			.250 (6.4)	.370 (9.4)						42			42
	.126 (3.2)	.187 (4.8)			.313 (8.0)	.433 (11.0)						43			43
	.188 (4.8)	.250 (6.4)			.375 (9.5)	.495 (12.6)						44			44
	.251 (6.4)	.312 (7.9)			.438 (11.1)	.558 (14.2)						45			
	.313 (7.9)	.375 (9.5)			.500 (12.7)	.620 (15.8)						46			
5/32" (4.0)	.188 (4.8)	.250 (6.4)	.160 (4.06)	.164 (4.17)	.400 (10.2)	.540 (13.7)	.095 (2.4)	105 (0.47)	145 (0.65)	.328 (8.4)	.047 (1.2)	54			
	.251 (6.4)	.375 (9.5)			.525 (13.3)	.665 (16.9)						56			
3/16" (4.8)	.126 (3.2)	.250 (6.4)	.192 (4.88)	.196 (4.98)	.425 (10.8)	.585 (14.9)	.114 (2.9)	145 (0.65)	205 (0.91)	.393 (10.0)	.055 (1.4)	64			
	.251 (6.4)	.375 (9.5)			.550 (14.0)	.710 (18.0)						66			
	.376 (9.5)	.500 (12.7)			.675 (17.2)	.835 (21.2)						68			

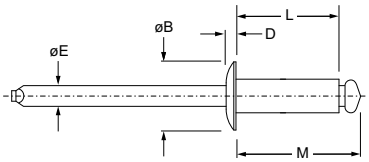
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Micro Rivets TAPD BS Series

Aluminum / Steel

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa Tonda	Cabeza alomada
Body: Aluminum* Natural	Corps: Aluminium* Brut	Hülse: Aluminium* Unbehandelt	Corpo: Alluminio* Nessuna finitura	Cuerpo: Aluminio* Natural
Stem: Steel Zinc plated	Tige: Acier Revêtement zingué	Dorn: Stahl Verzinkt	Gambo: Acciaio Zincato	Vástago: Acero Zincado
*: 5154				



ø					L	M	øE	øB	D			Part No.
nom.	min.	max.	min.	max.	ref.	ref.	ref.	max.	max.	lbf *(kN)*[1]	lbf *(kN)*[1]	
	.0 *(0)*	.063 *(1.6)*			.161 *(4.1)*	.295 *(7.5)*						TAPD 20M1 BS
	.039 *(1.0)*	.126 *(3.2)*			.224 *(5.7)*	.358 *(9.1)*						TAPD 20M2 BS
.078 *(2.0)*	.126 *(3.2)*	.189 *(4.8)*	.080 *(2.03)*	.084 *(2.13)*	.291 *(7.4)*	.425 *(10.8)*	.043 *(1.1)*	.156 *(4.0)*	.029 *(0.8)*	*66* *(0.30)*	87 *(0.39)*	TAPD 20M3 BS
	.189 *(4.8)*	.252 *(6.4)*			.354 *(9.0)*	.488 *(12.4)*						TAPD 20M4 BS
	.252 *(6.4)*	.315 *(8.0)*			.421 *(10.7)*	.555 *(14.1)*						TAPD 20M5 BS

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

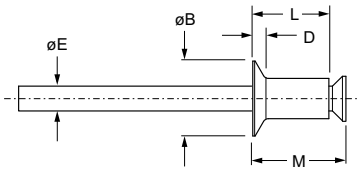
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

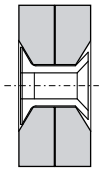
Pull-Thru (PT) SKK Series

Steel / Steel

English	Français	Deutsch	Italiano	Español
Countersunk	Tête fraisée	Senkkopf	Testa svasata	Cabeza avellanada
Body: Steel* Zinc plated	Corps: Acier* Revêtement zingué	Hülse: Stahl* Verzinkt	Corpo: Acciaio* Zincato	Cuerpo: Acero* Zincado
Stem: Steel Protective coating	Tige: Acier Revêtement de protection	Dorn: Stahl Schutzüberzug	Gambo: Acciaio Rivestimento protettivo	Vástago: Acero Revestimiento preservador

*: C1006-C1010





Rear sheet tail protrusion of installed fastener is application dependent - up to .016" *(0.4 mm)* is permissible.

Le dépassement en face arrière après pose dépend de l'application – possible jusqu'à .016" *(0.4 mm)* .

Der Bauteilüberstand des gesetzten Verbinders auf der Blindseite ist applikationsabhängig - bis zu .016" *(0.4 mm)* ist zulässig.

L'entità della sporgenza posteriore del rivetto installato è dipendente dall'applicazione. Fino a .016" *(0.4 mm)* è ammessa.

El remache una vez colocado, sobresale por la parte trasera de la chapa hasta un máximo de .016" *(0.4 mm)* permitidos.

ø					L	M	øE	øB	D			Part No.
nom.	min.	max.	min.	max.	ref.	ref.	ref.	max.	max.	lbf *(kN)*[1]	lbf *(kN)*[1]	
	.059 *(1.5)*	.079 *(2.0)*			.098 *(2.5)*	.193 *(4.9)*						SKK 3025 PT
	.079 *(2.0)*	.098 *(2.5)*			.110 *(2.8)*	.205 *(5.2)*						SKK 3030 PT
	.098 *(2.5)*	.118 *(3.0)*			.130 *(3.3)*	.224 *(5.7)*						SKK 3035 PT
	.118 *(3.0)*	.138 *(3.5)*			.150 *(3.8)*	.244 *(6.2)*						SKK 3040 PT
1/8" *(3.0)*	.138 *(3.5)*	.157 *(4.0)*	.129 *(3.28)*	.134 *(3.40)*	.169 *(4.3)*	.264 *(6.7)*	.072 *(1.8)*	.216 *(5.5)*	.039 *(1.0)*	180 *(0.80)*	157 *(0.70)*	SKK 3045 PT
	.157 *(4.0)*	.177 *(4.5)*			.189 *(4.8)*	.283 *(7.2)*						SKK 3050 PT
	.177 *(4.5)*	.197 *(5.0)*			.209 *(5.3)*	.303 *(7.7)*						SKK 3055 PT
	.197 *(5.0)*	.217 *(5.5)*			.228 *(5.8)*	.323 *(8.2)*						SKK 3060 PT
	.217 *(5.5)*	.236 *(6.0)*			.248 *(6.3)*	.343 *(8.7)*						SKK 3065 PT

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

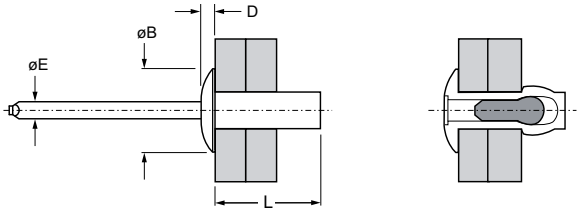
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Closed End AD AH Series

Aluminum / Aluminum

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa Tonda	Cabeza alomada
Body: Aluminum* Natural	Corps: Aluminium* Brut	Hülse: Aluminium* Unbehandelt	Corpo: Alluminio* Nessuna finitura	Cuerpo: Aluminio* Natural
Body: Aluminum Natural	Corps: Aluminium Brut	Hülse: Aluminium Unbehandelt	Corpo: Alluminio Nessuna finitura	Cuerpo: Aluminio Natural

*: 1100



ø					L	øE	øB	D			Part No.
nom.	min.	max.	min.	max.	ref.	ref.	max.	max.	lbf *(kN)*[1]	lbf *(kN)*[1]	
1/8" *(3.2)*	.032 *(0.8)*	.062 *(1.6)*	.129 *(3.28)*	.133 *(3.38)*	.237 *(6.0)*	.072 *(1.8)*	.248 *(6.3)*	.051 *(1.3)*	105 *(0.47)*	150 *(0.67)*	AD 41 AH
	.063 *(1.6)*	.125 *(3.2)*			.301 *(7.7)*						AD 42 AH
	.126 *(3.2)*	.187 *(4.8)*			.362 *(9.2)*						AD 43 AH
	.188 *(4.8)*	.250 *(6.4)*			.425 *(10.8)*						AD 44 AH
5/32" *(4.0)*	.126 *(3.2)*	.187 *(4.8)*	.160 *(4.06)*	.164 *(4.17)*	.377 *(9.6)*	.090 *(2.3)*	.327 *(8.4)*	.066 *(1.7)*	155 *(0.69)*	240 *(1.07)*	AD 53 AH
	.188 *(4.8)*	.250 *(6.4)*			.440 *(11.2)*						AD 54 AH
	.251 *(6.4)*	.312 *(7.9)*			.502 *(12.8)*						AD 55 AH
3/16" *(4.8)*	.063 *(1.6)*	.125 *(3.2)*	.192 *(4.88)*	.196 *(4.98)*	.330 *(8.4)*	.108 *(2.7)*	.393 *(10.0)*	.081 *(2.1)*	220 *(0.98)*	310 *(1.38)*	AD 62 AH
	.126 *(3.2)*	.250 *(6.4)*			.455 *(11.6)*						AD 64 AH
	.251 *(6.4)*	.375 *(9.5)*			.580 *(14.7)*						AD 66 AH
	.376 *(9.5)*	.500 *(12.7)*			.705 *(17.9)*						AD 68 AH

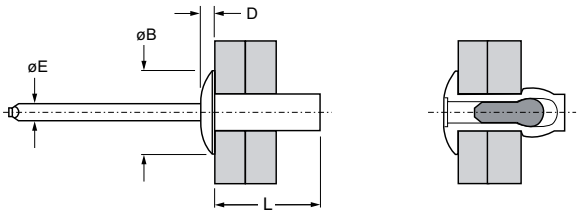
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Closed End AD H / AK H Series

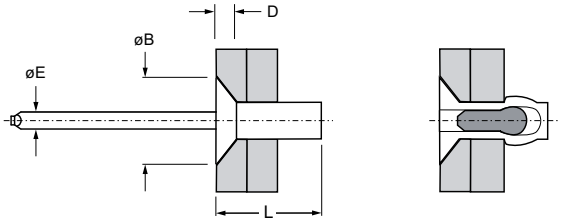
Aluminum / Steel

English	Français	Deutsch	Italiano	Español
Body: Aluminum* Natural	Corps: Aluminium* Brut	Hülse: Aluminium* Blank	Corpo: Alluminio* Nessuna finitura	Cuerpo: Aluminio* Natural
Stem: Steel Protective coating	Tige: Acier Revêtement de protection	Dorn: Stahl Schutzüberzug	Gambo: Acciaio Rivestimento protettivo	Vástago: Acero Revestimiento preservador

* 5056



AD H
Dome head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



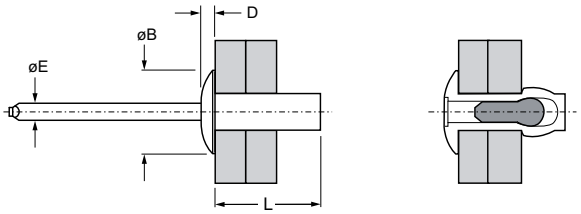
AK H
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø nom.	min.	max.	min.	max.	øE ref.	AD H L ref.	AD H øB max.	AD H D max.	AD H Part No.	AK H L ref.	AK H øB max.	AK H D max.	AK H Part No.
1/8" *(3.2)*	.032 *(0.8)*	.062 *(1.6)*	.129 *(3.28)*	.133 *(3.38)*	.064 *(1.6)*	.237 *(6.0)*	.248 *(6.3)*	.051 *(1.3)*	AD 41 H	.277 *(7.0)*	.245 *(6.3)*	.055 *(1.4)*	AK 41 H
	.063 *(1.6)*	.125 *(3.2)*				.301 *(7.7)*			AD 42 H	.341 *(8.7)*			AK 42 H
	.126 *(3.2)*	.187 *(4.8)*				.362 *(9.2)*			AD 43 H	.402 *(10.2)*			AK 43 H
	.188 *(4.8)*	.250 *(6.4)*				.425 *(10.8)*			AD 44 H	.466 *(11.8)*			AK 44 H
	.251 *(6.4)*	.312 *(7.9)*				.487 *(12.4)*	.272 *(7.0)*		AD 45 H	.528 *(13.4)*			AK 45 H
	.313 *(7.9)*	.375 *(9.5)*				.550 *(14.0)*			AD 46 H	.591 *(15.0)*			AK 46 H
	.376 *(9.5)*	.500 *(12.7)*				.675 *(17.2)*			AD 48 H				
5/32" *(4.0)*	.063 *(1.6)*	.125 *(3.2)*	.160 *(4.06)*	.164 *(4.17)*	.086 *(2.2)*	.315 *(8.0)*	.327 *(8.4)*	.066 *(1.7)*	AD 52 H	.370 *(9.4)*	.327 *(8.4)*	.065 *(1.7)*	AK 52 H
	.126 *(3.2)*	.187 *(4.8)*				.377 *(9.6)*			AD 53 H	.432 *(11.0)*			AK 53 H
	.188 *(4.8)*	.250 *(6.4)*				.440 *(11.2)*			AD 54 H	.495 *(12.6)*			AK 54 H
	.251 *(6.4)*	.312 *(7.9)*				.502 *(12.8)*			AD 55 H	.558 *(14.2)*			AK 55 H

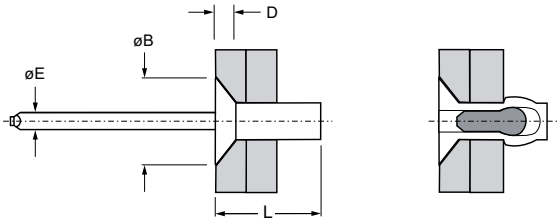
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

Closed End AD H / AK H Series

Aluminum / Steel



AD H
Dome head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



AK H
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø nom.	min.	max.	min.	max.	øE ref.	AD H L ref.	AD H øB max.	AD H D max.	AD H Part No.	AK H L ref.	AK H øB max.	AK H D max.	AK H Part No.
3/16" *(4.8)*	.063 *(1.6)*	.125 *(3.2)*	.192 *(4.88)*	.196 *(4.98)*	.104 *(2.6)*	.330 *(8.4)*	.393 *(10.0)*	.081 *(2.1)*	AD 62 H	.395 *(10.0)*	.395 *(10.1)*	.075 *(2.0)*	AK 62 H
	.126 *(3.2)*	.187 *(4.8)*				.392 *(10.0)*			AD 63 H				
	.188[1] *(4.8)*[1]	.250 *(6.4)*				.455 *(11.6)*			AD 64 H	.520 *(13.2)*			AK 64 H
	.251 *(6.4)*	.312 *(7.9)*				.517 *(13.1)*			AD 65 H				
	.313[2] *(7.9)*[2]	.375 *(9.5)*				.580 *(14.7)*			AD 66 H	.645 *(16.4)*			AK 66 H
	.376 *(9.5)*	.500 *(12.7)*				.705 *(17.9)*			AD 68 H				
	.501 *(12.7)*	.625 *(15.9)*				.865 *(22.0)*			AD 610 H				
1/4" *(6.4)*	.126 *(3.2)*	.250 *(6.4)*	.257 *(6.53)*	.261 *(6.63)*	.144 *(3.7)*	.485 *(12.3)*	.525 *(13.4)*	.099 *(2.6)*	AD 84 H				
	.251 *(6.4)*	.375 *(9.5)*				.610 *(15.5)*			AD 86 H				

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) AK 64 H: .126 *(3.2)* 2) AK 66 H: .251 *(6.4)*

ø nom.	lbf *(kN)*[1]	lbf *(kN)*[1]
1/8" *(3.2)*	305 *(1.36)*	385 *(1.71)*
5/32" *(4.0)*	430 *(1.91)*	605 *(2.69)*
3/16" *(4.8)*	575 *(2.56)*	840 *(3.74)*
1/4" *(6.4)*	900 *(4.00)*	1100 *(4.89)*

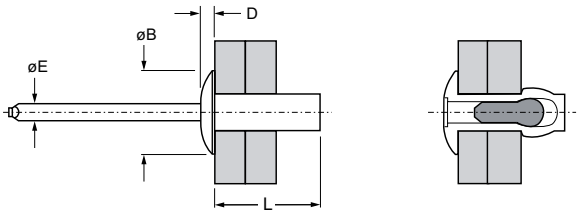
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Closed End AD SSH / AK SSH Series

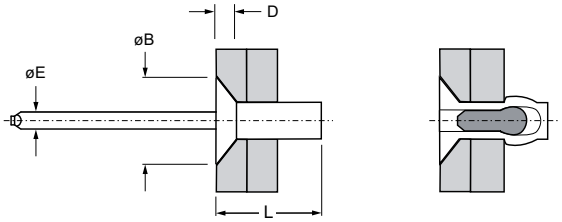
Aluminum / Stainless Steel

English	Français	Deutsch	Italiano	Español
Body: Aluminum* Natural	Corps: Aluminium* Brut	Hülse: Aluminium* Blank	Corpo: Alluminio* Nessuna finitura	Cuerpo: Aluminio* Natural
Stem: Stainless steel Natural	Tige: Inox Brut	Dorn: Edelstahl Unbehandelt	Gambo: Acciaio inox Nessuna finitura	Vástago: Acero inoxidable Natural

* 5056



AD SSH
Dome head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



AK SSH
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø nom.	min.	max.	min.	max.	øE ref.	AD SSH L ref.	AD SSH øB max.	AD SSH D max.	AD SSH Part No.	AK SSH L ref.	AK SSH øB max.	AK SSH D max.	AK SSH Part No.
1/8" *(3.2)*	.126 *(3.2)*	.187 *(4.8)*	.129 *(3.28)*	.133 *(3.38)*	.064 *(1.6)*					.402 *(10.2)*	.245 *(6.3)*	.055 *(1.4)*	AK 43 SSH
5/32" *(4.0)*	.126 *(3.2)*	.187 *(4.8)*	.160 *(4.06)*	.164 *(4.17)*	.086 *(2.2)*					.432 *(11.0)*	.327 *(8.4)*	.065 *(1.7)*	AK 53 SSH
	.188 *(4.8)*	.250 *(6.4)*								.495 *(12.6)*			AK 54 SSH
3/16" *(4.8)*	.063 *(1.6)*	.125 *(3.2)*	.192 *(4.88)*	.196 *(4.98)*	.104 *(2.6)*	.330 *(8.4)*	.393 *(10.0)*	.081 *(2.1)*	AD 62 SSH	.395 *(10.0)*	.395 *(10.1)*	.075 *(2.0)*	AK 62 SSH
	.126 *(3.2)*	.250 *(6.4)*				.455 *(11.6)*			AD 64 SSH	.520 *(13.2)*			AK 64 SSH
	.251 *(6.4)*	.375 *(9.5)*				.580 *(14.7)*			AD 66 SSH				
	.376 *(9.5)*	.500 *(12.7)*				.705 *(17.9)*			AD 68 SSH				

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

ø nom.	lbf *(kN)*[1]	lbf *(kN)*[1]
1/8" *(3.2)*	240 *(1.07)*	280 *(1.25)*
5/32" *(4.0)*	350 *(1.56)*	480 *(2.14)*
3/16" *(4.8)*	575 *(2.56)*	840 *(3.74)*

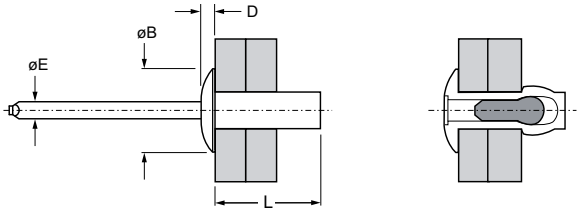
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Closed End SSD SSH Series

Stainless Steel / Stainless Steel

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa Tonda	Cabeza alomada
Body: Stainless steel* Natural	Corps: Inox* Brut	Hülse: Edelstahl* Unbehandelt	Corpo: Acciaio inox* Nessuna finitura	Cuerpo: Acero inoxidable* Natural
Stem: Stainless steel Natural	Tige: Inox Brut	Dorn: Edelstahl Unbehandelt	Gambo: Acciaio inox Nessuna finitura	Vástago: Acero inoxidable Natural

