

Tormek DBS-22

Tormek DBS-22 Drill Bit Sharpening Jig Attachment Instruction Manual

Model: DBS-22 | Brand: Tormek

1. INTRODUCTION

The Tormek DBS-22 Drill Bit Sharpening Jig Attachment is engineered to provide exceptional precision in sharpening and restoring drill bits. This attachment is compatible with Tormek T-7, T-4, T-3, and Supergrind 2000 sharpening systems. It produces a unique 4-facet point, which significantly enhances drilling performance and extends the lifespan of your drill bits. Key features of the Tormek DBS-22 include:

- **4-facet point:** Brings the point to a chisel edge that will not walk and bores round, straight holes with close tolerances.
- **Symmetrical Cutting Edges:** The always equal two cutting edges are sharpened symmetrically and work in perfect unison, prolonging the life of the drill.
- **Adjustable Point Angles:** Sharpens all point angles between 90 and 150 degrees.
- **Optimal Clearance Angle:** The optimal clearance angle can be set according to each drilling requirement to 7, 9, 11, or 14 degrees.
- **Wide Bit Compatibility:** One drill holder sharpens drill bits from 1/8-Inch (3mm) to 7/8-Inch (22 mm).

2. SETUP

Proper setup of the DBS-22 jig is crucial for achieving optimal sharpening results. Follow these steps to prepare your sharpening system and the jig:

1. **Prepare the Sharpening System:** Ensure your Tormek water-cooled sharpening system (e.g., T-7, T-3) is set up according to its own manual, with the grindstone properly dressed and water reservoir filled.
2. **Set Universal Support Distance:** Use the setting template provided with the DBS-22 to set the correct distance of the universal support from the grindstone. This is done by inserting the universal support bar through the designated hole in the template and adjusting its position until the template rests against the stone.
3. **Mount the Base Plate:** Attach the DBS-22 base plate onto the universal support. The patented design ensures a secure lock.
4. **Set Clearance Angle:** On the setting template, identify the recommended clearance angle for your drill bit's material and size. Adjust the jig accordingly. A common clearance angle is 11 degrees.
5. **Mount Drill Bit:** Insert the drill bit into the drill holder.
6. **Set Protrusion:** Use the measuring stop on the guide to set the correct protrusion of the drill bit from the holder.
7. **Align Cutting Edges:** Carefully align the drill bit's cutting edges so they are parallel with the horizontal lines on the jig. For smaller drill bits, use the supplied magnifier for precise alignment.

