STAYER

MULTI DRILL 130

ES Manual de instrucciones
IT Istruzioni d'uso
GB Operating instructions
FR Instructions d'emploi
P Manual de instruções
PL Instrukcja obsługi

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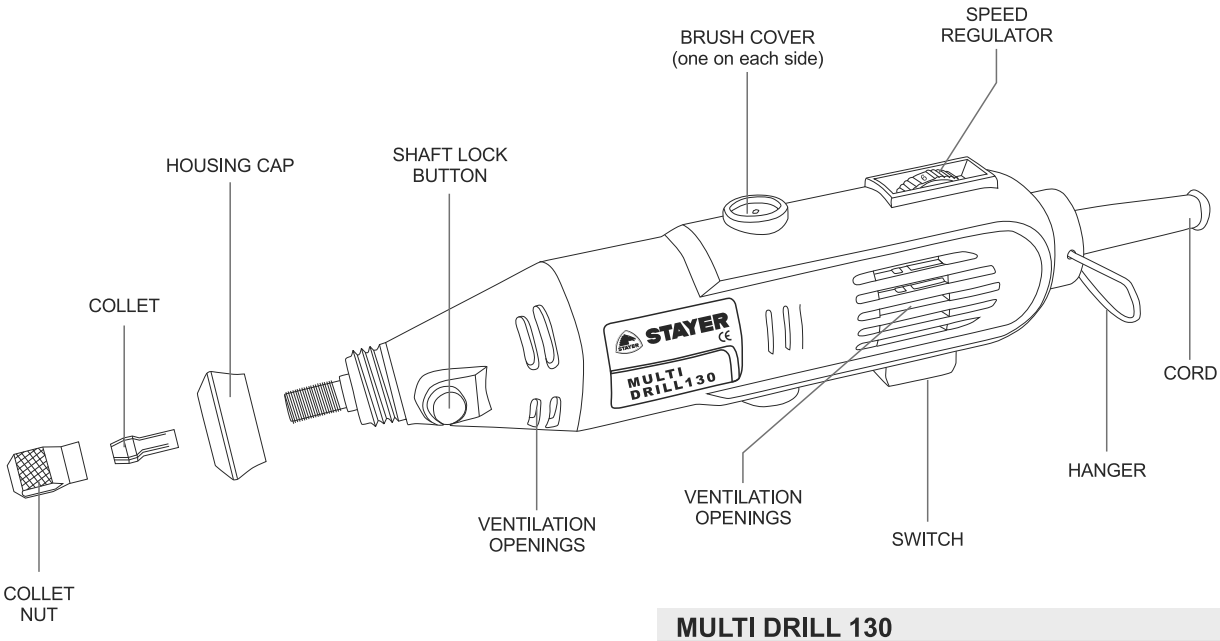
STAYER
MULTI
DRILL 130


STAYER
MULTI DRILL 130
RoHS

1.- Functional Description and Specifications

⚠ WARNING Disconnect the plug from the power source before making any assembly, adjustments or changing accessories. Such preventive safety measures reduce the risk of starting the tool accidentally.

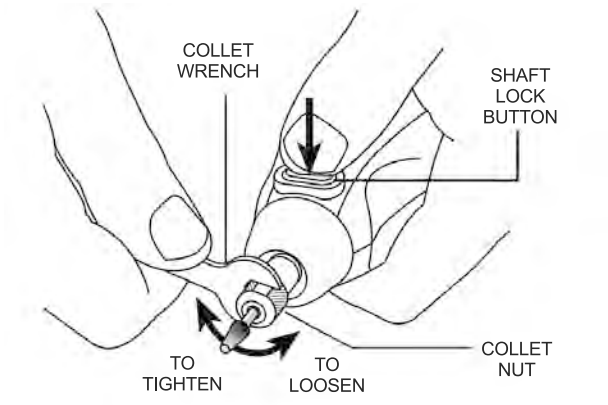


MULTI DRILL 130		
Rated power input	W	130
No-load speed	min^{-1}	8.000 - 33.000
Collet capacity	ø	1 - 1.6 - 2.4 - 3 - 3.2 mm
Weight	kg	0.5

These data are valid for nominal voltages of [U] 230/240 V ~ 50/60 Hz – 110/120 V ~ 60 Hz. These values may change of the voltage was lower and in the specific embodiments for certain countries.