*: 300 Series



ø					L	øE	øB	D			Part No.
nom.	min.	max.	min.	max.	ref.	ref.	max.	max.	lbf *(kN)*[1]	lbf *(kN)*[1]	
1/8" *(3.2)*	.0 *(0)*	.063 *(1.6)*	.130 *(3.3)*	.134 *(3.4)*	.260 *(6.6)*	.078 *(2.0)*	.262 *(6.7)*	.039 *(1.0)*	472 *(2.10)*	499 *(2.22)*	SSD 41 SSH
	.063 *(1.6)*	.125 *(3.2)*			.315 *(8.0)*						SSD 42 SSH
	.125 *(3.2)*	.190 *(4.8)*			.382 *(9.7)*						SSD 43 SSH
	.188 *(4.8)*	.252 *(6.4)*			.445 *(11.3)*						SSD 44 SSH
	.250 *(6.4)*	.311 *(7.9)*			.508 *(12.9)*						SSD 45 SSH
5/32" *(4.0)*	.0 *(0)*	.125 *(3.2)*	.161 *(4.09)*	.165 *(4.19)*	.339 *(8.6)*	.093 *(2.4)*	.338 *(8.6)*	.042 *(1.1)*	742 *(3.30)*	899 *(4.00)*	SSD 52 SSH
	.125 *(3.2)*	.190 *(4.8)*			.402 *(10.2)*						SSD 53 SSH
	.188 *(4.8)*	.252 *(6.4)*			.465 *(11.8)*						SSD 54 SSH
	.250 *(6.4)*	.311 *(7.9)*			.528 *(13.4)*						SSD 55 SSH
3/16" *(4.8)*	.0 *(0)*	.125 *(3.2)*	.193 *(4.9)*	.197 *(5.0)*	.362 *(9.2)*	.117 *(3.0)*	.393 *(10.0)*	.049 *(1.25)*	966 *(4.30)*	990 *(4.40)*	SSD 62 SSH
	.125 *(3.2)*	.189 *(4.8)*			.425 *(10.8)*						SSD 63 SSH
	.188 *(4.8)*	.252 *(6.4)*			.492 *(12.5)*						SSD 64 SSH
	.250 *(6.4)*	.374 *(9.5)*			.610 *(15.5)*						SSD 66 SSH
	.371 *(9.5)*	.500 *(12.7)*			.728 *(18.5)*						SSD 68 SSH

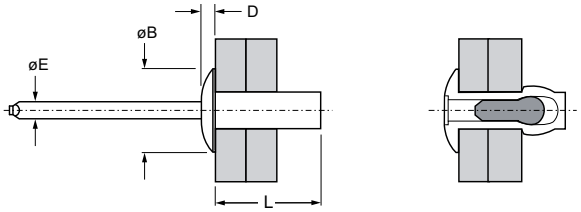
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Closed End CD H Series

Copper / Steel

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa Tonda	Cabeza alomada
Body: Copper* Natural	Corps: Cuivre* Brut	Hülse: Kupfer* Blank	Corpo: Rame* Nessuna finitura	Cuerpo: Cobre* Natural
Stem: Steel Protective coating	Tige: Acier Revêtement de protection	Dorn: Stahl Schutzüberzug	Gambo: Acciaio Rivestimento protettivo	Vástago: Acero Revestimiento preservador

*: 110



ø					L	øE	øB	D			Part No.
nom.	min.	max.	min.	max.	ref.	ref.	max.	max.	lbf *(kN)*[1]	lbf *(kN)*[1]	
1/8" *(3.2)*	.126 *(3.2)*	.187 *(4.8)*	.129 *(3.28)*	.133 *(3.38)*	.362 *(9.2)*	.064 *(1.6)*	.248 *(6.3)*	.051 *(1.3)*	270 *(1.20)*	335 *(1.49)*	CD 43 H
	.188 *(4.8)*	.250 *(6.4)*			.425 *(10.8)*						CD 44 H
	.251 *(6.4)*	.312 *(7.9)*			.487 *(12.4)*						CD 45 H

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

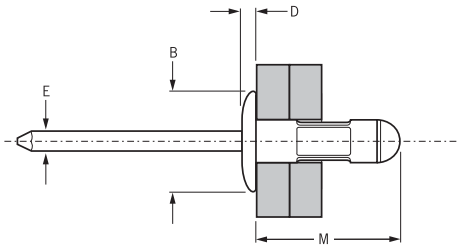
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

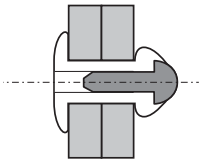
Avex® 1661 Series

Aluminum / Steel

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Aluminum alloy* (2.5 % Mg) Natural	Corps: Alliage d'aluminium* (2.5% Mg) Brut	Hülse: Aluminium* (2.5 % Mg) Blank	Corpo: Lega di alluminio* (2.5% Mg) Nessuna finitura	Cuerpo: Aluminio* (2.5% Mg) Natural
Stem: Low carbon steel** Zinc coated	Tige: Acier bas carbone** Revêtement zingué	Dorn: Stahl** Verzinkt	Gambo: Acciaio a basso tenore di carbonio** Zincato	Vástago: Acero bajo en carbono** Zincado

*: AA 5052, DIN 1725, AlMg2.5, Werkstoff 3.3523
**: BS3111 Type 0, SAE 1015/1018/1022, DIN 1654, Cq15/Cq22



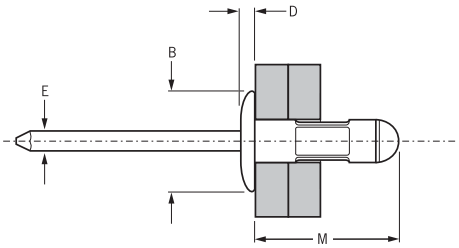


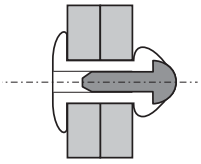
ø					M	øB	D	øE			Part No.
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf *(kN)*[1]	lbf *(kN)*[1]	
.118" *(3.0)*	.031 *(0.8)*	.172 *(4.3)*	.122 *(3.1)*	.130 *(3.3)*	.360 *(9.1)*	.262 *(6.7)*	.051 *(1.3)*	.066 *(1.7)*	157 *(0.70)*	220 *(0.98)*	01661-05307
1/8" *(3.2)*	.031 *(0.8)*	.187 *(4.8)*	.128 *(3.3)*	.133 *(4.2)*	.410 *(10.4)*	.262 *(6.7)*	.051 *(1.3)*	.070 *(1.8)*	165 *(0.73)*	230 *(1.02)*	01661-00410
	.047 *(1.2)*	.250 *(6.3)*			.470 *(12.0)*						01661-00412
	.157 *(4.0)*	.312 *(7.9)*			.540 *(13.6)*						01661-00414
	.219 *(5.5)*	.375 *(9.5)*			.630 *(16.0)*						01661-00416
5/32" *(4.0)*	.020 *(0.5)*	.125 *(3.2)*	.161 *(4.1)*	.166 *(5.0)*	.370 *(9.3)*	.321 *(8.2)*	.061 *(1.6)*	.084 *(2.2)*	255 *(1.13)*	375 *(1.67)*	01661-00508
	.031 *(0.8)*	.187 *(4.7)*			.420 *(10.7)*				255 *(1.13)*		01661-00510
	.047 *(1.2)*	.250 *(6.3)*			.490 *(12.5)*				235 *(1.04)*		01661-00512
	.157 *(4.0)*	.375 *(9.5)*			.640 *(16.2)*				235 *(1.04)*		01661-00516
	.250 *(6.4)*	.500 *(12.7)*			.770 *(19.6)*				235 *(1.04)*		01661-00521

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Avex® 1661 Series

Aluminum / Steel





ø					M	øB	D	øE			Part No.
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf *(kN)*[1]	lbf *(kN)*[1]	
3/16" *(4.8)*	.062 *(1.6)*	.250 *(6.3)*	.193 *(4.9)*	.198 *(5.0)*	.550 *(13.9)*	.396 *(10.1)*	.071 *(1.8)*	.112 *(2.9)*	345 *(1.53)*	525 *(2.33)*	01661-00613
	.187 *(4.8)*	.437 *(11.1)*			.740 *(18.7)*				295 *(1.31)*		01661-00619
	.187 *(4.8)*	.500 *(12.7)*			.800 *(20.2)*				295 *(1.31)*		01661-00621
	.500 *(12.7)*	.781 *(19.8)*			1.11 *(28.2)*				320 *(1.42)*		01661-00631
1/4" *(6.4)*	.060 *(1.5)*	.325 *(8.3)*	.261 *(6.6)*	.275 *(6.9)*	.660 *(16.8)*	.530 *(13.5)*	.105 *(2.7)*	.158 *(4.0)*	700 *(3.1)*	560 *(2.50)*	01610-04506[2]

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

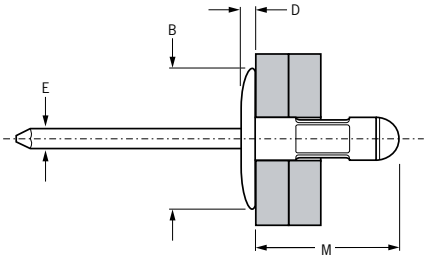
2) stem: zinc plated, clear trivalent passivated / tige:revêtement zingué, passivation claire trivalente / Dorn: verzinkt, klar chromatiert Cr6-frei / gambo: zincato, passivazione chiara trivalente / vástago: zincado, pasivado claro trivalente

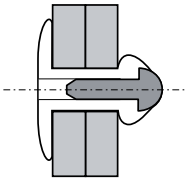
Avex® 1641 Series

Aluminum / Steel

English	Français	Deutsch	Italiano	Español
Large Flange	Tête large	Flachrundkopf extragroß	Testa larga	Cabeza ancha
Body: Aluminum alloy* (2.5 % Mg) Natural	Corps: Alliage d'aluminium* (2.5% Mg) Brut	Hülse: Aluminium* (2.5 % Mg) Blank	Corpo: Lega di alluminio* (2.5% Mg) Nessuna finitura	Cuerpo: Aluminio* (2.5% Mg) Natural
Stem: Low carbon steel** Zinc coated	Tige: Acier bas carbone** Revêtement zingué	Dorn: Stahl** Verzinkt	Gambo: Acciaio a basso tenore di carbonio** Zincato	Vástago: Acero bajo en carbono** Zincado

*: 1/8" + 5/32": Aluminum Alloy; 3/16": AA 5052, DIN 1725, AlMg2.5, Werkstoff 3.3523
**: 1/8" + 5/32": Carbon steel, zinc plated, clear passivated; 3/16": BS3111 Type 0, SAE 1015/1018/1022, DIN 1654, Cq15/Cq22





ø nom.	min.	max.	min.	max.	M max.	øB max.	D max.	øE max.	lbf (kN)[1]	lbf (kN)[1]	Part No.
1/8" (3.2)	.031 (0.8)	.187 (4.8)	.131 (3.3)	.136 (3.4)	.410 (10.5)	.337 (8.6)	.045 (1.2)	.074 (1.9)	165 (0.73)	230 (1.02)	01641-00410
	.062 (1.6)	.250 (6.4)			.470 (12.0)						01641-00412
	.125 (3.2)	.312 (7.9)			.530 (13.5)						01641-00414
	.187 (4.8)	.375 (9.5)			.590 (15.0)						01641-00416
5/32" (4.0)	.125 (3.2)	.312 (7.9)	.161 (4.1)	.166 (4.2)	.550 (14.0)	.387 (9.9)	.058 (1.5)	.090 (2.3)	255 (1.13)	375 (1.67)	01641-00514
3/16" (4.8)	.062 (1.6)	.250 (6.3)	.193 (4.9)	.199 (5.0)	.550 (13.9)	.635 (16.2)	.084 (2.2)	.112 (2.9)	345 (1.53)	472 (2.10)	01641-00613
	.125 (3.2)	.366 (9.3)			.670 (17.0)				301 (1.34)		01641-00617
	.187 (4.8)	.437 (11.1)			.740 (18.7)				301 (1.34)		01641-00619
	.250 (6.4)	.500 (12.7)			.800 (20.2)				295 (1.31)		01641-00621
	.500 (12.7)	.781 (19.8)			1.110 (28.2)				320 (1.42)		01641-00631

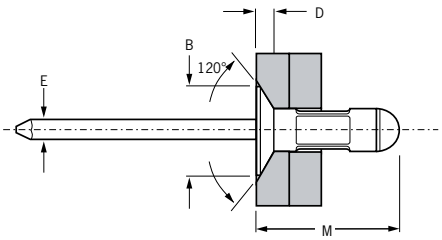
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

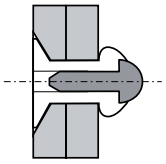
Avex® 1604 Series

Aluminum / Steel

English	Français	Deutsch	Italiano	Español
120° Countersunk head	120° Tête fraisée	120° Senkkopf	120° Testa svasata	120° Cabeza avellanada
Body: Aluminum alloy* (2.5 % Mg) Natural	Corps: Alliage d'aluminium* (2.5% Mg) Brut	Hülse: Aluminium* (2.5 % Mg) Blank	Corpo: Lega di alluminio* (2.5% Mg) Nessuna finitura	Cuerpo: Aluminio* (2.5% Mg) Natural
Stem: Low carbon steel** Zinc coated	Tige: Acier bas carbone** Revêtement zingué	Dorn: Stahl** Verzinkt	Gambo: Acciaio a basso tenore di carbonio** Zincato	Vástago: Acero bajo en carbono** Zincado

*: AA 5052, DIN 1725, AlMg2.5, Werkstoff 3.3523
**: BS3111 Type 0, SAE 1015/1018/1022, DIN 1654, Cq15/Cq22





ø nom.	min.	max.	min.	max.	M max.	øB max.	D max.	øE max.	lbf (kN)[1]	lbf (kN)[1]	Part No.
1/8" (3.2)	.093 (2.4)	.250 (6.3)	.128 (3.3)	.133 (3.4)	.480 (12.2)	.217 (5.6)	.050 (1.3)	.070 (1.8)	155 (0.69)	205 (0.91)	01604-00412
	.155 (4.0)	.312 (7.9)			.530 (13.4)				165 (0.73)	230 (1.02)	01604-00414
	.217 (5.5)	.375 (9.5)			.580 (14.8)						01604-00416
5/32" (4.0)	.109 (2.8)	.312 (7.9)	.161 (4.1)	.166 (4.2)	.560 (14.3)	.257 (6.6)	.052 (1.4)	.084 (2.2)	255 (1.13)	300 (1.33)	01604-00514
	.142 (3.6)	.346 (8.8)			.590 (15.1)						01604-00515
3/16" (4.8)	.125 (3.2)	.312 (7.9)	.193 (4.9)	.198 (5.0)	.610 (15.5)	.351 (9.0)	.069 (1.8)	.112 (2.9)	350 (1.55)	530 (2.35)	01604-00615
	.250 (6.3)	.500 (12.7)			.800 (20.4)				295 (1.31)		01604-00621

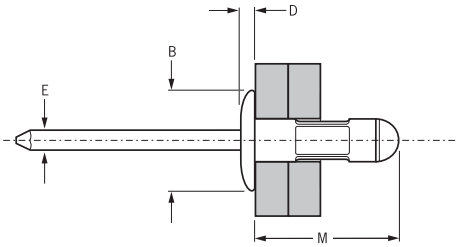
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

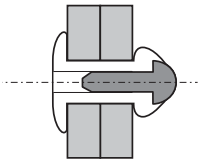
Avex® 1663 Series

Aluminum / Stainless Steel

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Aluminum alloy* (2.5 % Mg) Natural	Corps: Alliage d'aluminium* (2.5% Mg) Brut	Hülse: Aluminium* (2.5 % Mg) Blank	Corpo: Lega di alluminio* (2.5% Mg) Nessuna finitura	Cuerpo: Aluminio* (2.5% Mg) Natural
Stem: Stainless steel** Natural	Tige: Inox** Brut	Dorn: Edelstahl** Blank	Gambo: Acciaio inox** Nessuna finitura	Vástago: Acero inoxidable** Natural

*: AA 5052, DIN 1725, AlMg2.5, Werkstoff 3.3523
**: ø 3.0 - 5/32": X5CrNi 18-10, Werkstoff 1.4301; ø 3/16": X3CrNiCu 18-9-4, Werkstoff 1.4567





ø					M	øB	D	øE			Part No.
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf *(kN)*[1]	lbf *(kN)*[1]	
.118" *(3.0)*	.031 *(0.8)*	.172 *(4.3)*	.122 *(3.1)*	.130 *(3.3)*	.360 *(9.1)*	.262 *(6.7)*	.051 *(1.3)*	.066 *(1.7)*	157 *(0.70)*	220 *(0.98)*	01663-05307
1/8" *(3.2)*	.031 *(0.8)*	.187 *(4.8)*	.128 *(3.3)*	.133 *(3.4)*	.410 *(10.4)*	.262 *(6.7)*	.051 *(1.3)*	.070 *(1.8)*	165 *(0.73)*	230 *(1.02)*	01663-00410
	.047 *(1.2)*	.250 *(6.3)*			.470 *(12.0)*						01663-00412
	.157 *(4.0)*	.312 *(7.9)*			.540 *(13.6)*						01663-00414
	.219 *(5.5)*	.375 *(9.5)*			.630 *(16.0)*						01663-00416
5/32" *(4.0)*	.020 *(0.5)*	.125 *(3.2)*	.161 *(4.1)*	.166 *(4.2)*	.370 *(9.3)*	.321 *(8.2)*	.061 *(1.6)*	.084 *(2.2)*	255 *(1.13)*	375 *(1.67)*	01663-00508
	.031 *(0.8)*	.187 *(4.7)*			.420 *(10.7)*				255 *(1.13)*		01663-00510
	.047 *(1.2)*	.250 *(6.3)*			.490 *(12.5)*				235 *(1.04)*		01663-00512
	.157 *(4.0)*	.375 *(9.5)*			.640 *(16.2)*				235 *(1.04)*		01663-00516
	.250 *(6.4)*	.500 *(12.7)*			.770 *(19.6)*				235 *(1.04)*		01663-00521
3/16" *(4.8)*	.062 *(1.6)*	.250 *(6.3)*	.193 *(4.9)*	.198 *(5.0)*	.550 *(13.9)*	.396 *(10.1)*	.071 *(1.8)*	.112 *(2.9)*	345 *(1.53)*	525 *(2.33)*	01663-00613
	.187 *(4.8)*	.437 *(11.1)*			.740 *(18.7)*				295 *(1.31)*		01663-00619
	.187 *(4.8)*	.500 *(12.7)*			.800 *(20.2)*				295 *(1.31)*		01663-00621
	.500 *(12.7)*	.781 *(19.8)*			1.110 *(28.2)*				320 *(1.42)*		01663-00631

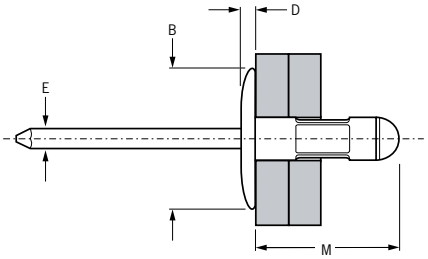
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

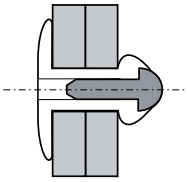
Avex® 1643 Series

Aluminum / Stainless Steel

English	Français	Deutsch	Italiano	Español
Large Flange	Tête large	Flachrundkopf extragroß	Testa larga	Cabeza ancha
Body: Aluminum alloy* (2.5 % Mg) Natural	Corps: Alliage d'aluminium* (2.5% Mg) Brut	Hülse: Aluminium* (2.5 % Mg) Blank	Corpo: Lega di alluminio* (2.5% Mg) Nessuna finitura	Cuerpo: Aluminio* (2.5% Mg) Natural
Stem: Stainless steel** Natural	Tige: Inox** Brut	Dorn: Edelstahl** Blank	Gambo: Acciaio inox** Nessuna finitura	Vástago: Acero inoxidable** Natural

*: AA 5052, DIN 1725, AlMg2.5, Werkstoff 3.3523
**: BS3111, 321S31, AISI 321, Werkstoff 1.4541





ø					M	øB	D	øE			Part No.
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf *(kN)*[1]	lbf *(kN)*[1]	
3/16" *(4.8)*	.062 *(1.6)*	.250 *(6.3)*	.193 *(4.9)*	.199 *(5.0)*	.534 *(13.6)*	.637 *(16.2)*	.084 *(2.2)*	.112 *(2.9)*	315 *(1.40)*	450 *(2.0)*	01643-00613
	.250 *(6.4)*	.500 *(12.7)*			.774 *(19.7)*				270 *(1.20)*		01643-00621
	.500 *(12.7)*	.781 *(19.8)*			1.086 *(27.6)*				292 *(1.30)*		01643-00631

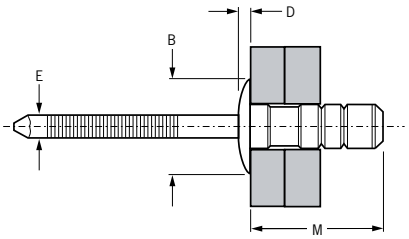
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

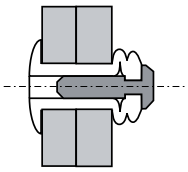
Stavex® BS01 Series

Steel / Steel

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Low carbon steel*	Corps: Acier bas carbone*	Hülse: Stahl*	Corpo: Acciaio a basso tenore di carbonio*	Cuerpo: Acero bajo en carbono*
Zinc plated	Revêtement zingué	Verzinkt	Zincato	Zincado
Stem: Low carbon steel**	Tige: Acier bas carbone**	Dorn: Stahl**	Gambo: Acciaio a basso tenore di carbonio**	Vástago: Acero bajo en carbono**
Zinc plated	Revêtement zingué	Verzinkt	Zincato	Zincado

