PICO-200A Precision Cutter

Instruction Manual

Equipment	Automatic Precision Cutter
Model	PICO-200A
Electrical Requirements	110V or 220V
Frequency	50/60 Hz
Motor Horsepower	1.60 hp (1.2 KW)
Manual Revision Date	November 13, 2025

WARRANTY
Terms and Conditions apply to all PACE Technologies Products.

1. LIMITED WARRANTY AND DISCLAIMER
PACE Technologies Equipment is under warranty for two years from the purchase date to be free from defects in material and workmanship under correct use, normal operating conditions, and proper application. "Normal operating conditions" are defined as the operational environment specified in the product manual or technical specifications. Warranty is void if equipment is used outside these conditions, modified without written authorization, or if recommended maintenance is not performed. Consumables are excluded from warranty coverage.

PACE Technologies' obligation under this warranty shall be limited to the repair or exchange, at PACE Technologies' discretion, of any PACE Technologies equipment or part which proves to be defective as provided herein. Repair or replacement processes, including turnaround times, are subject to change. PACE Technologies reserves the right to either inspect the product at the Buyer's location or require it to be returned to the factory for inspection. The Buyer is responsible for freight to and from the factory on all warranty claims. This warranty does not extend to Consumables, goods damaged or subjected to accident, abuse, misuse after release from PACE Technologies' warehouse, nor goods altered or repaired by anyone other than specifically authorized PACE Technologies representatives without written approval. Regular maintenance as specified in the equipment manual is required to maintain warranty coverage. Failure to perform recommended maintenance may void warranty.

Equipment requiring installation must be installed by qualified personnel in accordance with local codes and regulations. PACE Technologies does not provide installation services for all equipment. Customer is responsible for ensuring proper installation and may void warranty if installation is performed incorrectly.

Note: Corrosion is considered a maintenance issue and not a warranty issue.

PACE TECHNOLOGIES MAKES NO EXPRESS WARRANTIES OTHER THAN THOSE WHICH ARE SPECIFICALLY DESCRIBED HEREIN. Any description of the goods, including Buyer's specifications and any description in catalogs, circulars, and other written material, is solely for identification and does not create an express warranty that the goods shall conform to such description. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY STATES PACE TECHNOLOGIES' ENTIRE AND EXCLUSIVE LIABILITY AND THE BUYER'S EXCLUSIVE REMEDY FOR ANY CLAIM FOR DAMAGES IN CONNECTION WITH THE PRODUCTS. PACE TECHNOLOGIES WILL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES WHATSOEVER, NOR FOR ANY SUM IN EXCESS OF THE PURCHASE PRICE.

2. LIABILITY CAP
PACE Technologies' maximum aggregate liability for loss and damage arising under, resulting from, or in connection with the supply or use of the Equipment and Consumables, whether such liability arises from any one or more claims for breach of contract, tort (including negligence), delayed completion, warranty, indemnity, strict liability, or otherwise, shall be limited to one hundred percent (100%) of the purchase price, excluding lost profits, business interruption, indirect damages, and consequential damages.

3. DELIVERY
The Customer assumes and shall bear the risk of all loss or damage to the Products from every cause whatsoever, whether or not insured, and title to such Products shall pass to the Customer upon PACE Technologies' delivery of the Products to the common carrier of PACE Technologies' choice, or the carrier specified in writing by the Customer, for shipment to the Customer. Any claims for breakage, loss, delay, or damage shall be made to the carrier by the Customer, and PACE Technologies will render reasonable assistance in prosecuting such claims.

4. ACCEPTANCE
Upon receipt of delivery, the Customer is obligated to inspect the Products within ten (10) business days. This inspection should include a verification of product specifications, condition, and completeness against the order details. If the Customer finds any damages, errors, or shortages in the Products, they must submit a written objection to **pace@metallographic.com** within thirty (30) business days from the date of delivery as recorded by the carrier. This objection email should include the corresponding invoice number noted in the subject line. The objection should include detailed descriptions and any relevant documentation, such as photographs, to support the claim. Failure to conduct an inspection or to submit any claim within this thirty (30) business day period, commencing from the carrier's recorded delivery date, will be deemed as the Customer's acceptance of the Products as is. This acceptance constitutes a waiver of any right to make future claims regarding the condition or completeness of the products received. The Customer's acknowledgment of receipt is not required to initiate this inspection period.

5. PAYMENT
Payment Terms: Net 30 days for domestic customers with approved credit. International customers are required to pre-pay unless alternative arrangements are made in writing. Credit approval required for all Net 30 terms. The Customer agrees to provide timely payment for the Products in accordance with the terms of payment that are set forth on the corresponding Order Acknowledgment sent from an authorized PACE Technologies representative. PACE Technologies reserves the right to charge interest on late payments at the lesser of 12% per annum or the maximum rate allowed by law, and may suspend future shipments until the account is current.

