

Pneumatic Metal Circular Saw Type 5 1115 0010-0020



Illustration can differ from the original

Operation and Maintenance Manual



TECHNICAL SPECIFICATION

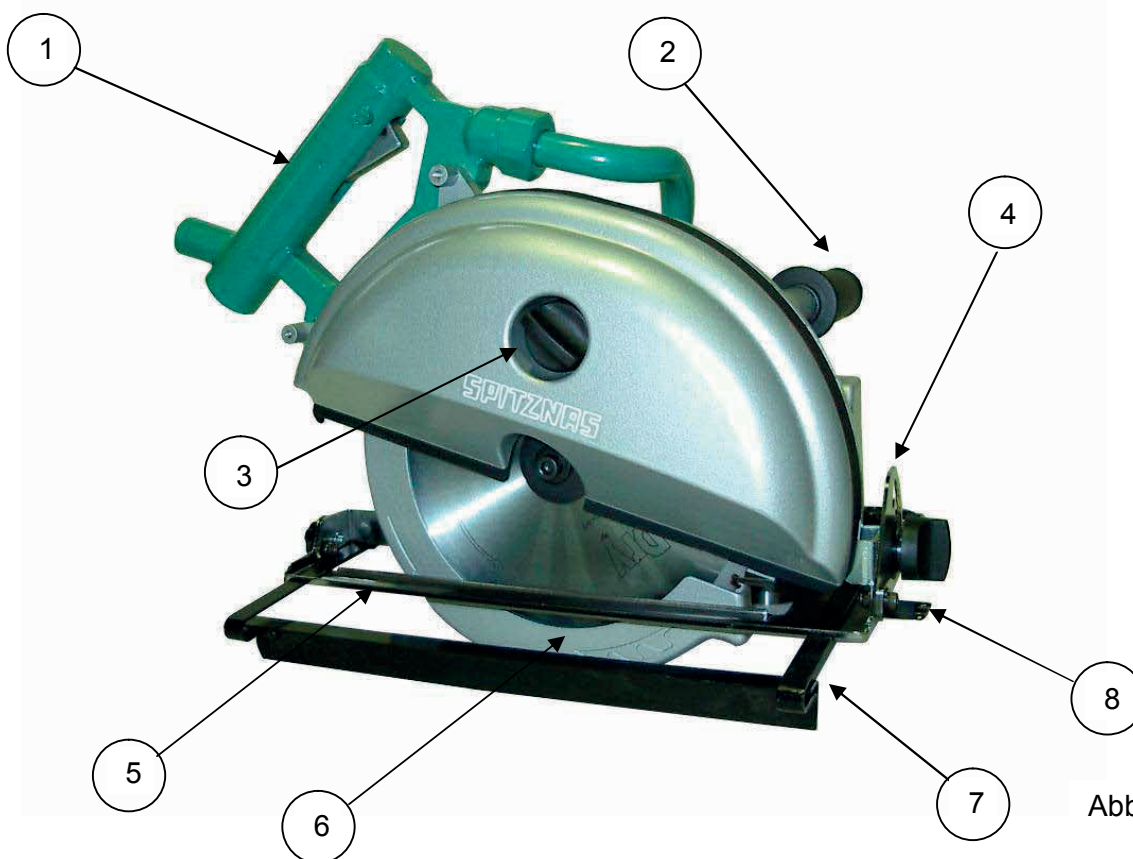
Type	5 1115 0010	5 1115 0020
Operating pressure	6 bar	
Motor output	1.5 kW	
Free speed	1700 1/min.	
Air consumption	approx. 2 m ³ / min.	
Air connection	R ½" female	NPT R ½" x 14 thread turn
ID of hose	min. Ø 13 mm	
Weight approx.	8.6 kg	
Max. Saw blade	Ø 230 mm	
Max. Capacity	90° ; 84 mm	
	45° ; 56 mm	
Noise level at 1 m distance	103.3 dB(A)	
Vibration level at free speed	< 2.5 m/s ²	