2.- Assembly

⚠ WARNING Always unplug Rotary Tool before changing accessories, changing collets or servicing your Rotary Tool.



COLLET NUT — To loosen, first press shaft lock button and rotate the shaft by hand until the lock engages the shaft preventing further rotation.

⚠ CAUTION Do not engage lock while the Rotary Tool is running.

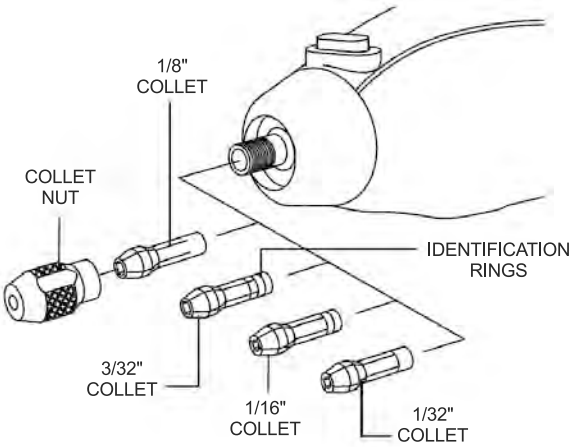
With the shaft lock engaged use the collet wrench to loosen the collet nut if necessary. The collet nut must be loosely threaded on when inserting an accessory. Change accessories by inserting the new one into the collet as far as possible to minimize runout and unbalance. With the shaft lock engaged, finger tighten the collet nut until the accessory shank is gripped by the collet. **Avoid excessive tightening of the collet nut when there is no bit inserted.**

COLLETS — Four different size collets (see illus tration), to accommodate different shank sizes, are avail able for your Rotary Tool. To install a different collet, remove the collet nut and remove the old collet. Insert the unslotted end of the collet in the hole in the end of the tool shaft. Replace collet nut on the shaft.

Always use the collet which matches the shank size of ⚠ CAUTION the accessory you plan to use. Never force a larger diameter shank into a collet.

Note: Most rotary tool kits do not include all four collets sizes.

COLLET IDENTIFICATION CHART
Collet sizes can be identified by the rings on the back end of collet.
1/32" Collet has one (1) ring.
1/16" Collet has two (2) rings.
3/32" Collet has three (3) rings.
1/8" Collet has no rings.
(Included in most tool kits on the tool)



BALANCING ACCESSORIES — For precision work, it is important that all accessories be in good balance (much the same as the tires on your automobile). To true up or balance an accessory, slightly loosen collet nut and give the accessory or collet a 1/4 turn. Re tighten collet nut and run the Rotary Tool. You should be able to tell by the sound and feel if your accessory is running in balance. Continue adjusting in this fashion until best balance is achieved. To maintain balance on abrasive wheel points, before each use, with the wheel point secured in the collet, turn on the Rotary Tool and run the Dressing Stone lightly against the revolving wheel point. This removes high spots and trues up the wheel point for good balance.

The hanger is provided for the use of hanging your tool while using the flex-shaft or for storage. If you do not use the hanger, remove it from the tool and snap it back into place underneath the cord so it will be out of the way while the tool is in use.

3.- Operating Instructions

The Rotary Tool is a handful of high-speed power. It serves as a carver, grinder, polisher, sander, cutter, power brush, drill and more.

