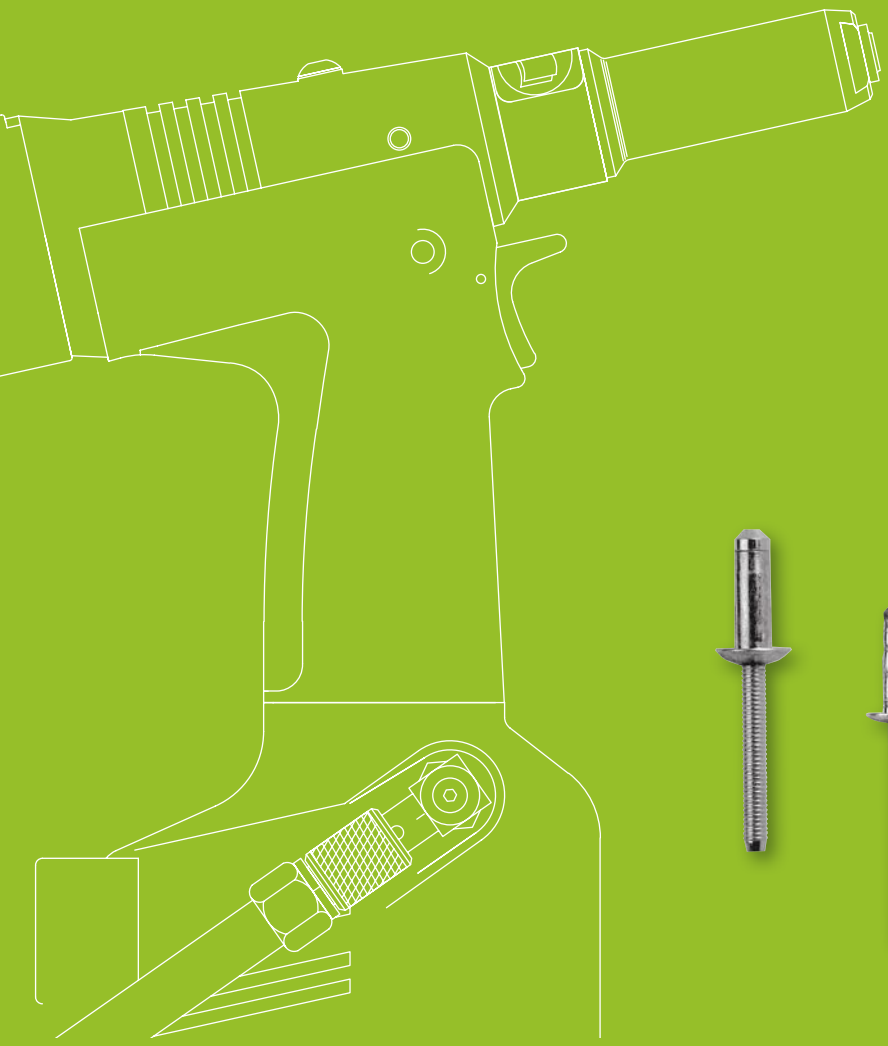
Avdel®

Breakstem Systems

Since 1922 Since 1936 2010

infastech™
Our Technology, Your Success



Intelligent Systems for versatile Fastening

Joining components and diverse materials that vary in thickness and composition is a fundamental aspect of Avdel® 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.

Avdel's 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.

Avdel® products have often been designed and developed in collaboration with our customers, thus you can be sure they've been designed with function and practicality at the forefront of the development.

With fastening technology nothing should be left to chance, from conceptual design to the finished article every decision is significant and must be made with the end result in mind. This is inherent to the Avdel® culture, we have highly skilled applications engineers on hand to support your fastening requirements and recommend the best solution for your joining needs.

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

Avdel® 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. Avdel® breakstem fastening solutions can be used to simplify production flows and reduce assembly time whilst simultaneously improving quality and performance in the application. Whether you specialise in high volume production or small volume batches we can recommend a fastening solution to match. Our customised Multi-head Assembly Stations can fasten any number of joints in a single operation whilst our hand tools provide flexible assembly solutions in many environments.

In every case 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.

Contents Page

Avdel® Breakstem Systems

Avdel® breakstem fasteners and installation tools are a high performance blind fastening system. For 75 years the Avdel® brand has been synonymous with world-leading, blind fastening systems. Used in all manufacturing industries throughout the world, there is an Avdel® breakstem fastener and installation tool to suit virtually every assembly requirement. Key user benefits include:

Benefits of assembly

Extensive Product Choice

The Avdel® breakstem range is now more extensive than ever. A wide choice of headforms, 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 Avdel® breakstem fasteners. Combining the latest design and engineering technology with robust and durable construction, the range includes hydro-pneumatic handtools, a battery powered tool as well as fully automated, customised equipment for high volume production.

Multi-grip Capability

Stavex®, Avex®, 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 stock holding, 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, Avdel® breakstem fastening systems ensure consistently accurate and secure, high strength assembly.

Retained and Locked Stems

Most Avdel® 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 whilst the splined stems of Hemlok® and Q Rivet fasteners form interference locks.

Structural Assembly

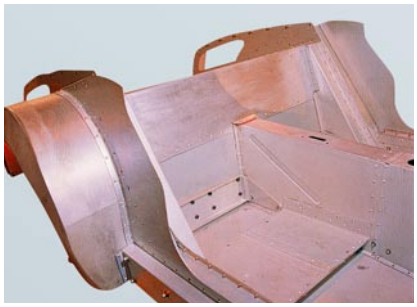
Where load-bearing, structural joints are required, Avibulb® XT, Avinox® XT, Hemlok®, Q Rivet, Interlock® and Monobolt® breakstem fasteners have been designed to offer high shear and tensile strength. The Avbolt® structural blind fastener offers strength values that are normallly only possible with non blind lockbolts.

Customised Designs

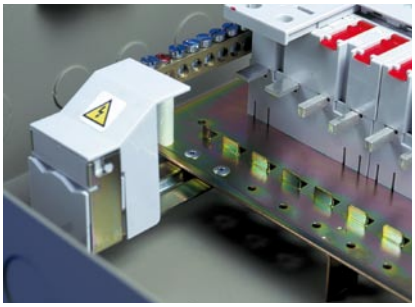
As you would expect from a leader in fastening solutions, we have extensive experience in engineering and developing breakstem fasteners and tooling to unique customer requirements and a few examples are detailed in this brochure. Please contact us to discuss your special requirements.

Domestic appliances

Car chassis



Electronic components



Selecting a Breakstem Fastener

Selecting an Avdel® 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 Avdel® 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.

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 anodised finishes for aluminium alloy fasteners, with or without dyeing. Where it is important to improve corrosion resistance and match the surrounding colour, clear, black, yellow, JS500, hex chrome free and other passivations are available.

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.

Hole Fill

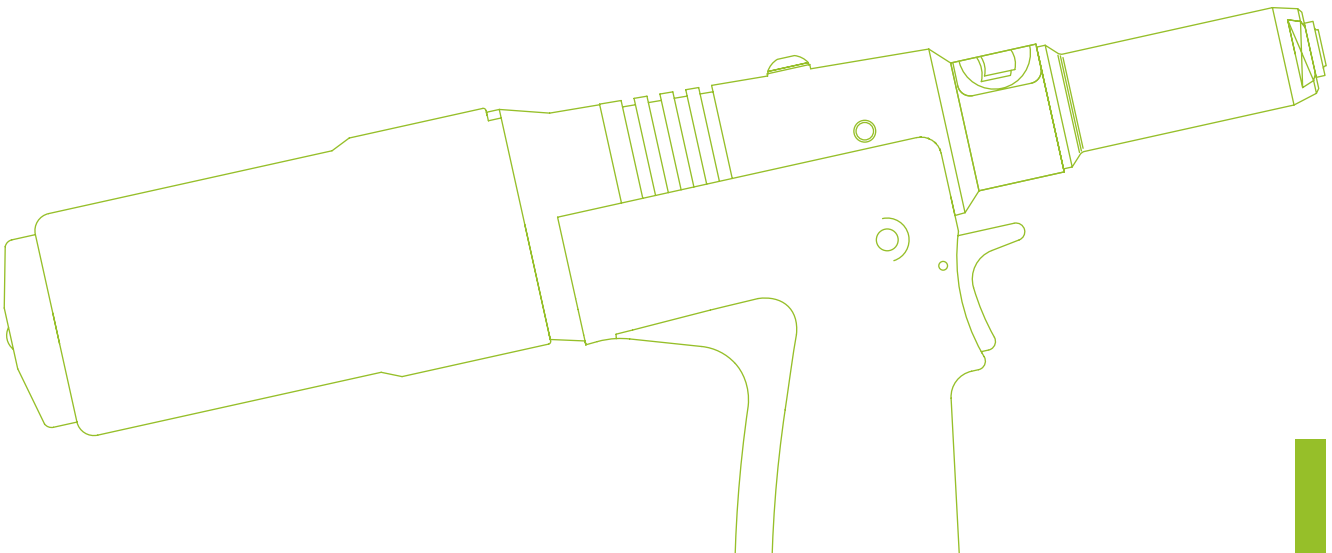
Monobolt® and Interlock® fasteners provide excellent hole fill via a radially expanded body. Avex®, Stavex®, Avibulb® and Avdel® SR fasteners also provide good hole fill.

Load Spreading

Most Avdel® 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.

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 datasheets reflect the ultimate strength of the fasteners, determined with representative samples and over multiple tests. Avdel recommends 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.



Range Overview - non-structural -

Brand	Material		Key features
	Body	Stem	
Avex® 	Aluminium Alloy Aluminium Alloy	Steel Stainless Steel	Multi-grip capability Good hole fill Retained stem Large blind side bearing area
Stavex® 	Steel Stainless Steel	Steel Stainless Steel	Multi-grip capability Good hole fill Retained stem Large blind side bearing area
Avibulb® 	Steel	Steel	High shear and tensile strength Retained stem Large blind side bearing area
Avinox® 	Stainless Steel	Stainless Steel	High shear and tensile strength High corrosion resistance Retained stem Large blind side bearing area
Bulbex® 	Aluminium Alloy	Aluminium Alloy	Split tail formation for plastic and low strength materials Multi-grip capability Retained stem
Klamp-Tite® (non-structural) 	Aluminium Alloy	Aluminium Alloy	Split tail formation for thin sheet and low strength materials Multi-grip capability Good clamp up
T-Lok® 	Steel	Steel	'Peel-type' tail formation for joining wood to metal Wide grip range Retained stem
Avdelmate® 	Aluminium Alloy Aluminium Alloy Steel	Aluminium Alloy Steel Steel	Two piece fastener Extra wide grip range Large bearing area against both sides of the application Excellent hole fill
Standard Breakstem Range N Rivet 	Aluminium Alloy Aluminium Alloy Copper Stainless Steel Stainless Steel Monel	Aluminium Alloy Steel Steel Steel Stainless Steel Steel	Low cost standard rivet Wide range of materials and sizes Quick installation Increased stem retention
Earth Tab Rivet 	Steel	Steel	Cost effective earthing point Paint piercing capability Twin tabs allow one or two connections
Avex® Splined 	Steel	Steel	Steel splines for electrical continuity in earthing applications Multi-grip capability

Range Overview - structural -

Brand	Material		Key features
	Body	Stem	
Avibulb® XT 	Steel	Steel	High shear and tensile strength High residual clamp load Multi-grip capability Large blind side bearing area
Avinox® XT 	Stainless Steel	Stainless Steel	High shear and tensile strength High residual clamp load High corrosion resistance Multi-grip capability Large blind side bearing area
Hemlok® 	Aluminium Alloy Steel	Aluminium Alloy Steel	Very high shear and tensile strength Large blind side bearing area Interference lock via splined stem
Monobolt® 	Aluminium Alloy Steel Stainless Steel	Aluminium Alloy Steel Stainless Steel	Multi-grip capability Fully sealed fastener Visible lock Excellent hole fill Mechanically locked stem Good sheet take-up performance
Interlock® 	Aluminium Alloy Steel	Aluminium Alloy Steel	Multi-grip capability Fully sealed fastener Excellent hole fill Mechanically locked stem Good sheet take-up performance
Q Rivet 	Aluminium Alloy Aluminium Alloy Steel Stainless Steel	Aluminium Alloy Steel Steel Stainless Steel	Interference lock via a splined stem Stem plugs entire shell length Weatherproof
Klamp-Tite® (structural) 	Aluminium Alloy	Aluminium Alloy	Split tail formation for thin sheet and low strength materials Multi-grip capability Good clamp up Mechanically locked stem Visible lock
Avbolt® 	Steel	Steel	Very high tensile and shear strength High residual clamp loads in joint Large head and blind side bearing areas
T Rivet 	Aluminium Alloy Aluminium Alloy	Aluminium Alloy Steel	'Peel-type' tail formation High shear and tensile strength High clamp up Visible lock

Selection Guide

This table is designed as a guide to help you select the most suitable Avdel® breakstem fastener for your particular application. Full technical and performance data for each breakstem fastener can be found on our website www.avdel-global.com or contact your local Avdel representative.

Product Range	Material							Headform				Fastener Size (nom)									Page No.	
	Body				Stem																	
Non-structural	Aluminium	Steel	Stainless Steel	Monel	Aluminium	Steel	Stainless Steel	Dome/ Protruding	Countersunk	Large Flange	3/32" (2.4 mm)	3.0 mm	1/8" (3.2 mm)	5/32" (4.0mm)	4.3 mm	3/16" (4.8 mm)	6.0 mm	1/4" (6.4 mm)	Series No.	Description	Data sheets
Avex®	•					•			•				•	•		•			1604	10	35
	•					•				•						•			1641	10	36
	•						•			•						•			1643	10	37
	•					•		•				•	•	•		•		•	1661	10	38
	•						•	•				•	•	•		•			1663	10	39
Stavex®		•				•				•						•			BE34	11	40
		•				•		•					•	•		•		•	BS01	11	41
		•				•			•				•			•			BS04	11	42
			•				•	•					•	•		•			BS11	11	43
Avibulb®		•				•		•					•	•		•	•		BN01	12	44
Avinox®			•				•	•					•	•		•			BE61	12	45
Bulbex®	•				•			•						•		•			BF01	13	46
	•				•					•						•			BF41	13	47
Klamp-Tite® (non-structural)	•				•			•								•		•	BAPK	14	48
T-Lok®		•				•		•							•	•			BM01	15	49
Avdelmate®	•				•			•								•		•	BALMS	16	50
	•					•		•								•		•	BSLMS	16	51
		•				•		•								•		•	SSLMS	16	52
Standard Breakstem Range N Rivet	•				•			•			•		•	•		•		•	AAPS	24	78
	•				•					•			•	•		•		•	AALS	24	78
	•				•				•		•		•	•		•		•	AACS	24	78
	•					•		•			•		•	•		•		•	BSPS	24	80
	•					•				•			•	•		•		•	BSLS	24	80
	•					•			•		•		•	•		•		•	BSCS	24	80
			•				•	•			•		•	•		•		•	CCPS	24	82
			•				•			•			•	•		•		•	CCLS	24	82
			•				•		•		•		•	•		•		•	CCCS	24	82
			•			•		•			•		•	•		•		•	CSPS	24	84
			•			•				•			•	•		•		•	CSLS	24	84
			•			•			•		•		•	•		•		•	CSCS	24	84
				•		•		•			•		•	•		•		•	MSPS	24	86
				•		•				•			•	•		•		•	MSLS	24	86
				•		•			•		•		•	•		•		•	MSCS	24	86
		•				•		•			•		•	•		•		•	SSPS	24	88
		•				•				•			•	•		•		•	SSLS	24	88
		•				•			•		•		•	•		•		•	SSCS	24	88
Earth Tab Rivet		•				•													BN11	25	93
Avex® Splined		•				•		•						•		•			1610	25	94

Product Range	Material						Headform			Fastener Size (nom)								Page No.		
	Body			Stem																
Structural	Aluminium	Steel	Stainless Steel	Aluminium	Steel	Stainless Steel	Dome/ Protruding	Countersunk	Large Flange	1/8" (3.2 mm)	5/32" (4.0 mm)	3/16" (4.8 mm)	1/4" (6.4 mm)	5/16" (8.0 mm)	3/8" (10.0 mm)	1/2" (12.7 mm)	5/8" (16.0 mm)	Series No.	Description	Data sheets
Avibulb® XT		•			•		•						•					BN01	17	53
Avinox® XT			•			•	•						•					BE61	17	54
Hemlok®		•			•		•						•					2221	18	55
	•			•			•						•					2241	18	56
Monobolt®			•			•	•					•	•		•			2711/CCPV	19	57
			•			•		•				•	•					2721	19	58
		•			•			•				•	•					2761/SSCV	19	59
	•			•				•				•	•					2764/BACV	19	60
		•			•		•					•	•		•			2771/SSPV	19	61
	•			•			•					•	•		•			2774/BAPV	19	62
Interlock®	•			•			•					•	•					BAPI	20	63
		•			•			•				•	•					SSCI	20	64
		•			•		•					•	•					SSPI	20	65
Q Rivet	•			•				•		•	•	•	•					AACQ	21	66
	•			•					•	•	•	•	•					AALQ	21	66
	•			•			•			•	•	•	•					AAPQ	21	66
	•				•			•		•	•	•	•					BSCQ	21	68
	•				•				•	•	•	•	•					BSLQ	21	68
	•				•		•			•	•	•	•					BSPQ	21	68
			•			•		•		•	•	•	•					CCCQ	21	70
			•			•			•	•	•	•						CCLQ	21	70
			•			•	•			•	•	•	•					CCPQ	21	70
		•			•			•		•	•	•	•					SSCQ	21	72
		•			•				•	•	•	•	•					SSLQ	21	72
		•			•		•			•	•	•	•					SSPQ	21	72
Klamp-Tite® (structural)	•			•			•					•	•					BAPKTR	22	74
Avbolt®		•			•										•	•	•	21001	23	75
		•			•							•	•	•				21021	23	76
T Rivet	•			•			•					•	•					BAPTSS	24	90
	•			•					•			•	•					BALTSS	24	90
	•				•		•					•	•					BSPTS	24	91
	•				•				•			•	•					BSLTS	24	91
	•				•		•					•						BSPTS	24	91
	•				•				•			•						BSLTS	24	92
	•				•			•				•						BSCTS	24	92

Our policy is one of continuous product development and improvement and we reserve the right to change the specification of any product without prior notice.

Avex®

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

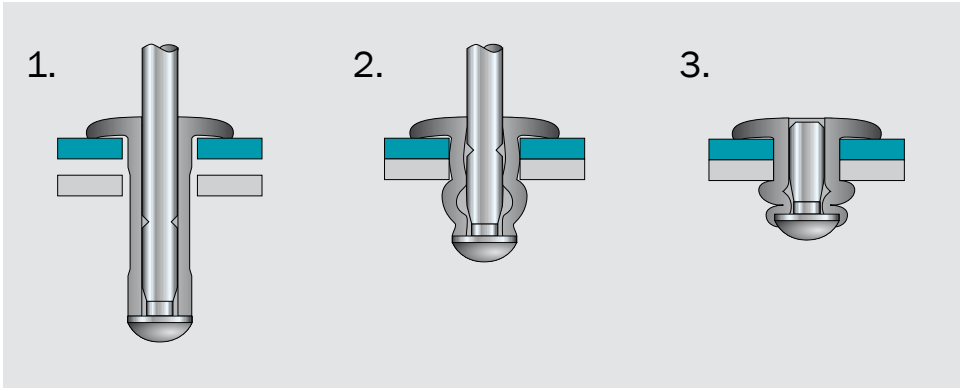
Key features and benefits

- 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:
3.0 mm to 1/4" (6.4 mm)
Materials:
Aluminium alloy with steel or stainless steel stems
Headforms:
Dome, countersunk and large flange

Typical placing sequence



Please visit our website www.avdel-global.com 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 breakstem 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

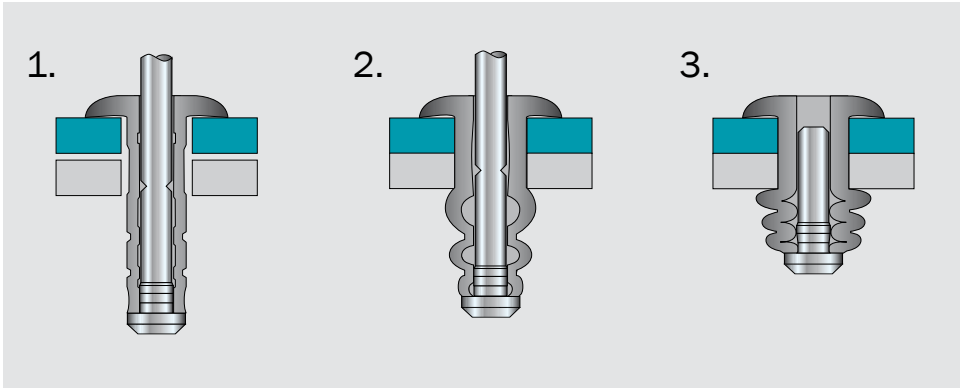
Specifications

Sizes:
1/8" to 1/4"
(3.2 mm to 6.4 mm)

Materials:
Steel or stainless steel

Headforms:
Dome, countersunk
and large flange

Typical placing sequence



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Assembly applications

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

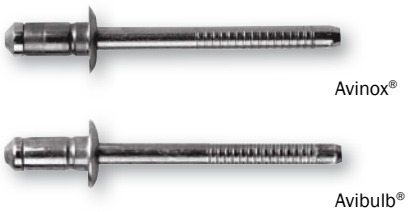
Snowmobile

Passenger air bag

Roll-up security door

Avinox® & Avibulb®

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



Avinox®

Avibulb®

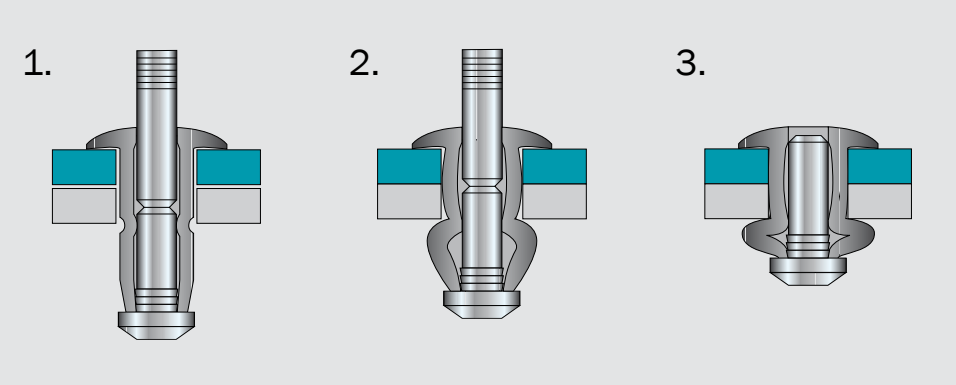
Key features and benefits

- 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" to 3/16"
(3.2 mm to 4.8 mm),
Avibulb® up to 6.0 mm
Material:
Stainless steel and steel
Headform:
Dome

Typical placing sequence



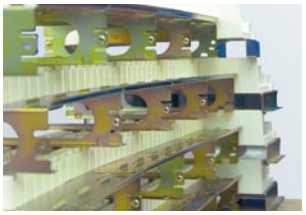
Please visit our website www.avdel-global.com for fastener placing animations and technical data.

Assembly applications

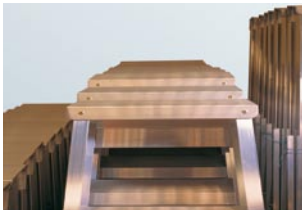
- Automotive
- Cabinets and enclosures
- Heating and ventilation
- Telecommunications
- General light industrial

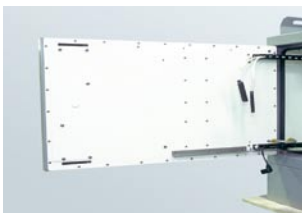
Telecommunications cabinets

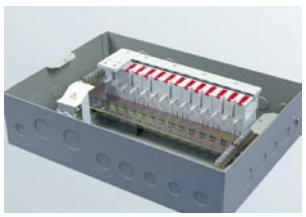
Electronic components

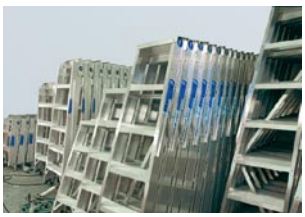


Ladders









Bulbex®

Aluminium 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.

