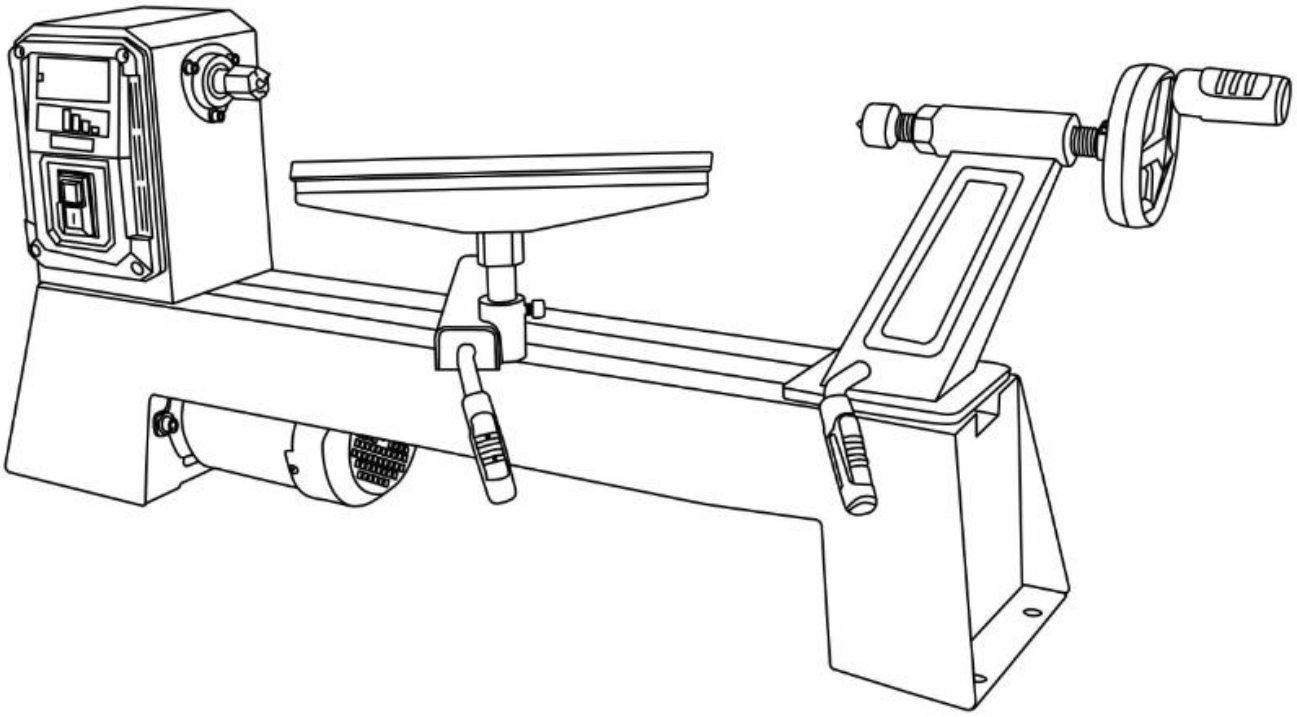
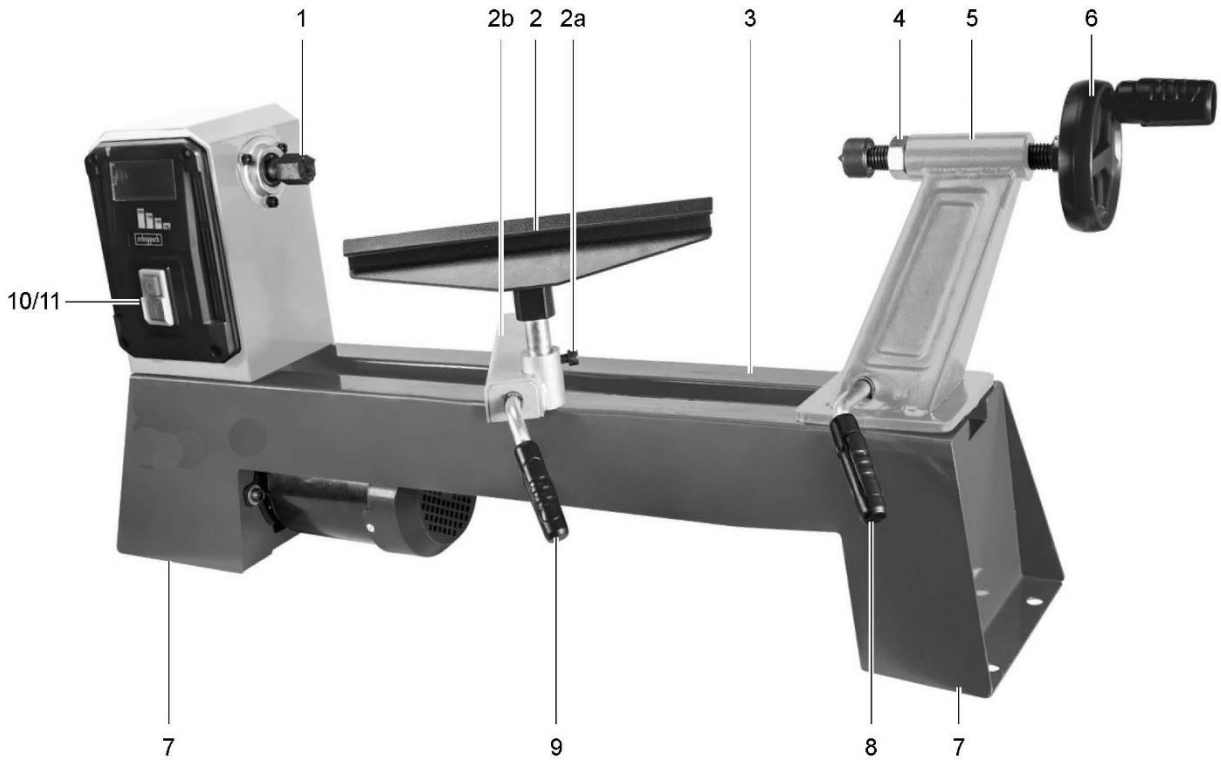
