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DSF 1030-TS

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# **DSF 1030-TS**

**Original operating instructions** 

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#### **1** Information about the documentation

#### **1.1** About this documentation

- Read this documentation before initial operation or use. This is a prerequisite for safe, trouble-free handling and use of the product.
- Observe the safety instructions and warnings in this documentation and on the product.
- Always keep the operating instructions with the product and make sure that the operating instructions are with the product when it is given to other persons.

#### 1.2 Explanation of signs used

#### 1.2.1 Warnings

Warnings alert persons to hazards that occur when handling or using the product. The following signal words are used in combination with a symbol:



**DANGER!** Draws attention to imminent danger that will lead to serious personal injury or fatality.



**WARNING!** Draws attention to a potential hazard that could lead to serious personal injury or fatality.

**CAUTION!** Draws attention to a potentially dangerous situation that could lead to minor personal injury or damage to the equipment or other property.

#### **1.2.2** Symbols in the documentation

The following symbols are used in this document:



Read the operating instructions before use

Instructions for use and other useful information

#### **1.2.3 Symbols in the illustrations**

The following symbols are used in illustrations:

2	These numbers refer to the corresponding illustrations found at the beginning of these operating instructions.
3	The numbering reflects the sequence of operations shown in the illustrations and may deviate from the steps described in the text.
11	Item reference numbers are used in the <b>overview illustrations</b> and refer to the numbers used in the <b>product overview section.</b>
	These characters are intended to specifically draw your attention to certain points when handling the product.

#### 1.3 Product-dependent symbols

#### 1.3.1 Symbols on the product

The following symbols are used on the product:

2 English





Ø	Diameter
	Do not dispose of electric tools, machines or appliances together with house- hold waste.
	Read the operating instructions
	Warning: risk of cutting injury (feet)
	Warning: risk of cutting injury (hands)
Ĩ2	Do not move the floor saw away from the cutting area until the saw blade has stopped rotating
$\bigcirc$	Wear ear protection
	Wear eye protection
	Wear safety shoes.
	Wear protective gloves

#### **1.4 Product information**

**Hilti** products are designed for professional use and may be operated, serviced and maintained only by trained, authorized personnel. This personnel must be informed of any particular hazards that may be encountered. The product and its ancillary equipment may present hazards when used incorrectly by untrained personnel or when used not as directed.

The type designation and serial number are printed on the type identification plate.

 Write down the serial number in the table below. You will be required to state the product details when contacting Hilti Service or your local Hilti organization to inquire about the product.

Product information  $\rightarrow$  page 3

#### Product information

Floor saw trolley	DSF 1030-TS
Generation	01
Serial no.	

#### 2 Safety

#### 2.1 Safety instructions, floor saw trolley

**WARNING!** For use of the equipment as a floor saw, the safety instructions in the operating instructions for the electric wall saw to be used and for the corresponding remote control unit must also be observed.

- Use the trolley only when it is in perfect working order.
- Never tamper with or modify the trolley or the floor saw in any way.
- Operate the floor saw only with the blade guard correctly fitted. Never remove the front section of the blade guard except when absolutely necessary for making a corner cut.
- Do not touch rotating parts risk of injury!



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- Wear protective gloves also when changing the tool. Touching the accessory tool can result in cuts and burns.
- Ensure that adequately-sized supports are correctly installed so that the remaining structure retains its stability even after completion of the cutting work and removal of the part cut away.
- Also secure the area below where cutting is to take place.
- Clear the floor saw's work zone of everything that could obstruct work.
- Operate the floor saw only when all 4 weights are fitted.
- Always position supply cords and hoses so that they do not come into contact with rotating parts of the equipment. Always run cables and hoses flat on the floor or ground away from the machine to prevent trip hazards. Use the cable/hose holders on the floor saw trolley.
- Before switching on, make sure that the saw blade is clear and free to rotate.
- Adjust the bow grip to suit your stature. Avoid unusual postures. Maintain a firm footing and balance at all times. This will give you better control of the product in unexpected situations. Always be prepared for sudden stalling of the tool.
- While the saw is running, always stay behind the bow grip and guide the floor saw trolley by holding it firmly by both grips.
- Keep everyone clear of your work zone. Make sure that there is no-one in the zone in front of the floor saw trolley.
- Do not work where there is a risk of falling. Secure the machine and operator to prevent falls.
- To prevent it rolling away, always stand the floor saw trolley on a horizontal surface for installation or removal of the saw. The wheels of the floor saw trolley can be locked only when the saw head is installed.
- Do not leave the floor saw unattended without the saw head installed and the clutch locked. Make sure the clutch is securely locked by checking that the floor saw trolley does not move when pushed.

