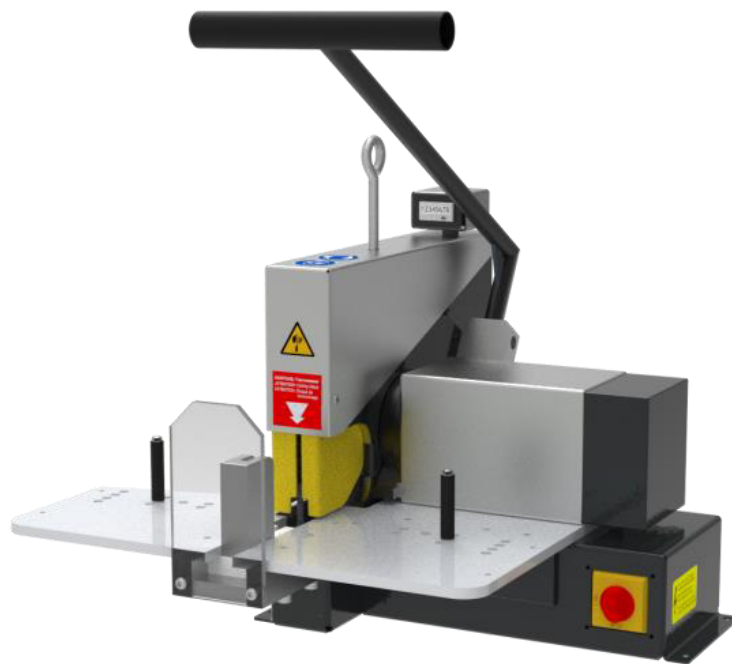


Operator's Manual

ET9500 Cutting Machine



Imprint

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This Operating Manual of the machine is a translation; the original is in German.

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EC / UK - Declaration of Conformity

In accordance with EC Machinery Directive 2006/42/EC and UK-Supply of Machinery (Safety) Regulations 2008.

The following machine

ET9500

was developed, designed and manufactured in compliance with EC Directive 2006/42/EC and UK-Supply of Machinery (Safety) Regulations 2008, in the sole responsibility of

UNIFLEX-Hydraulik GmbH
Robert-Bosch-Strasse 50 - 52
D-61184 Karben

The following standards, codes and specifications have been applied:

- EC Directive 2006/42/EC
- EMC Directive 2014/30/EC
- EN ISO 12100: 2010
- EN 60204-1: 2018
- UK-Supply of Machinery (Safety) Regulations 2008
- UK-Electromagnetic Compatibility Regulations 2016

This declaration are invalid when the machine is modified or if unauthorized and unapproved third-party components are used without our prior approval.

Entity authorised for documentation: Uniflex-Hydraulik GmbH, Technical Documentation Dept.

Karben, 04.10.2022



Managing Director Harald von Waitz

Contents

1	About this document	6
1.1	Target groups	6
1.2	Storage	8
1.3	Name plate	8
1.4	Abbreviations	8
2	Safety instructions	9
2.1	Presentation of warnings	9
2.2	Intended use	9
2.3	Product-specific risks	10
2.3.1	Risks imposed by mechanical equipment	10
2.3.2	Risks imposed by electricity	11
2.3.3	Risks imposed by noise	11
2.3.4	Risks in case of fire	11
2.4	Safety	12
2.4.1	Working area	12
2.4.2	Emergency-stop	12
2.4.3	Warning signs on the machine	14
3	Machine description	16
3.1	Design and function	16
3.2	Technical data	18
4	Transport and commissioning	20
4.1	Transport	20
4.2	Intermediate storage of machine/unit	21
4.3	Commissioning	21
4.3.1	Extraction	23
4.3.2	Extraction process for TMC cutting knife	23
4.3.3	Electrical connection	25
5	Operation	26
5.1	What you have to observe	26
5.2	Start	26
5.3	Work piece cutting	27
5.3.1	Prerequisites	27
5.3.2	Cutting individual hoses	28

Contents

5.4	Deactivation	29
5.5	Emergency stop.....	30
5.6	Overload protection.....	30
5.7	Cleaning.....	31
5.8	Cleaning.....	31
6	Maintenance.....	33
6.1	What you have to observe	33
6.2	Maintenance schedule.....	33
6.3	Knife replacement.....	35
6.4	Motor brake readjustment.....	36
7	Troubleshooting	39
8	Decommissioning, disposal	40
8.1	Dismantling	40
8.2	Recycling	40
8.3	Consumables and waste.....	41
9	Annex	42
9.1	Machine overview	42
9.2	Accessories (upgradable).....	44
9.3	Spare parts list.....	45
9.3.1	Mechanical equipment.....	45
9.3.2	Electric equipment.....	46
9.3.3	Wear parts	47
9.4	Electric diagram	48
9.5	Maintenance log.....	50
9.6	Declaration of qualified staff.....	51

1 About this document

1.1 Target groups

1 About this document

The "Cutting machine ET9500" is consistently designated as machine in this Operation Manual.

This Operation Manual includes important notes on how you operate your machine/unit safely, properly and economically.

Use not in compliance with the intended purpose may result in hazard to the operator's health and life and/or in the risk of damage to/the machine/unit. Consequently, please only use the machine/unit

- in good order and condition,
- in accordance with its intended purpose,
- in a safety-conscious manner, with awareness of risks and hazards,
- in compliance with all notes included in this Operation Manual.

The machine/unit may only be operated by staff who

- has read the Operation Manual,
- has understood it,
- has been instructed in the operation of the machine/unit, and
- has signed in the Annex.



Figures may include accessories/options. Customer-specific equipment may vary.

The product images shown are for reference only and may differ from the product delivered.

1.1 Target groups

The target groups of this Operation Manual are:

Owner

An owner is a natural person or entity using the device himself/herself/itself, or on whose behalf the device is used. An owner may appoint a representative to exercise the owner's rights and obligations.

The owner has to make sure that

1 About this document

1.1 Target groups

- national provisions, occupational safety regulations and applicable environmental protection regulations are fully complied with;
- persons working on the machine/unit are adequately qualified;
- persons working on the machine/unit are suitable for operating the machine/unit;
- the Operation Manual has been read and understood. One hardcopy of the Operation Manual must always be kept at a designated place where the machine/unit is used.
- persons working on the machine/unit are aware of potential risks;
- the operating staff is familiar with the location as well as with operating the fire alarm and fighting means. Free access to this equipment must be ensured.
- personal protection equipment is worn (safety footwear, protection gloves and safety glasses).

Machine/unit fitters

Machine/unit fitters must be at least 18 years old and have completed training for the task, i.e. they must have attended a specialist vocational training.

A fitter

- must observe the instructions in the Operation Manual;
- must inform the owner on failures and damage.

Operator

An operator is a person charged with and instructed in the proper operation of the machine/unit by the owner or the otherwise contractually obliged person.

The operator

- must observe the instructions in the Operation Manual;
- must inform the owner on failures and damage.
- must not perform and maintenance or repair work on the machine/unit.

1 About this document

1.2 Storage

1.2 Storage

The Operation Manual is part of the machine/unit and must be kept near the machine/unit at all times. Upon disposal of the machine/unit, the Operation Manual must also be handed over.

1.3 Name plate

The name plate is fixed near the power cable.

1.4 Abbreviations

TM	cutting knife, plain
TMG	cutting knife, with slots
TMC	cutting knife, coated

2 Safety instructions

2.1 Presentation of warnings

2 Safety instructions

2.1 Presentation of warnings

Warning notes in the Operation Manual warn against risks involved with the handling of the machine/unit. Risk levels are identified as follows:

**HAZARD!**

The signal word HAZARD identifies an imminent hazard resulting in serious injuries or death. This warning is supplemented by a triangular hazard symbol.

**WARNING!**

The signal word WARNING identifies a potentially hazardous situation, which might result in serious injuries or death. This warning is supplemented by a triangular hazard symbol.

**CAUTION!**

The signal word CAUTION identifies a potentially hazardous situation, which might result in light injuries. This warning is supplemented by a triangular hazard symbol.

**ATTENTION!**

The signal word ATTENTION identifies a potentially hazardous situation, in which the product or property in the environment may be damaged. This warning is supplemented by a hazard symbol or an exclamation mark.

