

Operating instructions

Pipe Cutter

- SCORP 170**
- SCORP 170e**
- SCORP 220 Plus**
- SCORP 360**



Machine No.:

.....
.....

Translation of
original operating instructions
Code 790 014 762 | EN

TABLE OF CONTENTS

1.	About these instructions	4	9.	What to do if ...?	22
	1.1 Warning messages	4		9.1 Problem solving	22
	1.2 Further symbols and displays	4		9.2 Servicing/after-sales service	22
2.	Safety instructions	5	10.	EU declaration of conformity	23
	2.1 Intended Use	5			
	2.2 Safety regulations	6			
	2.3 Working with safety in mind	6			
	2.4 Waste disposal / environmental protection	7			
	2.4.1 Electric tools and accessories	8			
	2.5 Further safety regulations	8			
3.	Construction of the product	9			
	3.1 Machine	9			
	3.2 Accessories	10			
4.	Characteristics and range of applications	11			
	4.1 Characteristics	11			
	4.2 Range of applications	11			
	4.2.1 Working range	11			
	4.2.2 Application range SCORP 360 with TCT saw blades	11			
	4.2.3 Pipe materials	12			
5.	Technical Data	13			
	5.1 Machine	13			
6.	Commissioning	14			
	6.1 Checking the parts of delivery	14			
	6.2 Included with the machine	14			
	6.2.1 SCORP 170(e)	14			
	6.2.2 SCORP 220 Plus	14			
	6.2.3 SCORP 360	14			
	6.3 Transport	14			
7.	Operation	15			
	7.1 Connection to the mains power supply	15			
	7.2 Precise setting of the cutting point	15			
	7.3 Setting the pipe on supports	16			
	7.4 Attaching the SCORP to the pipe	16			
	7.5 Piercing the pipe wall	17			
	7.6 Sawing around the pipe	18			
	7.7 Overload protection and spin-speed regulator	19			
	7.7.1 Overload protection	19			
	7.7.2 Spin-speed regulator	19			
	7.8 Straightness of cut and control wheel	19			
	7.8.1 SCORP 170(e)	19			
	7.8.2 SCORP 220 Plus SCORP 360	19			
	7.9 Installing and changing the saw blade	20			
8.	Maintenance	21			

1. ABOUT THESE INSTRUCTIONS

To allow quick understanding of these instructions and safe handling of the machine, all the warning messages, notes and symbols used in these instructions are presented here along with their meaning.

1.1 Warning messages

In these instructions, warning messages are used to warn you against the dangers of injury or material damage. Always read and observe these warning messages!



This is a warning symbol. It should warn you against dangers of injury. Follow all instructions which are identified with this safety symbol in order to avoid injuries or death.

Warning symbol Meaning



DANGER

Direct danger!
Non-observance could result in death or critical injury.
⊖ Restrictions (if applicable).
▶ Measures to prevent danger.



WARNING

Possible danger!
Non-observance could result in serious injury.
⊖ Restrictions (if applicable).
▶ Measures to prevent danger.



ATTENTION

Dangerous situation!
▶ Non-observance could result in minor injuries.

ATTENTION

Dangerous situation!
▶ Non-observance could result in material damage.

1.2 Further symbols and displays

Symbol

Meaning

IMPORTANT
NOTE

Notes: Contain particularly important information for comprehension.



Instruction: You must take notice of this symbol.

1.

Request for action in a sequence of actions: You have to do something here.



Single request for action: You have to do something here.



Conditional request for action: You have to do something here if the specified condition is met.

2. SAFETY INSTRUCTIONS

The Pipe Cutter SCORP is built to state-of-the-art technology. Using this machine in a manner other than that described in this manual can lead to personal injuries to the user or of third parties. Furthermore, the machine or other objects may be damaged.

Therefore:

- Always ensure that the machine is in good working order and comply with these notes on safety.
- Keep complete documents close by the machine.
- Generally recognized procedures for the prevention of accidents should be observed.

2.1 Intended Use

- Use the SCORP exclusively for cutting of pipes.
- The user will be the only person liable for damages caused by improper use.

The SCORP must never be used in the following cases, if:

- There is water or another liquid, explosive gases or poisonous chemicals inside the pipe to be cut.
- The power switch is faulty.
- The power cable is faulty,
- The blade is bent.
- The blade is blunt or in poor condition.
- The plastic components are cracked or have parts missing.
- The gripper unit is not properly tightened around the pipe or if it is warped.
- The blade guard cover or moving blade guard has been damaged or removed from the machine.
- The locking mechanisms do not work properly (UNLOCK-button).
- The SCORP has become wet.



When using the SCORP, the following factors must always be taken into consideration:

- Ensure that the pipe to be cut is empty.
- Ensure that the blade is correctly installed.
- Ensure that the diameter and thickness of the blade are suitable for the pipe saw and that the blade is suitable for the rpm-range of the machine.
- Never use sideways force to stop the blade, always allow the blade to stop freely.
- Check the attachments of the blade guards.
- Never use excessive force when using the pipe saw.
- Never use the pipe saw to lift the pipe while it is still attached to the pipe.
- Avoid overloading the electric motor.
- Always follow the safety and operating instructions and current regulations.

2.2 Safety regulations

- Only use the dimensions and materials specified in these instructions.
- Other materials should only be used after consulting the Orbitalum Tools customer service department.
- Only use authentic Orbitalum Tools saw and cutting blades, spare parts and materials.
- Check the SCORP daily for any externally visible damages or defects. Have any damages or defects repaired immediately.
- Work on the electrical equipment should only be carried out by a qualified electrician.
- Pull out the mains plug before carrying out a tool change or maintenance and repair work.

2.3 Working with safety in mind

"Make your contribution to safety in the workplace."

