

Galahad CG® Tungsten Carbide **FLAT**

Galahad CG® Tungsten Carbide **ROUND**



Galahad CG®

INSTRUCTIONS

Congratulations! You have just become the proud owner of a Galahad CG® disc. This product incorporates **crushed grit tungsten carbide** technology and is available in either round or flat profiles. It is priced affordably and allows you to do basic shaping and removal for a myriad of common house chores, do-it-yourself applications and basic wood carving. Uses include landscaping, small construction jobs, carpentry, remodeling or anywhere you need to remove and shape wood, soft stone, plastics or rubber at a DIY price. To maximize your enjoyment, refer to these instructions for answers to simple questions on fitting your Galahad CG and for the best cleaning tips.



Universal Nut Enables Universal Disc Use

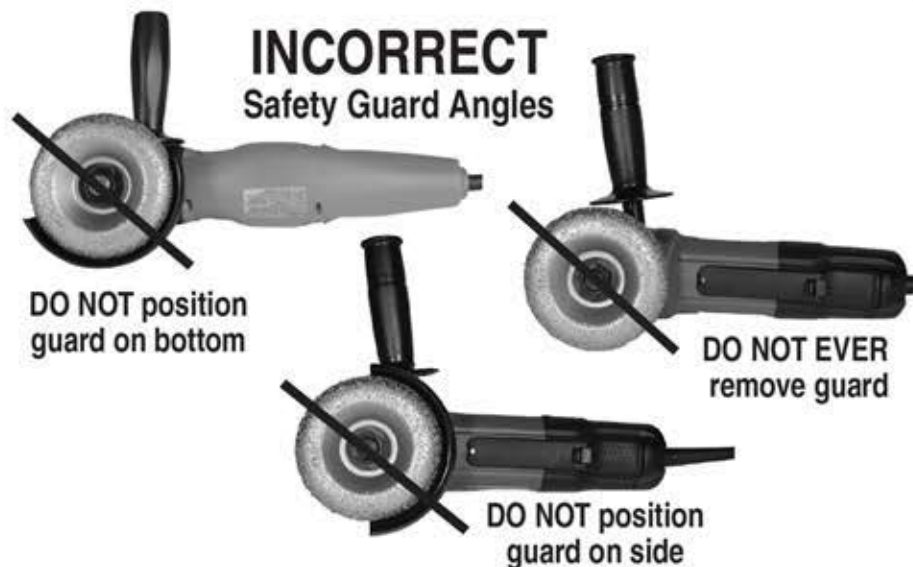
NOTE: The Universal Nut is not included with your purchase of this product and must be purchased separately from one of our retailers or from King Arthur's Tools.

King Arthur's Tools® Universal Nut (part #13750 for 5/8" center shafts and part #14000 for 14mm center shafts) has a recess in the base so that any 4-1/2", 115mm or 125mm angle grinder in the world can accept the Galahad CG®, and more specifically the round disc models.

Using our Universal Nut, you can seat any style Galahad CG, but especially the round profile, over the 7/8" 22mm arbor and tighten using a 21mm spanner or wrench over the hexagonal head nut.

The depression in the nut seats over the arbor and securely tightens the disc. The Universal Nut also seats snugly in the deep well center of Galahad CG. In addition, for those who own multiple grinders of different brands, the Universal Nut is homogenous to most grinders. This allows the use of a single wrench instead of many different wrenches for all your 5/8" or 14mm center shaft grinders.

Universal Nut Background. Angle grinder manufacturers are not consistent in the height of the raised round arbor shoulder over which Galahad CG® is seated, nor in the width of their locknuts, which have varying diameters. This inconsistency caused problems we overcame with the design of the Universal Nut. The flat Galahad CG® body is slightly thicker than the round disc model and, in most cases, when seated over the arbor, will be level with, or rise slightly over the arbor. When using the flat Galahad CG® the angle grinder manufacturer's locknut will tighten and it. However, the round profile Galahad CG® has an inner wall design and slightly thinner metal thickness that is not compatible with most grinders locknuts to tighten the disc. When the round profile Galahad CG® is seated, it falls below the arbor shoulder, not allowing standard or overwidth grinder lock nuts to secure the round Galahad CG®, causing the discs to spin freely. The depression in our Universal Nut seats over the arbor and securely tightens the disc. The nut also seats snugly into the deep well center of Galahad CG®.