6. DEFAULT
If the Buyer is in default under the work or purchase order or any other agreement between the Buyer and Seller, including but not limited to failure to pay all amounts due and payable, the Buyer's rights under the warranty shall be suspended during any period of such default. The original warranty period will not be extended beyond its original expiration date despite such suspension of warranty rights.

7. MISCELLANEOUS PROVISIONS
This agreement is exclusively governed and interpreted in accordance with the laws of the State of Arizona, without regard to its conflict of law principles. Any disputes, controversies, or claims arising out of or relating to the purchase of the equipment, including but not limited to its validity, interpretation, performance, breach, or termination, shall be resolved through binding arbitration. However, both parties agree that before proceeding to arbitration, they will attempt to resolve disputes through mutual negotiation or mediation. Arbitration shall be conducted in Pima County, Arizona, under the rules of the American Arbitration Association (AAA), but with the following stipulations:

- Each party shall bear its own costs related to the arbitration, regardless of the outcome. This includes attorney fees, administrative fees, and other expenses incurred during the arbitration process.
- The arbitrator's authority shall be limited to making determinations under the existing terms of this Agreement and shall not have the authority to award punitive or exemplary damages.
- The arbitration award shall be final and binding, and judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.

These terms and conditions, along with the product descriptions as outlined in the accompanying Order Acknowledgment or other official PACE Technologies documentation, constitute the entire agreement between the parties regarding this sale. This agreement supersedes all prior or contemporaneous agreements, negotiations, representations, and proposals, written or oral, related to its subject matter. Any amendment or modification to this Agreement is effective only if it is in writing and signed by duly authorized representatives of both parties. A waiver by either party of any breach or default under this Agreement shall not constitute a waiver of any subsequent breach or default and will not in any way affect the other terms of this Agreement.

8. RESTOCKING FEE

Equipment returns are subject to a 15% restocking fee unless determined to be non-conforming. Consumables may be returned within 30 days if unopened and in resaleable condition, subject to a 15% restocking fee. Opened consumables are not returnable. All returns must be in original condition with packaging and documentation.

In the event of a return due to non-conforming goods, PACE Technologies will conduct a thorough inspection and verification process. If the products are confirmed to be non-conforming, PACE Technologies will waive the restocking fee and may, at its discretion, offer a replacement, repair, or refund for the non-conforming goods. Failure to return goods in their original condition may result in additional charges or refusal of the return. PACE Technologies reserves the right to amend the restocking fee policy for specific categories of products, special orders, or in cases of bulk purchases, as detailed in the Order Acknowledgment at the time of sale.

Consumables should be stored according to manufacturer recommendations. Customer is responsible for checking expiration dates and proper storage conditions as indicated on product packaging.

9. DATA AND PRIVACY

Customer data handling is governed by our Privacy Policy, available on our website. Customer is responsible for data backup before any service or maintenance work. PACE Technologies is not liable for data loss during service or maintenance.

10. INTELLECTUAL PROPERTY PROTECTION

Customer may not reverse engineer, copy, or modify equipment without written authorization. All proprietary information remains confidential. Customer may not resell equipment without written permission. Trademark and copyright notices must remain visible. Any unauthorized modification voids warranty and may result in termination of support services.

11. FORCE MAJEURE
PACE Technologies shall not be liable for delays or failures in performance due to circumstances beyond its reasonable control, including but not limited to acts of God, war, terrorism, pandemic, government action, supplier delays, material shortages, labor disputes, or transportation issues. Either party may terminate this agreement if such delay exceeds 90 days.

12. DEFAULT AND TERMINATION
If Customer is in default, PACE Technologies may accelerate all payments, suspend shipments, place account on credit hold, and pursue collection remedies. Customer is responsible for all collection costs, including attorney fees. PACE Technologies reserves the right to repossess equipment if payments are not made as agreed.

13. SERVICE AND MAINTENANCE
Service calls outside warranty are subject to travel and labor charges. Customer is responsible for proper electrical and utility connections. Service response times are not guaranteed. Training requirements may apply for certain equipment. Customer must comply with all safety regulations and local codes.

14. INTERNATIONAL SALES
International customers are responsible for all customs duties, taxes, and import fees. Currency fluctuations may affect pricing. Customer must comply with all export and import regulations. International warranty terms may differ from domestic terms. Customer is responsible for obtaining necessary import licenses and permits.

15. SOFTWARE AND FIRMWARE
Software is licensed, not sold. Customer may not copy, modify, or distribute software. Updates and support are provided at PACE Technologies' discretion. Customer is responsible for maintaining current software versions. Software license terminates with equipment sale or transfer.

Table of Contents

1.0 Product Overview

Designed for precision cutting across a wide range of materials, the PICO-200A is ideal for both industrial and research applications. It features multiple cutting modes (constant, pulse, auto-adjust, manual), laser alignment, and a quick-clamping system for efficient setup.