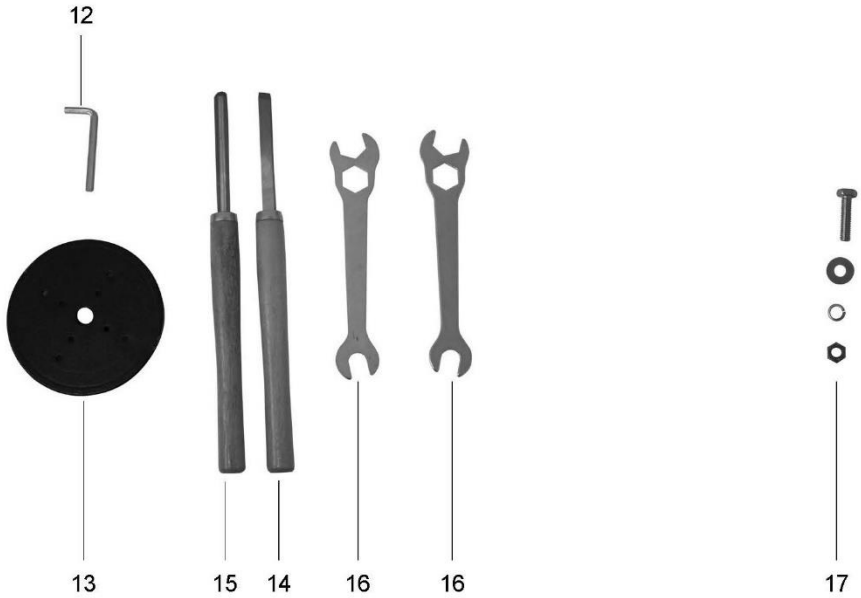
SIGMA