2.2 Intended use

This machine is intended for industrial use; it is only suitable for cutting pneumatic and hydraulic hoses up to a specific permissible diameter, see “Technical Data” in Section 3.

Intended purposes include:

- Single user workplace for one person only
- Manual input and retrieval
- Operating temperatures between 5 °C and 40 °C
- Operation in a closed operation room
- The machine must not be operated by persons not capable of operating the machine without any risk. These may include:
 - persons with physical or mental disabilities;
 - children and persons under age;

2 Safety instructions

2.3 Product-specific risks


- persons with a restricted capability for the operation of machines (e.g. under the influence of drugs, alcohol or narcotics)

Use of the control in compliance with the intended purpose also includes compliance with the instructions in this Operation Manual.

Use for other than the intended purpose

Any other use is considered as being not in compliance with the intended purpose, in particular:

- Design modifications of the machine
- Use in explosive environments
- Use of impermissible cutting knives
- Cutting of inflexible workpieces
- misuse of consumables and waste materials.

WARNING!	
	<p>Risk for life and health!</p> <p>Use not in compliance with the intended purpose imposes risks for life and health. Consequences resulting from use for other than the intended purpose shall be under the sole responsibility of the owner.</p> <ul style="list-style-type: none">• Always use the machine in compliance with its intended purpose.

2.3 Product-specific risks

The machine/unit is designed in accordance with the latest state of technology. Nevertheless, the machine/unit may impose risks:

2.3.1 Risks imposed by mechanical equipment

Cutting risk

A cutting risk exists during cutting and when the cutting knives are replaced.

- Take care and wear cut-proof protective gloves when cutting and replacing knives.

2 Safety instructions

2.3 Product-specific risks

Risk of squeezing

There is a risk of squeezing on the moving parts.

Tilting hazard

The risk of tilting mainly exists while the machine is being transported.

- Observe the machine's centre of gravity during transport.

2.3.2 Risks imposed by electricity

There is a risk of electrocution near the live parts!

- Work on electric systems may only be performed by qualified electricians or instructed and trained persons under the supervision of a qualified electrician.
- Deactivate the machine/unit and secure it against unintentional restart before maintenance.

2.3.3 Risks imposed by noise

The noise level meter acc. to IEC 804, Class 2, was calibrated before measuring.

The operation of the machine causes noise emissions of 90 dB(A) at the workplace. Noise protection is required.

Higher noise emissions may occur when other machinery is simultaneously used at the workplace. The machine owner must provide for appropriate protection, e.g.

- instruct staff to wear ear protection;
- provide information/instructions on risks
- identify hazardous areas
- provide health monitoring

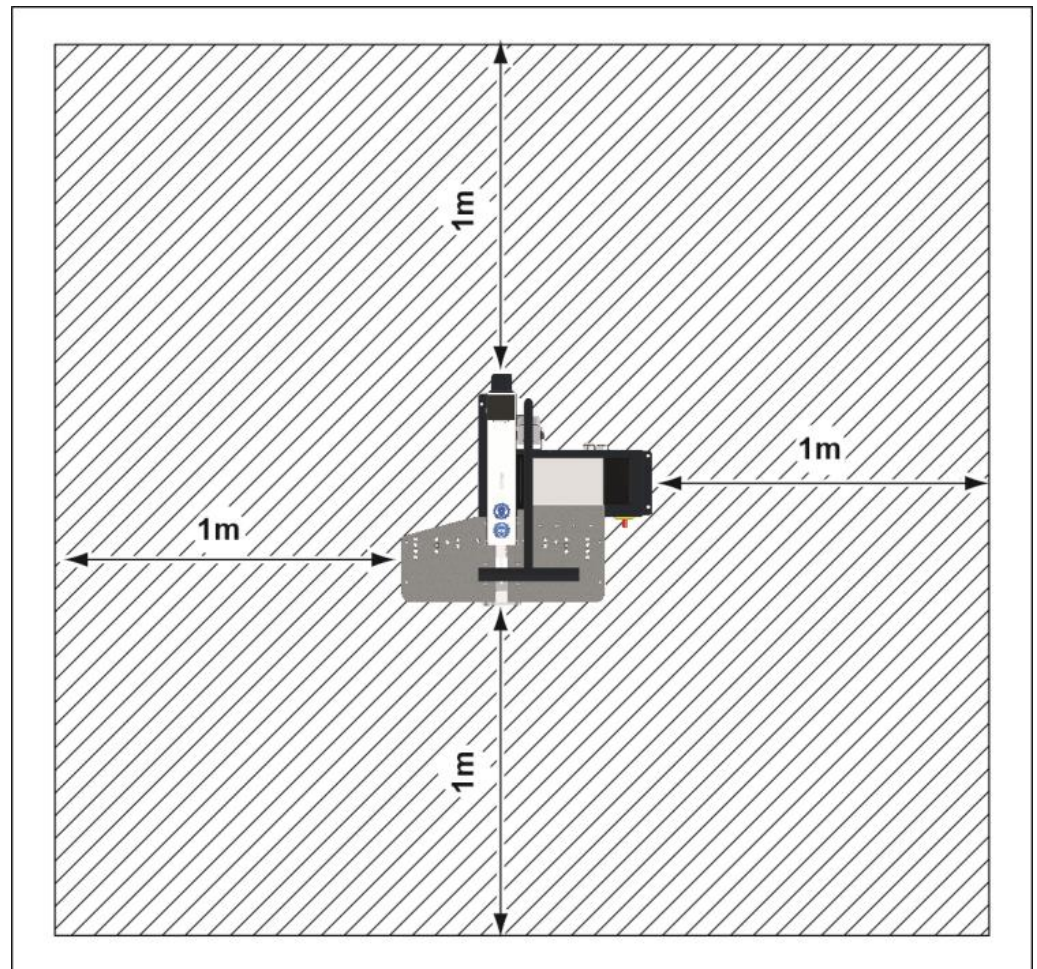
2.3.4 Risks in case of fire

The operating staff has to be familiar with the location as well as with operating the fire alarm and fighting means. Free access to this equipment must be ensured.

Use extinguishing powder in case of fire.

2.4 Safety

2.4.1 Working area



The working area is designed as the area 1 metre all around the machine (shaded).

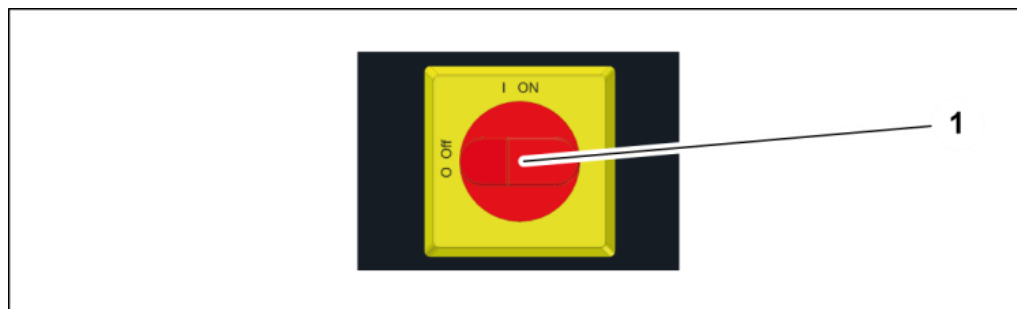
- Keep the working area free from trip hazards.
- Use ducts for lines and cables.
- Provide good illumination.

2.4.2 Emergency-stop

The machine is fitted with an emergency-stop button.

2 Safety instructions

2.4 Safety



Immediately activate the emergency-stop function (1) in cases of emergency.

Remedy the cause of the emergency stop first before re-starting the machine.