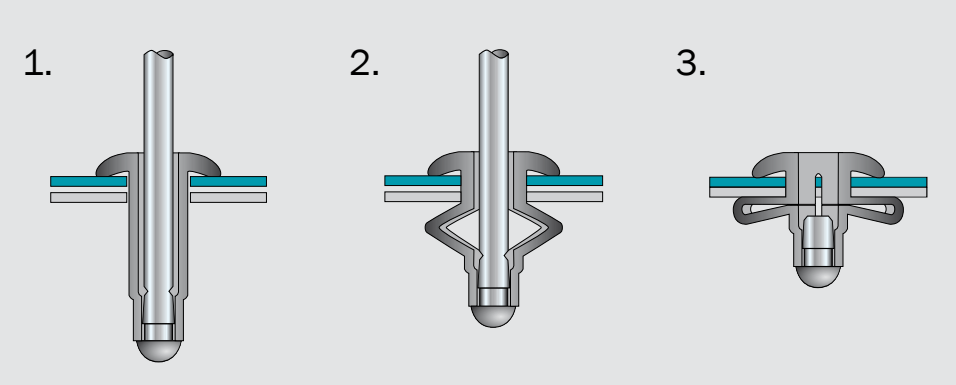
Key features and benefits

- 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" and 3/16"
(4.0 mm and 4.8 mm)
Material:
Aluminium alloy
Headforms:
Dome and large flange

Typical placing sequence



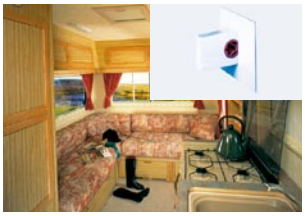
Please visit our website www.avdel-global.com for fastener placing animations and technical data.

Assembly applications

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

Caravans/RV

Mobile homes



Speaker systems

Klamp-Tite® non-structural

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

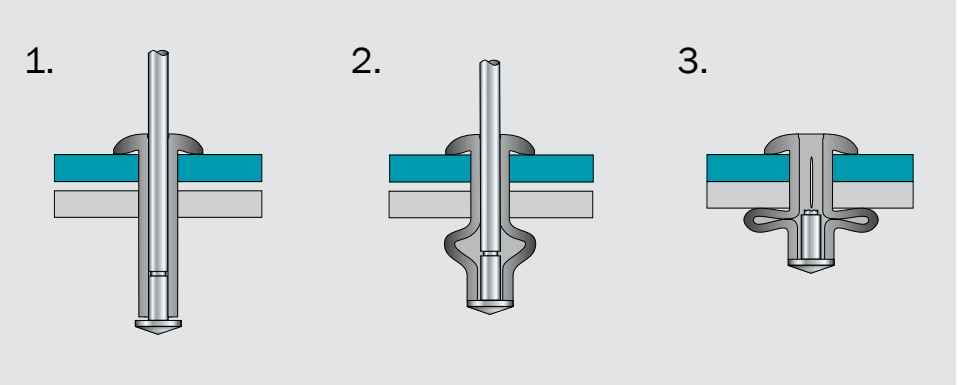
Key features and benefits

- 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" and 1/4"
(4.8 mm and 6.4 mm)
Materials:
Aluminium alloy
Headforms:
Protruding

Typical placing sequence



Please visit our website www.avdel-global.com for fastener placing animations and technical data.

Assembly applications

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

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:

4.3 mm and 3/16" (4.8 mm)

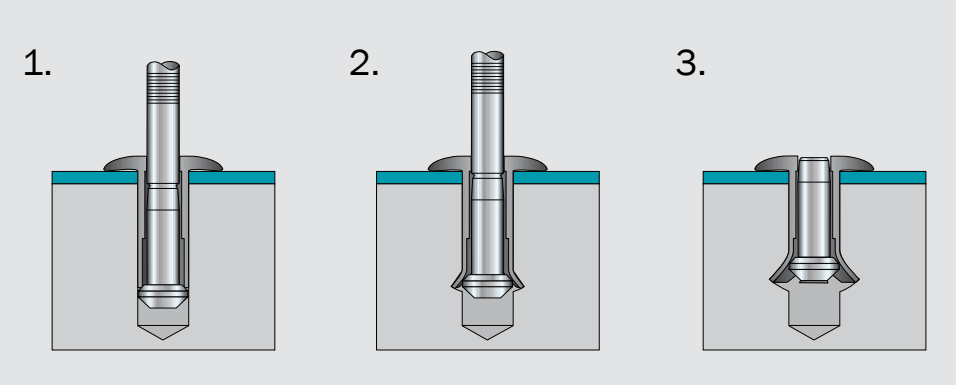
Materials:

Steel

Headforms:

Dome

Typical placing sequence



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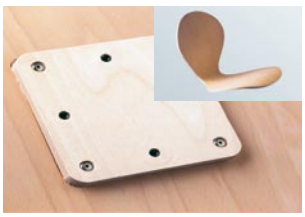
Assembly applications

- 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.

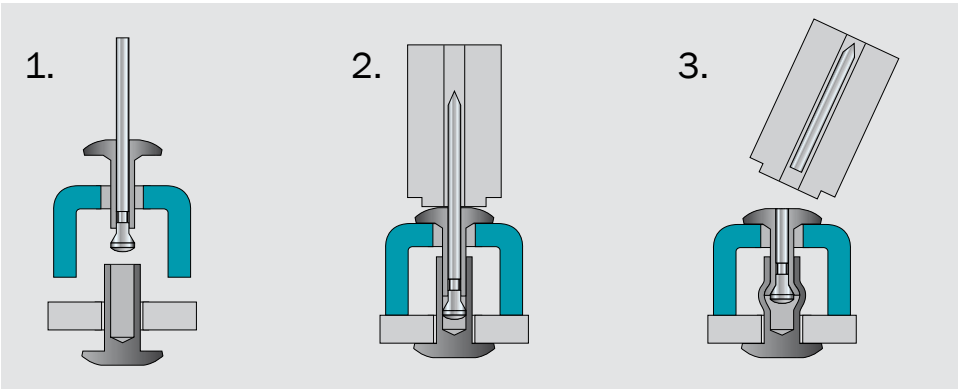
Key features and benefits

- 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 headform on both sides of the application for a neat appearance

Specifications

Sizes:
3/16" and 1/4"
(4.8 mm and 6.4 mm)
Materials:
Aluminium alloy and steel
Headforms:
Dome

Typical placing sequence



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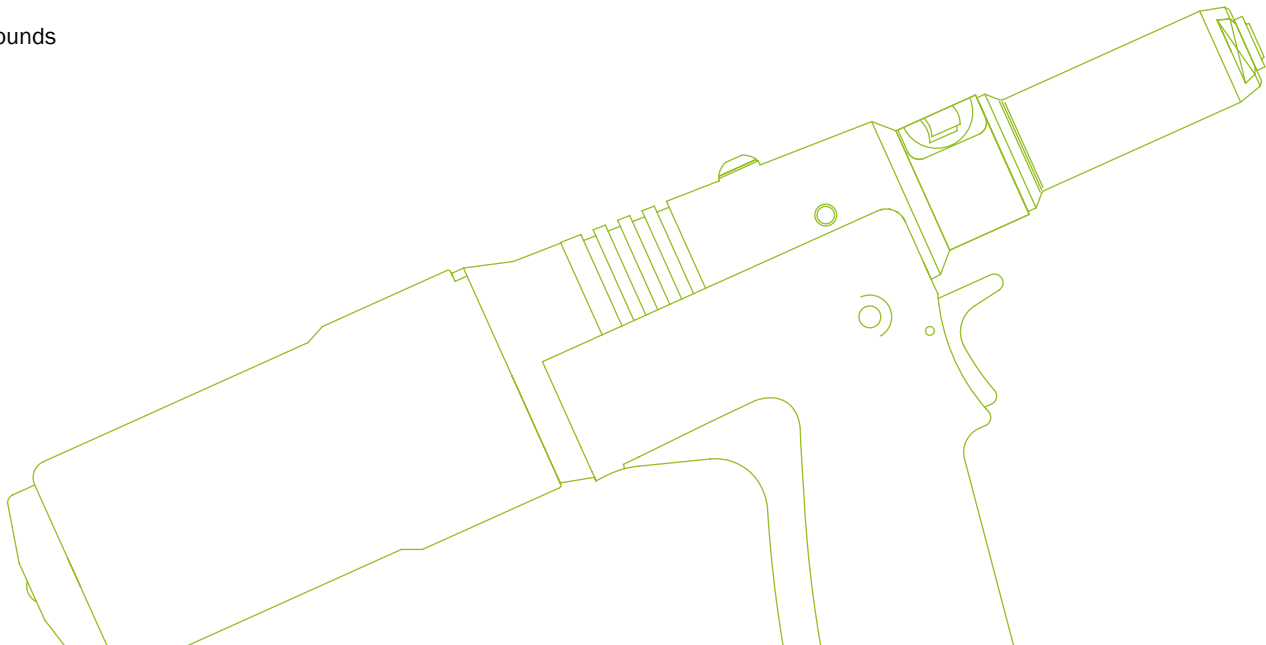
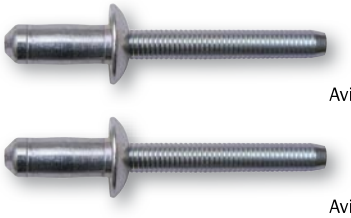
Assembly applications

- Toys for playgrounds
- Furniture
- Racks



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

Sizes:

1/4" (6.4 mm)

Material:

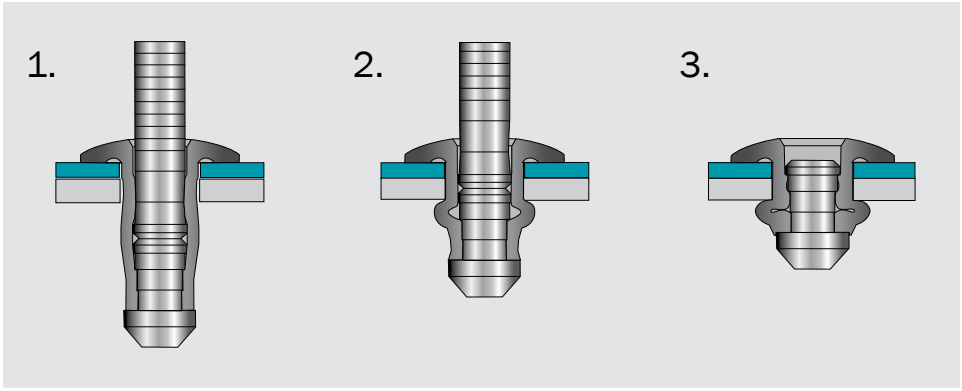
Steel and stainless steel

Headform:

Dome

Avdel Patent Protected

Typical placing sequence



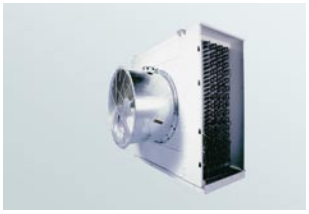
Please visit our website www.avdel-global.com for fastener placing animations and technical data.

Assembly applications

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

Telecommunications cabinets

Industrial refrigeration

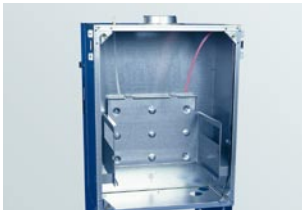


Vehicle panels

Solar panels

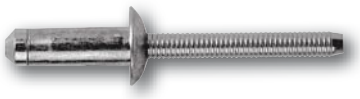
Washing machine

Heating and ventilation



Hemlok®

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



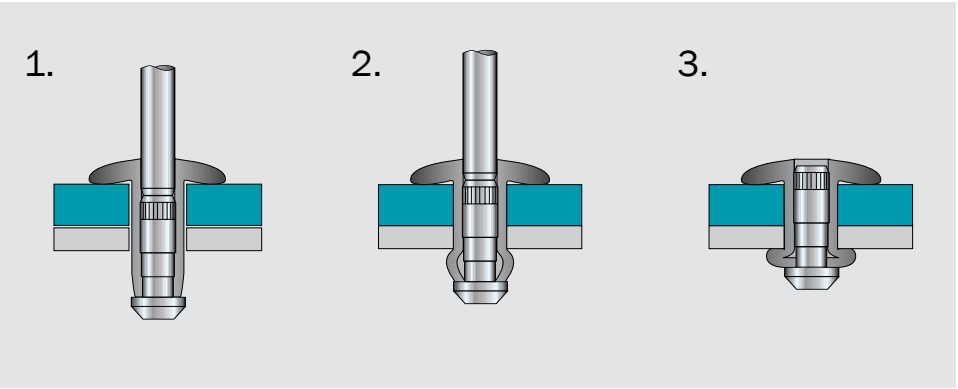
Key features and benefits

- 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

Sizes:
1/4" (6.4 mm)
Materials:
Aluminium alloy and steel
Headform:
Protruding

Typical placing sequence



Please visit our website www.avdel-global.com 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.

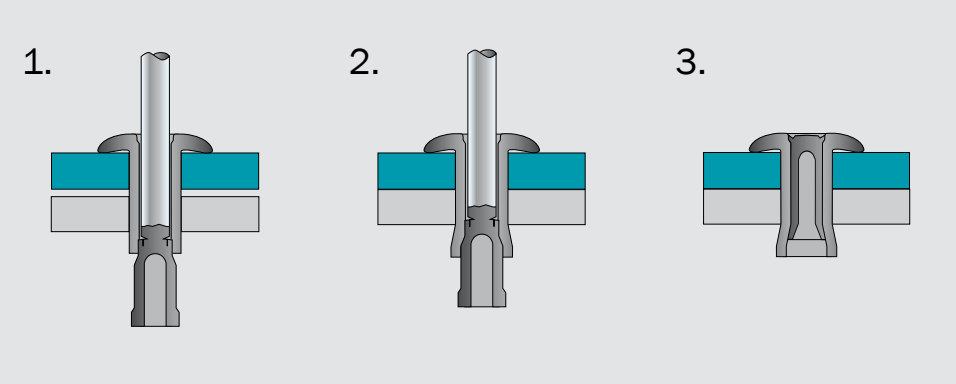
Key features and benefits

- 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", 1/4" and 3/8"
(4.8 mm, 6.4 mm and 10 mm)
Materials:
Aluminium alloy, steel and stainless steel
Headforms:
Protruding and countersunk

Typical placing sequence



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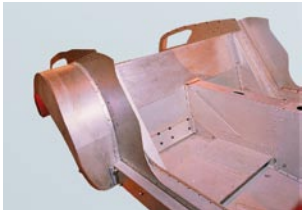
Assembly applications

- 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.

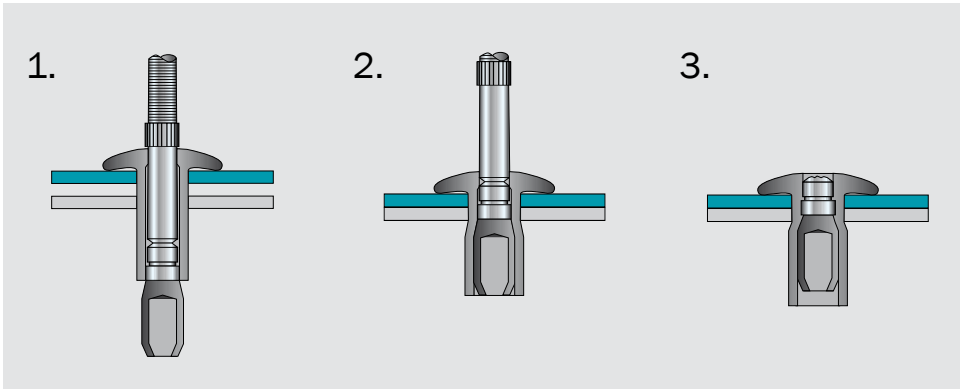
Key features and benefits

- 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" and 1/4"
(4.8 mm and 6.4 mm)
Materials:
Aluminium alloy and steel
Headforms:
Protruding and countersunk

Typical placing sequence



Please visit our website www.avdel-global.com 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.

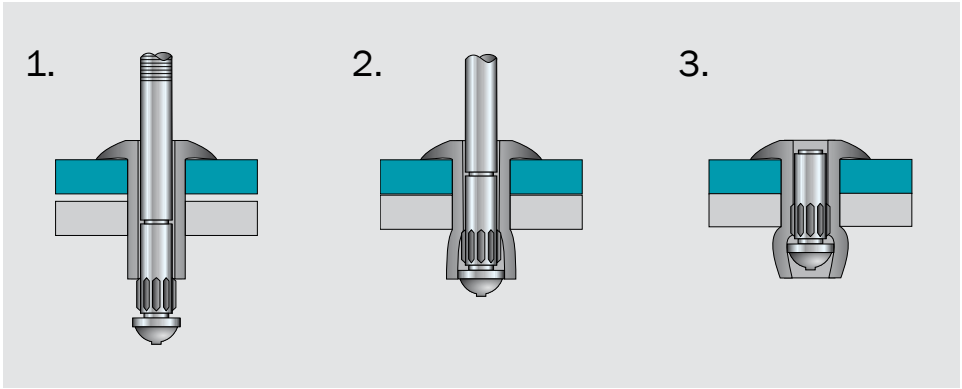
Key features and benefits

- 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" to 1/4"
(3.2 mm to 6.4 mm)
Materials:
Aluminium alloy, steel and stainless steel
Headforms:
Protruding, large flange and countersunk

Typical placing sequence



Please visit our website www.avdel-global.com 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

Klamp-Tite® structural

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

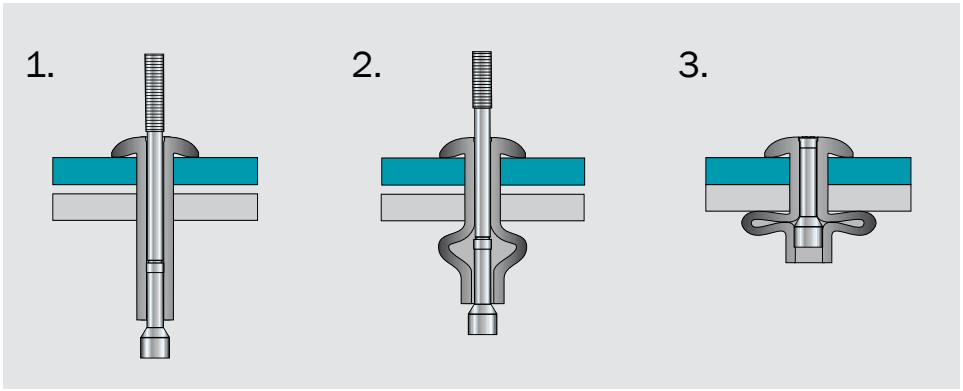
Key features and benefits

- 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
- 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" and 1/4"
(4.8 mm and 6.4 mm)
Materials:
Aluminium alloy
Headforms:
Protruding

Typical placing sequence



Please visit our website www.avdel-global.com for fastener placing animations and technical data.

Assembly applications

- Container
- Cladding
- Commercial vehicles

Avbolt® Structural Blind Fastener

The Avbolt® structural fastener is a high strength, tamper resistant, blind steel fastener designed for use in heavy-duty structural applications. It offers a high tensile and shear strength normally only possible with non blind lockbolts and combines it with the installation speed of blind products.

Avbolt® 3/8", 1/2" and 5/8"
(10, 12.7 and 16 mm):
3 piece design (sleeve, collar, stem)

Avbolt® 3/16", 1/4" and 5/16"
(4.8, 6.4 and 8.0 mm):
2 piece design (sleeve with collar, stem)

Key features and benefits

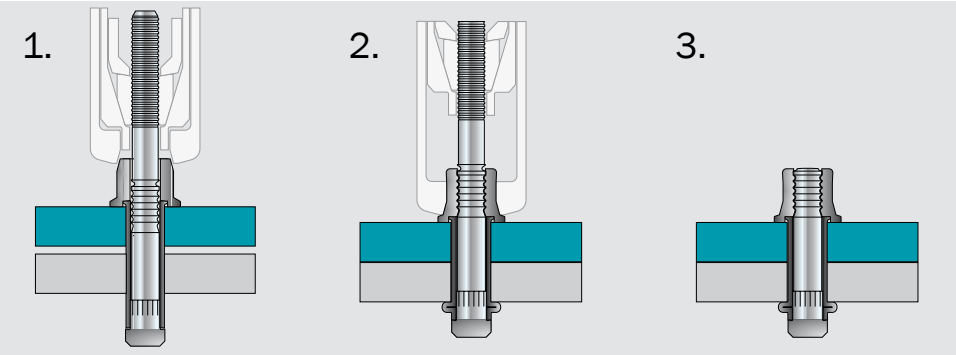
- Use on blind sided application
- High tensile and shear strength for heavy-duty applications
- Wide grip capability suits a variety of material thicknesses
- Locking feature creates a vibration resistant joint and prevents loose stems
- Ideal for areas with restricted access
- Fast installation
- High security tamper resistance
- Optimised heat treatment
- Simple tooling requires only minimum operator skill

Specifications

Sizes:
3/16" to 5/8"
(4.8 mm to 16.0 mm)
Material:
Steel

Avdel Patent Protected

Typical placing sequence (3 piece design)



Please visit our website www.avdel-global.com for fastener placing animations and technical data.

Assembly applications

- Automotive
- Construction
- Container
- Renewable energies
- Railway
- Mining
- Security fencing

Other Breakstem

N Rivet

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

- Cost effective standard rivet
- Installed quickly and easily
- Design of the stem head ensures positive retention after installation
- Sizes from ø 3/32" (2.4 mm) to 1/4" (6.4 mm)
- Protruding, large flange or countersunk headforms
- Materials of body/stem: aluminium/aluminium, aluminium/steel, steel/steel, stainless steel/steel, stainless steel/stainless steel, monel/steel, copper/steel

T Rivet

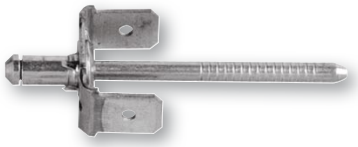
'Peel-type' structural breakstem rivet providing good vibration resistance and shear and tensile strength.

- 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
- Sizes of ø 3/16" (4.8 mm) and 1/4" (6.4 mm)
- Dome, large flange and countersunk headforms
- Materials of body/stem: aluminium/aluminium and aluminium/steel

Other Breakstem Fasteners

Earth Tab Rivet

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

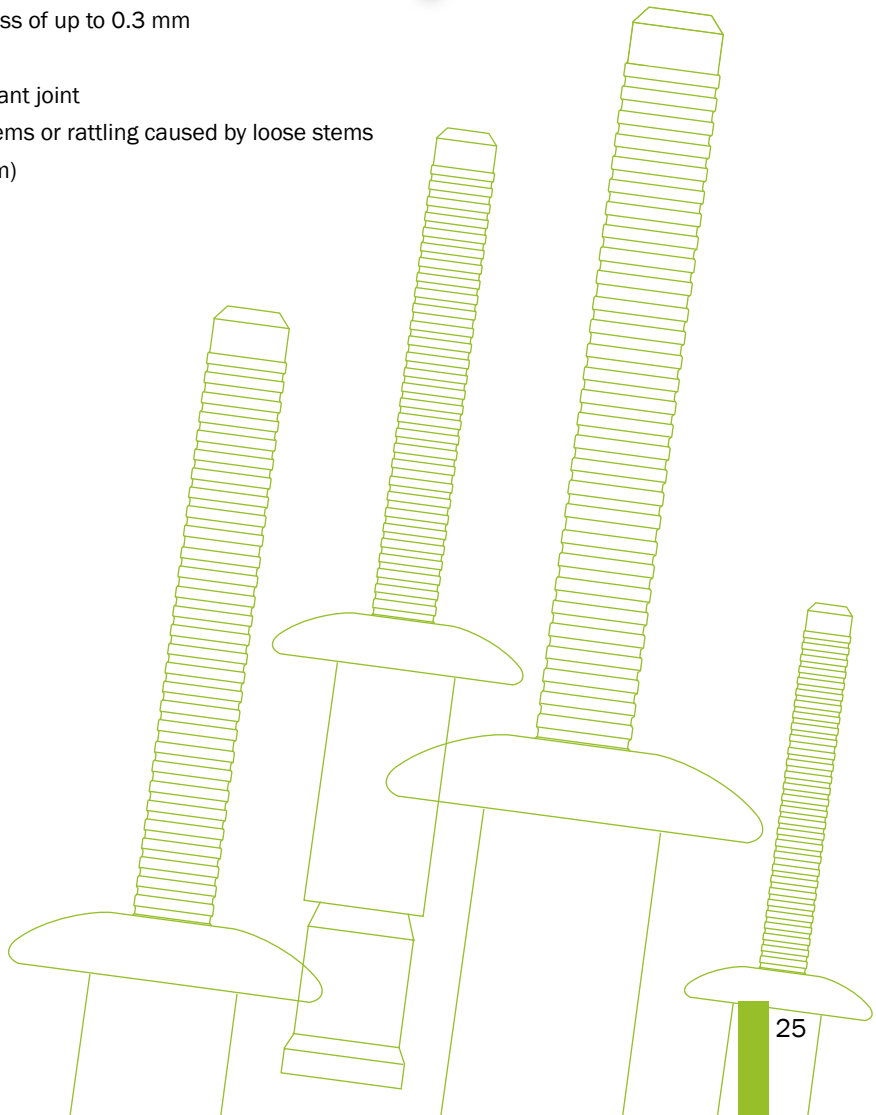


- Twin tabs allow one or two connections
- Fast installation of a one piece assembly
- Works on a single phase power supply of 240 volts or below
- Provides a resistance to or below 0.1 ohms
- Tested and approved to EN 60335-1 and BS 3456 Parts 201, clauses 27, 28, 31
- For 5.2 mm holes and a material 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
- Sizes of ø 5/32" (4.0 mm) and 3/16" (4.8 mm)
- Steel body and stem



Installation Tools

Genesis® nG Series Power Tool Range

New high performance, lightweight hydro-pneumatic handtools for breakstem rivets.

