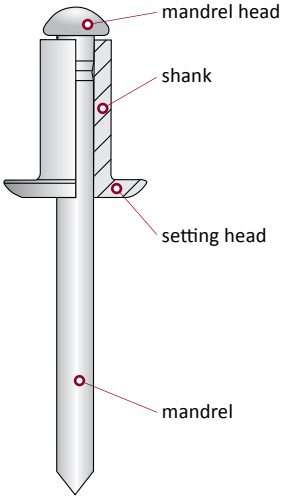
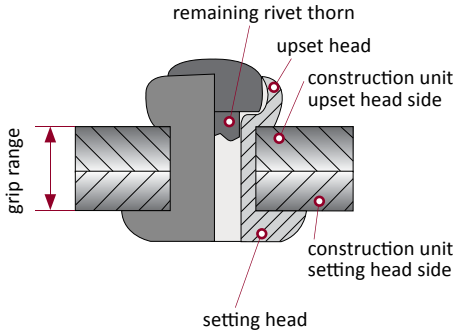
The blind rivet consists of a **shank** assembled to the **rivet mandrel**.
The handling of blind rivets occurs from one side of the construction elements.
After inserting the rivet into the components bore holes, the rivet mandrel is pulled back by the tool and forms the closing head. The mandrel or 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**.
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 l**ever tools**, to modern cordless **battery riveters** to **pneumatic-hydraulic tools** and **fully automated applications** for industrial volume productions.

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.

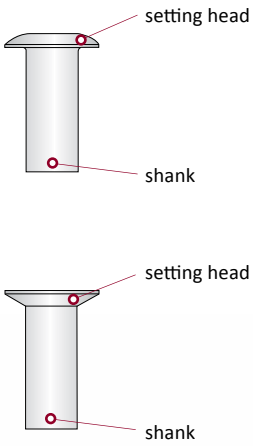




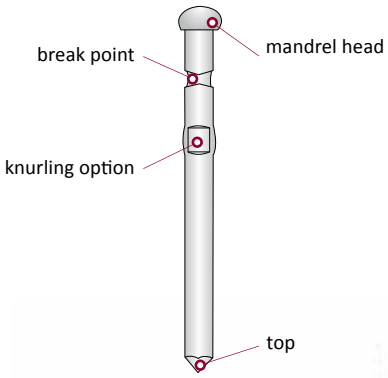
The rivet mandrel is needed for shaping the rivet shaft.

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.

rivet shaft



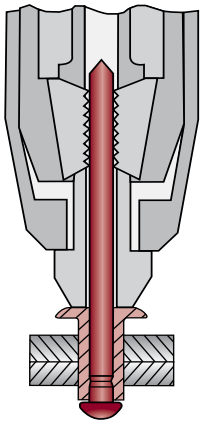
mandrel



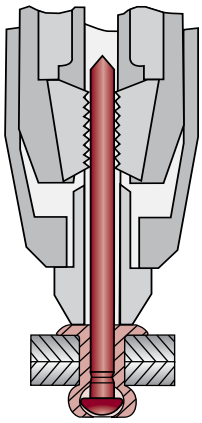
The principle of the setting process

animation blind rivet

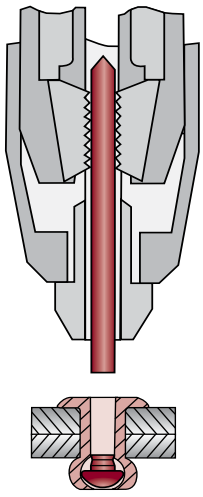
In order to process the blind rivet a setting tool is required. This can either be operated by muscle power (hand tools) or through external power (e.g. pneumatic-hydraulic or battery tools). The devices are chosen on the basis of the blind rivet type and on the basis of throughput volume.
Basically,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



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



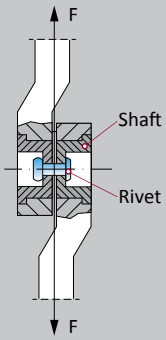
The rivet mandrel is pulled by triggering the stroke with the help of the clamping jaws. The mandrel head reshapes the end of the rivet shaft.
When the rivet head is flush with the component surface, the process is completed.



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.

Shear strength

EXPERIMENTAL SETUP

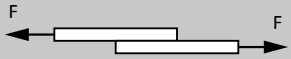


The shear strength is the maximum radial force which a rivet can absorb before fracture occurs.

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:



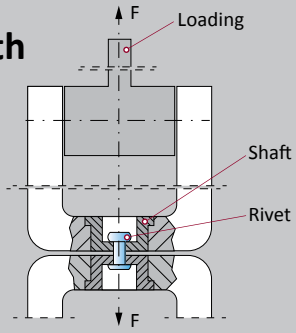
Shear strength - measured data [N]

	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	8,0
ALFO®	Alu / Steel **Dome Head**	40	380	660	660	–	1120	1480	1650	2520	2850	6600	–
	Alu / Steel **Countersunk Head**	42	–	660	660	–	1120	1480	1650	–	–	–	–
	Alu / Steel **Large Dome Head**	43	–	–	580	–	1120	1480	1650	2650	–	–	–
	Alu / Steel **Dome Head grooved**	44	–	–	600	–	1000	1350	–	–	–	–	–
	Alu / Stainless Steel **Dome Head**	46	380	660	660	–	1120	1480	1650	2520	2850	–	–
	Alu / Stainless Steel **Countersunk Head**	47	420	660	–	–	1120	–	1650	–	–	–	–
	Alu / Stainless Steel **Large Dome Head**	48	–	–	–	–	–	–	1650	–	–	–	–
	Alu / Alu **Dome Head**	49	–	–	380	–	740	1140	–	–	–	–	–
	Steel / Steel **Dome Head**	50	–	900	1060	–	1900	2900	3000	4000	4500	–	8600
	Steel / Steel **Countersunk Head**	51	–	900	1060	–	1900	2900	3000		4900	–	–
	Steel / Steel **Large Dome Head**	51	–	–	–	–	–	2900	–	–	–	–	–
	Stainless Steel / Stainless Steel **Dome Head**	52	1000	2050	2050	–	2750	4250	4700	5700	6500	–	–
	Stainless Steel / Stainless Steel **Countersunk Head**	53	–	–	1800	–	2750	4250	4700	–	–	–	–
	Stainless Steel / Stainless Steel **Large Dome Head**	53	–	–	1900	–	2700	4200	–	–	–	–	–
	Stainless Steel / Stainless Steel **Dome Head**	54	–	1760	–	–	3220	–	4800	–	–	–	–
	Nickel-Copper / Stainless Steel **Dome Head**	55	–	–	1600	–	2300	3400	–	–	5400	–	–
	Copper / Steel **Dome Head**	56	–	760	800	–	1500	–	–	–	–	–	–
	Copper / Bronze **Dome Head**	56	–	760	800	–	1500	–	–	–	–	–	–
Opto®	Alu / Steel **Dome Head**	57	–	–	720	–	1120	1530	–	–	2000	–	–
	Alu / Steel **Dome Head painted**	58	–	–	720	–	1120	1530	–	–	–	–	–
	Alu / Steel **Countersunk Head**	59	–	–	670	–	980	1500	–	–	–	–	–
	Alu / Steel **Large Dome Head**	59	–	–	720	–	1120	1530	–	–	–	–	–
	Alu / Stainless Steel **Dome Head**	60	–	–	670	–	980	1530	–	–	–	–	–
	Alu / Stainless Steel **Countersunk Head**	60	–	–	–	–	950	–	–	–	–	–	–
	Alu / Stainless Steel **Large Dome Head**	60	–	–	670	–	980	1530	–	–	–	–	–
	Steel / Steel **Dome Head**	61	–	–	1500	–	1950	2700	–	–	6500	–	–
	Steel / Steel **Large Dome Head**	61	–	–	–	–	–	2050	–	–	–	–	–
	Stainless Steel / Stainless Steel **Dome Head**	61	–	–	1600	–	2700	3900	–	–	12500	–	–
Opto®-BULB	Steel / Steel **Dome Head**	62	–	–	–	–	–	–	–	–	11500	–	–
	Stainless Steel / Stainless Steel **Dome Head**	62	–	–	–	–	–	–	–	–	14000	–	–
Certo®	Alu / Steel **Dome Head**	63	–	–	1100	–	1650	2400	–	–	3620	–	–
	Alu / Steel **Countersunk Head**	64	–	–	1100	–	1650	2400	–	–	–	–	–
	Alu / Stainless Steel **Dome Head**	65	–	–	1000	–	1650	2400	–	–	–	–	–
	Alu / Stainless Steel **Countersunk Head**	65	–	–	–	–	1650	–	–	–	–	–	–
	Alu / Alu **Dome Head**	66	–	–	520	–	720	1000	–	–	–	–	–
	Steel / Steel **Dome Head**	66	–	–	1150	–	1700	2400	–	–	–	–	–
	Stainless Steel / Stainless Steel **Dome Head**	67	–	–	2000	–	3000	4500	–	–	6500	–	–
	Copper / Steel **Dome Head**	68	–	–	950	–	1400	2150	–	–	–	–	–
	Copper / Stainless Steel **Dome Head**	68	–	–	950	–	1400	2150	–	–	–	–	–
Certo®-PERFECT	Stainless Steel / Stainless Steel **Dome Head**	69	–	–	–	–	–	4500	–	–	–	–	–
Fero®-BULB	Alu / Alu **Dome Head**[1]	70	–	–	–	–	–	–	–	–	4200-5000	–	–
	Steel / Steel **Dome Head**[1]	71	–	–	–	–	2400-4100	3600-5600	–	–	10000-16500	–	–
	Stainless Steel / Stainless Steel **Dome Head**[1]	72	–	–	–	–	5200	5500	–	–	11000-15000	–	–
Fero®-BOLT	Alu / Alu **Dome Head**	74	–	–	–	–	–	2200	–	–	4200	–	–
	Alu / Alu **Countersunk Head**	74	–	–	–	–	–	–	–	–	4700	–	–
	Steel / Steel **Dome Head**	75	–	–	–	–	–	5800	–	–	10500	–	–
	Steel / Steel **Countersunk Head**	75	–	–	–	–	–	5800	–	–	11000	–	–
	Stainless Steel / Stainless Steel **Dome Head**	75	–	–	–	–	–	6000	–	–	10500	–	–
Folding	Alu / Alu **Dome Head Standard**	76	–	–	–	–	500	900	–	–	–	–	–
	Alu / Alu **Dome Head Spezial-2**	77	–	–	–	–	–	–	3000	–	4900	–	–
Arco®	Alu / Steel **Dome Head**	78	–	–	850	–	1330	2100	–	–	–	–	–
Grounding	Copper / Steel **Dome Head**	80	–	–	–	1400	–	–	–	–	–	–	–
Grounding OPTO	Alu / Steel **Dome Head**	81	–	–	–	–	1140	–	–	–	–	–	–

[1] depending on the length

Tensile strength

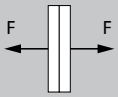
EXPERIMENTAL SETUP



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]/ 6,4	7,8	8,0
ALFO®	Alu / Steel **Dome Head**	40	600	900	1100	–	1420	1950	2000	2850	4250	9550	–
	Alu / Steel **Countersunk Head**	42	–	900	1100	–	1420	1950	2000	–	–	–	–
	Alu / Steel **Large Dome Head**	43	–	–	850	–	1900	2200	2500	3500	–	–	–
	Alu / Steel **Dome Head grooved**	44	–	–	1000	–	1350	1820	–	–	–	–	–
	Alu / Stainless Steel **Dome Head**	46	600	900	1100	–	1420	1950	2000	2850	–	–	–
	Alu / Stainless Steel **Countersunk Head**	47	660	900	–	–	1420	–	2000	–	4600	–	–
	Alu / Stainless Steel **Large Dome Head**	48	–	–	–	–	–	–	2500	–	–	–	–
	Alu / Alu **Dome Head**	49	–	–	670	–	1240	1600		–	–	–	–
	Steel / Steel **Dome Head**	50	–	1210	1550	–	2600	3850	4300	5500	6300	–	12000
	Steel / Steel **Countersunk Head**	51	–	1210	1550	–	2600	3850	4300	–	5700	–	–
	Steel / Steel **Large Dome Head**	51											
	Stainless Steel / Stainless Steel **Dome Head**	52	1500	2600	2600	–	3550	5400	5800	7500	8850	–	–
	Stainless Steel / Stainless Steel **Countersunk Head**	53	–	–	2500	–	3550	5400	5800	–	–	–	–
	Stainless Steel / Stainless Steel **Large Dome Head**	53	–	–	2500	–	3500	5300	–	–	–	–	–
	Stainless Steel / Stainless Steel **Dome Head**	54	–	2270	–	–	4250	–	6600	–	–	–	–
	Nickel-Copper / Stainless Steel **Dome Head**	55	–	–	2400	–	3450	5000	–	–	8200	–	–
	Copper / Steel **Dome Head**	56	–	950	1000	–	1800	–	–	–	–	–	–
	Copper / Bronze **Dome Head**	56	–	950	1000	–	1800	–	–	–	–	–	–
Opto®	Alu / Steel **Dome Head**	57	–	–	1000	–	1650	2300	–	–	2500	–	–
	Alu / Steel **Dome Head painted**	58											
	Alu / Steel **Countersunk Head**	59	–	–	900	–	1320	2300	–	–	–	–	–
	Alu / Steel **Large Dome Head**	59	–	–	1000	–	1650	2300	–	–	–	–	–
	Alu / Stainless Steel **Dome Head**	60	–	–	900	–	1320	2300	–	–	–	–	–
	Alu / Stainless Steel **Countersunk Head**	60											
	Alu / Stainless Steel **Large Dome Head**	60	–	–	900	–	1320	2300	–	–	–	–	–
	Steel / Steel **Dome Head**	61	–	–	1700	–	2350	3300	–	–	4200	–	–
	Steel / Steel **Large Dome Head**	61	–	–	–	–	–	2940	–	–	–	–	–
	Stainless Steel / Stainless Steel **Dome Head**	61	–	–	2000	–	3500	5000	–	–	7000	–	–
Opto®-BULB	Steel / Steel **Dome Head**	62	–	–	–	–	–	–	–	–	7800	–	–
	Stainless Steel / Stainless Steel **Dome Head**	62	–	–	–	–	–	–	–	–	8000	–	–
Certo®	Alu / Steel **Dome Head**	63	–	–	1450	–	2500	3400	–	–	4950	–	–
	Alu / Steel **Countersunk Head**	64	–	–	1450	–	2500	3400	–	–	–	–	–
	Alu / Stainless Steel **Dome Head**	65	–	–	1350	–	2500	3400	–	–	–	–	–
	Alu / Stainless Steel **Countersunk Head**	65	–	–	–	–	2500	–	–	–	–	–	–
	Alu / Alu **Dome Head**	66	–	–	540	–	760	1400	–	–	–	–	–
	Steel / Steel **Dome Head**	66	–	–	1200	–	1850	2800	–	–	–	–	–
	Stainless Steel / Stainless Steel **Dome Head**	67	–	–	2400	–	4000	5500	–	–	8000	–	–
	Copper / Steel **Dome Head**	68	–	–	1250	–	2100	3200	–	–	–	–	–
	Copper / Stainless Steel **Dome Head**	68	–	–	1250	–	2100	3200	–	–	–	–	–
Certo®-PERFECT	Stainless Steel / Stainless Steel **Dome Head**	69	–	–	–	–	–	5500	–	–	–	–	–
Fero®-BULB	Alu / Alu **Dome Head**[1]	70	–	–	–	–	–	–	–	–	3100	–	–
	Steel / Steel **Dome Head**[1]	71	–	–	–	–	2800	3800	–	–	7800	–	–
	Stainless Steel / Stainless Steel **Dome Head**[1]	72	–	–	–	–	4000	5000	–	–	8800	–	–
Fero®-BOLT	Alu / Alu **Dome Head**	74	–	–	–	–	–	1800	–	–	3000	–	–
	Alu / Alu **Countersunk Head**	74	–	–	–	–	–	–	–	–	4500	–	–
	Steel / Steel **Dome Head**	75	–	–	–	–	–	4100	–	–	8000	–	–
	Steel / Steel **Countersunk Head**	75	–	–	–	–	–	4100	–	–	9500	–	–
	Stainless Steel / Stainless Steel **Dome Head**	75	–	–	–	–	–	4500	–	–	8200	–	–
Folding	Alu / Alu **Dome Head Standard**	76	–	–	–	–	800	1100	–	–	–	–	–
	Alu / Alu **Dome Head Spezial-2**	77	–	–	–	–	–	–	2000	–	3000	–	–
Arco®	Alu / Steel **Dome Head**	78	–	–	720	–	1300	1950	–	–	–	–	–
Grounding	Copper / Steel **Dome Head**	80	–	–	–	2000	–	–	–	–	–	–	–
Grounding OPTO	Alu / Steel **Dome Head**	81	–	–	–	–	1670	–	–	–	–	–	–

