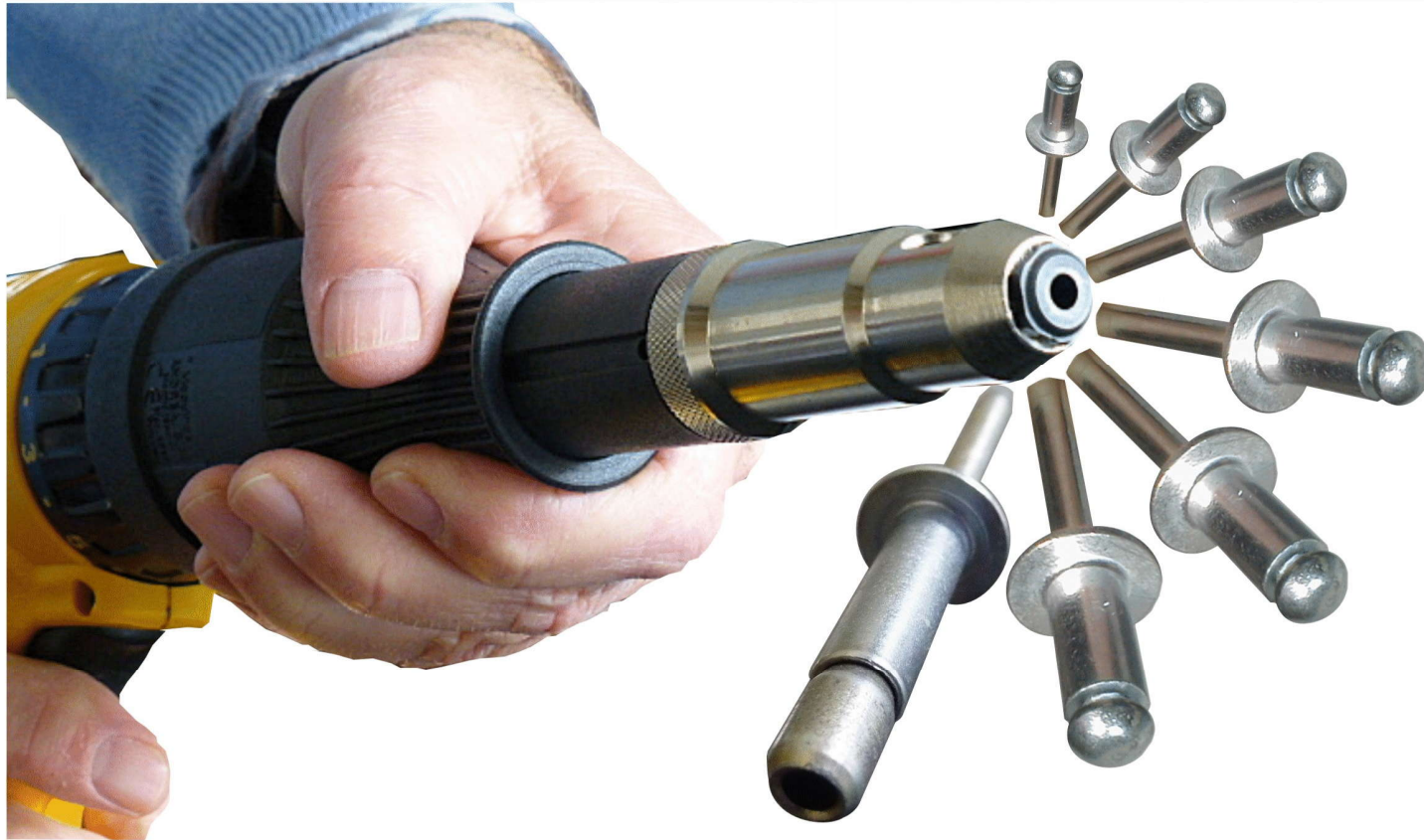


RiveDrill



Riveting with your own boring machine

Effortless. Without Vibrations. Without cables. In a single drive
Rivets to steel 6.4mm and structural 7.0mm



The History



(1)
Agave o Pita Plant "Threaded needle sewing"
12 millions years ago



(2)
Needle sewing
20.000 years ago



(3)
Torre Eiffel
Hace More than 125 years ago



(4)
Rosie the Riveter
More than 75 years ago



(5)
Riveting hand tools and berbiqui
More than 75 years ago



The primeval unite and disunite actions have always existed, they are inherent in nature itself and manifest from 13,700 million years ago in the cosmos, life and human intelligence.

Modern man unites and disunite; texts, vital organs such as the heart or liver, DNA, or social groups. For this he has invented tools such as; computer, transplant surgery, genetic engineering, or Internet.

Currently the boundary between physical science and metaphysics tends to disappear. Unite and disunite actions are the only conductive thread that connects them.

Since the beginning of time humans have made connections; binding, sewing, weaving, gluing, stapling, buttoning, by clamping, nailing, screwing, welding, combining, mixing, blending, ionizing, alloying or riveting.

Manufacture or construction, is unite or disunite.

About 12 million years ago already it existed in nature known as Pita or Agave plant (Fig. 1). In its strong leaves, it contains the so-called "threaded needle sewing", consisting of thin and hard spine of the blade tip which together with the strong fibers, it is assumed that was used in prehistory, to sew fur coat and shelter.