4 English





# 3 Description

# 3.1 Overview of the product







#### Floor saw trolley

- (1)Remote control unit attachment point
- (2) Hose / cable attachment point
- (3) Grip
- (4)Handlebar
- (5) Weight
- (6) Freewheel lever

#### Water supply system (supplied with the trolley)

- Hose connector (GEKA) for the (14) water supply system
- (15) Water flow regulating valve
- (16) Attachment point

#### (7)Rear wheel (drive wheel)

- (8) Front wheel (free to rotate)
- (9) Cutting line indicator
- (10) Folding bar for cutting line indicator
- (11) Drive gear wheel
- (12) Saw head mount
- (13)Drive chain

- Water hose (17)
  - (18)Hose connector for connection to saw head

#### 3.2 Intended use

The product described is a trolley on which the **DST 10-CA** or **DST 10-E** electric wall saw and the corresponding remote control unit can be mounted in order to allow use of the equipment as a floor saw.

The floor saw is designed for cutting asphalt, concrete and other mineral materials (e.g. screed).

Only diamond saw blades with a diameter of between 600 mm and 800 mm may be used in conjunction with the floor saw trolley. The maximum permissible blade diameter for starting cuts is 800 mm.

Tap water is used as a dust-binding agent and to cool the blade and the motor.

Before initial operation of the floor saw, the water supply system must be mounted on the blade guard in accordance with the instructions provided in the package. In addition, one of the two warning stickers supplied with the floor saw trolley must be applied in a clearly visible position on the blade guard to be used.

Before use, the operator must have received the appropriate training by a Hilti specialist on safe use of the product.

In addition to observing the operating instructions for the floor saw trolley, the 1 operator must also follow the operating instructions for the electric wall saw and remote control unit mounted on it.

#### 3.3 Possible misuse

Operation of the floor saw without a blade guard fitted is not permissible.

Use of the floor saw trolley on sloping / inclined surfaces is not permissible.

Use of the floor saw in situations where there is a risk of falling is not permissible.

The floor saw is not suitable for use in environments where there is risk of fire or explosion. It is not permissible to cut materials that may emit hazardous or explosive vapors or dusts as a result of the cutting process.

The floor saw is not suitable for cutting highly flammable materials.

#### 3.4 Items supplied

Floor saw trolley, 4 weights (for additional weight), water supply system with installation instructions, 2 warning stickers, operating instructions.







You can find other system products approved for use with this product at your local **Hilti** Center or online at: **www.hilti.com** 

#### 3.5 Traction drive

#### 3.5.1 Drive principle

The mount for the saw head on the floor saw trolley incorporates gear wheels that mesh with the saw head advance motion drive. The advance motion is transferred to the rear wheels of the floor saw trolley by way of a chain and freewheel clutch.

When the freewheel clutch is engaged, the advance motion of the floor saw can be regulated by the remote control unit.

When the freewheel clutch is disengaged, the advance motion can be controlled manually by pushing the floor saw trolley.

#### 3.5.2 Freewheel clutch



- 1 Drive disengaged
- 2 Drive engaged

The clutch controlling the trolley traction drive (saw advance) is actuated by a footoperated lever (freewheel lever).

When the lever is in the left-hand position (as seen by the operator), the drive is disengaged and the floor saw trolley can be pushed by hand at any time.

When the lever is in the right-hand position (as seen by the operator), the traction drive is engaged and the floor saw trolley is propelled by the saw advance motor.

#### 4 Technical data

#### 4.1 Technical data for the floor saw trolley

Weight (trolley without additional weights)	43 kg
Weight (additional weight)	20 kg
Number of additional weights to be fitted	4
Nominal weight of the floor saw, ready for use (with- out saw blade)	169 kg
Maximum operating weight of the floor saw (with saw blade)	183 kg
Dimensions (saw trolley, ready for use) (L×W×H)	179 cm × 51.5 cm × 115 cm





#### 4.2 Technical data for the floor saw

Further data not listed here corresponds to the data for the electric wall saw used and can be found in the operating instructions for the applicable wall saw.

