WEN BG4108

WEN 8-Inch Water-Cooled Wet/Dry Sharpening System

Model: BG4108

Introduction

The WEN 8-Inch Water-Cooled Wet/Dry Sharpening System (Model BG4108) is designed to provide precise and efficient sharpening for a variety of tools. This system utilizes an 8-inch by 1-1/2-inch 220-grit wet sharpening stone and an 8-3/4-inch by 1-1/8-inch leather stropping wheel, powered by a heavy-duty 1A motor operating at 120 RPM. It is ideal for restoring the edge on dull blades, wood chisels, carving tools, scissors, screwdrivers, lathe tools, and axes. The unit features a universal support that adjusts to both horizontal and vertical positions, accommodating various jigs and accessories. Included with the system are an angle guide, an adjustable-height water reservoir, and a jig for sharpening planer blades and chisels. Its water-cooled design prevents overheating of tools during the sharpening process, ensuring optimal edge retention and tool longevity.

Important Safety Instructions

Always observe basic safety precautions when operating this sharpening system to reduce the risk of fire, electric shock, or serious personal injury.

- **Eye Protection:** Always wear ANSI-approved safety goggles or safety glasses with side shields when operating this machine.
- **Stable Work Area:** Ensure the sharpening system is placed on a stable, level, and clean surface to prevent tipping or movement during operation.
- **Ventilation:** Operate in a well-ventilated area.
- **Electrical Safety:** Do not operate in wet or damp conditions. Ensure the power cord is in good condition and avoid overloading electrical circuits.
- **Tool Condition:** Inspect tools for damage before sharpening. Do not attempt to sharpen damaged or improperly sized tools.
- **Keep Clear:** Keep hands, hair, and loose clothing away from moving parts.
- **Unplug When Not in Use:** Disconnect the power supply before making adjustments, changing accessories, or performing maintenance.
- **Read Manual:** Familiarize yourself with all instructions and warnings before use.

Components Overview

The WEN 8-Inch Water-Cooled Wet/Dry Sharpening System comes with several key components designed for effective sharpening and maintenance.



Image: The WEN BG4108 sharpening system with its primary components, including the sharpening stone, stropping wheel, and universal support bar.

- **220-Grit Wet Sharpening Stone:** An 8-inch diameter stone for initial sharpening and edge creation.
- **Leather Stropping Wheel:** An 8-3/4-inch diameter wheel for polishing and finishing the sharpened edge.
- **Universal Support:** A versatile bar that adjusts horizontally and vertically to hold various jigs and accessories.
- **Adjustable-Height Water Reservoir:** Designed to keep the sharpening stone wet and cool during operation, preventing overheating.
- **Angle Guide:** A tool to assist in setting the correct sharpening angle for consistent results.
- **Honing Compound:** Used with the leather stropping wheel for final polishing.
- **Jig for Planer Blades and Chisels:** A specific attachment for sharpening these types of tools.

Setup

Proper setup ensures safe and effective operation of your sharpening system.

1. **Unpacking:** Carefully remove all components from the packaging. Inspect for any shipping damage.

2. **Placement:** Position the sharpening system on a sturdy, level workbench or surface. Ensure there is adequate space around the unit for safe operation and access to the water reservoir.
3. **Fill Water Reservoir:** Locate the adjustable-height water reservoir beneath the sharpening stone. Fill it with clean water until the stone is adequately submerged. The reservoir can be repositioned as the stone wears down to maintain proper water contact.



Image: Side view of the sharpening system, highlighting the water reservoir positioned beneath the grinding wheel.

4. **Attach Universal Support:** Insert the universal support bar into the designated mounting points on the machine. Adjust its height and position according to the tool being sharpened and the desired angle. Secure it firmly using the locking knobs.



Image: A close-up view of the universal support bar with a jig attached, demonstrating its adjustability.

5. **Power Connection:** Connect the power cord to a suitable electrical outlet. Ensure the power switch is in the OFF position before plugging in.

Operating Instructions

Follow these steps for effective and safe sharpening.