20,000 years ago and sewing needles (Fig. 2) made of ivory, bone or wood were made.

By 1856 he started using rolled steel. Long cylindrical wire bars, cut, and placed into holes previously made in the pieces to be joined, with the flattened ends hot constitute the rivets. The fasteners, in one piece, and a head end are previously formed so improvement of the industrial sewing thread primitive.

In 1889 the Eiffel Tower (Fig. 3) Universal Exhibition in Paris marks a milestone for a new industrial way of building joining with rivets.

The rivets or are called "Blind rivets" when consist of more than one piece, in order to be fixed from one side of the parts to be joined. These rivets require special riveting tools for fixing.

By 1939, during the Second World War, blind rivets, made of lightweight materials such as aluminum, were strategically used in the aviation industry. "Rosie the Riveter" (Fig. 4) is a cultural icon representing the importance of marriage, not only as a union of fasteners, but also as a union of people to achieve objectives. "Unity is strength is said in Spanish".

The riveting best known to date, came from the state of the technic of those years of the

Great War (1939). Riveters are manually operated, or "rivet gun", (Fig. 5) and the riveting powered by compressed air.

Now after 75 years, the modern patented RiveDrill allows to rivet with the drilling machine.



The RiveDrill adapters, reduce stress of the operator, avoid vibrations in hand and arm, remove the cables and compressed air hoses and compressors, riveted in one operation and extend freedom in the workplace both in the factory and outside it.



Riveter RiveDrill HP

Strength: 1.000 Kgs. (10.000Nw)
Working stroke Z: 30mm (1.18in)

Professional use. Steel Body with rubber. Jaws 3 pieces. Net Weight 582 grams. Gross weight 700 grams. Measures 175 x 65 mm. Diameter of the rivet; 2.4-3.2-4.0-4.8 and 6.4mm steel, (3/32-1/8-5/32-3/16 y 1/4in). Optional Nosepiece for structural rivets diameter 7.0mm (9/32in). Its long run Z, allows to use with any kind of rivets, included "peed" or structural rivets, of any materials including stainless steel. 4 nosepieces included



Riveter RiveDrill E20

Strength: 650 Kgs. (6.500Nw)
Working stroke Z: 20mm (0.79in)

It is the most recommended model. Any use. Steel body and polyamide fiberglass. Telescopic protector. 2-piece jaws. Net weight 356 grams. Gross weight 473 grams. Measures 175 x 60 mm. Rivets diameters; 2.4-3.0-3.2-4.0 and 4.8mm (3 / 32- 1 / 8-5 / 32 and 3/16). It can be used for any material rivets and rivet-type "peed" Including 4 interchangeable nosepieces .



Riveter NutDrill ND

Strength: 1.000 Kgs. (10.000Nw)
Working stroke Z: 9mm (0.35in)

Professional use. Steel body and rubber. Net weight 511 grams. Gross weight 828 grams. Measures 165 x 65 mm. M3 threaded inserts Nuts - M4 - M5 - M6 and M8 and their equivalents in American thread. Including 5 sets of guides and mandrels for each measure. Can be used for any material including stainless steel. It can be supplied without mandrels or guides to buy only these measures may be required.



Riveter NutDrill ND2

Strength: 800 Kgs. (8.000Nw)
Working stroke Z: 9mm (0.35in)

Steel body and polyamide fiberglass. Net weight 361 grams. Gross weight 678 grams. Measures 165 x 60 mm. M3 threaded inserts Nuts - M4 - M5 - M6 and M8 and their equivalents in American thread. Including 5 sets of guides and mandrels for each measure. It can be used for any material including stainless steel. It can be supplied without mandrels or mouths to buy only these measures may be required.



Riveter RiveDrill E28

Strength: 800 Kgs. (8.000Nw)
Working stroke Z: 28mm (1.10in)

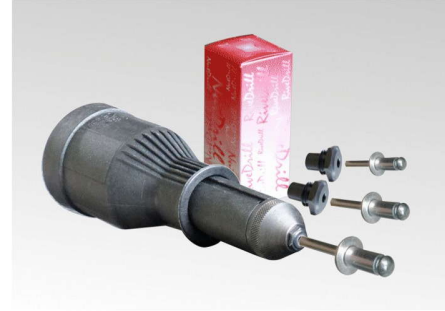
Professional use. Steel body and polyamide fiberglass. Telescopic Protector. 2-piece jaws. Net weight 360 grams. Gross weight 477 grams. Measures 175 x 60 mm. Rivets diameters; 2.4-3.0-3.2-4.0 and 4.8mm (3 / 32- 1 / 8-5 / 32 and 3/16). It can be used for any material rivets and rivet-type "peed" Including 4 interchangeable nosepieces.



Riveter RiveDrill E95H

Strength: 500 Kgs. (5.000Nw)
Working stroke Z: 10mm (0.39in)

Polyamide body fiberglass. Telescopic Protector. 2-piece jaws. Net weight 293 grams. Gross weight 410 grams. Measures 145 x 60 mm. Rivets diameters; 2.4-3.0-3.2-4.0 and 4.8mm (3 / 32- 1 / 8-5 / 32 and 3/16). Including 3 interchangeable nosepieces.



