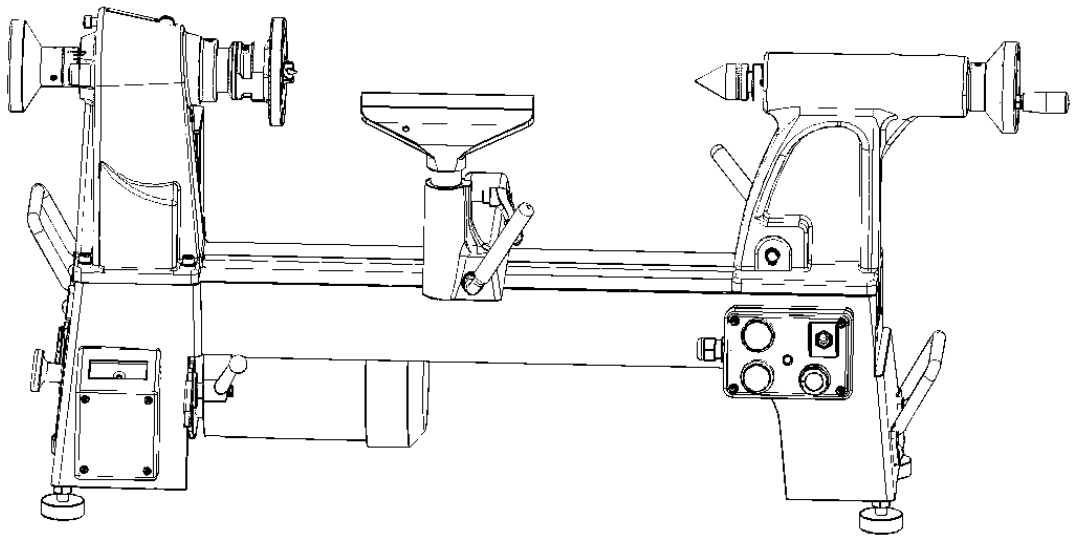
DRECHSELMEISTER
Woodturning Lathe

MIDI I

Original Operating Instructions



Original Operating Instructions Version 2025_V03_EN

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1 General information

1.1 Information about this manual

This manual enables safe and efficient use of the machine. It contains instructions on safety, assembly, operation and maintenance, and spare parts lists. The manual must be kept in the immediate vicinity of the machine and passed on if the machine is sold.

NOTICE

Failure to read and observe these operating instructions may result in serious injury. Careful use and handling can significantly reduce the risk of injury. Observing the safety information and instructions in these operating instructions is a basic requirement for safe working.

1.2 Explanation of symbols

1.2.1 Safety notices

Safety notices in this manual are marked with colours and symbols. They are introduced with signal words that indicate the level of hazard.

DANGER

Indicates a high risk and an immediate danger to people!

Failure to observe this notice may result in serious, irreversible injuries or even death.

WARNING

Indicates a medium risk and a recognizable danger to people!

Failure to observe this notice may result in serious, irreversible injuries or even death.

CAUTION

Indicates a low risk and a recognizable danger to people!

Failure to observe this notice may result in minor, reversible injuries.

NOTICE
Indicates a possible material damage or an important information.

1.2.2 Mandatory signs

The following mandatory signs in the operating instructions and on the machine indicate safety aspects that must be observed:

Sign	Meaning	Sign	Meaning	Sign	Meaning
	Wear eye protection		Wear ear protection		Wear respiratory protection
	Wear a face shield		Wear foot protection		Refer to instruction manual
	Disconnect mains plug from electrical outlet				

1.2.3 Warning signs

The following warning signs in the operating instructions indicate specific hazards:

Sign	Meaning	Sign	Meaning
	Electricity hazards		Risk of injuries due to sharp tips
	Risk of fire		General warning
	Risk of hand injuries		

1.2.4 Other signs

Sign	Meaning	Sign	Meaning
	Environmentally hazardous substances		Do not dispose of in household waste
	Spindle centre at elbow height		

1.2.5 Warning labels on the machine

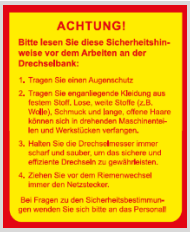
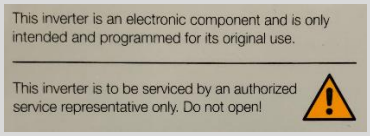
WARNING

Risk of injury if warning labels are ignored!

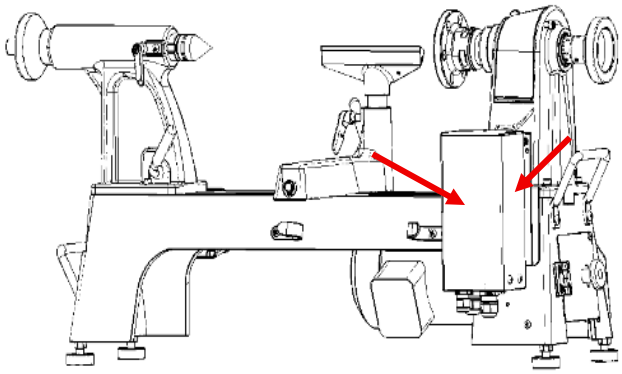
Warning labels on the machine are for safety reasons. Failure to observe them can lead to injuries.

- Observe warning labels on the machine.
- Keep warning labels legible.
- If warning labels are damaged or illegible, contact the dealer. He can arrange for replacement.

The following warning labels can be found on the machine:

Sign	Meaning
	Wear ear protection
	Pull the plug before opening the protective belt drive cover
	General instructions for the safe operation of the machine
	**Warning of opening the frequency inverter** The frequency inverter is an electronic component which is only intended and programmed for its original use. The frequency inverter is to be serviced by an authorized specialist only. Do not open!

The warning labels are located in the following places on the machine:



1.3 Limitation of liability

All information and instructions in this manual have been prepared in accordance with applicable standards and regulations.

In the following cases, the manufacturer or importer is not liable for damages:

- Failure to observe the instructions
- Other use than the intended use
- Unauthorized modifications or technical changes
- Use of unauthorized spare parts

1.4 Warranty

This product is subject to the statutory warranty according to Austrian law from the time the product is handed over.

There is no basic claim to replacement or rescission.

In the event of a complaint, the responsible dealer must be contacted in order to agree on how to proceed.

1.5 Terms of guarantee

Neureiter GmbH grants a five-year manufacturer's guarantee on this product from the date of purchase.

If defects in material or workmanship occur during the intended use of the machine, the dealer needs to be contacted. After submission of a copy of the invoice, the defect in question will be verified in coordination with the service department and, as required, it will be repaired or the product will be replaced. The organisation of a possible transport (after consultation with the Neureiter service department) lies within the responsibility of the customer. The packaging must be safe for transport.

If it is determined that the complaint lies outside the granted terms of guarantee (e.g. in the case of defects arising from normal wear, improper use, power overload, overvoltage, unauthorized modifications of the machine, use of force, failure to observe the safety precautions or own attempts of repair), the customer has to pay the full costs for transport and repair.

Only the terms of guarantee cited here are valid, any side agreements are not recognized unless they are presented in written form and signed (documented) by the manufacturer/importer. No claim whatsoever arises from verbal agreements that have not been documented.

The present terms of guarantee are valid in German-speaking countries; elsewhere different terms of guarantee may apply. In this case, the local dealer can provide information.

The above guarantee in no way restricts statutory warranty claims.

1.6 Illustrations used

NOTICE

The illustrations used in these operating instructions are examples. Differences between the delivered machine and the illustrations shown are possible.

2 Safety

2.1 Intended use

The **MIDI I** lathe is used to produce rotary bodies. Usually, a workpiece attached to the spindle is set in rotation by the drive and is then machined by hand with a cutting tool to achieve the desired shape.

The **MIDI I** can be used for machining different materials. Depending on the material, a suitable holding method and, subsequently, the right tool must be chosen.

Examples of materials that can be machined:

- Wood (all types)
- Non-ferrous metal (e.g. aluminium, brass, copper)
- Horn, teeth, bone
- Certain soft stones (e.g. soapstone, alabaster)
- Nuts, seeds, cones

The machine is designed exclusively for its intended use. The intended use also includes the observation of all instructions given in this manual. Any use other than the intended use is not permitted. The machine is only suitable for private use, not for industrial use. The machine is designed for indoor use. The use of a suitable dust collector is recommended. For commercial use, an automatic chip and dust collector approved by the professional association must be installed.

The lathe is designed for a service life of 10 years.

The minimum age for using the machine is 16 years.

2.2 Basic health and safety instructions

2.2.1 Workplace safety

WARNING

Risk of injury due to inadequate safety conditions at the workplace!

Messy, unlit or poorly ventilated work areas and slippery floors can lead to accidents.

- Keep the work area clean and well lit.
- Ensure adequate ventilation.
- Keep the immediate work area and floor free from dirt and leftover pieces.
- Ensure there is a sufficiently large work space around the machine.

WARNING

Risk of fire due to flying sparks!

Flying sparks can ignite dust, vapours or chips.

- Keep the work area and floor clean.
- Avoid explosive environments where flammable liquids, gases or dusts are present.

2.2.2 Electrical safety

WARNING

Danger to life due to electric shock!

In case of unsuitable plugs, physical contact with earthed surfaces, water entering the machine, damaged or entangled cables and lack of earthing, there is a risk of electric shock.

- Use suitable plugs and sockets.
- Use a suitable residual-current circuit breaker.
- Only connect a type F plug to an earthed socket.
- Do not modify plugs.
- Do not use adapter plugs.
- Protect the machine from moisture, vapours, wetness and rain.
- Only touch the machine and its plug with dry hands.
- Avoid misusing the power cord (do not pull on the power cord to remove the plug, for example).
- Keep the power cord away from heat, oil, sharp edges and moving parts.
- Avoid tangling the power cord.
- Avoid physical contact with earthed surfaces (pipes, heaters, etc.).

2.2.3 Personal safety

WARNING

Risk of injury due to missing experience and carelessness!

Missing experience, carelessness and distraction can lead to serious injuries.

- Before using the machine for the first time, study the subject and ask qualified persons for training.
- Be careful and attentive when using the machine.
- Do not use the machine if you are tired or under the influence of drugs, alcohol or medication.
- Keep children and other people away while using the machine.

WARNING

Risk of injury due to unintentional start-up and use by third parties!

There is a risk of injury if the machine is started unintentionally or if it is started by inexperienced persons or children.

- Before connecting the machine to the power supply and before transporting the machine, make sure that the machine is switched off.
- Protect the machine from unintentional start-up and operation by third parties (especially children).
- Only leave the machine if it is switched off and at a standstill.
- Disconnect the machine from the power supply when not in use.
- Only allow the machine to be used by persons who are familiar with it and who have read this manual.

WARNING

Risk of injury due to missing personal protective equipment, unsuitable clothing and abnormal posture!

Injuries can occur due to missing protective equipment and incorrect posture. Loose clothes, jewellery or long hair can be caught and drawn into moving parts of the machine, which can lead to injuries.

- Observe the specifications for personal protective equipment in these operating instructions and wear personal protective equipment.
- Wear safety glasses or a face shield.
- Wear suitable clothing.
- Do not wear loose clothing and jewellery.
- Wear a headgear or hairnet.
- Avoid wearing gloves.
- Maintain a good posture, ensure secure footing and maintain balance at all times.

WARNING

Health risk due to dusts!

During woodworking, harmful dusts can be produced causing serious respiratory diseases.

- Only work in well-ventilated rooms.
- Wear respiratory protection.
- Avoid contact with dust.
- Use suitable dust collectors and air filtering systems.
- Clean exposed body parts with soap and water.

WARNING

Risk of injury due to tipping over!

If the machine is climbed onto, there is a risk that it will tip over and cause injuries. Objects placed on the machine could fall and lead to injuries.

- Make sure the machine is stable.
- Screw the machine to the installation surface if necessary.
- Avoid storing objects on or around the machine.
- Do not climb onto the machine.

WARNING

Risk of injury when ignoring safety rules!

Ignoring the safety rules and careless behaviour can lead to serious injuries within a fraction of a second.

- Always follow the safety rules, even if you have a lot of experience with the machine.

WARNING

Risk of injury due to adjusting tools, spanners or loose objects that have not been removed!

Adjusting tools or spanners in a rotating part of the machine can cause injuries. Loose objects on the machine which start to move when the machine is switched on can cause injuries.

- Before switching on the machine, remove loose objects, adjusting tools and spanners from the machine.

WARNING

Risk of injury due to unbraked workpiece!

In the event of a power failure or frequency inverter overheating, the workpiece is no longer slowed down. Touching the workpiece or attempting to stop it poses a risk of injury.

- Allow the workpiece to come to a stop by itself.

2.2.4 Use and care of the machine

WARNING

Risk of injury due to unintended use and overload!

There is a risk of injury if the machine is used for other purposes than those intended or if the machine is overloaded.

- Only use the machine for its intended use and within the specified performance range.

WARNING

Risk of injury from using the machine despite defective components!

Damaged machines or components pose a risk of accidents.

- Before using the machine, ensure that it is intact and functional.
- Before using the machine, check whether any parts are broken or damaged.
- Only use the machine with intact components and switches.
- Check cables regularly for damage.
- Have damaged parts repaired immediately.
- If problems arise, switch off the machine immediately and contact the dealer if necessary.

WARNING

Risk of injury due to improper care and maintenance of machine and tools!

Improperly maintained machines and tools pose a risk of accidents. Slippery handles can lead to a loss of control.

- Follow the maintenance instructions in this manual.
- Maintain the machine and tools with care.
- Keep tools sharp and clean.
- Keep handles and gripping surfaces dry, clean and free from oil and grease.

WARNING

Risk of injury due to unintentional start-up!

There is a risk of injury if the machine starts accidentally when performing adjustment, cleaning, or maintenance work, or when changing accessories or removing jams.

- Before carrying out the above-mentioned activities, switch off the machine and disconnect it from the power supply.

2.2.5 Service

WARNING

Risk of injury due to improper repair!

Improper repair can impair the safety of the machine and pose a risk of injury.

- Have the machine repaired only by qualified personnel and only with original spare parts.

2.3 Personal protective equipment

	**Ear protection:** Always wear an ear protection when using the machine.
 	**Safety glasses / Face shield:** Always wear at least safety glasses when working on the machine. If necessary, use a full eye protection or face shield, since normal eyeglasses are usually only shock-resistant and safety glasses only protect the eyes. A face shield protects eyes and face.
	**Protective footwear:** Wear protective footwear and make sure the floor is non-slip.
	**Respiratory protection:** When processing different types of wood, exotic wood-based and other materials, and when performing certain tasks like sanding, sawing or drilling, dusts are produced that are harmful to health. Operate the machine only in well-ventilated areas and wear respiratory protection. Use a suitable dust collector and, if necessary, an air filtering system.

