Operating Manual
Spare Parts List

Wet Tile Saw

TTE250★★★

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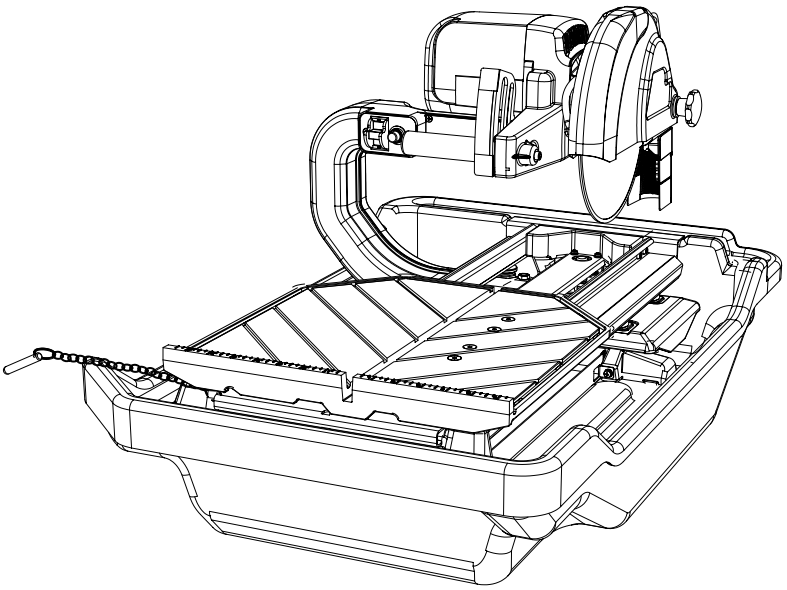

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TYROLIT Hydrostress AG reserves the right to make technical changes without prior notice.

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i. GENERAL SAFETY RULES FOR ALL POWER TOOLS

WARNING! ***Read all instructions. As with all machinery there are certain hazards involved with operation and use of the machine. The following basic safety precautions should be followed at all times to reduce the risk of fire, electric shock and serious personal injury to you or others. Keep these important operating instructions with this product.***

1. Know your power tool - read owner's/operator's manual carefully. Learn its applications and limitations as well as the specific potential hazards unique to this tool.

2. Keep guards in place - and in working order.
3. Ground all tools - if tools are equipped with three prong plug, it should be plugged into a three-hole electrical receptacle. If an adapter is used to accommodate a two-prong receptacle, the adapter lug must be attached to a known ground. Never remove the third prong.

4. Remove wrenches - Form a habit of checking to see that adjusting wrenches are removed from tool before turning it "on".

5. Keep work area clean. Cluttered areas and benches invite accidents.
6. Do not use in dangerous environment. Do not use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted. Do not use tool in the presence of flammable liquids or gasses.

7. Keep children and visitors away. All children and visitors should be kept at a safe distance from work area.
8. Make workshop childproof with padlocks, master switches or by removing starter keys.
9. Do not force tool. It will do the job better and be safer at the rate for which it was designed.

10. Use right tool. Do not force tool or attachment to do a job for which it was not designed.
11. Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry that may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.

12. **Always use safety glasses.** Wear safety glasses at all times. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses. Use face or dust mask if cutting operation is dusty, and ear protectors (plugs or muffs) during extended periods of operation.

13. Do not overreach. Keep proper footing and balance at all times.

14. Maintain tools in top condition. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have repaired by authorized service facility.

15. Disconnect tools. When not in use, before servicing, and when changing accessories, such as blades, bits, cutters.
16. Avoid accidental starting. Make sure switch is in "off" position before plugging in power cord.
17. Use recommended accessories only. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
18. Never stand on tool. Serious **injury** could occur if the tool is tipped or if the cutting tool is accidentally contacted.

19. Check Damaged Parts. Before further use of the tool, a guard or other part that is damaged should be carefully checked to ensure that it will operate properly and perform it's intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect it's operation. A guard or part that is damaged should be properly repaired or replaced.

