



Fein Grinder, Holey Galahad and Universal Nut Instructions

Congratulations and thank you for your purchase! You have just become the proud owner of a **Fein 4-1/2" Paddle Switch Grinder paired with a Holey Galahad**. We trust you have a great experience.



The grinder comes assembled with the safety guard adjusted to the correct 45°± position, and the Holey Galahad disc secured to the grinder with our Universal Nut. This set comes with our Universal Wrench to easily remove and secure any accessory in conjunction with our Universal Nut.

All you have to do is screw the handle into the hole on the grinder located above the safety guard, read these instructions – and start carving!

Since 1990 King Arthur's Tools has used and tested just about every 4-1/2", 115mm to 125mm angle grinder throughout the world. We also recommend which grinders are suitable – or not, for use with our products and have been responsible for the sale of millions of grinders worldwide to people who have wanted to use our products. After these many years, we are very proud to be associated with this fine Fein grinder. More than many other grinders, this model gets a check mark 99% of the time on our extensive list of suitability requirements.

The FEIN® WSG 7-115 PT 4-1/2" Paddle Switch Angle Grinder packs the power and versatility of a larger angle grinder in a lighter, compact, more ergonomic design.

Its smaller grip size allows for better control and ease of operation while removing, cutting, carving and shaping wood and non-ferrous materials for long periods of time. It is also excellent for grinding and metal working applications. The WSG 7-115 PT has a powerful 7 Amp/820 Watt motor that is designed for maximum speed and torque under load. This high quality angle grinder has dust protection on all

electronic components and with a longer carbon brush service life.

These instructions answer simple questions on fitting your Holey Galahad® to the Fein grinder. Our cleaning tips will help you extend the use of your new shaping accessory.

To secure any round **Holey Galahad®**, we used the Fein® bottom spacer with the 7/8" raised round shoulder and our Universal Nut. Holey Galahad® sits on and over the Fein® raised shoulder, which is then tightened using King Arthur's Tools Uni Nut. The round profile Holey Galahad® has an inner wall design and slightly thinner metal thickness that is not compatible with most grinders 2 pin spanner locknuts. This also applies to the Fein®. (Their locknut and 2 pin spanner wrench are provided separately.)

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. The tungsten carbide has been brazed on at 2800° Fahrenheit, so standard burn-off temperatures aren't going to affect it at all.

Make sure you wear gloves and use vise grips or pliers to keep your hand from the heat when applying

SAFETY INSTRUCTIONS BEFORE, DURING AND AFTER USE

- This Fein grinder comes standard with a paddle switch. All our accessories are 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 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.
- 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.
- Work gloves and footwear are highly recommended.
- At all times, use both hands to operate the grinder.
- Always use safety glasses and/or a full-face visor during operation.
- Inspect and remove all nails, staples and wire obstructions from lumber before carving.
- Never start the grinder when the disc is in contact with stock material.
- Never put the grinder down until the accessory has

a propane torch to the burrs - they transfer heat very quickly. Always make sure the angle grinder is disconnected from main power source.

Burning

Use a small propane burner (e.g camping burner) and apply to disc. Let sit until cool and 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.

Applying Oven Cleaner

Spray "Easy Off" oven cleaner (or similar product) to disc. You can apply directly to the disc while fitted to the disconnected angle grinder but beware, you'll probably also spray the safety guard. It can get a little messy. Better still, remove the disc, lay on newspaper then spray on oven cleaner. Let sit for about half an hour and remove residue with a brass or bronze wire brush. Repeat as necessary.

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 Holey Galahad and any other accessories at a safe distance from others.
- Let the cutting tools do the work. They are fully, capable. Do not force tools into the work or apply excessive pressure.
- Keep hands away from Holey Galahad's face and edge during operation. Do not reach underneath work or attempt to remove material while discs are rotating.
- Keep discs clean and sharp by burning the residue with a small propane burner or using oven cleaner and wire brush.
- Read these instructions in conjunction with the disc grinder owner's manual for additional user instructions and safety rules.

Frequently Asked Questions (FAQs)

Question: What angle grinders will the Holey Galahads fit?

Answer: They're designed to fit most 4-1/2" (115mm) and metric (125mm) angle grinders. Maximum 14,000RPM. We highly recommend the 4-1/2" Fein paddle switch angle grinder, model WSG7-115PT for the USA market.

Question: How are Holey Galahad discs fitted to angle grinders?

Answer: They are fitted and seated on the manufacturer's 7/8" (22mm) arbor. This is a spacer/washer 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. We highly recommend using the King Arthur's Tools Universal Nut and Wrench to secure any of our accessories and pretty much all others on the market. This nut has been specially designed to fit inside the deep well of every Holey Galahad where the grinder manufacturer's 2 pin locknuts are always too wide.

Question: If I purchased the Fein/Holey Galahad combination, how are the discs fitted to the Fein angle grinder?