With a variable blade speed of 500–3000 rpm, a 5-inch touchscreen interface, and overload protection, it delivers reliable performance with minimal operator input. Suitable for metal alloys, PCBs, ceramics, and more.

1.1 Features

Machine features below:

1.2 Technical Specifications

Arbor Wheel	**Speed**	500–3000 rpm continuously adjustable
	Diameter	8-inch (200 mm)
	Arbor	0.5-inch (12.7mm)
Electrical	**Voltage / Frequency**	110V or 220V (50/60 Hz) Set at Factory
	Rated Power	1.5kW
	Touchscreen	5”
	Y-axis	Manual/Automatic
Cutting Capacity	**Max. Diameter**	2-inch (50 mm)
	Max. Square Section	2 × 5-inch (50 × 126 mm)
Working Table	**Dimension (W × D)**	18.3 × 10.6-inch (465 × 270 mm)
	Travel	7.5-inch (190 mm)
Coolant Tank	**Capacity**	5 Liters
Overall Dimension	**W × D × H (Closed)**	22 × 28 × 16-inch (57 × 72 × 41 cm)
	W × D × H (Open)	22 × 28 × 35-inch (57 × 72 × 90 cm)
Weight		139 lbs (63 kg)

2.0 Equipment Handling & Setup

2.1 Shipping

When moving the unit from or to a pallet, seek assistance and lift by the base. The PICO-200A is constructed with sensitive electronic and mechanical components. Do not drop.

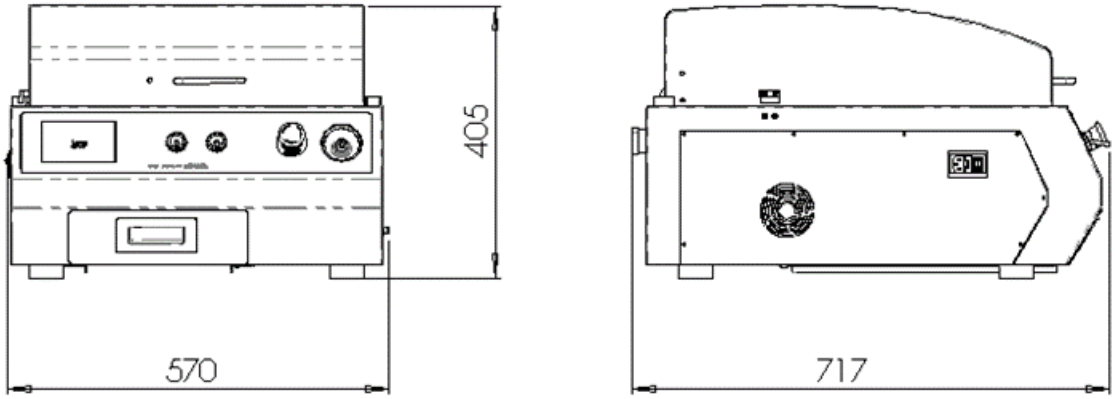
Caution: Heavy equipment. Take care to avoid bodily injury.

2.2 Unpacking

The unit is delivered in a box on a pallet. Unpack and check for completeness and quality of parts.

2.3 Installation

Install the unit carefully! Improper installation voids the warranty.



1. The ***PICO-200A*** should be placed on a flat stable surface.
2. The unit is set **at factory for 110V or 220V**, as predetermined by customer. Warning: Plugging the unit power into the other voltage may cause damage to the electronics and void the warranty.
3. Verify voltage and other unit's electrical information on the nameplate in the back.
4. Verify the direction of rotation of the cut-off wheel. The wheel blade/flanges should turn from top to bottom as viewed from the front of the machine. If not, contact Pace customer service to resolve this issue.

3.0 Safety Guidelines

This sign points to special safety features on the machine.

3.1 Safety Precautions

Careful attention to this instruction manual and the recommended safety guidelines is essential for the safe operation of the PICO-200A.

Proper operator training is mandatory for the safe operation of the PICO-200A. Any unauthorized mechanical and electrical change, as well as improper operation, voids all warranty claims. All service issues need to be reported to the manufacturer/supplier.

Before operating, the cutting chamber hood must be closed.

Use only certified wafering wheels from a professional supplier. Improper blade selection voids warranty. (For appropriate blade selection, refer to the Wafer Cutting Consumables section in page 12).

Disconnect power before opening the electrical left side panel.

Replacement parts should be installed only by qualified personnel and according to guidance of one of the PACE sources and/or customer service rep.

Securely clamp the part /sample to the working table. During cutting, consider that the part may pinch and cause jamming of the cut-off wheel. Use the appropriate clamping devices to avoid this occurrence.

Never start cutting under load.

Make sure the cut-off blade is rotating down and into the sample.

