



Perfect fastener solutions for industry and trade.























BLIND RIVET FASTENERS



For over **85 years**, we in the HONSEL Group have been successfully developing and producing **rivet and fastener technology** and are **worldwide** contacts for **industry** and **trade**.

We find reliable and optimised solutions

for the needs of your application. A particular focus here is on
the handling of individual, complex projects.

Our experienced **experts** in all areas have an open ear for your needs at all times and will be happy to advise you! **Online, by telephone** or **on site.**

The latest production facilities in Germany and Asia guarantee the **highest availability** of all standard article and **fast production** of special customised parts.

High-quality **fasteners**, advanced **processing tools**and fully automated and
process-controlled **automation sytems**

in our development departments, innovative new products
 and further developments are constantly being produced to
 complement and expand our product portfolio.

VVG. WE fasten it. For you.





In this edition ...

you can find a whole series of innovations in addition to the well-proven VVG range. Most notably with the

RIVdomZERO

 the newest member of our battery riveter family.

A weight of just 1.3 kg, the wear-free brushless motor and practical tool-free maintenance are just a few of the features that you will like!



In the meantime, a constituent part of our range is made up of the **VVG StarCoil coil threaded inserts** that we also offer in the attractive **StarCoil** boxes in three sizes.

Just take a look at the options for process monitoring with DMSD2G of the current generation that can be used with both pneumatic riveters as well as with battery riveters.

On the following pages there is information on sizes with national technical approvals and our free 3D data service for designers and developers.

Please note this date in your calendars: The next Fastener Fair in Stuttgart from 19th -21st March 2019. You can find us there on Stand 1022 in Hall 1.



www.vvg.into





HONSEL Umformtechnik Fröndenberg



More than 85 years.

In 1930, Alfred Honsel founded the "Alfred Honsel Nietenund Metallwarenfabrik GmbH & Co." in Fröndenberg an der Ruhr that initially produced aluminium pots and pans whose handles were attached with rivets.

It quickly became clear: There's great potential here. As early as 1945, the production of household goods was discontinued completely and the company concentrated exclusively on the development and production of riveting technology.

By the 1960s, HONSEL was already one of the leading manufacturers of brake and clutch pad rivets in Europe, and at the same time went into the production of blind rivets and rivet tools.

In the 1980s the company began the development of blind rivet nuts, blind rivet bolts and pneumatic-hydraulic setting tools and their production.

In 1994, the VVG-Befestigungstechnik was founded in Neumünster as a special trading company for riveting technology in order to be able to supply customers quickly and reliably with the latest products from a well-stocked warehouse, and at the same time to make the know-how from many years of development and production available.

A concept for success. After several moves to different locations, the buildings at the current site in Neumünster were purchased in 2007, creating the best boundary conditions for the further growth.

HONSEL has been producing more than a billion parts a year at a new works in Fröndenberg since 2003.

The next expansion of the production facilities by 3500 m² to more than 10,000 m² and a new office building followed in

The building of the third new works in Fröndenberg has now started that will go into operation in the second half of 2018 and will offer further space for production and fully automated logistics.

At the same time, a completely new workshop and service centre for processing components is being built at VVG in Neumünster.









VVG France in Frasne / France

Today

... the companies in the HONSEL Group offer an all-embracing spectrum of rivet and fastener technology from a single source. From the standard blind rivet through modern battery riveters or individually modified customised products right up to full automated and process-monitored processing units.

The companies are also successfully active in new product areas, such as VVG StarCoil® threaded inserts or the HONSEL Powertrain Fasteners captive sleeve/stud system.

HONSEL Umformtechnik in Fröndenberg is the production facility and development/sales location for special parts and automation solutions.

The whole range of standard and catalogue parts is marketed by VVG Befestigungstechnik in Neumünster where the new and further development of processing tools and the implementation of individual industry solutions is also centred. VVG France in Frasne/France is responsible for the large French market.

The Group's activities are complemented by HONSEL Fasteners in Wuxi/China where, in addition to other production facilities, standard fasteners to HONSEL/VVG standard are manufactured and tested in a dedicated quality assurance centre. The site is also the logistics centre for Asia and delivers directly to the local Chinese market.

In addition, the Group works together with sales and cooperation partners in the USA, Asia, India, Australia, Brazil and many European countries, including the BeNeLux, Scandinavia, Poland, Italy, Switzerland or Turkey, in some cases for decades already, and can thus reach customers worldwide.



Design and development

The **continuous new and further development** of the HONSEL/VVG products plays a central role.

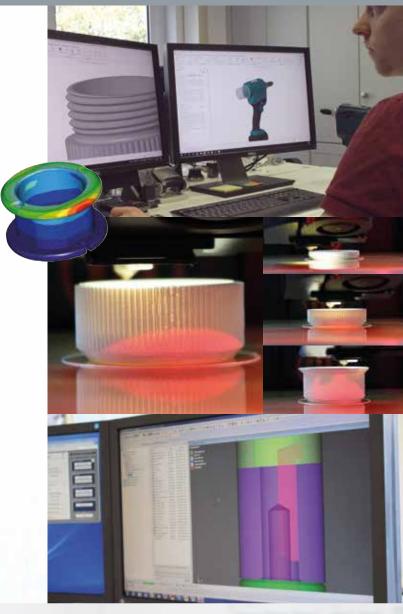
One the one hand, our application technicians and designers are permanently engaged in the **optimisation of the existing product range**.

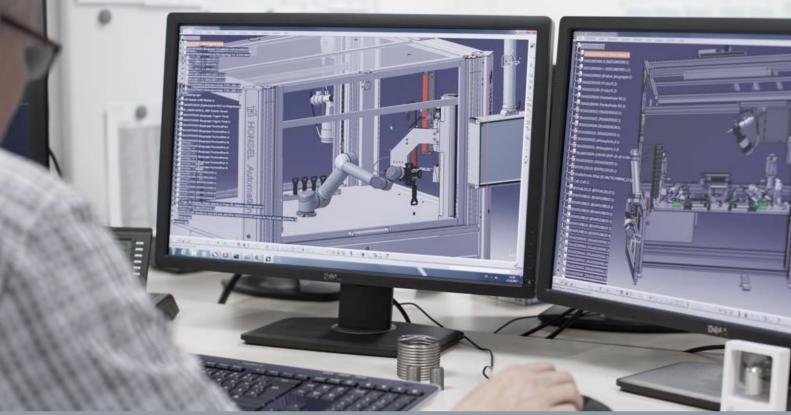
Here they test, analyse, evaluate customer experience, correct, inspect and plan the feedback into the manufacturing at the various production sites.

This all happens against the background of an almost infinite basis of well-founded practical know-how from numerous decades during which HONSEL has been one of the pioneers in the development of innumerable products, particularly for blind rivet technology.

On the other hand, sophisticated ideas for **new products** evolve time and again in the minds of our engineers. We see ourselves as development partners for our customers who not seldom give us the stimulus for innovative and cost-efficient results.

Whether the variety of different fasteners, hand-held tools such as the successful **Rivdom** and **RivSmart** battery riveters or complex, fully automated industrial systems – we elaborate together with you and experienced technical consultants on site the individual, efficient, cost-effective – in short … **the perfect solution for your application.**







CAD data service

The right models for every CAD system.

We offer designers and product developers the opportunity of downloading each of our more than 1,300 standard sizes from the latest catalogue range for direct integration into their applications – in **over 100 different formats** as native 3D CAD models for all common CAD systems.

Simple, quick and free of charge.

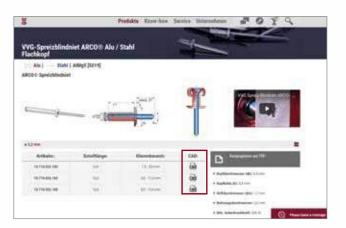
They thus eliminate the need for time-consuming product searches or for requesting the necessary data material and can concentrate fully on their own development work.

Just find the required fastener as normal in the product section of our Internet website under **www.vvg.info/produkte** and then click on the CAD symbol behind the required size.

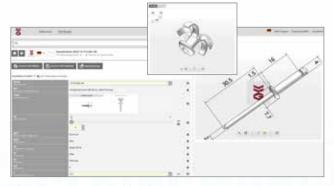


You either log in directly to the **CADENAS PARTcommunity** or simply create an account <u>once only</u>.

In the portal you then have the possibility of adapting the product to your demands again before the download and of selecting, for example, between delivery condition and finished rivet product.











Production, further processing and toolmaking

Our manufacturing competence is the **complex cold forming of wire** in all common materials, such as steel, aluminium, stainless steel, copper and brass – **and many more**.

Pressing of the wire on a number of the latest **5-6 multistage headers** brings the **wire up to a diameter of 20 mm** into shape.

All presses are process-controlled and designed with redundancy. This guarantees sufficient flexibility to be able to meet even production demands at short notice.

The most important component, however, on which the **HONSEL** experience is based are **highly motivated staff** who are regularly trained and can successfully solve any task.

Pressing is often followed by a large number of further work steps:

Individual components are **laser welded** or **mechanically crimped**. A wide range of **threads** (male or female) are formed or **sealants are applied** (mechanically or injection moulded).

Certain contours can be modified by machining and even the application of special **partial scratch protection** coatings is possible.

HONSEL UMFORMTECHNIK





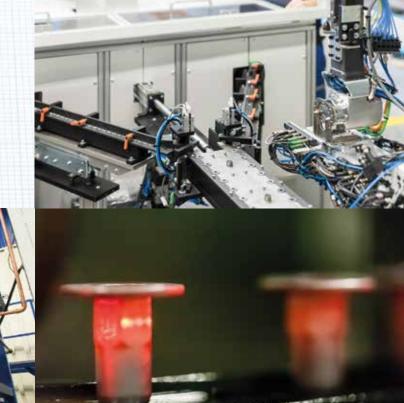
Particular attention has been paid for many years to investments in future-oriented technologies and the machine park, and specially in our **in-house toolmaking shop**.

The in-house production of the necessary manufacturing tools guarantees **reduced delivery times up to series maturity** and vast possibilities for **meeting even unusual wishes of our customers**. The complex tool kits often comprising several hundred parts are stored in a perfectly organised and fully automated system, and are therefore quickly available for use on the machines at any time.

In order to be able to carry out central production processes in-house, HONSEL has amassed vast know-how in a very wide range of **heat treatment technologies** and is therefore able to modify lightweight materials in such a way that their strength is significantly higher than normal in some areas.

Finishing operations such as barrel finishing, drilling, turning and milling, rolling and pointing or the assembly of component elements are also performed in-house.







Quality

Quality in every form has the greatest importance in our day-to-day business activities.

100 % inspection and 0 ppm strategies are criteria that companies have to meet today when it comes to defining targets in quality assurance.

The HONSEL Group has made very significant investments in this area in recent years and developed exemplary quality assurance processes. This is underlined by our certification to ISO 9001:2008, ISO 14001 and ISO/TS 16949.

In addition to standard test methods for checking shear and tensile forces, the riveting mandrel breaking forces and pushout forces and the locking of the mandrel inside the head, the latest measuring instruments and testing facilities ensure the highest level of production even with very large quantities. Here we use process monitoring systems and optoelectronic testing machines developed in-house for the individual 100 % inspection.

By already testing every individual batch at all phases of the running production process and its documentation by means of a CAQ software integrated into our modern IT system, continuous tracking of all shipped products is assured back to the starting material used.

Measuring equipment is also available for length and roughness tests, metallurgical tests, microscopy, profile projection, eddy current and hardness tests.







National technical approvals

General national technical approvals are required for many types of construction and construction products where no defined rules and standards exist, or where extreme deviations from these exist.

These serve as proof of their safe use in the intended applications and describe the necessary technical requirements for a construction.

In the field of blind rivet technology, for example, these are:

- · General fasteners for steel and aluminium substructures
- Aluminium substructures for solar energy installations
- Longitudinal butt joints of corrugated sheets
- Longitudinal butt joints of metal and corrugated plastic sheets
- · Production of sliding points on aluminium substructures



The blind rivets currently approved or undergoing the approval process from the product groups ALFO®, OPTO®, CERTO® and for folding blind rivets with neoprene seal are marked with the symbol opposite.

For necessary documents and further information, please contact the specialists from our technical sales team directly.



Certificates







You can rely on us. Guaranteed.

Please ask for possible updated versions of the certificates issued during the life of the catalogue.





Logistics

Quick and reliable delivery of the ordered goods is one of the hallmarks of our company.

In addition to long contact hours, late last shipping time and short organisational and spatial routes, our long-standing cooperation partner UPS guarantees smooth handling for the transport of the shipments – with next-day delivery, of course, where necessary.

Shipping of palleted goods by shipping company – no problem, because here again we work only with experienced companies who guarantee punctual delivery.

The goods leave our company safely packed and clearly marked so that they reach you correctly and undamaged.

Via our logistics centre, we ship more than 50,000 packets and 5,000 pallets every year worldwide.

Well over 10,000 m² of logistics and warehousing area are available at all locations with space for articles in sales packagings, loose bulk materials, wire coils for production and thousands of pallet storage locations, as well as separate commissioning areas and covered loading zones.

In addition to the current catalogue articles, we have tens of thousands of further articles and variants waiting for you in our warehouse, and can thus ensure a supply capability of at least 98 %.

Our modern packaging facilities offer capacities for even the largest volumes. Within a minimum of time, we can fill cartons of all sizes, individual customer packagings, individual bags or the industrially employed small load carriers (KLTs).

The whole logistics process is IT-aided. Scanners and tablet PCs are just as much part and parcel of day-to-lay life in order commissioning are are EDI and other data interfaces for smooth communication with customers and service providers.



Advice

Product know-how and application experience are part of our DNA.

Our employees in all departments can call on the vast knowhow developed over the **more than 85 years** of the company history.

This, and the ongoing in-house and external further training, ensures that outstandingly qualified and motivated staff are ready to competently answer all your questions surrounding the topic of "riveting technology".

We accompany special projects from the first idea through to the final delivery with experts from all the necessary department who work closely together to **guarantee optimum handling**.

We'll come to you.

On site, our technical application consultants are available with advice and support throughout Germany.

Detailed demonstrations and **intensive advise** together with **comprehensive training** are indispensable aspects of the successful cooperation with our customers.

At **in-house fairs** or during special information days as part of the "Riveting Technology on Tour" campaigns that we have successfully organised for many years on our retail partners' premises throughout Germany, our experts present all the products from our portfolio.

Furthermore, you can meet us regularly at a wide range of trade fairs in Germany and abroad.

There we provide information on both innovations and our classic products. It is not unusual for the discussions held here to lead to interesting suggestions and ideas from practical use that we integrate into our product portfolio.













Service

In addition to our high-quality products, as system supplier for rivet and fastener technology we also offer a comprehensive "all-round service".

In order to guarantee maximum contact hours for our customers, our customer support staff in Sales can be reached from Monday to Thursday from 7.00 a.m. until 5.00 p.m. and on Friday until 4.00 p.m.



Orders reaching us on workdays by 3.00 p.m. are shipped **on the same day** on request. The required goods can be at their destination the following day with standard shipment – guaranteeing you high flexibility in your order planning.

Within the framework of skeleton contract, we produce and stock the goods for you and ship them automatically and reliably to the point of use **just in time** according to an agreed delivery plan.

We offer our retail partners a variety of different sales support materials, for example in the form of catalogues and flyers, that can also be individually designed on request. In addition, we advise you during the presentation of our products in your shop.

Our **Rivet Processing Competence Centre** is available for the maintenance and repair of all VVG/HONSEL tools. Here our staff ensure that tools sent in are ready for use again within a minimum of time.

And in order that there is no loss of production, we can provide you with a **hire tool** on request.



THE HONSEL GROUP



Online

Visit us regularly on the Internet!

On our website **www.vvg.info/en** you will find not only information about the company group, but also a number of useful tips to simplify your day-to-day work in rivet and fastener technology.

The heart of the website is the extensive, convenient **product search**. Here you will quickly and easily find the desired product from our current catalogue assortment with with photo, drawings, in many cases film or animation, technical data, PDF data sheets, tool recommendations and CAD data for the design engineering (**PAGE 7**).

In addition, we offer a wide range of material such as product flyers or illustrative materials for your sales activities in the **Download Centre**, a convenient **product viewer** for finding tool spare parts and a **live chat** as a quick and direct link to our team.

Further information on the Group can be found at: www.rivsmart.com (battery riveters with smart technology) www.honsel.de/en (HONSEL Umformtechnik. wire products) www.honsel-automation.de/en (New in 2018 – Industrial Automation)

The pages can also be used easily and intuitively on all mobile devices.

On the two **YouTube** channels we have a large number of films and animations explaining our products that can also be called up via the **QR codes** in this catalogue.

Up-to-date information can also be found constantly, for example, on **facebook** or **twitter** and further social media platforms.







Perfektion.



www.vvg.info/en



www.honsel.de/en



www.rivsmart.com



www.honsel-automation.com



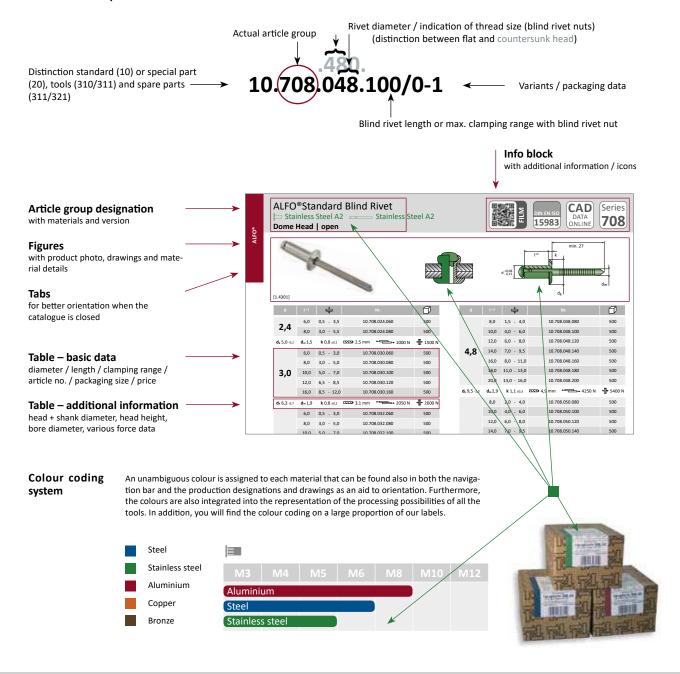
www.youtube.com/nietweltdigital



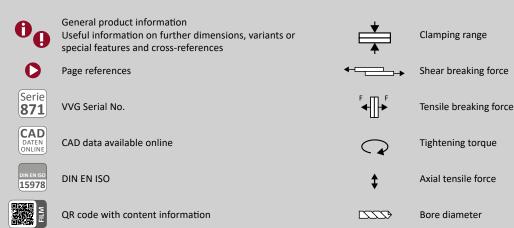
www.youtube.com/honselumformtechnik

Information and explanation of symbols

Article numbers / allocation to tools:





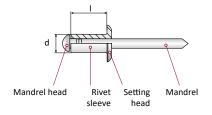




Required information for your order / enquiry

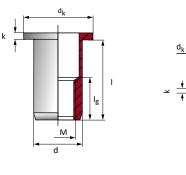
Blind rivets

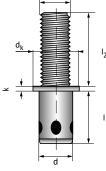
- Material combination (sleeve / mandrel)
- Shaft / bore diameter (d)
- Shaft length / clamping range (I)
- Head form (flat, countersunk, large dome head)



Blind rivet nuts / bolts

- Material
- Thread size (M)
- Shaft / bore diameter (d)
- Shaft length / clamping range (I)
- Shaft form (open / closed)
- Head form (flat, countersunk, small countersunk head)
- Twist lock (knurling / (partial) hexagonal shank)
- Bolt length in set condition (I2)





Tools

- How often is the tool used? No of rivets
- Where is the tool used? Production / workshop / construction site, etc.
- What max. dimensions / materials are processed?
- Are special rivet types to be processed? e.g. high-strength blind rivets







Please note

that a very large number of individual factors have an influence on a riveted joint. For this reason, riveting tests should always be performed (we can provide samples for these on request).

The standard range presented in this catalogue shows only a small proportion of all the products available. Should you not find an article or size - we'll find an alternative!



Special nosepiece required



Hexagonal product



Closed shaft



knurled

Imperial dimensions



Stainless steel A4 grade



Pivoting tool head



Weight in kg



Tensile force at 7 bar



Pressure in bar



Stroke in mm



Maximum stud diameter



Sound emissions in dB(A)



Air consumption in litres



Connection possibilities



Scope of delivery



Type of packaging



Packaging with hole for



hanging

Blind Rivets



ALFO® Dome Head



OPTO® Multigrip Different Head Shapes



OPTO®-BULB Dome Head



ALFO® Countersunk Head



CERTO® Seales Blind Rivet Dome or Countersunk head



CERTO® PERFECT Dome Head



ALFO® Large Dome Head



HIGH-STRENGTH

FERO®-BOLT Dome or Countersunk head



Hammer Stroke



ALFO® grooved



Folding Blind Rivet



FERO®-BULB Dome Head



Grounding



painted / head painted / anodized



Folding Blind Rivet Special



ARCO® Spreizblindniet

Blind Rivet Nuts



Round Shank Flat Head



OPTO® Multigrip



Round Shank Countersunk Head



HEXAFORM® Hexagonal







Round Shank Small Countersunk Head



HEXATOP® Patial Hexagonal



Round Shank knurled



Folding Blind Rivet Nut



Hollow Blind Rivet Nut



Round Shank closed

Blind Rivet Bolts



RIFBOLT® Flat Head



RIFBOLT® Countersunk Head



RIFBOLT® Small Countersunk



RIFBOLT® Hexagonal









Self-Clinching Stand-Offs



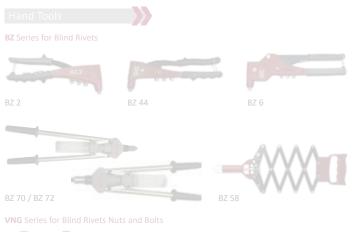




Detailed Directory

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Rivdom



Rivimat

Blind Rivet Nuts

Detailed Directory

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Blind Rivet Bolts

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Self Clinching Fasteners

Coil Threaded Inserts

For more information about these product groups see our seperate catalogs or visit our website www.vvg.info/en





Processing / Tools

Bettery Tools

Automation

BLIND RIVETS



The blind rivet consists of a **shank** assembled to the **rivet** mandrel.

The handling of blind rivets occurs from one side of the construction elements.

After inserting the rivet into the components bore holes, the rivet mandrel is pulled back by the tool and forms the closing head. The mandrel or parts of it can remain in the shaft after reaching the predetermined break point.

Open, closed or high strength versions, multigrip or expanding blind rivets, with dome head, countersunk head or large head - the variety of available dimensions and types is almost unlimited.

Our production facilities certified in accordance with the automotive industry standards guarantee a consistently high

quality with respect to geometric dimensions, mechanical values and function.

Many features have significantly closer tolerances than specified in the DIN standards, others not specified there are optimised in detail.

Special tools are needed for processing blind rivets.

These tools have to be chosen on the basis of the rivet type, the field of application and the processing volume.

The scope ranges from **manual pliers** and **lever tools**, to modern cordless **battery riveters** to **pneumatic-hydraulic tools** and **fully automated applications** for industrial volume productions.

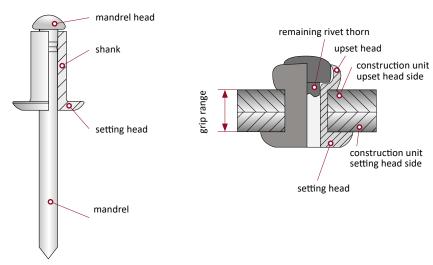
BLIND RIVETS

rivet	material mandrel					mandrel head	page									
	aluminium	steel	stainless steel A2	stainless steel A4	nickel/ copper	copper	messing	aluminium and	steel	stainless steel A2	stainless steel A4	nickel/ copper	copper	bronze		
Standard blind rivets ALFO	X	ফ	र र	स स	<u> </u>	ŏ	=	<u>o</u>	х х	र र	र र	_ S	ŏ	<u> </u>	Dome head	30/31
Standard Sima HVCts / LF C	X								X						Countersunk head	32
	х								х						Large dome head	33
	Х								Х						Dome head, rilliert	34
	X									X					Dome head Countersunk head	36 37
	X									x					Large dome head	38
	X							х		^					Dome head	39
		х							х						Dome head	40
		Х							Х						Countersunk head	41
		Х	1/						Х	.,					Large dome head Dome head	41
			X							X					Countersunk head	42 43
			Х							X					Large dome head	43
				х							Х				Dome head	44
				х							х				Countersunk head	44
					Х						Х				Dome head	45
						X X			Х					Х	Dome head Dome head	46 46
	х					Х			х					X	Dome head, painted	48
Multigrip blind rivets OPTO	X								х						Dome head, painted	49
	х								х						Dome head	51
	Х								х						Countersunk head	52
	Х								Х						Large dome head	52
	X									X					Dome head Countersunk head	53 53
	X									X					Large dome head	53
	х									х					Dome head, extended mandrel	54
	х							х							Dome head	55
	х							х							Large dome head	55
		Х							X						Dome head	56
		X X							X X						Countersunk head Large dome head	56 56
		^	х						^	х					Dome head	57
Multigrip blind rivets		х							х						Dome head	58
OPTO-BULB			х							Х					Dome head	58
Sealed blind rivets CERTO	Х								Х						Dome head	59
	X								X						Countersunk head Large dome head	60 60
	X								Х	х					Dome head	61
	х									х					Countersunk head	61
	х							х							Dome head	62
		Х							х						Dome head	62
			Х			.,			.,	х					Dome head	63
						X X			Х	х					Dome head Dome head	64 64
Sealed blind rivets CERTO-PERFECT			х							x					Dome head	65
Structural blind rivets	Х							х							Dome head	67
FERO-BULB		х							х						Dome head	68
		Х							Х						Countersunk head	69
Structural blind rivets	v		Х					v		Х					Dome head Dome head	70
FERO-BOLT	X							X							Countersunk head	72 72
		х							х						Dome head	72
		х							х						Countersunk head	73
			х							х					Dome head	73
Folding blind six sta			Х							Х					Countersunk head	73
Folding blind rivets	X							X							Dome head, standard Dome head, special-2	74 75
Body-bound blind rivets ARCO	X							^	Х						Dome head	76
7	X								x						Large dome head	76
Hammer stroke blind rivet	х									х					Dome head	77
Grounding blind rivets ARCO						Х			х						Dome head	78
							X		X						1 earthing conductor	79 70
	Х						Х		X						2 earthing conductor Dome head knurled	79 79
	X								Х						Donne nedu Knuneu	19

(i) The rivet shaft is the element which makes the connection.

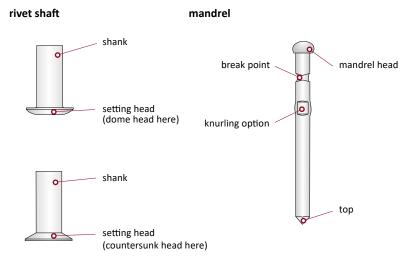
The rivet shaft is formed by the rivet mandrel and remains in the component on a permanent basis. The shaft type selection is made on the basis of the grounds of

- the expected mechanical stress,
- the required anti-corrosion performance,
- the component layout,
- the temperature stress and partly also on
- the visual impact.



The rivet mandrel is needed for shaping the rivet shaft.

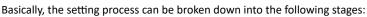
The mandrel selection is based on the shaft type and on the requirements with regard to processing and operating properties. In order to enhance the rivet's shearing force, some rivet types use a captive mandrel which remains in place after the connection has been made.





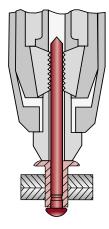
The principle of the setting process

In order to process the blind rivet a setting tool is required. This can either be operated by muscle power (hand tools) or through external power (e.g. pneumatic-hydraulic or battery tools). The devices are chosen on the basis of the blind rivet type and on the basis of throughput volume.





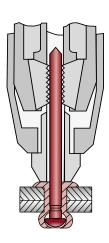
animation blind rivet

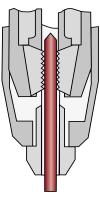


Together with the mandrel, the blind rivet is inserted into the setting device and introduced into the rivet hole.

The rivet mandrel is pulled by triggering the stroke with the help of the clamping jaws. The mandrel head reshapes the end of the rivet shaft.

When the rivet head is flush with the component surface, the process is completed.





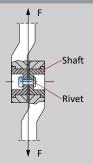


In this position the forces increase and the mandrel fractures on the predetermined break point. The spent part of the mandrel is removed and the captive mandrel remains in the shaft.



Extensive information from all areas of riveting and fastener technology can be found in our steadily growing glossary on our Internet website at www.vvg.info/know-how/glossar or using the QR code throughout the catalogue.

Shear strength EXPERIMENTAL SETUP



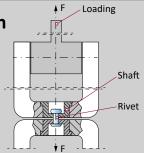
The shear strength is the maximum radial force which a rivet can absorb before fracture occurs.

Depending on the rivet principle, the forces are determined either with or without the captive mandrel covering the shearing zone. Statical measurements use the testing device covered by **DIN EN ISO 14589** (Exception: FERO®-BOLT). The minimum shear strength parameter is listed on the pages with the following symbol:

Shear strength - measured data [N]

	type dimension	page	2,4	3,0	3,2	3,8	4,0	4,8	5,0/ 5,2 ¹	6,0	6,3 ¹ / 6.4	7,8	8,
ALFO®	Alu / Steel Dome head	38/39	380	740	750	-	1250	1640	1820	2660	2880	6600	-
	Alu / Steel Countersunk head	40	-	740	750	-	1250	1640	1820	-	-	-	-
	Alu / Steel Large dome head	41	-	-	580	-	1250	1640	1820	2660	-	-	-
	Alu / Steel Dome head grooved	42	-	-	600	-	1000	1350	-	-	-	-	-
	Alu / Stainless steel Dome head	44	420	740	750	-	1250	1640	1820	2660	2880	-	-
	Alu / Stainless steel Countersunk head	45	420	740	-	-	1250	-	1820	-	-	-	-
	Alu / Stainless steel Large dome head	46	-	-	-	-	-	-	1820	-	-	-	-
	Alu / Alu Dome head	47	-	-	380	-	740	1140	-	-	-	-	-
	Steel / Steel Dome head	48	-	1000	1180	-	2100	3180	3320	4340	4920	-	940
	Steel / Steel Countersunk head	49	-	1000	1180	-	2100	3180	3320	-	4920	-	-
	Steel / Steel Large dome head	49	-	-	-	_	-	2900	-	-	-	-	-
	Stainless steel / Stainless steel Dome head	50	1000	2050	2050	_	2750	4250	5000	6300	7250	-	-
	Stainless steel / Stainless steel Countersunk hea	d 51	-	1800	1900	-	2750	4250	5000	-	-	-	-
	Stainless steel / Stainless steel Large dome head	51	-	-	1900	-	2700	4220	-	-	-	-	-
	Stainless steel / Stainless steel Dome head	52	-	1760	1900	-	3500	4230	4800	-	-	-	-
	Stainless steel / Stainless steel Countersunk hea	d 52	-	-	-	_	3500	-	-	-	-	-	-
	Nickel-Copper / Stainless steel Dome head	53	-	-	1600	-	2300	3400	-	-	5400	-	-
	Copper / Steel Dome head	54	-	760	-	-	1500	-	-	-	-	-	-
	Copper / Bronze Dome head	54	-	760	800	-	1500	-	-	-	-	-	
PTO®	Alu / Steel Dome head	56	-	-	720	-	1120	1530	-	-	2000	-	
	Alu / Steel Countersunk head	58	-	-	670	-	980	1500	-	-	-	-	
	Alu / Steel Large dome head	58	-	-	720	-	1120	1530	-	-	-	-	
	Alu / Stainless steel Dome head	59	-	-	670	-	980	1530	-	-	-	-	
	Alu / Stainless steel Countersunk head	59	-	-	-	-	950	1200	-	-	-	-	
	Alu / Stainless steel Large dome head	59	-	-	-	-	980	1530	-	-	-	-	
	Alu / Stainless steel Dome head (ex. mandrel)	60	-	-	670	_	980	1530	-	-	-	-	
	Alu / Alu Dome head	61	-	-	280	-	640	800	-	-	-	-	
	Alu / Alu Large dome head	61	-	-	-	-	-	800	-	-	-	-	
	Steel / Steel Dome head	62	-	-	1500	-	1950	2700	-	-	6500	-	
	Steel / Steel Countersunk head	62	_	-	-	-	_	2000	-	-	-	-	
	Steel / Steel Large dome head	62	-	-	_	-	-	2050	_	-	-	-	
	Stainless steel / Stainless steel Dome head	63	-	-	1600	-	2700	3900	-	-	-	-	
PTO®-BULB	Steel / Steel Dome head	64	-	-	-	_	_	-	-	-	11000	-	
	Stainless steel / Stainless steel Dome head	64	-	-	-	-	_	-	-	-	14000	-	
ERTO®	Alu / Steel Dome head	65	-	-	1100	_	1700	2480	-	-	3760	-	
	Alu / Steel Countersunk head	66	-	-	1100	_	1700	2480	-	-	-	-	
	Alu / Steel Large dome head	66	-	-	-	-	-	2480	-	-	-	-	
	Alu / Stainless steel Dome head	67	-	-	1100	-	1700	2480	-	-	-	-	
	Alu / Stainless steel Countersunk head	67	-	-	-	-	1700	-	-	-	-	-	
	Alu / Alu Dome head	68	-	-	520	-	720	1020	-	-	-	-	
	Steel / Steel Dome head	68	-	-	1150	-	1730	2400	-	-	-	-	
	Stainless steel / Stainless steel Dome head	69	-	-	2000	-	3000	4500	-	-	6500	-	
	Copper / Steel Dome head	70	-	-	970	-	1450	2190	-	-	-	-	
	Copper / Stainless steel Dome head	70	-	-	1050	-	1450	2190	-	-	-	-	
ERTO®-PERFECT	Stainless steel / Stainless steel Dome head	71	-	-	-	-	-	4500	-	-	-	-	
ERO®-BULB	Alu / Alu Dome head¹	73	-	-	-	-	-	-	-	-	4200- 5600	-	
	Steel / Steel Dome head¹	74	-	-	-	-	-	3600- 5600	-	-	16500	-	
	Steel / Steel Countersunk head	75	-	-	-	-	-	-	-	-	5300- 10300	-	
	Stainless steel / Stainless steel Dome head¹	76	-	-	_	-	5200	5500	_	_	11500- 15000	-	
RO®-BOLT	Alu / Alu Dome head	78	-	-	-	-	_	2200	-	-	4200	-	
	Alu / Alu Countersunk head	78	-	-	-	-	-	2400	-	-	4700	-	
	Steel / Steel Dome head	78	-	-	-	-	-	5800	-	-	10500	-	
	Steel / Steel Countersunk head	79	-	-	-	-	-	5800	-	-	11000	-	
	Stainless steel / Stainless steel Dome head	79	-	-	-	-	-	6000	-	-	10500	-	
	Stainless steel / Stainless steel Countersunk hea	d 79	-	-	-	-	-	6000	-	-	11200	-	
olding Rivet	Alu / Alu Dome head Standard	80	-	-	-	-	500	900	-	-	-	-	
	Alu / Alu Dome head Spezial-2	81	-	-	-	-	-	-	3000	-	4900	-	
RCO®	Alu / Steel Dome head	82	-	-	850	-	1330	2100	-	-	-	-	
	Alu / Steel Large dome head	82	-	-	-	-	-	1700	-	-	-	-	
irounding Rivet	Copper / Steel Dome head	84	-	-	-	1400	-	-	-	_	_	-	
	Alu / Steel Dome head	85	_			_	1140						

Tensile strength EXPERIMENTAL SETUP



The tensile strength is the maximum axial force which a rivet can absorb before fracture occurs.