*: BS3111 Type 0, SAE 1008, DIN 1654, QSt 34-3
**: BS3111 Type 0, SAE 1010/1015/1018/1022, DIN 17210, Cq10 / DIN 1654 Cq10/Cq15/Cq22





ø					M	øB	D	øE			Part No.
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf (kN) min.	lbf (kN) min.	
1/8" (3.2)	.039 (1.0)	.236 (6.0)	.129 (3.3)	.134 (3.4)	.570 (14.5)	.287 (7.3)	.037 (1.0)	.087 (2.2)	202 (0.90)	263 (1.17)	0BS01-00414
5/32" (4.0)	.079 (2.0)	.315 (8.0)	.161 (4.1)	.166 (4.2)	.630 (16.0)	.322 (8.2)	.052 (1.4)	.112 (2.9)	344 (1.53)	405 (1.80)	0BS01-00516
3/16" (4.8)	.060 (1.5)	.200 (5.1)	.192 (4.9)	.196 (5.0)	.480 (12.2)	.397 (10.1)	.061 (1.6)	.120 (3.1)	585 (2.60)	647 (2.88)	0BS01-00612
	.060 (1.5)	.250 (6.3)			.540 (13.8)						0BS01-00614
	.059 (1.5)	.354 (9.0)			.670 (17.1)						0BS01-00618
	.250 (6.3)	.500 (12.7)			.790 (20.1)						0BS01-00622
1/4" (6.4)	.060 (1.5)	.300 (7.6)	.261 (6.6)	.275 (6.9)	.660 (16.8)	.530 (13.5)	.105 (2.7)	.158 (4.0)	700 (3.11)	800 (3.56)	01610-04844[1)]

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

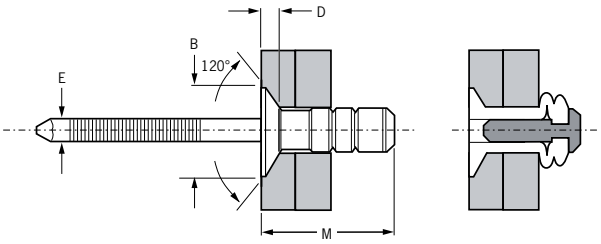
1) zinc plated, clear trivalent passivated / revêtement zingué, passivation claire trivalente / verzinkt, klar chromatiert Cr6-frei / zincato, passivazione chiara trivalente / zincado, pasivado claro trivalente

Stavex® BS04 Series

Steel / Steel

English	Français	Deutsch	Italiano	Español
120° Countersunk head	120° Tête fraisée	120° Senkkopf	120° Testa svasata	120° Cabeza avellanada
Body: Low carbon steel*	Corps: Acier bas carbone*	Hülse: Stahl*	Corpo: Acciaio a basso tenore di carbonio*	Cuerpo: Acero bajo en carbono*
Zinc plated	Revêtement zingué	Verzinkt	Zincato	Zincado
Stem: Low carbon steel**	Tige: Acier bas carbone**	Dorn: Stahl**	Gambo: Acciaio a basso tenore di carbonio**	Vástago: Acero bajo en carbono**
Zinc plated	Revêtement zingué	Verzinkt	Zincato	Zincado

*: BS3111 Type 0, SAE 1008, DIN 1654, QSt 34-3
**: BS3111 Type 0, SAE 1010/1015/1018/1022, DIN 17210, Cq10 / DIN 1654 Cq10/Cq15/Cq22



ø					M	øB	D	øE			Part No.
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf (kN) min.	lbf (kN) min.	
1/8" (3.2)	.039 (1.0)	.236 (6.00)	.129 (3.3)	.134 (3.4)	.551 (14.0)	.232 (5.9)	.039 (1.0)	.084 (2.2)	202 (0.90)	263 (1.17)	0BS04-00414
3/16" (4.8)	.093 (2.36)	.250 (6.35)	.192 (4.9)	.196 (5.0)	.540 (13.8)	.351 (8.9)	.055 (1.4)	.118 (3.0)	450 (2.00)	650 (2.89)	0BS04-00614
	.165 (4.19)	.250 (6.35)			.540 (13.8)						0BS04-C0614
	.093 (2.36)	.375 (9.52)			.670 (17.1)						0BS04-00618
	.250 (6.35)	.500 (12.70)			.790 (20.1)						0BS04-00622

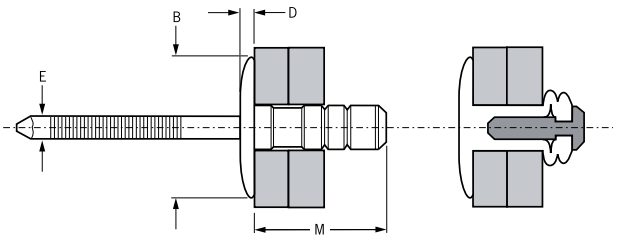
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

Stavex® BE34 Series

Steel / Steel

English	Français	Deutsch	Italiano	Español
Large Flange	Tête large	Flachrundkopf extragroß	Testa larga	Cabeza ancha
Body: Low carbon steel* Zinc plated	Corps: Acier bas carbone* Revêtement zingué	Hülse: Stahl* Verzinkt	Corpo: Acciaio a basso tenore di carbonio* Zincato	Cuerpo: Acero bajo en carbono* Zincado
Stem: Low carbon steel** Zinc plated	Tige: Acier bas carbone** Revêtement zingué	Dorn: Stahl** Verzinkt	Gambo: Acciaio a basso tenore di carbonio** Zincato	Vástago: Acero bajo en carbono** Zincado

*: BS3111 Type 0, SAE 1008, DIN 1654, QSt 34-3
**: BS3111 Type 0, SAE 1010/1015/1018/1022, DIN 17210, Cq10 / DIN 1654 Cq10/Cq15/Cq22



ø					M	øB	D	øE			Part No.
nom.	min.	max.	min.	max.	max.	max.	max.		lbf *(kN)* min.	lbf *(kN)* min.	
3/16" *(4.8)*	.060 *(1.50)*	.250 *(6.35)*	.192 *(4.9)*	.196 *(5.0)*	.540 *(13.8)*	.637 *(16.2)*	.081 *(2.1)*	.118 *(3.0)*	585 *(2.60)*	647 *(2.88)*	0BE34-00614
	.060 *(1.50)*	.354 *(9.00)*			.670 *(17.1)*						0BE34-00618
	.250 *(6.30)*	.500 *(12.70)*			.790 *(20.1)*						0BE34-00622

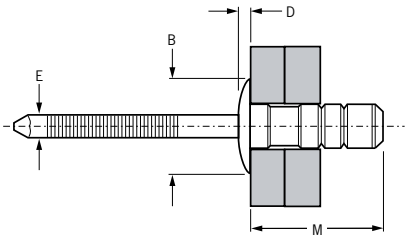
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

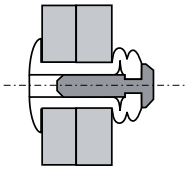
Stavex® BS11 Series

Stainless Steel / Stainless Steel

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Stainless steel* Polished	Corps: Inox* Poli	Hülse: Edelstahl* Blank	Corpo: Acciaio inox* Lucido	Cuerpo: Acero inoxidable* Pulido
Stem: Stainless steel** Natural	Tige: Inox** Brut	Dorn: Edelstahl** Unbehandelt	Gambo: Acciaio inox** Nessuna finitura	Vástago: Acero inoxidable** Natural

*: BS3111 394S17, Werkstoff 1.4567
**: BS3111 304S17, AISI 304, Werkstoff 1.4301 / BS3111 321S31, AISI 321, Werkstoff 1.4541





ø					M	øB	D	øE			Part No.
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf *(kN)* min.	lbf *(kN)* min.	
1/8" *(3.2)*	.039 *(1.0)*	.236 *(6.0)*	.129 *(3.3)*	.134 *(3.4)*	.570 *(14.5)*	.287 *(7.3)*	.037 *(1.0)*	.087 *(2.2)*	364 *(1.62)*	445 *(1.98)*	0BS11-00414
5/32" *(4.0)*	.079 *(2.0)*	.315 *(8.0)*	.161 *(4.1)*	.166 *(4.2)*	.630 *(16.0)*	.322 *(8.2)*	.052 *(1.4)*	.112 *(2.9)*	546 *(2.43)*	728 *(3.24)*	0BS11-00516
3/16" *(4.8)*	.059 *(1.5)*	.354 *(9.0)*	.192 *(4.9)*	.196 *(5.0)*	.670 *(17.1)*	.397 *(10.1)*	.061 *(1.6)*	.120 *(3.1)*	931 *(4.14)*	1012 *(4.50)*	0BS11-00618

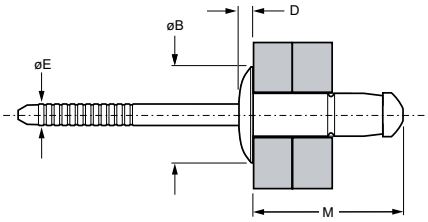
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

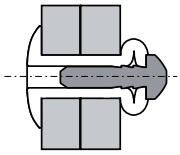
Avibulb® BN01 Series

Steel / Steel

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Low carbon steel* Zinc plated Clear trivalent passivated	Corps: Acier bas carbone* Revêtement zingué Passivation claire trivalente	Hülse: Stahl* Verzinkt Klar chromatiert, Cr6-frei	Corpo: Acciaio a basso tenore di carbonio* Zincato, Passivazione chiara trivalente	Cuerpo: Acero bajo en carbono* Zincado Pasivado claro trivalente
Stem: Medium carbon steel** Zinc plated Clear trivalent passivated	Tige: Acier au carbone** Revêtement zingué Passivation claire trivalente	Dorn: Stahl** Verzinkt Klar chromatiert, Cr6-frei	Gambo: Acciaio a medio tenore di carbonio** Zincato, Passivazione chiara trivalente	Vástago: Acero medio en carbono** Zincado Pasivado claro trivalente

*: BS3111 Type 0, SAE 1008, DIN 1654, QSt 34-3 / BS3111 Type 0, SAE 1015 DIN 1711, RSt 38-2, Werkstoff 1.0401
**: BS3111 Type 1, SAE 1030/1037/1040/1045, Werkstoff 1.1178/1.1176/1.1186/1.1191





ø nom.	min.	max.	min.	max.	M max.	øB max.	D max.	øE max.	lbf (kN)[1)2)]	lbf (kN)[1)]	Part No.
1/8" (3.2)	.039 (1.0)	.118 (3.0)	.130 (3.3)	.134 (3.4)	.358 (9.1)	.268 (6.8)	.055 (1.4)	.080 (2.0)	270 (1.20)	292 (1.30)	0BN01-00408
	.118 (3.0)	.197 (5.0)			.461 (11.7)				393 (1.75)		0BN01-00411
	.197 (5.0)	.276 (7.0)			.551 (14.0)				562 (2.50)		0BN01-00414
5/32" (4.0)	.039 (1.0)	.118 (3.0)	.161 (4.1)	.169 (4.3)	.409 (10.4)	.315 (8.0)	.059 (1.4)	.103 (2.6)	539 (2.40)	629 (2.80)	0BN01-00509
	.118 (3.0)	.197 (5.0)			.508 (12.9)				787 (3.50)		0BN01-00512
	.197 (5.0)	.276 (7.0)			.618 (15.7)				921 (4.10)		0BN01-00516
	.275 (7.0)	.354 (9.0)			.713 (18.1)				740 (3.30)	562 (2.50)	0BN01-00519
3/16" (4.8)	.059 (1.5)	.138 (3.5)	.193 (4.9)	.201 (5.1)	.476 (12.1)	.378 (9.6)	.059 (1.5)	.126 (3.2)	809 (3.60)	854 (3.80)	0BN01-00611
	.138 (3.5)	.236 (6.0)			.579 (14.7)				944 (4.20)		0BN01-00614
	.236 (6.0)	.335 (8.5)			.693 (17.6)				1258 (5.60)		0BN01-00618
.236" (6.0)	.059 (1.5)	.157 (4.0)	.240 (6.1)	.248 (6.3)	.551 (14.0)	.484 (12.3)	.083 (2.1)	.158 (4.0)	944 (4.20)	1213 (5.40)	0BN01-06010
	.118 (3.0)	.236 (6.0)			.669 (17.0)				1213 (5.40)		0BN01-06013
	.236 (6.0)	.354 (9.0)			.787 (20.0)				1910 (8.50)		0BN01-06016
	.354 (9.0)	.472 (12.0)			.906 (23.0)				1910 (8.50)		0BN01-06019

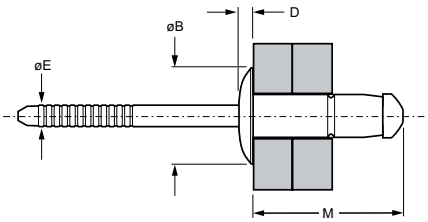
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos
2) through stem / avec tige / bei tragendem Restdorn / attraverso il gambo / con el vástago en la zona de cortadura

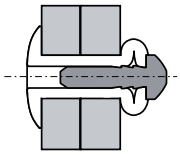
Avinox® BE61 Series

Stainless Steel / Stainless Steel

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Stainless steel* Polished	Corps: Inox* Poli	Hülse: Edelstahl* Blank	Corpo: Acciaio inox* Lucido	Cuerpo: Acero inoxidable* Pulido
Stem: Stainless steel** Natural	Tige: Inox** Brut	Dorn: Edelstahl** Unbehandelt	Gambo: Acciaio inox** Nessuna finitura	Vástago: Acero inoxidable** Natural

*: BS 3111 394S17, Werkstoff 1.4567
**: BS 3111 321S31, AISI 321, Werkstoff 1.4541 / AISI 304, Werkstoff 1.4301





ø nom.	min.	max.	min.	max.	M max.	øB max.	D max.	øE max.	lbf (kN)[1) 2)]	lbf (kN)[1)]	Part No.
1/8" (3.2)	.039 (1.0)	.118 (3.0)	.130 (3.3)	.134 (3.4)	.360 (9.0)	.260 (6.6)	.043 (1.1)	.083 (2.1)	360 (1.60)	450 (2.00)	0BE61-00408
	.118 (3.0)	.197 (5.0)			.460 (11.5)				382 (1.70)		0BE61-00411
	.197 (5.0)	.276 (7.0)			.560 (14.1)				719 (3.20)		0BE61-00414
5/32" (4.0)	.039 (1.0)	.118 (3.0)	.161 (4.1)	.169 (4.3)	.410 (10.3)	.315 (8.0)	.059 (1.5)	.102 (2.6)	629 (2.80)	899 (4.00)	0BE61-00509
	.118 (3.0)	.197 (5.0)			.510 (12.9)				1169 (5.20)		0BE61-00512
	.197 (5.0)	.276 (7.0)			.620 (15.6)				1169 (5.20)		0BE61-00516
3/16" (4.8)	.059 (1.5)	.138 (3.5)	.193 (4.9)	.201 (5.1)	.510 (12.8)	.378 (9.6)	.059 (1.5)	.126 (3.2)	1236 (5.50)	1124 (5.00)	0BE61-00611
	.138 (3.5)	.236 (6.0)			.610 (15.4)						0BE61-00614
	.236 (6.0)	.335 (8.5)			.730 (18.4)						0BE61-00618
	.276 (7.0)	.394 (10.0)			.780 (19.9)						0BE61-00619

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

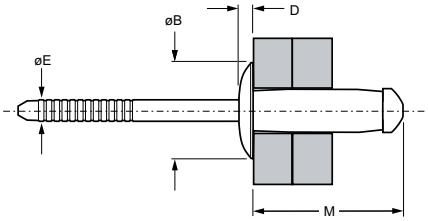
2) includes stem in shear plane, where applicable / Avec présence de la tige dans le plan de cisaillement / mit Restdorn in Scherebene, wo zutreffend / Include il gambo nel taglio piano, dove applicabile / Cuando esté incluido el vástago en la zona de cortadura

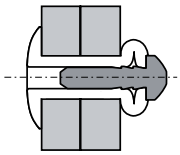
Avibulb® XT BN01 Series

Steel / Steel

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Low carbon steel* Zinc plated Clear trivalent passivated	Corps: Acier bas carbone* Revêtement zingué Passivation claire trivalente	Hülse: Stahl* Verzinkt Klar chromatiert, Cr6-frei	Corpo: Acciaio a basso tenore di carbonio* Zincato, Passivazione chiara trivalente	Cuerpo: Acero bajo en carbono* Zincado, Pasivado claro trivalente
Stem: Medium carbon steel** Zinc plated Clear trivalent passivated	Tige: Acier au carbone** Revêtement zingué Passivation claire trivalente	Dorn: Stahl** Verzinkt Klar chromatiert, Cr6-frei	Gambo: Acciaio a medio tenore di carbonio** Zincato, Passivazione chiara trivalente	Vástago: Acero medio en carbono** Zincado, Pasivado claro trivalente

*: C15C, Werkstoff 1.0234, EN 10263-2
**: C45RC, Werkstoff 1.1061, EN 10263-4





ø nom.	min.	max.	min.	max.	M max.	øB max.	D max.	øE max.	lbf (kN)[1)2)]	lbf (kN)[1)]	Part No.
1/4" (6.4)	.059 (1.5)	.217 (5.5)	.260 (6.6)	.276 (7.0)	.681 (17.3)	.528 (13.4)	.122 (3.1)	.192 (4.87)	2495 (11.10)	1528 (6.80)	0BN01-00816
	.197 (5.0)	.354 (9.0)			.839 (21.3)						0BN01-00820

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values with test method according to ISO 14589 (2000) / Valeurs moyennes obtenues selon la méthode de test de la norme ISO 14589 (2000) / typische Werte ermittelt nach Testmethode ISO 14589 (2000) / valori tipici con il metodo di prova secondo la normativa ISO 14589 (2000) / valores típicos según ensayos ISO 14589 (2000)

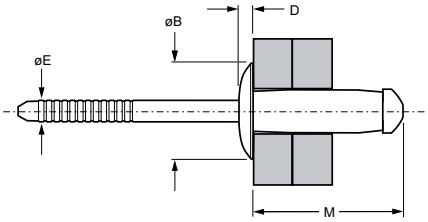
2) through stem / avec tige / bei tragendem Restdorn / attraverso il gambo / con el vástago en la zona de cortadura

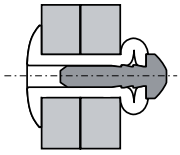
Avinox® XT BE61 Series

Stainless Steel / Stainless Steel

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Stainless steel* Bright	Corps: Inox* Poli	Hülse: Edelstahl* Blank	Corpo: Acciaio inox* Lucido	Cuerpo: Acero inoxidable* Pulido
Stem: Stainless steel** Natural	Tige: Inox** Brut	Dorn: Edelstahl** Unbehandelt	Gambo: Acciaio inox** Nessuna finitura	Vástago: Acero inoxidable** Natural

*: BS 3111 394S17, BS 3111 321S31, Werkstoff 1.4567
**: AISI 321, AISI 304, Werkstoff 1.4541, Werkstoff 1.4301





ø					M	øB	D	øE			Part No.
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf *(kN)*[1) 2)]	lbf *(kN)*[1)]	
1/4" *(6.4)*	.059 *(1.5)*	.217 *(5.5)*	.260 *(6.6)*	.276 *(7.0)*	.661 *(16.8)*	.528 *(13.4)*	.122 *(3.1)*	.194 *(4.93)*	3215 *(14.30)*	1799 *(8.00)*	0BE61-00815
	.197 *(5.0)*	.354 *(9.0)*			.819 *(20.8)*						0BE61-00819

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

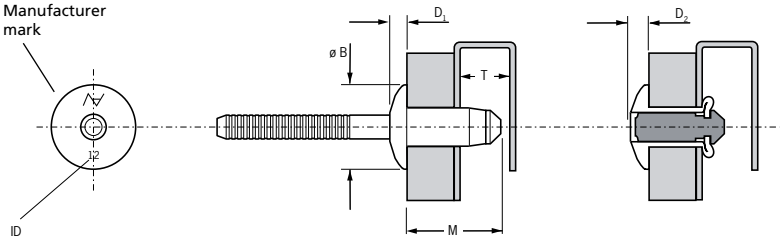
1) typical values with test method according to ISO 14589 (2000) / Valeurs moyennes obtenues selon la méthode de test de la norme ISO 14589 (2000) / typische Werte ermittelt nach Testmethode ISO 14589 (2000) / valori tipici con il metodo di prova secondo la normativa ISO 14589 (2000) / valores típicos según ensayos ISO 14589 (2000)

2) includes stem in shear plane, where applicable / Avec présence de la tige dans le plan de cisaillement / mit Restdorn in Scherebene, wo zutreffend / Include il gambo nel taglio piano, dove applicabile / Cuando esté incluido el vástago en la zona de cortadura

