TC-BD 630/1

D **Originalbetriebsanleitung**
Säulenbohrmaschine

GB **Original operating instructions**
Bench Drill

F **Instructions d'origine**
Perceuse à colonne

I **Istruzioni per l'uso originali**
Trapano a colonna

DK/N **Original betjeningsvejledning**
Søjleboremaskine

S **Original-bruksanvisning**
Pelarborrmaskin

CZ **Originální návod k obsluze**
Sloupová vrtačka

SK **Originálny návod na obsluhu**
Stĺpová vŕtačka

NL **Originele handleiding**
Kolomboormachine

E **Manual de instrucciones original**
Taladro de columna

FIN **Alkuperäiskäyttöohje**
Pylväsporakone

SLO **Originalna navodila za uporabo**
Stebrni vrtalni stroj

H **Eredeti használati utasítás**
Oszlopos fúrógép

RO **Instrucțiuni de utilizare originale**
Maşină de găurit cu coloană

GR **Πρωτότυπες Οδηγίες χρήσης**
Δράπανο κολωνάτο

P **Manual de instruções original**
Engenho de coluna

HR/BIH **Originalne upute za uporabu**
Stupna bušilica

RS **Originalna uputstva za upotrebu**
Stupna bušilica

PL **Instrukcją oryginalną**
Wiertarka stołowa

TR **Orijinal Kullanma Talimatı**
Sütunlu Matkap

EE **Originaalkasutusjuhend**
Sammaspuurpink

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Art.-Nr.: 45.205.97 **I.-Nr.: 21012**

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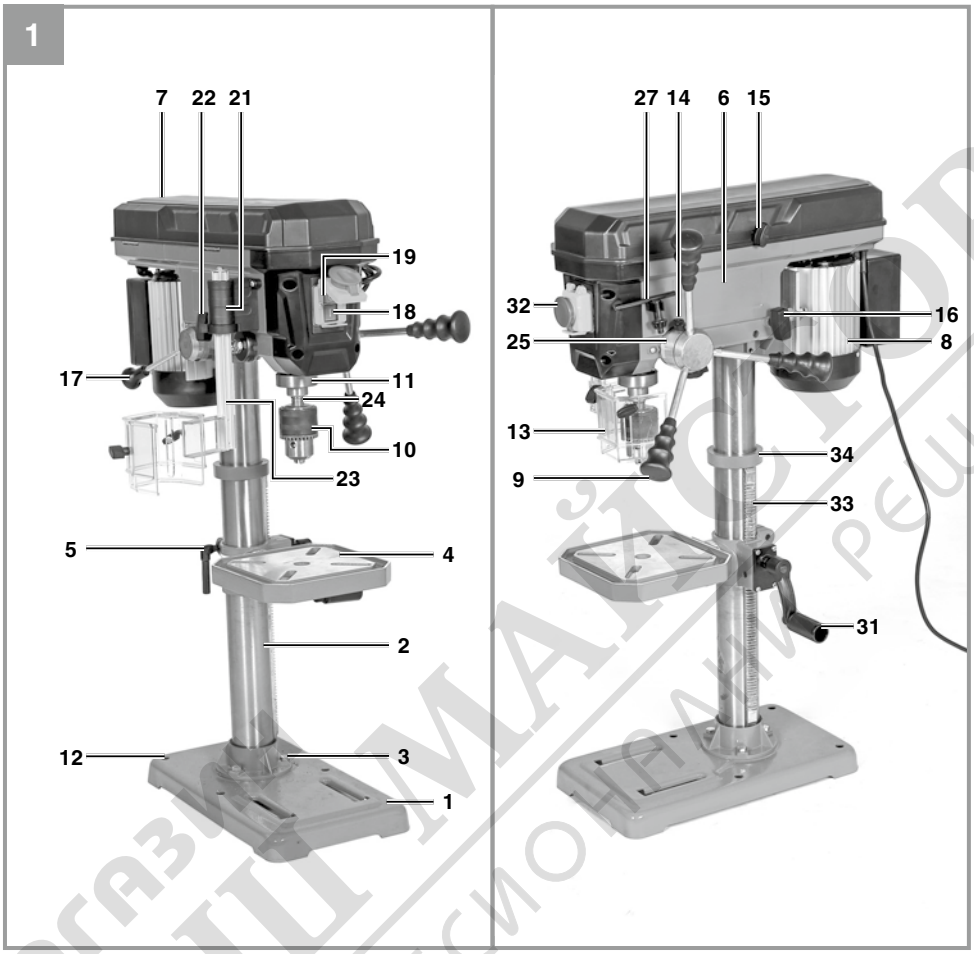

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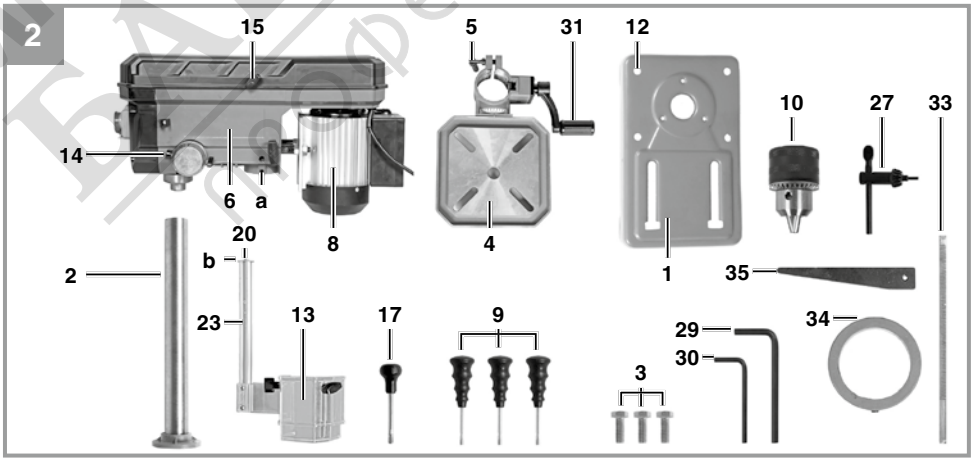