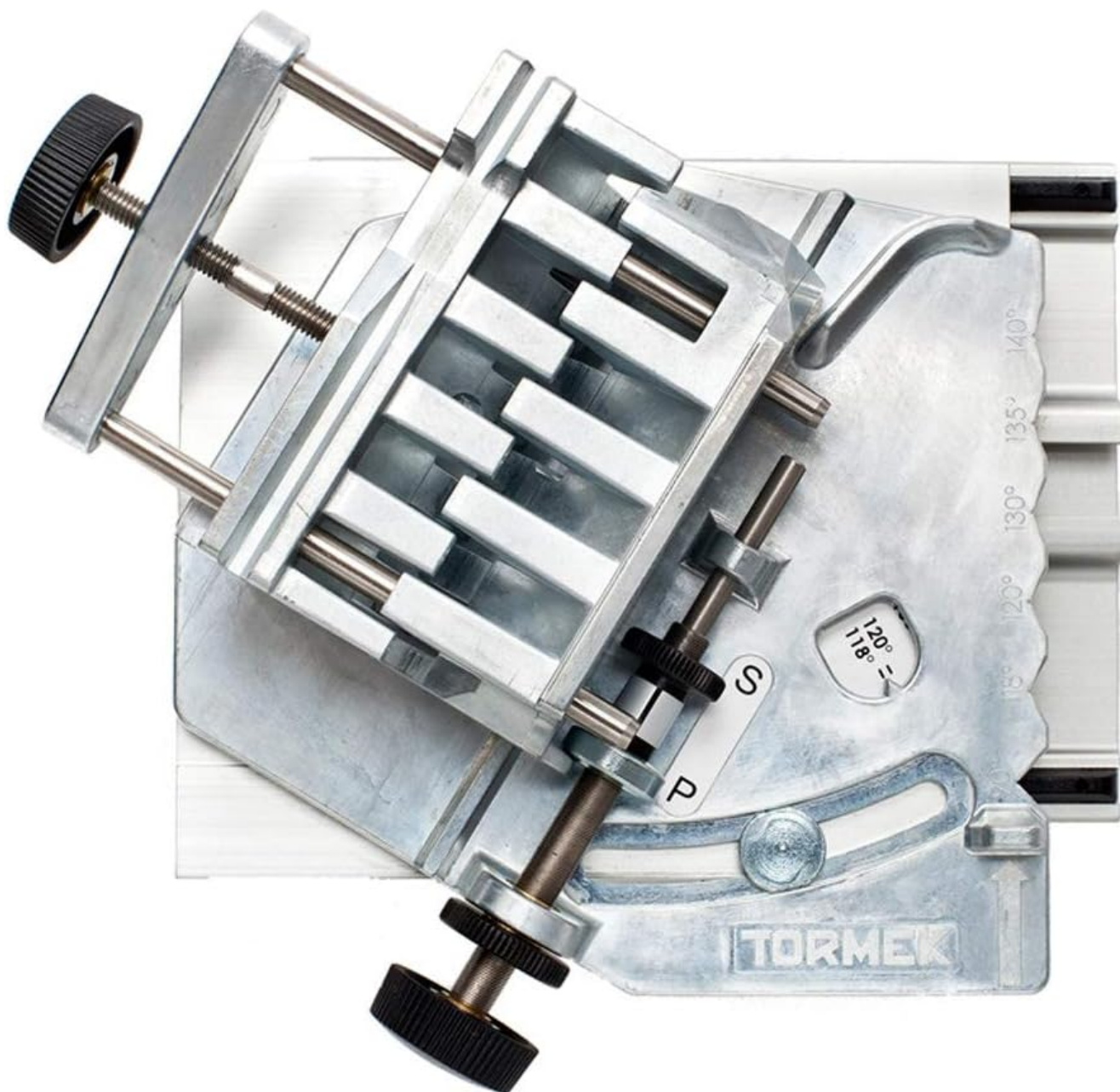


Figure 1: Top-down view of the DBS-22 jig, illustrating angle settings and drill bit alignment.



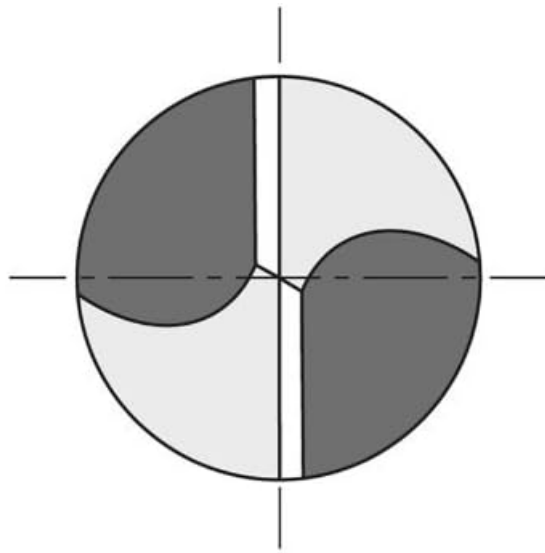
Figure 2: The DBS-22 jig attached to a Tormek sharpening system.

3. OPERATING INSTRUCTIONS

The Tormek DBS-22 allows for precise and controlled sharpening. The following steps detail the sharpening process:

3.1 Sharpening Primary Facets

1. **Position for Primary Facet:** Place the drill holder so that the lug rests on the primary stop (P) on the jig.
2. **Feed to Stone:** Gently feed the drill bit until it just touches the grindstone.
3. **Set Cutting Depth:** Adjust the cutting depth using the setting screw. One full turn of the setting screw equals 0.5 mm of cutting depth. Lock the setting with the locking nut.
4. **Grind First Primary Facet:** Begin grinding the first primary facet. The continuous water cooling prevents overheating and micro-cracks. Continue until the grinding sound subsides, indicating the edge is fully ground.
5. **Grind Second Primary Facet:** Turn the jig around and sharpen the other primary facet in the same manner.