Hemlok® 2221 Series

Steel / Steel

English	Français	Deutsch	Italiano	Español
Protruding head	Tête bombée	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Medium carbon steel Zinc plated Clear trivalent passivated	Corps: Acier moyen carbone Zingué, Passivation claire trivalente	Hülse: Stahl Verzinkt Klar passiviert, Cr6-frei	Corpo: Acciaio a medio tenore di carbonio Zincato, Passivazione chiara trivalente	Cuerpo: Acero medio en carbono Zincado Pasivado claro trivalente
Stem: Medium carbon steel Zinc plated Clear trivalent passivated	Tige: Acier moyen carbone Zingué, Passivation claire trivalente	Dorn: Stahl Verzinkt Klar chromatiert, Cr6-frei	Gambo: Acciaio a medio tenore di carbonio Zincato, Passivazione chiara trivalente	Vástago: Acero medio en carbono Zincado Pasivado claro trivalente



ø nom.	min.	max.	min.	max.	ID	M max.	øB max.	D_1 max.	T min.	D_2 max.	lbf (kN) min.	lbf (kN) min.	Part No.
1/4" (6.4)	.060 (1.50)	.138 (3.50)	.264 (6.7)	.272 (6.9)	12	.539 (13.7)	.527 (13.4)	.105 (2.7)	.480 (12.2)	.134 (3.4)	2360 (10.5)	1978 (8.8)	02221-00812
	.110 (2.80)	.189 (4.80)			13	.590 (15.0)					2698 (12.0)		02221-00813
	.132 (3.35)	.211 (5.35)			14	.612 (15.6)					2810 (12.5)		02221-00814
	.189 (4.80)	.268 (6.80)			15	.669 (17.0)					2810 (12.5)		02221-00815
	.268 (6.80)	.346 (8.80)			17	.747 (19.0)					3147 (14.0)		02221-00817
	.295 (7.50)	.374 (9.50)			18	.775 (19.7)					3372 (15.0)		02221-00818
	.346 (8.80)	.425 (10.80)			19	.826 (21.0)					3597 (16.0)		02221-00819
	.425 (10.80)	.504 (12.80)			21	.905 (23.0)					3597 (16.0)		02221-00821

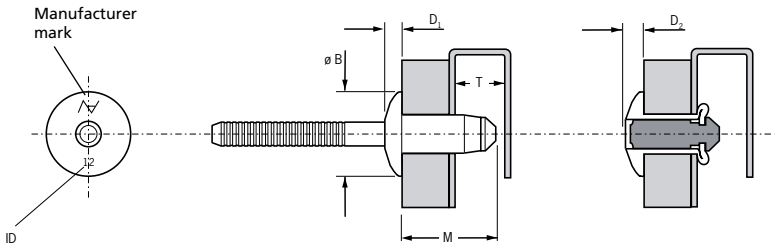
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

Hemlok® 2241 Series

Aluminum / Aluminum

English	Français	Deutsch	Italiano	Español
Protruding head	Tête bombée	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Aluminum alloy* (2.5 % Mg) Natural	Corps: Alliage d'aluminium* (2.5% Mg) Brut	Hülse: Aluminium* (2.5 % Mg) Blank	Corpo: Lega di alluminio* (2.5% Mg) Nessuna finitura	Cuerpo: Aluminio* (2.5% Mg) Natural
Stem: Aluminum alloy** Natural	Tige: Alliage d'aluminium** Brut	Dorn: Aluminium** Blank	Gambo: Lega di alluminio** Nessuna finitura	Vástago: Aluminio** Natural

*: EN AW-5052, AlMg2.5
**: EN AW-7075 AlZn5.5MgCu



ø nom.	min.	max.	min.	max.	ID	M max.	øB max.	D_1 max.	T min.	D_2 max.	lbf (kN) min.	lbf (kN) min.	Part No.
1/4" (6.4)	.060 (1.50)	.138 (3.50)	.264 (6.7)	.272 (6.9)	12	.539 (13.7)	.527 (13.4)	.105 (2.7)	.480 (12.2)	.134 (3.4)	1124 (5.0)	600 (2.67)	02241-00812
	.110 (2.80)	.189 (4.80)			13	.590 (15.0)					1349 (6.0)		02241-00813
	.132 (3.35)	.211 (5.35)			14	.612 (15.6)					1394 (6.2)		02241-00814
	.189 (4.80)	.268 (6.80)			15	.669 (17.0)					1460 (6.5)		02241-00815
	.268 (6.80)	.346 (8.80)			17	.747 (19.0)					1574 (7.0)		02241-00817
	.346 (8.80)	.425 (10.80)			19	.826 (21.0)					1574 (7.0)		02241-00819
	.425 (10.80)	.504 (12.80)			21	.905 (23.0)					1574 (7.0)		02241-00821

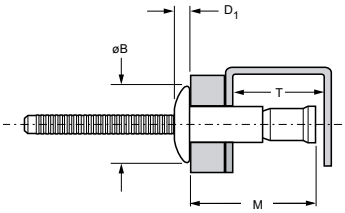
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

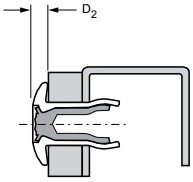
Monobolt® 2774 (BAPV) Series

Aluminum / Aluminum

English	Français	Deutsch	Italiano	Español
Protruding head	Tête bombée	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Aluminum alloy* (5 % Mg) Polished	Corps: Alliage d'aluminium* (5% Mg) Poli	Hülse: Aluminium* (5 % Mg) Poliert	Corpo: Lega di alluminio* (5% Mg) Lucido	Cuerpo: Aluminio* (5% Mg) Pulido
Stem: Aluminum alloy** Natural	Tige: Alliage d'aluminium** Brut	Dorn: Aluminium** Unbehandelt	Gambo: Lega di alluminio** Nessuna finitura	Vástago: Aluminio** Natural

*: BS 1473 5056A DIN 1725 AlMg5 Werkstoff 3.3555
**: BS 1473 2014A DIN 1725 AlCuSiMn Werkstoff 3.1255





ø					M	øB	D_1	T	D_2			Part No.
nom.	min.	max.	min.	max.	max.	max.	max.	min.	max.	lbf *(kN)*[1]	lbf *(kN)*[1]	
3/16" *(4.8)*	.064 *(1.63)*	.270 *(6.86)*	.193 *(4.9)*	.200 *(5.1)*	.721 *(18.4)*	.395 *(10.1)*	.083 *(2.1)*	.410 *(10.5)*	.073 *(1.9)*	675 *(3.00)*	500 *(2.22)*	02774-00613 (BAPV-06-04)
	.064 *(1.63)*	.437 *(11.10)*			.946 *(24.1)*			.510 *(13.0)*				02774-00617 (BAPV-E06-07)
1/4" *(6.4)*	.080 *(2.03)*	.375 *(9.53)*	.260 *(6.6)*	.275 *(7.0)*	.965 *(24.6)*	.525 *(13.4)*	.114 *(2.9)*	.510 *(13.0)*	.104 *(2.7)*	1350 *(6.00)*	950 *(4.22)*	02774-00817 (BAPV-08-06)
	.080 *(2.03)*	.625 *(15.87)*			1.366 *(34.7)*			.710 *(18.1)*				02774-00824 (BAPV-E08-10)
3/8" *(10.0)*	.120 *(3.04)*	.625 *(15.87)*	.392 *(9.95)*	.409 *(10.4)*	1.425 *(36.2)*	.798 *(20.3)*	.160 *(4.1)*	.875 *(22.3)*	.156 *(4.0)*	2840 *(12.63)*	2092 *(9.30)*	02774-01228

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

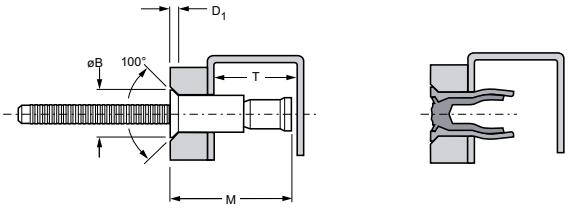
Note:
External stem locking feature requires special nose piece. / Le verrouillage extérieur de la tige nécessite d'un nez spécial. / Die Restdornverriegelung erfordert ein spezielles Mundstück. / Funzione di bloccaggio esterno del gambo richiede particolare nasello. / El bloqueo mecánico del vástago requiere de una boquilla especial.

Monobolt® 2764 (BACV) Series

Aluminum / Aluminum

English	Français	Deutsch	Italiano	Español
Countersunk head	Tête fraisée	Senkkopf	Testa svasata	Cabeza avellanada
Body: Aluminum alloy* (5 % Mg) Polished	Corps: Alliage d'aluminium* (5% Mg) Poli	Hülse: Aluminium* (5 % Mg) Poliert	Corpo: Lega di alluminio* (5% Mg) Lucido	Cuerpo: Aluminio* (5% Mg) Pulido
Stem: Aluminum alloy** Natural	Tige: Alliage d'aluminium** Brut	Dorn: Aluminium** Unbehandelt	Gambo: Lega di alluminio** Nessuna finitura	Vástago: Aluminio** Natural

*: BS 1473 5056A DIN 1725 AlMg5 Werkstoff 3.3555
**: BS 1473 2014A DIN 1725 AlCuSiMn Werkstoff 3.1255



ø					M	øB	D_1	T			Part No.
nom.	min.	max.	min.	max.	max.	min.	max.	min.	lbf *(kN)*[1]	lbf *(kN)*[1]	
3/16" *(4.8)*	.125 *(3.17)*	.331 *(8.41)*	.195 *(4.9)*	.201 *(5.1)*	.786 *(20.0)*	.325 *(8.3)*	.084 *(2.2)*	.410 *(10.5)*	650 *(2.89)*	475 *(2.11)*	02764-00615 (BACV-06-06)
	.125 *(3.17)*	.481 *(12.22)*			1.032 *(26.3)*			.530 *(13.5)*			02764-00619 (BACV-E06-08)
1/4" *(6.4)*	.125 *(3.17)*	.475 *(12.07)*	.260 *(6.6)*	.276 *(7.0)*	1.069 *(27.2)*	.395 *(10.1)*	.093 *(2.4)*	.510 *(13.0)*	1350 *(6.00)*	950 *(4.22)*	02764-00821 (BACV-08-08)

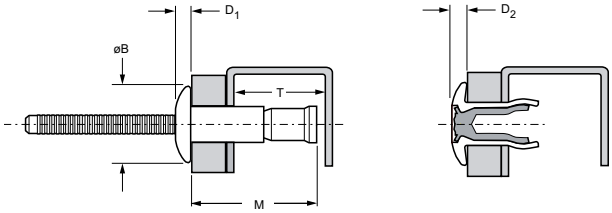
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Note:
External stem locking feature requires special nose piece. / Le verrouillage extérieur de la tige nécessite d'un nez spécial. / Die Restdornverriegelung erfordert ein spezielles Mundstück. / Funzione di bloccaggio esterno del gambo richiede particolare nasello. / El bloqueo mecánico del vástago requiere de una boquilla especial.

Monobolt® 2771 (SSPV) Series

Steel / Steel

English	Français	Deutsch	Italiano	Español
Protruding head	Tête bombée	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Steel Zinc plated Clear trivalent passivated	Corps: Acier Revêtement zingué Passivation claire trivalente	Hülse: Stahl Verzinkt Klar chromatiert, Cr6-frei	Corpo: Acciaio Zincato Passivazione chiara trivalente	Cuerpo: Acero Zincado Pasivado claro trivalente
Stem: Carbon boron steel Zinc plated Clear trivalent passivated	Tige: Acier Revêtement zingué Passivation claire trivalente	Dorn: Stahl Verzinkt Klar chromatiert, Cr6-frei	Gambo: Acciaio Zincato Passivazione chiara trivalente	Vástago: Acero Zincado Pasivado claro trivalente



ø					M	øB	D_1	T	D_2			Part No.
nom.	min.	max.	min.	max.	max.	max.	max.	min.	max.	lbf *(kN)*[1]	lbf *(kN)*[1]	
3/16" *(4.8)*	.064 *(1.63)*	.270 *(6.86)*	.193 *(4.9)*	.201 *(5.1)*	.716 *(18.2)*	.395 *(10.1)*	.083 *(2.1)*	.410 *(10.5)*	.073 *(1.9)*	1450 *(6.44)*	1150 *(5.11)*	02771-00613 (SSPV-06-04)
	.064 *(1.63)*	.437 *(11.10)*			.962 *(24.5)*			.530 *(13.5)*				02771-00617 (SSPV-E06-07)
1/4" *(6.4)*	.080 *(2.03)*	.375 *(9.53)*	.260 *(6.6)*	.275 *(7.0)*	.933 *(23.7)*	.525 *(13.4)*	.114 *(2.9)*	.480 *(12.2)*	.104 *(2.7)*	2650 *(11.78)*	2350 *(10.45)*	02771-00817 (SSPV-08-06)
	.080 *(2.03)*	.625 *(15.87)*			1.296 *(33.0)*			.645 *(16.4)*				02771-00824 (SSPV-E08-10)
3/8" *(10.0)*	.120 *(3.04)*	.625 *(15.87)*	.392 *(9.95)*	.409 *(10.4)*	1.425 *(36.2)*	.798 *(20.3)*	.160 *(4.1)*	.875 *(22.3)*	.156 *(4.0)*	5940 *(26.37)*	3709 *(16.50)*	02771-01228[2]

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

2) Deutsches Institut für Bautechnik (DIBt, German Authority in Civil Engineering) Approval No. Z-14.1-4 Attachment 2-24

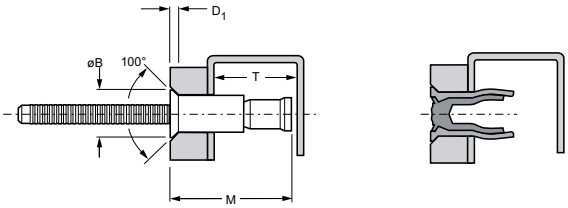
Note:

External stem locking feature requires special nose piece. / Le verrouillage extérieur de la tige nécessite d'un nez spécial. / Die Restdornverriegelung erfordert ein spezielles Mundstück. / Funzione di bloccaggio esterno del gambo richiede particolare nasello. / El bloqueo mecánico del vástago requiere de una boquilla especial.

Monobolt® 2761 (SSCV) Series

Steel / Steel

English	Français	Deutsch	Italiano	Español
Countersunk head	Tête fraisée	Senkkopf	Testa svasata	Cabeza avellanada
Body: Steel Zinc plated Clear trivalent passivated	Corps: Acier Revêtement zingué Passivation claire trivalente	Hülse: Stahl Verzinkt Klar chromatiert, Cr6-frei	Corpo: Acciaio Zincato Passivazione chiara trivalente	Cuerpo: Acero Zincado Pasivado claro trivalente
Stem: Carbon boron steel Zinc plated Clear trivalent passivated	Tige: Acier Revêtement zingué Passivation claire trivalente	Dorn: Stahl Verzinkt Klar chromatiert, Cr6-frei	Gambo: Acciaio Zincato Passivazione chiara trivalente	Vástago: Acero Zincado Pasivado claro trivalente



ø					M	øB	D_1	T			Part No.
nom.	min.	max.	min.	max.	max.	min.	max.	min.	lbf *(kN)*[1]	lbf *(kN)*[1]	
3/16" *(4.8)*	.125 *(3.17)*	.331 *(8.41)*	.195 *(4.9)*	.201 *(5.1)*	.786 *(20.0)*	.325 *(8.3)*	.084 *(2.2)*	.410 *(10.5)*	1450 *(6.44)*	1150 *(5.11)*	02761-00615 (SSCV-06-06)
	.125 *(3.17)*	.481 *(12.22)*			1.032 *(26.3)*			.530 *(13.5)*			02761-00619 (SSCV-E06-08)
1/4" *(6.4)*	.125 *(3.17)*	.475 *(12.07)*	.260 *(6.6)*	.276 *(7.0)*	1.037 *(26.4)*	.395 *(10.1)*	.093 *(2.4)*	.480 *(12.2)*	2650 *(11.78)*	2350 *(10.45)*	02761-00821 (SSCV-08-08)

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Note:

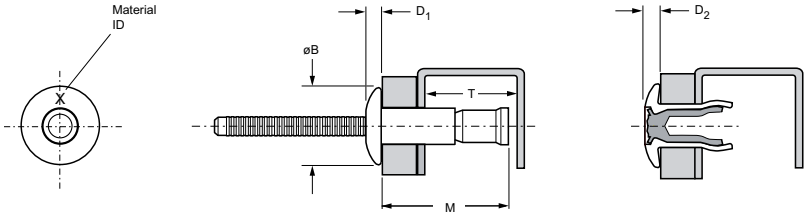
External stem locking feature requires special nose piece. / Le verrouillage extérieur de la tige nécessite d'un nez spécial. / Die Restdornverriegelung erfordert ein spezielles Mundstück. / Funzione di bloccaggio esterno del gambo richiede particolare nasello. / El bloqueo mecánico del vástago requiere de una boquilla especial.

Monobolt® 2711 (CCPV) Series

Stainless Steel / Stainless Steel

English	Français	Deutsch	Italiano	Español
Protruding head	Tête bombée	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Stainless steel* Natural	Corps: Inox* Brut	Hülse: Edelstahl* Unbehandelt	Corpo: Acciaio inox* Nessuna finitura	Cuerpo: Acero inoxidable* Natural
Stem: Stainless steel* Natural	Tige: Inox* Brut	Dorn: Edelstahl* Unbehandelt	Gambo: Acciaio inox* Nessuna finitura	Vástago: Acero inoxidable* Natural

*: AISI 304



ø					M	øB	D_1	T	D_2			Part No.
nom.	min.	max.	min.	max.	max.	max.	max.	min.	max.	lbf *(kN)*[1]	lbf *(kN)*[1]	
3/16" *(4.8)*	.064 *(1.63)*	.270 *(6.86)*	.193 *(4.9)*	.201 *(5.1)*	.716 *(18.2)*	.395 *(10.1)*	.083 *(2.1)*	.410 *(10.5)*	.073 *(1.9)*	1450 *(6.44)*	1150 *(5.11)*	02711-00613[2] (CCPV-06-04)
	.064 *(1.63)*	.437 *(11.10)*			.962 *(24.5)*			.530 *(13.5)*				02711-00617[2] (CCPV-E06-07)
1/4" *(6.4)*	.080 *(2.03)*	.375 *(9.53)*	.260 *(6.6)*	.276 *(7.0)*	.933 *(23.7)*	.525 *(13.4)*	.114 *(2.9)*	.480 *(12.2)*	.104 *(2.7)*	2650 *(11.78)*	2350 *(10.45)*	02711-00817[2] (CCPV-08-06)
	.080 *(2.03)*	.625 *(15.87)*			1.296 *(33.0)*			.645 *(16.4)*				02711-00824[2] (CCPV-E08-10)
3/8" *(10.0)*	.120 *(3.04)*	.625 *(15.87)*	.392 *(9.95)*	.409 *(10.4)*	1.425 *(36.2)*	.798 *(20.3)*	.160 *(4.1)*	.875 *(22.3)*	.156 *(4.0)*	5863 *(26.08)*	4361 *(19.40)*	02711-01228

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

2) also available in 316 grade/A4 / aussi disponible dans Grade 316/A4 / auch in 316 grade/A4 erhältlich / anche disponibile in 316 grade/A4 / también disponible en 316 grade/A4

Note:

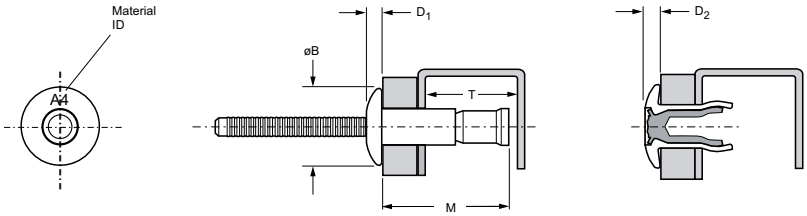
External stem locking feature requires special nose piece. / Le verrouillage extérieur de la tige nécessite d'un nez spécial. / Die Restdornverriegelung erfordert ein spezielles Mundstück. / Funzione di bloccaggio esterno del gambo richiede particolare nasello. / El bloqueo mecánico del vástago requiere de una boquilla especial.