2.4 Operator obligations

The operator is the person who operates the machine for commercial or private purposes.

The operator must keep the machine in good condition. He undertakes to check the safety devices for correct functioning and to leave them on the machine. Any structural change to the machine is prohibited. Commercial operators must ensure that the legal obligations regarding occupational safety are complied with. For commercial use, an automatic chip and dust collector approved by the professional association must be installed.

WARNING

Risk of injury due to use by insufficiently qualified persons!

Insufficiently qualified persons cannot correctly assess the risks involved in using the machine. There is a risk of serious or fatal injury.

- Observe the chapter on basic health and safety instructions and the warning notices in these operating instructions and on the machine.
- Before using the machine for the first time, obtain information on the subject and ask qualified persons for training (attend a woodturning class).

2.5 Safety devices

Safety devices serve to protect persons and material. Without intact safety devices serious injuries can occur.

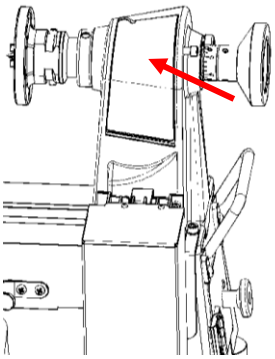
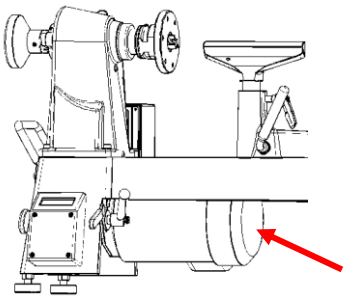
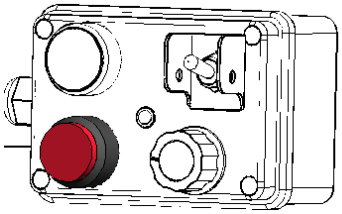
WARNING

Risk of injury due to defective or missing safety devices!

Defective or missing safety devices do not fulfil their purpose. Serious injuries can result.

- Only operate the machine with functioning safety devices.
- Switch off the machine immediately if safety devices are defective or removed.
- Only use additional equipment installed by the operator with prescribed safety devices.

Overview of safety devices

Protective belt drive cover The protective cover prevents access to the moving parts of the belt drive. A tool is required to open the protective cover.	
Motor cover The motor cover prevents access to the fan wheel.	
Emergency stop switch The emergency stop switch on the mobile control box allows the machine to be switched off quickly in dangerous situations.	

3 Machine description

3.1 Functional description

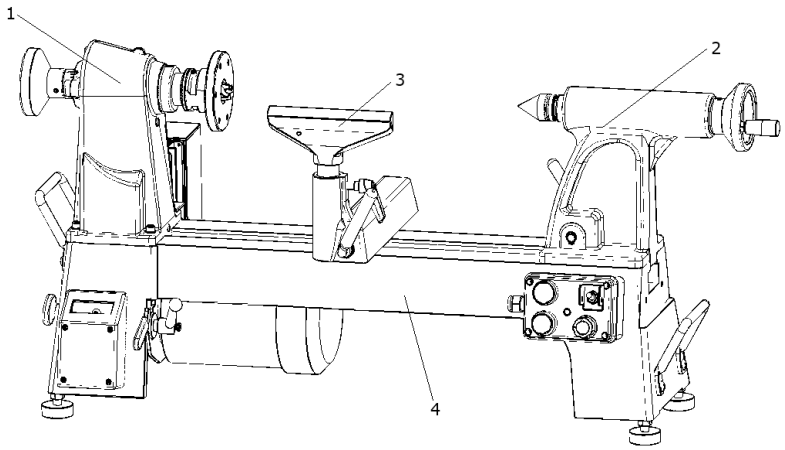
A lathe is a machine used to work on mostly cylindrical or prismatic workpieces, primarily made of wood. The workpiece is either clamped between headstock and tailstock using special fixing devices or mounted on the headstock using a special clamping device (chuck, faceplate).

The electric motor attached to the headstock drives the machine's spindle via a belt that runs over three-stage pulleys, causing the clamped workpiece to rotate. The selected pulley stage determines the speed range. The fine tuning of the motor speed is done via a frequency inverter.

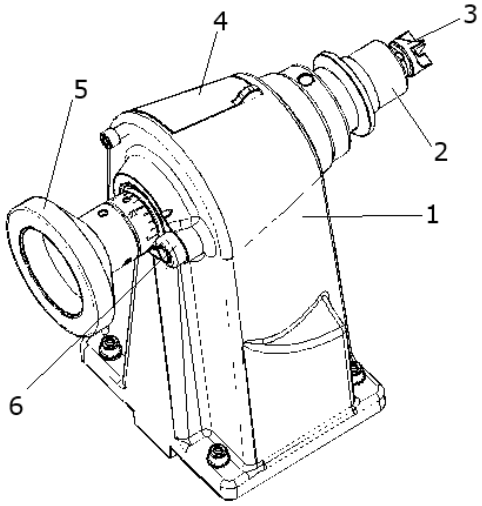
A woodturning tool is placed on the tool rest, which is mounted on a sliding banjo, and moved towards the workpiece to give it the desired shape.

3.2 Description of the lathe

3.2.1 Main components

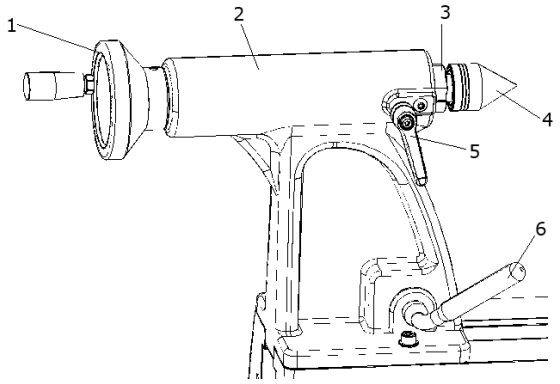
Main components	
1. Headstock 2. Tailstock 3. Tool rest 4. Bed	

3.2.2 Subcomponents

1 Headstock	
1. Headstock body 2. Spindle 3. 4-prong drive centre 4. Protective belt drive cover 5. Handwheel for indexing device 6. Index locking pin	

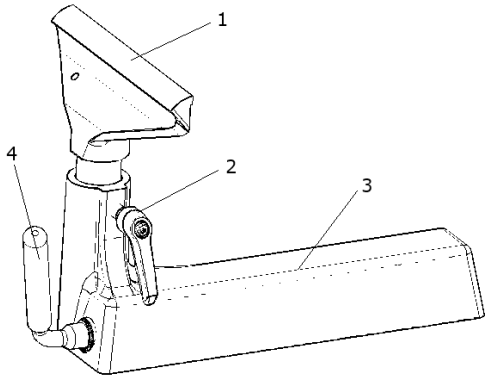
2 Tailstock (rear view)

1. Handwheel
2. Tailstock body
3. Quill
4. Live centre
5. Quill lock handle
6. Tailstock clamping lever



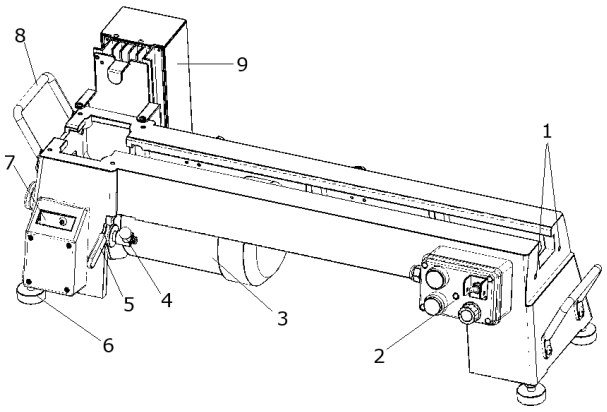
3 Tool rest

1. Tool rest
2. Tool rest lock handle
3. Banjo
4. Banjo clamping lever



4 Bed

1. Holes for fixing the bed extension
2. Mobile control box
3. Motor
4. Motor fixing lock handle
5. Motor tensioning lever
6. Height-adjustable machine foot
7. Digital speed display
8. Carrying handle
9. Frequency inverter



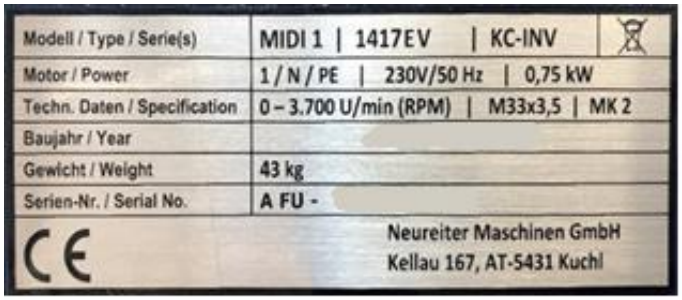
3.3 Technical data

Machine	Length	approx. 860 mm
	Width	approx. 350 mm
	Height	approx. 440 mm
	Weight (net)	48 kg
	Distance between centres	approx. 400 mm
	Centre height	178 mm
	Turning diameter	355 mm
Drive	Type of drive	Three-phase motor
	Protection code	IP54
	Voltage	~230 volts
	Power	750 W (1 HP)
	Frequency	50 Hz
	Speed	1,420 rpm
	Drive belt	Poly V belt
	Speed ranges (belt stages)	3 Stage I: 80 – 800 rpm Stage II: 170– 1,700 rpm Stage III: 350 – 3,700 rpm
Power supply	Voltage	~230 volts
	Phases	L1-N-PE
	Frequency	50 Hz
Headstock	Spindle thread	M33 x 3.5 mm (with ASR safety groove)
	Bore	10 mm through hole
	Taper	Morse taper 2 (MT2)
	Indexing device	24 positions (15-degree increments)
Tailstock	Bore	10 mm through hole
	Taper	Morse taper MT2
	Quill	Quick change quill with 100 mm quill travel
	Quill thread	Trapezoidal thread
Tool rest	Length	150 mm
	Post diameter	1" (25.4 mm)
faceplate	Diameter	95 mm
Paint	Telegrey	RAL 7047
	Sapphire blue	RAL 5003
Noise emission	Sound pressure level	<79 dB(A)

The measurement is carried out in accordance with the standards EN ISO 3744:2010, EN ISO3746:2010 & EN ISO 11203:2009.

The measured emission level cannot reliably be used to determine the actual noise level in the workplace, since factors such as the duration and type of work, the workshop size and the existence of other sources of noise (e.g. machines running at the same time) have a decisive influence on the noise level. The acceptable exposure rates may vary from country to country. An ear protection must be worn when using the machine.

Nameplate



3.4 Installation site requirements

Requirement	Recommendation
Installation site	Place the machine near a power source (type F socket) on a solid, level and stable installation surface (workbench, table, optional stand).
Lighting	If possible, place the machine near a window. Pay attention to good lighting (illuminances according to DIN 5035). Artificial light should come from above, but not fall directly into the eyes. Additional adjustable lighting at the workstation prevents a shadow from being cast on the workpiece. This light source should provide at least 300 (better 500) lux at the cutting edge of the tool.
Ventilation	Ensure adequate ventilation. The degree of ventilation depends on the size of the workshop and the number of manufactured workpieces. Use a suitable dust collector and/or an air filtering system to reduce the health risk from dusts.
Ambient temperature	+10°C to +32°C (climate class SN)
Working height 	Comfortable working height depending on user's body size. Spindle centre at elbow height.
Working space	Make sure there is enough space around the machine for handling the workpieces. Make sure there is sufficient space for optional accessories if necessary. Leave a space of at least 80 cm around the lathe for repair and maintenance work. Other machines installed in the workshop must not interfere with the operation of the lathe.

3.5 Electrical equipment

WARNING

Danger to life due to electric current!

When touching live parts, there is an immediate danger to life due to electric shock. Damaged insulations or electrical components can be life-threatening.

- Have work on the electrical system components carried out only by qualified electricians.
- Before working on electrical system components, switch off the machine and pull the power plug. Do not leave the power plug unattended and secure it against being plugged in.
- In case of damaged insulations, switch off the machine immediately and have them repaired.
- Keep the power cord away from heat, oil, sharp edges and moving parts.

WARNING

Danger to life due to electric current!

If a wrong extension cord is used, there is a risk of fire due to overheating, and danger to life due to an electric shock.

- Avoid using an extension cord.
- If the use of an extension cord is unavoidable, make sure that the extension cord is designed for the intended purpose. (In case of doubts, choose a short, thick cord or contact a qualified electrician).

WARNING

Danger to life due to electric current!

If the earthing conductor is connected incorrectly, there is an immediate danger to life due to electric shock.

- Connect the earthing conductor (green-yellow sheathed) correctly.
- Keep the earthing conductor away from life terminals when changing the cable or plug.

NOTICE

Electrical cables and sockets must comply with local electrical codes!

- Observe electrical codes.
- In case of doubt, contact a qualified electrician.

NOTICE

The machine is designed for a voltage of ~230 V (±10%) according to IEC 60038.

If the machine is operated outside of this voltage, it may run irregularly or may be damaged.

- Use a suitable standard type F socket (~230 V, 16-amp fuse).
- Observe the indications in these operating instructions.

4 Transport, packaging and storage

4.1 Transport dimensions

Dimensions	Length	850 mm
	Width	470 mm
	Height	305 mm
Weight	Gross	approx. 51 kg

4.2 Notes on storage and transport

NOTICE

Possible damage to the machine due to incorrect storage!

Improper storage of the machine may result in damages to parts of the machine. If the lathe is not used for more than a year, the electrolytic capacitors may deteriorate and cause starting problems.

- Store the machine in a dry, dust-free environment.
- Keep the machine away from aggressive media.
- Protect the machine from excessive sunlight.
- Make sure that the ambient temperature does not exceed 32°C.
- If the machine is not used for a period of more than 3 months, ensure that the ambient temperature is below 30°C.
- Avoid storing the machine for excessively long periods.
- Before assembly, give the machine sufficient time to adapt to the temperatures at the installation site.

NOTICE

Possible damage to the machine due to incorrect transport!

If the machine is transported incorrectly, parts of it may be damaged.

- Follow the instructions on the machine's packaging.
- If a machine that has already been assembled is to be transported, hold the machine by the carrying handles, not by the centres.

4.3 Notes on packaging

The packaging is intended to protect components from damage and corrosion. Only remove the packaging shortly before assembly.