The Rotary Tool has a small, powerful electric universal motor, is comfort able in the hand, and is made to accept a large variety of accessories including abrasive wheels, drill bits, wire brushes, polishers, engraving cutters, router bits, cutting wheels and attachments. Accessories come in a variety of shapes and permit you to do a number of different jobs. As you be come familiar with the range of accessories and their uses, you will learn just how versatile the Rotary Tool is. You'll see dozens of uses you hadn't thought of before.

The real secret of the Rotary Tool is its speed. To understand the advantages of its high speed, you have to know that the standard portable electric drill runs at speeds up to 8.000 revolutions per minute. The Rotary Tool operates at speeds up to 33.000 revolutions per minute. The typical electric drill is a lowspeed, high torque tool; the Rotary Tool is just the opposite – a high-speed, low torque tool. The major difference to the user is that in the high speed tools, the speed combined with the acces sory mounted in the collet does the work. You don't apply pressure to the tool, but simply hold and guide it. In the low speed tools, you not only guide the tool, but also apply pressure to it, as you do, for example, when drilling a hole.

It is this high speed, along with its compact size and wide variety of special accessories and attachments, that makes the Rotary Tool differ ent from other tools. The speed enables it to do jobs low speed tools cannot do, such as cutting hardened steel, en graving glass, etc.

Getting the most out of your Rotary Tool is a matter of learning how to let this speed work for you.

Using the Rotary Tool

The first step in learning to use the Rotary Tool is to get the "feel" of it. Hold it in your hand and feel its weight and balance. Feel the taper of the housing. This taper permits the Rotary Tool to be grasped much like a pen or pencil.

Always hold the tool away from your face. Accessories can be damaged during handling, and can fly apart as they come up to speed. This is not common, but it does happen.

Practice on scrap materials first to see how the Rotary Tool's high speed action performs. Keep in mind that the work is done by the speed of the tool and by the accessory in the collet. You should not lean on or push the tool during use.

Instead, lower the spinning accessory lightly to the work and allow it to touch the point at which you want cutting (or sanding or etching, etc.) to begin. Con centrate on guiding the tool over the work using very little pressure from your hand. Allow the accessory to do the work.

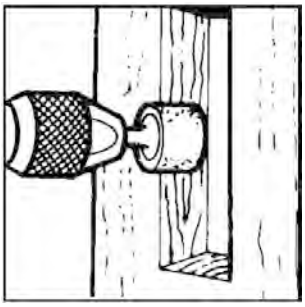
Usually, it is best to make a series of passes with the tool rather than attempt to do all the work in one pass. To make a cut, for example, pass the tool back and forth over the work, much as you would a small paint brush. Cut a little material on each pass until you reach the desired depth. For most work, the gentle touch is best. With it, you have the best control, are less likely to make errors, and will get the most effi cient work out of the accessory

For best control in close work, grip the Rotary Tool like a pencil between your thumb and forefinger.

Sharpen Tools

Drilling

⚠ CAUTION Whenever you hold the tool, be careful not to cover the air vents with your hand. This blocks the air flow and causes the motor to overheat.



Shape Wood

Carve Wood

Deburr Metal

Cut Metal

Wear Eye Protection

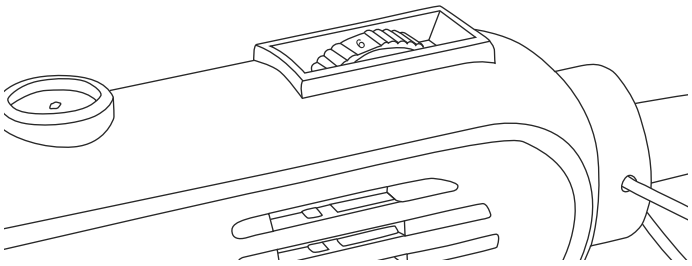
4.- Operating Speeds

To select the right speed for each job, use a practice piece of material.

NOTE: Speed is affected by voltage changes. A reduced incoming voltage will slow the RPM of the tool.

