



AbrasiMet XL Pro

# AbrasiMet™ XL Pro

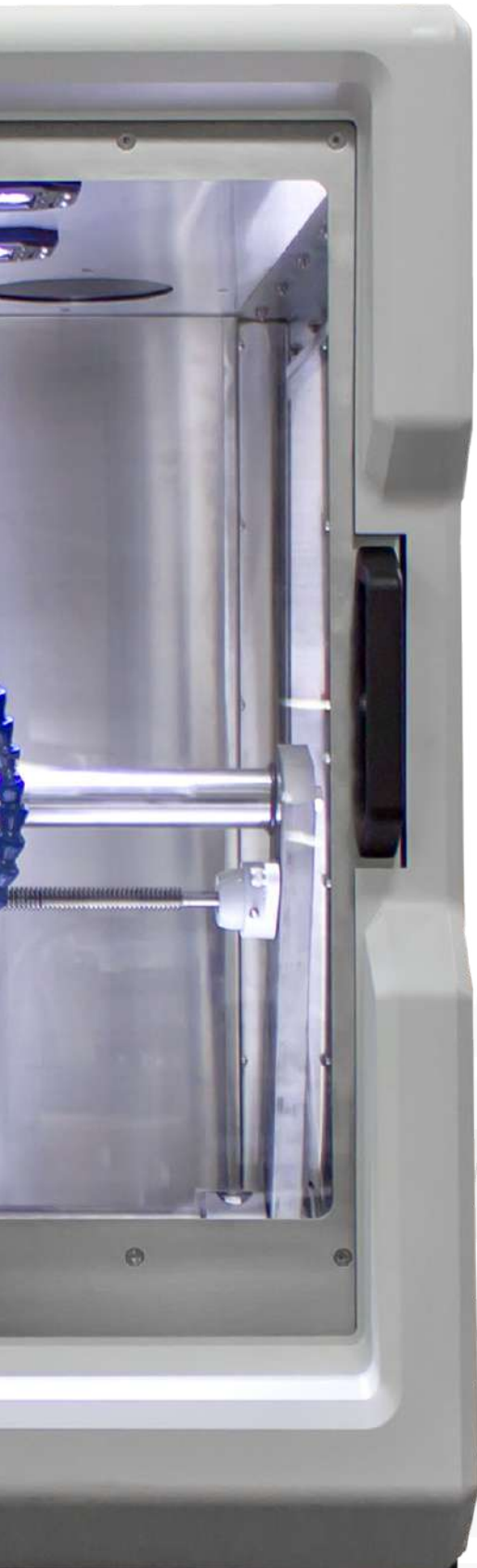
## Advanced Automatic Cutter

# AbrasiMet™ XL Pro



**AbrasiMet XL Pro**





## AbrasiMet XL Pro is Designed for Demanding Environments

The AbrasiMet XL Pro provides consistent and repeatable cut quality for large samples with programmable methods, automatic cutting and many advanced features. The intuitive user interface, robust design and expanded chamber are ideal in demanding environments.



- Precisely align samples with 3 axis manipulation of the blade and table
- Cut hard and large materials with the 13.4 hp [10kW] motor equipped with SmartCut



- Fit large parts up to 49" [1245mm] in width in the chamber
- Use serial cutting mode to perform multiple automatic cuts without user interference



- Utilize the NEW recirculation system to quickly empty debris from the system without the use of consumables
- Save Time, Have More Flexibility, Trust The Reliability

POWERFUL  
ROBUST  
INTUITIVE



# Powerful

## High-Output Motor

The AbrasiMet XL Pro comes with an incredibly powerful 13.4hp [10kW] motor allowing it to cut through both large and high-strength materials quickly, saving the user time in the sectioning process. When equipped with SmartCut, which changes the feed rate to the fastest optimal speed for the sample cut, the motor can cut continuously without stalling for as long as is needed.



**Change Blades without Tools**  
Coming standard with every machine is Buehler's quick lock nut which allows users to hand loosen and tighten the nut onto the spindle. Users no longer need a tool to change blades. As a direct result the quick lock nut reduces time preparing the cut as well as the risk of injury.

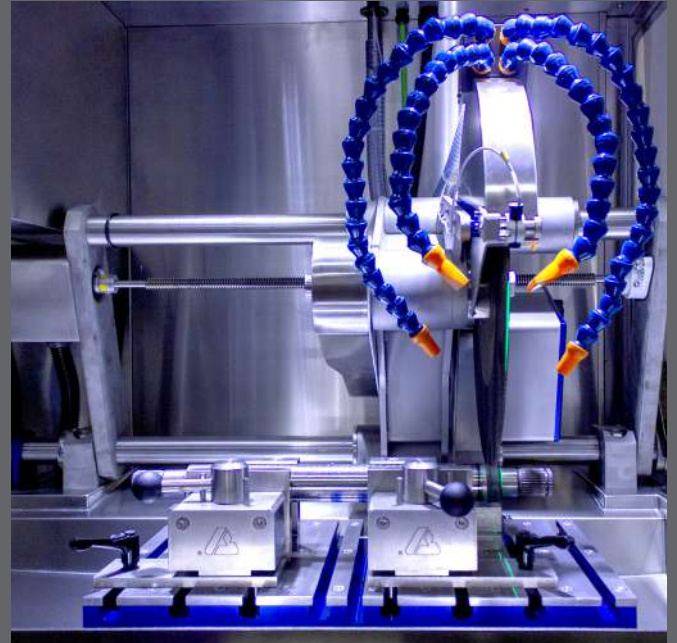




# Robust

## Enclosed Motor

The AbrasiMet XL Pro motor is separated from the spindle by a belt drive. The encased motor-cutting arm system increases the reliability of the system by keeping coolant and debris out.