400W WOOD LATHE
WL500

1





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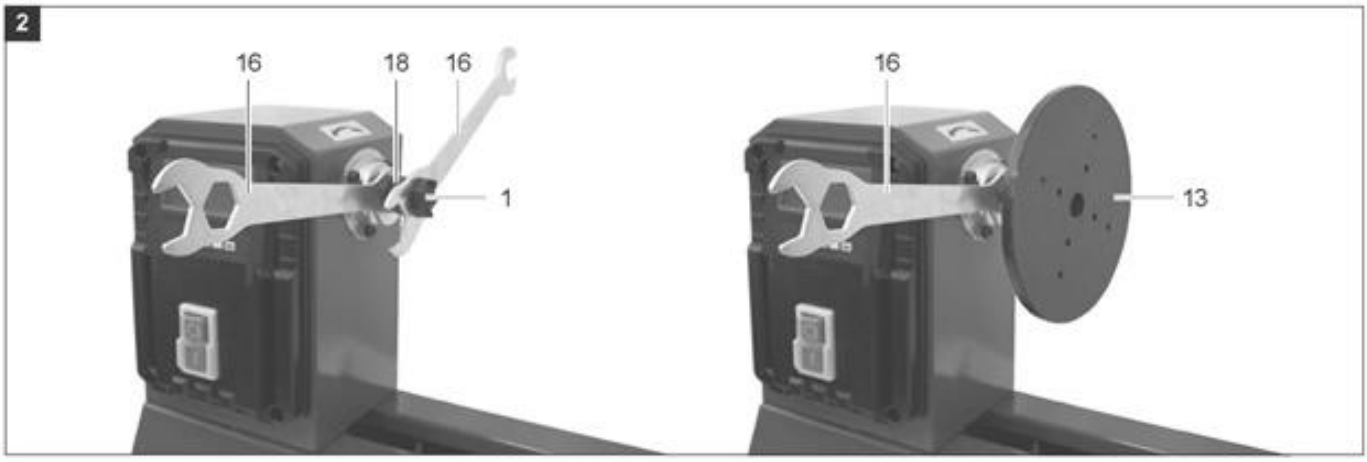

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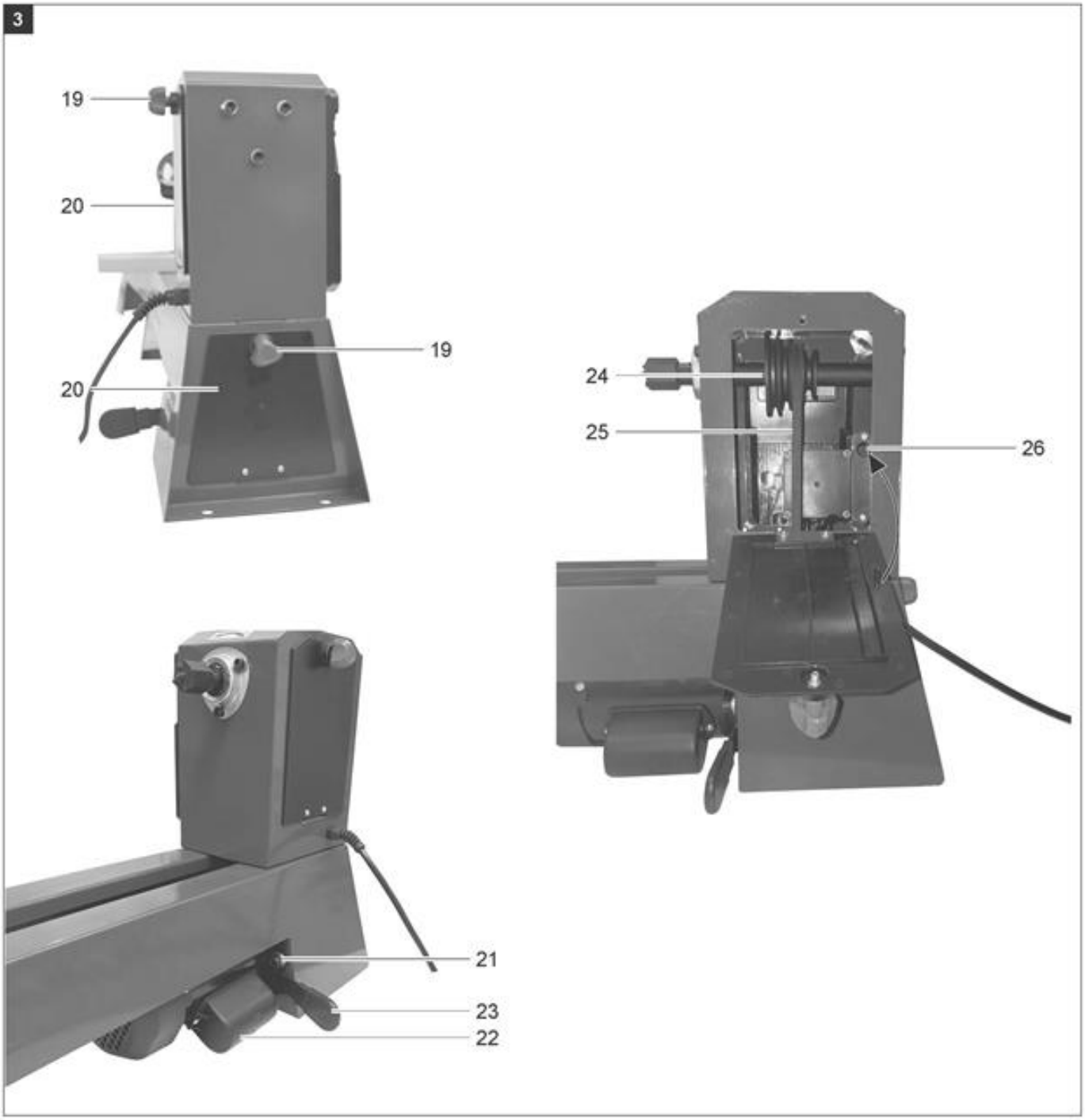