[1] depending on the length

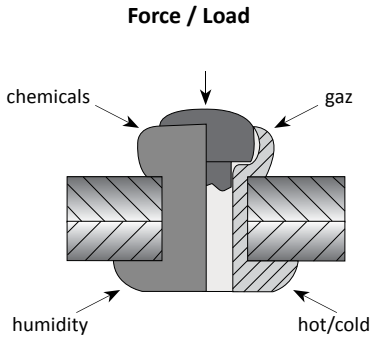
Corrosion resistance and protection

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.

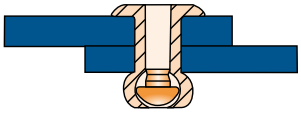
Microlayer corrosion protection systems (MKS)
Microlayer corrosion protection systems stand for state of the art procedures in material surface coating. They allow combining excellent corrosion protection with additional properties like, for instance, colour schemes and the implementation of predefined 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

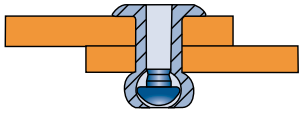
Anode (Steel)

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.

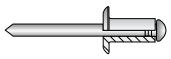
We realize projects in all dimensions for different industrial sectors, for example:

>> 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.

1 1 Standard Blind Rivet ALFO®



Aluminium /

Steel /

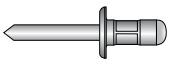
Stainless Steel A2 /

Stainless Steel A4 /

Nickel / Copper

Copper /

1 2 Multigrip Blind Rivets OPTO®



Aluminium /

Steel /

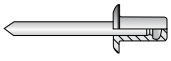
Stainless Steel /

1 3 Multigrip Blind Rivets OPTO®-BULB

Steel /

Stainless Steel /

1 4 Sealed Blind Rivets CERTO®



Aluminium /

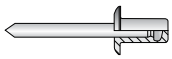
Steel /

Stainless Steel A2 /

Copper /

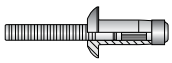
Please notice that we reserve the rigth to charge alloy surcharges according

1.5 Sealed Blind Rivets CERTO®-PERFECT



Stainless Steel A2 /

1.6 Structural Blind Rivets FERO®-BULB

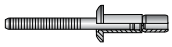


Aluminium /

Steel /

Stainless Steel /

1.7 Structural Blind Rivets FERO®-BOLT

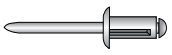


Aluminium /

Steel /

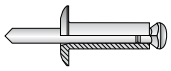
Stainless Steel /

1.8 Folding Blind Rivets



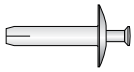
Aluminium /

1.9 Body-Bound Blind Rivets ARCO®



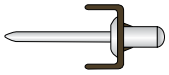
Aluminium /

1.10 Hammer Stroke Blind Rivets



Aluminium /

1.11 Grounding Blind Rivets

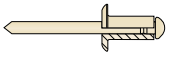


Copper /

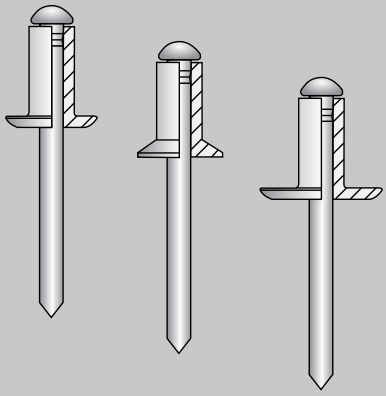
Brass /

Aluminium /

1.12 Plastic Blind Rivets



Plastic



A true classic.

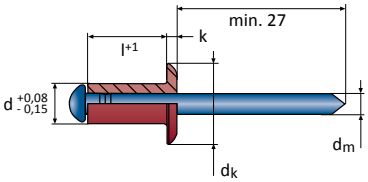
The description ALFO® specifies several lines of open type standard blind rivets, available with dome head, countersunk head or large dome head.
It covers the designs and special types described in DIN EN ISO 15977 – 15984, as well as 16582 und 16584. By special types we define rivets whose functional 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**.

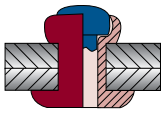
Standard Blind Rivet **ALFO®**

Series 10.**700**

Aluminium / **Steel**

> Dome Head
> open





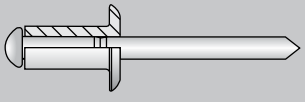
2,4 - 3,2 mm EN AW - 5019 [AlMg5]
4,0 - 7,8 mm EN AW - 5754 [AlMg3]

DIN EN ISO 15977

d	l +1		No.	
2,4	3,0	0,5 - 1,0	10.700.024.030	500
	4,0	0,5 - 2,0	10.700.024.040	500
	6,0	1,5 - 4,0	10.700.024.060	500
	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 NEW
d_k 5,0 -0,7	d_m 1,5	k 0,55 ±0,15	2,5 mm	380 N / 600 N
3,0	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
	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	660 N / 900 N

d	l +1		No.	
3,2	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
	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 NEW
	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	660 N / 1100 N
4,0	4,0	0,5 - 1,5	10.700.040.040	500 NEW
	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
	14,0	8,5 - 11,0	10.700.040.140	500 NEW
	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
d_k 8,0 -1,0	d_m 2,0	k 1,0 ±0,3	4,1 mm	1120 N / 1420 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	l +1		No.	
4,8	6,0	1,0 - 3,0	10.700.048.060	500
	7,0	1,0 - 4,0	10.700.048.070	500
	8,0	2,5 - 5,0	10.700.048.080	500
	9,0	2,5 - 6,0	10.700.048.090	500 NEW
	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
	18,0	11,5 - 13,5	10.700.048.180	500
	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	100 NEW
	50,0	39,0 - 44,5	10.700.048.500	100 NEW
	55,0	44,0 - 49,5	10.700.048.550	100 NEW
	60,0	49,0 - 54,5	10.700.048.600	100 NEW
	65,0	54,0 - 59,5	10.700.048.650	100 NEW
	70,0	59,0 - 64,5	10.700.048.700	100 NEW
d_k 9,5 -1,0	d_m 2,7	**k** 1,1 ±0,3	4,9 mm	1480 N	1950 N

d	l +1		No.	
5,0	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
	18,0	11,5 - 13,5	10.700.050.180	500
	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
d_k 9,5 -0,8	d_m 2,7	**k** 1,1 ±0,3	5,1 mm	1650 N	2000 N

d	l +1		No.	
6,0	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
	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
d_k 12,0 -1,2	d_m 3,2	**k** 1,5 ±0,4	6,1 mm	2520 N	2850 N

d	l +1		No.	
6,4	12,0	2,5 - 7,0	10.700.064.120	250
	16,0	6,0 - 11,0	10.700.064.160	250
	18,0	10,0 - 13,0	10.700.064.180	250
	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
	35,0	26,5 - 28,5	10.700.064.350	100 NEW
	40,0	31,5 - 33,5	10.700.064.400	100 NEW
	45,0	36,5 - 38,5	10.700.064.450	100 NEW
d_k 13,0 -1,4	d_m 3,6	**k** 1,8 ±0,4	6,5 mm	2850 N	4250 N

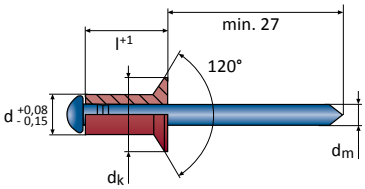
d	l +1		No.	
7,8	15,0	4,0 - 9,5	10.700.078.150	250
	18,0	9,5 - 12,5	10.700.078.180	250
	22,0	12,5 - 16,5	10.700.078.220	250
	26,0	16,5 - 20,5	10.700.078.260	250
	30,0	20,5 - 24,5	10.700.078.300	100
	35,0	24,5 - 29,5	10.700.078.350	100
	40,0	29,5 - 34,5	10.700.078.400	100 NEW
d_k 14,0	d_m 3,7	**k** 2,0	8,0 mm	6600 N	9550 N

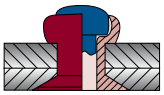
Diameter 7,8 is not standardized.

Standard Blind Rivet **ALFO®**
Series 10.**700**

Aluminium / Steel

> Countersunk Head
> open





3,0 - 3,2 mm EN AW - 5719 [AlMg5]
4,0 mm EN AW - 5754 [AlMg3]

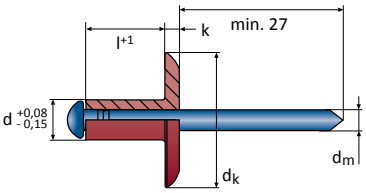
DIN EN ISO 15978

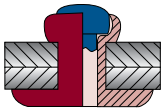
d	l +1		No.	
3,0	5,0	1,5 - 3,0	10.700.300.050	500
	6,0	2,0 - 4,0	10.700.300.060	500
	8,0	3,5 - 6,0	10.700.300.080	500
	10,0	5,0 - 7,5	10.700.300.100	500
	12,0	7,0 - 9,0	10.700.300.120	500
d_k 6,0 -0,4	d_m 1,7	3,1 mm	660 N	900 N
3,2	6,0	1,5 - 3,5	10.700.320.060	500
	8,0	3,0 - 5,5	10.700.320.080	500
	10,0	5,0 - 7,5	10.700.320.100	500
	12,0	7,0 - 9,0	10.700.320.120	500
	16,0	9,0 - 13,0	10.700.320.160	500 NEW
d_k 6,2 -0,4	d_m 1,9	3,3 mm	660 N	1100 N
4,0	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
	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
d_k 7,5 -0,5	d_m 2,0	4,1 mm	1120 N	1420 N

d	l +1		No.	
4,8	10,0	4,0 - 6,5	10.700.480.100	500
	12,0	6,0 - 8,0	10.700.480.120	500
	16,0	8,0 - 12,0	10.700.480.160	500
	20,0	12,0 - 15,5	10.700.480.200	500
d_k 9,0 -0,5	d_m 2,7	4,9 mm	1480 N	1950 N
5,0	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
	16,0	8,0 - 12,0	10.700.500.160	500
	18,0	11,5 - 13,5	10.700.500.180	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 NEW
d_k 9,3 -0,5	d_m 2,7	5,1 mm	1650 N	2000 N

In Chapter 7 on pages 148-157, you will find a wide range of our **assortments and small packs**

EN AW - 5754 [AlMg3]





Aluminium / Steel

Large Dome Head <
open <

d	l +1		No.		
3,2	6,0	1,5 - 3,5	10.730.032.060		500
	8,0	3,0 - 5,5	10.730.032.080		500
	10,0	5,0 - 7,5	10.730.032.100		500
d_k **9,5** ±0,3	d_m 1,9	**k** 1,2 +0,5	3,3 mm	580 N	850 N
4,0	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
	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 NEW
d_k **12,0** ±0,3	d_m 2,0	**k** 1,5 ±0,5	4,1 mm	1120 N	1900 N
4,8	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
	16,0	7,5 - 12,0	10.770.048.160		500
	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 NEW
	30,0	20,0 - 25,0	10.770.048.300		250 NEW
d_k **16,0** ±0,3	d_m 2,7	**k** 1,8 ±0,5	4,9 mm	1480 N	2200 N

All fasteners are available in different packaging units like for example big packs for industrial use.

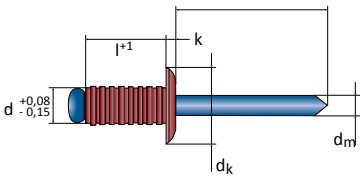
d	l +1		No.		
5,0	8,0	2,0 - 5,0	10.740.050.080		500
	10,0	4,0 - 6,5	10.740.050.100		500
	12,0	6,0 - 8,0	10.740.050.120		500
	14,0	7,5 - 10,0	10.740.050.140		500
	16,0	8,0 - 12,0	10.740.050.160		500
	18,0	11,5 - 13,5	10.740.050.180		500
	20,0	12,0 - 15,5	10.740.050.200		500
	25,0	15,0 - 20,5	10.740.050.250		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	1650 N	2500 N
5,0	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
	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	1650 N	2500 N
5,0	10,0	4,0 - 6,5	10.770.050.100		500
	16,0	8,0 - 12,0	10.770.050.160		500
	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	1650 N	2500 N
6,0	10,0	3,0 - 5,5	10.770.060.100		250 NEW
	16,0	7,0 - 11,0	10.770.060.160		250 NEW
	20,0	11,0 - 15,0	10.770.060.200		250 NEW
d_k **16,0** ±0,3	d_m 3,2	**k** 1,8 +0,5	6,1 mm	2650	3500

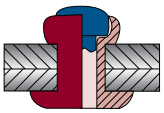
CERVOTEC Bicycle garages

Standard Blind Rivet **ALFO®**
Series 10.**712**

Aluminium / Steel

> Dome Head
> open
> grooved rivet shank



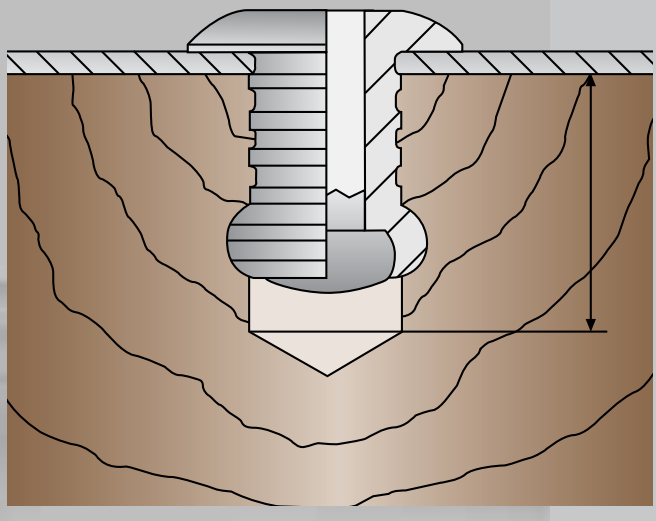


EN AW - 5754 [AlMg3]

d	l +1	Minimum depth of borehole	No.	
3,2	10,0	13,0	10.712.032.100	500
d_k 6,5 -0,7	d_m 1,7	**k** 0,8 ±0,7	min. 3,93 mm	600 N / 1000 N
4,0	8,0	11,0	10.712.040.080	500
	12,0	15,0	10.712.040.120	500
	18,0	21,0	10.712.040.180	500
d_k 8,0 -1,0	d_m 2,0	**k** 1,0 ±0,3	min. 4,15 mm	1000 N / 1350 N
4,8	10,0	14,0	10.712.048.100	500
	16,0	20,0	10.712.048.160	500
d_k 9,5 -1,0	d_m 2,7	**k** 1,1 ±0,3	min. 4,95 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.



