

# FLEX

## CS 40 WET





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# Symbols used in this manual

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## **WARNING!**

*Denotes impending danger.*

*Non-observance of this warning may result in **death** or extremely **severe injuries**.*



## **CAUTION!**

*Denotes a possibly dangerous situation.*

*Non-observance of this warning may result in **slight injury** or **damage to property**.*



## **NOTE!**

*Denotes application **tips** and **important information**.*

## Symbols on the power tool



*Before switching on the power tool, read the operating manual!*



*Wear goggles!*



*Wear ear protection!*



*Use light-weight breathing protection!*

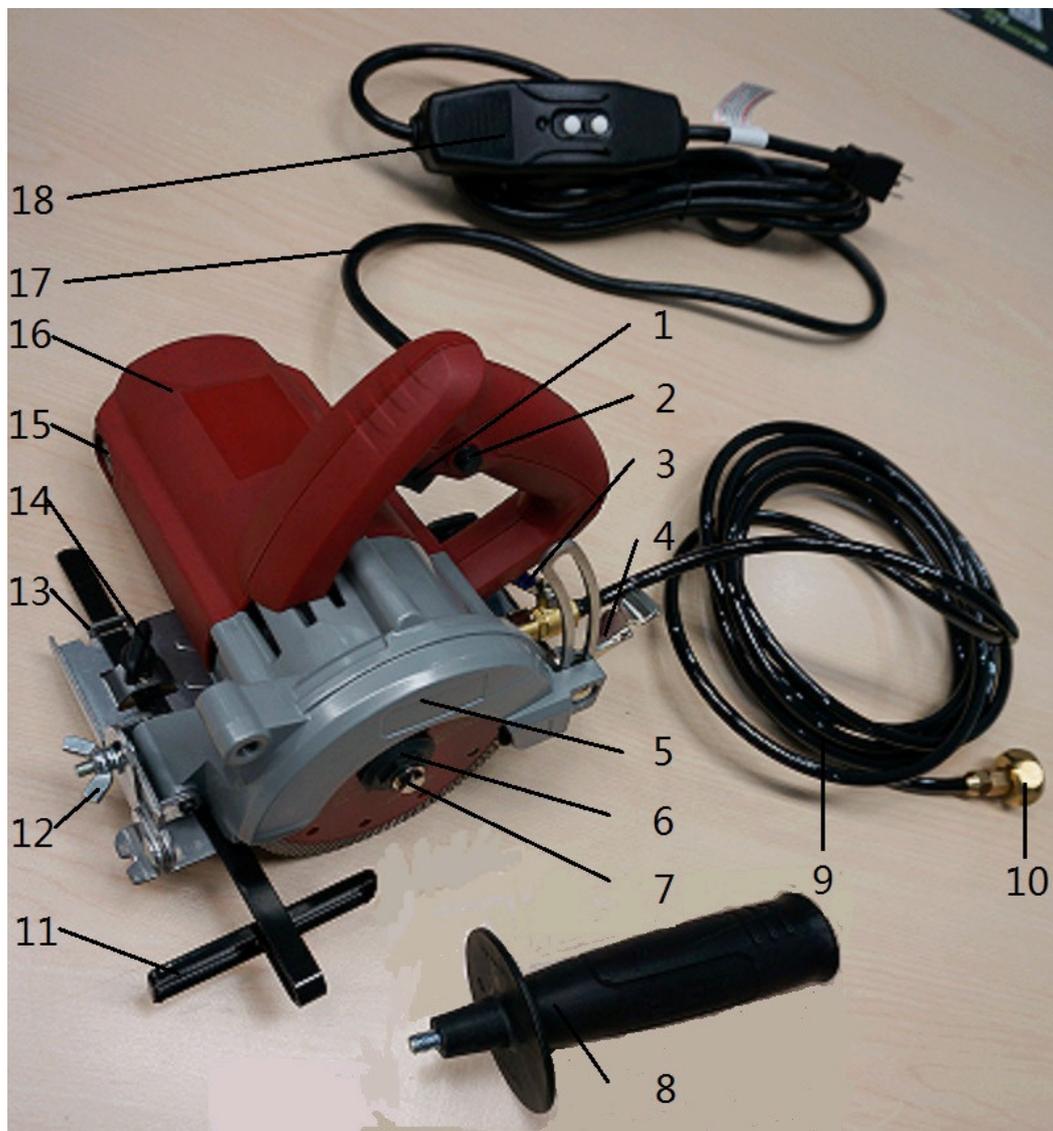


*Disposal information for the old machine (see page Disposal information)!*

## Technical specifications

<b>Dry/wet saw</b>	<b>CS 40 WET</b>
Supply power	120V/60Hz
Rated current	12A
No-load speed	12000min <sup>-1</sup>
Blade size	5 " x7/8 " (with $\phi$ 20mm adaptor ring)
Tilting range	0-45°
Maximum cut thickness at 90°	41mm
Maximum cut thickness at 45°	26mm