2 Safety instructions

2.4 Safety

2.4.3 Warning signs on the machine



Cutting risk
on the cutting knife



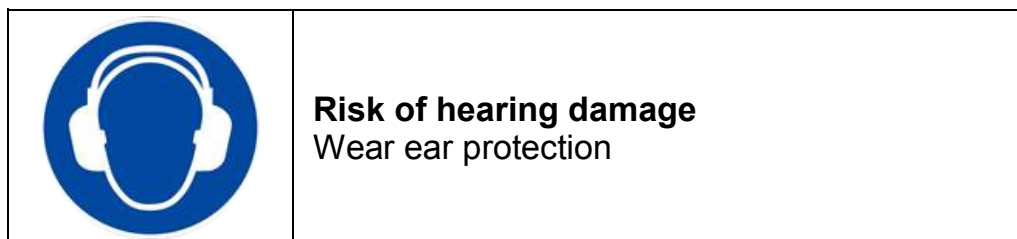
Danger from electric current
at the power supply line



Risk of eye injuries
Wear safety goggles

2 Safety instructions

2.4 Safety

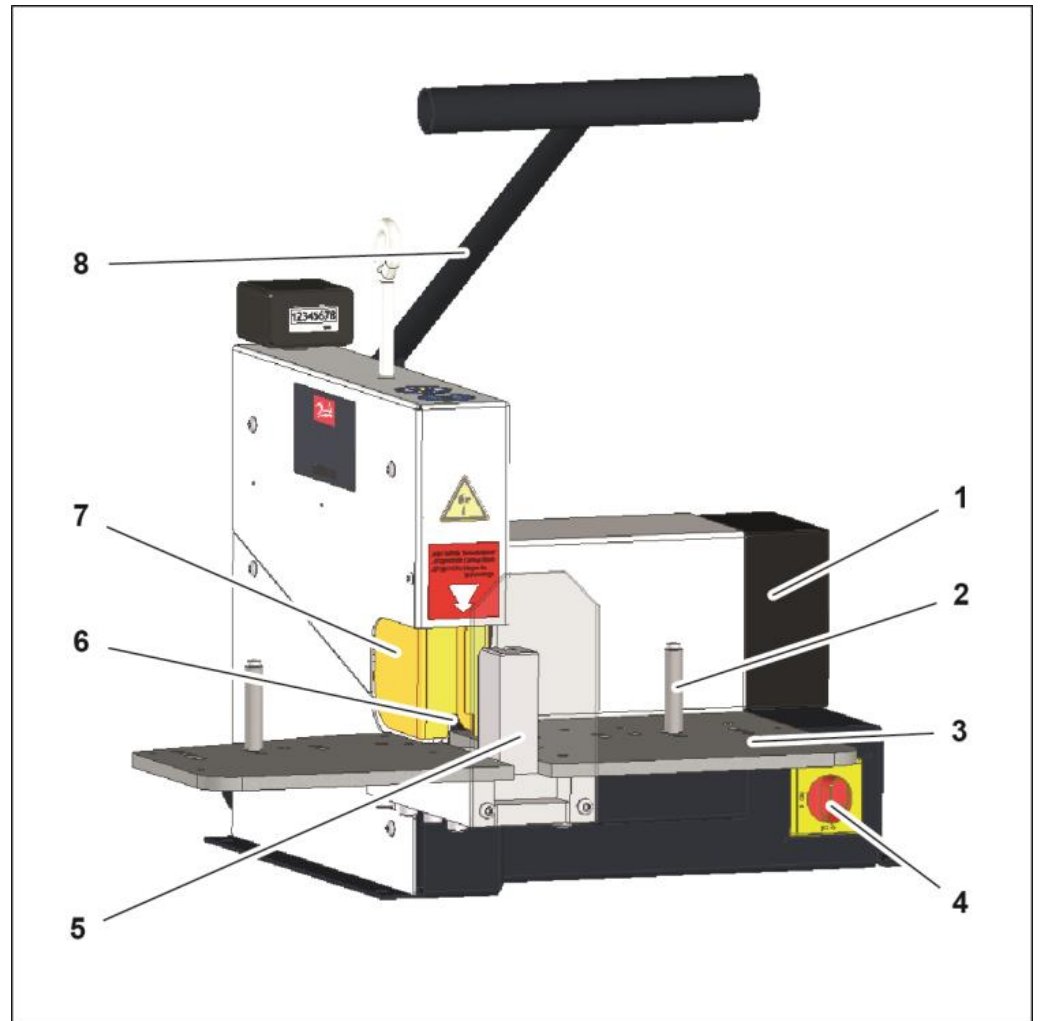


Illegible or missing warning signs must immediately be replaced by the owner.

3 Machine description

3.1 Design and function

Basic machine



- (1) Motor
- (2) Bending pin
- (3) Cutting plate
- (4) Main power switch
- (5) Feed fork
- (6) Knife (covered)
- (7) Knife protection (yellow)
- (8) Handle

3 Machine description

3.1 Design and function

The workpiece is positioned on the cutting plates (3) in front of the bending pins (3). During the cutting process, the handle (8) is moved downward, towards the cutting plate (3). During cutting, the feed fork (5) is moved forward by a chain drive and pushes the workpiece towards the knife (6). The knife is driven by the motor (1). Move the handle (8) back to the starting position after cutting; the feed fork will move back. The cut counter (option) counts the number of completed cutting processes and can be reset by activating the pushbutton.

Accessories

The machine may be fitted with accessories. A list of the available accessories is included in the Annex, Section "Accessories".

3 Machine description

3.2 Technical data

3.2 Technical data

Machine

Dimensions L x W x H	745 x 690 x 430 mm
Weight	approx. 75 kg
Noise level	80 dB(A)*
Protection class	IP 42
Operation mode	S6-60%

Function

Hose feed	Manual
Brake motor	Yes
Extraction connection	Ø 60 mm
Cutting knife EM 6.2	TM G 350 x 3 x 30 mm
Cutting knife EM 6.3	TM C 350 x 3 x 30 mm
Cut counter:	Optional

Workpiece capacity

Workshop SAE R13 & SAE R15	2"
Production SAE R13 & SAE R15	1 ¹ / ₄ "
SAE R12	2"
Industry	3"
Max. outside	Ø 95 mm

3 Machine description

3.2 Technical data

Electric connection

Connection power	4.6 kW
Connected voltage	400 V – 50 Hz – 3 Ph
Back-up fuse	20 A delayed
Short circuit current I_{k3p}	6,7 kA
Short circuit current I_{p3p}	9,7 kA
Full load current of circuit	16,5 kA
Full load current of control circuit (primary)	0,48 kA

Workbench

Solid, plane workbench with a carrying capacity of approx. 500 kg

We recommend industrial flooring meeting the following structural requirements

Permanent floor loading	Approx. 0.07 kg/mm ²
Floor carrying capacity	Min. 2500 kg/m ²
Floor quality	B25
Evenness	Max. unevenness 5 mm/m
Inclination	max. 5 mm/m

Ambient conditions

Ambient temperature	5 °C – 40 °C
Air humidity	45 % – 65 %

The *data are theoretical/computed values, or values measured on a prototype. Actual values may vary slightly, depending on the machine.

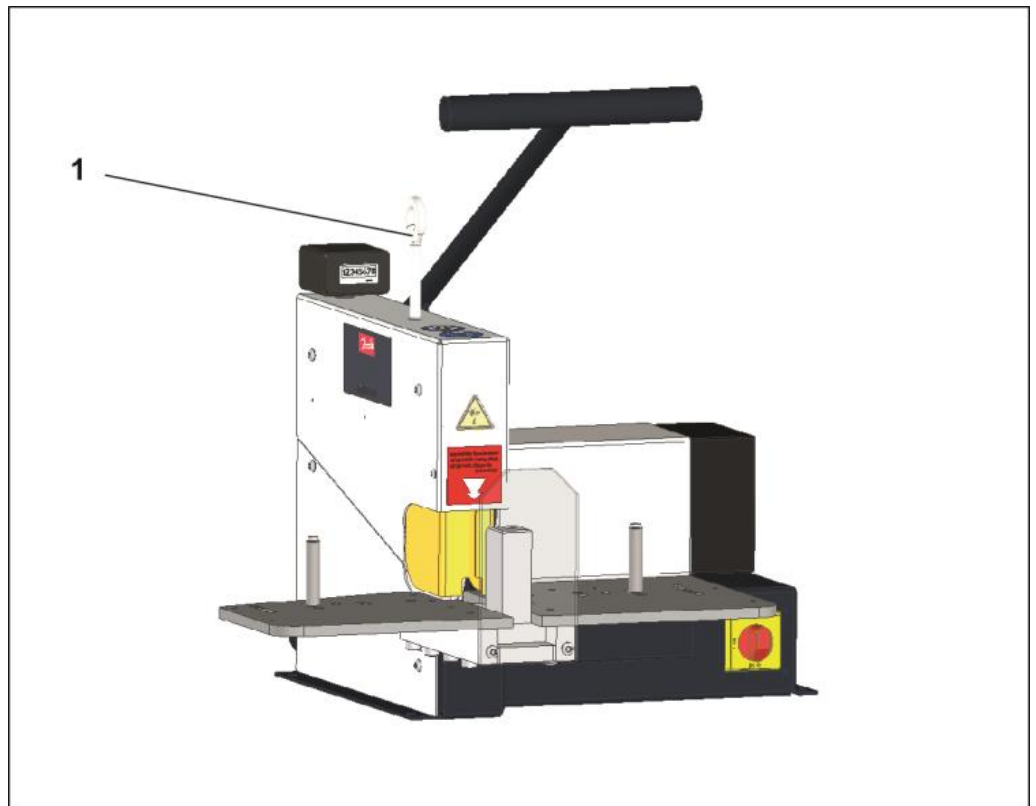
4 Transport and commissioning

4.1 Transport

4 Transport and commissioning

4.1 Transport

The goods should be transported in the original packaging. During transport, the goods must be secured safely within the packaging. All applicable laws and regulations relating to securing loads shall be observed during transport.



