

The blind rivet consists of a shank assembled to a mandrel. After inserting the rivet to the drill hole, the mandrel will be extracted by the tool, so that the shank forms a closing head until the mandrel breaks at the defined position.

There is an almost unlimited variety of different types and dimensions for nearly every application.

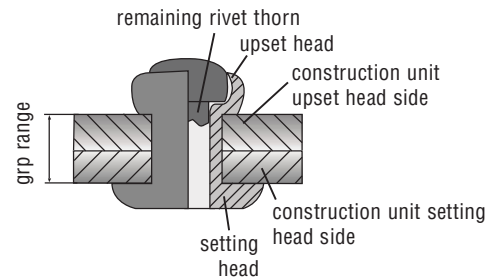
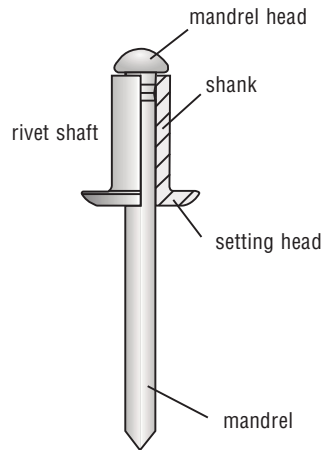
Special tools are required for installing blind rivets. These tools have to be selected according to the type of blind rivet, the application and the quantity of fasteners.

Blind rivets are a highly efficient fastening technology for the implementation of permanent, positive connection points. A whole host of different blind rivet types are available, their layout and function is always based on one and the same basic principle.

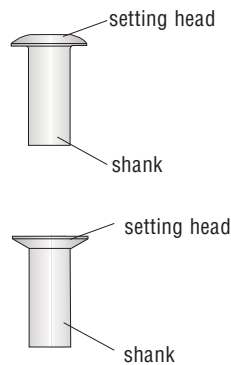
The blind rivet consists of a **rivet shaft** which is fixed to a **rivet mandrel**. Once the rivet has been inserted into the component that needs to be connected, pulling the rivet mandrel creates the locking head and the mandrel remains in rivet shaft after reaching its predetermined break point. The connection is thus completed.

Special tools are needed for processing blind rivets. The tool has to be chosen on the basis of the rivet type, the field of application and the processing volume.

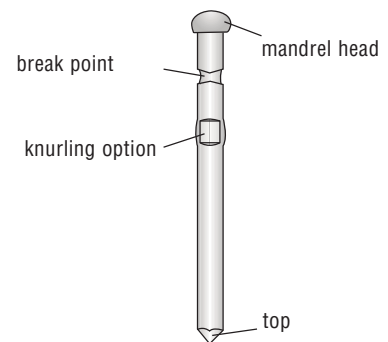
The **rivet shaft** is the element which makes the connection. The shaft is formed by the rivet mandrel and remains in the component permanently. The shaft type selection is made on the basis of the expected mechanical stress, the required anti-corrosion performance, the component layout, the temperature stress and partly also on the grounds of 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

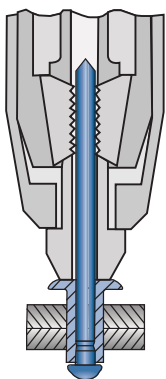


#### Rivet mandrel

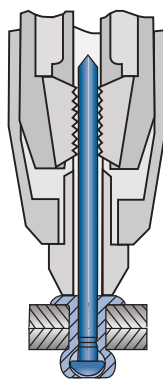


In order to process the blind rivet, a setting tool is required. This can either be operated by muscle power (manual devices) or through external power (pneumatic-hydraulic or battery devices). The devices are chosen on the basis of the blind rivet type and on the basis of throughput volume.

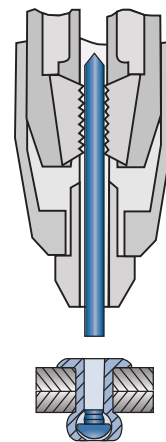
Basically, the setting process can be broken down into the following stages:



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

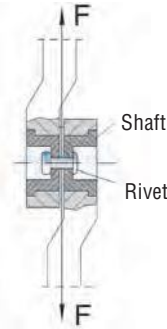


By triggering the stroke, the rivet mandrel is pulled. The mandrel head then reshapes the lower end of the rivet shaft. Once the rivet head is flush with the component surface, the process is completed.



Once this position has been reached, there is a sharp increase in the forces and after the predetermined break point, the excess mandrel fractures. 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 ISO14589** (Exception: FERO®-BOLT).

The minimum shear strength parameter is listed on the pages below the following symbol:



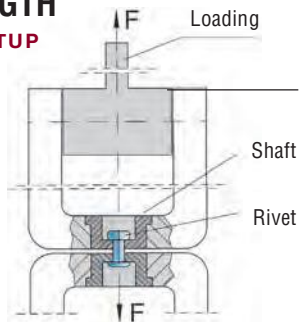
Shear strength – measured data [N]

		Dimension	Seite	2,4	3,0	3,2	3,8	4,0	4,8	5,0/ 5,2'	6,0	6,4/ 6,3'	7,8	8,0
ALFO®		Aluminium / Steel dome head	26	380	660	660	-	1120	1480	1650	2520	2850	6600	-
		Aluminium / Steel countersunk head	27	-	660	660	-	1120	1480	1650	-	-	-	-
		Aluminium / Steel large dome head	28	-	-	580	-	1120	1480	1650	-	-	-	-
		Aluminium / Steel dome head painted	29	-	320	-	-	610	-	-	-	-	-	-
		Aluminium / Stahl dome head anodized	29	-	-	-	-	610	-	-	-	-	-	-
		Aluminium / Steel dh extended mandrel	30	-	320	-	-	610	-	1650	-	-	-	-
		Aluminium / Steel dh grooved shank	30	-	-	600	-	1000	1350	-	-	-	-	-
		Aluminium / Stainless steel dome head	31	380	660	660	-	1120	1480	1650	2520	-	-	-
		Alum. / Stainless steel countersunk head	32	480	660	-	-	1120	-	1650	-	2880	-	-
		Alum. / Stainless steel large dome head	32	-	-	-	-	-	-	1650	-	-	-	-
		Alum. / Stainless steel large d.h. painted	33	-	-	-	-	-	-	1650	-	-	-	-
		Aluminium / Aluminium dome head	33	-	-	380	-	740	1140	-	-	-	-	-
		Steel / Steel dome head	34	-	900	1060	-	1900	2900	3000	4000	4500	-	8600
		Steel / Steel countersunk head	35	-	900	1060	-	1900	2900	3000	-	4500	-	-
		Stainless steel / Stainless steel dome head	36	1000	2050	2050	-	2750	4250	4700	5700	6500	-	-
		Stainl.steel / Stainl.steel countersunk head	36	-	-	1800	-	2750	4250	4700	-	-	-	-
		Stainl.steel / Stainl.steel large dome head	37	-	-	1900	-	2700	4200	-	-	-	-	-
		Stainless steel / Stainless steel dome head	37	-	1760	-	-	3220	-	4800	-	-	-	-
		Nickel-copper / Stainless steel dome head	38	-	-	1600	-	2300	3400	-	-	5400	-	-
		Copper / Steel dome head	39	-	760	800	-	1500	2000	-	-	-	-	-
Copper / Bronze dome head	39	-	760	800	-	1500	-	-	-	-	-	-		
FERO® -BULB		Aluminium / Aluminium dome head	40	-	-	-	-	-	-	-	-	4200	-	-
		Steel / Steel dome head 2	40	-	-	1200- 2500	-	2400- 4100	3600- 5600	-	-	10000- 15000	-	-
		Stainless steel/Stainless steel dome head 2	41	-	-	1600- 3200	-	5200	5500	-	-	11000- 15000	-	-
FERO® -BOLT		Steel / Steel dome head	43	-	-	-	-	-	5800	-	-	10500	-	-
		Steel / Steel countersunk head	43	-	-	-	-	-	-	-	-	5600	-	-
		Stainless st. / Stainless st. dome head	43	-	-	-	-	-	6000	-	-	10500	-	-
OPTO®		Aluminium / Steel dome head	44	-	-	720	-	1120	1530	-	-	-	-	
		Aluminium / Steel large dome head	44	-	-	720	-	1120	1530	-	-	-	-	
		Aluminium / Steel countersunk head	45	-	-	670	-	980	-	-	-	-	-	
		Aluminium / Stainless steel dome head	45	-	-	670	-	980	1530	-	-	-	-	
		Aluminium/Stainless steel large dome head	45	-	-	670	-	980	1530	-	-	-	-	
		Steel / Steel dome head	46	-	-	1500	-	1950	3600	-	-	-	-	
		Steel / Steel large dome head	46	-	-	-	-	-	2050	-	-	-	-	
		Stainless steel / Stainless steel dome head	46	-	-	1600	-	2700	3900	-	-	-	-	
CERTO®		Aluminium / Steel dome head	47	-	-	1100	-	1650	2400	-	-	3620	-	
		Aluminium / Steel countersunk head	47	-	-	1100	-	1650	2400	-	-	-	-	
		Aluminium / Stainless steel dome head	48	-	-	1000	-	1650	2400	-	-	-	-	
		Aluminium / Stainless st.countersunk head	48	-	-	-	-	1650	-	-	-	-	-	
		Aluminium / Aluminium dome head	48	-	-	520	-	720	1000	-	-	-	-	
		Steel / Steel dome head	49	-	-	1150	-	1700	2400	-	-	-	-	
		Stainless steel / Stainless steel dome head	49	-	-	2000	-	3000	4500	-	-	6500	-	
		Copper / Steel dome head	50	-	-	950	-	1400	2150	-	-	-	-	
		Copper / Stainless steel dome head	50	-	-	950	-	1400	2150	-	-	-	-	
ARCO®		Aluminium / Steel dome head	52	-	-	850	-	1330	2100	-	-	-	-	
Folding Rivet		Aluminium / Alum. dome head "Standard"	51	-	-	-	-	500	900	-	-	-	-	
		Aluminium / Alum. dome head "Special-2"	51	-	-	-	-	-	-	3000	-	4900	-	
Grounding Rivet		Copper / Steel dome head	55	-	-	-	1400	-	-	-	-	-		
Grounding OPTO		Aluminium / Steel dome head	55	-	-	-	-	1140	-	-	-	-		
Plastic Rivet		Nylon dome head	56	-	-	200	-	250	400	-	-	-		

<sup>1</sup>Folding blind rivet "Special2" <sup>2</sup> depending on the length

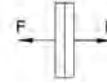
## TENSILE STRENGTH

## 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 <sup>1</sup>	6,0	6,4/ 6,3 <sup>1</sup>	7,8	8,0
ALFO®		Aluminium / Steel dome head	26	600	900	1100	-	1420	1950	2000	2850	4250	9550	-
		Aluminium / Steel countersunk head	27	-	900	1100	-	1420	1950	2000	-	-	-	-
		Aluminium / Steel large dome head	28	-	-	850	-	1900	2200	2500	-	-	-	-
		Aluminium / Steel dome head <i>Painted</i>	29	-	430	-	-	870	-	-	-	-	-	-
		Aluminium / Stahl dome head <i>anodized</i>	29	-	-	-	-	870	-	-	-	-	-	-
		Aluminium / Steel dh <i>extended mandrel</i>	30	-	430	-	-	870	-	2050	-	-	-	-
		Aluminium / Steel dh <i>grooved shank</i>	30	-	-	1000	-	1350	1820	-	-	-	-	-
		Aluminium / Stainless steel dome head	31	600	900	660	-	1420	1950	2000	2820	-	-	-
		Alum. / Stainless steel countersunk head	32	600	900	-	-	1420	-	2000	-	4600	-	-
		Alum. / Stainless steel large dome head	32	-	-	-	-	-	-	2500	-	-	-	-
		Alum. / Stainless steel large d.h. <i>Painted</i>	33	-	-	-	-	-	-	2500	-	-	-	-
		Aluminium / Aluminium dome head	33	-	-	670	-	1240	1600	-	-	-	-	-
		Steel / Steel dome head	34	-	1210	1550	-	2600	3850	4300	5500	6300	-	12000
		Steel / Steel countersunk head	35	-	1210	1550	-	2600	3850	4300	-	6300	-	-
		Stainless steel / Stainless steel dome head	36	1500	2600	2600	-	3550	5400	5800	7500	8850	-	-
		Stainl.steel / Stainl.steel countersunk head	36	-	-	2500	-	3550	5400	4700	-	-	-	-
		Stainl.steel / Stainl.steel large dome head	37	-	-	2500	-	3500	5300	-	-	-	-	-
		Stainless steel / Stainless steel dome head	37	-	2270	-	-	4250	-	6600	-	-	-	-
		Nickel-copper / Stainless steel dome head	38	-	-	2400	-	3450	5000	-	-	8200	-	-
Copper / Steel dome head	39	-	950	1000	-	1800	2500	-	-	-	-	-		
Copper / Bronze dome head	39	-	950	1000	-	1800	-	-	-	-	-	-		
FERO® -BULB		Aluminium / Aluminium dome head	40	-	-	-	-	-	-	-	-	3100	-	-
		Steel / Steel dome head <sup>2</sup>	40	-	-	1300	-	2800	3800	-	-	7800	-	-
		Stainless steel/Stainless steel dome head <sup>2</sup>	41	-	-	2000	-	4000	5000	-	-	8800	-	-
FERO® -BOLT		Steel / Steel dome head	43	-	-	-	-	-	4100	-	-	8000	-	-
		Steel / Steel countersunk head	43	-	-	-	-	-	-	-	-	4900	-	-
		Stainless.st. / Stainl.st. dome head	43	-	-	-	-	-	4500	-	-	8200	-	-
OPTO®		Aluminium / Steel dome head	44	-	-	1000	-	1650	2300	-	-	-	-	
		Aluminium / Steel large dome head	46	-	-	1000	-	1650	2300	-	-	-	-	
		Aluminium / Steel countersunk head	45	-	-	900	-	1320	-	-	-	-	-	
		Aluminium / Stainless steel dome head	45	-	-	900	-	1320	2300	-	-	-	-	
		Aluminium/Stainless steel large dome head	45	-	-	900	-	130	2300	-	-	-	-	
		Steel / Steel dome head	46	-	-	1700	-	2350	3300	-	-	-	-	
		Steel / Steel large dome head	46	-	-	-	-	-	2940	-	-	-	-	
Stainless steel / Stainless steel dome head	46	-	-	2000	-	3500	5000	-	-	-	-			
CERTO®		Aluminium / Steel dome head	47	-	-	1450	-	2500	3400	-	-	49550	-	-
		Aluminium / Steel countersunk head	47	-	-	1450	-	2500	3400	-	-	-	-	
		Aluminium / Stainless steel dome head	48	-	-	1350	-	2500	3400	-	-	-	-	
		Aluminium / Stainless st.countersunk head	48	-	-	-	-	2500	-	-	-	-	-	
		Aluminium / Aluminium dome head	48	-	-	540	-	760	1400	-	-	-	-	
		Steel / Steel dome head	49	-	-	1200	-	1850	2800	-	-	-	-	
		Stainless steel / Stainless steel dome head	49	-	-	2400	-	4000	5500	-	-	8000	-	
		Copper / Steel dome head	50	-	-	1250	-	2100	3200	-	-	-	-	
		Copper / Stainless steel dome head	50	-	-	1250	-	2100	3200	-	-	-	-	
ARCO®		Aluminium / Steel dome head	52	-	-	720	-	1300	1950	-	-	-	-	
		Folding Rivet	51	-	-	-	-	800	1100	-	-	-	-	
Grounding Rivet		Aluminium / Alum. dome head "Standard"	51	-	-	-	-	-	-	2000	-	3000	-	
		Aluminium / Alum. dome head "Special-2"	51	-	-	-	-	-	-	-	-	-	-	
Grounding OPTO		Copper / Steel dome head	55	-	-	-	2000	-	-	-	-	-	-	
		Aluminium / Steel dome head	55	-	-	-	-	1670	-	-	-	-	-	
Plastic Rivet		Nylon dome head	56	-	-	120	-	180	280	-	-	-	-	

<sup>1</sup>Folding blind rivet "Special-2"

## CORROSION RESISTANCE AND PROTECTION

Whilst 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

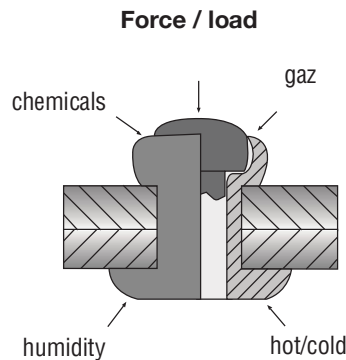
Surface corrosion is the abrasion of surfaces and the conversion of the material into oxidation products (e.g. rust).

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.



te. 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 3µm, 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.

### 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.

### 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 stands 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 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.

### Chromating of electroplated layers

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

### 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.

## CONTACT CORROSION PERFORMANCE IN THE CASE OF DIFFERENT MATERIAL COMBINATIONS

Shaft material	Aluminium	Steel	Stainless Steel	Copper	Nickel-Copper
Aluminium	++	+	+	-	-
Steel – galvanized	+	++	+	-	+
Stainless steel	+	++	++	-	+
Copper	+	+	+	++	++
Nickel-Copper – galvanized	+	+	+	++	++

++ Combination well suited

+ Combination suitable

- Combination unsuitable

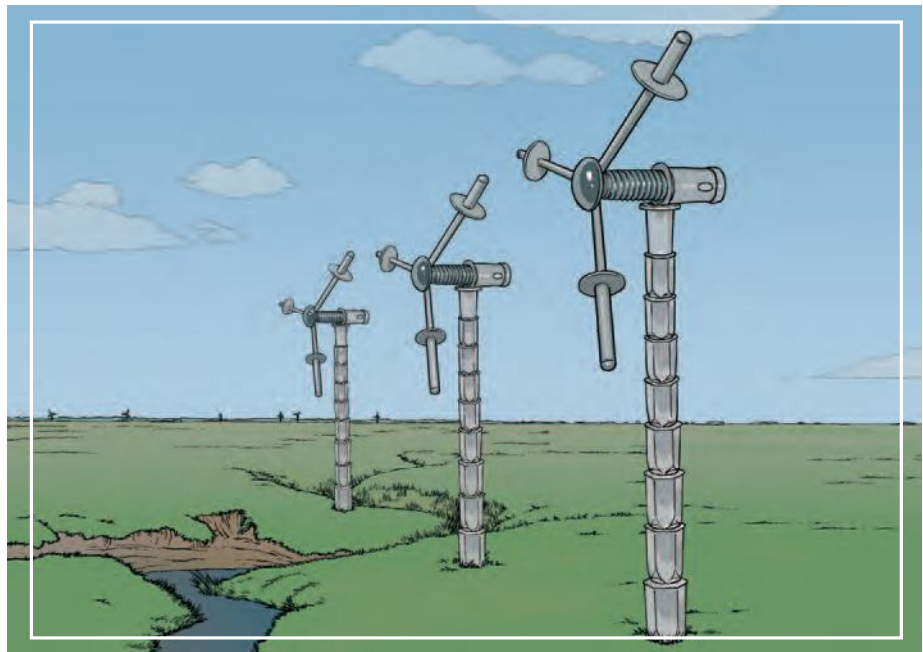
**This table merely serves for orientation purposes!**

## DO YOU NEED A SPECIAL TYPE OF BLIND RIVET FOR YOUR APPLICATION?

Our experienced technicians will be glad to develop an **individual solution** for your special need.

Development, consulting, tool making, manufacturing and delivery – **all from one source**, based on a company history of 80 years.

We realize projects for different industries - for example automotive industry and their suppliers, container and tank construction, electric cabinets or all kinds of “renewable energy“-applications.





## 1<sup>1</sup> Standard Blind Rivet ALFO®

### Aluminium /

<b>Steel</b> Dome Head	26
<b>Steel</b> Countersunk Head	27
<b>Steel</b> Large Dome Head	28
<b>Steel</b> Dome Head <i>Painted</i>	29
<b>Steel</b> Dome Head <i>Anodized</i>	29
<b>Steel</b> Dome Head <i>Grooved</i>	30
<b>Steel</b> Dome Head <i>Extended Mandrel</i>	30
<b>Stainless Steel A2</b> Dome Head	31
<b>Stainless Steel A2</b> Countersunk Head	32
<b>Stainless Steel A2</b> Large Dome Head	32
<b>Stainless Steel A2</b> <i>Painted</i> Large Dome Head	33
<b>Aluminium</b> Dome Head	33

### Steel /

<b>Steel</b> Dome Head	34
<b>Steel</b> Countersunk Head	35

### Stainless Steel A2 /

<b>Stainless Steel A2</b> Dome Head	35
<b>Stainless Steel A2</b> Countersunk Head	36
<b>Stainless Steel A2</b> Large Dome Head	37

### Stainless Steel A4

<b>Stainless Steel A4/A5</b> Dome Head	37
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### Nickel-Copper /

<b>Stainless Steel A4/A5</b> Dome Head	38
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### Copper /

<b>Steel</b> Dome Head	39
<b>Bronze</b> Dome Head	39

## 1<sup>2</sup> Structural Blind Rivets FERØ-BULB

### Aluminium /

<b>Aluminium</b> Dome Head	40
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### Steel /

<b>Steel</b> Dome Head	40
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### Stainless Steel A2 /

<b>Stainless Steel A2</b> Dome Head	41
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## 1<sup>3</sup> Structural Blind Rivets FERØ-BOLT

### Steel /

<b>Steel</b> Dome Head	43
<b>Steel</b> Countersunk Head	43

### Stainless Steel A2 /

<b>Stainless Steel A2</b> Dome Head	43
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## 1<sup>4</sup> Multigrip Blind Rivets OPTO®

### Aluminium /


<b>Steel</b> Dome Head	44
<b>Steel</b> Dome Head <i>Painted</i>	44
<b>Steel</b> Large Dome Head	44
<b>Steel</b> Countersunk Head	45
<b>Stainless Steel A2</b> Dome Head	45
<b>Stainless Steel A2</b> Large Dome Head	45

### Steel /

<b>Steel</b> Dome Head	46
<b>Steel</b> Large Dome Head	46

### Stainless Steel A2 /




<b>Stainless Steel A2</b> Dome Head	46
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 Rivet shafts and mandrels made from steel always have a CR VI-free surface.




## 1<sup>5</sup> Sealed Blind Rivets CERTO®

### Aluminium /

	<b>Steel</b> Dome Head -closed- . . . . .	47
	<b>Steel</b> Countersunk Head -closed- . . . . .	47
	<b>Stainless Steel A2</b> Dome Head -closed- . . . . .	48
	<b>Stainless Steel A2</b> Countersunk Head -closed- . . . . .	48
	<b>Aluminium</b> Dome Head -closed- . . . . .	48



### Steel /

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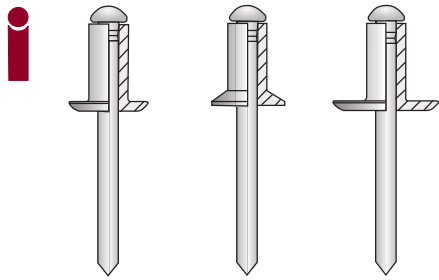
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# Standard Blind Rivet ALFO®



The **ALFO®** series contains any kind of HONSEL/VVG **standard open type blind rivets**.

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 are concerned.

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

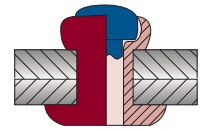
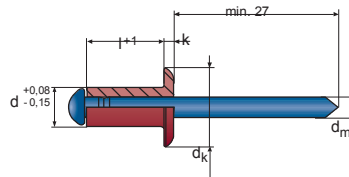
These modifications based on our **long term experience** and assist you in implementing a rivet design according to **practical purposes**.



# Standard Blind Rivet ALFO®

## Aluminium / Steel Dome Head -open-

DIN EN ISO 15977



d	l <sub>+1</sub>		dk	k	dm	No.	
2,4	3,0	0,5 – 1,0	5,0 -0,7	0,55 ± 0,15	1,5	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

EN AW - 5019 [AlMg5] 2,5 mm 380 N 600 N

d	l <sub>+1</sub>		dk	k	dm	No.	
3,0	4,0	0,5 – 2,0	6,3 -0,7	0,8 ± 0,2	1,7	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
	25,0	16,0 – 21,5				10.700.030.250	500

EN AW - 57519 [AlMg5] 3,1 mm 660 N 900 N

d	l <sub>+1</sub>		dk	k	dm	No.	
3,2	4,0	0,5 – 1,5	6,5 -0,7	0,8 ± 0,2	1,9	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
	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

EN AW - 5019 [AlMg5] 3,3 mm 660 N 1100 N

d	l <sub>+1</sub>		dk	k	dm	No.	
4,0	5,0	0,5 – 2,5	8,0 -1,0	1,0 ± 0,3	2,0	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
	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

EN AW - 5754 [AlMg3] 4,1 mm 1120 N 1420 N

d	l <sub>+1</sub>		dk	k	dm	No.	
4,8	6,0	1,0 – 3,0	9,5 -1,0	1,1 ± 0,3	2,7	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
	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

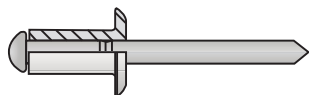
EN AW - 5754 [AlMg3] 4,9 mm 1480 N 1950 N



d	l <sub>+1</sub>		d <sub>k</sub>	k	d <sub>m</sub>	No.	
5,0	6,0	1,0 – 3,0	9,5 -0,8	1,1 ±0,3	2,7	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
	45,0	34,5 – 40,0				10.700.050.450	250
50,0	39,5 – 45,0	10.700.050.500	250				

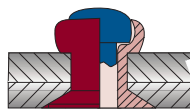
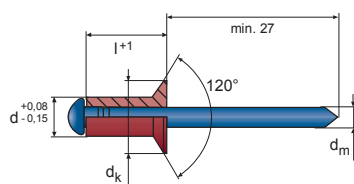
EN AW - 5754 [AlMg3] 5,1 mm 1650 N 2000 N

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



Diameter 7,8 is not standardized.

Please note our manifold range of **assortments and small packs** on [pages 104/105](#) and [106-108!](#)



## Aluminium / Steel Countersunk Head -open-

DIN EN ISO 15978

d	l <sub>+1</sub>		d <sub>k</sub>	d <sub>m</sub>	No.	
3,0	5,0	1,5 – 3,0	6,0 -0,4	1,7	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

EN AW - 5719 [AlMg5] 3,1 mm 660 N 900 N

d	l <sub>+1</sub>		d <sub>k</sub>	d <sub>m</sub>	No.	
3,2	6,0	1,5 – 3,5	6,2 -0,4	1,9	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

EN AW - 5719 [AlMg5] 3,3 mm 660 N 1100 N

d	l <sub>+1</sub>		d <sub>k</sub>	k	d <sub>m</sub>	No.	
6,0	8,0	1,0 – 3,5	12,0 -1,2	1,5 ±0,4	3,2	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

EN AW - 5754 [AlMg3] 6,1 mm 2520 N 2850 N

d	l <sub>+1</sub>		d <sub>k</sub>	k	d <sub>m</sub>	No.	
6,4	12,0	2,5 – 7,0	13,0 -1,4	1,8 ±0,4	3,6	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

EN AW - 5754 [AlMg3] 6,5 mm 2850 N 4250 N

d	l <sub>+1</sub>		d <sub>k</sub>	k	d <sub>m</sub>	No.	
7,8	15,0	4,0 – 9,5	14,0	2,0	3,7	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	250
	35,0	24,5 – 29,5				10.700.078.350	250

EN AW - 5754 [AlMg3] 8,0 mm 6600 N 9550 N

d	l <sub>+1</sub>		d <sub>k</sub>	d <sub>m</sub>	No.	
4,0	6,0	1,5 – 3,5	7,5 -0,5	2,0	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

EN AW - 5754 [AlMg3] 4,1 mm 1120 N 1420 N

► Further dimensions on the [following page!](#)



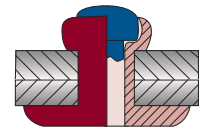
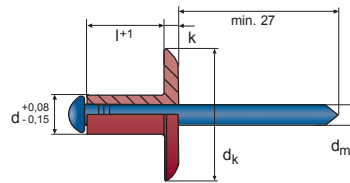
d	l <sub>+1</sub>		d <sub>k</sub>	d <sub>m</sub>	No.	
<b>4,8</b>	10,0	4,0 – 6,5	9,0 -0,5	2,7	10.700.480.100	500
	12,0	6,0 – 8,0			10.700.480.120	500
	14,0	7,5 – 10,0			10.700.480.140	500
	16,0	8,0 – 12,0			10.700.480.160	500
	20,0	12,0 – 15,5			10.700.480.200	500

EN AW - 5754 [AlMg3] 4,9 mm 1480 N 1950 N

d	l <sub>+1</sub>		d <sub>k</sub>	d <sub>m</sub>	No.	
<b>5,0</b>	8,0	2,0 – 5,0	9,3 -0,5	2,7	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

EN AW - 5754 [AlMg3] 5,1 mm 1650 N 2000 N

## Aluminium / Steel Large Dome Head -open-



d	l <sub>+1</sub>		d <sub>k</sub>	k	d <sub>m</sub>	No.	
<b>3,2</b>	6,0	1,5 – 3,5	9,5 ±0,3	1,2 +0,5	1,9	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
	12,0	7,0 – 9,0				10.730.032.120	500

EN AW - 5754 [AlMg3] 3,3 mm 580 N 850 N

d	l <sub>+1</sub>		d <sub>k</sub>	k	d <sub>m</sub>	No.	
<b>4,0</b>	6,0	1,0 – 3,5	12,0 ±0,3	1,5 ±0,5	2,0	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

EN AW - 5754 [AlMg3] 4,1 mm 1120 N 1900 N

d	l <sub>+1</sub>		d <sub>k</sub>	k	d <sub>m</sub>	No.	
<b>4,8</b>	8,0	2,0 – 5,0	16,0 ±0,3	1,8 ±0,5	2,7	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

EN AW - 5754 [AlMg3] 4,9 mm 1480 N 2200 N

d	l <sub>+1</sub>		d <sub>k</sub>	k	d <sub>m</sub>	No.	
<b>5,0</b>	8,0	2,0 – 5,0	11,0 ±0,3	1,5 +0,5	2,7	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

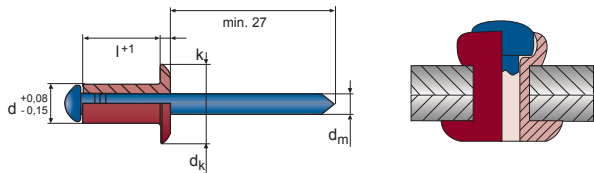
EN AW - 5754 [AlMg3] 5,1 mm 1650 N 2500 N

d	l <sub>+1</sub>		d <sub>k</sub>	k	d <sub>m</sub>	No.	
<b>5,0</b>	8,0	2,0 – 5,0	14,0 ±0,3	1,5 +0,5	2,7	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

EN AW - 5754 [AlMg3] 5,1 mm 1650 N 2500 N

d	l <sub>+1</sub>		d <sub>k</sub>	k	d <sub>m</sub>	No.	
<b>5,0</b>	10,0	2,0 – 6,5	16,0 ±0,3	1,8 +0,5	2,7	10.770.050.100	500
	16,0	6,0 – 12,0				10.770.050.160	500
	20,0	11,5 – 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

EN AW - 5754 [AlMg3] 5,1 mm 1650 N 2500 N



**Aluminium / Steel**  
**Dome Head -open-**  
**ainted**

according to DIN EN ISO 15977

d	l <sub>+1</sub>	$\frac{\downarrow}{\uparrow}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	RAL-No. Colour	
3,0	6,0	2,5 - 3,5	6,3 -0,7	0,8 ± 0,2	1,7	10.700.030.060/2		500
	6,0	2,5 - 3,5				10.700.030.060/9		500
	8,0	3,0 - 5,5				10.700.030.080/9		500
	8,0	3,0 - 5,5				10.700.030.080/12		500
	10,0	5,0 - 7,5				10.700.030.100/5		500
	10,0	5,0 - 7,5				10.700.030.100/6		500

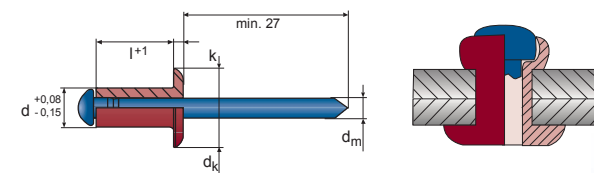
EN AW - 6060 [AlMgSi] 3,1 mm 320 N 430 N

d	l <sub>+1</sub>	$\frac{\downarrow}{\uparrow}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	RAL-No. Colour	
4,0	6,0	1,5 - 3,0	8,0 -1,0	1,0 ± 0,3	2,0	10.700.040.060/8		500
	8,0	2,5 - 5,0				10.700.040.080/20		500
	8,0	2,5 - 5,0				10.700.040.080/21		500
	10,0	4,5 - 7,0				10.700.040.100/14		500
	10,0	4,5 - 7,0				10.700.040.100/39		500
	12,0	6,5 - 8,5				10.700.040.120/17		500
	12,0	6,5 - 8,5				10.700.040.120/30		500

EN AW - 6060 [AlMgSi] 4,1 mm 610 N 870 N

Other colours and dimensions available on request with minimum quantities!