- **Electrical safety**
The electric motor is designed to be used at the specified voltage only. It can be loaded intermittently for 2.5 min during a 10 min time span (S3 25 %). Always check that the power supply corresponds to the voltage stated on the rating plate. The SCORP is double insulated as required by standard EN 60745-1. Do not take the SCORP out in the rain. Never use it in wet or damp conditions.
- **Use ear protectors**
When working with various materials, the sound level may vary and at times exceed the 85 dB (A) limit. Always use ear protectors to protect yourself.
- **Use safety goggles**
Always use safety goggles to prevent injury to your eyes from particles thrown up when using the pipe saw.
- **Use safety gloves**
Always use safety gloves as the edges of cut pipes are sharp and can cause cuts.
- **Keep the work area tidy**
An untidy work area can be hazardous and may cause an accident.
- **Pay attention to where you are working**
Do not take the pipe saw out in the rain. Never use it in wet or damp areas. Ensure that the working area is well lit. Never use the pipe saw near flammable liquids or gases. If the pipe saw does get left out in the rain or gets wet in some other way, have it serviced by an approved service agency.
- **Protect yourself from electrical shocks**
Avoid coming into contact with objects that conduct electricity, such as pipe systems, heating radiators, cookers, washing machines, and refrigerators.
- **Keep the pipe saw away from children**
Keep children away from the pipe saw and its extension cable. Children under 16 years old must be supervised.
- **Store the pipe saw correctly**
Always store the pipe saw with the motor unit in the upright position. When you are not using the pipe saw, keep it in a dry place. Ensure that the storage place is locked and high enough to be out of the reach of children.
- **Do not overload the pipe saw**
Using too great a cutting force or too high a pipe-cutting speed can overload the machine. Always arrange sawing so that when you cut through the pipe it cannot close in on the sawn gap and clamp onto the blade. The machine works at its best and safest when it is used the way for which it was designed.
- **Dress suitably**
Do not use clothing that is too loose or jewellery when using the pipe saw as they could get caught on moving parts of the machine. When working outdoors use rubber gloves and non-slip shoes. If you have long hair, use a hairnet.
- **Ensure that your work environment is safe**
Ensure that no one else is working close to you and that there are no objects that could be damaged by your work.
- **Do not damage the power cable**
Never carry the pipe saw by its power cable. Do not pull the plug from the socket by pulling on the cable. Protect the power cable from heat, oil, and sharp edges.



- **Attach the pipe saw correctly**
Always ensure that the gripper unit on the pipe saw is firmly attached on the pipe that is going to be sawn.
- **Do not stoop over your work**
Always stand maintaining a firm steady stance when using the pipe saw.
- **Take proper care of the pipe saw**
Keep the pipe saw clean and only use sharp blades. Always follow the servicing instructions and the instructions for changing the blade. Check the condition of the power cable regularly and have it changed by a qualified electrician if necessary. Also regularly check the condition of the extension cable you use and replace it if necessary. Keep the pipe saw's handle dry and clean from oil and grease.
- **Take the plug out of the socket**
Always disconnect the power to the pipe saw by removing the plug from the socket when the pipe saw is not in use, when you change the blade, or when you service it. Always remove the plug from the socket before removing the blade guard.
- **Avoid unintentional starting**
Never carry the pipe saw with your finger on the power switch while the saw is connected to its power supply. Check that the power switch is in the off position and the motor is in the upright position before putting the plug into a socket.
- **Extension cables outside**
When you work outdoors, always use an extension cable that is made and approved for outdoor use.
- **Be alert**
Concentrate on your work. Use common sense. Do not use the pipe saw when you are tired or drowsy. Never use the pipe saw under the influence of alcohol or drugs.
- **Use the right tool**
Never use a low-power tool or accessory for work that requires a high-powered tool. Never use the pipe saw for purposes for which it is not intended.
- **Remove the key**
Check that the blade key has been removed before starting the pipe saw.
- **Accessories**
Only use additional accessories and equipment recommended by the manufacturer. The use of another manufacturer's accessories may cause an accident.
- **Check for damaged parts**
Before using the pipe saw, check that: all of its components are in good condition, are correctly installed and that all moving parts operate correctly. Always check the attachments of the blade guard. Also check that everything else that can affect operation is in good condition. Never use the pipe saw if the power switch does not operate properly or if the cable is damaged. A damaged part should be repaired or replaced with a new one at an approved service agency.
- **Have your machine repaired at an approved service agency**
Your retailer will give you a list of approved service agencies. For safety reasons, only approved service agencies may service or change the machine's electrical components.
- **Do not cut pipes containing asbestos**
Asbestos is considered to be carcinogenic substance.
- **Check the blade**
Use only correct blades in good condition, which are suitable for the material to be cut, for the pipe size and for the speed of the saw.

2.4 Waste disposal / environmental protection

Dispose of chips and used gear lubricant oil according to the regulations.

2.4.1 Electric tools and accessories

Discarded electric tools and accessories contain a large share of valuable raw and synthetic materials which can be recycled. Therefore:

- Electrical (electronic) devices which are marked with the symbol to the left, may not be disposed of with household waste in accordance to the EU directive 2002/96/EC.
- By actively using the offered return and collection systems, you actively contribute to the reuse, recycling and utilization of electrical (electronic) devices.
- Electrical (electronic) used devices contain parts which must be handled selectively according to the EU directive. Separate collection and selective treatment is the basis for environment-friendly disposal and the protection of human health.
- Our products that were sold to you after August 13th, 2005 are taken back and treated according to legal standards. These products have to be send free of charge.
- The return of used devices which pose a health or safety risk for human beings due to soiling during use may be refused.
- The legally compliant disposal of electrical (electronic) devices that were placed on the market before August 13th, 2005 are in the responsibility of the end-user.