3.2 Emergency Statement

Always follow proper operational guidelines and avoid contact with moving parts, lubricants, and abrasives. Seek appropriate medical care for cutting injuries.

3.3 Safety Tests

Examine and verify that the PICO-200A safety devices and operating performance are in good working condition prior to use. The following safety checks are considered important:

Emergency Stop Switch

Test	Activate the main switch and close the hood. Press the emergency stop switch.
Proper Response	Machine powers down.
Malfunction	Machine does not lose power.
Corrective Measure	If the system does not power down, disconnect the power supply cord and contact customer service.

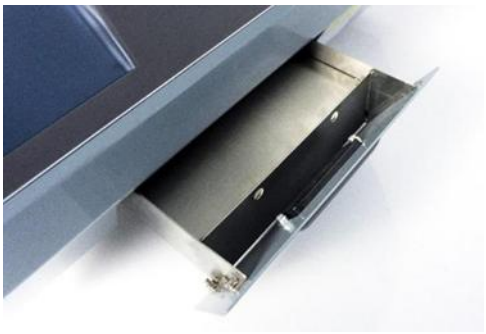
Safety Cut-Off Switch

Test	Activate main switch and close hood. Run cutting wheel by pressing “START” button. Open the hood slightly (approx. 1 inch).
Proper Response	The cut-off wheel stops.
Malfunction	The cut-off wheel does not stop.
Corrective measure	If the system does not power down, disconnect power supply cord and contact customer service.

4.0 Start-Up and Operation

Make sure to perform the following setup procedures after the installation and Safety testing of the PICO-200A and before operation and use:

4.1 Coolant System Setup



- Pull out the Tank using its handle in front side of the machine.
- Left out the Tank from its sliding rail and fill it up with the proper cutting coolant (4.8 – 5.5 Liters).

Note: Distilled water and/or deionized water are not recommended for use with the PICO-200A as both these liquids will absorb carbon dioxide from the air and form a corrosive solution. It is highly recommended that a cutting solution with a corrosion inhibitor be used in the machine.

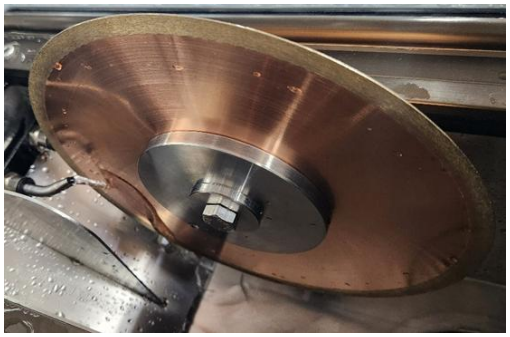
- Put it back to its rail and push it to its place while making sure to tuck the coolant silicone tube inside into the Tank.

Note: The life of the pump's hose depends on the working load, usage frequency, and environment. It is a wearing part. It is recommended to be replaced every 3 months.

- Prime the air out of the system before each cut by clicking on Cooling button in the screen, which turns on the system, until the coolant solution starts dispensing.

Warning: Do not pull out the water tank when cutting.

4.2 Cutting Blade Setup



- Click on the “Arbor Locked” button on the screen to lock the arbor wheel and use the 13mm wrench to unscrew the Hex Bolt for wheel’s flanges by turning it clockwise (*Note: locking bolt is reverse threaded*).
- Remove the left flange and slide the blade into the shaft then put the left flange back as well as the hex bolt. Ensure tightening the bolt with the wrench.

Note: The automatic wheel locking should only last 30 seconds. If still in the process, click the “Arbor Locked” button again to reactivate it.

Note: It is recommended to dress the blade periodically to optimize its effectiveness.

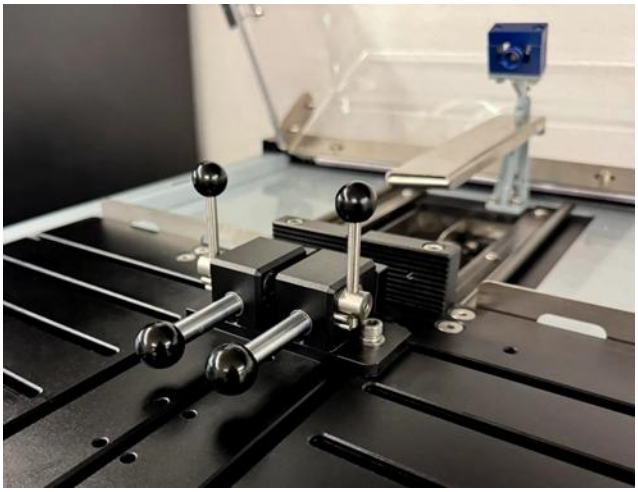
- After replacing the cutting wheel, click the pin shaft to unlock. If fails, turn the cutting wheels back and forth manually. It can be used only if the prompt shows normal!