20. Never leave tool running unattended. Turn power "off". Do not leave tool until it comes to a complete stop.

21. Extension cords. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Extension cord tables *(refer to page 21*) show the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage numbers the heavier the cord.
22. Do not abuse cord. Never carry tool by cord or pull it to disconnect from receptacle, Keep cord from heat, oil, and sharp edges.
23. Guard against electric shock. Prevent body contact with grounded surfaces. For example, pipes, radiators, ranges and refrigerator enclosures.
24. Outdoor use extension cords. When tool is used outdoors, use only extension cords intended for use outdoors and so marked.

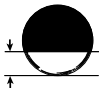
25. Stay alert. Watch what you are doing. Use common sense. Do not operate tool when you are tired.
26. Drugs, alcohol, medication. Do not operate tool while under the influence of drugs, alcohol or any medication.
27. Store idle tool. When not in use, tool should be stored in a dry and locked place, out of reach of children.

WARNING! ***Sawing generates dust. Excessive airborne particles may cause irritation to eyes, skin and respiratory tract. To avoid breathing impairment always employ dust controls and protection suitable to the material being saw. Diamond blades improperly used are dangerous. Comply with safety regulations covering speed, safety guards, flanges, mounting procedures, general operating rules, handling, storage and general machine condition.***

ii. SYMBOLS


KEEP GUARD IN PLACE


DIAMOND BLADE


BLADE CUTTING DEPTH


ELECTRIC SWITCH OFF


ELECTRIC SWITCH ON


ELECTRICAL HAZARD


REMOVE TOOLS


PAY EXTREME ATTENTION


REPAIRS TO BE DONE


MACHINE HAZARD


FLAMMABLE


READ INSTRUCTIONS CAREFULLY


WARNING


FRAGILE


KEEP DRY


DO NO STEP ON


WEAR HEARING PROTECTION


WEAR EYE PROTECTION


WEAR BREATHING PROTECTION


WEAR HARD HAT


WEAR PROTECTIVE CLOTHING


WEAR SAFETY SHOES


WELL VENTILATED


NO NON-WORKING PERSONNEL

iii. FEATURES

The TYROLIT TTE250 is a portable professional tile saw. Lightweight and compact it has innovative built in features that enable it to cut larger format tiles. The unique coaction movement of the cutting head and main table allow the saw to increase its cutting capacity whenever needed. The main table and extension carriage are supported by low friction, self cleaning, adjustable guide wheels. Water flow to the blade is provided by two (2) nozzles that direct the water to both sides of the blade. The rugged powder coated metal and aluminum frame sets in a removable water tray for easy clean up.

- ***Powerful Motor - 1.1 kW.***
- ***Circuit breaker protects your saw from power surges and overheating.***
- ***High Impact ABS Water Tray.***
- ***Adjustable Cutting Head allows user to align saw at any time.***
- ***Cutting alignment not affected by water tray maintenance.***
- ***Blade Capacity 250mm.***
- ***Diagonal cut up to 460mm tiles and rip cut up to 730mm in length.***

The heavy duty, cast to last construction and quality components were designed to meet the highest demands of the professional.

Read this manual completely and then let the TYROLIT TTE250 take your cutting capabilities to new dimensions.