NOTICE

Danger to the environment due to incorrect disposal of packaging material!

Incorrectly disposed of packaging material can damage the environment.

- Dispose of packaging material in accordance with applicable regulations.

4.4 Unpacking

WARNING

Risk of crushing when unpacking the machine!

The machine and some of its components are heavy. When unpacking, there is a risk of body parts being crushed.

- Unpack the machine with the help of a second person.
- Be careful when unpacking the machine.
- Make sure that no limbs are under or between machine components.

WARNING

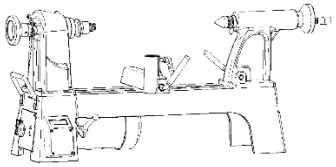
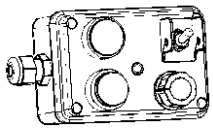
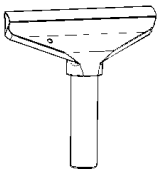
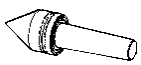
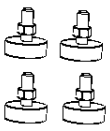
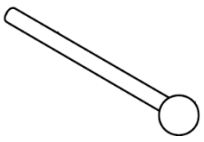
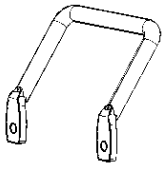
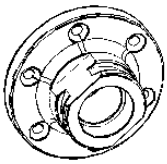
Risk of injury due to sharp tips!

Certain components of the machine, such as drive centre and live centre, have sharp tips. In case of contact, there is a risk of injury.

- Avoid touching the components' tips.
- Be particularly careful when handling near the components.
- Remove sharp components from the machine if necessary.

1. Before unpacking, check the box for damages.
2. Remove the machine and its components from the packaging.
3. Remove the packaging material.
4. Moisten a cloth with a suitable cleaning agent and use it to remove the corrosion protection from all bare machine parts.
5. Check the content of the delivery for completeness.
6. If any parts are missing, contact the dealer.
7. Do not start up the machine until all parts are present and assembled.

4.5 Transport package content

			
1x machine	1x control box	1x tool rest	1x live centre
			
4x machine foot with hex nut	1x 4-prong drive centre	1x key for releasing the faceplate	1x knockout bar
			
1x carrying handle	1x index locking pin	1x faceplate	1x fastening kit

5 Assembly

WARNING

Risk of injury due to unintentional start-up!

There is a risk of injury if the machine starts accidentally during assembly.

- Keep the machine switched off and disconnected from the power supply during assembly.

WARNING

Risk of injury due to improper assembly!

Improper assembly can increase the risk of injury.

- Assemble the machine as described.

WARNING

Risk of crushing during assembly of the machine!

The machine and some of its components are heavy. During assembly, there is a risk of body parts being crushed.

- Assemble the machine with the help of a second person.
- Only lift heavy components with the help of a second person.
- Be careful during assembly of the machine.
- Make sure that no limbs are under or between machine components.

WARNING

Risk of injury due to sharp tips!

Certain components of the machine, such as drive centre and live centre, have sharp tips. In case of contact, there is a risk of injury.

- Avoid touching the components' tips.
- Be particularly careful when handling near the components.
- Remove sharp components from the machine if necessary.

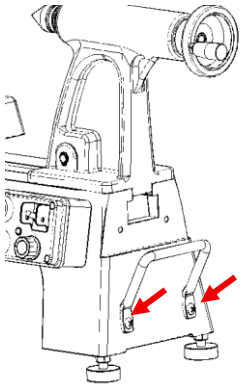
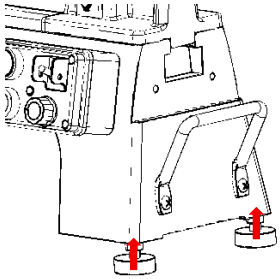
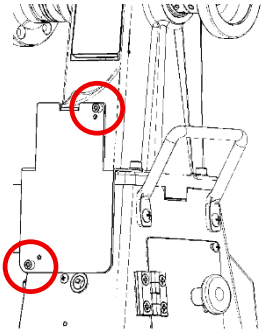
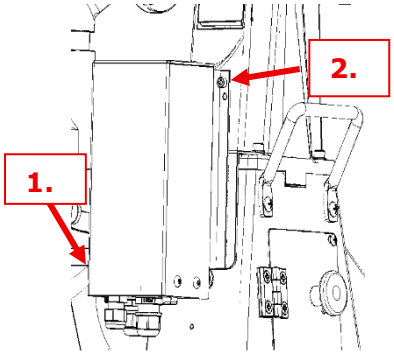
NOTICE

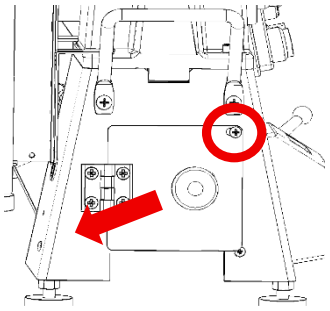
Possible damages to the machine!

When setting up the machine, there is a risk that cables may be crushed or damaged, or that the painting may be damaged.

- Pay attention to the cables during assembly.
- If necessary, place a cardboard underneath during assembly.

The machine is delivered largely pre-assembled.

1. Lift the machine out of the packaging with the help of a second person. 2. Remove all parts from the packaging.	
3. Attach the carrying handle to the machine using the two screws provided.	
4. Screw all four machine feet, with the hex nuts attached, from below into the holes in the bed. 5. Place the machine on a solid, level and stable installation surface (workbench, table). 6. Level the machine using the machine feet. 7. Make sure the machine's spindle centre is at elbow height.	
8. Remove the two pre-mounted screws from the frequency inverter retaining plate.	
9. Bring the frequency inverter up to the retaining plate. 10. Screw in one of the two previously removed screws at the bottom left. 11. Screw in the second screw at the top right. 12. Tighten both screws.	

13. Loosen the safety screw on the cover flap on the bed. 14. Open the cover flap. 15. Slide the cable protector away from the plugs of the frequency converter cables. 16. Make the plug connections and ensure they audibly snap into place. Due to the design of the plugs, there is no risk of confusion. 17. Slide the cable protector over the plugs.	
18. The machine is now fully assembled.	

5.1 Work ergonomics

CAUTION

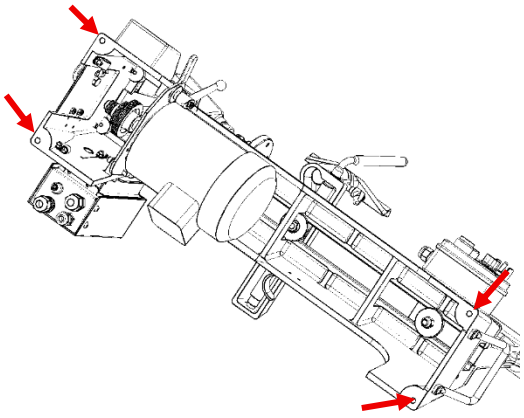
Physical impairments due to incorrect posture and incorrect positioning of the machine!

Incorrect positioning of the machine and unsuitable posture can lead to posture problems and rapid fatigue which may increase the risk of accidents. They also make it more difficult to guide tools and shape objects.

- Maintain a good posture, ensure secure footing and maintain balance at all times.
- Position the machine at a comfortable height (spindle centre at elbow height when standing upright).
- Pay attention to an ergonomic posture.

5.2 Screwing the lathe to a table or workbench

The machine can be screwed to an installation surface using the holes on the underside of the bed.

1. Remove the machine feet from the machine. 2. Measure the distances between the holes on the bed and transfer them to the installation surface. 3. Drill suitable holes into the installation surface. 4. Screw the machine to the installation surface using the included screws.	

5.3 Mounting the lathe on an optional stand

As an alternative to setting up or mounting on a table or workbench, the lathe can also be mounted on an optionally available stand.

1. Remove the machine feet from the machine. 2. Adapt the stand as needed. 3. Place the machine on the stand and align the holes in the bed with those in the stand. 4. Insert the removed machine feet from below through the stand holes and screw them into the holes on the underside of the bed.	

6 Settings on the machine

WARNING

Risk of injury due to unintentional start-up!

There is a risk of injury if the machine starts accidentally during setting procedures.

- Before carrying out setting procedures, switch off the machine and disconnect it from the power supply.

WARNING

Risk of crushing when setting the machine!

Some components are heavy. When setting the machine, there is a risk of body parts being crushed.

- Only lift heavy components with the help of a second person.
- Be careful when setting the machine.
- Make sure that no limbs are under or between machine components.

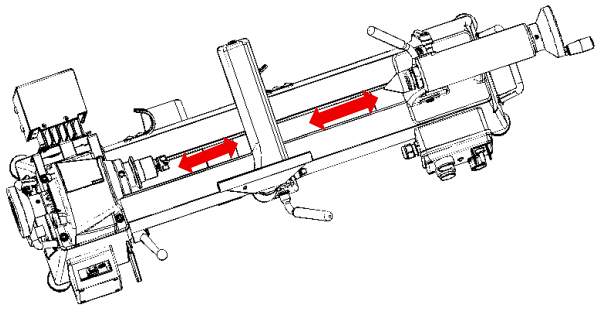
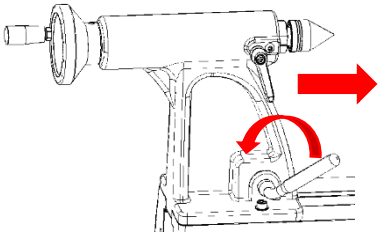
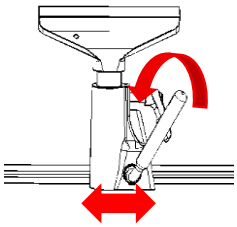
WARNING

Risk of injury due to sharp tips!

Certain components of the machine, such as drive centre and live centre, have sharp tips. In case of contact, there is a risk of injury.

- Avoid touching the components' tips.
- Be particularly careful when handling near the components.
- Remove sharp components from the machine when they are not in use.

6.1 Moving the banjo or tailstock

The groove in the bed makes it easy to move the tailstock and the banjo along the bed.	
1. Loosen the tailstock clamping lever (on the rear side). 2. Move the tailstock to the desired position. 3. Tighten the clamping lever.	
1. Loosen the banjo clamping lever. 2. Move the banjo to the desired position. 3. Tighten the clamping lever.	

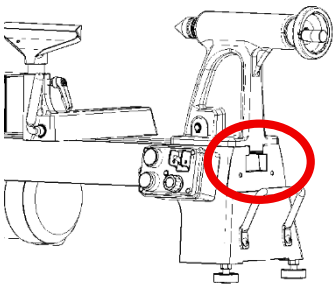
6.2 Removing the banjo or tailstock from the bed

WARNING

Risk of crushing!

The cast iron machine components are heavy. When removing the components, there is a risk of body parts being crushed.

- Make sure that no limbs are under or between components.
- Be careful when removing the components.

For certain adjustments and certain turning operations, it is necessary to remove the tailstock and/or banjo from the bed. The opening at the tailstock end of the bed makes it easy to slide both the tailstock and the banjo off the bed.	

6.3 Removing the faceplate from the spindle (locking the spindle)

The lathe is supplied with a 95 mm faceplate (possibly already mounted).

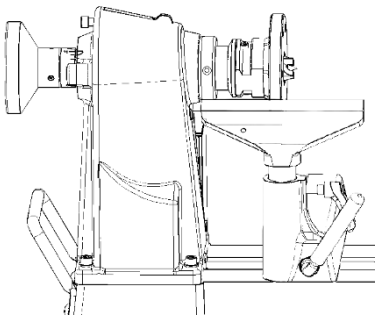
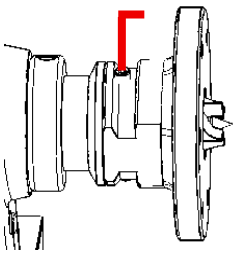
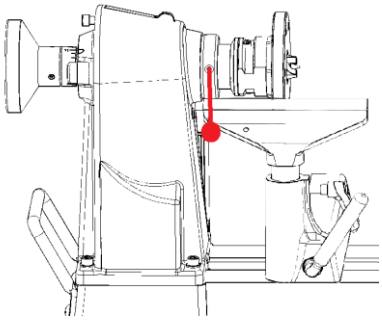
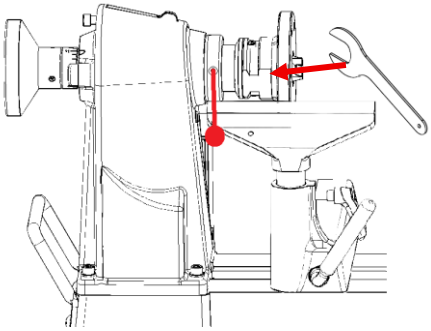
To remove the faceplate (or other accessories) from the spindle, proceed as follows:

NOTICE

Possible machine damages due to unintentional start-up!

In the event of an unintentional start-up, the machine's belt will be damaged.

- Switch off the machine before locking the spindle.

1. Slide the tool rest towards the headstock.	
2. Use the supplied hex key to unscrew the two socket head screws on the faceplate, which prevent the faceplate from unwinding.	
3. Insert the knockout bar into the hole on the spindle to lock the spindle in place.	
4. Use the supplied faceplate key to loosen the faceplate.	

6.4 Ejecting and changing the drive centre

WARNING

Risk of injury due to sharp tips!

The 4-prong drive centre has sharp tips. In case of contact, there is a risk of injury.

- Avoid touching the tips of the 4-prong drive centre.
- Be particularly careful when handling near the 4-prong drive centre.

WARNING

Risk of injury due to insert tools falling out!

Grease or oil on the insert tool taper or in the spindle shaft reduce friction. In this case, the insert tool could fall out.

- Do not oil or grease tapers.

NOTICE

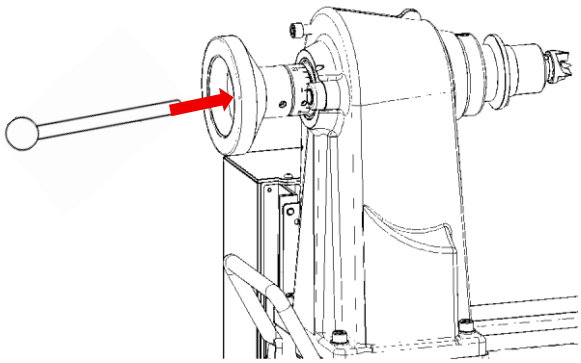
Possible damages to the machine!

Even the slightest contamination in the spindle shaft or on the insert tool can lead to damages in the spindle shaft. Contamination also impairs the power transmission.

- Clean both the insert tool taper and the spindle shaft with a dry, clean cloth or a bottle brush **every time** the insert tool is changed.