On the two-speed model, there is a LO and HI switch. When the switch indicator is on the low setting, the tool runs at about 8.000 RPM. When the switch indicator is on the high setting, the tool runs at about 33.000 RPM.

The speed of Rotary Tool is controlled by setting this indicator on the housing.



Needs for Slower Speeds

Certain materials, however, (some plastics and precious metals, for ex ample) require a relatively slow speed because at high speed the friction of the accessory generates heat and may cause damage to the material.

Slow speeds (8.000 RPM) usually are best for polishing operations employing the felt polishing ac ces sories. They may also be best for working on deli cate projects as “eggery” work, delicate wood carving and fragile model parts. (All brushing applications require lower speeds to avoid wire discharge from the holder.)

Higher speeds are better for carving, cutting, routing, shaping, cutting dadoes or rabbets in wood.

Hardwoods, metals and glass require high speed operation, and drilling should also be done at high speeds.

Ultimately, the best way to determine the correct speed for work on any material is to practice for a few minutes on a piece of scrap, even after referring to the chart. You can quickly learn that a slower or faster speed is more effective just by observing what hap pens as you make a pass or two at different speeds. When working with plastic, for example, start at a slow rate of speed and increase the speed until you observe that the plastic is melting at the point of contact. Then reduce the speed slight ly to get the optimum working speed.

Some rules of thumb in regard to speed:

1. Plastic and other materials that melt at low temperatures should be cut at low speeds.

2. Polishing, buffing and cleaning with any type of bristle brush must be done at speeds not greater than 8.000 RPM to prevent damage to the brush.

3. Wood should be cut at high speed.

4. Iron or steel should be cut at low speed.

5. Aluminum, copper alloys, lead alloys, zinc alloys and tin may be cut at various speeds, depending on the type of cutting being done. Use paraffin or other suitable lubricant on the cutter to prevent the cut material from adhering to the cutter teeth.

Increasing the pressure on the tool is not the answer when it is not performing as you think it should. Perhaps you should be using a different accessory, and perhaps an adjustment in speed would solve the problem. Leaning on the tool does not help.

Let speed do the work!

5.- Maintenance Information

Service

⚠ WARNING Preventive maintenance pe r formed by unauthorized per so n nel may result in misplacing of internal wires and components which could cause serious hazard. We recommend that all tool service be performed by a STAYER authorized service.

⚠ WARNING To avoid injury from unexpected starting or electrical shock, always remove plug from wall outlet before performing service or cleaning.

CARBON BRUSHES

The brushes and commutator in your tool have been engineered for many hours of dependable service.

In order to prepare your brushes for use, run your tool at full speed for 5 minutes under no load. This will properly “seat” your brushes, which extends the life of both your brushes and your tool.

To maintain peak efficiency of the motor, we recommend every 40 - 50 hours the brush es be examined. Only original replacement brushes specially designed for your tool should be used.

MAINTENANCE OF REPLACEABLE BRUSHES

The brushes should be inspected frequently when tools are used continuously. If your tool runs spo rad ically, loses power, makes unusual noises or runs at a reduced speed, check the brushes.

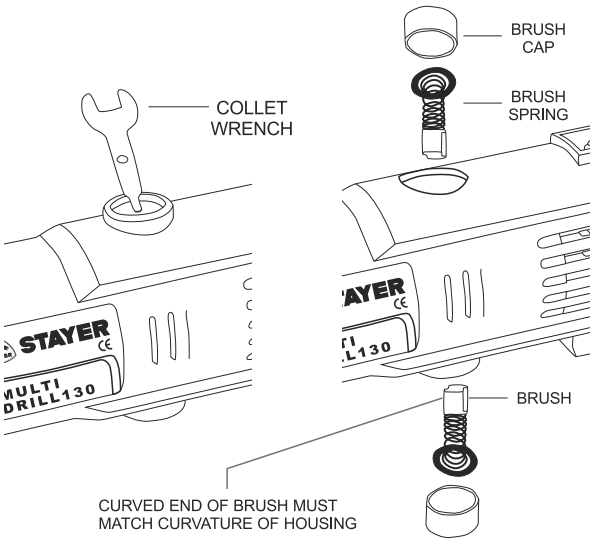
⚠ CAUTION To continue using the tool in this condition will permanently damage your tool.