Suitable saws	<ul> <li>DST 10-CA electric wall saw</li> <li>DST 10-E electric wall saw</li> </ul>
Suitable blade guard types	<ul> <li>DS-BG65 saw blade guard</li> <li>DST-BG80 saw blade guard</li> </ul>
Saw blade diameter (when using the DSF 1030-TS trolley)	600 mm 800 mm
Maximum cutting depth	33 cm
Total vibration (a <sub>h</sub> )	< 2.5 m/s <sup>2</sup> Measured in accordance with EN 13862:2001+A1:2009

#### 5 Preparations at the workplace

#### 5.1 Preparing the floor saw trolley for mounting the saw

#### A WARNING

**Risk of accident!** The drive wheels cannot be locked when no saw head is mounted on the trolley. There is thus a risk of the floor saw trolley running away on a slope.

 Always position the floor saw trolley on a horizontal surface before assembly or disassembly.







- 1. If necessary, loosen the securing bolts until the toothed discs no longer mesh and are thus free to rotate relative to each other.
- 2. Fold out the handlebar and adjust it to suit your body height so that you can steer the trolley easily with your hands on the grips.
- 3. Tighten the retaining bolts securely.
- 4. Fold out the cutting line indicator.
- 5. Fit 2 weights at the front and 2 weights at the rear of the floor saw trolley.
- 6. Bring the pointer of the cutting line indicator into the working position.  $\rightarrow$  page 10



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#### 5.2 Bringing the pointer of the cutting line indicator into the working position.





- 1. Pull the securing pin out of the hollow bolt.
- 2. Pull the pointer out until the hole in the hollow bolt (at the pointer side) is aligned with the hole in the pointer.
- 3. Insert the securing pin.
  - ► The pointer is now in the working position.

Bring the pointer back into its original position (transport position) before folding the cutting line indicator in towards the trolley.

#### 5.3 Mounting the saw head on the floor saw trolley

#### 🛆 WARNING

Risk of injury! Inadvertent starting of the saw is hazardous.

- Always press the EMERGENCY OFF button on the remote control unit before carrying out any work on the saw.
- As a rule, the saw head should be mounted so that the saw blade is on the left-hand side of the floor saw trolley, as seen from the position of the operator looking in the direction of travel.

In situations where space is limited (e.g. when making cuts in corners), the saw head can be turned through 180° and mounted so that the saw blade is on the right-hand side of the floor saw trolley.









- 1. Release the saw head clamping levers and bring them into the "released" detent position (see section on mounting the saw head in the operating instructions for the electric wall saw).
- 2. Place the saw head on the saw head mount on the floor saw trolley so that the guide rollers are brought into the position shown in the illustration.
- 3. Lock the saw head on the mount.
- 4. Check that the saw head is securely seated on the mount, with no play between the parts.

#### Result

If there is play at the saw head

- Remove the saw head from the floor saw trolley.
- Adjust the guide rollers in accordance with the operating instructions for the electric wall saw.

#### 5.4 Removing the electric wall saw from the floor saw trolley

#### 🛕 WARNING

**Risk of accident!** The drive wheels cannot be locked when no saw head is mounted on the trolley. There is thus a risk of the floor saw trolley running away on a slope.

 Always position the floor saw trolley on a horizontal surface before assembly or disassembly.







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**Risk of injury!** Inadvertent starting of the saw is hazardous.

- Always press the EMERGENCY OFF button on the remote control unit before carrying out any work on the saw.
- 1. Close the water supply valve and disconnect the water hose from the hose connector on the water supply system.
- 2. Disconnect the supply cord from the electric supply.
- 3. Disconnect the control cable from the remote control unit and the saw head and close all covers on the plugs and connectors.
- 4. Remove the remote control unit from the attachment points on the handlebar.
- 5. Disconnect the water supply hose from the hose connector on the saw head.
- 6. Remove the blade guard (see operating instructions for the electric wall saw).

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Risk of injury! The saw blade can get hot.

- Wear protective gloves.
- 7. Remove the saw blade (see operating instructions for the electric wall saw).
- 8. Bring the blade guard holder into the 6 o'clock position.
- 9. Hold the saw head securely by both levers. Release the saw head clamping levers and bring them into the "released" position (see section on mounting the saw head in the operating instructions for the electric wall saw).

10.Remove the saw head from the floor saw trolley by lifting it upwards.