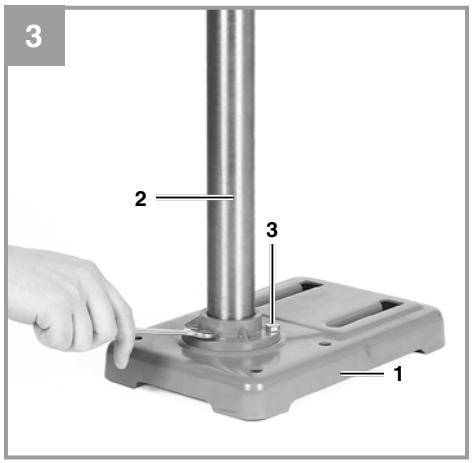

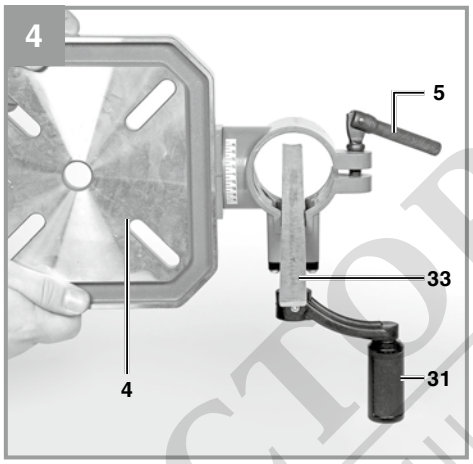

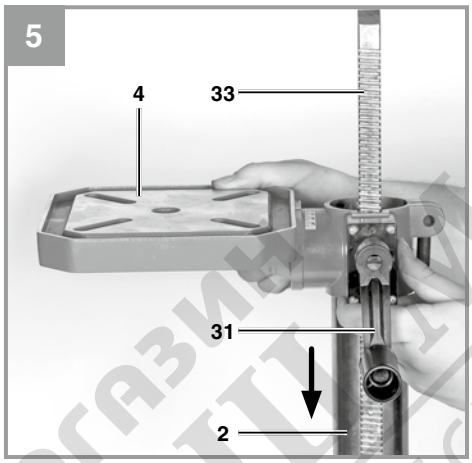

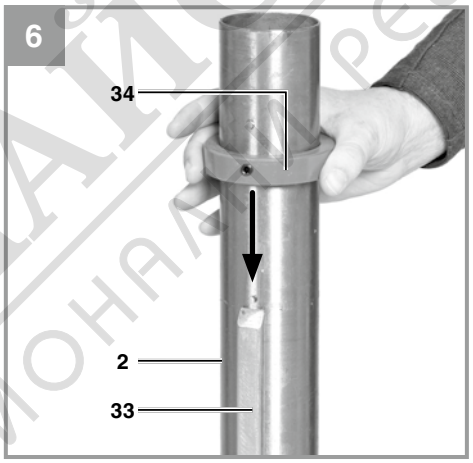

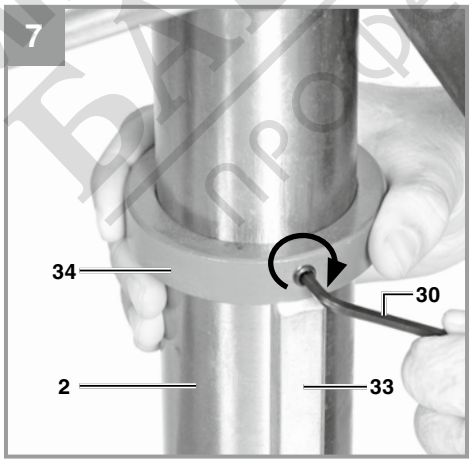

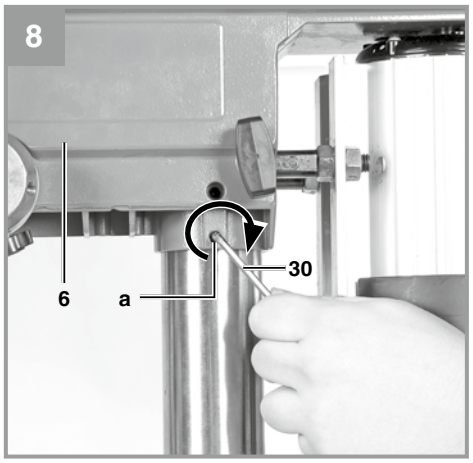

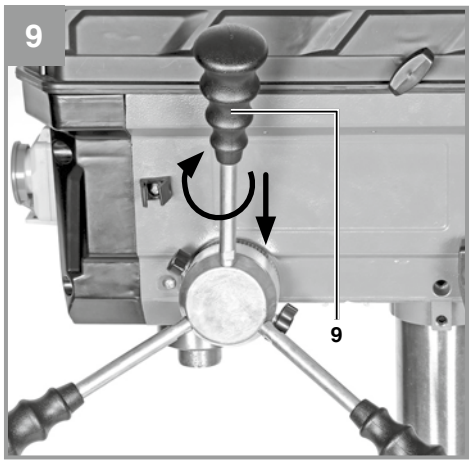

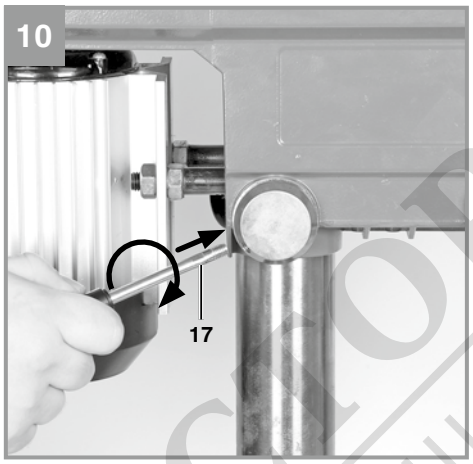

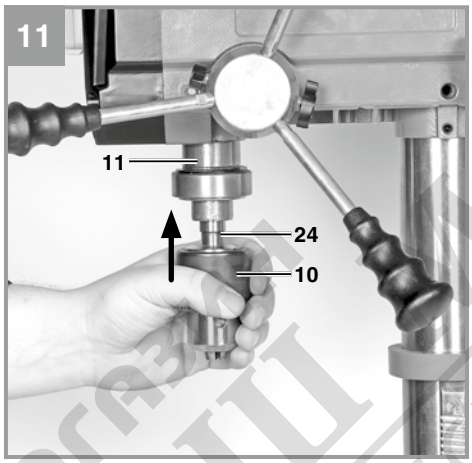

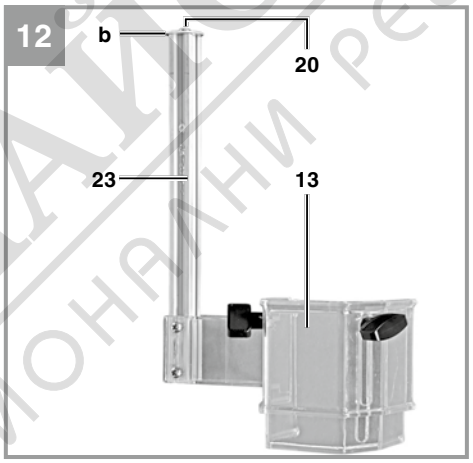

