

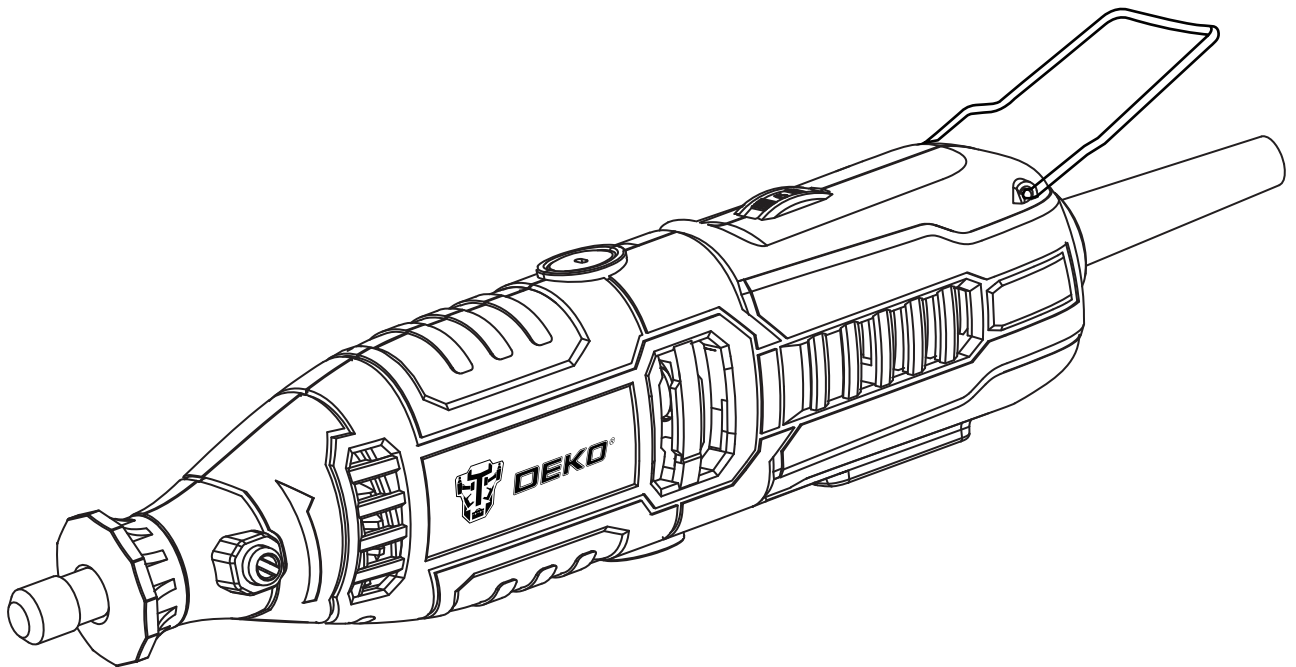


**DEKO®**

# INSTRUCTION MANUAL

## ROTARY TOOL

**Model No.: DKRT135ST1  
DKRT170ST2**



**IMPORTANT:**

Read this instruction manual before operating this product.  
Keep the instruction manual for future reference.



DEKO TOOLS CO., LIMITED

[www.dekotools.com](http://www.dekotools.com)

Made in China

# GENERAL POWER TOOL SAFETY WARNINGS

**⚠ WARNING :** Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

**Save all warnings and instructions for future reference.**

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

## 1) Work area safety

- a) **Keep work area clean and well lit.** *Cluttered or dark areas invite accidents.*
- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** *Power tools create sparks which may ignite the dust or fumes.*
- c) **Keep children and bystanders away while operating a power tool.** *Distractions can cause you to lose control.*

## 2) Electrical safety

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** *Unmodified plugs and matching outlets will reduce risk of electric shock.*
- b) **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** *There is an increased risk of electric shock if your body is earthed or grounded.*
- c) **Do not expose power tools to rain or wet conditions.** *Water entering a power tool will increase the risk of electric shock.*
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** *Damaged or entangled cords increase the risk of electric shock.*
- e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** *Use of a cord suitable for outdoor use reduces the risk of electric shock.*
- f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** *Use of an RCD reduces the risk of electric shock.*

## 3) Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** *A moment of inattention while operating power tools may result in serious personal injury.*
- b) **Use personal protective equipment. Always wear eye protection.** *Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.*
- c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** *Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.*
- d) **Remove any adjusting key or wrench before turning the power tool on.** *A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*

- e) **Do not overreach. Keep proper footing and balance at all times.** *This enables better control of the power tool in unexpected situations.*
- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** *Loose clothes, jewellery or long hair can be caught in moving parts.*
- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** *Use of dust collection can reduce dust-related hazards.*
- h) **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** *A careless action can cause severe injury within a fraction of a second.*