Cleaning The Discs

Over time and use, a section of the disc will eventually fill with wood, resin or other material. Clogging caused by resinous or fibrous wood can be brushed out or burned off without damaging the teeth. There are several ways to clean Galahad CG.

1) Lightly spraying the carbide disc prior to use with a non-stick cooking spray lubricant (Pam, etc.) will really simplify the job of removing built up residue. Simply brush out any residue with a brass or wire brush. Do not use automotive non-stick spray.

Applying Applying Pitch RX For Cleaning: For small pitch build-up, spray on Pitch RX (or similar products). Just spray on, rinse off and dry thoroughly. For more heavily soiled cutting edges, place in container and soak for 2-3 minutes, agitating occasionally, rinse and dry thoroughly. Some build up may require the use of a toothbrush in addition to soaking, then rinse and dry thoroughly.

2) Burning. The crushed grit has been brazed on at 2800° Fahrenheit, so standard burn-off temperatures aren't going to affect the disc. Make sure you wear gloves and use vise grips or pliers to keep your hand from the heat when applying a butane or propane torch to the burrs. They transfer heat very quickly. Always make sure the angle grinder is disconnected from main power source.

Burning Safety How To's For Cleaning: Use a micro butane or small propane torch and apply to disc. Let sit until cool and then use a brass or bronze wire brush to remove loosened debris and residue.

1. You will not damage the disc. Common sense dictates that you remove the disc from the angle grinder and place it on a non-flammable surface prior to burning.

2. Another preferred method is to apply paraffin to the disc first, then burn and brush clean as described above.

Frequently Asked Questions: (FAQ'S)

Q: Why have you introduced the Galahad CG range?

A: In response to the overwhelming demand from customers who wanted a lower cost alternative to the premium quality Holey Galahad range, we created this quality tungsten carbide disc at an entry level price. CG is easier to manufacture, retains the high quality we're known for and comes to you at an affordable price. These discs have proven longevity and can be reused, saving our customers costs in sandpaper, time, labor and effort.

Q: How many different shapes or profiles are available for the Galahad CG?

A: Two – rounded and flat. The rounded profile is extremely suitable for shaping round, concave and contoured surfaces. The flat profile is most useful in smoothing out large, predominantly flat surfaces like doors, beams and mantle pieces, notches on logs or removing large amounts of bark.

Q: Can the Galahad CG's be easily cleaned?

A: Yes. These methods are explained in detail in the Safety Instructions in this brochure.

Q: What Angle Grinders will the Galahad CG's fit?

A: They're designed to fit most 4-1/2" (115mm) and 5" (125mm) angle grinders with a maximum of 13,000 RPM. All Galahad CG discs are 4-1/2" (115mm) in diameter with 7/8" (22mm) center hole size to suit angle grinders worldwide by being seated on the manufacturer's 7/8" (22mm) arbor. This is a spacer located at the bottom of the center shaft and the 7/8" (22mm) arbor is a raised round shoulder as an integral part of the spacer/washer.

Q: What is Galahad CG made of?

A: The CG's feature patented random tungsten carbide crushed grit teeth bonded to steel discs over the cutting surface.

Q: What grit sizes are the new Galahad CG's available in?

A: One – Randomly spaced tungsten carbide crushed grit with a medium coarse finish. Using Galahad CG, for a smoother surface you can finish your work with flap disc sanders or other finish sanders. *Note: If you require premium, longer lasting discs check out our "see-through" Holey Galahad discs models available in a range of different grits and finishes.*

Q: What is the difference between Galahad CG and Holey Galahad?

A: Galahad CG is 1/2" (13mm) larger in diameter. Galahad CG is 4-1/2" (115mm) diameter with 7/8" (22mm) center hole. Holey Galahad is 4" (100mm) diameter with 7/8" (22mm) center hole.

Q: Are they made in the USA?

A: Very proudly, yes! This is US technology, patented worldwide and made in the USA.

Q: What is the best angle to position the safety guard?