1. GENERAL POWER TOOL SAFETY WARNING

WARNING Read all safety warnings, instructions, illustrations and specifications provided with this power tool. *Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury*.
Save all warnings and instructions for future reference.
The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

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

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

3) Personal safety
a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. *A moment of inattention while operating power tools may result in serious personal injury.*
b) Use personal protective equipment. Always wear eye protection. *Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.*
c) Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. *Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.*
d) Remove any adjusting key or wrench before turning the power tool on. *A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*
e) Do not overreach. Keep proper footing and balance at all times. *This enables better control of the power tool in unexpected situations.*
f) Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts. *Loose clothes, jewellery or long hair can be caught in moving parts.*
g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** *Use of dust collection can reduce dust-related hazards*.
h) **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** *A careless action can cause severe injury within a fraction of a second.*

4) Power tool use and care
a) Do not force the power tool. Use the correct power tool for your application. *The correct power tool will do the job better and safer at the rate for which it was designed.*
b) **Do not use the power tool if the switch does not turn it on and off.** *Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*
c) Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools. *Such preventive safety measures reduce the risk of starting the power tool accidentally.*
d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. *Power tools are dangerous in the hands of untrained users.*
e) Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. *Many accidents are caused by poorly maintained power tools.*

f) Keep cutting tools sharp and clean. *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*
g) Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. *Use of the power tool for operations different from those intended could result in a hazardous situation.*
h) Keep handles and grasping surfaces dry, clean and free from oil and grease.
Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

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

6) Remaining hazards
The machine has been built using modern technology in accordance with recognized safety rules. Some remaining hazards, however, may still exist.
- Only process selected woods without defects such as: Branch knots, edge cracks, surface cracks. Wood with such defects is prone to splintering and hazardous.
- Wood which is not correctly glued can explode when being processed due to centrifugal force.
- Trim work piece to a rectangular shape, center and correctly secure before processing. Unbalanced work pieces can be hazardous.
- Injuries can occur when feeding work pieces if tool supports are not correctly adjusted or if turning tools are blunt. Sharp turning tools which are free of defects are necessary for professional turning.
- Long hair and loose clothing can be hazardous when the work piece is rotating. Wear personal protective gear such as a hair net and tight fitting work clothes.
- Saw dust and wood chips can be hazardous. Wear personal protective gear such as safety goggles and a dust mask.
- The use of incorrect or damaged mains cables can lead to injuries caused by electricity.
- Even when all safety measures are taken, some remaining hazards which are not yet evident may still be present.
- Remaining hazards can be minimized by following the instructions in „Safety Precautions“, „Proper Use“ and in the entire operating manual