The MT2 Morse taper of the spindle holds insert tools by friction. To change the insert tool, proceed as follows:

1. Insert the supplied knockout bar from the outside into the through hole of the headstock (through the handwheel).
2. Hold the 4-prong drive centre on the outside with one hand.
3. Eject the 4-prong drive centre by pushing it slowly.
4. Store the 4-prong drive centre safely.
5. Insert the new insert tool quickly and firmly by hand (without tapping it with a mallet).



6.5 Changing the live centre and tailstock inserts

WARNING

Risk of injury due to sharp tip!

The live centre has a sharp tip. In case of contact, there is a risk of injury.

- Avoid touching the live centre's tip.
- Be particularly careful when handling near the live centre.
- Remove the live centre from the tailstock when not in use.

WARNING

Risk of injury due to falling insert tools!

Grease or oil on the insert tool taper or in the tailstock quill reduce friction. In this case, the insert tool could fall out. If tools with an extended Morse taper are used, they may not yet be firmly locked when the quill scale indicates zero.

- Do not oil or grease tapers.
- Use the handwheel to extend the quill towards the headstock until the taper is firmly locked.

NOTICE

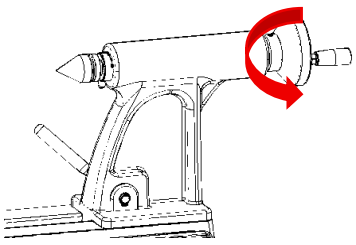
Possible damages to the machine!

Even the slightest contamination in the quill or on the insert tool can lead to damages in the quill. Contamination also impairs the power transmission.

- Clean both the insert tool taper and the quill with a dry, clean cloth or a bottle brush **every time** the insert tool is changed.

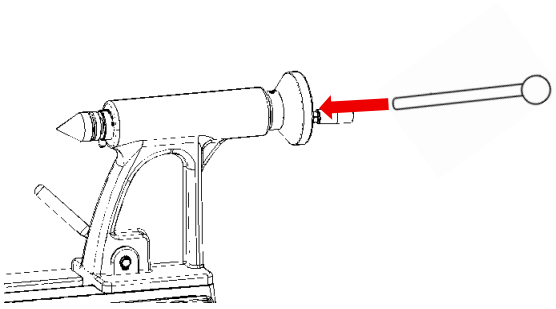
The MT2 Morse taper of the quill holds insert tools by friction. To change the insert tool, proceed as follows:

1. Eject the insert tool by turning the tailstock handwheel counterclockwise.
2. Insert the new insert tool quickly and firmly by hand (without tapping it with a mallet).



As an alternative, the knockout bar can be used:

1. Insert the supplied knockout bar from the handwheel side into the through hole of the tailstock (through the handwheel).
2. Hold the live centre on the outside with one hand.
3. Eject the live centre by pushing it slowly.
4. Store the live centre safely.
5. Insert the new insert tool quickly and firmly by hand (without tapping it with a mallet).
6. Always ensure that the insert tool is firmly seated in the taper.



6.6 Changing the speed range

The machine is equipped with three-stage pulleys, providing three different speed ranges. Especially when processing larger workpieces, it is necessary to select a lower speed range to protect the motor.

The following speed ranges are available:

Pulley stage	Speed range
I (low)	80 – 800 rpm
II (medium)	170 – 1,700 rpm
III (fast)	350 – 3,700 rpm

To change the speed range, it is necessary to change the position of the drive belt on the pulleys.

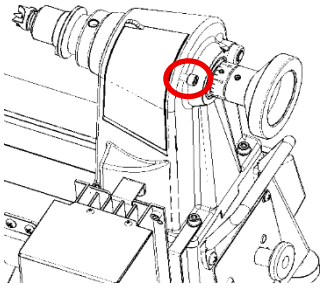
WARNING

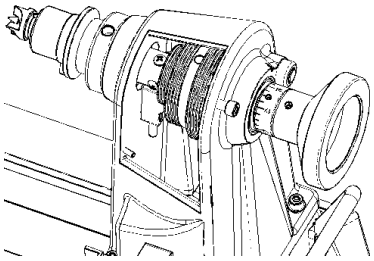
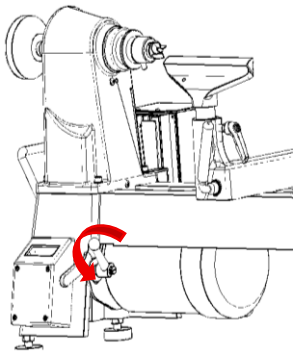
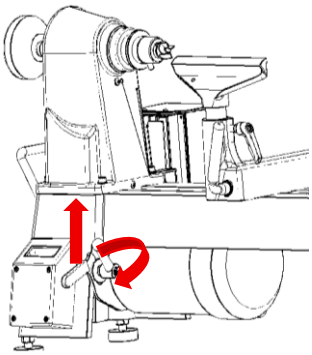
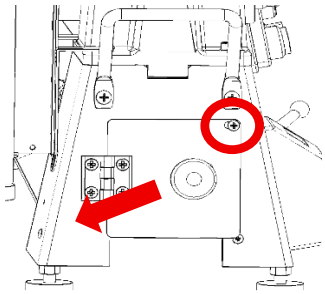
Risk of injury due to unintentional start-up!

There is a risk of injury, if the machine starts accidentally when changing the speed range.

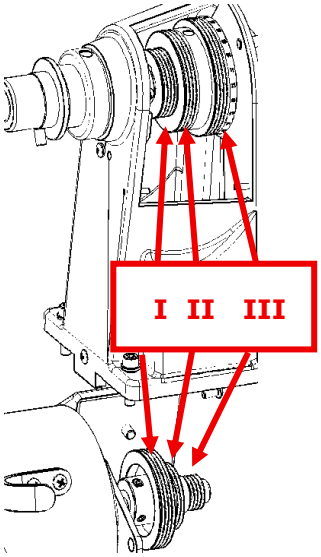
- Before changing the speed range, switch off the machine and disconnect it from the power supply.

1. Switch off the machine and disconnect it from the power supply (pull the plug).
2. Loosen the socket head screw on the headstock protective cover.

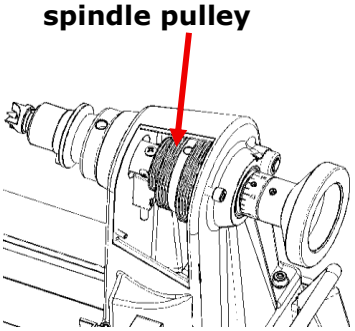


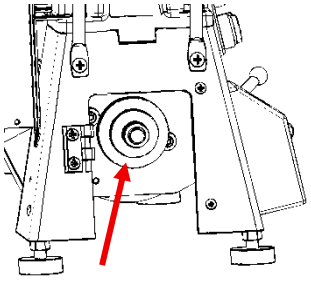
3. Open the protective cover.	
4. Loosen the lock handle on the motor flange.	
5. Push the motor tensioning lever upwards to release the belt tension. 6. Tighten the lock handle to lock the motor in position.	
7. Loosen the safety screw on the cover flap on the bed. 8. Open the cover flap to gain access to the motor pulley.	

9. Change the position of the belt on the motor and spindle pulleys as needed.

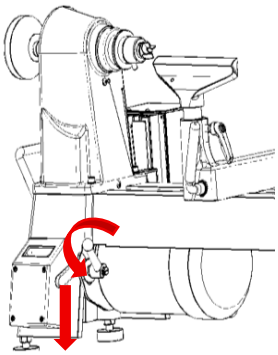


10. Make sure that the belt is properly seated in the grooves of the pulleys.

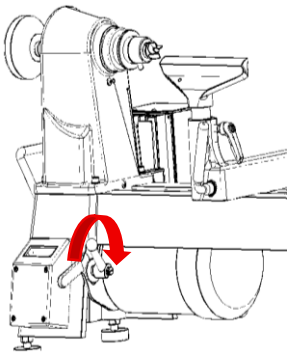




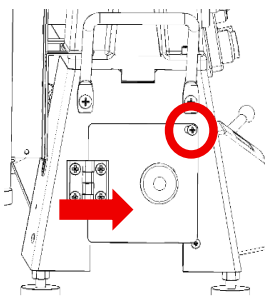
11. Loosen the lock handle.
12. Lower the motor tensioning lever and the motor to tension the belt.

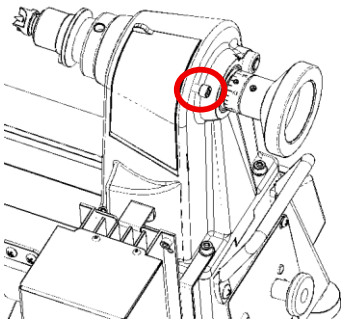


13. Tighten the lock handle.



14. Close the cover flap on the bed and secure it with the screw.



15. Close the headstock protective cover. 16. Tighten the socket head screw. 17. Plug in the power plug.	

6.7 Using the indexing device

The lathe's three-stage spindle pulley is equipped with 24 holes, allowing the workpiece to be precisely divided. This is useful, for example, for precise drilling at different points or for decorations. One rotation to the next step of the indexing device corresponds to 15°. The setting can be read from the handwheel scale on the headstock.

NOTICE

Possible machine damages due to unintentional start-up!

In the event of an unintentional start-up, the machine's belt will be damaged.

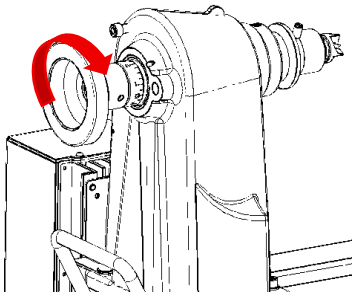
- Switch off the machine before using the indexing device.
- Never switch on the machine when the indexing device is engaged.

NOTICE

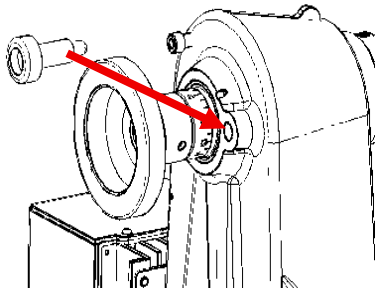
Possible machine damages due to a wrong use of the locking pin!

If the locking pin of the indexing device is used to lock the spindle in place to remove accessories (faceplate, chuck), the machine may be damaged.

- Never use the locking pin of the indexing device for removing accessories from the spindle.

1. Use the handwheel to select the desired setting.	

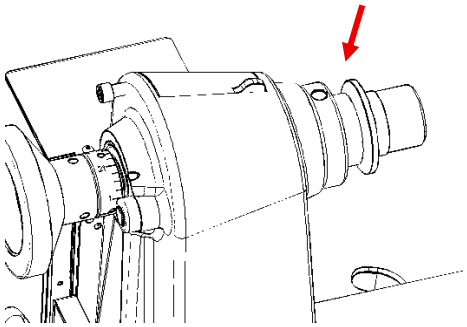
2. Insert the locking pin into the hole next to the handwheel to secure the position.
3. Read the setting.
4. To select the next step, remove the locking pin, turn the handwheel and insert the locking pin again.
5. After finishing work, remove the locking pin and store it safely. The locking pin is magnetic and will adhere to any location on the cast frame.



6.8 Using the ASR (EUROLOCK) safety groove

The lathe spindle is equipped with an ASR (EUROLOCK) safety groove. When used with a suitable accessory (e.g. chuck) and a suitable locking ring (both optionally available) a secure connection between spindle and accessory is achieved. The locking ring closes around the spindle groove and the accessory groove.

This increases safety by preventing the accessory from coming off the spindle thread.



7 Operating the lathe

7.1 Operating elements

7.1.1 Mobile control box

The rear side of the mobile control box is magnetic, which allows it to be positioned anywhere on the bed or on flat metal surfaces.

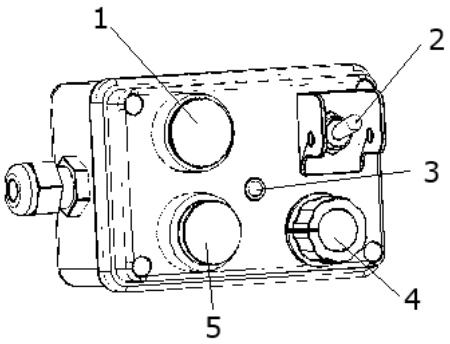
WARNING

Risk of injury due to poorly positioned control box!

In the event of an emergency, the machine must be switched off quickly. If the control box is not positioned within easy reach, this increases the risk of injury.

- Always position the mobile control box within easy reach.

1. ON switch
2. Direction of rotation toggle switch
3. Reverse rotation indicator lamp
4. Speed control knob
5. OFF and EMERGENCY STOP switch



7.2 Using the machine

WARNING

Risk of injury due to missing experience!

This chapter provides basic instructions on how to operate the machine. However, for optimum use of the machine, it is beneficial to study the subject and to be trained by qualified persons. Missing experience can lead to serious injuries.

- Before using the machine, study the subject.
- Before using the machine, attend a woodturning class.

WARNING

Danger of electric shock due to damaged cables!

If cables are damaged, there is an immediate danger of electric shock when starting up the machine.

- When placing the machine or components, take care not to damage any cables.
- Before starting up the machine, check the cables for damages.

WARNING

Danger of being pulled in!

Loose clothes, jewellery or long hair can be caught and pulled in by moving parts of the machine which can lead to injuries.

- Observe the specifications for personal protective equipment in these operating instructions.
- Wear personal protective equipment.
- Wear suitable clothing.
- Do not wear loose clothing and jewellery.
- Wear a headgear or hairnet.
- Avoid wearing gloves.

WARNING

Health risk due to dusts!

During woodworking, harmful dusts can be produced causing serious respiratory diseases.

- Only work in well-ventilated rooms.
- Wear respiratory protection.
- Avoid contact with dust.
- Use suitable dust collectors and air filtering systems.
- Clean exposed body parts with soap and water.

WARNING

Risk of injury due to adjusting tools that have not been removed!

Adjusting tools in a rotating part of the machine can cause injuries. Loose objects on the machine which start to move when the machine is switched on can cause injuries.

- Before switching on the machine, remove loose objects, adjusting tools and spanners from the machine.

WARNING

Risk of injury due to workpieces or workpiece parts coming off, or splinters!

If workpieces are incorrectly mounted, unsuitable (e.g. unbalanced or damaged) workpieces are used, or if the speed is too high, workpieces or parts of it may come off and cause serious or even fatal injuries.

