



## KS30 (E, S)

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### **WEKA Elektrowerkzeuge**

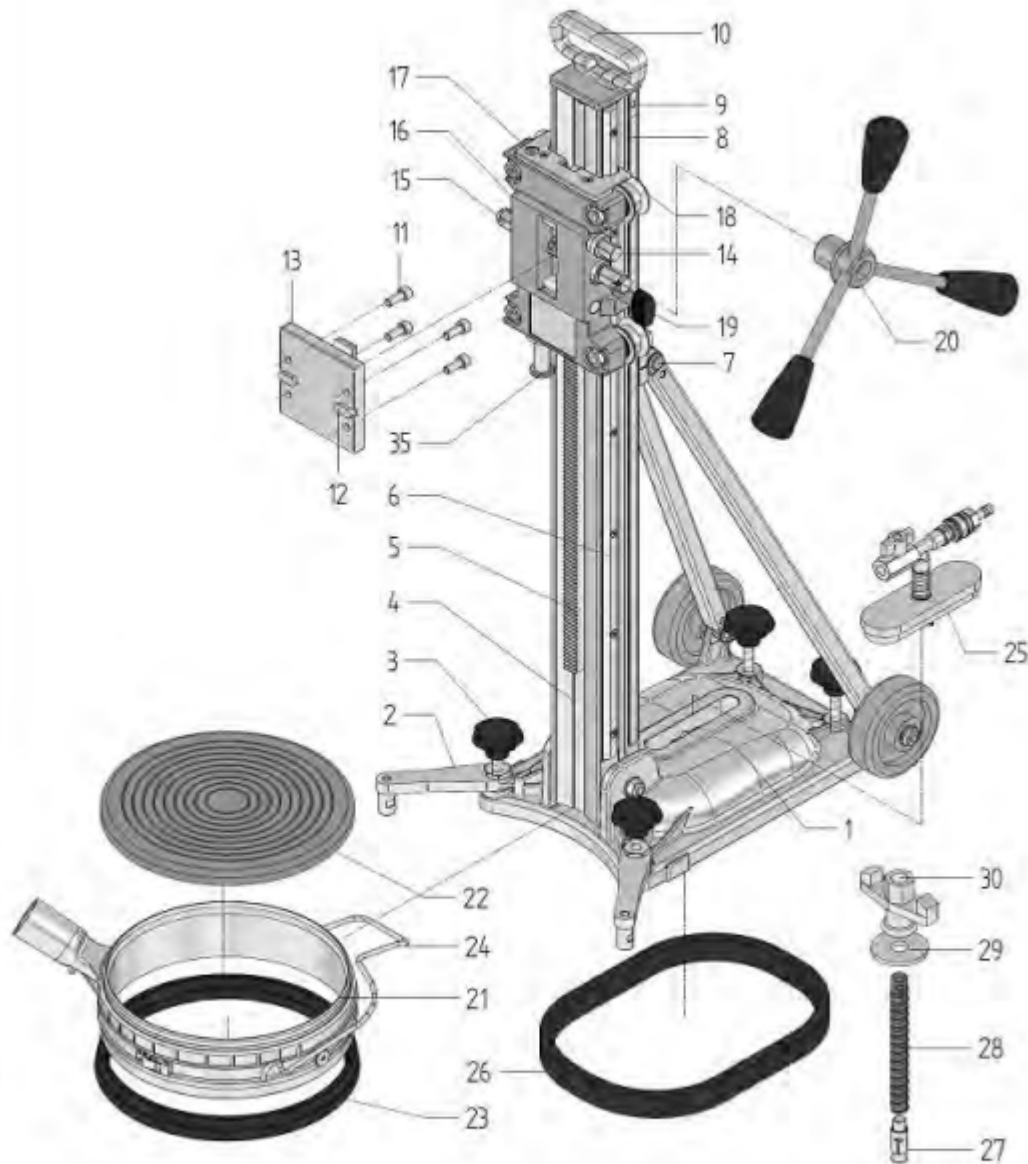
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## KS30 (E, S)