Monobolt® 2717 Series

Stainless Steel A4 / Stainless Steel A4

English	Français	Deutsch	Italiano	Español
Protruding head	Tête bombée	Flachrundkopf	Testa tonda	Cabeza alomada
Body: A4 stainless steel* Natural	Corps: A4 Inox* Brut	Hülse: A4 Edelstahl* Unbehandelt	Corpo: A4 Acciaio inox* Nessuna finitura	Cuerpo: A4 Acero inoxidable* Natural
Stem: A4 stainless steel* Natural	Tige: A4 Inox* Brut	Dorn: A4 Edelstahl* Unbehandelt	Gambo: A4 Acciaio inox* Nessuna finitura	Vástago: A4 Acero inoxidable* Natural

*: 316 Grade



ø					M	øB	D_1	T	D_2			Part No.
nom.	min.	max.	min.	max.	max.	max.	max.	min.	max.	lbf *(kN)*[1]	lbf *(kN)*[1]	
3/16" *(4.8)*	.064 *(1.63)*	.270 *(6.86)*	.193 *(4.9)*	.201 *(5.1)*	.716 *(18.2)*	.395 *(10.1)*	.083 *(2.1)*	.410 *(10.5)*	.073 *(1.9)*	1450 *(6.45)*	1150 *(5.11)*	02717-00613
	.064 *(1.63)*	.437 *(11.10)*			.962 *(24.5)*			.530 *(13.5)*				02717-00617
1/4" *(6.4)*	.080 *(2.03)*	.375 *(9.53)*	.260 *(6.6)*	.276 *(7.0)*	.933 *(23.7)*	.525 *(13.4)*	.114 *(2.9)*	.480 *(12.2)*	.104 *(2.7)*	2968 *(13.20)*	2350 *(10.45)*	02717-00817
	.080 *(2.03)*	.625 *(15.87)*			1.296 *(33.0)*			.645 *(16.4)*				02717-00824

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

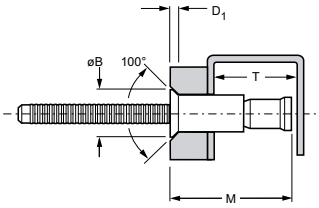
Note:

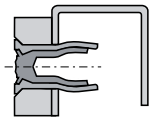
External stem locking feature requires special nose piece. / Le verrouillage extérieur de la tige nécessite d'un nez spécial. / Die Restdornverriegelung erfordert ein spezielles Mundstück. / Funzione di bloccaggio esterno del gambo richiede particolare nasello. / El bloqueo mecánico del vástago requiere de una boquilla especial.

Monobolt® 2721 Series

Stainless Steel / Stainless Steel

English	Français	Deutsch	Italiano	Español
Countersunk head	Tête fraisée	Senkkopf	Testa svasata	Cabeza avellanada
Body: Austenitic stainless steel* Bright	Corps: Inox austénitique* Poli	Hülse: Edelstahl* Blank	Corpo: Acciaio inox austenitico* Lucido	Cuerpo: Acero inoxidable austenítico* Pulido
Stem: Austenitic stainless steel* Natural	Tige: Inox austénitique* Brut	Dorn: Edelstahl* Unbehandelt	Gambo: Acciaio inox austenitico* Nessuna finitura	Vástago: Acero inoxidable austenítico* Natural
*: AISI 304, modified by addition of 3 - 4 % copper				





ø					M	øB	D_1	T			Part No.
nom.	min.	max.	min.	max.	max.	min.	max.	min.	lbf *(kN)*[1]	lbf *(kN)*[1]	
3/16" *(4.8)*	.125 *(3.17)*	.331 *(8.41)*	.195 *(4.9)*	.201 *(5.1)*	.786 *(20.0)*	.325 *(8.25)*	.084 *(2.2)*	.410 *(10.41)*	1450 *(6.44)*	1150 *(5.11)*	02721-00615
1/4" *(6.4)*	.125 *(3.17)*	.475 *(12.07)*	.260 *(6.6)*	.276 *(7.0)*	1.037 *(26.4)*	.395 *(10.03)*	.093 *(2.4)*	.480 *(12.19)*	2650 *(11.78)*	2350 *(10.45)*	02721-00821

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Note:

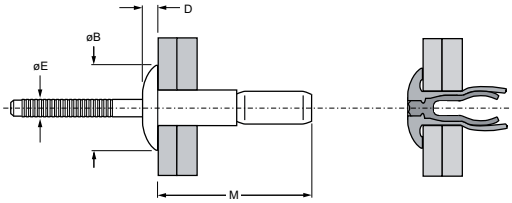
External stem locking feature requires special nose piece. / Le verrouillage extérieur de la tige nécessite d'un nez spécial. / Die Restdornverriegelung erfordert ein spezielles Mundstück. / Funzione di bloccaggio esterno del gambo richiede particolare nasello. / El bloqueo mecánico del vástago requiere de una boquilla especial.

Interlock® BAPI Series

Aluminum / Aluminum

English	Français	Deutsch	Italiano	Español
Protruding head	Tête bombée	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Aluminum alloy* (5 % Mg) Natural	Corps: Alliage d'aluminium* (5% Mg) Brut	Hülse: Aluminium* (5 % Mg) Blank	Corpo: Lega di alluminio* (5% Mg) Nessuna finitura	Cuerpo: Aluminio* (5% Mg) Natural
Stem: Aluminum alloy** Natural	Tige: Alliage d'aluminium** Brut	Dorn: Aluminium** Blank	Gambo: Lega di alluminio** Nessuna finitura	Vástago: Aluminio** Natural

*: BS 1473 5056 DIN 1725 AlMg5 Werkstoff 3.3555
**: 7178



ø					M	øB	D	øE	lbf (kN)		lbf (kN)		Part No.
nom.	min.	max.	min.	max.	max.	max.	max.	max.	min.	typ.[1]	min.	typ.[1]	
3/16" (4.8)	.062 (1.57)	.270 (6.86)	.194 (4.93)	.204 (5.18)	.842 (21.39)	.400 (10.16)	.090 (2.29)	.122 (3.10)	600 (2.66)	750 (3.34)	450 (2.00)	500 (2.22)	BAPI-06-04
	.214 (5.44)	.437 (11.10)			.875 (22.23)								BAPI-06-07
	.062 (1.57)	.437 (11.10)			.975 (24.77)								BAPI-E06-07
	.375 (9.53)	.625 (15.88)			1.090 (27.69)								BAPI-06-10
1/4" (6.4)	.080 (2.03)	.375 (9.53)	.261 (6.63)	.276 (7.01)	1.181 (30.00)	.530 (13.46)	.117 (2.97)	.162 (4.11)	1300 (5.78)	1400 (6.23)	830 (3.69)	900 (4.00)	BAPI-08-06
	.350 (8.89)	.625 (15.88)			1.300 (33.02)								BAPI-08-10
	.080 (2.03)	.625 (15.88)			1.400 (35.56)								BAPI-E08-10

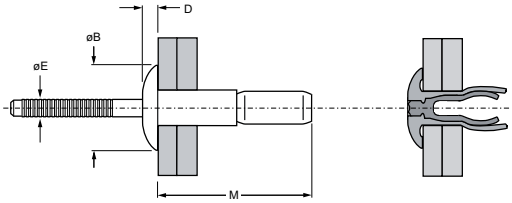
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Interlock® SSPI Series

Steel / Steel

English	Français	Deutsch	Italiano	Español
Protruding head	Tête bombée	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Steel* Zinc plated	Corps: Acier* Revêtement zingué	Hülse: Stahl* verzinkt	Corpo: Acciaio* Zincati	Cuerpo: Acero* Zincado
Stem: Steel* Zinc plated Clear trivalent chromated	Tige: Acier* Revêtement zingué Passivation claire trivalente	Dorn: Stahl* verzinkt Klar chromatiert, Cr6-frei	Gambo: Acciaio* Zincati Passivazione chiara trivalente	Vástago: Acero* Zincado Passivado claro trivalente

*: BS 3111 Type 1 SAE 1038



ø					M	øB	D	øE	lbf (kN)		lbf (kN)		Part No.
nom.	min.	max.	min.	max.	max.	max.	max.	max.	min.	typ.[1]	min.	typ.[1]	
3/16" (4.8)	.062 (1.57)	.270 (6.86)	.194 (4.93)	.204 (5.18)	.716 (18.19)	.400 (10.16)	.090 (2.29)	.122 (3.10)	1300 (5.78)	1850 (8.23)	1000 (4.44)	1050 (4.67)	SSPI-06-04
	.214 (5.44)	.437 (11.10)			1.003 (25.48)								SSPI-06-07
	.062 (1.57)	.437 (11.10)			1.003 (25.48)								SSPI-E06-07
	.375 (9.53)	.625 (15.88)			1.090 (27.69)								SSPI-06-10
1/4" (6.4)	.080 (2.03)	.375 (9.53)	.261 (6.63)	.276 (7.01)	1.181 (30.00)	.530 (13.46)	.117 (2.97)	.162 (4.11)	2500 (11.12)	3000 (13.34)	1850 (8.22)	2000 (8.90)	SSPI-08-06[2]
	.350 (8.89)	.625 (15.88)			1.325 (33.66)								SSPI-08-10
	.080 (2.03)	.625 (15.88)			1.425 (36.20)								SSPI-E08-10
3/8" (10.0)	.120 (3.05)	.625 (15.88)	.392 (9.96)	.409 (10.39)	1.550 (39.37)	.770 (19.56)	.172 (4.37)	.241 (6.12)	6000 (26.68)	6200 (27.58)	4000 (17.79)	4100 (18.24)	SSPI-12-10

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

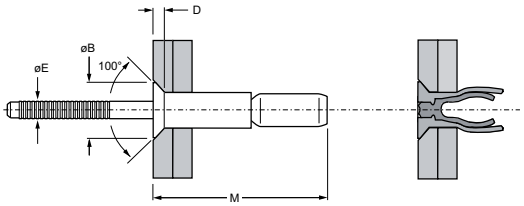
2) Deutsches Institut für Bautechnik (DIBt, German Authority in Civil Engineering) Approval No. Z-14.1-4 Attachment 2-23

Interlock® SSCI Series

Steel / Steel

English	Français	Deutsch	Italiano	Español
Countersunk head	Tête fraisée	Senkkopf	Testa svasata	Cabeza avellanada
Body: Steel* Zinc plated Clear trivalent chromated	Corps: Acier* Revêtement zingué Passivation claire trivalente	Hülse: Stahl* verzinkt Klar chromatiert, Cr6-frei	Corpo: Acciaio* Zincati Passivazione chiara trivalente	Cuerpo: Acero* Zincado Pasivado claro trivalente
Stem: Steel* Zinc plated Clear trivalent chromated	Tige: Acier* Revêtement zingué Passivation claire trivalente	Dorn: Stahl* verzinkt Klar chromatiert, Cr6-frei	Gambo: Acciaio* Zincati Passivazione chiara trivalente	Vástago: Acero* Zincado Passivado claro trivalente

*: BS 3111 Type 1 SAE 1038



ø					M	øB	D	øE	lbf (kN)		lbf (kN)		Part No.
nom.	min.	max.	min.	max.	max.	max.	max.	max.	min.	typ.[1]	min.	typ.[1]	
3/16" (4.8)	.125 (3.18)	.331 (8.41)	.191 (4.85)	.201 (5.10)	.793 (20.14)	.345 (8.76)	.070 (1.78)	.122 (3.10)	1300 (5.78)	1650 (7.34)	900 (4.00)	1000 (4.45)	SSCI-06-06
1/4" (6.4)	.170 (4.32)	.475 (12.07)	.261 (6.63)	.276 (7.01)	1.115 (28.32)	.415 (10.54)	.079 (2.01)	.162 (4.11)	2400 (10.67)	2800 (12.45)	1850 (8.22)	2150 (9.56)	SSCI-08-08

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

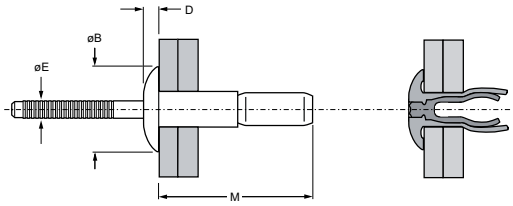
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Interlock® CCPI Series

Stainless Steel / Stainless Steel

English	Français	Deutsch	Italiano	Español
Protruding head	Tête bombée	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Stainless steel*	Corps: Inox*	Hülse: Edelstahl*	Corpo: Acciaio inox*	Cuerpo: Acero inoxidable*
Stem: Stainless steel**	Tige: Inox**	Dorn: Edelstahl**	Gambo: Acciaio inox**	Vástago: Acero inoxidable**

*: 302 Series
**: 316 Series



ø					M	øB	D	øE	lbf (kN)		lbf (kN)		Part No.
nom.	min.	max.	min.	max.	max.	max.	max.	max.	min.	typ.[1]	min.	typ.[1]	
3/16" (4.8)	.062 (1.57)	.270 (6.86)	.194 (4.93)	.204 (5.18)	.842 (21.39)	.400 (10.16)	.090 (2.29)	.122 (3.10)	1300 (5.78)	1550 (6.89)	1000 (4.44)	1050 (4.67)	CCPI-06-04
	.214 (5.44)	.437 (11.10)			1.003 (25.48)								CCPI-06-07
	.062 (1.57)	.437 (11.10)			1.003 (25.48)								CCPI-E06-07
1/4" (6.4)	.080 (2.03)	.375 (9.53)	.261 (6.63)	.276 (7.01)	1.119 (28.42)	.530 (13.46)	.117 (2.97)	.162 (4.11)	2400 (10.67)	2650 (11.79)	1850 (8.22)	2050 (9.12)	CCPI-08-06
	.080 (2.03)	.437 (11.10)			1.181 (30.00)								CCPI-08-07
	.350 (8.89)	.625 (15.88)			1.325 (33.66)								CCPI-08-10
	.080 (2.03)	.625 (15.88)			1.431 (36.35)								CCPI-E08-10

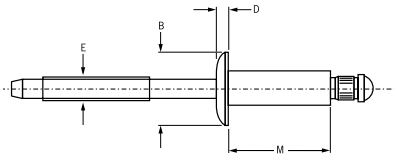
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Q Rivet AAPQ / AALQ / AACQ Series

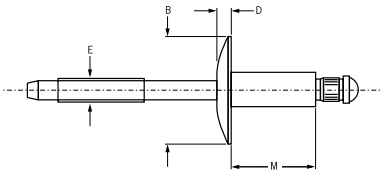
Aluminum / Aluminum

English	Français	Deutsch	Italiano	Español
Body: Aluminum* Natural	Corps: Aluminium* Brut	Hülse: Aluminium* Blank	Corpo: Alluminio* Nessuna finitura	Cuerpo: Aluminio* Natural
Stem: Aluminum** Natural	Tige: Aluminium** Brut	Dorn: Aluminium** Blank	Gambo: Alluminio** Nessuna finitura	Vástago: Aluminio** Natural

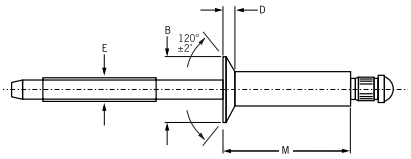
* 5052
** 7178



AAPQ
Protruding head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



AALQ
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha



AACQ
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

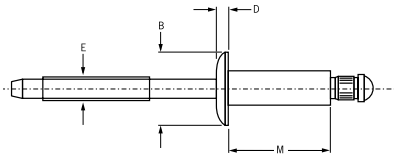
ø						M	øE	AAPQ ■			AALQ ■			AACQ ■		
								øB	D	Part No.	øB	D	Part No.	øB	D	Part No.
nom.	min.	mid.[1]	max.	min.	max.	max.	ref.		max.	■		max.	■	±.007 (±0.2)	ref.	■
1/8" (3.2)	.063 (1.60)	.093 (2.36)	.125 (3.18)	.129 (3.3)	.133 (3.4)	.275 (7.0)	.075 (1.9)	.250 ±.012 (6.3) (±0.4)	.042 (1.1)	04-02	.375 ±.015 (9.5) (±0.4)	.065 (1.7)		.226 (5.7)	.032 (0.8)	
	.094 (2.39)	.140 (3.56)	.187 (4.75)			.337 (8.6)				04-03			04-03			04-03
	.126 (3.20)	.187 (4.75)	.250 (6.35)			.400 (10.2)				04-04			04-04			04-04
	.188 (4.78)	.250 (6.35)	.312 (7.92)			.462 (11.8)				04-05						04-05
	.251 (6.38)	.312 (7.92)	.375 (9.53)			.535 (13.6)				04-06			04-06			04-06
	.313 (7.95)	.375 (9.53)	.437 (11.10)			.602 (15.3)				04-07						04-07
	.376 (9.55)	.437 (11.10)	.500 (12.70)			.670 (17.1)				04-08			04-08			04-08
5/32" (4.0)	.062 (1.57)	.093 (2.36)	.125 (3.18)	.160 (4.1)	.164 (4.2)	.300 (7.7)	.094 (2.4)	.312 ±.016 (7.9) (±0.5)	.050 (1.3)	05-02	.469 ±.020 (11.9) (±0.5)	.075 (1.9)		.281 (7.1)	.040 (1.0)	
	.126 (3.20)	.187 (4.75)	.250 (6.35)			.425 (10.8)				05-04			05-04			05-04
	.251 (6.38)	.312 (7.92)	.375 (9.53)			.550 (14.0)				05-06			05-06			05-06
	.376 (9.55)	.437 (11.10)	.500 (12.70)			.695 (17.7)				05-08			05-08			05-08

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

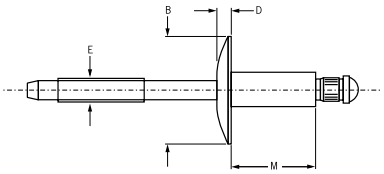
1) Stems break flush with rivet head at mid. grip
La tige rompt affleurante à la tête du rivet en milieu de plage de serrage
Bei mittlerem Klemmbereich (mid.) reißt der Dorn bündig mit dem Nietkopf ab
Q Rivet rottura del chiodo a livello della testa del rivetto per grip medio
El punto de rotura del Q Rivet es a ras con la cabeza del remache en su grip intermedio

Q Rivet AAPQ / AALQ / AACQ Series

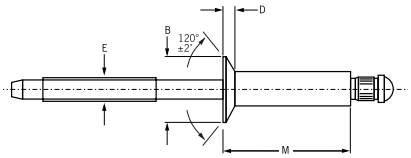
Aluminum / Aluminum



AAPQ
Protruding head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



AALQ
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha



AACQ
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø						M	øE	AAPQ ■			AALQ ■			AACQ ■		
								øB	D	Part No.	øB	D	Part No.	øB	D	Part No.
nom.	min.	mid.[1]	max.	min.	max.	max.	ref.		max.	■		max.	■	±.007 (±0.2)	ref.	■
3/16" (4.8)	.062 (1.57)	.093 (2.36)	.125 (3.18)	.192 (4.9)	.196 (5.0)	.325 (8.3)	.114 (2.9)	.375 ±.019 (9.5) (±0.5)	.057 (1.5)	06-02	.625 ±.025 (15.9) (±0.7)	.092 (2.4)		.344 (8.7)	.050 (1.3)	
	.126 (3.20)	.187 (4.75)	.250 (6.35)			.450 (11.5)				06-04			06-04			06-04
	.251 (6.38)	.312 (7.92)	.375 (9.53)			.575 (14.7)				06-06			06-06			06-06
	.376 (9.55)	.437 (11.10)	.500 (12.70)			.700 (17.8)				06-08			06-08			06-08
	.501 (12.73)	.562 (14.27)	.625 (15.88)			.850 (21.6)				06-10			06-10			
1/4" (6.4)	.062 (1.57)	.093 (2.36)	.125 (3.18)	.257 (6.5)	.261 (6.6)	.375 (9.6)	.151 (3.8)	.500 ±.025 (12.7) (±0.7)	.077 (2.0)	08-02	.750 ±.025 (19.1) (±0.7)	.107 (2.8)		.468 (11.9)	.071 (1.8)	
	.126 (3.20)	.187 (4.75)	.250 (6.35)			.500 (12.7)				08-04			08-04			08-04
	.251 (6.38)	.312 (7.92)	.375 (9.53)			.625 (15.9)				08-06			08-06			08-06
	.376 (9.55)	.437 (11.10)	.500 (12.70)			.750 (19.1)				08-08			08-08			08-08
	.501 (12.73)	.562 (14.27)	.625 (15.88)			.900 (22.9)				08-10						

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) Stems break flush with rivet head at mid. grip
La tige rompt affleurante à la tête du rivet en milieu de plage de serrage
Bei mittlerem Klemmbereich (mid.) reißt der Dorn bündig mit dem Nietkopf ab
Q Rivet rottura del chiodo a livello della testa del rivetto per grip medio
El punto de rotura del Q Rivet es a ras con la cabeza del remache en su grip intermedio

ø		
nom.	lbf *(kN)*[2]	lbf *(kN)*[2]
1/8" *(3.2)*	225 *(1.00)*	250 *(1.11)*
5/32" *(4.0)*	325 *(1.45)*	325 *(1.45)*
3/16" *(4.8)*	500 *(2.22)*	450 *(2.00)*
1/4" *(6.4)*	850 *(3.78)*	750 *(3.34)*

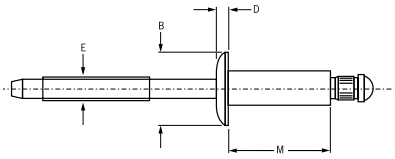
2) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Q Rivet BSPQ / BSLQ / BSCQ Series