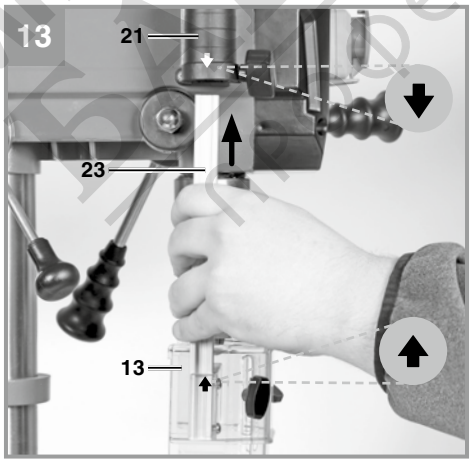

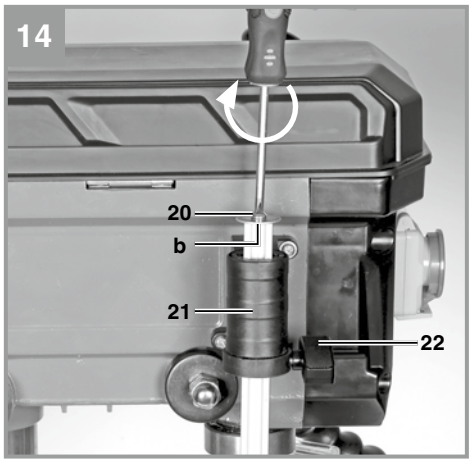

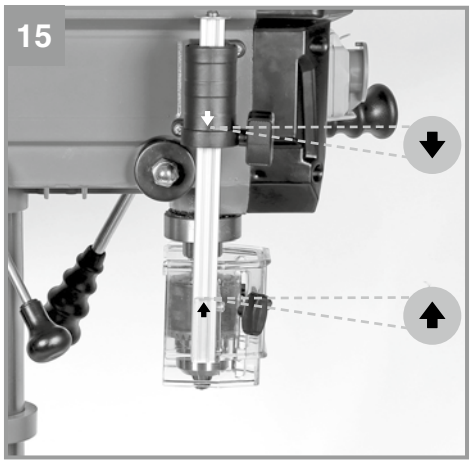

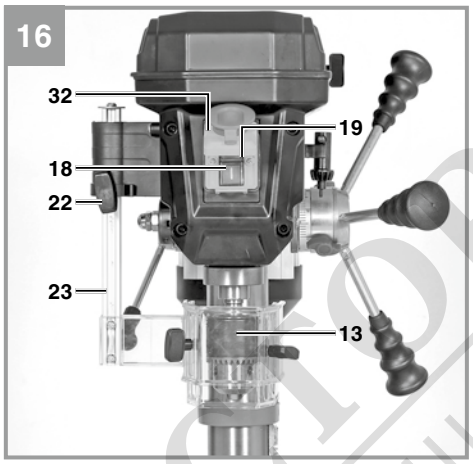

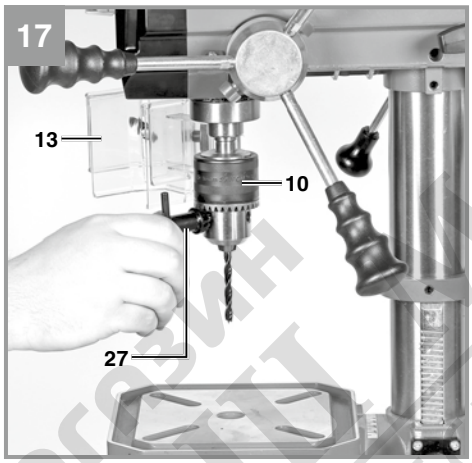

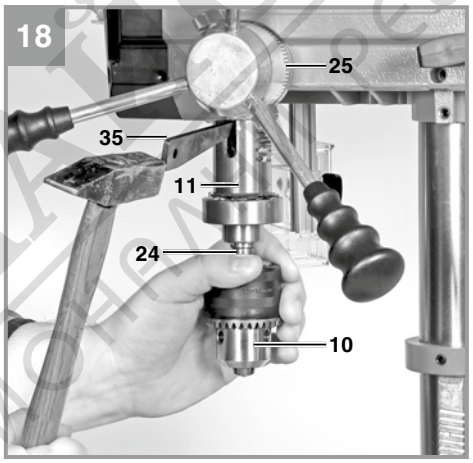

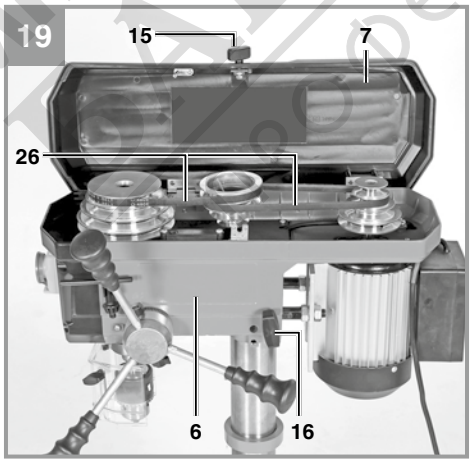

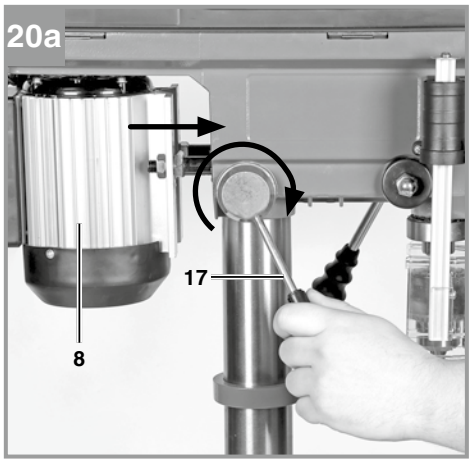

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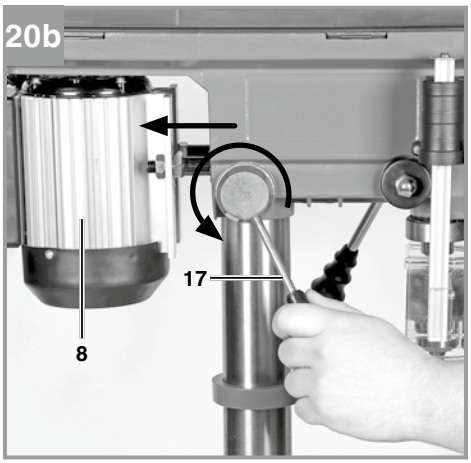

