

Some manufacturers have paddle switches with a locking switch. With these machines you have two choices: 1) by depressing the paddle switch and then depressing the locking switch at the base of the grinder, you do not have to hold the paddle switch down continuously while working. Any sensitive pressure on the paddle switch then shuts the motor off or 2) you can choose to hold the paddle switch down without utilizing the lock switch. When you release pressure on the paddle switch, the motor turns off, and the accessory spins slowly to a stop. Let's also make this clear. Contrary to some opinions, a paddle/kill switch will not bring any accessory to an immediate stop. Any and all accessories fitted to angle grinders, regardless of the type of on/off switch, will spin to a complete stop up to nine seconds after the switch to the motor is turned off. An important point is that there is no noticeable difference in performance with our blades using a grinder with either a paddle or thumb slide switch, which is why we state either style is suitable.

Q: Can you recommend any specific grinders?

A: Yes. Our top picks in the USA are the following 4-1/2" grinders: Bosch 1810PS, Milwaukee 6146-30, Ryobi AG452, Porter Cable PC750AG and Craftsman 24544. In the UK, for both single and tandem blades: De Walt DW818. In Europe: De Walt DW821 for single blade use and the DW824 for tandem blades.

– Differences Between Using One & Two Blades –

Q: Why do I need two blades? Isn't one good enough?

A: With two blades you have more teeth, more versatility, more options, faster wood removal and shaping. You get to your final piece much quicker. Most people use two blades for their rough out carving and shaping then change down to one blade for detail work. But if your application only has need for one blade, choose either the 22 or 14 tooth Lancelot. *You won't be disappointed! It's still blazingly fast.*

Q: What center hole size do I need to fit two blades?

A: It is strongly recommended that you match center holes with the grinder's shaft diameter. Check the grinders instruction manual or simply measure the shaft diameter. In most cases the shaft diameters on most 4-1/2", 115mm and 125mm grinders are as follows:

North and South American Angle Grinders: 5/8"

European Angle Grinders: Predominantly 14mm, some 5/8" (16mm)

Australian and New Zealand Angle Grinders: 14mm and 16mm

Japanese Angle Grinders: 15mm and 16mm.

Q: I have a 14 and a 22 tooth Lancelot. What's the best way to fit them?

A: Place the 14 tooth on first, then fit the 22 tooth directly on top and tighten both blades with the Universal Nut. The advantage is when using them on their face, the 22 tooth is the only blade in contact with the wood doing the work and gives you the nicest, finer finish.

Q: What advantage is there in mounting a Lancelot and a Squire?

A: 1) When you turn the blades at an angle on their face, similar to using a grinding wheel or a sander, the offset chain saw blades will all come in contact with the wood. 2) You can have between 26 to 40 teeth for either rough or fine removal. 3) They are great for removing large amounts of surface material, scalloping or convex shaping. 4) By cut-

ting across the surface of the wood from left or right to center, (imagine removing bark from a tree or similar) you will rapidly remove huge amounts of surface wood. 5) When cutting vertically, this combination leaves unique bench or stepped cuts in the wood.

Q: What is the most versatile combination to have?

A: Three blades and one Universal Nut. Get one Lancelot 22 and one Lancelot 14 tooth, and one Squire either 18 or 12 tooth. This way you have 1) the ability to mix and match combinations to suit your different applications, 2) use them individually for detail work and 3) get a fine or rough finish.

Q: What combination takes out the most wood?

A: Two 14 tooth Lancelot's. This combo also provides great lateral control in cutting from left to right, right to left and repetitive side-to-side motions across the top of the wood.

– Angle Grinder And Chain Maintenance –

Q: Should I keep my grinder clean?

A: Yes, simply because our accessories remove wood shavings and sawdust so quickly. We highly recommend you air blow the body and the on/off switch clean on a regular basis as part of your normal maintenance but only when the power to the angle grinder is disconnected. This will prevent shavings and sawdust accumulating in the motor windings. Additionally, if you own a thumb slide on/off switch grinder, blow under the "off" section of the switch. If shavings accumulate under the "off" section, during operation when you depress "off", you may experience the switch will stay locked "on" and you'll be pressing the switch rapidly backwards and forwards until it switches off. It's very important and in your best interest to keep it clean.

Q: Do the chains require oil?

A: No, the only maintenance required is to sharpen the teeth. The chain circlet is securely locked in place between two discs and does not move independently like a chainsaw over a bar. The only parts that wear are the teeth.

– Saw Chains –

Q: Is the chain replaceable?

A: Yes. We recommend having one or two spare sets on hand. It's more convenient and saves time to replace a dull chain with a sharp one rather than sharpening blunt teeth on the job. Sharpen blunt chains in your downtime and maintain high productivity on your project.

Q: Are the chains interchangeable between models? Will a 22 tooth chain fit the 14 tooth Lancelot, or an 18 tooth Squire fit the 12 tooth?

A: No, none of the chain circlets are interchangeable. You must get replacement chain specific to your Lancelot or Squire tooth models. Because of the difference in fine and course tooth sizes, the discs are manufactured to match the specific chain diameters.

Q: What's the difference in chain pitch between the 22 and 14 tooth Lancelot, and the 18 and 12 tooth Squire?

