ROLLER Robot 2 Powerful Tapping Machine Instruction Manual

ROLLER
WERKZEUGE UND MASCHINEN

Robot 2 Powerful Tapping Machine
Instruction Manual
ROLLER'S Robot 2
ROLLER'S Robot 3
ROLLER'S Robot 4

Contents

Robot 2 Powerful Tapping Machine

Fig. 1

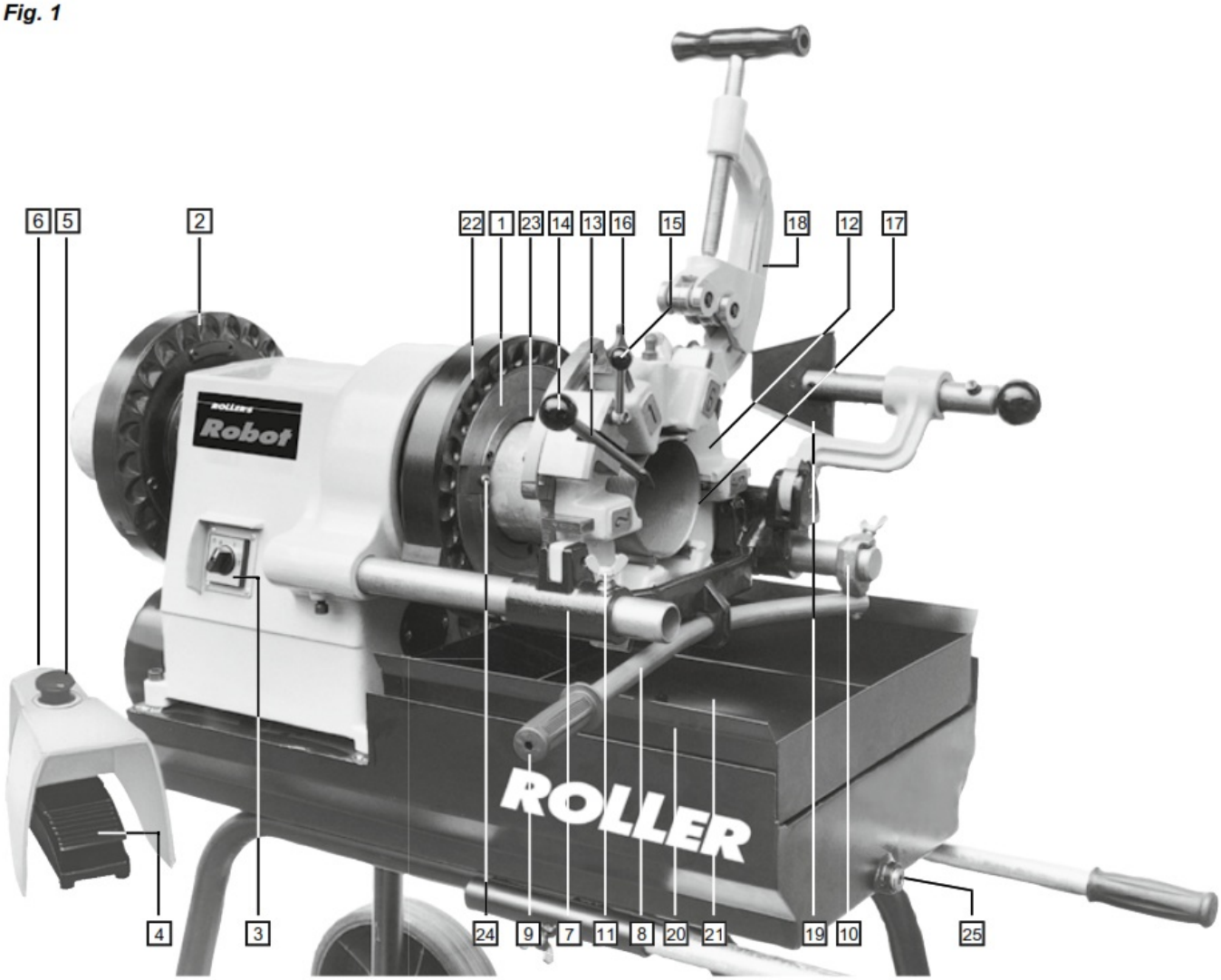

Fig. 2

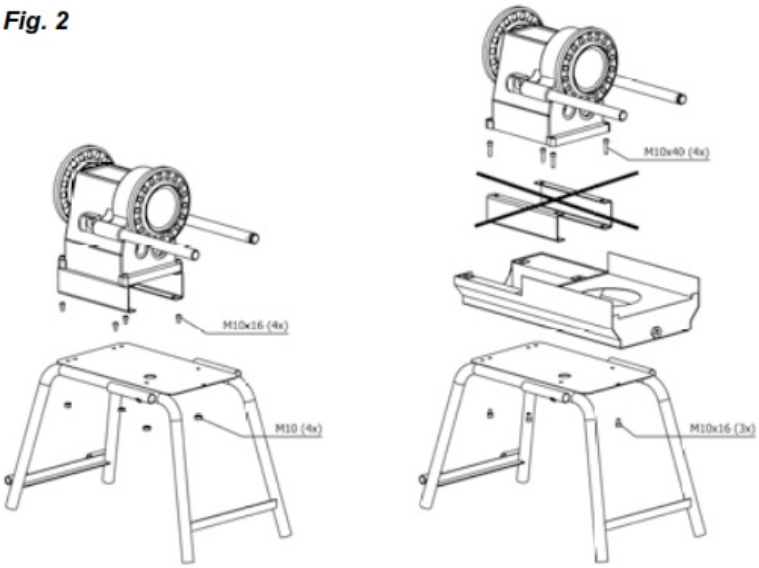

Fig. 3

Translation of the Original Instruction Manual
Fig. 1

1 Quick action hammer chuck 2 Guide chuck 3 Switch right-left 4 Foot switch 5 Emergency stop switch 6 Thermal protection switch 7 Tool holder 8 Pressing lever 9 Handle 10 Clamping ring with wing nut 11 Wing screw 12 Die head 13 Length stop	14 Closing and opening lever 15 Clamping lever 16 Adjusting disk 17 Die holder 18 Pipe cutter 19 Deburrer 20 Oil tray 21 Chip tray 22 Clamping ring 23 Chuck jaw carrier 24 Chuck jaws 25 Screw plug

General power tool safety warnings

WARNING

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

1. **Work area safety**

   a) Keep work area clean and well lit. Cluttered or dark areas invite accidents.

   b) Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.

   c) Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

2. **Electrical safety**

   a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs

with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.

b) Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.

c) Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.

d) Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.

e) When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.

f) If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock.

3. **Personal safety**

a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the infl uence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.

b) Use personal protective equipment. Always wear eye protection. Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.

c) Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your fi nger on the switch or energising power tools that have the switch on invites accidents.

d) Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

e) Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.

f) Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.

g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

h) Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles. A careless action can cause severe injury within a fraction of a second

4. **Power tool use and care**

a) Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.

b) Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

c) Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.

d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.

e) Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool’s operation. If damaged, have the power tool repaired

before use. Many accidents are caused by poorly maintained power tools.

f) Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

g) Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

h) Keep handles and grasping surfaces dry, clean and free from oil and grease. Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

5. **Service**

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

Threading Machine Safety Warnings

 **WARNING**

Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.
Save all warnings and instructions for future reference.

Work area safety

- Keep floor dry and free of slippery materials such as oil. Slippery floors invite accidents.
- Restrict access or barricade the area when work piece extends beyond machine to provide a minimum of one metre clearance from the work piece. Restricting access or barricading the work area around the work piece will reduce the risk of entanglement.

Electrical safety

- Keep all electrical connections dry and away from the floor. Do not touch plugs or the machine with wet hands. These safety precautions reduce the risk of electric shock.

Personal safety

- Do not wear gloves or loose clothing when operating machine. Keep sleeves and jackets buttoned. Do not reach across the machine or pipe. Clothing can be caught by the pipe or machine resulting in entanglement.