- Vacuum air supply cut-off on trigger minimizes air consumption
- Quick release or fixed stem collector bottle optional for nG1, nG2 and nG2-S
- Fixed stem collector bottle for nG3 and nG4
- Integrated cycle counter (except nG1 and nG2-S)
- Lightweight construction reduces operator fatigue
- Toughened plastic body and heavy duty rubber base make it a robust tool
- nG1, nG2 and nG2-S feature a quick release nose equipment reducing setting times
- Soft touch rubber grip on handle for comfortable operation
- nG2-S split version with lightweight placing head and remote intensifier
- Avdel Patent Protected

Placing capability

nG1:
Up to 3/16" (4.8 mm) aluminium breakstem rivets and up to 5/32" (4.0 mm) steel breakstem rivets

nG2:
Up to 3/16" (4.8mm) breakstem rivets

nG2-S:
Up to 3/16" (4.8mm) breakstem rivets

nG3:
Up to 1/4" (6.4mm) breakstem rivets produced by Avdel, except Avibulb® XT, Avinox® XT and Hemlok® structural fasteners

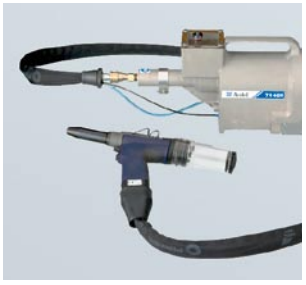
nG4:
Up to 1/4" (6.4mm) breakstem rivets produced by Avdel, except Monobolt® and Interlock® structural rivets

Please visit our website www.avdel-global.com for technical information.

nG1

nG2

nG2-S



nG3

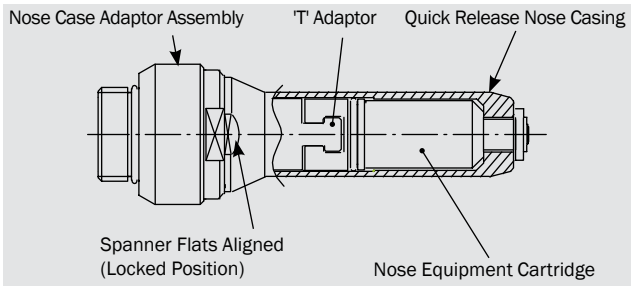
nG4

Installation Tools

Quick Release Nose Equipment

Save time and money with this patented system

Change a nose equipment cartridge on your Genesis® tool on line in less than ten seconds. By simply turning the quick release nose casing and removing it from the nose case adaptor assembly, it is possible to slide the nose equipment cartridge off the 'T' adaptor and replace it with another. All this can be done without taking your Genesis® tool off line. The used equipment cartridge can then be cleaned and serviced off line and returned ready for the next change over. Ideal for continuous flow production lines or environments where nose equipment requires frequent cleaning. Available on all standard Genesis® models, they will place the same range of breakstem fasteners as standard nose equipment.

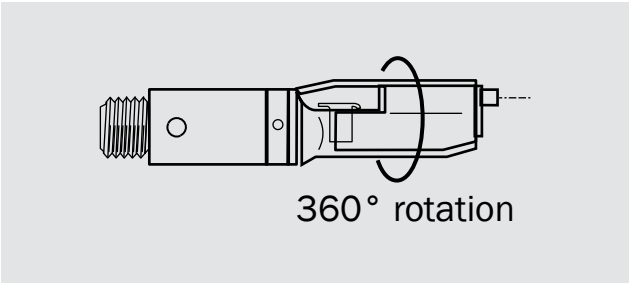


Swivel Heads

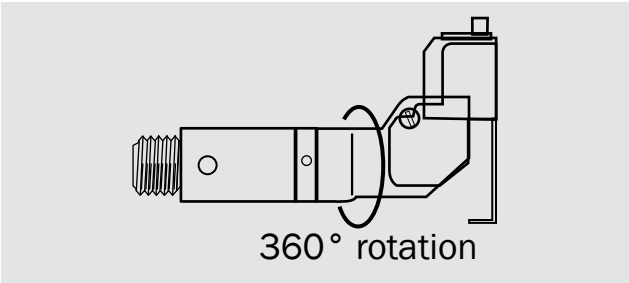
Access a wider range of applications

Instead of a standard nose assembly, a swivel head can be fitted to a Genesis® base tool. This allows 360° rotation of the tool about the nose tip and allows access into many applications otherwise too restrictive. There are two types of swivel heads; straight swivel head with the nose tip slightly offset from the centre line of the tool head and the right angle swivel head with the nose tip on a perpendicular axis to the head of the tool. Available on the nG1, nG2, nG2-S and nG3 models. Will place Avex®, Avinox® and Bulbex® fasteners.

Straight Swivel Head



Right Angle Swivel Head



Installation Tools

Sensitive Trigger

Increase safety and improve product quality

This system replaces the standard pneumatic trigger with a preloaded mechanical trigger. It uses the force exerted by pushing the fastener into the application to trigger the installation. Available on all Genesis® nG models.
Key benefits are:

- Increased safety – the system relies on the fastener being perpendicular to the application. It is impossible to place a fastener, unless it is safely in the application.
- Improved product quality through increased consistency of fastener placement
- Uses standard Genesis® nose equipment parts
- Easily adjustable placement force for ease of use
- Avdel Patent Protected

Options

The Genesis® range can be customised to meet your unique assembly requirements. Below are just a few examples of options we have developed for our customers. If you have a special requirement you would like to discuss, please contact your local Avdel representative.

In addition to these there are more options to customise the Genesis® tools:

- Extended Nose Assemblies for applications where fasteners are placed in deep recessed areas.
- A Stem Extraction System can be fitted to eliminate the need to take the Genesis® tool off line to empty the stem collector.
- Suspension Kit with remote stem collection for attachement to the Genesis® models nG2, nG3 and nG4, enabling tools to be mounted for vertically downwards riveting in a fixed station environment.
- Bench/Stand Mounted Workstations with either handle or foot pedal triggers to free up both hands

Suspension Kit

Installation Tools

722 Model

The hydro-pneumatic 722 tool is designed to place Avbolt® fasteners ø 3/16" to 5/16" (4.8 mm to 8.0 mm) as well as all sizes of Avdelok® lockbolts up to ø 3/8" (9.6 mm).

- Cast aluminium body designed for heavy duty use over long periods of time, even in the most demanding environments
- Quick and simple operation minimizes operator fatigue and reduces assembly time to a minimum

7287 Model

Hydro-pneumatic split tool with a lightweight placing head able to place Monobolt® fasteners up to ø 3/8" (10 mm), Avbolt® fasteners up to ø 5/16" (8 mm) as well as lockbolts up to ø 3/8" (10 mm).

- Extended stroke and pull force
- Installation of large fasteners with single pull action for high placement speed
- Short cycle time can increase assembly capacity
- Lightweight placing head reduces operator fatigue
- Remote intensifier mounted on castors for flexible use in the assembly line

734 Model

Avbolt® fasteners ø 5/16" to 5/8" (8 mm to 16 mm) can be placed securely in seconds with this range of installation tools. Avdelok® lockbolts ø 3/8" (9.6 mm) and all Avdelok® LD lockbolts from ø 1/2" $1^{1}/_{8}$" (12.7 mm to 28.6 mm) can also be installed.

- Robust and rugged installation tools designed for a long working life in extreme conditions
- Range of hydraulic power units deliver the extreme high pull pressure required for secure, long lasting assembly at high speed
- Easy-to-change nose equipment and range of hydraulic hoses in different lengths enable the tool to be adapted to suit local assembly requirements
- Mounted on castors for easy movability
- Available in voltages from 110V to 525V, diesel option customised to specification
- Switches to 'sleep' mode to conserve energy

722

7287

734

Assembly Workstations

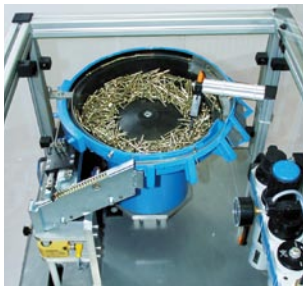
Avimat® Automated Assembly System

The Avimat® provides a modular, automated assembly system for breakstem fasteners, reducing assembly times and costs. The integral processing diagnostics ensure the assembly process is highly controlled for improved product quality. It places the entire range of breakstem and structural breakstem fasteners from 3.0 mm to 6.4 mm (except Avdelmate® & Klamp-Tite® fasteners).

- Modular design of placing head, blow feed unit and PLC control cabinet for quick and simple integration into assembly lines
- Will work as a stand alone unit
- Flexible electric, pneumatic and hydraulic connections between all main components for quick and simple interface with a wide range of assembly systems
- The compact, lightweight placing head is quick to reconfigure, can be mounted separately and used at any angle – providing maximum production flexibility and minimum tool downtime
- Integral processing diagnostics at all stages with clear and simple PLC displays for high precision, highly reliable assembly
- Continuous fastener feed with an average cycle time of approximately 5 seconds makes it ideal for high volume production lines
- Avdel Patent Protected

Blow Feed Unit

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



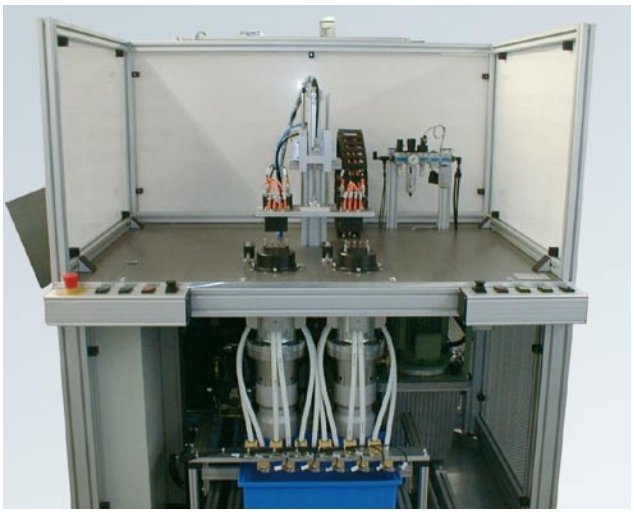
Assembly Workstations

Customised Assembly Systems

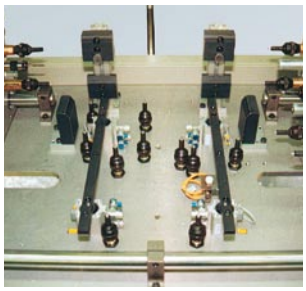
From simple twin-headed modules to multi-headed, customised equipment, these systems can dramatically reduce assembly time and costs while improving consistency of placing.
These systems can be designed for virtually any application or assembly environment and process monitoring equipment or clamping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

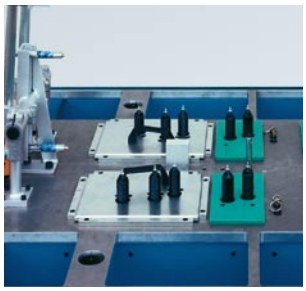
- High speed assembly
- Assembly of any configuration
- Fastening at any angle
- Synchronous fastener placement
- Highly controlled assembly
- Process flexibility
- Integration into assembly lines
- Improved product quality

Assembly of any Configuration



Fastening at any Angle





Customised Assembly Systems

Assembly Systems

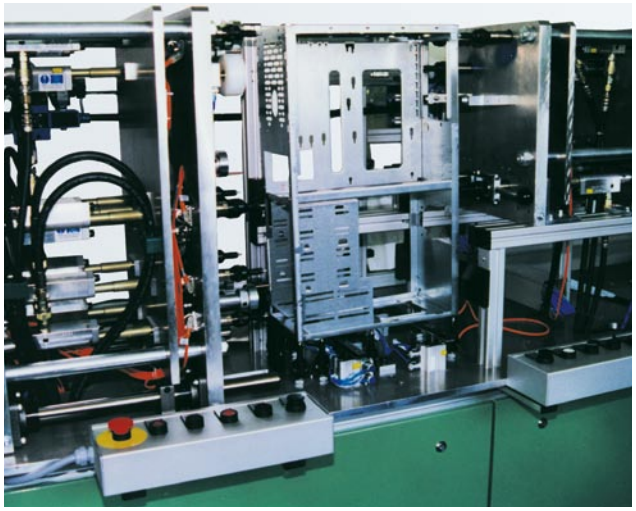
Synchronous Fastener Placement

A range of equipment has been designed for multiple and synchronous placement of fasteners. From simple twin-headed modules to multi-headed, customised equipment, these modular systems can dramatically reduce assembly time and cost.

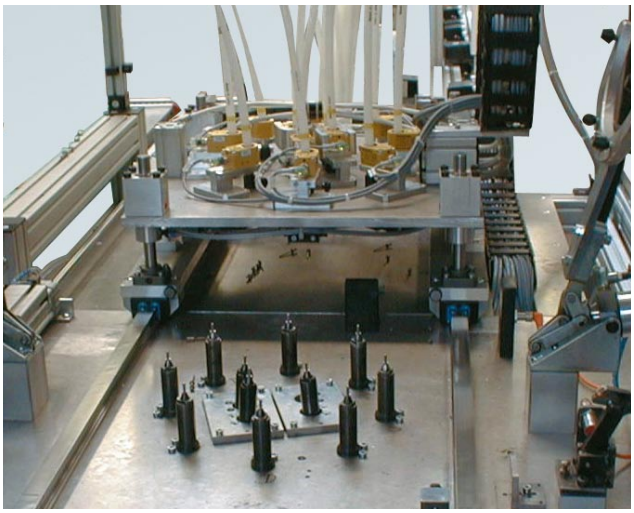
Precision Fastening

Together with the fasteners, these high precision tools create a high quality, reliable assembly system. The fasteners are placed accurately and consistently without the risk of over-torquing. An additional benefit of these systems are the practical jig points provided by the assembly heads.

29 head machine

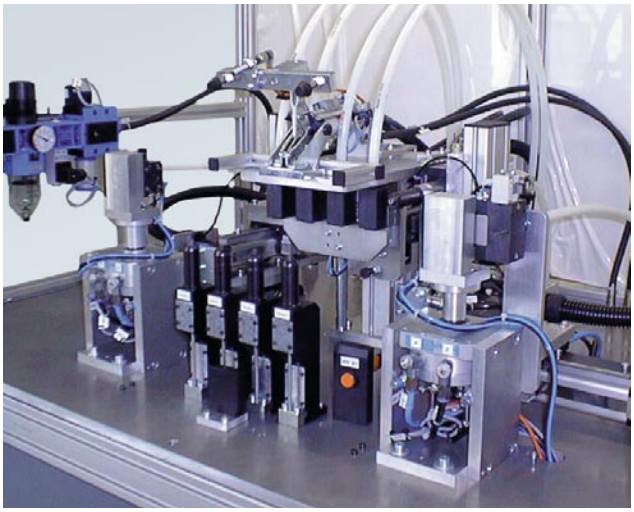


The assembly heads provide practice jig points



Integration into an assembly line

6-head Avimat®

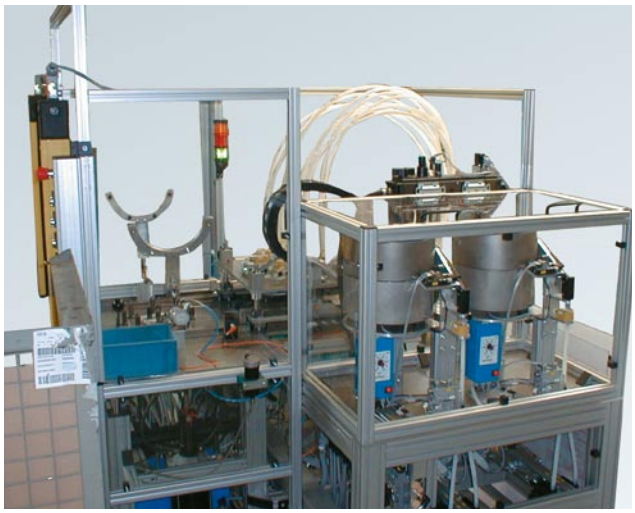


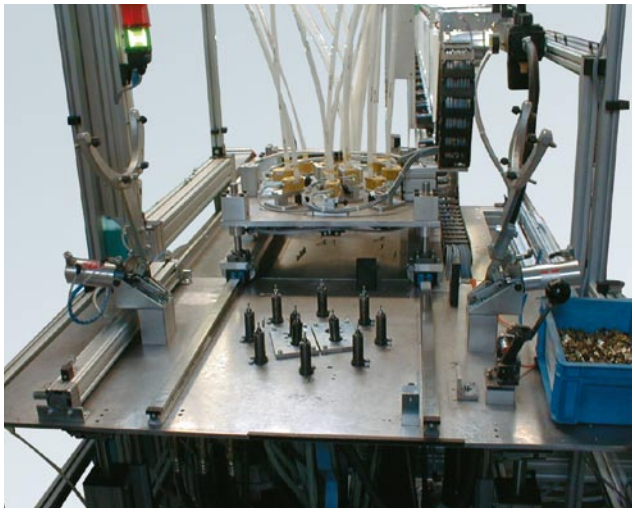
Customised Assembly Systems

Assembly Applications

Laundry Dryer

This unit places 12 x 4.0mm Avex® fasteners in one assembly cycle of 20 seconds. It replaced the use of individual screws with an assembly cycle of 60 seconds and has improved product quality by consistent placement of 12 fasteners at a time. It incorporates a blow feed unit to transfer the fasteners to the placing head, the work area is height adjustable and the unit is modular for ease of extending or upgrading.



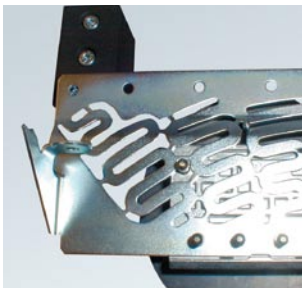


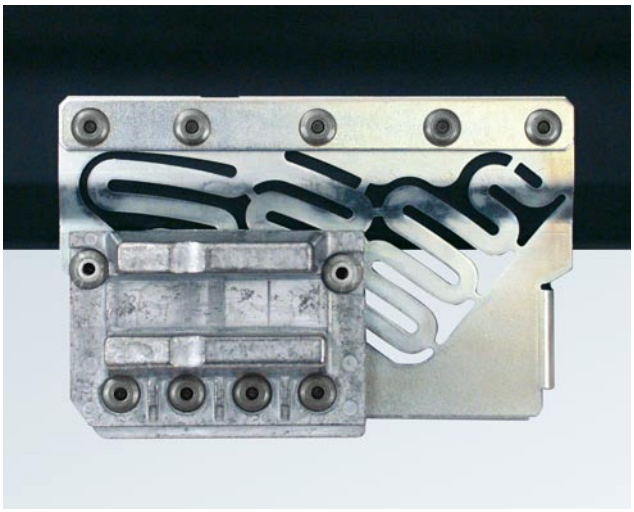
Customised Assembly Systems

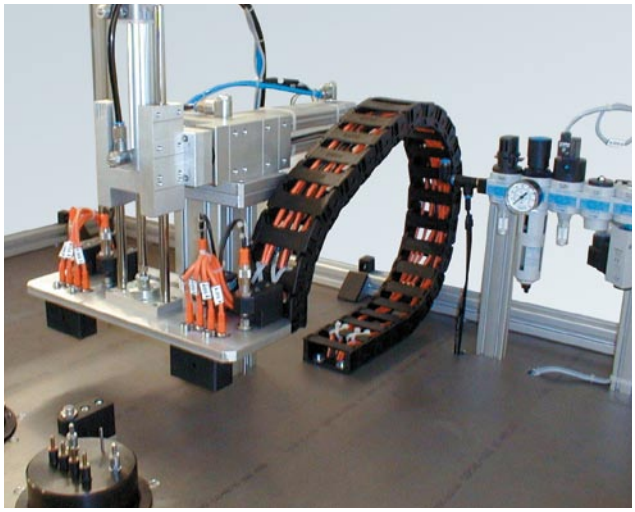
Assembly Applications

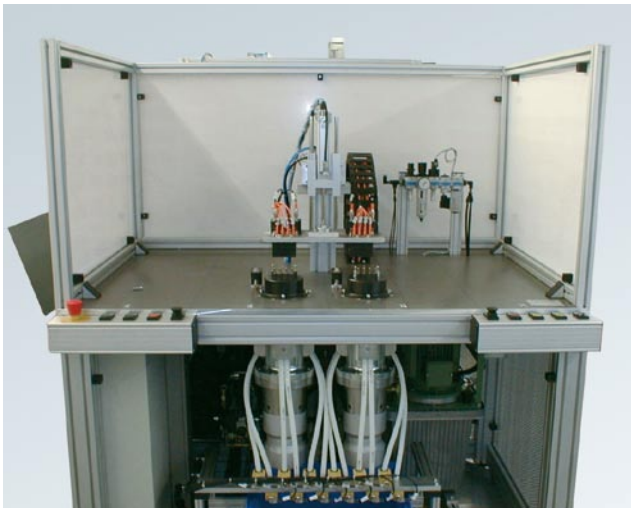
Station Wagon (restraining nets and sliding luggage cover)

This unit places 8 x 4.8mm Avibulb® and 4 x 4.8mm Avex® (6 fasteners per module) in one assembly cycle of 20 seconds. It replaced the use of handtools with an assembly cycle of 60 seconds and has improved product quality by consistent placement of 12 fasteners at a time. Processing diagnostics are provided by sensors at all stages of the assembly cycle to ensure all the relevant components are present, the correct fasteners are in the placing heads and that the fasteners are correctly installed.