## Overview



- |   |                              |    |   |
|---|------------------------------|----|---|
| 1 | Trigger switch               | 10 | Tap adaptor                             |
| 2 | Lock-off button              | 11 | Parallel guide                          |
| 3 | Water valve                  | 12 | 0-45°locking knob                       |
| 4 | Cutting –depth locking lever | 13 | Base plate                              |
| 5 | Blade guard                  | 14 | Parallel-guide retaining screw          |
| 6 | Outer flange                 | 15 | Carbon brush cap                        |
| 7 | Spindle bolt                 | 16 | Motor enclosure                         |
| 8 | Auxiliary handle             | 17 | Supply cord                             |
| 9 | Water tube                   | 18 | PRCD (Portable Residual Current Device) |

# For your safety

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## **WARNING!**

**Read all safety instructions and other instructions.** Failure to observe the safety instructions and other instructions may result in an electric shock, fire and/or serious injuries. **Save all warnings and instructions for future reference.**

Before using the power tool, please read and follow:

- these operating instructions,
- the “**General safety instructions**” on the handling of power tools in the enclosed booklet (*leaflet-no.: 315.915*),
- the currently valid site rules and the regulations for the prevention of accidents.

This power tool is state of the art and has been constructed in accordance with the acknowledged safety regulations. Nevertheless, when in use, the power tool may be a danger to life and limb of the user or a third party, or the power tool or other property may be damaged. The power tool may be operated only if it is

- as intended,
- in perfect working order.

Faults which impair safety must be repaired immediately.

## **Intended use**

The **wet/dry saw CS 40 WET** is designed

- for commercial use in industry and trade,
- for cutting tile and marble,
- not for cutting metal, wood and plastic,
- to be used with suitable tools recommended by the manufacturer for this power tool.

## **Safety instructions for saws**



## **WARNING!**

**Read all these instructions before operating the product and keep them in a safe place for future reference.**

*Always wear safety gear, such as safety goggles, safety mask and ear protection if necessary.*

- **Use clamps or another practical way to support and secure the work piece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
- **Do not force the tool.** Use the correct tool for your application. The correct tool will do the job better and more safely at the rate for which is designed.
- **Do not use the tool if the switch does not turn it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- **Store idle tools out of the reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
- **Maintain tools with care.** Keep cutting tools sharp and clean. Properly maintained tools, with sharp cutting edges are less likely to bind and are easier to control.
- **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation.** If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.
- **Do not alter or misuse tool.** This tool is precision built. Any alteration or modification not specified is misuse and may result in a dangerous condition.



### **WARNING!**

*Keep hands away from the cutting area and blade during operation. Keep your second hand on the auxiliary handle or motor housing. If both hands are holding the saw, they cannot be cut by the blade.*

- **Never hold the piece being cut in your hands or across your leg.** It is important to support the work properly to minimize body exposure, blade binding, or loss of control.
- **Always use diamond blades with the correct size and shape arbor holes (diamond vs. round).** Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.
- **Never use damaged or incorrect blade washers or bolts.** The blade washers and bolt were specially designed for your saw, for optimum performance and operational safety.
- **The cutting depth locking lever and the 0-45° locking knob must be tight and secure before making a cut.**
- **Do not use the saw near fumes or combustible liquids.**
- **Never slow the blade down with your hands or by applying pressure to the side of the blade.**
- **Before operation. Make sure that the blade has no cracks, rim wear or**

damage.

- **Be careful not to damage the spindle, flanges or bolt of this tool.**
- **When the blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop.** Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or KICKBACK may occur.
- **This tool is only to be used for cutting tile and natural stone; do not use it to cut metal.**
- **Keep your body positioned to either side of the saw blade, but not in line with the saw blade.** Kickback could cause the saw to jump backwards.
- **Do not reach underneath the work.** The guard cannot protect you from the blade below the work.
- **Hold the tool by its insulated gripping surface when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a “live” wire will also make exposed metal parts of the tool “live” and shock the operator.
- **When rip cutting, always use a rip fence or straight edge guide.** This improves the accuracy of the cut and reduces the chance for blade binding.