iv. SPECIFICATIONS

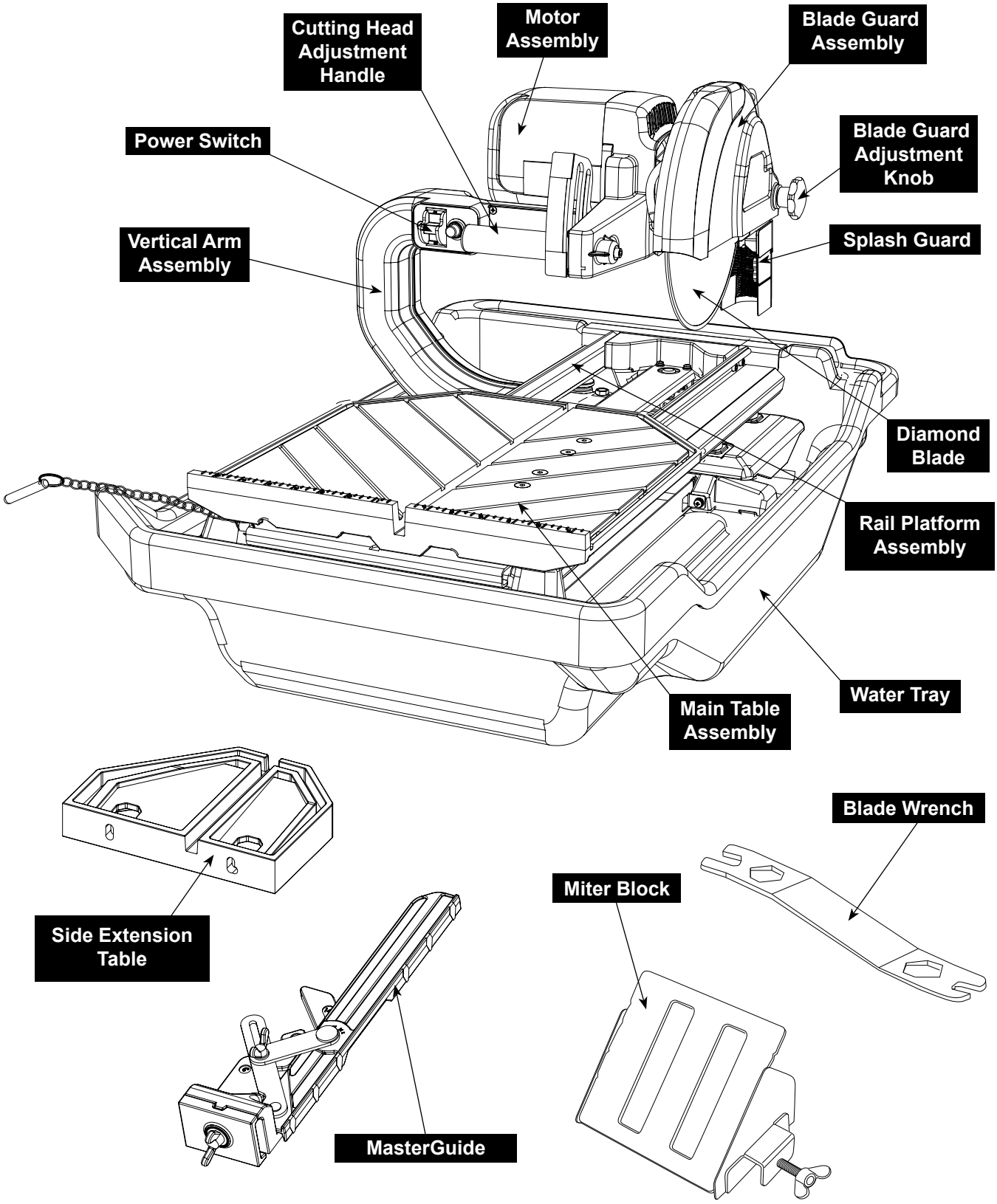
TYROLIT TTE250 TILE SAW				
MOTOR	**ARBOR SHAFT ROTATION**	**MAX. BLADE CAPACITY**	**WEIGHT**	**DIMENSIONS**
1.1kW 110 V, 50 Hz or 230V, 50 Hz Single phase*	Counter- Clockwise	25.4mm arbor blade, 250mm Blade	26 kg	Width: 600mm Length: 900mm Hight: 500mm

*** The motor is designed to operate on either 110V or 230V mains, but not both. Refer to the name plate located behind the motor for power requirements specific to your motor.**

	Noise level and vibrations	
	Noise level at the ear of the user (Leq)	93.7 dB(A)*
	Noise level at workplace (LPA)	80.5 dB(A)*
	Sound power level in accordance with ISO 3744 (LwA)	100.5 dB(A)*
	Vibrations DIN EN ISO 5349-2	< 2.5 m/s²
	*Value applies under the following condition: With Sawblade Ø250mm Type EB No. 5504014. Higher noise levels may be generated in cutting operation.	