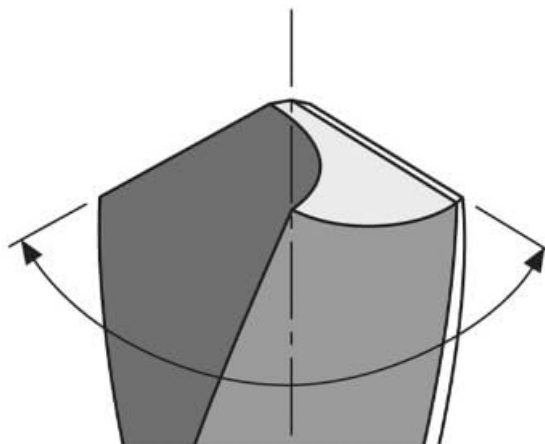
4-Facet Point

Figure 3: The distinctive 4-facet point achieved with the DBS-22.

3.2 Sharpening Secondary Facets and Point

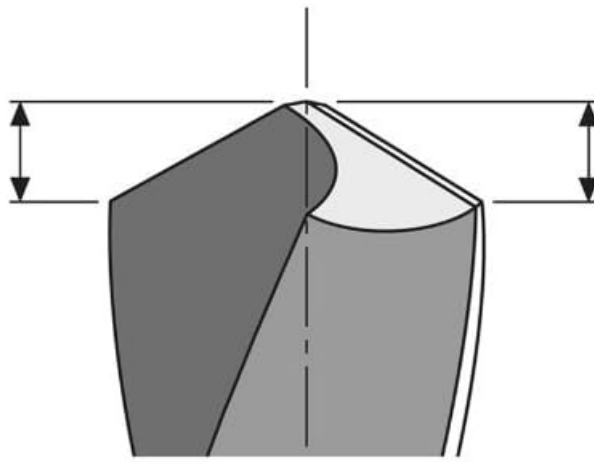
After sharpening the primary facets, proceed to grind the secondary facets and form the drill bit's point.

1. **Position for Secondary Facet:** Move the drill holder to the next stop, marked 'S', to sharpen the secondary facets.
2. **Tilt and Lock:** Tilt the base until the drill bit touches the grindstone and lock it in position.
3. **Set Cutting Depth:** Set the cutting depth by 1.5 turns of the setting screw.
4. **Grind Secondary Facet:** Grind the secondary facet. Continue until the drill holder has moved downward and the lug touches the stop.
5. **Check Grinding:** Inspect the drill bit's point. If the secondary facets need further sharpening to meet in the center and create a perfect point, feed another quarter of a turn and repeat the grinding process.



Point Angle

Figure 4: Understanding the point angle for various drilling applications.



Equal Lips

Figure 5: Ensuring equal lips for precise and efficient drilling.

3.3 Honing (Optional)

For an even finer edge and to remove any burr, you can proceed to hone the drill bit on the profiled leather honing wheels of your Tormek system.

Video 1: Official Tormek instructional video demonstrating the use of the DBS-22 Drill Bit Sharpening Jig.

4. MAINTENANCE

To ensure the longevity and optimal performance of your Tormek DBS-22 Drill Bit Sharpening Jig Attachment, regular maintenance is recommended:

- **Cleaning:** After each use, clean the jig thoroughly to remove any metal particles or grinding residue. Use a damp cloth and dry completely.
- **Lubrication:** Periodically apply a light machine oil to the moving parts and threads to ensure smooth operation.
- **Storage:** Store the jig in a dry, clean environment to prevent rust and damage.
- **Inspect for Wear:** Regularly inspect all components for signs of wear or damage. Replace any worn parts to maintain precision.

5. TROUBLESHOOTING

If you encounter issues while using your Tormek DBS-22, consider the following common troubleshooting tips:

- **Uneven Sharpening:** Ensure the drill bit is correctly aligned in the holder and that the jig is securely positioned on the universal support. Re-check the clearance and point angle settings.
- **Drill Bit Not Centering:** Verify that the 4-facet point is forming correctly and meeting precisely in the center. Adjust the secondary facet grinding if necessary.
- **Excessive Heat During Sharpening:** Confirm that your Tormek sharpening system's water reservoir is adequately filled and that the grindstone is continuously cooled.
- **Difficulty Adjusting Settings:** Clean and lubricate the adjustment screws and moving parts. Ensure no debris is obstructing movement.
- **Poor Cutting Performance After Sharpening:** Re-evaluate the chosen point and clearance angles for the material being drilled. Ensure the honing step is performed if a burr is present.