***Warning: Use only certified wafering cut-off wheels*.**

4.3 Sample Setup

Depending on the size, material, and shape of the sample needed to be cut, the right clamping vise device will be selected to secure the sample in place during the cut. Contact a customer service representative for further clarification and guidance in this matter.

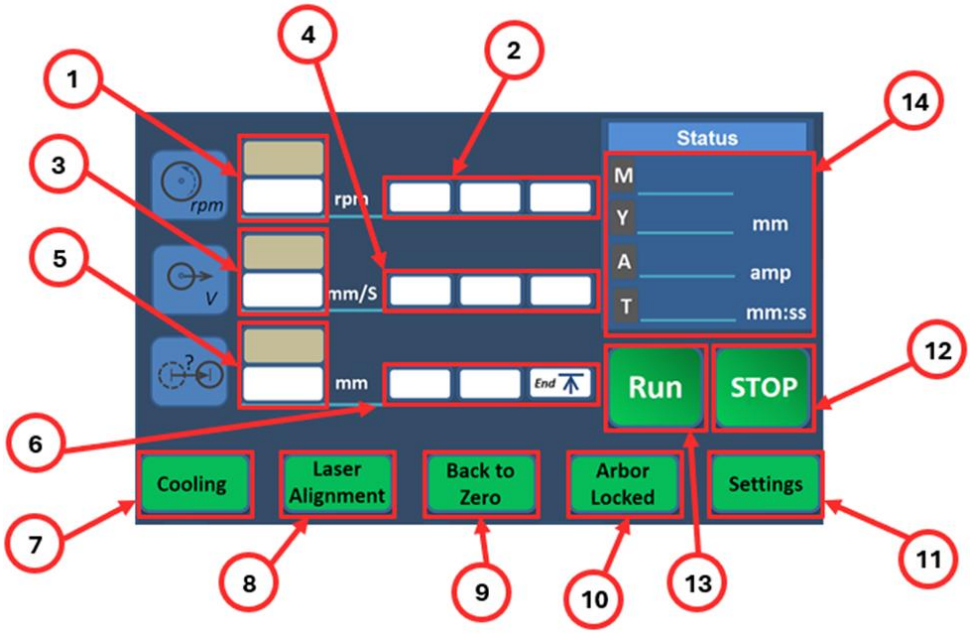
The standard Clamping Vises (Left and Right) with their Backstop are usually used to clamp the sample securely.



- Check if the Backstops are bolted down to their place in their dowl pins into the far edge of the cutting table.
- Place the sample against the Backstops and flat on the cutting table.
- The vises need to be pushed all the way back until they reach the sample and can clamp it from both sides.
- Bolt down both vises to the cutting table and then clamp the sample in place. Try to move the sample to verify that it's clamped securely and properly.