ATTENTION! Hearing protection must be worn when 90 dB(A) is exceeded!

v. GETTING TO KNOW YOUR SAW



vi. BLADE INSTALLATION

1. Carefully raise the cutting head to its highest position and secure it into place by tightening the cutting head adjustment knob located in the front of the saw, to the right of the power switch.
2. Raise the blade guard to the highest position and tighten the blade guard adjustment knob.
3. Remove the blade shaft nut and outer flange.
4. Place the blade onto the shaft making sure that the directional arrows are pointing in the direction of rotation.
5. After making sure that the blade is firmly placed against the inner flange, secure it into place with the outer flange and blade shaft nut. Make certain the nut is firmly tightened with the wrench provided, but **do not over tighten!**
7. Lower the blade guard and tighten the adjustment knob.
8. Slightly loosen the cutting head adjustment knob and lower the cutting head to its lowest position, and then tighten the adjustment knob firmly to hold the cutting head in place.

WARNING: Setting the blade too high may cause the blade to grap the material being cut, causing damage and possibly injury.

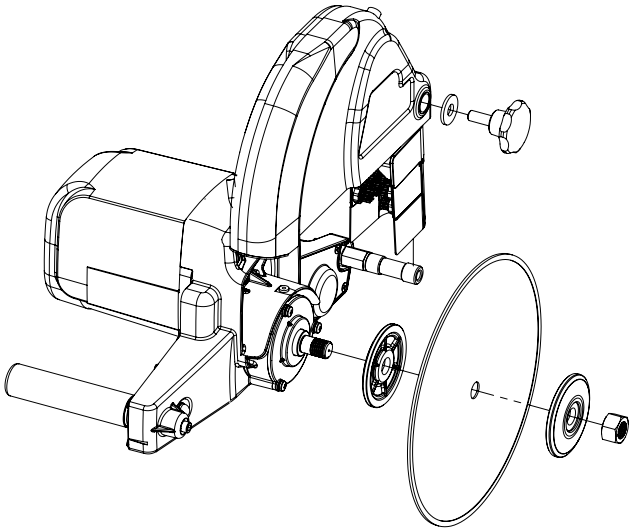


Figure 1

vii. SAFE OPERATING PRACTICES FOR TILE SAW

WARNING! ***For your own safety and the safety of others do not attempt to operate this saw until you have read and understand the general safety rules for all power tools and the following additional safety precaution unique to this saw.***

1. Use safety equipment - wear safety approved hearing, eye, head and respirator protection.

WARNING! ***The dust generated by cutting of tile, marble, stone, bricks etc. can be injurious to your health. Always operate machinery in well ventilated areas and provide proper dust removal. Always wear a dust mask approved for respiratory protection against these types of dusts and mists.***

2. Read and understand the symbol definitions contained in this manual.

3. Read and understand all warnings and instructions on the machine.
4. Read all safety materials and instructions that accompany any blade or accessory used with this machine.
5. Establish a training program for all operations of this machine.
6. Always provide a copy of this manual to the equipment user. If you need extra copies call our Customer Service Department.

7. Always select a diamond blade according to the manufacturers recommendation suitable for the material to be cut. Never use a blade having a maximum operating speed lower than the “No load R.P.M.” marked on the tool nameplate. Do not operate any saw without safety guards in place or with a blade diameter larger than the maximum

saw blade capacity.

8. Before mounting a blade on the saw clean and inspect the arbor shaft, blade flanges and the diamond blade for uneven wear or damage. If it appears to be damaged, ***Do not operate the tool.*** Have it serviced by a qualified service technician.

9. Before each use of the saw, inspect the diamond blade for hairline fatigue cracks. If such a crack or flaw is evident, discard the blade. ***Using a damaged blade may cause injury to the operator or others.***

10. Be sure that the blade arbor hole matches the blade adapter flange supplied with the saw. Use only blade adapter flanges that came on your saw. Never use damaged or worn blade adapter flanges.

11. ***Installing the blade***, install the blade with the arrow pointing the same direction as the rotation of the arbor shaft or the arrow on the blade guard. Be sure to tighten the blade shaft arbor nut with the wrench provided. ***Be careful not to over tighten.***

WARNING! ***Not dressing the blade frequently or setting the blade too high will cause it to grab the tile possibly causing injury to the operator and the saw.***

12. Check that the blade tracks near the center of the channel in the main table, and that the table moves freely from front to back.

13. Sometimes the material being cut is not abrasive enough to expose new diamonds on the blade. If the blade is not sharpened, it will rub against the surface resulting in heat build up in the core. To prevent this, it is necessary to dress the blade. To dress the blade simply cut something that is very abrasive such as a piece of cement block. Indications that the blade needs dressing includes:

    - The diamond in the matrix appear shiny because they are worn flat.
    - The blade stops cutting or noticeably slows down.