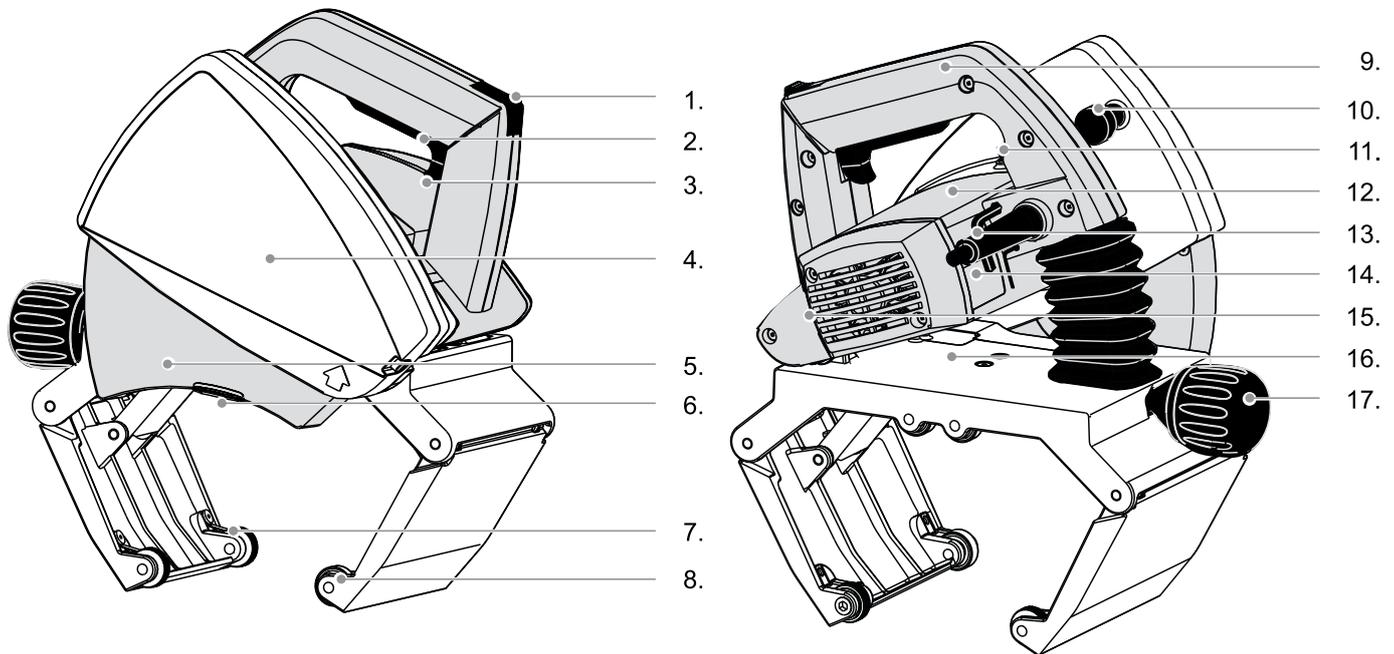

(RL 2002/96/EC)

2.5 Further safety regulations

Observe country-specific regulations, norms and guidelines.

3. CONSTRUCTION OF THE PRODUCT

3.1 Machine



- 1. UNLOCK button
- 2. Power switch
- 3. Power-switch locking lever
- 4. Blade-guard cover
- 5. Moving blade-guard
- 6. Edge of moving blade-guard
- 7. Braking wheels
- 8. Adjusting wheel (not in all models)
- 9. Operating handle
- 10. Blade-guard finger screw
- 11. Spindle-lock button
- 12. Motor unit
- 13. Blade key and (key for the adjusting wheel)
- 14. Rating plate
- 15. Overload protection and rpm regulator*
- 16. Gripper unit
- 17. Gripper adjustment handle

* only with SCORP 170e

3.2 Accessories

Survey	Saw blade TCT*	Saw blade TCT*	Cutting blade DIAMOND	Cutting blade DIAMOND	Saw blade CERMET
					
Code	790 014 055*	790 014 058*	790 014 057	790 014 059	790 014 056
for SCORP 170(e)	*	–	*	–	*
for SCORP 220 Plus	*	–	*	–	*
for SCORP 360	*	*	*	*	*
Blade-Ø [mm]	140 x 62	155 x 62	140 x 62	155 x 62	140 x 62
Blade-Ø [inch]	5.5 x 2.4	6.102 x 2.4	5.5 x 2.4	6.102 x 2.4	5.5 x 2.4
Saw blade thickness [mm]	1.5 - 2	1.5 - 2	1.5 - 2	1.5 - 2	1.5 - 2
Saw blade thickness [inch]	0.06 - 0.08	0.06 - 0.08	0.06 - 0.08	0.06 - 0.08	0.06 - 0.08
Saw blade cutting width [mm]	2.0	2.0	2.0	2.0	2.0
Saw blade cutting width [inch]	0.08	0.08	0.08	0.08	0.08
Pipe materials	Aluminum, steel, copper, all plas- tics, composed pipes	All plastics	Cast / ductile iron	Cast / ductile iron	Stainless steel

* Application range SCORP 360 with TCT saw blades, see chap. 4.2.2, p.11.

4. CHARACTERISTICS AND RANGE OF APPLICATIONS

4.1 Characteristics

The SCORP is designed for easy cutting of pipes on-site and has the following features:

- Efficient and light hand held machine
- Quick cutting of pipes
- Large operating and dimension range
- Suitable for spigot and socket joints
- Reduction of tooling costs
- Economical.