Answer: If you purchased any of the combinations, our factory-trained staff first adjusts the safety guard to the correct operating position and then, using the Fein spacer/washer to seat the Holey Galahad, the disc is tightened and secured with the KAT universal nut. All you have to do is screw the handle in above the guard.

Question: Can I use the KAT Universal Nut and Wrench to secure any 4" accessory?

Answer: Yes. They're much easier to use than the majority of the other manufacturers 2 pin round nuts.

Question: What are the dimensions of all Holey Galahads?

Answer: All Holey Galahad discs are 4" (100mm) in diameter with 7/8" (22mm) center hole size to suit angle grinders worldwide.

Question: How many grits are available for the Holey Galahads?

Answer: Four. 1) Extreme Coarse 120 grit (Purple) 2) Coarse 90 grit (Blue) 3) Medium 70 grit (Red) 4) Fine SSG (Green)

Note: The coarser the grit, the more aggressive and less cleaning is required. Each model leaves a different finish. If you intend to finish your work piece with flap disc sanders or other finish sanding, get any choice. You just want to get the job done ASAP and Holey

Galahad's carbide finish will be sanded over any way.

Question: How do you grade the grits and their finishes on the Holey Galahad discs, starting from Extreme Coarse to Fine?

Answer: All discs feature patented structured tungsten carbide teeth bonded to steel discs over the total cutting surface. Here is a tungsten carbide grit comparison and performance guide, which applies to both round and flat profiles:

1. Holey Galahad Extreme Coarse Purple 120 grit. Shapes fast and furious but leaves lots of dust and a real coarse finish. This will git 'r done!
2. Holey Galahad Coarse Blue 90 grit. Our most popular seller. Rapid removal with less dust. Leaves a coarse finish.
3. Holey Galahad Medium Red 70 grit. Second most popular! Rapid removal leaning toward medium finish.
4. Holey Galahad Fine Green SSG390. Very small dense grits spaced minutely together for fast removal and a close to final finish.

Question: How many different shapes or profiles are available for the Holey Galahads?

Answer: Two. Rounded and Flat. The rounded profile is extremely suitable for round, concave and contoured surfaces like the inside of bowls or scalloping out chair seats. The flat profile is most useful in smoothing out notches on logs, removing large amounts of bark or smoothing out large, predominantly flat surfaces like doors, beams and mantle pieces. Either the flat or round profiles will do any job above. The above applications are recommendations based on experience and are a guide for you to determine the best profile for your application.

Question: Are Holey Galahads made in the USA?

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

Question: Should I remove the safety guard?

Answer: 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 will be deflected away by the guard versus coming toward you. Should you hit an immovable object and you lose control of the angle grinder, you're much safer with the guard on than off.

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

Answer: Holey Galahad discs are designed to cut 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.

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 °.



**SAFETY FIRST:
Why Safety Guard Use Is A Requirement.**

1. Safe and efficient operation: Holey Galahad discs were designed to shape and carve with the bottom and partially exposed left side cutting edges. These discs carve on their peripheral edge and face. With the safety guard rotated to the correct position as stated in these instructions, it opens up the bottom surface of these discs heads 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
- B) allows for optimum carving utilization in a comfortable and safe position.



2. Direction of Waste: With the safety guard properly adjusted, direction of wood shavings and sawdust will be angularly deflected over the top of Holey Galahad, hitting the top of the work piece and away from the operator's hands and face.

If the guard is retained at 90 degrees the full left face, including the nose (or front tip) of the Holey Galahad will be exposed. In this position Holey Galahad will 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.

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

Answer: 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.

Question: Why are they so expensive?

Answer: Because the grits consist of tungsten carbide needles and manufacturing is an intense 5 stage patented process. These high quality discs have proven longevity and can be used over and over again, saving hundreds of dollars in sandpaper, time, labor and effort.

Question: Can the Holey Galahads be easily cleaned?

Answer: Yes. Over time and use, a section of the disc will eventually fill with wood, resin or the material you're working with. Clogging caused by resinous or fibrous wood can be brushed out or burned off without damaging the teeth. The tungsten carbide has been brazed on at 2800° Fahrenheit, so standard burn-off temperatures aren't going to affect it at all. Make sure you use vise grips or pliers to keep your hand from the heat when applying a propane torch to the burrs. They transfer heat very quickly. Always make sure the angle grinder is disconnected from main power source.

Question: What is the warranty on the 4-1/2" Fein angle grinder, model WSG7-115PT?

Answer: Two warranties are offered. 1) One Year from date of purchase if you do not register the angle grinder on Fein's website 2) 3 Years if you register the angle grinder on their website. This is the Fein Plus Warranty and one of the best in the power tool world. For more details, read their enclosed literature. Please DO NOT return the grinder to King Arthur's Tools for service. We'll be happy to answer your questions but Fein will service or repair their tools.