

# **Product Brochure**





A POWERFUL, RELIABLE CUT-OFF SAW DESIGNED TO CUT A WIDE VARIETY AND SIZE OF MATERIALS

Quality Products for Metallographic Sample Preparation & Analysis



The **PowerCut 10x<sup>™</sup>** is a powerful, reliable cut-off saw designed for low to high volume applications. It accommodates blades up to 10" (250 mm) in diameter, allowing a wide variety of sample shapes and sizes up to 3.75" (95 mm) thick to be sectioned.

*Versatile*: Dual T-slot tables allow front-to-back and side-to-side vise/clamp positioning. A side port allows cutting of longer samples such as bar stock.

**Durable**: Engineered and constructed using precision machined, hard-anodized aluminum and stainless steel components to provide maximum longevity. Front controls and rear electronics are isolated from the wet cutting chamber.

*Easy to Use*: Straightforward controls and user-friendly functions allow quick, easy, repeatable operation.

**Safe**: The polycarbonate viewing window is engineered to withstand blade breakage should it occur. A cover shut-off switch and emergency stop provide added operator protection.

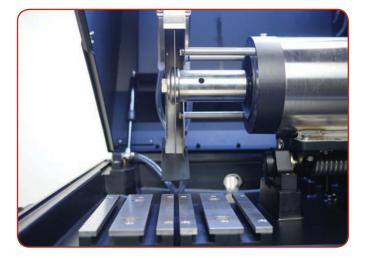
# Recirculation system and accessories are sold separately.

ltem	Description
5-4200	<b>PowerCut 10x</b> <sup>™</sup> , 230 V, 3-Phase
5-4200-415	<b>PowerCut 10x</b> <sup>™</sup> , 415 V, 3-Phase
5-4200-480	<b>PowerCut 10x</b> <sup>™</sup> , 480 V, 3-Phase

#### Features:

- 10" (254 mm) diameter blade capacity
- Accepts blades with either 1.25" or 32 mm arbor hole
- Powerful 3.5 HP (2600 W) stainless steel waterproof motor, 3,450 RPM
- Cutting capacity: up to 3.75" (95 mm) bar stock
- 5" (127 mm) distance between blade and motor, allowing longer/larger parts to be sectioned
- Two (2) T-slot tables to support front-to-back and side-to-side vise/clamp positioning
- Dual coolant manifolds with directional jets to ensure uniform blade/sample lubrication
- Cleaning hose and nozzle with holster for convenient post-operation compartment cleaning
- Corrosion and impact resistant cover with angled internal edge that prevents external dripping
- Large shatterproof viewing window
- LED illuminated interior
- · Sturdy cast aluminum base
- · Side port for cutting long samples
- Electronic brake to stop blade at end of operation
- Safety switch to stop blade when cover is lifted
- Emergency shut-off switch
- CE compliant for EU
- Two (2) year warranty
- Designed & manufactured by Allied in the USA

#### **T-slot Tables**



Two T-slot tables allow the use of a wide range of clamping and fixturing options available to accommodate a variety of sample shapes and sizes.

Each measuring 7.75" D x 4.00" W (197 x 102 mm), they are machined from aluminum billet and fitted with stainless steel tops for durability. Lateral adjustment enables precise vise positioning for precision sectioning applications.

#### Vertical Adjusting Clamp



The vertical adjusting clamp can be positioned in any orientation throughout the T-slots in the tables. The height adjustable lever allows various size samples up to 2.25" (57 mm) thick to be secured. Interchangeable pads are available for a variety of sample shapes. Each clamp includes one (1) angled pad and one (1) flat pad.

ltem	Description
5-4050	Vertical Adjusting Clamp
5-4050SPA	Swivel Pad Assortment Kit

Made of hardened stainless steel, the quick-slide vise features a lead-screw that disengages for quick and easy operation. The vises can be positioned anywhere along the T-slots, and allow samples up to 3" (76 mm) deep to be secured.

ltem	Description
5-4005	Quick-Slide Stainless Steel Vise

### Sample Support Platform

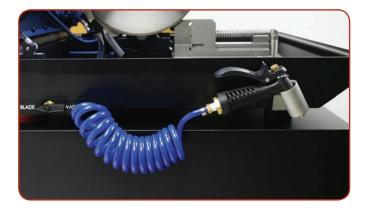


This platform has a height equal to the base of the vise, allowing the unclamped portion of the sample to be supported during the sectioning process. It prevents this portion from falling as the end of the cut nears, minimizing the burr upon completion. It can be positioned anywhere along the T-slots.

ltem	Description
5-4006	Sample Support Platform

## Quick-Slide Vise

#### **Cleaning Hose**



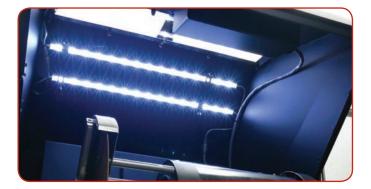
The hose, complete with nozzle and holster, enables convenient post-operation compartment cleaning.