## Specific safe operation guide

- **Ensure that the directional arrow marked on the blade corresponds with the rotational direction of the motor.**
- **Always keep the blade-securing arbor and collars clean.**
- **Ensure that the blade-securing means is securely tightened with the wrench provided.**
- **Ensure that the portion of work piece that will be cut off has sufficient room to move sideways.** Failure to do so may result in the cut-off piece binding against the blade.
- **Never cut more than one tile at a time.**
- **Before cutting a tile piece, allow the saw blade to run freely for a few seconds.** If the saw makes an unfamiliar sound or vibrates excessively, switch it off immediately and disconnect from the power supply. Investigate the cause or consult the customer service department for advice.
- **Allow the blade to reach full speed before beginning the cut.**
- **Allow the blade to come to a complete stop before removing any jammed or off cut material from around the blade area.**

# Noise and vibration

The noise and vibration values have been determined in accordance with EN 60745.

The A evaluated noise level of the power tool is typically:

- Sound pressure level:  $X$  dB(A);
- Sound power level:  $X$  dB(A);
- Uncertainty:  $K = X$  dB.

Total vibration value:

- when **cutting the tile**:

- Emission value:  $a_h = X$  m/s<sup>2</sup>
- Uncertainty:  $K = X$  m/s<sup>2</sup>

- when **cutting the marble**:

- Emission value:  $a_h = X$  m/s<sup>2</sup>
- Uncertainty:  $K = X$  m/s<sup>2</sup>



## CAUTION!

*The indicated measurements refer to new power tools. Daily use causes the noise and vibration values to change.*



## NOTE!

The vibration emission level given in this information sheet has been measured in accordance with a standardised test given in EN 60745 and may be used to compare one tool with another. It may be used for a preliminary assessment of exposure. The declared vibration emission level represents the main applications of the tool.

However if the tool is used for different applications, with different accessories or poorly maintained, the vibration emission may differ. This may significantly increase the exposure level over the total working period.

However if the tool is used for different applications, with different accessories or poorly maintained, the vibration emission may differ. This may significantly decrease the exposure level over the total working period. Identify additional safety measures to protect the operator from the effects of vibration such as: maintain the tool and the accessories, keep the hands warm, organisation of work patterns.



## CAUTION!

*Wear ear protection at a sound pressure above 85 dB(A).*

# Instructions for use

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## Before switching on the power tool

Unpack power tool and accessories and check that no parts are missing or damaged.

## Testing the PRCD



### **WARNING!**

*Test before each use.*

- Plug into power outlet. Indicator light should turn on.
- Press the test button: Indicator light should turn off.
- Press and release the reset button. Indicator light should turn on. Do not use if the above test fails.

This device does not protect against electrical shock due to contact with short circuits or faulty wiring in the power supply.

## Installing the blade



### **NOTE!**

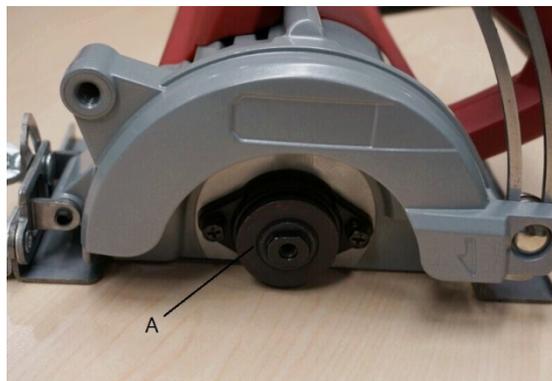
For your own safety and protection, do not attempt to operate this tile saw until it is completely assembled and installed according to these instructions. Read and understand the capability of the saw and the hazards associated with its operation. Sandwich the diamond blade between the two flanges.

4 1/2" 20 mm arbor diamond dry/wet blades are suitable replacement blades for this saw.

- Turn off the tool and remove the plug from the electrical outlet.



- Use the socket wrench supplied to unscrew the spindle bolt in a clockwise direction while using the solid wrench to fix the spindle.
- Remove the bolt and the outer flange.



- Inner flange (A) remains on the spindle.



- Fit the blade supplied onto the motor shaft.
- Make sure that the rotation direction of blade corresponds to the arrow on the blade guard.
- Replace the outer flange and then replace the spindle bolt.