Carton contents

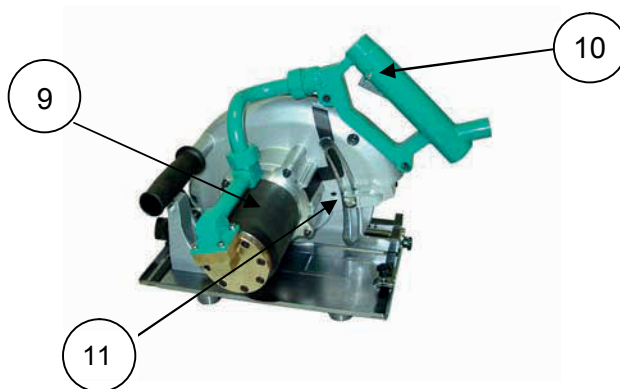
1. Metal Cutting Saw
2. Original Tanitec HM circular saw blade
3. Rip fence cutting guide
4. Hexagonal wrench
5. Poly bag containing hardware:
 - Thumb screw
 - Bevel locking block
 - Bevel lock knob
 - Washer

Standard Accessories

Rip fence and 6 mm hexagonal Wrench



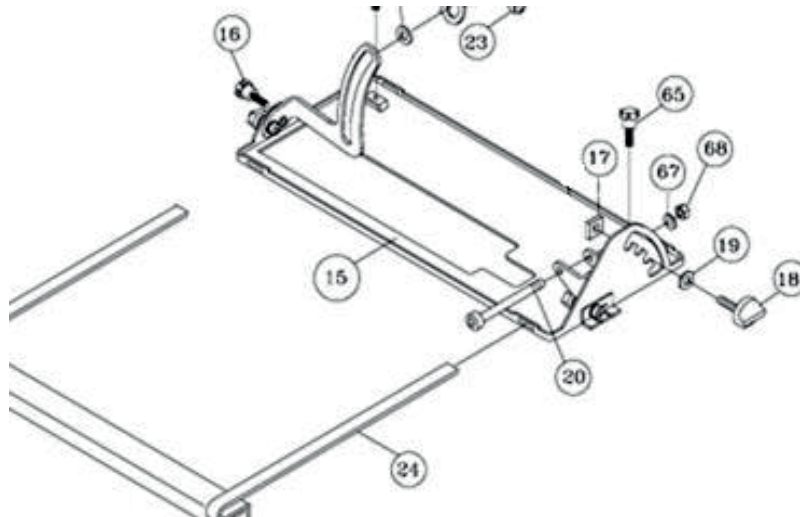
- 1 Main Handle
- 2 Side Handle
- 3 Cover lock knob
- 4 Bevel lock
- 5 Base
- 6 Retracting blade guard
- 7 Adjustable rip fence
- 8 Sighting notch
- 9 Blade lock
- 10 Blade lock lock-off safety switch
- 11 Depth lock washer



Assembly

Before use, the following hardware, which is supplied in a poly bag must be added:

1. Insert thumb screw (16) in the rear pivot end of base (15).
2. Place washer (19) on bevel lock knob (18), then pass through bevel slot and thread into the bevel locking block (17).



SAFETY INSTRUCTIONS

**Any power tool can be dangerous.
Please follow these simple procedures.
They are for your protection.**



Wear goggles (chips – risk of injury)



Wear gloves (cutting damages by sharp edged work pieces)



Wear safety shoes



Wear protective clothing

Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol or medication.

A moment of inattention while operating power tools may result in serious personal injury.

Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hardhat, or hearing protection used for appropriate conditions will reduce personal injuries.

Avoid accidental starting. Be sure valve is off.

Carrying tools with your finger on the valve, or the machine being connected to pneumatic supply, invites accidents.

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

Do not overreach. Keep a proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.

Keep hands away from cutting area and blade. Keep your second hand on auxiliary handle. If both hands are holding the circular saw, they cannot be cut by the blade.

Do not reach underneath the work piece. The guard cannot protect you from the blade below the work piece.

Adjust the cutting depth to the thickness of the work piece. Less than a full tooth of the blade teeth should be visible below the work piece.

Never hold piece being cut in your hands or across your leg. Secure the work piece to a stable platform.

It is important to support the work properly to minimize body exposure, blade binding or loss of control.

When ripping, always use the rip fence. This improves the accuracy of cut and reduces the chance for blade binding.

Always use blades with correct size and shape (round versus diamond) spindle holes. Blades that do not match the mounting hardware of the saw will run eccentrically. Causing loss of control.

Never use damaged or incorrect blade washers (spindle flanges) or bolt. The blade washers (spindle flanges) and bolt were specially designed for your saw. For optimum work and safety.