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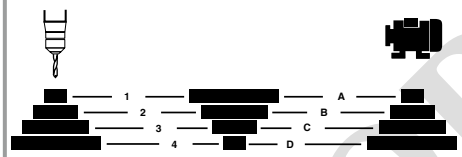

Pos.	min⁻¹	Pos.	min⁻¹	Pos.	min⁻¹
4-A	250	4-B	300	3-A	400
4-C	500	2-A	560	3-B	460
2-C	1120	1-B	800	1-C	1300
3-D	1450	2-D	2050	1-D	2400

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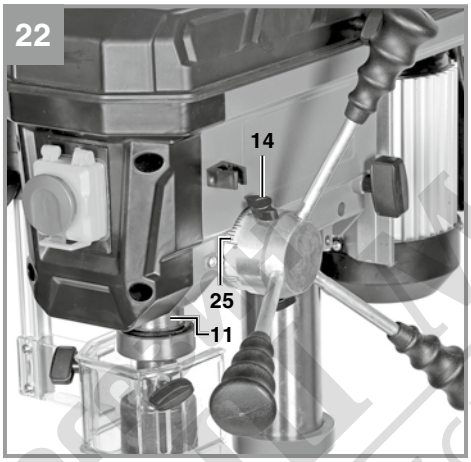

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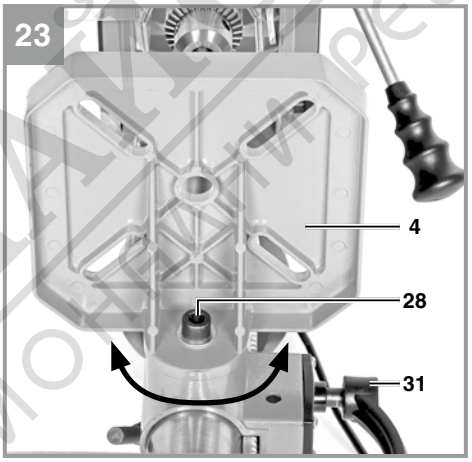