For the statical measurement, the testing device presented under **DIN EN ISO 14589** is used. The value for the tensile force is listed on the pages below the following symbol:

Tensile Strength - measured data [N]

	type dimension	page	2,4	3,0	3,2	3,8	4,0	4,8	5,0/ 5.2 ¹	6,0	6,3 ¹ /	7,8	8,0
ALFO®	Alu / Steel Dome head	38/39	600	1000	1220	-	1800	2200	2400	3500	4600	9550	-
	Alu / Steel Countersunk head	40	-	1000	1220	-	1580	2200	2400	-	-	-	-
	Alu / Steel Large dome head	41	-	-	1000	-	2000	2600	2800	3500	-	-	_
	Alu / Steel Dome head grooved	42	-	-	1000	-	1350	1820	_	_	-	_	_
	Alu / Stainless steel Dome head	44	660	1000	1220	_	1800	2200	2400	3500	4600	-	_
	Alu / Stainless steel Countersunk head	45	660	1000	-	_	1580	_	2100	_	-	_	_
		46	-	-	_	_	-	_	2500	_	_		
	Alu / Alu Pagas band			_					2500	_	_	_	_
	Alu / Alu Dome head	47	-		670	-	1240	1600	4740				
	Steel / Steel Dome head	48	-	1340	1560	-	2800	4220	4740	6000	7000	-	130
	Steel / Steel Countersunk head	49	-	1340	1560	-	2800	4220	4740	-	5700	-	-
	Steel / Steel Large dome head	49	-	-	-	-	-	3850	-	-	-	-	-
	Stainless steel / Stainless steel Dome head	50	1500	2600	2600	-	3550	5400	6400	8250	9335	-	-
	Stainless steel / Stainless steel Countersunk h	ead 51	-	2200	2500	-	3550	5400	6400	-	-	-	-
	Stainless steel / Stainless steel Large dome he	ad 51	-	-	2500	-	3500	5330	-	-	-	-	-
	Stainless steel / Stainless steel Dome head	52	-	2270	2500	-	4650	5250	6600	-	-	-	-
	Stainless steel / Stainless steel Countersunk h	ead 52	-	-	-	-	4650	-	-	-	-	-	-
	Nickel-Copper / Stainless steel Dome head	53	-	-	2400	-	3450	5000	-	-	8200	-	-
	Copper / Steel Dome head	54	-	950	-	-	1800	-	-	-	-	-	-
	Copper / Bronze Dome head	54	-	950	1000	-	1800	-	-	-	-	-	-
OPTO®	Alu / Steel Dome head	56	_	-	1000	_	1650	2300	_	_	2500	_	_
	Alu / Steel Countersunk head	58	_	_	900	_	1320	2300	_	_	-	_	
	Alu / Steel Large dome head	58	_	_	1000	_	1650	2300	-	_	_	_	
	Alu / Stainless steel Dome head	59	_	_	900	_	1320	2300	-	_	_	_	_
	-	59	_	_	-	_	1500	1700	_	_	_	_	
	Alu / Stainless steel Countersunk head												_
	Alu / Stainless steel Large dome head	59	-	-	-	-	1320	2300	-	-	-	-	_
	Alu / Stainless steel Dome head (ex. mandrel		-	-	900	-	1320	2300	-	-	-	-	_
	Alu / Alu Dome head	61	-	-	370	-	910	1100	-	-	-	-	-
	Alu / Alu Large dome head	61	-	-	-	-	-	1100	-	-	-	-	-
	Steel / Steel Dome head	62	-	_	1700	-	2350	3300	-	-	4200	-	-
	Steel / Steel Countersunk head	62	-	-	_	-	-	2900	_	-	_	-	-
	Steel / Steel Large dome head	62	-	-	-	-	-	2940	-	-	-	-	-
	Stainless steel / Stainless steel Dome head	63	-	-	2000	-	3500	5000	-	-	-	-	-
OPTO®-BULB	Steel / Steel Dome head	64	-	-	_	-	-	-	-	-	7800	-	-
	Stainless steel / Stainless steel Dome head	64	-	-	-	-	-	-	-	-	8000	-	-
CERTO®	Alu / Steel Dome head	65	-	-	1450	-	2700	3540	-	-	5460	-	_
	Alu / Steel Countersunk head	66	-	-	1450	-	2700	3540	-	_	_	-	_
	Alu / Steel Large dome head	66	_	_	_	_	_	3540	_	_	_	_	_
	Alu / Stainless steel Dome head	67	_	-	1450	_	2700	3540	_	_	_	_	_
	Alu / Stainless steel Countersunk head	67	_	_	-	_	2700	-	_	_	_	_	_
	Alu / Alu Dome head	68	_	_	540	_	760	1420	_	_	_	_	
			_	_		_			_	_		_	
	Steel / Steel Dome head	68			1300		1860	2800			-	_	_
	Stainless steel / Stainless steel Dome head	69	-	-	2500	-	4000	5500	-	-	8000	-	-
	Copper / Steel Dome head	70	-	-	1270	-	2300	3280	-	-	-	-	-
	Copper / Stainless steel Dome head	70	-	-	1350	-	2300	3280	-	-	-	-	-
CERTO®-PERFECT	Stainless steel / Stainless steel Dome head	71	-	-	-	-	-	5500	-	-	-	-	-
ERO®-BULB	Alu / Alu Dome head¹	73	-	-	-	-	-	-	-	-	3100	-	-
	Steel / Steel Dome head¹	74	-	_	-	-	-	3800	-	-	7800	-	-
	Steel / Steel Countersunk head	75	-	-	-	-	-	-	-	-	5400	-	-
	Stainless steel / Stainless steel Dome head ¹	76	-	_	_	-	4000	5000	-	-	8800	-	-
ERO®-BOLT	Alu / Alu Dome head	78	-	-	-	-	-	1800	-	-	3000	-	-
	Alu / Alu Countersunk head	78	_	-	_	-	_	2000	-	_	4500	-	_
	Steel / Steel Dome head	78	-	-	-	-	_	4100	-	_	8000	-	_
	Steel / Steel Countersunk head	79	-	_	_	_	_	4100	_	_	9500	-	_
	Stainless steel / Stainless steel Dome head	79	_	-	-	_	_	4500	_	_	8200	_	_
	Stainless steel / Stainless steel Countersunk h		_	_	_	_	_	4500	_	_	8900	_	_
Folding Rivet	Alu / Alu Dome head Standard												
olding Rivet	•	80	-	-	-	-	800	1100	-	-	-	-	-
A D.CO®	Alu / Alu Dome head Spezial-2	81	-	-	-	-	-	-	2000	-	3000	-	-
ARCO®	Alu / Steel Dome head	82	-	-	720	-	1300	1950	-	-	-	-	_
	Alu / Steel Large dome head	82	-	-	-	-	-	1700	-	-	-	-	-
Grounding Rivet	Copper / Steel Dome head	84	-	-	-	2000	-	-	-	_	-	-	-
Grounding OPTO®	Alu / Steel Dome head	85	_	_	_	_	1670	_	_	_	_	_	_

Corrosion resistance and protection

In the long-run it is basically impossible to prevent corrosion, the corrosion process can be delayed by suitable measures. In terms of dimensions and complexity, when designing the rivet connections, the following types of corrosion have to be borne in mind:

Surface corrosion

Surface corrosion is the abrasion of surfaces and the conversion of the material into oxidation products (e.g. rust).

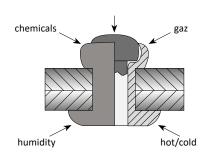
Suitable protective measures include:

- Application of a surface coating (passive corrosion proofing)
- Use of corrosion-proof materials (stainless steel, copper, aluminium and aluminium alloy) (active corrosion proofing)

Contact corrosion

Due to the potential difference between electrodes, contact corrosion leads to surface damage in the area where the different metal materials mate in the presence of an electrolyte. The abrasion always takes place on the base metal (anode).





Suitable protective measures include:

- When deploying different material types, use of identical or near identical material combinations;
- Choice of a material combination with a potential difference that is as low as possible
- rivet material should be higher grade than the component material
- Choosing suitable surface coatings as electrical insulation layer.

Surface treatments

Electro galvanizing

Through galvanic processes, the zinc coat is applied to rivets made from steel, CuNi and NiCU alloys. The thickness of the layer should be at least 3 µm, but it should not exceed 20 µm. Whilst the main reason for galvanizing steel rivets consists in protection of the rivet body against rust formation, it is also applied for the purposes of reducing contact erosion e.g. when there is assembly in aluminium components. Copper-nickel rivets and rivets made from nickel-copper alloys are primarily coated in order to improve their contact corrosion performance.

Lacquer coating

In order to provide colour, rivets may also be coated with organic lacquers. This process is primarily carried out on aluminium materials; whilst already the choice from RAL and NCS colours is virtually unlimited, and it is even possible to select from a wider array of colour shades.

Zinc-nickel coating

Zinc-nickel coats that are applied by means of galvanization are primarily used when there are extremely high demands with regard to the corrosion resistance of a steel rivet. Whilst the layer thickness itself remains the same, the corrosion resistance reaches 500% of the value that would be achieved for conventional galvanization.

Chromating of electroplated layers

Chromating of electroplated parts further enhances corrosion resistance. Depending on the chromating process, resistance performance can be almost doubled.

Anodic oxidation

Anodic oxidation or eloxy coating is one further method for aluminium rivet coating. This coat which is applied through an electrochemical process is used for colour and in order to enhance corrosion resistance of the surface and for colour

purposes. Whilst the surface bond is high, the colour range provides but a limited choice.

Microlayer corrosion protection systems (MKS)

Microlayer corrosion protection systems stand for state of the art procedures in material surface coating. They allow combining excellent corrosion protection with additional properties like, for instance, colour schemes and the implementation of predefined coefficients of frictions. MKS systems are selected on the basis of the specific requirements and they are customised with a view to the components that need to be coated. They contain neither heavy metals nor environmentally harmful chemicals. MKS systems are widely used in the automotive industry - the MKS systems we use are free from hexavalent chromium.

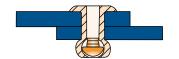
Active corrosion protection



Anode (Steel)

Cathode (Copper)

Anoden current = Cathode current



Large anode sector

- small current density
- low corrosion



Small anode sector

- large current density
- fast corrosion

Contact corrosion performance in the case of different material combinations

Components Shaft material	Aluminium	Steel	Stainless Steel	Copper	Copper-Nickel Nickel-Copper
Aluminium	++	+	+	-	-
Steel - galvanized	+	++	+	-	+
Stainless Steel	+	++	++	_	+
Copper	+	+	+	++	++
Copper-Nickel / Nickel- Copper -galvanized	+	+	+	++	++

- ++ Combination well suited
- Combination suitable
- Combination unsuitable

This table merely serves for orientation purposes.

Corrosion behavior of nickel-copper blind rivets (Ni Cu 30 FE)

Tap water

NiCu30Fe has excellent corrosion resistance in distilled, hard or soft water.

Salt water

NiCu30Fe is a great seawater resistant material. In stationary seawater it may come to slight surface corrosion due to collection of oxygen-forming marine organisms.

Neutral an alkaline salts

High corrosion resistance when in use of neutral and alkaline saline solutions.

Acids salts

NiCu30Fe has good corrosion resistance to salt solutions such as zinc chloride, ammonium sulfate, aluminum sulfate, zinc chloride, ammonium sulfate, aluminum sulfate, aluminum chloride etc...

Oxidising acid salts

NiCu30Fe is not very resistant to most oxidizing action acid salts such as ferric chloride, with oxidizing constituents, silver nitrate, mercuric chloride and acids.

Oxidising alkaline salts

Hypochlorites are the only common alkaline salts with a corrosive effect on NiCu30Fe.

Mineral acids

NiCu30Fe has good corrosion resistance to all acids with the exception of strong oxidizing acids. In air-free acid a temperature increase is of no importance. In aerated acid is the corrosion strongest effect at about 85 °C. Good resistance is therefore against sulfuric acid, hydrochloric acid, hydrofluoric acid, etc. to be expected. Also acid and hydrogen sulfide have no corrosion effect under the above conditions.

Oxidising acids

NiCu30Fe is only in limited dimensions useable with strong oxidizing acids. For example in 1% nitric acid considerable corrosion can occur caused through motion.

Organic acids and compounds

NiCu30Fe has a good corrosion resistance to all common organic acids. There is also virtually no corrosion by neutral and alkaline organic compounds. These acids are e.g. acetic acid, fruit or food acids, fatty acids etc..

Alkalis

NiCu30Fe is resistant to most of the alkaline solutions. The result e.g. by caustic soda concentrations up to 50% virtually is almost no corrosion. In a causic soda evaporator the NiCu30Fe components stood. Ten years without significant corrosion, whereas the same components made from steel had to be exchanged after one year.

Moist and dry gases

NiCu30Fe is corrosion-resistant to all the usual dry gases. Dry chlorine gas has e.g. no effect on NiCu30Fe. These metal alloy is resistant against the corrosion and erosive action of steam at temperatures up to 400 ° C. In contrast to many other alloys NiCu30Fe showed neither fatigue yet it was brittle when it overheated long time.

Do **YOU** need a special type of blind rivet for your application?

Our experienced technicians will develop an individual solution for your special need:

- >> Consulting,
- >> Construction and design,
- >> Tool making,
- >> Prototyping,
- >> Manufacturing and
- >> Delivery schedules

are available from one source.

We realize projects in all dimensions for different industrial sectors, for example:

>> Automotive industries and vehicle constructors
and their suppliers,

- >> Sheet metal forming,
- >> Ventilation systems and air-conditioning plants,
- >> Furniture industry,
- >> Container and tank construction,
- >> Electric cabinets,
- >> Lightning industry and
- >> Solar- and photovoltaics suppliers

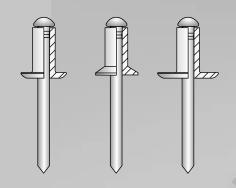
The VVG team is looking forward to your ideas! - Send your request!

We will find the solution.

SPECIAL BLIND RIVETS



STANDARD BLIND RIVET ALFO®



A true classic.

The description ALFO® specifies several lines of open type standard blind rivets, available with dome head, countersunk head or large dome head.

It covers the designs and special types described in DIN EN ISO 15977 – 15984, as well as 16582 und 16584. By special types we define rivets whose functional principle is identical with described versions, but with feature differences as far as certain dimensions or functional properties or materials are concerned.

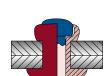
ALFO® offers more. We have specified some parameters more detailed such as grip range, tensile strength as well as the shear strength more detailed.

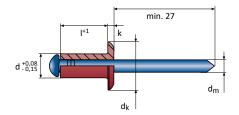
These modifications based on our long term experience and assist you in implementing a rivet design according to practical purposes.

ALFO®Standard Blind Rivet

☐ Aluminium ☐ Steel galvanized

Dome Head | open





ONLINE

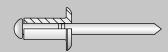
Series

2,0 - 3,2 mm EN AW-5019 [AIMg5]

4,0 - 7,8 mm EN AW-5754 [AIMg3]

d	+1	#	Nr.	
	3,0	0,5 - 1,0	10.700.024.030	500
	4,0	0,5 - 2,0	10.700.024.040	500
2.4	6,0	1,5 - 4,0	10.700.024.060	500
2,4	8,0	3,5 - 6,0	10.700.024.080	500
	10,0	6,0 - 8,0	10.700.024.100	500
	12,0	8,0 - 10,0	10.700.024.120	500
d _k 5,0 -0,7	d _m 1,5	k 0,55 ±0,15	2,5 mm ← 380 N	◆ 600 N
	4,0	0,5 - 2,0	10.700.030.040	500
	5,0	1,0 - 3,0	10.700.030.050	500
	6,0	1,5 - 4,0	10.700.030.060	500
	7,0	3,0 - 5,0	10.700.030.070	500
	8,0	3,0 - 6,0	10.700.030.080	500
3,0	10,0	5,0 - 7,5	10.700.030.100	500
	12,0	7,0 - 9,0	10.700.030.120	500
	16,0	9,0 - 12,5	10.700.030.160	500
	18,0	12,0 - 14,5	10.700.030.180	500
	20,0	13,0 - 16,5	10.700.030.200	500
	25,0	16,0 - 21,5	10.700.030.250	500
d _k 6,3 -0,7	d _m 1,7	k 0,8 ±0,2	3,1 mm	- ∰• 1000 N

Many ALFO® dimensions are available as FERO® version. In this speciality the major part of the mandrel remains in the shank to increase the shear strength.



d	+1	*	Nr.	
	4,0	0,5 - 1,5	10.700.032.040	500
	5,0	1,0 - 2,5	10.700.032.050	500
	6,0	1,5 - 3,5	10.700.032.060	500
	8,0	3,0 - 5,5	10.700.032.080	500
	10,0	5,0 - 7,5	10.700.032.100	500
3,2	12,0	7,0 - 9,0	10.700.032.120	500
	14,0	8,5 - 10,5	10.700.032.140	500
	16,0	9,0 - 13,0	10.700.032.160	500
	18,0	10,0 - 14,5	10.700.032.180	500
	20,0	13,0 - 17,0	10.700.032.200	500
	25,0	16,0 - 21,5	10.700.032.250	500
d _k 6,5 -0,7	d _m 1,9	k 0,8 ±0,2	3,3 mm ← 750 N	- 1220 N
	4,0	0,5 - 1,5	10.700.040.040	500
	5,0	1,0 - 2,5	10.700.040.050	500
	6,0	1,0 - 3,5	10.700.040.060	500
	7,0	3,0 - 4,5	10.700.040.070	500
	8,0	3,0 - 5,5	10.700.040.080	500
	10,0	5,0 - 7,0	10.700.040.100	500
	12,0	6,5 - 9,0	10.700.040.120	500
4,0	14,0	8,5 - 11,0	10.700.040.140	500
	16,0	8,5 - 12,5	10.700.040.160	500
	18,0	12,0 - 14,5	10.700.040.180	500
	20,0	12,5 - 16,5	10.700.040.200	500
	25,0	15,5 - 21,0	10.700.040.250	500
	30,0	20,5 - 26,0	10.700.040.300	500
	35,0	25,5 - 31,0	10.700.040.350	500
	40,0	30,5 - 35,0	10.700.040.400	500
d _k 8,0 -1,0	d _m 2,0	k 1,0 ±0,3	4,1 mm ← 1250 N	- ∰• 1800 N

Series

d	+1	*	Nr.	
	6,0	1,0 - 3,0	10.700.048.060	500
	8,0	2,5 - 5,0	10.700.048.080	500
	9,0	2,5 - 6,0	10.700.048.090	500
	10,0	4,0 - 6,5	10.700.048.100	500
	12,0	6,0 - 8,0	10.700.048.120	500
	14,0	7,5 - 10,0	10.700.048.140	500
	16,0	8,0 - 12,0	10.700.048.160	500
10	18,0	11,5 - 13,5	10.700.048.180	500
4,8	20,0	12,0 - 15,5	10.700.048.200	500
	25,0	15,0 - 20,5	10.700.048.250	500
	30,0	20,0 - 25,0	10.700.048.300	500
	35,0	24,5 - 29,5	10.700.048.350	250
	40,0	29,0 - 34,5	10.700.048.400	250
	45,0	34,0 - 39,5	10.700.048.450	250
	50,0	39,0 - 44,5	10.700.048.500	100
	55,0	44,0 - 49,5	10.700.048.550	100
d _k 9,5 -1,0	d _m 2,7	k 1,1 ±0,3	4,9 mm ← 1640 N	- ∰• 2200 N
	6,0	1,0 - 3,0	10.700.050.060	500
	8,0	2,5 - 5,0	10.700.050.080	500
	10,0	4,0 - 6,5	10.700.050.100	500
	12,0	6,0 - 8,0	10.700.050.120	500
	14,0	7,5 - 10,0	10.700.050.140	500
	16,0	8,0 - 12,0	10.700.050.160	500
г о	18,0	11,5 - 13,5	10.700.050.180	500
5,0	20,0	12,0 - 15,5	10.700.050.200	500
	25,0	15,0 - 20,5	10.700.050.250	500
	30,0	20,0 - 25,0	10.700.050.300	500
	35,0	24,5 - 30,0	10.700.050.350	250
	40,0	29,0 - 35,0	10.700.050.400	250
	45,0	34,5 - 40,0	10.700.050.450	250
	50,0	39,5 - 45,0	10.700.050.500	250
d _k 9,5 -0,8	d _m 2,7	k 1,1 ±0,3	5,1 mm ← 1820 N	- ∰> 2400 N

d	⁺¹	*	Nr.	
	8,0	1,0 - 3,5	10.700.060.080	500
	10,0	3,0 - 5,5	10.700.060.100	500
	12,0	5,0 - 7,5	10.700.060.120	500
	16,0	7,0 - 11,0	10.700.060.160	500
	18,0	10,5 - 13,0	10.700.060.180	500
6,0	20,0	11,0 - 15,0	10.700.060.200	500
	22,0	14,5 - 17,0	10.700.060.220	500
	25,0	15,0 - 20,0	10.700.060.250	250
	28,0	19,5 - 22,5	10.700.060.280	250
	30,0	20,0 - 25,0	10.700.060.300	250
	50,0	38,0 - 43,0	10.700.060.500	250
d k 12,0 -1,2	d _m 3,2	k 1,5 ±0,4	6,1 mm ← 2660 N	◆ 3500 N
	12,0	2,5 - 7,0	10.700.064.120	250
	16,0	6,0 - 11,0	10.700.064.160	250
6.1	18,0	10,0 - 13,0	10.700.064.180	250
6,4	20,0	10,0 - 14,5	10.700.064.200	250
	25,0	14,0 - 19,0	10.700.064.250	250
	30,0	18,0 - 24,0	10.700.064.300	250
d _k 13,0 -1,4	d _m 3,6	k 1,8 ±0,4	6,5 mm ← 2880 N	- ∰• 4600 N
	15,0	4,0 - 9,5	10.700.078.150	250
70	18,0	9,5 - 12,5	10.700.078.180	250
7,8	22,0	12,5 - 16,5	10.700.078.220	250
	26,0	16,5 - 20,5	10.700.078.260	250
d _k 14,0	d _m 3,7	k 2,0	8,0 mm ← 6600 N	◆ 9550 N

Small Packages



١	ı

d	+1	+	Nr.	
	6,0	1,5 - 4,0	10.700.030.060/31	100
2.0	8,0	3,0 - 6,0	10.700.030.080/31	100
3,0	10,0	5,0 - 7,5	10.700.030.100/31	100
	12,0	7,0 - 9,0	10.700.030.120/31	100
	6,0	1,0 - 3,5	10.700.040.060/31	100
4,0	8,0	3,0 - 5,5	10.700.040.080/31	100
7,0	10,0	5,0 - 7,0	10.700.040.100/31	100
	12,0	6,5 - 9,0	10.700.040.120/31	100

ALFO®Standard Blind Rivet

□ Aluminium



Dome Head | open

d	+1	‡	Nr.	
	8,0	2,5 - 5,0	10.700.050.080/31	100
5,0	10,0	4,0 - 6,5	10.700.050.100/31	100
	12,0	6,0 - 8,0	10.700.050.120/31	100

Additional dimensions are available from stock.

Minimum purchase quantity for all small packs are 10 packing units of each dimension.



ALFO®Standard Blind Rivet





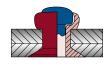
Countersunk Head | open

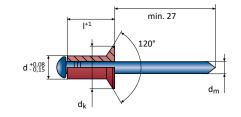












3,0 - 3,2 mm EN AW-5019 [AIMg5]

4,0 - 5,0 mm EN AW-5754 [AlMg3]

d	+1	‡	Nr.	
	5,0	1,5 - 3,0	10.700.300.050	500
2.0	6,0	2,0 - 4,0	10.700.300.060	500
3,0	8,0	3,5 - 6,0	10.700.300.080	500
	10,0	5,0 - 7,5	10.700.300.100	500
d _k 6,0 -0,4	d _m 1,7	□ □ □ □ □ □ 3,:	1 mm ← → 740 N	- ∰• 1000 N
	6,0	1,5 - 3,5	10.700.320.060	500
3,2	8,0	3,0 - 5,5	10.700.320.080	500
	10,0	5,0 - 7,5	10.700.320.100	500
d _k 6,2 -0,4	d _m 1,9	□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□	3 mm ← → 750 N	◆ 1220 N
	6,0	1,5 - 3,5	10.700.400.060	500
	8,0	2,0 - 5,5	10.700.400.080	500
	10,0	5,0 - 7,0	10.700.400.100	500
4,0	12,0	6,5 - 9,0	10.700.400.120	500
	16,0	8,5 - 12,5	10.700.400.160	500
	18,0	12,0 - 14,5	10.700.400.180	500
	20,0	12,5 - 16,5	10.700.400.200	500
$d_k 7,5 -0,5$	$d_m 2,0$	DDD 4,2	1 mm ← 1250 N	◆ 1580 N
	10,0	4,0 - 6,5	10.700.480.100	500
	12,0	6,0 - 8,0	10.700.480.120	500
4,8	16,0	8,0 - 12,0	10.700.480.160	500
	20,0	12,0 - 15,5	10.700.480.200	500
	25,0	15,0 - 20,5	10.700.480.250	500
d _k 9,0 -0,5	d _m 2,7	DDD 4,9	9 mm	4 2200 N

d	+1	‡	Nr.	
	8,0	2,0 - 5,0	10.700.500.080	500
	10,0	4,0 - 6,5	10.700.500.100	500
	12,0	6,0 - 8,0	10.700.500.120	500
	14,0	7,5 - 10,0	10.700.500.140	500
5,0	16,0	8,0 - 12,0	10.700.500.160	500
	20,0	12,0 - 15,5	10.700.500.200	500
	25,0	15,0 - 20,5	10.700.500.250	500
	30,0	20,0 - 25,5	10.700.500.300	500
	35,0	25,0 - 30,0	10.700.500.350	250
d _k 9,3 -0,5	d _m 2,7	DSSS 5,1	mm	◆ • 2400 N

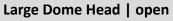
	25,0	15,0 - 20,5		500	
d _k 9,0 -0,5	d _m 2,7	□∑∑> 4,9 mm	◆ 1640 N	- ∰> 2200 N	
				-	
				40	



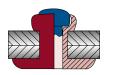


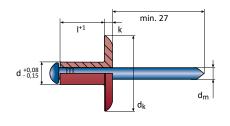


ALFO®Standard Blind Rivet Steel galvanized □ Aluminium









EN AW-5754 [AIMg3]

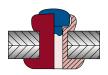
d	⁺¹	+	Nr.	
	6,0	1,5 - 3,5	10.730.032.060	500
	8,0	3,0 - 5,5	10.730.032.080	500
3,2	10,0	5,0 - 7,5	10.730.032.100	500
	12,0	7,0 - 9,0	10.730.032.120	500
	16,0	9,0 - 13,0	10.730.032.160	500
d _k 9,5 -0,3	d _m 1,9	k 1,2 +0,5	3,3 mm ← 580 N	- ∰• 1000 N
	6,0	1,0 - 3,5	10.750.040.060	500
	8,0	3,0 - 5,5	10.750.040.080	500
	10,0	5,0 - 7,0	10.750.040.100	500
4,0	12,0	6,5 - 9,0	10.750.040.120	500
	16,0	8,5 - 12,5	10.750.040.160	500
	18,0	12,0 - 14,5	10.750.040.180	500
	20,0	14,0 - 16,0	10.750.040.200	500
d _k 12,0 -0,3	d _m 2,2	k 1,5 +0,5	4,1 mm ← 1250 N	- ∰• 2000 N
	8,0	2,0 - 5,0	10.770.048.080	500
	10,0	4,0 - 6,5	10.770.048.100	500
	12,0	6,0 - 8,0	10.770.048.120	500
4,8	16,0	7,5 - 12,0	10.770.048.160	500
7,0	18,0	11,5 - 13,5	10.770.048.180	500
	20,0	12,0 - 15,5	10.770.048.200	250
	25,0	15,0 - 20,5	10.770.048.250	250
	30,0	20,0 - 25,0	10.770.048.300	250

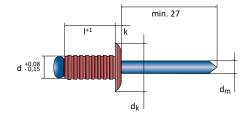
d	+1	‡	Nr.	
	8,0	2,0 - 5,0	10.740.050.080	500
	10,0	4,0 - 6,5	10.740.050.100	500
	12,0	6,0 - 8,0	10.740.050.120	500
	14,0	7,5 - 10,0	10.740.050.140	500
5,0	16,0	8,0 - 12,0	10.740.050.160	500
	18,0	11,5 - 13,5	10.740.050.180	500
	20,0	12,0 - 15,5	10.740.050.200	500
	25,0	15,0 - 20,5	10.740.050.250	500
	30,0	20,0 - 25,0	10.740.050.300	500
d _k 11,0 -0,3	$d_m 2,7$	k 1,5 ±0,5	5,1 mm ← 1820 N	- ∰> 2800 N
	8,0	2,5 - 5,0	10.760.050.080	500
	10,0	4,0 - 6,5	10.760.050.100	500
	12,0	6,0 - 8,0	10.760.050.120	500
	14,0	7,5 - 10,0	10.760.050.140	500
5,0	16,0	8,0 - 12,0	10.760.050.160	500
	18,0	11,5 - 13,5	10.760.050.180	500
	20,0	12,0 - 15,5	10.760.050.200	500
	25,0	15,0 - 20,5	10.760.050.250	250
	30,0	20,0 - 25,0	10.760.050.300	250
d _k 14,0 -0,3	d _m 2,7	k 1,5 ±0,5	5,1 mm ← 1820 N	- ∰> 2800 N
	10,0	4,0 - 6,5	10.770.050.100	500
	16,0	8,0 - 12,0	10.770.050.160	500
5,0	20,0	12,0 - 15,5	10.770.050.200	250
	25,0	15,0 - 20,5	10.770.050.250	250
	33,0	20,0 - 28,0	10.770.050.330	250
d _k 16,0 -0,3	$d_m 2,7$	k 1,8 +0,5	5,1 mm ← 1820 N	- ∰• 2800 N
6.0	16,0	7,0 - 11,0	10.770.060.160	250
6,0	20,0	11,0 - 15,0	10.770.060.200	250
d _k 16,0 -0,3	d _m 3,2	k 1,8 +0,5	6,1 mm ← 2660 N	◆) 3500 N



Series







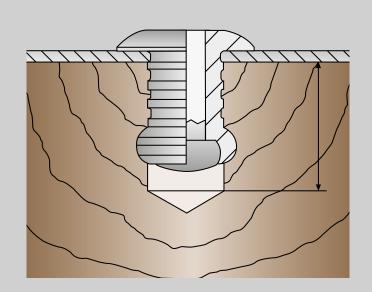
EN AW-5754 [AIMg3]

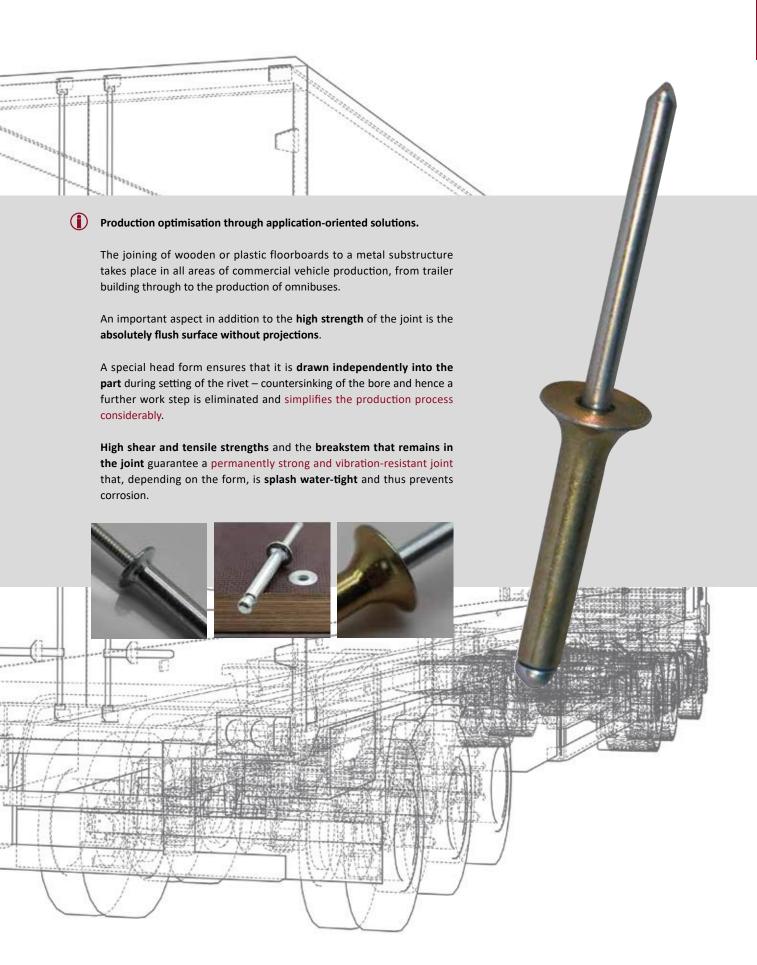
d	+1	Mindest- bohrlochtiefe	Nr.	
3,2	10,0	13,0	10.712.032.100	500
d _k 6,5 -0,7	d _m 1,7	k 0,8 ±0,15	3,3 mm ← 600 N	- ∰• 1000 N
4.0	8,0	11,0	10.712.040.080	500
4,0	12,0	15,0	10.712.040.120	500
d . 8 0 - 0 7	d 2 0	k 1 0 +0 15	1000 N	+ 1250 N

d	⁺¹	Mindest- bohrlochtiefe	Nr.	
4.0	10,0	14,0	10.712.048.100	500
4,8	16,0	20,0	10.712.048.160	500
d _k 9,5 -0,7	d _m 2,7	k 1,1 ±0,15	△ 4,9 mm ← 1350 N	◆ 1820 N



- The ALFO® version with grooved rivet shank is perfectly suitable for blind holes. In this case the grooves claw into the environmental material of the bore hole. Please take care of the following instructions:
 - Determination of the drilling diameter by trial
 - Min. hole depth t= rivet length including mandrel head minus assembly part
 - Indicated forces refer to the rivet forces have to be determined by trial.