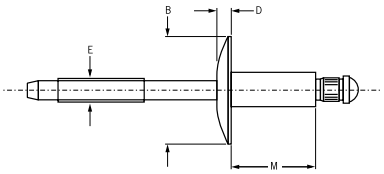
Aluminum / Steel

English	Français	Deutsch	Italiano	Español
Body: Aluminum alloy* (5 % Mg) Natural	Corps: Alliage d'aluminium* (5% Mg) Brut	Hülse: Aluminium* (5 % Mg) Blank	Corpo: Lega di alluminio* (5% Mg) Nessuna finitura	Cuerpo: Aluminio* (5% Mg) Natural
Stem: Steel** Zinc plated	Tige: Acier** Revêtement zingué	Dorn: Stahl** verzinkt	Gambo: Acciaio** Zincati	Vástago: Acero** Zincado

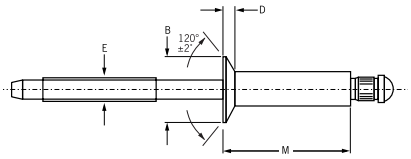
*: BS 1473 5056 DIN 1725 AlMg5 Werkstoff 3.3555
**: BS3111 Type 1 SAE 1038 DIN 1654 Cq35



BSPQ
Protruding head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



BSLQ
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha



BSCQ
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

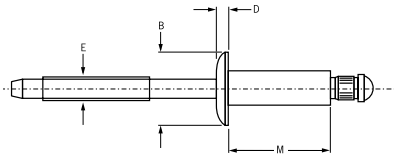
ø						M	øE	BSPQ ■			BSLQ ■			BSCQ ■		
								øB	D	Part No.	øB	D	Part No.	øB	D	Part No.
nom.	min.	mid.[1]	max.	min.	max.	max.	ref.		max.	■		max.	■	±.007 (±0.2)	ref.	■
1/8" (3.2)	.063 (1.60)	.093 (2.36)	.125 (3.18)	.129 (3.3)	.133 (3.4)	.275 (7.0)	.075 (1.9)	.250 ±.012 (6.3) (±0.4)	.042 (1.1)	04-02	.375 ±.015 (9.5) (±0.4)	.065 (1.7)		.226 (5.7)	.032 (0.8)	
	.094 (2.39)	.140 (3.56)	.187 (4.75)			.337 (8.6)				04-03						04-03
	.126 (3.20)	.187 (4.75)	.250 (6.35)			.400 (10.2)				04-04			04-04			04-04
	.188 (4.78)	.250 (6.35)	.312 (7.92)			.462 (11.8)				04-05						04-05
	.251 (6.38)	.312 (7.92)	.375 (9.53)			.535 (13.6)				04-06			04-06			04-06
	.313 (7.95)	.375 (9.53)	.437 (11.10)			.602 (15.3)				04-07						04-07
	.376 (9.55)	.437 (11.10)	.500 (12.70)			.670 (17.1)				04-08			04-08			04-08
5/32" (4.0)	.062 (1.57)	.093 (2.36)	.125 (3.18)	.160 (4.1)	.164 (4.2)	.300 (7.7)	.094 (2.4)	.312 ±.016 (7.9) (±0.5)	.050 (1.3)	05-02	.469 ±.020 (11.9) (±0.5)	.075 (1.9)		.281 (7.1)	.040 (1.0)	
	.094 (2.39)	.140 (3.56)	.187 (4.75)			.362 (9.2)				05-03						
	.126 (3.20)	.187 (4.75)	.250 (6.35)			.425 (10.8)				05-04			05-04			05-04
	.251 (6.38)	.312 (7.92)	.375 (9.53)			.550 (14.0)				05-06			05-06			05-06
	.376 (9.55)	.437 (11.10)	.500 (12.70)			.695 (17.7)				05-08			05-08			05-08

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

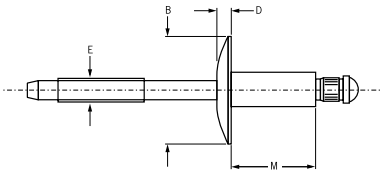
1) Stems break flush with rivet head at mid. grip
La tige rompt affleurante à la tête du rivet en milieu de plage de serrage
Bei mittlerem Klemmbereich (mid.) reißt der Dorn bündig mit dem Nietkopf ab
Q Rivet rottura del chiodo a livello della testa del rivetto per grip medio
El punto de rotura del Q Rivet es a ras con la cabeza del remache en su grip intermedio

Q Rivet BSPQ / BSLQ / BSCQ Series

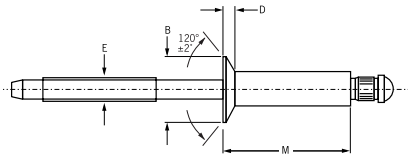
Aluminum / Steel



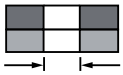
BSPQ
Protruding head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



BSLQ
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha

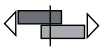


BSCQ
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø						M	øE	BSPQ ■			BSLQ ■			BSCQ ■		
								øB	D	Part No.	øB	D	Part No.	øB	D	Part No.
nom.	min.	mid.[1]	max.	min.	max.	max.	ref.		max.	■		max.	■	±.007 (±0.2)	ref.	■
3/16" (4.8)	.062 (1.57)	.093 (2.36)	.125 (3.18)	.192 (4.9)	.196 (5.0)	.325 (8.3)	.114 (2.9)	.375 ±.019 (9.5) (±0.5)	.060 (1.6)	06-02	.625 ±.025 (15.9) (±0.7)	.092 (2.4)		.344 (8.7)	.050 (1.3)	
	.094 (2.39)	.140 (3.56)	.187 (4.75)			.387 (9.4)				06-03						
	.126 (3.20)	.187 (4.75)	.250 (6.35)			.450 (11.5)				06-04						06-04
	.188 (4.78)	.250 (6.35)	.312 (7.92)			.512 (13.0)				06-05						06-05
	.251 (6.38)	.312 (7.92)	.375 (9.53)			.575 (14.7)				06-06			06-06			06-06
	.376 (9.55)	.437 (11.10)	.500 (12.70)			.700 (17.8)				06-08			06-08			06-08
	.501 (12.73)	.562 (14.27)	.625 (15.88)			.850 (21.6)				06-10			06-10			
1/4" (6.4)	.062 (1.57)	.093 (2.36)	.125 (3.18)	.257 (6.5)	.261 (6.6)	.375 (9.6)	.151 (3.8)	.500 ±.025 (12.7) (±0.7)	.078 (2.0)	08-02	.750 ±.025 (19.1) (±0.7)	.107 (2.8)		.468 (11.9)	.071 (1.8)	
	.126 (3.20)	.187 (4.75)	.250 (6.35)			.500 (12.7)				08-04			08-04			08-04
	.251 (6.38)	.312 (7.92)	.375 (9.53)			.625 (15.9)				08-06			08-06			08-06
	.376 (9.55)	.437 (11.10)	.500 (12.70)			.750 (19.1)				08-08			08-08			08-08
	.501 (12.73)	.562 (14.27)	.625 (15.88)			.900 (22.9)				08-10						

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) Stems break flush with rivet head at mid. grip
La tige rompt affleurante à la tête du rivet en milieu de plage de serrage
Bei mittlerem Klemmbereich (mid.) reißt der Dorn bündig mit dem Nietkopf ab
Q Rivet rottura del chiodo a livello della testa del rivetto per grip medio
El punto de rotura del Q Rivet es a ras con la cabeza del remache en su grip intermedio

ø		
nom.	lbf *(kN)*[2]	lbf *(kN)*[2]
1/8" *(3.2)*	350 *(1.56)*	325 *(1.45)*
5/32" *(4.0)*	525 *(2.34)*	450 *(2.00)*
3/16" *(4.8)*	750 *(3.34)*	650 *(2.89)*
1/4" *(6.4)*	1250 *(5.56)*	1050 *(4.67)*

2) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

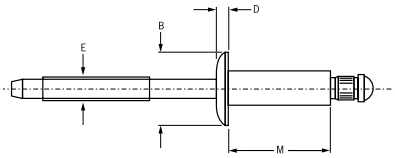
POP® Avdel®

Q Rivet SSPQ / SSLQ / SSCQ Series

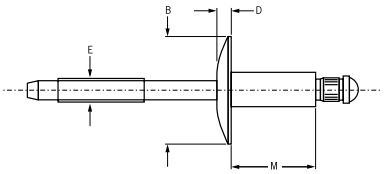
Steel / Steel

English	Français	Deutsch	Italiano	Español
Body: Steel* Zinc plated	Corps: Acier* Revêtement zingué	Hülse: Stahl* verzinkt	Corpo: Acciaio* Zincati	Cuerpo: Acero* Zincado
Stem: Steel** Zinc plated	Tige: Acier** Revêtement zingué	Dorn: Stahl** verzinkt	Gambo: Acciaio** Zincati	Vástago: Acero** Zincado

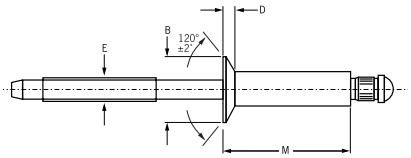
*: BS 3111 Type 0 SAE 1006 DIN 1654 QSt 32-3
**: BS3111 Type 1 SAE 1038 DIN 1654 Cq35



SSPQ
Protruding head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



SSLQ
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha



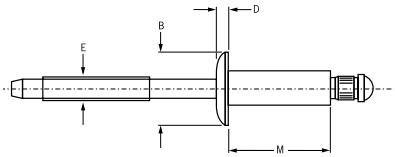
SSCQ
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø						M	øE	SSPQ ■			SSLQ ■			SSCQ ■		
								øB	D	Part No.	øB	D	Part No.	øB	D	Part No.
nom.	min.	mid.[1]	max.	min.	max.	max.	ref.		max.	■		max.	■	±.007 (±0.2)	ref.	■
	.063 (1.60)	.093 (2.36)	.125 (3.18)			.275 (7.0)				04-02						04-02
	.094 (2.39)	.140 (3.56)	.187 (4.75)			.337 (8.6)				04-03						04-03
	.126 (3.20)	.187 (4.75)	.250 (6.35)			.400 (10.2)				04-04			04-04			04-04
1/8" (3.2)	.188 (4.78)	.250 (6.35)	.312 (7.92)	.129 (3.3)	.133 (3.4)	.462 (11.8)	.075 (1.9)	.250 ±.012 (6.3) (±0.4)	.042 (1.1)	04-05	.375 ±.015 (9.5) (±0.4)	.065 (1.7)		.226 (5.7)	.032 (0.8)	04-05
	.251 (6.38)	.312 (7.92)	.375 (9.53)			.535 (13.6)				04-06			04-06			04-06
	.313 (7.95)	.375 (9.53)	.437 (11.10)			.602 (15.3)				04-07						04-07
	.376 (9.55)	.437 (11.10)	.500 (12.70)			.670 (17.1)				04-08			04-08			04-08
	.062 (1.57)	.093 (2.36)	.125 (3.18)			.300 (7.7)				05-02						
	.094 (2.39)	.140 (3.56)	.187 (4.75)			.362 (9.2)				05-03						
	.126 (3.20)	.187 (4.75)	.250 (6.35)			.425 (10.8)				05-04			05-04			05-04
5/32" (4.0)	.188 (4.78)	.250 (6.35)	.312 (7.92)	.160 (4.1)	.164 (4.2)	.487 (12.4)	.094 (2.4)	.312 ±.016 (7.9) (±0.5)	.050 (1.3)	05-05	.469 ±.020 (11.9) (±0.5)	.075 (1.9)		.281 (7.1)	.040 (1.0)	
	.251 (6.38)	.312 (7.92)	.375 (9.53)			.550 (14.0)				05-06			05-06			05-06
	.376 (9.55)	.437 (11.10)	.500 (12.70)			.695 (17.7)				05-08			05-08			05-08

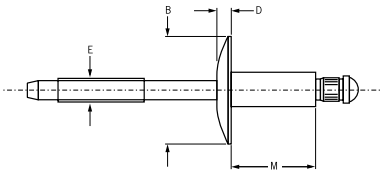
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) see next page / voir page suivant / siehe nächste Seite / vedi pagina successiva / ver la página siguiente

Q Rivet SSPQ / SSLQ / SSCQ Series

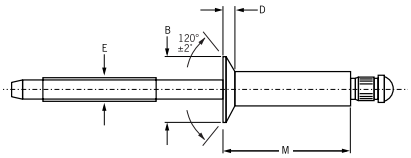
Steel / Steel



SSPQ
Protruding head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



SSLQ
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha



SSCQ
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø						M	øE	SSPQ ■			SSLQ ■			SSCQ ■		
								øB	D	Part No.	øB	D	Part No.	øB	D	Part No.
nom.	min.	mid.[1]	max.	min.	max.	max.	ref.		max.	■		max.	■	±.007 (±0.2)	ref.	■
3/16" (4.8)	.062 (1.57)	.093 (2.36)	.125 (3.18)	.192 (4.9)	.196 (5.0)	.325 (8.3)	.114 (2.9)	.375 ±.019 (9.5) (±0.5)	.057 (1.5)	06-02	.625 ±.025 (15.9) (±0.7)	.092 (2.4)		.344 (8.7)	.050 (1.3)	
	.065 (1.65)	.126 (3.20)	.187 (4.75)			.386 (9.8)				06-03						
	.126 (3.20)	.187 (4.75)	.250 (6.35)			.450 (11.5)				06-04			06-04			06-04
	.188 (4.78)	.250 (6.35)	.312 (7.92)			.512 (13.0)				06-05						
	.251 (6.38)	.312 (7.92)	.375 (9.53)			.575 (14.7)				06-06			06-06			06-06
	.376 (9.55)	.437 (11.10)	.500 (12.70)			.700 (17.8)				06-08			06-08			06-08
	.501 (12.73)	.562 (14.27)	.625 (15.88)			.850 (21.6)				06-10			06-10			
1/4" (6.4)	.062 (1.57)	.093 (2.36)	.125 (3.18)	.257 (6.5)	.261 (6.6)	.375 (9.6)	.151 (3.8)	.500 ±.025 (12.7) (±0.7)	.077 (2.0)	08-02	.750 ±.025 (19.1) (±0.7)	.107 (2.8)		.468 (11.9)	.071 (1.8)	
	.126 (3.20)	.187 (4.75)	.250 (6.35)			.500 (12.7)				08-04			08-04			08-04
	.251 (6.38)	.312 (7.92)	.375 (9.53)			.625 (15.9)				08-06			08-06			08-06
	.376 (9.55)	.437 (11.10)	.500 (12.70)			.750 (19.1)				08-08			08-08			08-08
	.501 (12.73)	.562 (14.27)	.625 (15.88)			.900 (22.9)				08-10						

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) Stems break flush with rivet head at mid. grip
La tige rompt affleurante à la tête du rivet en milieu de plage de serrage
Bei mittlerem Klemmbereich (mid.) reißt der Dorn bündig mit dem Nietkopf ab
Q Rivet rottura del chiodo a livello della testa del rivetto per grip medio
El punto de rotura del Q Rivet es a ras con la cabeza del remache en su grip intermedio

ø		
nom.	lbf *(kN)*[2]	lbf *(kN)*[2]
1/8" *(3.2)*	500 *(2.22)*	400 *(1.78)*
5/32" *(4.0)*	700 *(3.11)*	550 *(2.44)*
3/16" *(4.8)*	1050 *(4.67)*	825 *(3.67)*
1/4" *(6.4)*	1750 *(7.78)*	1450 *(6.45)*

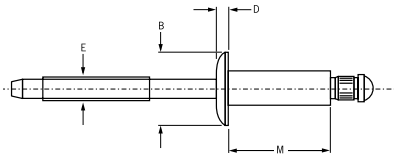
2) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Q Rivet CCPQ / CCCQ Series

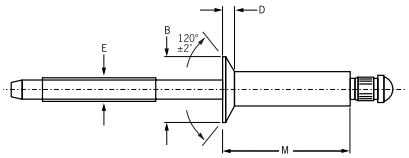
Stainless Steel / Stainless Steel

English	Français	Deutsch	Italiano	Español
Body: Stainless steel* Natural	Corps: Inox* Brut	Hülse: Edelstahl* Unbehandelt	Corpo: Acciaio inox* Nessuna finitura	Cuerpo: Acero inoxidable* Natural
Stem: Stainless steel** Natural	Tige: Inox** Brut	Dorn: Edelstahl** Unbehandelt	Gambo: Acciaio inox** Nessuna finitura	Vástago: Acero inoxidable** Natural

*: BS 970 302S31 AISI302
**: A286



CCPQ
Protruding head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



CCCQ
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

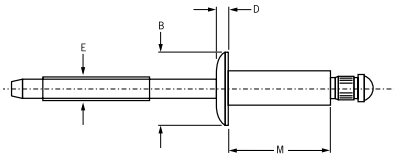
ø						M	øE	CCPQ ■			CCCQ ■		
								øB	D	Part No.	øB	D	Part No.
nom.	min.	mid.[1]	max.	min.	max.	max.	ref.		max.	■	±.007 (±0.2)	ref.	■
1/8" (3.2)	.063 (1.60)	.093 (2.36)	.125 (3.18)	.129 (3.3)	.133 (3.4)	.275 (7.0)	.075 (1.9)	.250 ±.012 (6.3) (±0.4)	.042 (1.1)	04-02	.226 (5.7)	.032 (0.8)	
	.094 (2.39)	.140 (3.56)	.187 (4.75)			.337 (8.6)				04-03			04-03
	.126 (3.20)	.187 (4.75)	.250 (6.35)			.400 (10.2)				04-04			04-04
	.188 (4.78)	.250 (6.35)	.312 (7.92)			.462 (11.8)				04-05			04-05
	.251 (6.38)	.312 (7.92)	.375 (9.53)			.535 (13.6)				04-06			04-06
	.376 (9.55)	.437 (11.10)	.500 (12.70)			.670 (17.1)				04-08			
5/32" (4.0)	.062 (1.57)	.093 (2.36)	.125 (3.18)	.160 (4.1)	.164 (4.2)	.300 (7.7)	.094 (2.4)	.312 ±.016 (7.9) (±0.5)	.050 (1.3)	05-02	.281 (7.1)	.040 (1.0)	
	.094 (2.39)	.140 (3.56)	.187 (4.75)			.362 (9.2)				05-03			
	.126 (3.20)	.187 (4.75)	.250 (6.35)			.425 (10.8)				05-04			05-04
	.251 (6.38)	.312 (7.92)	.375 (9.53)			.550 (14.0)				05-06			05-06
	.376 (9.55)	.437 (11.10)	.500 (12.70)			.695 (17.7)				05-08			

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

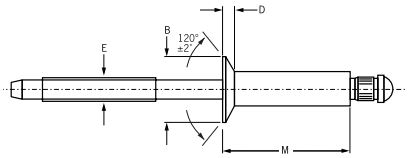
1) Stems break flush with rivet head at mid. grip
La tige rompt affleurante à la tête du rivet en milieu de plage de serrage
Bei mittlerem Klemmbereich (mid.) reißt der Dorn bündig mit dem Nietkopf ab
Q Rivet rottura del chiodo a livello della testa del rivetto per grip medio
El punto de rotura del Q Rivet es a ras con la cabeza del remache en su grip intermedio

Q Rivet CCPQ / CCCQ Series

Stainless Steel / Stainless Steel



CCPQ
Protruding head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



CCCQ
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

ø						M	øE	CCPQ ■			CCCQ ■		
								øB	D	Part No.	øB	D	Part No.
nom.	min.	mid.[1]	max.	min.	max.	max.	ref.		max.	■	±.007 (±0.2)	ref.	■
3/16" (4.8)	.062 (1.57)	.093 (2.36)	.125 (3.18)	.192 (4.9)	.196 (5.0)	.325 (8.3)	.114 (2.9)	.375 ±.019 (9.5) (±0.5)	.057 (1.5)	06-02	.344 (8.7)	.050 (1.3)	
	.126 (3.20)	.187 (4.75)	.250 (6.35)			.450 (11.5)				06-04			06-04
	.188 (4.78)	.250 (6.35)	.312 (7.92)			.512 (13.0)				06-05			
	.251 (6.38)	.312 (7.92)	.375 (9.53)			.575 (14.7)				06-06			06-06
	.376 (9.55)	.437 (11.10)	.500 (12.70)			.700 (17.8)				06-08			06-08
1/4" (6.4)	.126 (3.20)	.187 (4.75)	.250 (6.35)	.257 (6.5)	.261 (6.6)	.500 (12.7)	.151 (3.8)	.500 ±.025 (12.7) (±0.7)	.077 (2.0)	08-04	.468 (11.9)	.071 (1.8)	08-04
	.251 (6.38)	.312 (7.92)	.375 (9.53)			.625 (15.9)				08-06			08-06
	.376 (9.55)	.437 (11.10)	.500 (12.70)			.750 (19.1)				08-08			08-08

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) Stems break flush with rivet head at mid. grip
La tige rompt affleurante à la tête du rivet en milieu de plage de serrage
Bei mittlerem Klemmbereich (mid.) reißt der Dorn bündig mit dem Nietkopf ab
Q Rivet rottura del chiodo a livello della testa del rivetto per grip medio
El punto de rotura del Q Rivet es a ras con la cabeza del remache en su grip intermedio

