

AWS-110/220 Electric Wet Circular Saw



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The **AWS-110/220** is an ideal high performance cutting tool designed for continuous production applications in the shop as well as in the field. Equipped with a water feed and a choice of guide systems, the **AWS-110/220** allows you to easily make straight cuts on all types of natural stone, terrazzo, engineered stone, glass, concrete, and masonry. For safety purposes, the **AWS-110/220** is double insulated and equipped with an in line GFCI. For most of your cutting needs, use the **AWS-110/220**.

Specifications:

Voltage.....110V/60 Hz (AWS-110)
.....220V/50 Hz(AWS-220)
Power.....1200W or 10.9 A
RPM.....13,000 (NO LOAD)
Blade Size.....up to 4-1/2" / 115mm
Arbor size.....20mm
Weight.....6.8 Lbs. (3.1 kg)
Water Flow.....± 1 Gallon (± 3.785 Litres)
...../min. @ max flow

Standard Equipment:

Spanner Wrench
Box Spanner
In Line GFCI
Water Hose
Guide Ruler or TT Ruler Guide; Reversible
Insulated Electrical Parts

Recommended Accessories:

CB-CASM w/ CB-AGKIT
Alpha Sonic Blades
Alpha Numero Uno Blades
Alpha Porcellana Blades
Alpha Vetro Blades

How to Use:

1. Select the desired blade for your cutting application.
2. Make sure that the power cord is unplugged.
3. Use the spanner wrench to secure the flange and use the box spanner to loosen the hexagon bolt.
4. Remove the bolt and the flange.
5. Install the blade paying attention to the blade direction.
6. Reinstall the flange and the bolt and secure with the wrenches as supplied above.
7. Select guide method
 - a. Guide Ruler or TT Ruler Guide
 - b. Guide Rail System
 - c. Free Hand

8. Guide Ruler - If not already attached, loosen the wing bolts on the base plate and slide the arms into the slots located in the base plate that are under the wing bolts. There are two ways the Guide Ruler can be positioned.

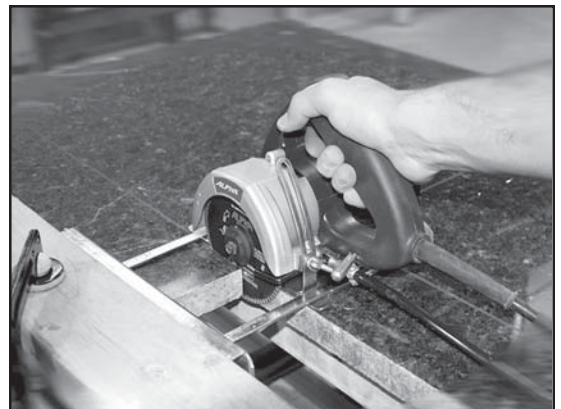
- a. Using the straight edge of the stone as a guide:

Place the Guide Ruler so that the smooth side is facing down and the channel side is up. The guide should extend below the base plate. Measure the distance from the edge of the stone to the intended cut. Use this measurement to gauge the distance inside of the Guide Ruler from the blade and tighten the wing nuts. Make sure that you account for the thickness of the blade in your measurement. Align the Guide Ruler with the edge of the stone and proceed to cut. Cut slowly and allow the guide to maintain contact with the stone to ensure a perfectly straight cut.



- b. Using a straight edge as a guide:

The straight edge should be thick enough to prevent it from sliding underneath the Guide Ruler. Place the Guide Ruler so the arms are under the guide part. The channel should be facing down and the flat side up. Insert the arms into the slots on the base plate. Measure the distance from your straight edge to the intended cut. Use this measurement from the outside wall of the Guide Ruler to the blade. Do not include the width of the blade in this measurement or your cut will be off. Tighten the wing nuts to secure the Guide Ruler in place. Align the Guide Ruler with the straight edge and proceed to cut. Cut slowly allowing the Guide Ruler to follow the straight edge to ensure a perfectly straight cut.



Note: Using the Guide Ruler is much preferred over Free Hand Cutting for a perfect straight cut.