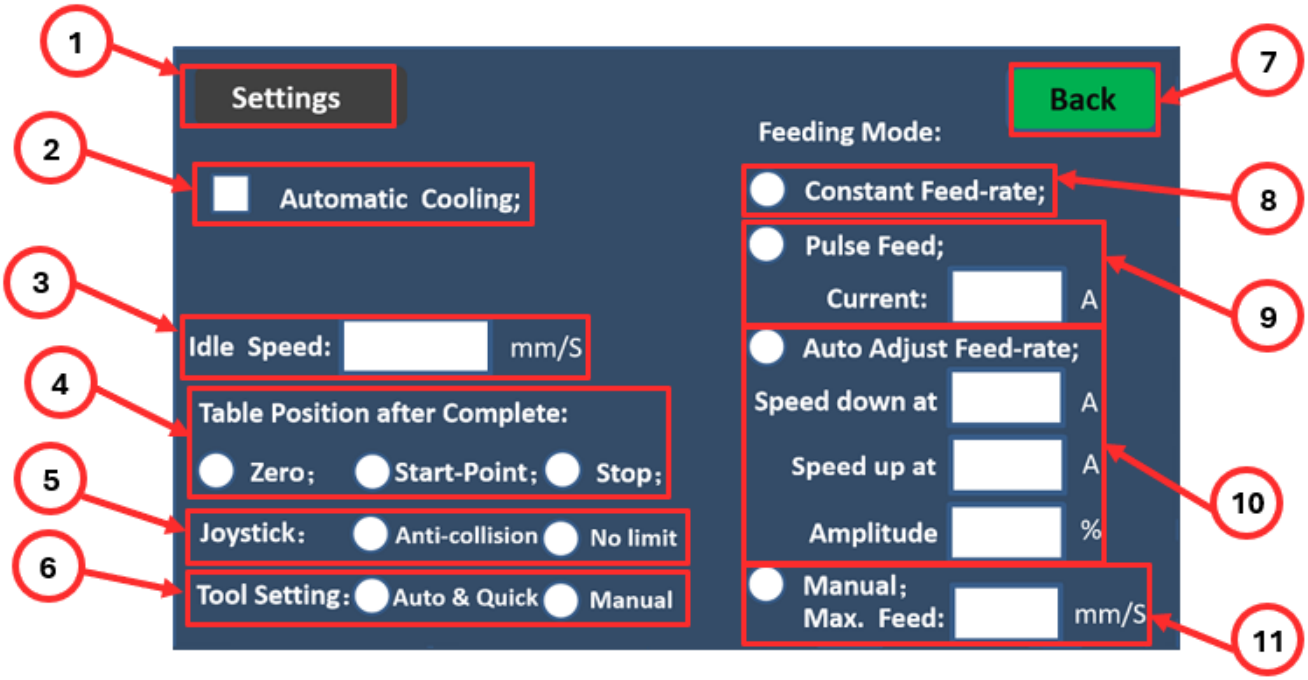
4.4 Main User Interface

Warning: Remove any item from the path/area of the cutting table when operating the PICO-200A to avoid any damage to the table or the machine and prevent injuries.



1) **Cutting Wheel Speed (rpm):**
    a. Top blank for real-time rpm speed.
    b. Bottom blank for displaying selected rpm or changing the speed while running.
2) **Three presets for Cutting Wheel Speed (1000, 2000, and 3000 rpm).**
3) **Cutting Table Feed Rate (mm/s):**
    a. Top blank for real-time feed rate.
    b. Bottom blank for displaying selected feed rate or changing it while running.
4) **Three presets for Cutting Table Fead Rate (0.1, 0.3, and 0.5 mm/s).**
5) **Table Traveling Distance (mm):**
    a. Top blank for real-time traveling distance.
    b. Bottom blank for displaying selected traveling distance or changing it while running.
6) **Three presets for Table Traveling Distance (50, 100, and "End": maximum distance).**
7) **Cooling:** Turn on the cooling system manually.
8) **Laser Alignment:** Turn on the laser alignment beam to accurately determine the spot at which the sample will be cut, which aligns with the cutting blade.
9) **Back to Zero:** Bring the Cutting Table back to zero, which is at the origin/zero traveling distance of the table.
10) **Arbor Locked:** Lock the arbor wheel for replacing, removing, or installing cutting blades.
11) **Settings:** Open the setting window for other parameters and mode selections.
12) **STOP:** Stop the arbor wheel and the cutting table when performing a cut.
13) **RUN:** Run the arbor wheel and the cutting table in selected presets to start a cut.
14) **STATUS:** Display the status of different live parameters:
    a. **M**: shows status of the selected cutting mode.
    b. **Y**: shows the live reading of the traveling distance of the cutting table (in mm).
    c. **A**: shows the live value of the load in amps exerted on the motor/cutting wheel.
    d. **T**: shows the operation time during performing a cut.

4.5 Settings Window



1) **Settings Window:** For modes of Feeding, Cooling, Cutting Table, Joystick, and Arbor/Tool settings.
2) **Automatic Cooling:** Select to automatically turn on the cooling system when start running a cut.
3) **Idle Speed (mm/s):** The feed rate of the cutting table when going back to zero after completing the cut or being controlled manually by the joystick.
4) **Table Position after Complete:** The position where the cutting table goes back to and stop after completing a cut:
    a. **Zero:** The cutting table returns to origin/zero traveling distance.
    b. **Start-Point:** The cutting table returns to the initial position before starting a cut.
    c. **Stop:** The cutting table stops at its current position after completing the cut.
5) **Joystick:** Choose the limits of how far the cutting table manually travels forward and backward:
    a. **Anti-collision:** The cutting table stops automatically at a position right before the 8” blade hits the installed sample, when controlled by the joystick.
    b. **No Limit:** The cutting table moves freely within the origin/zero and maximum limit of the Y axis traveling distance when controlled by the joystick.
6) **Tool Setting:** The cutting table traveling speed right after start running a cut (clicking “RUN”) and before start cutting the sample at a predetermined position:

   a. **Auto & Quick:** The cutting table advances quickly at ½ the Idle Speed (mm/s) from its initial position to the predetermined point right before the 8" blade start cutting the sample and then changes the speed to the selected Feed Rate.
   b. **Manual:** The cutting table advances only at the selected Feed Rate for the whole traveling distance, including during the cut of sample.