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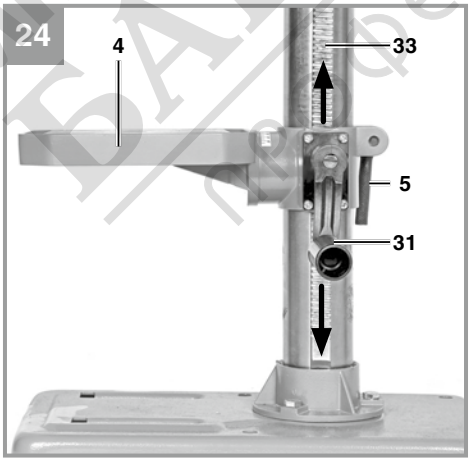

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Danger!
When using the equipment, a few safety precautions must be observed to avoid injuries and damage. Please read the complete operating instructions and safety regulations with due care. Keep this manual in a safe place, so that the information is available at all times. If you give the equipment to any other person, hand over these operating instructions and safety regulations as well. We cannot accept any liability for damage or accidents which arise due to a failure to follow these instructions and the safety instructions.

Explanation of the symbols used (see Fig. 25)
1. **Danger!** - Read the operating instructions to reduce the risk of injury.
2. **Caution! Wear ear-muffs.** The impact of noise can cause damage to hearing.
3. **Caution! Wear a breathing mask.** Dust which is injurious to health can be generated when working on wood and other materials. Never use the device to work on any materials containing asbestos!
4. **Caution! Wear safety goggles.** Sparks generated during working or splinters, chips and dust emitted by the device can cause loss of sight.

1. Safety regulations

The corresponding safety information can be found in the enclosed booklet.
Warning!
Read all the safety information, instructions, illustrations and technical data provided on or with this power tool. Failure to adhere to the following instructions may result in electric shock, fire and/or serious injury.
Keep all the safety information and instructions in a safe place for future use.

2. Layout and items supplied

2.1 Layout (Fig. 1-2)
1. Machine base
2. Pillar
3. Fastening screws
4. Drill table
5. Clamping screw
6. Machine head
7. V-belt cover
8. Motor
9. Grip knobs
10. Scroll chuck
11. Spindle
12. Mounting holes
13. Folding chip guard
14. Depth stop
15. Locking screw for V-belt cover
16. Tightening screw
17. Clamping lever
18. ON switch
19. OFF switch
20. Stop screw for chip guard
21. Holder for chip guard
22. Securing screw for chip guard
23. Fastening rail for chip guard
24. Chuck size
25. Scale ring
26. V-belt
27. Drill chuck key
28. Socket head screw
29. 10 mm hex key
30. 4 mm hex key
31. Crank for adjusting the height
32. Cover over the On/Off switch
33. Gear rack
34. Locking ring
35. Drill drift

2.2 Items supplied
Please check that the article is complete as specified in the scope of delivery. If parts are missing, please contact our service center or the sales outlet where you made your purchase at the latest within 5 working days after purchasing the product and upon presentation of a valid bill of purchase. Also, refer to the warranty table in the service information at the end of the operating instructions.
- Open the packaging and take out the equipment with care.
- Remove the packaging material and any packaging and/or transportation braces (if available).
- Check to see if all items are supplied.
- Inspect the equipment and accessories for transport damage.
- If possible, please keep the packaging until the end of the guarantee period.

Danger!
The equipment and packaging material are not toys. Do not let children play with plastic bags, foils or small parts. There is a danger of swallowing or suffocating!

- Pillar drill
- Chuck
- Folding chip guard
- Original operating instructions
- Safety instructions

3. Proper use

This pillar drill is designed for drilling metal, plastic, wood and similar materials. It is intended for use in the private sector only.
Food and harmful materials are not allowed to be processed with the machine. The drill chuck is designed for use only with drill bits and tools with a shaft diameter of 1.5 to 16 mm, and for cylindrical tool shanks. Tools with a tapered shank can also be used. The equipment is intended for use by adults only

The equipment is to be used only for its prescribed purpose. Any other use is deemed to be a case of misuse. The user / operator and not the manufacturer will be liable for any damage or injuries of any kind caused as a result of this.

Please note that our equipment has not been designed for use in commercial, trade or industrial applications. Our warranty will be voided if the machine is used in commercial, trade or industrial businesses or for equivalent purposes.

4. Technical data

Rated input voltage	220-240 V~ 50 Hz
Power rating	630 W S2 15 min
Motor speed	1400 min^{-1}
Output speed	250-2400 min^{-1}
Drill chuck mount	B 16
Scroll chuck	Ø 1.5-16 mm
Reach	126 mm
Dimensions of drill table	195 x 200 mm
Table angle adjustment	45° / 0° / 45°
Drilling depth	60 mm
Pillar diameter	60 mm
Height	850 mm
Base area	220 x 400 mm
Weight	20.1 kg

A load factor of S2 15 min (intermittent periodic duty) means that you are allowed to operate the motor continuously at its nominal power level (630 W) for no longer than the time stipulated on the specifications label (15 min). If you fail to observe this time limit the motor will overheat. During the break in operation the motor will cool again to its starting temperature.

Danger!
Sound and vibration
Sound and vibration values were measured in accordance with EN 12717.

L_{pA} sound pressure level	69 dB(A)
K_{pA} uncertainty	3 dB
L_{WA} sound power level	82 dB(A)
K_{WA} uncertainty	3 dB

Wear ear-muffs.
The impact of noise can cause damage to hearing.

The stated vibration emission levels and stated noise emission values were measured in accordance with a set of standardized criteria and can be used to compare one power tool with another.

The stated vibration emission levels and stated noise emission values can also be used to make an initial assessment of exposure.

