

## Masterfix Hand tools for blind rivet nuts and bolts

The Masterfix range of hand tools for blind rivet nuts and bolts, offers you one of the widest and most innovative ranges of professional riveting tools in the market.

All the Masterfix blind insert hand tools are equipped with a (patented) quick release mandrel system enabling you to exchange mandrels with your bare hands without using additional spanners.

All tools are supplied in representative packaging with full sets of mandrels/adaptors and anvils.

### Distinguish themselves by

Wide choice

High professional quality

Competitive price levels

Continuous product development and innovations

Complete supply of tools with full set of conversion kits and stroke regulation devices

Quick-release system

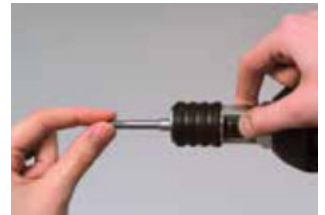
### Quick-release mandrel system for blind rivet nut and bolt tools



1. Release the nosepiece and contra nut

















2. Move protective sleeve forwards



3. Hold security part backwards and unscrew mandrel/adaptor

The table below shows which hand tool we recommend for particular sizes and materials.

In case of questions we will of course be pleased to give you further advice.

		M3			M4			M5			M6			M8			M10			M12		
		Aluminium	Steel	Stainl. steel	Aluminium	Steel	Stainl. steel	Aluminium	Steel	Stainl. steel	Aluminium	Steel	Stainl. steel	Aluminium	Steel	Stainl. steel	Aluminium	Steel	Stainl. steel	Aluminium	Steel	Stainl. steel
MFX 306																						
																						
MFX 360																						
																						
MFX 510																						
																						
MFX 511																						
																						
MFX 612																						
																						
EZM 12																						
																						
EZM 12+																						
																						

Mandrels for the recommended capacity of the tools are supplied with the tools.

# Hand tools for blind rivet nuts



## MFX 306 item nr. 43206306

Compact and practical hand tool for setting blind rivet nuts. Equipped with stroke setting mechanism and quick release mandrel system.



Capacity	M3 - M6
Weight	0,5 kg
Length	190 mm
Body material	Steel
Lever Material	Steel
Equipment	Conversion kit blind rivet nuts: M3 - M6
Also available	As blister pack with assorted blind rivet nuts item nr. 43206306BL



## MFX 360 item nr. 43206360

Professional hand tool for setting blind rivet nuts and blind rivet bolts. Equipped with stroke setting mechanism and quick release mandrel system.



Capacity	M3 - M6
Weight	0,8 kg
Length	240 mm
Body material	Aluminium
Lever material	Steel
Equipment	Conversion kit blind rivet nuts: M3 - M6 Conversion kit blind rivet bolts: M4 - M6
Also available	As set with assorted blind rivet nuts item nr. 43206360S



# Hand tools for blind rivet nuts



## MFX 510 item nr. 43210510



Powerful tool for setting blind rivet nuts and bolts, equipped with both a stroke setting mechanism ensuring every blind rivet nut and bolt to be set with equal clamping force, and a quick release mandrel system.

Capacity M4 - M10

Weight 2,2 kg

Length 555 mm

Body material ABS (plastic) with steel parts

Lever material Steel

Equipment incl. Conversion kit blind rivet nuts: M5 - M10  
Conversion kit blind rivet bolts: M5 - M8

Separately available Conversion kit blind rivet nuts: M4

Also available In attractive tool case. Item nr. 43210510C



## MFX 511 item nr. 43210511



Powerful tool for setting blind rivet nuts and bolts, equipped with both a stroke setting mechanism ensuring every blind rivet nut and bolt to be set with equal clamping force, and a quick release mandrel system. The quick release spindle provides quick installation.

Capacity M4 - M10

Weight 2,4 kg

Length 555 mm

Body material ABS (plastic) with steel parts

Lever material Steel

Equipment Conversion kit blind rivet nuts: M5 - M10  
Conversion kit blind rivet bolts: M5 - M8

Separately available Conversion kit blind rivet nuts: M4

Also available In attractive tool case. Item nr. 43210511C



# Hand tools for blind rivet nuts



## MFX 612 item nr. 43212612



Powerful compact blind rivet nut tool with built-in ratchet-key. Especially suited to place large size blind rivet nuts in small areas. Equipped with ideal stroke setting indicator and quick release mandrel system.

Capacity	M5 - M12
Weight	1,3 kg
Dimensions	210 mm
Body material	Steel
Lever material	Steel
Equipment incl.	Conversion kit blind rivet nuts: M6 - M12 Conversion kit blind rivet bolts: M5 - M8
Separately available	Conversion kit blind rivet nuts: M5





## EZM 12 item nr. 432EZM12



Unique hand tool with built-in transmission of power, allowing setting of large size blind rivet nuts with little effort. Equipped with stroke setting mechanism and a quick release mandrel system.