7) **Back:** Go back to the main screen.
   Feeding Mode: For cutting the sample:
8) **Constant Feed-rate:** The cutting table moves forward at the Feed Rate speed during cutting the sample.
9) **Pulse Feed:** The cutting table initially moves forward at the Feed Rate speed during cutting sample and stops when the load on the motor of the cutting wheel increases and the current (amp) exceeds the set value in "Current" until it decreases below that value and continues to advance and cut in pulses:
   a. **Current (amp):** Maximum value of load at which the motor of the cutting wheel runs on before stopping momentarily to lower the actual load during the cut.
10) **Auto Adjust Feed-rate**: The cutting table initially moves forward at the Feed Rate speed during cutting sample and slows down by value of "Amplitude (%)" when motor load or current exceeds the "Speed down at (A)" value and increases Feed Rate by (%) when load is less than the "Speed up at (A)" value:
   a. **Speed down at (A):** Maximum load or current value of the motor at which the cutting table feed rate decreases.
   b. **Speed up at (A):** Minimum load or current value of the motor at which the cutting table feed rate increases.
   c. **Amplitude (%):** The increment/decrement percentage of the Feed Rate speed of the cutting table during the cut.
11) **Manual:** The cutting table moves forward during cutting sample at the constant Feed Rate speed determined at the "Max. Feed" value:
   a. **Max. Feed (mm/s):** The maximum Feed Rate speed value at which the cutting table advances during the cut.

4.6 Wafer Cutting Consumables

Wafer Blade Selection Guideline

Material	Characteristic	Speed (rpm)	Load (grams)	Blade (grit/conc.)
Silicon substrate	Soft/Brittle	<300	<100	Fine/Low
Gallium arsenide	Soft/Brittle	<200	<100	Fine/Low
Boron composites	Very brittle	500	250	Fine/Low
Ceramic fiber composites	Very brittle	1000	500	Fine/Low
Glasses	Brittle	1000	500	Fine/Low
Minerals	Friable/Brittle	>1500	>500	Fine/Low
Alumina ceramic	Hard/Tough	>1500	>500	Medium/Low
Zirconia (PSZ)	Hard/Tough	>3500	>800	Medium/Low
Silicon nitride	Hard/Tough	>3500	>800	Medium/Low
Metal matrix composites	—	>3500	>500	Medium/High
General purpose	—	Variable	Variable	Medium/High

Pace Technologies offers a wide selection of wafering blades ranging from 3 to 8 inches. Explore our available blades at ***shop.metallographic.com*** or click this link.

Abrasive Cutting Fluids

Pace Product Name	Catalog No	Packaging
DIACUT™ Water-Based Diamond Cutting Fluid	WL-3000-16 WL-3000-32	16 oz 32 oz
DIACUT™ 2 Water-Based Diamond Cutting Fluid with Anti-Corrosion Additive	WL2-3000-16 WL2-3000-32	16 oz 32 oz
DIACUT™ Oil-Based Diamond Cutting Fluid	OL-3000-16 OL-3000-32	16 oz 32 oz

4.7 Accessories

The accessories listed below are not included with the equipment. Please contact us at pace@metallographic.com for inquiries or additional information.

Type	Part Number	Image
Horizontal Clamping Vises	Left: P200-QCL Right: P200-QCR	
Backstops for Horizontal Clamping Vises	P200B	
Vertical Clamping Vises with Shoes	P200V	
Height Adapters for Vertical Clamping Vises	P200H	
Cutting Guide	P200G	

5.0 Maintenance

The PICO-200A requires minimal maintenance. However, to prolong the life of the saw, it is recommended that the cutting fluid used is changed regularly (weekly) using a cutting fluid containing an anti-corrosion additive (e.g DIACUT 2 cutting fluid).

After each use, it is also recommended that the unit be thoroughly rinsed and dried with the hood left open with a microfiber towel to avoid creating a corrosive humidity chamber inside the chamber.

Cleaning Machine Exterior:

The machine cover and hood shield should be cleaned occasionally with a moist cloth or microfiber towel. Do not use any chemicals or cleaning abrasives.

Filter Replacement:

Every 3 – 6 months or depending on the frequency of using the PICO-200A, it's recommended to replace the Water Inlet Filter, which can be accessed by pressing the small right-side panel and opening the hinged panel. It's also needed to inspect the 8 mm clear tube in that area and its fittings to verify there is no leaking or damage.