Riveter RiveDrill E10

Strength: 300 Kgs. (3.000Nw)
Working stroke Z: 10mm (0.39in)

Use for DIY at home. Polyamide body fiberglass. 2-piece jaws. Net weight 230 grams. Gross weight 270 grams. Size 140 x 38 mm. Rivets diameters; 2.4-3.0-3.2-4.0 and 4.8mm (3 / 32- 1 / 8-5 / 32 and 3/16). Including 3 interchangeable nosepieces.



Riveter RiveDrill R98

Strength: 200 Kgs. (2.000Nw)
Working stroke Z: 10mm (0.39in)

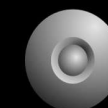
Use for DIY at home. Plastic body. 2-piece jaws. Net weight 189 grams. Gross weight 229 grams. Measures 140 x 38 mm. Rivets diameters; 3.2 and 4.0 mm (1/8 and 5/32 inch). Including one single not detachable nosepiece



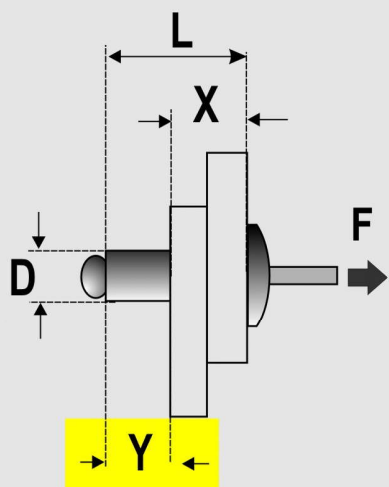


RiveDrill

 www.rivedrill.es
 www.rivedrill.com



Standard rivet



Estructural rivet



Model								
 <i>Recommended</i>	RiveDrill HP	RiveDrill E28	RiveDrill E20	RiveDrill E95H	RiveDrill E10	RiveDrill R98	NutDrill ND	NutDrill ND2
Recommended	Professional	Professional	Professional	Bricolage	Bricolage	Bricolage	Professional	Professional
Working stroke maximum "Z" mm (in)	30mm (1.18in)	28mm (1.10in)	20mm (0.79in)	10mm (0.39in)	10mm (0.39in)	10mm (0.39in)	9 mm	9 mm
Optimum rivet (Y _{max})* mm	(Y)* < (Z)	(Y)* < (Z)	(Y)* < (Z)	(Y)* < (Z)	(Y)* < (Z)	(Y)* < (Z)		
Approximate maximum effort. "F" Nw	10.000 Nw	8.000 Nw	6.500 Nw	5.000 Nw	3.000 Nw	2.000 Nw	10.000 Nw	8.000 Nw
As unite parts "X" mm	Any	Any	Any	Any	Any	Any		
Rivet diameter "D" mm, in	2,4mm - 3/32 in 3,2mm - 1/8 in 4,0mm - 5/32 in 4,8mm - 3/16 in 6,4 mm - 1/4 in	2,4mm - 3/32 in 3,2mm-1/8 in 4,0mm-5/32 in 4,8mm-3/16 in	2,4mm - 3/32 in 3,2mm-1/8 in 4,0mm-5/32 in 4,8mm-3/16 in	2,4mm - 3/32 in 3,2mm-1/8 in 4,0mm-5/32 in 4,8mm-3/16 in	2,4mm - 3/32 in 3,2mm-1/8 in 4,0mm-5/32 in 4,8mm-3/16 in	4,0mm-5/32 in	M3-M4-M5 M6-M8 American thread	M3-M4-M5 M6-M8 American thread
Telescopic hand guard	No	Si	Si	Si	No	No		
Housing material	Steel and rubber	Steel and polyamide Fiberglass	Steel and polyamide Fiberglass	Polyamide and Fiberglass	Polyamide and Fiberglass	Polyamide	Steel and rubber	Polyamide and Fiberglass
Nosepieces	4	4	4	3	3	1	5 sets of nozzle and mandrel	5 sets of nozzle and mandrel
Amount of jaws	3	2	2	2	2	2		
Net weight (gramos)	582	360	356	293	230	189	511	361
Gross weight (gramos) including box and accessories	700	477	473	410	270	229	828	678

(*) The rivet measure (Y), rivet, must always be less than the working stroke (Z) of RiveDrill.

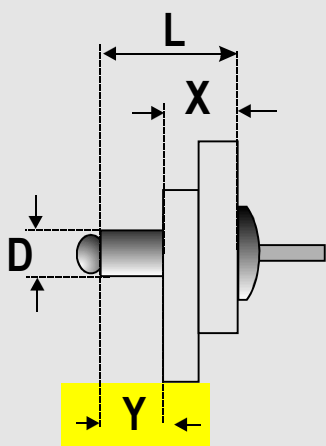
(**) Measures (Y), higher than those suggested in the table yellow produce deficient, defective fasteners and more expensive, because the longer rivets are more expensive. Besides producing the riveting premature wear.



Rivet



Maximum speed drilling machine: 1000 rpm.