9. Using the Carriage Assembly with the Alpha Guide Rail:

To set up the Carriage Assembly remove the Guide Ruler as instructed above and install your blade onto the AWS-110/220. Attach Pressing Plates (2 x Part No. 133248) to the inside part of the Carriage Assembly Base Plate (Part No. 133244). Do not tighten these screws yet. Make sure that there is plenty of play in the pressing plates. Place the AWS-110/220 on the Carriage Base so that the flat edge of the base nearest the blade is under these pressing plates. Next, install the 2 remaining pressing plates on the out side of the carriage base. Ensure that the flat edge of the AWS-110/220 base plate near the motor assembly is under these plates. Tighten all 4 pressing plates so that the saw is immobile on the carriage assembly. The AWS-110/220 and Carriage Assembly are now ready for use with the Alpha Guide Rail.



To set up the Alpha Guide Rail for cutting applications make sure that the stone is stable and has plenty of room on the overhang for the underneath clamps. Measure 2-3/4 inches (7cm) from the intended cut to the front edge of the guide rail. Secure Guide Rail with the under mount clamps on both sides. Recheck your measurements to ensure straightness. Mount Carriage Assembly to guide rail by sliding the casters on to the rail. The fit should be snug but have the freedom to move the carriage in a horizontal motion. You are now ready to begin cutting proceeding with a step cutting approach.

Note: This is the best method for hand held applications to obtain a perfect straight cut.

10. Free Hand

Remove the Guide Ruler (Part No. 133266) by loosening wing nuts (2 x Part No. 133084). Slide the Guide Ruler out from Base Plate (Part No.133271). Tighten wing nuts to prevent loss. Your AWS-110/220 is now ready for free hand cutting.

(Note: Free Hand Cutting is the least recommended cutting method. For the straightest possible cuts, a guide system of some type (such as those listed above) is highly recommended.)

11. Plug AWS-110/220 into outlet and reset the GFCI. Turn AWS-110/220 on and test saw. You are now ready to cut.

12. Start the AWS-110/220 and allow it to come up to full speed before starting your cut. If dry cutting, use the step cut method and back out periodically to allow cool air to flow around the blade.

13. When finished, unplug the AWS-110/220 and disconnect any accessories. Store in a dry place out of reach of children.

Common Questions:

If my AWS-110/220 breaks down, whom should I contact for repair?

You can contact the dealer where you purchased the tool or you can send it directly to Alpha Professional Tools for repair.

What is the warranty for the AWS-110/220?

Alpha Professional Tools warrants the AWS-110/220 for a period of 180 days from the date of original retail purchase (proof of purchase is required) and is limited to the repair or replacement of parts without charge.

What can I do if my AWS-110/220 breaks down and I need to complete the job immediately?

First check the carbon brushes, if they appear worn out, replace them with genuine Alpha brushes and test the AWS-110/220 before attempting to resume cutting. If the problem still persists, contact the Tool Repair Department at Alpha Professional Tools for further assistance.

Is there a maintenance program for the AWS-110/220?

No, there is no maintenance program for the AWS-110/220. Replacement of the carbon brushes on a periodic basis is the first step to any type of maintenance. If complications begin to arise during cutting, or if unusual noises occur, then we recommend that you send your tool for maintenance. Our Tool Repair Department will evaluate the tool and provide an estimate for your approval before performing any work. The sooner a tool is checked after noticing an abnormal noise, the less likely there will be a significant amount of damage.

How can I get the parts list and schematic for the AWS-110/220?

By calling Alpha Professional Tools at 888-29-ALPHA to the Alpha Fax On Demand system. By doing so, you can instantly receive the information you need by using the touch tone commands on your telephone.
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What kind of blades can I use on my AWS-110/220?