Capacity	M5 - M12
Weight	2,1 kg
Length	580 mm
Body material	Aluminium
Lever material	Steel
Equipment	Conversion kit blind rivet nuts: M5 - M12



## EZM 12+ item nr. 432EZM12+



Unique hand tool with built-in transmission of power, allowing setting of large size blind rivet nuts with little effort. Equipped with stroke setting mechanism and a quick release mandrel system. The quick release spindle provides quick installation.

Capacity	M5 - M12
Weight	2,5 kg
Length	580 mm
Body material	Aluminium
Lever material	Steel
Equipment	Conversion kit blind rivet nuts: M5 - M12










# Masterfix Power tools for blind rivet nuts and bolts

The Masterfix range of hydraulic/pneumatic XGRIP tools was developed taking the following into consideration:

- Reliability
- Ergonomics
- Continuous

The tools are moulded in ABS (a glass fibre reinforced synthetic material) giving them high impact resistance with minimum weight. All tools are equipped with a pressure relief valve which is operated as soon as the pressure exceeds 7.5 Bar. The tools have an oil level indicator to show you when oil needs to be added. The tools XGRIP N08QI and N10QI are equipped with a quick interchange system and a pressure regulation system to ensure a correct setting of the rivet nut/bolt. The tools meet the current CE-standard.

The table below shows which tool we recommend for a particular blind rivet nut/bolt size and material.

		M3			M4			M5			M6			M8			M10			M12			
		Aluminium	Steel	Stainl. steel	Aluminium	Steel	Stainl. steel	Aluminium	Steel	Stainl. steel	Aluminium	Steel	Stainl. steel	Aluminium	Steel	Stainl. steel	Aluminium	Steel	Stainl. steel	Aluminium	Steel	Stainl. steel	
XGRIP N08QI																							
																							
XGRIP N10QI																							
																							
EZM 4000																							

Mandrels for the recommended capacity of the tools are supplied with the tools.





## X-GRIP N08Q | item nr. 45208N08Q |



Hydraulic/pneumatic blind rivet nut tool with automatic right and left hand running. Including quick interchange system. For correct deformation of the blind rivet nut/-bolt, an air pressure regulator is build in.

Capacity	M3 - M8
Weight	2,2 kg
Dimensions	313 x 276 mm
Stroke	9,0 mm
Pressure required	5-7 Bar
Traction power(6 bar)	21 kN
Equipment	Conversion kit blind rivet nuts: M4 - M8

## X-GRIP N10Q | item nr. 45210N10Q |



Hydraulic/pneumatic blind rivet nut tool with automatic right and left hand running. Including quick interchange system. For correct deformation of the blind rivet nut/-bolt, an air pressure regulator is build in.

Capacity	M4 - M10
Weight	2,4 kg
Dimensions	313 x 276 mm
Stroke	9,0 mm
Pressure required	5-7 Bar
Traction power(6 bar)	29,8 kN
Equipment	Conversion kit blind rivet nuts: M5 - M10



