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POWERTEC 13102V

POWERTEC 59-1/2 Inch Bandsaw Blade (Model 13102V)

User Manual

1. PRODUCT OVERVIEW

The POWERTEC 59-1/2 inch bandsaw blade (Model 13102V) is a high-performance replacement blade designed for precise cutting of wood, plastics, and non-ferrous metals. Constructed from high carbon steel, this blade offers heat resistance and consistent cutting performance. Each blade features a guaranteed weld for proper tooth spacing and finishing. The metal teeth are designed with an optimal geometric profile and hardened to RC 64-66 for durability and sharp, long-lasting use. These blades are engineered to wear evenly and provide straight cuts at high speeds.

POWERTEC®

BAND SAW BLADE

Carbon Steel

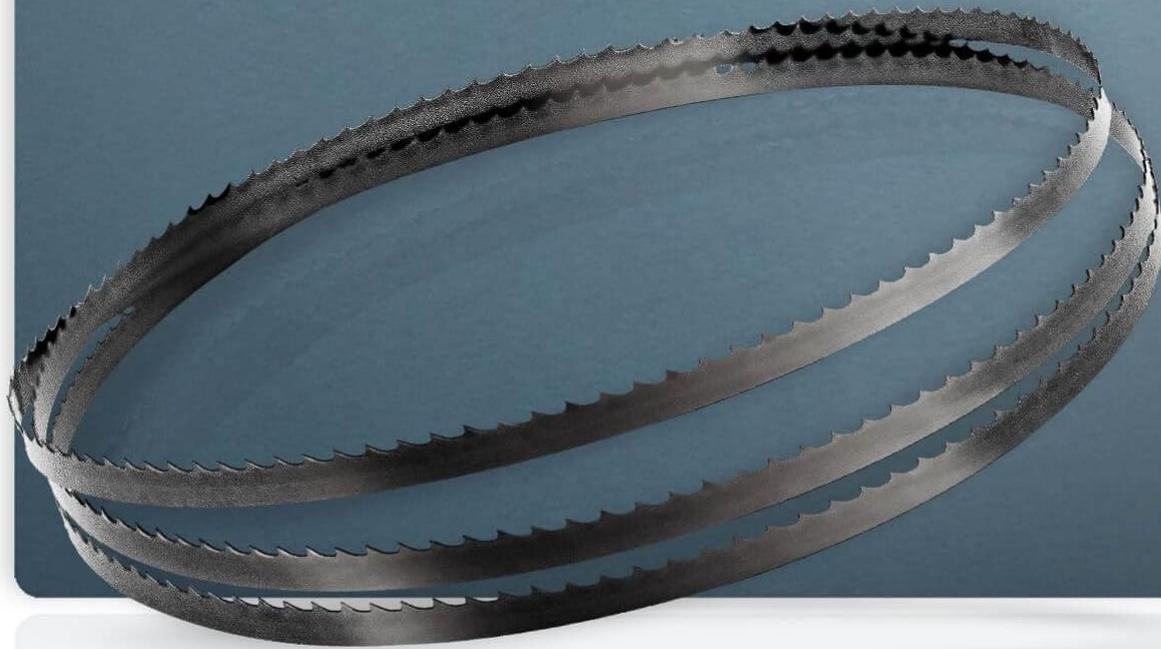


Figure 1: POWERTEC 59-1/2 Inch Bandsaw Blade, 1/4 inch x 6 TPI.

2. COMPATIBILITY

This 59-1/2 inch long, 1/4 inch wide, 0.014 inch thick bandsaw blade is compatible with various 9-inch bandsaw models, including but not limited to:

- WEN 3959, BA3959, 3959T
- Delta BS100 (28-150)
- B&D BDBS100
- Skil 3385-01
- Other popular 9-inch bandsaws that accept 59-1/2 inch blades.

3. INSTALLATION

Before installing the blade, ensure your bandsaw is unplugged and all safety precautions outlined in your bandsaw's manual are followed. Proper installation is crucial for safe and effective operation.

1. **Safety First:** Always wear appropriate personal protective equipment, including safety glasses and gloves,

during blade installation.