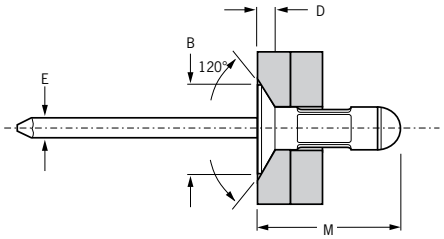


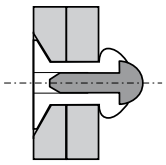


Avex® 1604

English	Français	Deutsch	Italiano	Español
120° Countersunk head	120° Tête fraisée	120° Senkkopf	120° Testa svasata	120° Cabeza avellanada
Body: Aluminium 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	B	D	E			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf[1)]	lbf[1)]	
1/8" (3.2 mm)	.093	.250	.128	.133	.48	.217	.050	.0695	155	205	01604-00412
	.155	.312			.53				165	230	01604-00414
	.217	.375			.58						01604-00416
5/32" (4.0 mm)	.109	.312	.161	.166	.56	.257	.052	.0835	255	300	01604-00514
	.142	.346			.59						01604-00515
3/16" (4.8 mm)	.125	.312	.193	.198	.61	.351	.069	.1115	350	530	01604-00615
	.250	.500			.80				295		01604-00621

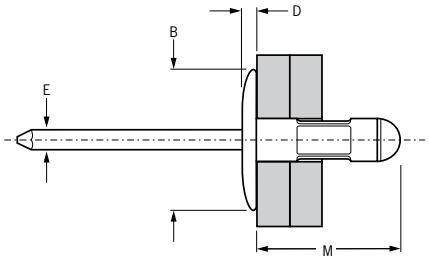
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

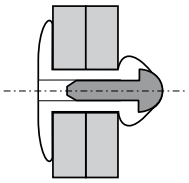
1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Avex® 1641

English	Français	Deutsch	Italiano	Español
Large Flange	Tête large	Flachrundkopf extragroß	Testa larga	Cabeza ancha
Body: Aluminium 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	B	D	E			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf[1)]	lbf[1)]	
3/16" (4.8 mm)	.062	.250	.193	.199	.55	.635	.084	.112	345	472	01641-00613
	.125	.366			.67				301		01641-00617
	.187	.437			.74				301		01641-00619
	.250	.500			.80				295		01641-00621
	.500	.781			1.11				320		01641-00631

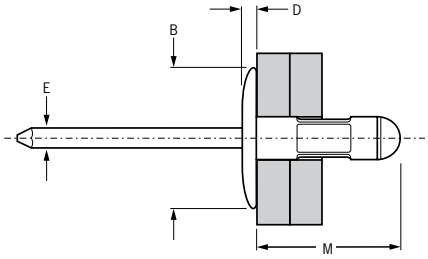
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

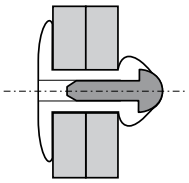
1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Avex® 1643

English	Français	Deutsch	Italiano	Español
Large Flange	Tête large	Flachrundkopf extragroß	Testa larga	Cabeza ancha
Body: Aluminium 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	B	D	E			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf[1)]	lbf[1)]	
3/16" (4.8 mm)	.062	.250	.193	.199	.534	.637	.084	.112	315	450	01643-00613
	.250	.500			.774				270		01643-00621
	.500	.781			1.086				292		01643-00631

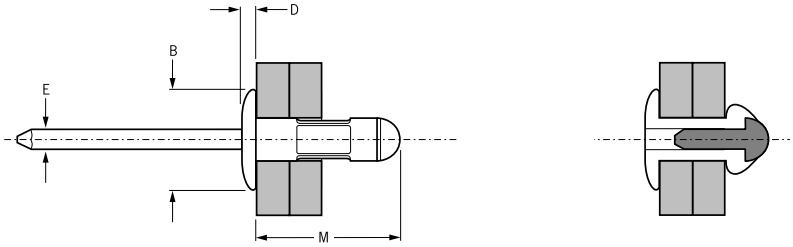
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Avex® 1661

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Aluminium 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	B	D	E			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf[1]	lbf[1]	
3.0 mm	.031	.172	.122	.130	.360	.262	.051	.066	157	220	01661-05307
1/8" (3.2 mm)	.031	.187	.128	.133	.410	.262	.051	.070	165	230	01661-00410
	.047	.250			.470						01661-00412
	.157	.312			.540						01661-00414
	.219	.375			.630						01661-00416
5/32" (4.0 mm)	.020	.125	.161	.166	.370	.321	.061	.084	255	375	01661-00508
	.031	.187			.420				255		01661-00510
	.047	.250			.490				235		01661-00512
	.157	.375			.640				235		01661-00516
	.250	.500			.770				235		01661-00521
3/16" (4.8 mm)	.062	.250	.193	.198	.550	.396	.071	.112	345	525	01661-00613
	.187	.437			.740				295		01661-00619
	.187	.500			.800				295		01661-00621
	.500	.781			1.11				320		01661-00631
1/4" (6.4 mm)	.060	.325	.261	.275	.660	.530	.105	.158	700	560	01610-04506[2]

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

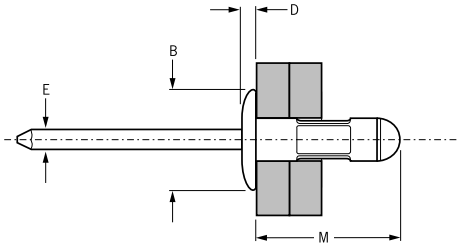
1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

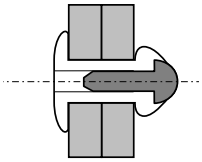
2) stem: zinc plated, clear trivalent passivated / tige:revêtement zingué, passivation claire trivalente / Dorn: verzinkt, klar chromatiert Cr6-frei/ gambo: zincato, passivazione chiara trivalente / vástago: zincado, pasivado claro trivalente

Avex® 1663

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Aluminium 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	B	D	E			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf[1)]	lbf[1)]	
3.0 mm	.031	.172	.122	.130	.360	.262	.051	.066	157	220	01663-05307
1/8" (3.2 mm)	.031	.187	.128	.133	.410	.262	.051	.070	165	230	01663-00410
	.047	.250			.470						01663-00412
	.157	.312			.540						01663-00414
	.219	.375			.630						01663-00416
5/32" (4.0 mm)	.020	.125	.161	.166	.370	.321	.061	.084	255	375	01663-00508
	.031	.187			.420				255		01663-00510
	.047	.250			.490				235		01663-00512
	.157	.375			.640				235		01663-00516
	.250	.500			.770				235		01663-00521
3/16" (4.8 mm)	.062	.250	.193	.198	.550	.396	.071	.112	345	525	01663-00613
	.187	.437			.740				295		01663-00619
	.187	.500			.800				295		01663-00621
	.500	.781			1.11				320		01663-00631

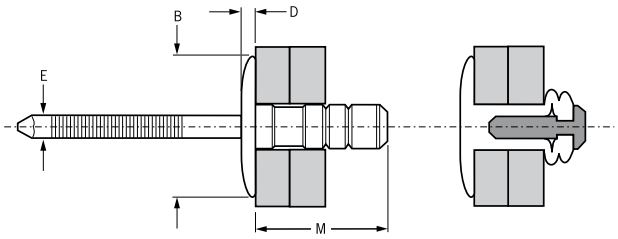
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Stavex® BE34

English	Français	Deutsch	Italiano	Español
Large Flange	Tête large	Flachrundkopf extragroß	Testa larga	Cabeza ancha
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



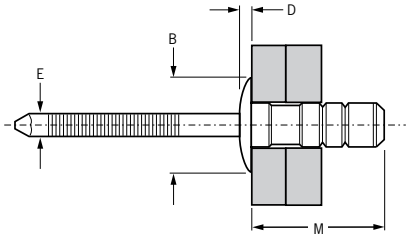
ø					M	B	D	E			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf min.	lbf min.	
3/16" (4.8 mm)	.060	.250	.192	.196	.54	.637	.081	.118	585	647	0BE34-00614
	.060	.354			.67						0BE34-00618
	.250	.500			.79						0BE34-00622

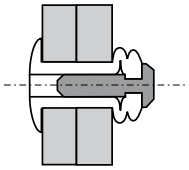
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

Stavex® BS01

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	B	D	E			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf min.	lbf min.	
1/8" (3.2 mm)	.039	.236	.129	.134	.57	.287	.037	.087	202	263	0BS01-00414
5/32" (4.0 mm)	.079	.315	.161	.166	.63	.322	.052	.112	344	405	0BS01-00516
3/16" (4.8 mm)	.060	.200	.192	.196	.48	.397	.061	.120	585	647	0BS01-00612
	.060	.250			.54						0BS01-00614
	.059	.354			.67						0BS01-00618
	.250	.500			.79						0BS01-00622
1/4" (6.4 mm)	.060	.300	.261	.275	.66	.530	.105	.158	700	800	01610-04844[1)]

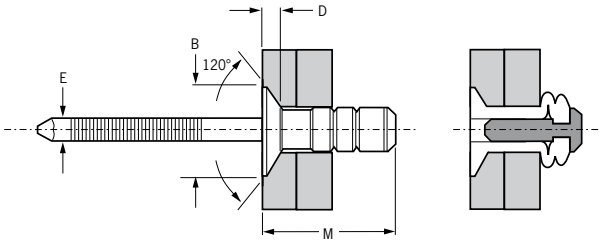
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

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

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



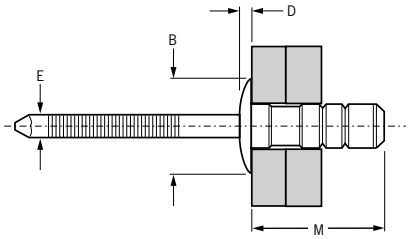
ø					M	B	D	E			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf min.	lbf min.	
1/8" (3.2 mm)	.039	.236	.129	.134	.55	.232	.039	.084	202	263	0BS04-00414
3/16" (4.8 mm)	.093	.250	.192	.196	.54	.351	.055	.118	450	650	0BS04-00614
	.165	.250			.54						0BS04-C0614
	.093	.375			.67						0BS04-00618
	.250	.500			.79						0BS04-00622

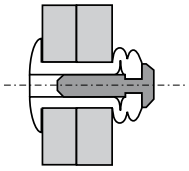
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

Stavex® BS11

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





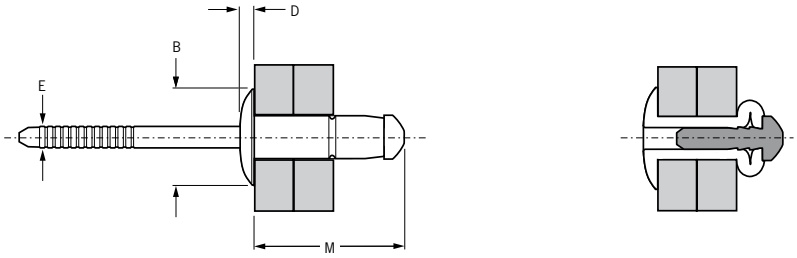
ø					M	B	D	E			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf min.	lbf min.	
1/8" (3.2 mm)	.039	.236	.129	.134	.570	.287	.037	.087	364	445	0BS11-00414
5/32" (4.0 mm)	.079	.315	.161	.166	.630	.322	.052	.112	546	728	0BS11-00516
3/16" (4.8 mm)	.059	.354	.192	.196	.670	.397	.061	.120	931	1012	0BS11-00618

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

Avibulb® BN01

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					M	B	D	E			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf[1)2)]	lbf[1)]	
1/8" (3.2 mm)	.039	.118	.130	.134	.358	.268	.055	.080	270	292	0BN01-00408
	.118	.197			.461				393		0BN01-00411
	.197	.276			.551				562		0BN01-00414
5/32" (4.0 mm)	.039	.118	.161	.169	.409	.315	.059	.103	539	629	0BN01-00509
	.118	.197			.508				787		0BN01-00512
	.197	.276			.618				921		0BN01-00516
	.275	.354			.713				740	562	0BN01-00519
3/16" (4.8 mm)	.059	.138	.193	.201	.476	.378	.059	.126	809	854	0BN01-00611
	.138	.236			.579				944		0BN01-00614
	.236	.335			.693				1258		0BN01-00618
6.0 mm	.059	.157	.240	.248	.551	.484	.083	.158	944	1213	0BN01-06010
	.118	.236			.669				1213		0BN01-06013
	.236	.354			.787				1910		0BN01-06016
	.335	.472			.906				1910		0BN01-06019

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

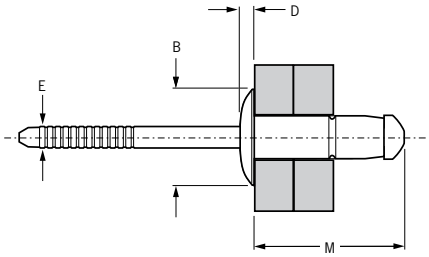
2) through stem / avec tige / bei tragendem Restdorn / attraverso il gambo / con el vástago en la zona de cortadura

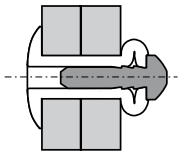
Avdel®

Avinox® BE61

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					M	B	D	E			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf[1) 2)]	lbf[1)]	
1/8" (3.2 mm)	.039	.118	.130	.134	.360	.260	.043	.083	360	450	0BE61-00408
	.118	.197			.460				382		0BE61-00411
	.197	.276			.560				719		0BE61-00414
5/32" (4.0 mm)	.039	.118	.161	.169	.410	.315	.059	.102	629	899	0BE61-00509
	.118	.197			.510				1169		0BE61-00512
	.197	.276			.620				1169		0BE61-00516
3/16" (4.8 mm)	.059	.138	.193	.201	.510	.378	.059	.126	1236	1124	0BE61-00611
	.138	.236			.610						0BE61-00614
	.236	.335			.730						0BE61-00618

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

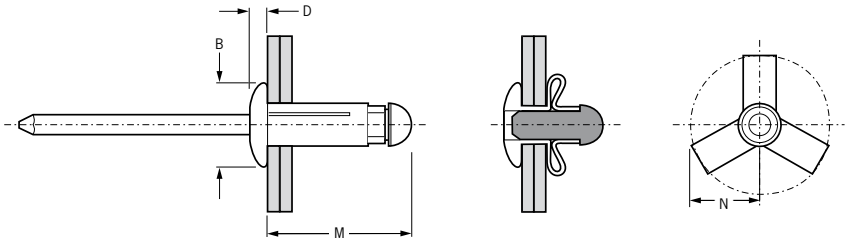
1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

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

Bulbex® BF01

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

*: ø 4.0 = 5754 / ø 4.8 = 5052
**: 5056



ø					M	B	D	N			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	ref.	lbf[1)]	lbf[1)]	
5/32" (4.0 mm)	.040	.118	.165	.177	.630	.321	.060	.228	135	225	0BF01-00516
	.040	.275			.840			. 315			0BF01-00523
	.040	.335			.900			.341			0BF01-00525
	.197	.472			1.087			.355			0BF01-00531
3/16" (4.8 mm)	.040	.157	.197	.207	.720	.396	.080	.267	175	240	0BF01-00619
	.040	.354			.920			.355			0BF01-00625
	.157	.472			1.070			.441			0BF01-00630

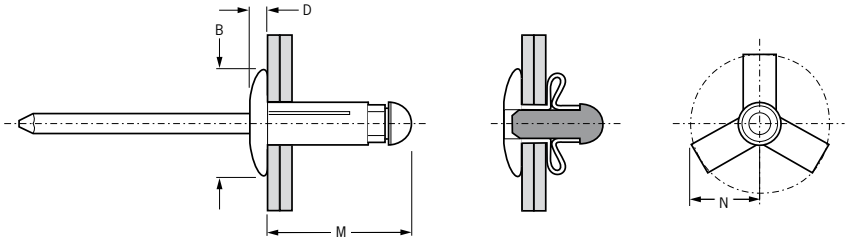
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Bulbex® BF41

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

* 5052
** 5056



ø					M	B	D	N			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf[1)]	lbf[1)]	
3/16" (4.8 mm)	.040	.157	.197	.207	.720	.630	.076	.267	175	240	0BF41-00619
	.040	.354			.920			.355			0BF41-00625

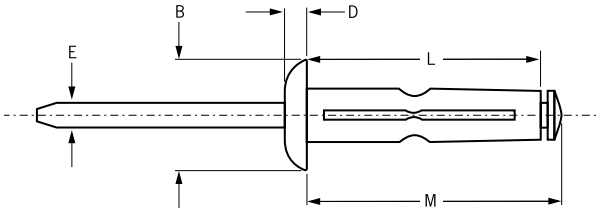
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Klamp-Tite® BAPK

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

*: 5056 **: 2024/5056



ø					M	B	D	L	E	Shear	Tensile	Part No/ref
nom.	min.	max.	min.	max.	max.	± .015	ref.	max.	ref.	lbf[1)]	lbf[1)]	
3/16" (4.8 mm)	.050	.250	.204	.209	1.000	.445	.088	.895	.114	290	380	BAPK-06-04
	.187	.375			1.095			.990				BAPK-06-06
	.375	.562			1.218			1.113				BAPK-06-09
1/4" (6.4 mm)	.060	.250	.252	.262	1.042	.560	.113	.925	.151	420	588	BAPK-08-04
	.187	.375			1.167			1.050				BAPK-08-06

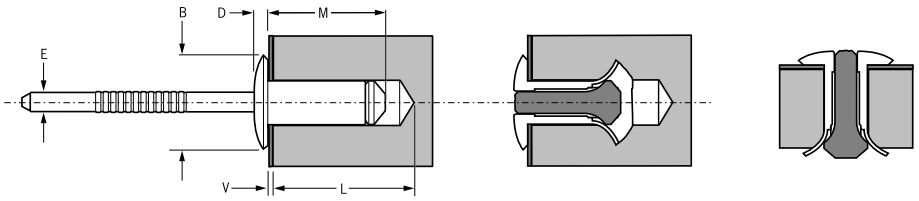
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

T-Lok® BM01

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



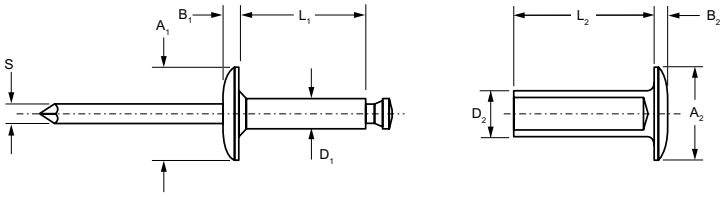
ø			M	B	D	E	V		L min.			Part No/ref
nom.	min.	max.	max.	max.	max.	max.	max.	min.	for max. V	for min. V	lbf[1)]	
5/32" (4.3 mm)	.169	.174	.430	.321	.051	.099	.050	.010	.440	.480	110	0BM01-00510
			.490				.050		.510	.540	160	0BM01-00512
			.740				.300		.500	.790		0BM01-00520
			.800				.360		.500	.850		0BM01-00522
3/16" (4.8 mm)	.187	.193	.570	.401	.081	.114	.120	.010	.410	.620	220	0BM01-00614
			.750				.300		.510	.800		0BM01-00620

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Avdelmate® BALMS

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



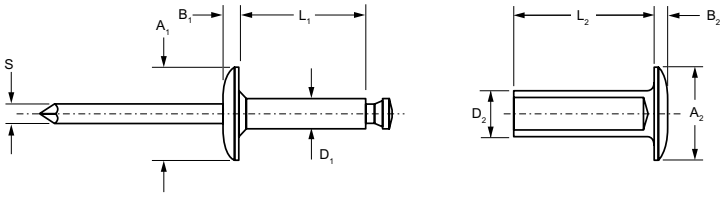
ø nom.	min.	max.		D_1	L_1 max.	A_1	B_1	S	D_2	L_2 max.	A_2	B_2	lbf[1)]	Part No/ref
3/16" (4.8 mm)	.625	.750	.250	.125	.525	.375	.059	.076	.188	.585	.375	.057	N/A	BALMS-06BP-12
	.688	.875								.647				BALMS-06BP-14
	.875	1.063								.825				BALMS-06BP-17
	1.063	1.250								1.012				BALMS-06BP-20
	1.250	1.438								1.200				BALMS-06BP-23
	1.438	1.625								1.387				BALMS-06BP-26
	1.625	1.813								1.575				BALMS-06BP-29
	1.813	2.000								1.762				BALMS-06BP-32
	2.000	2.188								1.950				BALMS-06BP-35
	2.188	2.375								2.137				BALMS-06BP-38
1/4" (6.4 mm)	.625	.750	.312	.187	.442	.625	.095	.114	.250	.580	.625	.095	250	BALMS-08BP-12
	.750	.875								.695				BALMS-08BP-14
	.875	1.125			.608					.820				BALMS-08BP-18
	1.125	1.375								1.070				BALMS-08BP-22
	1.375	1.625								1.320				BALMS-08BP-26
	1.625	1.875								1.570				BALMS-08BP-30
	1.875	2.125								1.820				BALMS-08BP-34
	2.125	2.375								2.070				BALMS-08BP-38
	2.375	2.625								2.320				BALMS-08BP-42
	2.625	2.875								2.570				BALMS-08BP-46
	2.875	3.125								2.820				BALMS-08BP-50
	3.125	3.375								3.070				BALMS-08BP-54
	3.375	3.625								3.320				BALMS-08BP-58
	3.625	3.875								3.570				BALMS-08BP-62

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Avdelmate® BSLMS

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



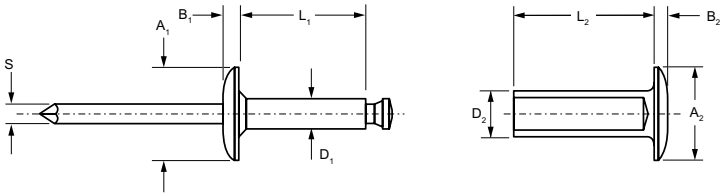
ø nom.	min.	max.		D_1	L_1 max.	A_1	B_1	S	D_2	L_2 max.	A_2	B_2	lbf[1)]	Part No/ref
3/16" (4.8 mm)	.625	.750	.250	.125	.525	.375	.059	.076	.188	.585	.375	.057	N/A	BSLMS-06BP-12
	.688	.875								.647				BSLMS-06BP-14
	.875	1.063								.825				BSLMS-06BP-17
	1.063	1.250								1.012				BSLMS-06BP-20
	1.250	1.438								1.200				BSLMS-06BP-23
	1.438	1.625								1.387				BSLMS-06BP-26
	1.625	1.813								1.575				BSLMS-06BP-29
	1.813	2.000								1.762				BSLMS-06BP-32
	2.000	2.188								1.950				BSLMS-06BP-35
	2.188	2.375								2.137				BSLMS-06BP-38
1/4" (6.4 mm)	.625	.750	.312	.187	.442	.625	.095	.114	.250	.580	.625	.095	450	BSLMS-08BP-12
	.750	.875								.695				BSLMS-08BP-14
	.875	1.125			.608					.820				BSLMS-08BP-18
	1.125	1.375								1.070				BSLMS-08BP-22
	1.375	1.625								1.320				BSLMS-08BP-26
	1.625	1.875								1.570				BSLMS-08BP-30
	1.875	2.125								1.820				BSLMS-08BP-34
	2.125	2.375								2.070				BSLMS-08BP-38
	2.375	2.625								2.320				BSLMS-08BP-42
	2.625	2.875								2.570				BSLMS-08BP-46
	2.875	3.125								2.820				BSLMS-08BP-50
	3.125	3.375								3.070				BSLMS-08BP-54
	3.375	3.625								3.320				BSLMS-08BP-58
	3.625	3.875								3.570				BSLMS-08BP-62

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Avdelmate® SSLMS

English	Français	Deutsch	Italiano	Español
Body: Steel Zinc plated	Corps: Acier Revêtement zingué	Hülse: Stahl Verzinkt	Corpo: Acciaio Zincati	Cuerpo: Acero Zincado
Mandrel: 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.		D_1	L_1 max.	A_1	B_1	S	D_2	L_2 max.	A_2	B_2	lbf[1)]	Part No/ref
3/16" (4.8 mm)	.625	.750	.250	.125	.525	.375	.059	.076	.188	.585	.375	.057	N/A	SSLMS-06SP-12
	.688	.875								.647				SSLMS-06SP-14
	.875	1.063								.825				SSLMS-06SP-17
	1.063	1.250								1.012				SSLMS-06SP-20
	1.250	1.438								1.200				SSLMS-06SP-23
	1.438	1.625								1.387				SSLMS-06SP-26
	1.625	1.813								1.575				SSLMS-06SP-29
	1.813	2.000								1.762				SSLMS-06SP-32
	2.000	2.188								1.950				SSLMS-06SP-35
	2.188	2.375								2.137				SSLMS-06SP-38
1/4" (6.4 mm)	.625	.750	.312	.187	.442	.625	.095	.114	.250	.580	.625	.095	350	SSLMS-08SP-12
	.750	.875								.695				SSLMS-08SP-14
	.875	1.125			.608					.820				SSLMS-08SP-18
	1.125	1.375								1.070				SSLMS-08SP-22
	1.375	1.625								1.320				SSLMS-08SP-26
	1.625	1.875								1.570				SSLMS-08SP-30
	1.875	2.125								1.820				SSLMS-08SP-34
	2.125	2.375								2.070				SSLMS-08SP-38
	2.375	2.625								2.320				SSLMS-08SP-42
	2.625	2.875								2.570				SSLMS-08SP-46
	2.875	3.125								2.820				SSLMS-08SP-50
	3.125	3.375								3.070				SSLMS-08SP-54
	3.375	3.625								3.320				SSLMS-08SP-58
	3.625	3.875								3.570				SSLMS-08SP-62

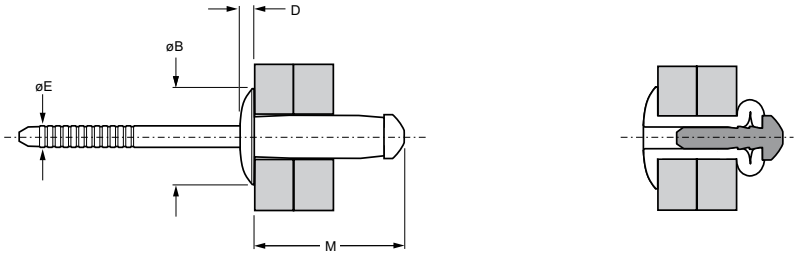
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Avibulb® XT BN01