2. Device description

1. 4-prong centre tip
2. Tool support
2a. Screw, height adjustment
2b. Bottom part of the tool support
3. Rail with motor unit
4. Lock nut
5. Tailstock
6. Hand wheel
7. Base
8. Lever, tailstock
9. Lever, tool support
10. On switch
11. Off switch
12. Allen key
13. Face plate
14. Wood-turning chisel, straight
15. Wood-turning chisel, hollow
16. Open-ended spanner
17. Hexagonal bolt with spring washer, standard washer and nut
18. Drive shaft
19. Locking screw
20. Gearing cover
21. Locking screw
22. Motor unit
23. Lever, motor unit
24. Drive disc
25. V-belt
26. Interlock switch

3. Scope of delivery

- Wood-turning lathe (two-part)
- Face plate
- Tailstock
- Tool support (two-part)
- 2 wood-turning chisels, (1x straight, 1x hollow)
- 2 x open-ended spanners
- Allen key
- Assembly material:
  - 4 hexagonal bolts
  - 4 spring washers
  - 4 washers
  - 4 nuts
- Operating manual

4. Proper use

The lathe is used for working wood with suitable wood-turning chisels. The clamped workpieces are rotated, whereby various different speeds can be set. Please refer to the following descriptions for the function of the controls.
The machine complies with the applicable EC machinery

directive.
• The safety, operating and maintenance specifications of the manufacturer, as well as the dimensions specified in the technical data, must be observed.
• The applicable accident prevention regulations and the other generally accepted safety rules must be observed.
• The machine may only be used, maintained or repaired by competent persons who are familiar with it and have been informed of the dangers. Any liability of the manufacturer for damages resulting from arbitrary changes to the machine is excluded.
• The machine may only be operated with original accessories and original tools from the manufacturer.
• Any use beyond this is improper use. The manufacturer is not responsible for the resultant damages, the user bears this risk alone.
Please observe that our equipment was not designed with the intention of use for commercial or industrial purposes. We assume no guarantee if the equipment is used in commercial or industrial applications, or for equivalent work.

5. Technical data

Dimensions L x W x H	890 x 325 x 414 mm
Speed	890/1260/1760/2600 min-1
Max. workpiece size	500 mm
Max. workpiece diameter	350 mm
Spindle head thread	M18 x 2,5
Weight	18 kg
Engine	230-240 V / 50 Hz
Rated input	400 W S2 15 min

Subject to technical changes
* Operating mode S2 – short-term operation
Operation at a constant load for 15 minutes or less, followed by a time out of operation and a pause of sufficient duration to allow the machine to cool to within 2 K of the ambient temperature.
The noise and vibration levels have been determined in accordance with EN 61029.

Sound pressure level L_{pA}	71 dB(A)
Uncertainty K_{pA}	3 dB
Sound power level L_{WA}	84 dB(A)
Uncertainty K_{WA}	3 dB

Wear hearing protection.
Excessive noise can result in a loss of hearing. Total vibration emission values (vector sum of three directions) determined per EN 61029.

6. Unpacking

- Open the packaging and carefully remove the device.
- Remove the packaging material, as well as the packaging and transport safety devices (if present).
- Check whether the scope of delivery is complete.
- Check the device and accessory parts for transport damage. In the event of complaints the carrier must be informed immediately. Later claims will not be recognised.
- If possible, keep the packaging until the expiry of the warranty period.
- Familiarise yourself with the product by means of the operating instructions before using for the first time.
- With accessories as well as wearing parts and replacement parts use only original parts. Replacement parts can be obtained from your dealer.
- When ordering please provide our article number as well as type and year of manufacture for your equipment.

ATTENTION!
The device and the packaging material are not children‘s toys! Do not let children play with plastic bags, films or small parts! There is a danger of choking or suffocating!