2. **Release Tension:** Loosen the blade tension mechanism on your bandsaw to allow for easy removal of the old blade and installation of the new one.
3. **Remove Old Blade:** Carefully remove the old blade from the bandsaw wheels and guides.
4. **Install New Blade:** Place the POWERTEC bandsaw blade onto the wheels, ensuring the teeth are pointing downwards towards the table.
5. **Adjust Guides:** During installation, ensure the blade guides are properly set to prevent damage to the blade teeth and ensure stable operation. The blade should run freely between the guides without excessive friction.
6. **Apply Tension:** Gradually apply tension to the blade according to your bandsaw manufacturer's recommendations. The blade should be taut but not over-tensioned, which can damage the saw or blade.
7. **Check Tracking:** Manually rotate the bandsaw wheels to check the blade's tracking. Adjust as necessary so the blade runs centrally on the wheels.



Figure 2: Close-up of the 6 TPI hook tooth profile on the POWERTEC bandsaw blade.

4. OPERATION

The POWERTEC 59-1/2 inch bandsaw blade is designed for efficient cutting. Observe the following guidelines for optimal performance:

- **Tooth Per Inch (TPI) Selection:** A 6 TPI blade, like this model, features a hook tooth form and an alternate tooth set for quick and efficient material removal. Fewer teeth per inch generally provide a faster feed rate and a rougher finish. For general cutting of 3/4 inch wood, a 6 TPI blade offers a good fast cut.
- **Minimum Material Thickness:** Ensure at least three teeth are engaged in the material being cut. For a 6 TPI blade, the minimum material thickness is approximately 1/2 inch.

- **Blade Width Selection:**

- For primarily straight cuts, select the widest blade available for your saw.
- For contour or scroll work, select a blade width that accommodates your desired minimum radius. For a 1/4 inch blade, the minimum radius is approximately 5/8 inch.

- **Feed Rate:** Apply a consistent and moderate feed rate. Do not force the material into the blade, as this can cause blade deflection, overheating, and premature wear.