Maximum "Y" for optimal riveting

D mm in	2,4 3/32	3,2 1/8	4,0 5/32	4,8 3/16	6,4 1/4	7,0 9/32
Y (mm) maximum	4	5	6	7	8	10

Always "Y" (rivet) less than "Z" (RiveDrill)
 Siempre "Y" (de remache) menor que "Z" (de RiveDrill)

Blind Rivet
Diameter
mm (in)

Break Mandrel
Material

Break Mandrel
Diameter
mm (in)

7,0mm 9/32in	Aluminium structural (optional)	5,0mm (0.2in)
6,4mm 1/4in	Stainless Steel Steel Aluminium	3,85-3,6mm (0.151in)
4,8mm 3/16in	Stainless Steel Steel Aluminium	3,1-2,65mm (0.114in)
4,0mm 5/32in	Stainless Steel Steel Aluminium	2,4-2,2mm (0,095in)
3,2mm 1/8in	Stainless Steel Steel Aluminium	2,1-1,8mm (0.076in)
2,4mm 3/32in	Stainless Steel Steel Aluminium	1,5-1,45mm (0,057in)

Working stroke (Z) maximum RiveDrill (in)
 Carrera de trabajo maximo (Z) de RiveDrill (mm)

RiveDrill

Maximum "Z" working stroke (in)
 Máxima "Z" carrera de trabajo (mm)

HP E28 E20 E95H E10 R98

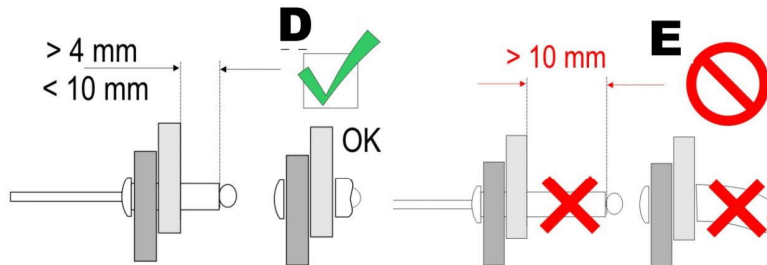
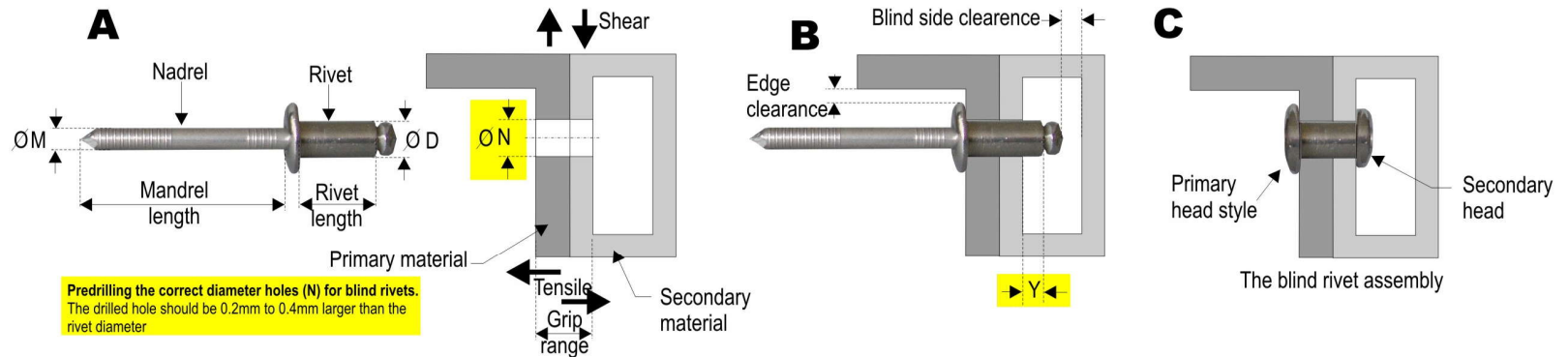
1.18in	1.10in	0.79in	0.39in	0.39in	0.39in
30mm	28mm	20mm	10mm	10mm	10mm



Nosse piece not included



The Rivets



Suggestion ϕN and Y maximum							
Rivet ϕD	(mm)	2,4	3,2	4,0	4,8	6,4	7,0
	(in)	3/32	1/8	5/32	3/16	1/4	9/32
Break Mandrel ϕM	(mm)	1,5-1,45	2,1-1,8	2,4-2,2	3,1-2,65	3,85-3,6	5,0
	(in)	0.057	0.076	0.095	0.114	0.151	0.2
ϕN	(mm)	2,6	3,4	4,3	5,2	6,8	7,8
Y	(mm)	4	5	6	7	8	10
Important information: "Y" (maximum) always less than "Z" RiveDrill							



What are the blind rivets?

Blind rivets are those that can be fixed by one side with an inside mandrel. To Rivet is the way to unit pieces with a rivet. The pieces have to be holed first at an "N" diameter (Fig. F) specific for each diameter of the rivet D (Fig. A). The hole N must be 0,2 mm to 0,4 mm bigger than the diameter of the rivet approximately and it is indicated in yellow in the table (Fig. F).