ø		
nom.	lbf *(kN)*[2]	lbf *(kN)*[2]
1/8" *(3.2)*	700 *(3.11)*	600 *(2.67)*
5/32" *(4.0)*	1050 *(4.67)*	1000 *(4.45)*
3/16" *(4.8)*	1650 *(7.34)*	1300 *(5.78)*
1/4" *(6.4)*	2450 *(10.90)*	2250 *(10.00)*

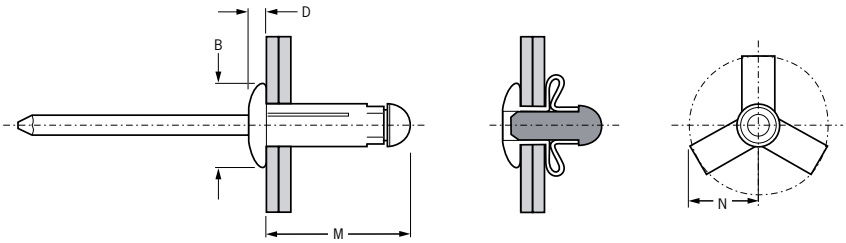
2) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Bulbex® BF01 / AD ALS Series

Aluminum / Aluminum

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Aluminum alloy* Natural	Corps: Alliage d'aluminium* Brut	Hülse: Aluminium* Blank	Corpo: Lega di alluminio* Nessuna finitura	Cuerpo: Aluminio* Natural
Stem: Aluminum alloy** Natural	Tige: Alliage d'aluminium** Brut	Dorn: Aluminium** Blank	Gambo: Lega di alluminio** Nessuna finitura	Vástago: Aluminio** Natural

*: 1/8" = 5154; 5/32" = 5754; 3/16" = 5052
**: 1/8" = 5154; 5/32" & 3/16" = 5056



ø					M	øB	D	N			Part No.
nom.	min.	max.	min.	max.	max.	max.	max.	ref.	lbf *(kN)*[1]	lbf *(kN)*[1]	
1/8" *(3.2)*	.0 *(0)*	.250 *(6.4)*	.134 *(3.4)*	.138 *(3.5)*	.775 *(19.7)*	.262 *(6.7)*	.044 *(1.2)*	.297 *(7.5)*	90 *(0.40)*	112 *(0.50)*	AD 44 ALS
5/32" *(4.0)*	.040 *(1.0)*	.118 *(3.0)*	.165 *(4.2)*	.177 *(4.5)*	.630 *(16.0)*	.321 *(8.2)*	.060 *(1.6)*	.228 *(5.8)*	135 *(0.60)*	225 *(1.00)*	0BF01-00516
	.040 *(1.0)*	.275 *(7.0)*			.840 *(21.2)*			. 315 *(8.0)*			0BF01-00523
	.040 *(1.0)*	.335 *(8.5)*			.900 *(22.9)*			.341 *(8.7)*			0BF01-00525
	.197 *(5.0)*	.472 *(12.0)*			1.087 *(27.6)*			.355 *(9.0)*			0BF01-00531
3/16" *(4.8)*	.040 *(1.0)*	.157 *(4.0)*	.197 *(5.0)*	.207 *(5.25)*	.720 *(18.3)*	.396 *(10.1)*	.080 *(2.1)*	.267 *(6.8)*	175 *(0.78)*	240 *(1.07)*	0BF01-00619
	.040 *(1.0)*	.354 *(9.0)*			.920 *(23.3)*			.355 *(9.0)*			0BF01-00625
	.157 *(4.0)*	.472 *(12.0)*			1.070 *(27.1)*			.441 *(11.2)*			0BF01-00630

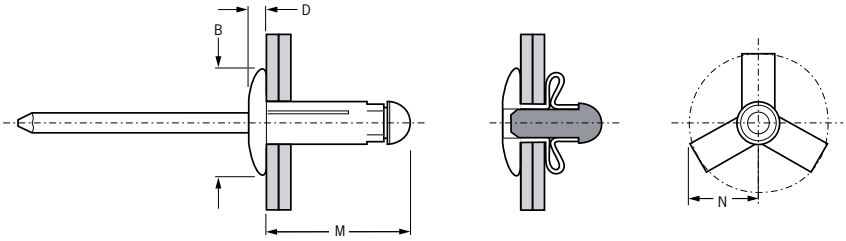
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Bulbex® BF41 / AD ALSLF Series

Aluminum / Aluminum

English	Français	Deutsch	Italiano	Español
Large flange	Tête large	Flachrundkopf extragroß	Testa larga	Cabeza ancha
Body: Aluminum alloy* Natural	Corps: Alliage d'aluminium* Brut	Hülse: Aluminium* Blank	Corpo: Lega di alluminio* Nessuna finitura	Cuerpo: Aluminio* Natural
Stem: Aluminum alloy** Natural	Tige: Alliage d'aluminium** Brut	Dorn: Aluminium** Blank	Gambo: Lega di alluminio** Nessuna finitura	Vástago: Aluminio** Natural

* BF41 series: 5052; AD68 ALSLF: 5154
** 5056



ø nom.	min.	max.	min.	max.	M max.	øB max.	D max.	N max.	lbf (kN)[1]	lbf (kN)[1]	Part No.
3/16" (4.8)	.040 (1.0)	.157 (4.0)	.197 (5.00)	.207 (5.25)	.720 (18.3)	.630 (16.0)	.076 (2.0)	.267 (6.8)	175 (0.78)	240 (1.07)	0BF41-00619
	.040 (1.0)	.354 (9.0)			.920 (23.3)			.355 (9.1)			0BF41-00625
	.197 (5.0)	.500 (12.7)		.205 (5.20)	1.091 (27.7)		.081 (2.1)	.360 (9.2)	225 (1.00)	315 (1.40)	AD 68 ALSLF

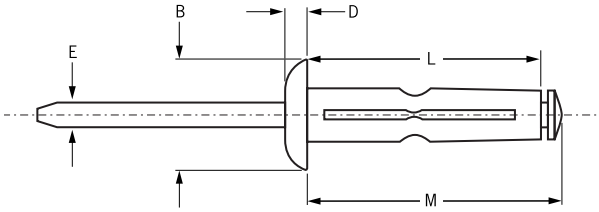
dimensions in inches and (mm) / en pouces et (millimètre) / alle Maße in Zoll und (mm) / in pollici e (millimetri) / en pulgadas y (milímetros)
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Klamp-Tite® BAPK Series

Aluminum / Aluminum

English	Français	Deutsch	Italiano	Español
Protruding head	Tête bombée	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Aluminum alloy*	Corps: Alliage d'aluminium*	Hülse: Aluminium*	Corpo: Lega di alluminio*	Cuerpo: Aluminio*
Wax lubricated	Lubrifié	Gewachst	Lubrificato	Lubricado
Stem: Aluminum alloy**	Tige: Alliage d'aluminium**	Dorn: Aluminium**	Gambo: Lega di alluminio**	Vástago: Aluminio**
Wax lubricated	Lubrifié	Gewachst	Lubrificato	Lubricado

*: 5056 **: 2024/5056



ø nom.	min.	max.	min.	max.	M max.	øB ± .015 (0.4)	D ref.	L max.	øE ref.	lbf (kN)[1]	lbf (kN)[1]	Part No.
3/16" (4.8)	.050 (1.27)	.250 (6.35)	.204 (5.18)	.209 (5.31)	1.000 (25.4)	.445 (11.3)	.088 (2.4)	.895 (22.8)	.114 (2.9)	292 (1.30)	380 (1.69)	BAPK-06-04
	.187 (4.75)	.375 (9.53)			1.095 (27.9)			.990 (25.2)				BAPK-06-06
	.375 (9.53)	.562 (14.27)			1.218 (31.0)			1.113 (28.3)				BAPK-06-09
1/4" (6.4)	.060 (1.52)	.250 (6.35)	.252 (6.40)	.262 (6.65)	1.042 (26.5)	.560 (14.2)	.113 (3.0)	.925 (23.5)	.151 (3.8)	420 (1.87)	588 (2.62)	BAPK-08-04
	.187 (4.75)	.375 (9.53)			1.167 (29.7)			1.050 (26.7)				BAPK-08-06

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

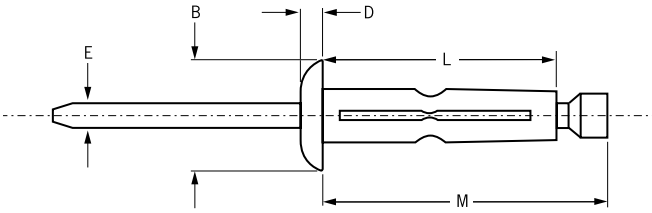
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Klamp-Tite® BAPKTR Series

Aluminum / Aluminum

English	Français	Deutsch	Italiano	Español
Protruding head	Tête bombée	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Aluminum alloy*	Corps: Alliage d'aluminium*	Hülse: Aluminium*	Corpo: Lega di alluminio*	Cuerpo: Aluminio*
Wax lubricated	Lubrifié	Gewachst	Lubrificato	Lubricado
Stem: Aluminum alloy**	Tige: Alliage d'aluminium**	Dorn: Aluminium**	Gambo: Lega di alluminio**	Vástago: Aluminio**
Wax lubricated	Lubrifié	Gewachst	Lubrificato	Lubricado

*: 5056 **: 7075



ø					M	øB	D	L	øE			Part No.
nom.	min.	max.	min.	max.	max.	± .015 (0.4)	ref.	max.	ref.	lbf (kN)[1]	lbf (kN)[1]	
3/16" (4.8)	.050 (1.27)	.250 (6.35)	.204 (5.18)	.209 (5.31)	1.04 (26.5)	.445 (11.3)	.088 (2.2)	.890 (22.7)	.103 (2.6)	700 (3.11)	450 (2.00)	BAPKTR-06-04
	.187 (4.75)	.375 (9.53)			1.13 (28.7)			.985 (25.1)				BAPKTR-06-06
	.375 (9.53)	.562 (14.27)			1.25 (31.8)			1.120 (28.5)				BAPKTR-06-09
	.562 (14.27)	.750 (19.05)			1.44 (36.6)			1.300 (33.1)				BAPKTR-06-12
1/4" (6.4)	.060 (1.52)	.250 (6.35)	.252 (6.40)	.262 (6.65)	1.30 (33.1)	.560 (14.2)	.113 (2.9)	.925 (23.5)	.136 (3.5)	1250 (5.56)	700 (3.11)	BAPKTR-08-04
	.187 (4.75)	.375 (9.53)			1.42 (36.1)			1.050 (26.7)				BAPKTR-08-06

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Note:

External stem locking feature requires special nose piece. / Le verrouillage extérieur de la tige nécessite d'un nez spécial. / Die Restdornverriegelung erfordert ein spezielles Mundstück. / Funzione di bloccaggio esterno del gambo richiede particolare nasello. / El bloqueo mecánico del vástago requiere de una boquilla especial.

Option:

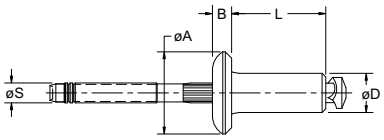
A synthetic rubber washer can be ordered to fit under protruding head fasteners e.g.: BAPKTR-06W-06
Une rondelle en caoutchouc disposée sous la tête peut être commandée ex : BAPKTR-06W-06
Flachrundkopf mit Unterkopf-Gummidichtung ist ebenfalls verfügbar, z.B. BAPKTR-06W-06
Testa tonda con una guarnizione di gomma e disponibile, p. e. BAPKTR-06W-06
Para el sellado de la cabeza hay una version con junta de goma sintética, p.ej: BAPKTR-06W-06

T Rivet BSPTS / BSLTS / BSCTS Series

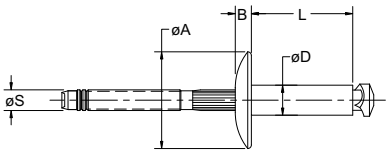
Aluminum / Steel

English	Français	Deutsch	Italiano	Español
Body: Aluminum* Natural	Corps: Aluminium* Brut	Hülse: Aluminium* Blank	Corpo: Alluminio* Nessuna finitura	Cuerpo: Aluminio* Natural
Stem: Steel Zinc plated	Tige: Acier Revêtement zingué	Dorn: Stahl Verzinkt	Gambo: Acciaio Zincati	Vástago: Acero Zincado

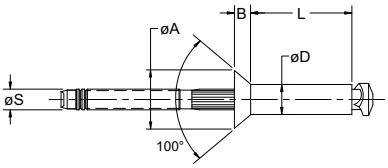
*5056



BSPTS
Protruding head
Tête bombée / Flachrundkopf /
Testa tonda / Cabeza alomada



BSLTS
Large flange
Tête large / Flachrundkopf, extragroß /
Testa larga / Cabeza ancha



BSCTS
Countersunk
Tête fraisée / Senkkopf /
Testa svasata / Cabeza avellanada

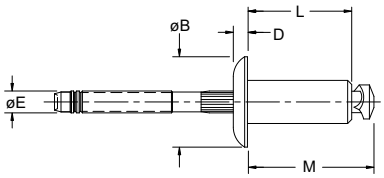
ø					øD	L	øS			BSPTS ■			BSLTS ■			BSCTS ■		
								lbf	lbf	øA	B	Part No.	øA	B	Part No.	øA	B	Part No.
nom.	min.	max.	min.	max.	max.	max.	ref.	(kN)[1]	(kN)[1]	max.	max.	■	max.	max.	■	ref.	max.	■
	.046 (1.17)	.203 (5.16)				.457 (11.7)						06-03			06-03			
	.203 (5.16)	.390 (9.91)				.645 (16.4)						06-06			06-06			06-06
3/16" (4.8)	.390 (9.91)	.578 (14.68)	.192 (4.9)	.196 (5.0)	.191 (4.8)	.832 (21.2)	.116 (2.9)	1000 (4.45)	600 (2.67)	.405 (10.3)	.101 (2.6)	06-09	.577 (14.6)	.101 (2.6)	06-09	.371 (9.4)	.093 (2.1)	06-09
	.578 (14.68)	.765 (19.43)				1.020 (26.0)						06-12			06-12			06-12

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

T Rivet AD TFBS Series

Aluminum / Steel

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa Tonda	Cabeza alomada
Body: Aluminum* Natural	Corps: Aluminium* Brut	Hülse: Aluminium* Blank	Corpo: Alluminio* Nessuna finitura	Cuerpo: Aluminio* Natural
Stem: Steel Zinc plated	Tige: Acier Revêtement zingué	Dorn: Stahl Verzinkt	Gambo: Acciaio Zincati	Vástago: Acero Zincado
*5056				



ø nom.	min.	max.	min.	max.	L ref.	M ref.	øE ref.	øB max.	D max.	lbf (kN)[1]	lbf (kN)[1]	Part No
3/16" (4.8)	.032 (0.8)	.140 (3.6)	.192 (4.88)	.196 (4.98)	.447 (11.4)	.565 (14.4)	.116 (3.0)	.405 (10.3)	.103 (2.7)	950 (4.23)	600 (2.67)	AD 6140 TFBS
	.141 (3.6)	.187 (4.8)			.510 (13.0)	.630 (16.0)				1025 (4.56)		AD 6187 TFBS
	.188 (4.8)	.250 (6.4)			.572 (14.5)	.690 (17.5)				1050 (4.67)		AD 6250 TFBS
	.251 (6.4)	.312 (7.9)			.635 (16.1)	.755 (19.2)				1125 (5.01)		AD 6312 TFBS
	.313 (8.0)	.375 (9.5)			.697 (17.7)	.820 (20.8)				1200 (5.34)		AD 6375 TFBS
	.376 (9.5)	.437 (11.1)			.760 (19.3)	.880 (22.4)				1275 (5.67)		AD 6437 TFBS
	.438 (11.1)	.519 (13.2)			.822 (20.9)	.940 (23.9)				1350 (6.01)		AD 6519 TFBS
1/4" (6.4)	.032 (0.8)	.140 (3.6)	.257 (6.53)	.261 (6.63)	.500 (12.7)	.625 (15.9)	.151 (3.84)	.535 (13.6)	.126 (3.2)	1425 (6.34)	1110 (4.94)	AD 8140 TFBS
	.141 (3.6)	.187 (4.8)			.552 (14.0)	.710 (18.0)				1575 (7.01)		AD 8187 TFBS
	.188 (4.8)	.250 (6.4)			.615 (15.6)	.775 (19.7)				1650 (7.34)		AD 8250 TFBS
	.251 (6.4)	.312 (7.9)			.677 (17.2)	.840 (21.3)				1775 (7.90)		AD 8312 TFBS
	.313 (8.0)	.375 (9.5)			.740 (18.8)	.900 (22.9)				2050 (9.12)		AD 8375 TFBS
	.376 (9.5)	.437 (11.1)			.802 (20.4)	.960 (24.4)				2150 (9.57)		AD 8437 TFBS
	.438 (11.1)	.519 (13.2)			.865 (22.0)	1.025 (26.0)				2325 (10.35)		AD 8519 TFBS
	.520 (13.2)	.620 (15.8)			.937 (23.8)	1.094 (27.8)				2400 (10.68)		AD 8620 TFBS

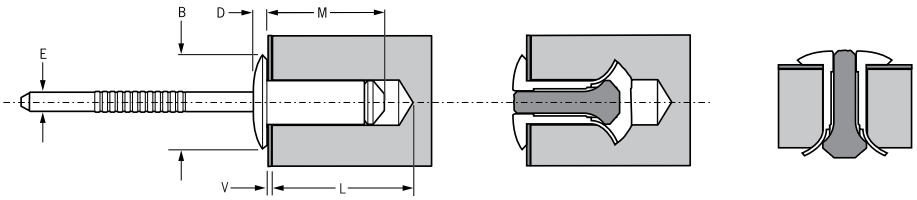
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

T-Lok® BM01 Series

Steel / Steel

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Medium carbon steel* Zinc plated Clear trivalent passivated	Corps: Acier au carbone* Revêtement zingué Passivation claire trivalente	Hülse: Stahl* Verzinkt Klar chromatiert, Cr6-frei	Corpo: Acciaio carbonio* Zincato Passivazione chiara trivalente	Cuerpo: Acero medio en carbono* Zincado Pasivado claro trivalente
Stem: Low carbon steel** Zinc coated	Tige: Acier bas carbone** Revêtement zingué	Dorn: Stahl** Verzinkt	Gambo: Acciaio a basso tenore di carbonio** Zincato	Vástago: Acero bajo en carbono** Zincado

*: BS970 Type 0, SAE 1015, DIN 17111, RSt 38-2, Werkstoff 1.0401
**: BS3111 Type 0, SAE 1015/1018/1022, DIN 1654, Cq15/Cq22



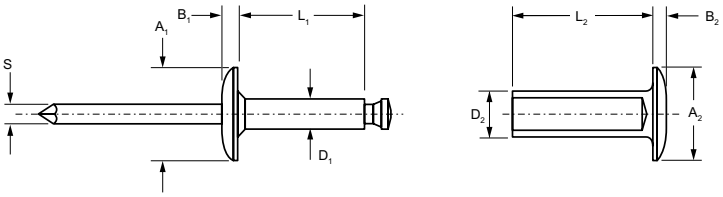
ø			M	øB	D	øE	V		L min.			Part No.
nom.	min.	max.	max.	max.	max.	max.	max.	min.	for max. V	for min. V	lbf *(kN)*[1]	
.169" *(4.3)*	.169 *(4.3)*	.174 *(4.4)*	.430 *(10.9)*	.321 *(8.2)*	.051 *(1.3)*	.099 *(2.6)*	.050 *(1.27)*	.010 *(0.25)*	.440 *(11.2)*	.480 *(12.2)*	110 *(0.49)*	0BM01-00510
			.490 *(12.4)*				.050 *(1.27)*		.510 *(13.0)*	.540 *(13.7)*	160 *(0.71)*	0BM01-00512
			.740 *(18.7)*				.300 *(7.62)*		.500 *(12.7)*	.790 *(20.1)*		0BM01-00520
			.800 *(20.4)*				.360 *(9.14)*		.500 *(12.7)*	.850 *(21.6)*		0BM01-00522
3/16" *(4.8)*	.187 *(4.8)*	.193 *(4.9)*	.570 *(14.3)*	.401 *(10.2)*	.081 *(2.1)*	.114 *(2.9)*	.120 *(3.05)*	.010 *(0.25)*	.410 *(10.4)*	.620 *(15.7)*	220 *(0.98)*	0BM01-00614
			.750 *(18.9)*				.300 *(7.62)*		.510 *(13.0)*	.800 *(20.3)*		0BM01-00620