A: Galahad CG discs are designed to work with the safety guard set between 23 degrees to 45 degrees. The angle of adjustment for the safety guard varies with each disc grinder manufacturer. Carefully review the pictures for CORRECT and INCORRECT positions of the safety guard. Lay the grinder on its side as shown, with the front, business end (where the Galahad CG disc will fit over the center shaft) facing left and the electric cord end of the grinder pointing right. By following the angle grinder manufacturer's manual on how to move the position of the safety guard, rotate the guard toward the left as shown in the CORRECT photo. THE MAIN CRITERIA IS THAT THE BOTTOM OF THE SAFETY GUARD MUST BE AS LEVEL AS POSSIBLE WITH THE BOTTOM OF THE BODY OF THE DISC GRINDER. In this position, the SAFETY GUARD WILL ADJUST BETWEEN THE (APPROXIMATE) ANGLES OF 23° and 45 °.

Q: What are the reasons for this safety guard position requirement:

A: 1. Safe and efficient operation: Galahad CG discs were designed to shape and carve on their face and peripheral edge surfaces. a) Full Face Surface – hold the grinder with your hands placed horizontally and b) Edge Surface - hold the grinder upright in a vertical position. You can move the grinder laterally from side to side, backward, forward, up and down, with or against the grain. With the safety guard rotated to the correct position as stated in these instructions, it opens up the bottom surface of these discs near the bottom of the grinder. This is where a considerable amount of the main shaping and carving is done and is: a) a vital part of its versatility and b) allows for optimum shaping in a comfortable and safe position.

2. Direction of Waste: With the safety guard properly adjusted, direction of waste will be angularly deflected over the top of the guard away from the operator's face or under the disc. If the guard is retained at 90 degrees the full left face, including the nose (or front tip) of the Galahad CG will be exposed. In this position the disc may not carve smoothly or effectively and poses a potential hazard to the user by jerking to either side. You don't want to ruin your work piece nor run the risk of a violent motion with the grinder being jerked sideways. We absolutely do not recommend moving or retaining the safety guard at 90° or even close to this vertical position.

Q: Can I remove the safety guard?

A: No! No! And Heck No! We do not recommend working without a safety guard for any reason. It's not good for your health or safety. Any foreign objects in the wood or material you're working on will be deflected away by the guard versus coming toward you. Should you hit an immovable object and lose control of the angle grinder, you're much safer with the guard on. That is its' purpose and why it's called Safety Guard!.



Q: What happens if I adjust the safety guard underneath the body of the grinder?

A: You will run into a potentially dangerous situation! We cannot overly stress how important this rule is to adjust the safety guard to the CORRECT position. Again, THE BOTTOM OF THE SAFETY GUARD MUST BE AS LEVEL AS POSSIBLE WITH THE BOTTOM OF THE BODY OF THE DISC GRINDER. In this position, the SAFETY GUARD WILL ADJUST BETWEEN THE (APPROXIMATE) ANGLES OF 23° and 45 °.

DO NOT position the safety guard UNDERNEATH the Galahad CG disc at 225° ± and assume it is correct. If you stupidly turn the grinder on and try to cut with the top of the disc, dangerous things could happen, including immediate and severe kickback which could easily result in serious bodily injury. Picture this bizarre situation. You buy a motorcycle and the manufacturer asks you to assemble the wheels, then fit the fenders over the wheels before you can ride the motorbike. But you don't follow instructions correctly! What you do is to assemble the wheels correctly but incorrectly position the fenders underneath the wheels, not over them. You then turn the engine on and expect this powerful motorcycle to move forward. Surprise, surprise - it won't, but the wheels keep turning freely while the bike is balanced on the upside down fenders. Compare this to the angle grinder! If you fit the discs correctly but place the safety guard underneath the body of the grinder at 225° ±, you can still cut/shape with the top of the disc albeit, in a very uncomfortable position. But guess what? As soon as the top or face of the disc touches wood, you may experience an immediate kickback because it's reacting to opposite motor forces compared to shaping with the bottom of the disc (and operating easily and efficiently) when the safety guard is in the Correct position. Very simply, the grinder motor runs in a counter clock wise direction and operating it incorrectly as described above creates counter centrifugal forces which may be dangerous to your health! Please follow all directions and use common sense.