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

*: SAE 1015, DIN 1711, RSt 38-2, Werkstoff 1.0401
**: SAE 1045, Werkstoff 1.1191



ø					M	øB	D	øE			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf[1)2)]	lbf[1)]	
1/4" (6.4 mm)	.059	.217	.260	.276	.681	.528	.122	.192	2495	1528	0BN01-00816
	.197	.354			.839						0BN01-00820

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

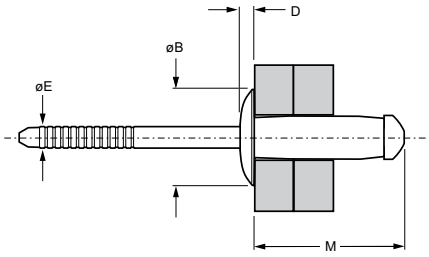
1) typical values with test method according to ISO 14589 (2000) / Valeurs moyennes obtenues selon la méthode de test de la norme ISO 14589 (2000) / typische Werte ermittelt nach Testmethode ISO 14589 (2000) / valori tipici con il metodo di prova secondo la normativa ISO 14589 (2000) / resistencias máximas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

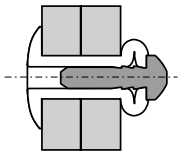
2) through stem / avec tige / bei tragendem Restdorn / attraverso il gambo / con el vástago en la zona de cortadura

Avinox® XT BE61

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/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf[1) 2)]	lbf[1)]	
1/4" (6.4 mm)	.059	.217	.260	.276	.661	.528	.122	.194	3215	1799	0BE61-00815
	.197	.354			.819						0BE61-00819

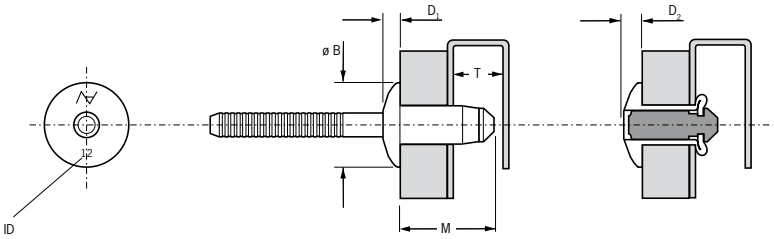
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

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) / resistencias máximas recomendadas 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

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 Revêtement 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 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



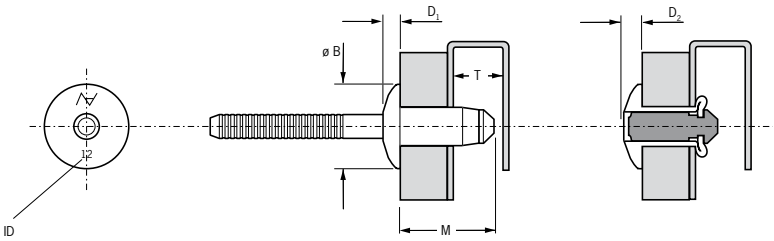
ø					ID	M	ø B	D_1	T	D_2			Part No/ref
nom.	min.	max.	min.	max.		max.	max.	max.	min.	max.	lbf min.	lbf min.	
1/4" (6.4 mm)	.060	.138	.264	.272	12	.539	.525	.105	.480	.134	2360	1978	02221-00812
	.110	.189			13	.590					2698		02221-00813
	.132	.211			14	.612					2810		02221-00814
	.189	.268			15	.669					2810		02221-00815
	.268	.346			17	.747					3147		02221-00817
	.295	.374			18	.775					3372		02221-00818
	.346	.425			19	.826					3597		02221-00819
	.425	.504			21	.905					3597		02221-00821

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

Hemlok® 2241

English	Français	Deutsch	Italiano	Español
Protruding head	Tête bombée	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Aluminium 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: Aluminium 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



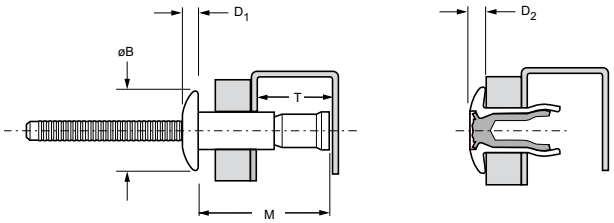
ø					ID	M	ø B	D_1	T	D_2			Part No/ref
nom.	min.	max.	min.	max.		max.	max.	max.	min.	max.	lbf min.	lbf min.	
1/4" (6.4 mm)	.060	.138	.264	.272	12	.539	.527	.105	.480	.134	1124	600	02241-00812
	.110	.189			13	.590					1349		02241-00813
	.132	.211			14	.612					1394		02241-00814
	.189	.268			15	.669					1460		02241-00815
	.268	.346			17	.747					1574		02241-00817
	.346	.425			19	.826					1574		02241-00819
	.425	.504			21	.905					1574		02241-00821

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

Monobolt® 2711 (CCPV)

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

*: BS 3111 394S17 Werkstoff 1.4567



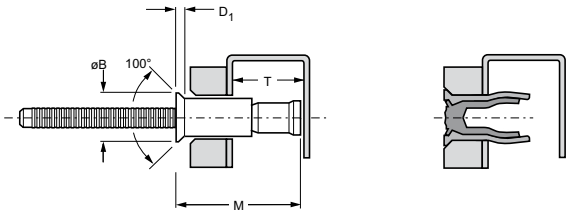
ø					M	ø B	D_1	T	D_2			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	min.	max.	lbf[1)]	lbf[1)]	
3/16" (4.8 mm)	.064	.270	.193	.201	.716	.395	.083	.410	.073	1450	1150	02711-00613 (CCPV-06-04)
	.064	.437			.962			.530				02711-00617 (CCPV-E06-07)
1/4" (6.4 mm)	.080	.375	.260	.276	.933	.525	.114	.480	.104	2650	2350	02711-00817 (CCPV-08-06)
	.080	.625			1.296			.645				02711-00824 (CCPV-E08-10)
3/8" (10 mm)	.120	.625	.392	.409	1.425	.798	.160	.875	.156	5863	4361	02711-01228

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Monobolt® 2721

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



ø					M	ø B	D_1	T			Part No/ref
nom.	min.	max.	min.	max.	max.	min.	max.	min.	lbf[1)]	lbf[1)]	
3/16" (4.8 mm)	.125	.331	.195	.201	.786	.325	.084	.410	1450	1150	02721-00615
1/4" (6.4 mm)	.125	.475	.260	.276	1.037	.395	.093	.480	2650	2350	02721-00821

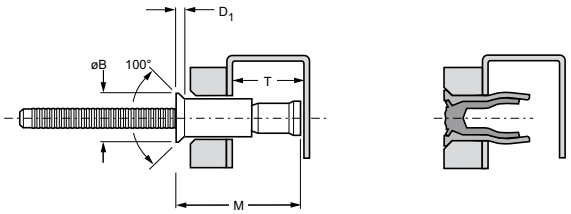
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Monobolt® 2761 (SSCV)

English	Français	Deutsch	Italiano	Español
Countersunk head	Tête fraisée	Senkkopf	Testa svasata	Cabeza avellanada
Body: carbon steel* Zinc plated Clear trivalent passivated with top seal	Corps: Acier au carbone* Revêtement zingué Passivation claire trivalente avec top seal	Hülse: Stahl* Verzinkt Klar passiviert, Cr6-frei mit Versiegelung	Corpo: Acciaio carbonio* Zincato Passivazione chiara trivalente con sigillante	Cuerpo: Acero carbono* Zincado Pasivado claro trivalente con sellante
Stem: medium carbon steel** Zinc plated Clear trivalent passivated with top seal	Tige: Acier au carbone** Revêtement zingué Passivation claire trivalente avec top seal	Dorn: Stahl** Verzinkt Klar chromatiert, Cr6-frei mit Versiegelung	Gambo: Acciaio carbonio** Zincato Passivazione chiara trivalente con sigillante	Vástago: Acero medio en carbono** Zincado Pasivado claro trivalente con sellante

*: BS 3111 Type 9 SAE 10B21 DIN 1654 22B2
**: BS 3111 Type 10 SAE 10B35 DIN 1654 35B2



ø					M	ø B	D_1	T			Part No/ref
nom.	min.	max.	min.	max.	max.	min.	max.	min.	lbf[1)]	lbf[1)]	
3/16" (4.8 mm)	.125	.331	.195	.201	.786	.325	.084	.410	1450	1150	02761-00615 (SSCV-06-06)
	.125	.481			1.032			.530			02761-00619 (SSCV-E06-08)
1/4" (6.4 mm)	.125	.475	.260	.276	1.037	.395	.093	.480	2650	2350	02761-00821 (SSCV-08-08)

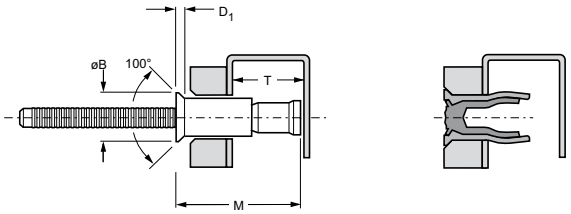
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Monobolt® 2764 (BACV)

English	Français	Deutsch	Italiano	Español
Countersunk head	Tête fraisée	Senkkopf	Testa svasata	Cabeza avellanada
Body: Aluminium 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: Aluminium alloy** Natural	Tige: Alliage d'aluminium** Brut	Dorn: Aluminium** Blank	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	ø B	D_1	T			Part No/ref
nom.	min.	max.	min.	max.	max.	min.	max.	min.	lbf[1)]	lbf[1)]	
3/16" (4.8 mm)	.125	.331	.195	.201	.786	.325	.084	.410	650	475	02764-00615 (BACV-06-06)
	.125	.481			1.032			.530			02764-00619 (BACV-E06-08)
1/4" (6.4 mm)	.125	.475	.260	.276	1.069	.395	.093	.510	1350	950	02764-00821 (BACV-08-07)

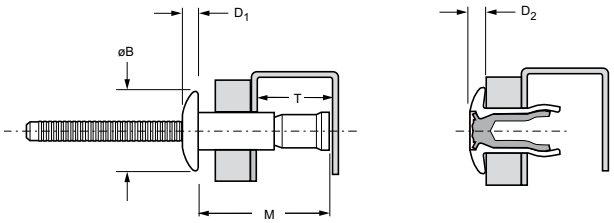
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Monobolt® 2771 (SSPV)

English	Français	Deutsch	Italiano	Español
Protruding head	Tête bombée	Flachrundkopf	Testa tonda	Cabeza alomada
Body: carbon steel* Zinc plated Clear trivalent passivated with top seal	Corps: Acier au carbone* Revêtement zingué Passivation claire trivalente avec top seal	Hülse: Stahl* Verzinkt Klar passiviert, Cr6-frei mit Versiegelung	Corpo: Acciaio carbonio* Zincato Passivazione chiara trivalente con sigillante	Cuerpo: Acero carbono* Zincado Pasivado claro trivalente con sellante
Stem: medium carbon steel** Zinc plated Clear trivalent passivated with top seal	Tige: Acier au carbone** Revêtement zingué Passivation claire trivalente avec top seal	Dorn: Stahl** Verzinkt Klar chromatiert, Cr6-frei mit Versiegelung	Gambo: Acciaio carbonio** Zincato Passivazione chiara trivalente con sigillante	Vástago: Acero medio en carbono** Zincado Pasivado claro trivalente con sellante

*: BS 3111 Type 9 SAE 10B21 DIN 1654 22B2
**: BS 3111 Type 10 SAE 10B35 DIN 1654 35B2



ø					M	ø B	D_1	T	D_2			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	min.	max.	lbf[1)]	lbf[1)]	
3/16" (4.8 mm)	.064	.270	.193	.201	.716	.395	.083	.410	.073	1450	1150	02771-00613 (SSPV-06-04)
	.064	.437			.962			.530				02771-00617 (SSPV-E06-07)
1/4" (6.4 mm)	.080	.375	.260	.275	.933	.525	.114	.480	.104	2650	2350	02771-00817 (SSPV-08-06)
	.080	.625			1.296			.645				02771-00824 (SSPV-E08-10)
3/8" (10 mm)	.120	.625	.392	.409	1.425	.798	.160	.875	.156	5940	3953	02771-01228

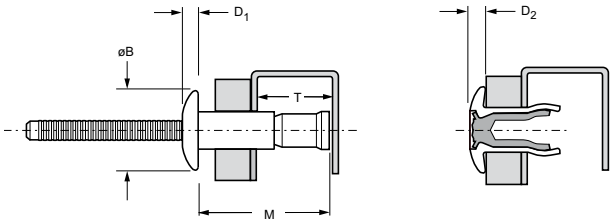
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Monobolt® 2774 (BAPV)

English	Français	Deutsch	Italiano	Español
Protruding head	Tête bombée	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Aluminium 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: Aluminium alloy** Natural	Tige: Alliage d'aluminium** Brut	Dorn: Aluminium** Blank	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	ø B	D_1	T	D_2			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	min.	max.	lbf[1)]	lbf[1)]	
3/16" (4.8 mm)	.064	.270	.193	.200	.721	.395	.083	.410	.073	675	500	02774-00613 (BAPV-06-04)
	.064	.437			.946			.510				02774-00617 (BAPV-E06-07)
1/4" (6.4 mm)	.080	.375	.260	.275	.965	.525	.114	.510	.104	1350	950	02774-00817 (BAPV-08-06)
	.080	.625			1.366			.710				02774-00824 (BAPV-E08-10)
3/8" (10 mm)	.120	.625	.392	.409	1.425	.798	.160	.875	.156	2840	2092	02774-01228

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

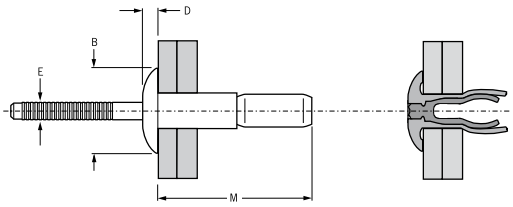
1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Avdel®

Interlock® BAPI

English	Français	Deutsch	Italiano	Español
Protruding head	Tête bombée	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Aluminium 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: Aluminium 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	B	D	E			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf min.[1]	lbf min.[1]	
3/16" (4.8 mm)	.062	.250	.194	.204	.842	.400	.090	.122	550	450	BAPI-06-04
	.214	.437			.875						BAPI-06-07
	.375	.625			1.090						BAPI-06-10
	.062	.437			.975						BAPI-E06-07
1/4" (6.4 mm)	.080	.375	.261	.276	1.181	.530	.117	.162	1270	830	BAPI-08-06
	.350	.625			1.300						BAPI-08-10
	.080	.625			1.400						BAPI-E08-10

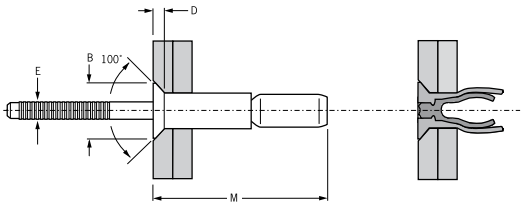
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Interlock® SSCI

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



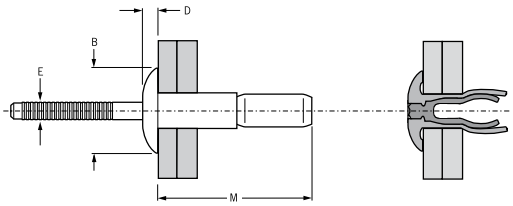
ø					M	B	D	E			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	ref.	max.	lbf[1)]	lbf[1)]	
3/16" (4.8 mm)	.125	.331	.191	.201	.793	.345	.070	.122	1300	1000	SSCI-06-06
1/4" (6.4 mm)	.170	.475	.261	.276	1.115	.415	.079	.162	2400	1850	SSCI-08-08

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) These grips are not defined in IFI-134 and therefore the strength values should be considered typical and not a minimum / Ces épaisseurs de serrage ne sont pas définis dans la IFI-134 par conséquent les valeurs de tenue doivent considérées comme moyenne et non minimum / Diese Klemmbereiche sind nicht in IFI-134 definiert, deshalb sollten die Festigkeitswerte als typisch und nicht minimum betrachtet werden / Questi spessori non sono definiti nella IFI-134 e pertanto i valori di resistenza debbono considerarsi come tipici, non come valori minimi / Estos espesores a remachar no están definidos en IFI-134 por lo que los valores de resistencias deben considerarse como típicos, no cómo valores mínimos.

Interlock® SSPI

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				



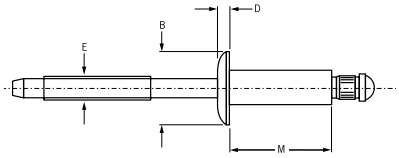
ø					M	B	D	E			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	lbf min.[1]	lbf min.[1]	
3/16" (4.8 mm)	.062	.250	.194	.204	.716	.400	.090	.122	1300	1000	SSPI-06-04
	.214	.437			1.003						SSPI-06-07
	.375	.625			1.090						SSPI-06-10
	.062	.437			1.003						SSPI-E06-07
1/4" (6.4 mm)	.080	.375	.261	.276	1.181	.530	.117	.162	2400	1850	SSPI-08-06
	.350	.625			1.431						SSPI-08-10
	.080	.625			1.431						SSPI-E08-10

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

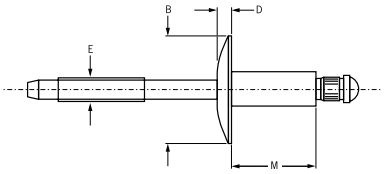
1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Q Rivet AAPQ / AALQ /AACQ

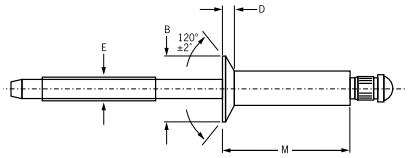
English	Français	Deutsch	Italiano	Español
Body: Aluminium 5052 Natural	Corps: Aluminium 5052 Brut	Hülse: Aluminium 5052 Blank	Corpo: Alluminio 5052 Nessuna finitura	Cuerpo: Aluminio 5052 Natural
Stem: Aluminium 7178 Natural	Tige: Aluminium 7178 Brut	Dorn: Aluminium 7178 Blank	Gambo: Alluminio 7178 Nessuna finitura	Vástago: Aluminio 7178 Natural



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



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



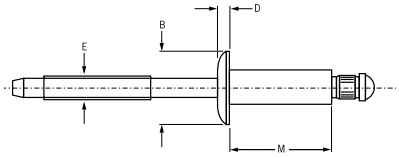
Q Rivet AACQ
Countersunk / Tête fraisée Senkkopf / Testa svasata Cabeza avellanada

ø						M	ø E	AAPQ Protruding head			AALQ Large flange			AACQ Countersunk		
								ø B	D	Part No. /ref	ø B	D	Part No. /ref	ø B	D	Part No. /ref
nom.	min.	mid.[1]	max.	min.	max.	max.	ref.		max.	AAPQ-		max.	AALQ-	±.007	ref.	AACQ-
1/8" (3.2 mm)			.062	.129	.133	.212	.075	.250 ±.012	.042	-04-01	.375 ±.015	.065		.226	.032	
	.063	.093	.125			.275				-04-02			-04-02			
	.094	.125	.187			.337				-04-03						-04-03
	.126	.187	.250			.400				-04-04			-04-04			-04-04
	.188	.250	.312			.462				-04-05						-04-05
	.251	.312	.375			.535				-04-06			-04-06			-04-06
	.313	.375	.437			.602				-04-07						-04-07
	.376	.437	.500			.670				-04-08			-04-08			-04-08
5/32" (4.0 mm)	.062	.093	.125	.160	.164	.300	.094	.312 ±.016	.050	-05-02	.469 ±.020	.075		.281	.040	
	.126	.187	.250			.425				-05-04			-05-04			-05-04
	.251	.312	.375			.550				-05-06			-05-06			-05-06
	.376	.437	.500			.695				-05-08			-05-08			-05-08
3/16" (4.8 mm)	.062	.093	.125	.192	.196	.325	.114	.375 ±.019	.057	-06-02	.625 ±.025	.092		.344	.050	
	.126	.187	.250			.450				-06-04			-06-04			-06-04
	.251	.312	.375			.575				-06-06			-06-06			-06-06
	.376	.437	.500			.700				-06-08			-06-08			-06-08
	.501	.562	.625			.850				-06-10			-06-10			-06-10
	.626	.687	.750			.980				-06-12			-06-12			-06-12
	.751	.812	.875			1.110				-06-14			-06-14			-06-14

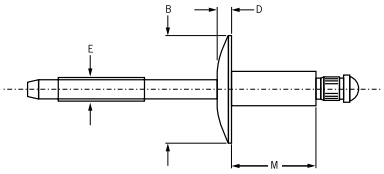
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) Mandrels break flush with rivet head at mid. grip (except -04-01s, which break at .062) / La tige rompt affleurante à la tête du rivet en milieu de plage de serrage (sauf pour -04-01s qui rompt à .062) / Bei mittlerem Klemmbereich (mid.) reißt der Dorn bündig mit dem Nietkopf ab (außer -04-01, der bei .062 abreißt) / Q Rivet rottura del chiodo a livello della testa del rivetto per grip medio (eccetto -04-01s rottura a .062)/ El punto de rotura del Q Rivet es a ras con la cabeza del remache en su grip intermedio (excepto el -04-01s. que rompe a .062)

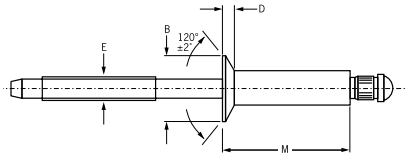
Q Rivet AAPQ / AALQ /AACQ



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



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

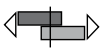


Q Rivet AACQ
Countersunk / Tête fraisée Senkkopf / Testa svasata Cabeza avellanada

ø								AAPQ Protruding head			AALQ Large flange			AACQ Countersunk		
						M	ø E	ø B	D	Part No. /ref	ø B	D	Part No. /ref	ø B	D	Part No. /ref
nom.	min.	mid.[1]	max.	min.	max.	max.	ref.		max.	AAPQ-		max.	AALQ-	±.007	ref.	AACQ-
1/4" (6.4 mm)	.062	.093	.125	.257	.261	.375	.151	.500 ±.025	.077	-08-02	.750 ±.025	.107		.468	.071	
	.126	.187	.250			.500				-08-04			-08-04			-08-04
	.251	.312	.375			.625				-08-06			-08-06			-08-06
	.376	.437	.500			.750				-08-08			-08-08			-08-08
	.501	.562	.625			.900				-08-10			-08-10			-08-10
	.626	.687	.750			1.030				-08-12			-08-12			-08-12
	.751	.812	.875			1.160				-08-14			-08-14			-08-14
	.876	.937	1.000			1.290				-08-16			-08-16			-08-16

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) Mandrels break flush with rivet head at mid. grip (except -04-01s, which break at .062) / La tige rompt affleurante à la tête du rivet en milieu de plage de serrage (sauf pour -04-01s qui rompt à .062) / Bei mittlerem Klemmbereich (mid.) reißt der Dorn bündig mit dem Nietkopf ab (außer -04-01, der bei .062 abreißt) / Q Rivet rottura del chiodo a livello della testa del rivetto per grip medio (eccetto -04-01s rottura a .062)/ El punto de rotura del Q Rivet es a ras con la cabeza del remache en su grip intermedio (excepto el -04-01s. que rompe a .062)

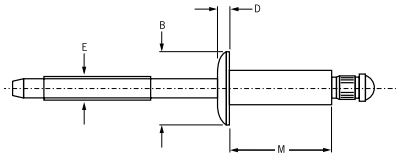
ø		
nom.	lbf [2]	lbf[2]
1/8" (3.2 mm)	225	250
5/32" (4.0 mm)	325	325
3/16" (4.8 mm)	500	450
1/4" (6.4 mm)	850	750

2) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

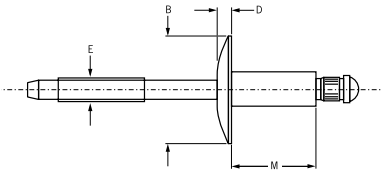
Q Rivet BSPQ / BSLQ /BSCQ

English	Français	Deutsch	Italiano	Español
Body: Aluminium 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

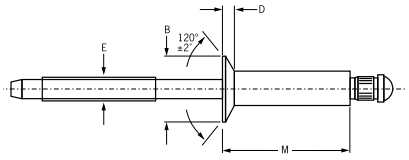
*: BS 1473 5056 DIN 1725 AlMg5 Werkstoff 3.3555
**: BS3111 Type 1 SAE 1038 DIN 1654 Cq35