WEKA

Abbildung A

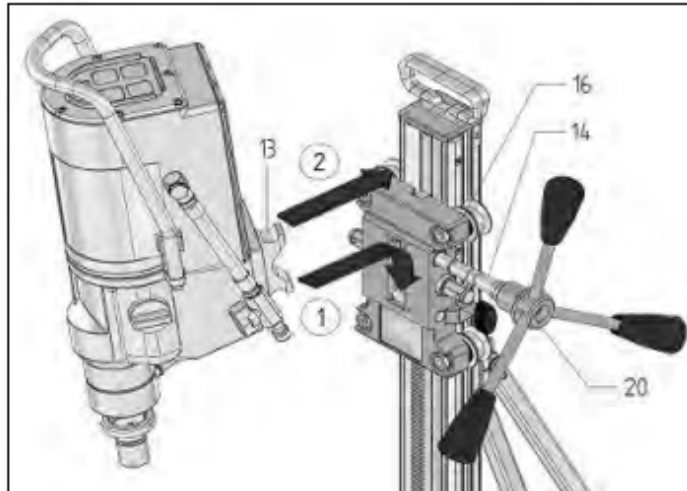


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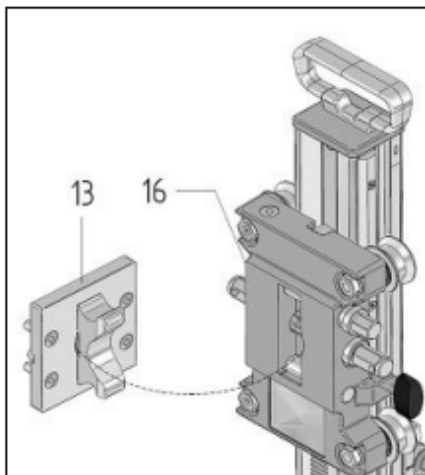


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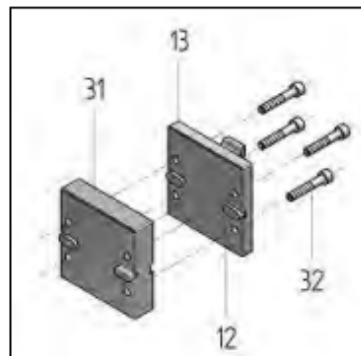
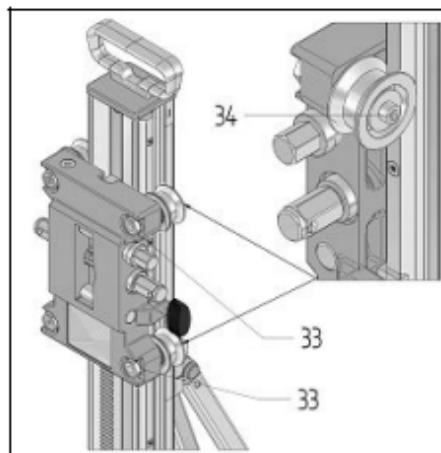


Abbildung D



## GB INSTRUCTIONS FOR USE - DIAMOND DRILL RIG KS30

**Please read carefully before putting the drill rig into operation!**

With the WEKA drill rig, you own an outstanding quality product with which you will be very satisfied, provided you use it properly.

### 1. GENERAL SAFETY PRECAUTIONS



**WARNING!** Read all safety precautions and instructions. Failures in the compliance with these safety precautions and instructions can cause electric shock, fire and/or heavy injuries.

**Please keep these safety precautions and instructions for the future.**

#### 1) Security of employment

- a) **Keep your working area clean and well illuminated.** Disorder or unilluminated working areas can cause accidents.
- b) **Keep children and other persons away from the electric tool while using it.** When being distracted, you can lose the control on the device.

#### 2) Personal safety

- a) **Be attentive, pay attention to what you do and go to work with the electric tool with reason. Do not use an electric tool when you are tired or under the influence of drugs, alcohol or pharmaceuticals.** One moment of carelessness while using an electric tool kann cause serious injuries.
- b) **Wear personal protective equipment and always goggles.** The wearing of personal protective equipment, like dust mask, skid-proof shoes, protection helmet or hearing protection, depending on the kind and use of the electric tool reduces the risk of injuries.
- c) **Avoid abnormal posture. Care for safe standing and keep the balance anytime.** Thus you can control the electric tool better in unexpected situations.
- d) **Wear suitable clothing. Do not wear wide clothing or jewelry. Keep hair, clothing and gloves away from moving parts.** Wide clothing, jewelry or long hair can be caught by moving parts.
- e) **If there is the possibility to assemble a dust exhaustor and collecting device, make sure that these are connected and used correctly.** The use of a dust exhaustor can reduce dangers by dust.

#### 3) Use and handling of the device

- a) **Do not overload the device.**
- b) **Maintain the device with care. Check if movable parts function correctly and do not jam, if parts are broken or damaged in that way, that the function of the device is affected. Have damaged parts repaired before using the device.** Many accidents originate from bad maintained devices.
- c) **Keep the cutting tool sharp and clean.** Carefully maintained cutting tools with sharp edges do jam less and are easier to guide.
- d) **Use device, accessory, operation tools, etc. according to these instructions. Thereby consider the conditions of employment and the work to be done.** The use of devices for others than the intended task can result in dangerous situations.