The machine may only be unloaded and transported by means of a lift truck or a crane. When a crane is used for transport, lifting gear with a sufficient length and lifting capacity has to be used. The lifting gear must be attached to the lifting lug (1). For machine weight, please refer to "Technical data" in Section 3.

4 Transport and commissioning

4.2 Intermediate storage of machine/unit

WARNING!



Danger from falling loads!

Risk of injury from falling loads.

- Do not stand under suspended loads.

WARNING!



Danger from tilting machine!

The machine may tilt if it is transported improperly. There is a risk of being injured.

- Only lift the machine at the designated points.

1. Lift the machine using the lifting lug (1) and transfer it to the installation site.

4.2 Intermediate storage of machine/unit

If the machine/unit cannot be mounted immediately upon delivery, it must be protected against:

- Contamination,
- Weather influences,
- Mechanical damage.

The machine/unit components may only be stored in closed rooms and under the following conditions:

- temperature between 10°C and 35°C,
- maximum air humidity 80% (non-condensating).

4.3 Commissioning

The machine is commissioned by the customer's fitter.

1. Place the machine hanging on the lifting lug on the optionally supplied table.
2. Position the cutting plate flush with the table edge.

4 Transport and commissioning

4.3 Commissioning

3. Bolt the machine on the bench.



Place the machine in a way so that it is easily accessible for maintenance work from all sides.

4. Check the machine for damage.
5. Check the electric cables for damage.
6. Train the operating staff and record training sessions in “Declaration of trained staff”, Section 9.

WARNING!



Risk of injuries!

Machine components might loosen during transport. Such components might be flung out during the cutting process. There is a risk of being injured.

- Perform a cutting process in idle mode and without a work piece.
- Check the machine for atypical noise.

4 Transport and commissioning

4.3 Commissioning

4.3.1 Extraction



1. Mount a metal hose for smoke and particle extraction to the extraction nozzle (1).



We recommend an extraction fan with 100 mm water column and a capacity of 4 m³/min, as well as a filter element and a spark separator suitable for this purpose.

4.3.2 Extraction process for TMC cutting knife

WARNING!



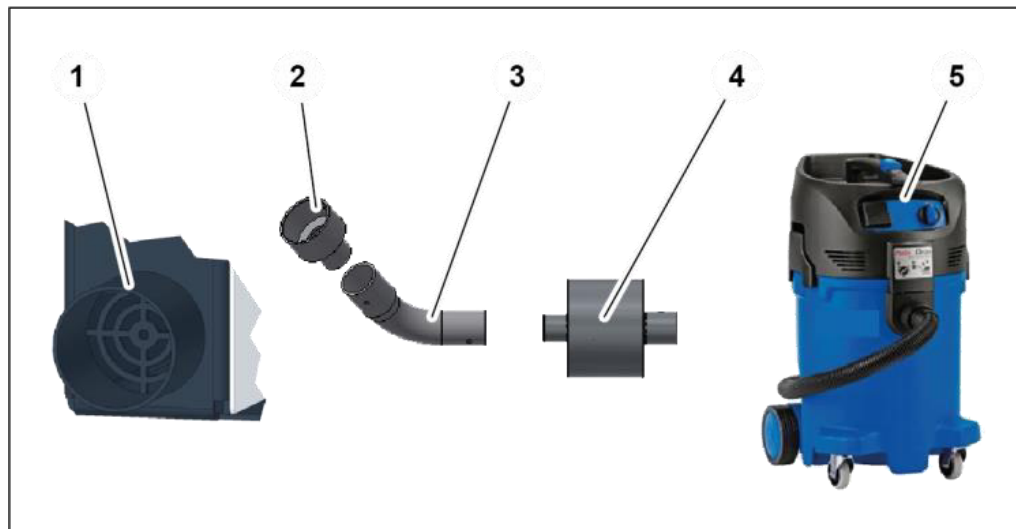
Risk of fire

During cutting, there is a risk for life and health due to the fire hazard from flying sparks.

- Only operate the machine with a spark extinguisher.
- Clean the machine and spark extinguisher after each use (see “Cleaning” in Section 5).

4 Transport and commissioning

4.3 Commissioning



1. Attach the adapter (2) to the extraction nozzle (1) of the machine.
2. Attach the angle adapter (3) to the adapter (2).
3. Attach the spark extinguisher (4) to the angle adapter (3).
4. Attach the metal hose to the spark extinguisher (4) and extraction device (5).



We recommend an extraction fan with 100 mm water column and a capacity of 4 m³/min, as well as a filter element suitable for this purpose.



Figures may include accessories/options. Customer-specific equipment may vary.
The product images shown are for reference only and may differ from the product delivered.

4 Transport and commissioning

4.3 Commissioning

4.3.3 Electrical connection

WARNING!



Risk by electrical voltage!

There is a risk of electrocution near the live parts!

- Work on electric systems may only be performed by qualified electricians or instructed and trained persons under the supervision of a qualified electrician.
- Do not operate the machine without a sufficiently rated ground wire.
- Deactivate the machine and secure it against unintentional restart before maintenance.

1. Disconnect the power supply for the machine and secure it against unintentional restart.
2. Have the power cable of the machine connected to the local mains by a qualified electrician according to the regulations of the Electricity Board.
3. Check the electric motor rotational direction according to the arrow. Exchange outer cable (phases) of the connection, if required.

ATTENTION!



Risk of damage to machinery!

Operating the motor in the wrong direction of rotation results in the loosening of the knife attachment.

- Ensure that the rotational direction of the motor is correct. Observe the red arrow on the motor cover.
- If the motor has been operated in the wrong direction of rotation, the securing nut and/or bolt has to be tightened as described in Section 6 "Knife replacement".

5 Operation

5.1 What you have to observe

5 Operation

5.1 What you have to observe

The operator has received the Operation Manual from the owner, has read and understood it and will observe it.

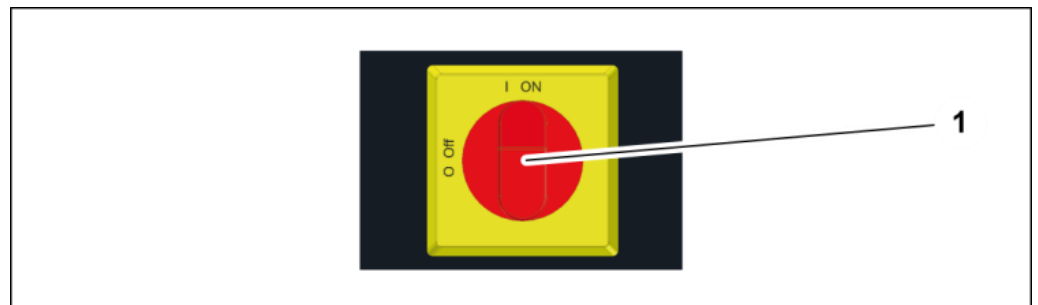
Before starting and/or re-starting

- Ensure sufficient illumination of the working area of the machine.

During operation

- Observe the safety instructions on the machine.
- Make sure that no other persons stay in the working area.
- Each movement of the hand must be observed.
- Eating, drinking and smoking at the workplace is prohibited.
- Wear close-fitting clothes.
- Do not wear watches or jewellery.