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



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



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

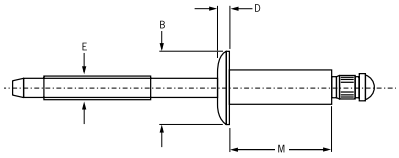
ø						M	ø E	BSPQ Protruding head			BSLQ Large flange			BSCQ Countersunk		
								ø B	D	Part No. /ref	ø B	D	Part No. /ref	ø B	D	Part No. /ref
nom.	min.	mid.[1]	max.	min.	max.	max.	ref.		max.	BSPQ-		max.	BSLQ-	±.007	ref.	BSCQ-
1/8" (3.2 mm)			.062	.129	.133	.212	.075	.250 ±.012	.042	-04-01	.375 ±.015	.065		.226	.032	
	.063	.093	.125			.275				-04-02			-04-02			
	.094	.140	.187			.337				-04-03						-04-03
	.126	.187	.250			.400				-04-04			-04-04			-04-04
	.188	.250	.312			.462				-04-05						-04-05
	.251	.312	.375			.535				-04-06			-04-06			-04-06
	.313	.375	.437			.602				-04-07						-04-07
	.376	.437	.500			.670				-04-08			-04-08			-04-08
5/32" (4.0 mm)	.062	.093	.125	.160	.164	.300	.094	.312 ±.016	.050	-05-02	.469 ±.020	.075		.281	.040	
	.094	.140	.187			.362				-05-03						
	.126	.187	.250			.425				-05-04			-05-04			-05-04
	.251	.312	.375			.550				-05-06			-05-06			-05-06
	.376	.437	.500			.695				-05-08			-05-08			-05-08
3/16" (4.8 mm)	.062	.093	.125	.192	.196	.325	.114	.375 ±.019	.060	-06-02	.625 ±.025	.092		.344	.050	
	.094	.140	.187			.387				-06-03						
	.126	.187	.250			.450				-06-04						-06-04
	.188	.250	.312			.512				-06-05						-06-05
	.251	.312	.375			.575				-06-06			-06-06			-06-06
	.376	.437	.500			.700				-06-08			-06-08			-06-08
	.501	.562	.625			.850				-06-10			-06-10			-06-10
	.626	.687	.750			.980				-06-12			-06-12			-06-12
	.751	.812	.875			1.110				-06-14			-06-14			-06-14

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

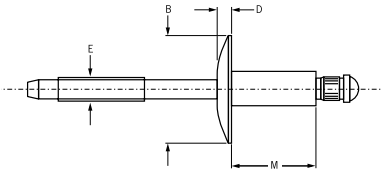
1) Mandrels break flush with rivet head at mid. grip (except -04-01s, which break at .062) / La tige rompt affleurante à la tête du rivet en milieu de plage de serrage (sauf pour -04-01s qui rompt à .062) / Bei mittlerem Klemmbereich (mid.) reißt der Dorn bündig mit dem Nietkopf ab (außer -04-01, der bei .062 abreißt) / Q Rivet rottura del chiodo a livello della testa del rivetto per grip medio (eccetto -04-01s rottura a .062)/ El punto de rotura del Q Rivet es a ras con la cabeza del remache en su grip intermedio (excepto el -04-01s. que rompe a .062)

Avdel®

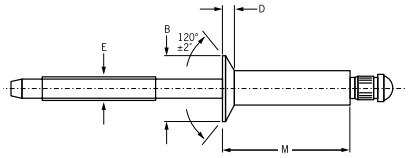
Q Rivet BSPQ / BSLQ /BSCQ



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



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



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

ø						M	ø E	BSPQ Protruding head			BSLQ Large flange			BSCQ Countersunk		
								ø B	D	Part No. /ref	ø B	D	Part No. /ref	ø B	D	Part No. /ref
nom.	min.	mid.[1]	max.	min.	max.	max.	ref.		max.	BSPQ-		max.	BSLQ-	±.007	ref.	BSCQ-
	.062	.093	.125			.375				-08-02						
	.126	.187	.250			.500				-08-04			-08-04			-08-04
	.251	.312	.375			.625				-08-06			-08-06			-08-06
	.376	.437	.500			.750				-08-08			-08-08			-08-08
1/4" (6.4 mm)	.501	.562	.625	.257	.261	.900	.151	.500 ±.025	.078	-08-10	.750 ±.025	.107	-08-10	.468	.071	-08-10
	.626	.687	.750			1.030				-08-12			-08-12			-08-12
	.751	.812	.875			1.160				-08-14			-08-14			-08-14
	.876	.937	1.000			1.290				-08-16			-08-16			-08-16
	1.001	1.062	1.125			1.420				-08-18						
	1.126	1.187	1.250			1.550				-08-20						

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) Mandrels break flush with rivet head at mid. grip (except -04-01s, which break at .062) / La tige rompt affleurante à la tête du rivet en milieu de plage de serrage (sauf pour -04-01s qui rompt à .062) / Bei mittlerem Klemmbereich (mid.) reißt der Dorn bündig mit dem Nietkopf ab (außer -04-01, der bei .062 abreißt) / Q Rivet rottura del chiodo a livello della testa del rivetto per grip medio (eccetto -04-01s rottura a .062)/ El punto de rotura del Q Rivet es a ras con la cabeza del remache en su grip intermedio (excepto el -04-01s. que rompe a .062)

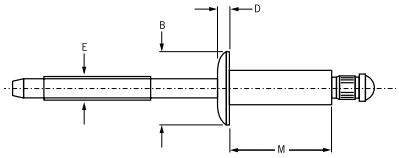
ø		
nom.	lbf [2]	lbf[2]
1/8" (3.2 mm)	350	325
5/32" (4.0 mm)	525	450
3/16" (4.8 mm)	750	650
1/4" (6.4 mm)	1250	1050

2) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

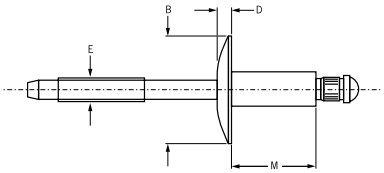
Q Rivet CCPQ / CCLQ /CCCQ

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

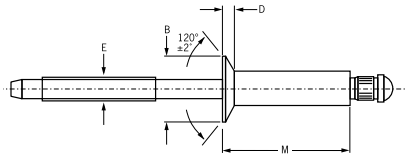
*: BS 970 302S31 AISI302
**: A286



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



Q Rivet CCLQ
Large flange / Tête large / Flachrundkopf, extragroß / Testa larga / Cabeza ancha



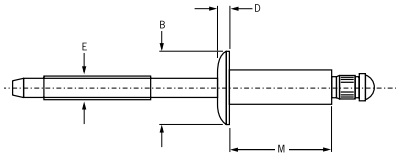
Q Rivet CCCQ
Countersunk / Tête fraisée Senkkopf / Testa svasata Cabeza avellanada

ø						M	ø E	CCPQ Protruding head			CCLQ Large flange			CCCQ Countersunk		
								ø B	D	Part No. /ref	ø B	D	Part No. /ref	ø B	D	Part No. /ref
nom.	min.	mid.[1]	max.	min.	max.	max.	ref.		max.	CCPQ-		max.	CCLQ-	±.007	ref.	CCCQ-
1/8" (3.2 mm)			.062	.129	.133	.212	.075	.250 ±.012	.042	-04-01	.375 ±.015	.065		.226	.032	
	.063	.093	.125			.275				-04-02			-04-02			
	.094	.140	.187			.337				-04-03						-04-03
	.126	.187	.250			.400				-04-04			-04-04			-04-04
	.188	.250	.312			.462				-04-05						-04-05
	.251	.312	.375			.535				-04-06			-04-06			-04-06
5/32" (4.0 mm)	.062	.093	.125	.160	.164	.300	.094	.312 ±.016	.050	-05-02	.469 ±.020	.075		.281	.040	
	.094	.140	.187			.362				-05-03						
	.126	.187	.250			.425				-05-04			-05-04			-05-04
	.251	.312	.375			.550				-05-06			-05-06			-05-06
3/16" (4.8 mm)	.062	.093	.125	.192	.196	.325	.114	.375 ±.019	.057	-06-02	.625 ±.025	.092		.344	.050	
	.126	.187	.250			.450				-06-04			-06-04			-06-04
	.251	.312	.375			.575				-06-06			-06-06			-06-06
	.376	.437	.500			.700				-06-08			-06-08			-06-08

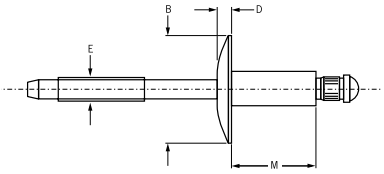
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) Mandrels break flush with rivet head at mid. grip (except -04-01s, which break at .062) / La tige rompt affleurante à la tête du rivet en milieu de plage de serrage (sauf pour -04-01s qui rompt à .062) / Bei mittlerem Klemmbereich (mid.) reißt der Dorn bündig mit dem Nietkopf ab (außer -04-01, der bei .062 abreißt) / Q Rivet rottura del chiodo a livello della testa del rivetto per grip medio (eccetto -04-01s rottura a .062)/ El punto de rotura del Q Rivet es a ras con la cabeza del remache en su grip intermedio (excepto el -04-01s. que rompe a .062)

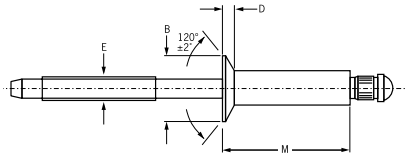
Q Rivet CCPQ / CCLQ /CCCQ



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



Q Rivet CCLQ
Large flange / Tête large / Flachrundkopf, extragroß / Testa larga / Cabeza ancha



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

ø								CCPQ Protruding head			CCLQ Large flange			CCCQ Countersunk		
nom.	min.	mid.[1]	max.	min.	max.	M max.	ø E ref.	ø B	D max.	Part No. /ref CCPQ-	ø B	D max.	Part No. /ref CCLQ-	ø B ±.007	D ref.	Part No. /ref CCCQ-
1/4" (6.4 mm)	.062	.093	.125	.257	.261	.375	.151	.500 ±.025	.077	-08-02				.468	.071	
	.126	.187	.250			.500				-08-04						-08-04
	.251	.312	.375			.625				-08-06						-08-06
	.376	.437	.500			.750				-08-08						-08-08
	.501	.562	.625			.900				-08-10						-08-10

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) Mandrels break flush with rivet head at mid. grip (except -04-01s, which break at .062) / La tige rompt affleurante à la tête du rivet en milieu de plage de serrage (sauf pour -04-01s qui rompt à .062) / Bei mittlerem Klemmbereich (mid.) reißt der Dorn bündig mit dem Nietkopf ab (außer -04-01, der bei .062 abreißt) / Q Rivet rottura del chiodo a livello della testa del rivetto per grip medio (eccetto -04-01s rottura a .062)/ El punto de rotura del Q Rivet es a ras con la cabeza del remache en su grip intermedio (excepto el -04-01s. que rompe a .062)

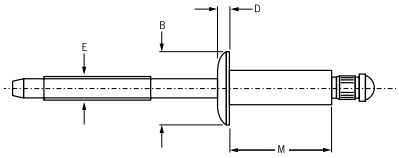
ø		
nom.	lbf [2]	lbf[2]
1/8" (3.2 mm)	700	600
5/32" (4.0 mm)	1050	1000
3/16" (4.8 mm)	1650	1300
1/4" (6.4 mm)	2450	2250

2) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

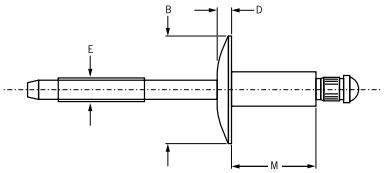
Q Rivet SSPQ / SSLQ /SSCQ

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

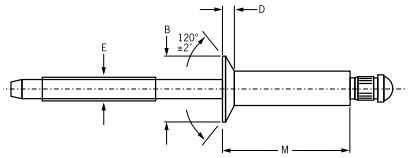
*: BS 3111 Type 0 SAE 1006 DIN 1654 QSt 32-3
**: BS3111 Type 1 SAE 1038 DIN 1654 Cq35



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



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



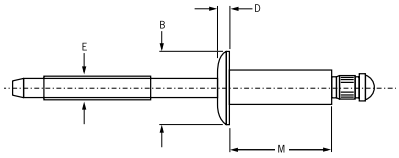
Q Rivet SSCQ
Countersunk / Tête fraisée Senkkopf / Testa svasata Cabeza avellanada

ø						M	ø E	SSPQ Protruding head			SSLQ Large flange			SSCQ Countersunk		
								ø B	D	Part No. /ref	ø B	D	Part No. /ref	ø B	D	Part No. /ref
nom.	min.	mid.[1]	max.	min.	max.	max.	ref.		max.	SSPQ-		max.	SSLQ-	±.007	ref.	SSCQ-
1/8" (3.2 mm)			.062	.129	.133	.212	.075	.250 ±.012	.042	-04-01	.375 ±.015	.065		.226	.032	
	.063	.093	.125			.275				-04-02			-04-02			-04-02
	.094	.140	.187			.337				-04-03						-04-03
	.126	.187	.250			.400				-04-04			-04-04			-04-04
	.188	.250	.312			.462				-04-05						-04-05
	.251	.312	.375			.535				-04-06			-04-06			-04-06
	.313	.375	.437			.602				-04-07						-04-07
	.376	.437	.500			.670				-04-08			-04-08			-04-08
5/32" (4.0 mm)	.062	.093	.125	.160	.164	.300	.094	.312 ±.016	.050	-05-02	.469 ±.020	.075	-05-02	.281	.040	
	.094	.140	.187			.362				-05-03						
	.126	.187	.250			.425				-05-04			-05-04			-05-04
	.188	.250	.312			.487				-05-05						
	.251	.312	.375			.550				-05-06			-05-06			-05-06
	.376	.437	.500			.695				-05-08			-05-08			-05-08
3/16" (4.8 mm)	.062	.093	.125	.192	.196	.325	.114	.375 ±.019	.057	-06-02	.625 ±.025	.092		.344	.050	
	.126	.187	.250			.450				-06-04			-06-04			-06-04
	.188	.250	.312			.512				-06-05						
	.251	.312	.375			.575				-06-06			-06-06			-06-06
	.376	.437	.500			.700				-06-08			-06-08			-06-08
	.501	.562	.625			.850				-06-10			-06-10			-06-10
	.626	.687	.750			.980				-06-12			-06-12			-06-12
	.751	.812	.875			1.110				-06-14						

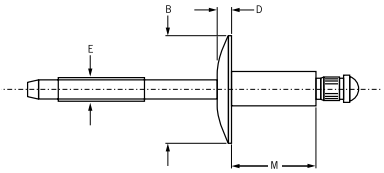
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) Mandrels break flush with rivet head at mid. grip (except -04-01s, which break at .062) / La tige rompt affleurante à la tête du rivet en milieu de plage de serrage (sauf pour -04-01s qui rompt à .062) / Bei mittlerem Klemmbereich (mid.) reißt der Dorn bündig mit dem Nietkopf ab (außer -04-01, der bei .062 abreißt) / Q Rivet rottura del chiodo a livello della testa del rivetto per grip medio (eccetto -04-01s rottura a .062)/ El punto de rotura del Q Rivet es a ras con la cabeza del remache en su grip intermedio (excepto el -04-01s. que rompe a .062)

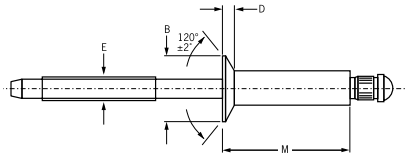
Q Rivet SSPQ / SSLQ /SSCQ



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



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



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

ø						M	ø E	SSPQ Protruding head			SSLQ Large flange			SSCQ Countersunk		
								ø B	D	Part No. /ref	ø B	D	Part No. /ref	ø B	D	Part No. /ref
nom.	min.	mid.[1]	max.	min.	max.	max.	ref.		max.	SSPQ-		max.	SSLQ-	±.007	ref.	SSCQ-
	.062	.093	.125			.375				-08-02						
	.126	.187	.250			.500				-08-04			-08-04			-08-04
	.251	.312	.375			.625				-08-06			-08-06			-08-06
	.376	.437	.500			.750				-08-08			-08-08			-08-08
1/4"	.501	.562	.625	.257	.261	.900	.151	.500	.077	-08-10	.750	.107	-08-10	.468	.071	-08-10
(6.4 mm)	.626	.687	.750			1.030		±.025		-08-12	±.025		-08-12			-08-12
	.751	.812	.875			1.160				-08-14			-08-14			-08-14
	.876	.937	1.000			1.290				-08-16			-08-16			-08-16
	1.001	1.062	1.125			1.420				-08-18						
	1.126	1.187	1.250			1.550				-08-20						

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) Mandrels break flush with rivet head at mid. grip (except -04-01s, which break at .062) / La tige rompt affleurante à la tête du rivet en milieu de plage de serrage (sauf pour -04-01s qui rompt à .062) / Bei mittlerem Klemmbereich (mid.) reißt der Dorn bündig mit dem Nietkopf ab (außer -04-01, der bei .062 abreißt) / Q Rivet rottura del chiodo a livello della testa del rivetto per grip medio (eccetto -04-01s rottura a .062)/ El punto de rotura del Q Rivet es a ras con la cabeza del remache en su grip intermedio (excepto el -04-01s. que rompe a .062)

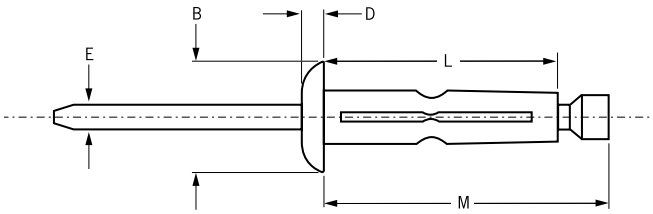
ø		
nom.	lbf [2]	lbf[2]
1/8" (3.2 mm)	500	400
5/32" (4.0 mm)	700	550
3/16" (4.8 mm)	1050	825
1/4" (6.4 mm)	1750	1450

2) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Klamp-Tite® BAPKTR

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

*: 5056 **: 7075



ø					M	B	D	L	E	Shear	Tensile	Part No/ref
nom.	min.	max.	min.	max.	max.	± .015	ref.	max.	ref.	lbf[1)]	lbf[1)]	
3/16" (4.8 mm)	.050	.250	.204	.209	1.04	.445	.088	.890	.103	700	450	BAPKTR-06-04
	.187	.375			1.13			.985				BAPKTR-06-06
	.375	.562			1.25			1.120				BAPKTR-06-09
	.562	.750			1.44			1.300				BAPKTR-06-12
1/4" (6.4 mm)	.060	.250	.252	.262	1.30	.560	.113	.925	.136	1250	700	BAPKTR-08-04
	.187	.375			1.42			1.050				BAPKTR-08-06

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

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

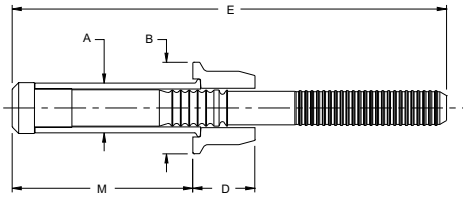
Testa tonda con una guarnizione di gomma e disponibile, p. e. BAPKTR-06W-06

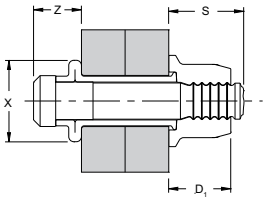
Para el sellado de la cabeza hay una version con junta de goma sintética, p.ej: BAPKTR-06W-06

Avbolt® 21001

English	Français	Deutsch	Italiano	Español	****
Stem: Chromium Molybdenium steel* Black oxide	Tige: Acier* Noir	Dorn: Stahl* Schwarz	Gambo: Acciaio* Passivato nero	Vástago: Acero* Pavonado	8 h
Sleeve: Carbon steel** Zinc plated Clear trivalent passivated	Douille: Acier** Revêtement zingué Passivation claire trivalente	Hülse: Stahl** Verzinkt Klar chromatiert, Cr6-frei	Bussola: Acciaio** Zincata Passivazione chiara trivalente	Cuerpo: Acero al carbono** Zincado Pasivado claro trivalente	240 h
Collar: Carbon steel*** Zinc plated Clear trivalent passivated	Bague: Acier*** Revêtement zingué Passivation claire trivalente	Schließring: Stahl*** Verzinkt Klar chromatiert, Cr6-frei	Collare: Acciaio*** Zincato Passivazione chiara trivalente	Collar: Acero al carbono*** Zincado Pasivado claro trivalente	240 h

*: EN 10263-4 34CrMo4 SAE 4135 SCM435 **: EN 10263-2 C8C SAE 1008 ***: EN 10263-4 23MnB4
****: to red rust / à la rouille rouge / bis Rotrost / alla ruggine rossa / al óxido rojo (ASTM B117)





ø nom.	min.	max.	min.	max.	ø A max.	ø B max.	D max.	D_1 max.	E min.	M max.	S max.	X nom.	Z max.	lbf min.	lbf min.	Part No/ref
	.188	.313							2.905	.988						21001-01204
	.313	.438							3.031	1.113						21001-01206
	.438	.563							3.157	1.238						21001-01208
3/8"	.563	.688							3.283	1.363						21001-01210
(10	.688	.813	.413	.435	.412	.739	.498	.571	3.409	1.488	.722	.610	.377	10115	7250	21001-01212
mm)	.813	.938							3.531	1.613						21001-01214
	.938	1.063							3.657	1.738						21001-01216
	1.063	1.188							3.783	1.863						21001-01218
	1.188	1.313							3.909	1.988						21001-01220
	.251	.376							3.172	1.253						21001-01604
	.376	.501							3.297	1.378						21001-01606
	.501	.626							3.422	1.503						21001-01608
	.626	.751							3.548	1.628						21001-01610
1/2"	.751	.876							3.672	1.753						21001-01612
(12.7	.876	1.001	.546	.581	.543	.957	.591	.634	3.797	1.878	.807	.812	.516	20150	13000	21001-01614
mm)	1.001	1.126							3.922	2.003						21001-01616
	1.126	1.251							4.046	2.127						21001-01618
	1.251	1.376							4.170	2.250						21001-01620
	1.376	1.501							4.292	2.373						21001-01622
	1.501	1.626							4.413	2.494						21001-01624
	.250	.500							4.044	1.549						21001-02004
5/8"	.500	.750							4.294	1.799						21001-02008
(16	.750	1.000	.687	.728	.681	1.160	.687	.790	4.544	2.049	1.200	1.000	.630	29000	20500	21001-02012
mm)	1.000	1.250							4.794	2.299						21001-02016
	1.250	1.500							5.044	2.549						21001-02020

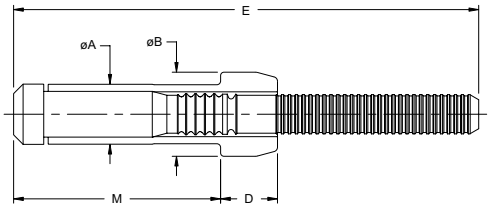
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

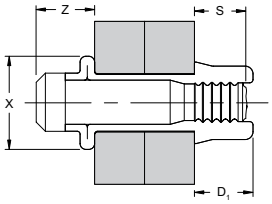
Notes / Notes / Hinweise / Note / Notas
Avbolt® fasteners are supplied with lubricated collars and must not be degreased. / Avbolt® sont lubrifiées et ne doivent pas être dégraissées. / Avbolt® sind mit einem Gleitmittel beschichtet, welches nicht entfernt werden darf. / I Avbolt® sono forniti lubrificati e non devono essere sgrassati. / Los Avbolt® se suministran lubricados y no deben ser desengrasados.