4.2 Range of applications

4.2.1 Working range

Machine type		SCORP 170	SCORP 170e	SCORP 220 Plus	SCORP 360
Pipe OD	[mm]	15 - 170	15 - 170	20 - 220	75 - 360
	[inch]	0.591 - 6.693	0.591 - 6.693	0.800 - 8.660	2.950 - 14.170
Wall thickness with steel, max.	[mm]	6	8	8	8
	[inch]	0.236	0.315	0.315	0.315
Wall thickness with plastic, max.	[mm]	14	14	10	27.9
	[inch]	0.551	0.551	0.394	1.098

4.2.2 Application range SCORP 360 with TCT saw blades

Plastic pipe OD		Saw blade Ø 140 mm/5.512 inch max. wall thickness		Saw blade Ø 155 mm/6.102 inch max. wall thickness	
[mm]	[inch]	[mm]	[inch]	[mm]	[inch]
75	2.953	15.1	0.594	22.6	0.889
90	3.543	11.4	0.449	18.9	0.744
100	3.937	10.1	0.398	17.6	0.693
110	4.331	9.3	0.366	16.8	0.661
115	4.528	9.1	0.358	16.6	0.654
125	4.921	8.8	0.346	16.3	0.642
140	5.512	8.7	0.343	16.2	0.638
160	6.299	9.1	0.358	16.6	0.654
165	6.496	9.3	0.366	16.8	0.661
180	7.087	9.9	0.390	17.4	0.685
190	7.480	10.4	0.409	17.9	0.705
200	7.874	10.9	0.429	18.4	0.724
215	8.465	11.8	0.465	19.3	0.760
225	8.858	12.4	0.488	19.9	0.783

240	9.449	13.4	0.528	20.9	0.823
250	9.843	14.0	0.551	21.5	0.846
270	10.630	15.4	0.606	22.9	0.902
280	11.024	16.0	0.630	23.5	0.925
315	12.402	18.3	0.720	25.8	1.016
320	12.598	18.6	0.732	26.1	1.028
355	13.976	20.4	0.803	27.9	1.098

4.2.3 Pipe materials

- Steel
- Stainless steel
- Copper
- Cast iron
- Aluminum
- All plastics

5. TECHNICAL DATA

5.1 Machine

Rating	SCORP 170	SCORP 170e	SCORP 220 Plus	SCORP 360
Dimensions (l x w x h)	30 x 22 x 23 cm	30 x 22 x 23 cm	35 x 22 x 28 cm	50 x 22 x 30 cm
	11.8 x 8.7 x 9.1 inch	11.8 x 8.7 x 9.1 inch	13.8 x 8.7 x 11.0 inch	19.7 x 8.7 x 11.8 inch
Weight	5.7 kg	5.7 kg	8.9 kg	14.3 kg
	12.57 lbs	12.57 lbs	16.62 lbs	31.53 lbs
Max. rotation speed, idle	4000 rpm	1600 - 3500 rpm	4000 rpm	4000 rpm
Intermittent operation	S3 10 min. 25%	S3 10 min. 25%	S3 10 min. 25%	S3 10 min. 25%
Power	1010 W / 1.3 hp (230 V)	1200 W / 1.6 hp (230 V)	1100 W / 1.5 hp	1400 W / 1.9 hp
	950 W / 1.2 hp (120 V**)	1100 W / 1.5 hp (120 V**)		
Mains supply	230 V, 50/60 Hz	230 V, 50/60 Hz	230 V, 50/60 Hz	230 V, 50/60 Hz
	120 V, 50/60 Hz**	120 V, 50/60 Hz**		
Noise level at the work- place ³⁾ approx.	86 dB (A) (230 V)	94 dB (A) (230 V)	95.5 dB (A)	95.5 dB (A)
	92 dB (A) (120 V**)	91 dB (A) (120 V**)		
Vibration level according to EN 50144	< 2.5 m/s ²	< 2.5 m/s ²	< 2.5 m/s ²	< 2.5 m/s ²
Blade diameter	140 mm	140 mm	140 mm	140 mm. 155 mm
	5.512 inch	5.512 inch	5.512 inch	5.512 inch. 6.102 inch
Blade attachment hole	62 mm	62 mm	62 mm	62 mm
	2.441 inch	2.441 inch	2.441 inch	2.441 inch
Blade thickness	1.5 - 2 mm	1.5 - 2 mm	1.5 - 2 mm	1.5 - 2 mm
	0.059 - 0.079 inch	0.059 - 0.079 inch	0.059 - 0.079 inch	0.059 - 0.079 inch

* The noise level measurement was carried out under normal operating conditions according to EN 50144. The noise level can exceed the limit of 85 dB (A) during processing of different materials. **Wear ear muffs!**

** 120 V while stocks last.

6. COMMISSIONING

6.1 Checking the parts of delivery

- Check all parts of the delivery for completeness and transportation damage.
- Report any missing parts or transportation damage to your supplier immediately.

6.2 Included with the machine (Subject to alterations)

6.2.1 SCORP 170(e)

- 1 Pipe Cutter SCORP 170 or SCORP 170e
- 1 Transport bag
- 4 Small pipe roller
- 1 Saw blade TCT 140 x 62 / Z 46 (Code 790 014 055)
- 2 Hex socket keys for mounting the saw blade and adjusting the control wheel
- 1 Operating instructions
- 1 Spare parts list

6.2.2 SCORP 220 Plus

- 1 Pipe Cutter SCORP 220 Plus
- 1 Transport bag
- 4 Small pipe roller
- 1 Saw blade TCT 140 x 62 / Z 46 (Code 790 014 055)
- 1 Saw blade key
- 1 Operating instructions
- 1 Spare parts list

6.2.3 SCORP 360

- 1 Pipe Cutter SCORP 360
- 1 Transport bag
- 2 Small and 1 large pipe roller
- 1 Saw blade TCT 140 x 62 / Z 46 (Code 790 014 055)
- 1 Saw blade key
- 1 Operating instructions
- 1 Spare parts list

6.3 Transport

The SCORP is a portable machine. Special transportation aids are not required.



DANGER

Danger of death by electric shock or inadvertent restart of the machine!

During transport, the ON/OFF switch could be actuated inadvertently so that the machine is started.

- ▶ Cut off the power supply before carrying out the transport or changing the workplace.