5.2 Start



1. Check that there is no emergency-stop situation.
2. Activate the main switch (1).

5.3 Work piece cutting

5.3.1 Prerequisites

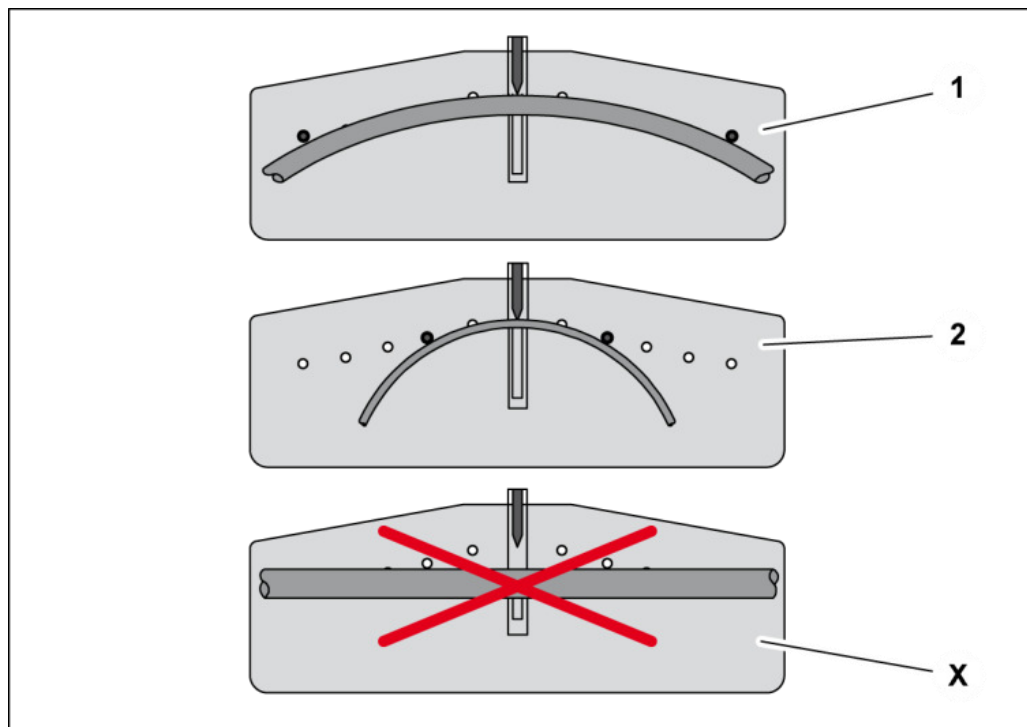
ATTENTION!



Damage to the machine

The knife may be damaged when the machine is operated without hose prestressing.

- Never cut without bending (X).
- Adjust the bending pin and the workpiece.



Prerequisites for a correct cutting process:


- The bending pin position and the hose diameter are matched to each other:
 - (1) Large hose diameter = large bolt distance
 - (2) Small hose diameter = small bolt distance
- The work piece must protrude over the two bending pins by at least 50 mm.

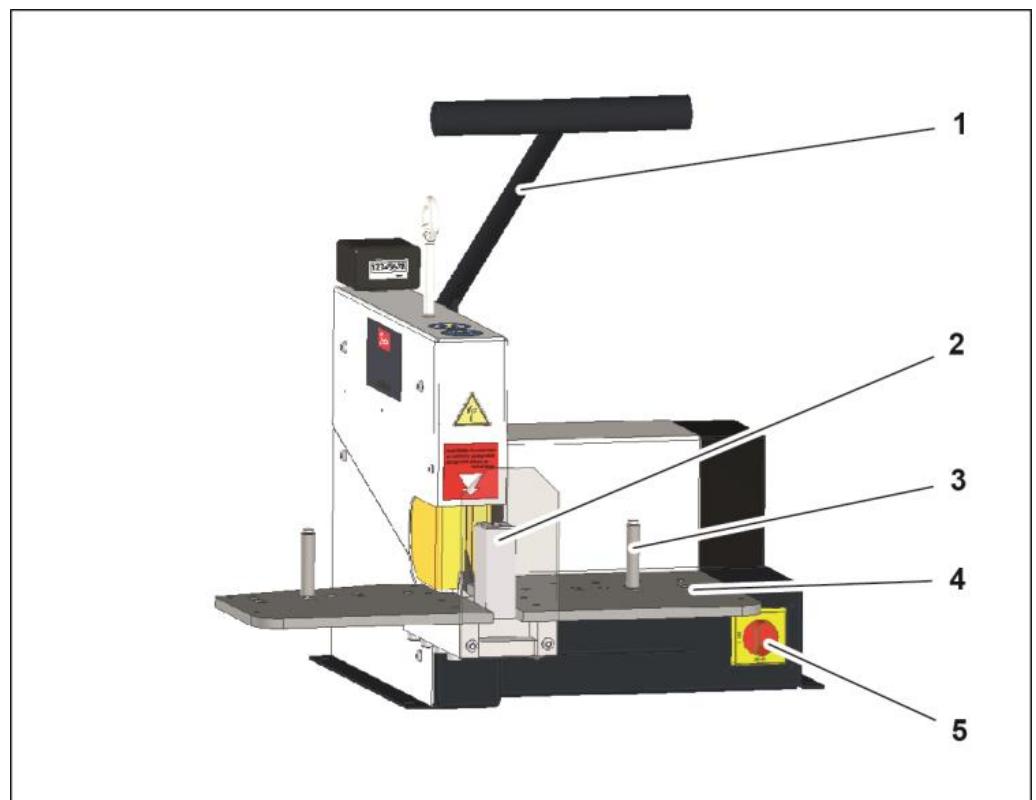
5 Operation

5.3 Work piece cutting

- The work piece must completely bear on the cutting plate.

5.3.2 Cutting individual hoses

WARNING!	
	<p>Cutting risk!</p> <p>There is a risk of cutting your extremities when cutting work-pieces.</p> <ul style="list-style-type: none">• Make sure that no extremities are between the feed fork and the knife protection when moving the handle.



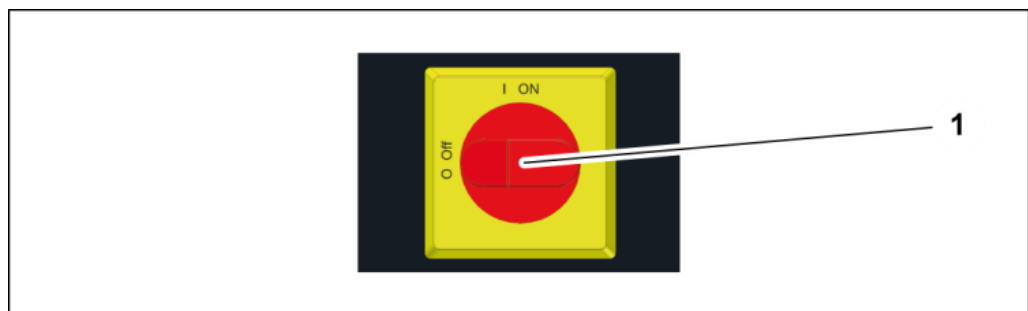
1. Attach the bending pin (3) at the appropriate location. The correct position is shown by the marks on the cutting plates (4).
2. Insert the hose manually.
3. Activate the machine at the main power switch (5).
4. Move handle (1) steadily, slowly towards the cutting plate.

5 Operation

5.4 Deactivation

5. The feed fork (2) moves forward.
The cutting process is completed.
6. Move handle (1) upwards to the starting position.
The feed fork (2) moves backward.
7. Deactivate the machine at the main power switch (5).
8. Remove the workpiece.

5.4 Deactivation



1. Complete the cutting process.
2. Deposit the workpiece outside the machine.
3. Deactivate the power switch (1).
4. Check the machine for contamination and outside damage.
5. Check the cutting knives for damage and cracks.
6. Remove dirt, dust and chips by using a vacuum cleaner.

WARNING!



Risk by bursting screens

Workpieces may penetrate porous screens, which may result in damage to the face and body.

- Check polycarbonate screens regularly and replace them at the specified intervals.



Polycarbonate screens are classified as wear parts by the Verein Deutscher Werkzeugmaschinenfabriken [German Machine Tool Builders' Association], since they lose their retention capacity due to environmental effects. Polycarbonate screens have to be replaced 5 years after the construction of the machine (see year of construction) at the latest.