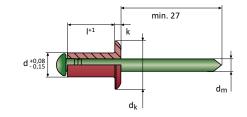




Dome Head | open







2,4 - 3,2 mm EN AW-5019 [AIMg5]

4,0 - 6,0 mm EN AW-5754 [AlMg3]

d	+1	*	Nr.	
	4,0	0,5 - 2,0	10.702.024.040	500
2,4	6,0	1,5 - 4,0	10.702.024.060	500
	8,0	3,5 - 6,0	10.702.024.080	500
d _k 5,0 -0,7	d _m 1,5	k 0,55 ±0,15	2,5 mm ← 420 N	- ∰• 660 N
	4,0	0,5 - 2,0	10.702.030.040	500
	5,0	1,0 - 3,0	10.702.030.050	500
2.0	6,0	1,5 - 4,0	10.702.030.060	500
3,0	8,0	3,0 - 6,0	10.702.030.080	500
	10,0	5,0 - 7,5	10.702.030.100	500
	12,0	7,0 - 9,0	10.702.030.120	500
d _k 6,3 -0,7	d _m 1,7	k 0,8 ±0,2	3,1 mm ← 740 N	- ∰ 1000 N
	6,0	1,0 - 3,5	10.702.032.060	500
	8,0	3,0 - 5,5	10.702.032.080	500
2 2	10,0	5,0 - 7,5	10.702.032.100	500
3,2	12,0	7,0 - 9,0	10.702.032.120	500
	16,0	9,0 - 13,0	10.702.032.160	500
	20,0	13,0 - 17,0	10.702.032.200	500
d k 6,5 -0,7	d _m 1,9	k 0,8 ±0,2	3,3 mm ← 750 N	◆ 1220 N
	5,0	0,5 - 2,5	10.702.040.050	500
	6,0	1,0 - 3,5	10.702.040.060	500
	7,0	3,0 - 4,5	10.702.040.070	500
	8,0	3,0 - 5,5	10.702.040.080	500
4,0	10,0	5,0 - 7,0	10.702.040.100	500
4,0	12,0	6,5 - 9,0	10.702.040.120	500
	16,0	8,5 - 12,5	10.702.040.160	500
	18,0	12,0 - 14,5	10.702.040.180	500
	20,0	12,5 - 16,5	10.702.040.200	500
	25,0	15,5 - 21,0	10.702.040.250	500
$d_k 8,0 \text{-1,0}$	d _m 2,0	k 1,0 ±0,3	△ 4,1 mm ← 1250 N	- ∰► 1800 N

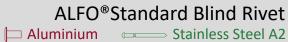
d	⁺¹	*	Nr.	
	6,0	1,0 - 3,0	10.702.048.060	500
	8,0	2,0 - 5,0	10.702.048.080	500
	10,0	4,0 - 6,5	10.702.048.100	500
4,8	12,0	5,5 - 8,0	10.702.048.120	500
	14,0	7,0 - 10,0	10.702.048.140	500
	16,0	8,0 - 12,0	10.702.048.160	500
	20,0	11,5 - 15,5	10.702.048.200	500
d _k 9,5 -1,0	$d_m 2,7$	k 1,1 ±0,3	4,9 mm ← 1640 N	- ∰► 2200 N
	6,0	1,0 - 3,0	10.702.050.060	500
	8,0	2,5 - 5,0	10.702.050.080	500
	10,0	4,0 - 6,5	10.702.050.100	500
	12,0	6,0 - 8,0	10.702.050.120	500
	14,0	7,5 - 10,0	10.702.050.140	500
5,0	16,0	8,0 - 12,0	10.702.050.160	500
5,0	18,0	11,5 - 13,5	10.702.050.180	500
	20,0	12,0 - 15,5	10.702.050.200	500
	25,0	15,0 - 20,5	10.702.050.250	500
	30,0	20,0 - 25,0	10.702.050.300	500
	35,0	24,5 - 30,0	10.702.050.350	250
	40,0	29,5 - 35,0	10.702.050.400	250
d _k 9,5 -0,8	$d_m 2,7$	k 1,1 ±0,3	5,1 mm ← 1820 N	- ∰► 2400 N
	10,0	3,0 - 5,5	10.702.060.100	500
6,0	12,0	5,0 - 7,5	10.702.060.120	500
0,0	16,0	7,0 - 11,0	10.702.060.160	500
	18,0	10,5 - 13,0	10.702.060.180	500
d _k 12,0 -1,2	d _m 3,2	k 1,5 ±0,4	5,1 mm ← 2660 N	- ∰→ 3500 N
6.1	12,0	2,5 - 7,0	10.702.064.120	250
6,4	16,0	6,0 - 11,0	10.702.064.160	250
d _k 12,7 -0,3	d _m 3,6	k 2,3 ±0,2	5,5 mm ← 2880 N	4600 N











Stainless Steel A2

Countersunk Head | open





min. 27

2,4 - 3,0 mm EN AW-5019 [AIMg5]

4,0 - 5,0 mm EN AW-5754 [AlMg3]

d	+1	*		Nr.	
2,4	6,0	1,5 - 4,0		10.702.240.060	500
d _k 4,5 0,2	d _m 1,45	DSS\$ 2	,5 mm	◆ → 420 N	4 660 N
	6,0	1,5 - 4,0		10.702.300.060	500
3,0	8,0	3,5 - 6,0		10.702.300.080	500
	10,0	5,0 - 7,5		10.702.300.100	500
d _k 6,0 -0,4	d _m 1,7	[ZZZ3-3	,1 mm	◆ → 740 N	- ∰• 1000 N

d	⁺¹	*	Nr.	
	6,0	1,5 - 3,5	10.702.400.060	500
	7,0	2,0 - 4,5	10.702.400.070	500
4.0	8,0	2,0 - 5,5	10.702.400.080	500
4,0	10,0	5,0 - 7,0	10.702.400.100	500
	12,0	6,5 - 9,0	10.702.400.120	500
	16,0	8,5 - 12,5	10.702.400.160	500
d k 7,5 -0,5	d _m 2,0	□□□□□ 4,1 mr	m ← 1250 N	◆ 1580 N
	10,0	2,0 - 6,5	10.702.500.100	500
г о	12,0	6,0 - 8,0	10.702.500.120	500
5,0	16,0	8,0 - 12,0	10.702.500.160	500
	20,0	12,0 - 15,5	10.702.500.200	500
d _k 9,3 -0,5	d _m 2,7	□SSS> 5,1 mr	m ← → 1820 N	4 2100 N



ALFO®Standard Blind Rivet

☐ Aluminium ☐ Stainless Steel A2

Large Dome Head | open





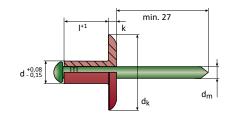




CERT







EN AW-5754 [AIMg3]

d	⁺¹	+	Nr.	
5,0	8,0	2,0 - 5,0	10.742.050.080	500
	10,0	4,0 - 6,5	10.742.050.100	500
	12,0	6,0 - 8,0	10.742.050.120	500
	14,0	7,5 - 10,0	10.742.050.140	500
	16,0	8,0 - 12,0	10.742.050.160	500
	20,0	12,0 - 15,5	10.742.050.200	500
	25,0	15,0 - 20,5	10.742.050.250	500
	30,0	20,0 - 25,0	10.742.050.300	500

d	+1	‡	Nr.	
	8,0	2,0 - 5,0	10.762.050.080	500
	10,0	4,0 - 6,5	10.762.050.100	500
	12,0	6,0 - 8,0	10.762.050.120	500
	14,0	7,5 - 10,0	10.762.050.140	500
5,0	16,0	9,5 - 12,0	10.762.050.160	500
	18,0	11,5 - 13,5	10.762.050.180	500
	20,0	12,0 - 15,5	10.762.050.200	500
	25,0	15,0 - 20,5	10.762.050.250	500
	30,0	20,0 - 25,0	10.762.050.300	250
d _k 14,0 -0,3	d _m 2,7	k 1,5 +0,4	5,1 mm ← 1820 N	◆] → 2500 N

				CE	R
	12,0	6,0 - 8,5	10.772.050.120	500	
	16,0	8,0 - 12,0	10.772.050.160	500	
5,0	20,0	12,0 - 15,5	10.772.050.200	250	
ĺ	25,0	15,0 - 20,0	10.772.050.250	250	
	33,0	20,0 - 28,0	10.772.050.330	250	

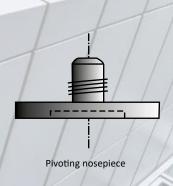
k 1,5 +0,4 □ 5,1 mm ← 1820 N ← 2500 N

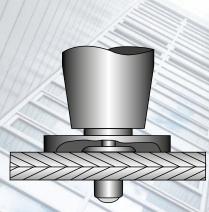
 $\textbf{d}_{k} \ \textbf{16,0} \ \text{-0,3} \quad \textbf{d}_{m} \ \textbf{2,7} \qquad \textbf{k} \ \textbf{1,5} \ \text{+0,4} \qquad \Longrightarrow \ \textbf{5,1} \ \text{mm} \qquad \boldsymbol{\longleftarrow} \rightarrow \ \textbf{1820} \ \textbf{N} \qquad \boldsymbol{\longleftarrow} \rightarrow \ \textbf{2500} \ \textbf{N}$

To avoid traces of corrosion blind rivets made from aluminium with stainless steel mandrels are used in the outside area. Take care, that the tolerance of the hole is as large as the thermal expansion of the storefront plates.

- With special facade nosepieces it is guaranteed that the rivet is placed with a tolerance of 0,3 mm. Rivet and nosepiece should be from one manufacturer.
- The grip range results from the thickness of material plus 2,0 mm to secure a well done closing head.

We recommend to try out the riveting process in advance!







The appropriate façade nosepieces can be found with the respective setting tools.

Series **701**







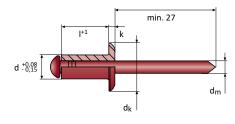
ALFO®Standard Blind Rivet

□ Aluminium
□ Aluminium

Dome Head | open







EN AW-5251 [AlMg2]

d	I *1	*	Nr.	
	6,0	0,5 - 4,0	10.701.032.060	500
2.2	8,0	3,5 - 6,0	10.701.032.080	500
3,2	10,0	5,0 - 8,0	10.701.032.100	500
	12,0	7,0 - 9,0	10.701.032.120	500
d _k 6,5 -0,7	d _m 2,0	k 0,8 ±0,2	3,3 mm ← 380 N	◆ → 670 N
	6,0	1,0 - 3,5	10.701.040.060	500
	8,0	3,0 - 5,5	10.701.040.080	500
4,0	10,0	5,0 - 7,0	10.701.040.100	500
	12,0	6,5 - 9,0	10.701.040.120	500
	16,0	8,5 - 12,5	10.701.040.160	500
d _k 8,0 -1,0	d _m 2,5	k 1,0 ±0,3	54,1 mm ← 740 N	◆ 1240 N

d	⁺¹	+	Nr.	
	8,0	1,0 - 5,0	10.701.048.080	500
	10,0	4,0 - 7,0	10.701.048.100	500
	12,0	6,0 - 8,5	10.701.048.120	500
4,8	14,0	8,0 - 10,5	10.701.048.140	500
	16,0	8,0 - 12,0	10.701.048.160	500
	18,0	12,5 - 14,5	10.701.048.180	500
	20,0	14,5 - 16,5	10.701.048.200	500
d _k 9,5 -1,0	d _m 2,9	k 1,1 ±0,3	△ 4,9 mm ← 1140 N	◆] → 1600 N



ALFO®Standard Blind Rivet

□ Steel galvanized □ Steel galvanized

Dome Head | open

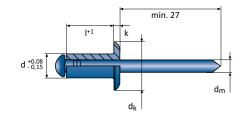


CAD DATA ONLINE









C4C	11.	いろ	いろ

d	⁺¹	*	Nr.	
	5,0	0,5 - 2,5	10.707.030.050	500
	6,0	0,5 - 3,5	10.707.030.060	500
2.0	7,0	2,0 - 4,5	10.707.030.070	500
3,0	8,0	3,0 - 5,5	10.707.030.080	500
	10,0	5,0 - 7,0	10.707.030.100	500
	12,0	6,5 - 9,0	10.707.030.120	500
d k 6,3 -0,7	d _m 1,9	k 0,8 ±0,2	3,1 mm ← 1000 N	◆ 1340 N
	5,0	0,5 - 2,5	10.707.032.050	500
	6,0	0,5 - 3,5	10.707.032.060	500
2.2	8,0	3,0 - 5,5	10.707.032.080	500
3,2	10,0	5,0 - 7,0	10.707.032.100	500
	12,0	6,5 - 9,0	10.707.032.120	500
	14,0	8,5 - 11,0	10.707.032.140	500
d _k 6,5 -0,7	d _m 2,0	k 0,8 ±0,2	3,3 mm ← 1180 N	- ∰→ 1560 N
	6,0	0,5 - 3,5	10.707.040.060	500
	7,0	2,0 - 4,5	10.707.040.070	500
	8,0	3,0 - 5,5	10.707.040.080	500
	9,0	4,0 - 6,5	10.707.040.090	500
4.0	10,0	5,0 - 7,0	10.707.040.100	500
4,0	12,0	6,0 - 9,0	10.707.040.120	500
	14,0	8,0 - 11,0	10.707.040.140	500
	16,0	9,0 - 12,5	10.707.040.160	500
	18,0	12,0 - 14,5	10.707.040.180	500
	20,0	12,0 - 16,5	10.707.040.200	500
d _k 8,0 -1,0	d _m 2,3	k 1,0 ±0,3	△ 4,1 mm ← 2100 N	◆□→ 2800 N
	6,0	1,0 - 2,5	10.707.048.060	500
	7,0	1,0 - 3,5	10.707.048.070	500
	8,0	2,5 - 4,5	10.707.048.080	500
	9,0	3,0 - 5,5	10.707.048.090	500
	10,0	4,0 - 6,5	10.707.048.100	500
	12,0	6,0 - 8,5	10.707.048.120	500
4,8	14,0	7,0 - 10,0	10.707.048.140	500
	16,0	8,0 - 12,0	10.707.048.160	500
	18,0	9,0 - 13,5	10.707.048.180	500
	20,0	11,0 - 15,5	10.707.048.200	500
	22,0	13,0 - 17,0	10.707.048.220	500
	25,0	15,0 - 20,0	10.707.048.250	500
	30,0	19,5 - 24,5	10.707.048.300	500
d _k 9,5 -1,0	d _m 2,7	k 1,1 ±0,3	△ 4,9 mm ← 3180 N	- ∰+ 4220 N

d	⁺¹	‡	Nr.	
	8,0	2,5 - 4,5	10.707.050.080	500
	10,0	4,0 - 6,5	10.707.050.100	500
	12,0	6,0 - 8,5	10.707.050.120	500
	14,0	7,0 - 10,5	10.707.050.140	500
	16,0	8,0 - 12,0	10.707.050.160	500
5,0	18,0	10,0 - 13,5	10.707.050.180	500
	20,0	11,0 - 15,0	10.707.050.200	500
	25,0	14,5 - 20,0	10.707.050.250	250
	30,0	19,5 - 25,0	10.707.050.300	250
	35,0	24,5 - 29,5	10.707.050.350	250
	40,0	29,0 - 34,0	10.707.050.400	250
d k 9,5 -0,8	d _m 2,9	k 1,1 ±0,3	5,1 mm ← 3320 N	4 4740 N
	10,0	2,0 - 5,5	10.707.060.100	250
	12,0	4,0 - 7,5	10.707.060.120	250
6,0	16,0	7,0 - 11,5	10.707.060.160	250
	20,0	11,0 - 15,0	10.707.060.200	250
	25,0	14,5 - 20,0	10.707.060.250	250
d _k 12,0 -1,2	d _m 3,6	k 1,5 ±0,4	5,1 mm ← 4340 N	- ∭ > 6000 N
	8,0	1,0 - 4,0	10.707.064.080	250
	10,0	3,0 - 6,0	10.707.064.100	250
	12,0	3,5 - 7,5	10.707.064.120	250
<i>c</i>	16,0	6,0 - 11,5	10.707.064.160	250
6,4	18,0	8,0 - 13,0	10.707.064.180	250
	20,0	9,0 - 14,5	10.707.064.200	250
	25,0	13,0 - 19,5	10.707.064.250	250
	30,0	19,0 - 24,5	10.707.064.300	250
d _k 13,0 -1,4	d _m 3,8	k 1,8 ±0,4	5,5 mm ← 4920 N	- ∰> 7000 N
	14,0	3,0 - 8,5	10.707.080.140	250
0.0	16,0	5,0 - 10,5	10.707.080.160	250
8,0	18,0	8,0 - 12,0	10.707.080.180	100
	20,0	11,5 - 14,0	10.707.080.200	100
d _k 20,0 -0,7	d _m 4,0	k 2,5 +0,5	\$3,1 mm ← 9400 N	4 13000 N

- Diameter 8,0 mm not standardized.
- Types with large dome head available as multigrip blind rivet OPTO® on page 56.
- Further blind rivets made of steel are available as high strength type OPTO®-BULB (page 58), FERO®-BULB (page 68) or FERO®-BOLT (page 72).

Series **707**

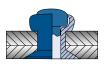


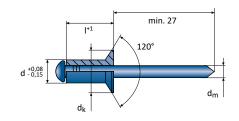


ALFO®Standard Blind Rivet

Countersunk Head | open







C4C [1.0303]

d	l +1	*	Nr.	
	6,0	1,5 - 3,5	10.707.300.060	500
3,0	8,0	3,0 - 5,5	10.707.300.080	500
	10,0	5,0 - 7,0	10.707.300.100	500
d _k 6,0 -0,4	d _m 1,9	□ZZZ> 3,:	1 mm	- ∰ 1340 N
2.2	6,0	1,5 - 3,5	10.707.320.060	500
3,2	8,0	3,0 - 5,5	10.707.320.080	500
d _k 6,2 -0,4	d _m 2,0	ĽZZ⊅ 3,	3 mm	- ∰ 1560 N
	6,0	1,5 - 3,5	10.707.400.060	500
	7,0	2,0 - 4,5	10.707.400.070	500
4.0	7,0 8,0	2,0 - 4,5 3,0 - 5,5	10.707.400.070 10.707.400.080	500 500
4,0				
4,0	8,0	3,0 - 5,5	10.707.400.080	500
4,0	8,0 10,0	3,0 - 5,5 5,0 - 7,0	10.707.400.080 10.707.400.100	500 500

d	⁺¹	‡	Nr.	
	8,0	2,0 - 4,5	10.707.480.080	500
	10,0	3,0 - 6,5	10.707.480.100	500
40	12,0	5,0 - 8,5	10.707.480.120	500
4,8	14,0	6,5 - 10,0	10.707.480.140	500
	16,0	8,0 - 12,0	10.707.480.160	500
	18,0	9,5 - 13,5	10.707.480.180	500
d k 9,0 -0,5	d _m 2,7	□SSS> 4,9 n	nm ← 3180 N	◆□→ 4220 N
	8,0	2,0 - 4,5	10.707.500.080	500
	10,0	4,0 - 6,5	10.707.500.100	500
	12,0	6,0 - 8,5	10.707.500.120	500
5,0	16,0	8,0 - 12,0	10.707.500.160	500
	20,0	11,0 - 15,5	10.707.500.200	500
	25,0	15,0 - 20,0	10.707.500.250	250
	30,0	19,5 - 25,0	10.707.500.300	250
d k 9,3 -0,5	d _m 2,9	□SSS> 5,1 n	nm	◆□→ 4740 N
6,4	10,0	3,0 - 5,0	10.707.640.100	250
d k 13,4 -1,8	d _m 3,8	□□□□□ 6,5 n	nm ← → 4920 N	◆□→ 5700 N





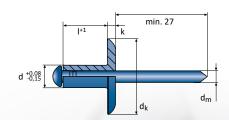
ALFO®Standard Blind Rivet

☐ Steel galvanized ☐ Steel galvanized

Large Dome Head | open







C4C [1.0303]

 $d_k \, 14,0 \, -0,4 \, d_m \, 2,9$

d	+1	+	Nr.	
	10,0	4,0 - 6,0	10.767.048.100	500
	12,7	6,0 - 8,5	10.767.048.127	500
4,8	16,0	10,0 - 12,0	10.767.048.160	500
·	20,0	14,0 - 16,0	10.767.048.200	500
	25,0	16,0 - 21,0	10.767.048.250	500

△ 4,9 mm ← 2900 N ← 3850 N



Dome Head | open

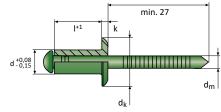


CAD DATA ONLINE









[1.4301]

d	⁺¹	+	Nr.	
2.4	6,0	0,5 - 3,5	10.708.024.060	500
2,4	8,0	3,0 - 5,5	10.708.024.080	500
d _k 5,0 -0,2	d _m 1,5	k 0,8 ±0,1	2,5 mm ← 1000 N	← 1500 N
	6,0	0,5 - 3,0	10.708.030.060	500
	8,0	3,0 - 5,0	10.708.030.080	500
3,0	10,0	5,0 - 7,0	10.708.030.100	500
	12,0	6,5 - 8,5	10.708.030.120	500
	16,0	8,5 - 12,0	10.708.030.160	500
d _k 6,3 -0,7	d _m 1,9	k 0,8 ±0,2	3,1 mm ← 2050 N	- ∰ > 2600 N
	6,0	0,5 - 3,0	10.708.032.060	500
	8,0	3,0 - 5,0	10.708.032.080	500
2.2	10,0	5,0 - 7,0	10.708.032.100	500
3,2	12,0	6,5 - 8,5	10.708.032.120	500
	16,0	8,5 - 12,0	10.708.032.160	500
	18,0	12,0 - 14,0	10.708.032.180	500
d _k 6,5 -0,7	d _m 1,9	k 0,8 ±0,2	3,3 mm ← 2050 N	- ∰ > 2600 N
	6,0	1,0 - 2,5	10.708.040.060	500
	8,0	2,5 - 4,5	10.708.040.080	500
	10,0	4,5 - 6,5	10.708.040.100	500
	12,0	6,5 - 8,5	10.708.040.120	500
4,0	14,0	8,5 - 10,5	10.708.040.140	500
	16,0	10,0 - 12,0	10.708.040.160	500
	18,0	12,0 - 14,0	10.708.040.180	500
	20,0	14,0 - 16,0	10.708.040.200	500
	25,0	16,0 - 21,0	10.708.040.250	500
d _k 8,0 -1,0	d _m 2,5	k 1,0 ±0,3	4,1 mm ← 2750 N	◆]]→ 3550 N

The hammer shaped specification of the mandrels head guar-
antees a perfect forming of the closing head.

Diameters 6,0 and 6,4 are not standardized.

d	⁺¹	÷	Nr.	
	8,0	1,5 - 4,0	10.708.048.080	500
	10,0	4,0 - 6,0	10.708.048.100	500
	12,0	6,0 - 8,0	10.708.048.120	500
4,8	14,0	7,0 - 9,5	10.708.048.140	500
	16,0	8,0 - 11,0	10.708.048.160	500
	18,0	11,0 - 13,0	10.708.048.180	500
	20,0	13,0 - 16,0	10.708.048.200	500
d _k 9,5 -1,0	d _m 2,9	k 1,1 ±0,3	4,9 mm ← 4250 N	◆) 5400 N
	8,0	2,0 - 4,0	10.708.050.080	500
	10,0	4,0 - 6,0	10.708.050.100	500
	12,0	6,0 - 8,0	10.708.050.120	500
	14,0	7,0 - 9,5	10.708.050.140	500
	16,0	8,0 - 11,0	10.708.050.160	500
5,0	18,0	11,0 - 13,0	10.708.050.180	500
	20,0	13,0 - 15,0	10.708.050.200	500
	25,0	15,0 - 20,0	10.708.050.250	250
	30,0	20,0 - 25,0	10.708.050.300	250
	35,0	25,0 - 30,0	10.708.050.350	250
	40,0	30,0 - 35,0	10.708.050.400	250
d _k 9,5 -0,8	d _m 2,9	k 1,1 ±0,3	5,1 mm ← 5000 N	◆ • 6400 N
	10,0	2,0 - 5,5	10.708.060.100	250
6,0	12,0	5,5 - 7,5	10.708.060.120	250
	16,0	7,5 - 11,0	10.708.060.160	250
d _k 12,0 -1,2	d _m 3,8	k 1,5 ±0,4	5300 N ← 6300 N	◆ 8250 N
	10,0	2,5 - 6,0	10.708.064.100	250
	12,0	4,0 - 7,5	10.708.064.120	250
	14,0	6,0 - 9,5	10.708.064.140	250
6.4	16,0	7,5 - 11,5	10.708.064.160	250
6,4	18,0	9,0 - 13,0	10.708.064.180	250
	20,0	12,0 - 14,0	10.708.064.200	250
	25,0	14,0 - 19,0	10.708.064.250	250
	30,0	22,0 - 24,0	10.708.064.300	250
d _k 13,0 -1,5	d _m 3,8	k 1,8 ±0,4	5,5 mm ← 7250 N	- ∰• 9335 N





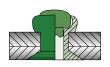


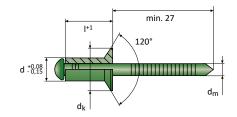


□ Stainless Steel A2 □ Stainless Steel A2

Countersunk Head | open







[1.4301]

d	⁺¹	*	Nr.	
2.0	6,0	1,5 - 3,0	10.708.300.060	500
3,0	8,0	3,0 - 5,0	10.708.300.080	500
d _k 6,0 -0,4	d _m 1,9	□ZZZ⊅ 3	,1 mm ← 1800 N	◆) 2200 N
	6,0	1,5 - 3,0	10.708.320.060	500
2.2	8,0	3,0 - 5,0	10.708.320.080	500
3,2	10,0	5,0 - 7,0	10.708.320.100	500
	12,0	6,5 - 8,5	10.708.320.120	500
d _k 6,0 -0,4	d _m 1,9	□ZZZ > 3	,3 mm ← 1900 N	◆) 2500 N
	6,0	1,0 - 2,5	10.708.400.060	500
	8,0	2,5 - 4,5	10.708.400.080	500
	10,0	4,5 - 6,5	10.708.400.100	500
4.0	12,0	6,5 - 8,5	10.708.400.120	500
4,0	14,0	8,5 - 10,5	10.708.400.140	500
	16,0	10,0 - 12,0	10.708.400.160	500
	18,0	11,5 - 14,0	10.708.400.180	500
	20,0	13,5 - 16,0	10.708.400.200	500
d _k 7,5 -0,5	d _m 2,5	DDD 4	,1 mm ← → 2750 N	4] → 3550 N

d	+1	+	Nr.	
	8,0	2,0 - 4,0	10.708.480.080	500
4.0	10,0	4,0 - 6,0	10.708.480.100	500
4,8	12,0	6,0 - 8,5	10.708.480.120	500
	16,0	8,0 - 11,0	10.708.480.160	500
d _k 9,0 -0,5	d _m 2,9	LXXX> 4	,9 mm ← 4250 N	◆) 5400 N
	8,0	2,0 - 4,0	10.708.500.080	500
F 0	10,0	4,0 - 6,0	10.708.500.100	500
5,0	12,0	6,0 - 8,5	10.708.500.120	500
	16,0	8,0 - 11,0	10.708.500.160	500
d k 9,3 -0,5	d _m 2,9	DZZZ> 5	,1 mm ← → 5000 N	◆] → 6400 N

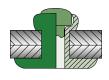
Series 738/758 778

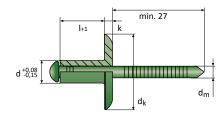


ALFO®Standard Blind Rivet

Large Dome Head | open







[1.4301]

d	⁺¹	+	Nr.	
	6,0	0,5 - 3,0	10.738.032.060	500
	8,0	3,0 - 5,0	10.738.032.080	500
2.2	10,0	5,0 - 7,0	10.738.032.100	500
3,2	12,0	6,5 - 8,5	10.738.032.120	500
	14,0	8,5 - 10,5	10.738.032.140	500
	16,0	10,0 - 12,0	10.738.032.160	500
d k 9,5 -0,3	d _m 1,9	k 1,1 +0,3	3,3 mm ← 1900 N	◆ 2500 N
	8,0	2,5 - 4,5	10.758.040.080	500
	10,0	4,5 - 6,5	10.758.040.100	500
4,0	12,0	6,5 - 8,5	10.758.040.120	500
•	14,0	8,5 - 10,5	10.758.040.140	500
	16,0	10,0 - 12,0	10.758.040.160	500
d _k 11,5 -0,3	d _m 2,5	k 1,9 ±0,3	5 4,1 mm ← 2700 N	◆□→ 3500 N

d	+1	+	Nr.	
	10,0	3,5 - 5,5	10.778.048.100	500
	12,0	5,5 - 7,5	10.778.048.120	500
	14,0	6,5 - 9,0	10.778.048.140	500
4,8	16,0	7,5 - 10,5	10.778.048.160	500
	18,0	10,5 - 12,5	10.778.048.180	500
	20,0	12,5 - 15,5	10.778.048.200	250
	25,0	16,5 - 19,5	10.778.048.250	250
d _k 15,3 -0,2	d _m 2,9	k 2,3 -0.4	△ 4,9 mm ← 4220 N	- ∰• 5330 N

ALFO®Standard Blind Rivet

☐ Stainless Steel A2 ☐ Stainless Steel A4

Dome Head | open

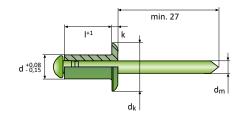


DATA ONLINE









[1.4404]

d	+1	+	Nr.	
	6,0	0,5 - 3,0	10.713.030.060	500
2.0	8,0	3,0 - 5,0	10.713.030.080	500
3,0	10,0	5,0 - 7,0	10.713.030.100	500
	12,0	6,5 - 8,5	10.713.030.120	500
d _k 6,3 -0,7	d _m 1,9	k 0,8 ±0,2	3,1 mm ← 1760 N	- ∰> 2270 N
	6,0	0,5 - 3,0	10.713.032.060	500
3,2	8,0	3,0 - 5,0	10.713.032.080	500
	10,0	5,0 - 7,0	10.713.032.100	500
d _k 6,3 -0,7	d _m 2,0	k 0,8 ±0,2	3,3 mm ← 1900 N	- ∰> 2500 N
	6,0	1,0 - 2,5	10.713.040.060	500
	8,0	2,5 - 4,5	10.713.040.080	500
4,0	10,0	4,5 - 6,5	10.713.040.100	500
	12,0	6,5 - 8,5	10.713.040.120	500
	16,0	8,5 - 12,0	10.713.040.160	500
d _k 8,0 -1,0	d _m 2,5	k 1,0 ±0,3	5500 N → 3500 N	4 4650 N

d	⁺¹	‡	Nr.	
	6,0	0,5 - 2,0	10.713.048.060	500
	8,0	1,5 - 4,0	10.713.048.080	500
4,8	10,0	4,0 - 6,0	10.713.048.100	500
	12,0	6,0 - 8,0	10.713.048.120	500
	16,0	8,0 - 11,0	10.713.048.160	500
d _k 9,0 -0,8	d _m 3,0	k 1,1 ±0,3	△ 4,9 mm ← 4230 N	◆ 5250 N
	8,0	2,0 - 4,0	10.713.050.080	500
	10,0	4,0 - 6,0	10.713.050.100	500
	12,0	6,0 - 8,0	10.713.050.120	500
E 0	16,0	9,5 - 11,0	10.713.050.160	500
5,0	18,0	11,0 - 13,0	10.713.050.180	500
	20,0	13,0 - 15,0	10.713.050.200	500
	25,0	15,0 - 20,0	10.713.050.250	250
	30,0	20,0 - 25,0	10.713.050.300	250
d k 9,5 -0,8	d _m 3,2	k 1,1 ±0,3	5,1 mm	4 6600 N

ALFO®Standard Blind Rivet

☐ Stainless Steel A2 ☐ Stainless Steel A4

Countersunk Head | open

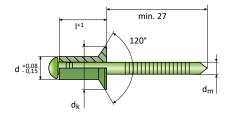


CAD DATA ONLINE









[1.4404]

d	+1	*		
	8,0	2,5 - 4,5	10.713.400.080	500
4,0	10,0	4,5 - 6,5	10.713.400.100	500
	12,0	6,5 - 8,5	10.713.400.120	500
d _k 7,5 -0,5	d _m 2,5	DSSS 4,1	. mm	4 4650 N

According to the higher percentage of molybdenum A4 blind rivets are **more corrosion resistant** than A2 types.

