PACE® TECHNOLOGIES

www.metallographic.com

PICO 175 High Speed Precision Saw

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High Speed Precise Cutting

- Precise serial cutting
- Highly reproducible
- Flexible
- Ideal for all materials
- User friendly

Benefits - PICO 175

- Simple to use
- Microprocessor controlled
- Automated feed with adjustable feed rate
- Heavy duty aluminum frame
- Motorized feed
- Travel distance: X-direction: 0-2.6 inches(0-66 mm)
- Y-direction: 0-3.4 (0-86mm)
- Rotating sample option
- Accepts wafering blade diameters up to 8-inch (203 mm), cutting capacity of 3-inches (75 mm)
- Variable wheel speeds from 50-5000 rpm
- Touch pad control panel
- Grinding cup wheel (optional)

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PICO 175 High Speed Precision Saw

PICO 175 precision medium to high speed cutter (part no. PICO 175). Fits maximum 8-inch (203 mm) diameter blades. Features: Variable speed from 50-5000 rpm cutting with digital speed readout, precision micrometer, 2-inch cutting capacity (4-inch with rotation). feed rate ranging from 0.01 - 3 mm/second, motorized positioning system with digital readout, positioning accuracy to 2 microns, touch-pad control panel for parameter settings, last settings retained in memory, with built-in sample rotation and recirculation cooling unit. The PICO 175 has a built in transformer so it can be operated at either 110V or 220V by the flip of a switch. Accessories included with the saw are the universal vise (part no. P150-702), double parallel vise (part no. P150-703), irregular shaped specimen vise (part no. P150-706), round holder for 1.25-inch mounted specimens (part no. P150-707), round holder for 1.5-inch mounted specimens (part no. P150-706), large single sample vise with support lip (part no. P150-702b), specimen adhering vise (part no. P150-709), specimen vise for irregular shaped specimens (part no. P150-706), teardrop holder for 0.7-1.6 inch round specimens, (part no. P150-710) and specimen vise for fasteners (part no. P150-711)

Programmable Controls

- Wheel speed (50-5000 rpm)
- Feed rate 0.0024-7.1 inches/minute (0.01-3 mm/second)
- Overload protection
- X & Y sample positioning
- Automated end of cut positioning
- Rotatable specimen holder
- Multiple parallel cutting sections
- Pulse or continuous cutting

Integrated Cooling

- Dual coolant tubes
- High volume pump
- Large volume tank resevoir

User Friendly Workspace

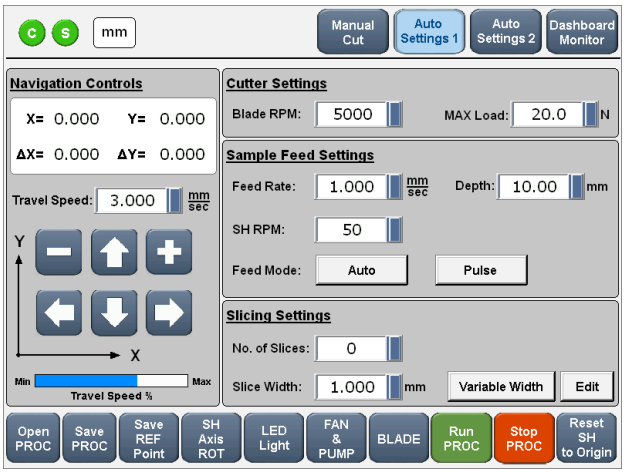
- LED light illumination
- Specimen catch screen
- Protective acrylic clear safety hood
- Emergency stop button

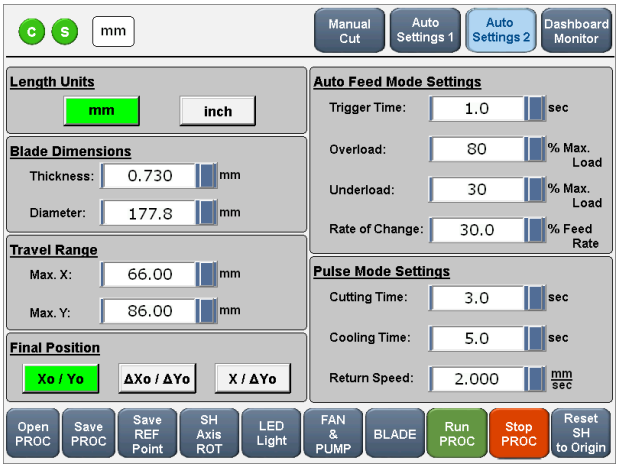
Flexible Operation

- Large selection of cutting fixures (included)
- Accomodates 3-inch up to 8-inch wafering blades
- Cup grinding wheel is available for producing thin sections