Machine safety

- Do not use the machine if it is damaged. There is a danger of accident.
- Follow instructions on proper use of this machine. Do not use for other purposes such as drilling holes or turning winches. Other uses or modifying this power drive for other applications may increase the risk of serious injury.
- Secure machine to bench or stand. Support long heavy pipe with pipe supports. This practice will prevent machine tipping.
- While operating the machine, stand on the side where the FORWARD/REVERSE switch is located. Operating the machine from this side eliminates the need to reach over the machine.

- Keep hands away from rotating pipes or fittings. Switch off the machine before cleaning pipe threads or screwing on fittings. Let the machine come to a complete standstill before touching the pipe. This procedure reduces the possibility of getting trapped by rotating parts.
- Do not use the machine for screwing on or unscrewing fittings; it is not intended for this purpose. Such use could lead to trapping, entanglement and loss of control.
- Keep covers in place. Do not operate the machine with covers removed. Exposing moving parts increases the probability of entanglement.

Footswitch safety

- Do not use this machine if the footswitch is broken or missing. Footswitch is a safety device that provides better control by letting you shut off the motor in various emergency situations by removing your foot from the switch. For example: if clothing should become caught in the machine, the high torque will continue pulling you into the machine. The clothing itself can bind around your arm or other body parts with enough force to crush or break bones.

Additional Safety Instructions for Thread Cutting Machines

- Only connect the machine of protection class I to a socket/extension lead with a functioning protective contact. There is a danger of electric shock.
- Check the power cable of the machine and extension leads regularly for damage. Have these renewed by qualified experts or an authorised ROLLER customer service workshop in case of damage.
- The machine is operated by a safety foot switch with emergency stop in inching mode. If you cannot see the danger area constituted by the revolving workpiece from the operating point, set up protective measures, e.g. cordons. There is a risk of injury.
- Only use the machine for the intended purpose described in 1. Technical Data. Work such as roping, assembling and disassembling, thread cutting with manual die stocks, work with manual pipe cutters as well as holding workpieces by hand instead of with material supports are prohibited when the machine is running. There is a risk of injury.
- If the risk of bending and uncontrolled lashing of the workpieces is to be expected (depending on the length and cross section of the material and the speed of rotation) or the machine is not standing stably enough, sufficient numbers of height adjustable material supports ROLLER'S Assistent 3B, ROLLER'S Assistent XL 12″ (accessory, Art. No. 120120, 120125) must be used. There is a risk of injury if you fail to do so.
- Never reach into the revolving clamping or guide chuck. There is a risk of injury.
- Clamp short pipe sections only with ROLLER'S Nipparo or ROLLER'S Spannfix. Machine and/or tools can be damaged.
- Thread cutting materials in spray cans (ROLLER'S Smaragdol, ROLLER'S Rubinol) contains environmentally friendly but highly inflammable propellant gas (butane). Aerosol cans are pressurised; do not open by force. Protect them against direct sunlight and temperatures above 50°C. The aerosol cans can burst, risk of injury.
- Avoid intensive skin contact with the coolant-lubricants. These have a degreasing effect. A skin protector with a greasing effect must be applied.
- Never let the machine operate unattended. Switch off the machine during longer work breaks, pull out the mains plug. Electrical devices can cause hazards which lead to material damage or injury when left unattended.