- Observe the basic safety instructions and the labels on the machine.
- Wear personal protective equipment.
- Wear safety glasses or a face shield.
- Check the condition and suitability of the workpieces (e.g. cracks, solidity) before processing them.
- Avoid using heavy and unbalanced workpieces. Eliminate any imbalance in the workpiece as far as possible before mounting it.
- Clamp the workpiece securely (see chapter "Mounting the workpiece") and check the clamping regularly.
- Choose a suitable clamping device.
- When using the 4-prong drive centre, pre-punch the workpiece before mounting it.
- Make sure that there are no persons in the danger zone.
- Before switching on the machine, check the speed.
- Always start with a low speed and increase the speed slowly.
- If the workpiece starts vibrating, reduce the speed or switch off the machine and restart at a lower speed.
- When turning long and long, thin workpieces, use a support (steady rest).
- Only use chucks, faceplates and the like with a safety system preventing them from coming off (ask a dealer if necessary).
- Never loosen the tailstock quill or the tailstock while the workpiece is rotating.
- Before changing the direction of rotation, stop the machine and wait until the workpiece has come to a standstill.

WARNING

Risk of injury due to adhesives!

Adhesives can still be liquid in voids even after hours of drying and can leak during turning and cause injuries.

- Allow adhesives (including cyanoacrylate superglue) to cure sufficiently.

WARNING

Risk of injury due to rejected tools!

If the woodturning tool does not rest firmly on the tool rest when guided towards the workpiece, there is a risk of losing control of the tool. The rejected tool can cause injuries.

- Wear personal protective equipment.
- Select a suitable speed.
- Be careful when using woodturning tools.
- Place the woodturning tool on the tool rest before approaching the workpiece.
- Ensure that the woodturning tool always rests firmly on the tool rest during work.

WARNING

Risk of injury when braking the workpiece!

After the OFF switch has been pressed, the lathe will slowly reduce the speed to zero. In case of a power failure, the workpiece is no longer slowed down and the run-down time is extended. Attempting to stop the workpiece manually may result in injuries.

- After switching off the machine or in case of a power failure, allow the workpiece to come to a stop by itself.
- Never attempt to stop the workpiece manually.

WARNING

Risk of injury due to blunt or unsuitable woodturning tools!

Blunt or unsuitable woodturning tools increase the risk of injury.

- Use only suitable woodturning tools.
- Keep woodturning tools in good and sharp condition.
- Make sure the woodturning tool is correctly positioned.
- Avoid unnecessary stress on the tool.

NOTICE

Possible damages to the machine!

This machine is only suitable for processing certain materials and for its intended use. Processing other materials and unintended use can result in damages to the machine and warranty loss.

- Only process materials for which the machine is suitable.
- Only use the machine for its intended use.

7.2.1 Connecting the machine to the power supply

CAUTION

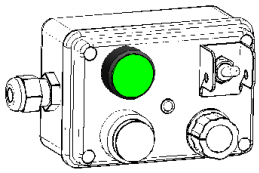
Risk of injury due to unsuitable electrical equipment!

Unsuitable electrical equipment at the installation site can lead to minor injuries and damages to the machine.

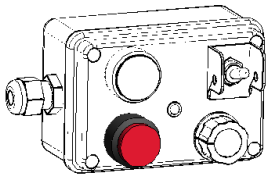
- Before starting up the machine, check the suitability of the power supply.
- Observe the information regarding the electrical equipment in these operating instructions.

Connect the machine to a type F socket.	

7.2.2 Starting the machine

Press the green ON switch. The switch will light up after activation.	

7.2.3 Stopping the machine

Press the red OFF switch (EMERGENCY STOP). All machine functions are stopped.	

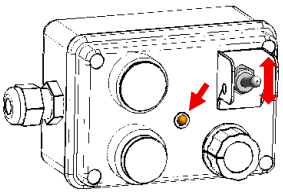
7.2.4 Changing the direction of rotation of the spindle

WARNING

Risk of injury due to parts coming off!

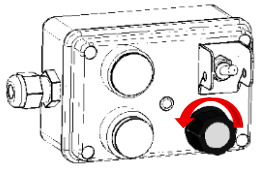
When using the reverse rotation, accessories (chucks, faceplates) may come off the spindle and cause injuries.

- Only use chucks, faceplates and the like in reverse mode with a safety system preventing them from coming off (ask a dealer if necessary).
- Before changing the direction of rotation, stop the machine and wait until the workpiece has come to a standstill.

1. Stop the machine. 2. Wait until the workpiece has come to a standstill. 3. To change the direction of rotation of the spindle, actuate the toggle switch on the mobile control box. 4. When reverse rotation is activated, the orange indicator lamp will light up.	

7.2.5 Setting the speed

The speed control knob on the mobile control box allows the speed to be continuously adjusted within the respective speed range. The speed is read off the digital speed display on the headstock.

▪ Turn the speed control knob to the right to increase the speed. ▪ Turn the speed control knob to the left to decrease the speed.	

7.2.5 Mounting the workpiece

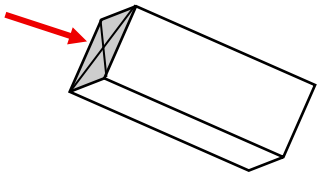
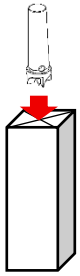
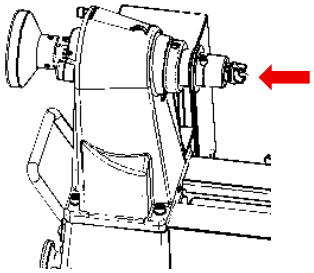
WARNING

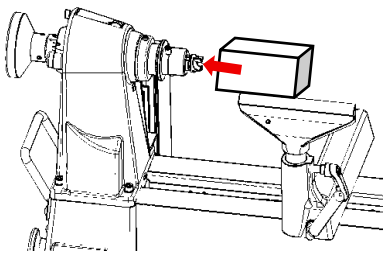
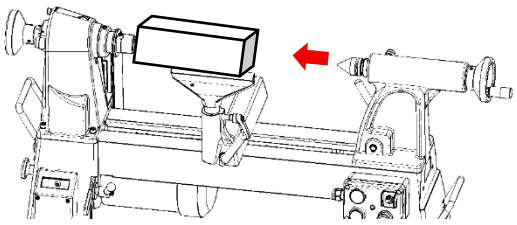
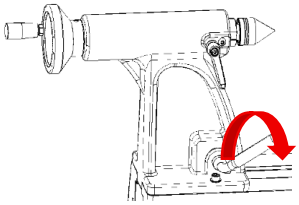
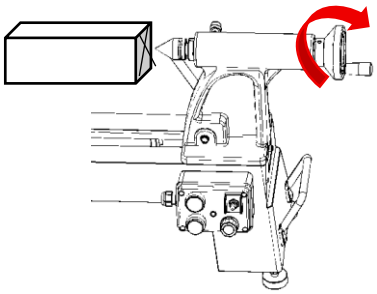
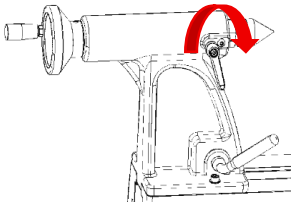
Risk of injury due to sharp tips!

Certain components of the machine, such as drive centre and live centre, have sharp tips. In case of contact, there is a risk of injury.

- Avoid touching the components' tips.
- Be particularly careful when handling near the components.

Mounting blanks for spindle turning

1. Carefully determine the centre point at both square ends of the blank (square): ▪ Use a pencil to draw diagonals between the corners. The intersection of the lines represents the centre point. ▪ Alternatively, use a centre finder.	
2. Place the blank on a solid surface. 3. Use a wooden, rubber or Teflon mallet to punch the 4-prong drive centre exactly into the centre of the head end of the wood. A deep impression of the 4-prong drive centre increases the secure hold of the workpiece when turning.	
4. Insert the 4-prong drive centre into the spindle. 5. Make sure that the 4-prong drive centre is firmly seated.	

6. Press the blank with the impression onto the 4-prong drive centre.	
7. Slide the tailstock towards the other end of the blank. Leave some space between live centre and blank.	
8. Tighten the tailstock clamping lever.	
9. Turn the tailstock handwheel to press the live centre into the centre point of the blank end.	
10. Lock the quill with the lock handle. 11. Regularly check that the tailstock is securely locked on the bed. This assures low-vibration turning and is the best prerequisite for exact drilling with the tailstock.	

Mounting blanks for faceplate turning

Mounting on a faceplate

WARNING

Risk of injury when using a faceplate!

Failure to observe the following basic rules may result in injury.

- Do not use faceplates with recognizable damages.
- Do not use unbalanced, cracked or crack-prone wood.
- Only mount blanks that are as homogeneous and round as possible.
- Create a flat supporting surface before mounting the blank.
- Shorter thick screws are better than long thins ones (shear force).
- Select the speed corresponding to the workpiece conditions.
- Never stand in a critical area while working (critical means directly in front of the workpiece).
- Avoid impact stress.
- Avoid using risky and untrained working techniques.
- Do not use woodturning tools that can get caught/stuck.
- Only loosen the faceplate with the provided tool.

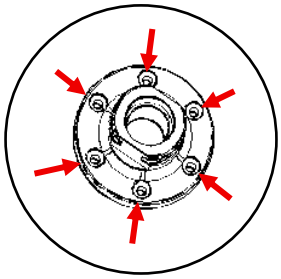
NOTICE

Observe the rule of thirds!

The faceplate should not be smaller than a third of the workpiece diameter. The machine is delivered with a faceplate with a diameter of 95 mm.

- For workpieces with a diameter of more than 29 cm, use bigger faceplates.

Especially for larger workpieces, the faceplate is the safest method for initial mounting.

1. Use a bandsaw to cut the blank to a shape as round as possible. 2. Plane hollow or curved surfaces to achieve a flat surface.	
3. Screw the faceplate to the blank with 6 wood screws.	

Mounting with a chuck

Commercially available chucks allow expanding and contracting gripping of the workpiece with a variety of jaws, or fixing the workpiece with a woodworm screw. The operating instructions of the respective product will describe how to proceed when mounting.

7.2.6 Adjusting the tool rest

The tool rest serves as a support for the woodturning tools. These are guided to the workpiece by hand. In order to absorb the cutting forces that occur, the woodturning tools must constantly rest firmly on the tool rest. In this way, the tool rest reduces the risk of injury.

NOTICE

Possible damages to the machine!

If the distance between tool rest and workpiece is insufficient, the workpiece may hit the tool rest and be jammed, causing possible damages to the machine.

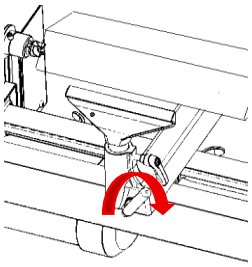
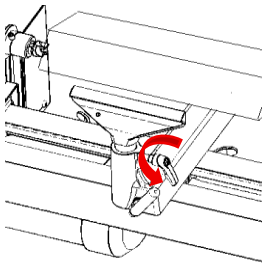
- Before switching on the lathe, turn the workpiece by hand to ensure that it is not in contact with the tool rest.

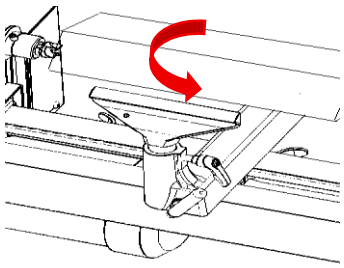
WARNING

Risk of hand injuries!

If fingers get pinched between workpiece and tool rest, there is a risk of injury.

- Make sure that fingers do not get pinched between workpiece and tool rest.
- If the tool rest is not required (e.g. in case of sanding or polishing work), remove the tool rest from the workpiece.

1. Place the banjo in front of the workpiece. 2. Tighten the clamping lever.	
3. Loosen the tool rest lock handle. 4. Position the tool rest close to the workpiece. Make sure that the workpiece can still rotate freely. The distance between workpiece and tool rest should be approx. 5-10 mm. 5. Tighten the lock handle.	

6. Before switching on the lathe, turn the workpiece by hand to ensure that it is not in contact with the tool rest.	
7. When turning, stop the machine at intervals and readjust the tool rest.	

7.2.7 Selecting the speed range (belt stage)

The belt stage to be selected, which determines the speed range of the machine, depends primarily on the diameter of the workpiece (leverage of the cutting pressure) and the weight or inertia of the workpiece.

Due to various factors, a general recommendation or a table for the appropriate belt stage cannot be given.

An example: A vase may be heavy despite its small diameter and therefore have a higher inertia, which makes the use of the lowest speed range advisable. A nearly finished bowl with a large diameter but low weight, on the other hand, may justify the use of a higher speed range.

NOTICE

Possible damages to the machine!

A speed range that is too high can lead to increased wear on belt and bearings, overheating of motor and electronics, temporary loss of power or total failure of the machine.

- Before processing a workpiece, check the workpiece diameter. The larger the diameter, the greater the leverage and the stronger the cutting forces. If necessary, select a lower speed range.
- Before processing a workpiece, consider the weight or inertia of the workpiece. For heavy or inert workpieces, select a lower speed range to protect the drive and motor.
- In case of doubts, select a lower speed range and increase the speed using the speed control knob. The higher motor speed ensures better cooling of the motor and improves the motor torque.
- Monitor the load on the machine (motor temperature and belt tension) during operation.
- In case of questions, contact a specialist or the dealer.

See chapter “Settings on the machine - Changing the speed range” on how to proceed to change the speed range.

7.2.8 Selecting the speed

The speed to be selected depends primarily on the size of the workpiece, but factors such as imbalance, weight, hardness and density of the workpiece also have an influence. The right speed is crucial for the result and prevents vibrations and accidents.

WARNING

Risk of injury due to excessive speed!

If the speed is too high, the machine may vibrate and the workpiece may come off the spindle.

- Always start with a low speed and increase the speed slowly.
- If the workpiece starts vibrating, reduce the speed or switch off the machine and restart at a lower speed.
- In reverse mode, only use chucks, faceplates and the like with a safety system preventing them from coming off (ask a dealer if necessary).
- Before changing the direction of rotation, stop the machine and wait until the workpiece has come to a standstill.

WARNING

Risk of injury due to insufficient speed!

If the speed is too low, the wood may hammer against the tool and tear out. This creates considerable forces on the tool and workpiece, which can result in injuries.

- Select a suitable speed.

Speed chart

NOTICE

Notes on the speed chart

The following information refers to turning an already round workpiece. The values given are only guide values that are not based on calculations or simulations and are intended to comply with accident prevention regulations.