A: The 22 tooth Lancelot and 18 tooth Squire are 1/4" pitch Micro Chisel: the 14 tooth Lancelot and 12 tooth Squire are 3/8" pitch Xtra Guard.





FREQUENTLY ASKED QUESTIONS – LANCELOT AND SQUIRE

Now that you're the proud owner of our accessories, this extract from our Frequently Asked Questions (FAQ) offers you answers to the most FAQ about our products. Our tools are safe, efficient and easy to use, however, you must read the **Assembly Instructions** in conjunction with these FAQ's. One does not replace the other and they're both full of information for the safe, efficient operation and maintenance of our cutting blades. Please visit our website at www.katools.com for a full version of the FAQ's.

– Safety and Myths –

Q: Are the tools safe?

A: Yes. We have never had a chain break, disc crack or blade fly off the grinder, contrary to some of the myths out there. Not one has ever been returned through customer dissatisfaction or manufacturing defect. The simple truth is that the chain can't break because it doesn't move independently like a chainsaw, which rotates on a bar. The chain on every one of our products rotates as one unit locked between the top and bottom discs, the total assembly being secured by the lock nut which is further secured by its clockwise tightening when the motor turns anti clockwise. The chain can't go anywhere as it spins in conjunction with the discs.

Another design feature ensures the blades never heat up due to the cooling effect provided by the four holes and slots in each disc, maintaining their long life. For safety reasons, our discs are manufactured with specific center hole diameters, which is why we don't use reducing inserts or bushings. The discs also have a patented anti kickback clutch action when the chain hits an immovable object like a nail or wire, however, do not force the blade and twist it in the wood during operation. Like any other cutting attachment, if twisted hard or rapidly against the sides of a deep cut you made in the wood, the forces exerted could induce a kickback. *Let the tool do the cutting - it's more than capable.*

We are very proud of our excellent safety record, however, please keep in mind that you must always use caution with a power tool. The biggest danger is complacency and lack of attention to the work. You must always be alert and aware that the blades travel between 10,000 - 11,000 rpm at three times the speed of a chain saw with twice as many teeth! *Used correctly, there's nothing better or faster on the planet.*

– Safety Guard –

Q: Why do I have to change the position of the safety guard?

A: For safety, optimum performance and carving in a comfortable position. The recommended way is the only way. To underscore the importance of this requirement and for further emphasis: **if you don't change the safety guard position, don't use our blades.** For detailed information, refer to "Warning: Safety Guard" in the Assembly Instructions.

Q: Can I work without a safety guard?

A: No, no and heck no! It's not good for your health or safety. **If you want to remove the safety guard for any reason, don't use our blades.** Running them without a safety guard is done so at your own risk. Please don't under any circumstance!

Q: Is it easy to change the safety guard?

A: Depending on your model grinder, it should take a few seconds with a simple turn to the left, or less than a minute if you need to make a screw adjustment. One exception is the Makita 4" or 100mm angle grinder. Please read the next question:

Q: I have a 4" Makita that has two screws securing the safety guard at 90°. What do I need to do to change the position of the guard to 45°?

A: This particular machine is the only one in the world that has this type of safety guard and requires a simple fix to change its position.

For detailed information, please go to our website at www.katools.com and click on **FAQ, Angle Grinders, Makita 4" Safety Guard** or call **1-800-942-1300.**

– Angle Grinders –

Q: I don't have an angle grinder. What do I need?

A: The answer is "what do you want to do - use one or two blades?" Depending on your country, 4" and 4-1/2" grinders or 100mm, 115mm or 125mm grinders can be used as follows:

Single blade use only: If you only want to use one Lancelot or Squire blade on its own you can use a 4" or 100mm angle grinder. The blade you select must have the 5/8" (16mm) center hole. It is important to note that with one known exception, you are limited to using a single blade and cannot fit a tandem combination on 4" grinders. They're way too underpowered for two blades. The one exception we know of is Makita Model 9501B, 10,000 rpm 4.0Amp 10mm shaft - but you need to order part number 224291-1 inner nut to fit two blades. The nut has to be specially ordered from the Makita dealer.

Tandem, dual, double blade or two blade combinations:

You can use any 4-1/2" or 115mm and 125mm angle grinder for any tandem combination. We recommend that you use two blades with either 5/8", 14mm or 15mm center holes, depending on your country.

For all round versatility we highly recommend using a 4-1/2", 115m or 125mm angle grinder. That will allow you to fit any tandem combination as well as using them as single blades. Nearly every 4-1/2", 115mm and 125mm grinder is suitable for use with our blade accessories - the exceptions are certain 4-1/2" Skil models with a 3/8" center shaft. While our accessories will fit all except the Skil power units, we highly recommend angle grinders that have a paddle switch versus those with a thumb controlled on/off slide switch.

Q: Why do you prefer the paddle switch over the thumb controlled on/off slide switch?

A: For two major reasons. **Reliability.** In extensive testing, most manufacturers thumb on/off switch angle grinders have failed. Switch failure occurs over a period of time. None of the paddle switch grinders we've used have failed. **Ease of Operation.** Depressing a paddle switch with thumb/fingers curled around the switch on the side of the grinder is slightly easier than reaching for a thumb switch located on the top of the grinder. The switch is depressed with the thumb or two to three fingers, depending on the model grinder, versus the thumb controlled on/off slide switch located on top of the grinder body.