Avbolt® 21021

English	Français	Deutsch	Italiano	Español	***
Body: Carbon steel* Zinc plated Clear trivalent passivated	Corps: Acier* Revêtement zingué Passivation claire trivalente	Hülse: Stahl* Verzinkt Klar chromatiert, Cr6-frei	Corpo: Acciaio* Zincata Passivazione chiara trivalente	Cuerpo: Acero al carbono* Zincado Pasivado claro trivalente	240 h
Stem: Carbon steel** Black oxide	Tige: Acier** Noir	Dorn: Stahl** Schwarz brüniert	Gambo: Acciaio** Passivato nero	Vástago: Acero al carbono** Pavonado	8 h

*: SAE 1008 EN 10263-2 C8C **: SCM 435 SAE 4135 EN 10263-4 34CrMo4
***: to red rust / à la rouille rouge / bis Rotrost / alla ruggine rossa / al óxido rojo (ASTM B117)



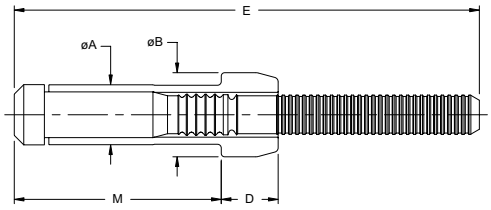


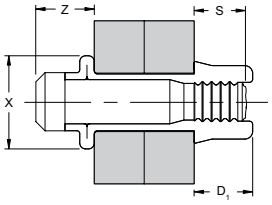
ø					øA	øB	D	D_1	E	M	S	X	Z			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	min.	max.	max.	nom.	max.	lbf min.	lbf min.	
	.093	.157							1.461	.488						21021-00602
	.157	.220							1.523	.551						21021-00603
	.220	.282							1.585	.614						21021-00604
	.282	.345							1.647	.677						21021-00605
3/16"	.345	.407							1.709	.738						21021-00606
(4.8 mm)	.407	.470	.208	.222	.205	.288	.195	.207	1.771	.801	.252	.297	.210	2800	1800	21021-00607
	.470	.532							1.833	.864						21021-00608
	.532	.595							1.895	.927						21021-00609
	.595	.657							1.957	.988						21021-00610
	.657	.720							2.019	1.051						21021-00611
	.720	.783							2.081	1.114						21021-00612
	.093	.157							1.806	.650						21021-00802
	.157	.220							1.863	.713						21021-00803
	.220	.282							1.925	.775						21021-00804
	.282	.345							1.987	.838						21021-00805
1/4"	.345	.407							2.049	.900						21021-00806
(6.4 mm)	.407	.470	.277	.292	.275	.382	.260	.310	2.111	.963	.345	.380	.285	5100	3250	21021-00807
	.470	.532							2.173	1.025						21021-00808
	.532	.595							2.235	1.088						21021-00809
	.595	.657							2.297	1.150						21021-00810
	.657	.720							2.359	1.213						21021-00811
	.720	.783							2.421	1.275						21021-00812

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

Avdel®

Avbolt® 21021





ø					øA	øB	D	D_1	E	M	S	X	Z			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	min.	max.	max.	nom.	max.	lbf min.	lbf min.	
	.188	.313							2.457	.917						21021-01004
	.313	.438							2.581	1.042						21021-01006
	.438	.563							2.705	1.167						21021-01008
5/16" (8.0 mm)	.563	.688	.348	.368	.345	.488	.340	.362	2.829	1.292	.404	.483	.358	8200	5300	21021-01010
	.688	.813							2.953	1.417						21021-01012
	.813	.938							3.077	1.542						21021-01014
	.938	1.062							3.201	1.667						21021-01016

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

Note / Note / Hinweis / Nota / Nota

Bodies are supplied lubricated and must not be degreased.

Les corps sont lubrifiées et ne doivent pas être dégraissées.

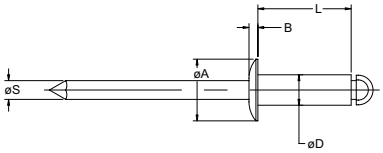
Hülsen sind mit einem Gleitmittel beschichtet, welches nicht entfernt werden darf.

I corpi sono forniti lubrificati e non devono essere sgrassati.

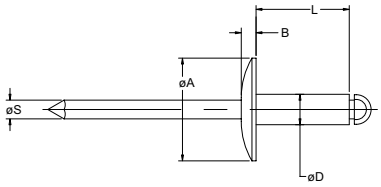
Los cuerpos se suministran lubricados y no deben ser desengrasados.

N Rivet AAPS / AALS / AACS

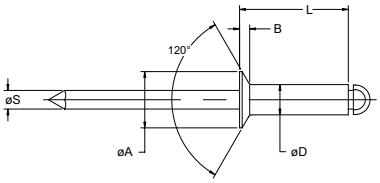
English	Français	Deutsch	Italiano	Español
Body: Aluminium 5052 Natural	Corps: Aluminium 5052 Brut	Hülse: Aluminium 5052 Blank	Corpo: Alluminio 5052 Nessuna finitura	Cuerpo: Aluminio 5052 Natural
Stem: Aluminium Natural	Tige: Aluminium Brut	Dorn: Aluminium Blank	Gambo: Alluminio Nessuna finitura	Vástago: Aluminio Natural
IFI 114 Grade 11				



N Rivet AAPS
Protruding head / Tête bombée / Flachrundkopf / Testa tonda / Cabeza alomada



N Rivet AALS
Large flange / Tête large / Flachrundkopf, extragroß / Testa larga / Cabeza ancha



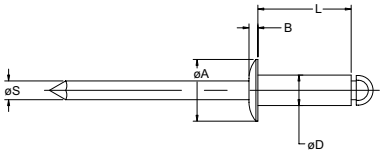
N Rivet AACS
Countersunk / Tête fraisée Senkkopf / Testa svasata Cabeza avellanada

ø					ø D	L	ø S	AAPS Protruding head			AALS Large flange			AACS Countersunk		
								ø A	B	Part No. /ref	ø A	B	Part No. /ref	ø A	B	Part No. /ref
nom.	min.	max.	min.	max.		max.			max.	AAPS-		max.	AALS-		ref.	AACS-
3/32" (2.4 mm)	.020	.125	.097	.100	.093	.250	.057	.188	.032	-03-02				.174	.027	-03-02
	.126	.250				.375				-03-04						-03-04
	.251	.375				.500				-03-06						-03-06
1/8" (3.2 mm)	.020	.062	.129	.133	.125	.212	.076	.250	.040	-04-01	.375	.065		.220	.031	
	.063	.125				.275				-04-02			-04-02			-04-02
	.126	.187				.337				-04-03						-04-03
	.188	.250				.400				-04-04			-04-04			-04-04
	.251	.312				.462				-04-05						-04-05
	.313	.375				.535				-04-06			-04-06			-04-06
	.376	.437				.602				-04-07						-04-07
	.438	.500				.670				-04-08			-04-08			-04-08
	.501	.562				.738				-04-09						-04-09
	.563	.625				.805				-04-10						-04-10
5/32" (4.0 mm)	.020	.125	.160	.164	.156	.300	.095	.312	.050	-05-02	.468	.075		.281	.040	
	.126	.187				.362				-05-03						
	.188	.250				.425				-05-04			-05-04			-05-04
	.251	.375				.550				-05-06			-05-06			-05-06
	.376	.500				.695				-05-08			-05-08			-05-08
	.501	.625				.830				-05-10						-05-10
3/16" (4.8 mm)	.020	.125	.192	.196	.187	.325	.114	.375	.060	-06-02	.625	.092		.348	.050	
	.126	.250				.450				-06-04			-06-04			-06-04
	.251	.375				.575				-06-06			-06-06			-06-06
	.376	.500				.700				-06-08			-06-08			-06-08
	.501	.625				.850				-06-10			-06-10			-06-10
	.626	.750				.980				-06-12			-06-12			-06-12
	.751	.875				1.110				-06-14			-06-14			-06-14
	.876	1.000				1.240				-06-16						-06-16

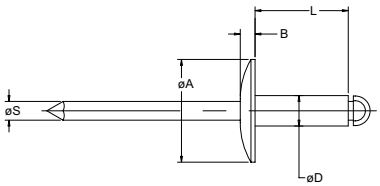
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

Avdel®

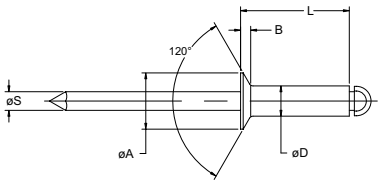
N Rivet AAPS / AALS / AACS



N Rivet AAPS
Protruding head / Tête bombée / Flachrundkopf / Testa tonda / Cabeza alomada



N Rivet AALS
Large flange / Tête large / Flachrundkopf, extragroß / Testa larga / Cabeza ancha



N Rivet AACS
Countersunk / Tête fraisée Senkkopf / Testa svasata Cabeza avellanada

ø					ø D	L	ø S	AAPS Protruding head			AALS Large flange			AACS Countersunk		
								ø A	B	Part No. /ref	ø A	B	Part No. /ref	ø A	B	Part No. /ref
nom.	min.	max.	min.	max.		max.			max.	AAPS-		max.	AALS-		max.	AACS-
	.020	.125				.375				-08-02						
	.126	.250				.500				-08-04			-08-04			-08-04
	.251	.375				.625				-08-06			-08-06			-08-06
1/4"	.376	.500	.257	.261	.250	.750	.151	.500	.080	-08-08	.750	.107	-08-08	.468	.071	-08-08
(6.4 mm)	.501	.625				.900				-08-10			-08-10			-08-10
	.626	.750				1.030				-08-12			-08-12			-08-12
	.751	.875				1.160				-08-14			-08-14			-08-14
	.876	1.000				1.290				-08-16			-08-16			-08-16

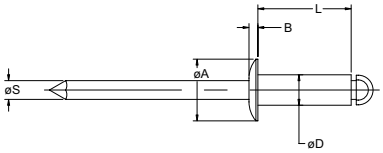
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

ø		
nom.	lbf min. [1]	lbf min.[1]
3/32" (2.4 mm)	70	80
1/8" (3.2 mm)	120	150
5/32" (4.0 mm)	190	230
3/16" (4.8 mm)	260	320
1/4" (6.4 mm)	460	560

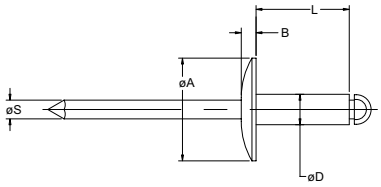
1) Tested per IFI 135 Specification 2.1 and 2.2
Testé par spécification IFI 135 2.1 et 2.2
Getestet nach IFI 135 Spezifikation 2.1 und 2.2
Provato secondo specifica IFI 135 2.1 e 2.2
Comprobado según especificación IFI 135 2.1 y 2.2

N Rivet BSPS / BSLS / BSCS

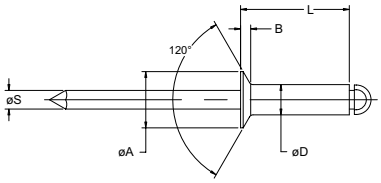
English	Français	Deutsch	Italiano	Español
Body: Aluminium 5052 Natural	Corps: Aluminium 5052 Brut	Hülse: Aluminium 5052 Blank	Corpo: Alluminio 5052 Nessuna finitura	Cuerpo: Aluminio 5052 Natural
Stem: Steel Natural	Tige: Acier Brut	Dorn: Stahl Blank	Gambo: Acciaio Nessuna finitura	Vástago: Acero Natural
IFI 114 Grade 19				



N Rivet BSPS
Protruding head / Tête bombée / Flachrundkopf / Testa tonda / Cabeza alomada



N Rivet BSLS
Large flange / Tête large / Flachrundkopf, extragroß / Testa larga / Cabeza ancha



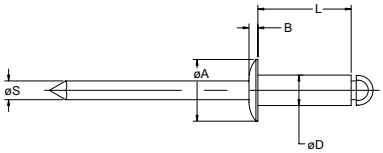
N Rivet BSCS
Countersunk / Tête fraisée Senkkopf / Testa svasata Cabeza avellanada

ø					ø D	L	ø S	BSPS Protruding head			BSLS Large flange			BSCS Countersunk		
								ø A	B	Part No. /ref	ø A	B	Part No. /ref	ø A	B	Part No. /ref
nom.	min.	max.	min.	max.		max.			max.	BSPS-		max.	BSLS-		ref.	BSCS-
3/32" (2.4 mm)	.020	.125	.097	.100	.093	.250	.057	.188	.032	-03-02				.174	.027	-03-02
	.126	.250				.375				-03-04						-03-04
	.251	.375				.500				-03-06						-03-06
1/8" (3.2 mm)	.020	.062	.129	.133	.125	.212	.076	.250	.040	-04-01	.375	.065		.220	.031	
	.063	.125				.275				-04-02			-04-02			-04-02
	.126	.187				.337				-04-03						-04-03
	.188	.250				.400				-04-04			-04-04			-04-04
	.251	.312				.462				-04-05						-04-05
	.313	.375				.535				-04-06			-04-06			-04-06
	.376	.437				.602				-04-07						-04-07
	.438	.500				.670				-04-08			-04-08			-04-08
	.501	.562				.738				-04-09						-04-09
	.563	.625				.805				-04-10						-04-10
5/32" (4.0 mm)	.020	.125	.160	.164	.156	.300	.095	.312	.050	-05-02	.468	.075		.281	.040	
	.126	.250				.425				-05-04			-05-04			-05-04
	.251	.375				.550				-05-06			-05-06			-05-06
	.376	.500				.695				-05-08			-05-08			-05-08
	.501	.625				.830				-05-10						-05-10
3/16" (4.8 mm)	.020	.125	.192	.196	.187	.325	.114	.375	.060	-06-02	.625	.092		.348	.050	
	.126	.250				.450				-06-04			-06-04			-06-04
	.251	.375				.575				-06-06			-06-06			-06-06
	.376	.500				.700				-06-08			-06-08			-06-08
	.501	.625				.850				-06-10			-06-10			-06-10
	.626	.750				.980				-06-12			-06-12			-06-12
	.751	.875				1.110				-06-14			-06-14			-06-14
	.876	1.000				1.240				-06-16						-06-16

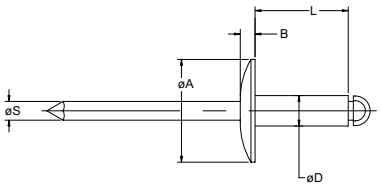
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

Avdel®

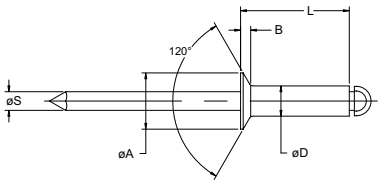
N Rivet BSPS / BSLS / BSCS



N Rivet BSPS
Protruding head / Tête bombée / Flachrundkopf / Testa tonda / Cabeza alomada



N Rivet BSLS
Large flange / Tête large / Flachrundkopf, extragroß / Testa larga / Cabeza ancha



N Rivet BSCS
Countersunk / Tête fraisée Senkkopf / Testa svasata Cabeza avellanada

ø					ø D	L	ø S	BSPS Protruding head			BSLS Large flange			BSCS Countersunk		
								ø A	B	Part No. /ref	ø A	B	Part No. /ref	ø A	B	Part No. /ref
nom.	min.	max.	min.	max.		max.			max.	BSPS-		max.	BSLS-		max.	BSCS-
	.020	.125				.375				-08-02						
	.126	.250				.500				-08-04			-08-04			-08-04
	.251	.375				.625				-08-06			-08-06			-08-06
1/4" (6.4 mm)	.376	.500	.257	.261	.250	.750	.151	.500	.080	-08-08	.750	.107	-08-08	.468	.071	-08-08
	.501	.625				.900				-08-10			-08-10			-08-10
	.626	.750				1.030				-08-12			-08-12			-08-12
	.751	.875				1.160				-08-14			-08-14			-08-14
	.876	1.000				1.290				-08-16			-08-16			-08-16

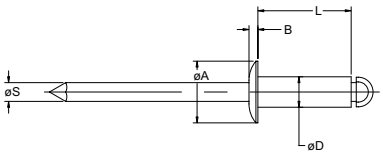
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

ø		
nom.	lbf min. [1]	lbf min.[1]
3/32" (2.4 mm)	90	120
1/8" (3.2 mm)	170	220
5/32" (4.0 mm)	260	350
3/16" (4.8 mm)	380	500
1/4" (6.4 mm)	700	920

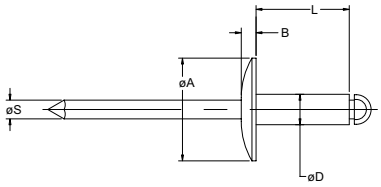
1) Tested per IFI 135 Specification 2.1 and 2.2
Testé par spécification IFI 135 2.1 et 2.2
Getestet nach IFI 135 Spezifikation 2.1 und 2.2
Provato secondo specifica IFI 135 2.1 e 2.2
Comprobado según especificación IFI 135 2.1 y 2.2

N Rivet CCPS / CCLS / CCCS

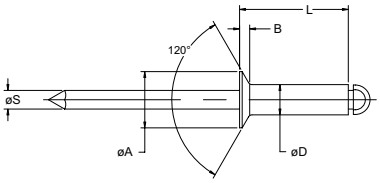
English	Français	Deutsch	Italiano	Español
Body: Stainless steel Natural	Corps: Inox Brut	Hülse: Edelstahl Blank	Corpo: Acciaio Inox Nessuna finitura	Cuerpo: Acero inoxidable Natural
Stem: Stainless steel Natural	Tige: Inox Brut	Dorn: Edelstahl Blank	Gambo: Acciaio Inox Nessuna finitura	Vástago: Acero inoxidable Natural
IFI 114 Grade 51				



N Rivet CCPS
Protruding head / Tête bombée / Flachrundkopf / Testa tonda / Cabeza alomada



N Rivet CCLS
Large flange / Tête large / Flachrundkopf, extragroß / Testa larga / Cabeza ancha



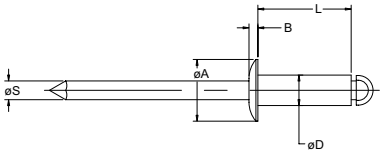
N Rivet CCCS
Countersunk / Tête fraisée Senkkopf / Testa svasata Cabeza avellanada

ø					ø D	L	ø S	CCPS Protruding head			CCLS Large flange			CCCS Countersunk		
								ø A	B	Part No. /ref	ø A	B	Part No. /ref	ø A	B	Part No. /ref
nom.	min.	max.	min.	max.		max.			max.	CCPS-		max.	CCLS-		ref.	CCCS-
3/32" (2.4 mm)	.020	.125	.097	.100	.093	.250	.057	.188	.032	-03-02				.174	.027	-03-02
	.126	.250				.375				-03-04						-03-04
1/8" (3.2 mm)	.020	.062	.129	.133	.125	.212	.076	.250	.040	-04-01	.375	.065		.220	.031	
	.063	.125				.275				-04-02			-04-02			-04-02
	.126	.187				.337				-04-03						-04-03
	.188	.250				.400				-04-04			-04-04			-04-04
	.251	.312				.462				-04-05						-04-05
	.313	.375				.535				-04-06			-04-06			-04-06
	.376	.437				.602				-04-07						
	.438	.500				.670				-04-08						
5/32" (4.0 mm)	.020	.125	.160	.164	.156	.300	.095	.312	.050	-05-02	.468	.075		.281	.040	
	.126	.250				.425				-05-04			-05-04			-05-04
	.251	.375				.550				-05-06			-05-06			-05-06
3/16" (4.8 mm)	.020	.125	.192	.196	.187	.325	.114	.375	.060	-06-02	.625	.092		.348	.050	
	.126	.187				.387				-06-03						
	.188	.250				.450				-06-04			-06-04			-06-04
	.251	.375				.575				-06-06			-06-06			-06-06
	.376	.500				.700				-06-08			-06-08			-06-08

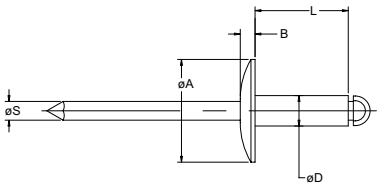
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

Avdel®

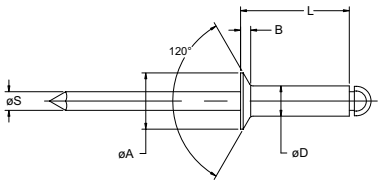
N Rivet CCPS / CCLS / CCCS



N Rivet CCPS
Protruding head / Tête bombée / Flachrundkopf / Testa tonda / Cabeza alomada



N Rivet CCLS
Large flange / Tête large / Flachrundkopf, extragroß / Testa larga / Cabeza ancha



N Rivet CCCS
Countersunk / Tête fraisée Senkkopf / Testa svasata Cabeza avellanada

ø					ø D	L	ø S	CCPS Protruding head			CCLS Large flange			CCCS Countersunk		
								ø A	B	Part No. /ref	ø A	B	Part No. /ref	ø A	B	Part No. /ref
nom.	min.	max.	min.	max.		max.			max.	CCPS-		max.	CCLS-		max.	CCCS-
1/4" (6.4 mm)	.020	.125	.257	.261	.250	.375	.151	.500	.080	-08-02				.468	.071	
	.126	.250				.500				-08-04						-08-04
	.251	.375				.625				-08-06						-08-06
	.376	.500				.750				-08-08						-08-08
	.501	.625				.900				-08-10						-08-10

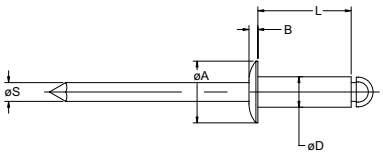
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

ø		
nom.	lbf min. [1]	lbf min.[1]
3/32" (2.4 mm)	230	280
1/8" (3.2 mm)	420	530
5/32" (4.0 mm)	650	820
3/16" (4.8 mm)	950	1200
1/4" (6.4 mm)	1700	2100

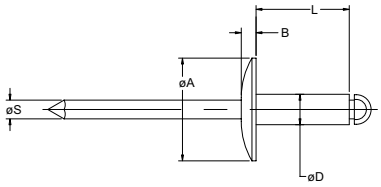
1) Tested per IFI 135 Specification 2.1 and 2.2
Testé par spécification IFI 135 2.1 et 2.2
Getestet nach IFI 135 Spezifikation 2.1 und 2.2
Provato secondo specifica IFI 135 2.1 e 2.2
Comprobado según especificación IFI 135 2.1 y 2.2

N Rivet CSPS / CSLS / CSCS

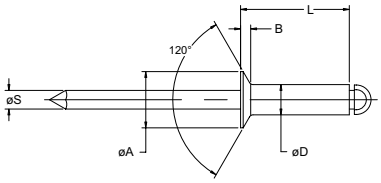
English	Français	Deutsch	Italiano	Español
Body: Stainless steel Natural	Corps: Inox Brut	Hülse: Edelstahl Blank	Corpo: Acciaio Inox Nessuna finitura	Cuerpo: Acero inoxidable Natural
Stem: Steel Natural	Tige: Acier Brut	Dorn: Stahl Blank	Gambo: Acciaio Nessuna finitura	Vástago: Acero Natural
IFI 114 Grade 50				



N Rivet CSPS
Protruding head / Tête bombée / Flachrundkopf / Testa tonda / Cabeza alomada



N Rivet CSLS
Large flange / Tête large / Flachrundkopf, extragroß / Testa larga / Cabeza ancha



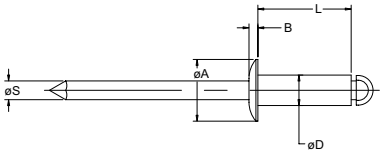
N Rivet CSCS
Countersunk / Tête fraisée Senkkopf / Testa svasata Cabeza avellanada

ø					ø D	L	ø S	CSPS Protruding head			CSLS Large flange			CSCS Countersunk		
								ø A	B	Part No. /ref	ø A	B	Part No. /ref	ø A	B	Part No. /ref
nom.	min.	max.	min.	max.		max.			max.	CSPS-		max.	CSLS-		ref.	CSCS-
3/32" (2.4 mm)	.020	.125	.097	.100	.093	.250	.057	.188	.032	-03-02				.174	.027	-03-02
	.126	.250				.375				-03-04						-03-04
1/8" (3.2 mm)	.020	.062	.129	.133	.125	.212	.076	.250	.040	-04-01	.375	.065		.220	.031	
	.063	.125				.275				-04-02			-04-02			-04-02
	.126	.187				.337				-04-03						-04-03
	.188	.250				.400				-04-04			-04-04			-04-04
	.251	.312				.462				-04-05						-04-05
	.313	.375				.535				-04-06			-04-06			-04-06
5/32" (4.0 mm)	.020	.125	.160	.164	.156	.300	.095	.312	.050	-05-02	.468	.075		.281	.040	
	.188	.250				.425				-05-04			-05-04			-05-04
	.251	.375				.550				-05-06			-05-06			-05-06
3/16" (4.8 mm)	.020	.125	.192	.196	.187	.325	.114	.375	.060	-06-02	.625	.092		.348	.050	
	.126	.250				.450				-06-04			-06-04			-06-04
	.251	.375				.575				-06-06			-06-06			-06-06
	.376	.500				.700				-06-08			-06-08			-06-08

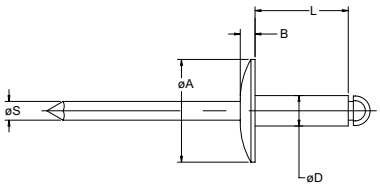
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

Avdel®

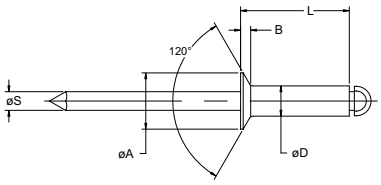
N Rivet CSPS / CSLS / CSCS



N Rivet CSPS
Protruding head / Tête bombée / Flachrundkopf / Testa tonda / Cabeza alomada