#### 4) Service

- a) **Have your tool only repaired by qualified personnel and only with original spare parts.** Thus it is assured that the safety of the electric tool is being obtained.

## 2. SPECIAL SAFETY PRECAUTIONS - Please note!

This drill rig is intended for commercial use only. It may only be used by trained personnel. It is intentional used as a stand for fixing diamond core drill for drilling rock, concrete and masonry.

For operation the relevant regulations have to be observed.

## 3. INDICATED COMPONENTS

1	Rig foot	19	Fixing brake
2	Swivel foot	20	Hand wheel
3	Jackscrew	21	Water collecting ring
4	Rig column	22	Sealing cover
5	Gear rack	23	Sealing ring
6	Guide rail	24	Tension spring
7	Drilling angle - adjusting	25	Vacuum adaptor
8	Angle scale	26	Sealing tape
9	Level for horizontal leveling	27	Dowel
10	Carrying handle	28	Quick clamping spindle
11	Screws for quick connect plate (M8x20)	29	Washer
12	Parallel key for quick connect plate	30	Split nut
13	Quick connect plate (DK26, 32, SR38: KS30745; SR25: KS30745.2)	31	Distance plate
14	Eccentric bolts of machine fixture	32	Screws for distance plate (M8x45)
15	Feed pinion	33	Hexagon nut of eccentric bolt
16	Feed slide	34	Hexagon socket screws of guide roll
17	Circular level	35	Stop bolt
18	Steel roll/plastic roll		

## 4. TECHNICAL DESCRIPTION

The KS30 is a drill rig which is meant for fixing WEKA diamond core drills type DK26, DK32, SR2 and SR38. The diamond drill rig can be fixed to the ground and to the wall by means of dowels, vacuum or quick bracing columns.

The core drill exists of a electric motor with step-down gear. Via the quick connect nipple water is supplied directly to the drilling tool (diamond core bit). Thus the cutted material is flushed away and the tool is cooled (wet drilling).

The drilling tool (diamond core bit) is a hollow drill (tube) which is fitted with soldered-on or welded-on segments impregnated with diamonds.

In the wet use, if necessary, the flushing water is extracted through a water collecting ring by means of an all-purpose suction unit.



**Avoid wet drilling upwards (overhead drilling) (Überkopfbohrungen). If it is indispensable use a proper working water collecting ring.**

### 3.1 Technical data

Type		KS30	KS30E	KS30S
Total length	mm	950	950	950
Drill stroke	mm	580	580	580
Core bit diameter max.	mm	300 (350)	300 (350)	300 (350)
vacuum fixture	mm	200	200	-
Inclination	deg	>45	>45	>45
Machine fixture		Quick change plate		
Rig foot (LxB)	mm	340 x 223	340 x 223	340 x 223
Weight (without feed wheel)	kg	13	11	14



## 4.2 Scope of delivery

KS30	-	Drill rig with aluminum foot (1), guide rails (6) steel rolls (18), swivel foot set (2), star handle (20), operators manual.
KS30S	-	like drill rig KS30, but with steel foot, operators manual
KS30E	-	Drill rig with aluminum foot (1), plastic rolls; without stop bolt, swivel foot set, guide rails and level for horizontal leveling
Accessories	-	Distance plate (31), Vacuum adaptor (25), water collection ring (21)

## 5. PREPARATION

Make sure that the drill rig has not been damaged during transport. Check if all components are at hand.

Screw the 3 handles of the hand wheel (20) into the shaft center up to marking.

Lock for all works on the rig, in working breaks and while not on use, the feed. Therefore clamp the fixing brake (19). For drilling loosen the fixing brake (19) so far, that the hand wheel can be moved easily. Hold the hand wheel, for avoiding an uncontrolled down sliding of the drilling machine.

### 5.1 Assembling the diamond core drill (see images A and B)

Feed slide (16) and quick connect plate (13) can only be connected in one position with each other (see image B). The feed slide has a shape, the machine reception of the feed slide a corresponding cut-out.

Put the quick connect plate (13) on the core drill in that way, that the parallel keys (12) engage into the corresponding cut-out of the gear foot of the core drill. Screw the quick connect plate and the core drill together with the four hexagon socket screws (11) which are included in delivery.

Loosen the eccentric bolt (14) with the hand wheel (20) and pull it out of the feed slide (16) as far as it will go. Hang the drilling machine with the quick connect plate (13) into the machine reception in that way, that the lower nose of the quick connect plate is behind the lower bolt of the machine reception (see image A).