The blind rivet is into the previous holed piece that you want to unit. The riveting tools are used to set the rivet. The riveting tool pull the mandrel of the rivet expanded until is formed a second head in the end of the blind rivet **Secondary head** (Fig. C) in the end of the blind rivet and is breaking and expelled.

The mandrel of the rivet has a length measurements **Mandrel length** and determinate diameter M normalize for each diameter of the rivet D (Fig. A).

Election of the correct length of the rivet.

The operator has to decided the correct length of the rivet to get an optimum rivetting. It must be the sum of the total thickness of the pieces to be unite **Grip range** (Fig. A) plus the length Y (Fig. B)

which the second head is going to be formed (Fig. C).

In the table on (Fig. F) are suggested the maximum values Y to get optimum rivetting. Use different values to indicated for Y in the yellow table (Fig. F) will produce deficient fixing.

In any case to use blind rivets standar, in which the value Y (Fig. D, E, F) will be bigger than 10 mm will produce failure as follows and can concern to the warranty of the product.

- Rivets that do not fasten enough.
- Rivets with the secondary head deformed.
- Rivets in which for the primary head style stand out the end of the brokeng mandrel.
- Rivets more expensive if they are longer than necessary.
- You need to action twice if you use a manual riveting tool.
- Breakdown in the automatic or pneumatic riveters.
- Mandrel jam into the riveter.

Selecion of RiveDrill model

In the market there are very different kind of rivets, with different type of head, materials, colors and uses. After selecting the type of rivet, it is interesting to select the correct riveter to set it .

In general the three principal especifications to select an optimum RiveDrill model, are as follows:

- The rivet work run "Z" have to be always bigger than the length "Y" of the rivet. See the table of especifications of RiveDrill models in the catalogue. For instance some peeled type of rivets that need value "Y" bigger than indicated in the other table.
- The traction power F that need to trasform and transmit RiveDrill, form the drilling machine until the resistance to set the rivet. Generally this value is indicated in the tables of this catalogue by indicating the diameter and the rivet materials for each RiveDrill model.
- The model of the body of the RiveDrill that have influence to the security and confort of the operator when working.

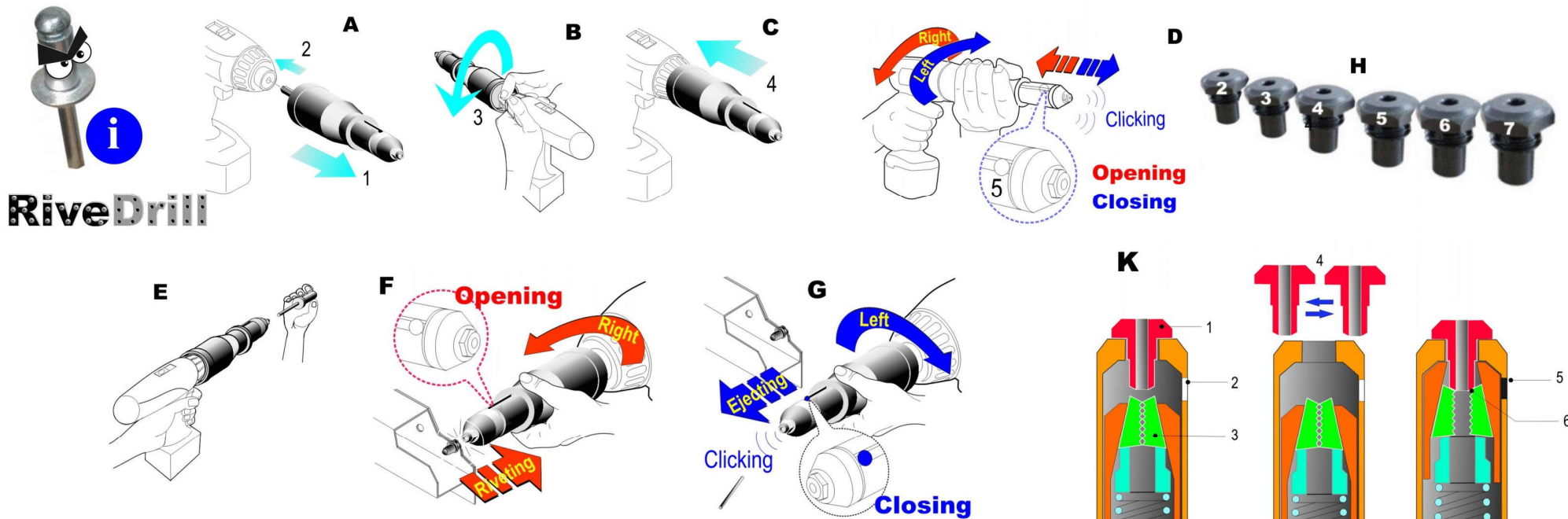
The functional model recommended is RiveDrill E20. See its especifications in this catalogue.

The drilling machine and its battery must be equal or more than 12 V and as better as possible.

Important:

To get good quality with your RiveDrill, be sure to:

- Select the correct nosepiece
- The mandrel of the rivet and the rivet is completely inside the RiveDrill and the hole of the pieces to unit.
- The Rivedrill is pressing to the head of the rivet and against the pieces to unit.
- The length "Y" is between 4 - 10 mm
- The holes are between 0,2 0,4 mm bigger than the diamter D of the rivet.