Siga estos pasos para revisar y cambiar las escobillas de la herramienta rotatoria.

Follow these steps to check/change the rotary tool brushes:

1. With the power cord unplugged, place the tool on a clean surface. Use the tool wrench as a screwdriver to remove the brush caps in a counter-clockwise direction.

2. Remove the brushes from the tool by pulling on the spring that is attached to the carbon brush. If the brush is less than 1/8" long and the end surface of the brush that contacts the commutator is rough and/or pitted, they should be replaced. Check both brushes.



Usually the brushes will not wear out simultaneously. If one brush is worn out, replace both brushes. Make sure the brushes are installed as illus trated. The curved surface of the brush must match the curvature of the commutator.

3. After replacing brushes the tool should be run at no-load; place it on a clean surface and run it freely at full speed for 5 minutes before loading (or using) the tool. This will allow the brushes to “seat” properly and will give you more hours of life from each set of brushes. This will also extend the total life of your tool since the com mutator surface will “wear” longer.

BEARINGS

This model features a double ball bearing construction. Under normal use they will not require lubrication.

Cleaning

⚠ WARNING To avoid accidents always dis connect the tool from the power supply before cleaning or performing any main tenance. The tool may be cleaned most effectively with compressed dry air. **Always wear safety gog gles when cleaning tools with compressed air.**

Ventilation openings and switch levers must be kept clean and free of foreign matter. Do not at tempt to clean by inserting pointed objects through openings.

⚠ CAUTION Certain cleaning agents and sol vents damage plastic parts. Some of these are: gasoline, carbon tetrachlo ride, chlo rinated cleaning solvents, ammonia and house hold detergents that contain ammonia.

Extension Cords

⚠ WARNING If an extension cord is necessary, a cord with adequate size conductors that is capable of carrying the current necessary for your tool must be used. This will prevent excessive voltage drop, loss of power or overheating. Grounded tools must use 3-wire extension cords that have 3-prong plugs and receptacles.

NOTE: The smaller the gauge number, the heav i er the cord.

RECOMMENDED SIZES OF EXTENSION CORDS 120 VOLT ALTERNATING CURRENT TOOLS

Tool's Ampere Rating	Cord Size in A.W.G.				Wire Sizes in mm^2			
	Cord Length in Feet				Cord Length in Meter			
	25	50	100	150	15	30	60	120
3-6	18	16	16	14	0,75	0,75	1,5	2,5
6-8	18	16	14	12	0,75	1,0	2,5	4,0
8-10	18	16	14	12	0,75	1,0	2,5	4,0
10-12	16	16	14	12	1,0	2,5	4,0	-
12-16	14	12	-	-	-	-	-	-

6.-Accessories

⚠ WARNING Use only **STAYER** accessories. Other accessories are not designed for this tool and may lead to personal injury or property damage.

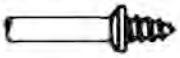
The number and variety of accessories for the Rotary Tool are almost limitless. There is a category suited to almost any job you might have to do — and a variety of sizes and shapes within each category which en ables you to get the perfect accessory for every need.

Collets 

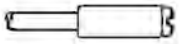
Our kit includes clamps and a collet measuring 1/32", 1/16", 3/32" and 1/8".

Mandrels

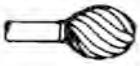
A mandrel is a shank with a threaded or screw head, which are required when you use polishing accessories, cutting wheels, sanding discs, and pol ish ing points. The reason mandrels are used is that sanding discs, cutting wheels and similar accesso ries must be replaced frequently. The mandrel is a permanent shank, allowing you to replace only the worn head when necessary, thus saving the expense of replacing the shaft each time.