7. Assembly
Setting up the lathe (Fig. 1)
1. Place the lathe on a firm surface.
2. Screw the lathe to the surface. Use the two holes in each of the two feet (7) for this.
3. You can use the hexagonal bolts (17) supplied with the lathe for this.
4. Place the standard washer and spring washer on the hexagonal bolt (17) (see Fig. 1).
5. Screw the lathe to the surface with the help of the hexagonal bolt, standard washer, spring washer and nut (17).

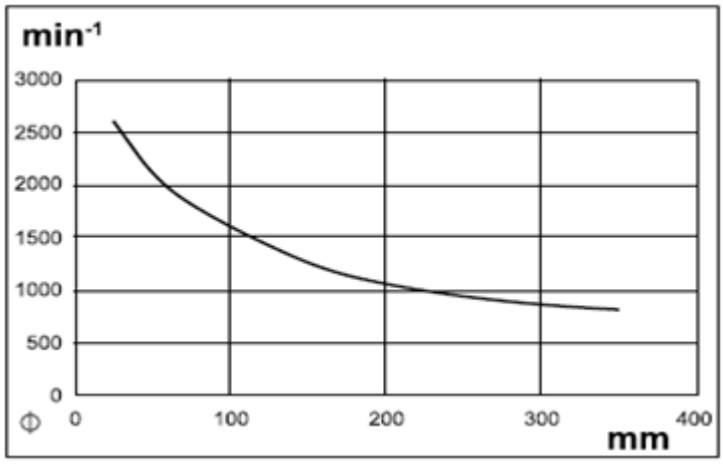
Fitting/replacing the workpiece mount (Fig. 2)
ATTENTION!

Switch the device off and pull out the mains plug.
Fitting the 4-prong centre tip
1. Loosen the face plate (13) if necessary. To do this, hold the drive shaft (18) firmly in place with the open-ended spanner (16) and unscrew the face plate (13) from the drive shaft (18).
2. Hold the drive shaft (18) firmly in place with the open-ended spanner (16).
3. Tighten the 4-prong centre tip (1) onto the drive shaft using the second open-ended spanner (16).

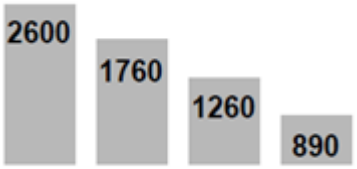
For turning bowls or pots, for example, the face plate (13) must be used instead of the 4-prong centre tip (1).

Mounting the face plate
1. If necessary, loosen the 4-prong centre tip (1). To do this, place the two open-ended wrenches (16) on the drive shaft (18) and on the 4-prong centre tip (1) and unscrew the 4-prong centre tip (1).
2. Hold the drive shaft (18) firmly in place with the open-ended spanner (16).
3. Screw the face plate (13) onto the drive shaft (18).

8. Operation
Selecting the speed (Fig. 3)
ATTENTION!
The mains plug shall not be plugged in when adjusting the speed.
Select the correct speed:
- With new workpieces, select a low speed first. Increase the speed as the weight of the workpiece increases.
- The selection of the correct speed depends on several factors, e.g. material, diameter, length and unbalance of the workpiece. In principle: Choose a low speed for hard timber, non-round, long or large-diameter workpieces.
- Use the table as a guide when selecting the speed:



The workpiece diameter is indicated on the x-axis. The speed can be read off the y-axis. Go up vertically from the diameter of the workpiece and read off the speed where an imaginary perpendicular line meets the curve.
1. Loosen the two locking screws (19) on the two gearing covers (20).
2. Open the gearing covers (20).
3. Loosen the locking screw (21) of the motor unit with the Allen key (12).
4. Lift the motor unit (22) by operating the lever (23) to relieve the load on the V-belt (25).
5. Fix the motor unit (22) by tightening the locking screw (21).
6. Place the V-belt (25) in the desired groove of the drive pulley (24) to achieve the specified speed:



The V-belt must lie in the same groove on the upper and lower drive pulley.
Note: The two gearing covers (20) are equipped with an interlock switch (26). The interlocking switches (26) are actuated automatically when the gearing covers (20) are closed. The device cannot be switched on if a gearing cover (20) is not closed correctly.
1. Loosen the locking screw (21) and lower the lever with the motor unit to tighten the V-belt.
2. Tighten the locking screw (21).
3. Close the gearing covers (20). Secure the gearing covers with the locking screws (19).