You can find further painted blind rivets as multigrip version on page 44!



**Aluminium / Steel**  
**Dome Head -open-**  
**anodized**

according to DIN EN ISO 15977

d	l <sub>+1</sub>	$\frac{\downarrow}{\uparrow}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	Colour	
4,0	8,0	2,5 - 5,0	8,0 -1,0	1,0 ± 0,3	2,0	10.700.040.080/11	black	500
	8,0	2,5 - 5,0				10.700.040.080/9	dark bronze	500
	10,0	4,5 - 7,0				10.700.040.100/12	black	500

EN AW - 6060 [AlMgSi] 4,1 mm 610 N 870 N

d	l <sub>+1</sub>	$\frac{\downarrow}{\uparrow}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	Colour	
4,0	10,0	4,5 - 7,0	8,0 -1,0	1,0 ± 0,3	2,0	10.700.040.100/10	dark bronze	500
	12,0	6,5 - 8,5				10.700.040.120/12	black	500
	12,0	6,5 - 8,5				10.700.040.120/11	dark-bronze	500

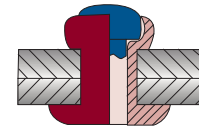
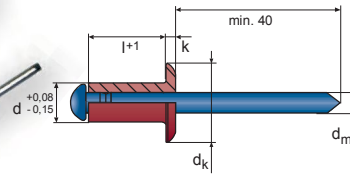
EN AW - 6060 [AlMgSi] 4,1 mm 610 N 870 N



1 1

**Aluminium / Steel**

**Dome Head -open-  
reduced mandrel breaking strength  
and extended mandrel length**



d	l+1	$\frac{d}{2}$ ↓ ↑ $\frac{d}{2}$	dk	k	dm	No.	
3,0	10,0	5,0 – 7,5	6,3	0,8	1,7	10.700.030.100/8	500
	12,0	7,0 – 9,0	-0,7	± 0,2		10.700.030.120/2	500

EN AW - 6060 [AlMgSi] 3,1 mm 320 N 430 N

d	l+1	$\frac{d}{2}$ ↓ ↑ $\frac{d}{2}$	dk	k	dm	No.	
5,0	12,0	6,0 – 8,5	9,5	1,1	2,7	10.700.050.120/6	500
	16,0	8,0 – 11,5	-0,8	± 0,3		10.700.050.160/3	500

EN AW - 6060 [AlMgSi] 5,1 mm 1650 N 2050 N

4,0	8,0	3,0 – 5,0	8,0	1,0	2,0	10.700.040.080/5	500
	10,0	4,5 – 7,0				10.700.040.100/5	500
	12,0	6,5 – 8,5				10.700.040.120/4	500
	16,0	8,0 – 12,0				10.700.040.160/4	500
	20,0	11,5 – 15,5				10.700.040.200/6	500

EN AW - 6060 [AlMgSi] 4,1 mm 610 N 870 N

▼ Minimum production quantity required after sale of warehouse stock.

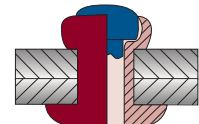
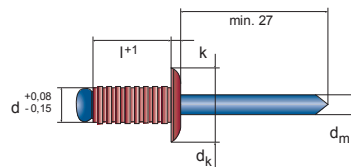
- The reduced mandrel breaking strength allows the handling of fragile materials.
- Due to the longer mandrel of more than 40mm it is possible to place rivets in areas difficult to access.

► For necessary extended nosepieces please turn to [page 138](#).



**Aluminium / Steel**

**Dome Head -open-  
with grooved shank**



d	l+1	Minimum hole depth	dk	k	dm	No.	
3,2	10,0	13	6,5	0,8	1,7	10.700.032.100/3	500

EN AW - 5019 [AlMgSi] min. 3,3 mm 600 N 1000 N

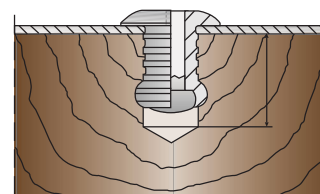
4,0	8,0	11	8,0	1,0	2,0	10.700.040.080/3	500		
	12,0	15				-1,0	± 0,3	10.700.040.120/3	500
	18,0	21						10.700.040.180/2	500

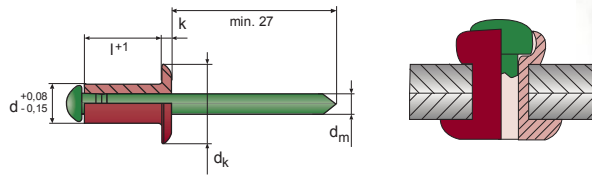
EN AW - 5754 [AlMg3] min. 4,15 mm 1000 N 1350 N

4,8	10,0	14	9,5	1,1	2,7	10.700.048.100/3	500
	16,0	20				-1,0	± 0,3

EN AW - 5754 [AlMg3] min. 4,95 mm 1350 N 1820 N

- Particularly suitable for riveting in blind holes.
- 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.





## Aluminium / Stainless Steel A2/A3 Dome Head -open-

according to DIN EN ISO 15977

d	l+1	$\frac{d}{k}$	dk	k	dm	No.	
2,4	4,0	0,5 – 2,0	5,0 -0,7	0,55 ± 0,15	1,5	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

EN AW - 5019 [AlMg5] 2,5 mm 380 N 600 N

d	l+1	$\frac{d}{k}$	dk	k	dm	No.	
3,0	4,0	0,5 – 2,0	6,3 -0,7	0,8 ± 0,2	1,7	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

EN AW - 5019 [AlMg5] 3,1 mm 660 N 900 N

d	l+1	$\frac{d}{k}$	dk	k	dm	No.	
3,2	6,0	1,5 – 3,5	6,5 -0,7	0,8 ± 0,2	1,9	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

EN AW - 5019 [AlMg5] 3,3 mm 660 N 1100 N

d	l+1	$\frac{d}{k}$	dk	k	dm	No.	
4,0	5,0	0,5 – 2,5	8,0 -1,0	1,0 ± 0,3	2,0	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

EN AW - 5057 [AlMg3] 4,1 mm 1120 N 1420 N

d	l+1	$\frac{d}{k}$	dk	k	dm	No.	
4,8	6,0	1,0 – 3,0	9,5 -1,0	1,1 ± 0,3	2,7	10.702.048.060	500
	8,0	1,0 – 5,0				10.702.048.080	500
	10,0	4,0 – 6,5				10.702.048.100	500
	12,0	6,0 – 8,0				10.702.048.120	500
	14,0	7,5 – 10,0				10.702.048.140	500
	16,0	8,0 – 12,0				10.702.048.160	500

EN AW - 5754 [AlMg3] 4,9 mm 1480 N 1950 N

d	l+1	$\frac{d}{k}$	dk	k	dm	No.	
5,0	6,0	1,0 – 3,0	9,5 -0,8	1,1 ± 0,3	2,7	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

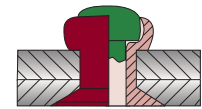
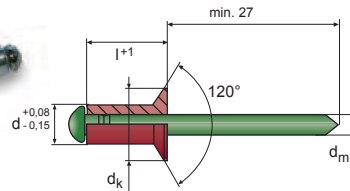
EN AW - 5754 [AlMg3] 5,1 mm 1650 N 2000 N

d	l+1	$\frac{d}{k}$	dk	k	dm	No.	
6,0	10,0	3,0 – 5,5	12,0 -1,2	1,5 ± 0,4	3,2	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

EN AW - 5754 [AlMg3] 6,1 mm 2520 N 2850 N



**Aluminium / Stainless Steel A2/A3**  
**Coutersunk Head -open-**



according to DIN EN ISO 15978

d	l+1	$\frac{d}{2}$	dk	dm	No.	
<b>2,4</b>	6,0	1,5 – 4,0	4,5 +0,2	1,45	10.702.240.060	500

EN AW - 5719 [AlMg5] 3,1 mm 420 N 660 N

3,0	6,0	1,5 – 4,0	6,0 -0,4	1,7	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

EN AW - 5719 [AlMg5] 3,1 mm 660 N 900 N

4,0	6,0	1,5 – 3,5	7,5 -0,5	2,0	10.702.400.060	500
	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

EN AW - 5754 [AlMg3] 4,1 mm 1120 N 1420 N

d	l+1	$\frac{d}{2}$	dk	dm	No.	
<b>5,0</b>	10,0	2,0 – 6,5	9,3 -0,5	2,7	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

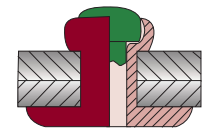
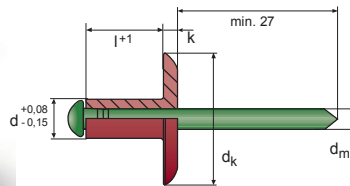
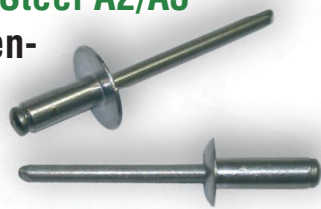
EN AW - 5754 [AlMg3] 5,1 mm 50 N 2000 N

6,4	12,0	3,0 – 6,0	11,0 ±0,2	3,65 -0,2	10.702.640.120/2	250
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EN AW - 5754 [AlMg3] 6,5 mm 2880 N 4600 N

Diameter 6,4 is not standardized.

**Aluminium / Stainless Steel A2/A3**  
**Large Dome Head -open-**



d	l+1	$\frac{d}{2}$	dk	k	dm	No.	
<b>5,0</b>	8,0	2,0 – 5,0	11,0 ±0,5	1,5 +0,4	2,7	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

EN AW - 5754 [AlMg3] 5,1 mm 1650 N 2500 N

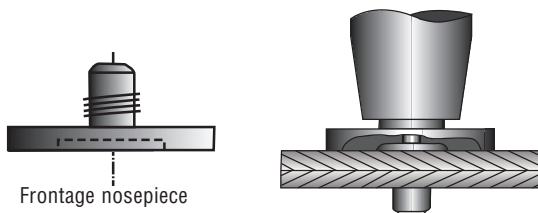
d	l+1	$\frac{d}{2}$	dk	k	dm	No.	
<b>5,0</b>	10,0	4,0 – 6,5	14,0 ±0,3	1,5 +0,4	2,7	10.762.050.100	500
	12,0	6,0 – 8,0				10.762.050.120	500
	14,0	7,5 – 10,0				10.762.050.140	500
	16,0	8,0 – 12,0				10.762.050.160	500
	18,0	11,5 – 13,5				10.762.050.180	500
	20,0	12,0 – 15,5				10.762.050.200	500
	25,0	15,0 – 20,5				10.762.050.250	250

EN AW - 5754 [AlMg3] 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.

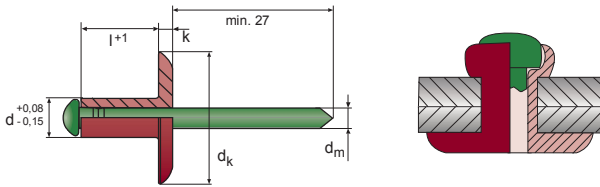
- With special facade nosepieces it is guaranteed that the rivet is placed with a tolerance of 0,3 mm. Rivet and nosepiece should be from one manufacturer.
- The grip range results from the thickness of material plus two mm to secure a well done closing head.



**We recommend to try out the riveting process in advance!**







## Aluminium / Stainless Steel Large Dome Head -open -painted head



ALFO®

d	l+1	↓ ↑	dk	k	dm	No.	
5,0	8,0	2,0 – 5,0	11,0 ± 0,5	1,5 + 0,4	2,7	10.742.050.080/k	500
	10,0	4,0 – 6,5				10.742.050.100/k	500
	12,0	6,0 – 8,0				10.742.050.120/k	500
	14,0	7,5 – 10,0				10.742.050.140/k	500
	16,0	8,0 – 12,0				10.742.050.160/k	500
	18,0	11,5 – 13,5				10.742.050.180/k	500
	20,0	12,0 – 15,5				10.742.050.200/k	500

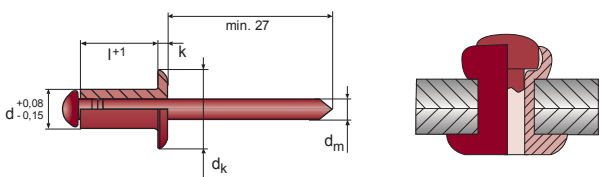
EN AW - 5754 [AlMg3] 5,1 mm 1650 N 2500 N

d	l+1	↓ ↑	dk	k	dm	No.	
5,0	10,0	4,0 – 6,5	14,0 ± 0,3	1,5 + 0,4	2,7	10.762.050.100/k	500
	12,0	6,0 – 8,0				10.762.050.120/k	500
	14,0	7,5 – 10,0				10.762.050.140/k	500
	16,0	8,0 – 12,0				10.762.050.160/k	500
	18,0	11,5 – 13,5				10.762.050.180/k	500
	20,0	12,0 – 15,5				10.762.050.200/k	500
	25,0	15,0 – 20,5				10.762.050.250/k	250

EN AW - 5754 [AlMg3] 5,1 mm 1650 N 2500 N

**The individual premium painting available even in smaller quantities.**

- Minimum quantity only 1.000 pieces
- Short delivery times
- **Mandrel remains unpainted to avoid contamination of the tool.**
- Precise definition of colour is required
- Alternative plastic cover caps on [▶ page 112](#)
- Special storefront nosepieces on [▶ page 138](#)



## Aluminium / Aluminium Dome Head -open-

DIN EN ISO 15981



d	l+1	↓ ↑	dk	k	dm	No.	
3,2	6,0	0,5 – 4,0	6,5 - 0,7	0,8 ± 0,2	2,0	10.701.032.060	500
	8,0	3,5 – 6,0				10.701.032.080	500
	10,0	5,0 – 8,0				10.701.032.100	500

EN AW - 5251 [AlMg2] 3,3 mm 380 N 670 N

d	l+1	↓ ↑	dk	k	dm	No.	
4,0	6,0	1,0 – 3,5	8,0 - 1,0	1,0 ± 0,3	2,5	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

EN AW - 5251 [AlMg2] 4,1 mm 740 N 1240 N

d	l+1	↓ ↑	dk	k	dm	No.	
4,8	8,0	1,0 – 5,0	9,5 - 1,0	1,1 ± 0,3	2,9	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	11,5 – 13,0				10.701.048.180	500
	20,0	13,0 – 15,0				10.701.048.200	500

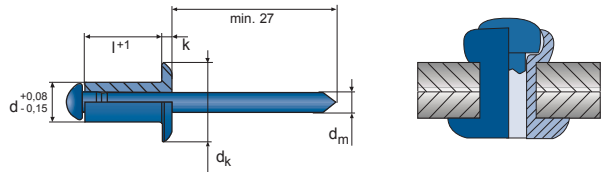
EN AW - 5251 [AlMg2] 4,9 mm 1140 N 1600 N



1 1

Steel / Steel  
Dome Head -open-

DIN EN ISO 15979



d	l+1	$\begin{matrix} \downarrow \\ \text{---} \\ \uparrow \end{matrix}$	dk	k	dm	No.	
3,0	5,0	0,5 – 2,5	6,3 -0,7	0,8 ± 0,2	1,9	10.707.030.050	500
	6,0	0,5 – 3,5				10.707.030.060	500
	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

QSt 32-3 [1.0303]  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  3,1 mm  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  900 N  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  1210 N

d	l+1	$\begin{matrix} \downarrow \\ \text{---} \\ \uparrow \end{matrix}$	dk	k	dm	No.	
5,0	8,0	2,5 – 4,5	9,5 -0,8	1,1 ± 0,3	2,9	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
	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	500
	30,0	19,5 – 25,0				10.707.050.300	250

QSt 32-3 [1.0303]  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  5,1 mm  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  3000 N  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  4300 N

d	l+1	$\begin{matrix} \downarrow \\ \text{---} \\ \uparrow \end{matrix}$	dk	k	dm	No.	
3,2	5,0	0,5 – 2,5	6,5 -0,7	0,8 ± 0,2	2,0	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	11,0 – 13,0				10.707.032.160	500

QSt 32-3 [1.0303]  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  3,3 mm  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  1060 N  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  1550 N

! Lengths up to 55,0 mm available on request!

d	l+1	$\begin{matrix} \downarrow \\ \text{---} \\ \uparrow \end{matrix}$	dk	k	dm	No.	
4,0	6,0	0,5 – 3,5	8,0 -1,0	1,0 ± 0,3	2,3	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
	10,0	5,0 – 7,0				10.707.040.100	500
	12,0	6,5 – 9,0				10.707.040.120	500
	14,0	8,0 – 10,5				10.707.040.140	500
	16,0	9,0 – 12,5				10.707.040.160	500
	20,0	12,5 – 16,0				10.707.040.200	500

QSt 32-3 [1.0303]  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  4,1 mm  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  1900 N  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  2600 N

d	l+1	$\begin{matrix} \downarrow \\ \text{---} \\ \uparrow \end{matrix}$	dk	k	dm	No.	
6,0	10,0	2,0 – 5,5	12,0 -1,2	1,5 ± 0,4	3,6	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

QSt 32-3 [1.0303]  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  6,1 mm  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  4000 N  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  5500 N

d	l+1	$\begin{matrix} \downarrow \\ \text{---} \\ \uparrow \end{matrix}$	dk	k	dm	No.	
6,4	8,0	1,0 – 4,0	13,0 -1,4	1,8 ± 0,4	3,8	10.707.064.080	250
	10,0	3,0 – 6,0				10.707.064.100	250
	12,0	5,5 – 7,5				10.707.064.120	250
	16,0	6,0 – 11,5				10.707.064.160	250
	18,0	10,0 – 13,0				10.707.064.180	250
	20,0	12,0 – 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

QSt 32-3 [1.0303]  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  6,5 mm  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  4500 N  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  6300 N

d	l+1	$\begin{matrix} \downarrow \\ \text{---} \\ \uparrow \end{matrix}$	dk	k	dm	No.	
4,8	6,0	1,0 – 2,5	9,5 -1,0	1,1 ± 0,3	2,7	10.707.048.060	500
	8,0	2,5 – 4,5				10.707.048.080	500
	10,0	4,0 – 6,5				10.707.048.100	500
	12,0	6,0 – 8,5				10.707.048.120	500
	16,0	8,0 – 12,0				10.707.048.160	500
	18,0	10,0 – 13,5				10.707.048.180	500
	20,0	11,0 – 15,0				10.707.048.200	500
	25,0	14,5 – 20,0				10.707.048.250	500

QSt 32-3 [1.0303]  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  4,9 mm  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  2900 N  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  3850 N

d	l+1	$\begin{matrix} \downarrow \\ \text{---} \\ \uparrow \end{matrix}$	dk	k	dm	No.	
8,0	14,0	3,0 – 8,5	20,0 ± 0,7	2,5 + 0,5	4,0	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

QSt 32-3 [1.0303]  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  8,1 mm  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  8600 N  $\begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix}$  12000 N

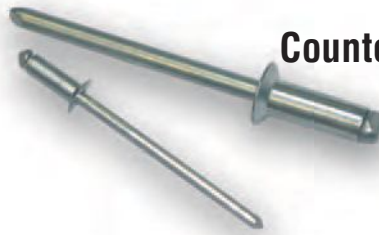
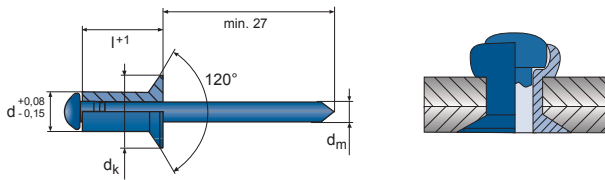
! Diameter 8,0 mm not standardized.

► Types with large dome head available as multi-grip blind rivet OPTO® on page 46

► Further blind rivets made of steel are available as high strength type FERRO®-BULB (pages 40/41) or FERRO®-BOLT (pages 42/43).



► For the perfect tool take a look into chapters 8 and 9 on pages 117 and 125!



## Steel / Steel Countersunk Head -open-

DIN EN ISO 15980

ALFO®

d	l+1	$\frac{\downarrow}{\uparrow}$	dk	dm	No.	
3,0	6,0	1,5 - 3,5	6,0 -0,4	1,9	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

QSt 32-3 [1.0303]  $\frac{\downarrow}{\uparrow}$  3,1 mm  $\frac{\downarrow}{\uparrow}$  900 N  $\frac{\downarrow}{\uparrow}$  1210 N

d	l+1	$\frac{\downarrow}{\uparrow}$	dk	dm	No.	
3,2	6,0	1,5 - 3,5	6,2 -0,4	2,0	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

QSt 32-3 [1.0303]  $\frac{\downarrow}{\uparrow}$  3,3 mm  $\frac{\downarrow}{\uparrow}$  1060 N  $\frac{\downarrow}{\uparrow}$  1550 N

d	l+1	$\frac{\downarrow}{\uparrow}$	dk	dm	No.	
4,0	6,0	1,5 - 3,5	7,5 -0,5	2,3	10.707.400.060	500
	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

QSt 32-3 [1.0303]  $\frac{\downarrow}{\uparrow}$  4,1 mm  $\frac{\downarrow}{\uparrow}$  1900 N  $\frac{\downarrow}{\uparrow}$  2600 N

d	l+1	$\frac{\downarrow}{\uparrow}$	dk	dm	No.	
4,8	8,0	2,0 - 4,5	9,0 -0,5	2,7	10.707.480.080	500
	10,0	4,0 - 6,5			10.707.480.100	500
	12,0	6,0 - 8,5			10.707.480.120	500
	16,0	8,0 - 12,0			10.707.480.160	500
	18,0	11,5 - 13,5			10.707.480.180	500

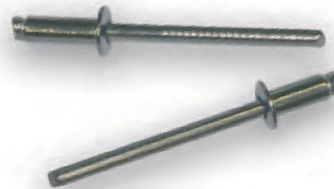
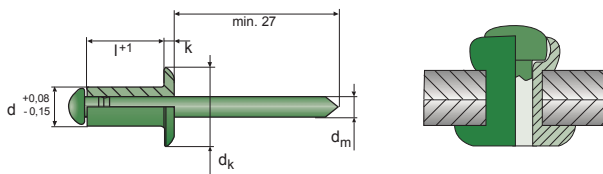
QSt 32-3 [1.0303]  $\frac{\downarrow}{\uparrow}$  4,9 mm  $\frac{\downarrow}{\uparrow}$  2900 N  $\frac{\downarrow}{\uparrow}$  3850 N

d	l+1	$\frac{\downarrow}{\uparrow}$	dk	dm	No.	
5,0	8,0	2,0 - 4,5	9,0 -0,5	2,9	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
	30,0	19,5 - 25,0			10.707.500.300	500

QSt 32-3 [1.0303]  $\frac{\downarrow}{\uparrow}$  5,1 mm  $\frac{\downarrow}{\uparrow}$  3000 N  $\frac{\downarrow}{\uparrow}$  4300 N

d	l+1	$\frac{\downarrow}{\uparrow}$	dk	dm	No.	
6,4	10,0	3,0 - 5,0	13,4 -1,8	3,8 $\pm 0,1$	10.707.640.100	500
	12,0	4,0 - 7,0			10.707.640.120	500

QSt 32-3 [1.0303]  $\frac{\downarrow}{\uparrow}$  6,5 mm  $\frac{\downarrow}{\uparrow}$  4900 N  $\frac{\downarrow}{\uparrow}$  5700 N



## Stainless Steel A2 / Stainless Steel A2/A3 Dome Head -open-

DIN EN ISO 15983

d	l+1	$\frac{\downarrow}{\uparrow}$	dk	k	dm	No.	
2,4	6,0	0,5 - 3,5	5,0 $\pm 0,2$	0,8 $\pm 0,1$	1,5	10.708.024.060	500

[1.4301]  $\frac{\downarrow}{\uparrow}$  3,1 mm  $\frac{\downarrow}{\uparrow}$  1000 N  $\frac{\downarrow}{\uparrow}$  1500 N

d	l+1	$\frac{\downarrow}{\uparrow}$	dk	k	dm	No.	
3,0	6,0	0,5 - 3,0	6,3 -0,7	0,8 $\pm 0,2$	1,9	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

[1.4301]  $\frac{\downarrow}{\uparrow}$  3,1 mm  $\frac{\downarrow}{\uparrow}$  2050 N  $\frac{\downarrow}{\uparrow}$  2600 N

d	l+1	$\frac{\downarrow}{\uparrow}$	dk	k	dm	No.	
3,2	6,0	0,5 - 3,0	6,5 -0,7	0,8 $\pm 0,2$	1,9	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				

[1.4301]  $\frac{\downarrow}{\uparrow}$  3,3 mm  $\frac{\downarrow}{\uparrow}$  2050 N  $\frac{\downarrow}{\uparrow}$  2600 N

► Further dimensions on the following page!



d	l +1		d <sub>k</sub>	k	d <sub>m</sub>	Nr.	
4,0	6,0	1,0 – 2,5	8,0 -1,0	1,0 ±0,3	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 – 20,0				10.708.040.250	500

[1.4301] 4,1 mm 2750 N 3550 N

4,8	8,0	1,5 – 4,0	9,5 -1,0	1,1 ±0,3	2,9	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

[1.4301] 4,9 mm 4250 N 5400 N

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

► Further blind rivets made of stainless steel are available as high strength type FERRO®-BULB (pages 40/41) or FERRO®-BOLT (pages 42/43).

d	l +1		d <sub>k</sub>	k	d <sub>m</sub>	Nr.	
5,0	8,0	2,0 – 4,0	9,5 -0,8	1,1 ±0,3	2,9	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	21,0 – 25,0				10.708.050.300	250
	35,0	25,0 – 30,0				10.708.050.350	250
	40,0	30,0 – 34,0				10.708.050.400	250

[1.4301] 5,1 mm 4700 N 5800 N

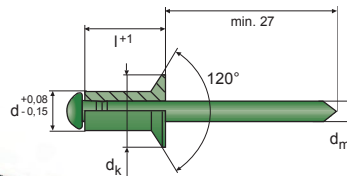
6,0	10,0	2,0 – 5,5	12,0 -1,2	1,5 +0,4	3,8	10.708.060.100	250
	12,0	5,5 – 7,5				10.708.060.120	250
	16,0	7,5 – 11,0				10.708.060.160	250

[1.4301] 6,1 mm 5700 N 7500 N

6,4	10,0	2,5 – 6,0	13,0 -1,5	1,8 ±0,4	3,8	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

[1.4301] 6,5 mm 6500 N 8850 N

## Stainless Steel A2 / Stainless Steel A2/A3 Countersunk Head -open-



### DIN EN ISO 15984

d	l +1		d <sub>k</sub>	d <sub>m</sub>	No.	
3,2	6,0	1,0 – 3,0	6,0 -0,4	1,9	10.708.320.060	500
	8,0	1,0 – 3,0			10.708.320.080	500
	10,0	3,0 – 5,0			10.708.320.100	500
	12,0	5,0 – 7,0			10.708.320.120	500

[1.4301] 3,3 mm 1800 N 2500 N

4,0	6,0	1,0 – 2,5	7,5 -0,5	2,5	10.708.400.060	500
	8,0	2,0 – 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
	16,0	8,5 – 12,0			10.708.400.160	500
	18,0	11,5 – 14,0			10.708.400.180	500

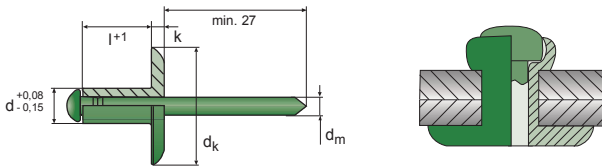
[1.4301] 4,1 mm 2750 N 3550 N

d	l +1		d <sub>k</sub>	d <sub>m</sub>	No.	
4,8	8,0	1,5 – 3,0	9,0 -0,5	2,9	10.708.480.080	500
	10,0	3,0 – 5,0			10.708.480.100	500
	12,0	6,0 – 8,0			10.708.480.120	500
	16,0	8,0 – 9,5			10.708.480.160	500

[1.4301] 4,9 mm 4250 N 5400 N

5,0	8,0	2,0 – 4,0	9,3 -0,5	2,9	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

[1.4301] 5,1 mm 4700 N 5800 N



## Stainless Steel A2 / Stainless Steel A2 Large Dome Head -open-



d	l <sub>+1</sub>		dk	k	dm	No.	
3,2	6,0	0,5 – 3,0	9,5 ± 0,05	1,1 ± 0,3	1,9	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 – 8,0				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

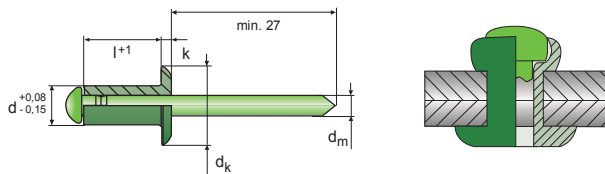
[1.4301] 3,3 mm 1900 N 2500 N

d	l <sub>+1</sub>		dk	k	dm	No.	
4,8	12,0	5,5 – 7,5	15,3 ± 0,2	2,3 -0,4	2,9	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

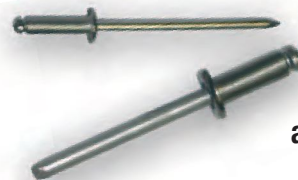
[1.4301] 4,9 mm 4200N 5300 N

d	l <sub>+1</sub>		dk	k	dm	No.	
4,0	6,0	1,0 – 2,5	11,5 ± 0,03	1,9 ± 0,03	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

[1.4301] 4,1 mm 2700 N 3500 N



## Stainless Steel A4 / Stainless Steel A4/A5 Dome Head -open-



according to DIN EN ISO 15983

d	l <sub>+1</sub>		dk	k	dm	No.	
3,0	6,0	0,5 – 3,0	6,3 -0,7	0,8 ± 0,2	1,9	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 – 3,5				10.713.030.120	500

[1.4404] 3,1 mm 1760 N 2270 N

d	l <sub>+1</sub>		dk	k	dm	No.	
4,0	6,0	1,0 – 2,5	8,0 -1,0	1,0 ± 0,3	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

[1.4404] 4,1 mm 3220 N 4250 N

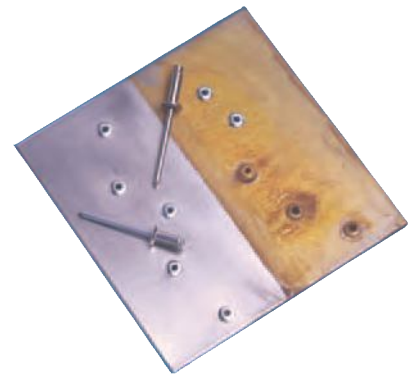
d	l <sub>+1</sub>		dk	k	dm	No.	
5,0	10,0	4,0 – 6,0	9,5 -0,8	1,1 ± 0,3	3,2	10.713.050.100	500
	12,0	6,0 – 8,0				10.713.050.120	500
	16,0	9,5 – 11,0				10.713.050.160	500
	18,0	11,0 – 13,0				10.713.050.180	500
	20,0	13,0 – 15,0				10.713.050.200	500

[1.4404] 5,1 mm 4800 N 6600 N

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

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

Nickel-copper (named as “Monel”(1) or “Nicros”(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 **undetachable rivet mandrel**. This allows us to meet the strong increase in quality requirements that has taken place in this sector of riveting.