Inform the fitter in case of damage or other irregularities.

5.5 Emergency stop

In case of emergency

In case of emergency, immediately deactivate the machine at the main power switch. The cutting process is stopped. The drive unit is shut down.

Restart after an emergency

WARNING!



Risk of injuries!

The emergency-stop button was probably activated due to the occurrence of a hazardous situation. A restart of the machine may cause injuries if the hazardous situation has not yet been remedied!

- Remedy the hazardous situation before a restart.

1. Remedy the cause of the emergency stop.
2. Restart the machine at the main power switch.

5.6 Overload protection

The motor is protected against overload by a motor protection switch.

After a motor overload, if any, let the motor cool down and restart it.

The restart protection prevents an unintentional restart of the machine. Starting the machine is only possible by activating the main power switch again.

5.7 Cleaning

WARNING!



Risk for life and health!

There is an acute risk of injuries when working in the danger zone of the cutting knife.

- Disconnect the machine from all energy sources and secure it against switching on unintentionally.
- Wear cut-proof gloves.

ATTENTION!



Risk of damage to machinery!

If the machine is cleaned with a steam jet or compressed air, dirt and water may ingress in the machine and cause serious damage.

- Do not use a steam jet to clean the machine.
- Do not use compressed air to clean the machine.

5.8 Cleaning

ATTENTION!



Risk of damage to machinery!

If the machine is cleaned with a steam jet or compressed air, dirt and water may ingress in the machine and cause serious damage.

- Do not use a steam jet to clean the machine.
- Do not use compressed air to clean the machine.

1. Use a vacuum cleaner or a soft cloth to clean the machine.
2. Loosen the five bolts on the cover plate, remove the plate and vacuum the hose feed guide.
3. Remount the cover plate.

5 Operation

5.8 Cleaning

6 Maintenance

6.1 What you have to observe

6 Maintenance

Regular maintenance will ensure the continuous operation reliability of the device.

6.1 What you have to observe

This Section describes action to be taken by you as the fitter regularly to ensure the troublefree use of the machine/unit.

- Maintenance work may only be performed by qualified maintenance staff (machine/unit fitters).
- Repair work on the machine/unit or components may only be performed by appropriately qualified expert staff or UNIFLEX experts!
- The machine/unit must always be deactivated during maintenance work (see "Deactivation" in Section 5). Use the lock to prevent the main switch from being switched on and also attach a sign. Example text:

Machine/unit out of service for
maintenance work!
Do not switch on!

- Welding, flame-cutting and grinding work on and in the machine/unit and its environment must be approved in advance. There is a risk of fire. The machine/unit must be cleaned from dust and inflammable substances. Adequate ventilation must be ensured.

6.2 Maintenance schedule

If not specified otherwise, inspections listed in the maintenance schedule are visual inspection. Replace defective parts.

If you work in 2 shifts, the check frequency has to be doubled. If you work in 3 shifts, you proceed as with 2-shift operation.

Record maintenance work performed in the maintenance log.

6 Maintenance

6.2 Maintenance schedule

Maintenance item	Weekly	Monthly	Number of years
Cutting tool			
Check cutting knife for sharpness, cracks and breakouts; resharpen or replace the knife. Coating: To be checked (only TMC cutting knife).	X		
Bolted connections: To be checked and retightened, if required.		X	
Machine: To be cleaned.		X	
Extraction line: To be cleaned.			1
Safety equipment			
Knife protection: To be checked for function Press the knife protection on the outside edges towards the motor with both thumbs wearing cutting protection gloves. There must be a significant resistance.	X		
Warning signs on machine: Check legibility (see "Warning signs on the machine" in Section 2).		X	
Motor brake: To be checked for function and readjust, if required (see "Motor brake readjustment", Section 6).		X	



The replacement of wear parts must be recorded in the maintenance log!

6.3 Knife replacement

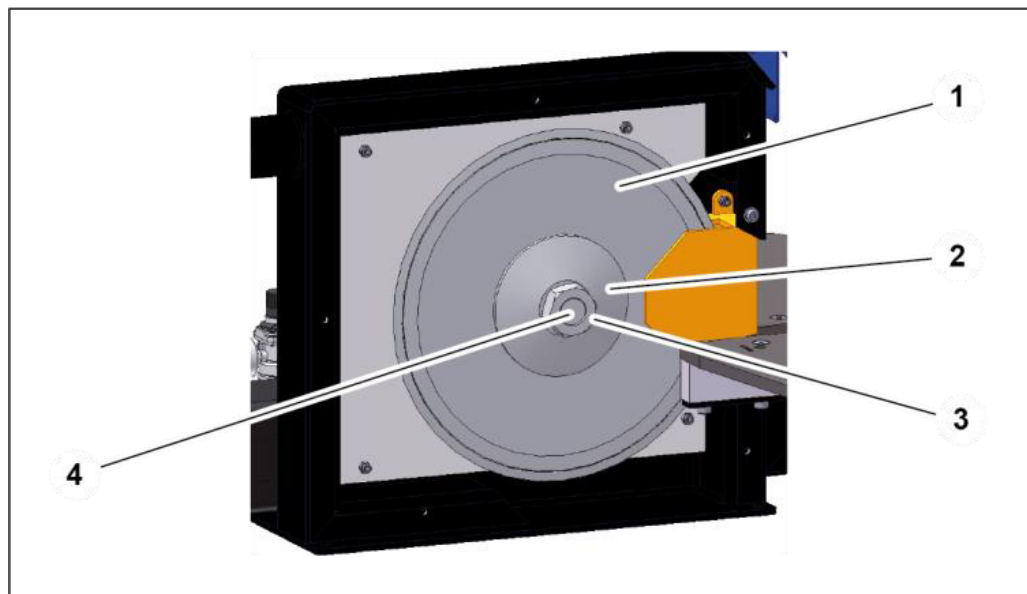
WARNING!



Cutting risk!

Knife replacement imposes a significant risk of injuries to the hands.

- Always wear cut-proof gloves when replacing the knives.



1. Complete the cutting process.
2. Deposit the workpiece outside the machine.
3. Disconnect the machine from the power supply.
4. Loosen the five bolts on the cover plate.
5. Remove the cover plate.
6. Hold the shaft (4) with a hexagon socket wrench and release the nut (3) using an open-end wrench.



The nut, size 46, is a left-hand thread type!

6 Maintenance

6.4 Motor brake readjustment

7. Remove the knife (1) and the washer (2) from the axle and position them carefully.
8. Mount a new cutting blade- observe cutting direction.
9. Position the washer (2) and tighten the nut (3).
10. Remount in the reverse order.

ATTENTION!



Risk of damage to machinery!

If the directions of rotation of the motor and the knife do not match, there is a risk that the knife will be destroyed during cutting.

- Check the direction of rotation before starting the machine.

6.4 Motor brake readjustment

Due to wear on the brake linings, the braking effect of the motor brake may decrease over time.

In this case, the brake has to be readjusted. If the brake cannot be readjusted anymore, the brake linings are worn and must be replaced.

WARNING!



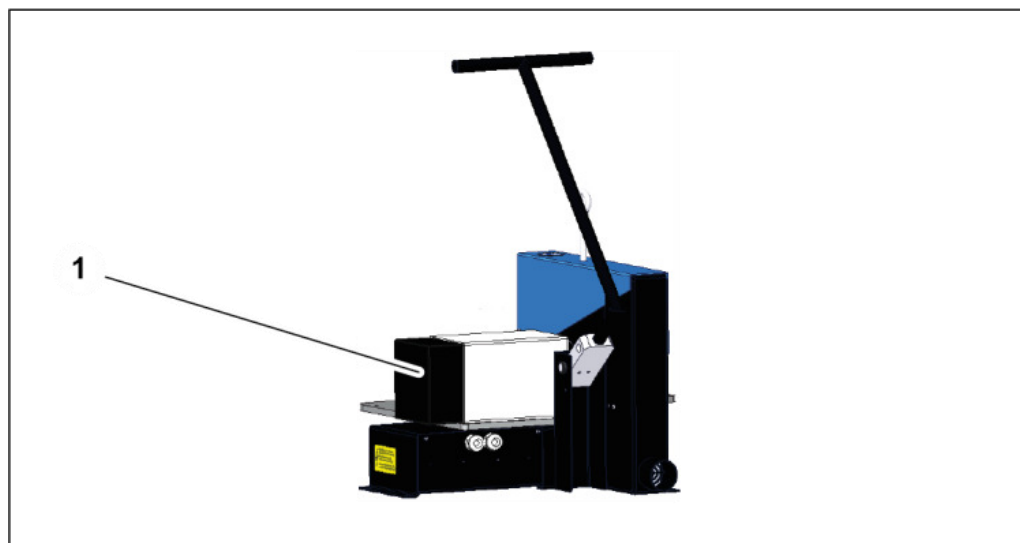
Risk of injuries

The motor brake is a major safety element of the machine. For this reason, the machine must in no event be operated without any functional motor brake and only with mounted fan runner cover.