Blade dressing stones are available from your local TYROLIT distributor.

14. Before using the saw fill the water tub enough to submerge the water pump with clean water only. Replenish as necessary and clean the water tub frequently. Do not operate a wet cutting blade without adequate water flow to both sides of the blade. Never run the pump dry.

15. When cutting, always hold the material firmly lying flat, supported by the main table with one edge resting against the main table backstop.

    - Do not attempt to cut pieces too small to safely hold down on the main table.
    - Never use the side of the blade to cut or grind with, only cut in a straight line.
    - Keep all parts of your body away from the blade and all other moving parts.
    - Never touch or try to stop a moving blade with your hand.

16. When cutting dry - always unplug the water pump first. ***Never run the pump dry.***

    - Do not use a wet cutting blade for dry cutting. Select the proper dry cutting blade for your application.
    - Never make long continuous cuts with dry cutting blades. To avoid heat build up, allow the blade to cool, remove the tile and allow the blade to run freely for a few minutes.

IMPORTANT - If there is any tendency for the saw to move during certain operations, such as when cutting large heavy tile; the saw must be securely fastened to a supporting table.

17. Make certain all adjusting knobs or locks are tight and engaged in their detents and that movable parts not intended to move during operation are securely locked before making a cut. ***Be careful not to over tighten.***

18. Before connecting the machine to a power source check to see that the “On/Off” switch is in the “off” position.

    - Make sure the blade is not contacting anything before connecting to a power source and starting the motor.
    - Know how to stop the machine quickly in case of an emergency.

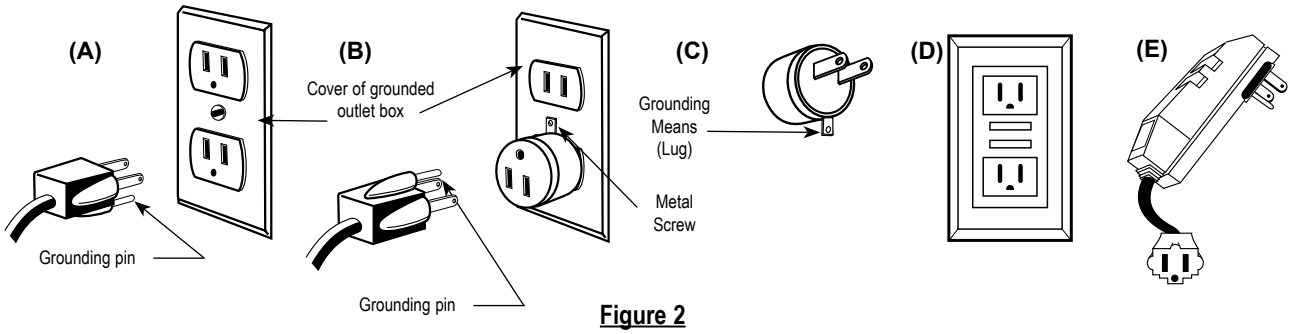


Figure 2
Grounding Methods

19. Grounding Instructions

- In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.
- Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.
- Improper connection of the equipment grounding conductor can result in a risk of electric shock.
- Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.
- Use only 3 wire extension cords that have 3 prong grounding plugs and 3 pole receptacles that accept the tool's plug.

Repair or replace damaged or worn cord immediately.

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in *Figure 2*. The tool has a grounding plug that looks like the plug illustrated in *Figure 2(A)*. A temporary adapter, which looks like the adapter illustrated in *Figure 2(B) and 2(C*), may be used to connect this plug to a 2 pole receptacle as shown in *Figure 2(B)* if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to permanent ground such as a properly grounded outlet box.