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.

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® multi grip blind rivets with large grip ranges in WHITE (RAL 9010) or BLACK (RAL 9005) - available directly from stock. ▶ Seite 58.

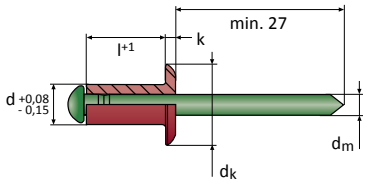
Plastic cover caps

For minimum order quantities of 20.000 pieces each colour plastic cover caps made from polyethylen are available on request for large heads with diameters 11, 14 an 16 mm.

Standard Blind Rivet **ALFO®**
Series 10.**702**

Aluminium / Stainless Steel A2/A3

> Dome Head
> open

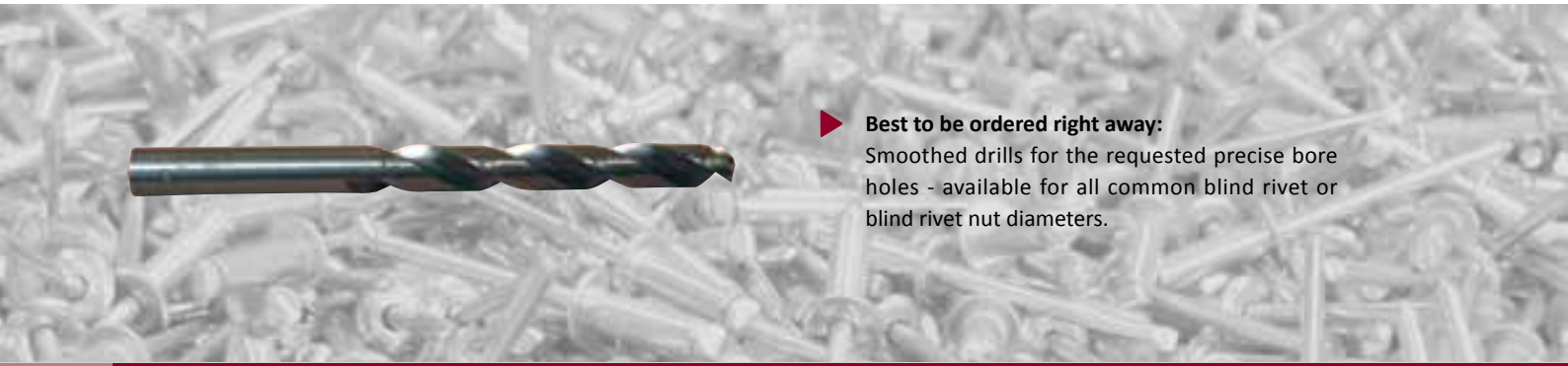


2,4 - 3,2 mm EN AW - 5019 [AlMg5]
4,0 - 6,4 mm EN AW - 5754 [AlMg3]

according to DIN EN ISO 15977

d	l +1		No.	
2,4	4,0	0,5 - 2,0	10.702.024.040	500
	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	380 N / 600 N
3,0	4,0	0,5 - 2,0	10.702.030.040	500
	6,0	1,5 - 4,0	10.702.030.060	500
	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	660 N / 900 N
3,2	6,0	1,0 - 3,5	10.702.032.060	500
	8,0	3,0 - 5,5	10.702.032.080	500
	10,0	5,0 - 7,5	10.702.032.100	500
	12,0	7,0 - 9,0	10.702.032.120	500
d_k 6,5 -0,7	d_m 1,9	k 0,8 ±0,2	3,3 mm	660 N / 1100 N
4,0	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
	10,0	5,0 - 7,0	10.702.040.100	500
	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 NEW
d_k 8,0 -1,0	d_m 2,0	k 1,0 ±0,3	4,1 mm	1120 N / 1420 N

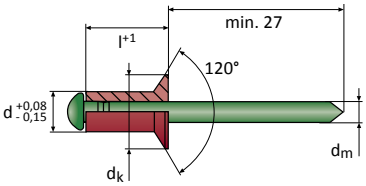
d	l +1		No.	
4,8	6,0	1,0 - 3,0	10.702.048.060	500
	8,0	2,5 - 4,5	10.702.048.080	500
	10,0	4,0 - 6,5	10.702.048.100	500
	12,0	5,5 - 8,0	10.702.048.120	500
	14,0	7,0 - 10,0	10.702.048.140	500
	16,0	8,0 - 12,0	10.702.048.160	500
	20,0	11,5 - 15,5	10.702.048.200	500 NEW
d_k 9,5 -1,0	d_m 2,7	k 1,1 ±0,3	4,9 mm	1480 N / 1950 N
5,0	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
	16,0	8,0 - 12,0	10.702.050.160	500
	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 NEW
	40,0	29,5 - 35,0	10.702.050.400	250 NEW
d_k 9,5 -0,8	d_m 2,7	k 1,1 ±0,3	5,1 mm	1650 N / 2000 N
6,0	10,0	3,0 - 5,5	10.702.060.100	500
	12,0	5,0 - 7,5	10.702.060.120	500
	16,0	7,0 - 11,0	10.702.060.160	500
	18,0	10,5 - 13,0	10.702.060.180	500
	20,0	11,0 - 15,0	10.702.060.200	500 NEW
d_k 12,0 -1,2	d_m 3,2	k 1,5 ±0,4	6,1 mm	2520 N / 2850 N
6,4	12,0	2,5 - 7,0	10.702.064.120	500 NEW
	16,0	6,0 - 11,0	10.702.064.160	500 NEW
d_k 12,7 ±0,3	d_m 3,6	k 2,3 ±0,2	6,5 mm	2850N / 4600 N

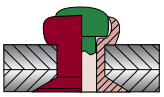


Best to be ordered right away:
Smoothed drills for the requested precise bore holes - available for all common blind rivet or blind rivet nut diameters.

Aluminium / Stainless Steel A2/A3

2,4 - 3,0 mm EN AW - 5719 [AlMg5]
3,0 - 5,0 mm EN AW - 5754 [AlMg3]





Countersunk Head <
open <

according to DIN EN ISO 15978

d	l +1		No.	
2,4	6,0	1,5 - 4,0	10.702.240.060	500
d_k 4,5 +0,2	d_m 1,45	2,5 mm	420 N	660 N
3,0	5,0	1,5 - 3,0	10.702.300.050	500 NEW
	6,0	1,5 - 4,0	10.702.300.060	500
	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	3,1 mm	660 N	900 N
4,0	6,0	1,5 - 3,5	10.702.400.060	500
	7,0	2,0 - 4,5	10.702.400.070	500 NEW
	8,0	2,0 - 5,5	10.702.400.080	500
	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 mm	1120 N	1420 N

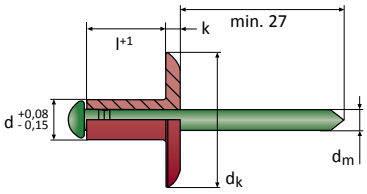
d	l +1		No.	
5,0	10,0	2,0 - 6,5	10.702.500.100	500
	12,0	6,0 - 8,0	10.702.500.120	500
	16,0	8,0 - 12,0	10.702.500.160	500
	20,0	12,0 - 15,5	10.702.500.200	500 NEW
d_k 9,3 -0,5	d_m 2,7	5,1 mm	1650 N	2000 N

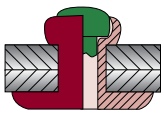
Tradition and modernity. EAN code on a robust production box.

Standard Blind Rivet **ALFO®**
Seriesn 10.**742/762/772**

Aluminium / **Stainless Steel A2/A3**

> Large Dome Head
> open





EN AW - 5754 [AlMg3]

d	l +1		No.		
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	
	18,0	11,5 - 13,5	10.742.050.180	500	
	20,0	12,0 - 15,5	10.742.050.200	500	
	25,0	15,0 - 20,5	10.742.050.250	500	NEW
	30,0	20,0 - 25,0	10.742.050.300	250	NEW

d_k 11,0 ±0,5	d_m 2,7	k 1,5 +0,4	5,1 mm	1650 N	2500 N

d	l +1		No.		
5,0	8,0	2,0 - 5,0	10.762.050.080	500	NEW
	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	
	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	250	
	30,0	20,0 - 25,0	10.762.050.300	250	NEW

d_k 14,0 ±0,3	d_m 2,7	k 1,5 +0,4	5,1 mm	1650 N	2500 N

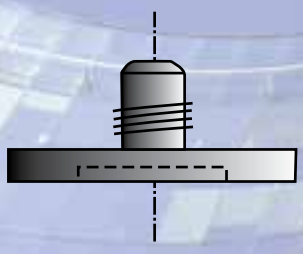
5,0	10,0	4,0 - 6,5	10.772.050.100	500	NEW
	16,0	8,0 - 12,0	10.772.050.160	500	NEW
	20,0	12,0 - 15,5	10.772.050.200	250	NEW
	25,0	15,0 - 20,0	10.772.050.250	250	NEW
	33,0	20,0 - 28,0	10.772.050.330	100	NEW

d_k 16,0 ±0,3	d_m 2,7	k 1,5 +0,4	5,1 mm	1650 N	2500 N

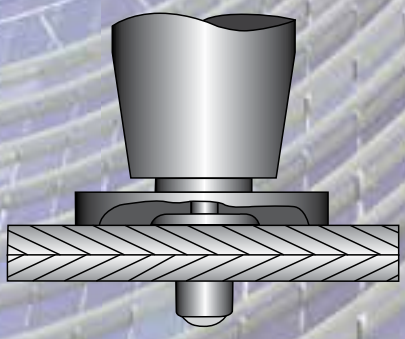
To avoid traces of corrosion blind rivets made from aluminium with stainless steel mandrels are used in the outside area.
Take care, that the tolerance of the hole is as large as the thermal expansion of the storefront plates.

- 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!



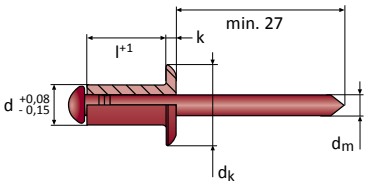
Frontage nosepiece



Suitable nose pieces you can find on ▶ page 205.

Aluminium / Aluminium

EN AW - 5251 [AlMg2]



Dome Head <
open <

DIN EN ISO 15981

d	l +1		No.		
3,2	6,0	0,5 - 4,0	10.701.032.060		500
	8,0	3,5 - 6,0	10.701.032.080		500
	10,0	5,5 - 7,5	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
4,0	6,0	1,0 - 3,5	10.701.040.060		500
	8,0	3,0 - 5,5	10.701.040.080		500
	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	4,1 mm	740 N	1240 N

NEW

d	l +1		No.		
4,8	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
	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

RivdomONE[1]

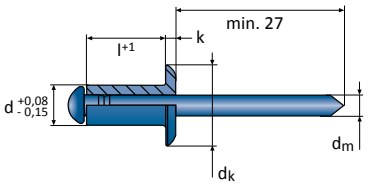
THE CORDLESS BATTERY RIVETER

Our up-to-date cordless battery rivet tool with plenty of interesting options and accessories. Detailed information from ▶ page 192.

Standard Blind Rivet ALFO®
Series 10.707

Steel / Steel

> Dome Head
> open



C4C [1.0303]

DIN EN ISO 15979

d	l +1		No.	
3,0	5,0	0,5 - 2,5	10.707.030.050	500
	6,0	0,5 - 3,5	10.707.030.060	500
	7,0	2,0 - 4,5	10.707.030.070	500 NEW
	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	900 N	1210 N

d	l +1		No.	
3,2	5,0	0,5 - 2,5	10.707.032.050	500
	6,0	0,5 - 3,5	10.707.032.060	500
	8,0	3,0 - 5,5	10.707.032.080	500
	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
	16,0	10,5 - 13,0	10.707.032.160	500

d_k 6,5 -0,7	d_m 2,0	k 0,8 ±0,2	3,3 mm	1060 N	1550 N

d	l +1		No.	
4,0	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 NEW
	10,0	5,0 - 7,0	10.707.040.100	500
	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
	25,0	16,0 - 21,0	10.707.040.250	500 NEW

d_k 8,0 -1,0	d_m 2,3	k 1,0 ±0,3	4,1 mm	1900 N	2600 N

d	l +1		No.	
4,8	6,0	1,0 - 2,5	10.707.048.060	500
	7,0	1,0 - 3,5	10.707.048.070	500 NEW
	8,0	2,5 - 4,5	10.707.048.080	500
	9,0	3,0 - 5,5	10.707.048.090	500 NEW
	10,0	4,0 - 6,5	10.707.048.100	500
	12,0	6,0 - 8,5	10.707.048.120	500
	14,0	7,0 - 10,0	10.707.048.140	500 NEW
	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 NEW

d_k 9,5 -1,0	d_m 2,7	k 1,1 ±0,3	4,9 mm	2900 N	3850 N

d	l +1		No.	
5,0	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 NEW
	16,0	8,0 - 12,0	10.707.050.160	500
	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 NEW
	40,0	29,0 - 34,0	10.707.050.400	250 NEW
	45,0	33,5 - 39,0	10.707.050.450	100 NEW
	50,0	38,5 - 44,0	10.707.050.500	100 NEW

d_k 9,5 -0,8	d_m 2,9	k 1,1 ±0,3	5,1 mm	3000 N	4300 N

d	l +1		No.	
6,0	10,0	2,0 - 5,5	10.707.060.100	250
	12,0	4,0 - 7,5	10.707.060.120	250
	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 NEW

d_k 12,0 -1,2	d_m 3,6	k 1,5 ±0,4	6,1 mm	4000 N	5500 N

d	l +1		No.	
6,4	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
	16,0	6,0 - 11,5	10.707.064.160	250
	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	6,5 mm	4500 N	6300 N

d	l +1		No.	
8,0	14,0	3,0 - 8,5	10.707.080.140	250
	16,0	5,0 - 10,5	10.707.080.160	250
	18,0	8,0 - 12,0	10.707.080.180	250
	20,0	11,5 - 14,0	10.707.080.200	250 NEW

d_k 20,0 ±0,7	d_m 4,0	k 2,5 +0,5	8,1 mm	8600 N	12000 N

Diameter 8,0 mm not standardized.

