

Product Brochure



**TechCut 4™**  
PRECISION LOW SPEED SAW

*LOW SPEED SAW EXCELLENT FOR CUTTING  
SMALLER, DELICATE SAMPLES*

Quality Products for Metallographic Sample Preparation & Analysis

# TechCut 4™ Precision Low Speed Saw




The **TechCut 4™** is a low speed saw excellent for cutting smaller, delicate samples that cannot tolerate increased heat caused by high speed sectioning.

The pivoting cutting arm has adjustable weights to apply or counterbalance downward force to the sample during sectioning. Cutting fluid is drawn from the reservoir by the blade to cool the sample. With a 3" to 6" blade range, samples up to 2" thick can be sectioned.

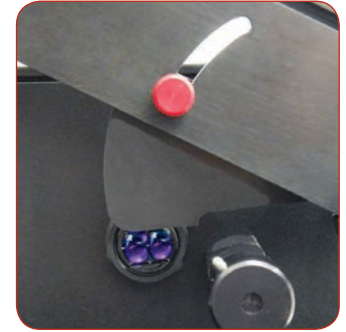
**Accessories and consumables are sold separately.**

## Features:

- ❖ Gravity-fed cutting system
- ❖ 3-6" (75-150 mm) diameter blade range, 0.5" (12.7 mm) arbor hole
- ❖ Variable speed with LED display: 10-500 RPM (10 RPM increments)
- ❖ Cutting capacity: 2" (51 mm) thickness
- ❖ Micrometer sample indexing, 0.002 µm resolution, 0-25 mm range
- ❖ Spring-retractable dressing stick attachment for dressing while sectioning
- ❖ Optical shut-off sensor with adjustable stop to control depth of cut
- ❖ Precision machined aluminum and stainless steel construction that maximizes corrosion resistance and durability
- ❖ 0.06 HP (45 W) motor with durable reduction gearbox for constant high-torque output
- ❖ Sliding weights that provide variable sample loading: 0-300 grams
- ❖ Touchpad switches to control all functions
- ❖ Removable splash shield
- ❖ Removable coolant reservoir
- ❖ Removable catch screen that prevents sectioned pieces from falling into reservoir
- ❖ Dims: 13" W x 15" D x 13" H (330 x 381 x 330 mm)
- ❖ Weight: 36 lb. (16 kg)
- ❖ CE compliant for EU
- ❖ Two (2) year warranty
- ❖ Designed & manufactured by Allied in the USA 

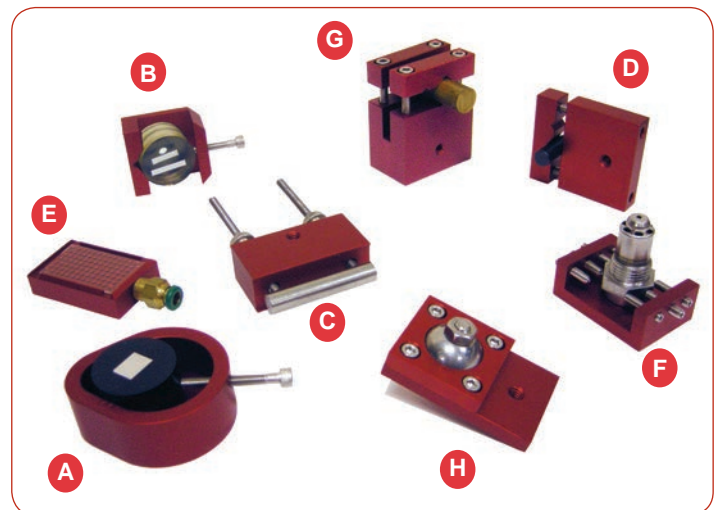


Spring-retractable dressing stick attachment allows dressing while sectioning.



Optical shut-off sensor with adjustable stop

Item	Description
5-5200	TechCut 4™, 100 - 240V



## Accessories:

5-5005	Teardrop Fixture for 25 mm - 1.5" mounts	<b>A</b>
5-5010	V-Block Fixture, 1" (25 mm) Capacity	<b>B</b>
5-5015	Bone Fixture	<b>C</b>
5-5020	Single Saddle Clamp	<b>D</b>
5-5025	Vacuum Fixture, for 27 x 46 mm Glass Slide	<b>E</b>
5-5030	Irregular Shaped Sample Fixture	<b>F</b>
5-5035	Dual Saddle Clamp	<b>G</b>
5-5040	Swivel Attachment (to adapt other fixtures for angle cutting)	<b>H</b>
5-5045	2.5" (63 mm) Flange Set	

# Wafering Blades

Wafering blades are available in **Bonded, Plated** or **Solid Core** configurations with diamond, cubic boron nitride (CBN), aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) or silicon carbide (SiC) mineral. They are recommended for precision sectioning or when kerf (cut width) loss needs to be minimized.

## Bonded Blades

**Bonded blades** are composed of an inner metal core and an outer rim. The rim consists of either metal or resin mixed with abrasive, cured under high temperature and pressure to bond the matrix together. Metal bonding offers long life and durability, while resin bonding creates less heat, provides better surface finish and is well suited for cutting hard, delicate or brittle materials.

## Diamond, Metal Bond

### High Concentration

Recommended for general laboratory sectioning, excluding ferrous alloys, at either low (<1,000 RPM) or high (>1,000 RPM) speeds.

Item	Dimensions
60-20065	3" x .006" x .5" (76 x .15 x 12.7 mm)
60-20070	4" x .012" x .5" (102 x .31 x 12.7 mm)
60-20075	5" x .015" x .5" (127 x .38 x 12.7 mm)
60-20080	6" x .020" x .5" (152 x .51 x 12.7 mm)



Metal Bonded Blades

### Low Concentration

Recommended for sectioning very hard or brittle materials such as ceramics, silicon, glass and refractories where chipping and pullout need to be minimized. Most commonly used at lower (<1,000 RPM) speeds.

Item	Dimensions
60-20085	3" x .006" x .5" (76 x .15 x 12.7 mm)
60-20090	4" x .012" x .5" (102 x .31 x 12.7 mm)
60-20095	5" x .015" x .5" (127 x .38 x 12.7 mm)
60-20100	6" x .020" x .5" (152 x .51 x 12.7 mm)

## Diamond, Resin Bond

Recommended for cutting hard, brittle or delicate materials including ceramics, carbides, composites and exotic metals where low heat generation or improved surface finishes are desired. Most commonly used at higher (>1,000 RPM) speeds.



Resin Bonded Blades

Item	Dimensions
60-20069	4" x .020" x .5" (102 x .51 x 12.7 mm)
60-20074	5" x .020" x .5" (127 x .51 x 12.7 mm)
60-20079	6" x .020" x .5" (152 x .51 x 12.7 mm)

## CBN, Metal Bond

Recommended for sectioning hard steel, and iron, cobalt, nickel and lead based alloys. Most commonly used at lower (<1,000 RPM) speeds.

Item	Dimensions
60-20071	4" x .012" x .5" (102 x .31 x 12.7 mm)
60-20076	5" x .015" x .5" (127 x .38 x 12.7 mm)
60-20082	6" x .020" x .5" (152 x .51 x 12.7 mm)



Metal Bonded Rim Section

## CBN, Resin Bond

Recommended for sectioning hard steel above HRC 60. Most commonly used at higher (>1,000 RPM) speeds.

Item	Dimensions
60-30005	5" x .020" x .5" (127 x .51 x 12.7 mm)
60-30010	6" x .020" x .5" (152 x .51 x 12.7 mm)

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