- Only allow trained persons to use the machine. Apprentices may only use the machine when they are over 16, when this is necessary for their training and when they are supervised by a trained operative.
- Children and persons who, due to their physical, sensory or mental abilities or lack of experience and knowledge are unable to operate the machine safely may not use this machine without supervision or instruction by a responsible person. Otherwise there is a risk of operating errors and injuries.
- Check the power cable of the electric al device and extension leads regularly for damage. Have these renewed by qualifi ed experts or an authorised ROLLER customer service workshop in case of damage.
- Only use approved and appropriately marked extension leads with a sufficient cable cross-section. Use extension leads with a cable cross-section of at least 2.5 mm².

  NOTICE
- Do not dispose of thread-cutting material undiluted in the drain system, ground water or ground. Unused thread-cutting material should be handed in to responsible disposal companies. Waste code for thread-cutting materials containing mineral oil (ROLLER'S Smaragdol) 120106, for synthetic materials (ROLLER'S Rubinol) 120110. Waste code for thread cutting materials containing mineral oils (ROLLER'S Smaragdol) and synthetic thread cutting materials (ROLLER'S Rubinol) in spray cans 150104. Observe the national regulations.

Explanation of symbols

⚠WARNING	Danger with a medium degree of risk which could result in death or severe injury (irreversible) if not heeded.
⚠ CAUTION	Danger with a low degree of risk which could result in minor injury (reversible) if not heeded.
NOTICE	Material damage, no safety note! No danger of injury.
	Read the operating manual before starting
	Use eye protection
	Use ear protection
	Power tool complies with protection class I
	Power tool complies with protection class II
	Environmentally friendly disposal
CE	CE conformity mark

Technical Data

Use for the intended purpose

WARNING

Use ROLLER'S Robot thread cutting machines (type 340004, 340005, 340006, 380010, 380011, 380012) for the intended purpose of thread cutting, cutting off, removing burr, cutting nipples and roller grooves.
All other uses are not for the intended purpose and are therefore prohibited.

1.1. Scope of Supply

ROLLER'S Robot 2 / 2 L :	Thread cutting machine, tool set (1/) ⅛ – 2″, ROLLER dies R ½ – ¾" and R 1 – 2″, oil tray, chip tray, operating instructions.
ROLLER'S Robot 3 / 3 L (R 2½ – 3″):	Thread cutting machine, tool set 2½ – 3″, ROLLER dies R 2½ – 3″, oil tray, chip tray, operating instructions.
ROLLER'S Robot 4 / 4 L (R 2½ –4″):	Thread cutting machine, tool set 2½ – 4″, ROLLER dies R 2½ – 4″, oil tray, chip tray, operating instructions.
Equipped if necessary with additional tool set (1/) ⅛ – 2″ with ROLLER dies R ½ – ¾" and R 1 – 2″	

1.2. Article Numbers	**ROLLER'S Robot 2 Type U ROLLER'S Robot 2 Type K ROLLER'S Robot 2 Type D**	**ROLLER'S Robot 3 Type U ROLLER'S Robot 3 Type K ROLLER'S Robot 3 Type D**	**ROLLER'S Robot 4 Type U ROLLER'S Robot 4 Type K ROLLER'S Robot 4 Type D**
Subframe	344105	344105	344105
Wheel set with material rest	344120	344120	344120
Subframe, mobile and folding	344150	344150	344150
Subframe, mobile, with material rest	344100	344100	344100
Dies	see ROLLER catalogue	see ROLLER catalogue	see ROLLER catalogue
Universal automatic die head ¹/ – 2″	341000	341000	341000
Universal automatic die head 2½ – 3″		381050	
Universal automatic die head 2½ – 4″		340100	341000
Tool set ¹/ – 2″	340100	340100	341000
ROLLER'S cutting wheel St ⅛ – 4 ″, S 8	341614	341614	341614
ROLLER'S cutting wheel St 1 – 4 ″, S 12		381622	381622
Thread-cutting materials	see ROLLER catalogue	see ROLLER catalogue	see ROLLER catalogue
Nippelhalter	see ROLLER catalogue	see ROLLER catalogue	see ROLLER catalogue
ROLLER'S Assistent 3B	120120	120120	120120
ROLLER'S Assistent WB	120130	120130	120130
ROLLER'S Assistent XL 12″	120125	120125	120125
ROLLER'S roller groove device	347000	347000	347000
Clamping sleeve	343001	343001	343001
Changeover valve	342080	342080	342080