The maximum blade size is 4 1/2 inches (115 mm). The following Alpha blades will fit:

Sonic Series:	TS04AL & TS05AL
Numero Uno:	GM05A+
Porcellana:	PT04A+
Vetro:	WG0438
Alpha Plus:	DA04A+ & DA05A+
Alpha Eclipse:	DE04AL & DE05AL
Alpha Libero:	DL04A+ & DL05A+
Alpha Quad:	DA04AH
Alpha Vortex:	FCD40AH
Tuck Point:	TP04SP
Alpha Hot-Rod:	HR03A+ (Granite) HM03A+ (Marble)

What is the metal attachment that comes with the saw used for?

The device is called the Guide Ruler or TT Ruler Guide. It is designed to enhance the cutting performance of the AWS-110/220 by providing a guide that will work against the straight edge of the stone or a rail of some type clamped to the stone surface.

Why does the Guide Ruler have two extension arms?

Most others only have one. While one extension provides the ability for the saw to cut in a straight line, some harder applications tend to make the saw pull sideways. The second extension prevents this sideways movement and provides the operator with a sturdier means to accomplish a straight cut.

What is the maximum distance I can set up the Guide Ruler from the saw?

The Guide Ruler must be set up so that the furthest slot on the base plate can securely tighten down on the rear arm of the Guide Ruler. This slot is located in the back right hand side of the base plate. If the wing bolt on this slot is not able to secure the arm, then there is a possibility that the saw may not maintain the straightest possible cut. The saw with the guide facing down against the edge can cut material at a minimum of 0" and maximum of 4-1/2" in width. The saw with the guide facing up against the straight edge can cut material at a minimum of 1-3/8" and maximum of 5-3/8" in width.

What is the AWS-110/220-CASM used for?

This accessory is designed to adapt the AWS-110/220 to the Alpha Guide Rail System. The AWS-110/220-CASM provides the sturdiest cutting platform for the truest cuts possible. Attach to the AWS-110/220 as described above and mount onto the appropriate length guide rail. Proceed with cutting. Since the guide rail interfaces with the Alpha EdgeCrafter, you can polish the straight edge you just cut without altering

the position of the guide rail.

The following identifies the maximum cutting depth by the size of the blade:

Blade Size	Cutting Depth (Metric)	Cutting Depth (Standard)
4 inch (100 mm)	29 mm	1-1/8 "
4-3/8 inch (110 mm)	34 mm	1-3/8 "
4-1/2" inch (115 mm)	36 mm	1-7/16 "

During cutting, I noticed that the blade wants to pull away from the cut/ How can I prevent this?

First use either the Guide Ruler or the AWS-110/220-CASM and guide systems for the best guide method and the straightest possible cut. Secondly, before you begin to cut, check the condition of the blade. If the diamonds are glazed, the blade will not perform regardless of the equipment you use it on. Lastly, don't force the blade to cut. Apply slow even pressure to allow the diamonds in the blade time to cut for the best cut. For 1-1/4 " stone, step cutting is a better method than a single pass.

Does water need to be on both sides of the blade?

The AWS-110/220 is equipped with a water feed system that puts water on both sides of the blade. Wet cutting blades do require water on both sides to keep the blade cool and clean of slurry. Water on one side would mean that the other side is dry cutting which will create dust.

Can I use the AWS-110/220 for dry cutting applications?

The AWS-110/220 can be used dry if the blade is a dry cutting blade. However, wet cutting is always a better method whenever possible.

Can I use the AWS-110/220 in curve cut applications such as a sink hole?

The guard of the AWS-110/220 is not wide enough to safely accept a contour blade. The AWS-110/220 can be used with a straight blade to plunge cut the sink hole, but the Alpha CCB blade on a right angle grinder is much better suited for this application.

Helpful Hints:

Read and follow the instructions in the operating manual thoroughly.

1. Take care to ensure that the cutting area is clear of debris and no one will be in a position to interfere with the cutting application.
2. Select the right blade for the specific cutting application.
3. Before beginning your cut, make sure that the power cord is routed behind you.
4. Use slow steady pressure while cutting.
5. Step cut on thick materials (1-1/4" etc).
6. Take care to prevent moisture from entering into the cooling vents.
7. Blow out the cooling vents to dry up any moisture periodically.