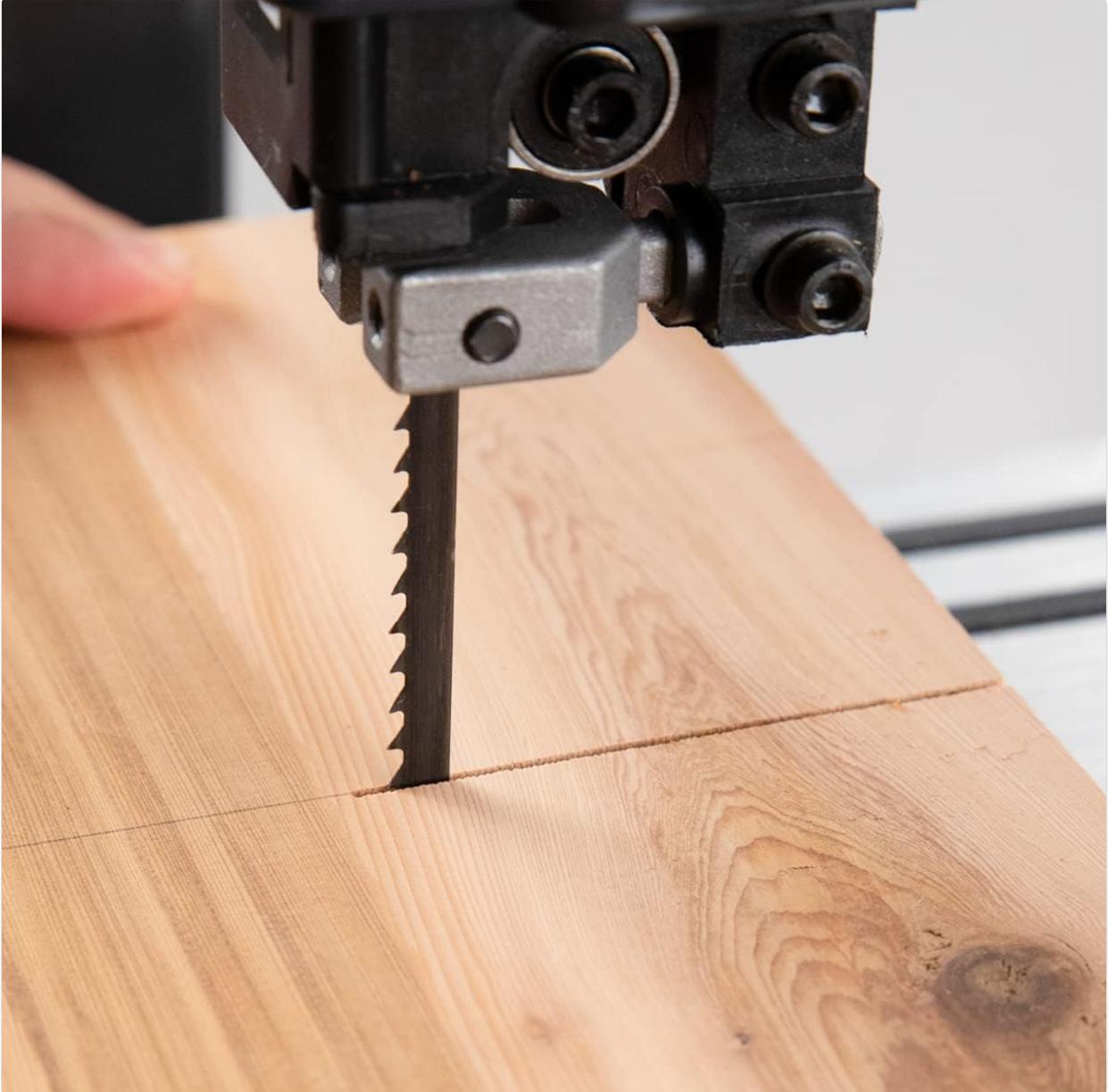


Figure 3: Bandsaw blade performing a straight cut on wood.



Figure 4: Proper hand placement for guiding material during bandsaw operation.