1.3.1. Thread diameter	ROLLER'S Robot 2 Type U ROLLER'S Robot 2 Type K ROLLER'S Robot 2 Type D	ROLLER'S Robot 3 Type U ROLLER'S Robot 3 Type K ROLLER'S Robot 3 Type D	ROLLER'S Robot 4 Type U ROLLER'S Robot 4 Type K ROLLER'S Robot 4 Type D
Pipe (also plastic-coated)	(1/) ⅛ – 2″, 16 – 63 mm	(1/) ½ – 3″, 16 – 63 mm	
Bolt	(6) 8 – 60 mm, ¼ – 2″	(6) 20 – 60 mm, ½ – 2″	
1.3.2. Thread types			
Pipe thread, tapered right-handed	R (ISO 7-1, EN 10226, DIN 2999, BSPT), NPT		
Pipe thread, cylindrical right-handed	G (EN ISO 228-1, DIN 259, BSPP), NPSM		
Steel armoured thread	Pg (DIN 40430), IEC		
Bolt thread	M (ISO 261, DIN 13), UNC, BSW		
1.3.3. Thread length			
Pipe thread, tapered	standard length		standard length
Pipe thread, cylindrical	150 mm, with re-tighten		150 mm, with re-tighten
Bolt thread	unlimited		unlimited
1.3.4. Cut off pipe	⅛ – 2″	¼ – 4″	¼ – 4″
1.3.5. Deburr inside of pipe	¼ – 2″	¼ – 4″	¼ – 4″
1.3.6. Nipple and double nipple with			
ROLLER'S Nipparo (inside clamping)	⅜ – 2″	⅜ – 2″	⅜ – 2″
with ROLLER'S Spannfix (automatic inside clamping)	½ – 4″	½ – 4″	½ – 4″
1.3.7. ROLLER'S roller groove device			
ROLLER'S Robot version L	DN 25 – 300, 1 – 12″	DN 25 – 300, 1 – 12″	DN 25 – 300, 1 – 12″
ROLLER'S Robot version with large oil and chip tray	DN 25 – 200, 1 – 8″ s ≤ 7.2 mm	DN 25 – 200, 1 – 8″ s ≤ 7.2 mm	DN 25 – 200, 1 – 8″ s ≤ 7.2 mm
Operating temperature range			
ROLLER'S Robot all types	–7 °C – +50 °C (19 °F – 122 °F)		

1.4. Speeds of the Work Spindles
ROLLER'S Robot 2, Type U: 53 rpm
ROLLER'S Robot 3, Type U: 23 rpm
ROLLER'S Robot 4, Type U: 23 rpm

automatic, continuous speed regulation
ROLLER'S Robot 2, Type K, Type D: 52 – 26 rpm
ROLLER'S Robot 3, Type K, Type D: 20 – 10 rpm
ROLLER'S Robot 4, Type K, Type D: 20 – 10 rpm
also under full load. On heavy duty and weak voltage for larger threads 26 rpm resp. 10 rpm.

1.5. Electrical Data

Type U (universal motor)	230 V ~; 50 – 60 Hz; 1,700 W consumption, 1,200 W output; 8.3 A; Fuse (mains) 16 A (B). Periodic duty S3 25% AB 2,5/7,5 min. protection class II. 110 V ~; 50 – 60 Hz; 1,700 W consumption, 1,200 W output; 16.5 A; Fuse (mains) 30 A (B). Periodic duty S3 25% AB 2,5/7,5 min. protection class II.
Type K (condenser motor)	230 V ~; 50 Hz; 2,100 W consumption, 1,400 W output; 10 A; Fuse (mains) 10 A (B). Periodic duty S3 70% AB 7/3 min. protection class I.
Type D (three-phase current m otor)	400 V; 3~; 50 Hz; 2,000 W consumption, 1,500 W output; 5 A; Fuse (mains) 10 A (B). Periodic duty S3 70% AB 7/3 min. protection class I.

1.6. Dimensions (L × W × H)

ROLLER'S Robot 2 U	870 × 580 × 495 mm
ROLLER'S Robot 2 K/2 D	825 × 580 × 495 mm
ROLLER'S Robot 3 U	915 × 580 × 495 mm
ROLLER'S Robot 3 K/3 D	870 × 580 × 495 mm
ROLLER'S Robot 4 U	915 × 580 × 495 mm
ROLLER'S Robot 4 K/4 D	870 × 580 × 495 mm

1.7. Weight in kg

	Machine without tools set	Tool set ½ – 2″ (with ROLLER'S dies, set)	Tool set 2½ – 3″ (with ROLLER'S dies, set)	Tool set 2½ – 4″ (with ROLLER'S dies, set)
ROLLER'S Robot 2, Typ U / U-L	44.4 / 59.0	13.8	–	–
ROLLER'S Robot 2, Typ K / K-L	57.1 / 71.7	13.8	–	–
ROLLER'S Robot 2, Typ D / D-L	56.0 / 70.6	13.8	–	–
ROLLER'S Robot 3, Typ U / U-L	59.4 / 74.0	13.8	22.7	–
ROLLER'S Robot 3, Typ K / K-L	57.1 / 86.7	13.8	22.7	–
ROLLER'S Robot 3, Typ D / D-L	71.0 / 85.6	13.8	22.7	–
ROLLER'S Robot 4, Typ U / U-L	59.4 / 74.0	13.8	–	24.8
ROLLER'S Robot 4, Typ K / K-L	57.1 / 86.7	13.8	–	24.8
ROLLER'S Robot 4, Typ D / D-L	71.0 / 85.6	13.8	–	24.8
Subframe	12.8			
Subframe, mobile	22.5			
Subframe, mobile and folding	23.6			