Warning:
The vibration and noise emission levels may vary from the level specified during actual use, depending on the way in which the power tool is used, especially the type of workpiece it is used for.

Keep the noise emissions and vibrations to a minimum.
- Only use appliances which are in perfect working order.
- Service and clean the appliance regularly.
- Adapt your working style to suit the appliance.
- Do not overload the appliance.
- Have the appliance serviced whenever necessary.
- Switch the appliance off when it is not in use.

Caution!
Residual risks
Even if you use this electric power tool in accordance with instructions, certain residual risks cannot be rules out. The following hazards may arise in connection with the equipment's construction and layout:

1. Lung damage if no suitable protective dust mask is used.
2. Damage to hearing if no suitable ear protection is used.
3. Health damage caused by hand-arm vibrations if the equipment is used over a prolonged period or is not properly guided and maintained.

5. Before starting the equipment

5.1 Assembling the machine (Fig. 3-11)

- Place the base plate (1) in the desired position.
- Fasten the pillar (2) with flange using the supplied screws (3). (Fig. 3)
- Insert the gear rack (33) in the center of the guide rail provided for it (Fig. 4).
- Hold the gear rack in position while sliding the drill table (4) onto the pillar from above (Fig. 5).
- Now position the locking ring (34) on the pillar so that it rests lightly on the gear rack (Fig. 6). Then fasten the socket head screw using the hex key (30) (Fig. 7).
- Secure the drill table at the desired height with the tightening screw (5).
- Finally mount the complete machine head (6) on the pillar.
  Note: If possible, lift the machine head onto the pillar together with another person.
- Align the machine head so that it is vertical to the base plate and secure the pre-fitted screw a with the help of the supplied hex key (30) (Fig. 8).
- Screw the 3 supplied handles (9) in the handle mounts. (Fig. 9)
- Screw the clamping lever (17) in place as shown in Fig. 10.
- Before you fit the drill chuck (10) to the drill chuck mount (24), check that both parts are clean. Then insert the drill chuck into the drill chuck mount by pressing it in firmly and check that the chuck is secure (Fig. 11).

5.2 Setting up the machine

Before using the drill you must set it up in a stationary position on a firm surface. Use the mounting holes (12) in the base plate for this purpose. Make sure that the machine is freely accessible for operation, adjustment and maintenance.

Note: The fastening screws are allowed to be tightened only to a point where they do not distort or deform the base plate. Excessive tension can lead to fracture.

5.3 Folding chip guard (Fig. 12-15)

- Before fitting the chip guard (13) you must move the drill table (4) to its lowest position (see section 6.8 Setting the height of the drill table).
- Remove the stop screw (20) and the stop washer b from the fastening rail (23) (Fig. 12).
- Push the chip guard fastening rail into the chip guard holder (21). While doing so it is imperative to make sure that the arrows fastened to the chip guard holder and to the chip guard are vertically opposite each other (Fig. 13).
- Now fit the stop screw with the stop washer b to the fastening rail (Fig. 14).
- Refer to Fig. 15 to check whether you have fitted the chip guard correctly. The tips of the arrows must be vertically opposite each other after assembly.
  Note: The holder for the chip guard is equipped with a microswitch. This ensures that the machine will start up only if the chip guard is completely closed.
- The height of the chip guard is infinitely adjustable and can be fastened using the securing screw (22) (Fig. 16).
- The chip guard must be flipped to the side to enable bits to be changed.

5.4 Prior to using the machine for the first time

Ensure that the voltage of the mains supply complies with the specifications on the rating plate. Connect the machine only to a socket with a properly installed earthing contact. The drill is equipped with a no-volt trip that is designed to protect the operator from an undesired restart following a drop in voltage. Should this happen, the machine must be switched on again.

6. Operation

6.1 General information (Fig. 16)
Before you switch on the machine, open the cover (32) over the On/Off switch.
To switch on, press the green On switch “I” (18); the machine will then start up. To switch off, press the red “O” button (19); the machine will then shut down.
Take care not to overload the machine. If the sound of the motor drops in pitch during operation, it is being overloaded.
Do not overload the machine to the point where the motor comes to a standstill. Always stand in front of the machine during operation.

6.2 Inserting a tool in the drill chuck (Fig. 1)
Make sure that the power plug is removed from the socket-outlet before changing tools. Only cylindrical tools with the stipulated maximum shaft diameter are allowed to be clamped in the drill chuck (10). Use only tools that are sharp and free of defects. Do not use tools whose shaft is damaged or which are deformed or flawed in any other way. Use only accessories and attachments that are listed in the operating instructions or have been approved by the manufacturer. If the pillar drill becomes jammed, switch off the machine and return the drill to its starting position.

6.3 How to use the scroll chuck (Fig. 17)
The pillar drill is equipped with a scroll chuck. To insert a drill bit you must first swing the chip guard (13) to the side. Then insert the bit and tighten the chuck (10) with the supplied chuck key (27). Hazard! Do not leave the chuck key inserted. An inserted chuck key would be catapulted into the surroundings, with a high risk of injury.

6.4 Using tools with tapered shanks (Fig. 18)
The pillar drill comes with a spindle taper. To use tools with tapered shanks (MK2), proceed as follows:

- Move the drill chuck to the lower position.
- Use the scale ring (25) to lock the spindle in the lowered position so that the opening for moving out the drill chuck remains unobstructed (Fig. 18).
- Eject the tapered shank using the supplied drill drift (35), taking care as you do so to ensure that the tool does not land on the floor.
- Jerk a new tool with tapered shank into the spindle taper and check that the tool is firmly seated.