7. OPERATION



Danger of death by electric shock.

If the mains cable is damaged, live parts may cause death when being touched directly!

- ⊙ Keep the mains cable of the motor away from the saw blade or cutting disc.
- ▶ While processing the pipe, always keep an eye on the position of the mains cable.

Unintentional operation of the ON/OFF switch!

- ▶ Pull out the mains plug before carrying out any adjustment, repair and maintenance work or changing the tool and allow the machine to run a stop.
- ▶ Before attaching the SCORP, examine whether the motor is locked in the upper position (out of cut).



Before operating the tool:

- ▶ Ensure that the motor unit is in the upright position.
- ▶ SCORP 170(e): The yellow mark of the UNLOCK button is visible.
- ▶ Check that the blade is correctly fitted, in good condition and suitable for the material to be cut.
- ▶ Ensure the pipe saw guide wheels rotate.
- ▶ Ensure the support wheels rotate.
- ▶ Check the operation of the lower blade guard.
- ▶ Ensure the pipe is empty.
- ▶ If plastic pipes have been cut with the pipe saw (resulting in long, statically charged slivers), open the blade guard cover, and clean carefully the lower blade guard and the entire pipe saw.

7.1 Connection to the mains power supply

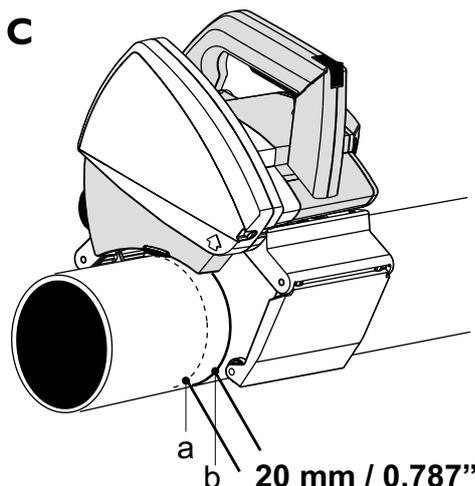
Ensure that the mains voltage is the same as indicated on the rating plate (see pos. 14, chap. 3, p. 9).

Connect the SCORP to the power outlet only after having checked this.

7.2 Precise setting of the cutting point

When you mark the cutting point (b) on the pipe to be cut, deduct 20 mm (0.787 inch) from the required dimension (Easy-to-remember rule: The cutting mark (a) location requires a measurement of – 20 mm/0.787 inch) (Fig C).

Fig C



7.3 Setting the pipe on supports

Use the system supports when cutting pipes. This will ensure safe working and optimum result. Work on flat under-ground.

1. Place the pipe on two supports so that the cutting point is between the supports.
2. Place two more support under both ends of the pipe. Check that all support wheel contact the pipe (adjust if required e.g. with pieces of lumber) (**Fig B**).

NOTE

When cutting short pipes (25 cm/9.843 inch or less) place the supports so that the cutting point is outside supports (**Fig D**). Support the pipe with your left leg, if required. Proper arrangements will prevent the blade from jamming as the pipe is cut through.

Fig B

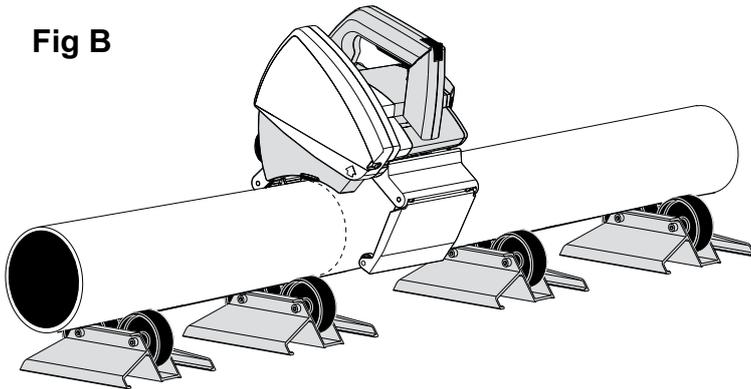
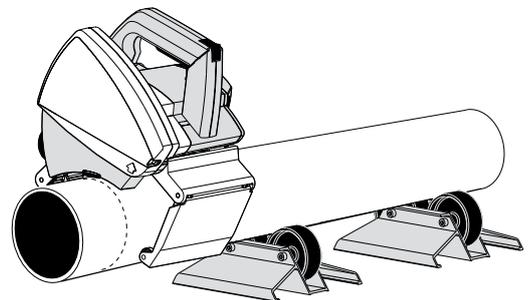


Fig D

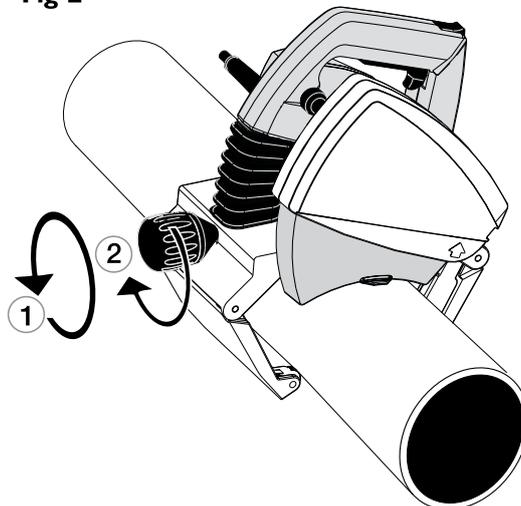


7.4 Attaching the SCORP to the pipe

1. Open the SCORP's gripper unit enough to suit the diameter of the pipe by rotating the adjustment handle located at the rear of the saw (**Fig E/1**).
2. Position the SCORP on top of the pipe so that the edge of the lower blade guard is at the cutting mark.
3. Fasten the SCORP to the pipe by turning the gripper adjustment handle until the gripper grips firmly the pipe to be cut (**Fig E/2**).
4. Hold the pipe in place and ensure that pipe saw moves freely in the direction the pipe is fed. For sake of safety ensure the pipe saw leads are to the left of the SCORP.