1. **Prepare the Tool:** Clean the tool to be sharpened. For best results, ensure the tool is free of rust, dirt, or debris.
2. **Set Sharpening Angle:** Use the included angle guide to determine and set the correct sharpening angle for your tool. Adjust the universal support bar and any attached jigs to achieve this angle.
3. **Engage Sharpening Stone:** Turn on the sharpening system. The 220-grit wet sharpening stone will rotate at 120 RPM. Gently apply the tool to the rotating stone, maintaining the set angle. Apply light, consistent pressure. The water-cooled system will prevent the tool from overheating.



Image: Top view of the sharpening system, illustrating the position of the grinding stone and stropping wheel, along with the main controls.

4. **Monitor Progress:** Periodically check the edge of your tool. Continue sharpening until a burr forms along the edge.
5. **Stropping:** Once the desired edge is achieved on the sharpening stone, turn off the machine. Apply a small amount of the honing compound to the leather stropping wheel. Turn the machine back on and gently apply the tool to the stropping wheel to remove the burr and polish the edge.
6. **Clean Tool:** After sharpening and stropping, clean the tool to remove any abrasive residue.
7. **Power Off:** Always turn off the machine and unplug it when finished or before making any adjustments.

Maintenance

Regular maintenance ensures the longevity and optimal performance of your sharpening system.

- **Water Reservoir:** After each use, empty the water reservoir to prevent the stone from sitting in water, which can lead to uneven drying and potential imbalance. Clean the reservoir to prevent algae or mineral buildup.
- **Stone Truing:** Over time, the sharpening stone may develop grooves or become uneven. Use a stone truing tool (sold separately or as an accessory) to restore the stone's flat and true surface.
- **Cleaning:** Wipe down the machine with a damp cloth after use to remove any grinding dust or residue. Do not use harsh chemicals or abrasive cleaners.
- **Storage:** Store the sharpening system in a clean, dry environment, away from direct sunlight and extreme temperatures.

- **Lubrication:** Refer to the detailed manual for any specific lubrication points, though typically wet sharpening systems require minimal internal lubrication.

Troubleshooting

This section addresses common issues you might encounter with your sharpening system.

Problem	Possible Cause	Solution
Tool edge is not sharp or uneven.	Incorrect sharpening angle; insufficient pressure; worn stone; inconsistent technique.	Verify angle with guide; apply consistent, light pressure; true the stone if worn; practice consistent strokes.
Stone appears wobbly or has excessive runout.	Stone not properly seated; shaft clearance issues; stone imbalance.	Ensure stone is securely mounted; check for debris on shaft; consider truing the stone to balance it.
Motor not starting or running weakly.	No power; motor overload; internal fault.	Check power connection and outlet; ensure no obstructions to wheels; if problem persists, contact customer support.
Water reservoir not keeping stone wet.	Low water level; reservoir positioned incorrectly.	Refill water reservoir; adjust reservoir height to ensure proper contact with the stone.

Specifications

Detailed technical specifications for the WEN 8-Inch Water-Cooled Wet/Dry Sharpening System.