- Finally, use the socket wrench to tighten the spindle bolt in a counterclockwise direction while using the solid wrench to fix the spindle.



### **CAUTION!**

*Do not over-tighten!*

## **Adjustment the water valve**



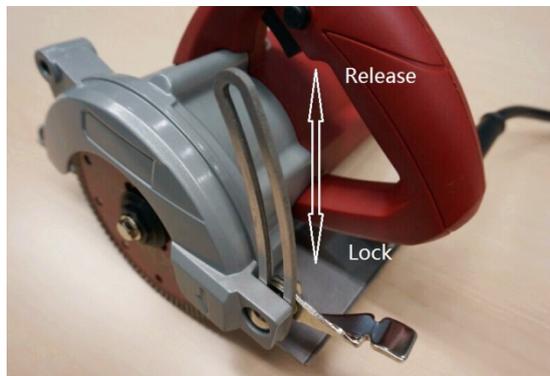
- Turn the water valve to the position for maximum water flow onto the blade.



- Turn the water valve to the position to stop the water flow.

## Adjustment the cutting depth

- Turn off the tool and remove the plug from the electrical outlet.



- Loosen the cutting depth lever.



- Hold the base plate flat against the edge of the work piece and lift the body of tool until the blade is at the correct depth.
- Tighten the depth locking lever.

## Changing the blade



### **WARNING!**

*Do not attempt to cut small pieces. Avoid awkward hand positions where a sudden slip could cause your hand or finger to come in contact with the diamond blade. When cutting any material, make sure that.*

- When the blade is worn out, it should be changed according the procedure in **Installing the blade**.

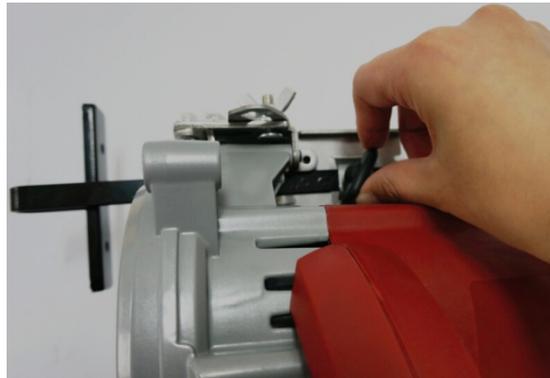
## Parallel cut



### **WARNING!**

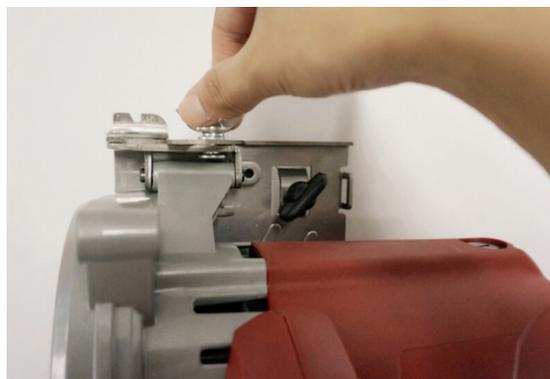
*Make sure that the edge you are using is parallel to the intended cut.*

- Turn off the tool and remove the plug from the electrical outlet.



- Adjust the parallel guide to the desired width from the blade, then tighten the retaining screw.

## 0-45° bevel cut



- Loosen the 0-45° locking knob.
- Tilt the body of saw until the required angle is reached.
- Tighten the locking knob to secure the base plate.

## Switch on and off

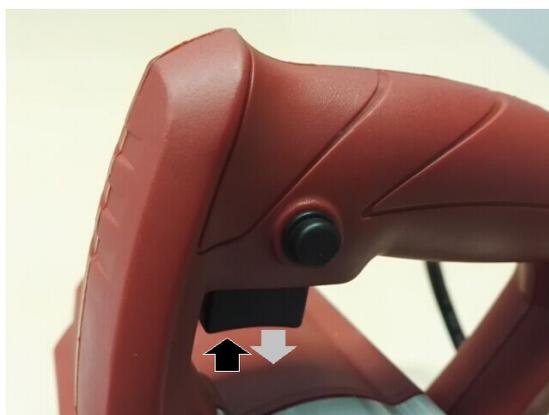
The main switch requires two actions to turn the tool on. The tool can only be put into service if the handle is firmly grasped and both buttons are depressed. The main switch automatically locks in the “OFF” position when the trigger is released, preventing any unintentional operation.