Securing the workpiece

Securing with the 4-prong centre tip (1) and tailstock (5) (Fig. 1)

1. Draw a diagonal line at both ends of the workpiece to locate the centre. The centre is where the lines meet. Make a centring hole where the 4-prong centre tip and tailstock are to meet the workpiece. This ensures a better hold.
2. Make an approx. 2 mm deep saw cut along the diagonal to enable the 4-prong centre tip (1) to grip better.
3. Fit the dismounted 4-prong centre tip (1) centrally to the centre of the workpiece. Lightly tap the 4-prong centre tip (1) into the workpiece with a mallet (not included in the scope of delivery). Take care to protect the thread of the 4-prong centre tip (1) with a wooden board, for example.
4. Remove the 4-prong centre tip (1) from the workpiece again.
5. Then (re)mount the 4-prong centre tip (1) onto the device.

Note: The mounting and dismounting of the 4-prong centre tip can be found in the chapter “Mounting/changing the workpiece holders”.

1. Position the workpiece on the 4-prong centre tip (1). Make sure that the 4-prong centre tip (1) engages with the notch, otherwise secure clamping is not guaranteed.
2. Loosen the lever (8) of the tailstock.
3. Slide the tailstock towards the 4-prong centre tip (1) until it makes firm contact with the workpiece to clamp it.
4. Fix the tailstock by pushing the lever (8) down.
5. Use the hand wheel (6) for fine adjustment.
6. Fix the position of the handwheel with the counternut (4).

Securing with the face plate (13) (Fig. 2)

1. Hold the drive shaft (18) firmly in place with the open-ended spanner (16).
2. Unscrew the face plate (13) from the drive shaft (18).
3. Fix the workpiece to the face plate (13) with wood screws (not included in the scope of delivery).

ATTENTION!

Danger of injury! Position the wood screws such that they will not be accidentally exposed by the tool when machining the workpiece.

1. Hold the drive shaft (18) firmly in place with the open-ended spanner (16).
2. Screw the face plate (13) with the pre-mounted workpiece onto the drive shaft (18).

Adjusting the tool support (Fig. 1)

ATTENTION!

Danger of injury! Make sure that the tool support is well fixed and cannot come loose during operation.

Fixing/releasing the tool support

1. The tool support (2) is fixed by pushing the lever (9) downwards.
2. The tool support (2) is released by pushing the lever (9) upwards. You can now move the tool support.

Note:

If it is difficult to move the tool support (2) or the tailstock (5), adjust the nut on the underside with a spanner or ratchet (19 mm).

Height adjustment of the tool support

1. Loosen the screw (2a) on the lower part of the tool support (2b).
2. Set the desired height.
3. Fix the tool support (2) by tightening the screw (2a).

Switching on/off (fig. 1)

1. Connect the device to the mains voltage.
2. Switching on: Press the On switch (10) to switch the device on.
3. Switching off: To switch the device off, press the Off switch (11) again.

ATTENTION!

If you leave the device unattended or have finished working, pull out the mains plug.

9.Working instructions

- Before you start working, read up on the subject in detail in technical literature.
- When selecting your workpiece, look out for knots, knotholes, cracks or similar. You could lose control of your tool, which could result in serious injury. Cracked workpieces can rupture during turning. There is a danger of injury!
- Always cut the workpiece into shape as much as possible before machining.
- Observe the maximum workpiece length and the maximum workpiece diameter! You will find these in the technical data.

- The workpiece must be fixed in the centre, an unbalanced workpiece will affect the service life of the machine.
- Only use tools suitable for turning.
- Never stand in the trajectory of the workpiece.
- Before starting work, with the mains plug removed, check the following by turning manually:
  - Is the workpiece stuck?
  - Does the workpiece come into contact with the tool support?
- Always start with a lower speed and increase it gradually.
- Do not apply the tool to the workpiece until it has reached the set rotational speed.