Always make sure that you have a safe foothold.

Never work under the influence of alcohol, drugs or stronger medication.

Switch off the machine before laying it aside (shut valve).

Disconnect the machine from the power supply after finishing the work (avoidance of unintentional starting).

Follow the general current and appropriate Accident Prevention and Safety Procedures.

Keep the cutting tools sharp and clean.

ATTENTION! Never use the flexible hose as a lifting handle!

Kickback - Causes and operator prevention

- Kickback is a sudden reaction to a pinched, bound, or misaligned saw blade, causing an uncontrolled saw to lift up and out of the work piece towards the operator.
- When the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back towards the operator.
- If the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the work piece, causing the blade to climb out of the kerf and jump back towards the operator.

Kickback is the result of tool misuse and/ or incorrect operating procedures or conditions. It can be avoided by taking proper precautions as given below:

- a) Maintain a firm grip with both hands on the saw and position your arms to resist kickback forces. Position your body to either side of the blade, but not in line with the blade. Kickback could cause the saw to jump backwards, but the operator can control kickback forces, if proper precautions are taken.

- b) When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to complete stop. Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur. Investigate and take corrective actions to eliminate the cause of blade binding.
- c) When restarting a saw in the work piece, centre the saw blade in the kerf and check that teeth are not engaged into the material. If saw blade is binding, it may walk up or kickback from the work piece as the saw is restarted.
- d) Support large panels to minimize the risk of blade pinching and kickback. Large panels tend to sag under their own weight. Support must be placed under the panel on both sides, near the line of cut and near the edge of the panel.
- e) Do not use dull or damaged blade. Dull blades produce a narrow kerf causing excessive friction, blade binding, and kickback.
- f) Blade depth and bevel adjusting locking levers must be tight and secure before making a cut. If depth adjustment shifts while cutting, it may cause binding and kickback.
- g) Be particularly careful when making a „plunging cut“ into a hidden area, such as an existing wall. The saw blade plunging in may get caught in hidden objects while sawing and lead to kickback.

ADDITIONAL SAFETY INSTRUCTIONS

- a) Check before every use that the lower protective guard closes smoothly. Do not use the saw, if the lower protective guard does not move freely and does not close immediately. Never block or tie off the lower protective guard in the open position. Should the saw fall accidentally, the lower protective guard may be bent. Open the protective guard with the lever and ensure that it moves freely and does not come into contact with either the saw blade or any other parts at any sawing angle or depth.
- b) Check the function of the springs for the lower protective guard. Have the machine serviced before use, if the lower protective guard and springs do not operate smoothly. Damaged parts, sticky deposits or accumulations of swarf will retard the operation of the lower protective guard.
- c) Open the lower protective guard by hand only for particular cuts, such as „plunging and angular cuts“. Open the lower protective guard with the lever and release it as soon as the saw blade has penetrated the work piece. With all other sawing work, the lower protective guard must work automatically.
- d) Do not place the saw on the work bench or on the floor without checking that the lower protective guard covers the saw blade. An unprotected saw blade still running will move the saw towards the direction of sawing and saw anything standing in its path. Be aware of the time taken for the saw to run down.

Use

Intended Use

Skilled personnel only is allowed to operate the machine.

The pneumatic metal circular saw is designed for an operation pressure of 6 bar.

This machine is a metal circular saw for dry cutting of steel, non-ferrous metal, plastic and composite material. The saw only works with carbide tipped saw blades, which have to be original Tanitec blades.

Improper Use

Any use deviating from the intended use as described is considered to be improper use.

Working without personal protection equipment.

Additional instructions for application

Do not use abrasive wheels with this machine. Use only original Tanitec saw blades.

Tighten blade retaining bolt and all clamps before operating.

Secure work piece properly. Work piece should be straight and firmly clamped to avoid possible movement and pinching as the cut nears completion.

Allow the blade to come to a complete stop before removing or securing work piece, or changing work piece angle.

Check the inside surfaces of the arbour flanges as well as the sides of the blade for freedom from any foreign matter.

Check the blade for cracks or other damage before operation. Replace cracked or damaged blade immediately.

Never start the tool with the work piece against the blade.

Allow the motor to achieve full speed before cutting.