The SCORP is now ready for cutting.

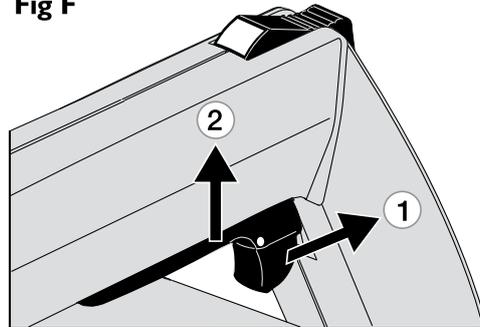
Fig E



7.5 Piercing the pipe wall

1. Grip the gripper firmly with your right hand and place your left foot on top of the pipe approx. 50 cm (19.685 inch) from the SCORP.
2. Turn the saw until it leans slightly forward (**Fig H**).
3. When starting the motor, first of all release the power-switch locking lever (**Fig F/1**) and push the power switch all the way down (**Fig F/2**). Before starting to saw, wait until the blade reaches full speed.

Fig F



4. Pierce the pipe wall by pressing pipe saw operating handle downwards slowly and evenly until the blade has cut through the pipe wall (at this stage the pipe must not rotate) and the motor unit is locked in the sawing position (**Fig H/1**).

IMPORTANT Look at the UNLOCK button during the piercing operation. When UNLOCK button is locked, i.e. the yellow mark disappears (SCORP 170(e)) (**Fig G**). SCORP is locked in the sawing position, and you can safely start sawing around the pipe.

Fig G

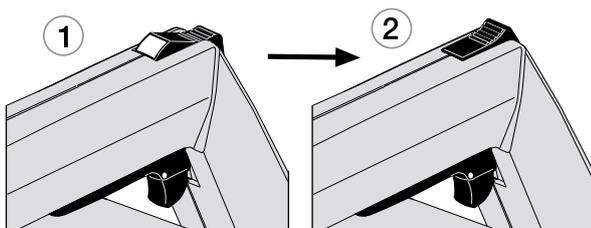
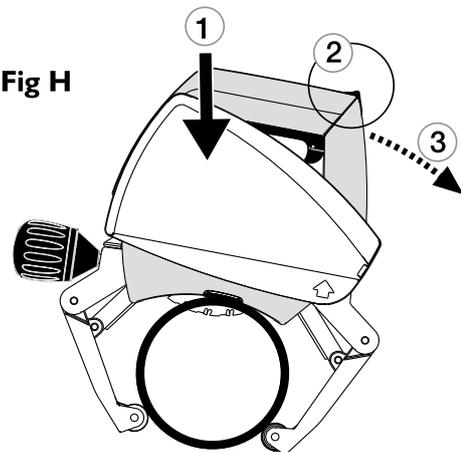


Fig H



7.6 Sawing around the pipe

1. Start sawing by feeding the SCORP forward and fix the pipe with your left foot (**Fig H/3**).
2. After that release the pipe (remove your left foot from the pipe) and turn the SCORP backwards, whereby the pipe will also be rotated backwards (**Fig J**).
3. Start a new feeding movement, and feed continuously forward approx. 1/6 of the pipe's circumference. Repeat until the pipe is cut off (**Fig K**).

Fig J

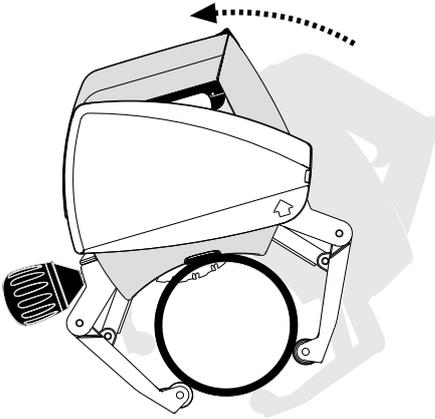
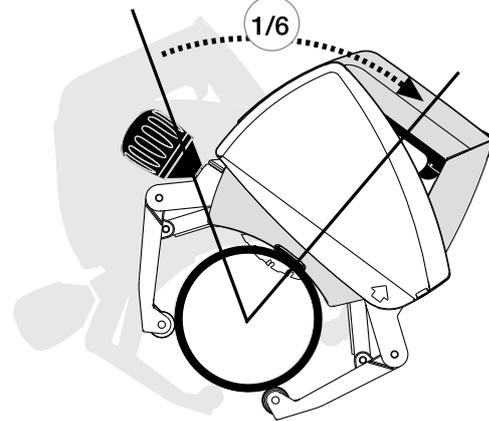
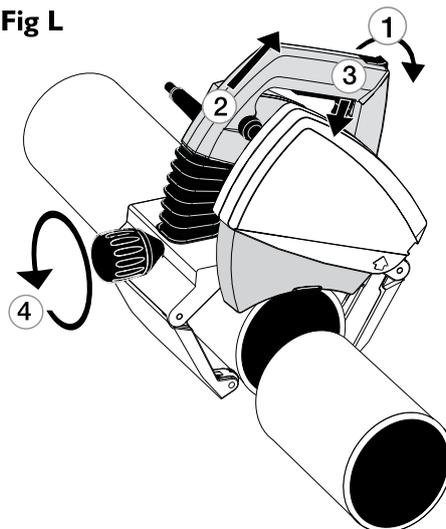


Fig K



4. Select the feeding speed as per the material and the thickness of the wall. Too high speed can damage the blade, overload the SCORP and give a poor sawing result.
5. When the pipe is cut off, push the UNLOCK button forward until the locking is released. SCORP 170(e): The yellow mark is visible (**Fig L/1**).
6. Now raise the motor unit to starting position (**Fig L/2**).
7. Release the power switch (**Fig L/3**).
8. When the blade is stationary, remove the pipe saw from the pipe by loosening the gripped handle (**Fig L/4**). Ensure that the moving lower blade-guard is lowered into safety position.