Q: What happens if I hit a nail, wire or foreign object in the wood, or what if I drop the Galahad CG disc on the ground?

A: You will more than likely lose some carbide grits or cones where you made contact with the obstruction or dropped it. This isn't a big deal and you can easily continue working unless you lose so many it affects your finish and production. Then you need a replacement.

SAFETY INSTRUCTIONS

Recommended for use with disc/angle grinders equipped with constant pressure switch (paddle, dead man or kill switch.)

- Unplug power source from grinder when assembling, cleaning, sharpening or removing the accessory or tool. Grinder switch must be OFF before connecting power.
- **It is EXTREMELY IMPORTANT the safety guard is RESET to the 'CORRECT' position as detailed in these instructions. DO NOT REMOVE SAFETY GUARD OR AUXILIARY HANDLE UNDER ANY CIRCUMSTANCE.**
- Never operate any of our power tools accessories while under the influence of narcotics, drugs or medications. Even if you think you may be capable, if you are not totally sober, fully awake and in absolute total control of your senses, DO NOT even think about turning on an angle grinder or any other power tool with **any** of our accessories. Period. It's stupid and dangerous.
- Always ensure work piece is securely held in a vise. Do not grip or support the work piece with hands, feet or other body parts.
- Always remain in a relaxed but firm and balanced position. Falling or working off balance will lead to possible injury.
- Work gloves and closed in footwear (e.g. boots or solid shoes but not flip flops, thongs or bare feet), are highly, highly recommended.
- Always use safety glasses and/or a full face visor during operation.
- At all times, use **both hands** to operate the grinder: one hand on the auxiliary handle, the other on the rear body of the grinder.
- **Never operate the grinder at face height or in any position above your head.**
- Inspect and remove all nails, staples and wire obstructions from wood before carving.
- Never start the grinder when the disc is in contact with stock material.
- Never put the grinder down until it has stopped completely. Failure to do so could cause the grinder to 'walk', causing injury or damage. Similarly, do not ram the disc into wood to stop it turning prematurely once the power switch is turned off.
- Regularly clean the disc grinder's on/off switch and remove wood shavings and dust. Accumulated debris around and under the switch could clog the mechanism, making it hazardous in operation.
- Only operate Galahad CG discs at a safe distance from others.
- Let the cutting discs do the work. They are fully capable. Do not force tools into the work or apply excessive pressure.
- Keep hands away from Galahad CG discs face and edge surfaces during operation. Do not reach underneath work or attempt to remove material while discs are rotating.
- Keep discs clean and sharp by 1) lightly spraying with non stick cooking spray before use and brushing residue after use or 2) burning the residue with a small propane burner or 3) using oven cleaner and wire brush or 4) spray residue and pitch with Pitch RX, (or similar) soak, rinse and dry. Refer *Cleaning The Discs* for more details.
- Always read these instructions in conjunction with the disc grinder owner's manual for additional user instructions and safety rules.

See ALL King Arthur's Tools® Products at KATOOLS.COM

The Royal Knight's Choice & Royal King's Choice Are Triad 1-2-3 Power Carving Kits.
YOU choose combinations at DISCOUNTED prices!



HOLEY GALAHAD® smoothing discs open a "window to your work." Unique engineering lets you see through the disc as you work.

Fits 4 1/2" (115mm) Angle Grinders

Free 1-2-3 Bowl Carving 'How-To' at www.katools.com

Guinevere® – Incredibly smooth finish!

A complete, miniature sanding system that uses flexible, inflatable sanders. Easily eliminate hours of laborious hand sanding and polish while creating a smooth, velvet finish.



For Smaller Projects, Try Merlin2®

A Wizard Of A Tool!

Years in the making, thanks to YOUR input and suggestions, Merlin2® has been transformed into a much more reliable and powerful carving tool ready to turn your ideas into reality. The sets all include "The World's Smallest Chain Saw," an eight-tooth saw chain that's only two inches in diameter and include a variety of disc accessories to fit every use.



3645 Hartsfield Rd • Tallahassee FL 32303 USA
1-800-942-1300 • KATools.com