Masterfix Standard blind rivets for special applications

In addition to the standard range of blind rivets, Masterfix offers the supply of many other types of blind rivets for specific applications from stock.

Peel rivets for applications in soft materials such as

Wood

Insulation

Plastics

Plasterboard

TRIFORM rivets for applications in soft materials such as

Wood

Insulation

Plastics

Plasterboard

Grooved rivets for applications in materials such as

Wood

Plastics, e.g. flight cases

HAMMERDRIVE for applications in materials such as

Brick and concrete

Roofing

Sealing profiles

Insulation industry

If you are looking for a solution to a specific fastening problem, just contact us. Our Sales department, in cooperation with our Research and Development department, will find a suitable solution for you.
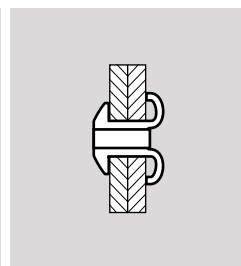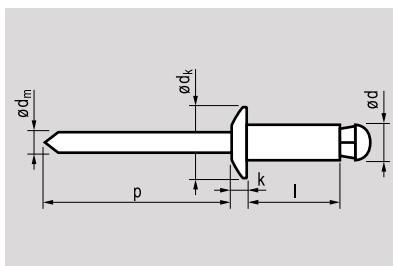
Info

MASTERFIX®

MFX 1301

Aluminium [AlMg3,5]
Polished

Steel
Zinc plated

peel type | dome head

Ø d	l [+0,3/-0,2]	<image>	Item nr.	Ø d$_k$	k	Ø d$_m$	p	<image>	<image>
[mm]	[mm]	[mm]		[mm]	[mm]	[mm]	[mm]	[N]	[N]
3,2	8,0	0,5-1,0	13013208						
[+/-0,15]	10,0	1,0-3,0	3210						
	12,0	3,0-5,0	3212	6,5 [+/-0,2]	1,0 [+/-0,1]	~1,80	≥27	750	820
Ø [3,5 min]	16,0	7,0-9,0	3216						
[3,7 max]	18,0	9,0-11,0	3218						
4,0	10,0	1,5-5,0	13014010						
[+/-0,15]	12,0	4,0-6,5	4012						
	14,0	6,0-9,0	4014	8,0 [+/-0,4]	1,2 [+/-0,2]	~2,10	≥27	1.140	1.280
Ø [4,3 min]	16,0	8,0-11,0	4016						
[4,5 max]	18,0	10,0-13,0	4018						
	20,0	12,0-15,0	4020						
4,8	10,0	1,5-4,0	13014810						
[+/-0,15]	12,0	2,0-6,0	4812						
	14,0	4,0-8,0	4814						
Ø [5,2 min]	16,0	6,0-10,0	4816						
[5,3 max]	18,0	8,0-12,0	4818						
	20,0	10,0-14,0	4820	9,0 [+/-0,4]	1,4 [+/-0,2]	~2,70	≥27	2.450	2.100
	22,0	12,0-16,0	4822						
	25,0	16,0-19,0	4825						
	30,0	19,0-24,0	4830						
	35,0	24,0-29,0	4835						
	40,0	29,0-34,0	4840						

MFX 1361

Aluminium [AlMg2,5]
Polished

Aluminium [AlMg5]
Polished

TRIFORM I dome head

Ø d	l [+1/-0,2]	▨	Item nr.	Ø d_k	k	Ø d_m	p	⊟	⊞
[mm]	[mm]	[mm]		[mm]	[mm]	[mm]	[mm]	[N]	[N]
4,0 [+/-0,1] Ø 4,2 [4,4 max]	13,6 18,8	1,0-3,0 1,0-7,0	**13614013** **4018**	8,0 [+/-0,29]	≤1,4	~2,30	≥27	800	600
4,8 [+/-0,1] Ø 5,0 [5,2 max]	15,3 20,5 24,5	1,0-4,0 1,0-9,0 4,0-12,0	**13614815** **4820** **4824**	9,6 [+/-0,29]	≤1,6	~2,90	≥27	1.100	800