#### 5.5 Mounting the cutting line indicator on the opposite side

If the saw head is mounted so that the saw blade is repositioned on the other side of the floor saw trolley (relative to the previous cut made), the cutting line indicator must also be repositioned, i.e. mounted on the opposite side.



- 1. Pull the securing pin out of the hollow bolt.
- 2. Pull the pointer out.
- 3. Insert the pointer in the hollow bolt on the opposite side and position the pointer so that the holes in the pointer and in the hollow bolt are in alignment.
- 4. Insert the securing pin.

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#### 5.6 Preparing the floor saw for use

- 1. Bring the blade guard holder into the 12 o'clock position (see operating instructions for the electric wall saw).
- 2. Fit the saw blade (see operating instructions for the electric wall saw).

Technical data		
Saw blade diameter (when using the	600 mm 800 mm	
DSF 1030-TS trolley)		

3. Fit the blade guard (see operating instructions for the electric wall saw).

Technical data		
Suitable blade guard types	•	DS-BG65 saw blade guard
	•	DST-BG80 saw blade guard

- 4. Make sure that the water supply system supplied with the floor saw trolley is mounted on the blade guard.
- 5. Connect the water hose to the water supply system connector and secure the hose to the hose attachment points on the handlebar of the floor saw trolley.
- 6. Fit the remote control unit onto the attachment points on the handlebar of the floor saw trolley and, if not already done, connect the control cable between the remote control unit and the saw head.
- 7. Plug the supply cord for the saw into the electric supply (see operating instructions for the electric wall saw) and secure the supply cord to the attachment points on the handlebar of the floor saw trolley.

## 6 Operation

#### 6.1 Engaging / disengaging the floor saw trolley traction drive

#### 6.1.1 Engaging the traction drive (saw advance).

- 1. Place your foot on the freewheel lever and press it down.
- 2. Push the freewheel lever to the right, as far as it will go. If necessary, move the trolley back or forward slightly by hand in order to help the clutch gear wheels mesh together and engage.

#### 6.1.2 Disengaging the traction drive (saw advance).

- 1. Position your foot at the right-hand side of the freewheel lever and push the freewheel lever to the left, as far as it will go.
- 2. Take your foot away from the freewheel lever.
  - ➡ The freewheel lever moves upwards under spring pressure and remains engaged in this position in the cut-out in the trolley frame.

#### 6.2 Making a cut

- 1. Switch on the remote control unit for the saw (see the operating instructions for the remote control unit).
- 2. Turn on the water supply and use the water regulating valve to adjust the water flow rate as desired.
- 3. Position yourself behind the handlebar and start the saw.
- 4. Lower the saw blade and begin the guide cut by allowing the blade to cut into the floor to a depth of 3 to 5 cm.





- 5. Select one of the following alternatives.
  - If the following conditions are met, also take this action:

Conditions: Cutting using manual saw advance

- Make sure that the traction drive is disengaged.
- With both hands on the two grips provided, push the floor saw trolley in the cutting direction.
- If the following conditions are met, also take this action:

Conditions: Cutting using the traction drive

- Engage the traction drive.  $\rightarrow$  page 13
- Use the remote control unit to regulate the direction and speed of advance.
- Pay attention to the cutting line indicator and keep the floor saw trolley tracking along the line.
- Stop saw advance at the end of the cut.
- ▶ Disengage the traction drive. → page 13
- 6. Lift the saw blade out of the cut in the floor.
- 7. Run the floor saw back to the starting point.
- 8. Make the subsequent cuts as described above. Increase the cutting depth by 3 to 5 cm for each subsequent cut. In doing so, the maximum cutting depth must be observed.
- 9. After completing the work, switch the saw off and unplug the supply cord.
- 10.Close the water flow regulator valve and turn off the water supply.

#### 6.3 Adjusting the cutting line indicator

If the floor saw trolley continually pulls either to the left or right when following the marked cutting line with the cutting line indicator, forcing the operator to making steering corrections, it may be necessary to adjust the cutting line indicator.





- 1. Pull the securing pin out of the hollow bolt.
- 2. Pull the pointer out.
- 3. Release the locknut and unscrew it slightly, if necessary, until the hollow bolt can be screwed far enough into the sleeve.
- 4. Depending on the desired change of direction, either screw the hollow bolt further into the sleeve or unscrew and retract it slightly. In doing so, make sure that hole in the hollow bolt again faces forwards and upwards.
- 5. Insert the pointer in the hollow bolt and position the pointer so that the holes in the pointer and in the hollow bolt are in alignment.