Typical fields of application are container construction, food component sub-suppliers, ship- and boat-building or ocean side and off-shore industries.

Many additional details about corrosion can be found on ▶ pages 26/27.

Please note our new blind rivet nuts in A4 on ▶ page 116.



Series **720**





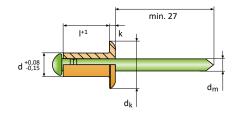


ALFO®Standard Blind Rivet

Dome Head | open







[2.4360]

d	l +1	+	Nr.	
	6,0	1,0 - 3,0	10.720.032.060	500
3,2	8,0	3,0 - 5,0	10.720.032.080	500
	10,0	5,0 - 7,0	10.720.032.100	500
d _k 6,5 -0,7	d _m 1,9	k 0,8 ±0,2	3,3 mm ← 1600 N	- ∰• 2400 N
	6,0	1,0 - 3,0	10.720.040.060	500
4.0	8,0	3,0 - 5,0	10.720.040.080	500
4,0	10,0	5,0 - 7,0	10.720.040.100	500
	12,0	7,0 - 9,0	10.720.040.120	500
d _k 8,0 -1,0	d _m 2,3	k 1,0 ±0,3	△ 4,1 mm ← 2300 N	◆] → 3450 N

d	+1	*		Nr.	
	8,0	2,0 - 4,0	10.72	20.048.080	500
	10,0	4,0 - 6,0	10.72	20.048.100	500
4,8	12,0	6,0 - 8,0	10.72	20.048.120	500
	16,0	10,0 - 12,0	10.72	20.048.160	500
	20,0	14,0 - 16,0	10.72	20.048.200	250
d _k 9,5 -1,0	d _m 2,9	k 1,1 ±0,3	□∑∑≫ 4,9 mm	◆ → 3400 N	- ∰► 5000 N
	12,0	4,0 - 6,0	10.72	20.064.120	250
6,4	16,0	7,0 - 10,0	10.72	20.064.160	250
,	18,0	9,0 - 12,0	10.72	20.064.180	250
d k 13,0 -1,5	d _m 3,8	k 1,8 ±0,4	□□□□□ 6,5 mm	◆ 5400 N	- ∰ 8200 N

Please note: The rivet sleeve is additionally galvanised for optimum corrosion resistance!

Nickel-Copper/Stainless Steel (Ni Cu 30 Fe)

Nickel-copper (named as "Monel"(1) or "Nicorros"(2) too) features the **best performance to strength and corrosion resistance** for fastening technology. Because of this outstanding property against salts and acids and similar strength as stainless steel it is often used in off-shore, chemical and food industry. Blind rivets from this material are generally deep drawn from strip. HON-SEL/VVG produces these rivets **from wire** thus achieving **higher strength** and realizing an **undetachably rivet mandrel**.

This allows us to meet the strong increase in quality requirements that has taken place in this sector of riveting. A perfect rivet in all aspects.

Good corrosion properties:

Tap water	///
Neutral and alkaline salts	///
Oxidizing salts	///
Humid and dry gases	///
Saltwater (sea water)	//
Acidic salts	✓✓
Mineral acid	✓✓
Organic acid	//
Alkalis	✓
and the third of the	



Dome Head | open

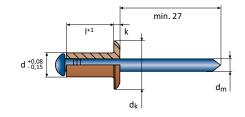


CAD ONLINE









[2.0040]

d	⁺¹	+	Nr.	
	5,0	0,5 - 2,5	10.705.030.050	500
	6,0	2,0 - 3,0	10.705.030.060	500
3,0	8,0	3,0 - 5,0	10.705.030.080	500
	10,0	5,0 - 7,0	10.705.030.100	500
	12,0	7,0 - 9,0	10.705.030.120	500
				m

d	l +1	‡	Nr.	
	6,0	2,5 - 3,5	10.705.040.060	500
4,0	8,0	3,5 - 5,0	10.705.040.080	500
	10,0	5,0 - 7,0	10.705.040.100	500
d _k 8,0 -1,0	d _m 2,0	k 1,0 ±0,3	△ 4,1 mm ← 1500 N	◆ 1800 N

ALFO®Standard Blind Rivet

Copper

Bronze

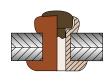
Dome Head | open

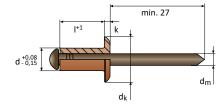




CAD DATA ONLINE Series 709







[2.0040]

d	+1	‡	Nr.	
	5,0	0,5 - 2,5	10.709.030.050	500
2.0	6,0	2,0 - 3,0	10.709.030.060	500
3,0	8,0	3,0 - 5,0	10.709.030.080	500
	10,0	5,0 - 7,0	10.709.030.100	500
d _k 6,3 -0,7	d _m 1,7	k 0,8 ±0,2	3,1 mm ← 760 N	- ∰• 950 N
	5,0	0,5 - 2,5	10.709.032.050	500
2.2	6,0	1,5 - 3,5	10.709.032.060	500
3,2	8,0	3,0 - 5,5	10.709.032.080	500
	10,0	5,0 - 7,0	10.709.032.100	500
d _k 6,4 -0,5	d _m 1,9	k 0,8 ±0,2	3,3 mm ← 800 N	- ∰ 1000 N

d	+1	=	Nr.	
	6,0	2,0 - 3,5	10.709.040.060	500
	8,0	3,0 - 5,0	10.709.040.080	500
4,0	10,0	5,0 - 7,0	10.709.040.100	500
	12,0	6,5 - 8,5	10.709.040.120	500
	16,0	8,0 - 11,5	10.709.040.160	500
٠, ٥٥ م	4 20	k 1 0	1500 N	- 1000 N

 $\textbf{d}_{k} \, 8,0 \, \text{-} 1,0 \qquad \textbf{d}_{m} \, 2,0 \qquad \textbf{k} \, 1,0 \, \pm 0,3 \qquad \text{$\searrow$$} \quad 4,1 \, \text{mm} \qquad \\ \longleftarrow \rightarrow \, 1500 \, \, \text{N} \qquad \\ \rightarrow \, 1500 \, \, \text{N} \qquad \\ \rightarrow \, 1500 \, \, \text{M} \qquad \\ \rightarrow \, 1500$

PAINTED AND ANODIZED BLIND RIVETS

We bring colour to your world.

The design in terms of colour in visual ranges is more and more important nowadays.

Typical samples are applications curtain fronts, rolling shutters or awning systems.

We offer different types of solutions and produce **exactly the** required shade of colour according to all established scales.

Furthermore we store several hundreds of different types, colours and dimensions of painted or anodized rivets **immediately available** for delivery.

Please ask our sales team that will find the perfect alternative.

Painted ALFO® blind rivets

In this version especially suitable for larger amounts the rivet sleeve is painted with a high-performance surface before assembling with the mandrel.

Detail on ▶ page 48.



ALFO® blind rivets with painted large head

The perfect solution even for smaller lot sizes with short production periods.

A special painting procedure guarantees a surface of highest quality.



Anodized ALFO® blind rivets

Corresponding to individual requirements we produce anodized rivet sleeves in black or dark bronze colour.



Painted OPTO® multi grip blind rivets

Our standard. We provide two series of OPTO® multigrip blind rivets with large grip ranges in WHITE (RAL 9010) or BLACK (RAL 9005) - available directly from stock.

Details on ▶ page 49.



Painted folding blind rivets

Individual colours matched exactly to the specific application.





ALFO®Standard Blind Rivet -painted-

□ Aluminium

Steel galvanized

Dome Head | open



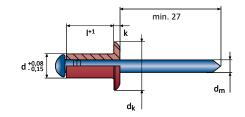












EN AW-5019 [AIMg5]

d	+1	‡	Nr.	
4,0	6,0	1,0 - 3,5	10.700.040.060	500
	8,0	3,0 - 5,5	10.700.040.080	500
	10,0	5,0 - 7,0	10.700.040.100	500
	12,0	6,5 - 9,0	10.700.040.120	500
d _k 5,0 -0,7	d _m 1,5	k 0,6 ±0,15	2,5 mm ← → 380 N	◆] → 600 N

ALFO®Standard Blind Rivet -painted-

Aluminium Steel galvanized

Dome Head | open



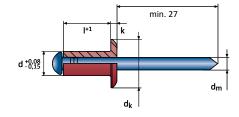


9005

Series







EN AW-5019 [AIMg5]

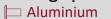
d	+1	*	Nr.	
	6,0	1,0 - 3,5	10.700.040.060	500
4,0	8,0	3,0 - 5,5	10.700.040.080	500
	10,0	5,0 - 7,0	10.700.040.100	500
	12,0	6,5 - 9,0	10.700.040.120	500
d _k 5,0 -0,7	d _m 1,5	k 0,6 ±0,15	≥>> 2,5 mm ← → 380 N	- ∰→ 600 N







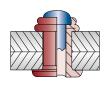


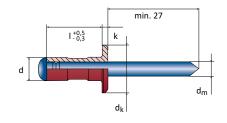




Dome Head | open







EN AW-5052 [AIMg2,5]

d	+1	*	Nr.	
	6,8	0,8 - 3,4	10.600.032.068/9010	500
2.2	8,0	0,8 - 4,8	10.600.032.080/9010	500
3,2	9,5	1,2 - 6,4	10.600.032.095/9010	500
	11,0	4,0 - 7,9	10.600.032.110/9010	500
d _k 6,4	d _m 1,8	k 1,0	3,3 mm ← 720 N	- ∰→ 1000 N
	6,0	0,5 - 3,0	10.600.040.060/9010	500
4.0	9,5	1,2 - 6,4	10.600.040.095/9010	500
4,0	12,7	4,0 - 9,5	10.600.040.127/9010	500
	16,9	6,4 - 12,7	10.600.040.169/9010	500
d k 7,9	d _m 2,3	k 1,2	4,1 mm ← 1120 N	◆ 1650 N

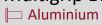
d	⁺¹	‡	Nr.	
4.8	10,3	1,6 - 6,4	10.600.048.103/9010	500
	15,1	4,8 - 11,1	10.600.048.151/9010	500
	16,9	6,4 - 12,7	10.600.048.169/9010	500
	24,8	12,7 - 19,8	10.600.048.248/9010	500
d _k 9,8	d _m 2,8	k 1,5	△ 4,9 mm ← 1530 N	-□ 2300 N

Series 600





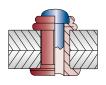
OPTO® Multigrip Blind Rivet -painted-

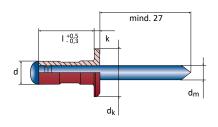


Steel galvanized

Dome Head | open







EN AW-5052 [AIMg2,5]

d	+1	*	Nr.	
	6,8	0,8 - 3,4	10.600.032.068/9005	500
2.2	8,0	0,8 - 4,8	10.600.032.080/9005	500
3,2	9,5	1,2 - 6,4	10.600.032.095/9005	500
	11,0	4,0 - 7,9	10.600.032.110/9005	500
d _k 6,4	d _m 1,8	k 1,0	3,3 mm ← 720 N	- ∰• 1000 N
	6,0	0,5 - 3,0	10.600.040.060/9005	500
4.0	9,5	1,2 - 6,4	10.600.040.095/9005	500
4,0	12,7	4,0 - 9,5	10.600.040.127/9005	500
	16,9	6,4 - 12,7	10.600.040.169/9005	500
d . 70	4 2 2	L 12	1120 N	+∏+ 1650 N

d	+1	*	Nr.	
4,8	10,3	1,6 - 6,4	10.600.048.103/9005	500
	15,1	4,8 - 11,1	10.600.048.151/9005	500
	16,9	6,4 - 12,7	10.600.048.169/9005	500
	24,8	12,7 - 19,8	10.600.048.248/9005	500
d _k 9,8	d _m 2,8	k 1,5	△ 4,9 mm ← 1530 N	◆□→ 2300 N





The all-rounder.

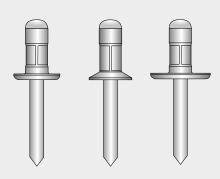
The **OPTO®** multigrip blind rivet can be easily distinguished from a standard blind rivet by its specially formed rivet shaft.

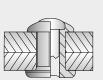
All head forms, painted versions or universal rivets with extended mandrel are available.

The main characteristics is the large clamping range that eliminates the need for several standard blind rivet sizes, thus simplifying work planning and reducing stocks.

Thanks to its special design, it guarantees a range of further outstanding functional properties:

- Excellent bore filling properties
- Positive locking of the mandrel inside the head
- Free from rattling noises
- Dust and splash water-tight







large grip range

low grip range







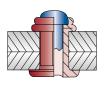


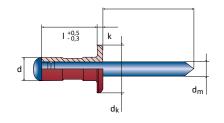
OPTO® Multigrip Blind Rivet

Steel galvanized □ Aluminium

Dome Head | open







EN AW-5052 [AIMg2,5]

d	+1	+	Nr.	
	6,8	0,8 - 3,4	10.600.032.068	500
2.2	8,0	0,8 - 4,8	10.600.032.080	500
3,2	9,5	1,2 - 6,4	10.600.032.095	500
	11,0	4,0 - 7,9	10.600.032.110	500
d _k 6,4	d _m 1,8	k 1,0	3,3 mm ← 720 N	- ∰• 1000 N
	6,0	0,5 - 3,0	10.600.040.060	500
4.0	9,5	1,2 - 6,4	10.600.040.095	500
4,0	12,7	4,0 - 9,5	10.600.040.127	500
	16,9	6,4 - 12,7	10.600.040.169	500
d k 7,9	d _m 2,3	k 1,2	4,1 mm ← 1120 N	◆ 1650 N

d	+1	+	Nr.	
	10,3	1,5 - 6,0	10.600.048.103	500
	15,1	4,8 - 11,1	10.600.048.151	500
40	16,9	6,4 - 12,7	10.600.048.169	500
4,8	20,0	10,0 - 16,0	10.600.048.200	500
	24,8	12,7 - 19,8	10.600.048.248	500
	30,0	19,0 - 24,0	10.600.048.300	500
d k 9,8	d _m 2,8	k 1,5	4,9 mm ← 1530 N	◆□→ 2300 N
6.4	15,0	2,0 - 8,0	10.600.064.150	250
6,4	20,0	7,0 - 13,0	10.600.064.200	250
d k 12,7	d _m 3,7	k 1,9	5,5 mm ← 2000 N	-□→ 2500 N

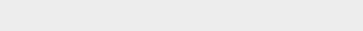
Size 4.0 x 9.5 with knurled sleeve as grounding blind rivet on ▶ page 79.



Applications for OPTO® multigrip blind rivets are to be found in almost every branch of industry, for example in vehicle construction, in AC technology or in container and housing construction.

Furthermore, the OPTO® is outstandingly suitable as a **repair rivet**.

VVG has also successfully developed special variants for industrial series production of this blind rivet type, for example with diameters up to 8.0 mm!



▶ We can do MORE multigrips.



The experience from the development and optimisation of the OPTO® multigrip blind rivet was exploited from a very early stage in the development of the patented OPTO® multigrip blind rivet nuts.

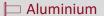
These can be found on ▶ pages 90-91.







OPTO® Multigrip Blind Rivet





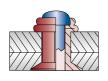
Countersunk Head | open

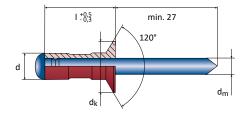












EN AW-5052 [AIMg2,5]

d	l +1	+	Nr.	
3,2	9,7	2,4 - 6,4	10.600.320.097	500
d _k 5,4	d _m 1,8	□□□□□□ 3,3 m	m ← ← 670 N	- ∰• 900 N
4,0	11,3	2,9 - 7,9	10.600.400.113	500
d _k 7,0	d _m 2,3	□□□□□□ 4,1 m	m ← → 980 N	+□→ 1320 N

d	+1	+	Nr.	
4,8	16,9	6,4 - 12,7	10.600.480.169	500
d _k 9,0	d _m 2,7	□SSS 4,9	mm ← 1500 N	◆ 2300 N

OPTO® Multigrip Blind Rivet

☐ Aluminium ☐ Steel galvanized

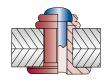
Large Dome Head | open

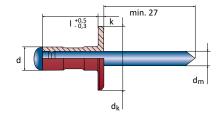




Series 630/650 670







EN AW-5052 [AIMg2,5]

d	⁺¹	+	Nr.	
2.2	8,0	0,8 - 4,8	10.630.032.080	500
3,2	11,0	4,0 - 7,9	10.630.032.110	500
d _k 9,5	d _m 1,8	k 1,5	3,3 mm ← 720 N	↓ 1000 N
	6,0	1,0 - 3,0	10.650.040.060	500
4.0	9,5	1,2 - 6,4	10.650.040.095	500
4,0	12,7	4,0 - 9,5	10.650.040.127	500
	16,9	6,4 - 12,7	10.650.040.169	500
d _k 12,0	d _m 2,3	k 1,8	555 4,1 mm ← 1120 N	◆ 1650 N

d	⁺¹	#	Nr.	
4,8	10,3	1,6 - 6,4	10.670.048.103	500
	16,9	6,4 - 12,7	10.670.048.169	500
	24,8	12,7 - 19,8	10.670.048.248	250
	30,0	19,0 - 24,0	10.670.048.300	250
d _k 16,0	d _m 2,8	k 2,1	4,9 mm ← 1530 N	◆ → 2300 N

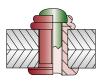


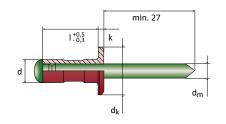












EN AW-5052 [AIMg2,5]

d	⁺¹	*	Nr.	
2.2	8,0	0,8 - 4,8	10.612.032.080	500
3,2	11,0	4,0 - 7,9	10.612.032.110	500
d _k 6,4	d _m 1,8	k 1,0	3,3 mm ← 670 N	- ∰• 900 N
	9,5	1,2 - 6,4	10.612.040.095	500
4,0	12,7	4,0 - 9,5	10.612.040.127	500
	16,9	6,4 - 12,7	10.612.040.169	500
d _k 7.9	d _m 2.3	k 1.2	4,1 mm ← 980 N	+ II → 1320 N

d	+1	*	Nr.	
	10,3	1,6 - 6,4	10.612.048.103	500
4.0	15,1	4,8 - 11,1	10.612.048.151	500
4,8	16,9	6,4 - 12,7	10.612.048.169	500
	24,8	12,7 - 19,8	10.612.048.248	500
d _k 9,8	d _m 2,8	k 1,5	△ 4,9 mm ← 1530 N	-□> 2300 N

Series

CAD DATA ONLINE

OPTO® Multigrip Blind Rivet

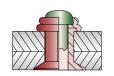
□ Aluminium

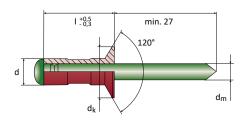
□ Aluminium

Stainless Steel A2

Countersunk Head | open







EN AW-5052 [AIMg2,5]

d	l +1	‡	Nr.	
4.0	9,7	1,2 - 6,4	10.612.400.097	500
4,0	12,7	4,3 - 9,5	10.612.400.127	500
d _k 7,5	d _m 2,1	□□□□□ 4,1 mn	n ◆ → 950 N	4 1500 N

d	+1	+	Nr.	
4,8	12,1	4,0 - 8,0	10.612.480.121	500
d _k 9,0	d _m 2,7	□□□□□ 4,9 r	mm	4 1700 N

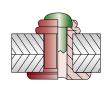
Series 652 672

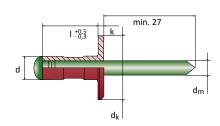


OPTO® Multigrip Blind Rivet Stainless Steel A2

Large Dome Head | open







EN AW-5052 [AIMg2,5]

d	+1	‡		Nr.	
4,0	9,5	1,2 - 6,4	10.65	2.040.095	500
d _k 12,0	d _m 2,3	k 1,5	□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□	◆ → 980 N	- ∰• 1320 N

d	+1	#	Nr.	
	10,3	1,6 - 6,4	10.672.048.103	500
4,8	16,9	6,4 - 12,7	10.672.048.169	500
	24,8	12,7 - 19,8	10.672.048.248	250
d _k 16,0	d _m 2,8	k 1,8	△ 4,9 mm ← 1530 N	◆□→ 2300 N

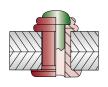
OPTO® Multigrip Blind Rivet -verlängerter Dorn Aluminium Stainless Steel A2

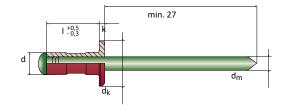
Dome Head | open











EN AW-5052 [AIMg2,5]

d	+1	*	ı	Nr.	
2.2	8,0	0,8 - 4,8	10.622	2.032.080	500
3,2	11,1	4,0 - 7,9	10.622	2.032.111	500
d _k 6,4	d _m 1,8	k 1,0	□∑∑\$ 3,3 mm	◆ 670 N	4 900 N
4.0	9,5	1,2 - 6,4	10.622	.040.095	500
4,0	16,9	4,0 - 9,5	10.622	.040.169	500
d _k 7,9	d _m 2,3	k 1,2	□□□□□ 4,1 mm	+□→ 980 N	◆ 1320 N

d	⁺¹	‡	Nr.	
4.0	10,3	1,5 - 6,0	10.622.048.103	500
4,8	16,9	4,8 - 11,1	10.622.048.169	500
d _k 9,8	d _m 2,8	k 1,5	△ 4,9 mm ← 1530 N	4 2300 N

Extended nose pieces 20 mm (diameter 7mm)

BZ 103 A (and precursors) / Battery riveter RivdomONE

Blindniete 3,0/3,2 mm	321.103.932.200
Blindniete 4,0 mm	321.103.940.200
Blindniete 4,8/5,0 mm	321.103.950.200

BZ 123 A (and precursors)

Blindniete 4,0 mm	321.123.940.200
Blindniete 4,8/5,0 mm	321.123.950.200
Blindniete 6,0 mm	321.123.960.200
Blindniete 6,4 mm	321.123.964.200



The universal rivet for use with extended nose pieces for recessed riveting points.

Other blind rivet types and sizes with extended mandrel available on demand!









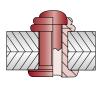


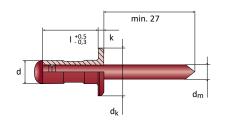


OPTO® Multigrip Blind Rivet □ Aluminium Aluminium

Dome Head | open







EN AW-5052 [AIMg2,5]

d	⁺¹	*		Nr.	
2.2	8,0	1,0 - 4,7	10.60	1.032.080	500
3,2	11,0	4,0 - 7,5	10.60	1.032.110	500
d _k 6,3	d _m 1,9	k 1,0	□□□□□□ 3,3 mm	◆ 280 N	4 370 N
4,0	9,5	1,5 - 6,4	10.60	1.040.095	500
d _k 8,0	d _m 2,4	k 1,3	△ 4,1 mm	◆ 640 N	+□+ 910 N

d	+1	‡		Nr.	
4.0	10,3	1,6 - 6,3	10.60	1.048.103	500
4,8	16,9	5,0 - 11,0	10.60	1.048.169	500
d _k 9,5	d _m 2,9	k 1,5	□∑∑> 4,9 mm	◆ 800 N	- ∰+ 1420 N

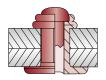
Series

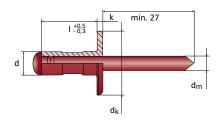




Large Dome Head | open







EN AW-5052 [AIMg2,5]

d	+1	*	Nr.	
	10,3	1,6 - 6,3	10.671.048.103	500
4,8	16,9	5,0 - 11,0	10.671.048.169	500
	24,8	11,0 - 17,8	10.671.048.248	250
d _k 16,0	d _m 2,9	k 2,4	△ 4,9 mm ← → 800	N ◆ 1420 N



OPTO® Multigrip Blind Rivet

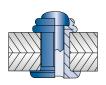
Steel galvanized Steel galvanized

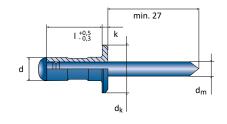
Dome Head | open



Series 607







d	+1	*	Nr.	
2.2	9,0	1,1 - 4,0	10.607.032.090	500
3,2	13,0	1,0 - 9,0	10.607.032.130	500
d _k 6,2	d _m 2,1	k 0,9	3,3 mm ← 1500 N	- ∰ 1700 N
4.0	11,0	2,0 - 6,5	10.607.040.110	500
4,0	14,5	4,5 - 9,0	10.607.040.145	500
d _k 8,1	d _m 2,7	k 1,2	△ 4,1 mm ← 1950 N	◆ 2350 N

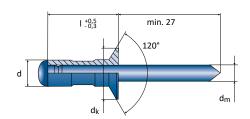
d	⁺¹	*	Nr.	
	10,3	1,2 - 4,8	10.607.048.103	500
4.0	14,5	4,0 - 9,0	10.607.048.145	500
4,8	17,5	7,5 - 12,5	10.607.048.175	500
	24,8	12,7 - 19,8	10.607.048.248	500
d _k 9,8	d _m 2,9	k 1,8	4,9 mm ← 2700 N	- ∰→ 3300 N
<i>C A</i>	14,5	1,5 - 7,0	10.607.064.145	250
6,4	20,0	7,0 - 12,5	10.607.064.200	250
d _k 12,7	d _m 3,8	k 2,2	5500 N ← 6500 N	◆ 4200 N

OPTO® Multigrip Blind Rivet

Steel galvanized Steel galvanized

Countersunk Head | open





CAD

DATA ONLINE

CAD

DATA ONLINE

Series

607

Series

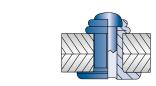
677

d	+1	*	Nr.	
	11,0	3,0 - 6,0	10.607.480.110	500
4,8	14,0	4,5 - 7,5	10.607.480.140	500
	17,0	6,5 - 11,5	10.607.480.170	500
d _k 9,0	d _m 2,9	DDD 4,9	9 mm	◆ 2900 N

OPTO® Multigrip Blind Rivet

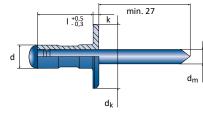
Steel galvanized Steel galvanized

Large Dome Head | open



I +0,5 -0,3	k	min. 27	1
d			
		d _m	,
	d _k		

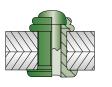
d	+1	*	Nr.	
40	11,0	1,0 - 6,0	10.677.048.110	500
4,8	16,9	3,0 - 12,0	10.677.048.169	500
d _k 16,0	d _m 3,4	k 1,6	△ 4,9 mm ← 2050 N	◆ 2940 N

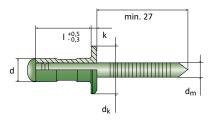


OPTO® Multigrip Blind Rivet Stainless Steel A2 Stainless Steel A2

Dome Head | open







d	⁺¹	‡	Nr.	
2.2	8,0	1,0 - 4,0	10.618.032.080	500
3,2	12,0	1,0 - 7,0	10.618.032.120	500
d _k 7,3	d _m 2,1	k 0,9	3,3 mm ← 1600 N	- ∰> 2000 N
	10,0	1,0 - 4,5	10.618.040.100	500
4,0	12,0	2,5 - 6,5	10.618.040.120	500
,	15,0	4,5 - 9,5	10.618.040.150	500
d _k 7,9	d _m 2,8	k 1,3	△ 4,1 mm ← 2700 N	4 3500 N

d	⁺¹	+	Nr.	
	10,3	1,5 - 6,0	10.618.048.103	500
4.0	12,7	2,5 - 7,5	10.618.048.127	500
4,8	15,0	6,5 - 10,5	10.618.048.150	500
	17,5	7,5 - 12,5	10.618.048.175	500
d _k 9,8	d _m 3,4	k 1,8	555 4,9 mm ← 3900 N	◆ 5000 N



MULTIGRIP BLIND RIVET OPTO®-BULB



The high-strength OPTO®-version

Large grip ranges and higher shear and tensile forces

- OPTO®-Bulb is the universal rivet for difficult jobs.

The OPTO®-Bulb is combining the flexibility of multigrip rivets with the excellent strength of the FERO®-Bulb series. It offers a secure locking of the remaining mandrel as well as a smooth formed closing head.

OPTO®-BULB Multigrip Blind Rivet high strength-

□ Steel galvanized □ Steel galvanized

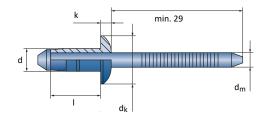
Dome Head | open











d	+1	*	Nr.	
6,4	13,0	1,5 - 5,5	10.692.064.130	250
	17,0	5,0 - 9,0	10.692.064.170	250

 $d_k \ 13,4 \qquad d_m \ 4,1 \qquad k \ 3,1 \qquad \Longrightarrow 6,7 \ \text{-} \ 6,9 \ \text{mm} \qquad \stackrel{\longleftarrow}{\longleftarrow} \rightarrow 11000 \ \text{N} \qquad \stackrel{\longleftarrow}{\longleftarrow} \uparrow 7800 \ \text{N}$

OPTO®-BULB Multigrip Blind Rivet high strength-

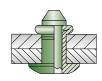
☐ Stainless Steel A2 ☐ Stainless Steel A2

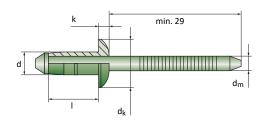
Dome Head | open







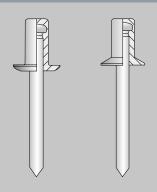




d	+1	+	Nr.	
6.4	13,0	1,5 - 5,5	10.691.064.130	250
6,4	17,0	5,0 - 9,0	10.691.064.170	250
d _k 13,4	d _m 4,1	k 3,1	→ 6,7 - 6,9 mm ← 14000 N	◆ > 8000 N



SEALED BLIND RIVET CERTO®



Due to its closed rivet body the **CERTO®** sealed blind rivets are experts for **liquid tight processing**. The rivets characteristic guarentees a **captive remaining mandrel** and a **smooth, burr-free closing head**, which is perfect for **automated handling**.

The properties mentioned above are the reasons why **CERTO®** sealed blind rivets are the fastening element of choice for the automotive industry, like, e.g. for the purposes of AIRBAG production. Further fields of application can be found in tank and container manufacturing as well as in the construction sector.









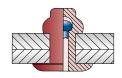
CERTO® Sealed Blind Rivet

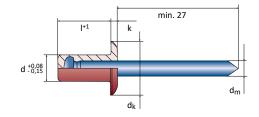


Steel galvanized

Dome Head | closed







EN AW-5019 [AIMg5]

d	⁺¹	*	Nr.	
	6,5	0,5 - 2,0	10.900.032.065	500
	8,0	1,5 - 3,5	10.900.032.080	500
3,2	9,5	3,0 - 5,0	10.900.032.095	500
	11,0	4,5 - 6,5	10.900.032.110	500
	12,5	6,0 - 8,0	10.900.032.125	500
d _k 6,0 -0,3	d _m 1,7	k 1,1 ±0,15	3,3 mm ← 1100 N	◆ 1450 N
	8,0	0,5 - 3,5	10.900.040.080	500
	9,5	3,0 - 5,0	10.900.040.095	500
4,0	11,0	4,5 - 6,5	10.900.040.110	500
	12,5	6,0 - 8,0	10.900.040.125	500
	14,5	7,5 - 10,0	10.900.040.145	500
d _k 8,0 -0,4	d _m 2,2	k 1,3 ±0,2	△ 4,1 mm ← 1700 N	← 2700 N

d	I *1	+	Nr.	
	8,5	0,5 - 3,5	10.900.048.085	500
	9,5	3,0 - 5,0	10.900.048.095	500
	11,0	4,5 - 6,5	10.900.048.110	500
	13,0	6,0 - 8,0	10.900.048.130	500
4,8	14,5	7,5 - 9,5	10.900.048.145	500
	16,0	9,0 - 11,0	10.900.048.160	500
	18,0	10,5 - 13,0	10.900.048.180	500
	21,0	12,5 - 16,0	10.900.048.210	500
	25,0	15,5 - 20,0	10.900.048.250	500
d _k 9,5 -0,4	d _m 2,7	k 1,5 ±0,2	4,9 mm ← 2480 N	- ∰ > 3540 N
. .	12,5	1,5 - 6,5	10.900.064.125	500
6,4	15,5	3,5 - 9,5	10.900.064.155	500
d _k 13,0 -0,4	d _m 3,7	k 2,0 ±0,3	5,5 mm ← 3760 N	◆] → 5460 N



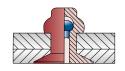
Countersunk Head | closed

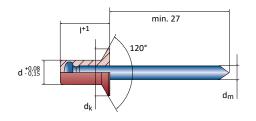












EN AW-5019 [AIMg5]

d	l +1	*	Nr.	
	8,0	1,0 - 3,5	10.900.320.080	500
2.2	9,5	2,5 - 5,0	10.900.320.095	500
3,2	11,0	4,0 - 6,5	10.900.320.110	500
	12,5	5,5 - 8,0	10.900.320.125	500
d _k 6,0 -0,3	d _m 1,7	□ZZZ> 3	,3 mm ← 1100 N	- ∰• 1450 N
	9,5	1,5 - 5,0	10.900.400.095	500
4.0	11,0	4,0 - 6,5	10.900.400.110	500
4,0	12,5	6,0 - 8,0	10.900.400.125	500
	14,5	7,5 - 10,0	10.900.400.145	500
d k 8.0 -0.4	d _m 2.2	DZZ 4	.1 mm	◆ > 2700 N

d	+1	+	Nr.	
	9,5	1,5 - 5,0	10.900.480.095	500
	11,0	4,0 - 6,5	10.900.480.110	500
	13,0	6,0 - 8,0	10.900.480.130	500
4.0	14,5	7,5 - 9,5	10.900.480.145	500
4,8	16,0	9,0 - 11,0	10.900.480.160	500
	18,0	10,0 - 13,0	10.900.480.180	500
	19,5	11,5 - 14,5	10.900.480.195	500
	21,0	12,5 - 16,0	10.900.480.210	500
d _k 9,5 -0,4	d _m 2,7	□SSS 4,9 m	nm ← 2480 N	4 3540 N

CERTO® Sealed Blind Rivet

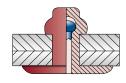
 ☐ Aluminium
 □
 Steel galvanized

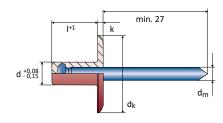
Large Dome Head | closed











EN AW-5056 [AIMg5]

d	⁺¹	*	Nr.	
	13,0	6,0 - 8,0	10.960.048.130	500
4,8	16,0	8,0 - 10,5	10.960.048.160	500
•	18,0	10,5 - 13,0	10.960.048.180	500
d _k 14,0	d _m 2,7	k 2,5	△ 4,9 mm	4 3540 N







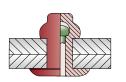


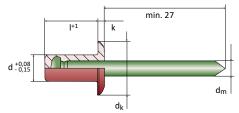


Stainless Steel A2

Dome Head | closed







EN AW-5019 [AIMg5]

d	+1	*	Nr.	
	6,5	0,5 - 2,0	10.902.032.065	500
	8,0	1,5 - 3,5	10.902.032.080	500
3,2	9,5	3,0 - 5,0	10.902.032.095	500
	11,0	4,5 - 6,5	10.902.032.110	500
	12,5	6,0 - 8,0	10.902.032.125	500
d _k 6,0 -0,3	d _m 1,7	k 1,1 ±0,15	3,3 mm ← 1100 N	◆ 1450 N
	8,0	0,5 - 3,5	10.902.040.080	500
4.0	9,5	3,0 - 5,0	10.902.040.095	500
4,0	11,0	4,5 - 6,5	10.902.040.110	500
	12,5	6,0 - 8,0	10.902.040.125	500
d _k 8,0 -0,4	d _m 2,2	k 1,3 ±0,2	555 4,1 mm ← 1700 N	- ∰ 2700 N

CERT				u _K i		
CE	d	⁺¹	‡	Nr.		
		8,0	0,5 - 3,5	10.902.048.0	080	500
		9,5	3,0 - 5,0	10.902.048.0	095	500
		11,0	4,5 - 6,5	10.902.048.2	110	500
		12,5	6,0 - 8,0	10.902.048.3	125	500
	4,8	14,0	7,5 - 9,5	10.902.048.3	140	500
		16,0	9,0 - 11,0	10.902.048.3	160	500
		18,0	10,5 - 13,0	10.902.048.3	180	500
		21,0	12,5 - 16,0	10.902.048.2	210	500
		25,0	16,0 - 20,0	10.902.048.2	250	500
	d _k 9,5 -0,4	d _m 2,7	k 1,5 ±0,2	△ 4,9 mm ← □	⇒→ 2480 N	◆] → 3540 N

Series 902







□ Aluminium

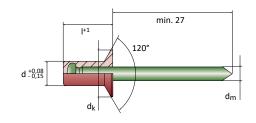
□ Aluminium

Stainless Steel A2

Countersunk Head | closed







EN AW-5019 [AIMg5]

d	+1	+	Nr.	
4,0	9,5	1,5 - 5,0	10.902.400.095	500
	11,0	4,0 - 6,5	10.902.400.110	500
	12,5	6,0 - 8,0	10.902.400.125	500

d		*		
d _k 8,0 -0,3	d _m 2,2	□□□□□ 4,1 mm	◆ → 1700 N	- ∰→ 2700 N

Options of additional sealings for closed blind rivet products

Various trials have shown that, during practical deployment, CERTO® connections feature excellent splash water-tightness. If you need a hydraulic seal or if there is a build up of certain media (e.g. in drainage pipes), an additional seal between the rivet body and component borehole is necessary.