1.8. Noise information

Workplace-related emissions value	
ROLLER'S Robot 2 / 3 / 4, Type U	LpA + LWA 83 dB (A) K = 3 dB
ROLLER'S Robot 2 / 3 / 4, Type K	LpA + LWA 75 dB (A) K = 3 dB
ROLLER'S Robot 2 / 3 / 4, Type D	LpA + LWA 72 dB (A) K = 3 dB

1.9. Vibrations (all types)

Weighted rms value of acceleration	< 2.5 m/s²	K = 1.5 m/s²

The indicated weighted effective value of acceleration has been measured against standard test procedures and can be used by way of comparison with another device. The indicated weighted effective value of acceleration can also be used as a preliminary evaluation of the exposure.

 **CAUTION**

The indicated weighted effective value of acceleration can differ during operation from the indicated value, dependent on the manner in which the device is used. Dependent upon the actual conditions of use (periodic duty) it may be necessary to establish safety precautions for the protection of the operator.

Start-up

CAUTION

Observe and follow the national rules and regulations for manual handling of load weights.

2.1. Installing ROLLER'S Robot 2U, 2K, 2D, ROLLER'S Robot 3U, 3K, 3D, ROLLER'S Robot 4U, 4K, 4D

Remove both U-rails from the machine. Fix the machine to the oil tray. Push the tool carrier into the guide arms. Push the pressing lever (8) from the rear through the loop on the tool carrier and the clamping ring (10) onto the rear guide arm so that the wing nut is facing the rear and the ring groove stays free. Feed the hose with suction filter through the hole in the oil tray from the inside and connect it to the coolant-lubricant pump. Push the other end of the hose onto the nipple on the back of the tool carrier. Push the handle (9) onto the pressing lever. Fix the machine to a workbench or subframe (accessory) with the 3 screws provided. The machine can be lifted respectively at the front by the guide arms and at the rear by a pipe clamped into a clamping and guide chuck for transport. For transporting on the subframe, pipe sections Ø ¾" with a length of approx. 60 cm are pushed into the eyes on the subframe and fixed with the wing nuts. If the machine is not to be transported, the two wheels can be removed from the subframe.

Fill in 5 litres of thread cutting material. Insert chip tray.

NOTICE

Never operate the machine without thread cutting material.

Insert the guide bolt of the die head (12) into the hole of the tool carrier and push on the die head with axial pressure on the guide pin and swivelling movements as far as it will go.

2.2. Installing ROLLER'S Robot 2U-L, 2K-L, 2D-L, ROLLER'S Robot 3U-L, 3K-L, 3D-L, ROLLER'S Robot 4U-L, 4K-L, 4D-L (Fig. 2)

Fix the machine to a workbench or subframe (accessory) with the 4 screws provided. The machine can be lifted respectively at the front by the guide arms and at the rear by a pipe clamped into a clamping and guide chuck for transport. Push the tool carrier into the guide arms. Push the pressing lever (8) from the rear through the loop on the tool carrier and the clamping ring (10) onto the rear guide arm so that the wing nut is facing the rear and the ring groove stays free. Push the handle (9) onto the pressing lever. Hang the oil tray in the two screws on the gear housing and push to the right into the slits. Hang the oil tray in the ring groove on the rear guide arm. Push on the clamping ring (10) until it is touching the suspension of the oil tray and clamp it tight. Hang the hose with suction fi lter into the oil tray and push the other end of the hose onto the nipple on the back of the tool carrier.

Fill in 2 litres of thread cutting material. Insert the chip tray from the rear.

NOTICE

Never operate the machine without thread cutting material.

Insert the guide bolt of the die head (12) into the hole of the tool carrier and push on the die head with axial pressure on the guide pin and swivelling movements as far as it will go.

2.3. Electrical connection

WARNING

Caution: Mains voltage present! check whether the voltage given on the rating plate corresponds to the mains voltage. Only connect the thread cutting machine of protection class I to a socket/extension lead with a functioning protective contact. There is a danger of electric shock. On building sites, in a wet environment, indoors and outdoors or under similar installation conditions, only operate the thread cutting machine on the mains with a fault current protection switch (FI switch) which interrupts the power supply as soon as the leakage current to earth exceeds 30 mA for 200 ms.

The thread cutting machine is switched on and off with the foot switch (4). The switch (3) serves to pre-select the direction of rotation or speed. The machine can only be switched on when the emergency off button (5) is unlocked and the thermal protection switch (6) on the foot switch is pressed. If the machine is connected directly to mains (without a plug device), a 16 A circuit breaker must be installed.

2.4. Thread-cutting Materials

For safety data sheets, see **www.albert-roller.de** → Downloads → Safety Data Sheets.