Clap the drilling machine onto the machine reception and put the eccentric bolt (14) back in. Tighten the eccentric bolt (14) with the hand wheel (20) (the eccentric bolt clamps clockwise as well as anti-clockwise).

For loosening the core drill proceed the other way round.

For the WEKA diamond core drill SR25 there is alternatively a quick connect plate available with part no. KS30745.2. When using this quick connect plate holes of 300mm up to 350mm diameter can be drilled without an additional distance plate.

### 5.2 Distance plate for holes 300 - 350 mm (see image C)

For holes of 300 mm to maximum 350 mm diameter the distance plate (31) must be inserted additionally on the WEKA drill types DK26 and DK32. Therefore put the quick connect plate (13) in that way on the distance plate (31) that the parallel keys (12) of the quick connect plate engage into the corresponding channels on the distance plate. Then put the distance plate (31) including quick connect plate (13) on the core drill in that way, that the parallel keys of the distance plate engage into the channels of the core drill. Insert the four screws (32) of the distance plate and tighten these with a hexagon socket wrench. Then mount the drilling machine and described above on the drill rig.

### 5.3 Fixing the drill rig

The drill rig can depending on the surface of the underground be fixed with dowels, vacuum or a quick bracing column.

#### 5.3.1 Fixing with dowels

Use only suitable steel dowels, resp. anchors with a drilling diameter of at least 16 mm and a thread bars of at least M12. Therefore consider the requirements of VDMA. Take care that the dowel is absolutely tight and the required tear out force are not exceeded.

Insert a concrete dowel with expansion key (27) resp. a masonry dowel. Screw the quick clamping spindle (28) into the dowel. Put the machine as well as a washer (29) on and screw these on with the split nut (30).

Always put the dowel as near as possible to the drill column. Adjust the drill rig by means of the attached water levels (9, 17) before you tighten it via the dowels.

### 5.3.2 Fixing with vacuum

For fixing the drill rig with vacuum, you need a KS30 vacuum kit (25, 26) and a vacuum pump with a throughput of at least 6 m<sup>3</sup>/h and a vacuum of at least 80% (-800mbar). Take care that the drill rig is solidly fixed. Turn the jackscrews (3) at the rig foot against the fixing surface until the sealing ring is released slightly (optimum 5-8mm). On vacuum fixtures you have to take care, that the underground surface is not too rough and not porous.



**Attention: Vacuum fixing is not suitable on plaster or masonry. Never drill overhead with vacuum fixing. Horizontal holes at the wall only with an additional securing.**

Before using the vacuum kit, check the vacuum adaptor (25) and the sealing ring (26) on wear. Fix the vacuum adaptor (25) by inserting and turning in the slot of the rig foot (1).

### 5.3.3 Fixing with quick bracing column

The drill rig can be fixed (braced) with a quick bracing column between rig foot and wall or ceiling. Only use suitable bracing columns.

### 5.4 Working positions

When working on floor areas of stories, the core can fall into the lower story when drilling through and cause serious injuries and damages. Ensure that nobody remains under the drilling area. Protect this area.

Before drilling in walls, you have to make sure that when drilling through, nobody can be injured.

Overhead drillings can only be made with suitable water collecting devices. Protect the drill rig additionally.

When drilling inclined, in the start of drilling phase a lower drilling pressure has to be chosen, for avoiding that the drill bit runs uneven.

### 5.5 Diamond core bit

Only use suitable high-quality diamond tools.

Ensure that the diamond segments are sufficiently larger than the inner and outer diameter of the drill bit tube.

Apply water-resistant grease to the tool thread so that the tool can be easily loosened.

Ensure that the radial run out at the diamond segments of the drill bit is no greater than 1 mm (eccentricity).

Only use suitable wrenches for changing the core bit. Therefore put the wrench (only KS30 and KS30S) with which you fix the drill bit at the stop bolt (35). With a second wrench now loosen the drill bit of the drill spindle.



**Never use a hammer or something similar to open the core bit. If necessary elongate the wrench.**

### 5.6 Electrical connection of the drilling machine

Therefore please consider the relevant regulations of the manufacturer.

## 6. PUTTING INTO OPERATION

### 6.1 Adjusting the drilling angle

Remove the cap nut (7) with the hand wheel (20). Adjust the drill stand by means of the drill angle scale (8) to the desired drilling angle. Tighten the cap nut (7) with the hand wheel (20) hand-tight.