Upon request, **CERTO®** sealed blind rivets can be provided with an additional seal (Neopren®washer).

As a result of the increasing demand for **improved possibilities of sealing** closed end blind rivets and blind rivet nuts, we offer a variety of sealing rings – automatically assembled, not fixed enclosed or with directly applied and certified compounds.



Aluminium — Aluminium



Dome Head | closed

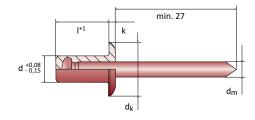












EN AW-1050A [Al99,5]

d	+1	‡	Nr.	
2.2	8,0	0,5 - 3,5	10.901.032.080	500
3,2	9,5	3,5 - 5,0	10.901.032.095	500
d _k 6,0 -0,3	d _m 1,9	k 1,1 ±0,15	3,3 mm ← 520 N	- ∰> 540 N
4.0	9,5	0,5 - 5,0	10.901.040.095	500
4,0	12,5	4,5 - 8,0	10.901.040.125	500
d _k 8.0 -0.4	d _m 2.2	k 1.3 +0.2	255 4.1 mm ← → 720 N	+∏+ 760 N

d	+1	+	Nr.	
	9,5	1,0 - 4,5	10.901.048.095	500
4.0	11,5	4,0 - 6,5	10.901.048.115	500
4,8	14,5	6,5 - 9,5	10.901.048.145	500
	18,0	9,0 - 13,0	10.901.048.180	500
d _k 9,5 -0,4	d _m 2,7	k 1,5 ±0,2	△ 4,9 mm ← 1020 N	◆) 1420 N

CERTO® Sealed Blind Rivet

☐ Steel galvanized ☐ Steel galvanized

Dome Head | closed

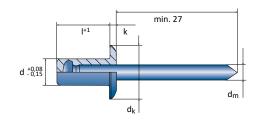












d	+1	+	Nr.	
	6,0	0,5 - 1,5	10.907.032.060	500
3,2	8,0	1,0 - 3,0	10.907.032.080	500
	9,5	2,5 - 5,0	10.907.032.095	500
d _k 6,0 -0,3	d _m 1,9	k 1,0 ±0,3	3,3 mm ← 1150 N	- ∰• 1300 N
	6,0	0,5 - 1,5	10.907.040.060	500
	8,0	1,0 - 3,0	10.907.040.080	500
4,0	9,5	2,5 - 5,0	10.907.040.095	500
	12,0	4,5 - 6,5	10.907.040.120	500
	16,0	6,0 - 10,5	10.907.040.160	500
d _k 8,0 -0,3	d _m 2,3	k 1,4 ±0,3	△ 4,1 mm ← 1730 N	◆ 1860 N

d	l +1	#	Nr.	
	8,0	0,5 - 3,0	10.907.048.080	500
4.0	9,5	2,5 - 5,0	10.907.048.095	500
4,8	12,0	4,5 - 6,5	10.907.048.120	500
	16,0	6,0 - 10,5	10.907.048.160	500
d _k 9,5 -0,3	d _m 2,9	k 1,7 ±0,3	△ 4,9 mm ← 2400 N	4 ≥ 2800 N

Premium class. Certo® sealed blind rivets made of steel covered with a thick-film passivation.

By the use of an adapted thick-film passivation accepted in automotive industries, CERTO® sealed blind rivets made of steel feature an outstanding corrosion conformity.

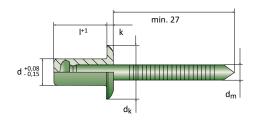


CERTO® Sealed Blind Rivet Stainless Steel A2 Stainless Steel A2

Dome Head | closed







[1.4301]

d	l +1	+	Nr.	
	6,0	0,5 - 1,5	10.908.032.060	500
2.2	8,0	1,0 - 3,5	10.908.032.080	500
3,2	9,5	2,5 - 5,0	10.908.032.095	500
	12,0	4,5 - 7,0	10.908.032.120	500
d _k 6,0 -0,3	d _m 1,9	k 1,0 ±0,3	3,3 mm ← 2000 N	- ∰ > 2500 N
	6,0	0,5 - 1,5	10.908.040.060	500
	8,0	1,0 - 3,0	10.908.040.080	500
4,0	9,5	2,5 - 4,5	10.908.040.095	500
	12,0	4,5 - 7,0	10.908.040.120	500
	16,0	8,0 - 11,0	10.908.040.160	500
d _k 8,0 -0,3	d _m 2.3	k 1.4 ±0.3	△ 4.1 mm → 3000 N	4000 N

d	⁺¹	+	Nr.	
	8,0	0,5 - 4,0	10.908.048.080	500
	9,5	2,5 - 5,0	10.908.048.095	500
4,8	12,0	4,5 - 7,5	10.908.048.120	500
	16,0	6,0 - 11,0	10.908.048.160	500
	20,0	9,0 - 14,5	10.908.048.200	500
d _k 9,5 -0,3	d _m 2,9	k 1,7 ±0,3	4,9 mm ← 4500 N	◆ 5500 N
	10,0	2,5 - 5,0	10.908.064.100	250
6.1	12,0	4,5 - 6,5	10.908.064.120	250
6,4	16,0	6,0 - 10,5	10.908.064.160	250
	18,0	7,5 - 11,5	10.908.064.180	250
d _k 12,5 -0,3	d _m 3,8	k 2,0 ±0,3	6500 N ← 6500 N	◆] → 8000 N

CERTO® sealed blind rivets made of stainless steel A4

Following the trend to more and more high-grade materials and surfaces, **CERTO®** sealed blind rivets can be produced in stainless steel quality A4 on request.

Especially in plant and container constructions and all seawater related applications, but even safety-related functions for example in power stations the **CERTO®** A4 is an excellent fastener solution.





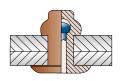
Steel galvanized

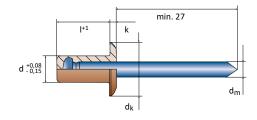
Dome Head | closed











[2.0040]

d	+1	*	Nr.	
	6,5	0,5 - 2,0	10.905.032.065	500
2.2	8,0	1,5 - 3,5	10.905.032.080	500
3,2	9,5	3,0 - 5,0	10.905.032.095	500
	12,5	4,5 - 8,0	10.905.032.125	500
d _k 6,0 -0,3	d _m 1,7	k 1,1 ±0,15	3,3 mm ←→ 970 N	+ → 1270 N

d	+1	‡		Nr.	
4.0	8,0	0,5 - 3,5	10.90	05.040.080	500
4,0	10,0	3,0 - 5,0	10.90	05.040.100	500
d _k 8,0 -0,4	d _m 2,2	k 1,3 ±0,2	△ 4,1 mm	← 1450 N	◆ • 2300 N
4,8	11,5	4,5 - 6,5	10.90	05.048.115	500
d _k 9,5 -0,4	d _m 2,7	k 1,5 ±0,2	□□□□□ 4,9 mm	◆¬→ 2190 N	4 3280 N

CERTO® Sealed Blind Rivet

Copper Copper

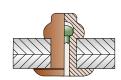
Stainless Steel A2

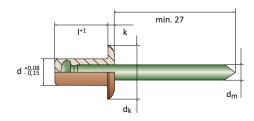
Dome Head | closed











[2.0040]

d	I +1	*	Nr.	
	6,5	0,5 - 2,0	10.906.032.065	500
2.2	8,0	1,5 - 3,5	10.906.032.080	500
3,2	9,5	3,0 - 5,0	10.906.032.095	500
	12,5	4,5 - 8,0	10.906.032.125	500
d _k 6,0 -0,3	d _m 1,7	k 1,1 ±0,15	3,3 mm ← 1050 N	◆ 1350 N

d	l +1	+		Nr.	
4,0	8,0	0,5 - 3,5	10.90	06.040.080	500
d _k 8,0 -0,4	d _m 2,2	k 1,3 ±0,2	□SSS 4,1 mm	← 1450 N	- ∰• 2300 N
4,8	9,5	1,0 - 5,0	10.90	06.048.095	500
d _k 9.5 -0.4	d _m 2.7	k 1.5 ±0.2	□555> 4.9 mm	+→ 2190 N	4⊪ 3280 N

CE nosepieces

CERTO® sealed blind rivets can be processed with most standard nosepieces. In order to prevent the formation of burrs even on versions without head recess, however, we also offer the corresponding CE nosepieces. These can be found alongside the corresponding setting tools.



SEALED BLIND RIVET CERTO®-PERFECT

CERTO®-PERFECT. The sealed blind rivet for special demands.

The powerful CERTO®-PERFECT sealed blind rivet forms a large, uniform blind head thanks to the special clamping of the mandrel head. This greatly reduces the risk of the rivet being pulled through if the holes in the part are drilled too large, and increases the process reliability.

In addition, the leak-tightness even with standing water is considerably improved.





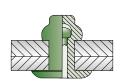


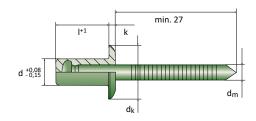
CERTO® PERFECT Special Sealed Blind Rivet

☐ Stainless Steel A2 ☐ Stainless Steel A2

Dome Head | closed







d	+1	*	Nr.	
4.0	12,0	0,5 - 4,5	10.908.048.120/10301	500
4,8	13,7	3,5 - 6,0	10.908.048.137/10301	500
d _k 9,5 -0,7	d _m 2,9	k 1,3 ±0,15	4,9 mm ← 4500 N	◆ 5500 N



STRUCTURAL BLIND RIVET FERO®-BULB

High-strength blind rivets of type **FERO®-BULB** are employed in large quantities, particularly in vehicle and container construction, and impress with their combination of the following properties:



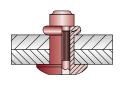


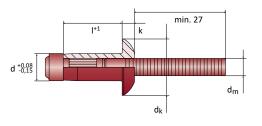
□ Aluminium

 $\quad \hbox{$\longleftarrow$} \quad Aluminium$

Dome Head | open







d	⁺¹	*	Nr.	
6,4	10,5	2,8 - 4,8	10.790.064.105	250
d _k 13,0	d _m 4,2	k 3,0 🖂	→ 6,7 - 6,9 mm ← 4200 N	◆ 3100 N
6,4	12,5	4,8 - 6,8	10.790.064.125	250
d _k 13,0	d _m 4,2	k 3,0 🖂	→ 6,7 - 6,9 mm ← → 4500 N	- ∰→ 3100 N
6,4	14,5	6,8 - 8,8	10.790.064.145	250
d _k 13,0	d _m 4,2	k 3,0 🖂	♦ 6,7 - 6,9 mm ← 4600 N	4 3100 N

d	+1	*	Nr.	
6,4	16,5	8,8 - 10,8	10.790.064.165	250
d _k 13,0	d _m 4,2	k 3,0 🖂	→ 6,7 - 6,9 mm ← → 5000 N	4 3100 N
6,4	18,5	10,8 - 12,8	10.790.064.185	250
d _k 13,0	d _m 4,2	k 3,0 🖂	→ 6,7 - 6,9 mm ← 5400 N	4 3100 N
6,4	20,5	12,8 - 14,8	10.790.064.205	250
d _k 13,0	d _m 4,2	k 3,0 🖂	→ 6,7 - 6,9 mm ← → 5600 N	◆ 3100 N



High-strength blind rivets require correspondingly optimised setting tools adapted to the demands of the fastener and the application.

The balance between stroke and setting force plays just as important a role here as the design of the nosepieces or clamping jaws matched to individual grooves.

VVG offers solutions in the field of hydraulic and pneumatic riveters, as well as modern cordless tools for mobile use.



Steel galvanized Steel galvanized

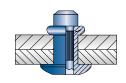
Dome Head | open

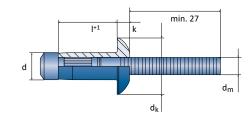












d	+1	+	Nr.	
4,8	9,0	1,5 - 3,5	10.792.048.090	500
d _k 9,6	d _m 3,1	k 1,5	→ 4,9 - 5,1 mm	◆ 3800 N
4,8	11,5	3,5 - 6,0	10.792.048.115	500
d _k 9,6	d _m 3,1	k 1,5	→ 4,9 - 5,1 mm	◆ 3800 N
4,8	14,5	6,0 - 8,5	10.792.048.145	250
d _k 9,6	d _m 3,1	k 1,5	→ 4,9 - 5,1 mm	◆ 3800 N
6,4	9,0	1,5 - 3,5	10.792.064.090	250
d _k 13,4	d _m 4,2	k 2,7	♦ 6,7 - 6,9 mm ← 10000 N	◆ 7800 N
6,4	10,5	2,8 - 4,8	10.792.064.105	250
d _k 13,4	d _m 4,2	k 2,7	♦ 6,7 - 6,9 mm ← 11000 N	◆ 7800 N
6,4	12,5	4,8 - 6,8	10.792.064.125	250
d _k 13,4	d _m 4,2	k 2,7	→ 6,7 - 6,9 mm ← 12500 N	◆ 7800 N
6,4	14,5	6,8 - 8,8	10.792.064.145	250
d _k 13,4	d _m 4,2	k 2,7	♦ 6,7 - 6,9 mm ← 13000 N	- ∰> 7800 N

d	⁺¹	‡	Nr.	
6,4	16,5	8,8 - 10,8	10.792.064.165	250
d _k 13,4	d _m 4,2	k 2,7	→ 6,7 - 6,9 mm ← 14500 N	- ₩ 7800 N
6,4	18,5	10,8 - 12,8	10.792.064.185	250
d _k 13,4	d _m 4,2	k 2,7	→ 6,7 - 6,9 mm ← 15000 N	◆ 7800 N
6,4	20,5	12,8 - 14,8	10.792.064.205	250
d _k 13,4	d _m 4,2	k 2,7	→ 6,7 - 6,9 mm ← 16500 N	- ₩ 7800 N



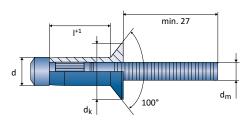


 $\begin{tabular}{lll} \hline \Box & Steel & galvanized \\ \hline \hline \hline & Steel & galvanized \\ \hline & Steel &$

Countersunk Head | open







d	⁺¹	+	Nr.		€ / 1.000
6,4	11,5	3,8 - 5,8	10.792.640.115	250	314,00
d _k 10,0	d _m 4,2	□ <u>□</u> □□□ 6,7	7 - 6,9 mm	- ∰• 5400 N	
6,4	13,5	5,8 - 7,8	10.792.640.13	35	250
d _k 10,0	d _m 4,2	ĽZZ≫ 6,7	7 - 6,9 mm	→ 7300 N	◆ 5400 N
6,4	15,5	7,8 - 9,8	10.792.640.15	55	250
d _k 10,0	d _m 4,2	DZZ 6,7	7 - 6,9 mm	→ 9300 N	4 5400 N

d	⁺¹	*	Nr.	
	17,5	9,8 - 11,8	10.792.640.175	250
6.4	19,5	11,8 - 13,8	10.792.640.195	250
6,4	21,5	13,8 - 15,8	10.792.640.215	250
	23,5	15,8 - 17,8	10.792.640.235	250
d _k 10,0	d _m 4,2	DZZ 6,7	7 - 6,9 mm	∜ 5400 N





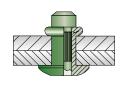
☐ Stainless Steel A2 ☐ Stainless Steel A2

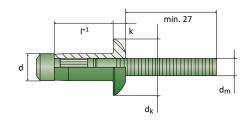
Dome Head | open











d	+1	÷	Nr.			
	7,5	1,0 - 3,0	10.791.040.075	500		
4,0	10,0	3,0 - 5,0	3,0 - 5,0 10.791.040.100			
	12,5	5,0 - 7,0	10.791.040.125	500		
d _k 8,0	d _m 2,6	k 1,5	k 1,5 □ 4,1 - 4,3 mm ← 5200 N			
	10,0	1,5 - 3,5	10.791.048.100	500		
4,8	12,5	3,5 - 6,0	10.791.048.125	500		
	15,5	6,0 - 8,5	10.791.048.155	250		
d _k 9,6	d _m 3,2	k 1,5	k 1,5 □ 4,9 - 5,1 mm ← 5500 N			

d	+1	+		Nr.	
6,4	10,5	2,8 - 4,8	10.79	91.064.105	250
d _k 13,4	d _m 3,9	k 2,7	6,7 - 6,9 mm	◆□→ 11500 N	◆ 8800 N
6,4	12,5	4,8 - 6,8	10.79	91.064.125	250
d _k 13,4	d _m 3,9	k 2,7	6,7 - 6,9 mm	◆□→ 12500 N	◆ 8800 N
6,4	14,5	6,8 - 8,8	10.7	91.064.145	250
d _k 13,4	d _m 3,9	k 2,7	6,7 - 6,9 mm	← 13000 N	◆ 8800 N
6,4	16,5	8,8 - 10,8	10.7	91.064.165	250
d _k 13,4	d _m 3,9	k 2,7	6,7 - 6,9 mm	◆□→ 14000 N	◆ 8800 N
6,4	18,5	10,8 - 12,8	10.7	91.064.185	250
d _k 13,4	d _m 3,9	k 2,7	→ 6,7 - 6,9 mm	◆ 15000 N	◆] → 8800 N



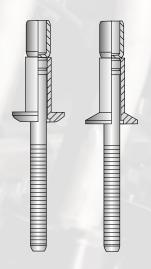
STRUCTURAL BLIND RIVET FERO®-BOLT

FERO®-BOLT blind rivets are **the** high-quality connecting element for industrial applications where particular attention is paid to the factor **safety**.

Thanks to its design, the rivet is able to take on a load-bearing function.

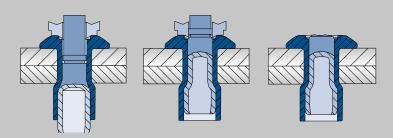
By contrast with other versions on the market, the locking of the mandrel can be monitored visually.

Characteristic for the structural blind rivet is the guaranteed flush shearing in the area of the setting head.



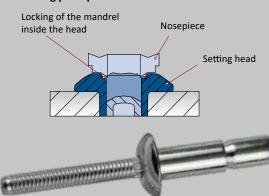
- Very high shear breaking force thanks to load-bearing breakstem
- · Very large clamping range
- Good visual control of the positive locking of the mandrel inside the head
- Vibration-resistant and splash water-proof
- Very good bore filling properties and outstanding compensation of bore tolerances

Setting sequence:



When the mandrel is pulled back, the head is deformed so that the rivet is adapted perfectly to the parts to be riveted by the wall pressure. The special nosepiece required ensures the functionally safe locking of the mandrel inside the head.

Setting principle:



Available up to 9.8 mm diameter!!





Please note that the tool used must be equipped with the **special nosepiece** shown!

361.121.008.401 4.8 mm nosepiece 361.121.008.601 6.4 mm nosepiece



Our setting tool **BZ 123 A** with a large stroke of 25 mm is available for the processing of the **FERO®-BOLT** blind rivets.

Further information can be found on ▶ page 212.



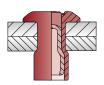
Aluminium — Aluminium

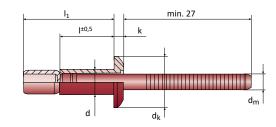
Dome Head | open



Series







d	-1	l ₁	+	Nr.	
4,8	14,0	24,4	1,6 - 11,1	10.793.048.140 500	MENGE
d _k 10,1	d _m	2,9	k 2,1 🖂	⇒ 4,9 - 5,1 mm	◆ 1800 N

d	l lı	. 🛊	Nr.	
<i>C A</i>	14,0 23,7	2,0 - 9,5	10.793.064.140 250	MENGE
6,4	19,0 32,9	2,0 - 15,8	10.793.064.190 250	MENGE
d _k 13,3	d _m 3,9	k 2,9	→ 6,6 - 7,0 mm	- ∰→ 3000 N

FERO®-BOLT Structural Blind Rivet

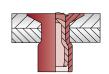
□ Aluminium
□ Aluminium

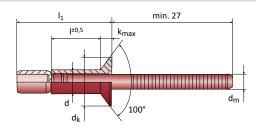
Countersunk Head | open



Series







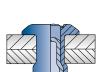
d		1	l ₁	*	Nr.	
4,	8	12,5	20,0	3,2 - 8,4	10.793.480.125 500	MENGE
ما. ه		٦	2.0	r33 1222	3.40 F1mm +	اله 2000 N

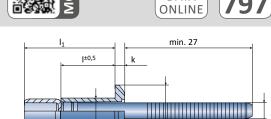
d	d l l ₁		+		Nr.		
6,4	16,5	27,0	3,2 - 12	2,1		3.640.165 500	MENGE
d _k 10.0	d	3.9	k 2.4	ZZ3	6.6 - 7.0 mm	← → 4700 N	4500 N

FERO®-BOLT Structural Blind Rivet

☐ Steel galvanized ☐ Steel galvanized

Dome Head | open





CAD

DATA

Series

d	ı	l ₁	*	Nr.	
4.0	10,0	18,2	1,6 - 6,9	10.797.048.100 500	MENGE
4,8	14,0	24,4	1,6 - 11,1	10.797.048.140 500	MENGE

d_m 2,9 k 2,1 ≤ 4,9 - 5,1 mm ← 5800 N ← 4100 N

	- 1	l ₁	*	Nr.	
6,4	14,0	23,7	2,0 - 9,5	10.797.064.140 250	MENGE
	19,0	32,9	2,0 - 15,9	10.797.064.190 250	MENGE
d . 13 3	d	3 9	k39 1222	66 - 70 mm ← → 10500 N	4∏+ 8000 N

d_k 10,1



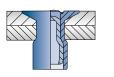


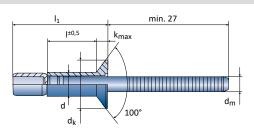
FERO®-BOLT Structural Blind Rivet

□ Steel galvanized □ Steel galvanized

Countersunk Head | open







d	ı	l ₁	+	Nr.	
4.0			3,2 - 8,4	10.797.480.125	500
4,8	16,5	26,2	3,2 - 12,2	10.797.480.165	250
d _k 8,5	d _m	2,9	k 2,2	⇒ 4,9 - 5,1 mm	4100 N

d	ı	l ₁	+	Nr.	
6,4	16,5	27,0	3,2 - 12,1	10.797.640.165	250
d _k 10,0	d _m	3,9	k 2,4	⇒ 6,6 - 7,0 mm	4 9500 N



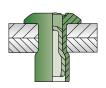


FERO®-BOLT Structural Blind Rivet

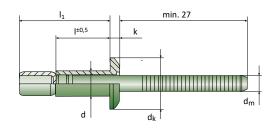
☐ Stainless Steel A2 ☐ Stainless Steel A2

Dome Head | open





d_k 13,3



	d	1	l ₁	*	Nr.	
Ī	4.0			1,6 - 6,9	10.798.048.100	500
	4,8	14,0	24,4	1,6 - 11,1	10.798.048.140	500
	d. 10.1	٦	2.0	k21 1555	3.40 F1mm +	4F00 N

d	ı	l ₁	‡	Nr.	
6 1	14,0	23,7	2,0 - 9,5	10.798.064.140	250
0,4	19,0	32,9	2,0 - 15,9	10.798.064.190	250

d_m 3,9 k 2,9 \(\sigma \) 6,6 - 7,0 mm ← 10500 N ← 8200 N

Series

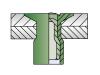


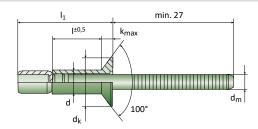
FERO®-BOLT Structural Blind Rivet

☐ Stainless Steel A2 ☐ Stainless Steel A6

Countersunk Head | open







d	1	l ₁	*	Nr.	
4,8	12,5	20,0	3,2 - 8,4	10.798.480.125	500
d _k 8,5	d _m	2,9	k 2,2	\$\times 4,9 - 5,1 mm	◆] → 4500 N

d	1	l ₁	*	Nr.	
6,4	16,7	27,0	4,1 - 12,1	10.798.640.167	250
d _k 10,0	dm	3,9	k 2,4 🖾	≫ 6,6 - 7,0 mm ← 11200 N	- ∰+ 8900 N

FOLDING BLIND RIVET



According to the ARCO® body-bound rivet on page 76 this folding rivet forms a large upset head too. This guarantees an **equal distribution of forces**, so that especially plastics and other soft or vulnerable materials resist against cracking or pullthrough.

Typically this rivet is used in all areas of **industrial light weight constructions**. As a result of the locked mandrel in the connection, the spread rivet is splash water resistant.

VVG offers two different types – the standard split rivet and a **high** strength version with neoprene washer.

Individually painted sizes also available on demand.



Folding Blind Rivet STANDARD

□ Aluminium

Aluminium

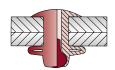
Dome Head | open

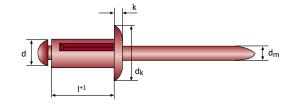




Series **716**







d	+1	+	Nr.	
	13,6	1,0 - 3,0	10.716.040.136	500
4,0	18,8	3,0 - 7,0	10.716.040.188	500
	24,5	5,0 - 12,0	10.716.040.245	500
d _k 8.0	d _m 2.5	k 1 4	500 N ← 500 N	4∏+ 800 N

d	+1	*	Nr.	
	15,3	1,0 - 4,0	10.716.048.153	500
4.0	20,5	1,0 - 9,0	10.716.048.205	500
4,8	24,5	4,0 - 12,0	10.716.048.245	500
	28,0	6,0 - 16,0	10.716.048.280	500
4.06	4 20	h 1 C	. 000 N	- 1100 N



Large head diameter 16 mm available!



Plastic blind rivets

Plastic folding blind rivets are used, for example, in many areas of the electrical, automotive and computer hardware industry.

Due to the material, the plastic version offers the advantage that it is corrosion-resistant and not electrically conductive. Furthermore, the weight is very low and the surfaces of the parts to be joined are less subject to damage during riveting. Plastic blind rivets can be set with all matching standard blind rivet setting tools.

We stock a large number of sizes and models of standard and folding plastic blind rivets.











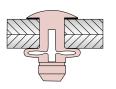
Folding Blind Rivet SPEZIAL-2 with neoprene sealing

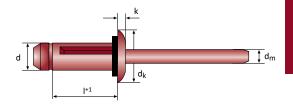
□ Aluminium

Aluminium

Dome Head | open







d	ı	l ₁	+	Nr.	
	17,5	xxx	0,5 - 4,8	10.716.052.175	500
	19,1	xxx	1,5 - 6,4	10.716.052.191	500
5,2	22,2	xxx	4,7 - 9,6	10.716.052.222	500
	25,4	xxx	7,9 - 12,7	10.716.052.254	500
	28,6	xxx	11,1 - 15,9	10.716.052.286	500
d _k 11,5 d _m 2,9 k 2,5		k 2,5	⇒ 5,3 - 5,6 mm ← → 3000 N	◆ 2000 N	

d	1	l ₁	‡		Nr.	
6.2			1,5 - 6,4		6.063.200	500
6,3	27,0	xxx	6,4 - 12,7	10.71	6.063.270	250
d _k 14,4	d _m	3,9	k 3,0 🖂	→ 6,4 - 6,7 mm	← 4900 N	4 3000 N



- Good load-bearing strength thanks to high tensile and shear values
 - Splash water-proof
 - Large clamping range
 - Universal applications





Please note that the tool used must be equipped with a special nose piece!

Nosepieces for folding blind rivets

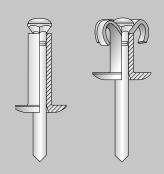
•	
Presslaschen-Blindniete 5,2 BZ 103 A* / RivdomONE	321.103.716.052
Presslaschen-Blindniete 5,2 BZ 123 A* / RivdomTWO	321.123.716.052
Presslaschen-Blindniete 6,3 BZ 123 A* / RivdomTWO	321.123.716.063

* (and precursors)





BODY BOUND BLIND RIVET ARCO®



During the setting process, edges on the mandrel head cut the rivet shaft into four segments. These four segments then unfold on the component surface thus forming the large locking head. Once the mandrel reaches its predetermined breakload, the mandrel head falls out of the rivet body. The large locking head allows connecting soft or brittle components and helps transfer high tensile forces.

ARCO® body-bound blind rivets are preferably used for plastic or wood element assembly, caravan manufacturing and fastening of cladings.

ARCO® Body Bound Blind Rivet

 ☐ Aluminium
 □ Steel galvanized

Dome Head | open





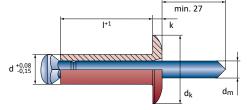
d	+1	+	Nr.	
	10,0	1,5 - 5,0	10.710.032.100	500
3,2	16,0	4,0 - 11,0	10.710.032.160	500
•	18,0	5,0 - 13,0	10.710.032.180	500
d _k 6,5	d _m 1,7	k 0,8	3,6 mm ← 850 N	◆] → 720 N
	10,0	1,5 - 5,0	10.710.040.100	500
4,0	16,0	4,0 - 11,0	10.710.040.160	500
	18,0	5,0 - 13,0	10.710.040.180	500
d . 7 7	d 2 4	k 1 5	1330 N	+∏+ 1300 N





Series





d	+1	‡	Nr.	
	10,0	1,5 - 4,0	10.710.048.100	500
	15,0	3,0 - 9,0	10.710.048.150	500
4,8	21,0	8,0 - 15,0	10.710.048.210	500
	26,0	14,0 - 20,0	10.710.048.260	250
	35,0	20,0 - 28,0	10.710.048.350	250
d _k 11,0	d _m 2,8	k 1,5	5,2 mm ← 2100 N	◆ 1950 N

ARCO® Body Bound Blind Rivet



Aluminium Steel galvanized

Large Dome Head | open

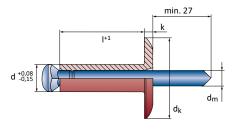


d	+1	*	Nr.	
4 0	15,0	5,0 - 8,0	0 - 8,0 10.718.048.150	
4,8	21,0	11,0 - 15,0	10.718.048.210	250
d. 16 0	4 28	k20	5 2 mm + 1700 N	+∏+ 1700 N



Series





HAMMERDRIVE BLIND RIVET



Hammer stroke or drive rivets are set by driving the mandrel into the rivet body (e.g. by means of a hammer). This causes the lower end of the rivet body to expand and allows riveting components with openend boreholes and also riveting of blind-end boreholes.

This riveting technology is suitable for the most diverse material combinations.

For blind-end boreholes, a trial is necessary in order to establish the optimum rivet length based on the component characteristics and the firmness requirements.