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- 6. Insert the securing pin.
- 7. Retighten the locknut.

#### 7 Care and maintenance

- ► Keep the product, especially the grips, dry, clean and free from oil and grease.
- Do not allow the dirt and slurry adhering to parts to dry out. Accordingly, clean the entire set of equipment immediately after finishing work and before long breaks between periods of use.
- Also clean the clutch and regrease it.
- ► Regrease the drive chain each time after cleaning the floor saw trolley.

#### 7.1 Cleaning the floor saw trolley

- Observe the instructions regarding cleaning the electric wall saw, the blade guard and the saw blade, which can be found in the operating instructions for the electric wall saw used.
- ► Clean the floor saw trolley with water and, if necessary, using a medium-hard brush.
- Do not use a high-pressure water-jet system for cleaning.
- ► Observe the instructions regarding care and maintenance. → page 15

#### 7.2 Maintenance

At regular intervals the following components of the floor saw must be checked for damage and to ensure that they function faultlessly:

- Saw head housing and the remote control unit
- Saw blade and the mounting flange
- EMERGENCY OFF button on the remote control unit
- Cables
- Blade guard
- Mounting system
- Chain drive
- Grips
- Cutting line indicator

## 8 Transport and storage

#### 8.1 Transporting the floor saw trolley

#### Moving the floor saw trolley around

The following instructions apply only to the floor saw trolley, i.e. when no saw head is mounted on it.

#### 🛕 WARNING

**Risk of accident!** The drive wheels cannot be locked when no saw head is mounted on the trolley. There is thus a risk of the floor saw trolley running away on a slope.

- Always position the floor saw trolley on a horizontal surface before assembly or disassembly.
- Move the freewheel lever to the "disengaged" (freewheeling) position and push the floor saw trolley to the desired location.



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#### Lifting the floor saw trolley

The floor saw trolley may be lifted only when empty, i.e. no saw head and no weights mounted on it.

- Remove the saw head from the floor saw trolley.
- Remove the weights from the floor saw trolley.
- Bring the pointer of the cutting line indicator into the transport position.
- ► Fold back the cutting line indicator.
- Loosen the bolts securing the handlebar until it is free to move and then fold the handlebar toward the floor saw trolley.
- Retighten the handlebar securing bolts firmly.

#### 

**Risk of injury!** The floor saw trolley is very heavy.

- Never lift the floor saw trolley alone.
- ▶ When lifting the floor saw trolley, always grip it by the frame.

#### 9 Troubleshooting

If the trouble you are experiencing is not listed in this table or you are unable to remedy the problem by yourself, please contact **Hilti** Service.

Trouble or fault	Possible cause	Action to be taken
The cut is not straight.	Attention was not paid to the position of the cutting line indicator.	<ul> <li>Pay attention to the cutting line indicator and steer/correct the direction of the floor saw trolley if necessary.</li> </ul>
	Inadequate blade tension.	<ul> <li>Change the saw blade.</li> </ul>
	The saw blade is blunt.	<ul> <li>Change the saw blade.</li> </ul>
	Unsuitable saw blade speci- fication.	<ul> <li>Check the specification and change the saw blade if necessary.</li> </ul>
Low sawing perfor- mance.	Unsuitable saw blade speci- fication.	<ul> <li>Check the specification and change the saw blade if necessary.</li> </ul>
	Cutting depth is too great.	<ul> <li>Reduce the cutting depth (blade depth setting).</li> </ul>
The floor saw trolley is lifted off the floor.	Floor saw trolley advance speed is too high.	<ul> <li>Reduce the speed of advance.</li> </ul>
	Cutting depth is too great.	<ul> <li>Reduce the cutting depth (blade depth setting).</li> </ul>
	Concrete with high rein- forcement content.	<ul> <li>Reduce the cutting depth (blade depth setting).</li> </ul>
	Saw blade speed is too low or too high.	<ul> <li>Increase or, respectively, reduce saw blade speed.</li> </ul>

#### 10 Disposal

Most of the materials from which **Hilti** tools and appliances are manufactured can be recycled. The materials must be correctly separated before they can be recycled.

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In many countries, your old tools, machines or appliances can be returned to **Hilti** for recycling. Ask **Hilti** Service or your Hilti representative for further information.















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