### Locking the switch:



- Press and hold down trigger switch (1).
- Press lock-off button (2) to lock the switch.

### Switch off the machine:



- Press and release the trigger switch.

## Operating instructions

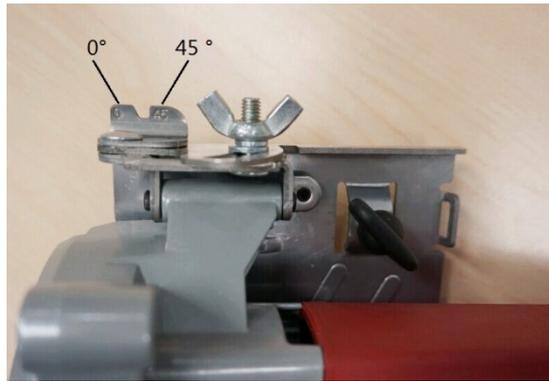
### Tile cutting



#### **CAUTION!**

*Always open the water valve before you start cutting the tile material with the blade supplied with this saw or other wet-cutting blades. The volume of water flow can be adjusted with the water valve.*

- Mark the desired cutting line on the work piece surface, and ensure that the tile material is securely clamped or stationary and horizontal.



- Align the cutting line with the 0° standard line.
- Hold the tool firmly and turn the tool on. Don't allow the blade to contact the material until it has attained full speed.
- If using the blade supplied with this saw or another wet-cutting blade, open the water valve to allow water to flow onto the blade.
- Slowly and smoothly move the tool forward to cut, keeping the base plate flat on the surface.
- Keep the tile saw moving forward smoothly and evenly until the cut is complete.

## Maintenance and care

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### **WARNING!**

*Before performing any work on the electric power tool, pull out the mains plug.*

## Cleaning

Regularly clean the power tool and ventilation slots. Frequency of cleaning is dependent on the material and duration of use.

Regularly blow out the housing interior and motor with dry compressed air.

## Carbon brushes

The electric power tool features cut-off carbon brushes.

When the wear limit of the cut-off carbon brushes is reached, the power tool switches off automatically.



### **NOTE!**

*Use only original parts supplied by the manufacturer for replacement purposes. If non-original parts are used, the guarantee obligations of the manufacturer will be deemed null and void.*

When the power tool is being used, the carbon brushes can be seen sparking through the rear air inlet apertures.

If the carbon brushes are sparking excessively, switch off the electric power tool immediately. Take your electric power tool to a customer service centre authorised by the manufacturer.

## Gears



### **NOTE!**

*Do not loosen the screws on the gear head during the warranty period. Non-compliance will deem the guarantee obligations of the manufacturer null and void.*

The electric power tool has grease lubrication. Have the grease changed/topped up by a customer service workshop authorised by the manufacturer.

## Repairs

Repairs may be carried out by an authorised customer service centre only.

If the power cord of the electric power tool is damaged, it must be replaced with a specially prepared power cord (attachment type X). This power cord is available from FLEX customer service.

## Spare parts and accessories

Other accessories, in particular insertion tools, can be found in the manufacturer's catalogues.

Exploded drawings and spare-part lists can be found on our homepage:  
[www.flex-tools.com](http://www.flex-tools.com)

## Disposal information

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### **WARNING!**

*Render redundant power tools unusable by removing the power cord.*



EU countries only Do not throw electric power tools into the household waste!

In accordance with the European Directive 2012/19/EC on Waste Electrical and Electronic Equipment and transposition into national law used electric power tools must be collected separately and recycled in an environmentally friendly manner.



**NOTE!**

*Please ask your dealer about disposal options!*

## CE-Declaration of Conformity

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We declare under our sole responsibility that the product described under "Technical specifications" conforms to the following standards or normative documents:

EN 60745 in accordance with the regulations of the directives  
2004/108/EC (until 19.04.2016),  
2014/30/EU (from 20.04.2016),  
2006/42/EC, 2011/65/EC.

Responsible for technical documents:

FLEX-Elektrowerkzeuge GmbH, R & D Bahnhofstrasse 15, D-71711  
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16.10.2015

FLEX-Elektrowerkzeuge GmbH  
Bahnhofstrasse 15, D-71711 Steinheim/Murr

## Exemption from liability

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The manufacturer and his representative are not liable for any damage and lost profit due to interruption in business caused by the product or by an unusable product.

The manufacturer and his representative are not liable for any damage which was caused by improper use of the power tool or by use of the power tool with products from other manufacturers.