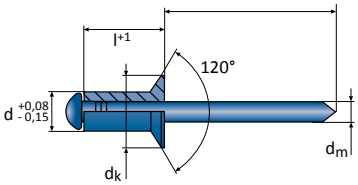
Types with large dome head available as multigrip blind rivet OPTO® on page 61.

Further blind rivets made of steel are available as high strength type OPTO®-BULB (page 62), FERO®-BULB (page 71) or FERO®-BOLT (page 75).

Steel / Steel

Countersunk Head <
open <

C4C [1.0303]



DIN EN ISO 15980

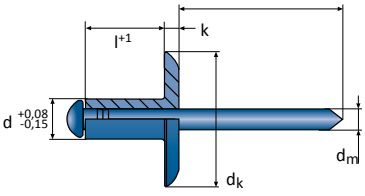
d	l +1		No.	
3,0	6,0	1,5 - 3,5	10.707.300.060	500
	8,0	3,0 - 5,5	10.707.300.080	500
	10,0	5,0 - 7,0	10.707.300.100	500
	12,0	6,5 - 9,0	10.707.300.120	500
d_k 6,0 -0,4	d_m 1,9	3,1 mm	900 N	1210 N
3,2	6,0	1,5 - 3,5	10.707.320.060	500
	8,0	3,0 - 5,5	10.707.320.080	500
	10,0	5,0 - 7,0	10.707.320.100	500
	12,0	6,5 - 9,0	10.707.320.120	500
d_k 6,2 -0,4	d_m 2,0	3,3 mm	1060 N	1550 N
4,0	6,0	2,0 - 3,5	10.707.400.060	500
	7,0	2,0 - 4,5	10.707.400.070	500 NEW
	8,0	3,0 - 5,5	10.707.400.080	500
	10,0	5,0 - 7,0	10.707.400.100	500
	12,0	6,5 - 9,0	10.707.400.120	500
	16,0	8,0 - 12,5	10.707.400.160	500
d_k 7,5 -0,5	d_m 2,3	4,1 mm	1900 N	2600 N

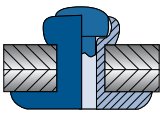
d	l +1		No.	
4,8	8,0	2,0 - 4,5	10.707.480.080	500
	10,0	3,0 - 6,5	10.707.480.100	500
	12,0	5,0 - 8,5	10.707.480.120	500
	14,0	6,5 - 10,0	10.707.480.140	500 NEW
	16,0	8,0 - 12,0	10.707.480.160	500
	18,0	11,5 - 13,5	10.707.480.180	500
d_k 9,0 -0,5	d_m 2,7	4,9 mm	2900 N	3850 N
5,0	8,0	2,0 - 4,5	10.707.500.080	500
	10,0	4,0 - 6,5	10.707.500.100	500
	12,0	6,0 - 8,5	10.707.500.120	500
	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 9,0 -0,5	d_m 2,9	5,1 mm	3000 N	4300 N
6,4	10,0	3,0 - 5,0	10.707.640.100	250
	12,0	3,0 - 6,0	10.707.640.120	250
d_k 13,4 -1,8	d_m 3,8 ±1,8	6,5 mm	4900 N	5700 N

Steel / Steel

Large Dome Head <
open <

C4C [1.0303]





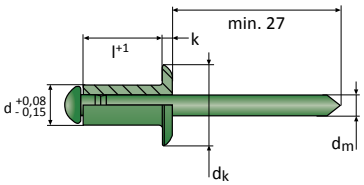
d	l +1		No.	
4,8	10,0	4,0 - 6,0	10.767.048.100	500 NEW
	12,7	6,0 - 8,0	10.767.048.127	500 NEW
	16,0	10,0 - 12,0	10.767.048.160	500 NEW
	20,0	14,0 - 16,0	10.767.048.200	500 NEW
	25,0	16,0 - 21,0	10.767.048.250	500 NEW
d_k **14,0** ±0,4	d_m 2,9	k 1,5	4,9 mm	2900 N 3850 N

Standard Blind Rivet **ALFO®**
Series 10.**708**

Stainless Steel A2 / Stainless Steel A2/A3

[1.4301]

> Dome Head
> open



DIN EN ISO 15983

d	l +1		No.	
2,4	6,0	0,5 - 3,5	10.708.024.060	500
d_k 5,0 ±0,2	d_m 1,5	k 0,8 ±0,1	2,5 mm	1000 N / 1500 N
3,0	6,0	0,5 - 3,0	10.708.030.060	500
	8,0	3,0 - 5,0	10.708.030.080	500
	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
3,2	4,0	0,5 - 1,5	10.708.032.040	500 NEW
	6,0	0,5 - 3,0	10.708.032.060	500
	8,0	3,0 - 5,0	10.708.032.080	500
	10,0	5,0 - 7,0	10.708.032.100	500
	12,0	6,5 - 8,5	10.708.032.120	500
	16,0	8,5 - 12,0	10.708.032.160	500
d_k 6,5 -0,7	d_m 1,9	k 0,8 ±0,2	3,3 mm	2050 N / 2600 N
4,0	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
	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

d	l +1		No.	
4,8	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
	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 NEW
d_k 9,5 -1,0	d_m 2,9	k 1,1 ±0,3	4,9 mm	4250 N / 5400 N
5,0	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
	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	4700 N / 5800 N
6,0	10,0	2,0 - 5,5	10.708.060.100	250
	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	6,1 mm	5700 N / 7500 N
6,4	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
	16,0	7,5 - 11,5	10.708.064.160	250
	18,0	9,0 - 13,0	10.708.064.180	250
	20,0	12,0 - 14,0	10.708.064.200	250 NEW
	25,0	14,0 - 19,0	10.708.064.250	250 NEW
	30,0	22,0 - 24,0	10.708.064.300	250 NEW
d_k 13,0 -1,5	d_m 3,8	k 1,8 ±0,4	6,5 mm	6500 N / 8850 N

The hammer shaped specification of the mandrels head guarantees a perfect forming of the closing head.

Further blind rivets made of stainless steel are available as high strength type OPTO®-BULB (page 62), FERO®-BULB (page 71) oder FERO®-BOLT (page 75).

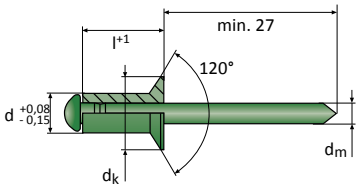
Diameters 6,0 and 6,4 are not standardized.

Garbage can box Diakonie Ruhr

Standard Blind Rivet **ALFO®**
Series 10.**708**

[1.4301]

Stainless Steel A2 / Stainless Steel A2/A3



Countersunk Head <
open <

DIN EN ISO 15984

d	l +1		No.	
3,2	6,0	1,5 - 3,0	10.708.320.060	500
	8,0	3,0 - 5,0	10.708.320.080	500
	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	3,3 mm	1800 N	2500 N

d	l +1		No.	
4,8	8,0	2,0 - 4,0	10.708.480.080	500
	10,0	4,0 - 6,0	10.708.480.100	500
	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	4,9 mm	4250 N	5400 N

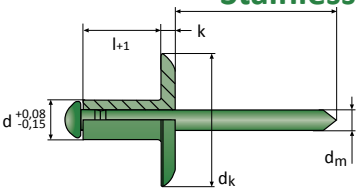
d	l +1		No.		
4,0	6,0	1,0 - 2,5	10.708.400.060	500	
	8,0	2,5 - 4,5	10.708.400.080	500	
	10,0	4,5 - 6,5	10.708.400.100	500	
	12,0	6,5 - 8,5	10.708.400.120	500	
	14,0	8,5 - 10,5	10.708.400.140	500	NEW
	16,0	10,0 - 12,0	10.708.400.160	500	
	18,0	11,5 - 14,0	10.708.400.180	500	
	20,0	13,5 - 16,0	10.708.400.200	500	NEW
d_k 7,5 -0,5	**d_m** 2,5	4,1 mm	2750 N	3550 N	

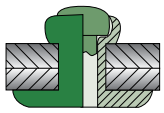
d	l +1		No.	
5,0	8,0	2,0 - 4,0	10.708.500.080	500
	10,0	4,0 - 6,0	10.708.500.100	500
	12,0	6,0 - 8,5	10.708.500.120	500
	16,0	8,0 - 11,0	10.708.500.160	500
d_k 9,3 -0,5	**d_m** 2,9	5,1 mm	4700 N	5800 N

Standard Blind Rivet **ALFO®**
Series 10.**738/758/778**

[1.4301]

Stainless Steel A2 / Stainless Steel A2





Large Dome Head <
open <

d	l +1		No.	
3,2	6,0	0,5 - 3,0	10.738.032.060	500
	8,0	3,0 - 5,0	10.738.032.080	500
	10,0	5,0 - 7,0	10.738.032.100	500
	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** ±0,05	**d_m** 1,9	**k** 1,1 +0,3	3,3 mm	1900 N	2500 N

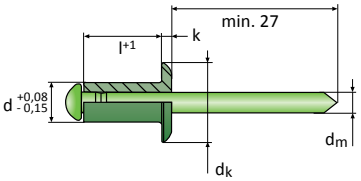
d	l +1		No.		
4,0	6,0	1,0 - 2,5	10.758.040.060	500	
	8,0	2,5 - 4,5	10.758.040.080	500	
	10,0	4,5 - 6,5	10.758.040.100	500	
	12,0	6,5 - 8,5	10.758.040.120	500	
	14,0	8,5 - 10,5	10.758.040.140	500	
	16,0	10,0 - 12,0	10.758.040.160	500	
d_k **11,5** ±0,03	**d_m** 2,5	**k** 1,9 ±0,03	4,1 mm	2700 N	3500 N

d	l +1		No.		
4,8	10,0	3,5 - 5,5	10.778.048.100	500	NEW
	12,0	5,5 - 7,5	10.778.048.120	500	
	14,0	6,5 - 9,0	10.778.048.140	500	
	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	NEW
d_k **15,3** ±0,2	**d_m** 2,9	**k** 2,3 -0,4	4,9 mm	4200 N	5300 N

Standard Blind Rivet **ALFO®**
Series 10.**713**

Stainless Steel A4 / Stainless Steel A4/A5

> Dome Head
> open



[1.4404]

according to DIN EN ISO 15983

d	l +1		No.	
3,0	6,0	0,5 - 3,0	10.713.030.060	500
	8,0	3,0 - 5,0	10.713.030.080	500
	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

d	l +1		No.	
4,0	6,0	1,0 - 2,5	10.713.040.060	500
	8,0	2,5 - 4,5	10.713.040.080	500
	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	4,1 mm	3220 N	4250 N

d	l +1		No.	
5,0	8,0	2,0 - 4,0	10.713.050.080	500 NEW
	10,0	4,0 - 6,0	10.713.050.100	500
	12,0	6,0 - 8,0	10.713.050.120	500
	16,0	9,5 - 11,0	10.713.050.160	500
	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 NEW
	30,0	20,0 - 25,0	10.713.050.300	250 NEW

d_k 9,5 -0,8	d_m 3,2	k 1,1 ± 0,3	5,1 mm	4800 N	6600 N

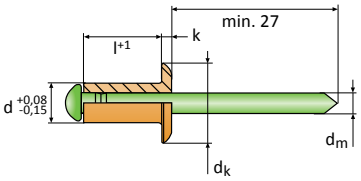
Stainless Steel V4A

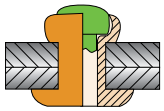
According to the higher percentage of molybdenum A4 blind rivets are **more corrosion resistant** than A2 types.
Typical fields of application are container construction, food component sub-suppliers, ship- and boat-building or ocean side and off-shore industries.

- Many additional details about corrosion can be found on pages 34/35.
- Please note our new blind rivet nuts in A4 on page 116.

[2.4360]

Nickel-Copper / Stainless Steel A4





Dome Head <
open <

DIN EN ISO 16584

d	l +1		No.	
3,2	6,0	1,0 - 3,0	10.720.032.060	500
	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
4,0	6,0	1,0 - 3,0	10.720.040.060	500
	8,0	3,0 - 5,0	10.720.040.080	500
	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	3,3 mm	2300 N / 3450 N

d	l +1		No.	
4,8	8,0	2,0 - 4,0	10.720.048.080	500
	10,0	4,0 - 6,0	10.720.048.100	500
	12,0	6,0 - 8,0	10.720.048.120	500
	16,0	10,0 - 12,0	10.720.048.160	500
	20,0	14,0 - 16,0	10.720.048.200	250
d_k 9,5 -1,0	d_m 2,9	k 1,1 ±0,3	4,9 mm	3400 N / 5000 N
6,4	12,0	4,0 - 6,0	10.720.064.120	250
	16,0	7,0 - 10,0	10.720.064.160	250
	18,0	9,0 - 12,0	10.720.064.180	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 shank is **zinc plated**!

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. HONSEL/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.