Screw Mandrel 

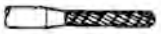
This is a screw mandrel used with the felt polishing tip and felt polishing wheels. 1/8" shank.

Small Screw Mandrel 

This is a mandrel with a small screw at its tip, and is used with emery and fiberglass cutting wheels, sanding discs and polishing wheels. 1/8" shank.

High Speed Cutters 

Available in many shapes, high speed cutters are used in carving, cutting and slotting in wood, plastics and soft metals such as aluminum, copper and brass. These are the accessories to use for freehand routing or carving in wood or plastic, and for precision cutting. Made of high quality steel. 1/8" shank.

Tungsten Carbide Cutters 

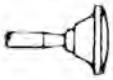
These are tough, long-lived cutters for use on hard ened steel, fired ceramics and other very hard ma terials. They can be used for engraving on tools and garden equipment. 1/8" shanks.

Engraving Cutters 

This group has a wide variety of sizes and shapes, and are made for intricate work on ceramics (greenware), wood carvings, jewelry and scrimshaw. They often are used in making complicat ed printed circuit boards. They should not be used on steel and other very hard materials but are excellent on wood, plastic and soft metals. 3/32" shank.

Structured Tooth Tungsten Carbide Cutters

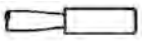
Fast cutting, needle-sharp teeth for greater material removal with minimum loading. Use on fiberglass, wood, plastic, epoxy and rubber. 1/8" shank.

Aluminum Oxide Grinding Stones 

Round, pointed, flat — you name the shape and there is one available in this category. These are made of aluminum oxide and cover virtually every possible kind of grinding application. Use them for sharpening lawn mower blades, screwdriver tips, knives, scissors, chisels and other cutting tools. Use to remove flash from metal castings, deburring any metal after cutting, smoothing welded joints, grinding off rivets and re mov ing rust. These grinding stones can be resharped with a dressing stone. In machine shops, high speed drills and cut ters normally are ground with aluminum oxide wheels. 1/8" shank.

Silicon Carbide Grinding Stones 

Tougher than aluminum oxide points, these are made es pecially for use on hard materials such as glass and ce ramics. Typical uses might be the removal of stilt marks and excess glaze on ceramics and engraving on glass. 1/8" shank.

Diamond Wheel Points 

Excellent for fine detail work on wood, jade, ceramic, glass and other hard material. Bits are covered with diamond particles. 3/32" shanks. (Not recommended for drilling)

Wire Brushes 

For best results wire brushes should be used at speeds not greater than 8.000 RPM. Refer to Operating Speeds section for proper tool speed setting. All brushes come in three different materials: stainless steel, brass and carbon wire. The stainless steel perform well on pewter, aluminum, stainless steel, and other metals, without leaving "after-rust". Brass brushes are non sparking, and softer than steel; making them good for use on soft metal like gold, cooper and brass. The carbon wire brushes are good for general purpose cleaning.

Bristle Brushes 

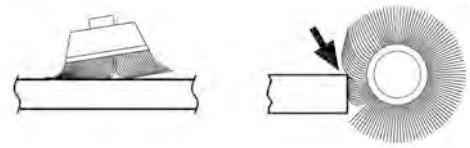
These are excellent cleaning tools on silverware, jew elry and antiques. The three shapes make it possible to get into tight corners and other difficult places. Bristle brushes can be used with polishing compound for faster cleaning or polishing.

Brushing Pressure

1. Remember, the tips of a wire brush do the work. Operate the brush with the lightest pressure so only the tips of the

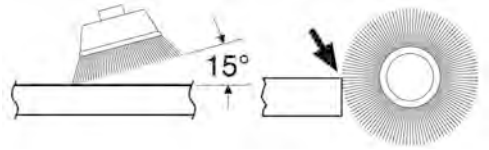
wire come in contact with the work.
2. If heavier pressures are used, the wires will be overstressed, resulting in a wiping action; and if this is continued, the life of the brush will be shortened due to wire fatigue.