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Avdelmate® BALMS Series

Aluminum / Aluminum / Aluminum

English	Français	Deutsch	Italiano	Español
Body: Aluminum Clear alodine	Corps: Aluminium Passivation claire	Hülse: Aluminium Klar chromatiert	Corpo: Alluminio Passivato chiara	Cuerpo: Aluminio Pasivado claro
Stem: Aluminum Natural	Tige: Aluminium Brut	Dorn: Aluminium Blank	Gambo: Alluminio Nessuna finitura	Vástago: Aluminio Natural
Tubular Component: Aluminum Clear alodine	Composant tubulaire: Aluminium Passivation claire	Röhrenförmiges Gegen- stück: Aluminium Klar chromatiert	Componente tubulare: Alluminio Passivazione chiara	Componente tubular: Aluminio Pasivado claro



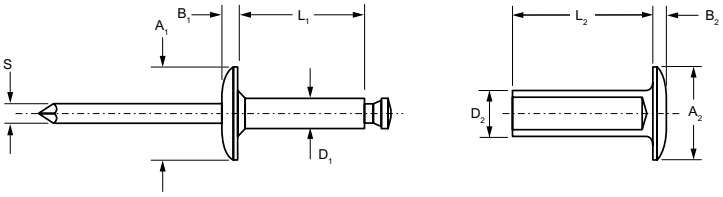
ø nom.	min.	max.		øD1	L1 max.	øA1	B1	øS	øD2	L2 max.	øA2	B2	lbf (kN)1)	Part No.
3/16" (4.8)	.625 (15.88)	.750 (19.05)	.250 (6.4)	.125 (3.18)	.525 (13.4)	.375 (9.53)	.059 (1.50)	.076 (1.93)	.188 (4.78)	.585 (14.9)	.375 (9.53)	.057 (1.45)	N/A	BALMS-06BP-12
	.688 (17.48)	.875 (22.23)								.647 (16.5)				BALMS-06BP-14
	.875 (22.23)	1.063 (27.00)								.825 (21.0)				BALMS-06BP-17
	1.063 (27.00)	1.250 (31.75)								1.012 (25.7)				BALMS-06BP-20
	1.250 (31.75)	1.438 (36.53)								1.200 (30.5)				BALMS-06BP-23
	1.438 (36.53)	1.625 (41.28)								1.387 (35.3)				BALMS-06BP-26
	1.625 (41.28)	1.813 (46.05)								1.575 (40.1)				BALMS-06BP-29
	1.813 (45.05)	2.000 (50.80)								1.762 (44.8)				BALMS-06BP-32
	2.000 (50.80)	2.188 (55.58)								1.950 (49.6)				BALMS-06BP-35
	2.188 (55.58)	2.375 (60.33)								2.137 (54.3)				BALMS-06BP-38

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Avdelmate® BALMS Series

Aluminum / Aluminum / Aluminum



ø nom.	min.	max.		øD1	L1 max.	øA1	B1	øS	øD2	L2 max.	øA2	B2	lbf (kN)1)	Part No.
	.625 (15.88)	.750 (19.05)			.442 (11.3)					.580 (14.8)				BALMS-08BP-12
	.750 (19.05)	.875 (22.23)								.695 (17.7)				BALMS-08BP-14
	.875 (22.23)	1.125 (28.58)								.820 (20.9)				BALMS-08BP-18
	1.125 (28.58)	1.375 (34.93)								1.070 (27.2)				BALMS-08BP-22
	1.375 (34.93)	1.625 (41.28)								1.320 (33.6)				BALMS-08BP-26
	1.625 (41.28)	1.875 (47.63)								1.570 (39.9)				BALMS-08BP-30
1/4" (6.4)	1.875 (47.63)	2.125 (53.98)	.312 (7.9)	.187 (4.75)	.608 (15.5)	.625 (15.88)	.095 (2.41)	.114 (2.90)	.250 (6.35)	1.820 (46.3)	.625 (15.88)	.095 (2.41)	250 (1.11)	BALMS-08BP-34
	2.125 (53.98)	2.375 (60.33)								2.070 (52.6)				BALMS-08BP-38
	2.375 (60.33)	2.625 (66.68)								2.320 (59.0)				BALMS-08BP-42
	2.625 (66.68)	2.875 (73.03)								2.570 (65.3)				BALMS-08BP-46
	2.875 (73.03)	3.125 (79.38)								2.820 (71.7)				BALMS-08BP-50
	3.125 (79.38)	3.375 (85.73)								3.070 (78.0)				BALMS-08BP-54
	3.375 (85.73)	3.625 (92.08)								3.320 (84.4)				BALMS-08BP-58
	3.625 (92.08)	3.875 (98.43)								3.570 (90.7)				BALMS-08BP-62

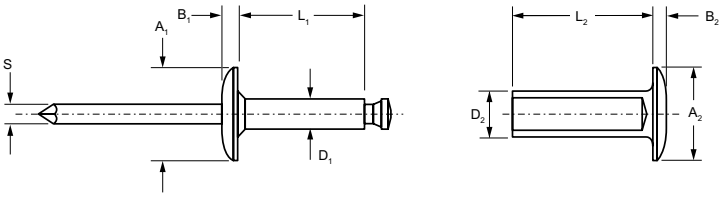
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Avdelmate® BSLMS Series

Aluminum / Steel / Aluminum

English	Français	Deutsch	Italiano	Español
Body: Aluminum Clear alodine	Corps: Aluminium Passivation claire	Hülse: Aluminium Klar chromatiert	Corpo: Alluminio Passivato chiara	Cuerpo: Aluminio Pasivado claro
Stem: Steel Zinc plated	Tige: Acier Revêtement zingué	Dorn: Stahl Verzinkt	Gambo: Acciaio Zincati	Vástago: Acero Zincado
Tubular Component: Aluminum Clear alodine	Composant tubulaire: Aluminium Passivation claire	Röhrenförmiges Gegen- stück: Aluminium Klar chromatiert	Componente tubulare: Alluminio Passivazione chiara	Componente tubular: Aluminio Pasivado claro



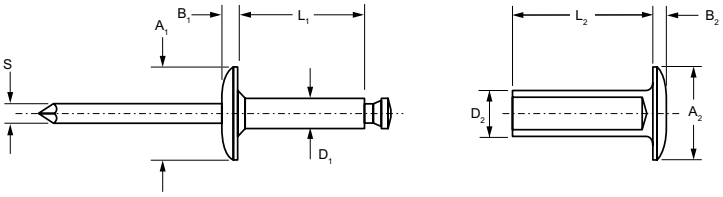
ø nom.	min.	max.		øD1	L1 max.	øA1	B1	øS	øD2	L2 max.	øA2	B2	lbf (kN)1)	Part No.
	.625 (15.88)	.750 (19.05)								.585 (14.9)				BSLMS-06BP-12
	.688 (17.48)	.875 (22.23)								.647 (16.5)				BSLMS-06BP-14
	.875 (22.23)	1.063 (27.00)								.825 (21.0)				BSLMS-06BP-17
	1.063 (27.00)	1.250 (31.75)								1.012 (25.7)				BSLMS-06BP-20
	1.250 (31.75)	1.438 (36.53)								1.200 (30.5)				BSLMS-06BP-23
3/16" (4.8)	1.438 (36.53)	1.625 (41.28)	.250 (6.4)	.125 (3.18)	.525 (13.4)	.375 (9.53)	.059 (1.50)	.076 (1.93)	.188 (4.78)	1.387 (35.3)	.375 (9.53)	.057 (1.45)	N/A	BSLMS-06BP-26
	1.625 (41.28)	1.813 (46.05)								1.575 (40.1)				BSLMS-06BP-29
	1.813 (45.05)	2.000 (50.80)								1.762 (44.8)				BSLMS-06BP-32
	2.000 (50.80)	2.188 (55.58)								1.950 (49.6)				BSLMS-06BP-35
	2.188 (55.58)	2.375 (60.33)								2.137 (54.3)				BSLMS-06BP-38

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Avdelmate® BSLMS Series

Aluminum / Steel / Aluminum



ø nom.	min.	max.		øD1	L1 max.	øA1	B1	øS	øD2	L2 max.	øA2	B2	lbf (kN)1)	Part No.
	.625 (15.88)	.750 (19.05)			.442 (11.3)					.580 (14.8)				BSLMS-08BP-12
	.750 (19.05)	.875 (22.23)								.695 (17.7)				BSLMS-08BP-14
	.875 (22.23)	1.125 (28.58)								.820 (20.9)				BSLMS-08BP-18
	1.125 (28.58)	1.375 (34.93)								1.070 (27.2)				BSLMS-08BP-22
	1.375 (34.93)	1.625 (41.28)								1.320 (33.6)				BSLMS-08BP-26
	1.625 (41.28)	1.875 (47.63)								1.570 (39.9)				BSLMS-08BP-30
1/4" (6.4)	1.875 (47.63)	2.125 (53.98)	.312 (7.9)	.187 (4.75)	.608 (15.5)	.625 (15.88)	.095 (2.41)	.114 (2.90)	.250 (6.35)	1.820 (46.3)	.625 (15.88)	.095 (2.41)	450 (2.00)	BSLMS-08BP-34
	2.125 (53.98)	2.375 (60.33)								2.070 (52.6)				BSLMS-08BP-38
	2.375 (60.33)	2.625 (66.68)								2.320 (59.0)				BSLMS-08BP-42
	2.625 (66.68)	2.875 (73.03)								2.570 (65.3)				BSLMS-08BP-46
	2.875 (73.03)	3.125 (79.38)								2.820 (71.7)				BSLMS-08BP-50
	3.125 (79.38)	3.375 (85.73)								3.070 (78.0)				BSLMS-08BP-54
	3.375 (85.73)	3.625 (92.08)								3.320 (84.4)				BSLMS-08BP-58
	3.625 (92.08)	3.875 (98.43)								3.570 (90.7)				BSLMS-08BP-62

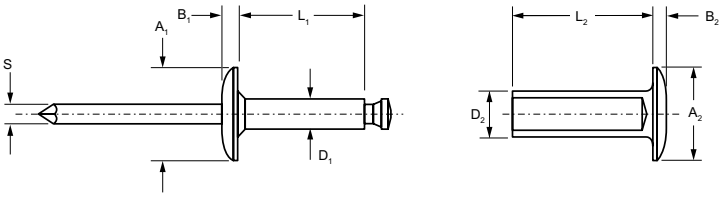
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Avdelmate® SSLMS Series

Steel / Steel / Steel

English	Français	Deutsch	Italiano	Español
Body: Steel Zinc plated	Corps: Acier Revêtement zingué	Hülse: Stahl Verzinkt	Corpo: Acciaio Zincati	Cuerpo: Acero Zincado
Stem: Steel Zinc plated	Tige: Acier Revêtement zingué	Dorn: Stahl Verzinkt	Gambo: Acciaio Zincati	Vástago: Acero Zincado
Tubular Component: Steel Zinc plated	Composant tubulaire: Acier Revêtement zingué	Röhrenförmiges Gegen- stück: Stahl Verzinkt	Componente tubulare: Acciaio Zincati	Componente tubular: Acero Zincado



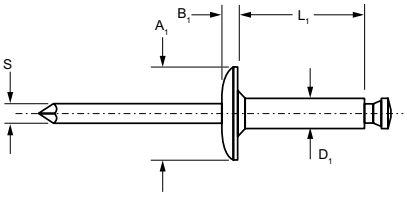
ø nom.	min.	max.		øD1	L1 max.	øA1	B1	øS	øD2	L2 max.	øA2	B2	lbf (kN)1)	Part No.
3/16" (4.8)	.625 (15.88)	.750 (19.05)	.250 (6.4)	.125 (3.18)	.525 (13.4)	.375 (9.53)	.059 (1.50)	.076 (1.93)	.188 (4.78)	.585 (14.9)	.375 (9.53)	.057 (1.45)	N/A	SSLMS-06SP-12
	.688 (17.48)	.875 (22.23)								.647 (16.5)				SSLMS-06SP-14
	.875 (22.23)	1.063 (27.00)								.825 (21.0)				SSLMS-06SP-17
	1.063 (27.00)	1.250 (31.75)								1.012 (25.7)				SSLMS-06SP-20
	1.250 (31.75)	1.438 (36.53)								1.200 (30.5)				SSLMS-06SP-23
	1.438 (36.53)	1.625 (41.28)								1.387 (35.3)				SSLMS-06SP-26
	1.625 (41.28)	1.813 (46.05)								1.575 (40.1)				SSLMS-06SP-29
	1.813 (45.05)	2.000 (50.80)								1.762 (44.8)				SSLMS-06SP-32
	2.000 (50.80)	2.188 (55.58)								1.950 (49.6)				SSLMS-06SP-35
	2.188 (55.58)	2.375 (60.33)								2.137 (54.3)				SSLMS-06SP-38

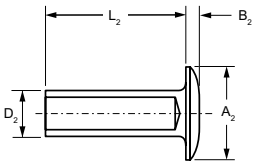
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Avdelmate® SSLMS Series

Steel / Steel / Steel





ø nom.	min.	max.		øD1	L1 max.	øA1	B1	øS	øD2	L2 max.	øA2	B2	lbf (kN)1)	Part No.
	.625 (15.88)	.750 (19.05)			.442 (11.3)					.580 (14.8)				SSLMS-08SP-12
	.750 (19.05)	.875 (22.23)								.695 (17.7)				SSLMS-08SP-14
	.875 (22.23)	1.125 (28.58)								.820 (20.9)				SSLMS-08SP-18
	1.125 (28.58)	1.375 (34.93)								1.070 (27.2)				SSLMS-08SP-22
	1.375 (34.93)	1.625 (41.28)								1.320 (33.6)				SSLMS-08SP-26
	1.625 (41.28)	1.875 (47.63)								1.570 (39.9)				SSLMS-08SP-30
1/4" (6.4)	1.875 (47.63)	2.125 (53.98)	.312 (7.9)	.187 (4.75)	.608 (15.5)	.625 (15.88)	.095 (2.41)	.114 (2.90)	.250 (6.35)	1.820 (46.3)	.625 (15.88)	.095 (2.41)	350 (1.55)	SSLMS-08SP-34
	2.125 (53.98)	2.375 (60.33)								2.070 (52.6)				SSLMS-08SP-38
	2.375 (60.33)	2.625 (66.68)								2.320 (59.0)				SSLMS-08SP-42
	2.625 (66.68)	2.875 (73.03)								2.570 (65.3)				SSLMS-08SP-46
	2.875 (73.03)	3.125 (79.38)								2.820 (71.7)				SSLMS-08SP-50
	3.125 (79.38)	3.375 (85.73)								3.070 (78.0)				SSLMS-08SP-54
	3.375 (85.73)	3.625 (92.08)								3.320 (84.4)				SSLMS-08SP-58
	3.625 (92.08)	3.875 (98.43)								3.570 (90.7)				SSLMS-08SP-62

dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*

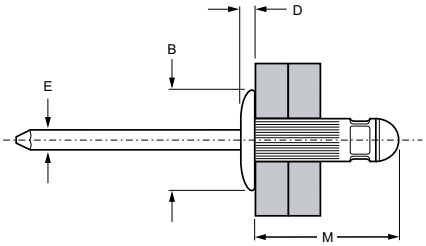
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

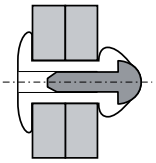
Avex® Splined 1610 Series

Steel / Steel

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Low carbon steel* Zinc plated	Corps: Acier bas carbone* Revêtement zingué	Hülse: Stahl* Verzinkt	Corpo: Acciaio a basso tenore di carbonio* Zincato	Cuerpo: Acero bajo en carbono* Zincado
Stem: Low carbon steel** Zinc coated	Tige: Acier bas carbone** Revêtement zingué	Dorn: Stahl** Verzinkt	Gambo: Acciaio a basso tenore di carbonio** Zincato	Vástago: Acero bajo en carbono** Zincado

*: BS3111 Type 0, SAE 1008, DIN 1654, QSt 34-3
**: BS3111 Type 0, SAE 1010/1015/1018/1022, DIN 17210, Cq10 / DIN 1654 Cq15/Cq22





ø					M	øB	D	øE			Part No.
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf *(kN)*[1]	lbf *(kN)*[1]	
5/32" *(4.0)*	.056 *(1.4)*	.196 *(5.0)*	.161 *(4.1)*	.166 *(4.2)*	.540 *(13.7)*	.332 *(8.5)*	.062 *(1.6)*	.1088 *(2.8)*	440 *(1.96)*	530 *(2.36)*	01610-06196
3/16" *(4.8)*	.047 *(1.2)*	.1575 *(4.0)*	.199 *(5.05)*	.204 *(5.2)*	.530 *(13.5)*	.397 *(10.1)*	.084 *(2.1)*	.1345 *(3.4)*	810 *(3.6)*	750 *(3.3)*	01610-06197

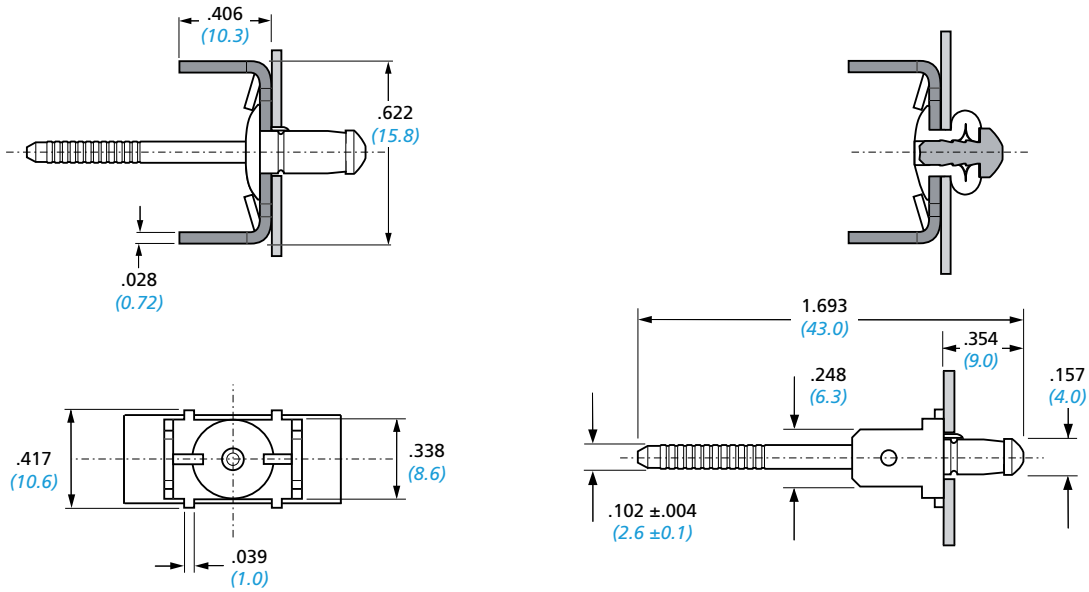
dimensions in inches and *(mm)* / en pouces et *(millimètre)* / alle Maße in Zoll und *(mm)* / in pollici e *(millimetri)* / en pulgadas y *(milímetros)*
1) typical values / valeurs moyennes / typische Werte / Valori tipici / valores típicos

Earth Tab Rivet BN11 Series

Steel / Steel

English	Français	Deutsch	Italiano	Español
Earthing/grounding point	Rivet masse	Erdungsniet	Punto di messa aterra	Toma de tierra
Body: Low carbon steel* Zinc plated Clear trivalent passivated	Corps: Acier bas carbone* Revêtement zingué Passivation claire trivalente	Hülse: Stahl* Verzinkt Klar chromatiert, Cr6-frei	Corpo: Acciaio a basso tenore di carbonio* Zincato Passivazione chiara trivalente	Cuerpo: Acero bajo en carbono* Zincado Pasivado claro trivalente
Stem: Medium carbon high tensile steel** Zinc plated Clear trivalent passivated	Tige: Acier au carbone** Revêtement zingué Passivation claire trivalente	Dorn: Stahl** Verzinkt Klar chromatiert, Cr6-frei	Gambo: Acciaio a medio tenore di carbonio** Zincato Passivazione chiara trivalente	Vástago: Acero medio en carbono** Zincado Pasivado claro trivalente
Tab: Brass***	Languette: Laiton***	Fahne: Messing***	Linguette: Ottone***	Lengüeta: Latón***

*: SAE 1008 **: SAE 1045 ***: CuZn 30, DIN 17660
Note: conforms to EN-60335-1



ø				Part No.
nom.	min.	max.	± .002 (± 0.05)	
5/32" (4.0)	.024 (0.6)	.059 (1.5)	.205 (5.2)	0BN11-00509

dimensions in inches and (mm) / en pouces et (millimètre) / alle Maße in Zoll und (mm) / in pollici e (millimetri) / en pulgadas y (milímetros)

Powerful Brands. Breakthrough Solutions.

At STANLEY Engineered Fastening 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 meet the demands of industry worldwide, STANLEY Engineered Fastening provides technological solutions to over 100 different industries.

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With a focus on high-quality threaded inserts for plastics products, Dodge has been a leader in the fastening market since the 1950s.

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Gripco has been providing quality nut and threaded assembled products since 1904.

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Tucker®

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Warren®

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