PICO 175 Programmable Controls

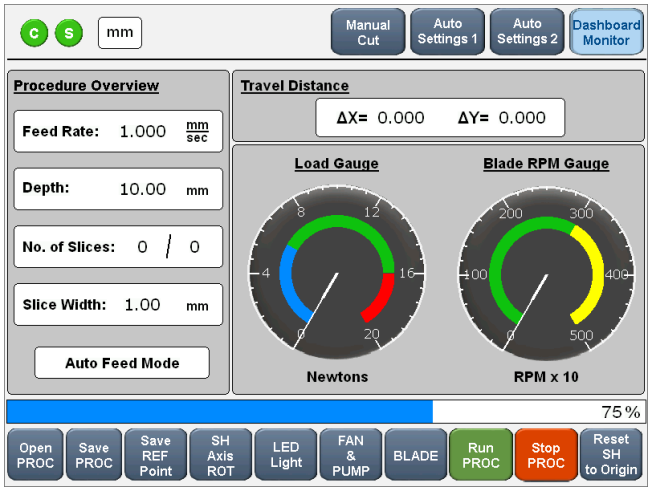
The PICO 175 is a versatile precision wafering saw featuring gentle sectioning at slow speeds and low feed rates up to high speeds with high feed rates. The PICO 175 can operate in a continuous feed or pulsed cutting mode. In addition, multiple parallel sectioning can be easily accomplished.





The PICO 175 is a linear feed precision saw. An extremely important feature for linear feed cutting is the ability of the saw to section the part at the correct feed rate. If the material cannot cut at the rate required it is important not to overload the motor and the PICO 175 can automatically control the feed rate whether it is too high or too low.

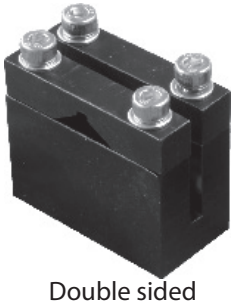
The PICO 175 has a graphic display to show how the saw is operating in order to optimize cutting efficiency. Additionally, the feed rate, depth of cut, number of cuts or slices are monitored. A status bar also shows how far along the cut has progressed.



Standard Specimen Vises

Universal single saddle chuck	P150-702
Double sided saddle chuck	P150-703
Irregular shaped specimen vise	P150-706
Small round <1.25-inch mounted specimen holder	P150-707
Large round <1.5-inch mounted specimen holder	P150-708
Vise for adhering specimens	P150-709
Specimen teardrop holder for 0.6-1.6-in (18-40 mm) diameter	P150-710
Fastener vise for longitudinal sectioning	P150-711
Large lip single saddle chuck	P150-702b
50 mm diameter flanges	P150-306
75 mm diameter flanges	P150-712
Dovetail adapter	P175-750
Locking blade rod	P175-755

Universal single saddle chuck

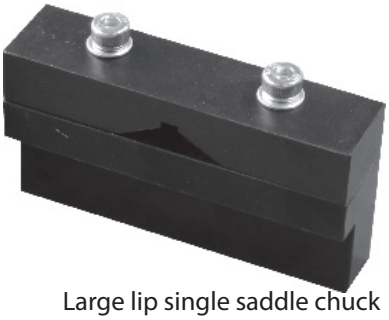


Double sided saddle chuck

Irregular shaped specimen vise

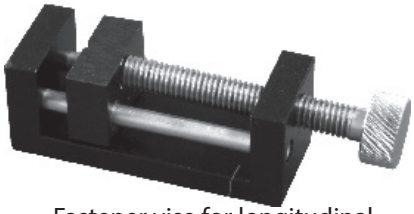
Vise for adhering specimens

Round mounted specimen holder (<1.25-inch)



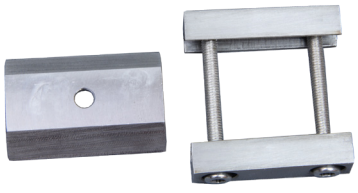
Large lip single saddle chuck

Teardrop holder



Fastener vise for longitudinal sectioning

Round mounted specimen holder (<1.5-inch)