NOTE - ***Use of a Temporary Adapter is not permitted in certain countries. Please check local regulations before using a Temporary Adapter.***

Additionally, water pump requires the use of a Ground Fault Circuit Interrupter. Therefore, when using the water pump receptacle, this tool must be plugged into a properly installed Ground Fault Circuit Interrupter outlet. *See Figure 2(D)*. If a Ground Fault Circuit Interrupter outlet is not available, TYROLIT Hydrostress AG has it available as an accessory item. A plug-in Ground Fault Circuit Interrupter may be plugged into a properly installed and grounded 3-pole outlet. Refer to *Figure 2(E).*

20. Position of the Tile Saw

- To avoid the possiblity of the appliance plug or receptacle getting wet, position tile saw to one side of a wall mounted receptacle to prevent water from dripping onto the receptacle or plug. The user should arrange a "drip loop" in the cord connecting the saw to a receptacle. The "drip loop" is that part of the cord below the level of the receptacle, or the connector if an extension cord is used, to prevent water traveling along the cord and coming in contact with the receptacle. *See Figure 3.*
- If the plug or receptacle does get wet, ***Do not unplug the cord*****.** Disconnect the fuse or circuit breaker that supplies power to the tool. Then unplug and examine for presence of water in the receptacle.

To reduce the risk of electrocution, keep all connections dry and off the ground. Do not touch plug with wet hands.

21. Extension Cords

- Use only extension cords that are intended for outdoor use. These extension cords are indentified by a marking *"Acceptable for use with outdoor appliances; store indoors while not in use."* Use only extension cords having an electrical rating not less than the rating of the product. *Refer to chart on page 21.* Do no use damaged extension cords. Examine extension cord before using and replace if damaged. Do no abuse extension cords and do not pull on any cord to disconnect. Keep cord away from heat and sharp edges. ***Always disconnect the extension cord from the receptacle before disconnecting the saw from the extension cord.***
- Ground Fault Circuit Interrupter (GFCI) protection should be provided on the circuit(s) or outlet(s) to be used for the tile saw. Receptacles are available having built-in GFCI protection and may be used for this measure of safety.

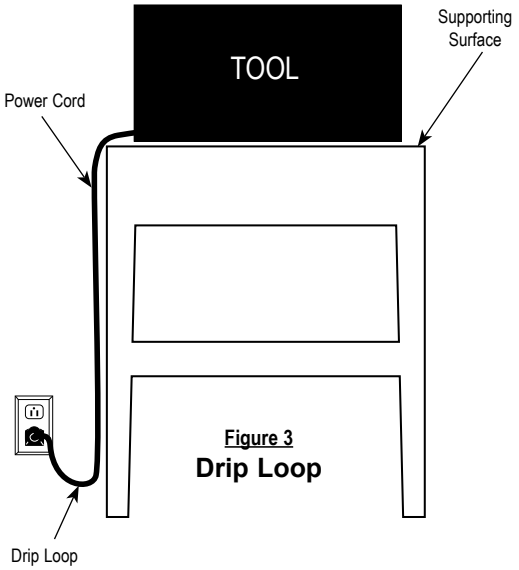


Figure 3
Drip Loop

viii. USING THE CUTTING TABLE

Features:

- Cutting table marked in inches for precision cuts.
- 350mm cutting table provides more support during larger cutting jobs than the standard 280mm cutting tables.

Using MasterGuide:

1. Set the MasterGuide by positioning it at the desired dimension on the measurement rail and firmly tighten the horizontal threaded knob. When using the attached ruler, the guide can be used to make cuts betwen 45º and 90º. To adjust the cutting angle first loosen the vertical threaded knob.
2. The guide can also be used without the ruler attachment to make 90º cuts on either the left or right edge. The guide contains multiple 45º templates to allow diagonal cuts of common tile sizes. Position the guide for a diagonal cut by aligning the desired template along a diagonal groove on the table. To remove the ruler first remove the vertical threaded knob.
3. After positioning the guide, place the material flat against the guide and the table measurement rail. Now you are ready to make your cut.

Making Miter Cuts (Using Miter Block):

1. For miter cuts, place the lip of the miter block on the measurement rail, with the threaded knobs facing you.
2. Tighten the threaded knobs to secure the miter block in place.
3. Place material onto miter block and you are ready to cut.