HAMMERDRIVE Blind Rivet

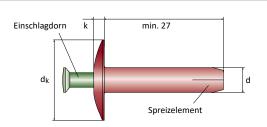
□ Aluminium

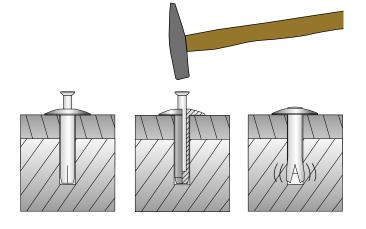
Stainless Steel A2

Dome Head | open



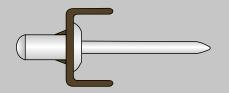
d	⁺¹	*	Nr.	
	16,0	9,5 - 12,0	10.602.048.160	500
4,8	18,0	12,0 - 14,5	10.602.048.180	500
	20,0	14,5 - 16,5	10.602.048.200	500
d _k 14,0	0 -0,7	k	2,0 \(\sigma \sigma \sigma \) 4,9 r	nm
	26,0	20,0 - 22,0	10.602.048.260	500
	30,0	25,0 - 26,5	10.602.048.300	500
4,8	36,0	29,0 - 31,0	10.602.048.360	500
	40,0	33,0 - 35,5	10.602.048.400	500
	50,0	43,5 - 46,0	10.602.048.500	250
d k 15,5	5 -0,7	k	2,0 (2555) 4,9 r	nm







GROUNDING BLIND RIVET



Grounding rivets offer a simple and reliable opportunity to create a ground connection with your products.

The grounding is achieved by pressing the toothing on the conductor into the material. The grounding conductor can be used with standard cable sockets.

The processing of grounding blind rivets can be done with all kinds of standard type blind rivet tools.

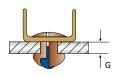
Grounding Blind Rivet

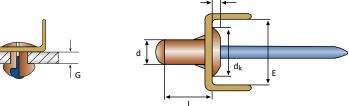
□ Copper

Steel copper plated

Dome Head | open | 2x Erdungsleiter Messing







d	+1	*	Nr.	
3,8	8,0	0,5 - 1,5	10.705.038.080	500
4.00.03	4 20	k 1 0 .o.s	20 mm + 1400 N	4∏+ 2000 N

The width of the cable shoes is 6 mm.

Series

CAD DATA ONLINE









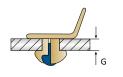


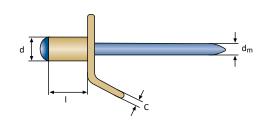
Grounding Blind Rivet

Stahl copper plated

Dome Head | open







d	+1	*	Nr.	
4,0	7,0	0,0 - 4,0	10.705.040.070/00715	500
d _m 2	,4	C ?	???	nm





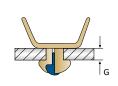


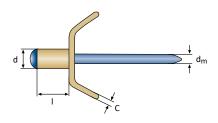


Steel copper plated

Dome Head | open







d	l +1	*	Nr.	
4,0	7,0	0,0 - 4,0	10.705.040.070/00716	500
d _m 2	.,4	C ??	??	nm

Series 600



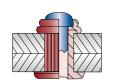
OPTO® Multigrip Blind Rivet -grooved-

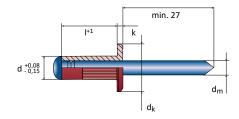
□ Aluminium



Dome Head | open







EN AW-5052 [AIMg2,5]

d	+1	‡	Nr.	
4,0	9,5	1,2 - 6,4	10.600.040.095/00002	500
d _k 7,9	d _m 2,3	k 1,2	△ 4,1 mm ← 1140 N	4 1670 N

Qualified for grounding by grooved shaft.



They allow to

- install bolt threads of different types into ...
 - ... thin or low rigidity components
 - ... hollow sections or other components not accessible from both sides
 - ... components which already have a coated surface,
- · connect different components to each other at the same time and
- attach additional parts.

The continous development of new types, forms and dimensions documents the nearly unlimited fields of applications.

The **Honsel-Group** has been one of the leading companies in this progress for decades. On the following pages we present several interesting examples like the patented OPTO® multigrip blind rivet nut (▶ page 90/91), high-strength HONSELmuttern made from aluminium or steel (page 87) or blind rivet nuts made from stainless steel A4

Open and closed versions, possibilities to avoid rotating (knurling, (partial) hexagon shafts or downhead toothing) and flat, countersunk or small countersunk heads - the VVG range is one of the most compact and complete programms available immediately from stock.



BLIND RIVET NUTS

Blind Rivet Nut	Mate	erial			Setting Head	Shank Type	Shank Design	Page
	Aluminium	Steel galvani-	Stainless stell A2					
AFM	х				Dome head	Round shank	open	88
	х				Dome head	Round shank	closed	88
ASM	Х				Countersunk head	Round shank	open	89
	х				Countersunk head	Round shank	closed	89
	Х				small Countersunk head	Round shank	open	89
OPTO	Х				Dome head	Round shank	open	90
Multigrip Blind Rivet Nuts)	Х				Countersunk head	Round shank	open	90
		Х			Dome head	Round shank	open	91
		Х			Countersunk head	Round shank	open	91
SFM		Х			Dome head	Round shank	open	92
		Х			Dome head	Round shank	closed	92
		Х			Dome head	Round shank	open / knurled	93
SFM-PL (Folding Blind Rivet Nut)		х			Dome head	Round shank	open / slotted	94
FFM-H Hollow Blind Rivet Nut)		x			Dome head	Round shank	open / slotted	95
SSM		Х			Countersunk head	Round shank	open	96
		Х			Countersunk head	Round shank	closed	96
		х			Countersunk head	Round shank	open / knurled	97
		Х			small Countersunk head	Round shank	open	98
		х			small Countersunk head	Round shank	closed / knurled	98
		х			small Countersunk head	Round shank	open / knurled	99
UNIVERSAL		х			small Countersunk head	Round shank	open	100
		х			small Countersunk head	Round shank	open / knurled	100
		х			small Countersunk head	Round shank	closed / knurled	100
LATSERT		х			small Countersunk head	Round shank	open	101
		х			small Countersunk head	Round shank	open / knurled	101
HEXAFORM®		х			Dome head	Hexagonal shank	open	102
		х			small Countersunk head	Hexagonal shank	open	102
		х			small Countersunk head	Hexagonal shank	closed	103
HEXATOP®		х			Dome head	Partial Hexagonal shank	open	104
		х			small Countersunk head	Partial Hexagonal shank	open	104
FM			х		Dome head	Round shank	open	106
			Х		Dome head	Round shank	closed	106
			Х		Dome head	Round shank	open / knurled	107
SM			х		Countersunk head	Round shank	open	108
			Х		Countersunk head	Round shank	closed	108
			х		Countersunk head	Round shank	open / knurled	109
			Х		small Countersunk head	Round shank	open	110
			х		small Countersunk head	Round shank	closed	110
			х		small Countersunk head	Round shank	open / knurled	111
JNIVERSAL			х		small Countersunk head	Round shank	open	112
			х		small Countersunk head	Round shank	open / knurled	113
HEXATOP®			х		Dome head	Partial Hexagonal shank	open	114
			х		Dome head	Partial Hexagonal shank	closed	114
			х		small Countersunk head	Partial Hexagonal shank	open	115
			х		small Countersunk head	Partial Hexagonal shank	closed	115
EFM .				х	Dome head	Round shank	open	116
ESM								
				Х	Small Countersunk head	Round shank	open	116
HEXATOP®				х	Small Countersunk head	Partial Hexagonal shank	open	116



Blind rivet nuts out of brass producible on request.

d - shaft diameter

dk - setting head diameter

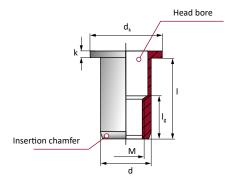
k - setting head hight lg - thread length min. 1 x M

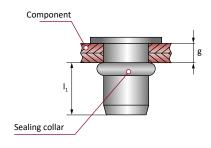
I - shaft length

I1 - projection length

M - thread diameter

g - grip length

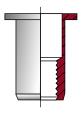




Head design

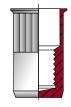
Flat head

- universally useable type of nut with a high level of availability and a wide material spectrum
- used with dry and grease-free components



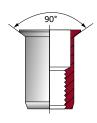
Small countersunk head

The countersinking of the borehole is not normally necessary when machining blind rivet nuts. If technically necessary, the countersinking is to be carried out so that the countersunk head protrudes by min. 0,1 mm after setting.



Countersunk head

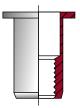
For the machining of blind rivet nuts with countersunk head, the component is only to be countersunk to a depth at which the countersunk head protrudes by min. 0,1 mm after setting.



Shank designs

Round shaft blind rivet nuts

- universal nut type with high availability and broad material spectrum
- · use with dry and grease-free components



Blind rivet nuts with hexagonal shaft (Hexatop / Hexaform)

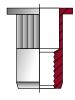
- shaft design with positive locking antirotation device
- preferred use with coated components
- high rotationresistance even with insufficient setting device height
- suitable for multiple screwing





Blind rivet nuts with knurled shaft

- shaft design with positive locking antirotation device
- preferred use in components with low rigidity (component material less "hard" than the material of the blind rivet nut)



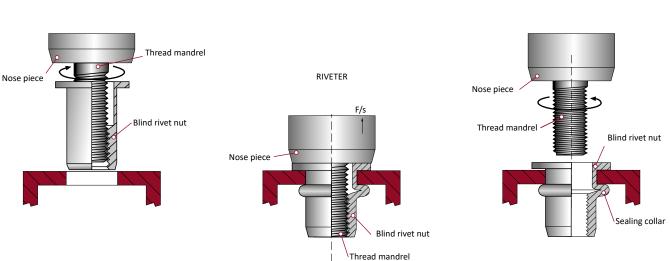
Blind rivet nuts with closed shaft

- closed nut shaft hinders the entrance of liquid and gas through the nut
- additional sealing possible between the nut shaft and the component borehole
- mechanical properties identical to comparable design with open shaft



Installation



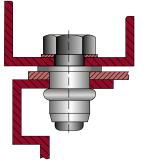


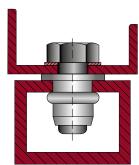
Blind rivet nuts are distinguished by simple and rapid installation. To set the nut, it is screwed onto the threaded mandrel of the setting tool, inserted into the component borehole, and set through the tool stroke. This causes the closing bead of the nut to form. After the threaded mandrel is removed, the components can be screwed tight.

For installing the nut, various tools are available with which the procedure can be carried out carefully. Setting tools operated by muscle power or by pneumatic hydraulics which can be selected.







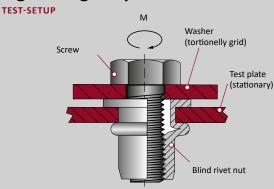


General assembly instructions

In order to guarantee correct functioning of the blind rivet nut, the points listed in the following should be noted:

- set blind rivet nut until complete formation of the closing head
- threaded mandrel must be easy to unscrew after setting
- installation at correct angle to the component surface
- blind rivet nuts with standard countersunk head should be sunk with a slight protrusion
- when using blind rivet nuts with small countersunk head (e.g. FLATSERT) it is not necessary to sink the borehole
- for blind rivet nuts without an additional positive locking anti-rotational device, the component surfaces must be dry, clean and grease-free
- specified component bore holes must be maintained: overlarge boreholes lead to problems with torque and load capacity

Tightening torque



To measure the screwing torque, the nut is to be tested while setting into a test plate, a torsionally secured steel underlay plate superimposed, and the screw tightened. The following conditions apply for the test:

- Test / inspection plate of construction steel:
 Uncoated, dry, grease-free, thickness c. max. grip length of the nut
- Component bore hole:
 Nominal dimension of the nut shaft + 0.2 mm
- Machine screw: Oiled, rigidity class min. 8.8

Under the defined conditions, the result will be the **minimum value** measured before failure of the nut. Rotation of the nut counts as failure, as does recognisable plastic deformation of the blind rivet nut. In practical use, partially different usage conditions may apply which can lead to an alteration on the tightening torques. **In general we recommend an examination of each specific individual case.**

Maximum tightening torque - meassured values [Nm]

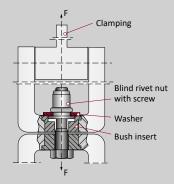
Thread dimension	page	M 3	M 4	M 5	M 6	M 8	M 10	M 12
AFM	88	1	3	4	6	18	28	45
AFM-G	88	-	3	4	6	18	28	-
ASM	89	1	3	4	6	18	28	45
ASM-G	89	-	-	4	6	18	-	-
ASM-KLSK	89	-	2	4	6	18	-	-
OPTO® AFM	90	-	3	4	6	18	-	-
OPTO® ASM	90	-	3	4	6	18	-	-
OPTO® SFM	91	-	4	6	11	24	-	-
OPTO® SSM	91	-	4	6	11	24	-	-
SFM	92	1,2	4	6	11	24	50	82
SFM-G	92	-	-	6	11	24	50	-
SFM-R	93				*			
SFM-PL	94	-	-	-	12	21	-	-
SFM-H	95	-	1,1	2,2	2,2	-	-	-
SSM	96	-	4	6	11	24	50	-
SSM-G	96	-	-	6	11	24	50	-
SSM-R	97				*			
SSM-KLSK	98	-	3	5	10	20	-	-
SSM-R-KLSK-G	98				*			
SSM-R-KLSK	99				*			
UNIVERSAL	100	-	3	5	10	20	40	-
UNIVERSAL-R	100				*			
UNIVERSAL-R-G	100				*			
FLATSERT	101	2	3	5	10	20	-	-
FLATSERT-R	101				*			
HEXAFORM®-FK	102	-	5	7	13	25	55	85
HEXAFORM®-KLSK	102	1,2	5	7	13	25	55	85
HEXAFORM®-KLSK-G	103	-	5	7	13	25	55	-
HEXATOP®-FK	104	-	4	6	11	24	50	-
HEXATOP®-KLSK	104	-	4	6	11	24	50	-
EFM	106	-	4	6	11	24	50	85
EFM-G	106	-	4	6	11	24	50	-
EFM-R	107				*			
ESM	108	-	4	6	11	24	50	85
ESM-G	108	-	3	6	11	24	-	-
ESM-R	109				*			
ESM-KLSK	110	-	4	6	11	24	50	-
ESM-KLSK-G	110	-	4	6	11	24	50	-
ESM-KLSK-R	111				*			
UNIVERSAL	112	-	3	5	10	20	-	-
UNIVERSAL-R	113				*			
HEXATOP®-E-FK	114	2	5	7	13	25	55	-
HEXATOP®-E-FK-G	114	-	5	7	13	25	-	-
HEXATOP®-E-KLSK	115	2	5	7	13	25	55	85
HEXATOP®-E-KLSK-G	115	-	5	7	13	25	-	-
EFM A4	116	-	5	8	15	26	-	-
ESM KLSK A4	116	-	3	6	11	20	-	-
HEXATOP®-E-KLSK A4	116	-	5	8	15	26	-	-

^{*} Knurled blind rivet nuts are designed for use with less solid materials or in components with a dense surface coating.

For this reason, there are no general torque information. In individual cases, the test is carried out on the original component.

Axial tensile force

TEST-SETUP



The axial tensile force is determined with the testing device stipulated in DIN EN ISO 14589.

Unlike the blind rivet test, the nut is riveted into a steel washer. This is placed on the bush insert and the two parts of the device are screwed together.

The following conditions have validity during the test:

- Testing device in accordance with DIN EN ISO 14589
- Forming speed approx. 10 mm/min.
- Min. property class of the screw 8.8
- Direction of traction against the closing head of the nut

The **minimum values** maesured under the stipulated conditions until the nut fails. Failure are deemed to be the tearing out of the thread or the tearing off of the closing head of the nut.

The stated values are to be seen as being standard values for the design of the splice. In practical use, it is normally the case that there are deviating conditions of use which can result in changes being made to the type of failure and the forces. We therefore generally recommend that a bearing test be carried out in certain individual cases.

Axial tensile force - meassured values [Nm]

Thread dimensions Type	page	M 3	M 4	M 5	M 6	M 8	M 10	M 12
AFM	88	1500	2600	4300	6700	11000	17500	28000
AFM-G	88	-	2600	4300	6700	11000	17500	-
ASM	89	1500	2600	4300	6700	11000	17500	28000
ASM-G	89	-	-	4300	6700	11000	-	-
ASM-KLSK	89	-	2400	4000	6000	10500	-	-
OPTO® AFM	90	-	3000	4200	6500	10500	-	-
OPTO® ASM	90	-	3000	4200	6500	10500	-	-
OPTO® SFM	91	-	5200	9500	15500	21500	-	-
OPTO® SSM	91	-	5200	9500	15500	21500	-	-
SFM	92	4000	5200	9500	16500	23500	37000	54000
SFM-G	92	-	-	9500	16500	23500	37000	-
SFM-R	93	-	5000	9000	13500	20000	28000	45000
SFM-PL	94	-	-	-	15000	27000	-	-
SFM-H	95	-	245	290	390	-	-	-
SSM	96	-	5200	9500	16500	23500	37000	-
SSM-G	96	-	-	9500	16500	23500	37000	-
SSM-R	97	-	5000	9000	15000	20000	28000	45000
SSM-KLSK	98	-	5000	9000	15000	20000	-	-
SSM-R-KLSK-G	98	-	6800	10000	15000	27000	37000	-
SSM-R-KLSK	99	4000	4800	8000	12000	18000	25000	40000
UNIVERSAL	100	-	6500	8000	11500	14500	22000	-
UNIVERSAL-R	100	-	6000	7500	10000	14000	17500	-
UNIVERSAL-R-G	100	-	6000	7500	-	-	-	-
FLATSERT	101	3000	6000	9500	13000	16000	-	-
FLATSERT-R	101	-	5500	9000	12000	15000	-	-
HEXAFORM®-FK	102	-	5200	9500	16500	23500	37000	56000
HEXAFORM®-KLSK	102	3500	5000	9000	16000	23000	36500	55000
HEXAFORM®-KLSK-G	103	-	5200	9500	16500	23500	37000	-
HEXATOP®-FK	104	-	3800	6000	9500	12500	37000	-
HEXATOP®-KLSK	104	-	3800	6000	9500	12500	37000	-
EFM	106	-	7000	11000	18000	27000	40000	57000
EFM-G	106	-	7000	11000	18000	27000	40000	-
EFM-R	107	4000	6500	10000	17000	25000	38000	-
ESM	108	-	7000	11000	16000	27000	40000	57000
ESM-G	108	-	6800	10000	15000	27000	-	-
ESM-R	109	3700	6500	10000	15000	25000	38000	-
ESM-KLSK	110	-	6500	10000	15000	25000	38000	-
ESM-KLSK-G	110	-	7000	11000	18000	27000	40000	-
ESM-KLSK-R	111	3500	6500	10000	15000	25000	38000	50000
UNIVERSAL	112	-	7000	11000	18000	27000	-	-
UNIVERSAL-R	113	-	6800	10000	14000	25000	37000	-
HEXATOP®-E-FK	114	4000	6500	10000	17000	27000	39000	-
HEXATOP®-E-FK-G	114	-	6500	10000	17000	27000	-	-
HEXATOP®-E-KLSK	115	3800	6000	9500	16000	26000	39000	55000
HEXATOP®-E-KLSK-G	115	-	6000	9500	16000	26000	-	_
EFM A4	116	_	7000	11000	18000	27000	_	_
ESM KLSK A4	116	_	6500	10000	15000	25000	_	-
HEXATOP®-E-KLSK A4	116		6500	10000	15000	25000		

How to find the correct length of the shaft? Length of shaft = size of component + shaft diameter



SPECIAL BLIND RIVET NUTS



MORE than standard

Our long-term experience and modern manufacturing plants enables us to create **individual custom made products** to complete the standard range of this catalogue.

Many expertises out of these projects have direct influence on the standard product range and support the continous improvement.

Special head and shaft forms

Round or (partial) hexagon shaft as well as special head forms for use e.g. as spacers or for centering of parts can be produced as well as customised geometries.



Under and over-head serration

Apart from the different shaft forms mentioned above, increased twist resistance can also be achieved, particularly in soft parts, by the use of serrations under the head of the blind rivet nut. Serrations on the top of the head can reliably lock components lying on the head.



Long chamfers

In order to optimise the fully automatic feeding process for blind rivet nuts, we manufacture for example particularly long chamfers individually to meet customers' requirements.





SONDERBLINDNIETMUTTERN





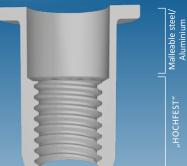
Pressure tight - blind rivet nut with sprayed seal

Based on the increasing demand of gas- and waterproofed fasteners with threads, HONSEL developed a closed end blind rivet nut with an additional seal made of automotive certified material that combined these requirements with the advantages of an economic and process secure machining.

The sprayed and embedded seal on the bottom of the head guarantees a much better form closure than conventional o-rings.

The hexagon shaft avoids any risk of rotation and offers higher clamping forces. An additional large head with a great bearing allocates of the forces on soft materials equally.





Test load (N)

HONSEL's "HOCHFEST" technology enables the carrying capacity of the thread to be increased greatly. This facility ensures that when mechanical overload occurs, a 12.9 strength class screw ("HOCHFEST" steel) or an 8.8 strength class screw ("HOCHFEST" aluminium) fails much sooner than the **HONSEL** nut. This provides greater security in all applications where heightened mechanical specifications are required.

We supply the following embodiments Shaft shapes:

- Fully and Partially hexagonal
- Round Shank
- Closed embodiments

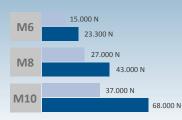
-Jaads

- Flat head
- Small countersunk head
- Countersunk head
- Large head

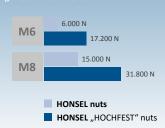
Advantages

- An alternative to welded and punched nuts
- Withstands high moments of torque
- Allows for smaller dimensions to be used
- Rational machining
- Saves on weight
- Correctly sorted recycling (especially in the case of aluminium)
- Resistant to corrosion

"HOCHFEST" steel



"HOCHFEST" alu



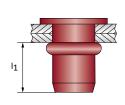
Flat head | Round shank | open

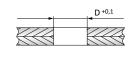












EN AW-5754 [AlMg3]

AFM

M	‡	1	No.		
M3	0,3 - 2,0	8,5	10.850.030.200		500
IVIO	2,0 - 3,5	11,2	10.850.030	0.350	500
D 5,0	k 0,8	d _k 7,0	I ₁ max. 6,0	1,0 Nm	\$ 1500 N
	0,5 - 3,0	11,0	10.850.040	0.300	500
M4	2,5 - 4,0	12,0	10.850.040	0.400	500
	3,0 - 5,0	13,2	10.850.040	0.500	500
D 6,0	k 0,8	d _k 10,0	I ₁ max. 8,0	3,0 Nm	\$ 2600 N
	0,5 - 3,0	12,0	10.850.050	0.300	500
M5	2,5 - 4,5	13,5	10.850.050	0.450	500
	4,0 - 6,0	15,0	10.850.050	0.600	500
D 7,0	k 1,0	d _k 11,0	I ₁ max. 9,0	4,0 Nm	\$ 4300 N

Note the OPTO®multigrip blind rivet nut on ▶ page 90.

M	*	1	No.	
D.A.C	0,5 - 3,0	14,5	10.850.060.300 500	
M6	3,0 - 4,5	16,0	10.850.060.450 500	
D 9,0	k 1,5	d _k 13,0	I ₁ max. 11,0	N
	0,5 - 3,0	17,0	10.850.080.300 500	
M8	3,0 - 5,5	19,5	10.850.080.550 500	
	5,5 - 7,5	21,5	10.850.080.750 500	
D 11,0	k 1,5	d _k 16,0	I ₁ max. 13,5 18,0 Nm \$ 11000	N G
N/10	1,0 - 4,0	22,0	10.850.100.400 250	
M10	3,0 - 6,0	24,0	10.850.100.600 250	
D 13,0	k 2,0	d _k 19,0	I ₁ max. 16,5 28,0 Nm \$ 17500	N G
N/12	1,0 - 4,0	24,0	10.850.120.400 100	
M12	3,5 - 7,0	27,0	10.850.120.700 100	
D 16,0	k 2,0	d _k 23,0	I ₁ max. 18,5	0 N

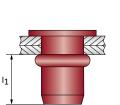
Blind Rivet Nut AFM-G

Aluminium

Flat head | Round shank | closed



M





DATA ONLINE Series

EN AW-5754 [AIMg3]

М	*	I	No.		
M4	0,3 - 2,0	16,0	10.854.040	0.200	500
1714	2,0 - 3,0	16,5	10.854.040	0.300	500
D 6,0	k 0,8	d _k 10,0	l ₁ max. 13,5	→ 3,0 Nm	\$ 2600 N
M5	0,3 - 3,0	18,5	10.854.050.300 10.854.050.400		500
IVIO	3,0 - 4,0	19,5			500
D 7,0	k 1,0	d _k 11,0	l ₁ max. 15,5	√ 4,0 Nm	\$ 4300 N
M6	0,5 - 3,0	22,0	10.854.060	0.300	500
IVIO	3,0 - 4,5	23,5	10.854.060	0.450	500
D 9,0	k 1,5	d _k 13,0	l ₁ max. 18,5	○ 6,0 Nm	\$ 6700 N

 \rightleftharpoons 0,5 - 3,0 26,5 10.854.080.300 250 **M8** 3,0 - 5,5 29,0 10.854.080.550 250 **D** 11,0 18,0 Nm \$ 11000 N k 1,5 **d**_k 16,0 I₁ max. 23,0 M10 1,0 - 3,0 32,5 10.854.100.300 250 **D** 13,0 **k** 2,0 **d**_k 19,0 I₁ max. 28,5 28,0 Nm ‡ 17500 N

Information about additional sealing possibilities for closed blind rivet nuts in chapter blind rivets on ▶ page 60 and 103.

You can use the classic brief description of our blind rivet nuts for your inquiries or orders: Serial name: + Thread size:

+ Maximum grip range:

= Brief description:

3,0 mm **AFM 6-30**

AFM

M6

AFM

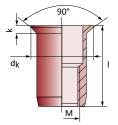


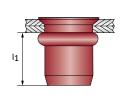


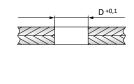




EN AW-5754 [AIMg3]







M	*	1	No.		
N 4 2	1,5 - 2,5	10,0	10.851.030	0.250	500
M3	1,5 - 3,5	11,0	10.851.030	0.350	500
D 5,0	k 1,5	d _k 7,3	I ₁ max. 7,0	1,0 Nm	\$ 1500 N
B // /	1,5 - 3,5	11,5	10.851.040.350 10.851.040.500		500
M4	3,5 - 5,0	13,0			500
D 6,0	k 1,5	d _k 8,3	I ₁ max. 8,0	3,0 Nm	‡ 2600 N
D/I	1,5 - 4,0	13,0	10.851.050	0.400	500
M5	4,0 - 5,5	14,5	10.851.050	0.550	500
D 7,0	k 1,5	$d_k 9,3$	I ₁ max. 9,0	√ 4,0 Nm	\$ 4300 N
D.A.C	1,5 - 4,5	16,0	10.851.060	0.450	500
M6	4,0 - 6,0	17,5	10.851.060	0.600	500
D 9,0	k 1,5	d _k 11,3	l ₁ max. 11,0		\$ 6700 N

М	*	1	No.	
N/10	1,5 - 4,5	18,5	10.851.080.450	500
M8	4,0 - 6,0	20,0	10.851.080.600	500
D 11,0	k 1,5	d _k 13,3	l ₁ max. 13,5 18,0 Nm	‡ 11000 N
	1,5 - 3,0	20,5	10.851.100.300	250
M10	3,0 - 4,5	22,0	10.851.100.450	250
	3,5 - 6,5	24,0	10.851.100.650	250
D 13,0	k 1,5	d _k 15,5	l ₁ max. 16,5 28,0 Nm	‡ 17500 N
D412	1,7 - 4,5	26,0	10.851.120.450	100
M12	4,0 - 7,5	29,0	10.851.120.750	100
D 16,0	k 1,9	d _k 19,0	I₁ max. 17,5	‡ 28000 N

Note the OPTO®multigrip blind rivet nut on ▶ page 90.

Series



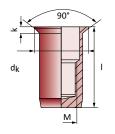


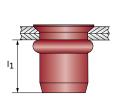
Blind Rivet Nut ASM-G

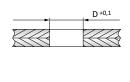
Aluminium 🗐

Countersunk head | Round shank | closed









EN AW-5754 [AIMg3]

М	‡	1	No.		
M5	1,5 - 4,0	19,5	10.855.050	0.400	500
D 7,0	k 1,5	$d_k 9,3$	l ₁ max. 15,5	4,0 Nm	\$ 4300 N
M6	1,5 - 4,5	23,0	10.855.060	0.450	500
D 9,0	k 1,5	d _k 11,3	l ₁ max. 18,5	○ 6,0 Nm	\$ 6700 N

M	*	1	No		
N/O	1,5 - 4,5	28,0	10.855.0	80.450	500
M8	4,5 - 6,0	29,5	10.855.0	80.600	500
D 11,0	k 1,5	d _k 13,3	I ₁ max. 23,0	○ 18,0 Nm	‡ 11000 N

Series



Blind Rivet Nut ASM-KLSK

Aluminium 🔲

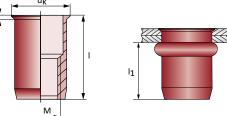
Small countersunk head | Round shank | open

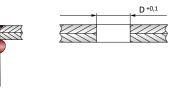




EN AW-5754 [AIMg3]

EIN AVV-3/3	EN AW-5/54 [Alivig5]							
M	‡	1	No.					
M4	0,5 - 2,0	10,0	10.851.040.200/00010		500			
D 6,0	k 0,5	$d_k 6,8$	I ₁ max. 6,5	2,0 Nm	\$ 2400 N			
M5	0,5 - 3,0	12,0	10.851.050.30	00/00010	500			
D 7,0	k 0,5	$d_{k} 8,0$	I ₁ max. 7,5	4,0 Nm	\$ 4000 N			





M	‡		No.		
141	1		110.		
M6	0,5 - 3,0	15,0	10.851.060.300/00010		500
D 9,0	k 0,6	d _k 10,0	I ₁ max. 10,0	○ 6,0 Nm	\$ 6000 N
M8	0,5 - 3,0	16,0	10.851.080.30	00/00010	500
D 11,0	k 0,6	d _k 12,0	l ₁ max. 12,0	→ 18,0 Nm	\$ 10500 N



One blind rivet nut for all grip ranges.

The innovative and patented development of the Honsel-Group was in 2007 the first mass-production multigrip blind rivet nut.

The product has a lot of advantages over the common standard types:

- no mixing of different grip ranges
- reduction of storrage and failure costs
- reduction of delivery times
- reduction of item diversity



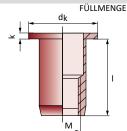
Closed end versions, size M10 or hexagonal shaft producible on request.

Multigrip Blind Rivet Nut OPTO®-AFM

Aluminium

Flat head | open



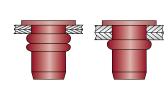












М	+		No.	
M6	0,5 - 6,0	17,5	10.894.060.600	500
D 9,0	k 1,5	d _k 13,0	○ 6,0 Nm	\$ 6500 N
M8	0,5 - 7,5	21,5	10.894.080.750	500

18,0 Nm

Multigrip Blind Rivet Nut OPTO®-ASM

4,0 Nm

Aluminium

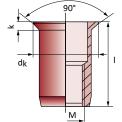
D 7,0

Countersunk head | open

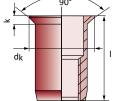
k 1,0

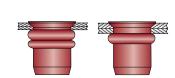
 $d_k 11,0$



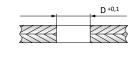


\$ 4200 N





d_k 16,0



‡ 10500 N

Series

 CAD

ONLINE

EN AW-5754 [AlMg3]

M	‡	1	No.	
M4	1,5 - 6,0	14,0	10.894.400.600	500
D 6,0	k 1,5	d _k 10,0	3,0 Nm	\$ 3000 N
M5	1,5 - 6,0	15,0	10.894.500.600	500
D 7,0	k 1,5	d _k 11,0	4,0 Nm	\$ 4200 N

М	*	1	No.	
M6	1,5 - 6,0	17,5	10.894.600.600	500
D 9,0	k 1,5	d _k 13,0	← 6,0 Nm	‡ 6500 N
M8	1,5 - 7,5	21,5	10.894.800.750	500
D 11,0	k 1,5	d _k 16,0	18,0 Nm	‡ 10500 N

OPTO®-MULTIGRIP BLIND RIVET NUT



pneumatic-hydraulic tool **VNG 703**. Details on ▶ page 218!