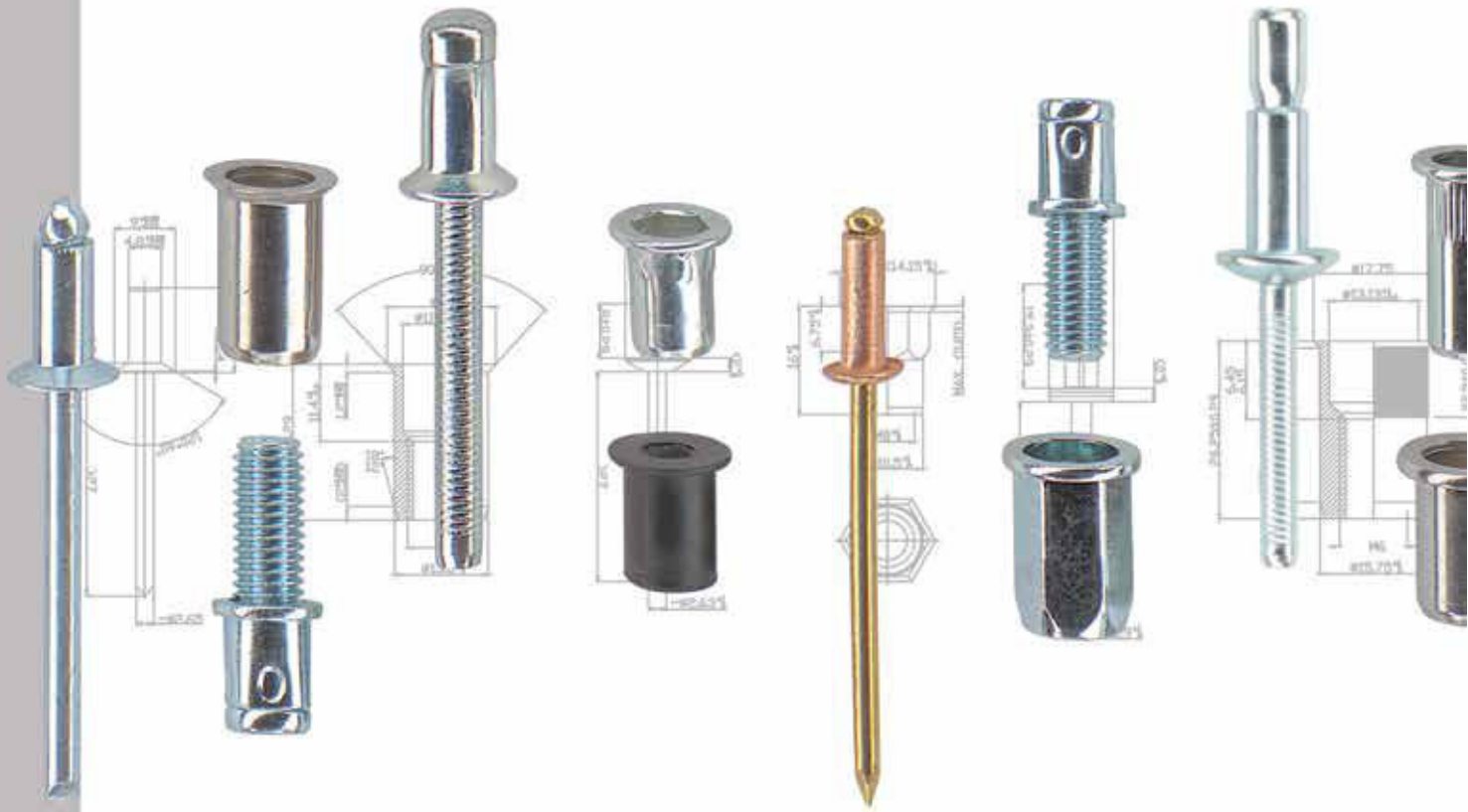
# Power tools for blind rivet nuts



## EZM 4000 item nr. 452EZM4000

Light weight hydraulic/pneumatic blind rivet nut tool. Mandrels, M4-M8. Tool-free stroke setting mechanism with a scale on the front sleeve. Quick mandrel release system, Advanced hydraulic system for oil free service. Release button for motor release and 360° revolvable air supply unit.

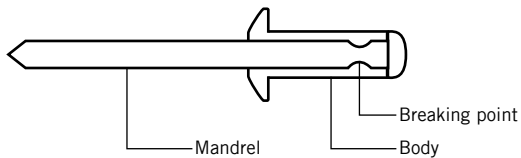
Capacity	M3 - M12 Aluminium/Steel M3 - M10 Stainless Steel
Weight	1,65 kg
Dimensions	260 x 270 x 102 mm
Stroke	7,0 mm
Pressure required	5-7 Bar
Traction power(6 bar)	18,5 kN
Equipment	Conversion kits: M4 - M8
Also available	Separate conversion kits: M3, M10, M12



# Technical info

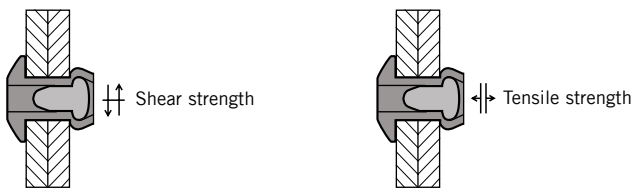
## Blind rivet breaking point

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.



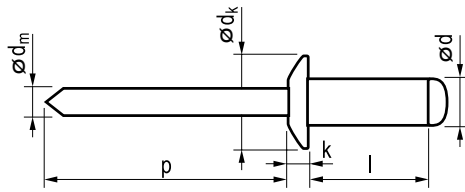
## Tensile and shear strength

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 ( $1 \text{ kg} = 10 \text{ N}$ ).



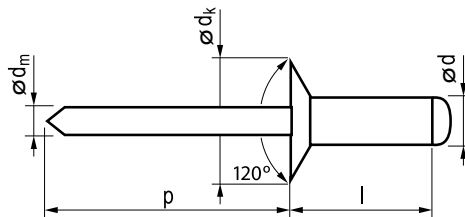
# Technical details

## Dimensioning rivets

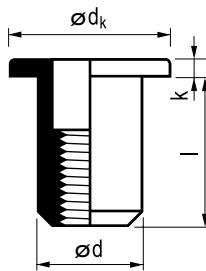


### Standard rivet (all sizes in mm)

- Ø d = Rivet body diameter
- Ø d<sub>k</sub> = Head diameter
- Ø d<sub>m</sub> = Mandrel diameter
- k = Head height
- l = Rivet body length
- p = Mandrel length

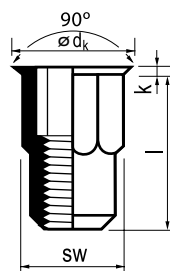


## Dimensioning rivet nuts



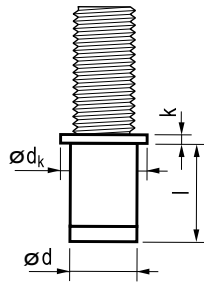
### Standard rivet nut (all sizes in mm)

- Ø d = Rivet nut body diameter
- Ø d<sub>k</sub> = 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 | + good | - moderate | -- 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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