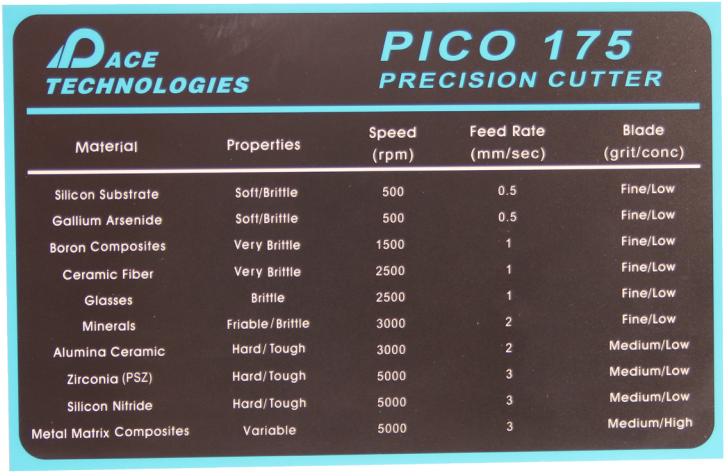
Dovetail adapter

Blade locking rod

50 mm diameter flanges

75 mm diameter flanges

The PICO 175 is very useful for sectioning metals, ceramics, electronics and other engineered materials. It is especially versatile for cutting extremely hard engineered materials such as boron carbide, zirconia, silicon nitride and partially stabilized zirconia which require high speeds and higher cutting forces. The PICO 175 provides a recommendation template for cutting a wide range of materials.



Wafering Blades (1/2-inch arbor)

Description	3-inch	4-inch	5-inch	6-inch	7-inch	8-inch
Fine grit / low conc.	WB-0030LC	WB-0040LC	WB-0050LC	WB-0060LC	WB-0070LC	WB-0080LC
Medium grit / low conc.	WB-0035LC	WB-0045LC	WB-0055LC	WB-0065LC	WB-0075LC	WB-0085LC
Medium grit / high conc.	WB-0035HC	WB-0045HC	WB-0055HC	WB-0065HC	WB-0075HC	WB-0085HC
CBN	n.a.	WCBN-0045	WCBN-0055	WCBN-0065	WCBN-0075	WCBN-0085
CBN/Diamond Hybrid Wafering Blade	n.a.	WCBND-0045	WCBND-0055	WCBND-0065	WCBND-0075	WCBND-0085
Electroplated Diamond	n.a.	EPD-0040	EPD-0050	EPD-0060	EPD-0070	EPD-0080

DIACUT Anti-Corrosion Cutting Fluid

DIACUT Oil-Based Cutting Fluid

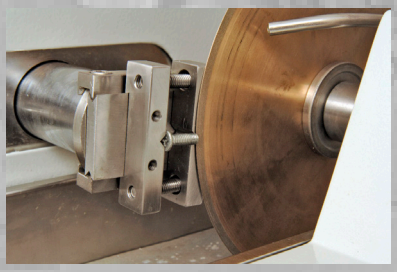
DIACUT Cutting Fluid

Cutting Fluids

Description	Catalog Number
DIACUT Dressing Sticks (1/2" x 1/2" x 4 1/2")	DRES-0010
DIACUT water-based cutting fluid (16 oz)	WL-3000-16
DIACUT water-based cutting fluid (32 oz)	WL-3000-32
Water-based wafer cutting fluid with anti-corrosion additive (16 oz)	WL2-3000-16
Water-based wafer cutting fluid with anti-corrosion additive (32 oz)	WL2-3000-32
Oil-based wafer cutting fluid (16 oz)	OL-3000-16
Oil-based wafer cutting fluid (16 oz)	OL-3000-32

Technical Specifications:

Cutting capacity	3-inches (75 mm)
Cut-off Blade Size	Min 3-inch (75 mm) Max 8-inch (200 mm)
Variable Speed (rpm)	50-5000 rpm continuously adjustable
Max Load	5-20 N (1-4.5 lbf)
Feed Rate	0.0024-7.1 inches/minute (0.01-3 mm/second)
Travel Distances	X-direction: 0-2.6 inches(0-66 mm) Y-direction: 0-3.4 (0-86mm)
Micrometer Feed Distance	0 to 4-inch (0-100 mm)
Micrometer Accuracy	0.1 mm
Recirculating Tank (built-in)	3/4 gallons
Dimensions (W x D x H) Hood Closed: Hood Open:	3-inch - 8-inch (0.5-inch arbor) 25 x 22.4 x 17.8-inch (635 x 570 x 450-mm) 25 x 23 x 29-inch (635 x 585 x 740 mm)
Motor Power	1.0 hp (750 W)
Electrical Specifications	110V or 220V 50/60 Hz
Weight	160 lbs (35 kg)
Part No.	PICO-175



Precise cutting alignment

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Applications:
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Thin Sections