- Depending on the condition of the workpiece, select a lower speed if necessary.
- For roughing a blank, select a correspondingly lower speed.
- If the workpiece starts vibrating, reduce the speed or switch off the machine and restart at a lower speed.
- Reduce any workpiece imbalance (especially on workpieces with a diameter of more than 30 cm) as far as possible before turning.

Workpiece diameter	Recommended speed
< 15 cm	1000 rpm
15 – 20 cm	800 rpm
20 – 25 cm	650 rpm
25 – 30 cm	500 rpm
30 – 35 cm	450 rpm

7.2.9 Operating the machine

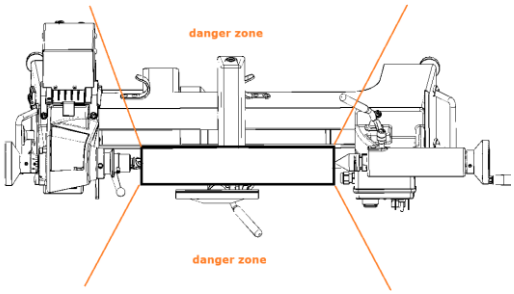
1. Observe the safety instructions and notes in the operating instructions.
2. Plug in the machine.
3. Mount the workpiece securely (see chapter "Mounting the workpiece").
4. Assume the working position: Feet hip-width apart, parallel to the lathe.

NOTICE

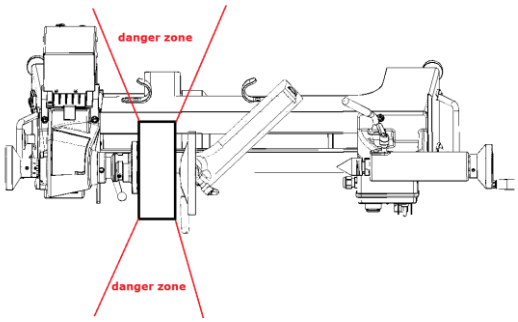
Notes on the danger zone!

- Observe the following danger zones when spindle and faceplate turning.

Spindle turning



Faceplate turning



5. Press the ON switch and increase the speed.
6. Place the woodturning tool on the tool rest.
7. Guide the woodturning tool towards the workpiece and start processing the workpiece.

WARNING

Risk of injury due to rejected tools!

If the woodturning tool does not rest firmly on the tool rest when guided towards the workpiece, there is a risk of losing control of the tool. The rejected tool can cause injuries.

- Wear personal protective equipment.
- Select a suitable speed.
- Be careful when using woodturning tools.
- Place the woodturning tool on the tool rest before approaching the workpiece.
- Ensure that the woodturning tool always rests firmly on the tool rest during work.

WARNING

Risk of injury due to blunt or unsuitable woodturning tools!

Blunt or unsuitable woodturning tools increase the risk of injury.

- Use only suitable woodturning tools.
- Keep woodturning tools in good and sharp condition.
- Make sure the woodturning tool is correctly positioned.
- Avoid unnecessary stress on the tool.

8 Care and maintenance

8.1 Maintenance, cleaning and machine care

Regular maintenance increases the service life of the machine.

WARNING

Risk of injury due to unintentional start-up!

There is a risk of injury if the machine starts accidentally during maintenance and cleaning.

- Before carrying out maintenance and cleaning, switch off the machine and disconnect it from the power supply.

WARNING

Risk of injury due to sharp tips!

Certain components of the machine, such as drive centre and live centre, have sharp tips. In case of contact, there is a risk of injury.

- Avoid touching the components' tips.
- Be particularly careful when handling near the components.
- Remove sharp components from the machine if necessary.

Interval	Note	Location	Measure
After each use		Machine	Clean the machine of chips, dust and dirt or vacuum up chips.
		Machine (especially in case of high humidity / green wood)	Apply wax, silicone spray or rust protection on all machine parts prone to corrosion (bed, spindle thread, quill, screw threads).
		Surroundings of the machine	Clean the surroundings of the machine.
After 8 operating hours and afterwards regularly		Screw connections	Chek all screw connections for tightness and tighten if necessary.
Regularly		Cables	Check cables for defects, have damaged cables replaced.
	Especially when subjected to high use due to drilling	Tailstock quill thread	Grease the thread (see instructions below).
After green word turning		Machine	Clean all bare areas (including the underside of the banjo) immediately after use and apply rust protection.

Interval	Note	Location	Measure
Before inserting an insert tool (drive centre, live centre)		Spindle thread	Clean with a brush and check for damages.
		Taper (headstock and tailstock)	Clean with a bottle brush or a taper cleaner and check for damages.

NOTICE

Possible damages to the machine!

Continuing to use damaged insert tools may damage the taper.

- Repair or replace damaged insert tools.

Interval	Note	Location	Measure
Whenever necessary		Taper (headstock and tailstock)	In case of damages (visible on the insert tool), ream out the taper with a reamer.
		Quill housing	Wipe out, blow out with compressed air and apply maintenance oil.
		Quill	Clean the quill and check for damages, carefully remove any dents in the quill guide with a smoothing file.
		Threaded spindle tailstock	Clean and grease if necessary.
		Banjo	Blow off dirt with compressed air (also from the seat of the tool rest).
		Tool rest	Remove indentations in the tool rest with a file, rework with sanding fleece and clean the tool rest.
	Unmount the motor cover	Motor	Check that the fan is firmly in place, blow out the fan and the ventilation slots, apply maintenance oil to the motor seal.
	Release the tension on the motor	Pulleys and belt	Check the grooves on pulleys and belt for dust and dirt and clean them with a nylon brush if necessary. Check the belt for damages. Check that the pulleys are firmly in place.
		Belt housing	Blow out with compressed air.

Lubricants and cleaning agents to be used

Use standard lubricants and cleaning agents.

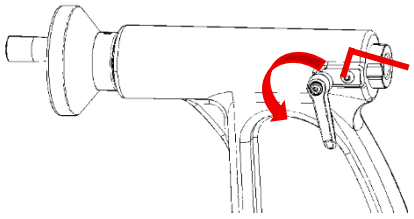
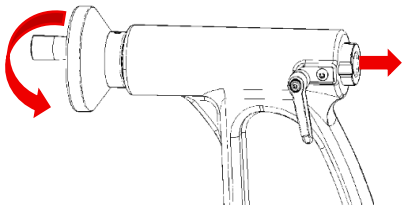
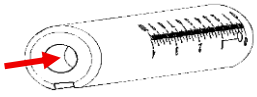
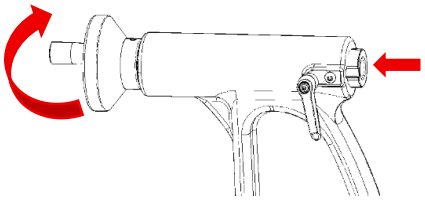
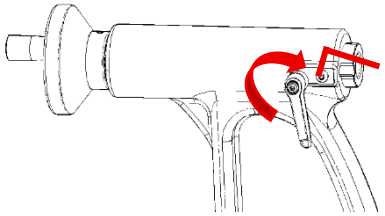
NOTICE

Risk of fire dure to improperly stored cleaning rags!

Cleaning rags or polishing wool soaked in oils, greases, solvents and cleaning agents are flammable.

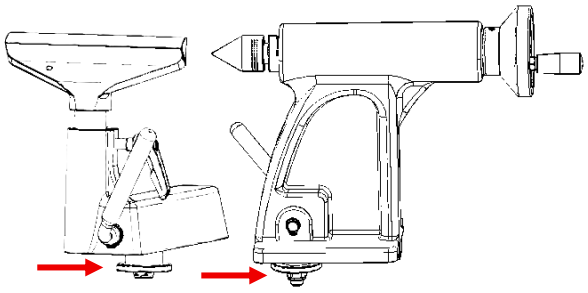
- Store oil-soaked cleaning rags separately in suitable closed metal containers.
- Dispose of oil-soaked cleaning rags and polishing wool separately and in accordance with applicable regulations.

8.1.1 Greasing the quill thread in the tailstock

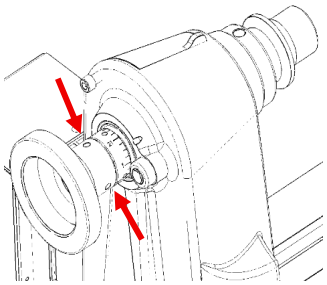
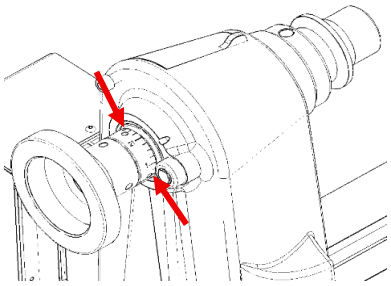
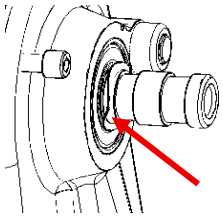
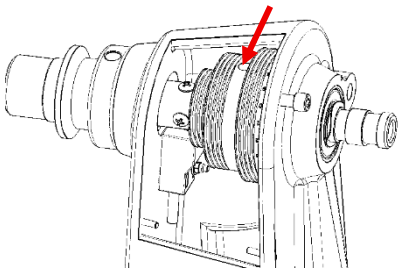
1. Loosen the tailstock lock handle. 2. Loosen the socket head screw next to the lock handle.	
3. Use the handwheel to eject the quill from the tailstock.	
4. Clean and grease the quill thread.	
5. Position the quill on the thread. 6. Use the handwheel to retract the quill.	
7. Loosely screw in the socket head screw (it should not clamp the quill, only secure it against rotation). 8. Turn the lock handle into place (closer to the handwheel).	

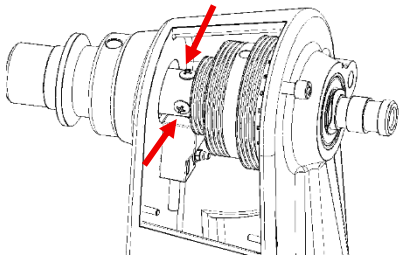
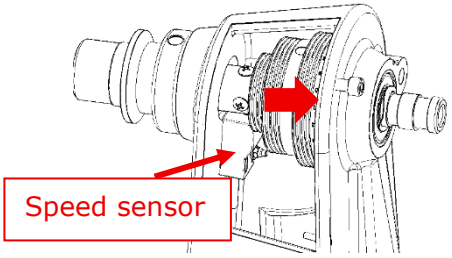
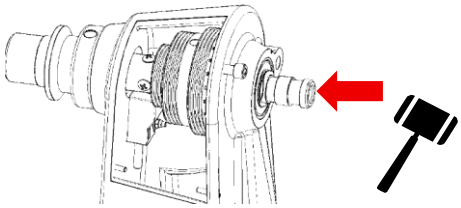
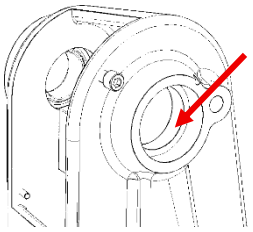
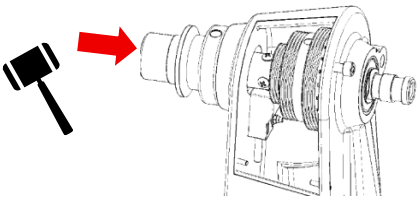
8.1.2 Tightening the tailstock or banjo

If the tailstock or the banjo cannot be firmly fixed on the bed, it may be necessary to tighten the locknut on the underside.

1. Pull the tailstock or banjo to the end of the bed. 2. Slightly tighten the locknut on the underside.	

8.1.3 Changing the belt

1. Loosen the three socket head screws on the handwheel.	
2. Loosen the three socket head screws on the set collar.	
3. Remove the wave washer.	
4. Release the belt tension. 5. Take the belt off the pulleys. 6. Loosen the socket head screws on the upper pulley.	

7. Loosen the four screws above the speed sensor.	
8. Securely hold the pulley against the outside of the headstock or clamp it in place with a bar clamp. Make sure not to press the pulley against the speed sensor.	
9. Drive out the spindle carefully using a plastic mallet. The front bearing will be ejected simultaneously.	
10. Remove the pulley.	
11. Clean the bearing seat thoroughly.	
12. Change the belt. 13. Replace the components. 14. Reinsert the spindle using a plastic mallet. Caution: Do not strike the spindle directly with a metal hammer! 15. Reinstall wave washer, set collar and handwheel.	

8.2 Working on electrical system components

WARNING

Danger to life due to electric current!

When touching live parts, there is an immediate danger to life due to electric shock.

Damaged insulations or electrical components can be life-threatening.

- Have work on the electrical system components carried out only by qualified electricians.
- Before working on electrical system components, switch off the main switch and pull the power plug. Do not leave the power plug unattended and secure it against being plugged in.
- In case of damaged insulations, switch off the machine immediately and have them repaired.

8.3 Use of recommended spare parts

WARNING

Risk of injury due to the use of unsuitable spare parts!

Original spare parts are available which are specifically designed for this machine. Parts from other manufacturers are often unsuitable. Using them can cause a risk of injury or damage the machine.

- Only use original spare parts. Ask a specialist dealer for information.

9 Troubleshooting

9.1 Troubleshooting

WARNING

Risk of injury due to unintentional start-up!

There is a risk of injury if the machine starts accidentally when performing certain troubleshooting activities (such as removing jams).

- Switch off the machine and disconnect it from the power supply.
- Before starting up the machine, remove jams.

WARNING

Risk of injury due to sharp tips!

Certain components of the machine, such as drive centre and live centre, have sharp tips. In case of contact, there is a risk of injury.

- Avoid touching the components' tips.
- Be particularly careful when handling near the components.
- Remove sharp components from the machine if necessary.

WARNING

Risk of injury due to defective electrical components!

If electrical components are defective, the machine may start unexpectedly or fail to switch off. There is a risk of injury.

- If necessary, disconnect the machine from the power supply.

The following list is intended to provide aid when troubleshooting. In case of problems, the dealer can help. Report unusual and unexpected faults to the dealer.