Remove blockages
Switch the device off and pull out the mains plug.
Clean the device of dust and chippings to remove the blockage.

10.Electrical connection

The electrical motor installed is connected and ready for operation. The connection complies with the applicable VDE and DIN provisions. The customer‘s mains connection as well as the extension cable used must also comply with these regulations.

Damaged electrical connection cable
The insulation on electrical connection cables is often damaged.
This may have the following causes:
- Pressure points, where connection cables are passed through windows or doors.
- Kinks where the connection cable has been improperly fastened or routed.
- Places where the connection cables have been cut due to being driven over.
- Insulation damage due to being ripped out of the wall outlet.
- Cracks due to the insulation ageing.

11. Cleaning and maintenance

Warning: When servicing use only identical replacement parts. Use of any other parts may create a hazard or cause product damage.
Warning: To avoid serious personal injury make sure the belt/disc sander is turned OFF and the cord is unplugged from the power source before performing any maintenance or adjustment.

General maintenance

After using your belt/disc sander, clean it completely and lubricate all sliding and moving parts. Apply a light coat of automotive type paste wax to the worktable to help keep the surfaces clean.

Motor housing

Frequently blow out any dust that may accumulate inside the motor housing.

12. Storage

Store the device and its accessories in a dark, dry and frost-proof place that is inaccessible to children. The optimum storage temperature is between 5 and 30˚C. Store the electrical tool in its original packaging. Cover the electrical tool in order to protect it from dust and moisture. Store the operating manual with the electrical tool.

13.Transport

If you want to transport the device to a different location, disconnect the device from the power supply and set it down in another appropriate area.
Attention!
Hot surface. There is a risk of burns. Do not transport the machine until the motor unit (22) has cooled down completely.
Carry the lathe with a second person if possible. When transporting, hold the lathe by the outer feet (7), by the rail with the motor unit (3).

14. 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. Defective components must be disposed of as special waste. Ask your dealer or your local council.

Old devices must not be disposed of with household waste!
This symbol indicates that this product must not be disposed of together with domestic waste in compliance with the

Directive (2012/19/EU) pertaining to waste electrical and electronic equipment (WEEE). This product must be disposed of at a designated collection point. This can occur, for example, by handing it in at an authorised collecting point for the recycling of waste electrical and electronic equipment. Improper handling of waste equipment may have negative consequences for the environment and human health due to potentially hazardous substances that are often contained in electrical and electronic equipment. By properly disposing of this product, you are also contributing to the effective use of natural resources. You can obtain information on collection points for waste equipment from your municipal administration, public waste disposal authority, an authorised body for the disposal of waste electrical and electronic equipment or your waste disposal company.

15. Troubleshooting

The cut quality is poor.	Cutting tool is brunt.	Sharpen or replace cutting tool.
	Too strongly cut	Reduce the working pressure.
	The cutting tool is positioned below the workpiece centreline.	Do not apply the cutting tool any lower than 3 mm above the centre of the workpiece.
	Rotation speed too slow, increase rotation speed	Adjust speed
Excessive vibration when turning thin workpieces.	The cutting tool is below the workpiece centreline.	Raise the cutting tool to the centreline of the workpiece.
	Too strongly cut	Reduce the working pressure.
Excessive vibration when turning large workpieces or bowls.	Headstock and/or tailstock incorrectly positioned at the ends of the workpiece.	Check that the workpiece tips on the headstock and/ or tailstock are correct.
	The workpiece is not balanced.	Cut the end of the part until the workpiece is balanced.
Lathe does not turn.	Cable not connected to the mains socket.	Connect it to the mains socket.
	The safety switch of the opened door located inside the motor access hatch, is broken or engaged.	Replace the safety switch of the open door.
Lathe does not turn off.	Damaged or defective power switch and/or internal wiring.	Pull the lathe’s plug out of the socket immediately. Do not operate the lathe until it has been repaired by a qualified service technician.