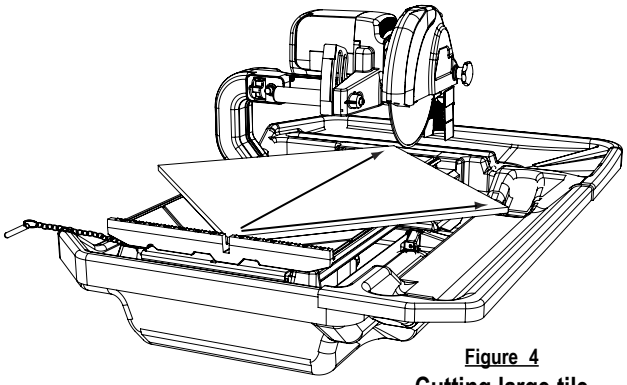


Figure 4
Cutting large tile
TTE250 can cut a **610mm** tile and diagonally cut a **460mm** tile.

TTE250 shown with optional drip trays.

xix. CARE AND MAINTENANCE

WARNING! ***For your safety before performing any maintenance on the saw turn off the power switch and unplug the power cord.***

TYROLIT TTE250 requires very little maintenance. However, keeping your saw clean and properly adjusted will ensure optimum performance. Take great care not to get water into the motor. Do no use pressure washer to clean motor area.

1. Cleaning

- Form a habit of cleaning your saw after each use. To clean the water tub, remove drain plug provided in bottom of tub. Remove saw including water pump from tub. Remove residual water and clean tub using soap and water only. Reinstall saw with pump into tub.
- To increase water pump life remove tile grit by purging water. Pump with fresh water after each use.
- With a damp cloth or sponge wipe clean the guide rails and all other surfaces on the saw where dust and debris has accumulated.

NOTE - Do not lubricate the guide rails. The presence of oil or grease will cause an accumulation of dust and dirt.

2. Transporting

- Unplug the power cord and store it in the empty, dry water tub. For convenience and safety, the saw should be transported with the main table **locked**, motor in upper position and all adjustment knobs tightened.

3. Sliding Vertical Arm Assembly Adjustment

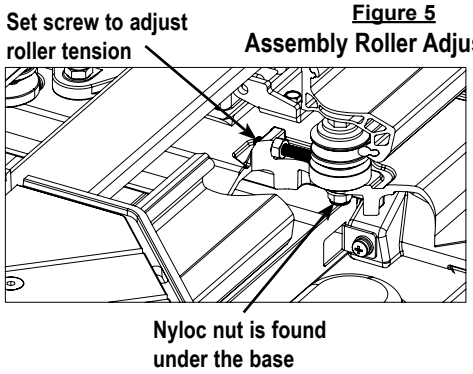
- Make sure that all rails and rollers are clean.
- If the vertical arm assembly does not slide smoothly, it will require tension adjustment as follows:

A. Locate the two tension rollers mounted onthe black base of the vertical arm assembly furthest from the arm. Use a wrench to loosen the nyloc nut directly below each roller. Use another wrench to prevent the bolt on top from turning. *See Figure 5.*

B. Use the horizontal set screw to adjust roller tension against the rails. The rollers should roll free but without side movement.

C. Tighten nyloc nut when finished to secure rollers in place. Be sure not to overtighten.

Figure 5
Assembly Roller Adjustment



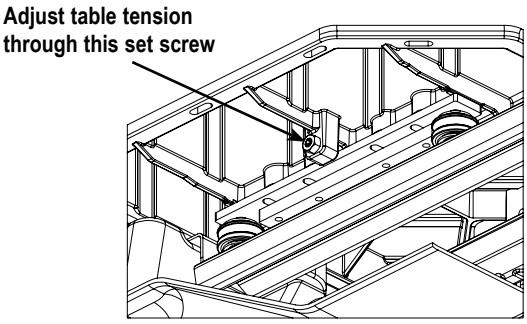
4. Table Roller Adjustment

A. Loosen (4) hex screws on table top.

B. Adjust tension on rollers by turning set screw (on outside of table) until desired tension is achieved. **DO NOT OVERTIGHTEN.** *See Figure 6.*

C. Re-tighten the (4) hex screws on table top. Check table movement and re-adjust if necessary. Table should roll free but without side movement.