### 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 ◆

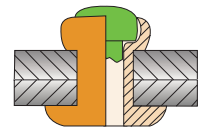
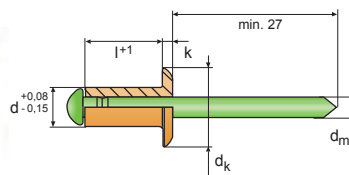
Material number and DIN designation:  
2.4360 as per DIN 17743

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



## Nickel-Copper / Stainless Steel A4/A5 Dome Head -open-

DIN EN ISO 16584



d	l <sub>+1</sub>	$\frac{d}{k}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	
3,2	6,0	1,0 - 3,5	6,5 -0,7	0,8 ±0,2	1,9	10.720.032.060	500
	8,0	3,0 - 5,5				10.720.032.080	500
	10,0	5,0 - 7,0				10.720.032.100	500

[2.4360] 3,3 mm 1600 N 2400 N

d	l <sub>+1</sub>	$\frac{d}{k}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	
4,0	6,0	1,0 - 3,5	8,0 -1,0	1,0 ±0,3	2,3	10.720.040.060	500
	8,0	3,0 - 5,5				10.720.040.080	500
	10,0	5,0 - 7,0				10.720.040.100	500
	12,0	6,5 - 9,0				10.720.040.120	500

[2.4360] 4,1mm 2300 N 3450 N

d	l <sub>+1</sub>	$\frac{d}{k}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	
4,8	8,0	1,5 - 4,5	9,5 -1,0	1,1 ±0,3	2,9	10.720.048.080	500
	10,0	4,0 - 6,5				10.720.048.100	500
	12,0	6,0 - 8,5				10.720.048.120	500
	16,0	8,0 - 11,5				10.720.048.160	500
	20,0	10,5 - 15,0				10.720.048.200	500

[2.4360] 4,9 mm 3400 N 5000 N

d	l <sub>+1</sub>	$\frac{d}{k}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	
6,4	12,0	3,5 - 7,5	13,0 -1,5	1,8 ±0,4	3,8	10.720.064.120	250
	16,0	7,0 - 11,5				10.720.064.160	250
	18,0	10,0 - 13,0				10.720.064.180	250

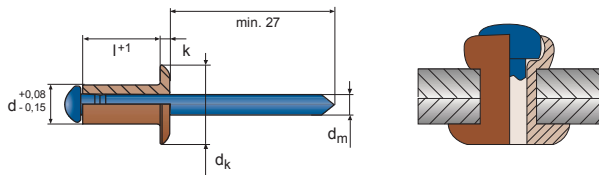
[2.4360] 6,5 mm 5400 N 8200 N

The rivet shank is zinc plated!

# Standard Blind Rivet ALFO®

1

1



**Copper / Steel**  
**Dome Head -open-**

**DIN EN ISO 16582**

ALFO®

d	l+1	$\frac{\downarrow}{\uparrow}$	dk	k	dm	No.	
<b>3,0</b>	5,0	0,5 - 2,5	6,3 -0,7	0,8 ±0,2	1,9	10.705.030.050	500
	6,0	2,0 - 3,0				10.705.030.060	500
	8,0	3,0 - 5,0				10.705.030.080	500
	10,0	5,0 - 7,0				10.705.030.100	500
	12,0	7,0 - 9,0				10.705.030.120	500

[2.0040] 3,1 mm 760 N 950 N

d	l+1	$\frac{\downarrow}{\uparrow}$	dk	k	dm	No.	
<b>4,0</b>	6,0	2,5 - 3,5	8,0 -1,0	1,0 ±0,3	2,0	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
	12,0	7,0 - 8,5				10.705.040.120	500
	16,0	8,0 - 12,5				10.705.040.160	500

[2.0040] 4,1 mm 1500 N 1800 N

d	l+1	$\frac{\downarrow}{\uparrow}$	dk	k	dm	No.	
<b>3,2</b>	5,0	0,5 - 2,5	6,4 -0,5	0,8 ±0,2	1,9	10.705.032.050	500
	6,0	2,0 - 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

[2.0040] 3,3 mm 800 N 1000 N

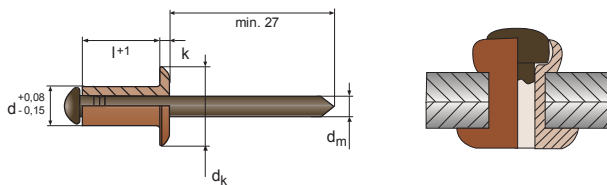
d	l+1	$\frac{\downarrow}{\uparrow}$	dk	k	dm	No.	
<b>4,8</b>	8,0	2,0 - 4,0	9,5 -1,0	1,1 ±0,3	2,7	10.705.048.080	500
	10,0	4,0 - 6,0				10.705.048.100	500
	12,0	6,0 - 8,0				10.705.048.120	500
	14,0	8,0 - 10,0				10.705.048.140	500
	16,0	10,0 - 12,0				10.705.048.160	500

[2.0040] 4,9 mm 2000 N 2500 N

# Standard Blind Rivet ALFO®

1

1



**Copper / Bronze**  
**Dome Head -open-**

**DIN EN ISO 16582**

d	l+1	$\frac{\downarrow}{\uparrow}$	dk	k	dm	No.	
<b>3,0</b>	5,0	0,5 - 2,5	6,3 -0,7	0,8 ±0,2	1,7	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

[2.0040] 3,1 mm 760 N 950 N

d	l+1	$\frac{\downarrow}{\uparrow}$	dk	k	dm	No.	
<b>4,0</b>	6,0	2,0 - 3,5	8,0 -1,0	1,0 ±0,3	2,0	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

[2.0040] 4,1 mm 1500 N 1800 N

d	l+1	$\frac{\downarrow}{\uparrow}$	dk	k	dm	No.	
<b>3,2</b>	5,0	0,5 - 2,5	6,4 -0,5	0,8 ±0,2	1,9	10.709.032.050	500
	6,0	2,0 - 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

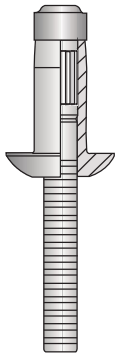
[2.0040] 3,3 mm 800 N 1000 N

► Please note our manifold range of **assortments and small packs** on **pages 104/105 and 106-108!**



# Structural Blind Rivet Fero®-Bulb

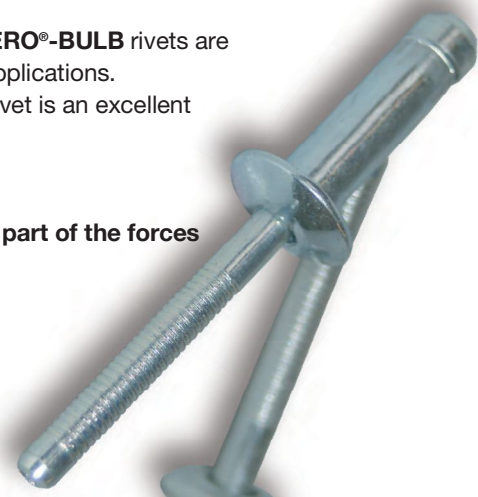
FERO®-BULB



By the combination of the following properties the HONSEL-/VVG **FERO®-BULB** rivets are recommended as a high grade joint element for a host of industrial applications. 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:

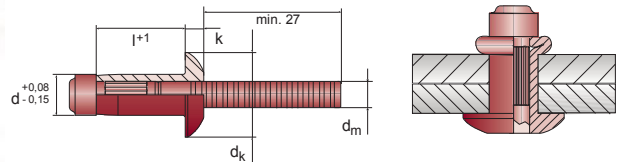
- **very high shear strength through a captive mandrel that absorbs part of the forces**
- **large setting head** which folds during the setting process
- captive **mandrel locks** vibration proof **inside the rivet**
- dust proof and **splash waterproof**
- **high clamping force** onto components



1 2

## Structural Blind Rivet FERO®-BULB

### Aluminium / Aluminium Dome Head -open-



d	l <sub>+1</sub>	$\frac{d}{2}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	
<b>6,4</b>	10,5	2,8 – 4,8	13,5	3,3	4,2	10.790.064.105	250

6,6 mm 4200 N 3100 N

d	l <sub>+1</sub>	$\frac{d}{2}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	
<b>6,4</b>	14,5	6,8 – 8,8	13,5	3,3	4,2	10.790.064.145	250

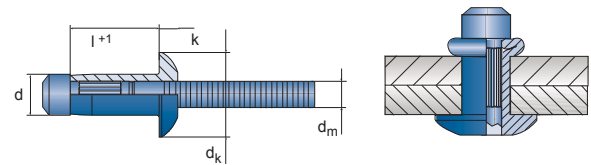
6,6 mm 4600 N 3100 N



1 2

## Structural Blind Rivet FERO®-BULB

### Steel / Steel Dome Head -open-



d	l <sub>+1</sub>	$\frac{d}{2}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	
<b>3,2</b>	7,0	1,0 – 3,0	6,8	1,4	2,1	10.792.032.070	500

3,3 - 3,4 mm 1200 N 1300 N

d	l <sub>+1</sub>	$\frac{d}{2}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	
<b>3,2</b>	9,5	3,0 – 5,0	6,8	1,4	2,1	10.792.032.095	500

3,3 - 3,4 mm 1700 N 1300 N

d	l <sub>+1</sub>	$\frac{d}{2}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	
<b>3,2</b>	11,5	5,0 – 7,0	6,8	1,4	2,1	10.792.032.115	500

3,3 - 3,4 mm 2500 N 1300 N

d	l <sub>+1</sub>	$\frac{d}{2}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	
<b>4,0</b>	7,5	1,0 – 3,0	8,0	1,5	2,6	10.792.040.075	500

4,1 - 4,3 mm 2400 N 2800 N

d	l <sub>+1</sub>	$\frac{d}{2}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	
<b>4,0</b>	9,5	3,0 – 5,0	8,0	1,5	2,6	10.792.040.095	500

4,1 - 4,3 mm 3500 N 2800 N

d	l <sub>+1</sub>	$\frac{d}{2}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	
<b>4,0</b>	12,5	5,0 – 7,0	8,0	1,5	2,6	10.792.040.125	500

4,1 - 4,3 mm 4100 N 2800 N



# Structural Blind Rivet FERRO®-BULB

1 2



FERRO®-BULB

d	l <sub>max</sub>		d <sub>k</sub>	k	d <sub>m</sub>	No.	
<b>4,8</b>	9,0	1,5 – 3,5	9,6	1,5	3,1	10.792.048.090	500

4,9 - 5,1 mm 3600 N 3800 N

<b>4,8</b>	11,5	3,5 – 6,0	9,6	1,5	3,1	10.792.048.115	500
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4,9 - 5,1 mm 4200 N 3800 N

<b>4,8</b>	14,5	6,0 – 8,5	9,6	1,5	3,1	10.792.048.145	250
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4,9 - 5,1 mm 5600 N 3800 N

<b>6,4</b>	9,0	1,5 – 3,5	13,4	2,7	3,9	10.792.064.090	250
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6,7 - 6,9 mm 10000 N 7800 N

<b>6,4</b>	10,5	2,8 – 4,8	13,4	2,7	3,9	10.792.064.105	250
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6,7 - 6,9 mm 11000 N 7800 N

d	l <sub>+1</sub>		d <sub>k</sub>	k	d <sub>m</sub>	No.	
<b>6,4</b>	12,5	4,8 – 6,8	13,4	2,7	3,9	10.792.064.125	250

6,7 - 6,9 mm 12500 N 7800 N

<b>6,4</b>	14,5	6,8 – 8,8	13,4	2,7	3,9	10.792.064.145	250
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6,7 - 6,9 mm 13000 N 7800 N

<b>6,4</b>	16,5	8,8 – 10,8	13,4	2,7	3,9	10.792.064.165	250
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6,7 - 6,9 mm 14500 N 7800 N

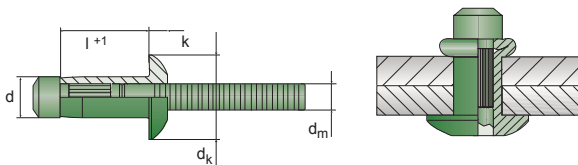
<b>6,4</b>	18,5	10,8 – 12,8	13,4	2,7	3,9	10.792.064.185	250
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6,7 - 6,9 mm 15000 N 7800 N

Countersunk head available on request from stock.

# Structural Blind Rivet FERRO®-BULB

1 2



**Stainless Steel / Stainless Steel**  
**Dome Head -open-**

d	l <sub>+1</sub>		d <sub>k</sub>	k	d <sub>m</sub>	No.	
<b>3,2</b>	7,0	1,0 – 3,0	6,6	1,1	2,1	10.791.032.070	500

3,3 - 3,4 mm 1600 N 2000 N

<b>3,2</b>	9,5	3,0 – 5,0	6,6	1,1	2,1	10.791.032.095	500
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3,3 - 3,4 mm 1700 N 2000 N

<b>3,2</b>	11,5	5,0 – 7,0	6,6	1,1	2,1	10.791.032.115	500
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3,3 - 3,4 mm 3200 N 2000 N

<b>4,0</b>	7,5	1,0 – 3,0	8,0	1,5	2,6	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

4,1 - 4,3 mm 5200 N 4000 N

<b>4,8</b>	10,0	1,5 – 3,5	9,6	1,5	3,2	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

4,9 - 5,1 mm 5500 N 5000 N

d	l <sub>+1</sub>		d <sub>k</sub>	k	d <sub>m</sub>	No.	
<b>6,4</b>	9,0	1,5 – 3,5	13,4	2,7	3,9	10.791.064.090	250

6,7 - 6,9 mm 11000 N 8800 N

<b>6,4</b>	10,5	2,8 – 4,8	13,4	2,7	3,9	10.791.064.105	250
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6,7 - 6,9 mm 11500 N 8800 N

<b>6,4</b>	12,5	4,8 – 6,8	13,4	2,7	3,9	10.791.064.125	250
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6,7 - 6,9 mm 12500 N 8800 N

<b>6,4</b>	14,5	6,8 – 8,8	13,4	2,7	3,9	10.791.064.145	250
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6,7 - 6,9 mm 13000 N 8800 N

<b>6,4</b>	16,5	8,8 – 10,8	13,4	2,7	3,9	10.791.064.165	250
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6,7 - 6,9 mm 14000 N 8800 N

<b>6,4</b>	18,5	10,8 – 12,8	13,4	2,7	3,9	10.791.064.185	250
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6,7 - 6,9 mm 15000 N 8800 N

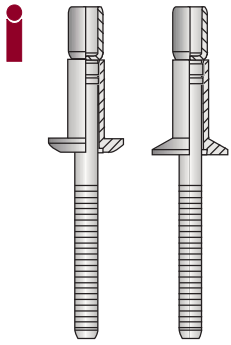
For an optimized processing of our structural FERRO®-BULB blind rivets the pneumatic-hydraulic tool **BZ 133A** is available on request.

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.



# Structural Blind Rivet FERRO®-BOLT

FERRO®-BOLT



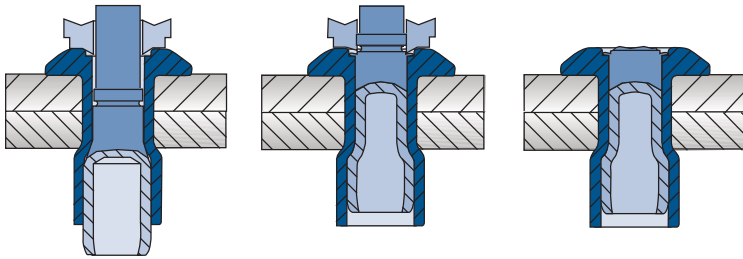
The flush break with the setting head is typical for the high-strength blind rivet **FERRO®-BOLT**, which is often used in various industrial applications, especially in those with the attention to the factor **safety**. Due to its special construction method, this rivet is able to take over load-bearing functions too.

Properties of the **FERRO®-BOLT**:

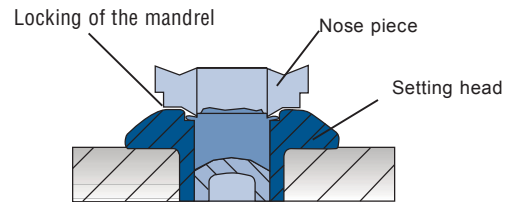
- **very high shear strength** through a captive mandrel that absorbs part of the forces
- very **large grip range**
- **form-locking rest of the mandrel**
- **vibration resistant**
- **splash waterproof**
- very good filling of the drill hole



## Processing:



## Principle:



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 **FERRO®-BOLT** nosepiece assures that the mandrel is locked failsafe in the connection.



For the handling of FERRO-BOLT high-strength blind rivets the new tool **BZ 123 A** (▶ more details on [page 127](#)) is available.

The tool has to be prepared with the **special nosepiece** shown below!



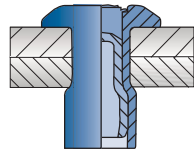
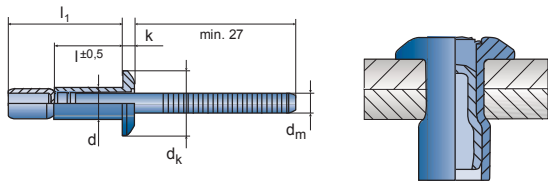
- 361.121.008.401 **Nosepiece 4,8 mm**
- 361.121.008.601 **Nosepiece 6,4 mm**

# Structural Blind Rivet FERRO®-BOLT

1 3



FERRO®-BOLT



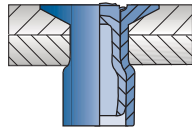
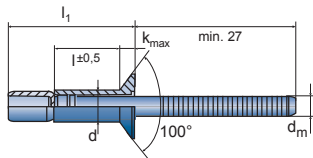
## Steel / Steel Dome Head -open-

d	l / l <sub>1</sub>	↓ ↑	dk	k	dm	Nr.	
4,8	10,0	1,6 - 6,8	10,1	2,1	2,9	10.797.048.100	500
	18,2						
	14,0	1,6 - 11,1				10.797.048.140	500
	24,4						

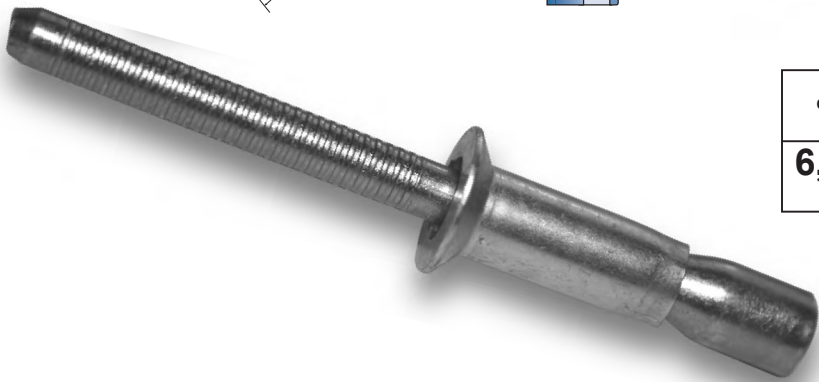
4,9 - 5,1 mm 5800 N 4100 N

d	l / l <sub>1</sub>	↓ ↑	dk	k	dm	Nr.	
6,4	14,0	2,0 - 9,5	13,3	2,9	3,9	10.797.064.140	250
	23,7						
	19,0	2,0 - 15,8				10.797.064.190	250
	32,9						

6,6 - 7,0 mm 10500 N 8000 N



## Steel / Steel Countersunk Head -open-

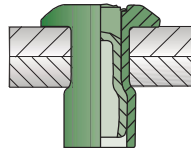
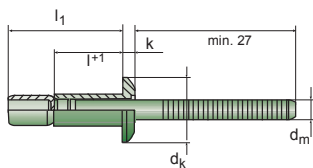


d	l / l <sub>1</sub>	↓ ↑	dk	k	dm	Nr.	
6,4	16,5	3,2 - 12,1	10,0	2,4	3,9	10.797.640.165	250
	27,0						

6,6 - 7,0 mm 11000 N 9500 N

# Structural Blind Rivet FERRO®-BOLT

1 3



## Stainless Steel / Stainless Steel Dome Head -open-

d	l / l <sub>1</sub>	↓ ↑	dk	k	dm	Nr.	
4,8	10,0	1,6 - 6,8	10,1	2,1	2,9	10.798.048.100	500
	18,2						
	14,0	1,6 - 11,1				10.798.048.140	500
	24,4						

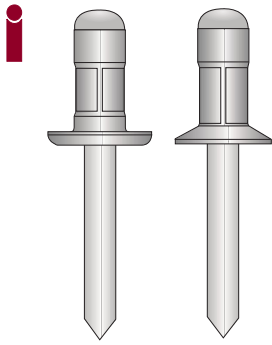
4,9 - 5,1 mm 6000 N 4500 N

d	l / l <sub>1</sub>	↓ ↑	dk	k	dm	Nr.	
6,4	14,0	2,0 - 9,5	13,3	2,9	3,9	10.798.064.140	250
	23,7						
	19,0	2,0 - 15,8				10.798.064.190	250
	32,9						

6,6 - 7,0 mm 10500 N 8200 N

Aluminium types available on request.

# Multigrip Blind Rivet OPTO®

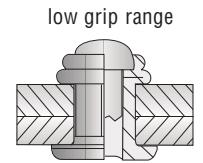
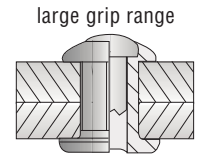


Compared to a standard blind rivet, the clear hallmark of the **OPTO®** multigrip blind rivet is its distinct, especially embossed rivet shaft: Due to the rivet's structural features, the following functional properties result:

- large grip range
- good filling capacity of the borehole
- non-positive locking of the captive mandrel without clearance
- vibration proof
- dustproof and splash-watertight
- no rattling sounds

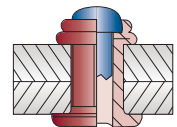
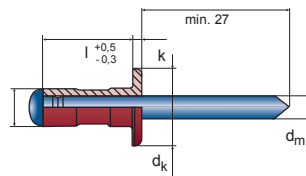
Preferred applications for **OPTO®** multigrip blind rivets can be found in the field of vehicle manufacturing, in air conditioning technology as well as in the field of tank and container manufacturing.

Furthermore, this rivet type is excellently suited for use as a repair rivet.



# Multigrip Blind Rivet OPTO®

## Aluminium / Steel Dome Head -open-



d	l	$\frac{d}{k}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	
3,2	6,8	0,8 – 3,4	6,4	1,0	1,8	10.600.032.068	500
	8,0	0,8 – 4,8				10.600.032.080	500
	9,5	1,2 – 6,4				10.600.032.095	500
	11,0	4,0 – 7,9				10.600.032.110	500

EN AW - 5052 [AlMg2,5]  $\frac{d}{k}$  3,3 mm  $\frac{d}{k}$  720 N  $\frac{d}{k}$  1000 N

d	l	$\frac{d}{k}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	
4,8	10,3	1,6 – 6,4	9,8	1,5	2,8	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

EN AW - 5052 [AlMg2,5]  $\frac{d}{k}$  4,9 mm  $\frac{d}{k}$  1530 N  $\frac{d}{k}$  2300 N

d	l	$\frac{d}{k}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	
4,0	6,0	0,5 – 3,0	7,9	1,2	2,3	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	6,4 – 12,7				10.600.040.169	500

EN AW - 5052 [AlMg2,5]  $\frac{d}{k}$  4,1 mm  $\frac{d}{k}$  1120 N  $\frac{d}{k}$  1650 N

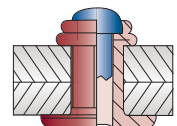
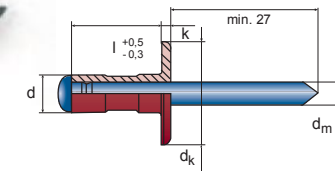
## Aluminium / Steel

### Dome Head -open- painted

d	l	$\frac{d}{k}$	d <sub>k</sub>	k	d <sub>m</sub>	RAL-No. colour		
						No.	colour	
4,0	6,0	0,5 – 3,0	7,9	1,2	2,3	10.600.040.060/001	9010	500
	6,0	0,5 – 3,0				10.600.040.060/002	9005	500
	9,5	1,2 – 6,4				10.600.040.095/001	9010	500
	9,5	1,2 – 6,4				10.600.040.095/002	9005	500
	12,7	4,0 – 9,5				10.600.040.127/001	9010	500
	12,7	4,0 – 9,5				10.600.040.127/002	9005	500

EN AW - 5052 [AlMg2,5]  $\frac{d}{k}$  4,1 mm  $\frac{d}{k}$  1120 N  $\frac{d}{k}$  1650 N

## Aluminium / Steel Large Dome Head -open-



d	l	$\frac{d}{k}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	
3,2	8,0	0,8 – 4,8	9,5	1,2	1,8	10.630.032.080	500
	11,0	4,0 – 7,9				10.630.032.110	500

EN AW - 5052 [AlMg2,5]  $\frac{d}{k}$  3,3 mm  $\frac{d}{k}$  720 N  $\frac{d}{k}$  1000 N

d	l	$\frac{d}{k}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	
4,8	10,3	1,6 – 6,4	16,0	1,8	2,8	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

EN AW - 5052 [AlMg2,5]  $\frac{d}{k}$  4,9 mm  $\frac{d}{k}$  1530 N  $\frac{d}{k}$  2300 N

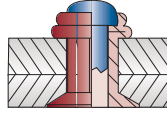
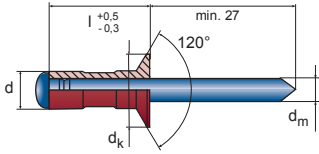
d	l	$\frac{d}{k}$	d <sub>k</sub>	k	d <sub>m</sub>	No.	
4,0	9,5	1,2 – 6,4	12,0	1,5	2,3	10.650.040.095	500
	12,7	4,0 – 9,5				10.650.040.127	500

EN AW - 5052 [AlMg2,5]  $\frac{d}{k}$  4,1 mm  $\frac{d}{k}$  1120 N  $\frac{d}{k}$  1650 N

# Multigrip Blind Rivet OPTO®

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## Aluminium / Steel Countersunk Head -open-

OPTO®

d	l	$\frac{d}{d_k}$	$\frac{d}{d_m}$	No.		
<b>3,2</b>	9,7	2,4 – 6,4	5,4	1,8	10.600.320.097	500

EN AW - 5052 [AlMg2,5] 3,3 mm 670 N 900 N

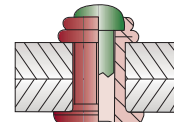
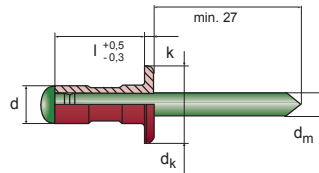
d	l	$\frac{d}{d_k}$	$\frac{d}{d_m}$	No.		
<b>4,0</b>	11,3	2,9 – 7,9	6,5	2,3	10.600.400.113	500

EN AW - 5052 [AlMg2,5] 4,1 mm 980 N 1320 N

# Multigrip Blind Rivet OPTO®

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## Aluminium / Stainless Steel Dome Head -open-

d	l	$\frac{d}{d_k}$	k	$\frac{d}{d_m}$	No.		
<b>3,2</b>	8,0	0,8 – 4,8	6,4	1,0	1,8	10.612.032.080	500
	11,0	4,0 – 7,9				10.612.032.110	500

EN AW - 5052 [AlMg2,5] 3,3 mm 670 N 900 N

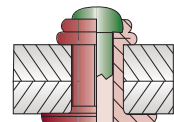
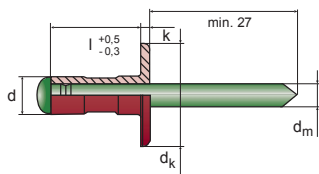
d	l	$\frac{d}{d_k}$	k	$\frac{d}{d_m}$	No.		
<b>4,0</b>	9,5	1,2 – 6,4	7,9	1,2	2,3	10.612.040.095	500
	12,7	4,0 – 9,5				10.612.040.127	500
	16,9	6,4 – 12,7				10.612.040.169	500

EN AW - 5052 [AlMg2,5] 4,1 mm 980 N 1320 N

d	l	$\frac{d}{d_k}$	k	$\frac{d}{d_m}$	No.		
<b>4,8</b>	10,3	1,6 – 6,4	9,8	1,5	2,8	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

EN AW - 5052 [AlMg2,5] 4,9 mm 1530 N 2300 N

Diameter 4,0 mm available as countersunk head too.



## Aluminium / Stainless Steel Large Dome Head -open-

d	l	$\frac{d}{d_k}$	k	$\frac{d}{d_m}$	No.		
<b>3,2</b>	8,0	0,8 – 4,8	9,5	1,2	1,8	10.632.032.080	500
	11,0	4,0 – 7,9				10.632.032.110	500

EN AW - 5052 [AlMg2,5] 3,3 mm 670 N 900 N

d	l	$\frac{d}{d_k}$	k	$\frac{d}{d_m}$	No.		
<b>4,0</b>	9,5	1,2 – 6,4	12,0	1,5	2,3	10.652.040.095	500
	12,7	4,0 – 9,5				10.652.040.127	500

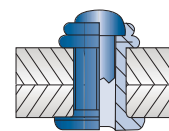
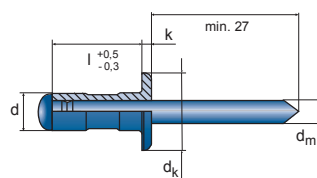
EN AW - 5052 [AlMg2,5] 4,1 mm 980 N 1320 N

d	l	$\frac{d}{d_k}$	k	$\frac{d}{d_m}$	No.		
<b>4,8</b>	10,3	1,6 – 6,4	16,0	1,8	2,8	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

EN AW - 5052 [AlMg2,5] 4,9 mm 1530 N 2300 N



## Steel / Steel Dome Head -open-



d	l		dk	k	dm	No.	
3,2	9,0	1,1 – 4,0	7,2	0,9	2,1	10.607.032.090	500

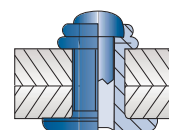
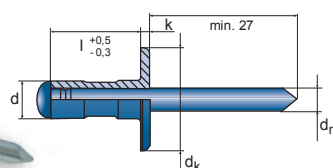
3,3 mm 1500 N 1700 N

d	l		dk	k	dm	No.	
4,0	11,0	1,4 – 5,0	8,1	1,2	2,7	10.607.040.110	500

4,1 mm 1950 N 2350 N

Countersunk types available on request.

## Steel / Steel Large Dome Head -open-



d	l		dk	k	dm	No.	
4,8	10,3	1,0 – 5,0	16,1	1,6	3,4	10.677.048.103	500
	16,9	5,0 – 10,0				10.677.048.169	500

4,9 mm 2050 N 2940 N

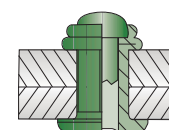
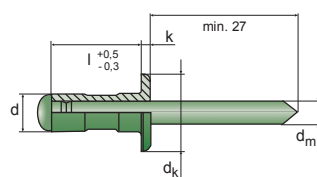


► For the perfect tool take a look into chapters 8 and 9 on pages 117 and 125!



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## Stainless Steel / Stainless Steel Dome Head -open-



d	l		dk	k	dm	No.	
3,2	8,0	1,0 – 4,0	6,3	0,9	2,1	10.618.032.080	500

3,3 mm 1600 N 2000 N

4,0	10,0	1,5 – 4,5	7,9	1,3	2,8	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

4,1 mm 2700 N 3500 N

d	l		dk	k	dm	No.	
4,8	10,3	1,5 – 6,0	9,8	1,8	3,4	10.618.048.103	500
	12,7	2,5 – 7,5				10.618.048.127	500

4,9 mm 3900 N 5000 N

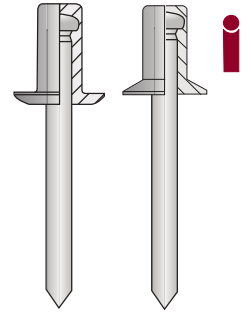
► Further blind rivets with large grip ranges made from stainless steel in diameter 6,4 mm you can find as high strength version FERO®-BOLT on page 43.

Due to its closed end rivet body, **CERTO®** sealed blind rivets are gasproofed and do not allow any liquid to penetrate. Further characteristic properties of this rivet type include:

- flush, burr-free locking head
- captive mandrel due to closed end rivet shaft
- well suited for automated assembling

The properties mentioned above are the reasons why **CERTO®** sealed blind rivets are the fastening element of choice for the automotive industry, like, e.g. for the purposes of AIRBAG production.

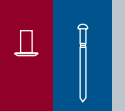
Further fields of application can be found in tank and container manufacturing as well as in the construction sector.