RiveDrill is designed to attach to the chuck of any make of reversible drilling machine, to set aluminum or steel blind rivets, from diameters 3,2 mm to 6,4 mm.

RiveDrill placed in a 12 V or more reversible drilling machine, is a perfect fixing set. It is easy and fast to use. A rivet can be set in less than 1,5 seconds.

Features

RiveDrill can be installed in a standar chuck of 10 mm with our without key. You can set stell or stainley steel rivets and aluminum rivets, depend on the different models.

How to use RiveDrill?

Fig. A) Move the hand protector to the front (1) RiveDrill, showing the hex shank (2)

Fig. B) Introduce the hex shank in the chuck of the

drilling machine as a drill bit and tighten (3).

Fig. C) Move the hand protector again to cover the chuck (4).

Fig. D) Turn the drilling amchine to the left, until hear the sound clac clac..., of RiveDrill clutch and check that the hole control (5) is close. That is the first position to start to use RiveDrill.

Fig. E) Insert the rivet completely in the correct nosepiece, corresponding with the diameter of the rivet. Do not force a rivet in the wrong nosepiece because can produce damages.

Fig. F) Insert the rivet completely in the pieces to be united. Press firmly to the rivet and the piece to be united and acting the drilling machine to the right until the rivet is setted and break the mandrel of the rivet. Stop the drilling machine and see the hole

control (5) is opened .

Fig. G) To expel the mandrel of the rivet, turning the drilling machine to the left inclining the unit to drop of the mandrel of the rivet,when hear the sound clac clac... See then that the hole control (5) is closed.

Congratulation you can use the next rivet.

How to change the nosepiece ?

Each RiveDrill model is supplied with its corresponding nosepieces for the different size of the rivets.

Each nosepiece is designed for an specific diameter of the rivet. Read section "Rivets",how to select the correct rivet.

(Fig. H) EThe size of the nosepiece is indicated in the side of its hexagon.

(Fig. K) Before dismantle the nosepiece, with a 10 mm or 12 mm spanner (depending on the RiveDrill model) turn the drilling machine to the right to avoid the preasure that the jaws (3) are making to the nosepiece (1) (Fig. K).The hole control (2) must be opened and you could see though it so the jaws are not in contact with the nosepiece. Change the nosepiece (4) with a 10 mm (or 12 mm in HP mode) spanner and tighten. Turn the drilling machine to the left to close the hole control (5) again. The jaws (6) will open as soon as they press to the nosepiece.

Congratulation. Now RiveDrill is at start position, to start to work with the new nosepiece. Hole control closed indicate jaws open to introduce the mandrel of the blind rivet.



The Power

With RiveDrill

Reduce the effort in the hand about 90%.
There is no Vibration in the hand.
Rivets are set with only one operation because run Z of RiveDrill is bigger than run Y of the rivet.