#### **4) Power tool use and care**

- a) **Do not force the power tool. Use the correct power tool for your application.** *The correct power tool will do the job better and safer at the rate for which it was designed.*
- b) **Do not use the power tool if the switch does not turn it on and off.** *Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*
- c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** *Such preventive safety measures reduce the risk of starting the power tool accidentally.*
- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** *Power tools are dangerous in the hands of untrained users.*
- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use.** *Many accidents are caused by poorly maintained power tools.*
- f) **Keep cutting tools sharp and clean.** *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*
- g) **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** *Use of the power tool for operations different from those intended could result in a hazardous situation.*
- h) **Keep handles and grasping surfaces dry, clean and free from oil and grease.** *Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.*

#### **5) Service**

- a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.** *This will ensure that the safety of the power tool is maintained.*

## **SPECIFIC SAFETY RULES FOR ROTARY TOOL**

**Safety Warnings Common for Grinding, Sanding, Wire Brushing, Polishing or Abrasive Cutting-Off Operations:**

- a) **This power tool is intended to function as a grinder, sander, wire brush, polisher or cut-off tool. Read all safety warnings, instructions, illustrations and specifications provided with this power tool.** *Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.*
- b) **Do not use accessories which are not specifically designed and recommended by the tool manufacturer.** *Just because the accessory can be attached to your power tool, it does not assure safe operation.*

- c) **The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool.** *Accessories running faster than their RATED SPEED can break and fly apart.*
- d) **The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.** *Incorrectly sized accessories cannot be adequately guarded or controlled.*
- e) **The arbour size of wheels, flanges, backing pads or any other accessory must properly fit the spindle of the power tool.** *Accessories with arbour holes that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.*
- f) **Mandrel mounted wheels, sanding drums, cutters or other accessories must be fully inserted into the collet or chuck.** *If the mandrel is insufficiently held and/or the overhang of the wheel is too long, the mounted wheel may become loose and be ejected at high velocity.*
- g) **Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, sanding drum for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute. Damaged accessories will normally break apart during this test time.**
- h) **Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments. The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtering particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.**
- i) **Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment. Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.**
- j) **Hold power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.**
- k) **Always hold the tool firmly in your hand(s) during the start-up.** *The reaction torque of the motor, as it accelerates to full speed, can cause the tool to twist.*
- l) **Use clamps to support workpiece whenever practical. Never hold a small workpiece in one hand and the tool in the other hand while in use. Clamping a small workpiece allows you to use your hand(s) to control the tool. Round material such as dowel rods, pipes or tubing have a tendency to roll while being cut, and may cause the bit to bind or jump toward you.**
- m) **Position the cord clear of the spinning accessory.** *If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.*
- n) **Never lay the power tool down until the accessory has come to a complete stop.** *The spinning accessory may grab the surface and pull the power tool out of your control.*
- o) **After changing the bits or making any adjustments, make sure the collet nut, chuck or any other adjustment devices are securely tightened.** *Loose adjustment devices can unexpectedly shift, causing loss of control. Loose rotating components will be violently thrown.*
- p) **Do not run the power tool while carrying it at your side.** *Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.*

- q) **Regularly clean the power tool's air vents.** *The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.*
- r) **Do not operate the power tool near flammable materials.** *Sparks could ignite these materials.*
- s) **Do not use accessories that require liquid coolants.** *Using water or other liquid coolants may result in electrocution or shock.*

## **Kickback and Related Warnings**

Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.

For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions. Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

- a) **Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces.** *The operator can control kickback forces, if proper precautions are taken.*
- b) **Use special care when working corners, sharp edges, etc. Avoid bouncing and snagging the accessory.** *Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.*
- c) **Do not attach a toothed saw blade.** *Such blades create frequent kickback and loss of control.*
- d) **Always feed the bit into the material in the same direction as the cutting edge is exiting from the material (which is the same direction as the chips are thrown).** *Feeding the tool in the wrong direction causes the cutting edge of the bit to climb out of the work and pull the tool in the direction of the feed.*
- e) **When using rotary files, cut-off wheels, highspeed cutters or tungsten carbide cutters, always have the work securely clamped.** *These wheels will grab if they become slightly canted in the groove, and can kickback. When a cut-off wheel grabs, the wheel itself usually breaks. When a rotary file, high-speed cutter or tungsten carbide cutter grabs, it may jump from the groove and you could lose control of the tool.*
- f) **Never place your hand near the rotating accessory.** *The accessory may kickback over your hand.*
- g) **Do not position your body in the area where the power tool will move if kickback occurs.** *Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.*