[1] Trademark of INCO Alloys International [2] Trademark of KRUPP

Good corrosion properties:

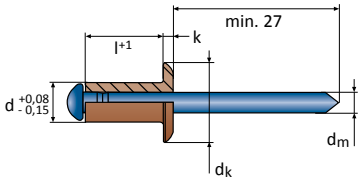
- Tap water ♦♦♦
- Neutral and alkaline salts ♦♦♦
- Oxidizing salts ♦♦♦
- Humid and dry gases ♦♦♦
- Saltwater (sea water) ♦♦
- Acidic salts ♦♦
- Mineral acid ♦♦
- Organic acid ♦♦
- Alkalis ♦

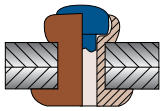
very well suited ♦♦♦ well suited ♦♦ suited ♦

Standard Blind Rivet **ALFO®**
Series 10.**705**

Copper / Steel

> Dome Head
> open





[2.0040]

DIN EN ISO 16582

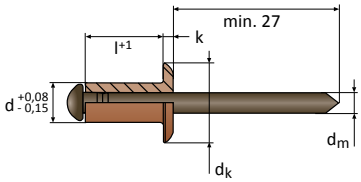
d	l +1		No.	
3,0	6,0	2,0 - 3,0	10.705.030.060	500
	8,0	3,0 - 5,0	10.705.030.080	500
d_k 6,3 -0,7	d_m 1,7	k 0,8 ± 0,2	3,1 mm	760 N / 950 N
3,2	5,0	0,5 - 2,5	10.705.032.050	500
	6,0	1,5 - 3,5	10.705.032.060	500
	8,0	3,0 - 5,5	10.705.032.080	500
	10,0	5,0 - 7,0	10.705.032.100	500
d_k 6,4 -0,5	d_m 1,9	k 0,8 ± 0,2	3,3 mm	800 N / 1000 N

d	l +1		No.	
4,0	6,0	2,5 - 3,5	10.705.040.060	500
	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

Standard Blind Rivet **ALFO®**
Series 10.**709**

Copper / Bronze

> Dome Head
> open

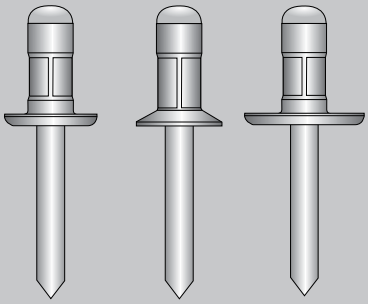


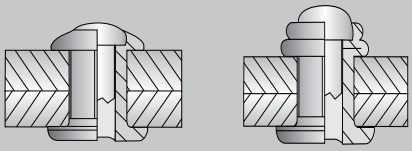
[2.0040]

according to DIN EN ISO 16582

d	l +1		No.		
3,0	4,0	0,5 - 1,5	10.709.030.040	500	NEW
	5,0	0,5 - 2,5	10.709.030.050	500	
	6,0	2,0 - 3,5	10.709.030.060	500	
	8,0	3,0 - 5,5	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	
3,2	5,0	0,5 - 2,5	10.709.032.050	500	
	6,0	1,5 - 3,5	10.709.032.060	500	
	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	l +1		No.	
4,0	6,0	2,0 - 3,5	10.709.040.060	500
	8,0	3,0 - 5,5	10.709.040.080	500
	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
d_k 8,0 -1,0	d_m 2,0	k 1,0 ± 0,3	4,1 mm	1500 N / 1800 N





large grip range

low grip range

The all-rounder

The **OPTO®** multigrip blind rivet with his especially embossed rivet shaft, is distinctly different to a standard blind rivet.
Due to his constructive structural, the rivet guarantees **lots of excellent performance characteristics**:

- large grip range (simplified scheduling, reduced warehouse stock and dimension variety)
- good filling capacity of the borehole
- non-positive locking of the captive mandrel without clearance
- no rattling sounds
- dustproof and splash water-tight

Preferred applications for **OPTO®** multigrip blind rivets can be found in the field of vehicle manufacturing, in air conditioning technology as well as in the field of tank and container manufacturing. Furthermore, this rivet type is excellently suited for use as a **repair rivet**.

VVG develops for this blind rivet type **special variants for the serial production**, too, e. g. with a diameter up to 8,0 mm!

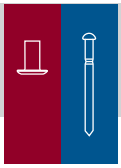
We can do MULTIPLE multigrip. The patented OPTO® multigrip blind rivet can be found on ▶ page 96-97.

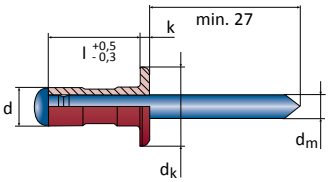
EN AW - 5052 [AlMg2,5]

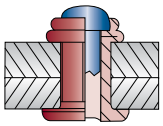
Multigrip Blind Rivet **OPTO®**

Series 10.**600**

Aluminium / Steel







Dome Head <
open <

d	l +1		No.		
3,2	6,8	0,8 - 3,4	10.600.032.068		500
	8,0	0,8 - 4,8	10.600.032.080		500
	9,0	1,2 - 6,4	10.600.032.095		500
	11,0	4,0 - 7,9	10.600.032.110		500
	14,0	5,0 - 11,0	10.600.032.140		500 NEW
d_k 6,4	d_m 1,8	k 1,0	3,3 mm	720 N	1000 N
4,0	6,0	1,0 - 3,0	10.600.040.060		500
	9,5	1,2 - 6,4	10.600.040.095		500
	12,7	4,0 - 9,5	10.600.040.127		500
	16,9	6,0 - 12,5	10.600.040.169		500
d_k 7,9	d_m 2,3	k 1,2	4,1 mm	1120 N	1650 N

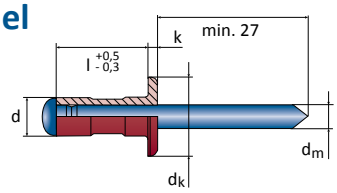
d	l +1		No.		
4,8	10,3	1,5 - 6,0	10.600.048.103		500
	15,1	4,8 - 11,1	10.600.048.151		500
	16,9	6,4 - 12,7	10.600.048.169		500
	24,8	12,7 - 19,8	10.600.048.248		500
d_k 9,8	d_m 2,8	k 1,5	4,9 mm	1530 N	2300 N
6,4	15,0	2,0 - 8,0	10.600.064.150		250 NEW
	20,0	7,0 - 13,0	10.600.064.200		250 NEW
	25,0	12,0 - 18,0	10.600.064.250		250 NEW
d_k 12,7	d_m 3,7	k 1,9	6,5 mm	2000 N	2500 N

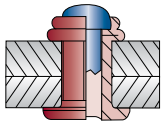
Dimension 4,0 x 9,5 available as grounding rivet with knurled shaft on ▶ page 81.

Multigrip Blind Rivet **OPTO®**
Series 10.**600**

Aluminium / Steel

> Dome Head
> open





> painted white RAL 9010 NEW

EN AW - 5052 [AlMg2,5]

d	l +1		No.	
3,2	6,8	0,8 - 3,4	10.600.032.068 -9010	500
	8,0	0,8 - 4,8	10.600.032.080 -9010	500
	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
4,0	6,0	0,5 - 3,0	10.600.040.060 -9010	500
	9,5	1,2 - 6,4	10.600.040.095 -9010	500
	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	l +1		No.	
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

> painted black RAL 9005 NEW

EN AW - 5052 [AlMg2,5]

d	l +1		No.	
3,2	6,8	0,8 - 3,4	10.600.032.068 -9005	500
	8,0	0,8 - 4,8	10.600.032.080 -9005	500
	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
4,0	6,0	0,5 - 3,0	10.600.040.060 -9005	500
	9,5	1,2 - 6,4	10.600.040.095 -9005	500
	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_k 7,9	d_m 2,3	**k** 1,2	4,1 mm	1120 N / 1650 N

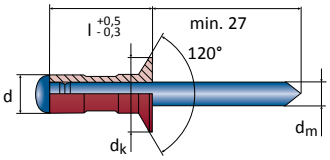
d	l +1		No.	
4,8	10,3	1,6 - 6,4	10.600.048.103 -9005	500
	15,1	4,8 - 11,1	10.600.048.151 -9005	500
	16,9	6,4 - 12,7	10.600.048.169 -9005	500
	24,8	12,7 - 19,8	10.600.048.248 -9005	500
d_k 9,8	d_m 2,8	**k** 1,5	4,9 mm	1530 N / 2300 N

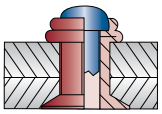
Everything is possible.
Further information on several different possibilities of colour design are shown on ▶ page 45.

Multigrip Blind Rivet OPTO®
Series 10.600

Aluminium / Steel

EN AW - 5052 [AlMg2,5]





Countersunk Head <
open <

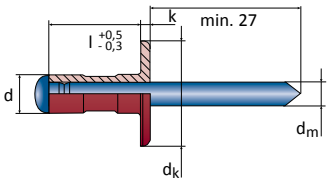
d	l +1		No.	
3,2	9,7	2,4 - 6,4	10.600.320.097	500
d_k 5,4	d_m 1,8	3,3 mm	670 N	900 N
4,0	11,3	2,9 - 7,9	10.600.400.113	500
d_k 6,5	d_m 2,3	4,1 mm	980 N	1320 N

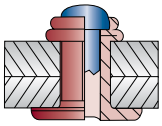
d	l +1		No.	
4,8	12,0	4,0 - 8,0	10.600.480.120	500 NEW
	16,9	6,4 - 12,7	10.600.480.169	500 NEW
d_k 9,0	d_m 2,7	4,9 mm	1500 N	2300 N

Multigrip Blind Rivet OPTO®
Series 10.630/650/670

Aluminium / Steel

EN AW - 5052 [AlMg2,5]





Large Dome Head <
open <

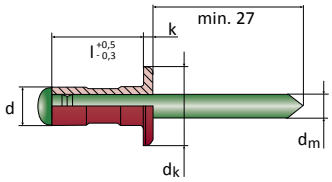
d	l +1		No.	
3,2	8,0	0,8 - 4,8	10.630.032.080	500
	11,0	4,0 - 7,9	10.630.032.110	500
d_k **9,5**	d_m 1,8	**k** 1,2	3,3 mm	720 N	1000 N
4,0	6,0	1,0 - 3,0	10.650.040.060	500 NEW
	9,5	1,2 - 6,4	10.650.040.095	500
	12,7	4,0 - 9,5	10.650.040.127	500
	16,9	6,4 - 12,7	10.650.040.169	500 NEW
d_k **12,0**	d_m 2,3	**k** 1,5	4,1 mm	1120 N	1650 N

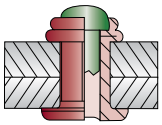
d	l +1		No.	
4,8	10,3	1,6 - 6,4	10.670.048.103	500
	16,9	6,4 - 12,7	10.670.048.169	500
	24,8	12,7 - 19,8	10.670.048.248	500
d_k **16,0**	d_m 2,8	**k** 1,8	4,9 mm	1530 N	2300 N

Multigrip Blind Rivet **OPTO®**
Series 10.**612**

Aluminium / Stainless Steel

> Dome Head
> open





EN AW - 5052 [AlMg2,5]

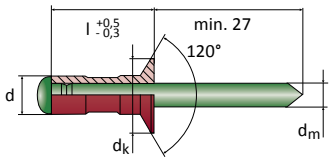
d	l +1		No.	
3,2	8,0	0,8 - 4,8	10.612.032.080	500
	11,1	3,5 - 8,0	10.612.032.110	500
d_k 6,4	d_m 1,8	**k** 1,0	3,3 mm	670 N / 900 N
4,0	9,5	1,2 - 6,4	10.612.040.095	500
	12,7	4,0 - 9,5	10.612.040.127	500
	16,9	6,4 - 12,7	10.612.040.169	500
d_k 7,9	d_m 2,3	**k** 1,2	4,1 mm	980 N / 1320 N

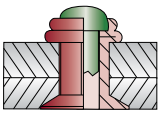
d	l +1		No.	
4,8	10,3	1,5 - 6,0	10.612.048.103	500
	15,1	4,8 - 11,1	10.612.048.151	500
	16,9	6,4 - 12,7	10.612.048.169	500
	24,8	12,7 - 19,8	10.612.048.248	500
d_k 9,8	d_m 2,8	**k** 1,5	4,9 mm	1530 N / 2300 N

Multigrip Blind Rivet **OPTO®**
Series 10.**612**

Aluminium / Stainless Steel

> Countersunk Head
> open





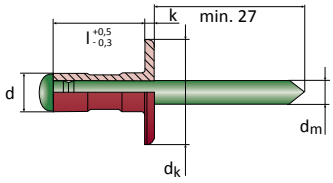
EN AW - 5052 [AlMg2,5]

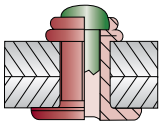
d	l +1		No.		
4,0	9,7	1,2 - 6,4	10.612.400.097	500	NEW
	12,7	4,3 - 9,5	10.612.400.127	500	NEW
d_k 7,5	d_m 2,1	4,1 mm	950 N	1500 N	

Multigrip Blind Rivet **OPTO®**
Series 10.**632/652/672**

Aluminium / Stainless Steel

> Large Dome Head
> open





EN AW - 5052 [AlMg2,5]

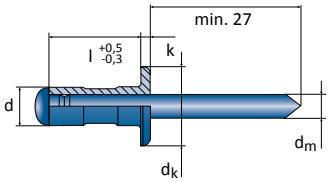
d	l +1		No.	
3,2	8,0	0,5 - 5,0	10.632.032.080	500
	11,0	4,0 - 7,9	10.632.032.110	500
d_k **9,5**	d_m 1,8	**k** 1,2	3,3 mm	670 N / 900 N
4,0	9,5	1,2 - 6,4	10.652.040.095	500
	12,7	4,0 - 9,5	10.652.040.127	500
d_k **12,0**	d_m 2,3	**k** 1,5	4,1 mm	980 N / 1320 N

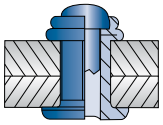
d	l +1		No.	
4,8	10,3	1,6 - 6,4	10.672.048.103	500
	16,9	6,4 - 12,7	10.672.048.169	500
	24,8	12,7 - 19,8	10.672.048.248	250
d_k **16,0**	d_m 2,8	**k** 1,8	4,9 mm	1530 N / 2300 N

Multigrip Blind Rivet OPTO®
Series 10.607

Steel / Steel

Dome Head <
open <





d	l +1		No.	
3,2	9,0	1,1 - 4,0	10.607.032.090	500
	13,0	4,0 - 8,0	10.607.032.130	500 NEW
d_k 7,2	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
d_k 8,1	d_m 2,7	**k** 1,2	4,1 mm	1950 N / 2350 N

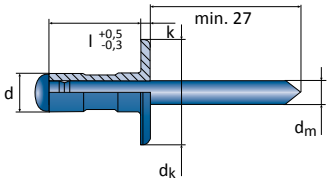
d	l +1		No.	
4,8	10,3	1,2 - 4,8	10.607.048.103	500
	14,5	4,0 - 9,0	10.607.048.145	500 NEW
	17,5	7,5 - 12,5	10.607.048.175	500 NEW
d_k 9,8	d_m 2,9	**k** 1,8	4,9 mm	2700 N / 3300N
6,4	14,5	1,5 - 7,0	10.607.064.145	500 NEW
	20,0	7,0 - 12,5	10.607.064.200	250 NEW
	25,0	12,0 - 17,5	10.607.064.250	250 NEW
d_k 12,7	d_m 3,8	**k** 2,2	6,5 mm	6500N / 4200 N

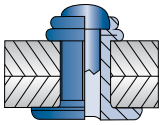
▶ Countersunk head versions available on request.