- Check and readjust the motor brake regularly.
- Do not continue using the machine if the brake is defective.

6 Maintenance

6.4 Motor brake readjustment



The motor brake is located behind the black plastic cover (1) on the motor.

1. Deactivate the machine on the power switch and secure it against unintentional restart.
2. Remove nuts on the plastic cover and remove the plastic cover.
3. Block the shaft using a hexagon key and turn the adjusting nut to the right using an open-end wrench.
4. Reposition the plastic cover and check the brake function.
5. If the braking effect is insufficient, repeat the process.

WARNING!



Hot surface - risk of burns

The brake may become very hot. There is a risk of burns.

- Check the temperature carefully.

6. Let the motor run for 1 minute after adjusting the brake and then check the temperature on the adjusting nut.
If the brake is hot, the adjustment has to be corrected.
7. Turn the adjusting nut to the left by 30°.
8. Check the braking effect and the temperature again.
9. Remount the plastic cover and tighten the nuts.

6 Maintenance

6.4 Motor brake readjustment



If the problems with the brake continue, immediately contact the manufacturer.

7 Troubleshooting

6.4 Motor brake readjustment

7 Troubleshooting

Error	Cause	Remedy
Machine does not cut	Switch "OFF"	Activate switch
	Power plug defective	Check power plug and replace, if required
	Motor defective	Contact Service desk
	Cutting knife worn	Check cutting knife for wear and replace, if required
Knife not centred	Flange disc is not positioned correctly on the feather key	Turn flange disc and insert it into the feather key.

8 Decommissioning, disposal

WARNING!



Risk by electrical voltage!

There is a risk of electrocution near the live parts!

- Shut down the machine/unit.
- Disconnect the machine/unit from the power supply.

CAUTION!



Risk of injuries!

Contact with consumables, e.g. oils, greases, test media, imposes a risk of injuries for the skin, eyes, respiratory and intestinal tracts!

- Observe supplier's protection and safety instructions (see data sheet).
- Wear personal protection equipment.
- Do not eat, drink or smoke in the working area and when handling consumables.
- Ensure good ventilation.

8.1 Dismantling

This section describes activities to be performed by you as the operator to ensure the safe dismantling of the machine/unit.

- The machine/unit may only be dismantled by entrusted and qualified staff.
- Check the machine/unit for mechanical tension and consider it during dismantling.

8.2 Recycling

The machine/unit contains metal, hydraulic hoses, electric cables and electronic components, depending on the type.

As regards disposal, the applicable national environmental protection and waste disposal regulations have to be complied with.

8.3 Consumables and waste

Observe applicable national environmental protection and waste disposal regulations.

Return consumables, e.g. oils, greases, test media, to supplier - they are hazardous waste. Also observe the information given on the safety data sheet.

9 Annex

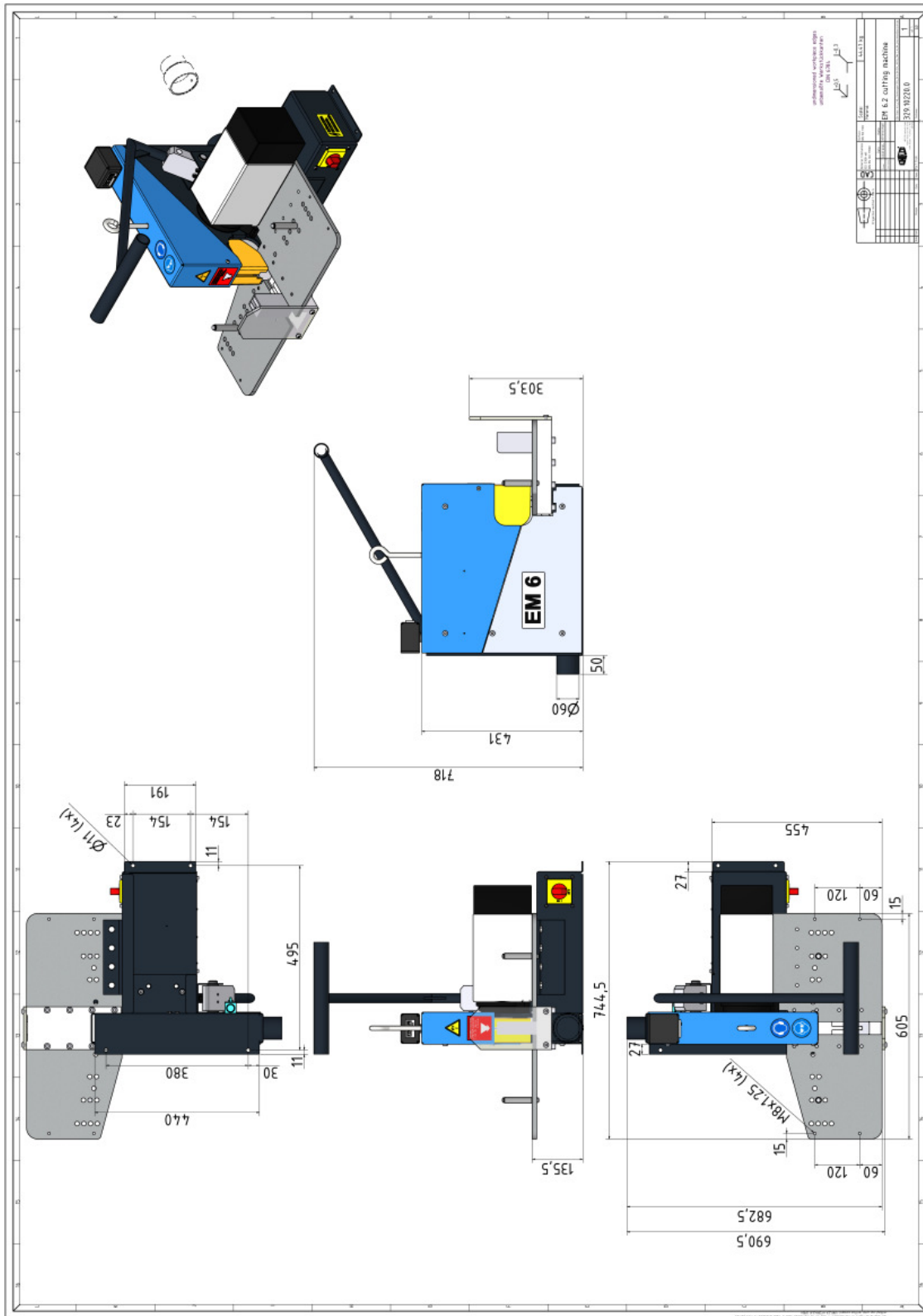


Individual machine/unit components may deviate in their features. Please indicate the serial number of the machine for spare part orders.