Series **895**



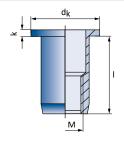


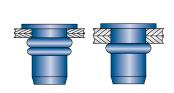
Multigrip Blind Rivet Nut OPTO®-SFM

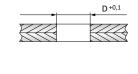
Steel galvanized

Flat head | open









М	‡	1	No.		€ / 1.000
M4	0,5 - 6,0	14,0	10.895.040.600	500	168,00
D 6,0	k 0,8	d _k 10,0	4,0 Nm	\$ 5200 N	
M5	0,5 - 6,0	15,0	10.895.050.600	500	198,80
D 7,0	k 1,0	d _k 11,0	6,0 Nm	\$ 95	600 N

M	*	1	No.		€ / 1.000
M6	0,5 - 6,0	17,5	10.895.060.600	500	270,00
D 9,0	k 1,5	d _k 13,0	11,0 Nm	\$ 15500 N	
M8	0,5 - 7,5	21,5	10.895.080.750	500	356,10
D 11,0	k 1,5	d _k 16,0	24,0 Nm	‡ 21500 N	





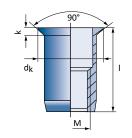


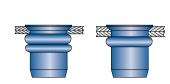
Multigrip Blind Rivet Nut OPTO®-SSM

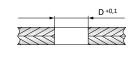
Steel galvanized

Countersunk head | open









C4C	[1.0303]

M	*	1	No.		€ / 1.000
M4	1,5 - 6,0	14,0	10.895.400.600	500	170,20
D 6,0	k 1,5	d _k 10,0	4,0 Nm	‡ 52	200 N
M5	1,5 - 6,0	15,0	10.895.500.600	500	201,60
D 7,0	k 1,5	d _k 11,0	6,0 Nm	\$ 95	600 N

M	*	1	No.		€ / 1.000
M6	1,5 - 6,0	17,5	10.895.600.600	500	273,30
D 9,0	k 1,5	d _k 13,0	11,0 Nm	‡ 15	500 N
M8	1,5 - 7,5	21,5	10.895.800.750	500	358,80
D 11,0	k 1,5	d _k 16,0	24,0 Nm	‡ 21	500 N

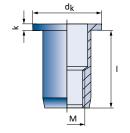
Flat head | Round shank | open

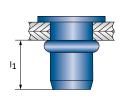


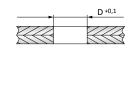












C4C [1.0303]

М	‡	1	No.		
042	0,5 - 2,0	9,0	10.852.030	0.200	500
M3	2,0 - 3,5	10,7	10.852.030	0.350	500
D 5,0	k 0,8	d _k 7,0	I ₁ max. 7,0	1,2 Nm	\$ 4000 N
M4	0,5 - 3,0	11,0	10.852.040	0.300	500
IVI4	2,5 - 5,0	13,2	10.852.040	0.500	500
D 6,0	k 0,8	d _k 10,0	I ₁ max. 8,0	4,0 Nm	\$ 5200 N
M5	0,5 - 3,0	12,0	10.852.050).300	500
D 7,0	k 1,0	d _k 11,0	I ₁ max. 9,0	○ 6,0 Nm	\$ 9500 N
	0,5 - 3,0	14,5	10.852.060	0.300	500
M6	3,0 - 4,5	16,0	10.852.060	0.450	500
	4,5 - 6,0	17,5	10.852.060	0.600	500
D 9,0	k 1,5	d _k 13,0	I₁ max. 11,0	11,0 Nm	‡ 16500 N

M	+	1	No.	7
	0,5 - 3,0	17,0	10.852.080.300	250
M8	3,0 - 5,5	19,5	10.852.080.550	250
IVIO	5,5 - 7,5	21,5	10.852.080.750	250
	7,0 - 9,0	23,0	10.852.080.900	250
D 11,0	k 1,5	d _k 16,0	I ₁ max. 13,5 24,0 Nm \$ 2	3500 N
M10	1,0 - 3,0	20,5	10.852.100.300	250
INITO	3,5 - 6,0	23,5	10.852.100.600	250
D 13,0	k 2,0	d _k 19,0	I ₁ max. 16,5	7000 N
M12	1,0 - 4,0	25,0	10.852.120.400	100
IVITZ	3,5 - 7,0	28,0	10.852.120.700	100
D 16,0	k 2,0	d _k 23,0	I ₁ max. 16,5	4000 N

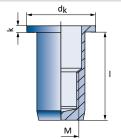
Note the OPTO® multigrip blind rivet nuts on the ▶ page 91.

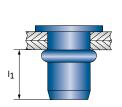
Blind Rivet Nut SFM-G

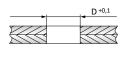
Steel galvanized

Flat head | Round shank | closed









DATA ONLINE Series

856

C4C [1.0303]

M	*	1	No.		
M5	0,5 - 3,0	17,0	10.856.05	0.300	500
IVIO	3,0 - 5,5	22,0	10.856.05	0.550	500
D 7,0	k 1,0	d _k 11,0	I ₁ max. 15,5	○ 6,0 Nm	\$ 9500 N
M6	0,5 - 3,0	21,5	10.856.06	0.300	500
D 9,0	k 1,2	d _k 12,0	I, max. 16,0	11.0 Nm	‡ 16500 N

М	‡	- 1	No.		
M8	0,5 - 3,5	25,2	10.856.080	0.350	250
IVIO	3,5 - 6,0	29,5	10.856.080	0.600	250
D 11,0	k 1,3	d _k 14,0	I ₁ max. 17,5	24,0 Nm	‡ 23500 N
M10	1,0 - 3,0	33,0	10.856.100	0.300	250
D 13,0	k 2,0	d _k 19,0	I ₁ max. 28,5	◯ 50,0 Nm	\$ 37000 N



SFM

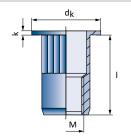


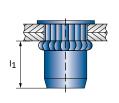


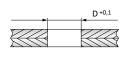


Flat head | Round shank knurled | open









C4C [1.0303]

	М	‡		No.		
_	11	0,5 - 2,5	9,5	10.842.040.250		500
1/	/ 14	2,5 - 4,5	13,0	10.842.040.450		500
D	6,0	k 0,8	d _k 9,0	I ₁ max. 8,0	\$ 50	000 N
	45	0,5 - 3,0	12,0	10.842.050.300		500
1/	<i>1</i> 5	2,5 - 5,0	14,0	10.842.050.500		500
D	7,0	k 1,0	d _k 10,0	I ₁ max. 9,0	\$ 90	000 N
	16	0,5 - 3,0	14,5	10.842.060.300		500
1/	<i>1</i> 16	3,5 - 5,5	17,5	10.842.060.550		500
D	9,0	k 1,5	d _k 13,0	I₁ max. 11,0	‡ 13	500 N

М	*	1	No.		
	0,5 - 3,0	16,0	10.842.080.300		250
M8	3,0 - 5,5	18,5	10.842.080.550		250
	5,5 - 7,5	21,5	10.842.080.750		250
D 11,0	k 1,5	d _k 16,0	l ₁ max. 13,5	\$ 20	000 N
M10	1,0 - 3,0	20,5	10.842.100.300		250
INITO	3,0 - 4,5	22,0	10.842.100.450		250
D 13,0	k 2,0	d _k 19,0	I ₁ max. 16,5	‡ 28	000 N
M12	1,0 - 4,0	25,0	10.842.120.400		100
D 16,0	k 2,0	d _k 23,0	l ₁ max. 18,5	‡ 45	000 N

Knurled and more.



Special versions available directly from stock.

In addition to the standard products with torsional resistance available in all areas, a large number of article variants for example with special surfaces, larger head diameters or additional serrations on or under the setting head are also immediately available.

For example 10.842.060.450-2 - Blind rivet nut SFM 6-45R K 18.5x1.5

M6 knurled, steel, large flat head (diameter 18.5 x height 1.5 mm), clamping range 3.0-4.5 mm - Blind rivet nut SFM 8-30R K 21x2 20.842.080.300-5

M8 knurled, steel, large flat head (diameter 21.0 x height 2.0 mm), clamping range 1.0-3.0 mm - Blind rivet nut SFM 8-50R K 22x1.6 20.842.080.500-2 M8 knurled, steel, large flat head (diameter 22.0 x height 1.6 mm), clamping range 2.5-5.5 mm



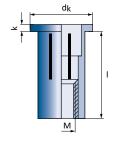
Flat head | open | geschlitzt

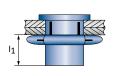


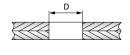












C4C [1.0303]

M	‡	1	No.	
M6	0,5 - 7,1	25,8	10.816.060.710	250
D 8,8	k 1,6	d _k 16,4	I ₁ max. 11,7 12,0 Nm	‡ 15000 N

М	‡	1	No.	
M8	0,5 - 7,1	29,6	10.816.080.710	250
D 11,1	k 1,6	d _k 19,6	I ₁ max. 13,6 21,0 Nm	‡ 27000 N





Please note that special threaded mandrels are required for setting the folding blind rivet nuts. Where appropriate, these can be found alongside the corresponding tools.



A tool with a large stroke is required for optimum setting of SFM-PL folding blind rivet nuts.

Here HONSEL/VVG offers a special pneumatic-hydraulic setting tool with the VNG 753.

Details can be found on ▶ page 222.

Ask your local dealer or our sales team for further information!

SFM-PL folding blind rivet nuts were developed for applications requiring **high tightening forces**.

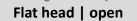
During setting, the slotted shaft fans out into four tabs which contact the part uniformly and over a large area for uniform distribution of the forces. Plastic and thin-walled sheet metal and other brittle or easily broken materials can thus be reliably joined.

Furthermore, folding blind rivet nuts offer a **very large clamping range**.

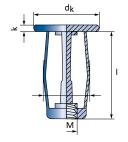




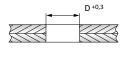












C4C [1.0303]

M	‡	1	No.		
M4	0,1 - 5,0	15,2	10.817.040.500		500
D 8,0	k 1,6	d _k 12,2	1,1 Nm	‡ 24	45 N
M5	0,1 - 5,0	16,8	10.817.050.500		500
D 10,0	k 1,6	d _k 14,0	2,2 Nm	‡ 25	90 N







Slotted blind rivet nuts with threaded insert specially for use in brittle or soft materials such as plastic or perspex.

Particularly on uneven surfaces, these blind rivet nuts offer **outstanding torsional**

Thanks to the **large clamping range**, they can be used flexibly with differing material thicknesses.

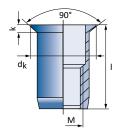
Countersunk head | Round shank | open

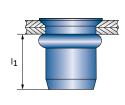


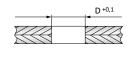












C4C [1.0303]

M	‡	1	No.		
D // //	1,5 - 3,5	11,5	10.853.040	0.350	500
M4	3,0 - 5,0	13,0	10.853.040	0.500	500
D 6,0	k 1,5	d _k 8,3	I ₁ max. 8,0	4,0 Nm	\$ 5200 N
M5	1,5 - 4,0	13,0	10.853.050	0.400	500
IVIO	4,0 - 5,5	14,5	10.853.050	0.550	500
D 7,0	k 1,5	d _k 9,3	I ₁ max. 9,0	○ 6,0 Nm	\$ 9500 N
D.A.C	1,5 - 4,5	16,0	10.853.060	0.450	500
M6	4,5 - 6,0	17,5	10.853.060	0.600	500
D 9,0	k 1,5	d _k 11,3	I ₁ max. 11,0	11.0 Nm	1 16500 N

M	+	1	No.	
M8	1,5 - 4,5	18,5	10.853.080.450	250
IVIO	4,5 - 6,0	20,0	10.853.080.600	250
D 11,0	k 1,5	d _k 13,3	l ₁ max. 13,5 24,0 Nm	\$ 23500 N
	3,0 - 4,5	22,0	10.853.100.450	250
M10	4,5 - 6,0	23,5	10.853.100.600	250
	6,0 - 9,0	28,0	10.853.100.900	250
D 13,0	k 1,5	d _k 15,2	I ₁ max. 16,5	‡ 37000 N

Note the OPTO® multigrip blind rivet nuts on the ▶ page 91.

Blind Rivet Nut SSM-G

Steel galvanized

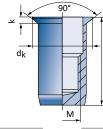
Countersunk head | Round shank | closed

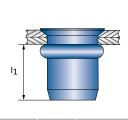


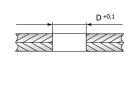












C4C [1.0303]

М	+	ı	No.		
M5	1,5 - 4,0	19,5	10.857.050.400	500	
D 7,0	k 1,5	d _k 9,3	I ₁ max. 15,5	⊋ 6,0 Nm	
NAG	1,5 - 4,5	23,5	10.857.060.450	500	
M6	4,5 - 6,0	25,0	10.857.060.600	500	
D 9 0	k 1 5	d. 11 3	I. max. 18.5		J

М	‡	1	No.		
M8	1,5 - 4,5	28,0	10.857.080.450		250
D 11,0	k 1,5	d _k 13,3	l ₁ max. 23,0	24,0 Nm	‡ 23500 N
M10	1,5 - 3,0	30,5	10.857.100.300		250
D 13,0	k 1,5	d _k 14,9	l ₁ max. 28,5	◯ 50,0 Nm	\$ 37000 N

SSM

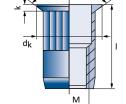


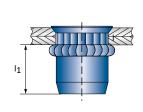


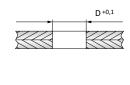












C4C [1.0303]

M	#	- 1	No.		
B // /	1,5 - 3,5	11,5	10.845.040.350		500
M4	3,0 - 5,0	13,0	10.845.040.500		500
D 6,0	k 1,5	d _k 8,3	I ₁ max. 8,0	\$ 50	000 N
DAT.	1,5 - 4,0	13,5	10.845.050.400		500
M5	4,0 - 6,5	16,0	10.845.050.650		500
D 7,0	k 1,5	d _k 9,3	I ₁ max. 9,0	\$ 90	000 N
D.A.C	1,5 - 4,5	16,0	10.845.060.450		500
M6	4,5 - 6,5	18,0	10.845.060.650		500
D 9,0	k 1,5	d _k 11,3	l ₁ max. 11,0	‡ 15	000 N

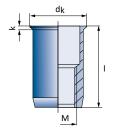
М	+	1	No.	
M8	1,5 - 4,5	19,0	10.845.080.450	500
IVIO	3,5 - 6,5	21,0	10.845.080.650	500
D 11,0	k 1,5	d _k 13,3	l ₁ max. 13,5	‡ 20000 N
M10	1,5 - 4,5	22,0	10.845.100.450	250
IAITO	3,5 - 6,5	25,0	10.845.100.650	250
D 13,0	k 1,6	d _k 15,7	l ₁ max. 14,5	‡ 28000 N
0412	1,7 - 4,5	26,0	10.845.120.450	100
M12	4,0 - 7,5	27,5	10.845.120.750	100
D 16,0	k 1,9	d _k 19,0	l ₁ max. 17,5	‡ 45000 N

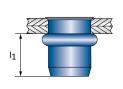


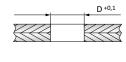
Small countersunk head | Round shank | open

Series









C4C [1.0303]

SSM

M	*	1	No.		
M4	0,5 - 2,0	10,0	10.841.040.200		500
D 6,0	k 0,5	d _k 7,0	I ₁ max. 8,0	3,0 Nm	\$ 5000 N
M5	0,5 - 3,0	12,0	10.841.05	0.300	500
D 7,0	k 0,5	d _k 8,0	l ₁ max. 9,0	→ 5,0 Nm	\$ 9000 N

M	*	1	No.		
M6	0,5 - 3,0	15,0	10.841.060	0.300	500
D 9,0	k 0,5	d _k 10,0	I ₁ max. 12,0	○ 10,0 Nm	‡ 15000 N
M8	0,5 - 3,0	16,0	10.841.080	0.300	500
D 11,0	k 0,5	d _k 12,0	l ₁ max. 13,5	20,0 Nm	\$ 20000 N

Blind Rivet Nut SSM-R-KLSK-G

Steel galvanized

Small countersunk head | Round shank knurled | closed



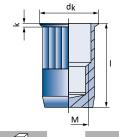


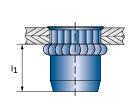


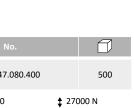


D +0,1









М		1	No.		
M4	0,5 - 2,0	14,5	10.847.040.200		500
D 6,0	k 0,4	d _k 7,0	l ₁ max. 12,5	\$ 68	00 N
M5	0,5 - 3,0	18,5	10.847.050.300		500
D 7,0	k 0,5	d _k 8,0	l ₁ max. 14,5	‡ 100	000 N
M6	0,5 - 3,0	21,0	10.847.060.300		500
D 9,0	k 0,5	d _k 10,0	I ₁ max. 17,0	‡ 150	000 N

M8	0,7 - 4,0	24,0	10.847.080.400 5		
D 11,0	k 0,5	d _k 12,0	l ₁ max. 19,0	‡ 270	000 N
M10	1,0 - 4,5	29,0	10.847.100.450		250
D 13,0	k 0,6	d _k 14,0	l ₁ max. 23,0	\$ 370	000 N

SSM-G

M5

You can use the classic brief description of our blind rivet nuts for your inquiries or orders: Serial name: + Thread size: + Maximum grip range:

4,0 mm = Brief description: SSM 5-40 G

SSM



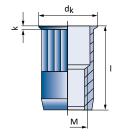


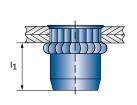


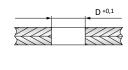


Small countersunk head | Round shank knurled | open









C4C [1.0303]

M	‡	1	No.		
M3	0,5 - 2,0	9,0	10.843.030.200		500
IVIO	2,0 - 3,5	10,5	10.843.030.350		500
D 5,0	k 0,4	d _k 6,0	I ₁ max. 5,5	\$ 40	000 N
M4	1,0 - 2,0	10,0	10.843.040.200		500
IVI4	2,0 - 4,0	12,0	10.843.040.400		500
D 6,0	k 0,4	$d_k 7,0$	I ₁ max. 8,0	‡ 48	800 N
M5	0,5 - 3,0	12,0	10.843.050.300		500
IVIO	2,0 - 4,5	14,0	10.843.050.450		500
D 7,0	k 0,5	d _k 8,0	I ₁ max. 9,0	\$ 80	000 N
NAG	0,5 - 3,0	13,5	10.843.060.300		500
M6	3,5 - 6,0	17,5	10.843.060.600		500
D 9,0	k 0,5	d _k 10,0	l ₁ max. 14,5	‡ 120	000 N

M	*	1	No.		
N/O	0,7 - 4,0	16,0	10.843.080.400		500
M8	3,5 - 6,0	18,0	10.843.080.600		500
D 11,0	k 0,5	d _k 12,0	l ₁ max. 16,0	\$ 18	000 N
M10	1,0 - 4,5	20,5	10.843.100.450		250
INITO	3,0 - 6,0	23,5	10.843.100.600		250
D 13,0	k 0,5	d _k 14,0	l ₁ max. 18,5	\$ 250	000 N
M12	1,0 - 4,0	24,0	10.843.120.400		100
D 16,0	k 0,6	d _k 17,0	I ₁ max. 20,0	\$ 40	000 N

Small Packages



SMALL PACKAGES

Blind Rivet Nut SFM-R

Steel galvanized

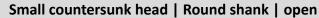
Flat head | Round shank knurled | open



М	*	1	No.	
M4	0,5 - 2,5	9,5	10.842.040.250/31	100
M5	0,5 - 3,0	12,0	10.842.050.300/31	100
M6	0,5 - 3,0	14,5	10.842.060.300/31	100
M8	0,5 - 3,0	16,0	10.842.080.300/42	50

Blind Rivet Nut UNIVERSAL

Steel galvanized





M	*	I	No.	
M4	0,5 - 3,0	10,5	10.870.400.000/31	100
M5	0,5 - 3,0	11,5	10.870.500.000/31	100
M6	0,5 - 3,0	13,0	10.870.600.000/31	100
M8	0,5 - 3,0	15,5	10.870.800.000/31	100

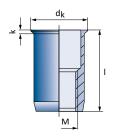


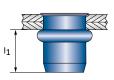
Small countersunk head | Round shank | open

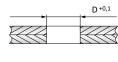












C4C [1.0303]

M	*	1			
M4	0,5 - 3,0	10,5	10.870.40	10.870.400.000	
D 7,0	k 0,4	d _k 8,0	I ₁ max. 7,0	3,0 Nm	\$ 6500 N
M5	0,5 - 3,0	11,5	10.870.50	0.000	500
D 7,0	k 0,4	d _k 8,0	I ₁ max. 8,0	→ 5,0 Nm	\$ 8000 N
M6	0,5 - 3,0	13,0	10.870.60	0.000	500
D 8,0	k 0,4	d _k 9,0	l ₁ max. 10,0	10,0 Nm	‡ 11500 N

M	+	1	No.		
M8	0,5 - 3,0	15,5	10.870.80	0.000	500
D 10,0	k 0,4	d _k 11,0	I ₁ max. 11,5	20,0 Nm	‡ 14500 N
M10	0,5 - 3,0	17,5	10.870.10	0.000	250
D 12,0	k 0,4	d _k 13,0	l ₁ max. 13,0	→ 40,0 Nm	\$ 22000 N

Blind Rivet Nut UNIVERSAL-R

Steel galvanized

Small countersunk head | Round shank knurled | open

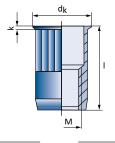


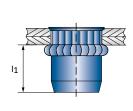


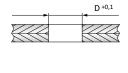












C4C [1.030

‡		No.		
0,5 - 3,0	10,5	10.871.400.000		500
k 0,4	d _k 8,0	I₁ max. 7,0	\$ 60	00 N
0,5 - 3,0	11,5	10.871.500.000		500
k 0,4	d _k 8,0	I ₁ max. 8,0	‡ 75	00 N
0,5 - 3,0	13,0	10.871.600.000		500
k 0,4	d _k 9,0	I ₁ max. 10,0	‡ 100	000 N
	0,5 - 3,0 k 0,4 0,5 - 3,0 k 0,4 0,5 - 3,0	0,5 - 3,0 10,5 k 0,4 d _k 8,0 0,5 - 3,0 11,5 k 0,4 d _k 8,0 0,5 - 3,0 13,0	c 10.5 10.871.400.000 c 10.871.400.000 d 10.871.400.000 0.5 10.871.500.000 0.5 10.871.500.000 0.5 10.871.600.000	t 0,5 - 3,0 10,5 10.871.400.000 k 0,4 d _k 8,0 l ₁ max. 7,0 \$\dphi\$ 60 0,5 - 3,0 11,5 10.871.500.000 k 0,4 d _k 8,0 l ₁ max. 8,0 \$\dphi\$ 75 0,5 - 3,0 13,0 10.871.600.000

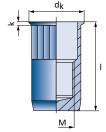
M	*	1	No.		
M8	0,5 - 3,0	15,5	10.871.800.000		500
D 10,0	k 0,4	d _k 11,5	I ₁ max. 11,5	‡ 140	00 N
M10	0,5 - 3,0	17,5	10.871.100.000		250
D 12,0	k 0,4	d _k 13,0	l ₁ max. 13,0	‡ 175	00 N

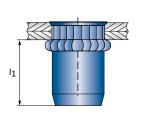
Blind Rivet Nut UNIVERSAL-R-G

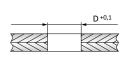
Steel galvanized

Small countersunk head | Round shank knurled | closed









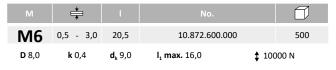
Series

CAD

DATA ONLINE

CAC	[1.0303]	
CTC	[1.0505]	

C4C [1.0303]						
M	*					
M4	0,5 - 2,5	16,5	10.872.400.000		500	
D 7,0	k 0,4	d _k 8,0	I ₁ max. 13,0 \$ 60		00 N	
M5	0,5 - 2,5	18,5	10.872.500.000		500	
D 7,0	k 0,4	d _k 8,0	I ₁ max. 14,5 \$\\$75		00 N	



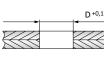














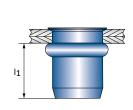


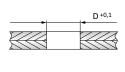












C4C [1.0303]

Series

M	*	1	No.		
M3	0,5 - 2,0	9,0	10.874.300	0.000	500
D 4,9	k 0,3	d _k 5,3	I ₁ max. 6,0	2,0 Nm	\$ 3000 N
M4	0,5 - 2,0	10,4	10.874.400	0.000	500
D 6,4	k 0,4	d _k 7,2	I ₁ max. 8,0	3,0 Nm	\$ 6000 N
M5	0,5 - 3,2	12,0	10.874.500	0.000	500
D 7,2	k 0,5	d _k 8,1	I ₁ max. 9,0	◯ 5,0 Nm	‡ 9500 N

М	‡	1	No.		
M6	0,8 - 4,0	15,0	10.874.60	0.000	500
D 9,6	k 0,5	d _k 10,5	I ₁ max. 11,0	○ 10,0 Nm	‡ 13000 N
M8	1,0 - 4,0	16,0	10.874.80	0.000	500
D 10,6	k 0,6	d _k 11,5	I ₁ max. 13,5	20,0 Nm	‡ 16000 N

Series







Blind Rivet Nut FLATSERT-R

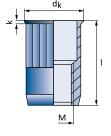
Steel galvanized

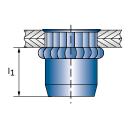


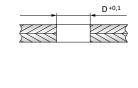
Small countersunk head | Round shank knurled | open











C4C [1.0303]

М	*	1	No.		
M4	0,5 - 2,0	10,0	10.844.400.000		500
D 6,4	k 0,4	d _k 7,2	I ₁ max. 8,0		\$ 5500 N
M5	0,5 - 3,2	12,0	10.844.500	.000	500
D 7,2	k 0,5	d , 8,1	I, max. 9,0	◯ xxx	1 9000 N

М	‡	1	No.		
M6	0,7 - 3,2	15,0	10.844.600.	000	500
D 9,6	k 0,5	d _k 10,4	l ₁ max. 11,0	xxx 🔾	‡ 12000 N
M8	0,7 - 4,0	16,0	10.844.800.000		500
D 10 6	k 0.5	d. 11.5	l max 13.5	O YYY	↑ 15000 N



Steel galvanized

Flat head | Hexagonal shank | open

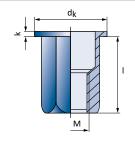


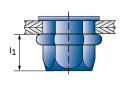














C4C [1.0303]

HEXAFORM

М	*	1	No.		
M4	0,5 - 2,0	10,0	10.868.046	0.200	500
SW 6,0	k 1,0	d _k 9,0	I ₁ max. 7,5	○ 5,0 Nm	\$ 5200 N
M5	0,5 - 3,0	12,5	10.868.050.300		500
SW 7,0	k 1,0	d _k 10,0	l ₁ max. 8,5	7,0 Nm	\$ 9500 N
D.A.C	0,5 - 3,0	14,5	10.868.060	0.300	500
M6	3,0 - 5,5	17,0	10.868.060.550		500
SW 9.0	k 1 5	d . 13.0	l. max. 10.5	13.0 Nm	↑ 16500 N

М	*	1	No.	
N/O	0,5 - 3,0	17,5	10.868.080.300	250
M8	3,0 - 6,0	20,5	10.868.080.600	250
SW 11,0	k 1,5	d _k 16,0	I ₁ max. 13,0	25,0 Nm
M10	1,0 - 4,5	21,0	10.868.100.450	250
INITO	3,5 - 6,0	24,0	10.868.100.600	250
SW 13,0	k 2,0	d _k 19,0	I ₁ max. 16,5	55,0 Nm \$ 37000 N
M12	1,5 - 5,0	25,0	10.868.120.500	100
SW 16,0	k 2,0	d _k 23,0	l ₁ max. 19,0	85,0 Nm \$ 56000 N

Blind Rivet Nut HEXAFORM-KLSK

Steel galvanized

Small countersunk head | Hexagonal shank | open

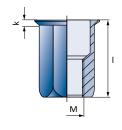


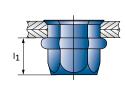




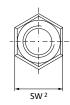












М	+	1	No.		
M3	1,5 - 3,0	9,7	10.892.030	0.250	500
SW 5,0	SW ² 6,0	k 0,5	I ₁ max. 4,5	1,2 Nm	\$ 3500 N
B // /	0,6 - 2,0	11,0	10.892.04	0.200	500
M4	2,0 - 4,0	13,0	10.892.040	0.400	500
SW 6,0	SW ² 6,6	k 0,6	I ₁ max. 7,5	○ 5,0 Nm	\$ 5000 N
D/I	0,7 - 3,0	13,5	10.892.050	0.300	500
M5	3,0 - 5,5	16,0	10.892.050	0.550	500
SW 7,0	SW ² 7,7	k 0,7	I ₁ max. 8,5	7,0 Nm	\$ 9000 N
NAC	0,8 - 3,0	15,5	10.892.060	0.300	500
M6	3,0 - 5,5	18,0	10.892.060	0.550	500
sw 9,0	SW ² 9,8	k 0,8	l ₁ max. 10,5	13,0 Nm	\$ 16000 N

М	+	1	No.		
N/O	0,8 - 3,0	18,5	10.892.080	0.300	250
M8	3,0 - 6,0	21,5	10.892.080	0.600	250
SW 11,0	SW² 11,8	k 0,8	I ₁ max. 13,0	◯ 25,0 Nm	‡ 23000 N
M10	1,0 - 3,5	22,5	10.892.100	0.350	250
INITO	3,0 - 6,0	23,5	10.892.100.600		250
SW 13,0	SW² 14,3	k 0,9	I ₁ max. 16,5	◯ 55,0 Nm	\$ 36500 N
M12	1,0 - 4,0	24,5	10.892.120	0.400	100
SW 16,0	SW ² 17,3	k 0,9	l ₁ max. 17,5		\$ 55000 N











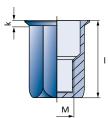


Blind Rivet Nut HEXAFORM-KLSK-G

Steel galvanized

Small countersunk head | Hexagonal shank | closed

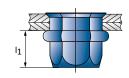


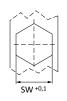


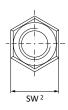


C4C [1.0303]

M	‡	1	No.		
M4	0,5 - 2,5	16,0	10.887.04	10.250	500
SW 6,0	SW² 6,6	k 0,5	l ₁ max. 10,0	○ 5,0 Nm	\$ 5200 N
M5	0,5 - 3,0	20,0	10.887.05	60.300	500
SW 7,0	SW ² 7,7	k 0,6	l ₁ max. 12,5	7,0 Nm	\$ 9500 N
M6	0,5 - 3,0	22,0	10.887.060.300		500
SW 9,0	SW² 9,8	k 0,7	l ₁ max. 16,0	○ 13,0 Nm	‡ 16500 N







М	‡	1	No.		
M8	0,5 - 3,5	25,5	10.887.08	30.350	250
IVIO	3,0 - 6,0	28,0	10.887.08	10.887.080.600	
SW 11,0	SW ² 11,8	k 0,7	l ₁ max. 17,5	◯ 25,0 Nm	‡ 23500 N
M10	1,0 - 3,5	28,0	10.887.10	00.350	250
SW 13,0	SW ² 14,3	k 0,9	I ₁ max. 20,0	◯ 55,0 Nm	\$ 37000 N



Blind Rivet Nut HEXATOP-FK

Steel galvanized

Flat head | Partial hexagonal shank | open



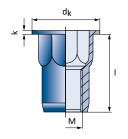


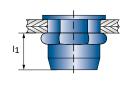














C4C [1.0303]

M	*	- 1	No.		
M4	0,5 - 2,0	10,0	10.867.04	10.200	500
SW 6,4	k 0,6	d _k 8,0	l ₁ max. 7,5	→ 4,0 Nm	\$ 3800 N
M5	0,5 - 3,0	12,5	10.867.05	60.300	500
SW 7,2	k 0,7	d _k 9,0	I ₁ max. 9,0	○ 6,0 Nm	\$ 6000 N
M6	0,5 - 3,0	14,5	10.867.060.300		500
SW 9,6	k 0,8	d _k 12,0	I ₁ max. 11,5	11,0 Nm	\$ 9500 N

M	*	1	No.		
M8	0,5 - 3,0	16,5	10.867.08	0.300	250
SW 10,6	k 1,5	d _k 16,0	l ₁ max. 13,0	◯ 24,0 Nm	‡ 12500 N
M10	0,5 - 3,0	19,0	10.867.10	0.300	250
SW 12,7	k 2,0	d _k 16,5	l ₁ max. 16,5	◯ 50,0 Nm	\$ 37000 N

Blind Rivet Nut HEXATOP-KLSK

Steel galvanized

Small countersunk head | Partial hexagonal shank | open



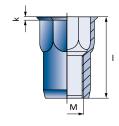


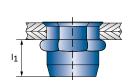


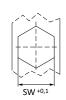


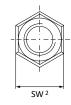












М	+	1	No.		
M4	0,5 - 2,0	10,0	10.893.04	0.200	500
SW 6,4	SW² 7,0	k 0,4	l ₁ max. 7,5	→ 4,0 Nm	\$ 3800 N
M5	0,6 - 3,0	12,5	10.893.05	0.300	500
SW 7,2	SW² 8,0	k 0,5	I ₁ max. 9,0	○ 6,0 Nm	\$ 6000 N
M6	0,5 - 3,0	15,5	10.893.06	0.300	500
SW 9,6	SW² 10,5	k 0,5	l ₁ max. 11,5	11,0 Nm	\$ 9500 N

M	*	1	No.		
M8	0,5 - 3,0	18,0	10.893.08	80.300	250
SW 10,6	SW² 11,5	k 0,6	I ₁ max. 14,0	24,0 Nm	‡ 12500 N
M10	1,0 - 4,0	22,5	10.893.10	00.400	250
SW 12,7	SW ² 14,4	k 0,8	I ₁ max. 16,0	◯ 50,0 Nm	\$ 37000 N

HEXAGONS AND MORE.



Special versions available directly from stock.

In addition to the standard products with torsional resistance available in all areas, a large number of article variants for example with special surfaces, larger head diameters/heights are immediately available.

For example

- HEXAFORM M6-45 K 18×2.5 20.868.060.450-1 Blind rivet nut with M6 hexagon shaft, steel, large flat head (diameter $18.0 \times 1.00 \times$
- HEXAFORM M8-30 K 20 x 1.5 20.868.800.000-4 Blind rivet nut with M8 hexagon shaft, steel, large flat head (diameter 20.0 x height 1.5 mm), clamping range 0.5 3.0 mm



Blind Rivet Nut EFM

Stainless steel A2

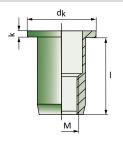
Flat head | Round shank | open

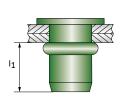


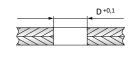












[1.4567]

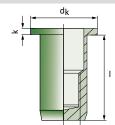
M	*	1	No.		
M4	0,5 - 2,5	11,0	10.858.040	10.858.040.250	
IVI4	2,5 - 4,0	12,5	10.858.040.400		500
D 6,0	k 1,0	$d_k 9,0$	I ₁ max. 8,0	4,0 Nm	‡ 7000 N
M5	0,5 - 3,0	12,0	10.858.050.300		500
IVIO	3,0 - 4,5	13,5	10.858.050.450		500
D 7,0	k 1,5	d _k 10,0	I ₁ max. 8,5	○ 6,0 Nm	‡ 11000 N
NAC	0,5 - 3,0	14,0	10.858.060	0.300	500
M6	3,0 - 5,0	16,0	10.858.060	0.500	500
D 9,0	k 1,5	d _k 12,0	I₁ max. 10,0	11.0 Nm	1 18000 N

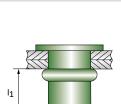
М	*	1	No.		
M8	0,5 - 3,0	16,0	10.858.08	0.300	500
1410	3,0 - 5,5	18,5	10.858.08	0.550	250
D 11,0	k 1,5	d _k 15,0	I ₁ max. 11,5	24,0 Nm	\$ 27000 N
M10	1,0 - 3,5	19,0	10.858.10	0.350	250
D 13,0	k 2,0	d _k 17,0	I ₁ max. 14,0	◯ 50,0 Nm	\$ 40000 N
M12	1,0 - 4,0	24,0	10.858.12	0.400	100
D 16,0	k 2,0	d _k 23,0	l ₁ max. 16,5	85,0 Nm	‡ 57000 N

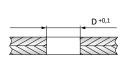
Blind Rivet Nut EFM-G

Stainless steel A2

Flat head | Round shank | closed







DATA

ONLINE

Series

860

[1.4567]

М	‡	1	No.		
M4	0,5 - 2,5	16,0	10.860.040	0.250	500
D 6,0	k 1,0	d _k 9,0	l ₁ max. 13,0	→ 4,0 Nm	‡ 7000 N
M5	0,5 - 3,0	18,0	10.860.050	0.300	500
D 7,0	k 1,0	d _k 10,0	I ₁ max. 14,5	○ 6,0 Nm	‡ 11000 N
M6	0,5 - 3,0	21,0	10.860.060	0.300	500
D 9,0	k 1,5	d _k 12,0	I ₁ max. 16,0	11,0 Nm	\$ 18000 N

M	*	1	No.		
M8	0,5 - 3,0	23,5	10.860.08	80.300	250
D 11,0	k 1,5	d _k 15,0	I ₁ max. 19,0	24,0 Nm	\$ 27000 N
M10	1,0 - 3,5	26,5	10.860.10	00.350	100
D 13,0	k 2,0	d _k 17,0	I ₁ max. 21,0	◯ 50,0 Nm	\$ 40000 N

Larger grip ranges, closed end versions or threads measured in inches?