Multigrip Blind Rivet OPTO®
Series 10.677

Steel / Steel

Large Dome Head <
open <



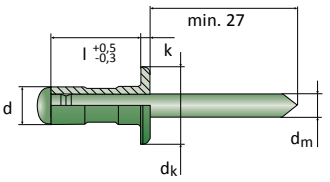


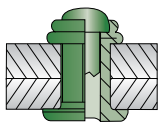
d	l +1		No.	
4,8	11,0	1,0 - 6,0	10.677.048.110	500
	17,0	3,0 - 12,0	10.677.048.169	500
d_k 16,0	d_m 3,4	**k** 1,6	4,9 mm	2050 N / 2940 N

Multigrip Blind Rivet OPTO®
Series 10.618

Stainless Steel / Stainless Steel

Dome Head <
open <

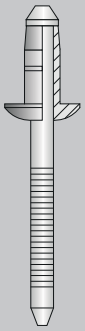




d	l +1		No.	
3,2	8,0	1,0 - 4,0	10.618.032.080	500
d_k 6,3	d_m 2,1	**k** 0,9	3,3 mm	1600 N / 2000 N
4,0	10,0	1,0 - 4,5	10.618.040.100	500
	12,0	2,5 - 6,5	10.618.040.120	500
	15,0	4,5 - 9,5	10.618.040.150	500
d_k 7,9	d_m 2,8	**k** 1,3	4,1 mm	2700 N / 3500 N

d	l +1		No.	
4,8	10,3	1,5 - 6,0	10.618.048.103	500
	12,7	2,5 - 7,5	10.618.048.127	500
	17,5	7,5 - 12,5	10.618.048.175	500 NEW
d_k 9,8	d_m 3,4	**k** 1,8	3,3 mm	3900 N / 5000 N
6,4	15,0	1,5 - 7,0	10.618.064.150	250 NEW
	20,0	7,0 - 12,5	10.618.064.200	250 NEW
	25,0	12,0 - 17,5	10.618.064.250	250 NEW
d_k 12,7	d_m 4,0	**k** 2,7	6,5 mm	12500 N / 7000 N

Multigrip Blind Rivet OPTO®-BULB NEW



The high-strength OPTO®-version

Large grip ranges and higher shear and tensile forces

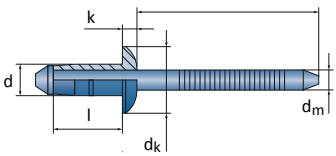
- OPTO®-Bulb is the universal rivet for difficult jobs.

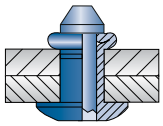
The OPTO®-Bulb is combining the flexibility of multigrip rivets with the excellent strength of the FERO®-Bulb series. It offers a secure locking of the remaining mandrel as well as a smooth formed closing head.

Multigrip Blind Rivet **OPTO®-BULB**
Series 10.**692**

Steel / Steel

> Dome Head
> open



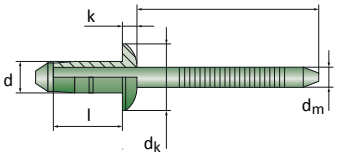


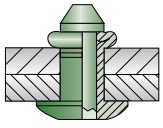
d	l +1		No.		
6,4	13,0	1,5 - 5,5	10.692.064.130	250	NEW
	17,0	5,0 - 9,0	10.692.064.170	250	NEW
d_k 13,4	d_m 4,1	k 3,1	6,5 mm	11000 N	7800 N

Multigrip Blind Rivet **OPTO®-BULB**
Series 10.**691**

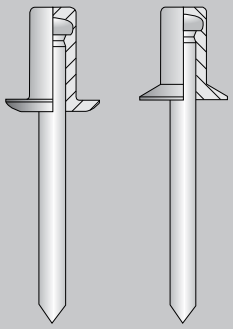
Stainless Steel / Stainless Steel

> Dome Head
> open





d	l +1		No.		
6,4	13,0	1,5 - 5,5	10.691.064.130	250	NEW
	17,0	5,0 - 9,0	10.691.064.170	250	NEW
d_k 13,4	d_m 4,1	k 3,1	6,5mm	14000 N	8000 N



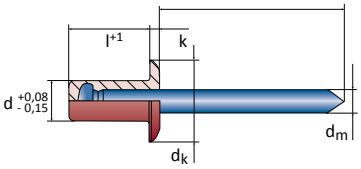
Due to its closed rivet body the **CERTO®** sealed blind rivets are experts for **liquid tight processing**. The rivets characteristic guarentees a **captive remaining mandrel** and a **smooth, burr-free closing head**, which is perfect for **automated handling**.

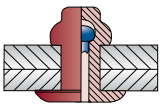
The properties mentioned above are the reasons why **CERTO®** sealed blind rivets are the fastening element of choice for the automotive industry, like, e.g. for the purposes of AIRBAG production. Further fields of application can be found in tank and container manufacturing as well as in the construction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

EN AW - 5019 [AlMg5]

Sealed Blind Rivet **CERTO®**
Series 10.**900**

Aluminium / Steel





Dome Head <
closed <

DIN EN ISO 15973

d	l +1		No.	
3,2	6,5	0,5 - 2,0	10.900.032.065	500
	8,0	1,5 - 3,5	10.900.032.080	500
	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

d	l +1		No.	
4,0	8,0	0,5 - 3,5	10.900.040.080	500
	9,5	3,0 - 5,0	10.900.040.095	500
	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	1650 N	2500 N

d	l +1		No.	
4,8	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
	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 NEW

d_k 9,5 ±0,4	d_m 2,7	k 1,5 ±0,2	4,9 mm	2400 N	3400 N

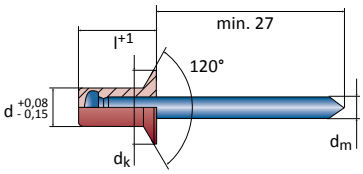
d	l +1		No.	
6,4	12,5	1,5 - 6,5	10.900.064.125	500
	15,5	3,5 - 9,5	10.900.064.155	500

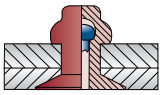
d_k 13,0 ±0,4	d_m 3,7	k 2,0 ±0,03	6,5 mm	3620 N	4950 N

Sealed Blind Rivet **CERTO®**
Series 10.**900**

Aluminium / Steel

> Countersunk Head
> closed





EN AW - 5019 [AlMg5]

DIN EN ISO 15974

d	l +1		No.	
3,2	8,0	1,0 - 3,5	10.900.320.080	500
	9,5	2,5 - 5,0	10.900.320.095	500
	11,0	4,0 - 6,5	10.900.320.110	500
	12,5	5,5 - 8,0	10.900.320.125	500
	13,5	7,0 - 9,0	10.900.320.135	500
d_k 6,0 ±0,3	d_m 1,7	3,3 mm	1100 N	1450 N
4,0	9,5	1,5 - 5,0	10.900.400.095	500
	11,0	4,0 - 6,5	10.900.400.110	500
	12,5	6,0 - 8,0	10.900.400.125	500
d_k 8,0 ±0,4	d_m 2,2	4,1 mm	1650 N	2500 N

d	l +1		No.	
4,8	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
	14,5	7,5 - 9,5	10.900.480.145	500
	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	4,9 mm	2400 N	3400 N

Options of additional sealings for closed blind rivet products

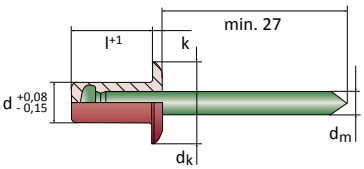
Various trials have shown that, during practical deployment, **CERTO®** connections feature excellent **splash water-tightness**. If you need a hydraulic seal or if there is a build up of certain media (e.g. in drainage pipes), an additional seal between the rivet body and component borehole is necessary.

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.

EN AW - 5019 [AlMg5]

Aluminium / Stainless Steel



Dome Head <
closed <

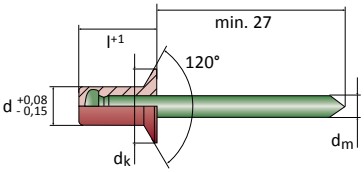
DIN EN ISO 15973

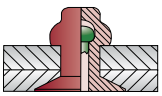
d	l +1		No.	
3,2	6,5	0,5 - 2,0	10.902.032.065	500
	8,0	1,5 - 3,5	10.902.032.080	500
	9,5	3,0 - 5,0	10.902.032.095	500
	11,0	4,5 - 6,5	10.902.032.110	500
	12,5	6,0 - 8,0	10.902.032.125	500
d_k 6,0 ±0,3	d_m 1,7	k 1,1 ±0,15	3,3 mm	1000 N / 1350 N
4,0	8,0	0,5 - 3,5	10.902.040.080	500
	9,5	3,0 - 5,0	10.902.040.095	500
	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	4,1 mm	1650 N / 2500 N

d	l +1		No.	
4,8	8,0	0,5 - 3,5	10.902.048.080	500
	9,5	3,0 - 5,0	10.902.048.095	500
	11,0	4,5 - 6,5	10.902.048.110	500
	12,5	6,0 - 8,0	10.902.048.125	500
	14,0	7,5 - 9,5	10.902.048.140	500
	16,0	9,0 - 11,0	10.902.048.160	500
	18,0	10,5 - 13,0	10.902.048.180	500
	21,0	12,5 - 16,0	10.902.048.210	500
d_k 9,5 ±0,4	d_m 2,7	k 1,5 ±0,2	4,9 mm	2400 N / 3400 N

EN AW - 5019 [AlMg5]

Aluminium / Stainless Steel





Countersunk Head <
closed <

according to DIN EN ISO 15974

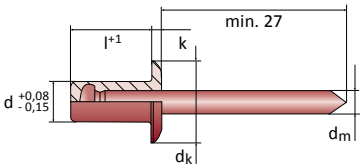
d	l +1		No.	
4,0	9,5	1,5 - 5,0	10.902.400.095	500
	11,0	4,0 - 6,5	10.902.400.110	500
	12,5	6,0 - 8,0	10.902.400.125	500
	14,5	7,5 - 10,0	10.902.400.145	500 NEU
d_k 8,0 ±0,3	d_m 2,2	4,1 mm	1650 N	2500 N

Partial view of the wire coil warehouse at the Froendenberg plant.

Sealed Blind Rivet **CERTO®**
Series 10.**901**

Aluminium / Aluminium

> Dome Head
> closed



EN AW - 1050 A [Al 99,5]

DIN EN ISO 15975

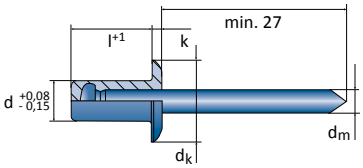
d	l +1		No.	
3,2	8,0	0,5 - 3,5	10.901.032.080	500
	9,5	3,5 - 5,0	10.901.032.095	500
d_k 6,0 ±0,3	d_m 1,9	k 1,1 ±0,15	3,3 mm	520 N / 540 N
4,0	9,5	0,5 - 5,0	10.901.040.095	500
	12,5	4,5 - 8,0	10.901.040.125	500
d_k 8,0 ±0,4	d_m 2,2	k 1,3 ±0,2	4,1 mm	720 N / 760 N

d	l +1		No.	
4,8	9,5	1,0 - 4,5	10.901.048.095	500
	11,5	4,0 - 6,5	10.901.048.115	500
	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	1000 N / 1400 N

Sealed Blind Rivet **CERTO®**
Series 10.**907**

Steel / Steel

> Dome Head
> closed



DIN EN ISO 15976

d	l +1		No.	
3,2	6,0	0,5 - 1,5	10.907.032.060	500
	8,0	1,0 - 3,0	10.907.032.080	500
	9,5	2,5 - 5,0	10.907.032.095	500
	12,0	3,0 - 7,0	10.907.032.120	500
d_k 6,0 ±0,3	d_m 1,9	k 1,0 ±0,3	3,3 mm	1150 N / 1200 N
4,0	6,0	0,5 - 1,5	10.907.040.060	500
	8,0	1,0 - 3,0	10.907.040.080	500
	9,5	2,5 - 5,0	10.907.040.095	500
	12,0	4,5 - 6,5	10.907.040.120	500
d_k 8,0 ±0,3	d_m 2,3	k 1,4 ±0,3	4,1 mm	1700 N / 1850 N

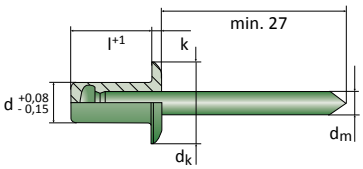
d	l +1		No.	
4,8	8,0	0,5 - 3,0	10.907.048.080	500
	9,5	2,5 - 5,0	10.907.048.095	500
	12,0	4,5 - 6,5	10.907.048.120	500
	16,0	6,0 - 10,5	10.907.048.160	500
d_k 9,5 ±0,3	d_m 2,9	k 1,7 ±0,3	4,9 mm	2400 N / 2800 N

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**.

[1.4301]

Stainless Steel A2 / Stainless Steel C1



Dome Head <
closed <

DIN EN ISO 16585

d	l +1		No.	
3,2	6,0	0,5 - 1,5	10.908.032.060	500
	8,0	1,0 - 3,5	10.908.032.080	500
	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	2400 N

d	l +1		No.	
4,0	6,0	0,5 - 1,5	10.908.040.060	500
	8,0	1,0 - 3,0	10.908.040.080	500
	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	l +1		No.	
4,8	8,0	0,5 - 4,0	10.908.048.080	500
	9,5	2,5 - 5,0	10.908.048.095	500
	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

d	l +1		No.	
6,4	10,0	2,5 - 5,0	10.908.064.100	250
	12,0	4,5 - 6,5	10.908.064.120	250
	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 ±0,05	k 2,7	6,5 mm	6500 N	8000 N

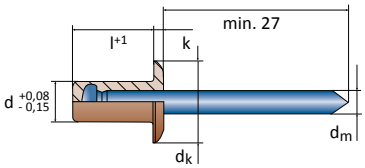
CERTO® sealed blind rivets made of stainless steel A4

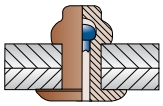
Following the trend to more and more high-grade materials and surfaces, **CERTO® sealed blind rivets** can be produced in stainless steel quality A4 on request.
Especially in plant and container constructions and all seawater related applications, but even safety-related functions for example in power stations the **CERTO®** A4 is an excellent fastener solution.