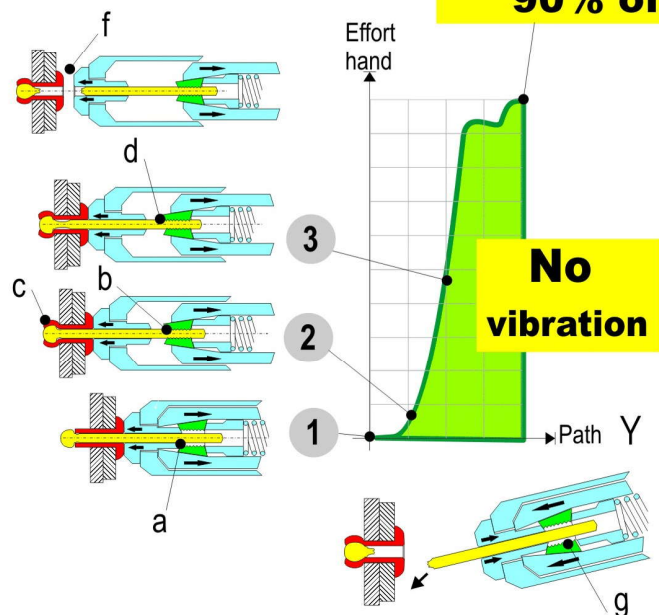


RiveDrill

A drive



20 Newton in hand 90% off



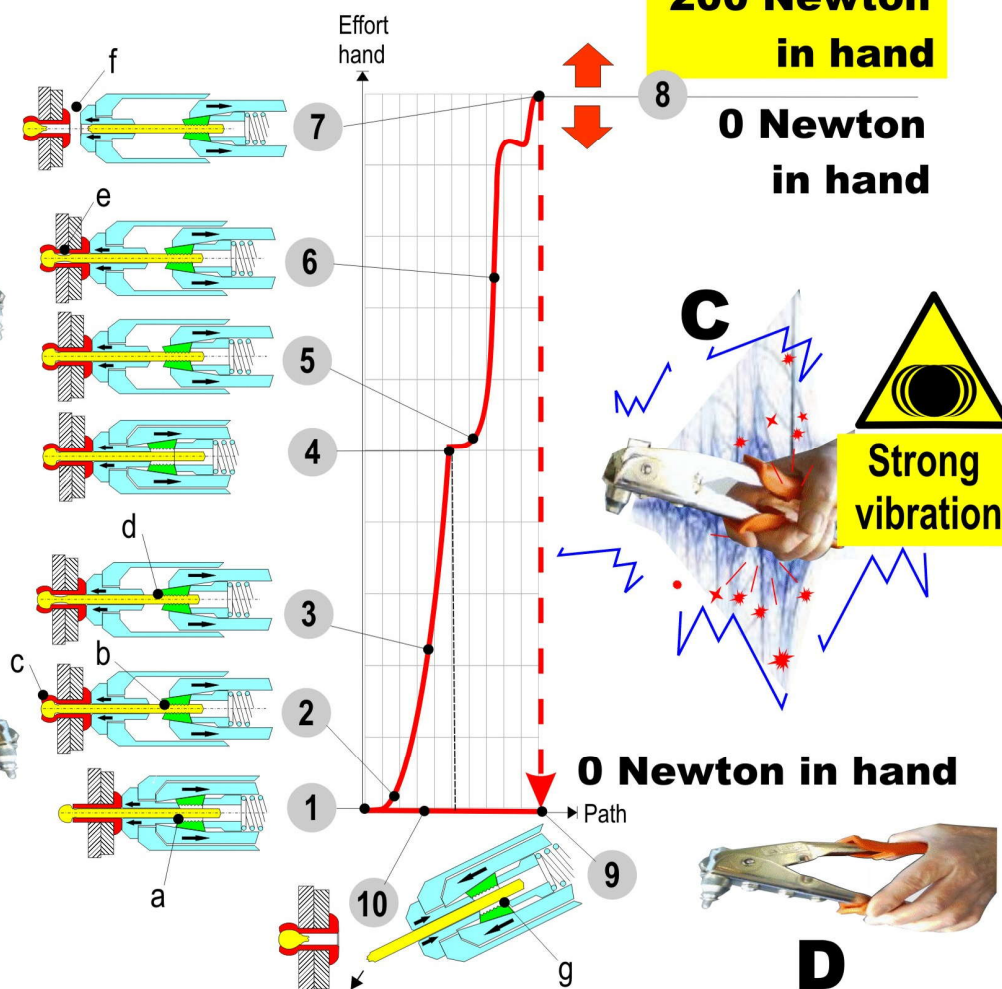
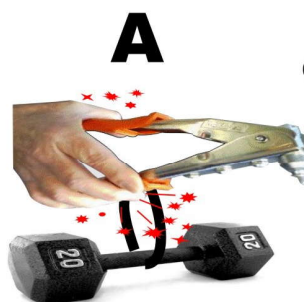
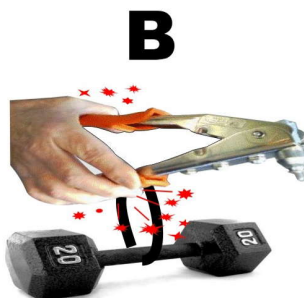
With hand riveting tool

A) First operating. (1) Start with (a) open jaws. (2) Jaws take the mandrel (b) and start to rivet (c). (3) Going on riveting (d) until finish the run.
B) Second operating introducing again the riveter against the rivet. (4) Second start with jaws open. (5)

Hand Riveter Tool



Two drives



As in (2). (6) Finish the riveting and start stretching the mandrel (e). (7) Break the mandrel in the point of maximum effort in the hand (200 Nw).
C) Produce a great vibration when the hand is without resistance (8) (0 Nw).
D) The tool is opened (9) to expel the mandrel (10).



Rivet nuts NutDrill RiveDrill

Removable Fasteners

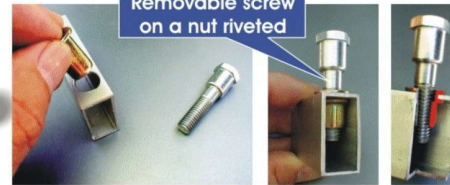
Excellent solution for small thicknesses



Nut Inset



Removable screw on a nut riveted



Substituting Mandrel & Nose Pieces

Attention.
Left thread

Attention.
Left thread



Wrench 22 mm



Wrench 8 mm



Specification

Drive Shaft: 9 mm hexagon
Carcase: Steel and rubber
Mandrel & Nose Piece included: 4 units
Maximum Tensile Strength: 10,000 Newton
Measure: 140mm x Ø60mm
Weight: 600 grams

Mandrel & Nose Pieces screw counterclockwise

5 Mandrel & Nose Pieces Included



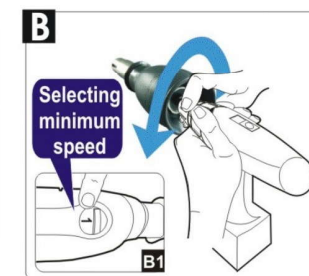
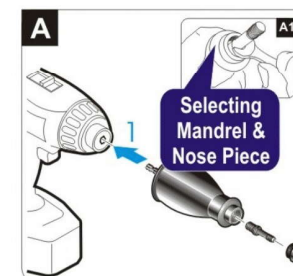
Attaching RiveDrill To Your Drill (Any Brand)

A) Insert drive shaft (1) into drill chuck in the same manner as a drill bit.