After turning tool "on", gently push the tool forward to engage work piece, then slowly increase pressure as required to produce the least amount of "sparking".

Important:

After completing the cut, shut valve and wait for coasting blade to stop completely before putting the saw down.

Never operate the tool in an area with flammable solid, liquids, or gases. Sparks or hot fragments could cause a fire or explosion.

This machine is not applicable for cutting wood, masonry, magnesium or other pyrophorous material.

Do not use cutting fluids or lubricants on the blade.

Some metals have coatings, which can be toxic. Take extra care to prevent inhalation and skin contact when working with these materials. Request, and follow, any safety information available from your material supplier:

These are certain applications for which this tool was designed. The manufacturer strongly recommends that this tool not be modified and/ or used for any application other than for which it was designed. If you have any questions relative to its application do not use the tool until you have written the manufacturer and have been advised.

Metal chips are often very sharp and hot. Never touch them with bare hands. Clean up with amagnetic chip collector and a chip hook or other appropriate tool.

Danger Zones

Operational condition ----- Life phase	Normal function	Malfunction	Improper use	Expected use
Transport	Transport of the machine in an inoperable condition	Dropping the machine	Transport of the machine in an operable condition	unknown
Start-up Operation	Operating the machine with designated device	unknown	unknown	Working without device
Operation	Machine only works with actuated valve	Machine runs without actuated valve	Valve is blocked in actuated condition	unknown
	Machine moves the tool	Tool blocks	unknown	unknown
Maintenance	Operation at a maintenance unit	Breakdown of the machine	unknown	unknown

OPERATION INSTRUCTION

Important:

An appropriate blade must be mounted to the machine before operating. Refer to the section of this manual: „Installing the blade“.

Cutting

- Check oil level
- Equip saw with the appropriate saw blade
- Connect pneumatic hose (Before connecting, it is recommended to blow out the hose and thus remove impurities)
- Press sensor button and actuate valve
- Start cutting

After finishing the cutting work

- Shut valve
- Shut compressed air supply and disconnect air hose
- Clean saw
- Check oiler

Installing the blade

1. Disconnect tool from pneumatic supply
2. Remove any accumulated debris in the guards and around the spindle.
3. Check the lower retracting blade guard to ensure that it is in working
4. Clean the inner spindle flange. Orient the flange so that the correct bore size faces the blade and place the new blade on the spindle, making sure that the teeth point forward. (If in doubt of the orientation of the blade, refer to the legend cast into the lower retracting blade guard.)
5. **Note:** Only use original Tanitec saw blades.
6. Place the outer spindle flange on the spindle with the flat side towards the blade (see fig. 2) Abb. 2



Fig. 2

7. Replace and finger-tighten the blade retaining bolt by turning it clockwise.
8. Push in the blade lock lever and rotate the spindle by hand until the lock engages the spindle (see fig. 3). Tighten the blade retaining bolt securely with the provided wrench and release the spindle lock.

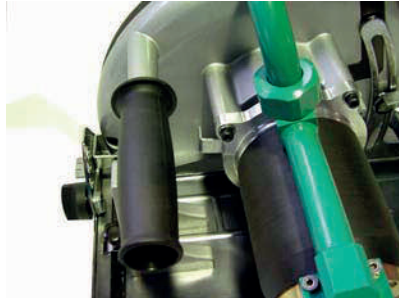


Fig. 3

Removing the blade

1. Disconnect tool from pneumatic supply.
2. See fig. 3. It is not necessary to remove the outer blade cover, just leave it in place. Push in the spindle lock and using the supplied hex wrench, rotate the blade until the lock engages the blade spindle.
3. Avoid contact with the blade teeth to prevent personal injury.
4. While holding the blade lock lever, use the provided wrench to loosen the blade retaining bolt. Then remove it and the outer spindle flange.
5. The blade may now be carefully removed.

Adjustment depth of cut

Adjust the depth of cut so that the saw blade protrudes through the thickness of work piece.

To adjust the depth of cut:

1. Disconnect tool from pneumatic supply.
2. Lift the depth lock lever at the rear of the saw (see fig. 4)



Fig. 4

3. Raise or lower the saw base until the blade extends the desired depth below the base. (See the scale and pointer cast into the main body casting)
4. Press the depth lock lever down firmly, locking the saw in the selected position.