Sealed Blind Rivet CERTO®
Series 10.905

Copper / Steel

> Dome Head
> closed





[2.0040]

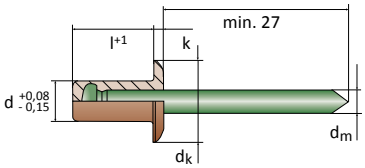
d	l +1		No.	
3,2	6,5	0,5 - 2,0	10.905.032.065	500
	8,0	1,5 - 3,5	10.905.032.080	500
	9,5	3,0 - 5,0	10.905.032.095	500
	12,5	4,5 - 8,0	10.905.032.125	500
d_k 6,0 ±0,3	d_m 1,7	k 1,1 ±0,15	3,3 mm	950 N / 1250 N
4,0	8,0	0,5 - 3,5	10.905.040.080	500
	10,0	3,0 - 5,0	10.905.040.100	500
d_k 8,0 ±0,4	d_m 2,2	k 1,3 ±0,2	4,1 mm	1400 N / 2100 N

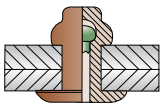
d	l +1		No.	
4,8	9,5	1,0 - 5,0	10.905.048.095	500
	11,5	4,5 - 6,5	10.905.048.115	500
d_k 9,5 ±0,4	d_m 2,7	k 1,7 ±0,2	4,9 mm	2150 N / 3200 N

Sealed Blind Rivet CERTO®
Series 10.906

Copper / Stainless Steel A2/A3

> Dome Head
> closed





[2.0040]

d	l +1		No.	
3,2	6,5	0,5 - 2,0	10.906.032.065	500
	8,0	1,5 - 3,5	10.906.032.080	500
	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	950 N / 1250 N

d	l +1		No.	
4,0	8,0	0,5 - 3,5	10.906.040.080	500
	10,0	3,0 - 5,0	10.906.040.100	500
d_k 8,0 ±0,4	d_m 2,2	k 1,3 ±0,2	4,1 mm	1400 N / 2100 N
4,8	9,5	1,0 - 5,0	10.906.048.095	500
	11,5	4,5 - 6,5	10.906.048.115	500
d_k 9,5 ±0,4	d_m 2,7	k 1,5 ±0,2	4,9 mm	2150 N / 3200 N

CE-nose pieces

You can handle CERTO® sealed blind rivets with standard nose pieces. To avoid burr formation while using types without head pit, we offer special CE-nose pieces. These can be found on ▶ page 205.

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

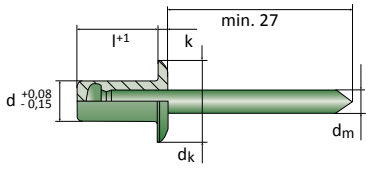
The strong CERTO®-PERFECT sealed blind rivet forms a large and smooth closing head by its special clamped rivet sleeve.
This head makes sure that the danger of pull through in case of oversized bore holes can be reduced to a minimum.
Additionally the tightness in standing water is increased significant.

[1.4301]

Sealed Blind Rivet **CERTO®-PERFECT**

Series 10.**908/103**

Stainless Steel A2 / Stainless Steel C1



Dome Head <
closed <

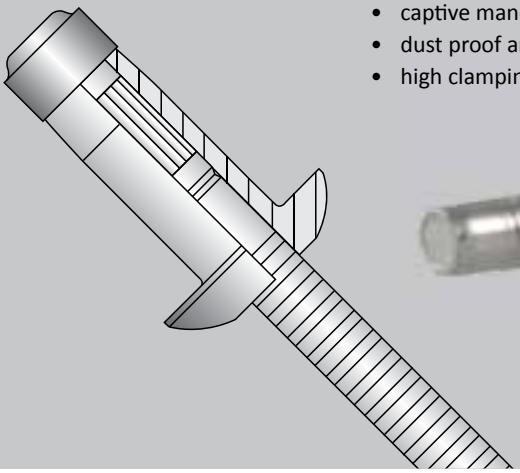
d	l +1		No.		
4,8	12,0	0,5 - 4,5	10.908.048.120/103	500	NEW
	13,7	3,5 - 6,0	10.908.048.137/103	500	NEW
	15,3	5,0 - 7,5	10.908.048.153/103	500	NEW

d_k 9,5 ±0,3	d_m 2,9	k 1,25	4,9 mm	4500 N	5500 N

Structural Blind Rivet FERO®-BULB

The **FERO®-BULB** series are used in large quantities in various industrial appliances for a long time. Particularly in the field of vehicle and tank construction, this type of rivet is an excellent choice. **FERO®-BULB** blind rivets feature the following characteristics:

- **very high shear strength through a captive mandrel**
- large setting head which folds during the setting process
- captive mandrel locks vibration proof inside the rivet
- dust proof and splash waterproof
- high clamping force onto components

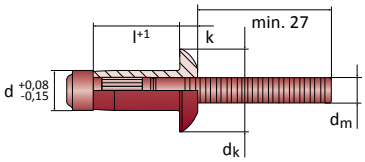


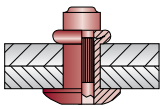
Structural Blind Rivet **FERO®-BULB**

Series 10.**790**

Aluminium / Aluminium

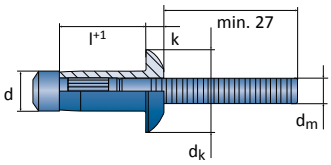
> Dome Head
> open

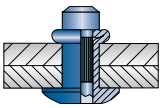




d	l +1		No.	
6,4	10,5	2,8 - 4,8	10.790.064.105	250
d_k 13,5	d_m 4,2	**k** 3,3	6,6 mm	4200 N	3100 N
6,4	14,5	6,8 - 8,8	10.790.064.145	250
d_k 13,5	d_m 4,2	**k** 3,3	6,6 mm	4600 N	3100 N

d	l +1		No.	
6,4	16,5	8,8 - 10,8	10.790.064.165	250	NEW
d_k 13,5	d_m 4,2	**k** 3,3	6,6 mm	5000 N	3100 N





Dome Head <
open <

d	l +1		No.	
4,0	7,5	1,0 - 3,0	10.792.040.075	500
d_k 8,0	d_m 2,6	**k** 1,5	4,1 - 4,3 mm	2400 N / 2800 N
4,0	9,6	3,0 - 5,0	10.792.040.095	500
d_k 8,0	d_m 2,6	**k** 1,5	4,1 - 4,3 mm	3500 N / 2800 N
4,0	12,5	5,0 - 7,0	10.792.040.125	500
d_k 8,0	d_m 2,6	**k** 1,5	4,1 - 4,3 mm	4100 N / 2800 N

d	l +1		No.	
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	3600 N / 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	4200 N / 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	5600 N / 3800 N

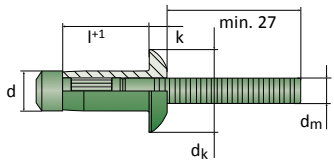
d	l +1		No.	
6,4	9,0	1,5 - 3,5	10.792.064.090	250
d_k 13,4	d_m 3,9	**k** 2,7	6,7 - 6,9 mm	10000 N / 7800 N
6,4	10,5	2,8 - 4,8	10.792.064.105	250
d_k 13,4	d_m 3,9	**k** 2,7	6,7 - 6,9 mm	11000 N / 7800 N
6,4	12,5	4,8 - 6,8	10.792.064.125	250
d_k 13,4	d_m 3,9	**k** 2,7	6,7 - 6,9 mm	12500 N / 7800 N
6,4	14,5	6,8 - 8,8	10.792.064.145	250
d_k 13,4	d_m 3,9	**k** 2,7	6,7 - 6,9 mm	13000 N / 7800 N
6,4	16,5	8,8 - 10,8	10.792.064.165	250
d_k 13,4	d_m 3,9	**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 3,9	**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 NEW
d_k 13,4	d_m 3,9	**k** 2,7	6,7 - 6,9 mm	16500 N / 7800 N

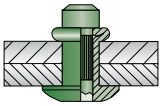
Countersunk head available too!

Structural Blind Rivet FERO®-BULB
Series 10.**791**

Stainless Steel / Stainless Steel

> Dome Head
> open





d	l +1		No.	
4,0	7,5	1,0 - 3,0	10.791.040.075	500
	10,0	3,0 - 5,0	10.791.040.100	500
	12,5	5,0 - 7,0	10.791.040.125	500

d_k 8,0	d_m 2,6	k 1,5	4,1 - 4,3 mm	5200 N	4000 N

d	l +1		No.	
4,8	10,0	1,5 - 3,5	10.791.048.100	500
	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	4,9 - 5,1 mm	5500 N	5000 N

d	l +1		No.	
6,4	9,0	1,5 - 3,5	10.791.064.090	250

d_k 13,4	d_m 3,9	k 2,7	6,7 - 6,9 mm	11000 N	8800 N

d	l +1		No.	
6,4	10,5	2,8 - 4,8	10.791.064.105	250

d_k 13,4	d_m 3,9	k 2,7	6,7 - 6,9 mm	11500 N	8800 N

d	l +1		No.	
6,4	12,5	4,8 - 6,8	10.791.064.125	250

d_k 13,4	d_m 3,9	k 2,7	6,7 - 6,9 mm	12500 N	8800 N

d	l +1		No.	
6,4	14,5	6,8 - 8,8	10.791.064.145	250

d_k 13,4	d_m 3,9	k 2,7	6,7 - 6,9 mm	13000 N	8800 N

d	l +1		No.	
6,4	16,5	8,8 - 10,8	10.791.064.165	250

d_k 13,4	d_m 3,9	k 2,7	6,7 - 6,9 mm	14000 N	8800 N

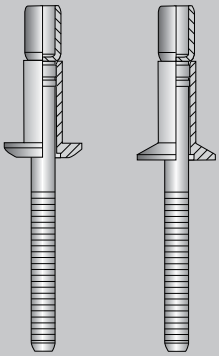
d	l +1		No.	
6,4	18,5	10,8 - 12,8	10.791.064.185	250

d_k 13,4	d_m 3,9	k 2,7	6,7 - 6,9 mm	15000 N	8800 N

NEW. RivdomTWO - the strong battery rivet tool for blind rivets up to diameter 6,4 mm for all materials - even high-strength versions!
Large stroke (30mm) and a working power of 20.000 N combined with the mobility of a cordless rivet tool. ▶ Page 196.

For an optimized processing of our structural **FERO®-BULB** blind rivets the pneumatic-hydraulic tool **BZ 133A** is available.
This tool offers a perfect adjustment of the stroke (18 mm) and the working power (24.000 N) combined with adapted clamping jaws to the grooves of the mandrel. This guarantees powerful handling with reduced abrasion.
Details can be found on ▶ page 204.

Structural Blind Rivet FERO®-BOLT



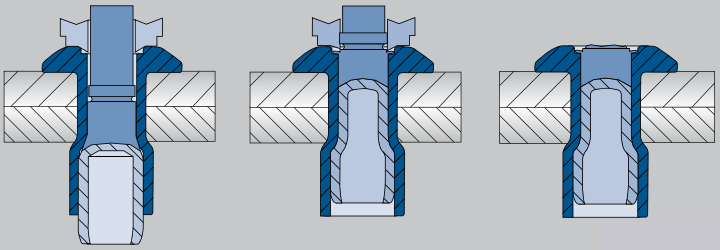
FERO®-BOLT high-strength blind rivets are **first-class** fasteners for industrial applications, especially in those with the attension to the **safety factor**.

Due to its special construction method, this rivet is able to take over **load-bearing functions**. Typical is the **guaranteed flush break** with the setting head.

Advantages:

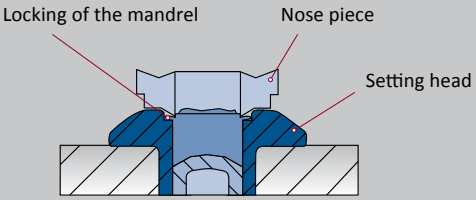
- **very high shear strength with captive mandrel that absorbs parts of the forces**
- **large grip ranges**
- **visually checkable interlocking of the mandrel**
- **vibration resistant**
- **splash waterproof**
- **very good capability of filling the bore hole**

Processing:



The head will be deformed by pulling back the mandrel so that the rivet squeezes perfectly against the wall of drill hole.
The necessary special **FERO®-BOLT** nose piece assures that the mandrel is locked failsafe in the connection.

Principle:



Available up to 9.8 mm diameter!!

Please note that the tool has to be prepared with the **special nose piece** shown beside!

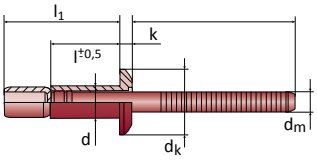
361.121.008.401 4,8 mm Nose piece
361.121.008.601 6,4 mm Nose piece

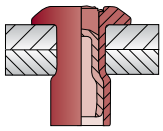
For the handling of **FERO®-BOLT** high-strength blind rivets **BZ 123 A** is available. More details on ▶ page 202.

Structural Blind Rivet **FERO®-BOLT**
Series 10.**793** NEW

Aluminium / Aluminium

> Dome Head
> open





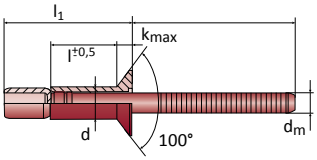
d	l / l1		No.		
4,8	10,0 / 18,2	1,6 - 6,9	10.793.048.100	500	NEW
	14,0 / 24,4	1,6 - 11,1	10.793.048.140	500	NEW
d_k 10,1	d_m 2,9	**k** 2,1	4,9 - 5,1 mm	2200 N	1800 N

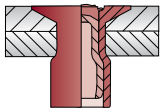
d	l / l1		No.		
6,4	14,0 / 23,7	2,0 - 9,5	10.793.064.140	250	NEW
	19,0 / 32,9	2,0 - 15,8	10.793.064.200	250	NEW
d_k 13,3	d_m 3,9	**k** 2,9	6,6 - 7,0 mm	4200 N	3000 N

Structural Blind Rivet **FERO®-BOLT**
Series 10.**793** NEW

Aluminium / Aluminium

> Countersunk Head
> open





d	l / l1		No.		
6,4	16,5 / 27,0	3,2 - 12,1	10.793.640.165	250	NEW
d_k 10,0	d_m 3,9	**k** 2,4	6,6 - 7,0 mm	4700 N	4500 N

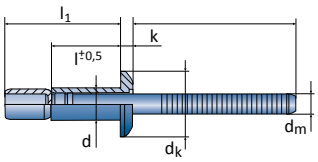
Truck lashing rails fixed with **FERO®-BOLT** blind rivets. Further information on the BZ123 A tool on ▶ page 202.

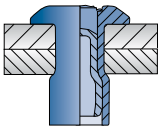
Structural Blind Rivet FERO®-BOLT

Series 10.**797**

Steel / Steel

Dome Head <
open <





d	l / l1		No.	
4,8	10,0 / 18,2	1,6 - 6,9	10.797.048.100	500
	14,0 / 24,4	1,6 - 11,1	10.797.048.140	500
d_k 10,1	d_m 2,9	**k** 2,1	4,9 - 5,1 mm	5800 N / 4100 N

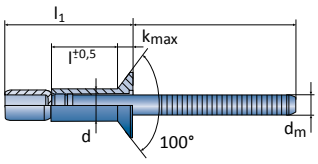
d	l / l1		No.	
6,4	14,0 / 23,7	2,0 - 9,5	10.797.064.140	250
	19,0 / 32,9	2,0 - 15,9	10.797.064.190	250
d_k 13,3	d_m 3,9	**k** 2,9	6,6 - 7,0 mm	10500 N / 8000 N

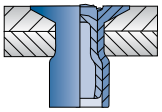
Structural Blind Rivet FERO®-BOLT

Series 10.**797**

Steel / Steel

Countersunk Head <
open <





d	l / l1		No.	
4,8	12,0 / 20,0	3,2 - 8,4	10.797.480.125	500 NEW
	16,0 / 26,2	3,2 - 12,2	10.797.480.165	250 NEW
d_k 8,5	d_m 2,9	**k** 2,2	4,9 - 5,1 mm	5800 N / 4100 N

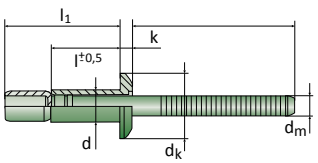
d	l / l1		No.	
6,4	16,5 / 27,0	3,2 - 12,1	10.797.640.165	250
d_k 10,0	d_m 3,9	**k** 2,4	6,6 - 7,0 mm	11000 N / 9500 N

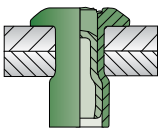
Structural Blind Rivet FERO®-BOLT

Series 10.**798**

Stainless Steel / Stainless Steel

Dome Head <
open <





d	l / l1		No.	
4,8	10,0 / 18,2	1,6 - 6,9	10.798.048.100	500
	14,0 / 24,4	1,6 - 11,1	10.798.048.140	500
d_k 10,1	d_m 2,9	**k** 2,1	4,9 - 5,1 mm	6000 N / 4500 N

d	l / l1		No.	
6,4	14,0 / 23,7	2,0 - 9,5	10.798.064.140	250
	19,0 / 32,9	2,0 - 15,9	10.798.064.190	250
d_k 13,3	d_m 3,9	**k** 2,9	6,6 - 7,0 mm	10500 N / 8200 N

Folding Blind Rivet

According to the **ARCO®** body-bound rivet on ▶ page 78 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.

