

# FREQUENTLY ASKED QUESTIONS



The following contains general questions and answers for Merit flat saws, please refer to The Owner's Manual that is specific to your saw. If you do not have a manual or do not know the model of your saw, please check the ID Plate located in the lower rear control panel near the battery.

For additional questions, or to request a copy of The Owner's Manual, please email: [Service@icsdiamondtools.com](mailto:Service@icsdiamondtools.com)

Q: *What size blade can I use on a Merit flat saw?*

A: It depends on the saw model. Merit flat saws come in models with blade capacities that range from 14- to 48-inches in diameter.

Q: *How can I verify my Merit flat saw model number?*

A: The ID Plate located inside the rear panel will have the model number and serial number of the saw. Use this number as reference when ordering parts.

Q: *Can a Merit flat saw be converted from rear-pivot to front-pivot, and vice versa?*

A: No. The chassis is designed specifically for each configuration of saw.

Q: *Is the Merit flat saw capable of accepting a blade on both sides of the unit?*

A: Yes. The shaft is designed to accept a blade on the left or right side of the saw. The saw is not designed to run blades on both sides at the same time.

Q: *Does the Merit flat saw come with a lifting frame or device to lift the saw?*

A: Yes. All Merit flat saws include a lifting eye that is part of the structure, and should always be used for lifting the saw.

Q: *Does the Merit flat saw have a single-stage or dual-stage air filtration system?*

A: The 100, 250, 350, and 400 are single-stage.  
The 600 and 800 are dual-stage air filtration systems.

Q: *Are the Merit flat saws water- or air-cooled engines?*

A: The 100, 250 and 350 series gas models are air-cooled.  
The 400, 600, and 800 gas models are water-cooled.

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Q: *Can Merit flat saws be run indoors?*

A: Only the electric saws can be run indoors.

The gasoline models emit exhaust fumes (co2), which can be fatal.

Q: *How many handlebar positions does the Merit flat saw have?*

A: The 250 and 350 saws have three handle positions.

The 400, 600, and 800 have four handle positions.

Q: *Does the Merit flat saw require water?*

A: Yes. Minimum water requirement for all Merit flat saws is 15psi at 2gpm. A gravity fed water tank may require a booster pump to provide adequate water supply to the flat saw. Merit offers a water pump for 350, 400, 600, and 800 series flat saws.

Q: *What is the minimum size doorway width a Merit flat saw will fit?*

A: The 400 series and smaller will fit through a 36-inch wide doorway. The 600 series, using only the quick disconnect blade flange, will fit through a 36-inch wide doorway.

Q: *Does a blade guard come with a Merit flat saw?*

A: No. Blade guard size and price will be determined at time of flat saw purchase.

Q: *Button controls vs. standard lever controls: Is one better than the other?*

A: No. There is not an advantage to either. Control configuration is primarily based on operator preference.

Q: *Rear-pivot vs. front-pivot: Is one better than the other?*

A: No. There is not an advantage to either. Pivot preference is primarily based on operator preference.

Q: *Can I get it painted a custom color?*

A: Yes, if purchasing multiple units at one time. Discuss this with your local Sales Manager.

Q: *Can I get wider blade guards for multi-blade cutting?*

A: Yes, to cut up to 5 inches wide.

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## GEARBOX FAQs

Q: *Can I shift gears while the Merit flat saw is running?*

A: No. The engine must be completely turned off before changing gears. Using gear selection guide on the gearbox, select appropriate gear as specified by blade manufacturers RPM rating.

Q: *Can the engine RPM's be slowed to accommodate larger blades?*

A: No. The RPM directly affects engine horsepower and torque. Reducing the engine RPM reduces the horsepower and torque and may cause low or sluggish cutting power. Always run the saw at full throttle when cutting, and use the proper gear for the manufacturers specified blade RPM. The Merit gearbox was designed to have a specified RPM input; reducing engine RPM will affect the gearbox RPM output.

Q: *Does the Merit gearbox have a neutral to prevent it from spinning even with the engine running?*

A: Yes. Both the gearbox and control panel have a configuration diagram with gear positions. Please note: Saw engine must be off before changing gears.

Q: *I have a single speed Merit flat saw. Can I convert it to run with a gearbox?*

A: No. The chassis is designed specifically for each configuration of saw.

Q: *Can the Merit 4-Speed gearbox be run without water?*

A: No. The gearbox relies on water to efficiently cool the gearbox oil and components. Failure to do so may cause excessive wear and stress on the gearbox and components.



## OPERATION FAQs

Q: *What kind of power do I need to run the Merit electric flat saw?*

A: For electric motors rated up to 30Hp, use a minimum 45kw\* or larger generator.  
For electric motors rated up to 40Hp, we recommend 75kw.\*

*\* Power output characteristics of generators vary by manufacturer. Minimum power rating shown may not be adequate for all generators, depending on size and length of power cord. Always consult with a qualified electrician.*

Q: *What voltage do Merit electric flat saws require to run properly?*

A: All of the electric motors are configured to operate using 480v 3-phase at 60Hz AC power.

Q: *Can the rear wheels of a Merit flat saw be freed to allow for towing capability?*

A: Yes. Use the differential neutral cable located on the control panel.

Q: *Does the Merit flat saw use only one drive wheel to move or maneuver the saw?*

A: The rear-pivot saw does drive with one wheel, unless posi-traction has been engaged.  
The front-pivot saws come standard with full-time posi-traction.

Q: *Does the Merit flat saw have a safety mechanism or switch that turns it off if overheating occurs?*

A: Yes. The electric saws have overload relays that shut down the motor, and gasoline water-cooled models have a temperature switch sensor that shuts it down at 240 degrees.

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