CERTO®

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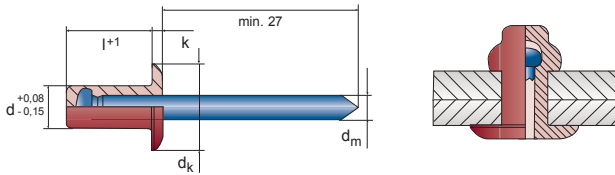
5



## Sealed Blind Rivet CERTO®

**Aluminium / Steel**  
**Dome Head -closed -**

DIN EN ISO 15973



d	l+1	↓ ↑	dk	k	dm	No.	📦
<b>3,2</b>	6,5	0,5 – 2,0	6,0 ± 0,3	1,1 ± 0,15	1,7	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

EN AW - 5019 [AlMg5] 3,3 mm 1100 N 1450 N

d	l+1	↓ ↑	dk	k	dm	No.	📦
<b>4,0</b>	8,0	0,5 – 3,5	8,0 ± 0,4	1,3 ± 0,2	2,2	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

EN AW - 5019 [AlMg5] 4,1 mm 1650 N 2500 N

d	l+1	↓ ↑	dk	k	dm	No.	📦
<b>4,8</b>	8,5	0,5 – 3,5	9,5 ± 0,4	1,5 ± 0,2	2,7	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

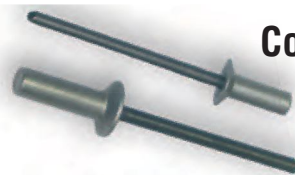
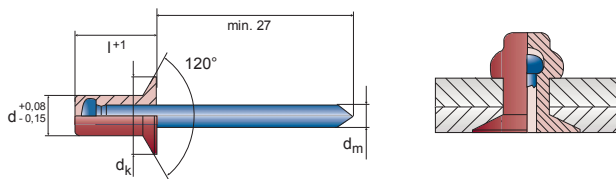
EN AW - 5019 [AlMg5] 4,9 mm 2400 N 3400 N

d	l+1	↓ ↑	dk	k	dm	No.	📦
<b>6,4</b>	12,5	1,5 – 6,5	13,0 ± 0,4	2,0 ± 0,03	3,7	10.900.064.125	500
	15,5	3,5 – 9,5				10.900.064.155	500

EN AW - 5019 [AlMg5] 6,5 mm 3620 N 4950 N

**Aluminium / Steel**  
**Countersunk Head -closed-**

DIN EN ISO 15974



d	l+1	↓ ↑	dk	dm	No.	📦
<b>3,2</b>	8,0	1,0 – 3,5	6,0 ± 0,3	1,7	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

EN AW - 5019 [AlMg5] 3,3 mm 1100 N 1450 N

d	l+1	↓ ↑	dk	dm	No.	📦
<b>4,0</b>	9,5	1,5 – 5,0	8,0 ± 0,4	2,2	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
	14,5	7,5 – 10,0			10.900.400.145	500

EN AW - 5019 [AlMg5] 4,1 mm 1650 N 2500 N

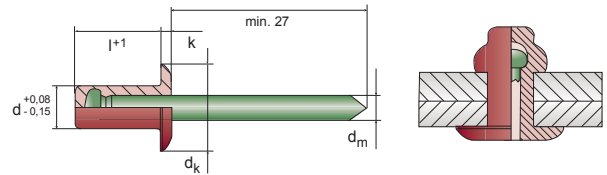
d	l+1	↓ ↑	dk	dm	No.	📦
<b>4,8</b>	9,5	1,5 – 5,0	9,5 ± 0,4	2,7	10.900.480.095	500
	11,0	4,0 – 6,5			10.900.480.110	500
	13,0	6,0 – 8,0			10.900.480.130	500
	14,5	7,5 – 9,5			10.900.480.145	500
	16,0	9,0 – 11,0			10.900.480.160	500
	18,0	10,0 – 13,0			10.900.480.180	500
	19,5	10,5 – 14,5			10.900.480.195	500
	21,0	12,5 – 16,0			10.900.480.210	500

EN AW - 5019 [AlMg5] 4,9 mm 2400 N 3400 N

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# Sealed Blind Rivet CERTO®

## Aluminium / Stainless steel Dome Head -closed-



according to DIN EN ISO 15973

d	l+1		dk	k	dm	No.	
<b>3,2</b>	6,5	0,5 – 2,0	6,0 ± 0,3	1,1 ± 0,15	1,7	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

EN AW - 5019 [AlMg5] 3,3 mm 1000 N 1350 N

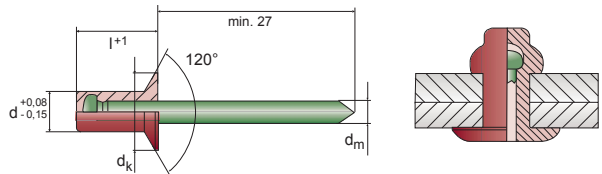
d	l+1		dk	k	dm	No.	
<b>4,0</b>	8,0	0,5 – 3,5	8,0 ± 0,4	1,3 ± 0,2	2,2	10.902.040.080	500
	9,5	3,0 – 5,0				10.902.040.095	500
	11,0	4,5 – 6,5				10.902.040.110	500
	12,5	6,0 – 8,0				10.902.040.125	500

EN AW - 5019 [AlMg5] 4,1 mm 1650 N 2500 N

d	l+1		dk	k	dm	No.	
<b>4,8</b>	8,0	1,0 – 3,5	9,5 ± 0,4	1,5 ± 0,2	2,7	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

EN AW - 5019 [AlMg5] 4,9 mm 00 N 3400 N

## Aluminium / Stainless Steel Countersunk Head -closed-



according to DIN EN ISO 15974

d	l+1		dk	dm	No.	
<b>4,0</b>	9,5	1,5 – 5,0	8,0 ± 0,3	2,2	10.902.400.095	500
	11,0	4,0 – 6,5			10.902.400.110	500

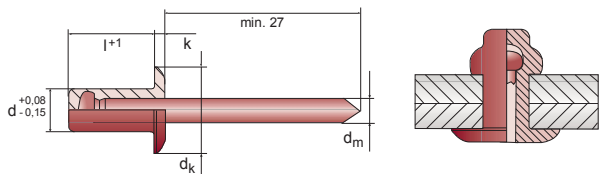
d	l+1		dk	dm	No.	
<b>4,0</b>	12,5	6,0 – 8,0	8,0 ± 0,3	2,2	10.902.400.125	500

EN AW - 5019 [AlMg5] 4,1 mm 1650 N 2500 N

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# Sealed Blind Rivet CERTO®

## Aluminium / Aluminium Dome Head -closed-



DIN EN ISO 15975

d	l+1		dk	k	dm	No.	
<b>3,2</b>	8,0	0,5 – 3,5	6,0 ± 0,3	1,1 ± 0,15	1,9	10.901.032.080	500
	9,5	3,0 – 5,0				10.901.032.095	500

EN AW - 1050 A [Al 99,5] 3,3 mm 520 N 540 N

d	l+1		dk	k	dm	No.	
<b>4,0</b>	9,5	0,5 – 5,0	8,0 ± 0,4	1,3 ± 0,2	2,2	10.901.040.095	500
	12,5	4,5 – 8,0				10.901.040.125	500

EN AW - 1050 A [Al 99,5] 4,1 mm 720 N 760 N

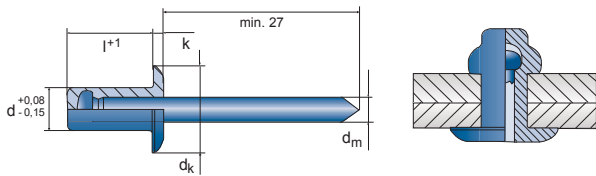
d	l+1		dk	k	dm	No.	
<b>4,8</b>	9,5	1,0 – 4,5	9,5 ± 0,4	1,5 ± 0,2	2,7	10.901.048.095	500
	11,5	4,0 – 6,5				10.901.048.115	500
	14,5	6,0 – 9,5				10.901.048.145	500
	18,0	9,0 – 13,0				10.901.048.180	500

EN AW - 1050 A [Al 99,5] 4,9 mm 1000 N 1400 N



# Sealed Blind Rivet CERTO®

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## Steel / Steel Dome Head -closed-

DIN EN ISO 15976

CERTO®

d	l+1	↓ ↑	dk	k	dm	No.	📦
3,2	6,0	0,5 - 1,5	6,0 ± 0,3	1,0 ± 0,3	1,9	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	4,5 - 7,0				10.907.032.120	500

📏 3,3 mm    🔧 1150 N    ⚙️ 1200 N

d	l+1	↓ ↑	dk	k	dm	No.	📦
4,0	6,0	0,5 - 1,5	8,0 ± 0,3	1,4 ± 0,3	2,3	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
	16,0	6,0 - 10,5				10.907.040.160	500

📏 4,1 mm    🔧 1700 N    ⚙️ 1850 N

d	l+1	↓ ↑	dk	k	dm	No.	📦
4,8	8,0	0,5 - 3,0	9,5 ± 0,3	1,7 ± 0,3	2,9	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

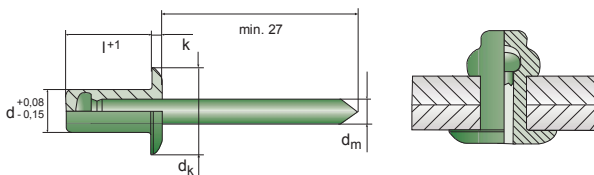
📏 4,9 mm    🔧 2400 N    ⚙️ 2800 N

! You can handle HONSEL/VVG sealed blind rivets with standard nose pieces.  
To avoid burr formation while using types without head pit, we can offer special nose pieces (▶ page 138).



# Sealed Blind Rivet CERTO®

1 5



## Stainless Steel A2 / Stainless Steel C1 Dome Head -closed-

DIN EN ISO 16585



d	l+1	↓ ↑	dk	k	dm	No.	📦
3,2	6,0	0,5 - 1,5	6,0 ± 0,3	1,0 ± 0,3	1,9	10.908.032.060	500
	8,0	1,0 - 3,0				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

[1.4301]    📏 3,3 mm    🔧 2000 N    ⚙️ 2400 N

d	l+1	↓ ↑	dk	k	dm	No.	📦
4,0	6,0	0,5 - 1,5	8,0 ± 0,3	1,4 ± 0,3	2,3	10.908.040.060	500
	8,0	1,0 - 3,0				10.908.040.080	500
	9,5	2,5 - 5,0				10.908.040.095	500
	12,0	4,5 - 6,5				10.908.040.120	500
	16,0	6,0 - 10,5				10.908.040.160	500

[1.4301]    📏 4,1 mm    🔧 3000 N    ⚙️ 4000 N

d	l+1	↓ ↑	dk	k	dm	No.	📦
4,8	8,0	0,5 - 3,0	9,5 ± 0,3	1,7 ± 0,3	2,9	10.908.048.080	500
	9,5	2,5 - 5,0				10.908.048.095	500
	12,0	4,5 - 6,5				10.908.048.120	500
	16,0	6,0 - 10,5				10.908.048.160	500
	20,0	9,0 - 12,0				10.908.048.200	500

[1.4301]    📏 4,9 mm    🔧 4500 N    ⚙️ 5500 N

d	l+1	↓ ↑	dk	k	dm	No.	📦
6,4	10,0	2,5 - 5,0	12,5 ± 0,3	2,7	3,8 ± 0,05	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

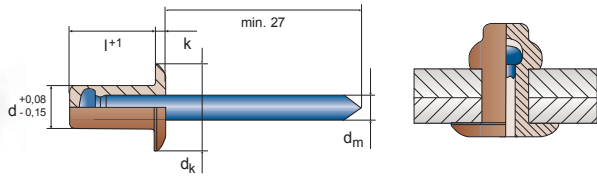
[1.4301]    📏 6,5 mm    🔧 6500 N    ⚙️ 8000 N



1 5

# Sealed Blind Rivet CERTO®

## Copper / Steel Dome Head -closed-



d	l+1	$\begin{matrix} \downarrow \\ \uparrow \end{matrix}$	dk	k	dm	No.	
3,2	6,5	0,5 – 2,0	6,0 $\pm 0,3$	1,1 $\pm 0,15$	1,7	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

[2.0040] 3,3 mm 950 N 1250 N

d	l+1	$\begin{matrix} \downarrow \\ \uparrow \end{matrix}$	dk	k	dm	No.	
4,0	8,0	0,5 – 3,5	8,0 $\pm 0,4$	1,3 $\pm 0,2$	2,2	10.905.040.080	500
	10,0	3,0 – 5,0				10.905.040.100	500

[2.0040] 4,1 mm 1400 N 2100 N

d	l+1	$\begin{matrix} \downarrow \\ \uparrow \end{matrix}$	dk	k	dm	No.	
4,8	9,5	1,0 – 5,0	9,5 $\pm 0,4$	1,7 $\pm 0,2$	2,7	10.905.048.095	500
	11,5	4,5 – 6,5				10.905.048.115	500

[2.0040] 4,9 mm 2150 N 3200 N

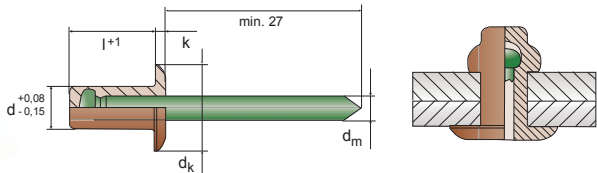
► Please note our manifold range of assortments and small packs on pages 104/105 and 106-108!



1 5

# Sealed Blind Rivet CERTO®

## Copper / Stainless steel A2/A3 Dome Head -closed-



d	l+1	$\begin{matrix} \downarrow \\ \uparrow \end{matrix}$	dk	k	dm	No.	
3,2	6,5	0,5 – 2,0	6,0 $\pm 0,3$	1,1 $\pm 0,15$	1,7	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

[2.0040] 3,3 mm 950 N 1250 N

d	l+1	$\begin{matrix} \downarrow \\ \uparrow \end{matrix}$	dk	k	dm	No.	
4,0	8,0	0,5 – 3,5	8,0 $\pm 0,4$	1,3 $\pm 0,2$	2,2	10.906.040.080	500
	10,0	3,0 – 5,0				10.906.040.100	500

[2.0040] 4,1 mm 00 N 2100 N

d	l+1	$\begin{matrix} \downarrow \\ \uparrow \end{matrix}$	dk	k	dm	No.	
4,8	9,5	1,0 – 5,0	9,5 $\pm 0,4$	1,5 $\pm 0,2$	2,7	10.906.048.095	500
	11,5	4,5 – 6,5				10.906.048.115	500

[2.0040] 4,9 mm 50 N 3200 N

### Common handling advice:

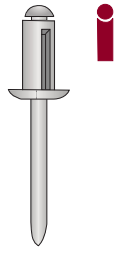
Various trials have shown that, during practical deployment, CERTO® connections feature excellent jet-proofness. If you need a hydraulic seal or if there is a build up of certain media (e.g. in drainage pipes), an additional seal between the rivet body and component borehole shall be necessary.

Upon request, CERTO® sealed blind rivets can be provided with an additional seal (Neopren® washer). Look at ► page 112 for details.



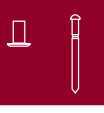
According to the ARCO body-bound rivet this folding rivet forms a large upset head too. This guarantees an **equal distribution of forces**, so that especially plastics and other soft or vulnerable materials resist against cracking or pull-through. Over-sized holes are tolerated. Typically this rivet is used in **industrial light weight constructions**.

As a result of the locked mandrel in the connection, the spread rivet is splash water resistant. VVG/HONSEL offers two different types – the standard split rivet and a **high strength version with neopren washer**.

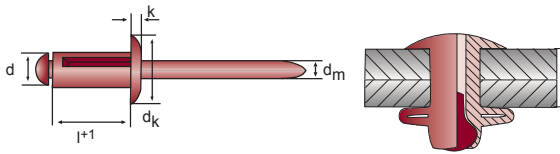


Folding Blind Rivet

1 6



## Folding Blind Rivet (Standard)



d	l+1	$\begin{matrix} \downarrow \\ \uparrow \end{matrix}$	dk	k	dm	No.	
4,0	13,6	1,0 - 3,0	8,0	1,4	2,5	10.716.040.136	500
	18,8	3,0 - 7,0				10.716.040.188	500

4,2 mm 500 N 800 N

## Aluminium / Aluminium Dome Head



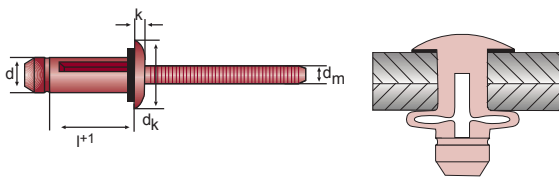
d	l+1	$\begin{matrix} \downarrow \\ \uparrow \end{matrix}$	dk	k	dm	No.	
4,8	15,3	1,0 - 3,0	9,6	1,6	2,9	10.716.048.153	500
	20,5	3,0 - 9,0				10.716.048.205	500
	24,5	5,0 - 12,0				10.716.048.245	500

5,0 mm 900 N 1100 N

1 6



## Folding Blind Rivet (Special 2)



d	l+1	$\begin{matrix} \downarrow \\ \uparrow \end{matrix}$	dk	k	dm	No.	
5,2	17,5	0,5 - 4,8	11,5	2,5	2,9	10.716.052.175	500
	19,1	1,5 - 6,4				10.716.052.191	500
	22,2	4,8 - 9,5				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

5,3 - 5,6 mm 3000 N 2000 N

## Aluminium / Aluminium Dome Head with neoprenwasher



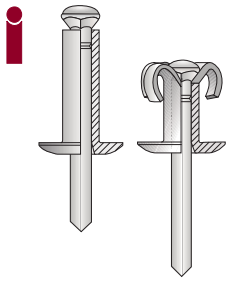
d	l+1	$\begin{matrix} \downarrow \\ \uparrow \end{matrix}$	dk	k	dm	No.	
6,3	20,0	1,5 - 6,4	14,4	3,0	3,9	10.716.063.200	500
	27,0	6,3 - 12,7				10.716.063.270	500

6,3 - 6,7 mm 4900 N 3000 N

- increased shear and tensile strength
- splash water proof
- large grip range
- universal applicable



# 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 petal out 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**.

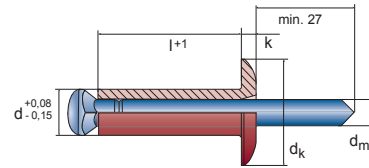
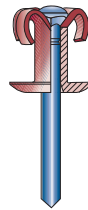
**ARCO®** body-bound blind rivets are preferably used for plastic or wood element assembly, caravan manufacturing and fastening of claddings.

ARCO®



## Body-Bound Blind Rivets ARCO®

### Aluminium / Steel Dome Head



d	l+1		dk	k	dm	No.	
3,2	10,0	1,5 – 5,0	6,5	0,8	1,7	10.710.032.100	500
	16,0	4,0 – 11,0				10.710.032.160	500
	18,0	6,0 – 13,0				10.710.032.180	500

EN AW - 5019 [AlMg5] 3,55 + 0,1 mm 850 N 720 N

d	l+1		dk	k	dm	No.	
4,0	10,0	1,5 – 5,0	9,0	1,5	2,4	10.710.040.100	500
	16,0	4,0 – 11,0				10.710.040.160	500
	18,0	6,0 – 13,0				10.710.040.180	500

EN AW - 5019 [AlMg5] 4,35 + 0,1 mm 1330 N 1300 N

d	l+1		dk	k	dm	No.	
4,8	10,0	1,5 – 4,0	11,0	1,5	2,8	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

EN AW - 5019 [AlMg5] 5,15 + 0,1 mm 2100 N 1950 N



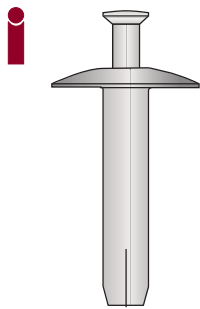
► For the perfect tool take a look into chapters 8 and 9 on pages 117 and 125!





# Hammer Stroke Blind Rivet

Hammer Stroke Rivet

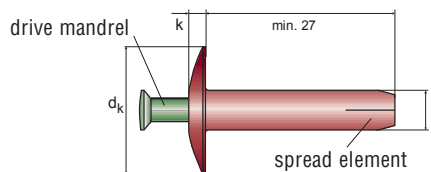


**Hammer stroke or drive rivets** are set by driving the mandrel into the rivet body (e.g. by means of a hammer). This causes the lower end of the rivet body to expand and allows riveting components with **open-end boreholes** and also riveting of **blind-end boreholes**. This riveting technology is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

### Aluminium / Stainless Steel Dome Head



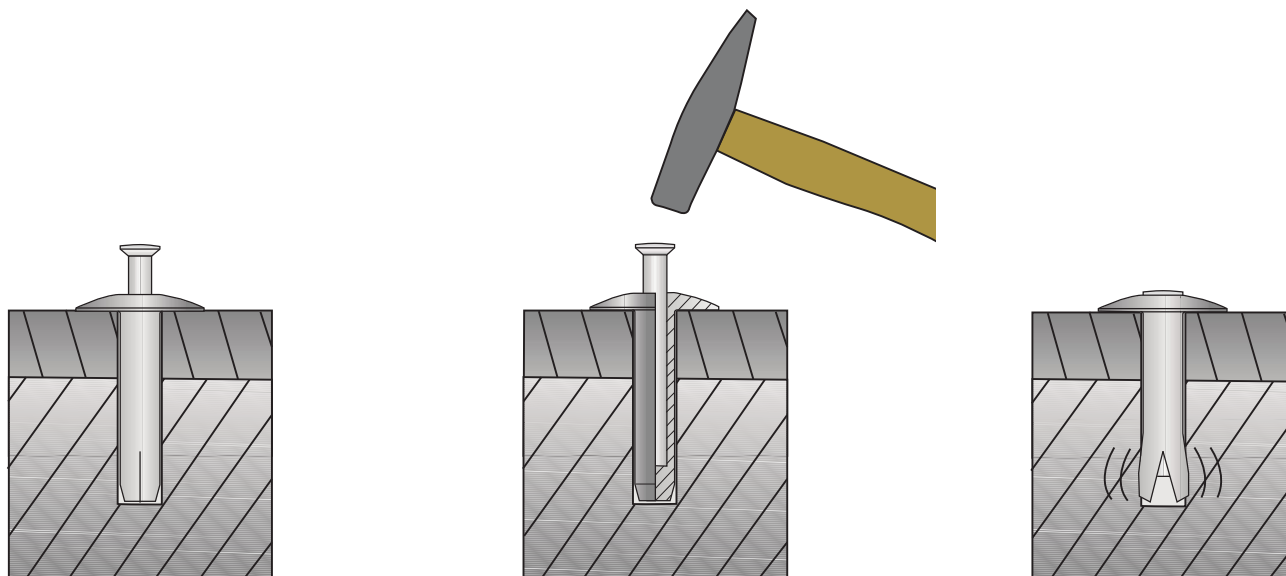
d	l		d <sub>k</sub>	k	No.	
<b>4,8</b>	10,0	4,5 – 6,5	14,0 +0,5	2,0	10.602.048.100	500
	16,0	9,5 – 12,0			10.602.048.160	500
	18,0	12,0 – 14,5			10.602.048.180	500
	20,0	14,5 – 16,5			10.602.048.200	500

4,9 mm

d	l +1		d <sub>k</sub>	k	No.	
<b>4,8</b>	26,0	20,0 – 22,0	15,5	2,0	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

4,9 mm

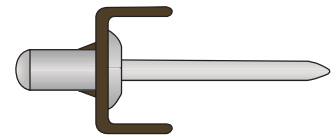
► The blind rivets with grooved shank on [page 30](#) are suitable for operating in **blind-end boreholes** as well.



# Grounding Blind Rivet

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



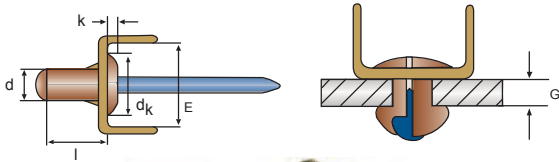
Grounding Blind Rivet

1 9



## Grounding Blind Rivet

**Copper / Steel (copper plated)**  
**Dome Head -open-**  
**Earthing Conductor Brass (2x)**

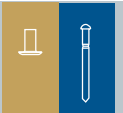


d	l	$\begin{matrix} \downarrow \\ \uparrow \end{matrix}$	dk	k	E	No.
<b>3,8</b>	8,0	max. 1,2	8,0	1,4	14,0	10.705.038.080/2

$\approx$  3,9 mm

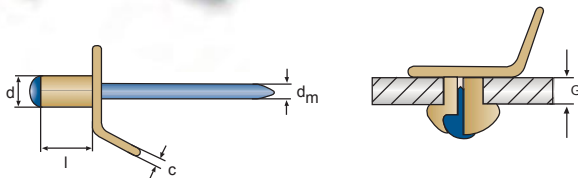
$\rightarrow$  1400 N  $\parallel$  2000 N

1 9



## Grounding Blind Rivet

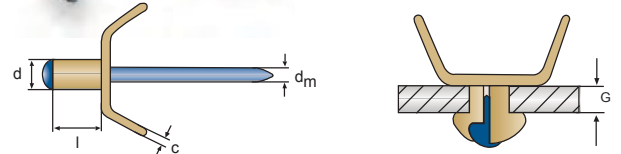
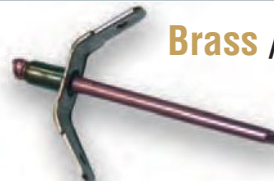
**Brass / Steel (copper plated)**  
**1x Earthing Conductor**



d	l	$\begin{matrix} \downarrow \\ \uparrow \end{matrix}$	dm	c	No.	
<b>4,0</b>	7,0	max. 4,0	2,4	0,8	10.705.040.070/715	500

$\approx$  4,1 mm

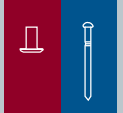
**Brass / Steel (copper plated)**  
**2x Earthing Conductor**



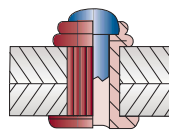
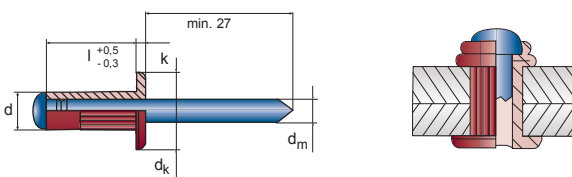
d	l	$\begin{matrix} \downarrow \\ \uparrow \end{matrix}$	dm	c	No.	
<b>4,0</b>	7,0	max. 4,0	2,4	0,8	10.705.040.070/716	500

$\approx$  4,1 mm

1 9



## Grounding Multi-rip Blind Rivet OPTO®



**Aluminium / Steel**  
**Dome Head -open-**  
**-grooved shank**

d	l	$\begin{matrix} \downarrow \\ \uparrow \end{matrix}$	dk	k	dm	No.	
<b>4,0</b>	9,5	1,2 - 6,4	7,9	1,2	2,3	10.600.040.095/2	500

! Qualified for grounding by grooved shaft.



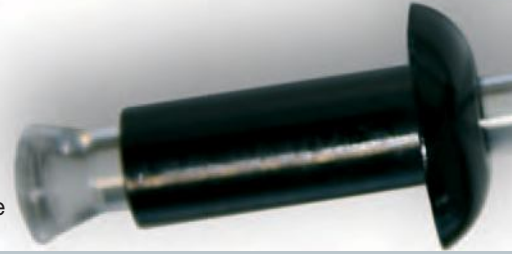
EN AW - 5052 [AlMg2,5]  $\approx$  4,1 mm  $\rightarrow$  1140 N  $\parallel$  1670 N

# Plastic Blind Rivets

Plastic Blind Rivet

Blind- and split blind rivets made from plastic can be used e.g. in many fields of **electric, automotive or computer hardware industries**. They can be operated by standard blind rivet tools. Advantages:

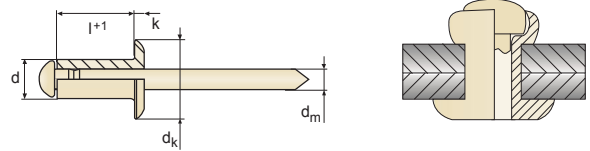
- non-conducting
- low weight
- independent from corrosion
- gentle treatment of the components surface



1 10

## Plastic Blind Rivet

Nylon / Polycarbonate  
Dome Head - open-  
black



d	l+1	$\frac{d}{2}$	dk	k	dm	No.	
3,2	6,4	1,0 - 4,0	6,4	1,4	2,1	10.719.032.064	500
	9,6	4,0 - 7,0				10.719.032.096	500

Nylon 6 / RMS 107 3,3 mm 200 N 120 N

d	l+1	$\frac{d}{2}$	dk	k	dm	No.	
4,8	8,0	1,5 - 5,0	9,6	2,0	2,8	10.719.048.080	500
	11,2	5,0 - 8,0				10.719.048.112	500

Nylon 6 / RMS 107 4,9 mm 400 N 280 N

d	l+1	$\frac{d}{2}$	dk	k	dm	No.	
4,0	6,4	1,0 - 4,0	8,0	1,8	2,4	10.719.040.064	500
	9,6	4,0 - 7,0				10.719.040.096	500

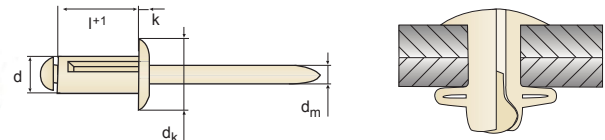
Nylon 6 / RMS 107 4,1 mm 250 N 180 N



1 10

## Plastic Split Blind Rivet

Nylon / Polycarbonate  
Dome Head - open-  
black



d	l+1	$\frac{d}{2}$	dk	k	dm	No.	
4,9	18,5	1,5 - 4,5	12,0	3,3	2,9	10.719.049.185	500
	20,0	3,0 - 6,0		1,8		10.719.049.200	500
	25,0	6,0 - 10,0			10.719.049.250	500	

PA.6.6.POM 5,0 mm



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





Blind rivet nuts have become an **indispensable component of modern installation engineering**.

They make it possible to install bolt threads of highly varied designs into

- thin or low rigidity components
- hollow sections, or other components not accessible from both sides
- components which already have a coated surface or to rivet components together and to attach additional parts firmly.

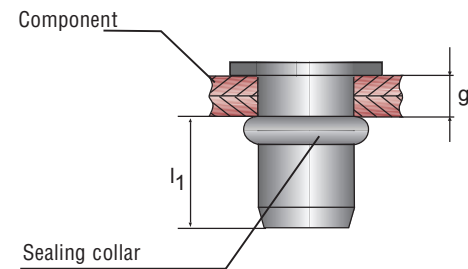
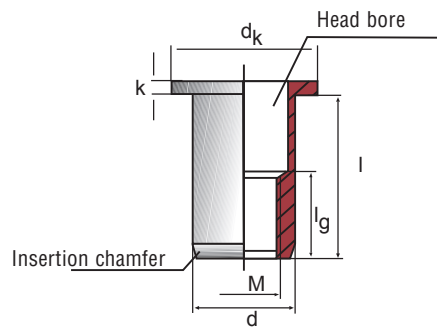
The continuous development of new types, forms and dimensions documents the **nearly unlimited fields of applications**.

The **HONSEL-GROUP** has been one of the leading companies in this progress for decades.

On ► [pages 68/69](#) you can find the **patented OPTO®-multigrip blind rivet nut**. This innovation became a permanent part of the VVG catalogue within a short time.

For additional information concerning possible individual adaptations ask our sales team and take a look on ► [page 62](#).

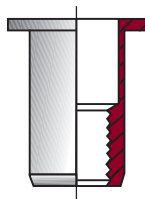
- d - shaft diameter
- dk - setting head diameter
- k - setting head high
- lg - thread length min.  $1 \times M$
- l - shaft length
- l1 - projection length
- M - thread diameter
- g - grip length



## HEAD DESIGN

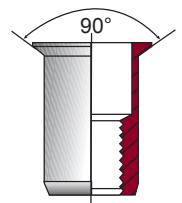
### Flat head

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



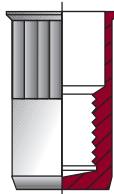
### Countersunk head

For the machining of blind rivet nuts with countersunk head, the component is only to be countersunk to a depth at which the countersunk head protrudes by min. 0.1 mm after setting.



### Small countersunk head

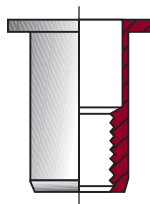
The countersinking of the borehole is not normally necessary when machining blind rivet nuts. If technically necessary, the countersinking is to be carried out so that the countersunk head protrudes by min. 0.1 mm after setting.