Fault	Possible cause	Possible remedy
Machine does not switch on	No current	Check if the power plug is connected
	No mains voltage	Check fuses
	Spindle or indexing device locked	Release locks
	Motor, switch, cable defective	Contact a qualified electrician
Machine switches off	Frequency inverter switched off	Wait approx. 10 minutes and switch on again Press the red OFF switch
	Workpiece out-of-balance	Balance out workpiece, reduce speed, change the speed range
	Machine overload	Reduce load
Machine vibrates	Speed too high	Reduce speed
	Cutting pressure too high	Reduce cutting depth or feed
	Tool rest or tailstock not firmly locked	Check and lock, tighten locknut on the underside if necessary
	Workpiece insecurely mounted	Check clamping, reduce clamping length or diameter, support tailstock end, use steady rest
	Workpiece clamped off-centre	Clamp workpiece centrically
	Machine positioned on uneven installation surface	Level machine
	Dirt on pulleys or belt	Clean grooves
	Belt pulleys are loose	Tighten belt pulleys
	Main bearing has play	Replace bearings
	Bearing defective	Check and replace if necessary
	Motor bearing defective	Check and replace motor if necessary or have the bearing replaced by a specialist

Fault	Possible cause	Possible remedy
Machine chatters	Cutting pressure too high, feed too fast, workpiece surface too rough	Reduce pressure or feed
	Blunt woodturning tool	Sharpen or replace woodturning tool
	Woodturning tool springs	Move tool rest closer to workpiece
	Workpiece too large	Select lower speed range
	Tips are not aligned	Readjust
Weak motor performance	Loose belt	Retighten belt
Machine squeaks	Dry motor sealing rubber	Apply maintenance oil
Quill hard to move	Threaded spindle in tailstock dry	Apply universal grease to the threaded spindle in the tailstock
Banjo or tailstock does not slide well over the bed	Dirt, rust or resin on the underside of the banjo	Apply maintenance oil or resin remover on the sliding surface, clean with sanding fleece, wipe off, blow off dirt from the banjo
	Dirt, rust or resin on bed	Apply maintenance oil or resin remover on the bed (also underneath the tailstock and banjo) and clean with sanding fleece, wipe off the bed.
Tailstock or banjo cannot be securely fixed on the bed	Loose locknut on the underside	Slightly tighten the locknut on the underside of the component (see chapter "Care and maintenance")

9.2 Restoring normal operation

The machine is equipped with a zero-voltage switch which shuts down the machine in the event of a power failure and prevents a restart when power is restored. Furthermore, the drive may be switched off by the frequency inverter in the event of an overload.

In the event of faults, switch off the machine, disconnect the machine from the power supply, eliminate the cause, plug the machine back in and switch it on. If the system is overheated, the restoring operation may take longer.

10 Decommissioning and disposal

The following instructions for final decommissioning and disposal of the machine must be observed:

NOTICE

Danger to the environment due to incorrect disposal!

Incorrectly disposed of materials can damage the environment.

- When decommissioning the machine, adhere to the applicable laws and regulations for disposal.
- Do not dispose of the machine or parts of it together with domestic waste.
- Dispose of the parts of the machine in such a way as to prevent any harm to health or the environment.
- Check which materials can be recycled and recycle them properly.

NOTICE

Danger to the environment due to incorrect disposal!

Oils, greases, solvents and cleaning agents are hazardous to the environment and must not be allowed to reach sewage or normal domestic waste. The same applies to cleaning rags or polishing wool soaked in oils, greases, solvents and cleaning agents.

- Dispose of oils, greases, solvents and cleaning agents as well as cleaning rags and polishing wool soaked in them at local recycling centres.

The defective machine can also be disposed of via the responsible dealer.

11 Optional accessories

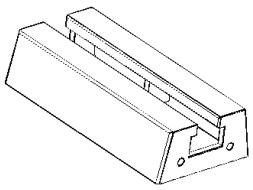
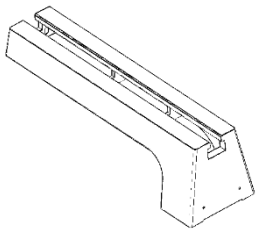
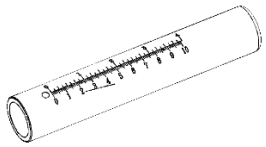
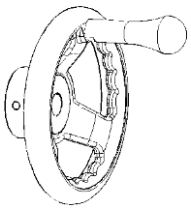
WARNING

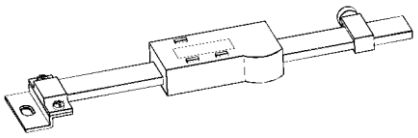
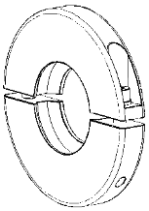
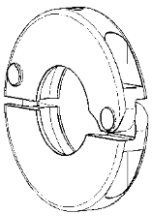
Risk of injury due to the use of unsuitable accessories!

Original accessories are available which are specifically designed for this machine. Spare parts from other manufacturers are often unsuitable. Using them can cause a risk of injury or damage the machine.

- Only use original accessories. Ask a specialist dealer for information.

The following accessories are optionally available for the machine:

Bed extension A bed extension extends the lathe's distance between centres. Two different versions are available for the lathe: ▪ Bed extension 280 mm [Art. DDBV280] ▪ Bed extension 600 mm [Art. DDBV600]		
Tailstock quill ER25 The tailstock quill ER25 is inserted into the tailstock instead of the standard quill and takes up ER25 collets, in which drill bits can be clamped directly. This makes the use of an additional drill chuck unnecessary and prevents a loss of distance between centres. ▪ Tailstock quill ER25 MIDI [Art. DDMIDI-PINER25]		
Universal machine stand Solid stand that can be adapted to different lathes. The additional extension includes a third leg for a bed extension. ▪ Universal machine stand [Art. DDC-MC-U] ▪ Extension for universal machine stand [Art. DDC-MC-UE]		
Handwheel big Solid handwheel for the tailstock for better power transmission when drilling. ▪ Handwheel BIG 125 mmm [Art. DDMIDI-405]		

Tailstock gauge Digital gauge with depth stop for high-precision drilling. ▪ Tailstock gauge MIDI [Art. DDMIDI-301]		
ASR (EURO) locking ring Mounting the locking ring on the spindle and on the accessory (safety groove required) prevents the accessory from coming off the spindle during operation or braking. ▪ ASR (EURO) locking ring [Art. DDKS22-FPS] ▪ ASR (EURO) locking ring hinged [Art. DDKS22-FPSK]		

12 Annex

12.1 EC Declaration of conformity

CE

EC – Declaration of Conformity

For machines (according to EC-Directive 2006/42/EC)

No. of Declaration of Conformity:	Neu-DM-221-112-EN
Distributor:	Neureiter Maschinen GmbH Gewerbegebiet Brennhoflehen Kellau 167 A – 5431 Kuchl
Responsible person for technical documentation:	Ludwig Neureiter Kellau 167 A – 5431 Kuchl
Object of the declaration:	Woodturning Lathe
Product designation:	**MIDI I; MIDI 1; MIDI-I; MIDI-1**
Technical model name:	*1417-EV; 1417EV; AFU*
Technical series name:	*KC-INV*

The serial number, crucial technical information and marks of conformity can be found on the rating plate of each machine.
The distributor bears the sole responsibility for issuing this EC Declaration of Conformity.
The object of the declaration described above is in conformity with the relevant **Union harmonisation legislation**:

Machinery Directive 2006/42/EC
Electromagnetic compatibility (EMC) Directive 2014/30/EU

The following harmonised standards and technical specifications have been applied:

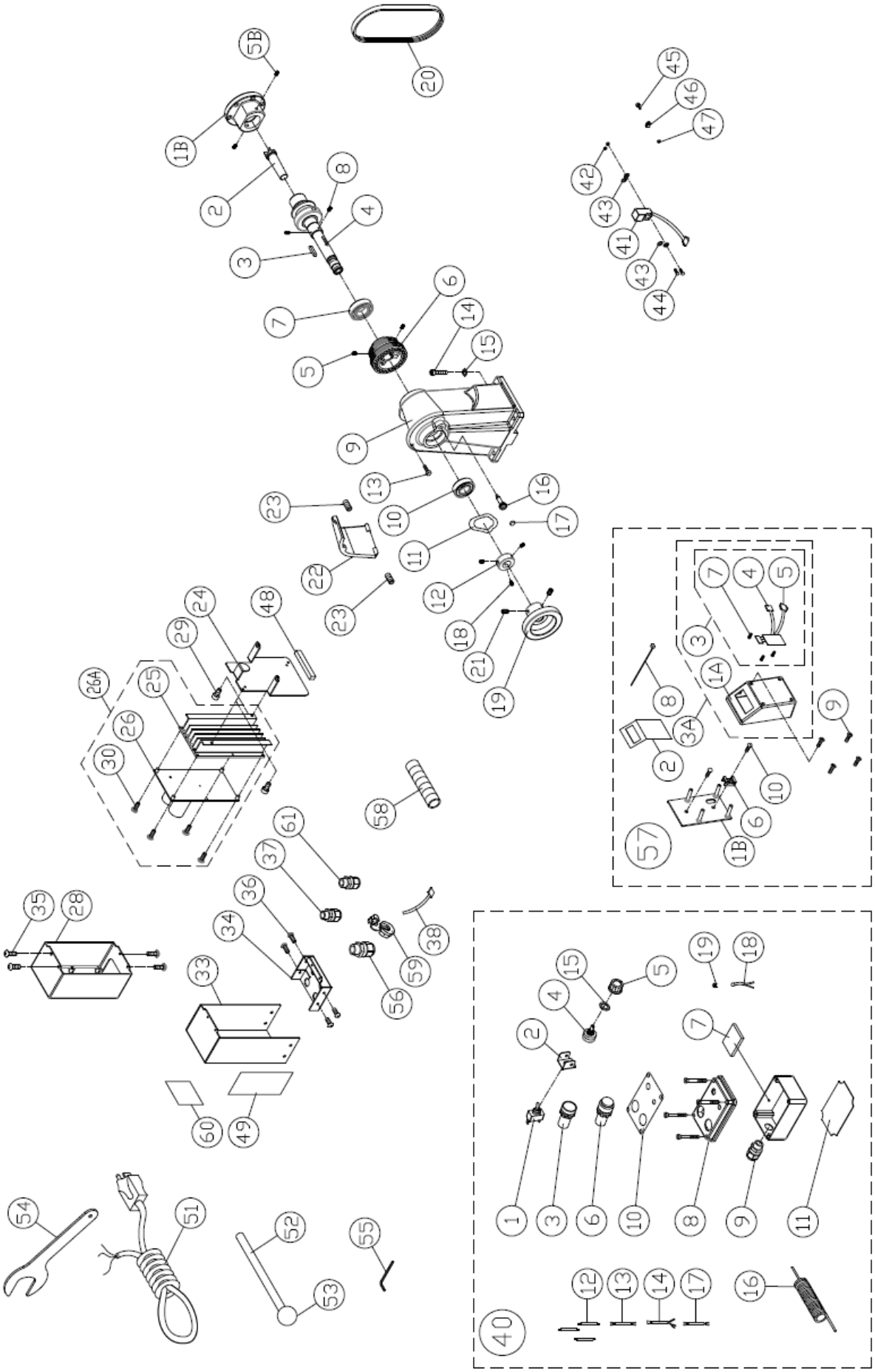
EN ISO 12100:2010	Safety of machinery General principles for design Risk assessment and risk reduction
EN 60204-1:2018	Safety of machinery Electrical equipment of machines – Part 1: General requirements
EN ISO 13849-1:2015	Safety of machinery Safety-related parts of control systems – Part 1: General principles for design
EN 61000-6-2:2019	Electromagnetic compatibility (EMC) Immunity standard
EN 61000-6-4:2019	Electromagnetic compatibility (EMC) Emission standard

Mr Ludwig Neureiter
Neureiter Maschinen GmbH
Gewerbegebiet Brennhoflehen
Kellau 167
A – 5431 Kuchl

Kuchl, 24 March 2022
Ludwig Neureiter (owner)