INCORRECT:
Excessive pressure can cause wire breakage.



3. Apply the brush to the work in such a way that as much of the brush face as possible is in full contact with the work. Applying the side or edge of the brush to the work will result in wire breakage and shortened brush life.

CORRECT:
Wire tips doing the work.



Polishing Accessories

These include an impregnated polishing point and an impregnated polishing wheel for bringing metal sur faces to smooth finish; a felt polishing tip and felt polish ing wheel, and cloth polishing wheel, all used for polishing plastics, metals, jewelry and small parts. Also included in this group is a polishing compound for use with the felt and cloth polishers.

Polishing points make a very smooth surface, but a high luster is obtained using felt or cloth wheels and polishing compound. **For best results polishing accessories should be used at speeds not greater than 8.000 RPM.**

Aluminum Oxide Abrasive Wheels

Use to remove paint, deburr metal, polish stainless steel and other metals. Available in fine and medium grits. 1/8" shank.

Sanding Accessories

Sanding discs in fine, medium and coarse grades are made to fit mandrel. They can be used for nearly any small sanding job you might have, from model making to fine furniture finish ing. In addition, there is the drum sander, a tiny drum which fits into the Rotary Tool and makes it possible to shape wood, smooth fiberglass, sand inside curves and other diffi cult places, and other sanding jobs. You replace the sanding bands on the drum as they become worn and lose their grit. Bands come in fine medium and coarse grades. Flapwheels grind and polish flat or contoured surfaces. They are used most effectively as a finishing sander after heavier surface sanding and material removal is completed. Flapwheels come in fine and coarse grades. Buffs are a great finishing accessory for cleaning and light sanding. They work effectively on metal, glass, wood, aluminum and plastics. Do not exceed 8.000 RPM in speed. 1/8" shank.

Grinding Wheel

Use for deburring, removing rust, and general purpose grinding. Use with Mandrel.

Cutting Wheels

These thin discs of emery or fiberglass are used for slicing, cutting off and similar operations. Use them for cutting off frozen bolt heads and nuts, or to reslot a screw head which has become so damaged that the screwdriver won't work in it. Fine for cutting BX cable, small rods, tubing, cable and cutting rectangular holes in sheet metal.

Drywall Cutting Bit

Gives you fast, clean cuts in drywall.

Spiral Cutting Bit

Cuts through all types of wood and wood composites.

7.- Service

After-sales Service and Customer Assistance

Our after-sales service responds to your questions concerning maintenance and repair of your product as well as spare parts.

Our customer service representatives can answer your questions concerning possible applications and adjustment of products and accessories.

Stayer Ibérica S.A.
Area Empresarial de Andalucía - Sector 1
Calle Sierra de Cazorla 7
28320 Pinto, Madrid (Spain)

Disposal

The machine, accessories and packaging should be sorted for environmental-friendly recycling.

Do not dispose of power tools into household waste!

Only for EC countries:

According the European Guideline 2002/96/EC for Waste Electrical and Electronic Equipment and its implementation into national right, power tools that are no longer usable must be collected separately and disposed of in an environmentally correct manner.

8. EC Declaration of Conformity

The undersigned:
STAYER IBERICA, S.A.

Whit address at:
Calle Sierra de Cazorla, 7
Área Empresarial Andalucía - Sector 1
28320 PINTO (MADRID)
Tel.: +34 91 691 86 30 / Fax: +34 91 691 91 72

CERTIFIES
That the machine:
Type:
MULTI DRILL

Model:
MULTI DRILL 130

We declare under our sole responsibility that the product described under "Technical Data" is in conformity with the following standards or standardization documents: EN 60745 according to the provisions of the directives 2004/108/EC, 2006/42/EC.

Signed: Ramiro de la Fuente
Director General

January 5, 2017

STAYER

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