A1) Selecting Mandrel & Nose Piece

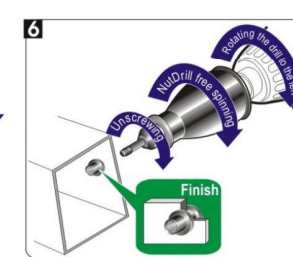
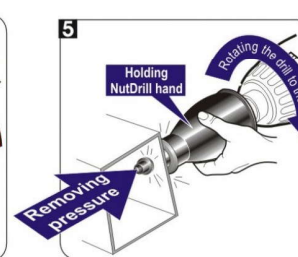
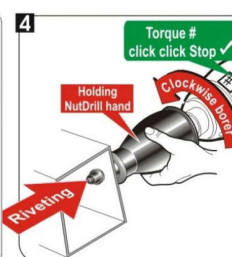
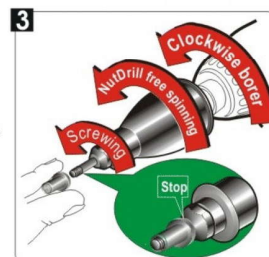
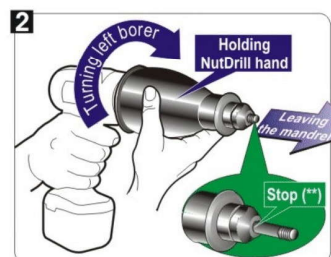
B) Tighten chuck.

B1) Attention. Selecting minimum speed



(*) Select the necessary torque, trying first low to high, clinching nuts in the air. No knock on the ends of the route (**).

Size	#	Torque (approximate)
M3	UNC6-32	>2 Nm
M4	UNC8-32	<3 Nm
M5	UNC10-24	<4 Nm
M6	UNC10-32	<5 Nm
M8	W1/4"-20	>6 Nm
M10	W1/2"-13	>7 Nm
M12	W3/4"-16	>8 Nm
M16	W1 1/4"-11	>10 Nm



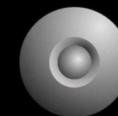
RiveDrill



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RiveDrill R98



RiveDrill R10



RiveDrill E95H
en caja de cartón



RiveDrill E95H
en bote de cartón



RiveDrill E95H
en blister



RiveDrill E20



RiveDrill E28



RiveDrill HP



NutDrill ND2



NutDrill ND



RiveDrill

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www.rivedrill.com



You can buy spare parts in; www.rivedrill.net

Usted puede comprar repuesto en Internet; www.rivedrill.net



Modelos RiveDrill o NutDrill	Rotor Completo	Portamordazas completo	Mordas (juego completo)	Bocas (indicar medida)	Mandriles (indicar medida)
RiveDrill HP	2.2	2.3	2.5	2.4 + medida	
RiveDrill E28	5.2	5.3	5.5	5.4 + medida	
RiveDrill E20	4.2	4.3	4.5	4.4 + medida	
RiveDrill E95H	1.2	1.3	1.5	1.4 + medida	
RiveDrill E10	7.2	7.3	7.5	7.4 + medida	
RiveDrill R98	8.2	8.3	8.5		
NutDrill ND	3.2			3.4 + medida	3.3 + medida
NutDrill ND2	6.2			6.4 + medida	6.3 + medida

RiveDrill & NutDrill			
Spare Parts.		Piezas repuesto.	
RiveDrill E95H		RiveDrill E95H Spare Parts 1.1 Complete body 1.2 Complete rotor 1.3 Complete jaw holder 1.4 Nosepiece (one piece) 1.5 Jaw (two pieces)	
RiveDrill E20		RiveDrill E20 Spare Parts 4.1 Complete body 4.2 Complete rotor 4.3 Complete jaw holder 4.4 Nosepiece (one piece) 4.5 Jaw (two pieces)	
RiveDrill E28		RiveDrill E28 Spare Parts 5.1 Complete body 5.2 Complete rotor 5.3 Complete jaw holder 5.4 Nosepiece (one piece) 5.5 Jaw (two pieces)	
RiveDrill HP		RiveDrill HP Spare Parts 2.1 Complete body 2.2 Complete rotor 2.3 Complete jaw holder 2.4 Nosepiece (one piece) 2.5 Jaw (two pieces)	
NutDrill ND		NutDrill ND Spare Parts 3.1 Complete body 3.2 Complete rotor 3.3 Mandril 3.4 Nosepiece	
NutDrill ND2		NutDrill ND2 Spare Parts 6.1 Complete body 6.2 Complete rotor 6.3 Mandril 6.4 Nosepiece	
RiveDrill E10		RiveDrill E10 (D.I.Y) Spare Parts 7.2 Complete rotor 7.3 Complete jaw holder 7.4 Nosepiece (one piece) 7.5 Jaw (two pieces)	
RiveDrill R98		RiveDrill R98 (D.I.Y) Spare Parts 8.2 Complete rotor 8.3 Complete jaw holder 8.5 Jaw (two pieces)	

RiveDrill