Fig L



NOTE

Should there be problems during piercing or sawing, abnormal sounds or vibrations due to which you have to interrupt sawing before the pipe is cut through, release the blade by pushing the UNLOCK button forward until the UNLOCK button is released, and lift the motor unit up. Once the problem is cleared, start sawing again.

IMPORTANT

Never start the motor, when the motor unit is locked in sawing position or teeth of the blade contact the pipe to be sawn.

7.7 Overload protection and spin-speed regulator

7.7.1 Overload protection

The SCORP is equipped with overload protection. When the blade is dull or the cutting speed is too high, the overload protection cuts power automatically. Restore the power by pushing the overload protection switch.

7.7.2 Spin-speed regulator

There is a spin-speed regulator in model SCORP 170e. A suitable spin speed is selected, determined by the material to be sawed. There is also an overload protection in the regulator. It automatically cuts the power off in an overload situation. The power is automatically restored as soon as the motor has cooled sufficiently. There is a red indicator light in the regulator, which warns of an impending overload and overload protection function. The indicator light in question turns on for a moment every time the motor is started. This is normal and does not require any actions.

7.8 Straightness of cut and control wheel

The cut is affected by many factors, e.g. the size of the pipe, the material, the wall thickness, the quality of the pipe's surface, the roundness, welded seams, blade condition, feed rate, operator's experience. For this reason the result may vary, and the cut may turn to left or right (misalignment of the cut's starting and ending point) (**Fig M**).

The pipe saw gripper has one adjustable wheel (see pos. 9, chap. 3, p. 9), which be used for improving the quality of the cut and for reducing the misalignment.

The adjustment applies only to the actual pipe size and material, and the wheel may have to be readjusted as the blade is worn.

To adjust the wheel, loosen the locking screw (**Fig N/1**) and turn the wheel centre clockwise or counter clockwise to the desired position (**Fig N/2**), and lock the wheel again (**Fig N/3**).

Fig M

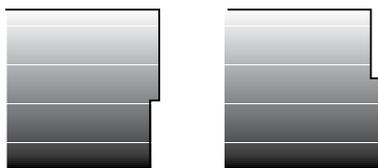
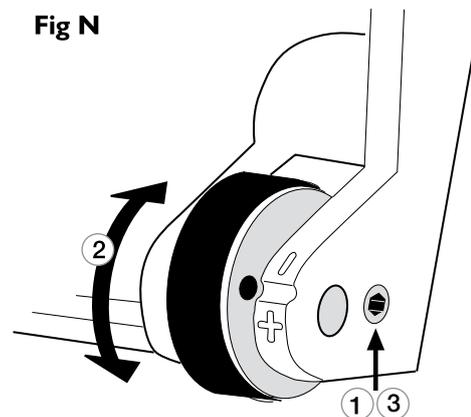


Fig N



7.8.1 SCORP 170(e)

If the blade has wandered too much to the left, adjust wheel centre clockwise (– sign). If the misalignment is to the right, adjust counter clockwise (+ sign). The extent of the adjustment depends on the actual misalignment. Remember to lubricate the adjusting wheel at regular intervals.

7.8.2 SCORP 220 Plus SCORP 360

If the blade has wandered too much to the left, adjust wheel counter clockwise (– sign). If the misalignment is to the right, adjust centre clockwise (+ sign). The extent of the adjustment depends on the actual misalignment. Remember to lubricate the adjusting wheel at regular intervals.

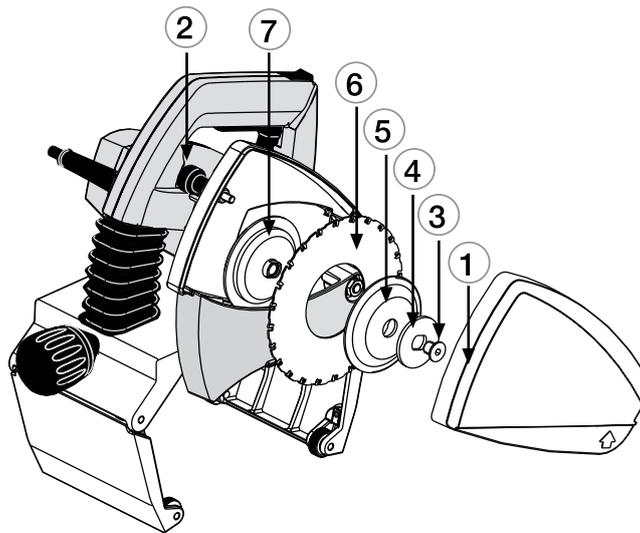
7.9 Installing and changing the saw blade

1. Remove the power plug from the socket. Check that the motor unit is locked in the upper position.
2. Remove the blade guard cover (**Fig O/1**) by opening the two finger screws (**Fig O/2**).
Note: there is only one screw with the SCORP 170(e).
3. Press the spindle-lock button (see pos. 11, chap. 3, p. 9) and simultaneously rotate the blade by hand until the spindle-lock button drops a further distance of about 7 mm (0.276 inch). Now the rotation of the blade is prevented.
4. Use the blade key to open the blade attachment bolt (**Fig O/3**).
5. Remove the securing bolt (**Fig O/3**), the washer (**Fig O/4**), the blade flange disc (**Fig O/5**), and the blade (**Fig O/6**).

IMPORTANT Before installing a new blade, check that both blade flange discs are clean.