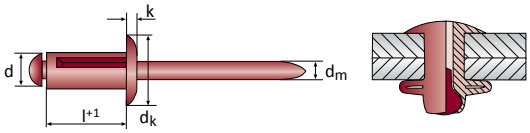
Typically this rivet is used in all areas of **industrial light weight constructions**. As a result of the locked mandrel in the connection, the spread rivet is splash water resistant. VVG offers two different types – the standard split rivet and a **high strength version with neoprene washer**.

Folding Blind Rivet (Standard)

Series 10.**716**

Aluminium / Aluminium

>Dome Head
>open



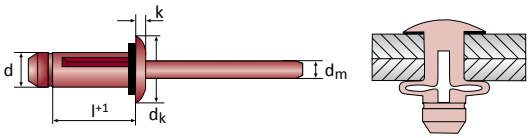
d	l +1		No.	
4,0	13,6	1,0 - 3,0	10.716.040.136	500
	18,8	1,0 - 7,0	10.716.040.188	500
	24,5	5,0 - 12,0	10.716.040.245	500 NEW
d_k 8,0	d_m 2,5	**k** 1,4	4,2 mm	500 N / 800 N

d	l +1		No.	
4,8	15,3	1,0 - 3,0	10.716.048.153	500
	20,5	1,0 - 9,0	10.716.048.205	500
	24,5	4,0 - 12,0	10.716.048.245	500
	28,0	6,0 - 16,0	10.716.048.280	500 NEW
d_k 9,6	d_m 2,9	**k** 1,6	5,0 mm	900 N / 1100 N

Large head diameter 16 mm available!

Aluminium / Aluminium

Dome Head <
open <
with neoprene washer <



d	l +1		No.	
5,2	17,5	1,2 - 4,8	10.716.052.175	500
	19,1	1,5 - 6,4	10.716.052.191	500
	22,2	4,7 - 9,6	10.716.052.222	500
	25,4	7,9 - 12,7	10.716.052.254	500
	28,6	11,1 - 15,9	10.716.052.286	500

d_k 11,5 - 0,5	d_m 2,9	k 2,5 - 0,25	5,3 - 5,6 mm	3000 N	2000 N

d	l +1		No.	
6,3	20,0	1,5 - 6,4	10.716.063.200	500
	27,0	6,3 - 12,7	10.716.063.270	250

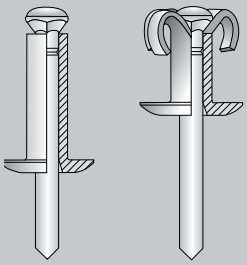
d_k 14,4 - 0,3	d_m 3,9	k 3,0 - 0,25	6,3 - 6,7 mm	4900 N	3000 N

- inceased shear and tensile strenth
- splash water proof
- large grip range
- universal applicable

Nose pieces for folding blind rivets

Folding blind rivets 5,2 M8 for BZ 103 A (and precursors) / RivdomONE	321.103.716.052-0-1
Folding blind rivets 5,2 M10 for BZ 123 A (and precursors) / RivdomTWO	321.123.716.052-0-1
Folding blind rivets 6,3 M10 for BZ 123 A (and precursors) / RivdomTWO	321.123.716.063-0-1

Body-Bound Blind Rivet ARCO®



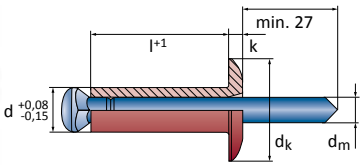
During the setting process, edges on the mandrel head cut the rivet shaft into four segments. These four segments then unfold on the component surface thus forming the **large locking head**. Once the mandrel reaches its predetermined breakload, the mandrel head falls out of the rivet body. The large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

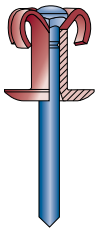
ARCO® body-bound blind rivets are preferably used for plastic or wood element assembly, caravan manufacturing and fastening of cladings.

Body-Bound Blind Rivet **ARCO®**
Series 10.**710**

Aluminium / Steel

> Dome Head
> open





EN AW - 5019 [AlMg5]

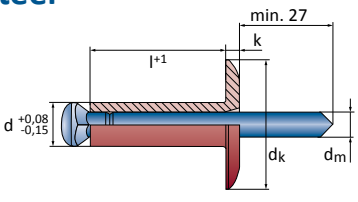
d	l +1		No.	
3,2	10,0	1,5 - 5,0	10.710.032.100	500
	16,0	4,0 - 11,0	10.710.032.160	500
	18,0	5,0 - 13,0	10.710.032.180	500
d_k 6,5	d_m 1,7	**k** 0,8	3,55 + 0,1 mm	850 N / 720 N
4,0	10,0	1,5 - 5,0	10.710.040.100	500
	16,0	4,0 - 11,0	10.710.040.160	500
	18,0	5,0 - 13,0	10.710.040.180	500
d_k 7,7	d_m 2,4	**k** 1,5	4,35 + 0,1 mm	1330 N / 1300 N

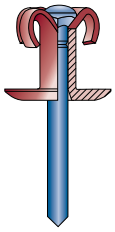
d	l +1		No.	
4,8	10,0	1,5 - 4,0	10.710.048.100	500
	15,0	3,0 - 9,0	10.710.048.150	500
	21,0	8,0 - 15,0	10.710.048.210	500
	26,0	14,0 - 20,0	10.710.048.260	250
	35,0	19,0 - 28,0	10.710.048.350	250
d_k 11,0	d_m 2,8	**k** 1,5	5,15 + 0,1 mm	2100 N / 1950 N

Body-Bound Blind Rivet **ARCO®**
Series 10.**718** NEW

Aluminium / Steel

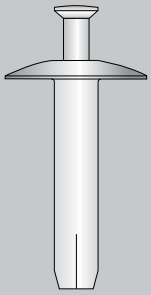
> Large Dome Head
> open





EN AW - 5019 [AlMg5]

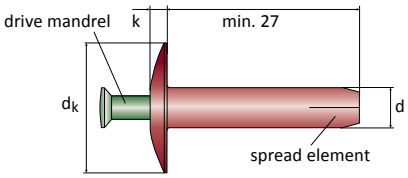
d	l +1		No.	
4,8	15,0	5,0 - 8,0	10.718.048.150	500 NEW
	21,0	11,0 - 15,0	10.718.048.210	250 NEW
d_k 16,0	d_m 2,8	**k** 2,0	5,15 + 0,1 mm	1700 N / 1700 N



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 open-end 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.

Hammer Stroke Blind Rivet
Series 10.**602**

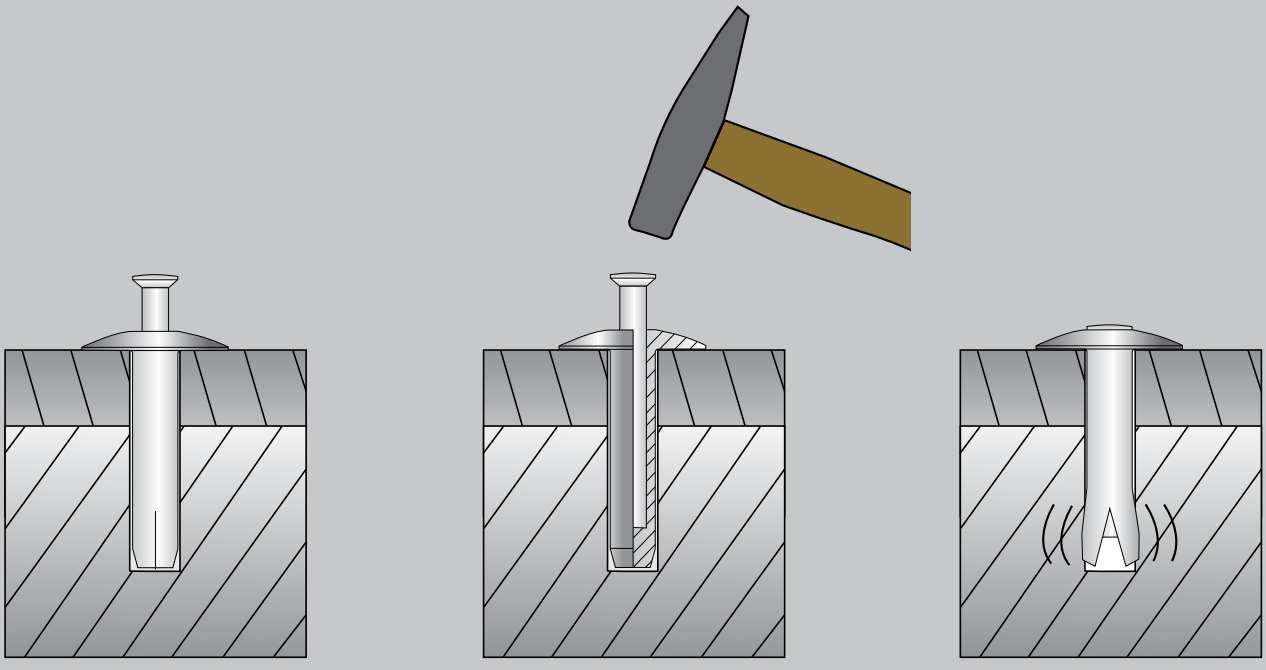
Aluminium / Stainless Steel



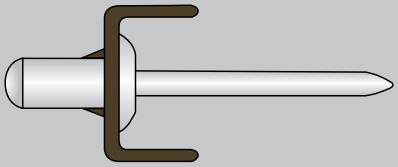
Dome Head <
open <

d	l +1		No.	
4,8	16,0	9,5 - 12,0	10.602.048.160	500
	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 + 0,5		k 2,0		4,9 mm

d	l +1		No.	
4,8	26,0	20,0 - 22,0	10.602.048.260	500
	30,0	25,0 - 26,5	10.602.048.300	500
	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		k 2,0		4,9 mm

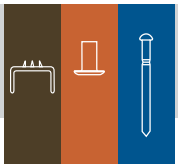


Grounding Blind Rivet



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

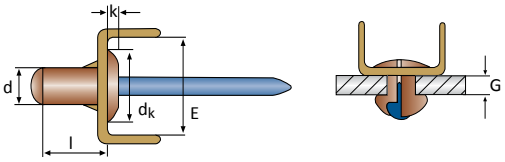
The grounding is achieved by pressing the toothing on the conductor into the material. The grounding conductor can be used with standard cable sockets.
The processing of grounding blind rivets can be done with all kinds of standard type blind rivet tools.



Grounding Blind Rivet
Series 10.**705**

Copper / Steel (copper plated)

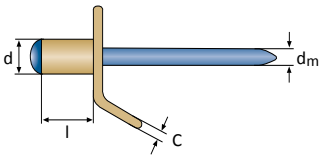
> Dome Head
> open
> Earthing Conductor
  Brass (2x)

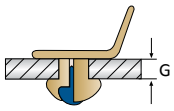


d	l		No.	
3,8	8,0	0,0 - 1,2	10.705.038.080	500
d_k 8,0	**k** 1,4	**E** 14,0	3,9 mm	1400 N	2000 N

Grounding Blind Rivet
Series 10.**705**

Messing / Steel (copper plated)



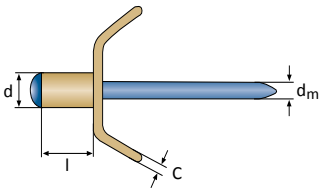


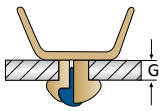
Dome Head <
open <
1x Earthing Conductor <

d	l		No.	
4,0	7,0	0,0 - 4,0	10.705.040.070/715	500
d_m 2,4	**c** 0,8	4,1 mm		

Grounding Blind Rivet
Series 10.**705**

Messing / Steel (copper plated)



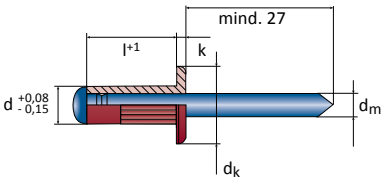


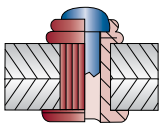
Dome Head <
open <
2x Earthing Conductor <

d	l		No.	
4,0	7,0	0,0 - 4,0	10.705.040.070/716	500
d_m 2,4	**c** 0,8	4,1 mm		

Grounding Multigrip Blind Rivet **OPTO®**
Series 10.**600**

Aluminium / Steel





Dome Head <
open <
grooved shank <

d	l		No.	
4,0	9,5	1,2 - 6,4	10.600.040.095/2	500

d_k 7,9	d_m 2,3	**k** 1,2	4,1 mm	1140 N	1670 N

Qualified for grounding by grooved shaft.

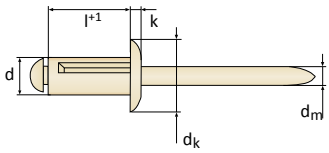
Plastic Blind Rivets

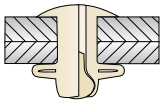
Blind- and split blind rivets made from plastic can be used e.g. in many fields of electric, automotive or computer hardware industries.
Plastic blind rivets are non-power conducting and independent from corrosion. The weight is very low and the components are spared while processing.
Plastic blind rivets can be operated by standard blind rivet tools.

Plastic Split Blind Rivet
Series 10.**719**

Nylon / Polycarbonate

> Dome Head
> open
> black





[PA 6.6.POM]

d	l +1		No.	
4,9	18,5	1,5 - 4,5	10.719.049.185*	500
	20,0	3,0 - 6,0	10.719.049.200	500
	25,0	6,0 - 10,0	10.719.049.250	500
d_k 12,0	d_m 2,9		**k** 3,3* / 1,8	5,0 mm

We can offer further non-mentioned plastic fasteners on request.