## SHANK DESIGNS

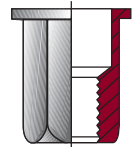
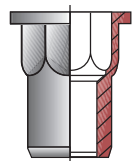
### Round shaft blind rivet nuts

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



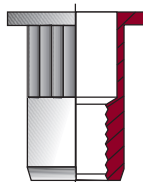
### Blind rivet nuts with hexagonal shaft (Hexatop / Hexaform)

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



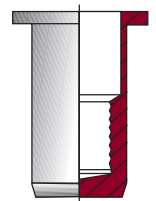
### Blind rivet nuts with knurled shaft

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

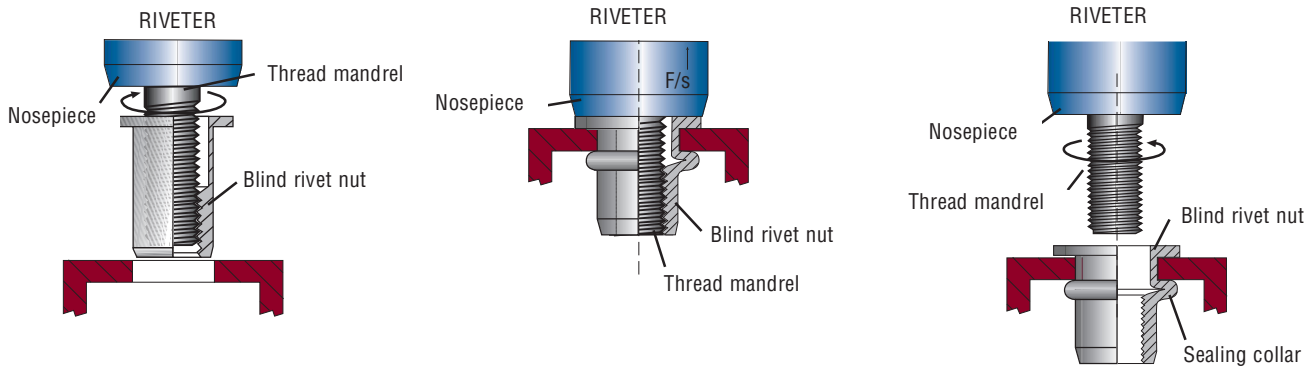


### Blind rivet nuts with closed shaft

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



## INSTALLATION

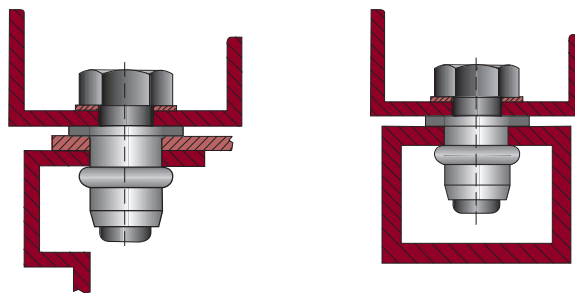


Blind rivet nuts are distinguished by simple and rapid installation.

To set the nut, it is screwed onto the threaded mandrel of the setting tool, inserted into the component borehole, and set through the device axis. This causes the closing bead of the nut to form. After the threaded mandrel is removed,

the components can be screwed tight.

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



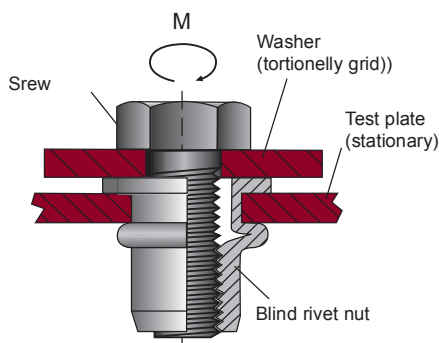
## GENERAL ASSEMBLY INSTRUCTIONS

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

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



## TIGHTENING TORQUE



To measure the screwing torque, the nut to be tested is set into a test plate, a torsionally secured steel underlay plate superimposed, and the screw tightened.

The following conditions apply for the test:

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

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

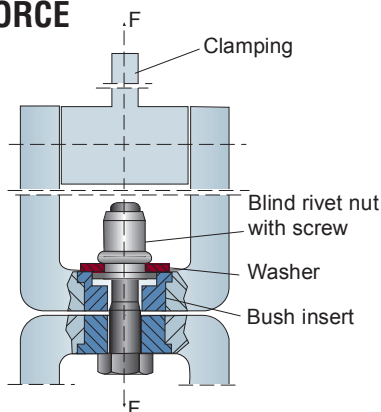
Maximum tightening torque - measured values [Nm]

Typ	Seite	Gewindeabmessung						
		M 3	M 4	M 5	M 6	M 8	M 10	M 12
AFM	66	1	3	4	6	18	28	45
AFM-G	66	-	3	4	6	18	28	-
ASM	67	1	3	4	6	18	28	45
ASM-G	67	-	-	4	6	18	-	-
ASM-KLSK	67	-	2	4	6	15	-	-
OPTO® AFM	68	-	3	4	6	18	-	-
OPTO® ASM	68	-	3	4	6	18	-	-
OPTO® SFM	69	-	4	6	11	24	-	-
OPTO® SSM	69	-	4	6	11	24	-	-
SFM	70	1,2	4	6	11	24	50	82
SFM-G	70	-	4	6	11	24	50	-
SFM-R	70	*						
SSM	73	-	4	6	11	24	50	-
SSM-G	73	-	4	6	11	24	50	-
SSM-R	73	*						
SSM-KLSK / (-R*)	74	-	3	5	10	20	-	-
UNIVERSAL	75	-	3	5	10	20	40	-
UNIVERSAL-R	75	*						
UNIVERSAL-R-G	75	*						
FLATSERT	76	2	3	5	10	20	40	-
FLATSERT-R	76	*						
MICRO	76	-	2	4	8	12	-	-
HEXAFORM®-FK	77	-	5	7	13	25	55	-
HEXAFORM®-KLSK/-G**	77	-	5	7**	13**	25**	-	-
HEXATOP®-FK	78	-	4	6	11	24	-	-
HEXATOP®-KLSK	78	-	4	6	11	24	50	-
SFM-PL	71	-	-	-	12	21	-	-
EFM	79	2	4	6	11	24	50	-
EFM-G	79	-	4	6	11	24	-	-
EFM-R	79	*						
ESM	80	-	4	6	11	24	50	-
ESM-R	80	*						
ESM-KLSK	80	2	4	6	11	24	50	-
ESM-KLSK-G	81	-	4	6	11	24	50	-
ESM-R-KLSK	81	*						
UNIVERSAL-E	82	-	3	5	10	20	-	-
UNIVERSAL-E-R	82	*						
HEXATOP®-E-FK/-KLSK	83	-	5	7	13	25	55	-
HEXAFORM®-E-KLSK-G	83	-	-	7	13	25	-	-

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

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

## AXIAL TENSILE FORCE



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

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

The following conditions have validity during the test:

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

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

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

Axial tensile force - measured values [Nm]

Typ	Gewindeabmessung	Seite	M 3 M 4 M 5 M 6 M 8 M 10 M 12													
			M 3	M 4	M 5	M 6	M 8	M 10	M 12							
AFM	66	66	1500	2600	4300	6700	11000	17500	28000							
AFM-G	66	66	-	2600	4300	6700	11000	17500	-							
ASM	67	67	1500	2600	4300	6700	11000	17500	28000							
ASM-G	67	67	-	-	4300	6700	11000	-	-							
ASM-KLSK	67	67	-	4000	5500	8300	13000	-	-							
OPTO® AFM	68	68	-	3000	4200	6500	10500	-	-							
OPTO® ASM	68	68	-	3000	4200	6500	10500	-	-							
OPTO® SFM	69	69	-	5200	9500	15000	21500	-	-							
OPTO® SSM	69	69	-	5200	9500	15000	21500	-	-							
SFM	70	70	4000	5200	9500	16500	23500	37000	54000							
SFM-G	70	70	-	5200	9500	16500	23500	37000	-							
SFM-R	70	70	-	5000	9000	13500	15000	28000	-							
SSM	73	73	-	5200	9500	16500	23500	37000	-							
SSM-G	73	73	-	5200	9500	16500	23500	37000	-							
SSM-R	73	73	-	5000	9000	13500	15000	37000	56000							
SSM-KLSK / -R*	74	74	4000*	6500* 6800	8000* 9000	12000* 15000	17000* 18000	37000*	54000*							
UNIVERSAL	75	75	-	6500	8000	11500	14500	22000	-							
UNIVERSAL-R	75	75	-	6000	7500	10000	14000	17500	-							
UNIVERSAL-R-G	75	75	-	-	7500	10000	-	-	-							
FLATSERT	76	76	3000	6000	9500	13000	16000	19500	-							
FLATSERT-R	76	76	-	5500	9000	12000	15000	-	-							
MICRO	76	76	-	5500	9000	12000	15000	-	-							
HEXAFORM®-FK	77	77	-	5200	9500	16500	23500	37000	-							
HEXAFORM®-KLSK/-G**	77	77	-	5200	9500**	16500**	23500**	-	-							
HEXATOP®-FK	78	78	-	3800	6000	9500	12500	-	-							
HEXATOP®-KLSK	78	78	-	3800	6000	9500	12500	37000	-							
SFM-PL	71	71	-	-	-	15000	27000	-	-							
EFM	79	79	4500	7000	11000	18000	27000	40000	-							
EFM-G	79	79	-	7000	11000	18000	27000	-	-							
EFM-R	79	79	4000	6500	10000	17000	25000	38000	-							
ESM	80	80	-	7000	11000	18000	27000	50000	-							
ESM-R	80	80	-	6500	10000	17000	25000	-	-							
ESM-KLSK	80	80	4500	7000	11000	18000	27000	40000	-							
ESM-KLSK-G	81	81	-	7000	11000	18000	27000	40000	-							
ESM-R-KLSK	81	81	4000	6500	10000	17000	25000	38000	-							
UNIVERSAL-E	82	82	-	7000	11000	18000	27000	-	-							
UNIVERSAL-E-R	82	82	-	6800	10000	14000	25000	37000	-							
HEXATOP®-E-FK/-KLSK	83	83	-	6500	10000	17000	27000	40000	-							
HEXAFORM®-E-KLSK-G	83	83	-	-	10000	17000	27000	-	-							

## MORE THAN STANDARD.

Our long term experience and modern type manufacturing plants enables us to create **individual custom made products**. Many expertises out of these special projects have direct influence on the standard product range of this catalogue and support the **continous improvement**.



## PRESSURE TIGHT - BLIND RIVET NUT WITH SPRAYED SEAL

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

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

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



## HIGH STRENGTH BLIND RIVET NUTS

Among the new products of our product range there are steel blind rivet nuts with high-strength threads offering high torques for screws of strength category 10.9 and 12.9.

Due to the high thread strength **very high clamping forces** are achieved, so that in case of overstraining the screw might break before the thread of the blind rivet nut fails.

This blind rivet nut can be treated with the common Honsel setting devices as well as with our fully automatic system technology.

On your request, these high-strength blind rivet nuts can be implemented in all geometries.



## BLIND RIVET NUT WITH ADJUSTABLE GRIP RANGE

HONSEL provides the possibility to create an individual adjustable grip range according to customer special needs.

This version of blind rivet nuts and -bolts was created **especially for brittle or soft plastic components**.

Advantages:

- no pull-through
- no damage of assembly parts
- low turning forces while fixing





2<sup>1</sup>
 Aluminium
**AFM**

Flat Head - Round Shank - open . . . . .	66
Flat Head - Round Shank - closed . . . . .	66

2<sup>2</sup>
 Aluminium
**OPTO<sup>®</sup> Multigrip Blind Rivet Nut**

Flat Head - Round Shank - open . . . . .	68
Countersunk Head - Round Shank - open . . . . .	68

2<sup>3</sup>
 Steel
**SFM**

Flat Head - Round Shank - open . . . . .	70
Flat Head - Round Shank - closed . . . . .	70
Flat Head - Round Shank - closed - <i>knurled</i> . . . . .	70

**SFM-PL (Folding Blind Rivet Nut)**

Flat Head - Round Shank - open . . . . .	71
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**SSM**

Countersunk Head - Round Shank - open . . . . .	73
Countersunk Head - Round Shank - closed . . . . .	73
Countersunk Head - Round Shank - open - <i>knurled</i> . . . . .	73
Small Countersunk Head - Round Shank - open . . . . .	74
Small Countersunk Head - Round Shank - open - <i>knurled</i> . . . . .	74

**UNIVERSAL**

Small Countersunk Head - Round Shank - open . . . . .	75
Small Countersunk Head - Round Shank - open - <i>knurled</i> . . . . .	75
Small Countersunk Head - Round Shank - closed - <i>knurled</i> . . . . .	75

 Aluminium
**ASM**

Countersunk Head - Round Shank - open . . . . .	67
Countersunk Head - Round Shank - closed . . . . .	67
Small Countersunk Head - Round Shank - open . . . . .	67

 Steel

Flat Head - Round Shank - open . . . . .	69
Countersunk Head - Round Shank - open . . . . .	69

 Steel
**FLATSERT**

Small Countersunk Head - Round Shank - open . . . . .	76
Small Countersunk Head - Round Shank - open - <i>knurled</i> . . . . .	76

**MICRO<sup>®</sup>**


Small Countersunk Head - Round Shank - open . . . . .	76
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**HEXAFORM<sup>®</sup>**

Flat Head - Hexagonal Shank - open . . . . .	77
Small Countersunk Head - Hexagonal S. - open . . . . .	77
Small Countersunk Head - Hexagonal S. - closed . . . . .	77

**HEXATOP<sup>®</sup>**

Flat Head - Partial Hexagonal Shank - open . . . . .	78
Small Countersunk Head - Partial Hexagonal Shank - open . . . . .	78

 All blind rivet nuts made from steel do have a chrom-6-free surface.



2<sup>4</sup>

**Stainless Steel**

**EFM**

Flat Head - Round Shank - open . . . . .	79
Flat Head - Round Shank - closed . . . . .	79
Flat Head - Round Shank - open - <i>knurled</i> . . . . .	79

**ESM**

Countersunk Head - Round Shank - open . . . . .	80
Countersunk Head - Round Shank - open - <i>knurled</i> . . . . .	80
Small Countersunk Head - Round shank - open . . . . .	80
Small Countersunk Head - Round shank - closed . . . . .	81
Small Countersunk Head - Round shank - open - <i>knurled</i> . . . . .	81

**Stainless Steel**

**UNIVERSAL**

Small Countersunk Head - Round Shank - open . . . . .	82
Small Countersunk Head - Round Shank - open- <i>knurled</i> . . . . .	82

**HEXATOP®**

Flat Head - Partial Hexagonal Shank - open . . . . .	83
Small Countersunk Head - Partial Hexagonal Shank - open . . . . .	83

**HEXAFORM®**

Small Countersunk Head - Hexagonal Shank - closed . . . . .	83
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2<sup>5</sup>

**Nylon Blind Nut**

**Nylon**

with thread insert made of brass . . . . .	84
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2<sup>5</sup>

**Neopren Blind Nut**

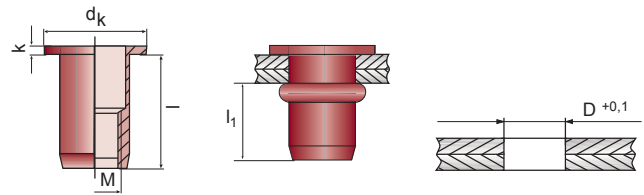
**Neopren**

Flat head - round shank- open . . . . .	85
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## Aluminium Flat Head Round Shank -open- AFM



M	$\frac{\pm}{\uparrow}$	D	dk	I	k	l <sub>1</sub> max.	No.	
<b>M3</b>	0,3 – 1,0	5,0	7,0	7,5	0,8	6,0	10.850.030.100	500
	0,3 – 2,0			8,5			10.850.030.200	

EN AW - 5754 [AlMg3]      ↻ 1 Nm      ↓ 1500 N

<b>M4</b>	0,5 – 3,0	6,0	10,0	11,0	0,8	8,0	10.850.040.300	500
	1,5 – 4,0			12,0			10.850.040.400	

EN AW - 5754 [AlMg3]      ↻ 3 Nm      ↓ 2600 N

<b>M5</b>	0,5 – 3,0	7,0	11,0	12,0	1,0	9,0	10.850.050.300	500
	3,0 – 4,0			13,0			10.850.050.400	

EN AW - 5754 [AlMg3]      ↻ 4 Nm      ↓ 4300 N

▶ For larger grip ranges take a look at the patented OPTO® multigrip blind rivet nut on the following pages 68/69.

M	$\frac{\pm}{\uparrow}$	D	dk	I	k	l <sub>1</sub> max.	No.	
<b>M6</b>	0,5 – 3,0	9,0	13,0	14,5	1,5	11,0	10.850.060.300	500
	3,0 – 4,5			16,0			10.850.060.450	

EN AW - 5754 [AlMg3]      ↻ 6 Nm      ↓ 6700 N

<b>M8</b>	0,5 – 3,0	11,0	16,0	17,0	1,5	13,5	10.850.080.300	500
	3,0 – 5,5			19,5			10.850.080.550	
	5,5 – 7,5			21,5			10.850.080.750	

EN AW - 5754 [AlMg3]      ↻ 18 Nm      ↓ 11000 N

<b>M10</b>	1,0 – 3,0	13,0	19,0	20,5	2,0	16,5	10.850.100.300	250
	3,0 – 4,5			22,0			10.850.100.450	

EN AW - 5754 [AlMg3]      ↻ 28 Nm      ↓ 17500 N

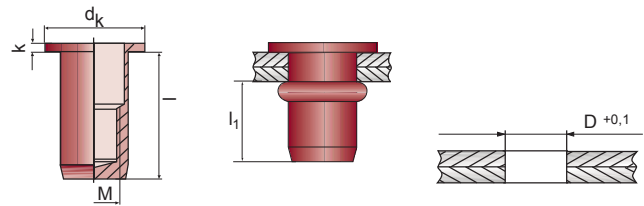
<b>M12</b>	1,0 – 4,0	16,0	23,0	24,0	2,0	18,5	10.850.120.400	250
	3,5 – 7,0			27,0			10.850.120.700	

EN AW - 5754 [AlMg3]      ↻ 45 Nm      ↓ 28000 N

▶ Please note our manifold range of assortments and small packs on pages 104/105 and 106-108!



## Aluminium Flat Head Round Shank -closed- AFM-G



M	$\frac{\pm}{\uparrow}$	D	dk	I	k	l <sub>1</sub> max.	No.	
<b>M4</b>	0,3 – 2,0	6,0	10,0	15,5	0,8	13,5	10.854.040.200	500
	2,0 – 3,0			16,5			10.854.040.300	

EN AW - 5754 [AlMg3]      ↻ 3 Nm      ↓ 2600 N

<b>M5</b>	0,3 – 3,0	7,0	11,0	18,5	1,0	15,5	10.854.050.300	500
	3,0 – 4,0			19,5			10.854.050.400	

EN AW - 5754 [AlMg3]      ↻ 4 Nm      ↓ 4300 N

<b>M6</b>	0,5 – 3,0	9,0	13,0	22,0	1,5	18,5	10.854.060.300	500
	3,0 – 4,5			23,5			10.854.060.450	

EN AW - 5754 [AlMg3]      ↻ 6 Nm      ↓ 6700 N

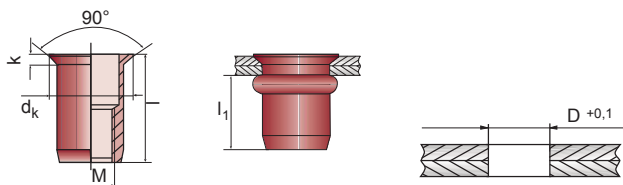
M	$\frac{\pm}{\uparrow}$	D	dk	I	k	l <sub>1</sub> max.	No.	
<b>M8</b>	0,3 – 3,0	11,0	16,0	26,5	1,5	23,0	10.854.080.300	250
	3,0 – 5,5			29,0			10.854.080.550	

EN AW - 5754 [AlMg3]      ↻ 18 Nm      ↓ 11000 N

<b>M10</b>	1,0 – 3,0	13,0	19,0	32,5	2,0	28,5	10.854.100.300	250
	3,0 – 4,5			34,0			10.854.100.450	

EN AW - 5754 [AlMg3]      ↻ 28 Nm      ↓ 17500 N

! Additional possibilities for sealing on ▶ page 112



M	$\frac{D}{\pm}$	D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M3</b>	1,5 - 2,5	5,0	7,3	10,0	1,5	7,0	10.851.030.250	500

EN AW - 5754 [AlMg3]  $\curvearrowright$  1 Nm  $\updownarrow$  1500 N

M	$\frac{D}{\pm}$	D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M4</b>	1,5 - 3,5	6,0	8,3	11,5	1,5	8,0	10.851.040.350	500
	3,5 - 5,0						10.851.040.500	

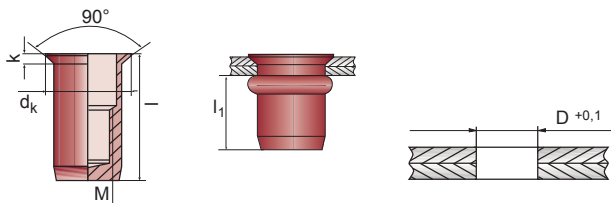
EN AW - 5754 [AlMg3]  $\curvearrowright$  3 Nm  $\updownarrow$  2600 N

M	$\frac{D}{\pm}$	D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M5</b>	1,5 - 4,0	7,0	9,3	13,0	1,5	9,0	10.851.050.400	500
	4,0 - 5,5						10.851.050.550	
	5,5 - 6,5						10.851.050.650	

EN AW - 5754 [AlMg3]  $\curvearrowright$  4 Nm  $\updownarrow$  4300 N

M	$\frac{D}{\pm}$	D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M6</b>	1,5 - 4,5	9,0	11,3	16,0	1,5	11,0	10.851.060.450	500
	4,0 - 6,0						10.851.060.600	

EN AW - 5754 [AlMg3]  $\curvearrowright$  6 Nm  $\updownarrow$  6700 N

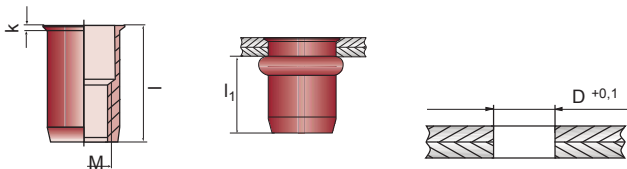


M	$\frac{D}{\pm}$	D	l	dk	k	l <sub>1</sub> max.	No.	
<b>M5</b>	1,5 - 4,0	7,0	19,5	9,3	1,5	15,5	10.855.050.400	500

EN AW - 5754 [AlMg3]  $\curvearrowright$  4 Nm  $\updownarrow$  4300 N

M	$\frac{D}{\pm}$	D	l	dk	k	l <sub>1</sub> max.	No.	
<b>M6</b>	1,5 - 4,5	9,0	23,5	11,3	1,5	18,5	10.855.060.450	500

EN AW - 5754 [AlMg3]  $\curvearrowright$  6 Nm  $\updownarrow$  6700 N



M	$\frac{D}{\pm}$	D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M4</b>	0,5 - 2,0	6,0	6,8	10,5	0,5	6,5	10.851.040.200/10	500

EN AW - 5754 [AlMg3]  $\curvearrowright$  2 Nm  $\updownarrow$  4000 N

M	$\frac{D}{\pm}$	D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M5</b>	0,5 - 3,0	7,0	8,0	11,5	0,5	7,5	10.851.050.300/10	500

EN AW - 5754 [AlMg3]  $\curvearrowright$  4 Nm  $\updownarrow$  5500 N



## Aluminium Countersunk Head Round Shank -open- ASM

M	$\frac{D}{\pm}$	D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M8</b>	1,5 - 4,5	11,0	13,3	18,5	1,5	13,5	10.851.080.450	500
	3,5 - 6,0			20,0			10.851.080.600	

EN AW - 5754 [AlMg3]  $\curvearrowright$  18 Nm  $\updownarrow$  11000 N

M	$\frac{D}{\pm}$	D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M10</b>	1,5 - 3,0	13,0	14,9	20,5	1,5	16,5	10.851.100.300	500
	3,0 - 4,5			22,0			10.851.100.450	250
	3,5 - 6,5			15,5			23,0	10.851.100.650

EN AW - 5754 [AlMg3]  $\curvearrowright$  28 Nm  $\updownarrow$  17500 N

M	$\frac{D}{\pm}$	D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M12</b>	1,7 - 4,5	16,0	19,0	26,0	1,9	17,5	10.851.120.450	250
	4,0 - 7,5			29,0			10.851.120.750	200
	7,0 - 10,5			32,0			10.851.120.105	200

EN AW - 5754 [AlMg3]  $\curvearrowright$  45 Nm  $\updownarrow$  28000 N



## Aluminium Countersunk Head Round Shank -closed- ASM-G

M	$\frac{D}{\pm}$	D	l	dk	k	l <sub>1</sub> max.	No.	
<b>M8</b>	1,5 - 4,5	11,0	28,0	13,3	1,5	23,0	10.855.080.450	500
	4,5 - 6,0		29,5				10.855.080.600	

EN AW - 5754 [AlMg3]  $\curvearrowright$  18 Nm  $\updownarrow$  11000 N

▼ Discontinued standard line. After sale of warehouse stock new production only with minimum order quantity. Please ask for details!

## Aluminium Small Countersunk Head Round Shank -open- ASM-KLSK

M	$\frac{D}{\pm}$	D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M6</b>	0,5 - 3,0	9,0	10,0	14,5	0,6	9,0	10.851.060.300/10	500

EN AW - 5754 [AlMg3]  $\curvearrowright$  6 Nm  $\updownarrow$  8300 N

M	$\frac{D}{\pm}$	D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M8</b>	0,5 - 3,0	11,0	12,0	16,5	0,6	11,0	10.851.080.300/10	500

EN AW - 5754 [AlMg3]  $\curvearrowright$  15 Nm  $\updownarrow$  13000 N



One blind rivet nut for all grip ranges. The innovative and patented development of the Honsel-Group was in 2007 the first mass-production multi-grip blind rivet nut. The product has a lot of advantages over the common standard types:

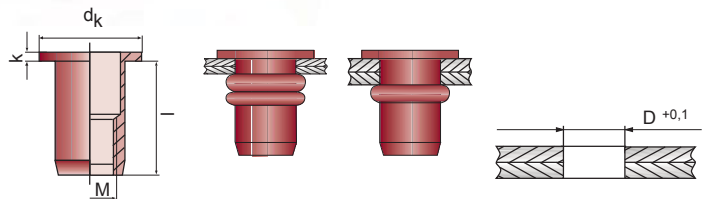
- no mixing of different grip ranges
- reduction of storage and failure costs
- simplification of order and machining processes
- reduction of delivery times
- reduction of item diversity

OPTO®

## ONE Blind Rivet Nut ...



### Aluminium Flat Head Round Shank -open- OPTO-AFM



M		D	dk	I	k	Nr.	
<b>M4</b>	0,5 – 6,0	6,0	10,0	14,0	0,8	10.894.040.600	500

EN AW - 5754 [AlMg3]      ↻ 3 Nm      ↓ 3000 N

<b>M5</b>	0,5 – 6,0	7,0	11,0	15,0	1,0	10.894.050.600	500
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EN AW - 5754 [AlMg3]      ↻ 4 Nm      ↓ 4200 N

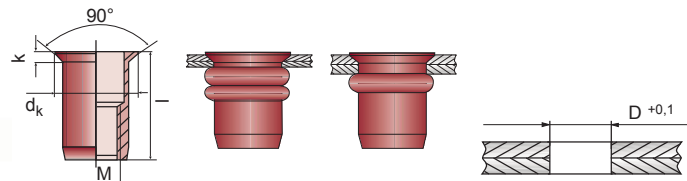
M		D	dk	I	k	Nr.	
<b>M6</b>	0,5 – 6,0	9,0	13,0	17,5	1,5	10.894.060.600	500

EN AW - 5754 [AlMg3]      ↻ 6 Nm      ↓ 6500 N

<b>M8</b>	0,5 – 7,5	11,0	16,0	21,5	1,5	10.894.080.750	500
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EN AW - 5754 [AlMg3]      ↻ 18 Nm      ↓ 10500 N

### Aluminium Countersunk Head Round Shank -open- OPTO-ASM



M		D	dk	I	k	No.	
<b>M4</b>	1,5 – 6,0	6,0	10,0	14,0	1,5	10.894.400.600	500

EN AW - 5754 [AlMg3]      ↻ 3 Nm      ↓ 3000 N

<b>M5</b>	1,5 – 6,0	7,0	11,0	15,0	1,5	10.894.500.600	500
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EN AW - 5754 [AlMg3]      ↻ 4 Nm      ↓ 4200 N

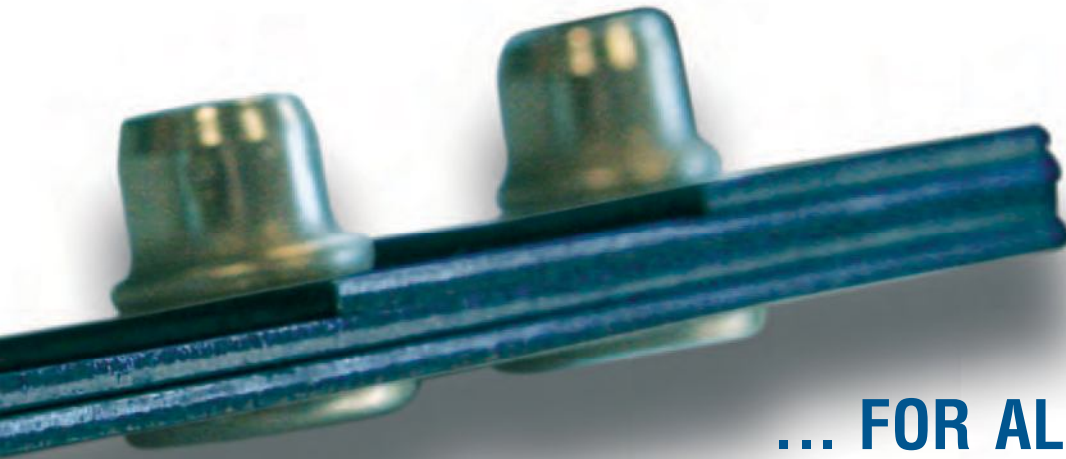
M		D	dk	I	k	N.	
<b>M6</b>	1,5 – 6,0	9,0	13,0	17,5	1,5	10.894.600.600	500

EN AW - 5754 [AlMg3]      ↻ 6 Nm      ↓ 6500 N

<b>M8</b>	1,5 – 7,5	11,0	16,0	21,5	1,5	10.894.800.750	500
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EN AW - 5754 [AlMg3]      ↻ 18 Nm      ↓ 10500 N

Size M10, types with serration, hexagon or closed shaft available on request!