6.5 Speed settings (Fig. 16/19-21)
First switch off the machine, then pull out the power plug.
The various spindle speeds can be set by changing the position of the V-belt.

Proceed as follows:

- First move the fastening rail for the chip guard (23) into the lowest position so that the V-belt cover can be fully opened. To do so, undo the securing screw of the chip guard (22) to enable the fastening rail for the chip guard to be pushed downwards (Fig. 16).
- Slacken the locking screw (15) so that you can open the V-belt cover (7) and then slacken the tightening screw (16) on the machine head (6) (Fig. 19).
- Turn the clamping lever (17) clockwise to remove tension from the V-belt (26) (Fig. 20a).
- Change the position of the V-belt to suit the required speed.
- Please refer to the table (Fig. 21) for the corresponding speeds.
- Re-tension the V-belt by turning the clamping lever counter-clockwise (Fig.20b).
  Note: The tension is properly set when you can depress the V-belt in the middle by approx. 1 cm.
- Then re-tighten the tightening screw on the machine head.
- Re-close the V-belt cover and tighten with the locking screw.

Note: The V-belt cover must always be shut tight because the machine is equipped with a safety switch that allows the machine to be switched on only when the V-belt cover is closed.

Hazard! Never let the pillar drill run when the V-belt cover is open. Always pull out the power plug before opening the cover. Never touch the V-belt when it is rotating.

6.6 Drill depth stop (Fig. 22)
The drilling spindle has a swiveling scale ring for setting the drilling depth. Adjust the settings only when the machine is at a standstill.

- Press the drilling spindle (11) downwards until the tip of the drill bit touches the workpiece.
- Slacken the clamping screw (14) and turn the scale ring (25) forwards until it stops.
- Turn the scale ring back to the required drilling depth and lock this setting with the clamping screw.

6.7 Setting the angle of the drill table (Fig. 23)
- Slacken the socket head screw (28) under the drill table with the help of the supplied hex key (29).
- Set the drill table (4) to the desired angle.
- Re-tighten the socket head screw in order to secure the drill table in this position.

6.8 Setting the height of the drill table (Fig. 24)
- Slacken the clamping screw (5).
- Set the drill table (4) to the desired position with the help of the hand crank (31).
- Re-tighten the clamping screw.

6.9 Clamping the workpiece
As a general rule, use a machine vice or another suitable clamping device to lock a workpiece into position. Never hold the workpiece in place with your hand! When drilling, the workpiece should be able to travel on the drill table (4) for self-centering purposes. Ensure that the workpiece cannot rotate. This is best achieved by placing the workpiece/machine vice on a sturdy block.

Hazard! Sheet-metal parts must be clamped in place to prevent them from being yanked up. Properly set the height and angle of the drill table for each workpiece. There must be enough distance between the upper edge of the workpiece and tip of the drill bit.

6.10 Working speeds
Ensure that you drill at the proper speed. Drill speed is dependent on the diameter of the drill bit and its material.

The table below acts as a guide for selecting the proper speed for drill bits made of various materials.

The rotational speeds shown are merely suggested values.

Ø Drill bit	Cast iron	Steel	Iron	Aluminium	Bronze
3	2550	1600	2230	9500	8000
4	1900	1200	1680	7200	6000
5	1530	955	1340	5700	4800
6	1270	800	1100	4800	4000
7	1090	680	960	4100	3400
8	960	600	840	3600	3000
9	850	530	740	3200	2650
10	70,85	480	670	2860	2400
11	700	435	610	2600	2170
12	640	400	560	2400	2000
13	590	370	515	2200	1840
14	545	340	480	2000	1700
16	480	300	420	1800	1500
18	425	265	370	1600	1300
20	380	240	335	1400	1200
22	350	220	305	1300	1100
25	305	190	270	1150	950

6.11 Countersinking and center-drilling
With this bench drill you can also perform countersinking and center-drilling jobs. Please note: Countersinking should be performed at the lowest speed, while a high speed is required for center-drilling.

6.12 Woodworking
Wood dust can be a health hazard! Be sure to use a suitable dust extractor when working with wood. It is imperative to wear a suitable dust mask when performing any work that generates dust.

6.13 Replacing the V-belt (Fig. 16/19-21)
The V-belt of the pillar drill can be replaced if it becomes worn. Proceed as described in section 6.5 Speed settings.

In this case replace the V-belt (26) instead of repositioning it.

7. Replacing the power cable

Danger!
If the power cable for this equipment is damaged, it must be replaced by the manufacturer or its after-sales service or similarly trained personnel to avoid danger.

8. Cleaning, maintenance and ordering of spare parts

Danger!
Always pull out the mains power plug before starting any cleaning work.

8.1 Cleaning

- The pillar drill is maintenance-free to a large extent. Keep the equipment clean. Pull out the power plug before doing any cleaning and maintenance work on the equipment. Do not use any harsh, abrasive solvents for cleaning purposes. Make sure that no liquid gets into the equipment. Re-grease all bare parts when the work is finished. Particularly the drill pillar, blank parts of the column, and the drill table should be re-greased at regular intervals. Use a standard, acid-free lubricating grease for this purpose.
  Note: Do not dispose of oil-soaked rags, grease-soaked rags, oil residues and grease residues in your household rubbish. Dispose of such materials in an environment-friendly way. Check and clean the ventilation holes regularly. Store the equipment in a dry room. If the equipment becomes damaged, do not try to repair it yourself. Leave such repairs to a qualified electrician.
- We recommend that you clean the device immediately each time you have finished using it.
- Clean the equipment regularly with a moist cloth and some soft soap. Do not use cleaning agents or solvents; these could attack the plastic parts of the equipment. Ensure that no water can seep into the device. The ingress of water into an electric tool increases the risk of an electric shock.