Only use ROLLER thread cutting materials. They ensure perfect cutting results, long life of the dies and considerably relieve stress on the tools.

NOTICE

ROLLER'S Smaragdol
High-alloy mineral oil-based thread-cutting material. For all materials: steel, stainless steel, non-ferrous metals, plastics. Can be washed out with water, tested by experts. Mineral oil-based thread cutting materials are not approved for drinking water pipes in different countries, e.g. Germany, Austria and Switzerland. Mineral oil-free ROLLER'S Rubinol 2000 must be used in this case. Observe the national regulations.
ROLLER'S Rubinol 2000
Mineral oil-free, synthetic thread-cutting material for drinking water pipes.
Completely soluble in water. According to regulations. In Germany DVGW test no. DW-0201AS2031, Austria ÖVGW test no. W 1.303, Switzerland SVGW test no. 9009-2496. Viscosity at –10°C: ≤ 250 mPa s (cP). Pumpable up to –28°C. Easy to use. Dyed red for checking washout. Observe the national regulations.
Both thread cutting materials are available in aerosol cans, canisters, barrels as well as spray bottles (ROLLER'S Rubinol 2000).
NOTICE
All thread cutting materials may only be used in undiluted form!
2.5. Material Support

CAUTION
Pipes and bars longer than 2 m must be supported additionally by at least one height-adjustable ROLLER'S Assistant 3B, ROLLER'S Assistant XL 12″ material rest. This has steel balls for easy movement of the pipes and bars in all directions without the material support tipping over.
2.6. Subframe, mobile and folding (accessory)

CAUTION
The folded subframe, mobile and folding, quickly moves up automatically without mounted thread cutting machine after releasing. Therefore hold down the subframe by the handle when releasing and hold with both handles when moving up.
To move up with the thread cutting machine mounted, hold the subframe with one hand on the handle, put one foot on the cross member and release both locking pins by turning the lever. Then hold the subframe with both hands and move to working height until the two locking pins snap in. Proceed in the reverse order to fold up. Drain the thread-cutting material from the oil tray or remove the oil tray before unfolding or folding up.

Operation

 Use eye protection
 Use ear protection
3.1. Tools
The die head (12) is a universal die head. That means for all types of threads for above mentioned sizes, divided in 2 tool sets, only one die head is required. For cutting tapered pipe threads, the length stop (13) needs to be in the same direction with the closing and opening lever (14). To cut cylindrical long threads and bolt threads, the length stop (13) has to be folded away.
Changing the ROLLER'S dies
The ROLLER'S dies can be inserted or changed with the die head mounted on the machine or detached (i.e. on a bench). Slacken clamping lever (15) but do not remove it. Push the adjusting disc (16) at the handle away from the clamping lever to the far end position. In this position the ROLLER'S dies are put in or taken out. Ensure that the indicated size of thread shown on the back of the ROLLER'S dies corresponds to the size of thread to be cut. Furthermore, ensure that the numbers shown on the back of the ROLLER'S dies correspond with those indicated on the die holder (17).
Insert the ROLLER'S dies into the die head as far as the ball inside the slot of the die holder snaps in. Once all ROLLER'S dies are set, adjust the size of thread by shifting the adjusting disc. Bolt thread must always be set to „Bolt". Clamp the adjusting disc with the clamping lever, close the die head by pressing the closing and opening lever (14) down slightly to the right. The die head opens either automatically (with tapered pipe threads), or at any time manually by slight pressure to the left on the closing and opening lever.
If the holding power of the clamping lever (15) is insufficient (e.g. through blunt ROLLER'S dies) when the 2½ – 3″ and the 2½ – 4″ die head is in use, due to the increased cutting force applied, with the result that the die head opens under cutting pressure, the capscrew on the side opposite the clamping lever (15) must also be tightened.
The pipe cutter (18) cuts pipes ¼ – 2″, resp. 2½ – 4″.

The reamer (19) deburs pipes ¼ – 2″ resp. 2½ – 4″. To avoid rotation, latch the reamer sleeve into the reamer arm either in the front or in the back end,depending on the position of the pipe.

3.2. Chuck

A clamping sleeve (Art. No. 343001) adapted to the diameter is required for ROLLER'S Robot up to 2″ for clamping diameters < 8 mm, for ROLLER'S Robot up to 4″ for clamping diameters < 20 mm. The desired clamping diameter must be specified when ordering the clamping sleeve.

3.2.1. Quick Action Hammer Chuck (1), Guide Chuck (2)

The quick action hammer chuck (1) with large clamping ring and moving dies inserted into the die carriers ensures centred and safe clamping with the least force. As soon as the material protrudes from the guide chuck, this must be closed.

To change the dies (24), close the clamping ring (22) up to approx. 30 mm clamping diameter. Remove screws of the dies (24). Push out the dies to the back with a suitable tool (screwdriver). Push the new dies with inserted screw into the die carriers from the front.

3.3. Work Procedure

Remove blockages of chips and fragments of the workpiece before starting work.

NOTICE

Switch off the thread cutting machine when the tool set approaches the machine housing.