OPTO®

## ... FOR ALL Grip Ranges

### NEW!

For the perfect handling of OPTO® multigrip blind rivet nuts: The **strength controlled** pneumatic-hydraulic tool **VNG 703**. Details on [page 130!](#)



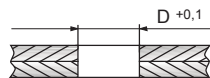
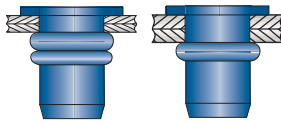
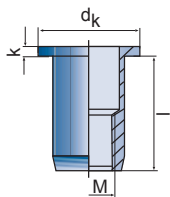
Small grip range



Medium grip range



Large grip range



### Steel Flat Head Round Shank -open- OPTO-SFM

M		D	dk	l	k	No.	
<b>M4</b>	0,5 – 6,0	6,0	10,0	14,0	0,8	10.895.040.600	500

QSt 32-3 [1.0303] 4 Nm 5200 N

<b>M5</b>	0,5 – 6,0	7,0	11,0	15,0	1,0	10.895.050.600	500
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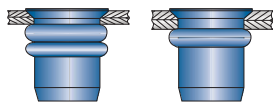
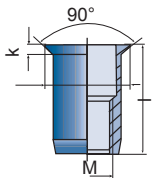
QSt 32-3 [1.0303] 6 Nm 9500 N

M		D	dk	l	k	No.	
<b>M6</b>	0,5 – 6,0	9,0	13,0	17,5	1,5	10.895.060.600	500

QSt 32-3 [1.0303] 11 Nm 15500 N

<b>M8</b>	0,5 – 7,5	11,0	16,0	21,5	1,5	10.895.080.750	500
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QSt 32-3 [1.0303] 24 Nm 21500 N



### Steel Countersunk Head Round Shank -open- OPTO-SSM

M		D	dk	l	k	No.	
<b>M4</b>	1,5 – 6,0	6,0	10,0	14,0	1,5	10.895.400.600	500

QSt 32-3 [1.0303] 4 Nm 5200 N

<b>M5</b>	1,5 – 6,0	7,0	11,0	15,0	1,5	10.895.500.600	500
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QSt 32-3 [1.0303] 6 Nm 9500 N

M		D	dk	l	k	No.	
<b>M6</b>	1,5 – 6,0	9,0	13,0	17,5	1,5	10.895.600.600	500

QSt 32-3 [1.0303] 11 Nm 15500 N

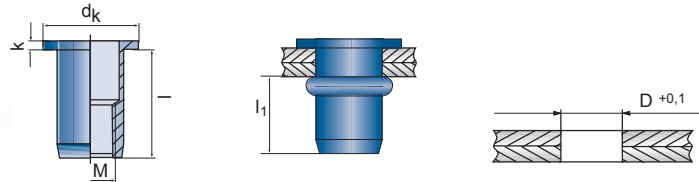
<b>M8</b>	1,5 – 7,5	11,0	16,0	21,5	1,5	10.895.800.750	500
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QSt 32-3 [1.0303] 24 Nm 21500 N



SFM

# Steel Flat Head Round Shank -open- SFM



M	$\frac{\downarrow}{\uparrow}$	D	d <sub>k</sub>	l	k	l <sub>1 max.</sub>	No.	
<b>M3</b>	0,3 – 1,0	5,0	7,0	8,0	0,8	7,0	10.852.030.100	500

QSt 32-3 [1.0303]  $\curvearrowright$  1.2 Nm  $\updownarrow$  4000 N

<b>M4</b>	0,5 – 3,0	6,0	10,0	11,0	0,8	8,0	10.852.040.300	500
	2,0 – 4,0						10.852.040.400	

QSt 32-3 [1.0303]  $\curvearrowright$  4 Nm  $\updownarrow$  5200 N

<b>M5</b>	0,5 – 3,0	7,0	11,0	12,0	1,0	9,0	10.852.050.300	500
	3,0 – 6,0						10.852.050.600	

QSt 32-3 [1.0303]  $\curvearrowright$  6 Nm  $\updownarrow$  9500 N

<b>M6</b>	0,5 – 3,0	9,0	13,0	14,5	1,5	11,0	10.852.060.300	500
	3,0 – 6,0						10.852.060.600	

QSt 32-3 [1.0303]  $\curvearrowright$  11 Nm  $\updownarrow$  16500 N

M	$\frac{\downarrow}{\uparrow}$	D	d <sub>k</sub>	l	k	l <sub>1 max.</sub>	No.	
<b>M8</b>	0,5 – 3,0	11,0	16,0	17,0	1,5	13,5	10.852.080.300	250
	3,0 – 5,5						10.852.080.550	
	5,5 – 7,5						10.852.080.750	

QSt 32-3 [1.0303]  $\curvearrowright$  24 Nm  $\updownarrow$  23500 N

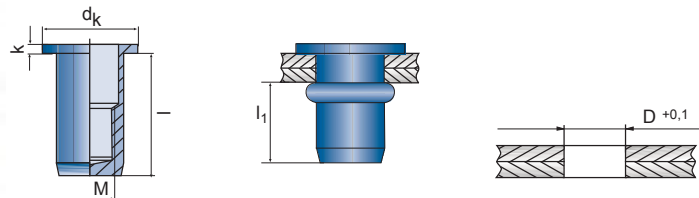
<b>M10</b>	1,0 – 3,0	13,0	19,0	20,5	2,0	16,5	10.852.100.300	250
	3,0 – 4,5						10.852.100.450	
	4,5 – 6,0						10.852.100.600	

QSt 32-3 [1.0303]  $\curvearrowright$  50 Nm  $\updownarrow$  37000 N

<b>M12</b>	1,0 – 4,0	16,0	23,0	24,0	2,0	16,5	10.852.120.400	100
	3,5 – 7,0						10.852.120.700	

QSt 32-3 [1.0303]  $\curvearrowright$  82 Nm  $\updownarrow$  54000 N

# Steel Flat Head Round Shank -closed- SFM-G



M	$\frac{\downarrow}{\uparrow}$	D	d <sub>k</sub>	l	k	l <sub>1 max.</sub>	No.	
<b>M4</b>	0,5 – 2,0	6,0	9,0	15,0	0,8	11,0	10.856.040.200	500
	1,5 – 4,0						10.856.040.400	

QSt 32-3 [1.0303]  $\curvearrowright$  4 Nm  $\updownarrow$  5200 N

<b>M5</b>	0,5 – 3,0	7,0	11,0	18,5	1,0	15,5	10.856.050.300	500
	3,0 – 5,5						10.856.050.550	

QSt 32-3 [1.0303]  $\curvearrowright$  6 Nm  $\updownarrow$  9500 N

<b>M6</b>	0,5 – 3,0	9,0	12,0	22,5	1,2	16,0	10.856.060.300	500
	2,5 – 5,5						10.856.060.550	

QSt 32-3 [1.0303]  $\curvearrowright$  11 Nm  $\updownarrow$  16500 N

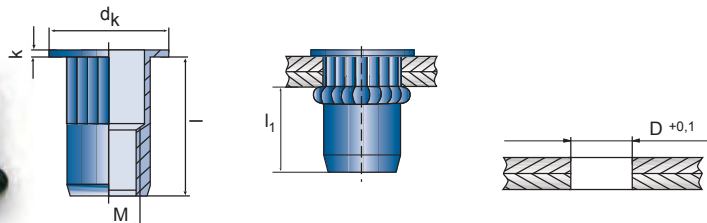
M	$\frac{\downarrow}{\uparrow}$	D	d <sub>k</sub>	l	k	l <sub>1 max.</sub>	No.	
<b>M8</b>	0,5 – 3,5	11,0	14,0	25,0	1,3	17,5	10.856.080.350	200
	3,0 – 6,0						10.856.080.600	

QSt 32-3 [1.0303]  $\curvearrowright$  24 Nm  $\updownarrow$  23500 N

<b>M10</b>	1,0 – 3,0	13,0	19,0	33,0	2,0	28,5	10.856.100.300	250
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QSt 32-3 [1.0303]  $\curvearrowright$  50 Nm  $\updownarrow$  37000 N

# Steel Flat Head Round Shank -open- *knurled* SFM-R



M	$\frac{\downarrow}{\uparrow}$	D	d <sub>k</sub>	l	k	l <sub>1 max.</sub>	No.	
<b>M4</b>	0,5 – 2,5	6,0	9,0	9,5	0,8	8,0	10.842.040.250	500

QSt 32-3 [1.0303]  $\updownarrow$  5000 N

<b>M5</b>	0,5 – 3,0	7,0	10,0	12,0	1,0	9,0	10.842.050.300	500
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QSt 32-3 [1.0303]  $\updownarrow$  9000 N

<b>M6</b>	0,5 – 3,0	9,0	13,0	14,5	1,5	11,0	10.842.060.300	500
	3,5 – 6,0						10.842.060.600	

QSt 32-3 [1.0303]  $\updownarrow$  13500 N

M	$\frac{\downarrow}{\uparrow}$	D	d <sub>k</sub>	l	k	l <sub>1 max.</sub>	No.	
<b>M8</b>	0,5 – 3,0	11,0	16,0	16,0	1,5	13,5	10.842.080.300	250
	3,0 – 5,5						10.842.080.550	

QSt 32-3 [1.0303]  $\updownarrow$  15000 N

<b>M10</b>	3,0 – 4,5	13,0	19,0	22,0	2,0	16,5	10.842.100.450	250
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QSt 32-3 [1.0303]  $\updownarrow$  28000 N



SFM-PL folding blind rivet nuts are constructed for those applications where a **high pull-out strength** is requested.

The slotted shaft makes the rivet nut split into four straps with a wide contact surface that guarantee an **equal distribution of forces** especially on plastics and other vulnerable materials.

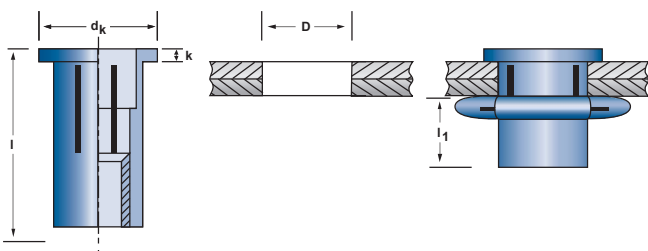
Furthermore this type offers a very **big grip range!**

SFM-PL split blind rivet nuts are for example used in all fields of vehicle manufacturing.

2 3



## Folding Blind Rivet Nut SFM-PL



**Steel**  
**Flat Head**  
**Round Shank -open-**  
**SFM-PL**

M		D		dk	l	k	l <sub>1</sub> max.	No.	
<b>M6</b>	0,5 – 7,1	9,8 -0,45	10,0-10,15	16,4 -0,1	25,8 -0,8	1,6 -0,25	11,7	10.816.060.710	500

12 Nm    ↓ 15000 N

<b>M8</b>	0,5 – 7,1	12,6 -0,1	12,7-12,85	19,6 -0,8	29,6 -1,0	1,7 -0,25	13,6	10.816.080.710	500
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21 Nm    ↓ 27000 N



**NEW!**

For handling SFM-PL blind rivet nuts a big stroke is necessary.

HONSEL/VVG offer the special pneumatic-hydraulic tool **VNG 753** for this application.

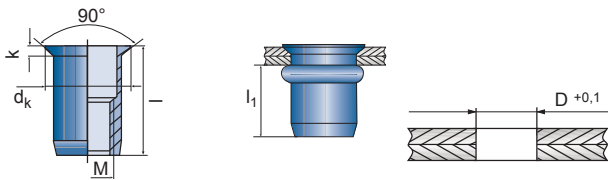
For details as please ask our sales team and take look on

▶ [pages 130/131!](#)









## Steel Countersunk Head Round Shank -open- SSM

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M4</b>	1,5 - 3,5	6,0	8,3	11,5	1,5	8,0	10.853.040.350	500
	3,5 - 5,0							

QSt 32-3 [1.0303]  $\curvearrowright$  4 Nm  $\updownarrow$  5200 N

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M5</b>	1,5 - 4,0	7,0	9,3	13,0	1,5	9,0	10.853.050.400	500
	4,0 - 5,5			15,5			10.853.050.550	

QSt 32-3 [1.0303]  $\curvearrowright$  6 Nm  $\updownarrow$  9500 N

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M6</b>	1,5 - 4,5	9,0	11,3	16,0	1,5	11,0	10.853.060.450	500
	4,5 - 6,0			17,5			10.853.060.600	

QSt 32-3 [1.0303]  $\curvearrowright$  11 Nm  $\updownarrow$  16500 N

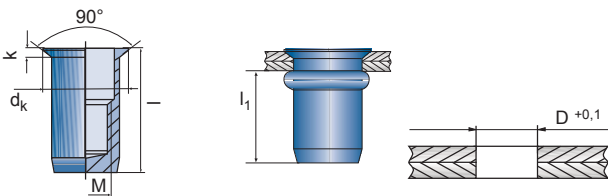
M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M8</b>	1,5 - 4,5	11,0	13,3	18,5	1,5	13,5	10.853.080.450	250
	4,5 - 6,0			20,0			10.853.080.600	

QSt 32-3 [1.0303]  $\curvearrowright$  24 Nm  $\updownarrow$  23500 N

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M10</b>	1,5 - 4,5	13,0	14,9	22,0	1,5	16,5	10.853.100.450	250
	4,5 - 6,0			25,0			10.853.100.600	
	6,0 - 9,0			15,7			28,0	10.853.100.900

QSt 32-3 [1.0303]  $\curvearrowright$  50 Nm  $\updownarrow$  37000 N

► For larger grip ranges take a look at the patented OPTO® multigrip blind rivet nut on the pages 68/69.



## Steel Countersunk Head Round Shank -closed- SSM-G

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M5</b>	1,5 - 4,0	7,0	9,3	19,5	1,5	15,5	10.857.050.400	500

QSt 32-3 [1.0303]  $\curvearrowright$  6 Nm  $\updownarrow$  9500 N

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M6</b>	1,5 - 4,5	9,0	11,3	23,5	1,5	18,5	10.857.060.450	500
	4,5 - 6,0			25,0			10.857.060.600	

QSt 32-3 [1.0303]  $\curvearrowright$  11 Nm  $\updownarrow$  16500 N

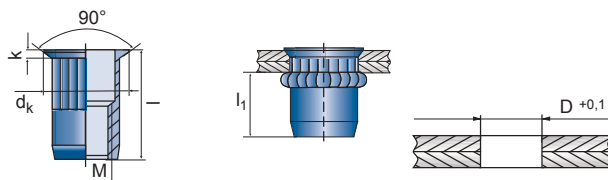
M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M8</b>	1,5 - 4,5	11,0	13,3	28,0	1,5	23,0	10.857.080.450	250
	4,5 - 6,0			35,5			10.857.080.600	

QSt 32-3 [1.0303]  $\curvearrowright$  24 Nm  $\updownarrow$  23500 N

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M10</b>	1,5 - 3,0	13,0	14,9	32,5	1,5	28,5	10.857.100.300	250

QSt 32-3 [1.0303]  $\curvearrowright$  50 Nm  $\updownarrow$  37000 N

▼ No stock type item. Please ask for current inventory.



## Steel Countersunk Head Round Shank -open- knurled SSM-R

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	Nr.	
<b>M4</b>	1,5 - 3,5	6,0	8,3	11,5	1,5	8,0	10.845.040.350	500
	3,5 - 5,0			9,0			13,0	

QSt 32-3 [1.0303]  $\updownarrow$  5000 N

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	Nr.	
<b>M5</b>	1,5 - 4,0	7,0	9,3	13,5	1,5	9,0	10.845.050.400	500
	4,0 - 6,0			10,0			15,0	

QSt 32-3 [1.0303]  $\updownarrow$  9000 N

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	Nr.	
<b>M6</b>	1,5 - 4,5	9,0	11,3	16,0	1,5	11,0	10.845.060.450	500
	4,5 - 6,5			12,0			19,0	

QSt 32-3 [1.0303]  $\updownarrow$  13500 N

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	Nr.	
<b>M8</b>	1,5 - 4,5	11,0	13,3	19,0	1,5	13,5	10.845.080.450	500
	3,5 - 6,5			14,0			21,0	

QSt 32-3 [1.0303]  $\updownarrow$  15000 N

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	Nr.	
<b>M10</b>	1,5 - 4,0	13,0	15,7	22,0	1,6	14,5	10.845.100.400	250
	3,5 - 6,5			25,0			10.845.100.650	

QSt 32-3 [1.0303]  $\updownarrow$  37000 N

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	Nr.	
<b>M12</b>	1,7 - 4,5	16,0	19,0	26,0	1,9	17,5	10.845.120.450	250
	4,0 - 7,5			29,0			10.845.120.750	

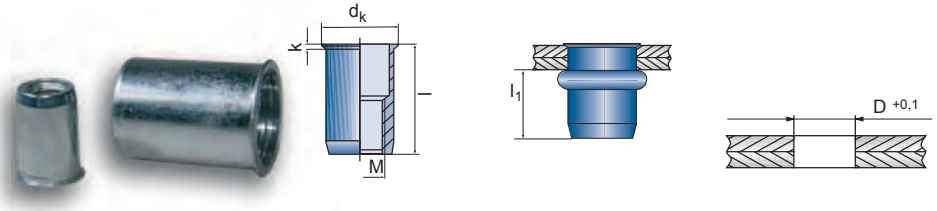
QSt 32-3 [1.0303]  $\updownarrow$  56000 N

SSM



## Steel

### Small Countersunk Head Round Shank -open- SSM-KLSK



M		D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M4</b>	0,3 – 2,0	6,0	7,0	10,5	0,5	6,0	10.841.040.200	500

QSt 32-3 [1.0303]      ↻ 3 Nm      ↓ 6800 N

<b>M5</b>	0,5 – 3,0	7,0	8,0	11,5	0,5	6,3	10.841.050.300	500
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QSt 32-3 [1.0303]      ↻ 5 Nm      ↓ 9000 N

M		D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M6</b>	0,5 – 3,0	9,0	10,0	14,5	0,5	8,6	10.841.060.300	500

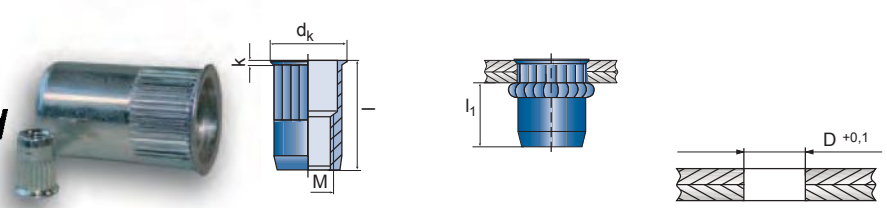
QSt 32-3 [1.0303]      ↻ 10 Nm      ↓ 12000 N

<b>M8</b>	0,5 – 3,0	11,0	12,0	16,5	0,5	10,0	10.841.080.300	250
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QSt 32-3 [1.0303]      ↻ 20 Nm      ↓ 18000 N

## Steel

### Small Countersunk Head Round Shank -open- *knurled* SSM-R-KLSK



M		D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M3</b>	0,3 – 1,5	5,0	6,0	8,5	0,4	5,5	10.843.030.150	500

QSt 32-3 [1.0303]      ↓ 4000 N

<b>M4</b>	0,5 – 2,0	6,0	7,0	10,0	0,4	8,0	10.843.040.200	500
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QSt 32-3 [1.0303]      ↓ 6500 N

<b>M5</b>	0,5 – 3,0	7,0	8,0	12,0	0,5	9,0	10.843.050.300	500
	2,5 – 4,5			13,0			10.843.050.450	

QSt 32-3 [1.0303]      ↓ 8000 N

M		D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M6</b>	0,5 – 3,0	9,0	10,0	14,5	0,5	14,5	10.843.060.300	500
	3,5 – 6,0			17,5			10.843.060.600	

QSt 32-3 [1.0303]      ↓ 15000 N

<b>M8</b>	0,7 – 4,0	11,0	12,0	16,0	0,5	16,0	10.843.080.400	500
	3,0 – 6,0			19,5			10.843.080.600	

QSt 32-3 [1.0303]      ↓ 17000 N

<b>M10</b>	1,0 – 4,5	13,0	14,0	21,5	0,5	13,3	10.843.100.450	250
	3,0 – 6,0			23,0			10.843.100.600	

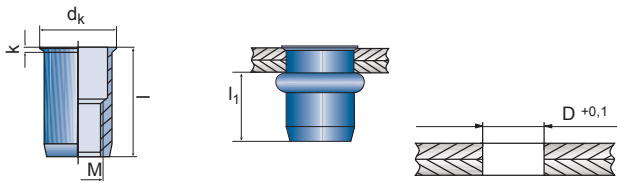
QSt 32-3 [1.0303]      ↓ 37000 N

<b>M12</b>	1,0 – 4,0	16,0	17,0	24,0	0,6	16,0	10.843.120.400	250
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QSt 32-3 [1.0303]      ↓ 54000 N

► Please note our manifold range of **assortments** and **small packs** on [pages 104/105](#) and [106-108!](#)





M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M4</b>	0,5 – 2,5	7,0	8,0	10,5	0,4	7,0	10.870.400.000	500

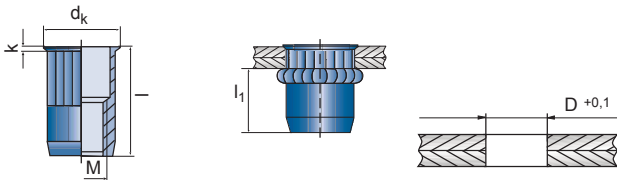
QSt 32-3 [1.0303] 3 Nm 6500 N

<b>M5</b>	0,5 – 2,5	7,0	8,0	11,5	0,4	8,0	10.870.500.000	500
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QSt 32-3 [1.0303] 5 Nm 8000 N

<b>M6</b>	0,5 – 3,0	8,0	9,0	13,0	0,4	10,0	10.870.600.000	500
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QSt 32-3 [1.0303] 10 Nm 11500 N



M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M4</b>	0,5 – 2,5	7,0	8,0	10,5	0,4	7,0	10.871.400.000	500

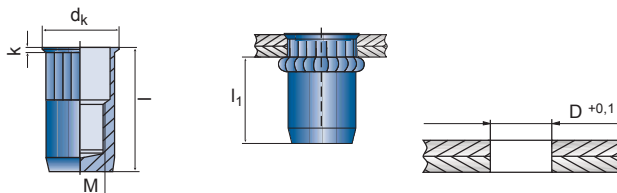
QSt 32-3 [1.0303] 6000 N

<b>M5</b>	0,5 – 2,5	7,0	8,0	11,5	0,4	8,0	10.871.500.000	500
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QSt 32-3 [1.0303] 7500 N

<b>M6</b>	0,5 – 3,0	8,0	9,0	13,0	0,4	10,0	10.871.600.000	500
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QSt 32-3 [1.0303] 10000 N



M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M4</b>	0,5 – 2,5	7,0	8,0	16,5	0,4	13,0	10.872.400.000	500

QSt 32-3 [1.0303] 6000 N

<b>M5</b>	0,5 – 2,5	7,0	8,0	18,5	0,4	14,5	10.871.500.000	500
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QSt 32-3 [1.0303] 7500 N



## Steel Small Countersunk Head Round Shank -open- UNIVERSAL

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M8</b>	0,5 – 3,0	10,0	11,0	15,5	0,4	11,5	10.870.800.000	500

QSt 32-3 [1.0303] 20 Nm 14500 N

<b>M10</b>	0,5 – 3,0	12,0	13,0	17,5	0,4	13,0	10.870.100.000	250
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QSt 32-3 [1.0303] 40 Nm 22000 N



## Steel Small Countersunk Head Round Shank -open-*knurled* UNIVERSAL-R

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M8</b>	0,5 – 3,0	10,0	11,0	15,5	0,4	11,5	10.871.800.000	500

QSt 32-3 [1.0303] 14000 N

<b>M10</b>	0,5 – 3,0	12,0	13,0	17,5	0,4	13,0	10.871.100.000	250
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QSt 32-3 [1.0303] 17500 N



## Steel Small Countersunk Head Round Shank -closed-*knurled* UNIVERSAL-R-G

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M6</b>	0,5 – 3,0	8,0	9,0	20,5	0,4	16,0	10.872.600.000	500

QSt 32-3 [1.0303] 10000 N

Additional possibilities for sealing on [page 112](#).

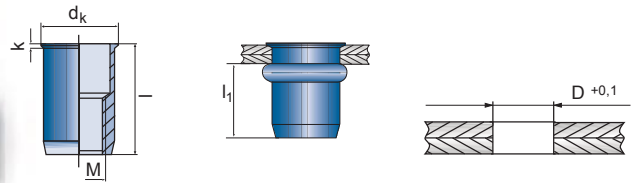


2 3

# Blind Rivet Nut FLATSERT

FLATSERT / MICRO

## Steel Small Countersunk Head Round Shank -open- FLATSERT



M		D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M3</b>	0,5 – 1,5	4,9	5,3	9,0	0,3	6,0	10.874.300.000	500

QSt 32-3 [1.0303] 2 Nm 3000 N

<b>M4</b>	0,5 – 2,0	6,4	7,2	10,5	0,4	8,0	10.874.400.000	500
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QSt 32-3 [1.0303] 3 Nm 6000 N

<b>M5</b>	0,5 – 3,2	7,2	8,1	12,0	0,5	9,0	10.874.500.000	500
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QSt 32-3 [1.0303] 5 Nm 9500 N

M		D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M6</b>	0,8 – 4,0	9,6	10,5	15,0	0,5	11,0	10.874.600.000	500

QSt 32-3 [1.0303] 10 Nm 13000 N

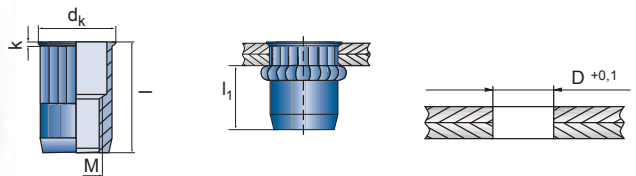
<b>M8</b>	1,0 – 4,0	10,6	11,5	16,0	0,6	13,5	10.874.800.000	500
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QSt 32-3 [1.0303] 20 Nm 16000 N

<b>M10</b>	1,0 – 5,0	12,7	13,9	22,5	0,6	16,5	10.874.100.000	200
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QSt 32-3 [1.0303] 40 Nm 19500 N

## Steel Small Countersunk Head Round Shank -open- *knurled* FLATSERT-R



M		D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M4</b>	0,5 – 2,0	6,4	7,2	10,5	0,4	8,0	10.844.400.000	500

QSt 32-3 [1.0303] 5500 N

<b>M5</b>	0,5 – 3,0	7,2	8,1	12,0	0,5	9,0	10.844.500.000	500
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QSt 32-3 [1.0303] 9000 N

M		D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M6</b>	0,7 – 3,2	9,6	10,4	15,0	0,5	11,0	10.844.600.000	500

QSt 32-3 [1.0303] 12000 N

<b>M8</b>	0,7 – 4,0	10,6	11,5	16,0	0,5	13,5	10.844.800.000	500
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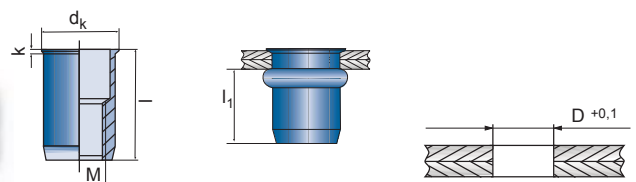
QSt 32-3 [1.0303] 15000 N



2 3

# Blind Rivet Nut MICRO

## Steel Small Countersunk Head Round Shank Open MICRO



M		D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M4</b>	0,5 – 1,1	5,5	6,5	7,5	0,4	6,0	10.866.040.110	500
	1,1 – 2,1			8,5			10.866.040.210	

QSt 32-3 [1.0303] 2 Nm 5500 N

<b>M5</b>	0,5 – 1,6	6,5	7,5	9,3	0,4	7,0	10.866.050.160	500
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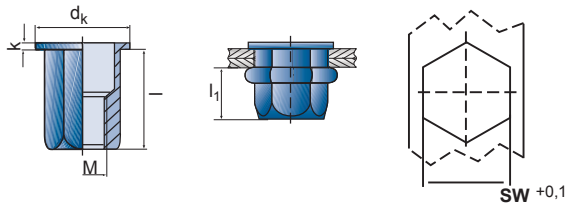
QSt 32-3 [1.0303] 4 Nm 9000 N

M		D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M6</b>	0,5 – 2,6	7,9	9,0	11,5	0,4	8,0	10.866.060.260	500
	2,6 – 4,1			13,0			10.866.060.410	

QSt 32-3 [1.0303] 8 Nm 12000 N

<b>M8</b>	0,5 – 2,6	9,9	11,0	14,0	0,4	11,0	10.866.080.260	500
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QSt 32-3 [1.0303] 12 Nm 15000 N



## Steel Flat Head Hexagonal Shank -open- HEXAFORM FK

HEXAFORM®

M	$\frac{\downarrow}{\uparrow}$	SW	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M4</b>	0,5 – 2,0	6,0	9,0	10,0	1,0	7,5	10.868.040.200	500

QSt 32-3 [1.0303]  $\curvearrowright$  5 Nm  $\updownarrow$  5200 N

<b>M5</b>	0,5 – 3,0	7,0	10,0	12,5	1,0	8,5	10.868.500.000	500
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QSt 32-3 [1.0303]  $\curvearrowright$  7 Nm  $\updownarrow$  9500 N

<b>M6</b>	0,5 – 3,0	9,0	13,0	14,5	1,5	10,5	10.868.600.000	500
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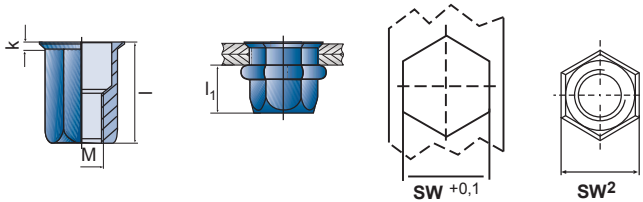
QSt 32-3 [1.0303]  $\curvearrowright$  13 Nm  $\updownarrow$  16500 N

M	$\frac{\downarrow}{\uparrow}$	SW	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M8</b>	0,5 – 3,0	11,0	15,0	16,0	1,5	13,0	10.868.800.000	250
	3,0 – 6,0		16,0	19,5			10.868.080.600	

QSt 32-3 [1.0303]  $\curvearrowright$  25 Nm  $\updownarrow$  23500 N

<b>M10</b>	1,0 – 3,5	13,0	19,0	21,0	2,0	16,5	10.868.100.000	100
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QSt 32-3 [1.0303]  $\curvearrowright$  55 Nm  $\updownarrow$  37000 N



## Steel Small Countersunk Head Hexagonal Shank -open- HEXAFORM KLSK

M	$\frac{\downarrow}{\uparrow}$	SW	SW <sup>2</sup>	l	k	l <sub>1</sub> max.	No.	
<b>M4</b>	0,5 – 2,0	6,0	6,6	11,0	0,6	7,5	10.892.040.200	500

QSt 32-3 [1.0303]  $\curvearrowright$  5 Nm  $\updownarrow$  5200 N

<b>M5</b>	0,5 – 3,0	7,0	7,7	13,5	0,7	8,5	10.892.050.300	500
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QSt 32-3 [1.0303]  $\curvearrowright$  7 Nm  $\updownarrow$  9500 N

M	$\frac{\downarrow}{\uparrow}$	SW	SW <sup>2</sup>	l	k	l <sub>1</sub> max.	No.	
<b>M6</b>	0,5 – 3,0	9,0	9,8	15,5	0,8	10,5	10.892.060.300	500
	3,0 – 5,5			18,0			10.892.060.550	

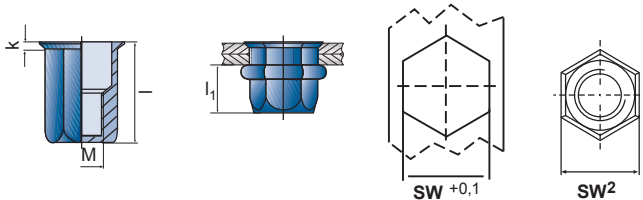
QSt 32-3 [1.0303]  $\curvearrowright$  13 Nm  $\updownarrow$  16500 N

<b>M8</b>	0,5 – 3,0	11,0	11,8	18,5	0,8	13,0	10.892.080.300	250
	3,0 – 6,0			19,0			10.892.080.600	

QSt 32-3 [1.0303]  $\curvearrowright$  25 Nm  $\updownarrow$  23500 N

<b>M10</b>	0,5 – 3,5	13,0	14,3	21,0	0,9	16,5	10.892.100.300	250
	3,0 – 6,0			23,5			10.892.100.600	

QSt 32-3 [1.0303]  $\curvearrowright$  55 Nm  $\updownarrow$  37500 N



## Steel Small Countersunk Head Hexagonal Shank -closed- HEXAFORM KLSK-G

M	$\frac{\downarrow}{\uparrow}$	SW	SW <sup>2</sup>	l	k	l <sub>1</sub> max.	No.	
<b>M5</b>	0,5 – 2,5	7,0	7,7	18,0	0,6	12,5	10.887.050.250	500

QSt 32-3 [1.0303]  $\curvearrowright$  7 Nm  $\updownarrow$  9500 N

<b>M6</b>	0,5 – 3,0	9,0	9,8	21,5	0,7	16,0	10.887.060.300	500
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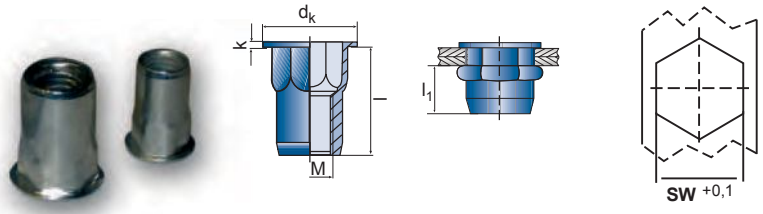
QSt 32-3 [1.0303]  $\curvearrowright$  13 Nm  $\updownarrow$  16500 N

M	$\frac{\downarrow}{\uparrow}$	SW	SW <sup>2</sup>	l	k	l <sub>1</sub> max.	No.	
<b>M8</b>	0,5 – 3,5	11,0	11,8	24,5	0,7	17,5	10.887.080.350	500

QSt 32-3 [1.0303]  $\curvearrowright$  25 Nm  $\updownarrow$  23500 N



Steel Flat Head Partial Hexagonal Shank -open- HEXATOP FK



M		SW	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M4</b>	0,5 – 2,0	6,3	8,0	10,0	0,6	7,5	10.867.400.000	500

QSt 32-3 [1.0303] 4 Nm 3800 N

<b>M5</b>	0,5 – 3,0	7,2	9,0	12,5	0,7	9,0	10.867.500.000	500
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QSt 32-3 [1.0303] 6 Nm 6000 N

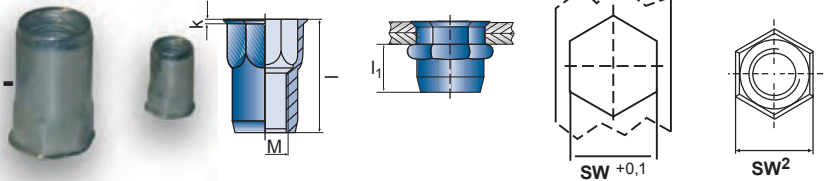
M		SW	d <sub>k</sub>	l	k	l <sub>1</sub> max.	No.	
<b>M6</b>	0,5 – 3,0	9,6	12,0	14,5	0,8	11,5	10.867.600.000	500

QSt 32-3 [1.0303] 11 Nm 9500 N

<b>M8</b>	0,5 – 3,0	10,6	13,0	17,5	0,8	14,0	10.867.800.000	250
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QSt 32-3 [1.0303] 24 Nm 12500 N

Steel Small Countersunk Head Partial Hexagonal Shank -open- HEXATOP KLSK



M		SW	SW <sup>2</sup>	l	k	l <sub>1</sub> max.	No.	
<b>M4</b>	0,4 – 2,0	6,3	7,0	10,0	0,4	7,5	10.893.040.200	500

QSt 32-3 [1.0303] 4 Nm 3800 N

<b>M5</b>	0,6 – 3,0	7,2	8,0	12,5	0,5	9,0	10.893.050.300	500
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QSt 32-3 [1.0303] 6 Nm 6000 N

M		SW	SW <sup>2</sup>	l	k	l <sub>1</sub> max.	No.	
<b>M6</b>	0,6 – 3,0	9,6	10,5	15,5	0,5	11,5	10.893.060.300	500

QSt 32-3 [1.0303] 11 Nm 9500 N

<b>M8</b>	0,6 – 3,0	10,6	11,5	18,0	0,6	14,0	10.893.080.300	250
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QSt 32-3 [1.0303] 24 Nm 12500 N

<b>M10</b>	1,0 – 4,0	12,6	14,4	22,5	0,8	14,0	10.893.100.400	250
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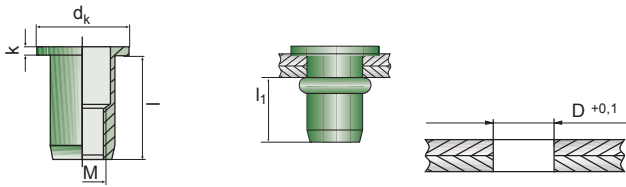
QSt 32-3 [1.0303] 50 Nm 37000 N



! Blind rivet nuts with larger grip ranges, closed shaft or inch measured threads possible on request.