9.1 Machine overview

9 Annex

9.1 Machine overview



9 Annex

9.2 Accessories (upgradable)

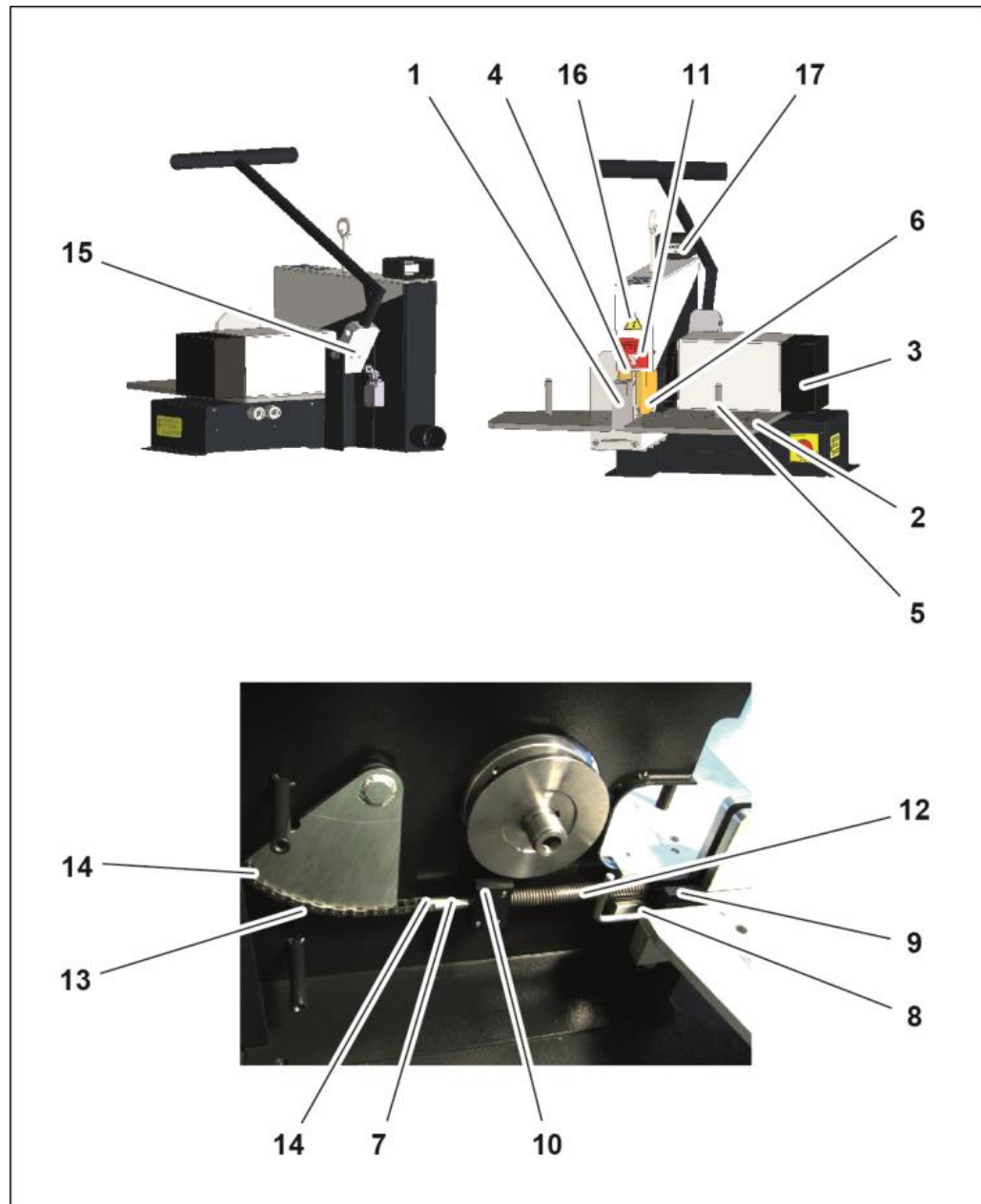
9.2 Accessories (upgradable)

Accessories	Article code
Hose guide, 2000 mm	UHG 14
Extension, 1000 mm	UHG 14 EXT
Suction system	UVC S36
Hose length measuring device	UMS 4
Spark quencher (standard with EM6.3)	330.050
Vacuum adaptor (standard with EM6.3)	777.055
Bench	TU
Cutting knife with inclined slots (standard with EM6.2)	TM G 350 x 3 x 30
Cutting knife, coated (standard with EM6.3)	TM C 350 x 3 x 30
Batch counter set	329.1
Suction filter system	UVC 100.2 MVA FSD

Please contact our Sales department for ordering optional accessories.

9.3 Spare parts list

9.3.1 Mechanical equipment



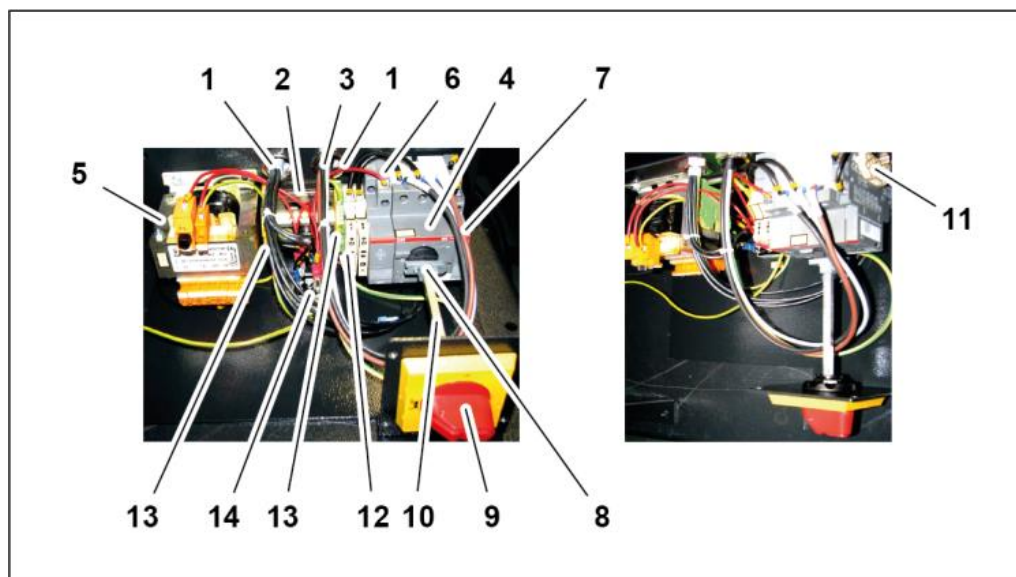
Item	Quantity	Part code	Designation
1	1	328.010.4	Feed fork
2	2	328.012.3	Cutting plate
3	1	320.111	Brake motor
4	1	329.009.4	Macrolon disc

9 Annex

9.3 Spare parts list

Item	Quantity	Part code	Designation
5	1	304.2001	Set of bending pins
6	1	328.014.3	Knife protection
7	1	329.017.3	Tension rod
8	1	329.030.3	Hose feed
9	2	329.053.4	Guiding piece
10	1	329.020.4	Stop
11	1	329.025	Auto-spring
12	1	304.021	Pressure spring
13	1	329.019	Roller chain
14	2	329.042	Locking link
15	2	798.050010	Sleeve
16	1	329.040.4	Sticker EM6
17	1	329.1	Cut counter (optional)

9.3.2 Electric equipment



Item	Quantity	Article code	Designation
1	2	52015740	Bolted connection + strain relief
2	1	8.11.240	Mounting rail 240 mm
3	1	232.040	Power cable
4	1	8.06.002	Motor protection switch

9 Annex

9.3 Spare parts list

Item	Quantity	Article code	Designation
5	1	800.021	Safety transformer
6	1	888.113	Undervoltage release:
7	1	888.114	Auxiliary switch
8	1	888.115	Carrier
9	1	888.116	Turning handle
10	1	888.118	Axle
11	1	800.023	End supports
12	2	800.022	Fuse terminal
13	2	800.084	Protective conductor terminal
14	1	322.400	Rectifier
No figure	1	530.217	Fine wire fuse

9.3.3 Wear parts

Quantity	Part code	Designation
1	TM G 350x3x30	Cutting knife with inclined slots
1	TM C 350x3x30	Cutting knife, coated
1	320.118	Spare brake Soga (see motor nameplate)
1	320.116	Spare brake Seimec (see motor nameplate)
1	329.009.4	Macrolon panel
1	300.200.1	Set of bending pins

9.4 Electric diagram

9 Annex

9.6 Declaration of qualified staff

9.6 Declaration of qualified staff

I herewith declare that I have attended an internal training for the operation of the UNIFLEX machine and have been informed on all safety-related details. In addition I declare that I have read and understood this Operation Manual completely.

City	Date	Name	Signature
City	Date	Name	Signature
City	Date	Name	Signature
City	Date	Name	Signature
City	Date	Name	Signature
City	Date	Name	Signature

9 Annex

9.6 Declaration of qualified staff

9 Annex

9.6 Declaration of qualified staff

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