6.0 Troubleshooting

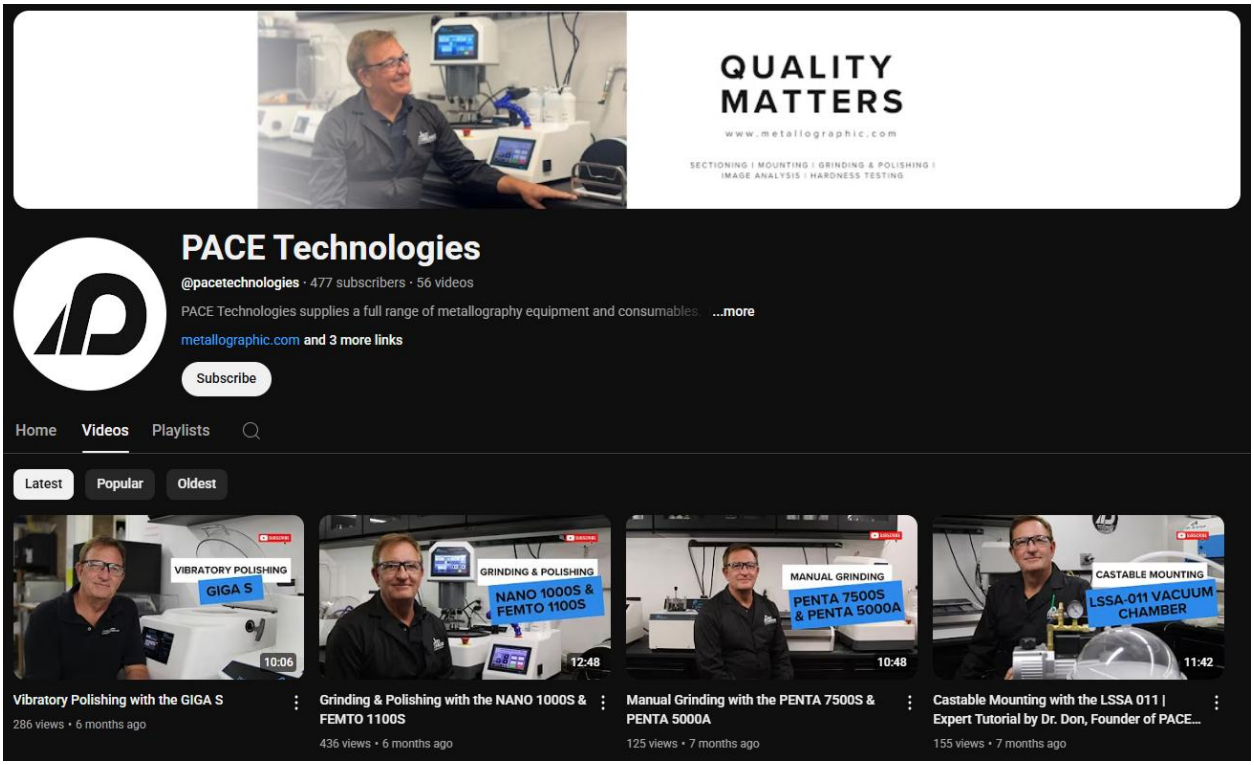
It's always best to contact a customer service/sales representative to troubleshoot or discuss any repair or replacement of the machine beforehand, to prevent damage that could void the warranty and avoid any injuries.

Problem	Cause	Solution
No power or function	a. Unit is disconnected from the main electrical power supply.	a. Verify electrical source and connection.
	b. The main power switch is off.	b. Turn on the main power switch.
	c. Emergency stop button engaged.	c. Release by turning clockwise.
	d. Magnetic switch not engaged.	d. Close hood or adjust hood in closed position.
	f. Loose or broken wire.	Disconnect power and open side access panel. Check for any loose or broken wires at the 110/220 V switch and power switch.
	g. Unable to determine the problem.	g. Contact customer service.
The main motor does not operate	a. Hood not closed.	a. Close hood.
	b. Overload error activated.	b. Press the stop button and then the start button.

Blade is easily chipped or breaking	a. Improper blade dressing.	a. Use a mechanical dressing tool.
	b. Insufficient sample clamping.	b. Secure specimen with a rubber mounting pad.
	c. Cutting rpm or table feed rate initially too high.	c. Reduce initial rpm and/or the table feed rate to cut slowly.
Low cutting rates	a. Smeared material on the blade.	a. Redress the blade at lower rpm.
	b. Cutting speed and/or table feed rate is too low.	b. Increase cutting speeds and max motor load limit and/or table feed rate.
Excessive damage or chipping of the specimen	a. Too large an abrasive.	a. Use finer-grit diamond blade.
	b. Excessive vibration.	b. Secure specimen with rubber mounting pad.
Burr formation on the specimen at the end of the cut	a. Cutting speed and/or motor torque is too high at the end of the cut.	a. Reduce speed and max cutting current to reduce cutting rate.
	b. Excessive vibration.	b. Secure specimen with rubber mounting pad.
The pump does not appear to be working	a. Damaged tubes and leaking.	a. Inspect the tube lines of the coolant system and the tube inside the Pump.
	b. Not enough fluid in tank.	b. Add cutting fluid to tank.
	c. Hoses are not sealing.	c. Reseat hoses into connection points.
Corrosion on fabricated parts	a. Improper cleaning	a. Clean, dry and store with cover open when not in use
	b. Corrosive cutting fluid	b. Use cutting fluid with an anti-corrosion inhibitor added. Do not use distilled or deionized water as carbon dioxide absorption produces a corrosive environment

7.0 YouTube Video Tutorial

YouTube Tutorials at **youtube.com/@pacetechnologies** or click on the image below:



8.0 Additional Resources

Scan the QR code below for updates, tips, and industry insights:

Follow us for updates!