6. SPECIFICATIONS

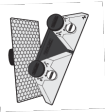

Attribute	Value
Material	Precision-cast zinc, stainless steel, black composite
Shank Diameter	3 Millimeters
Cutting Diameter	3 Millimeters
Shank Type	Straight
Cutting Angle String	90 Degrees
Item dimensions L x W x H	14 x 7 x 3 inches
Item Weight	10.6 ounces
Minimum Bore Diameter	0.32 Inches
Point Style	Brad Point
Number of Flutes	2
UPC	739248500200
Manufacturer	TORMEK
Part Number	DBS-22

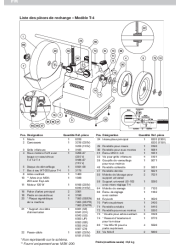


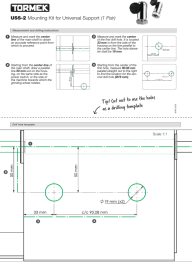
7. WARRANTY AND SUPPORT

The Tormek DBS-22 Drill Bit Sharpening Jig Attachment comes with a **1-year warranty** from the manufacturer. This warranty covers defects in materials and workmanship under normal use.

For technical support, warranty claims, or additional product information, please visit the official Tormek website or contact their customer service department. You can also find more resources and products at the [Tormek Store on Amazon](#).

Related Documents - DBS-22

<div><div>EN SV DE FR</div><div>SC-60 Scissors Jig Instruction</div><div></div><div><small>485952 © 2014 Tormek AB All rights reserved.</small></div></div>	<p>Tormek SC-60 Scissors Jig Instruction Manual</p> <p>Learn how to effectively sharpen scissors, hedge shears, and planer blades with the Tormek SC-60 Scissors Jig. This comprehensive instruction manual from Tormek covers setup, angle setting, sharpening techniques, and compatibility with Tormek sharpening systems.</p>
<div><div>EN SV DE FR</div><div>KJ-45/KJ-140 Instruction</div><div></div><div><small>485953 © 2014 Tormek AB All rights reserved.</small></div></div>	<p>Tormek KJ-45 & KJ-140 Centering Knife Jig Instruction Manual</p> <p>Comprehensive instruction manual for the Tormek KJ-45 and KJ-140 Centering Knife Jigs, designed for precise and controlled knife sharpening. Learn how to mount knives, set edge angles, sharpen, and hone various blade types for optimal sharpness and durability. Includes details on jig components, blade thickness and height requirements, and recommended sharpening techniques for different knives.</p>

 <p>Parts list and diagram for the Tormek T-4 sharpening machine.</p>	<p>Tormek T-4 Replacement Parts List and Diagram</p> <p>Detailed parts list and diagram for the Tormek T-4 sharpening machine, including part numbers, quantities, and descriptions for easy identification and ordering of replacement components.</p>
 <p>Product image of the Tormek TF-2 Tilt Feet.</p>	<p>Tormek TF-2 Tilt Feet: Enhance Sharpening and Machine Stability</p> <p>Discover the Tormek TF-2 Tilt Feet, designed to improve water management, secure the shaft during transport and honing, and offer convenient storage on the Universal Support. Learn about its features and benefits for your Tormek grinding machine.</p>
 <p>KS-123 Knife Angle Setter Instruction</p>	<p>Tormek KS-123 Knife Angle Setter: User Guide for Precise Sharpening</p> <p>Comprehensive guide for the Tormek KS-123 Knife Angle Setter, detailing its compatibility, setup, and usage for achieving accurate sharpening angles on Tormek machines. Includes parts identification and step-by-step instructions.</p>
 <p>Installation guide and drill template for the Tormek USS-2 Mounting Kit.</p>	<p>Tormek USS-2 Mounting Kit for Universal Support Installation Guide</p> <p>Detailed instructions and drill template for installing the Tormek USS-2 Mounting Kit for Universal Support, ensuring precise setup of your Tormek sharpening system.</p>