**Attention: The drill rig may only be put into operation when the cap nut are again tightened.**

## 6.2 Water collecting ring

For collecting the water which escapes from the drill hole when drilling wet, you need a water collecting ring (21) and an all-purpose suction unit.

Push the tension spring (24) as far as it will go into the gap between rig foot (1) and rig column (4). Take care that the angled part of the tension spring points downwards. Bring the water collecting ring (21) into position and put the tension spring onto the supporting point at the water collecting ring. (The links at the ends of the tension spring are required for pulling the spring upwards.) By the tension force of the spring the water collecting ring with its sealing is pushed to the underground and together with the vacuum of the wet/dry suction unit avoids the water outlet.

The water collecting ring can be turned within its tension ring, for bring the connecting piece into the desired position. Therefore open the fastening of the tension ring at the water collecting ring, turn the water collecting ring as required and close the fastening again.

## 6.3 Drilling

When the drill rig if necessary with water collecting ring is fixed absolutely safe and rigid and is adjusted, open the water valve so that enough water for cooling and flushing is available. Choose the gear on the core drill which is most suitable for your drilling diameter and switch the machine on.

Choose the position of the hand wheel (20) which is most suitable for you (left or right).

Start drilling by turning the feed wheel at the drill rig carefully. Thereby take care that the core bit does neither vibrate or shake heavily. When the core bit has centered itself after approx. 1 - 2 cm drilling depth, the feed force can be increased until the optimal feed power is reached, however only to the maximum power of the machine.

When you drill reinforcement you have to increase the feed force if necessary for ensuring an appropriate feed. Often it makes sense to change the gear on the machine to a lower speed.



**Ensure that you do not drill into or through a water pipe or even an electric mains. In case of doubt you should on principle check your drilling area with a line detector.**

**When drilling with vacuum fixture the feed power may only be so high that the drill rig does not tilt over and thus loosen the vacuum. When the drill rig begins to tilt, the feed power must be reduced immediately.**

## 6.4 General directions for drilling

Adjust the water quantity at the ball valve when drilling wet so that the cutted material is flushed from the drill hole completely.

You do not wash out enough material if mud occurs around the drilled hole.

Use sufficient contact pressure. If it is too low the diamonds tend to polish. This means that the feed speed becomes less until finally no material is cleared away any more.

In this case the segments are to "sharpen" again by means of a SiC-grindstone.

Take care that the core bit does not vibrate, otherwise the diamonds are detached by force from the core bit.

In case the tools gets stuck, do not try to loosen it by switching the machine on and off. Immediately switch off the machine and loosen the bit by turning an appropriate wrench to the left and right. At the same time, pull the machine out of the drilled hole carefully.

## 7. MAINTENANCE

Clean the machine after finishing the drilling. Thereby also clean the thread of the tool fixture and grease it.

Oil the threads of the lackscrews and the bearings of the feed and clamp shaft regularly.

Keep the toothed rack and the bearing surface of the column always clean.

### 7.1 Adjusting the guide slide bearings

For achieving good drilling results, the clearance between feed slide (16) and rig column (4) has to be as low as possible.

Over the time the guide rolls may wear out and clearance can occur between the guide rolls and the rig column. For eliminating this clearance both guide rolls must be readjusted on the side of the fixing brake (19). Loosen both hexagon nuts (33) with a socket wrench (wrench size 17mm).



Then tighten both hexagon sockets screws (34) equally until the clearance is minimized. Retighten the hexagon nuts (33), while holding up the hexagon socket screws at the same time.

## 8. WARRANTY

This product is covered by a warranty for a period of 12 months from the date of purchase. The warranty covers all defects or damages of the product during the guarantee period evidently due the defaults in workmanship or material and is limited to repair and/or adjustment. The warranty is not valid in case of normally wear and tear, if the product has been misused, used contrary to the instruction manual, or by using extraneous parts.


## 9. DECLARATION OF CONFORMITY

Description: Drill rig - for fixing core drilling machines  
Type: KS30 (and versions)  
from serial no.: 0814001

We hereby declare under our sole responsibility that this product conforms to the regulations of directive 2006/42/EG and 2011/65/EU.

WEKA Elektrowerkzeuge  
Auf der Höhe 20  
D 75387 Neubulach

Neubulach, 01.08.2014  
Wilhelm Wurster, Owner



## 10. RECYCLING



According to the European regulation 2002/96/EG we have to take back old machines for departing them by substance and for recycling (see sign on name plate). Please make sure that the old tool does not get into the unsorted municipal solid waste, but that it is given back to us, resp. abroad to our distributors.

Übersetzung der Originalbetriebsanleitung - Subject to change without notice 0814