Swing out the tools and move the tool carrier to the right-hand end position with the aid of the pressing lever (8). Pass the material to be threaded through the opened guide (2) and through the opened chuck (1) so that it extends by about 10 cm from the chuck. Close the chuck until the jaw comes against the material and then, after a short opening movement, jerk it shut once or twice in order to clamp the material firmly. Closing the guide chuck (2) centers the material that extends from the rear of the machine. Swing down and close the die head. Set the switch (3) to position 1, then operate the foot switch (4). Type U is switched on and off with the foot switch (4) only. On Type K and Type D, the second operating speed can be selected for sectioning, deburring and small thread cutting operations. To do this, with the machine running, slowly move switch (3) from position 1 to position 2. With the contact lever (8), advance the die head onto the rotating material.

After one or two threads have been cut, the die head will continue to cut automatically. In the case of tapered pipe threads, the die head opens automatically when the standard length of thread is reached. When cutting extended threads or bolt threads, open the die head manually, with the machine running. Release pedal switch (4). Open quick action hammer chuck, take out material.

Threads of unlimited length can be cut by reclamping the material, as follows. When the tool holder approaches the machine housing during the thread cutting process, release pedal switch (4) but do not open the die head. Release the material and bring the tool holder and material to the right-hand end-position by means of the contact lever. Clamp material again, switch on machine again. For pipe cutting operations, swing in the pipe cutter (18) and bring it to the desired cutting position by means of the contact lever. The pipe is cut by rotating the spindle clockwise.

Remove any burrs inside the pipe resulting from the cutting operation with the pipe reamer (19).

To drain the cooling lubricant: Take off the fl exible hose of the tool holder (7) and hold it into a container. Keep the machine running until the oil tray is empty. Or: Remove screw plug (25) and drain trough.

3.4. Cutting Nipples and Double Nipples

ROLLER'S Spannfi x (automatic inside clamping) or ROLLER'S Nipparo (inside clamping) are used for cutting nipples. Make sure that the pipe ends are deburred on the inside. Always push on the pipe sections as far as they will go.

To clamp the pipe section (with or without thread) with the ROLLER'S Nipparo, the head of the nipple tightener is splayed by turning the spindle with a tool. This may only be done with the pipe section fitted.

Makes sure that no shorter nipples than the standard allows are cut with the ROLLER'S Spannfi x and the ROLLER'S Nipparo.

3.5. Cutting Left-handed Threads

Only ROLLER'S Robot 2K, 2D, 3K, 3D, 4K and 4D are suitable for left-handed threads. The die head in the tool carrier must be pinned with an M 10 × 40 screw for cutting left-handed threads, otherwise this can lift and damage the start of the thread. Set switch to position "R". Switch over the hose connections on the coolant-lubricant pump or short circuit the coolant-lubricant pump. Alternatively, use the changeover valve (Art. No. 342080) (accessory) which is fixed to the machine. After installing the changeover valve, set the switch (3) to 1 and press the foot switch (4) until thread cutting oil emerges from the die head to fill the system completely with oil. The flow direction of the coolant-lubricant pump is reversed with the lever on the changeover valve (Fig. 3).

Maintenance

Notwithstanding the maintenance described below, it is recommended to send in the ROLLER thread cutting machine to an authorised ROLLER contract customer service workshop for inspection and periodic testing of electrical devices at least once a year. In Germany, such periodic testing of electrical devices should be performed in accordance with DIN VDE 0701-0702 and also prescribed for mobile electrical equipment according to the accident prevention rules DGUV, regulation 3 “Electrical Systems and Equipment”. In addition, the respective national safety provisions, rules and regulations valid for the application site must be considered and observed.

4.1. Maintenance

WARNING

Pull out the mains plug before carrying out maintenance or repair work!

The gear of the ROLLER’S thread cutting machine is maintenance-free. The gear runs in a closed oil bath and therefore needs no lubrication. Keep the clamping and guide chucks, guide arms, tool carrier, die head, ROLLER’S dies, pipe cutter and pipe inside deburrer clean. Replace blunt ROLLER’S dies, cutting wheel, deburrer blade. Empty and clean the oil tray from time to time (at least once a year).

Clean plastic parts (e.g. housing) only with a mild soap and a damp cloth. Do not use household cleaners. These often contain chemicals which can damage the plastic parts. Never use petrol, turpentine, thinner or similar products for cleaning.

Make sure that liquids never get inside the ROLLER’S thread cutting machine.

4.2. Inspection/Repair

WARNING

Pull out the mains plug before carrying out maintenance or repair work!

This work may only be performed by qualified personnel.

The motor of ROLLER’S Robot has carbon brushes. These are subject to wear and must therefore by checked and changed by qualified specialists or an authorised ROLLER customer service workshop from time to time.

Behaviour in the event of faults

5.1. Fault: Machine does not start.
Cause:

- Emergency stop button not released.
- Thermal protection switch has tripped.
- Worn carbon brushes.
- Connecting lead and/or foot switch defective.
- Machine defective.

Remedy:

- Release emergency stop button on foot switch.
- Press thermal protection switch on foot switch.
- Have the carbon brushes changed by qualifi ed personnel or an authorised ROLLER customer service workshop.
- Have the connecting lead and/or foot switch inspected/repaired by an authorised ROLLER customer service workshop.
- Have the machine checked/repaired by an authorised ROLLER customer service workshop.

5.2. Fault: Machine does not pull through
Cause:

- ROLLER’S dies are blunt.