## **Safety Warnings Specific for Grinding and Abrasive Cutting-off Operations**


- a) **Use only wheel types that are recommended for your power tool and only for recommended applications. For example: do not grind with the side of a cut-off wheel.** *Abrasive cut-off wheels are intended for peripheral grinding. Side forces applied to these wheels may cause them to shatter.*
- b) **For threaded abrasive cones and plugs use only undamaged wheel mandrels with an unrelieved shoulder flange that are of correct size and length.** *Proper mandrels will reduce the possibility of breakage.*

- c) **Do not “jam” a cut-off wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut.** *Overstressing the wheel increases the loading and susceptibility to twisting or snagging of the wheel in the cut and the possibility of kickback or wheel breakage.*
- d) **Do not position your hand in line with and behind the rotating wheel.** *When the wheel, at the point of operation, is moving away from your hand, the possible kickback may propel the spinning wheel and the power tool directly at you.*
- e) **When wheel is pinched, snagged or when interrupting a cut for any reason, switch off the power tool and hold the power tool motionless until the wheel comes to a complete stop. Never attempt to remove the cut-off wheel from the cut while the wheel is in motion otherwise kickback may occur.** *Investigate and take corrective action to eliminate the cause of wheel pinching or snagging.*
- f) **Do not restart the cutting operation in the workpiece. Let the wheel reach full speed and carefully re-enter the cut.** *The wheel may bind, walk up or kickback if the power tool is restarted in the workpiece.*
- g) **Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback.** *Large workpieces tend to snag under their own weight. Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.*
- h) **Use extra caution when making a “pocket cut” into existing walls or other blind areas.** *The protruding wheel may cut gas or water pipes, electrical wiring or objects that can cause kickback.*








## Safety Warnings Specific for Wire Brushing Operations

- a) **Be aware that wire bristles are thrown by the brush even during ordinary operation. Do not over-stress the wires by applying excessive load to the brush.** *The wire bristles can easily penetrate light clothing and/or skin.*
- b) **Allow brushes to run at operating speed for at least one minute before using them. During this time no one is to stand in front or in line with the brush.** *Loose bristles or wires will be discharged during the run-in time.*
- c) **Direct the discharge of the spinning wire brush away from you.** *Small particles and tiny wire fragments may be discharged at high velocity during the use of these brushes and may become imbedded in your skin.*
- d) **If the use of a guard is recommended for wire brushing, do not allow any interference of the wire wheel or brush with the guard.** *Wire wheel or brush may expand in diameter due to work load and centrifugal forces.*

 **WARNING :** Do not work with materials (asbestos is considered carcinogenic).

 **WARNING :** Take protective measures when during work dust can develop that is harmful to one's health, combustible or explosive (some dusts are considered carcinogenic); wear a dust mask and work with dust/chip extraction when connectable.

## SYMBOLS EXPLANATION

	Conforms to relevant safety standards.
	To reduce the risk of injury, user must read instruction manual.
	Do not dispose of old appliances with domestic rubbish.
	Double insulation Class II device .This device must not be earthed.
	Wear hearing protection.
	Wear eye protection.
	Wear respiratory protection.

## PRODUCT SPECIFICATIONS

Rated Voltage/Frequency: 230V~ 50Hz

Input Power:

DKRT135ST1 135W

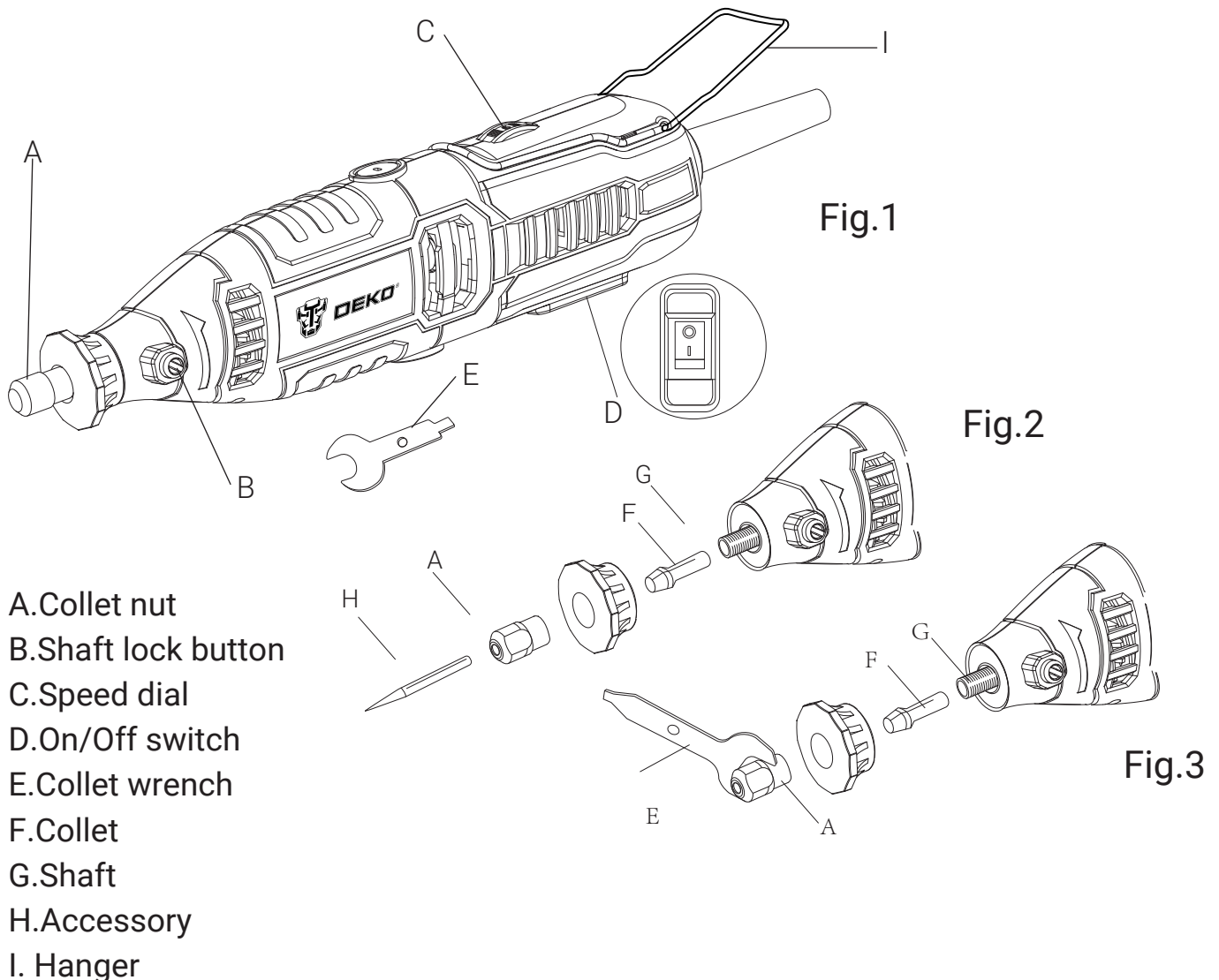
DKRT170ST2 170W

No Load Speed: 10000-36000/min (RPM)

Collet Size: 3.2mm (1/8")

Product Weight: approx. 0.70kg

## PARTS DESCRIPTION



## OPERATION

### Changing Collets (Fig.3)

**⚠ WARNING :** Always unplug the tool before changing accessories, changing collets or service the tool.

1. Press the shaft lock button (B), hold down and rotate the shaft by hand until it engages the shaft lock. Do not engage the shaft lock button while the rotary tool is running.
2. With the shaft lock button engaged, loosen and remove the collet nut. (A) Use the collet wrench (E) if necessary.
3. Remove the collet by pulling it free from the shaft.
4. Install the appropriate size collet fully into the shaft and replace the collet nut on the shaft. Do not fully tighten the nut when there is no bit or accessory installed.



## Installing Accessories (Fig. 2)

**⚠ WARNING :** Always unplug the tool before changing accessories, changing collets or service the tool.

1. Press the shaft lock button(B) and rotate the shaft by hand until it engages the shaft lock. Do not engage the shaft lock button while the rotary tool is running.
2. With the shaft lock button engaged, loosen (do not remove) the collet nut(A). Use the collet wrench(E) if necessary.
3. Insert the bit or accessory shank fully into the collet.
4. With the shaft lock button engaged, tighten the collet nut with the provided wrench until the accessory shank is gripped by the collet. Avoid over-tightening of the collet nut.

WARNING: If you are changing an accessory immediately after use, be careful not to touch the collet, collet nut, or the accessory with your hands or fingers. You will get burned because of the heat build-up from operation. Always use the wrench provided.

## Typical Applications

A large variety of accessories are available for applications such as grinding, sanding, and cutting.

### Grinding/Sanding

Use sanding and grinding accessories that are:

- less than 2" in diameter.
- correct accessory type and grit for the job.
- rated at or above the RPM listed on the tool's nameplate.