Figure 6
Table Roller Adjustment



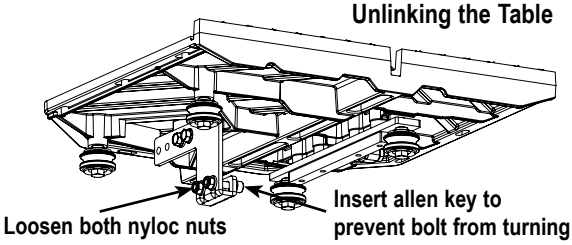
NOTE - Whenever making tension adjustments to rollers on the vertical arm assembly or table, the stainless steel wire linking the two components together should be disconnected first. Otherwise, it will not be possible to determine which rollers will require adjustment. See Section 5 for steps.

5. Unlinking Coaction Wire

A. Remove the wire shield located between the rails by removing the screws at both ends.

B. Loosen the nyloc nuts on the wire anchor underneath the table so that the wire can pass freely through the bolt. ***Be sure to use an allen key to prevent the bolt from turning. Failure to do so may cause the wire to break.*** *See Figure 7.*

Figure 7
Unlinking the Table



C. Perform the necessary adjustments. Proceed to next step once completed.

D. Move the table towards the user, such that the forward-most roller touches the rubber stopper at the end of the rail. Then move the vertical arm assembly to the opposite end, while leaving a small gap between the rear-most roller and frame.

E. Tighten the nyloc nuts on the wire anchor, while preventing the bolts from turning.

F. Replace the wire shield.

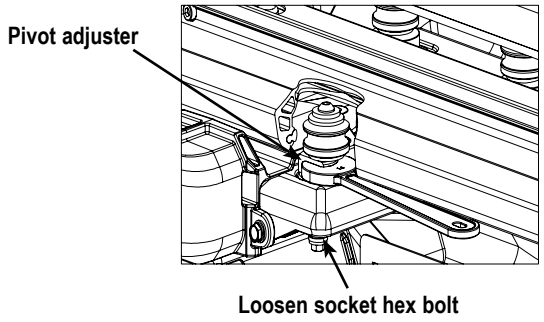
6. Aligning the Blade to the Table

- While cutting, the material being cut must move in a straight line parallel to the saw blade. If the blade is out of plane it will bind at one end of the cut. To align the blade, perform the following:

A. Locate the pivot adjuster on the black base of the vertical arm assembly next to the arm. Loosen the socket hex bolt directly below the adjuster. *See Figure 8.*

B. Turn pivot adjuster using a wrench either clockwise (putting the roller into the rail) or counterclockwise (pulling the roller away from the rail). While the pivot adjuster determines blade alignment, the rollers on the opposite side of the assembly base *(see Section 3)* must also be adjusted simultaneously so that they run parallel to the rollers closest to the vertical arm. ***Do not apply excessive force when turning the pivot adjuster.*** Resistance encountered while turning the pivot adjuster indicates that rollers are being forced against the rail. Lower roller tension before proceeding.

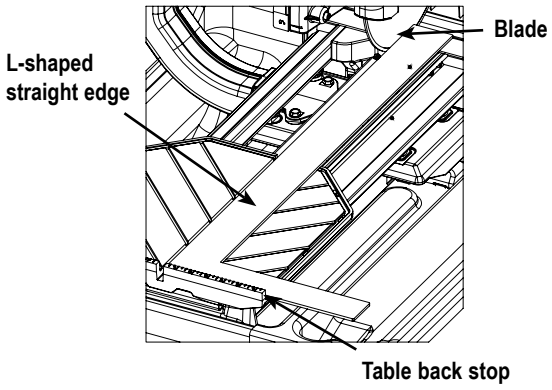
Figure 8
Blade Alignment



C. Tighten lower socket hex bolt when finished. With the pivot adjuster secured, adjust the remaining rollers to obtain proper tension against the rails. *See Section 3.*

D. Check alignment by placing an L-shaped straight edge on the table with the short arm resting flat against the table back stop. The long arm should rest against the blade with the cutting head completely lowered. Check to see if there are any gaps between the leading or trailing edges of the blade and the straight edge. If gaps exist, then repeats steps A - C until alignment is attained. *See Figure 9.*

Figure 9
Table Roller Adjustment



7. Positioning the Saw in the Tub

A. Orient the saw such that the front is pointing towards the short side of the tub with the beveled corner.

B. While lowering the saw into the tub, ensure that brackets at both ends of the saw frame