MasterFix®

MFX 1601

Aluminium [AlMg3,5]
Polished

Steel
Zinc plated

grooved type l dome head

Ø d [mm]	l [+1/-0,2] [mm]	[mm]	Item nr.	Ø d$_k$ [mm]	k [mm]	Ø d$_m$ [mm]	p [mm]	[N]	[N]
3,2 [+0,35/-0] Ø 3,4	10,0	Max. 6,0	**16013210**	6,0 [+/-0,24]	≤1,4	~1,80	≥27	930	525
	14,0	Max.10,0	**3214**						
4,0 [+0,35/-0] Ø 4,3	8,0	Max. 4,0	**16014008**	8,0 [+/-0,29]	≤1,7	~2,20	≥27	1.410	885
	10,0	Max. 6,0	**4010**						
	12,0	Max. 8,0	**4012**						
	16,0	Max.12,0	**4016**						
4,8 [+0,35/-0] Ø 5,1	8,0	Max. 4,0	**16014808**	9,5 [+/-0,29]	≤2,0	~2,65	≥27	1.575	1.185
	10,0	Max. 6,0	**4810**						
	11,0	Max. 7,0	**4811**						
	12,0	Max. 8,0	**4812**						
	14,0	Max.10,0	**4814**						
	16,0	Max.12,0	**4816**						
	18,0	Max.14,0	**4818**						
	20,0	Max.16,0	**4820**						
	25,0	Max. 21,0	**4825**						
	30,0	Max. 26,0	**4830**						

MFX 1803

Aluminium [AlMg5]
Polished

Stainless steel [A2]
Polished

*

Blind hole**
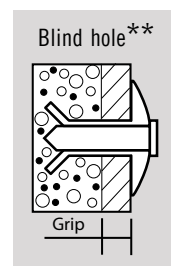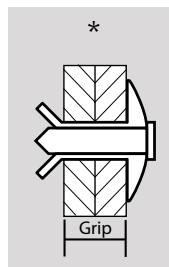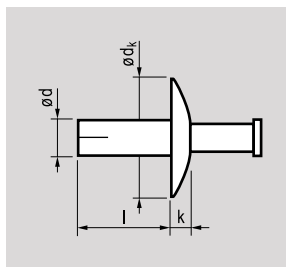
HAMMERDRIVE | extra large head

Ø d [mm]	l [+1/-0,2] [mm]	Item nr.	* (e.g. steel) mm	Blind hole** (e.g. concrete) mm	Ø d$_k$ [mm]	k [mm]	[N]	[N]
4,8 [+0,08/-0,15] Ø 4,9	16	**18034816**	11,5-13,0	11,0	14,5 [+/-0,5]	2,2 max.	2.600 * 2.200**	4.500
	20	**4820**	15,5-17,0	15,0				
	25	**4825**	20,5-22,0	20,0				
	30	**4830**	25,5-27,0	25,0				
	35	**4835**	30,5-32,0	30,0				
	40	**4840**	35,5-37,0	35,0				
	45	**4845**	40,5-42,0	40,0				
	50	**4850**	45,5-47,0	45,0				

Min. depth for drilling: l + 6,0 mm

Technical info

Blind rivet breaking point

The rivet is made of two parts namely, the body and the mandrel. The body is deformed when the rivet is set and it is this part which clamps the materials together. The function of the mandrel is to deform the body of the rivet. The mandrel is therefore always stronger than the body. The mandrel breaks off at its specific breaking point. The breaking point ensures that the mandrel breaks off at the right moment so that the body is correctly deformed. The breaking load can be adjusted so that the mandrel breaks at a sooner or a later point of time.
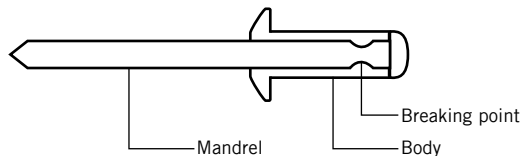