Adjustment of bevel angle

Disconnect from pneumatic supply. To adjust the bevel angle, refer to the bevel gauge on the base. There are markings for different angles from 0 to 45 degrees. To adjust the bevel angle: Loosen the bevel lock knob (see fig. 5) and the smaller knob at the rear. Lift the bevel lock knob out of the slot and rotate the base to the desired angle. The most commonly used angles each have an individual slot.

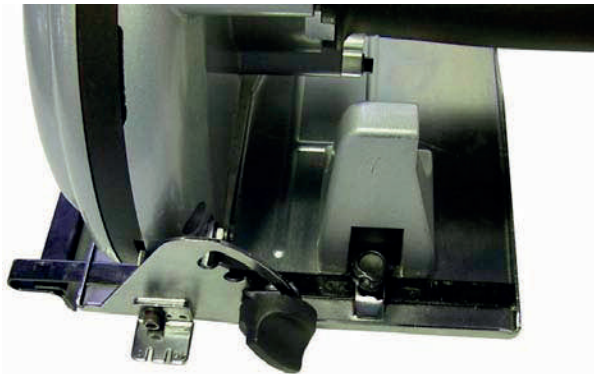


Fig. 5

Simply drop the bevel lock into the slot and tighten. If other angles are needed, tighten the bevel lock knob to hold at the desired position. Then tighten the smaller knob at the rear of the base.

How to use the sighting notch

To aid in free- hand cutting, a sighting notch is located at the front of the base (see fig. 6).



Fig. 6

Align the cutting line on the work piece with the sighting notch. Make the cut. Use the right-hand notch (between the two marking dots) for straight cuts and the left- hand notch (located below the rivet) for 45- degree bevel cuts.

Starting and stopping tool

Make sure that the operation pressure of the supply line conform with the specification – 6 bar – and the valve trigger is in 0-position. To start the machine first press safety lock lever and then the valve trigger, to start the motor. Release the valve trigger to stop the motor (see fig. 7).



Fig. 7

Removing chips

This dry cut metal saw has an internal chip collector. When the chip collector is full, the chips must be cleared. To do this, first shut down and disconnect from power supply.

The outer blade cover lock knob has a bayonet lock thread (see fig. 8)



Fig. 8

To remove cover, turn knob anti-clockwise while pushing in against the spring tension. Then lift cover away. Recently- cut chips can be very hot. Take care when removing the cover to keep the chips or shavings away from your hands or other body parts. Do not throw hot debris where paper or other flammable materials are located. To replace the outer blade cover, line up tang with slot and push in against the spring while turning clockwise.

Ensure that the cover is properly seated.

How to use rip fence

Using the rip fence will provide more accurate straight cuts than by cutting free-hand. For installation, disconnect tool from pneumatic supply, then insert the rip fence in the mounting slots in the base (see fig. 9)



Fig 9

Select the desired cut width on the cutting guide and tighten the 2 thumb screws to lock.

Lower retracting blade guard

The lower retracting blade guard is a safety device important for your protection. Every time you use the saw, make sure that the guard rotates freely and returns quickly and completely to its closed position. Before each use, remove any accumulated chips or shavings from the area around the hub of the guard.

Do not lubricate this area.

The hub has a dry film lubricated surface that does not need oiling. Never block or wedge the blade guard in the open position. Never use your saw, if the blade guard is not in working order. If blade guard movement is sluggish or if binding exists, return the saw to your nearest authorized service centre for repair.

How to use the tool

Attention:

To reduce the risk of injury, only use original Tanitec saw blades, which are appropriate for this machine. Do not use saw blades of a different type.

Effective control of this powerful saw requires two-handed operation for maximum protection. Support the work properly and to hold the saw firmly with both hands to prevent loss of control which could cause personal injury.

Always hold the side handle with the left hand and the rear handle with the right hand for proper hand support of the saw.

The bottom of the saw is placed on the work piece; the saw blade does not touch the work piece. Orient the line of cut. The required speed of the blade has to be achieved, before starting the cut. Wearing goggles, a dust mask and ear protection during use is compulsory.

Do not use cutting fluids or lubricants on the blade.