8.2 Maintenance
There are no parts inside the equipment which require additional maintenance.

8.3 Ordering spare parts and accessories
Please provide the following information when ordering spare parts:

- Type of unit
- Article number of the unit
- ID number of the unit
- Spare part number of the required spare part

For our latest prices and information please go to www.Einhell-Service.com

Tip! For good results we recommend high-quality accessories from kwb !
www.kwb.eu
welcome@kwb.eu

9. Disposal and recycling

The equipment is supplied in packaging to prevent it from being damaged in transit. The raw materials in this packaging can be reused or recycled. The equipment and its accessories are made of various types of material, such as metal and plastic. Never place defective equipment in your household refuse. The equipment should be taken to a suitable collection center for proper disposal. If you do not know the whereabouts of such a collection point, you should ask in your local council offices.

10. Storage

Store the equipment and accessories in a dark and dry place at above freezing temperature. The ideal storage temperature is between 5 and 30 °C. Store the electric tool in its original packaging.

For EU countries only

Never place any electric power tools in your household refuse.

To comply with European Directive 2012/19/EC concerning old electric and electronic equipment and its implementation in national laws, old electric power tools have to be separated from other waste and disposed of in an environment-friendly fashion, e.g. by taking to a recycling depot.

Recycling alternative to the return request:
As an alternative to returning the equipment to the manufacturer, the owner of the electrical equipment must make sure that the equipment is properly disposed of if he no longer wants to keep the equipment. The old equipment can be returned to a suitable collection point that will dispose of the equipment in accordance with the national recycling and waste disposal regulations. This does not apply to any accessories or aids without electrical components supplied with the old equipment.

Please note that batteries and lamps (e.g. light bulbs) must be removed from the tool before it is disposed of.

Subject to technical changes

Service information

We have competent service partners in all countries named on the guarantee certificate whose contact details can also be found on the guarantee certificate. These partners will help you with all service requests such as repairs, spare and wearing part orders or the purchase of consumables.

Please note that the following parts of this product are subject to normal or natural wear and that the following parts are therefore also required for use as consumables.

Category	Example
Wear parts*	V-belt
Consumables*	
Missing parts	

* Not necessarily included in the scope of delivery!

In the effect of defects or faults, please register the problem on the internet at www.Einhell-Service.com. Please ensure that you provide a precise description of the problem and answer the following questions in all cases:

- Did the equipment work at all or was it defective from the beginning?
- Did you notice anything (symptom or defect) prior to the failure?
- What malfunction does the equipment have in your opinion (main symptom)? Describe this malfunction.

Warranty certificate

Dear Customer,
All of our products undergo strict quality checks to ensure that they reach you in perfect condition. In the unlikely event that your device develops a fault, please contact our service department at the address shown on this guarantee card. You can also contact us by telephone using the service number shown. Please note the following terms under which guarantee claims can be made:

1. These guarantee terms apply to consumers only, i.e. natural persons intending to use this product neither for their commercial activities nor for any other self-employed activities. These warranty terms regulate additional warranty services, which the manufacturer mentioned below promises to buyers of its new products in addition to their statutory rights of guarantee. Your statutory guarantee claims are not affected by this guarantee. Our guarantee is free of charge to you.
2. The warranty services cover only defects due to material or manufacturing faults on a product which you have bought from the manufacturer mentioned below and are limited to either the rectification of said defects on the product or the replacement of the product, whichever we prefer.
   Please note that our devices are not designed for use in commercial, trade or professional applications. A guarantee contract will not be created if the device has been used by commercial, trade or industrial business or has been exposed to similar stresses during the guarantee period.
3. The following are not covered by our guarantee:
   - Damage to the device caused by a failure to follow the assembly instructions or due to incorrect installation, a failure to follow the operating instructions (for example connecting it to an incorrect mains voltage or current type) or a failure to follow the maintenance and safety instructions or by exposing the device to abnormal environmental conditions or by lack of care and maintenance.
   - Damage to the device caused by abuse or incorrect use (for example overloading the device or the use or unapproved tools or accessories), ingress of foreign bodies into the device (such as sand, stones or dust, transport damage), the use of force or damage caused by external forces (for example by dropping it).
   - Damage to the device or parts of the device caused by normal or natural wear or tear or by normal use of the device.
4. The guarantee is valid for a period of 24 months starting from the purchase date of the device. Guarantee claims should be submitted before the end of the guarantee period within two weeks of the defect being noticed. No guarantee claims will be accepted after the end of the guarantee period. The original guarantee period remains applicable to the device even if repairs are carried out or parts are replaced. In such cases, the work performed or parts fitted will not result in an extension of the guarantee period, and no new guarantee will become active for the work performed or parts fitted. This also applies if an on-site service is used.
5. To make a claim under the guarantee, please register the defective device at:
   www.Einhell-Service.com. Please keep your bill of purchase or other proof of purchase for the new device. Devices that are returned without proof of purchase or without a rating plate shall not be covered by the guarantee, because appropriate identification will not be possible. If the defect is covered by our guarantee, then the item in question will either be repaired immediately and returned to you or we will send you a new replacement.

Of course, we are also happy offer a chargeable repair service for any defects which are not covered by the scope of this guarantee or for units which are no longer covered. To take advantage of this service, please send the device to our service address.

Also refer to the restrictions of this warranty concerning wear parts, consumables and missing parts as set out in the service information in these operating instructions.