- Unsuitable thread-cutting material.
- Overloading of the electricity mains.
- Too small a cross-section of the extension lead.
- Poor contact at the connectors.
- Worn carbon brushes.
- Machine defective.

Remedy:

- Change ROLLER'S dies.
- Use thread-cutting materials ROLLER'S Smaragdol or ROLLER'S Rubinol.
- Use a suitable power source.
- Use cable cross-section of at least 2.5 mm^2.
- Check connectors, use another outlet if necessary.
- Have the carbon brushes changed by qualifi ed personnel or an authorised ROLLER customer service workshop.
- Have the machine checked/repaired by an authorised ROLLER customer service workshop.

5.3. Fault: No or poor feeding of thread-cutting material at the die head.
Cause:

- Coolant-lubricant pump defective.
- Too little thread-cutting material in the oil tray.
- Screen in the suction nozzle soiled.
- Hoses on the coolant-lubricant pump switched.
- Hose end not pushed onto nipple.

Remedy:

- Change coolant-lubricant pump.
- Refill thread-cutting material.
- Clean screen.
- Switch over hoses.
- Push hose end onto nipple.

5.4. Fault: The ROLLER'S dies are open too wide despite the right scale setting.
Cause:

- The die head is not closed.

Remedy:

- Close die head, see 3.1. Tools, changing the ROLLER'S

5.5. Fault: Die head does not open.

Cause:

- Thread was cut to the next biggest pipe diameter with the die head open.
- Length stop folded away.

Remedy:

- Close die head, see 3.1. Tools, changing the ROLLER'S dies
- Set the length stop for closing and opening lever in the same direction.

5.6. Fault: No useful thread.
Cause:

- ROLLER'S dies are blunt.
- ROLLER'S dies are inserted incorrectly.
- No or poor feeding of thread-cutting material.
- Poor thread-cutting material.
- Feed movement of the tool carrier obstructed.
- Pipe material is unsuitable for thread cutting.

Remedy:

- Change ROLLER'S dies.
- Check numbering of dies to die holders, change ROLLER'S dies if necessary.
- See 5.3.
- Use ROLLER thread-cutting materials.
- Loosen wing nut of tool carrier. Empty chip tray.
- Only use approved pipes.

5.7. Fault: Pipe slips in chuck.
Cause:

- Dies heavily soiled.
- Pipes have thick plastic coating.
- Dies worn.

Remedy:

- Clean dies.
- Use special dies.
- Change dies.

Disposal

The thread cutting machines may not be thrown into the domestic waste at the end of use. They must be disposed

of properly by law.

Manufacturer's Warranty

The warranty period shall be 12 months from delivery of the new product to the first user. The date of delivery shall be documented by the submission of the original purchase documents, which must include the date of purchase and the designation of the product. All functional defects occurring within the warranty period, which are clearly the consequence of defects in production or materials, will be remedied free of charge. The remedy of defects shall not extend or renew the warranty period for the product. Damage attributable to natural wear and tear, incorrect treatment or misuse, failure to observe the operational instructions, unsuitable operating materials, excessive demand, use for unauthorized purposes, interventions by the customer or a third party or other reasons, for which ROLLER is not responsible, shall be excluded from the warranty
Services under the warranty may only be provided by customer service stations authorized for this purpose by ROLLER. Complaints will only be accepted if the product is returned to a customer service station authorized by ROLLER without prior interference and in a fully assembled condition. Replaced products and parts shall become the property of ROLLER.
The user shall be responsible for the cost of shipping and returning the product.
A list of the ROLLER-authorized customer service stations is available on the Internet under **www.albert-roller.de**. For countries which are not listed, the product must be sent to the SERVICE-CENTER, Neue Rommelshauser Strasse 4, 71332 Waiblingen, Deutschland. The legal rights of the user, in particular the right to make claims against the seller in case of defects as well as claims due to wilful violation of obligations and claims under the product liability law are not restricted by this warranty.
This warranty is subject to German law with the exclusion of the conflict of laws rules of German International Private Law as well as with the exclusion of the United Nations Convention on Contracts for the International Sales of Goods (CISG). Warrantor of this world-wide valid manufacturer's warranty is Albert Roller GmbH & Co KG, Neue Rommelshauser Straße 4, 71332 Waiblingen, Deutschland.

Spare parts lists
For spare parts lists, see **www.albert-roller.de** → Downloads → Parts lists.

EC Declaration of Conformity
We declare under our sole responsibility that the product described under „Technical Data" is in conformity with the standards below mentioned following the provisions of Directives 2006/42/EC, 2014/30/EU, 2011/65/EU, 2015/863/EU, 2019/1781/EU.
EN 61029-1:2009, EN 61029-2-12:2011, EN 60204-1:2007-06, EN ISO 12100:2011-03
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Neue Rommelshauser Straße 4
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Deutschland
2022-02-10

Rainer Hech
Managing Director

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Documents / Resources

	ROLLER Robot 2 Powerful Tapping Machine [pdf] Instruction Manual Robot 2 Powerful Tapping Machine, Robot 2, Powerful Tapping Machine, Tapping Machine

References

- Dein günstiges Möbelhaus » Lass Schönes einziehen! | ROLLER
- Albert Roller