#### **Chamber Cleaning**



After sectioning, simply adjust the valve to redirect coolant from the blade to the cleaning hose.

### LED Illumination



LED illumination inside the cover allows easy observation of the sectioning process through the large viewing window.

#### **Coolant Manifolds**



Dual coolant manifolds with directional jets provide uniform blade/sample lubrication.

#### Impact Resistant Cover



The cover has a large, shatterproof viewing window for operator safety, and an angled internal edge that eliminates external dripping. A safety switch quickly stops blade rotation if the cover is raised during operation.

#### Long Working Distance



Extra-long 5" (127 mm) distance between the blade and motor allows longer/larger parts to be sectioned.

#### **Blade Changes**



Blades ranging from 8"-10" (203-254 mm) can be easily and quickly changed with provided tools.

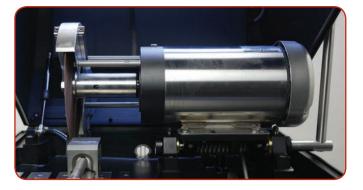
Waterproof Motor

#### Side Port



The side plate in the cover can be removed for convenient cutting of long samples such as bar stock.

### **Control Panel**



The waterproof, 3.5 HP (2600 W) motor is constructed of stainless steel with hard-anodized end caps for maximimum durability.

Robust, straightforward controls with intuitive icons allow quick, easy operation.

#### Blade Advancement Lever



The blade advancement lever allows simple, controlled cutting, with torsion spring for smooth motor return.

#### **Extraction Port**



The extraction port is used to remove smoke and odor from the cutting chamber. The 3" diameter port allows a hose to connect with stand-alone or facility filtration systems.

ltem	Description
5-4250	Smoke/odor extraction port for 3" (76 mm) hose

#### Cabinet/Stand



The cabinet/stand is designed to provide a solid platform to support the PowerCut 10x<sup>™</sup>. Made of cross-braced aluminum for vibration control, strength and stability, it is configured for proper routing of electrical cords, drain hose and coolant supply tubing. It features a large, deep drawer for storing fixtures, tools and blades, and a hinged door to house the recirculating coolant system. One (1) #5-4210 Roller Cart is included.

Item D	Description
5-4230 C	Cabinet / Stand for Power Cut 10x™



Open drawer showing accessories & spare parts

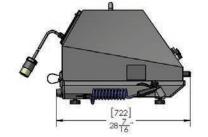
#### **Recirculating Coolant System**



The 7-gallon (26.5 L) recirculating coolant system is constructed of corrosion resistant materials for maximum durability. The reservoir fits conveniently in the available cabinet, or can be placed near the machine in existing lab furniture. A removable catch screen enables quick cleaning of larger particles. Baffles inside the reservoir trap particulates. The optional roller cart (included with cabinet) allows easy transfer for cleaning.

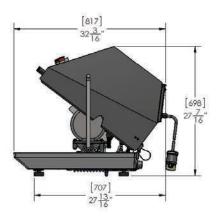
ltem	Description
5-4205	Recirculating Coolant System, 7-gallon (25.6 L) Capacity
5-4210	Roller Cart

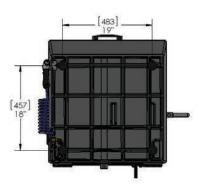
## Dimensions











## Technical Specifications

Blade Range	8" - 10" (203 - 254 mm) diameter 1.25" or 32 mm arbor hole
Sample/Cutting Capacity	Up to 3.75" (95 mm) bar stock
Motor Power	3.5 HP (2600 W)
Blade RPM	3,450
Electronics	Microprocessor controlled
Operating Voltages	230, 415 or 480 V, 3-Phase
Cutting Action	Manual through arc
Recirculating Coolant Capacity	7 gallons (26.5 L) with purchase of 5-4205
Safety	Emergency stop, auto blade shut-off switch for cover
CE	LVD Directive 2006/95/EC, EN 60204-1:2006+A1:2009, EMC Directive 2004/108/EC
Weight	168 lb. (76 kg)
Warranty	2 years
Included Items	Operation manual, country specific power cord

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Equipment is subject to change due to innovations/improvements at any time.



Designed and Manufactured by Allied High Tech Products, Inc. in the USA



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