► For the perfect tool take a look into chapters 8 and 9 on pages 117 and 125!



M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1 max.</sub>	No.	
<b>M3</b>	0,5 – 2,0	5,0	8,0	9,0	0,8	7,0	10.858.030.200	500

1.4567  $\curvearrowright$  2 Nm  $\updownarrow$  4500 N

<b>M4</b>	0,5 – 2,5	6,0	9,0	11,0	1,0	8,0	10.858.040.250	500
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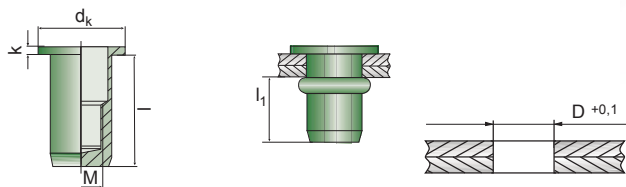
1.4567  $\curvearrowright$  4 Nm  $\updownarrow$  7000 N

<b>M5</b>	0,5 – 3,0	7,0	10,0	12,0	1,5	8,5	10.858.050.300	500
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1.4567  $\curvearrowright$  6 Nm  $\updownarrow$  11000 N

<b>M6</b>	0,5 – 3,0	9,0	12,0	14,0	1,5	10,0	10.858.060.300	500
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1.4567  $\curvearrowright$  11 Nm  $\updownarrow$  18000 N

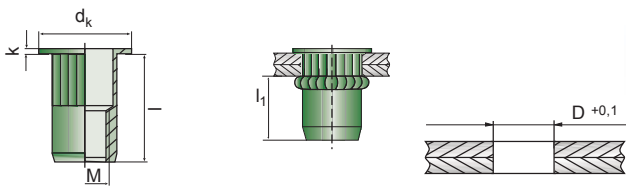


M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1 max.</sub>	No.	
<b>M4</b>	0,5 – 2,5	6,0	9,0	16,0	1,0	13,0	10.860.040.250	500

1.4567  $\curvearrowright$  4 Nm  $\updownarrow$  7000 N

<b>M5</b>	0,5 – 3,0	7,0	10,0	18,0	1,0	14,5	10.860.050.300	500
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1.4567  $\curvearrowright$  6 Nm  $\updownarrow$  11000 N



M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1 max.</sub>	No.	
<b>M3</b>	0,5 – 2,0	5,0	8,0	9,0	0,8	7,0	10.848.030.200	500

1.4567  $\updownarrow$  4000 N

<b>M4</b>	0,5 – 2,5	6,0	9,0	11,0	0,8	8,0	10.848.040.250	500
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1.4567  $\updownarrow$  6500 N

<b>M5</b>	0,5 – 3,0	7,0	10,0	12,0	1,0	8,5	10.848.050.300	500
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1.4567  $\updownarrow$  10000 N



## Stainless Steel Flat Head Round Shank -open- EFM

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1 max.</sub>	No.	
<b>M8</b>	0,5 – 3,0	11,0	15,0	16,0	1,5	11,5	10.858.080.300	500
	3,0 – 6,0		16,0	18,5			10.858.080.600	

1.4567  $\curvearrowright$  24 Nm  $\updownarrow$  27000 N

<b>M10</b>	1,0 – 3,5	13,0	17,0	19,0	2,0	14,0	10.858.100.350	250
	3,0 – 6,0		19,0	26,0			10.858.100.600	

1.4567  $\curvearrowright$  50 Nm  $\updownarrow$  40000 N

<b>M12</b>	1,0 – 4,0	16,0	23,0	26,0	2,0	16,5	10.858.120.400	250
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1.4567  $\curvearrowright$  80 Nm  $\updownarrow$  52000 N



## Stainless Steel Flat Head Round Shank -closed- EFM-G

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1 max.</sub>	No.	
<b>M6</b>	0,5 – 3,0	9,0	12,0	20,0	1,5	16,0	10.860.060.300	500

1.4567  $\curvearrowright$  11 Nm  $\updownarrow$  18000 N

<b>M8</b>	0,5 – 3,0	11,0	15,0	23,5	1,5	19,0	10.860.080.300	250
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1.4567  $\curvearrowright$  24 Nm  $\updownarrow$  27000 N



## Stainless Steel Flat Head Round Shank -open-knurled EFM-R

M	$\frac{D}{d_k}$	D	d <sub>k</sub>	l	k	l <sub>1 max.</sub>	No.	
<b>M6</b>	0,5 – 3,0	9,0	12,0	14,0	1,5	10,0	10.848.060.300	500
	3,5 – 6,0		13,0	19,0			10.848.060.600	

1.4567  $\updownarrow$  17000 N

<b>M8</b>	0,5 – 3,0	11,0	15,0	16,0	1,5	12,0	10.848.080.300	500
	3,0 – 6,0		16,0	20,0			10.848.080.600	

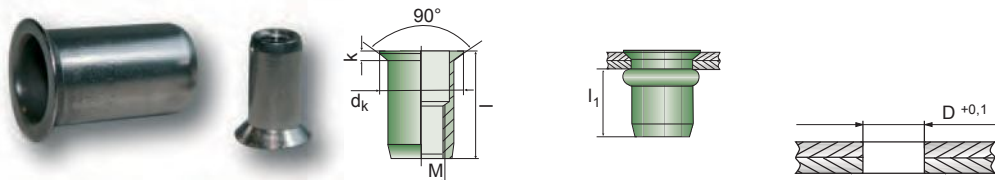
1.4567  $\updownarrow$  25000 N

<b>M10</b>	1,0 – 3,5	13,0	17,0	19,0	1,5	14,0	10.848.100.350	250
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1.4567  $\updownarrow$  38000 N



## Stainless Steel Countersunk Head Round Shank - open- ESM



M		D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M4</b>	1,5 - 4,0	6,0	8,3	12,0	1,5	8,0	10.859.040.400	500

1.4567 4 Nm 7000 N

<b>M5</b>	1,5 - 4,5	7,0	9,3	13,5	1,5	8,5	10.859.050.450	500
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1.4567 6 Nm 11000 N

M		D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M6</b>	1,5 - 4,5	9,0	11,3	16,0	1,5	10,0	10.859.060.450	500

1.4567 11 Nm 18000 N

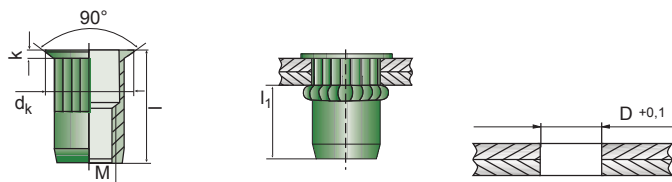
<b>M8</b>	1,5 - 4,5	11,0	13,3	18,0	1,5	11,5	10.859.080.450	500
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1.4567 24 Nm 27000 N

<b>M10</b>	1,5 - 4,0	13,0	15,7	22,0	1,6	14,5	10.859.100.400	250
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1.4567 50 Nm 40000 N

## Stainless Steel Countersunk Head Round Shank - open- *knurled* ESM-R



M		D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M4</b>	1,5 - 4,0	6,0	8,3	12,0	1,0	8,0	10.865.040.400	500

1.4567 6500 N

<b>M5</b>	1,5 - 4,5	7,0	9,3	13,5	1,0	8,5	10.865.050.450	500
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1.4567 10000 N

M		D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M6</b>	1,5 - 4,5	9,0	11,3	16,0	1,0	10,0	10.865.060.450	500
	4,5 - 6,5		12,0	19,0	1,5		10.865.060.650	

1.4567 17000 N

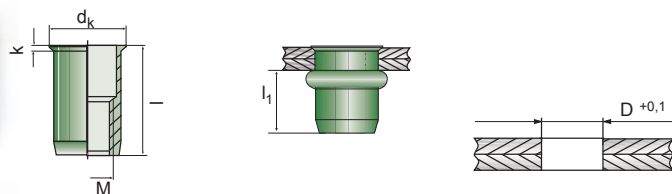
<b>M8</b>	1,5 - 4,5	11,0	13,3	18,0	1,5	12,0	10.865.080.450	500
	3,5 - 6,5		13,7	21,0			10.865.080.650	

1.4567 25000 N

<b>M10</b>	1,5 - 4,0	13,0	15,7	22,0	1,6	14,5	10.865.100.400	250
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1.4567 38000 N

## Stainless Steel Small Countersunk Head Round Shank - open- ESM-KLSK



M		D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M3</b>	0,5 - 2,0	5,0	6,0	8,5	0,5	7,0	10.802.030.200	500

1.4567 2 Nm 4500 N

<b>M4</b>	0,5 - 2,5	6,0	7,0	10,5	0,5	8,0	10.802.040.250	500
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1.4567 4 Nm 7000 N

M		D	dk	l	k	l <sub>1</sub> max.	No.	
<b>M6</b>	0,5 - 3,0	9,0	10,0	14,5	0,5	10,0	10.802.060.300	500

1.4567 11 Nm 18000 N

<b>M8</b>	0,5 - 3,0	11,0	12,0	16,5	0,5	11,5	10.802.080.300	500
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1.4567 24 Nm 27000 N

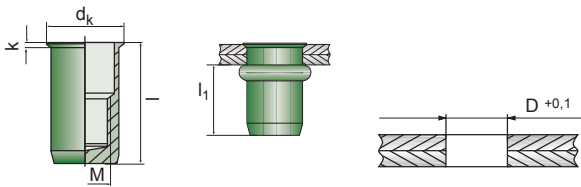
<b>M5</b>	0,5 - 3,0	7,0	8,0	12,0	0,5	8,5	10.802.050.300	500
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1.4567 6 Nm 11000 N

<b>M10</b>	1,5 - 3,5	13,0	14,0	19,5	0,7	14,0	10.802.100.350	250
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1.4567 50 Nm 40000 N





## Stainless Steel Small Countersunk Head Round Shank -closed- ESM-KLSK-G



M	$\frac{D}{d_k}$	D	$d_k$	l	k	$l_1$ max.	No.	
<b>M4</b>	0,5 – 2,5	6,0	7,0	16,0	0,5	13,0	10.840.040.250	500

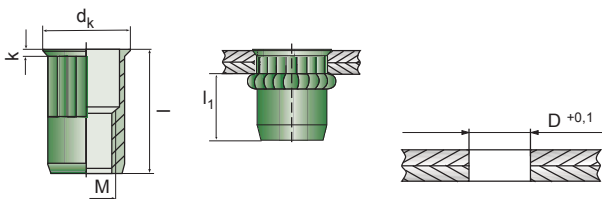
1.4567  $\curvearrowright$  4 Nm  $\updownarrow$  7000 N

<b>M5</b>	0,5 – 3,0	7,0	8,0	18,0	0,5	14,5	10.840.050.300	500
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1.4567  $\curvearrowright$  6 Nm  $\updownarrow$  11000 N

<b>M6</b>	0,5 – 3,0	9,0	10,0	20,0	0,5	16,0	10.840.060.300	500
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1.4567  $\curvearrowright$  11 Nm  $\updownarrow$  18000 N



## Stainless Steel Small Countersunk Head Round Shank -open- ESM-KLSK-R



M	$\frac{D}{d_k}$	D	$d_k$	l	k	$l_1$ max.	No.	
<b>M3</b>	0,5 – 2,0	5,0	6,0	9,5	0,4	7,0	10.849.030.200	500

1.4567  $\updownarrow$  4000 N

<b>M4</b>	0,5 – 2,5	6,0	7,0	10,5	0,4	8,0	10.849.040.250	500
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1.4567  $\updownarrow$  6500 N

<b>M5</b>	0,5 – 3,0	7,0	8,0	12,0	0,5	8,5	10.849.050.300	500
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1.4567  $\updownarrow$  10000 N

M	$\frac{D}{d_k}$	D	$d_k$	l	k	$l_1$ max.	No.	
<b>M6</b>	0,5 – 3,0	9,0	10,0	14,5	0,5	10,0	10.849.060.300	500
	3,5 – 6,0			17,5			10.849.060.600	

1.4567  $\updownarrow$  17000 N

<b>M8</b>	0,5 – 3,0	11,0	12,0	16,5	0,5	11,5	10.849.080.300	500
	3,0 – 6,0			18,5			10.849.080.600	

1.4567  $\updownarrow$  25000 N

<b>M10</b>	1,0 – 3,5	13,0	14,0	19,5	0,7	14,0	10.849.100.350	250
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1.4567  $\updownarrow$  38000 N

<b>M12</b>	1,0 – 4,0	16,0	17,2	24,0	0,7	16,0	10.849.120.400	250
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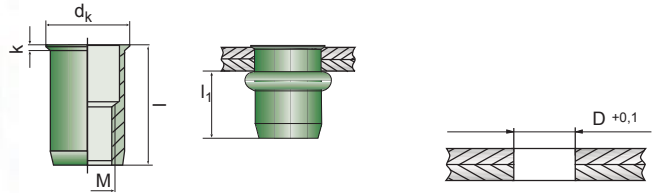
1.4567  $\updownarrow$  50000 N

- ! Blind rivet nuts in quality A4 available on request.
- ! Further dimensions with larger grip ranges available from stock. Please ask for details.





## Stainless Steel Small Countersunk Head Round Shank -open- UNIVERSAL



M		D	dk	I	k	l <sub>1</sub> max.	No.	
<b>M4</b>	0,5 – 3,0	7,0	8,0	10,5	0,4	8,0	10.873.400.000	500

1.4567 ↻ 3 Nm ↓ 7000 N

M		D	dk	I	k	l <sub>1</sub> max.	No.	
<b>M6</b>	0,5 – 3,0	8,0	9,0	13,0	0,4	10,0	10.873.600.000	500

1.4567 ↻ 10 Nm ↓ 18000 N

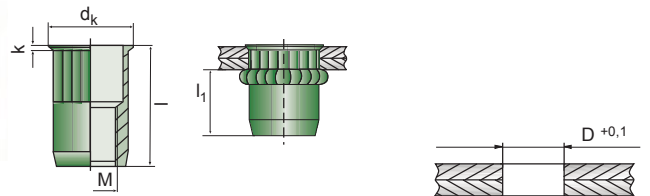
<b>M5</b>	0,5 – 2,5	7,0	8,0	11,5	0,4	8,5	10.873.500.000	500
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1.4567 ↻ 5 Nm ↓ 11000 N

<b>M8</b>	0,5 – 3,0	10,0	11,0	15,5	0,4	11,5	10.873.800.000	500
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1.4567 ↻ 20 Nm ↓ 27000 N

## Stainless Steel Small Countersunk Head Round Shank -open- *knurled* UNIVERSAL-R



M		D	dk	I	k	l <sub>1</sub> max.	No.	
<b>M4</b>	0,5 – 3,0	7,0	8,0	10,5	0,4	8,0	10.891.400.000	500

1.4567 ↓ 6800 N

M		D	dk	I	k	l <sub>1</sub> max.	No.	
<b>M8</b>	0,5 – 3,0	10,0	11,0	15,5	0,4	11,5	10.891.800.000	500

1.4567 ↓ 25000 N

<b>M5</b>	0,5 – 2,5	7,0	8,0	11,5	0,4	8,5	10.891.500.000	500
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1.4567 ↓ 10000 N

<b>M10</b>	0,5 – 3,0	12,0	13,0	16,5	0,5	14,0	10.891.100.000	250
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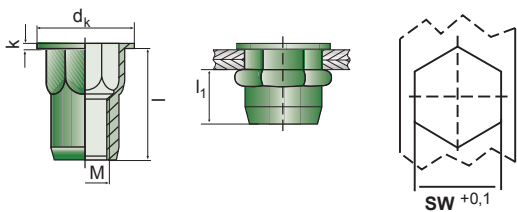
1.4567 ↓ 37000 N

<b>M6</b>	0,5 – 3,0	8,0	9,0	13,0	0,4	10,0	10.891.600.000	500
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1.4567 ↓ 14000 N

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





## Stainless Steel Flat Head Partial Hexagonal Shank -open- HEXATOP-E-FK

HEXATOP®  
HEXAFORM®

M	$\frac{I_1}{\uparrow \downarrow}$	SW	$d_k$	I	k	$I_1$ max.	No.	
<b>M4</b>	0,5 – 2,5	6,0	9,0	11,0	1,0	8,5	10.877.040.250	500

1.4567  $\curvearrowright$  5 Nm  $\updownarrow$  6500 N

<b>M5</b>	0,5 – 3,0	7,0	10,0	12,0	1,0	9,0	10.877.050.300	500
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1.4567  $\curvearrowright$  7 Nm  $\updownarrow$  10000 N

<b>M6</b>	0,5 – 3,0	9,0	12,0	14,0	1,5	10,0	10.877.060.300	500
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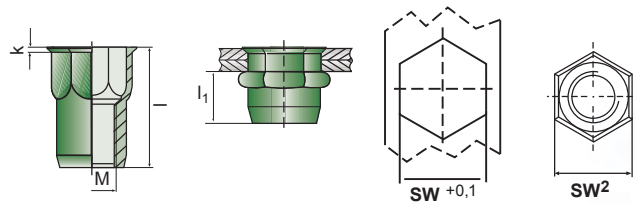
1.4567  $\curvearrowright$  13 Nm  $\updownarrow$  17000 N

M	$\frac{I_1}{\uparrow \downarrow}$	SW	$d_k$	I	k	$I_1$ max.	No.	
<b>M8</b>	0,5 – 3,0	11,0	14,5	16,0	1,5	11,5	10.877.080.300	250

1.4567  $\curvearrowright$  25 Nm  $\updownarrow$  27000 N

<b>M10</b>	1,0 – 3,5	13,0	16,5	19,0	2,0	14,0	10.877.100.350	200
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1.4567  $\curvearrowright$  55 Nm  $\updownarrow$  40000 N



## Stainless Steel Small Countersunk Head Partial Hexagonal Shank -open- HEXATOP-E-KLSK

M	$\frac{I_1}{\uparrow \downarrow}$	SW	SW <sup>2</sup>	I	k	$I_1$ max.	Nr.	
<b>M4</b>	0,4 – 2,5	6,0	6,8	11,0	0,5	8,5	10.879.040.250	500

1.4567  $\curvearrowright$  5 Nm  $\updownarrow$  6500 N

<b>M5</b>	0,5 – 3,0	7,0	8,0	12,5	0,5	9,0	10.879.050.300	500
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1.4567  $\curvearrowright$  7 Nm  $\updownarrow$  10000 N

<b>M6</b>	0,5 – 3,0	9,0	10,0	14,0	0,5	10,0	10.879.060.300	500
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1.4567  $\curvearrowright$  13 Nm  $\updownarrow$  17000 N

M	$\frac{I_1}{\uparrow \downarrow}$	SW	SW <sup>2</sup>	I	k	$I_1$ max.	Nr.	
<b>M8</b>	0,5 – 3,0	11,0	12,0	16,0	0,5	11,5	10.879.080.300	250
	2,5 – 5,0			18,4		12,5		

1.4567  $\curvearrowright$  25 Nm  $\updownarrow$  27000 N

<b>M10</b>	1,0 – 3,5	13,0	14,4	19,0	0,7	14,0	10.879.100.350	200
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1.4567  $\curvearrowright$  55 Nm  $\updownarrow$  40000 N



## Stainless Steel Small Countersunk Head Hexagonal Shank -closed- HEXAFORM-E-KLSK-G

M	$\frac{I_1}{\uparrow \downarrow}$	SW	SW <sup>2</sup>	I	k	$I_1$ max.	No.	
<b>M5</b>	0,5 – 2,5	7,0	7,8	18,0	0,6	12,5	10.805.050.250	500

1.4567  $\curvearrowright$  7 Nm  $\updownarrow$  10000 N

<b>M6</b>	0,5 – 3,0	9,0	9,8	21,5	0,7	16,0	10.805.060.300	500
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1.4567  $\curvearrowright$  13 Nm  $\updownarrow$  17000 N

M	$\frac{I_1}{\uparrow \downarrow}$	SW	SW <sup>2</sup>	I	k	$I_1$ max.	No.	
<b>M8</b>	0,5 – 3,5	11,0	11,8	24,5	0,7	17,5	10.805.080.300	250

1.4567  $\curvearrowright$  25 Nm  $\updownarrow$  27000 N

# Nylon Blind Nut

**N**YLON blind nuts are especially suitable for connecting **thin-walled components**. There are no special tools necessary. The connection can be released and the nut be used again.

Further properties:

- corrosion-resistant
- good mechanic characteristics
- multifunctional capabilities (in metal, plastic etc.)
- good chemical resistance
- good thermal insulation
- straight seat by high pressing forces



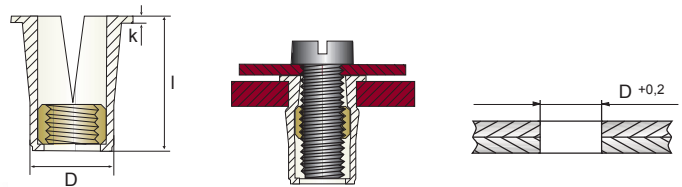
Nylon Blind Nut



2<sup>5</sup>

## NYLON Blind Nut

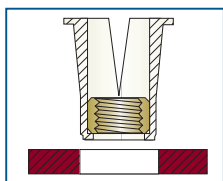
### NYLON with thread insert made of brass



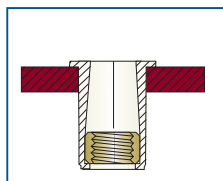
M		D	I	k	No.	
<b>M3</b>	1,3 – 2,0	8,0	9,6	0,75	10.890.030.000	500
<b>M4</b>	2,1 – 2,4	10,2	12,7	0,75	10.890.040.000	500

M		D	I	k	No.	
<b>M5</b>	2,1 – 2,4	10,2	12,7	0,75	10.890.050.000	500
<b>M6</b>	2,5 – 3,2	12,5	15,9	0,75	10.890.060.000	500
<b>M8</b>	3,3 – 4,0	14,0	19,0	0,75	10.890.080.000	500

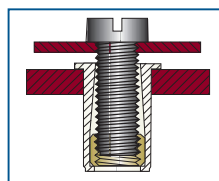
### Mode of operation



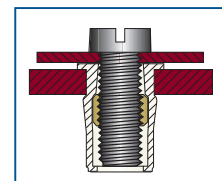
Drill a hole ...



... insert the nut ...

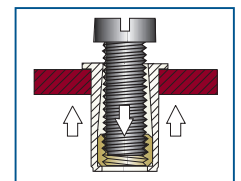


... fix the nut in position by applying pressure to the head of the blind nut with the assistance of the component (in order to prevent the nylon part from turning through) ...



... and tighten the screw.

**Disassembly:**  
You can remove the component at all times by simply removing the screw.



If you want to remove the blind nut again, turn in an appropriate screw into the threaded brass sleeve and thereby push the brass insert through to the end of the shank.



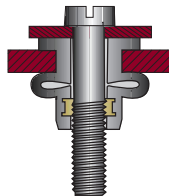
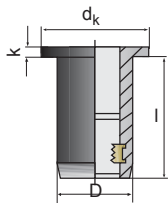
The flexible NEOPREN blind nuts offer a lot of advantages for different kinds of applications.

- no special tool necessary
- vibration-isolating
- suitable for connections between different kinds of materials
- good machining in irregular bore holes
- non-conductive
- corrosion- and ozone resistant
- detachable
- noise repressing

These fasteners are used for example in automotive, furniture or electronic industries in large quantities.

## Neopren Blind Nut

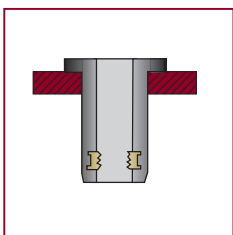
2 4



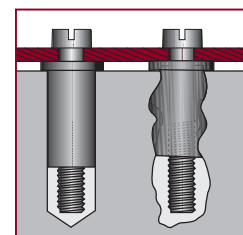
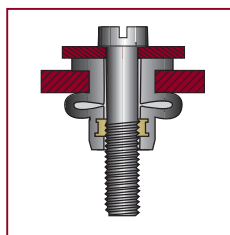
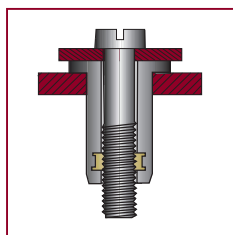
**NEOPREN**  
with thread insert  
made of brass

M		D	dk	l	k		Shore A	Nr.	
<b>M3</b>	0,4 – 4,0	7,9	11,0	12,6	1,2	0,25 - 0,5	60	10.890.030.400	500
<b>M4</b>	0,4 – 4,0	7,9	11,0	12,6	1,2	0,25 - 0,5	70	10.890.040.400	500
<b>M5</b>	0,4 – 4,9	9,6	12,7	14,1	0,9	0,35 - 0,5	70	10.890.050.500	500
	4,0 – 11,6		14,0	21,5		0,3 - 0,9		10.890.050.116	
	7,9 – 16,0		14,0	26,5	1,3	0,3 - 0,7		10.890.050.160	
	20,5 – 30,0		14,0	39,0		0,6 - 1,0		10.890.050.300	
<b>M6</b>	0,4 – 2,8	12,7	16,0	16,0	1,3	0,6 - 1,0	60	10.890.060.300	500
	0,8 – 4,7		19,0	21,1	4,75	0,8 - 1,0	70	10.890.060.500	
	6,4 – 11,5		16,3	26,7	2,0	0,8 - 1,0	10.890.060.115		
<b>M8</b>	0,4 – 4,0	15,9	22,1	18,3	3,2	1,0 - 1,5	60	10.890.080.400	250
	3,9 – 9,5		22,1	27,9	5,7	1,0 - 1,6		10.890.080.950	100

## Capabilities

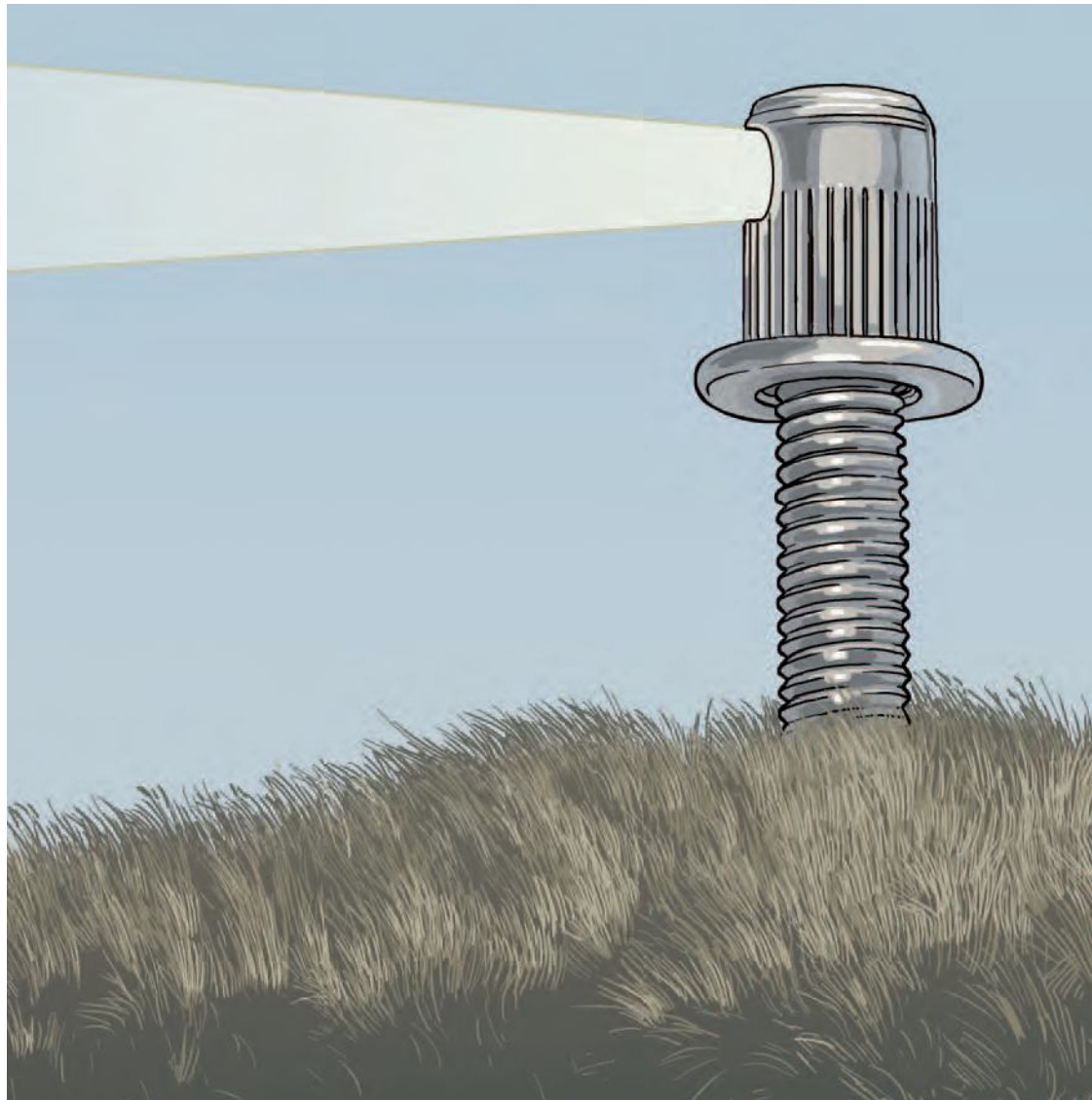


Low-vibration and detachable connections.



Assembly in irregular blind holes.





The Honsel-Group is one of the **leading developers** of RIFBOLT® blind rivet bolts.

The high strength and laser welded versions is only one example of innovative engineering.

RIFBOLT® blind rivet bolts consist of a sleeve and a screw. The two components are joined together by welding.

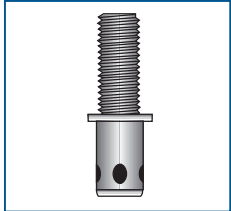
RIFBOLT® blind rivet bolts offer the multiple use of installing a thread into a components for fixing additional parts on it and furthermore joining different components together.

# Blind Rivet Bolt

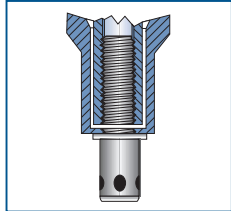
**I** Blind rivet threaded bolts principally work in the same way as blind rivet nuts. It is only necessary to replace the threaded mandrels of the setting device with threaded sleeves (interior threads).

The setting device height should be set for this purpose such that the closing bead forms at the welding points. A greater height can lead to breakage of the weld points and thus to failure of the **RIFBOLT®**.

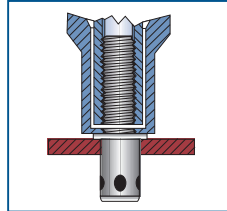
## SETTING PROCESS



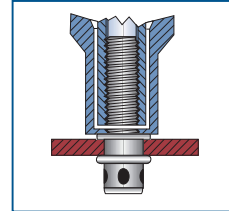
1. RIFBOLT®-  
Blind rivet bolt



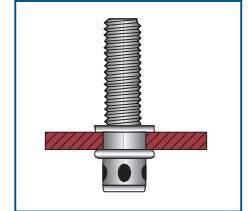
2. Screwing into the  
device nosepiece



3. Insertion into the  
take-up hole of the  
workpiece



4. Riveting by tightening



5. Lowering the blind  
rivet bolt - installed  
RIFBOLT®

## Special Blind Rivet Bolts

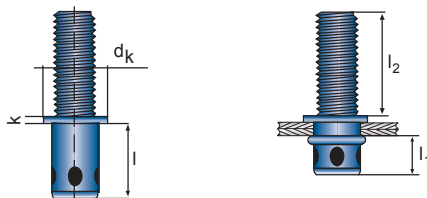
Parameter as the length of the screw or the design and size of the head or the shank can be adapted individually according to minimum quantities.