### Wheel Brushes

Wire wheel brushes are useful for removing rust, scale, burrs, weld slag, etc. A wide variety of wire brushes are available for many applications. When applying brush to work, avoid using too much pressure. This causes over-bending of wires and heat build-up resulting in premature wire breakage, rapid dulling and reduced brush life. Instead of using more pressure, try a wire wheel brush with more aggressive cutting action (increased wire size, decreased wire length or different brush type, i.e. knot type instead of crimped wire type).

### Cutting

Always handle cutting wheels carefully to avoid damage. Before installing any wheel, always inspect it for cracks. If wheel is cracked, discard it to prevent others from using it. Cutting wheels should be protected from:

- wetness and extreme humidity
- any type of solvent
- extreme changes in temperature
- dropping and bumping

If a cutting wheel encounters any of these situations, discard the wheel immediately.

## Turning the Rotary Tool On/Off

To turn the rotary tool ON, depress the **On/Off switch(D)**. To turn it OFF, press the **On/Off switch (D)** again.

## Operation Speeds

To select the speed, rotate **the speed dial (C)**. Set the speed dial to "1" for the lowest speed (approx. 10000 RPM). Set the speed dial to "MAX" for the highest speed (approx. 36000 RPM). Adjusting the no of RPM to your project will give a better end result. To achieve the best results when working with different materials, set the variable speed control to suit the job. To select the right speed for the accessory in use, practice with scrap material first.

The speed settings are marked on the **speed control dial (C)**. Refer to the following Speed Settings chart on to help determine the proper speed for the material being worked on and the accessory to use. Most jobs can be accomplished using the tool at the highest setting. However, certain materials (some plastics and metals) can be damaged by high-speed generated heat and should be worked on at relatively low speeds. Low speed operation (15000 RPM or less) is usually best for polishing operations employing the felt polishing accessories. All brushing applications require lower speeds to avoid wire discharge from the holder. Let the performance of the tool do the work for you when using lower speed settings. Higher speeds are better for hardwoods, metals and glass and for drilling, carving, cutting, routing, shaping and cutting dadoes or rabbets in wood. Approximate RPM of each speed setting of this rotary tool.

Switch Setting	Approx. Speed Range
1-2	10000-15000RPM
2-3	15000-18000RPM
3-4	18000-22000RPM
4-5	22000-28000RPM
5-MAX	28000-36000RPM

Some guidelines regarding tool speed:

- Plastic and other materials that melt at low temperatures should be cut at low speeds.
- Polishing, buffing and cleaning with a wire brush must be done only at switch setting 1 to prevent damage to the brush and your material.
- Wood should be cut at high speed.
- Iron or steel should be cut at high speed.
- If a high speed steel cutter starts to vibrate, it usually indicates that it is running too slow.
- Aluminium, copper alloys, lead alloys, zinc alloys and tin may be cut at various speeds, depending on the type of cutting being done. Use a paraffin (not water) or other suitable lubricant on

the cutter to prevent the cut material from adhering to the cutter teeth.

**NOTE:** Increasing pressure on the tool is not the answer when it is not performing properly. Try a different accessory or speed setting to achieve the desired result.

## Using the Rotary Tool

Before starting, please determine the best grip for your job. The rotary tool can be held like a pencil for fine work, or gripped around the body when less precision is needed. Practice on scrap material to determine the best speed, correct accessory, and get a feel for the job.

Do not press the accessory into the workpiece. Little or no operator force should be needed when the correct accessory and speed are used. Touch the accessory to the workpiece and guide it over the work, making multiple passes when necessary.

To operate the rotary tool:

1. Secure the work piece in a vise or clamp to a workbench to prevent it from moving under the tool.
2. Hold the tool in front and away from you, keeping the tool accessory clear of the workpiece.
3. Turn on the tool and let the motor and accessory build up to full speed.
4. Lower the tool gradually until the accessory contacts the workpiece.
5. Move the tool continuously at a steady, consistent pace.
6. Use just enough pressure to keep the tool from chattering or bouncing.

**NOTE:** Heavy pressure will decrease the tool's speed and put a strain on the motor.

7. Lift the tool away from the workpiece before turning off the tool.

## CLEANING AND MAINTENANCE

Clean dust and debris from vents. Keep handles clean, dry and free of oil or grease. Use only mild soap and a damp cloth to clean, since certain cleaning agents and solvents are harmful to plastics and other insulated parts. Never use flammable or combustible solvents around tools.

## DISPOSAL



Separate collection.

This product must not be disposed of with normal household waste. Should you find one day that your DEKO product needs replacement, or if it is of no further use to you, do not dispose of it with household waste. Please recycle them at collection points provided for the purpose. Ask your local authority for information about recycling.