6. Place a new or sharpened blade on the back flange disc (**Fig O/7**), so that the marked side of the blade is facing outwards and the arrows on the blade are facing in the same direction as the rotation direction markings on the inside of the blade case.
7. Ensure that the new blade goes right to the bottom in the back flange disc.
8. Put the blade flange disc, the washer, and the securing bolt back in place. Press the spindle lock button and tighten the blade securing bolt.
9. Put the blade guard cover back in place and tighten the finger bolts.

Fig O



8. MAINTENANCE

NOTE Correct use and regular servicing and cleaning will ensure the continued operation of the pipe saw.

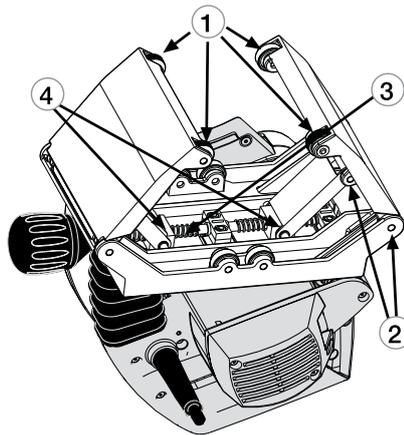


DANGER

- ▶ Remove the power plug from the socket before servicing or cleaning the pipe saw. All maintenance operations carried out on the pipe saw's electrical components must be carried out at an approved service agency.

Machine part	Activity
Blade	<ul style="list-style-type: none"> ▶ Check the condition of the blade. ▶ Replace a bent, blunt, or otherwise damaged blade with a new one. ▶ Using a blunt blade can overload the pipe saw's electric motor. ▶ Only use Orbitalum Tools saw blades.
Gripper unit	<ul style="list-style-type: none"> ▶ Clean the gripper unit regularly with compressed air. Lubricate the gripper's wheel axles (1) and its joints (2). Also clean and lubricate the gripper's trapezoidal screw (3) and the two worm screws on it (4).

Fig P



Blade guard	<ul style="list-style-type: none"> ▶ When you have sawn plastic pipes and then intend to start sawing metal pipes always clean the inside of the blade guards. Hot particles derived from sawing metal will burn plastic particles, which may release toxic smoke. Make it a rule to clean the blade guard regularly, and pay special attention to keep the moving blade guard movement from becoming hampered. Lubricate the axis of the moving blade guard regularly.
Motor	<ul style="list-style-type: none"> ▶ Keep the motors cooling vents clean.
Plastic parts	<ul style="list-style-type: none"> ▶ Clean the plastic parts with a soft rag. Only use mild detergents. Do not use solvents or other strong detergents as they may damage the plastic parts and paint surfaces.
Power cable	<ul style="list-style-type: none"> ▶ Check the condition of the power cable regularly. A faulty power cable should always be replaced at an approved service agency.

9. WHAT TO DO IF ...?

9.1 Problem solving

In the following table you will find possible causes for faults and the appropriate remedies.

Fault	Possible cause	Remedy
The engine does not run.	Current supply interrupted.	▶ Examine the inlet cable.
	When the blade is dull or the speed is too high, the overload protection cuts power automatically.	▶ Restore the power by pushing the overload protection switch.
SCORP is not turnable.	Pipe clamp too strong fixed.	▶ Loosen the pipe clamp by adjusting the regulating knob until the SCORP is turnable.
Pipe clamp cannot be opened and/or closed.	Too high contamination.	▶ Clean and/or lubricate the SCORP.
	Abrasion.	▶ Contact the service station.
Moveable protection housing is jammed.	Too high contamination.	▶ Clean and/or lubricate the SCORP.
	Abrasion.	▶ Contact the service station.
Release button is locked or cannot be locked.	Too high contamination.	▶ Clean and/or lubricate the SCORP.
	Release button defect.	▶ Contact the service station.

9.2 Servicing/after-sales service

For ordering spare parts, refer to the separate spare parts list.

For troubleshooting, please contact your competent branch office directly.

Please indicate the following details:

- Machine type:
SCORP 170
SCORP 170e
SCORP 220 Plus
SCORP 360
- Machine no.: *(refer to name plate)*

10. EU DECLARATION OF CONFORMITY



EG-Konformitätserklärung
Declaration of conformity
Dichiarazione di conformità
Déclaration de conformité
Declaración de conformidad

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According to machine guideline 2006/42/EG (MaschR), Appendix II A.

Die Bauart der Maschine:
The following product:
Il seguente prodotto:
Le produit suivant:
El producto siguiente:

Rohrsäge **SCORP 170, SCORP 170e**
Rohrsäge **SCORP 220 Plus**
Rohrsäge **SCORP 360**

Seriennummer:
Series number:
Numero di serie:
Nombre de série:
Número de serie:

Baujahr / Year / Anno / Année / Año:

ist entwickelt, konstruiert und gefertigt in Übereinstimmung mit folgenden EG-Richtlinien:
was designed, constructed and manufactured in accordance with the following EC guidelines:
è stata progettato costruito e commercializzato in osservanza delle seguenti Direttive:
a été dessiné, produit et commercialisé selon les Directives suivantes:
ha sido proyectado construido y comercializado bajo observación de las siguientes Directivas:

Maschinen-Richtlinie (2006/42/EG)
EMV-Richtlinie (2004/108/EG)

Folgende harmonisierte Normen sind angewandt:
The following harmonized norms have been applied:
Le seguenti norme armonizzate ove applicabili:
Les normes suivantes harmonisées où applicables:
Las siguientes normas armonizadas han sido aplicadas:

DIN EN ISO 12100-1 (2003)
DIN EN ISO 12100-2 (2003)
DIN EN 60745-1 (2003)
DIN EN 60745-2-5 (2004)
DIN EN 55014-1 (2003)
DIN EN 55014-2 (2002)
DIN EN 61000-3-3 (2002)

Singen, 22.01.2010

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790 014 762_00 | EN | 09.11

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Printed in Germany