DDMIDI1_Neu-DM-221-112-EN

12.2 Exploded view A

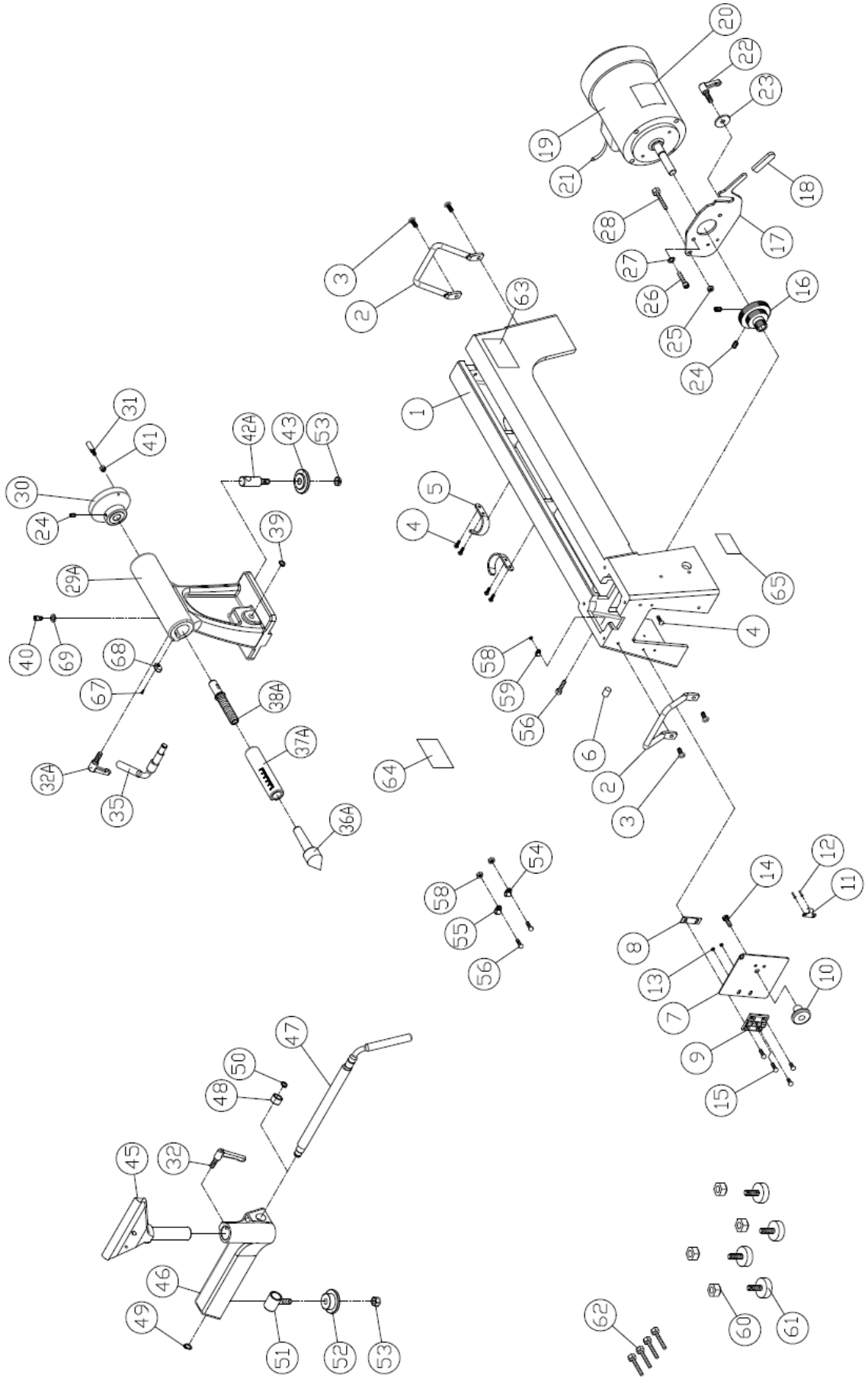


Ref.	Part no.	Designation	Spec.
A1B	DDMIDI1-A1B	1x faceplate	M33 - Ø 95
A2	DDMIDI1-A2	1x 4-prong drive centre	MT2
A3	DDMIDI1-A3	1x key	5x5x25
A4	DDMIDI1-A4	1x spindle	M33 x 3.5
A5	DDMIDI1-A5	2x set screw	1/4 -20x 3/8
A5B	DDMIDI1-A5B	2x set screw	M6x10
A6	DDMIDI1-A6	1x spindle pulley	3 stages
A7	DDMIDI1-A7	1x bearing	6005LLB
A8	DDMIDI1-A8	4x round-head screw	M4x6
A9	DDMIDI1-A9	1x headstock	
A10	DDMIDI1-A10	1x bearing	6004LLB
A11	DDMIDI1-A11	1x wave washer	BWW629
A12	DDMIDI1-A12	1x set collar	
A13	DDMIDI1-A13	1x cap screw	1/4 x 1/2"
A14	DDMIDI1-A14	4x cap screw	1/4 x 1"
A15	DDMIDI1-A15	4x spring washer	1/4"
A16	DDMIDI1-A16	1x index plate locking pin	
A17	DDMIDI1-A17	1x magnet	
A18	DDMIDI1-A18	3x set screw	3/16 x 1/4"
A19	DDMIDI1-A19	1x handwheel	
A20	DDMIDI1-A20	1x belt	280J-4V
A21	DDMIDI1-A21	3x set screw	1/4 x 1/4"
A22	DDMIDI1-A22	1x protective cover	
A23	DDMIDI1-A23	2x set screw	M3x16
A24	DDMIDI1-A24	1x frequency inverter retaining plate	
A25	DDMIDI1-A25	heat sink	
A26A	DDMIDI1-A26A	1x PC board (assembly)	
A26	DDMIDI1-A26	PC board	
A28	DDMIDI1-A28	1x frequency inverter box	
A29	DDMIDI1-A29	2x cap screw	#10-24-1/4"

Ref.	Part no.	Designation	Spec.
A30	DDMIDI1-A30	round-head screw	M3x15
A33	DDMIDI1-A33	1x cover top	
A34	DDMIDI1-A34	1x cover bottom	
A35	DDMIDI1-A35	4x round-head screw	M3x10
A36	DDMIDI1-A36	4x round-head screw	M5x6
A37	DDMIDI1-A37	1x strain relief	M16
A38	DDMIDI1-A38	1x cable digital display	
A40	DDMIDI1-A40	1x mobile control box (assembly)	
A40-1	DDMIDI1-A40-1	1x forward / reverse switch	
A40-2	DDMIDI1-A40-2	1x switch guard	
A40-3	DDMIDI1-A40-3	1x ON switch	
A40-4	DDMIDI1-A40-4	1x speed control	
A40-5	DDMIDI1-A40-5	1x speed control knob	
A40-6	DDMIDI1-A40-6	1x OFF switch	
A40-7	DDMIDI1-A40-7	1x magnet	
A40-8	DDMIDI1-A40-8	1x control box housing	
A40-9	DDMIDI1-A40-9	1x strain relief	PG9
A40-10	DDMIDI1-A40-10	1x label	
A40-11	DDMIDI1-A40-11	1x foam	
A40-12	DDMIDI1-A40-12	3x cable 1	
A40-13	DDMIDI1-A40-13	1x cable 2	
A40-14	DDMIDI1-A40-14	1x cable 4	
A40-15	DDMIDI1-A40-15	1x safety washer	M12
A40-16	DDMIDI1-A40-16	1x PU cable	
A40-17	DDMIDI1-A40-17	1x cable 5	
A40-18	DDMIDI1-A40-18	1x LED lamp	
A40-19	DDMIDI1-A40-19	1x LED lamp holder	
A41	DDMIDI1-A41	1x signal cable	
A42	DDMIDI1-A42	2x nylon nut	M3
A43	DDMIDI1-A43	4x washer	M3

Ref.	Part no.	Designation	Spec.
A44	DDMIDI1-A44	2x round-head screw	M3x30
A45	DDMIDI1-A45	1x round cross-head screw	#10-24x3/4"
A46	DDMIDI1-A46	1x cable clamp	ACC-1.5
A47	DDMIDI1-A47	1x nut	#10-24
A48	DDMIDI1-A48	1x foam	
A49	DDMIDI1-A49	1x warning label	
A51	DDMIDI1-A51	1x power cord	
A52	DDMIDI1-A52	1x knockout bar shaft	
A53	DDMIDI1-A53	1x knockout bar knob	
A54	DDMIDI1-A54	1x open-ended faceplate spanner	
A55	DDMIDI1-A55	1x hex key	4 mm
A56	DDMIDI1-A56	1x strain relief	PG11
A57	DDMIDI1-A57	digital display (assembly)	
A57-1	DDMIDI1-A57-1	digital display housing	
A57-1A	DDMIDI1-A57-1A	1x front housing	
A57-1B	DDMIDI1-A57-1B	1x rear housing	
A57-2	DDMIDI1-A57-2	1x label	
A57-3A	DDMIDI1-A57-3A	1x digital display with front housing	
A57-3	DDMIDI1-A57-3	1x PC board digital display	
A57-4	DDMIDI1-A57-4	signal cable	
A57-5	DDMIDI1-A57-5	1x connecting cable	
A57-6	DDMIDI1-A57-6	1x saddle type tie mount	
A57-7	DDMIDI1-A57-7	tap screw	M3x8
A57-8	DDMIDI1-A57-8	1x cable tie	
A57-9	DDMIDI1-A57-9	4x tap screw	M3x18
A57-10	DDMIDI1-A57-10	2x round-head screw	M6x10
A58	DDMIDI1-A58	1x cable protector	
A59	DDMIDI1-A59	1x strain relief	SR-6P1
A60	DDMIDI1-A60	1x label	
A61	DDMIDI1-A61	1x strain relief	PG9

12.4 Exploded view B

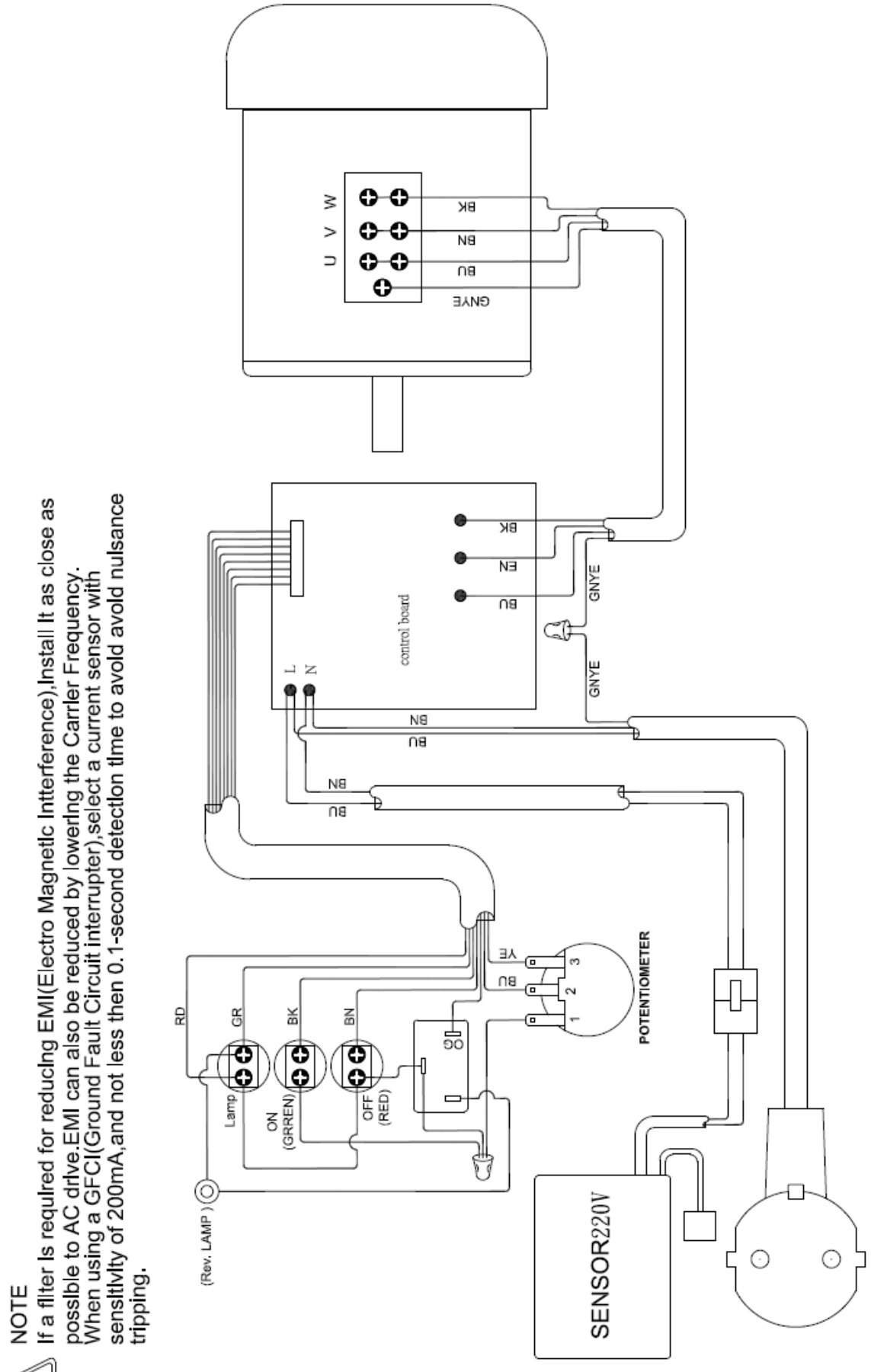


Ref.	Part no.	Designation	Spec.
B1	DDMIDI1-B1	1x bed	
B2	DDMIDI1-B2	2x carrying handle	
B3	DDMIDI1-B3	4x round-head screw	1/4" - 20x5/8"
B4	DDMIDI1-B4	5x screw	#10-24x3/8"
B5	DDMIDI1-B5	2x cable hook	
B6	DDMIDI1-B6	1x snap bushing	SB-16
B7	DDMIDI1-B7	1x cover flap	
B8	DDMIDI1-B8	1x plate	
B9	DDMIDI1-B9	1x hinge	
B10	DDMIDI1-B10	1x handle	
B11	DDMIDI1-B11	1x spring sheet	
B12	DDMIDI1-B12	2x blind rivet	
B13	DDMIDI1-B13	2x nylon nut	3/16"
B14	DDMIDI1-B14	1x hex head screw	M8x10
B15	DDMIDI1-B15	4x flat head screw	3/16" x 1/2"
B16	DDMIDI1-B16	1x motor pulley	3 stages
B17	DDMIDI1-B17	1x motor plate	
B18	DDMIDI1-B18	1x handle protector	
B19	DDMIDI1-B19	1x motor	
B20	DDMIDI1-B20	1x motor nameplate	
B21	DDMIDI1-B21	1x motor cable	
B22	DDMIDI1-B22	1x lock handle	

Ref.	Part no.	Designation	Spec.
B23	DDMIDI1-B23	1x washer	5/16" – 3 mm
B24	DDMIDI1-B24	3x set screw	1/4-20 x3/8"
B25	DDMIDI1-B25	1x nylon nut	5/16" - 18 UNC
B26	DDMIDI1-B26	2x cap screw	1/4" x 5/8"
B27	DDMIDI1-B27	2x washer	1/4"
B28	DDMIDI1-B28	1x hex head screw	5/16" x 1-1/4"
B29A	DDMIDI1-B29	1x tailstock	
B30	DDMIDI1-B30	1x handwheel	
B31	DDMIDI1-B31	1x handwheel handle	
B32	DDMIDI1-B32	1x lock handle	5/16" x 20 mm
B32A	DDMIDI1-B32A	1x lock handle	5/16" x 20 mm
B35	DDMIDI1-B35	1x clamping lever	
B36A	DDMIDI1-B36A	1x live centre	MT2
B37A	DDMIDI1-B37A	1x quill	
B38A	DDMIDI1-B38A	1x threaded spindle	
B39	DDMIDI1-B39	1x circlip	S-10
B40	DDMIDI1-B40	1x cap screw	1/4" - 20UNC x 3/8"
B41	DDMIDI1-B41	1x nut	1/4"
B42A	DDMIDI1-B42A	1x clamping bolt	
B43	DDMIDI1-B43	1x clamp	
B45	DDMIDI1-B45	1x tool rest	6" x 1"
B46	DDMIDI1-B46	1x banjo	

Ref.	Part no.	Designation	Spec.
B47	DDMIDI1-B47	1x clamping lever	
B48	DDMIDI1-B48	1x bushing	
B49	DDMIDI1-B49	1x circlip	S-12
B50	DDMIDI1-B50	1x circlip	S-14
B51	DDMIDI1-B51	1x clamping bolt	
B52	DDMIDI1-B52	1x clamp	
B53	DDMIDI1-B53	2x nut	
B54	DDMIDI1-B54	1x cable clamp	ACC-3
B55	DDMIDI1-B55	1x cable clamp	ACC-4
B56	DDMIDI1-B56	3x round cross-head screw	#10-24x3/4"
B58	DDMIDI1-B58	3x nut	#10-24
B59	DDMIDI1-B59	1x cable clamp	ACC-1.5
B60	DDMIDI1-B60	4x nut machine foot	3/8"
B61	DDMIDI1-B61	4x machine foot	3/8"
B62	DDMIDI1-B62	4x hex head screw	3/8" x 2"
B63	DDMIDI1-B63	1x label	
B64	DDMIDI1-B64	1x nameplate	
B65	DDMIDI1-B65	1x logo label	
B67	DDMIDI1-B67	1x socket head screw	#10-32x5/8"
B68	DDMIDI1-B68	1x key	
B69	DDMIDI1-B69	1x washer	1/4"

12.6 Wiring diagram

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