Clamp the work piece

Secure the work piece properly. The work piece should be straight and firmly clamped to avoid possible movement and pinching as the cut nears completion. Provide adequate support for long or wide work pieces. Confirm that the blade has come to a complete stop before removing or securing the work piece, or changing the work piece angle. First press the valve trigger. Move the saw forward to contact the work piece. Clamp the work piece on a rigid support, such as a bench or saw horses. Mark the line of cut on the work piece. Be sure that the cut-off line is far enough on the work piece to allow proper operation of the telescoping guard. Place the front edge of the saw squarely on work piece before starting the motor. Adjust the cutting line with the sighting notch indicator or use the rip fence. Be certain that the blade is not contacting the work piece. Press the lock lever and the valve trigger, allow the motor to come up to full speed and move the saw forward to begin the cut.

Caution: Keep the pneumatic hose away from the cutting area to prevent it from becoming entangled in the work piece.

Do not force the cut. Let the saw do the cutting at the rate of speed permitted by the type of cut and work piece. Increase feed pressure as the blade cuts through the thicker cross-sections (to maintain minimum "sparking"). Decrease the feed pressure as the blade cuts through the thinner cross sections.

After completing the cut, release the valve trigger and wait for the coasting blade to stop completely before putting the saw down.

Keep tool clean

Periodically blow out all air passages with dry compressed air. All plastic parts should be cleaned with a soft damp cloth. They could possibly dissolve or otherwise damage the material. Wear safety glasses while using compressed air.

Maintenance Instructions

A continuous and proper operation requires regular cleaning.

Attention:

Make sure that the tool is shut off and not connected to pneumatic supply, before executing maintenance, respectively an inspection of the tool. For safety reasons and in order to guarantee a proper functioning of the machine, repairs, maintenance and adjustment of the tool has to be done by an authorized service centre. Only use genuine spare parts.

Our pneumatic motors are designed for an operation pressure of 6 bar (65-90 PSI).

Service life and performance of the machines are decisively determined by:

a) The air purity

Blow the air hose clear before connecting it to the machine. Install dirt and water separator upstream of the machine, if it is not possible to prevent the formation of rust and water condensation in the air distribution lines.

b) The lubrication conditions and maintenance

see „Maintenance of pneumatic tools“

MAINTENANCE OF PNEUMATIC TOOLS

Only proper maintenance can ensure constant performance, reduction in wear and thus, a decrease in operating costs and an increase in service life.

Our pneumatic tools are equipped for an operating pressure of 6 bar. A regulator setting for an operating pressure of 4 bar is possible as well as expedient for grinding machines with a built-in regulator, so as to take full advantage of the speed prescribed for the corresponding grinding wheels.

Pneumatic tools should not run empty, because this results in heat and higher wear. The compressed air should be clean and dry. This is guaranteed by a proper pneumatic system. Blow through the pneumatic hose before connecting it. For the economical use of pneumatic tools, the prescribed air quantities are necessary, i.e., the line, armatures and hoses must have the required cross sections so that the flow pressure remains constant. Proper lubrication is a must; for this reason, our pneumatic tools usually have built-in oilers, which are located between the inlet valve and the motor, and which function in any position. In smaller and lighter hand tools, these oilers must often be left out, because the machines would then be too heavy and not easy to manage. In such cases, lubrication must be carried out by service units or by manual hose oilers. We recommend service units for permanently installed workplaces

(see accessories list). However, where longer hose lines are necessary, line oilers built into the hose lines are more effective. The distance between the tool and oiler should not be more than 5 m.

Most of pneumatic tools have located at the connection a lined-up screen, which is to be regularly checked and cleaned.

After ending a working task, the machines are to be flushed with a thin oil, or protected some other way against corrosion.

Visible grease nipples are provided for regular lubrication of the gears with a grease gun. Note the following for grease lubrication: Every 60 hours of operation check striking mechanism, friction bearings and antifriction bearings; if necessary, grease them. Every 300 hours of operation grease the gears and antifriction bearings anew. In the case of impact wrenches, use a grease gun to grease the anvil guide before beginning daily work or every 6 to 8 hours. All inner parts must be lubricated before storing for longer periods of time in order to prevent rusting. It is recommend to check the vanes and bearings at regular intervals. Store pneumatic tools in dry rooms only.