A large number of products not included in this catalogue are available from stock. Ask for minimum quantities for production of blind rivet nuts according to your specification.

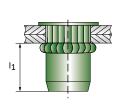


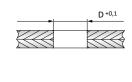












[1.4567]

	М	*	1	No.		
	N/12	0,5 - 2,0	9,0	10.848.030.200		500
IVIO	M3	2,0 - 3,5	9,0	10.848.030.350		500
	D 5,0	k 0,8	d _k 8,0	I ₁ max. 7,0	‡ 40	000 N
	M4	0,5 - 2,5	11,0	10.848.040.250		500
	IVI4	2,5 - 4,0	12,5	10.848.040.400		500
	D 6,0	k 0,8	d _k 9,0	I ₁ max. 8,0	\$ 65	500 N
	M5	0,5 - 3,0	12,0	10.848.050.300		500
	IVIO	3,0 - 4,5	13,5	10.848.050.450		500
	D 7,0	k 1,0	d _k 10,0	I ₁ max. 8,5	‡ 10	000 N

М	*	- 1	No.		
DAG.	0,5 - 3,0	14,5	10.848.060.300		500
M6	3,0 - 5,0	16,0	10.848.060.500		500
D 9,0	k 1,5	d _k 12,0	l ₁ max. 10,0	‡ 170	000 N
N/O	0,5 - 3,0	16,0	10.848.080.300		500
M8	3,0 - 5,5	18,5	10.848.080.550		250
D 11,0	k 1,5	d _k 15,0	l ₁ max. 12,0	\$ 250	000 N
N/10	1,0 - 3,5	19,0	10.848.100.350		250
M10	3,5 - 6,0	21,5	10.848.100.600		250
D 13 0	k 2 0	d . 17 0	L max. 14 0	† 380	000 N



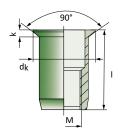
Countersunk head | Round shank | open

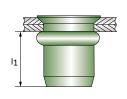


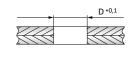












[1.4567]

M	*	1	No.		
M4	1,5 - 4,0	12,0	10.859.040.400		500
D 6,0	k 1,5	d _k 9,0	I ₁ max. 8,0	4,0 Nm	‡ 7000 N
M5	1,5 - 4,5	13,5	10.859.050	0.450	500
IVIS	4,5 - 6,0	15,0	10.859.050.600		500
D 7,0	k 1,5	d _k 10,0	I ₁ max. 8,5	○ 6,0 Nm	‡ 11000 N
D.A.C	1,5 - 4,5	16,0	10.859.060.450		500
M6	4,5 - 6,5	18,0	10.859.060	0.650	500
D 9,0	k 1,5	d , 12,0	I ₁ max. 10,0	11.0 Nm	1 16000 N

M	*	I	No.		
M8	1,5 - 4,5	18,0	10.859.080	0.450	500
IVIO	4,5 - 6,5	20,0	10.859.080	0.650	250
D 11,0	k 1,5	d _k 14,0	I ₁ max. 11,5	24,0 Nm	\$ 27000 N
M10	1,5 - 4,0	22,0	10.859.100).400	250
D 13,0	k 1,6	d _k 16,0	I ₁ max. 14,5	◯ 50,0 Nm	\$ 40000 N
M12	1,7 - 4,5	26,0	10.859.120).400	100
D 16,0	k 2,0	d _k 19,0	l ₁ max. 18,0	85,0 Nm	\$ 57000 N

Blind Rivet Nut ESM-G

Stainless steel A2

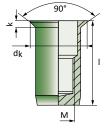
Countersunk head | Round shank | closed

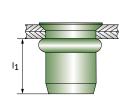


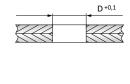








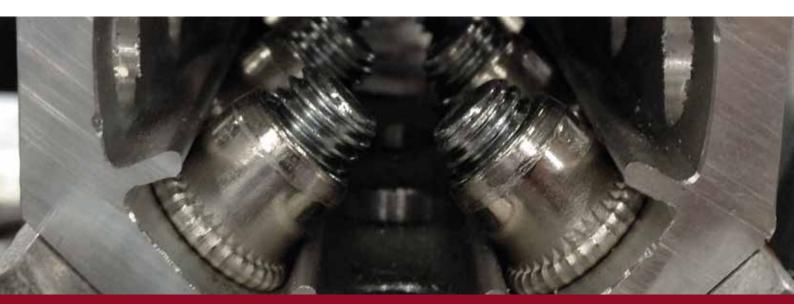




[1.4567]

M	‡	1	No.		
M4	1,5 - 4,0	17,0	10.861.040	0.400	500
D 6,0	k 1,5	d _k 8,3	l ₁ max. 10,5	3,0 Nm	\$ 6800 N
M5	1,5 - 4,5	19,5	10.861.050	0.450	500
D 7,0	k 1,5	d _k 9,3	I, max. 15,5	6.0 Nm	10000 N

М	*	1	No.		
M6	1,5 - 4,5	23,0	10.861.06	0.450	500
D 9,0	k 1,5	d _k 11,3	I ₁ max. 17,0	11,0 Nm	‡ 15000 N
M8	1,5 - 4,5	26,0	10.861.086	0.450	500
D 11,0	k 1,5	d _k 13,3	I ₁ max. 19,0	24,0 Nm	\$ 27000 N



Stainless steel A2

ESM

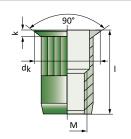


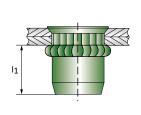


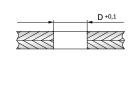


Countersunk head | Round shank knurled | open









M	‡	1	No.		
M3	2,0 - 3,5	10,5	10.865.030.350		500
D 5,0	k 1,5	d _k 8,0	I ₁ max. 6,5 \$\\$ 37		700 N
M4	1,5 - 4,0	12,0	10.865.040.400		500
D 6,0	k 1,5	d _k 9,0	I ₁ max. 8,0	\$ 65	600 N
M5	1,5 - 4,5	13,0	10.865.050.450		500
D 7,0	k 1,5	d _k 10,0	I ₁ max. 8,5	\$ 10	000 N

М	*	1	No.		
NAG	1,5 - 4,5	16,0	10.865.060.450		500
M6	4,5 - 6,5	18,0	10.865.060.650		500
D 9,0	k 1,5	d _k 12,0	l ₁ max. 10,0	\$ 15	000 N
N 4 O	1,5 - 4,5	18,0	10.865.080.450		500
M8	4,0 - 6,5	21,0	10.865.080.650		250
D 11,0	k 1,5	d _k 14,0	l ₁ max. 12,0	\$ 25	000 N
M10	2,0 - 4,5	21,0	10.865.100.450		250
D 13,0	k 1,6	d , 16,0	0 I, max. 14,5 ± 38000		000 N

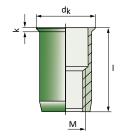


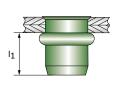
Small countersunk head | Round shank | open

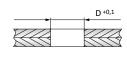












[1.4567]

ESM

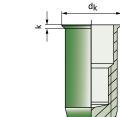
M	‡	- 1	No.		
M4	0,5 - 2,5	11,0	10.802.040	10.802.040.250	
D 6,0	k 0,5	d _k 7,0	I ₁ max. 8,0	→ 4,0 Nm	\$ 6500 N
M5	0,5 - 3,0	12,0	10.802.050	0.300	500
D 7,0	k 0,5	d _k 8,0	I ₁ max. 8,5	○ 6,0 Nm	‡ 10000 N
M6	0,5 - 3,0	14,0	10.802.060.300		500
D 9,0	k 0,5	d _k 10,0	l ₁ max. 10,0	11,0 Nm	\$ 15000 N

M	*	1	No.		
M8	0,5 - 3,0	16,0	10.802.08	0.300	500
D 11,0	k 0,5	d _k 12,0	l ₁ max. 11,5	24,0 Nm	\$ 25000 N
M10	1,0 - 3,5	19,2	10.802.10	0.350	250
D 13,0	k 0,7	d _k 14,0	I ₁ max. 14,0	◯ 50,0 Nm	\$ 38000 N

Blind Rivet Nut ESM-KLSK-G

Stainless steel A2

Small countersunk head | Round shank | closed





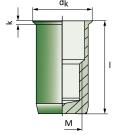


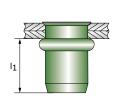


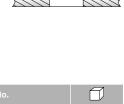
D +0,1











M	‡	1	No.		
M4	0,5 - 2,5	16,0	10.840.040	0.250	500
D 6,0	k 0,5	d _k 7,0	l ₁ max. 13,0	→ 4,0 Nm	‡ 7000 N
M5	0,5 - 3,0	18,0	10.840.050	0.300	500
D 7,0	k 0,5	d _k 8,0	l ₁ max. 14,5	○ 6,0 Nm	‡ 11000 N
M6	0,5 - 3,0	21,0	10.840.060.300		500
D 9,0	k 0,5	d _k 10,0	I ₁ max. 16,0	11,0 Nm	\$ 18000 N

IV.	1	‡	1	No.		
M	18	0,5 - 3,0	23,5	10.840.08	0.300	500
D 1	1,0	k 0,5	d _k 12,0	I ₁ max. 19,0	→ 24,0 Nm	‡ 27000 N
M	10	1,0 - 3,5	26,5	10.840.10	0.350	100
D 1	3,0	k 0,7	d _k 14,0	l ₁ max. 22,0	○ 50,0 Nm	‡ 40000 N

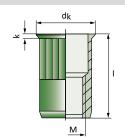


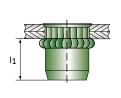


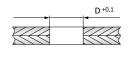


Small countersunk head | Round shank knurled | open









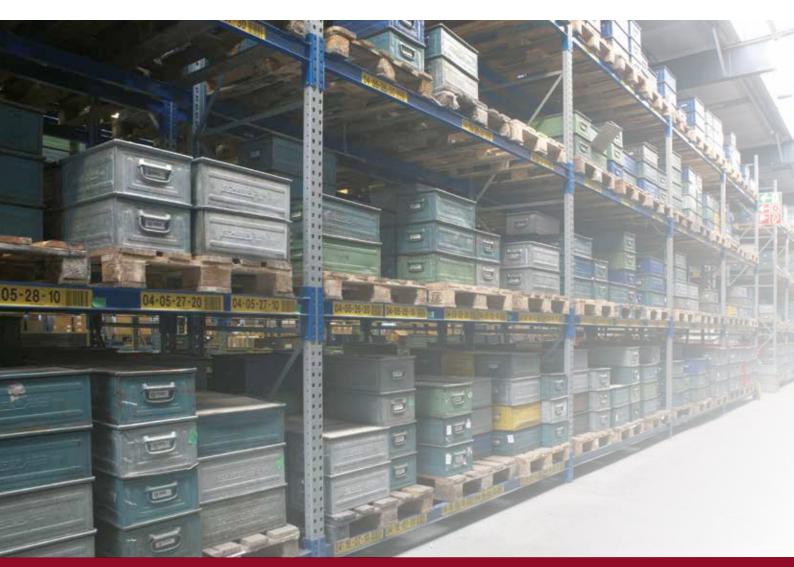
Stainless steel A2

[1.4567]

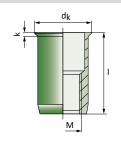
M	*	1	No.		
D.43	0,5 - 2,0	9,0	10.849.030.200		500
M3	2,0 - 3,5	10,5	10.849.030.350		500
D 5,0	k 0,4	d _k 6,0	I ₁ max. 7,0	\$ 35	600 N
M4	0,5 - 3,0	10,0	10.849.040.300		500
IVI4	2,5 - 4,0	12,5	10.849.040.400		500
D 6,0	k 0,4	d _k 7,0	l ₁ max. 8,0	\$ 65	600 N
M5	0,5 - 3,0	11,5	10.849.050.300		500
IVIO	3,0 - 4,5	13,5	10.849.050.450		500
D 7,0	k 0,5	d _k 8,0	l ₁ max. 8,5	\$ 10	000 N
D/A/C	0,5 - 3,0	14,0	10.849.060.300		500
Me	3,0 - 5,0	16,0	10.849.060.500		500
D 9,0	k 0,5	d _k 10,0	I ₁ max. 10,0	\$ 150	000 N

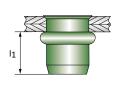
М	+	1	No.		
M8	0,5 - 3,0	16,0	10.849.080.300		500
IVIO	3,0 - 6,0	19,5	10.849.080.600		500
D 11,0	k 0,5	d _k 12,0	l ₁ max. 11,5	\$ 25	000 N
M10	1,0 - 3,5	19,2	10.849.100.350		250
D 13,0	k 0,7	d _k 14,0	l ₁ max. 14,0	\$ 38	000 N
M12	1,0 - 4,0	24,0	10.849.120.400		100
D 16,0	k 0,7	d _k 17,0	I ₁ max. 16,0	‡ 50	000 N

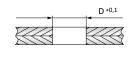
Please ask for our extensive possibilities of stainless steel blind rivet nuts in turned quality.











M	‡	1	No.		
M4	0,5 - 3,0	10,5	10.873.400	0.000	500
D 7,0	k 0,4	d _k 8,0	I ₁ max. 8,0	3,0 Nm	‡ 7000 N
M5	0,5 - 3,0	11,5	10.873.500.000		500
D 7.0	k 0.4	d , 8.0	I, max. 8.5	◯ 5 0 Nm	1 11000 N

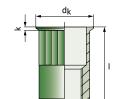
М	*	1	No.		
M6	0,5 - 3,0	13,0	10.873.600	0.000	500
D 8,0	k 0,4	d _k 9,0	l ₁ max. 10,0	○ 10,0 Nm	\$ 18000 N
M8	0,5 - 3,0	15,5	10.873.80	0.000	500
D 10,0	k 0,4	d _k 11,0	I₁ max. 11,5	20,0 Nm	‡ 27000 N

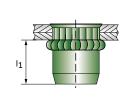


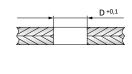




Stainless steel A2 Small countersunk head | Round shank knurled | open







M	‡	1	No.		
M4	0,5 - 3,0	10,5	10.891.400.000		500
D 7,0	k 0,4	d _k 8,0	I ₁ max. 8,0 \$\\$ 680		00 N
M5	0,5 - 3,0	11,5	10.891.500.000		500
D 7,0	k 0,4	d _k 8,0	I ₁ max. 8,5		000 N
M6	0,5 - 3,0	13,0	10.891.600.000		500
D 8,0	k 0,4	d _k 9,0	I ₁ max. 10,0	‡ 140	000 N

М	*	T I	No.		
M8	0,5 - 3,0	15,5	10.891.800.000		500
D 10,0	k 0,4	d _k 11,0	l ₁ max. 11,5	\$ 25000	0 N
M10	0,5 - 3,0	17,5	10.891.100.000		250
D 12,0	k 0,5	d _k 13,0	I ₁ max. 14,0	\$ 37000	0 N



Blind Rivet Nut HEXATOP-E-FK

Stainless steel A2

Flat head | Partial hexagonal shank | open

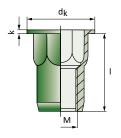


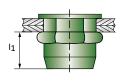














[1.4567]

M	*	1	No.		
M3	0,5 - 2,0	9,0	10.877.030	0.200	500
sw 5,0	k 0,8	d _k 8,0	I ₁ max. 6,5	2,0 Nm	\$ 4000 N
M4	0,5 - 2,5	12,0	10.877.040	0.250	500
SW 6,0	k 1,0	d _k 9,5	I ₁ max. 8,5	○ 5,0 Nm	\$ 6500 N
M5	0,5 - 3,0	13,5	10.877.050	0.300	500
SW 7,0	k 1,0	d _k 10,5	I ₁ max. 9,0	7,0 Nm	\$ 10000 N

М	*	1	No.		
M6	0,5 - 3,0	15,5	10.877.06	0.300	500
sw 9,0	k 1,5	d _k 12,5	l ₁ max. 10,0	○ 13,0 Nm	‡ 17000 N
M8	0,5 - 3,0	17,5	10.877.08	0.300	250
SW 11,0	k 1,5	d _k 14,5	l ₁ max. 11,5	◯ 25,0 Nm	‡ 27000 N
M10	1,0 - 3,5	19,0	10.877.100.350		250
SW 13,0	k 2,0	d _k 16,5	I ₁ max. 13,5	◯ 55,0 Nm	\$ 39000 N

Blind Rivet NutHEXATOP-E-FK-G

Stainless steel A2

Flat head | Partial hexagonal shank | closed

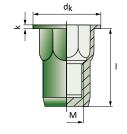


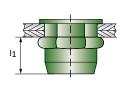














M	‡	- 1	No.	
M6	0,5 - 3,0	21,0	10.804.060.30	00 500
SW 9,0	k 1,5	d _k 12,0	I ₁ max. 17,0	→ 13.0 Nm

М	*	1	No.		
M8	0,5 - 3,0	23,5	10.804.080	0.300	250
SW 11,0	k 1,5	d , 14,5	I ₁ max. 19,0	25.0 Nm	1 27000 N









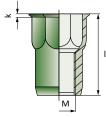


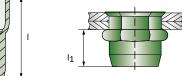
Blind Rivet Nut HEXATOP-E-KLSK

Stainless steel A2

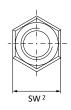
Small countersunk head | Partial hexagonal shank | open











[1.4567]

M	‡	1	No.		
M3	0,5 - 2,0	9,0	10.879.03	0.200	500
SW 5,0	SW² 6,0	k 0,5	I ₁ max. 5,5	2,0 Nm	\$ 3800 N
D. // /	0,5 - 2,5	11,0	10.879.04	0.250	500
M4	2,5 - 4,0	12,5	10.879.04	0.400	500
SW 6,0	SW² 6,8	k 0,5	I ₁ max. 8,5	○ 5,0 Nm	\$ 6000 N
M5	0,5 - 3,0	12,0	10.879.05	0.300	500
IVIO	3,0 - 4,5	13,5	10.879.05	0.450	500
SW 7,0	SW² 8,0	k 0,5	I ₁ max. 9,0	7,0 Nm	\$ 9500 N
M6	0,5 - 3,0	14,0	10.879.06	0.300	500
IVIO	3,0 - 5,0	16,0	10.879.06	0.500	500
sw 9,0	SW² 10,0	k 0,5	I ₁ max. 10,0	→ 13,0 Nm	‡ 16000 N

М	*	1	No.		
N/10	0,5 - 3,0	16,0	10.879.08	0.300	250
M8	3,0 - 5,5	18,5	10.879.08	0.550	250
SW 11,0	SW² 12,0	k 0,5	I ₁ max. 11,5	25,0 Nm	\$ 26000 N
M10	1,0 - 3,5	19,0	10.879.10	0.350	250
SW 13,0	SW ² 14,4	k 0,7	I ₁ max. 14,0	◯ 55,0 Nm	\$ 39000 N
M12	1,0 - 4,0	24,0	10.879.120	0.400	100
SW 16,0	SW ² 17,3	k 0,7	I ₁ max. 19,0	85,0 Nm	\$ 55000 N







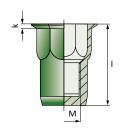


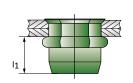
Blind Rivet Nut HEXATOP-E-KLSK-G

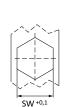
Stainless steel A2

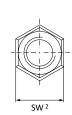
Small countersunk head | Partial hexagonal shank | closed











[1.4567]

M	‡	- 1	No.		
M4	0,5 - 2,5	16,0	10.805.04	0.250	500
SW 6,0	SW ² 6,8	k 0,5	I₁ max. 10,5	○ 5,0 Nm	\$ 6000 N
M5	0,5 - 3,0	18,0	10.805.050.300		500
SW 7.0	SW² 7.8	k 0.5	l, max. 12.5	7 0 Nm	1 9500 N

M	+	- 1	No.		
M6	0,5 - 3,0	21,0	10.805.06	60.300	500
SW 9,0	SW ² 9,8	k 0,7	I₁ max. 16,0	○ 13,0 Nm	‡ 16000 N
M8	0,5 - 3,0	23,5	10.805.08	30.300	250
SW 11,0	SW ² 11,8	k 0,7	l ₁ max. 17,5	25,0 Nm	\$ 26000 N



You can use the classic brief description of our blind rivet nuts for your inquiries or orders:

Serial name: ESM-KLSK-G

+ Thread size:

+ Maximum grip range: 3,0 mm

= Brief description: ESM-KLSK 8-30 G

M8

Stainless steel A4

Flat head | Partial hexagonal shank | open

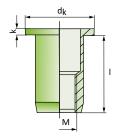


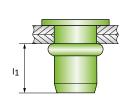


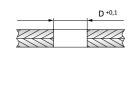












M	‡	1	No.		
M4	0,5 - 2,0	10,2	10.858.040.	200/79	500
D 6,0	k 0,8	d _k 9,0	I ₁ max. 8,0	○ 5,0 Nm	‡ 7000 N
M5	0,5 - 3,0	12,0	10.858.050.300/79		500
D 7,0	k 1,0	d _k 10,0	l ₁ max. 8,0		‡ 11000 N

M	*	1	No.		
M6	0,5 - 3,0	14,5	10.858.060.	300/79	500
D 9,0	k 1,5	d _k 12,0	I ₁ max. 10,0	◯ 15,0 Nm	‡ 18000 N
M8	0,5 - 3,0	16,0	10.858.080.	350/79	250
D 11,0	k 1,5	d _k 15,0	I ₁ max. 11,5	○ 26,0 Nm	‡ 27000 N

Blind Rivet Nut ESM-KLSK A4

Stainless steel A4

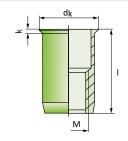
Small countersunk head | Partial hexagonal shank | open

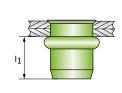


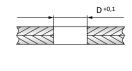












M	‡	1	No.		
M4	0,5 - 2,0	10,0	10.802.040.200/79		500
D 6,0	k 0,5	d _k 6,8	I ₁ max. 8,0	3,0 Nm	\$ 6500 N
M5	0,5 - 3,0	12,0	10.802.050.	300/79	500
D 7,0	k 0,5	d _k 8,0	l ₁ max. 8,5	○ 6,0 Nm	\$ 10000 N

M	*	1	No.		
M6	0,5 - 3,0	14,0	10.802.060.	300/79	500
D 9,0	k 0,5	d _k 10,0	I ₁ max. 10,0	11,0 Nm	‡ 15000 N
M8	1,0 - 4,0	16,5	10.802.080.	400/79	250
D 11,0	k 0,6	d _k 12,0	I₁ max. 11,5	20,0 Nm	‡ 25000 N

Blind Rivet Nut HEXATOP A4

Stainless steel A4

Small countersunk head | Partial hexagonal shank | open

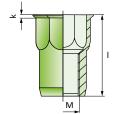




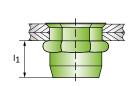


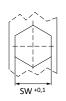


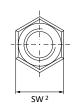




М	*	I	No.		
M4	0,5 - 2,0	10,0	10.879.040.200/79		500
SW 6,0	SW ² 6,8	k 0,5	l ₁ max. 8,5	○ 5,0 Nm	\$ 6500 N
M5	0,5 - 2,0	12,0	10.879.050.	200/79	500
SW 7,0	SW² 8,0	k 0,6	I ₁ max. 9,0		\$ 10000 N





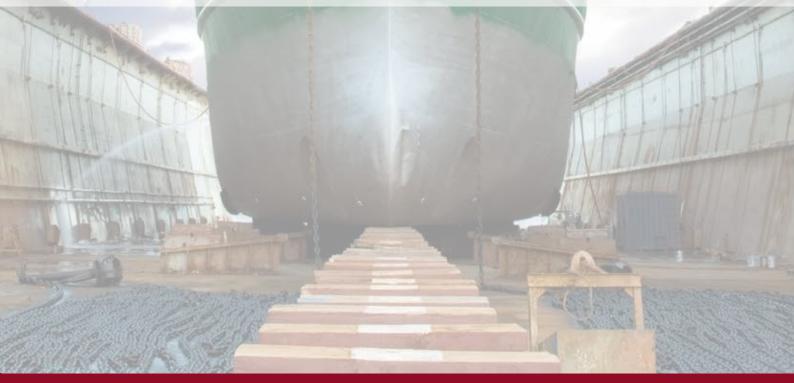


M	+	1	No.		
M6	0,5 - 3,0	14,0	10.879.060.300/79		500
sw 9,0	SW² 10,0	k 0,6	l ₁ max. 10,0	◯ 15,0 Nm	\$ 15000 N
M8	0,5 - 3,5	16,5	10.879.080.	350/79	250
SW 11,0	SW² 12,0	k 0,6	l ₁ max. 11,5	26,0 Nm	\$ 25000 N

Seawater-proof and more.

High-quality materials such as stainless steel A4 or nickel-copper are rapidly growing in importance. Added to these are various surface finishes, such as zinc-nickel coatings that give our connecting elements the best possible resistance to corrosion, salts or acids. A large number of sizes are available from stock – please ask us.

Our experts will be happy to advise you..





SPECIAL BLIND RIVET BOLTS



The HONSEL Group is one of the **leading developers** of the RIFBOLT® blind rivet bolt developed on the basis of the setting principle of the blind rivet nut.

High-strength 360° laser welded variants or a partial scratch protection coating to avoid damage to delicate surfaces are just a few of the many innovations in this field.

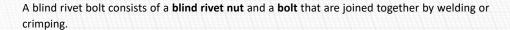
In this product segment, too, it is possible to design and produce individual special versions for your application if there is sufficient demand.

Parameters such as bolt length, thread type (coarse thread, etc.), sleeve designs (knurled, hexagonal) or head form (flat, countersunk and large dome head, small countersunk head) can be modified, where necessary.

Aluminium, steel and stainless steel are available as materials. Fitted or injection moulded seals can be applied for perfect sealing.







Both parts can be produced in-house so that quick and flexible implementation of individual solutions in development and production is guaranteed.

Blind rivet bolts offer the multiple benefits,

- >> of joining different parts reliably together, and
- >> being able to integrate a thread carrier
- >> to which a further component can be connected.

As with all other blind rivet products, processing is possible on parts that are accessible from only one side and is quick without damaging the surface – for example, with our standard tools for blind rivet nuts from the VNG Series.

Blind rivet bolts are an outstanding alternative to the classic welded bolt and are being increasingly used accordingly, also as substitution.

For the greatly risen demand for this safe, reliable and inexpensive assembly process in industrial series production, we have a wide range of products available from stock to meet needs at short





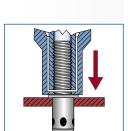
TECHNICAL EXPLANATIONS

Blind rivet threaded bolts principally work in the same way as blind rivet nuts. It is only necessary to replace the threaded mandrels of the setting device with threaded sleeves (interior threads).

The sleeve of the blind rivet bolt is inserted into the prepared borehole and deformed by the stroke of the tool. Knurled types or versions with (partial) hexagonal shaft are available to decrease the danger of the fasteners rotation in the hole.



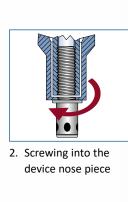
RIFBOLT®-Blind rivet bolt

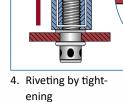


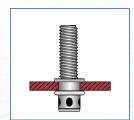
Insertion into the take-up hole of the workpiece



Spindling of the blind rivet bolt.







Lowering the installed RIFBOLT® blind rivet bolt.









Blind Rivet Bolt RIFBOLT®-FK

Steel galvanized

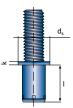


Flat head | Round shank









M	*	ı	l ₂	No.		€ / 1.000
N/1/	0,3 - 2,0	8,5	10	10.880.042.010	500	349,60
M4	2,0 - 3,0	10,0	15	10.880.043.015	500	370,00
l ₁ max.	5,0 D 5,5	d _k 8,0	k 0,5	← 7000 N	→ 4 Nm	\$ 5000 N
N/I	0,5 - 2,0	9,4	10	10.880.052.010	500	386,30
IVIO	0,5 - 2,0 2,0 - 3,5	10,9	15	10.880.053.515	500	401,50
I ₁ max.	6,0 D 6,6	d _k 9,0	k 0,8	◆ 9500 N	G Nm	\$ 8000 N

M	*	1	l ₂	No.		€ / 1.000
	0,5 - 2,5	10,9	10	10.880.062.510	500	417,00
M6	0,5 - 2,5	10,9	15	10.880.062.515	500	430,00
	2,5 - 4,0	12,4	15	10.880.064.015	500	437,90
I ₁ max.	7,0 D 7,8	d _k 10,0	k 1,0	← 12000 N	11 Nm	\$ 9500 N
	1,0 - 3,0	14,0	15	10.880.083.015	250	602,90
M8	3,0 - 5,0	16,0	15	10.880.085.015	250	648,10
	3,0 - 5,0	16,0	20	10.880.085.020	250	653,30
I₁ max.	9,0 D 9,9	d _k 12,0	k 1,5	+□□→ 23500 N	24 Nm	‡ 12000 N

12 = length of the screw after setting; it depends on grip range and tool adjustment.

Property class of the screw: 8.8

Series





Blind Rivet Bolt RIFBOLT®-SK

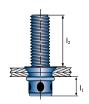
Steel galvanized

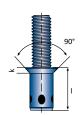


Countersunk head | Round shank









М	‡	-1	l ₂	No.		€ / 1.000
NAE	1,5 - 2,9	10,5	10	10.881.053.110	500	391,20
M5	1,5 - 2,9	10,5	15	10.881.053.115	500	396,00
I ₁ max.	6,0 D	6,6	k 1,1	◆ 9500 N	→ 6 Nm	\$ 8000 N
NAG.	1,5 - 3,4	12,0	10	10.881.063.610	500	420,50
M6	1,5 - 3,4	12,0	15	10.881.063.615	500	433,50
I. max.	7.0 D	7.8	k 1.1	◆ 12000 N	11 Nm	♦ 9500 N

M	*	1	l ₂	No.		€/1.000
M8	1,5 - 3,9	15,0	10	10.881.084.115	250	628,70
IVIO	1,5 - 3,9	15,0	20	10.881.084.120	250	640,40
I ₁ max.	9,0 D	9,9	k 1,2	←□→ 23500 N	24 Nm	‡ 12000 N

12 = length of the screw after setting; it depends on grip range and tool adjustment.

Property class of the screw: 8.8

Flat head | Round shank

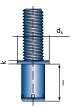












M	‡	1	l ₂	No.	
M5	0,5 - 2,0	13,0	15	10.884.053.015	500
D 7,0	d _k 10,0	k:	1,0	→ 7 Nm	‡ 7000 N
M6	0,5 - 2,5	15,0	20	10.884.063.020	250
D 9,0	d _k 12,0	k:	1,2	10 Nm	\$ 10000 N

М	<u>*</u>	1	l ₂	No.	
M8	0,5 - 3,0	15,5	20	10.884.083.020	250
D 11,0	d _k 15,0	k 1	1,5		‡ 23500 N

12 = length of the screw after setting; it depends on grip range and tool adjustment.

Blind Rivet Bolt RIFBOLT® -KLSK R

Steel galvanized

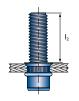
Small countersunk head | Round Shank knurled

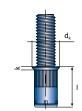


Series









M	*	1	l ₂	No.	
M4	0,5 - 2,0	11,0	10	10.883.043.010	500
D 6,0	d _k 6,8	3		k 0,5	\$ 5000 N
M5	0,5 - 2,0	13,0	15	10.883.053.015	500
D 7,0	d _k 8,0)		k 0,6	‡ 7000 N

М	*	1	l ₂	No.	
M6	0,5 - 2,5	15,0	20	10.883.063.020	250
D 9,0	d _k 10,0)		k 0,6	‡ 10000 N
M8	1,0 - 3,0	18,0	20	10.883.083.020	250
D 11,0	d _k 12,0)		k 0,6	‡ 18000 N

I2 = length of the screw after setting; it depends on grip range and tool adjustment.

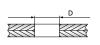




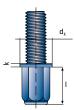


Flat head | Hexagonal









M	+	1	l ₂	No.	
M5	0,5 - 3,0	11,0	15	10.885.053.015	500
SW 7	d _k 10,0	k 1,0		→ 7 Nm	‡ 7000 N
M6	0,5 - 3,0	13,0	20	10.885.063.020	500
SW 9	d _k 13,0	k 1,5		10 Nm	\$ 10000 N

М	*	1	l ₂	No.	
M8	0,5 - 3,0	14,0	20	10.885.083.020	250
SW 11	d _k 16,0	k 1,5		26 Nm	‡ 23500 N

 $12 = length \ of \ the \ screw \ after \ setting; \ it \ depends \ on \ grip \ range \ and \ tool \ adjustment.$





Price 3.00 €

All prices exclusive of VAT.

Subject to technical and editorial changes.

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