## Steel Flat Head Round Shank



M	$\frac{\downarrow}{\uparrow}$	D	dk	l	k	l <sub>1</sub> max.	l <sub>2</sub>	No.	
<b>M4</b>	0,3 – 2,0	5,5	8,0	8,5	0,5	5,0	10,0	10.880.042.010	500
							15,0	10.880.042.015	
	2,0 – 3,0			10,0			10.880.043.010		
				15,0			10.880.043.015		

⌚ 4 Nm      ⇄ 7000 N      ↓ 5000 N

M	$\frac{\downarrow}{\uparrow}$	D	dk	l	k	l <sub>1</sub> max.	l <sub>2</sub>	No.	
<b>M5</b>	0,5 – 2,0	6,6	9,0	9,4	0,8	6,0	10,0	10.880.052.010	500
							15,0	10.880.052.015	
	2,0 – 3,5			10,9			10.880.053.510		
				15,0			10.880.053.515		

⌚ 6 Nm      ⇄ 9500 N      ↓ 8000 N

l<sub>2</sub> = length of the screw before setting

M	$\frac{\downarrow}{\uparrow}$	D	dk	l	k	l <sub>1</sub> max.	l <sub>2</sub>	No.	
<b>M6</b>	0,5 – 2,5	7,8	10,0	10,9	1,0	7,0	10,0	10.880.062.510	500
							15,0	10.880.062.515	
	2,5 – 4,0			10,0			10.880.064.010		
				15,0			10.880.064.015		

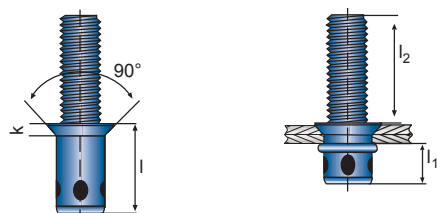
⌚ 11 Nm      ⇄ 12000 N      ↓ 9500 N

M	$\frac{\downarrow}{\uparrow}$	D	dk	l	k	l <sub>1</sub> max.	l <sub>2</sub>	No.	
<b>M8</b>	1,0 – 3,0	9,9	12,0	14,0	1,5	9,0	15,0	10.880.083.015	250
							20,0	10.880.083.020	
	3,0 – 5,0			15,0			10.880.085.015		
				20,0			10.880.085.020		

⌚ 24 Nm      ⇄ 23500 N      ↓ 12000 N

Property class of the screw: 8.8

## Steel Countersunk Head Round Shank



M	$\frac{\downarrow}{\uparrow}$	D	l	k	l <sub>1</sub> max.	l <sub>2</sub>	No.	
<b>M4</b>	1,5 – 2,4	5,5	9,0	1,1	5,0	10,0	10.881.042.610	500
						15,0	10.881.042.615	

⌚ 4 Nm      ⇄ 7000 N      ↓ 5000 N

M	$\frac{\downarrow}{\uparrow}$	D	l	k	l <sub>1</sub> max.	l <sub>2</sub>	No.	
<b>M5</b>	1,5 – 2,9	6,6	10,5	1,1	6,0	10,0	10.881.053.110	500
						15,0	10.881.053.115	

⌚ 6 Nm      ⇄ 9500 N      ↓ 8000 N

l<sub>2</sub> = length of the screw before setting

M	$\frac{\downarrow}{\uparrow}$	D	l	k	l <sub>1</sub> max.	l <sub>2</sub>	No.	
<b>M6</b>	1,5 – 3,4	7,8	12,0	1,1	7,0	10,0	10.881.063.610	500
						15,0	10.881.063.615	

⌚ 11 Nm      ⇄ 12000 N      ↓ 9500 N

M	$\frac{\downarrow}{\uparrow}$	D	l	k	l <sub>1</sub> max.	l <sub>2</sub>	No.	
<b>M8</b>	1,5 – 3,9	9,9	15,0	1,2	9,0	15,0	10.881.084.115	250
						20,0	10.881.084.120	200

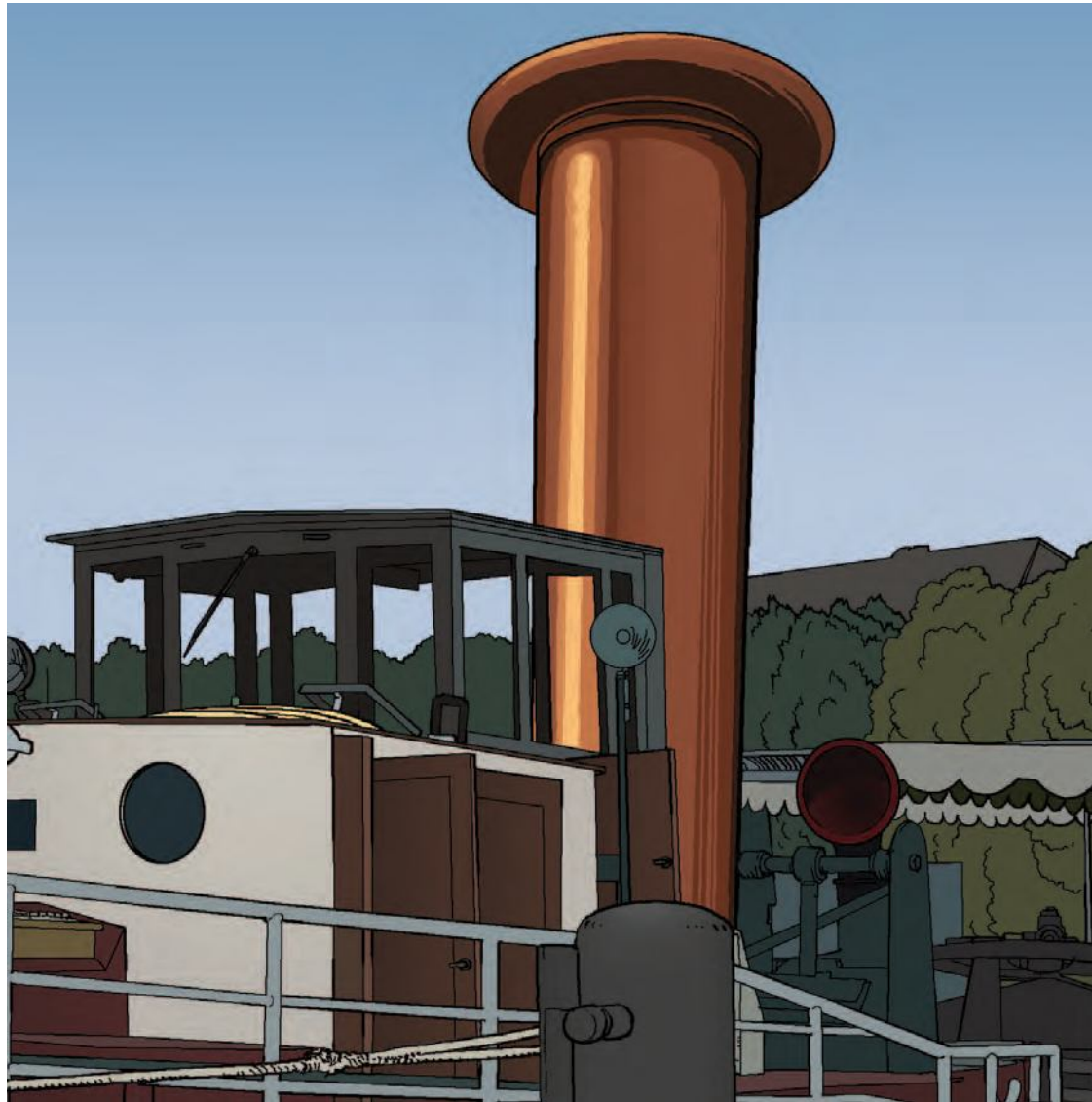
⌚ 24 Nm      ⇄ 23500 N      ↓ 12000 N

Property class of the screw: 8.8

! Additional versions on request.







"Industrial rivets according to DIN" are the classical **one-piece type** of rivets that are **handled both-sided** of the component.

The connection is realised by forming the shank with axial pressure on its end.

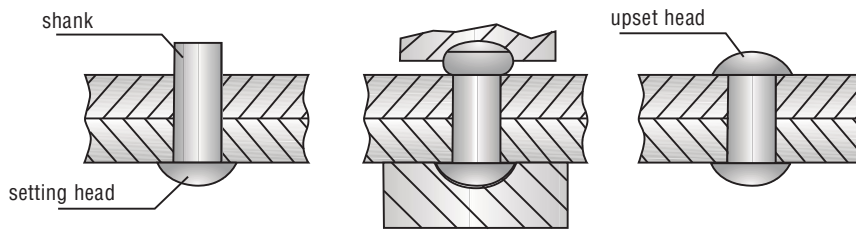
The manufacture of all types mentioned on **▶ page 93** is possible from aluminium, steel, copper, brass and stainless steel in general.

VVG carries a comprehensive stock range – **even for smaller requirements**.

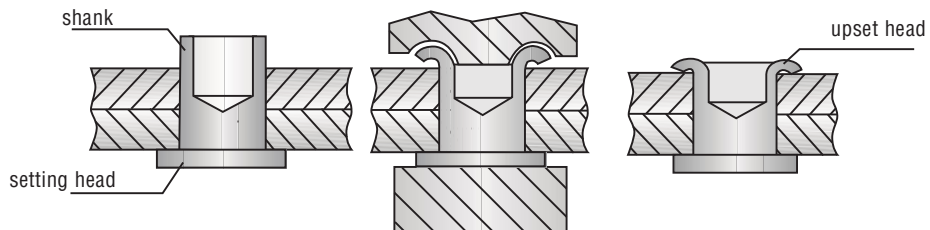
Please ask for current availabilities or possibilities of individual fabrications.

There are three different basic types:

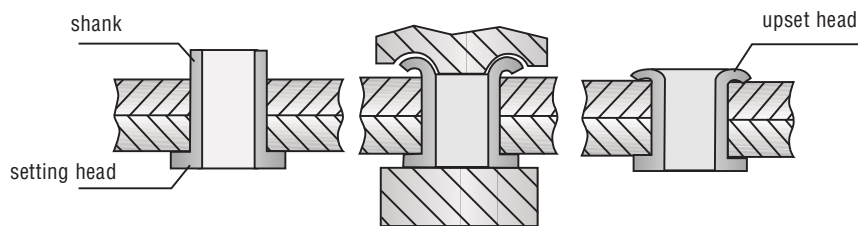
### SOLID RIVETS - with solid shank



### SEMI-TUBULAR RIVETS - shank with partial bore hole



### TUBULAR RIVETS - shank with persistent bore hole




► Rivetting dies for manual handling on [page 124](#).


! Please ask for further possibilities of processing methods.



## FROM STOCK



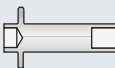

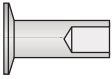

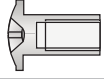
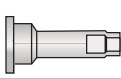
Solid Rivets	Semi-Tubular Rivets	Tubular Rivets
DIN 660 Round head rivet Aluminium and steel	DIN 7338 B Steel and copper	DIN 7338 C 1 Steel and copper
DIN 661 Countersunk rivet Aluminium and steel	 Available from stock / within short time	

## ON REQUEST

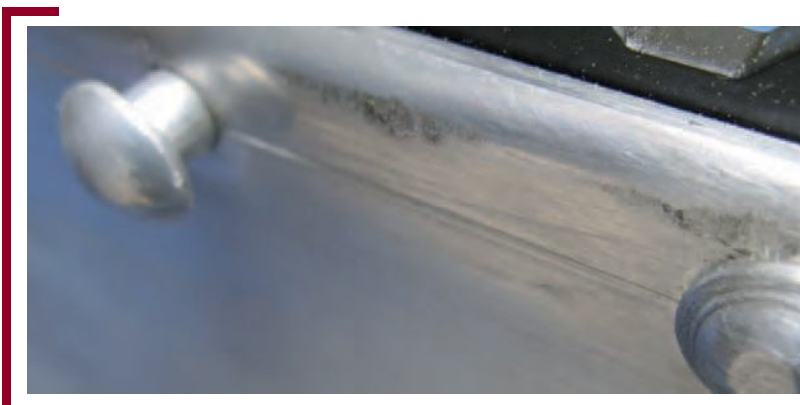
Solid Rivets	Semi-Tubular Rivets	Tubular Rivets
DIN 662 Raised head rivet	DIN 6791	DIN 7340 A
DIN 7338 A Cylinder head rivet	DIN 6792	DIN 7340 B
DIN 674 Truss head rivet	 On request with minimum quantity.	
DIN 675 Belrivet		

 <b>Producible sizes</b>	Shank- $\varnothing$ 1 - 12 mm	Shank- $\varnothing$ 2 - 10 mm	<b>DIN 7338 C 1</b>	Shank- $\varnothing$ 3 - 10 mm	<b>DIN 7340</b>	Shank- $\varnothing$ 0,8 - 20 mm
	Max. length of shank 100 mm	Max. length of shank 60 mm	Max. length of shank 250 mm	Max. length of shank 400 mm		

## SPECIAL PARTS

Flat countersunk rivet MAN-type	Covering rivet				
Flat countersunk rivet US-type	Tubular rivet DB-type				

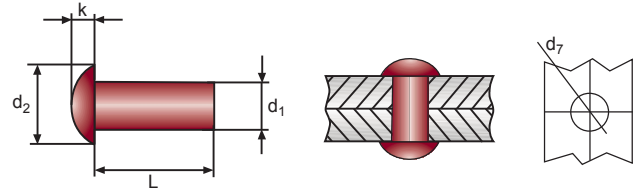
► Information about grip ranges and excess lengths of the shank on [page 98](#).



**4****1**

# Industrial Rivet DIN 660

## Aluminium Solid Rivet Round Head



d <sub>1</sub>	L	d <sub>7</sub>	d <sub>2</sub>	k	No.	
<b>3,0</b>	5,0	3,1 + 0,12	5,2	1,8	10.003.030.050	2000
	6,0				10.003.030.060	2000
	8,0				10.003.030.080	2000
	10,0				10.003.030.100	2000
	12,0				10.003.030.120	1000
	16,0				10.003.030.160	1000
	20,0				10.003.030.200	1000
	25,0				10.003.030.250	1000

d <sub>1</sub>	L	d <sub>7</sub>	d <sub>2</sub>	k	No.	
<b>5,0</b>	6,0	5,2 + 0,12	8,8	3,0	10.003.050.060	1000
	8,0				10.003.050.080	1000
	10,0				10.003.050.100	1000
	12,0				10.003.050.120	1000
	16,0				10.003.050.160	1000
	20,0				10.003.050.200	1000
	25,0				10.003.050.250	500

d <sub>1</sub>	L	d <sub>7</sub>	d <sub>2</sub>	k	No.	
<b>4,0</b>	6,0	4,2 + 0,12	7,0	2,4	10.003.040.060	1000
	8,0				10.003.040.080	1000
	10,0				10.003.040.100	1000
	12,0				10.003.040.120	1000
	16,0				10.003.040.160	1000
	18,0				10.003.040.180	1000
	20,0				10.003.040.200	1000
	22,0				10.003.040.220	1000
	25,0				10.003.040.250	1000
	30,0				10.003.040.300	1000

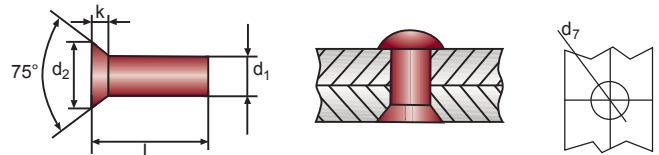
d <sub>1</sub>	L	d <sub>7</sub>	d <sub>2</sub>	k	No.	
<b>6,0</b>	8,0	6,3 + 0,15	10,5	3,6	10.003.060.080	1000
	10,0				10.003.060.100	1000
	12,0				10.003.060.120	500
	16,0				10.003.060.160	500
	20,0				10.003.060.200	500
	25,0				10.003.060.250	500
	30,0				10.003.060.300	250

8 mm on request

**4****1**

# Industrial Rivet DIN 661

## Aluminium Solid Rivet Countersunk Head



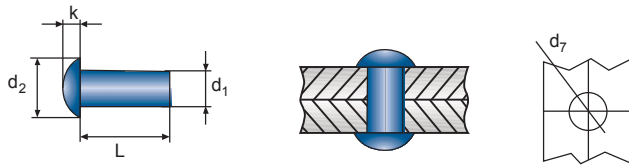
d <sub>1</sub>	L	d <sub>7</sub>	d <sub>2</sub>	k	No.	
<b>3,0</b>	5,0	3,1 + 0,12	5,2	1,4	10.023.030.050	2000
	6,0				10.023.030.060	2000
	8,0				10.023.030.080	2000
	10,0				10.023.030.100	2000
	12,0				10.023.030.120	1000
	16,0				10.023.030.160	1000
	20,0				10.023.030.200	1000
	25,0				10.023.030.250	1000

d <sub>1</sub>	L	d <sub>7</sub>	d <sub>2</sub>	k	No.	
<b>5,0</b>	8,0	5,2 + 0,12	8,8	2,5	10.023.050.080	1000
	10,0				10.023.050.100	1000
	12,0				10.023.050.120	1000
	16,0				10.023.050.160	1000
	20,0				10.023.050.200	1000
	25,0				10.023.050.250	500

d <sub>1</sub>	L	d <sub>7</sub>	d <sub>2</sub>	k	No.	
<b>4,0</b>	6,0	4,2 + 0,12	7,0	2,0	10.023.040.060	1000
	8,0				10.023.040.080	1000
	10,0				10.023.040.100	1000
	12,0				10.023.040.120	1000
	16,0				10.023.040.160	1000
	20,0				10.023.040.200	1000

d <sub>1</sub>	L	d <sub>7</sub>	d <sub>2</sub>	k	No.	
<b>6,0</b>	10,0	6,3 + 0,15	10,5	3,0	10.023.060.100	1000
	12,0				10.023.060.120	500
	16,0				10.023.060.160	500
	20,0				10.023.060.200	500
	25,0				10.023.060.250	500

8 mm on request



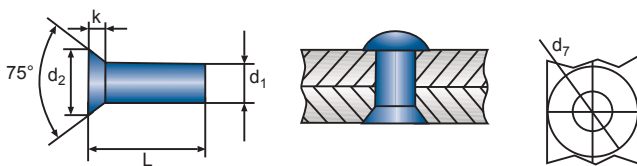
## Steel Solid Rivet Round Head

d <sub>1</sub>	L	d <sub>7</sub>	d <sub>2</sub>	k	No.	
<b>3,0</b>	5,0	3,1 +0,12	5,2	1,8	10.000.030.050	2000
	6,0				10.000.030.060	2000
	8,0				10.000.030.080	2000
	10,0				10.000.030.100	2000
	12,0				10.000.030.120	1000
	16,0				10.000.030.160	1000
	20,0				10.000.030.200	1000
<b>4,0</b>	6,0	4,2 +0,12	7,0	2,4	10.000.040.060	1000
	8,0				10.000.040.080	1000
	10,0				10.000.040.100	1000
	12,0				10.000.040.120	1000
	16,0				10.000.040.160	1000
	18,0				10.000.040.180	1000
	20,0				10.000.040.200	1000

d <sub>1</sub>	L	d <sub>7</sub>	d <sub>2</sub>	k	No.	
<b>5,0</b>	6,0	5,2 +0,12	8,8	3,0	10.000.050.060	1000
	8,0				10.000.050.080	1000
	10,0				10.000.050.100	1000
	12,0				10.000.050.120	1000
	16,0				10.000.050.160	1000
	20,0				10.000.050.200	1000
	25,0				10.000.050.250	500
<b>6,0</b>	8,0	6,3 +0,15	10,5	3,6	10.000.060.080	1000
	10,0				10.000.060.100	1000
	12,0				10.000.060.120	500
	16,0				10.000.060.160	500
	20,0				10.000.060.200	500
	25,0				10.000.060.250	500
	30,0				10.000.060.300	250

8 mm on request

DIN 660 / 661



## Steel Solid Rivet Countersunk Head

d <sub>1</sub>	L	d <sub>7</sub>	d <sub>2</sub>	k	No.	
<b>3,0</b>	5,0	3,1 +0,12	5,2	1,4	10.020.030.050	2000
	6,0				10.020.030.060	2000
	8,0				10.020.030.080	2000
	10,0				10.020.030.100	2000
	12,0				10.020.030.120	1000
	16,0				10.020.030.160	1000
	20,0				10.020.030.200	1000
<b>4,0</b>	6,0	4,2 +0,12	7,0	2,0	10.020.040.060	1000
	8,0				10.020.040.080	1000
	10,0				10.020.040.100	1000
	12,0				10.020.040.120	1000
	16,0				10.020.040.160	1000
	20,0				10.020.040.200	1000

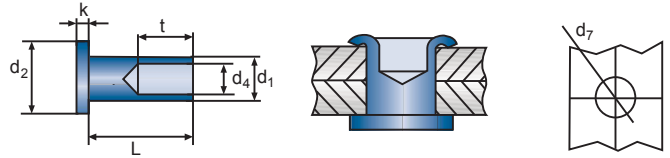
d <sub>1</sub>	L	d <sub>7</sub>	d <sub>2</sub>	k	No.	
<b>5,0</b>	8,0	5,2 +0,12	8,8	2,5	10.020.050.080	1000
	10,0				10.020.050.100	1000
	12,0				10.020.050.120	1000
	16,0				10.020.050.160	1000
	20,0				10.020.050.200	1000
	25,0				10.020.050.250	500
	<b>6,0</b>				10,0	6,3 +0,15
12,0		10.020.060.120	500			
16,0		10.020.060.160	500			
20,0		10.020.060.200	500			
22,0		10.020.060.220	500			
25,0		10.020.060.250	500			
28,0		10.020.060.280	250			

8 mm on request.

**4****2**

# Industrial Rivet DIN 7338 B

## Steel Semi-Tubular Rivet Cylinder Head



d <sub>1</sub>	L	d <sub>7</sub>	d <sub>4</sub>	d <sub>2</sub>	k	t	No.	
<b>4,0</b>	7,0	4,2 +0,12	2,7	7,5	1,0	4,0	10.160.040.070	1000
	8,0					10.160.040.080	1000	
	10,0					10.160.040.100	1000	
	12,0					10.160.040.120	1000	

<b>5,0</b>	10,0	5,2 +0,12	3,5	9,5	1,0	6,0	10.160.050.100	1000
	12,0					10.160.050.120	1000	

d <sub>1</sub>	L	d <sub>7</sub>	d <sub>4</sub>	d <sub>2</sub>	k	t	No.	
<b>6,0</b>	10,0	6,3 +0,15	4,2	11,5	1,2	10,0	10.160.060.100	1000
	12,0						10.160.060.120	1000
	15,0						10.160.060.150	1000
	18,0						10.160.060.180	1000
	20,0						10.160.060.200	1000

<b>8,0</b>	15,0	8,4 +0,15	6,0	15,5	1,2	10,0	10.160.080.150	1000
	18,0						10.160.080.180	1000
	20,0						10.160.080.200	1000
	25,0						10.160.080.250	1000

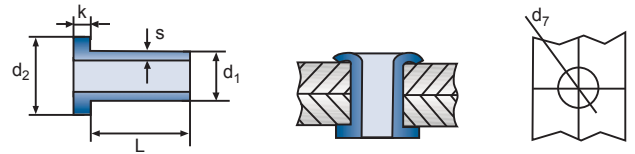
**DIN 7338 B  
DIN 7338 C 1**

Packed in bags of 100 pcs.

**4****2**

# Industrial Rivet 7338 C 1

## Steel Tubular Rivet Cylinder Head



d <sub>1</sub>	L	d <sub>7</sub>	d <sub>2</sub>	s	k	No.	
<b>4,0</b>	6,0	4,2 +0,12	7,5	0,5	1,0	10.180.040.060	1000
	8,0					10.180.040.080	1000
	10,0					10.180.040.100	1000
	12,0					10.180.040.120	1000
	15,0					10.180.040.150	1000
	20,0					10.180.040.200	1000

<b>5,0</b>	8,0	5,2 +0,12	9,5	0,5	1,0	10.180.050.080	1000
	10,0					10.180.050.100	1000
	12,0					10.180.050.120	1000
	15,0					10.180.050.150	1000

d <sub>1</sub>	L	d <sub>7</sub>	d <sub>2</sub>	s	k	No.	
<b>6,0</b>	8,0	6,3 +0,15	11,5	0,75	1,2	10.180.060.080	1000
	10,0					10.180.060.100	1000
	12,0					10.180.060.120	1000
	15,0					10.180.060.150	1000

<b>8,0</b>	12,0	8,4 +0,15	15,5	1,2	1,2	10.180.080.120	1000
	15,0					10.180.080.150	1000
	18,0					10.180.080.180	1000
	20,0					10.180.080.200	1000
	22,0					10.180.080.220	1000
25,0	10.180.080.250	1000					

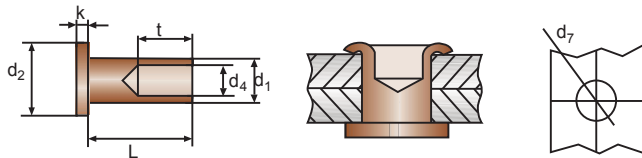
<b>10,0</b>	15,0	10,5 +0,12	18,0	1,2	1,2	10.180.100.150	1000
	18,0					10.180.100.180	1000
	20,0					10.180.100.200	1000

Packed in bags of 100 pcs.





## Industrial Rivet DIN 7338 B

Copper  
Semi-Tubular  
Cylinder Head

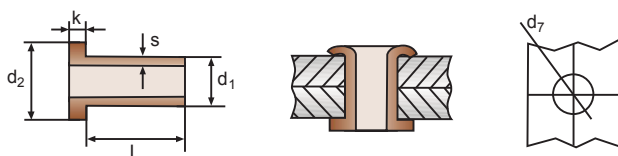
d <sub>1</sub>	L	d <sub>7</sub>	d <sub>4</sub>	d <sub>2</sub>	k	t	No.	
<b>3,0</b>	4,0	3,1 +0,12	1,7	5,5	0,8	4,0	10.161.030.040	1000
	5,0						10.161.030.050	1000
	6,0						10.161.030.060	1000
	8,0						10.161.030.080	1000
	10,0						10.161.030.100	1000
	12,0						10.161.030.120	1000
	18,0						10.161.030.180	1000
<b>4,0</b>	6,0	4,2 +0,12	2,7	7,5	1,0	5,0	10.161.040.060	1000
	8,0						10.161.040.080	1000
	10,0						10.161.040.100	1000
	12,0						10.161.040.120	1000
	15,0						10.161.040.150	1000
<b>5,0</b>	8,0	5,2 +0,12	3,5	9,5	1,0	6,0	10.161.050.080	1000
	10,0						10.161.050.100	1000
	12,0						10.161.050.120	1000
	15,0						10.161.050.150	1000
	20,0						10.161.050.200	1000

d <sub>1</sub>	L	d <sub>7</sub>	d <sub>4</sub>	d <sub>2</sub>	k	t	No.	
<b>6,0</b>	10,0	6,3 +0,15	4,2	11,5	1,2	10,0	10.161.060.100	1000
	12,0						10.161.060.120	1000
	15,0						10.161.060.150	1000
	18,0						10.161.060.180	1000
	20,0						10.161.060.200	1000
	22,0						10.161.060.220	1000
	25,0						10.161.060.250	1000
	30,0						10.161.060.300	1000
<b>8,0</b>	15,0	8,4 +0,15	6,0	15,5	1,2	10,0	10.161.080.150	1000
	18,0						10.161.080.180	1000
	20,0						10.161.080.200	1000
	22,0						10.161.080.220	1000
	25,0						10.161.080.250	1000
<b>10,0</b>	16,0	10,5 +0,15	7,5	18,0	1,2	12,0	10.161.100.160	1000
	18,0						10.161.100.180	1000
	20,0						10.161.100.200	1000

! Packed in bags of 100 pcs.

DIN 7338 B  
DIN 7338 C 1

## Industrial Rivet DIN 7338 C 1

Copper  
Tubular Rivet  
Cylinder Head

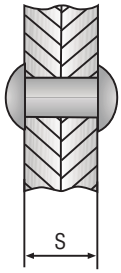
d <sub>1</sub>	L	d <sub>7</sub>	d <sub>2</sub>	s	k	Nr.	
<b>3,0</b>	6,0	3,1 +0,12	5,5	0,5	0,8	10.181.030.060	1000
	8,0					10.181.030.080	1000
	10,0					10.181.030.100	1000
<b>4,0</b>	6,0	4,2 +0,12	7,5	0,5	1,0	10.181.040.060	1000
	8,0					10.181.040.080	1000
	10,0					10.181.040.100	1000
	12,0					10.181.040.120	1000
	15,0					10.181.040.150	1000
<b>5,0</b>	8,0	5,2 +0,12	9,5	0,5	1,0	10.181.050.080	1000
	10,0					10.181.050.100	1000
	12,0					10.181.050.120	1000
	15,0					10.181.050.150	1000

d <sub>1</sub>	L	d <sub>7</sub>	d <sub>2</sub>	s	k	No.	
<b>6,0</b>	15,0	6,3 +0,15	11,5	0,75	1,2	10.181.060.150	1000
	18,0					10.181.060.180	1000
	25,0					10.181.060.250	1000
<b>8,0</b>	12,0	8,4 +0,15	15,5	1,2	1,2	10.181.080.120	1000
	15,0					10.181.080.150	1000
	18,0					10.181.080.180	1000
	20,0					10.181.080.200	1000
	23,0					10.181.080.230	1000
	25,0					10.181.080.250	1000
<b>10,0</b>	18,0	10,5 +0,12	18,0	1,2	1,2	10.181.100.180	1000
	20,0					10.181.100.200	1000

! Packed in bags of 100 pcs.

**DIN 660**

Reference values for grip ranges of solid rivets subject to the diameter of the shaft and type of the upset-head according to DIN 660



Type A  
Round head as upset-head



Type B  
Countersunk head as upset-head

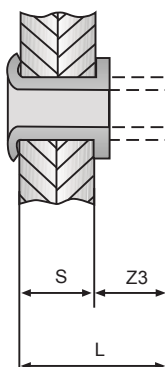
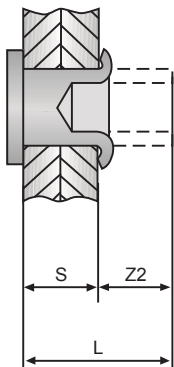


Nominal length (mm)	ø 3 mm		ø 4 mm		ø 5 mm		ø 6 mm		ø 8 mm	
	A	Type B	A	Type B	A	Type B	A	Type B	A	Type B
	max. grip range (mm)		max. grip range (mm)		max. grip range (mm)		max. grip range (mm)		max. grip range (mm)	
5	1,5	3	-	2	-	1,5	-	-	-	-
6	2	4	1	3	-	2,5	-	2	-	-
8	4	5,5	3	5	2	4,5	0,5	4	-	3
10	5,5	7,5	4,5	7	4	6,5	2,5	6	-	5
12	7,5	9	6	9	5,5	8,5	4,5	8	2,5	7
14	9,5	10,5	7,5	10	7	10	6,5	9,5	4	8,5
16	11	12	9	11	9	11,5	8	11	6	10
18	13	14	11	13	11	13	9,5	13	8	12
20	14	16	13	15	12	15	11	15	9,5	14
22	16	18	15	17	14	17	13	17	11	15
25	18	20	17	19	17	19	16	19	14	18
28	21	23	20	22	19	22	18	22	16	21
30	23	25	22	24	21	24	20	23	18	22
32			23	26	23	26	22	25	20	24
35			26	28	25	28	24	28	22	27
38			29	31	28	31	27	30	25	29
40			30	32	30	32	28	32	27	31

Individual tests recommended!

**DIN 7338**

Reference values for the excess length of the shaft for forming the upset-head subject to the diameter and length of the shaft according to DIN 7338



Nominal diameter d1 (mm)	Excess length Z2 (mm)	Excess length Z3 (mm)
<b>3</b>	approx. 2	approx. 2,5
<b>4</b>	approx. 2	approx. 3
<b>5</b>	approx. 2,5	approx. 3,5
<b>6</b>	up to L= 20 mm ca.3 from L= 22 mm ca.3,5	approx. 4
<b>8</b>	up to L= 20 mm ca. 4 from L= 22 mm ca. 4,5	approx. 4,5