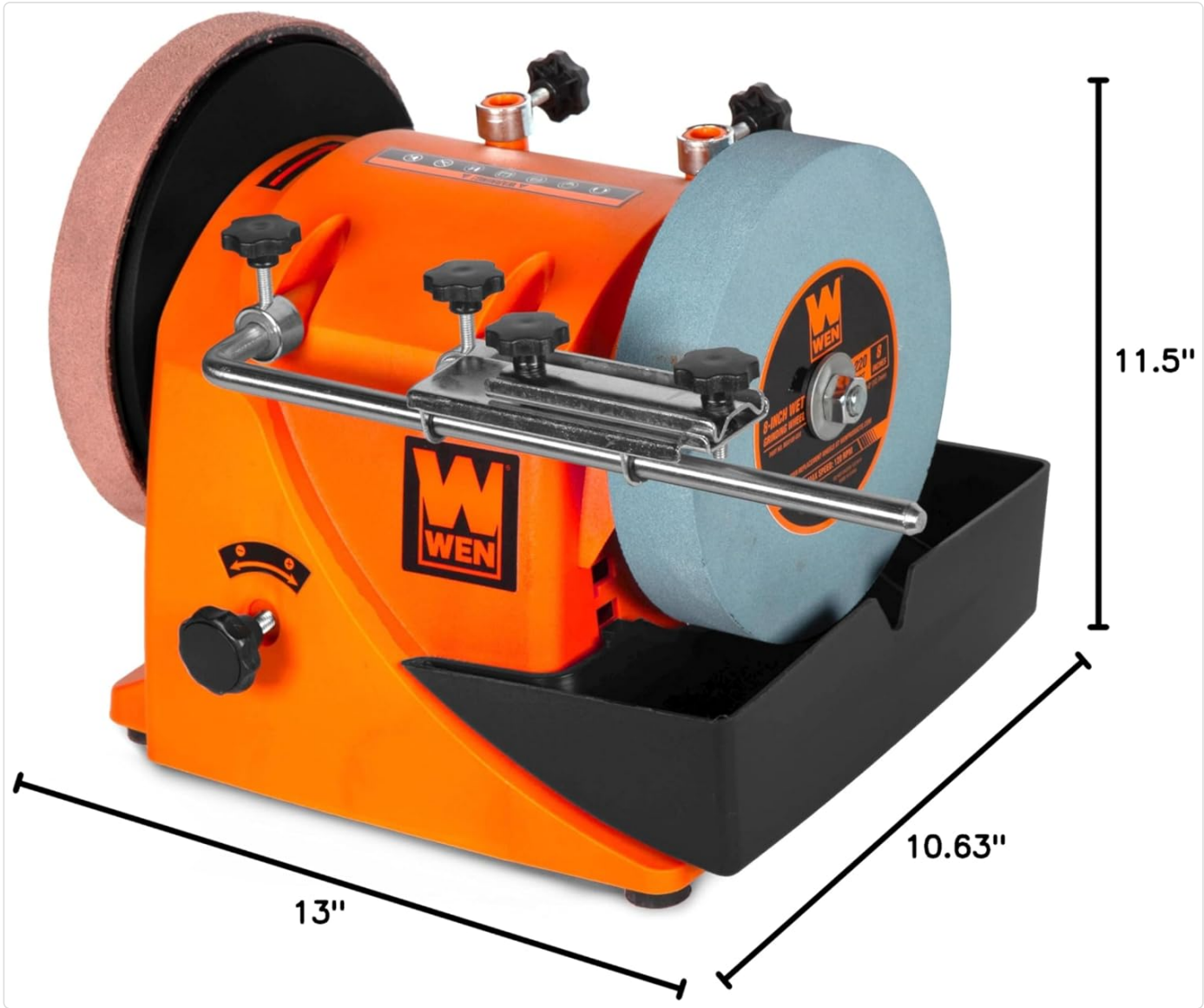

Image: Diagram showing the overall dimensions of the WEN BG4108 sharpening system.

Feature	Detail
Model Number	BG4108
Sharpening Stone Size	8 inches (Diameter) x 1.5 inches (Width)
Sharpening Stone Grit	220 Grit (Coarse)
Stropping Wheel Size	8.75 inches (Diameter) x 1.125 inches (Width)
Motor Amperage	1 Amp
No-Load Speed	120 RPM
Product Dimensions (L x W x H)	13" x 10.63" x 11.5"
Item Weight	21.9 pounds (9.96 Kilograms)
Material	Leather (Stropping Wheel)
Color	Black
Country of Origin	China

Warranty and Support

The WEN 8-Inch Water-Cooled Wet/Dry Sharpening System (BG4108) is backed by a two-year warranty. For technical assistance, service, or warranty claims, please contact WEN customer support. WEN maintains a nationwide network of skilled service technicians and a friendly customer phone line to assist with any product-related inquiries.

For more information or to find service centers, please visit the official WEN website or refer to the contact information provided with your product packaging.

You can also visit the WEN Store on Amazon for additional products and resources.

© 2024 WEN. All rights reserved.