Lubricating oils to be used:
Generally SAE 5 W to SAE 10

For gearless impact wrenches and small grinders, only SAE 5 W

For damp compressed air, oils are to be used that take up water (without losing the lubricating effect) and that contain anticorrosive additives. At lower temperatures (especially for work outside) it may be necessary to use an antifreeze lubricant (e.g., Kilfrost, BP Energol AX 10, Kompranol N 74).

For saw-chain lubrication on chain saws:

Machine oil **with adhesive additive**, viscosity c ST 49-55' (6.5-7.5 E) / 50° C

Greases (free of resins and acids)

Multi-purpose greases for antifriction and friction bearings and gears

Special greases for high-speed miter gears

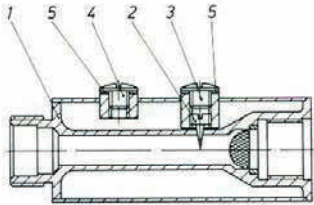
Designation in accordance with DIN 51502
Consistency class (DIN 51818)
Saponification type
Dripping point
Worked penetration
Temperature range

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265 to 295
-25° C to 125° C

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sodium
145° C
400 to 410
-25° C to + 100° C



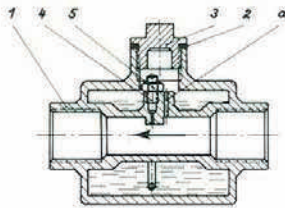
OILER TYPES USED ON OR WITH OUR TOOLS



Oiler to mount on the machine or connect in the hose line

Setting the oiler: The adjustment screw (Item 2) is visible after removing the screw plug (Item 3). The oil supply is decreased by tightening the screw, and by loosening the screw, more oil gets into the machine. In most cases it is sufficient to tighten or loosen the screw by 1/4 or 1/2 of a turn. When plugged, clean borehole (dia. 2 mm) with wire.

Correct setting: When under pressure and with the filler screw (Item 4) open, the oil must bubble slightly. The filling lasts for approx. 8 operating hours.

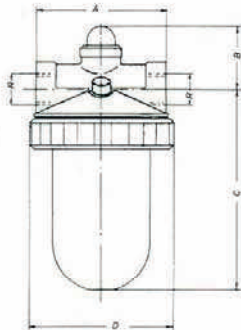


Line oiler

For stationary pneumatic machines and motors, the lubrication is carried out by lined-up oilers for horizontal or vertical installation.

Setting of oilers: Shut off air supply. Open plug (Item 3). Loosen visible lock nut (Item 5) with a socket wrench. Using a screw driver turn back the tightened screw plug (Item 4) by 1/4 to 1/2 of a turn and then lock again. No oil is to get into the borehole "a" when filling. Close plug (Item 3) and open the air supply.

Correct setting: A piece of paper held for a short time in front of the outlet must be coated with oil without drops forming.



Transparent oiler

For installing in permanently equipped workplaces.
(especially for type using service units — see accessories list)

The transparent supply containers allow for good checking as well as for good setting possibility by means of a screw driver via a set screw with visible dripping. (The set screw is above the lateral thread connection — turning to the right for less oil; turning to the left for more oil). The setting (2 to 5 drops per m³/min air consumption) is to be carried out when air is flowing through, i.e., when the machine is running.



Spare Parts and Accessories

Only genuine spare parts may be used. There is no warranty for damages and liability is disclaimed, if non-original spare parts and accessories are used.
The repairing of the machine is allowed authorized expert companies only.

Troubleshooting

	Problem	Cause	Remedy
a	Machine does not start	Air not connected	Connect and open air line
b	Machine rotates too slowly	Operating pressure too low	Increase operating pressure (on the machine) to 6 bar
c	Gearbox makes strong noise		Contact authorized expert company
d	Other problems		Contact authorized expert company

Declaration of Conformity

as defined in the European Union Machine Directive 2006/42/ EC
for usable machines

We, the company

SPITZNAS Maschinenfabrik GmbH, Fellerstraße 4, 42555 Velbert– Langenberg,
declare, that the following product

Description: Pneumatic Circular Saw
Model **5 1115 0010-0020**

complies with the provisions of the European Union Machine Directive 2006/42/ EC
and conforms to the following standards or standardized documents:

DIN EN ISO 12100
DIN 24063
DIN EN 60745-2-5

Name of the authorized person for documentation: Mr. Wolfgang Klare

Address of the authorized person for documentation: see manufacturer's address

42555 Velbert, 24.02.11