N Rivet CSLS
Large flange / Tête large / Flachrundkopf, extragroß / Testa larga / Cabeza ancha



N Rivet CSCS
Countersunk / Tête fraisée Senkkopf / Testa svasata Cabeza avellanada

ø					ø D	L	ø S	CSPS Protruding head			CSLS Large flange			CSCS Countersunk		
								ø A	B	Part No. /ref	ø A	B	Part No. /ref	ø A	B	Part No. /ref
nom.	min.	max.	min.	max.		max.			max.	CSPS-		max.	CSLS-		max.	CSCS-
1/4" (6.4 mm)	.020	.125	.257	.261	.250	.375	.151	.500	.080	-08-02				.468	.071	
	.126	.250				.500				-08-04						-08-04
	.251	.375				.625				-08-06						-08-06
	.376	.500				.750				-08-08						-08-08
	.501	.625				.900				-08-10						-08-10

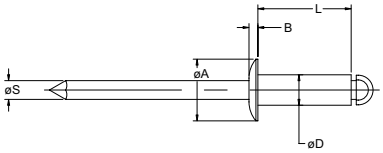
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

ø		
nom.	lbf min. [1]	lbf min.[1]
3/32" (2.4 mm)	230	280
1/8" (3.2 mm)	420	530
5/32" (4.0 mm)	650	820
3/16" (4.8 mm)	950	1200
1/4" (6.4 mm)	1700	2100

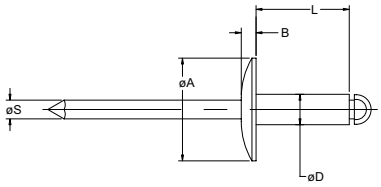
1) Tested per IFI 135 Specification 2.1 and 2.2
Testé par spécification IFI 135 2.1 et 2.2
Getestet nach IFI 135 Spezifikation 2.1 und 2.2
Provato secondo specifica IFI 135 2.1 e 2.2
Comprobado según especificación IFI 135 2.1 y 2.2

N Rivet MSPS / MSLS / MSCS

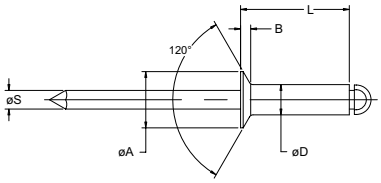
English	Français	Deutsch	Italiano	Español
Body: Monel Zinc plated	Corps: Monel Revêtement zingué	Hülse: Monel Verzinkt	Corpo: Monel Zincati	Cuerpo: Monel Zincado
Stem: Steel Natural	Tige: Acier Brut	Dorn: Stahl Blank	Gambo: Acciaio Nessuna finitura	Vástago: Acero Natural
IFI 114 Grade 40				



N Rivet MSPS
Protruding head / Tête bombée / Flachrundkopf / Testa tonda / Cabeza alomada



N Rivet MSLS
Large flange / Tête large / Flachrundkopf, extragroß / Testa larga / Cabeza ancha



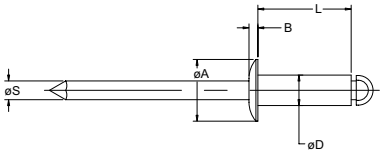
N Rivet MSCS
Countersunk / Tête fraisée Senkkopf / Testa svasata Cabeza avellanada

ø					ø D	L	ø S	MSPS Protruding head			MSLS Large flange			MSCS Countersunk		
								ø A	B	Part No. /ref	ø A	B	Part No. /ref	ø A	B	Part No. /ref
nom.	min.	max.	min.	max.		max.			max.	MSPS-		max.	MSLS-		ref.	MSCS-
3/32" (2.4 mm)	.020	.125	.097	.100	.093	.250	.057	.188	.032	-03-02				.174	.027	-03-02
	.126	.250				.375				-03-04						-03-04
	.251	.375				.500				-03-06						-03-06
1/8" (3.2 mm)	.020	.062	.129	.133	.125	.212	.076	.250	.040	-04-01	.375	.065		.220	.031	
	.063	.125				.275				-04-02			-04-02			-04-02
	.126	.187				.337				-04-03						-04-03
	.188	.250				.400				-04-04			-04-04			-04-04
	.251	.312				.462				-04-05						-04-05
	.313	.375				.535				-04-06			-04-06			-04-06
	.376	.437				.602				-04-07						-04-07
	.438	.500				.670				-04-08						-04-08
5/32" (4.0 mm)	.020	.125	.160	.164	.156	.300	.095	.312	.050	-05-02	.468	.075		.281	.040	
	.126	.250				.425				-05-04			-05-04			-05-04
	.251	.375				.550				-05-06			-05-06			-05-06
	.376	.500				.695				-05-08			-05-08			-05-08
	.501	.625				.830										-05-10
3/16" (4.8 mm)	.020	.125	.192	.196	.187	.325	.114	.375	.060	-06-02	.625	.092		.348	.050	
	.126	.250				.450				-06-04			-06-04			-06-04
	.251	.375				.575				-06-06			-06-06			-06-06
	.376	.500				.700				-06-08			-06-08			-06-08
	.501	.625				.850				-06-10			-06-10			-06-10

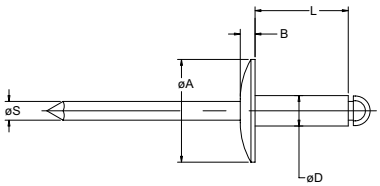
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

Avdel®

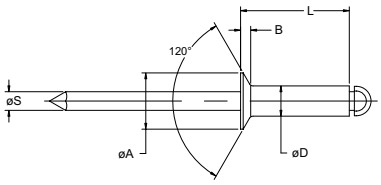
N Rivet MSPS / MSLS / MSCS



N Rivet MSPS
Protruding head / Tête bombée / Flachrundkopf / Testa tonda / Cabeza alomada



N Rivet MSLS
Large flange / Tête large / Flachrundkopf, extragroß / Testa larga / Cabeza ancha



N Rivet MSCS
Countersunk / Tête fraisée Senkkopf / Testa svasata Cabeza avellanada

ø					ø D	L	ø S	MSPS Protruding head			MSLS Large flange			MSCS Countersunk		
								ø A	B	Part No. /ref	ø A	B	Part No. /ref	ø A	B	Part No. /ref
nom.	min.	max.	min.	max.		max.			max.	MSPS-		max.	MSLS-		max.	MSCS-
1/4" (6.4 mm)	.020	.125	.257	.261	.250	.375	.151	.500	.080	-08-02				.468	.071	
	.126	.250				.500				-08-04						-08-04
	.251	.375				.625				-08-06						-08-06
	.376	.500				.750				-08-08						-08-08
	.501	.625				.900				-08-10						-08-10
	.626	.750				1.030				-08-12						-08-12

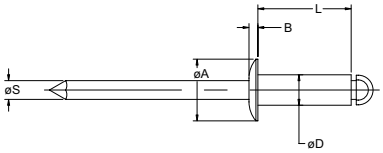
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

ø		
nom.	lbf min. [1]	lbf min.[1]
3/32" (2.4 mm)	200	250
1/8" (3.2 mm)	350	450
5/32" (4.0 mm)	550	700
3/16" (4.8 mm)	800	1000
1/4" (6.4 mm)	1400	1850

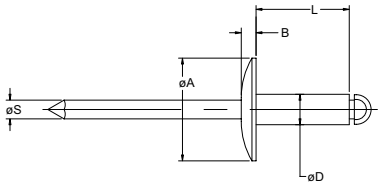
1) Tested per IFI 135 Specification 2.1 and 2.2
Testé par spécification IFI 135 2.1 et 2.2
Getestet nach IFI 135 Spezifikation 2.1 und 2.2
Provato secondo specifica IFI 135 2.1 e 2.2
Comprobado según especificación IFI 135 2.1 y 2.2

N Rivet SSPS / SSLS / SSCS

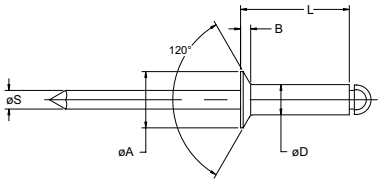
English	Français	Deutsch	Italiano	Español
Body: Steel Zinc plated	Corps: Acier Revêtement zingué	Hülse: Stahl Verzinkt	Corpo: Acciaio Zincati	Cuerpo: Acero Zincado
Stem: Steel Natural	Tige: Acier Brut	Dorn: Stahl Blank	Gambo: Acciaio Nessuna finitura	Vástago: Acero Natural
IFI 114 Grade 30				



N Rivet SSPS
Protruding head / Tête bombée / Flachrundkopf / Testa tonda / Cabeza alomada



N Rivet SSLS
Large flange / Tête large / Flachrundkopf, extragroß / Testa larga / Cabeza ancha



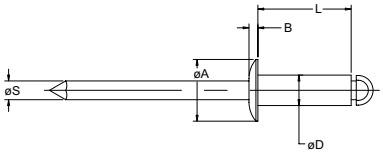
N Rivet SSCS
Countersunk / Tête fraisée Senkkopf / Testa svasata Cabeza avellanada

ø					ø D	L	ø S	SSPS Protruding head			SSLS Large flange			SSCS Countersunk		
								ø A	B	Part No. /ref	ø A	B	Part No. /ref	ø A	B	Part No. /ref
nom.	min.	max.	min.	max.		max.			max.	SSPS-		max.	SSLS-		ref.	SSCS-
3/32" (2.4 mm)	.020	.125	.097	.100	.093	.250	.057	.188	.032	-03-02				.174	.027	-03-02
	.126	.250				.375				-03-04						-03-04
	.251	.375				.500				-03-06						-03-06
1/8" (3.2 mm)	.020	.062	.129	.133	.125	.212	.076	.250	.040	-04-01	.375	.065		.220	.031	
	.063	.125				.275				-04-02			-04-02			-04-02
	.126	.187				.337				-04-03						-04-03
	.188	.250				.400				-04-04			-04-04			-04-04
	.251	.312				.462				-04-05						-04-05
	.313	.375				.535				-04-06			-04-06			-04-06
	.376	.437				.602				-04-07						-04-07
	.438	.500				.670				-04-08			-04-08			-04-08
	.501	.562				.738				-04-09						-04-09
5/32" (4.0 mm)	.020	.125	.160	.164	.156	.300	.095	.312	.050	-05-02	.468	.075		.281	.040	
	.126	.250				.425				-05-04			-05-04			-05-04
	.251	.375				.550				-05-06			-05-06			-05-06
	.376	.500				.695				-05-08			-05-08			-05-08
	.501	.625				.830				-05-10						-05-10
3/16" (4.8 mm)	.020	.125	.192	.196	.187	.325	.114	.375	.060	-06-02	.625	.092		.348	.050	
	.126	.250				.450				-06-04			-06-04			-06-04
	.251	.375				.575				-06-06			-06-06			-06-06
	.376	.500				.700				-06-08			-06-08			-06-08
	.501	.625				.850				-06-10			-06-10			-06-10
	.626	.750				.980				-06-12			-06-12			-06-12
	.751	.875				1.110				-06-14			-06-14			-06-14
	.876	1.000				1.240				-06-16						-06-16

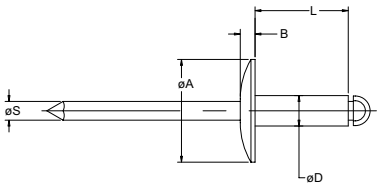
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

Avdel®

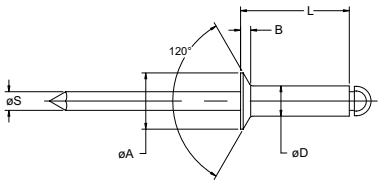
N Rivet SSPS / SSLS / SSCS



N Rivet SSPS
Protruding head / Tête bombée / Flachrundkopf / Testa tonda / Cabeza alomada



N Rivet SSLS
Large flange / Tête large / Flachrundkopf, extragroß / Testa larga / Cabeza ancha



N Rivet SSCS
Countersunk / Tête fraisée Senkkopf / Testa svasata Cabeza avellanada

ø					ø D	L	ø S	SSPS Protruding head			SSLS Large flange			SSCS Countersunk		
								ø A	B	Part No. /ref	ø A	B	Part No. /ref	ø A	B	Part No. /ref
nom.	min.	max.	min.	max.		max.			max.	SSPS-		max.	SSLS-		max.	SSCS-
	.020	.125				.375				-08-02						
	.126	.250				.500				-08-04			-08-04			-08-04
	.251	.375				.625				-08-06			-08-06			-08-06
1/4"	.376	.500	.257	.261	.250	.750	.151	.500	.080	-08-08	.750	.107	-08-08	.468	.071	-08-08
(6.4 mm)	.501	.625				.900				-08-10			-08-10			-08-10
	.626	.750				1.030				-08-12			-08-12			-08-12
	.751	.875				1.160				-08-14			-08-14			-08-14
	.876	1.000				1.290				-08-16			-08-16			-08-16

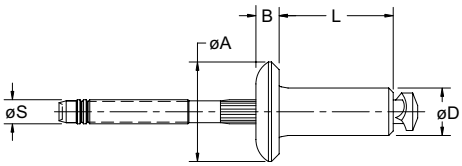
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

ø		
nom.	lbf min. [1]	lbf min.[1]
3/32" (2.4 mm)	130	170
1/8" (3.2 mm)	260	310
5/32" (4.0 mm)	370	470
3/16" (4.8 mm)	540	680
1/4" (6.4 mm)	1000	1240

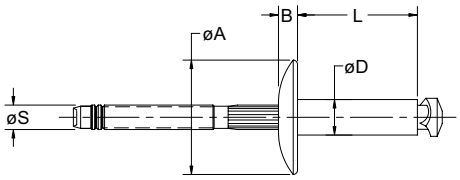
1) Tested per IFI 135 Specification 2.1 and 2.2
Testé par spécification IFI 135 2.1 et 2.2
Getestet nach IFI 135 Spezifikation 2.1 und 2.2
Provato secondo specifica IFI 135 2.1 e 2.2
Comprobado según especificación IFI 135 2.1 y 2.2

T Rivet BAPTSS / BALTSS

English	Français	Deutsch	Italiano	Español
Body: Aluminium* Natural	Corps: Aluminium* Brut	Hülse: Aluminium* Blank	Corpo: Alluminio* Nessuna finitura	Cuerpo: Aluminio* Natural
Stem: Aluminium Natural	Tige: Aluminium Brut	Dorn: Aluminium Blank	Gambo: Alluminio Nessuna finitura	Vástago: Aluminio Natural
*5056				



T Rivet BAPTSS
Protruding head / Tête bombée / Flachrundkopf / Testa tonda / Cabeza alomada



T Rivet BALTSS
Large flange / Tête large / Flachrundkopf, extragroß / Testa larga / Cabeza ancha

ø					ø D	L	ø S			BAPTSS Protruding head			BALTSS Large flange		
										ø A	B	Part No. /ref	ø A	B	Part No. /ref
nom.	min.	max.	min.	max.		max.		lbf [1]	lbf[1]			BAPTSS-			BALTSS-
3/16" (4.8 mm)	.046	.078	.192	.196	.187	.395	.116	800	550	.395	.091	-06-062	.562	.091	-06-062
	.078	.109				.395						-06-093			-06-093
	.109	.140				.395						-06-125			-06-125
	.140	.171				.395						-06-156			-06-156
	.171	.203				.457						-06-187			-06-187
	.203	.234				.457						-06-218			-06-218
	.234	.265				.529						-06-250			-06-250
	.265	.296				.529						-06-281			-06-281
	.296	.328				.582						-06-312			-06-312
	.328	.359				.582						-06-343			-06-343
	.359	.390				.645						-06-375			-06-375
	.390	.421				.645						-06-406			-06-406
	.421	.453				.707						-06-437			-06-437
	.453	.484				.707						-06-468			-06-468
	.484	.515				.770						-06-500			-06-500
1/4" (6.4 mm)	.093	.156	.257	.261	.250	.500	.151	1400	1000	.520	.110	-08-125	.750	.110	-08-125
	.156	.218				.562						-08-187			-08-187
	.218	.281				.625						-08-250			-08-250
	.281	.343				.687						-08-312			-08-312
	.343	.406				.750						-08-375			-08-375
	.406	.468				.812						-08-437			-08-437
	.468	.531				.875						-08-500			-08-500
	.531	.593				.937						-08-562			-08-562

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

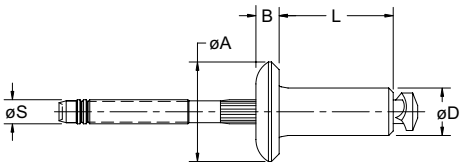
1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Avdel®

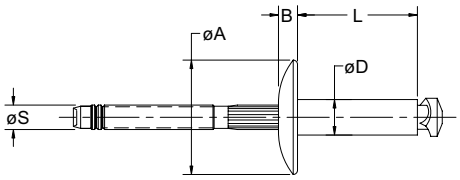
T Rivet BSPTS / BSLTS

English	Français	Deutsch	Italiano	Español
Body: Aluminium* 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



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



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

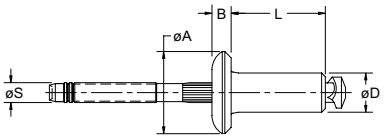
ø					ø D	L	ø S			BSPTS Protruding head			BSLTS Large flange		
										ø A	B	Part No. /ref	ø A	B	Part No. /ref
nom.	min.	max.	min.	max.		max.		lbf [1]	lbf[1]			BSPTS-			BSLTS-
3/16" (4.8 mm)	.046	.078	.192	.196	.187	.395	.116	1000	600	.395	.091	-06-062	.562	.091	-06-062
	.078	.109				.395						-06-093			-06-093
	.109	.140				.395						-06-125			-06-125
	.140	.171				.395						-06-156			-06-156
	.171	.203				.457						-06-187			-06-187
	.203	.234				.457						-06-218			-06-218
	.234	.265				.529						-06-250			-06-250
	.265	.296				.529						-06-281			-06-281
	.296	.328				.582						-06-312			-06-312
	.328	.359				.582						-06-343			-06-343
	.359	.390				.645						-06-375			-06-375
	.390	.421				.645						-06-406			-06-406
	.421	.453				.707						-06-437			-06-437
	.453	.484				.707						-06-468			-06-468
	.484	.515				.770						-06-500			-06-500
1/4" (6.4 mm)	.093	.156	.257	.261	.250	.500	.151	1900	1100	.520	.110	-08-125	.750	.110	-08-125
	.156	.218				.562						-08-187			-08-187
	.218	.281				.625						-08-250			-08-250
	.281	.343				.687						-08-312			-08-312
	.343	.406				.750						-08-375			-08-375
	.406	.468				.812						-08-437			-08-437
	.468	.531				.875						-08-500			-08-500
	.531	.593				.937						-08-562			-08-562

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

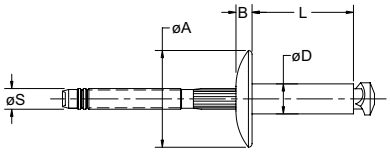
1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

T Rivet Multi-Grip BSPTS / BSLTS / BSCTS

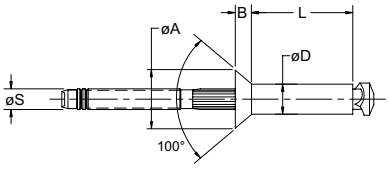
English	Français	Deutsch	Italiano	Español
Body: Aluminium* Natural	Corps: Aluminium* Brut	Hülse: Aluminium* Blank	Corpo: Alluminio* Nessuna finitura	Cuerpo: Aluminio* Natural
Stem: Steel Zinc plated	Tige: Acier Revêtement zingué	Dorn: Stahl Verzinkt	Gambo: Acciaio Zincati	Vástago: Acero Zincado
*5056				



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



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



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

ø					ø D	L	ø S			BSPTS Protruding			BSLTS Large flange			BSCTS Countersunk		
nom.	min.	max.	min.	max.		max.		lbf [1]	lbf[1]	ø A	B	Part No. /ref BSPTS-	ø A	B	Part No. /ref BSLTS-	ø A	B	Part No. /ref BSCTS-
3/16" (4.8 mm)	.046	.203	.192	.196	.187	.457	.116	1000	600	.390	.091	-06-03	.562	.091	-06-03	.371	.083	
	.203	.390				.645						-06-06			-06-06			-06-06
	.390	.578				.832						-06-09			-06-09			-06-09
	.578	.765				1.020						-06-12			-06-12			-06-12

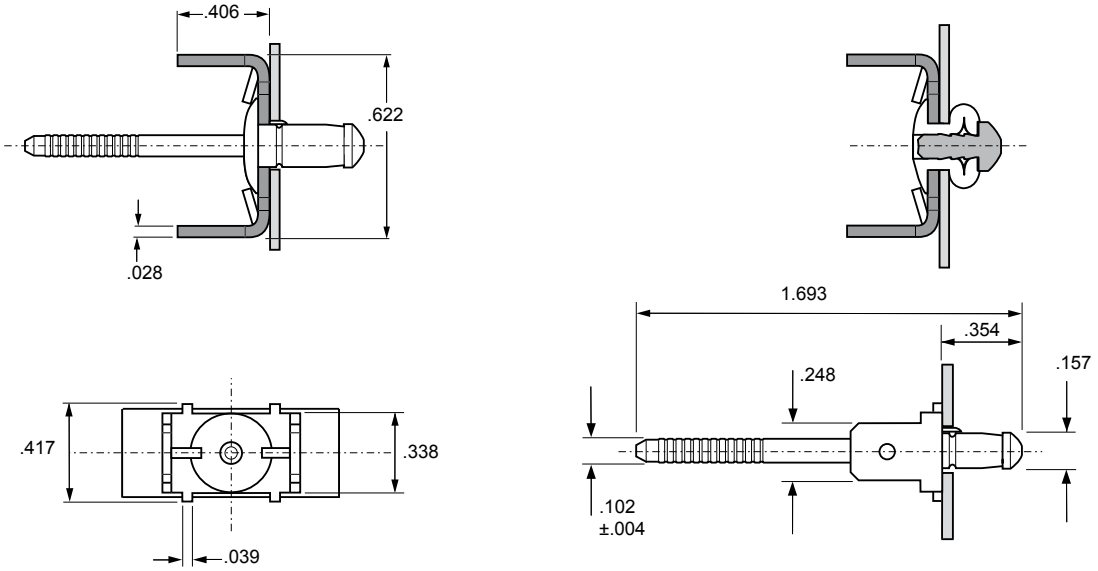
all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

Earth Tab Rivet BN11

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 boron 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, Werkstoff 1.0313 **: SAE 1045, Werkstoff 1.0517 ***: CuZn 30, DIN 17660



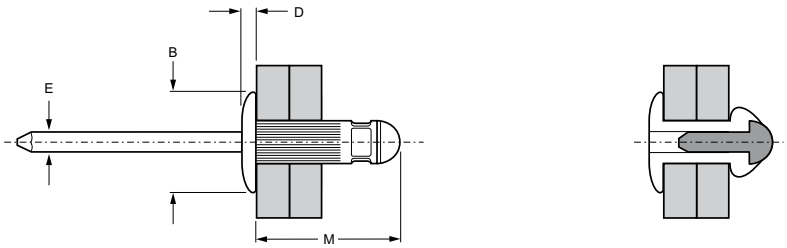
ø				Part No/ref
nom.	min.	max.	± .002	
5/32" (4.0 mm)	.039	.059	.205	0BN11-00509

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas

Avex® Splined 1610

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 coated	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 Cq15/Cq22



ø					M	B	D	E			Part No/ref
nom.	min.	max.	min.	max.	max.	max.	max.	max.	kN[1)]	kN[1)]	
4.0 (5/32")	1.4	5.0	4.1	4.2	13.7	8.5	1.6	2.8	1.9	2.3	01610-06196
4.8 (3/16")	1.2	4.0	5.05	5.2	13.45	10.1	2.1	3.4	3.6	3.3	01610-06197

all dimensions in mm / en millimètre / alle Maße in mm / in millimetri / en milimetros

1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas

The Range of Avdel® Blind Fastening Systems

Speed Fastening® Systems

Extra fast and reliable fastening from one side.
Rivets are fed automatically.

Breakstem Systems

Blind fastening systems with various features from multi-grip capability to high strength stainless steel rivets.

Lockbolt Systems

High clamp force and vibration resistance for the highest strength joints.

Blind Threaded Inserts

Fast system for sustainable threads with high torque-to-turn.

Installation Equipment

From manually operated handtools to customised assembly workstations.