HOW TO CHOOSE THE CORRECT BAND SAW BLADE WIDTH

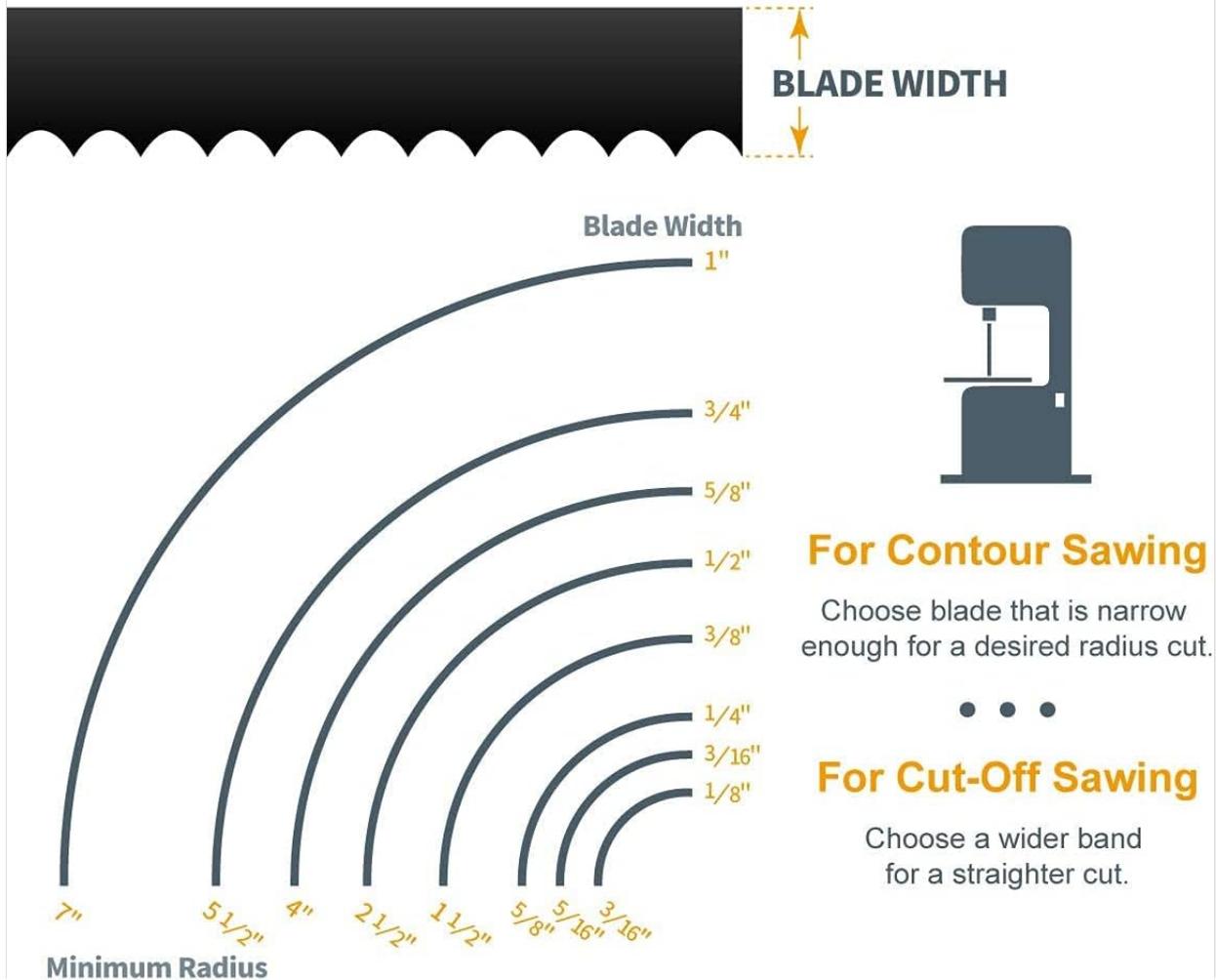


Figure 5: Guide for selecting bandsaw blade width based on cutting requirements.

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Video 1: This video demonstrates the features and applications of POWERTEC bandsaw blades, including contour sawing and straight cuts, highlighting their performance.

5. MAINTENANCE

Regular maintenance extends the life of your bandsaw blade and ensures consistent cutting quality.

- **Cleaning:** Blades, especially those with higher TPI (though this is a 6 TPI blade), can accumulate sawdust and chips. Clean the blade regularly with a small brush to remove debris and prevent clogging.
- **Inspection:** Periodically inspect the blade for signs of wear, dullness, or damage to the teeth. A dull blade can lead to poor cuts and increased strain on your bandsaw.
- **Storage:** When not in use, store the blade in a dry environment to prevent rust. Proper storage also helps maintain the blade's tension and shape.

POWERTEC Band Saw Blades are constructed from premium high carbon steel and can cut through hardwoods, softwoods, plastics and non-ferrous metal. All blades with 6TPI or less have a hook tooth form and an alternate tooth set for quick efficient removal of material. Blades with 10 TPI or higher have a standard tooth form and an raker tooth set for a smoother finish.

General Guide Lines for Selecting and caring for Band Saw Blades

- *During installation, make sure the guides are properly set to avoid damage to the teeth.*
- *TPI or teeth per inch – Fewer teeth per inch provides a faster feed rate and a rougher finish. More teeth per inch provide a smoother finish but slower cut. At least three teeth should be in the material when cutting. Minimum material thickness: 6 TPI – ½", 10 TPI – 5/16", 14 TPI- ¼", 18 TPI- 5/32", 24 TPI- 1/8". For general cutting of ¾" wood, a TPI of 6 will provide a good fast cut.*
- *Blade width – If you primarily make straight cuts, select the widest blade available. For contour or scroll work, select the blade that fits your minimum radius requirement: 1/8" blade – 3/16", ¼" blade – 5/8", 3/8" blade – 1-1/2", ½" blade – 2-1/2"*
- *Blades with a TPI of 14 or higher can load up with saw dust or chips and require cleaning with a small brush.*

Figure 6: General guidelines for bandsaw blade selection and care.

6. TROUBLESHOOTING

If you encounter issues during operation, consider the following:

- **Poor Cut Quality or Blade Drift:** Check blade tension and tracking. Ensure the blade guides are correctly adjusted and not worn. A dull blade will also result in poor cuts and may need replacement.
- **Blade Not Tensioning Adequately:** Verify that the blade gauge (thickness) is compatible with your specific bandsaw model. Some bandsaws may not be designed to handle thicker blades, which can prevent proper tensioning and potentially damage the saw frame. Refer to your bandsaw's manual for recommended blade specifications.
- **Excessive Noise or Vibration:** This can indicate improper blade tension, worn guides, or an incorrectly installed blade. Re-check all installation steps.

7. SPECIFICATIONS

Feature	Specification
Brand	POWERTEC

Feature	Specification
Model Number	13102V
Material	Carbon Steel
Length	59-1/2 inches
Width	1/4 inch
Thickness	0.014 inches
Teeth Per Inch (TPI)	6
Tooth Profile	Hook Tooth
Color	Black
Item Weight	1.2 ounces (0.03 Kilograms)
UPC	843441114499

8. WARRANTY AND SUPPORT

POWERTEC bandsaw blades are manufactured with attention to quality. Every weld is guaranteed for proper tooth spacing, matched set, and exact finishing. For any questions, concerns, or support regarding your POWERTEC bandsaw blade, please contact POWERTEC customer service through their official channels.