Tensile and shear strength

The tensile strength is the maximum force the rivet, rivet nut or rivet bolt can bear lengthways (see arrows) before it gives out. The tensile strength is obtained through tests and is always the smallest average value. The shear strength is the maximum force the rivet, rivet nut or rivet bolt can bear vertical to its length (see arrows) before it gives out. The shear strength is obtained through tests and is always the smallest average value. By changing the breaking point, the shear strength will be increased or decreased. Both tensile and shear strength are expressed in Newton (1 kg = 10 N).
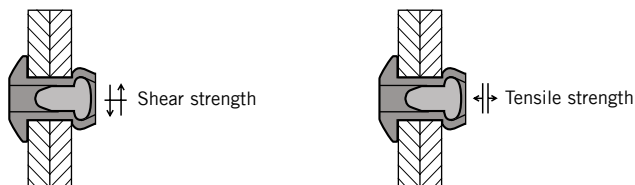
Technical details

Dimensioning rivets
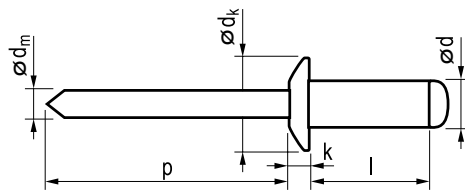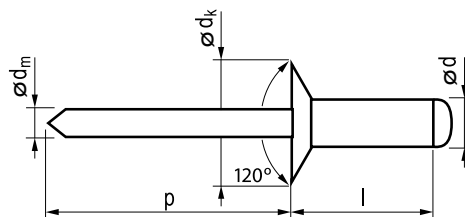
Standard rivet (all sizes in mm)

Ø d = Rivet body diameter

Ø d_k = Head diameter

Ø d_m = Mandrel diameter
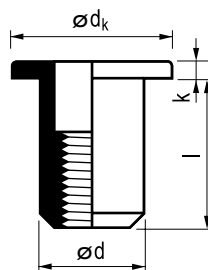
k = Head height

l = Rivet body length

p = Mandrel length

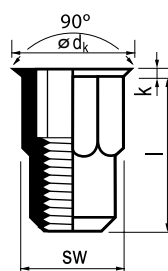## Dimensioning rivet nuts

Standard rivet nut (all sizes in mm)

Ø d = Rivet nut body diameter
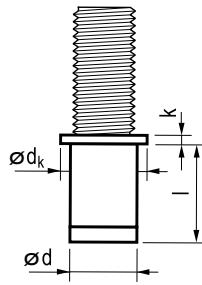
Ø d_k = Head diameter

k = Head height

l = Rivet nut body length

sw = Key size

Technical details

Dimensioning rivet bolts

Standard rivet bolt (all sizes in mm)

$\varnothing$ d   = Rivet nut body diameter

$\varnothing$ d_k = Head diameter

k   = Head height

l   = Rivet nut body length

Technical details

Aluminium AL 99,5

Low weight

Easy to deform

Highly electrical and warmth conductive

Aluminium alloys AlMg

Solid and strong - easy to polish

If the degree of Mg increases, the strength of the rivet increases and the deformability decreases

Steel

Suitable for heavy constructions

Easy to deform

Easy to coat (e.g. with anti-corrosion coating)

Stainless steel

Highly resistant to corrosion

Suitable for heavy constructions

A4 has a higher resistance to acids than A2

Copper

Highly electrical and warmth conductive

Easy to deform

Suitable for soldering

Material features

Contact corrosion

When different metals come in contact with each other, contact corrosion will arise. The table below shows how the different materials combine.

Material rivet body	Material to be connected			
	Aluminium	Copper	Steel	Stainl.steel
Aluminium	++	--	+	+
Copper	--	++	--	+
Steel	+	--	++	++
Stainl. steel	+	+	++	++
i Monell"	--	+	++	+

++ very good I + good I - moderate I -- bad

Coatings

Corrosion can never be reduced to 0%. However, coatings can help to reduce the chance of corrosion or delay corrosion:

Painting
2-Components painting is possible in many colors. All RAL-colours can be delivered on request.

Zinc plating
This is a coating obtained through electrolysis and consists of a Zinc-iron alloy. This coating is characterized by a high resistance to wear and tear.

Material features

STANLEY
Engineered Fastening

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