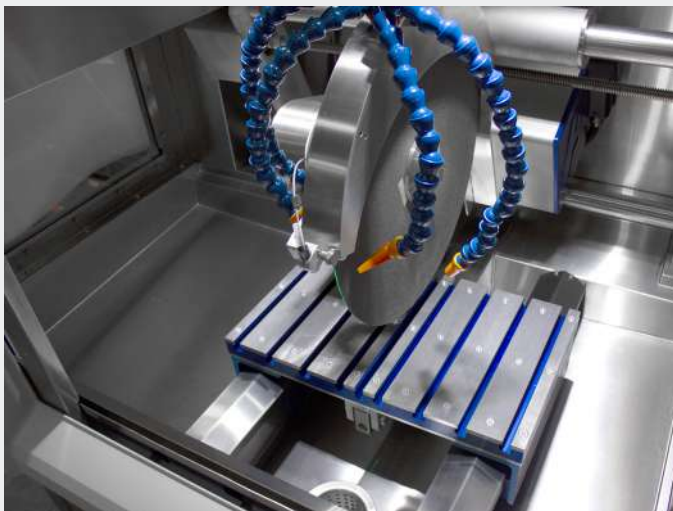
## Lifetime Testing

The AbrasiMet XL Pro is engineered to meet the rigorous demands of a high-volume quality control environment. The strong machine design has gone through extensive life testing to validate its ability to withstand constant usage while maintaining a high quality cut.



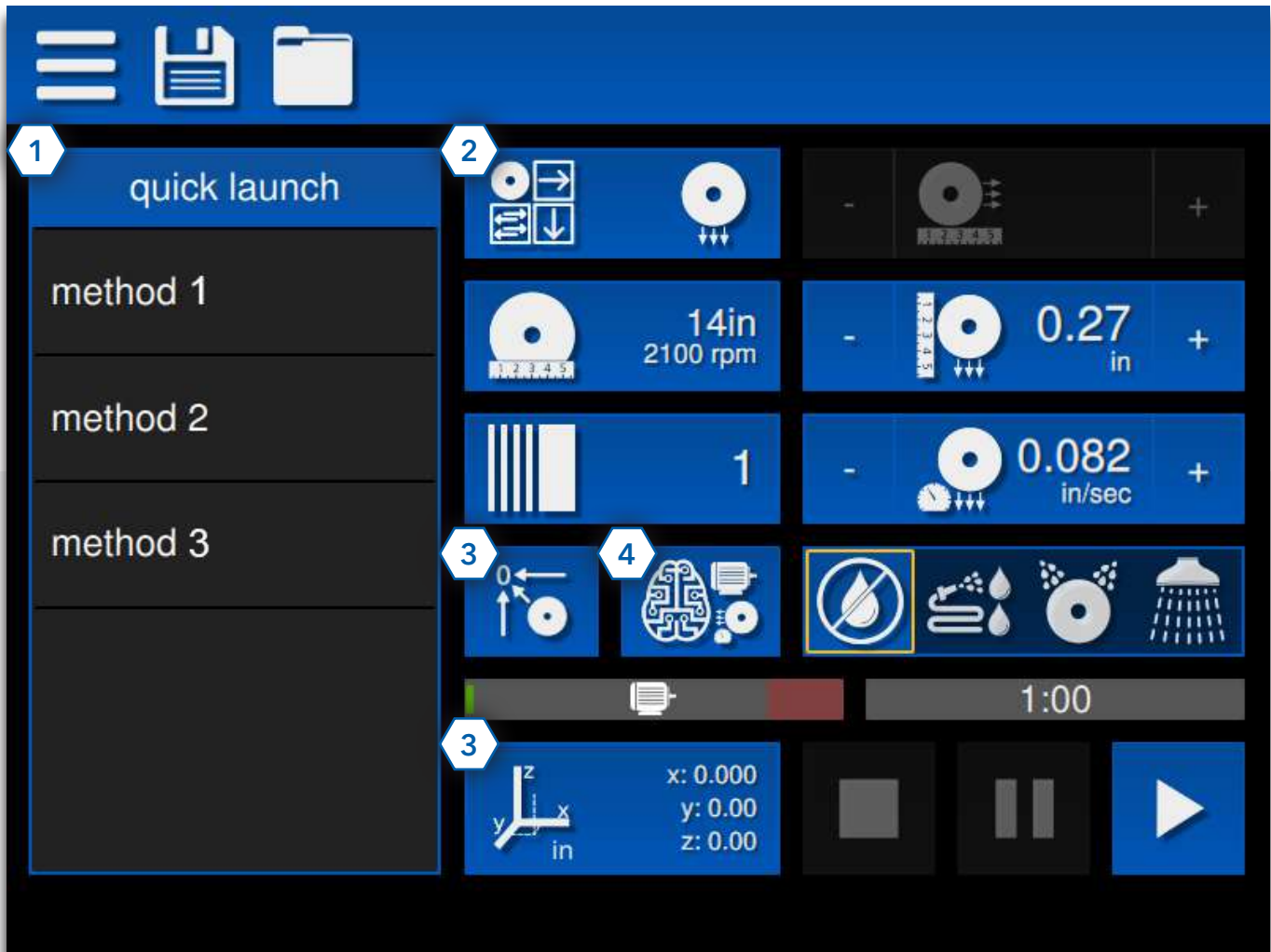
## Expanded Chamber Size

The motor is separated from the spindle and blade and therefore cannot interfere with the parts and clamping features in the chamber while making a cut. With the motor out of the way, the maximum part size for this expanded chamber is 49in W x 25in D x 7in H [1245 x 635 x 178mm] which is large enough to cut most parts in a production environment.



# Intuitive Interface

The intuitive user interface is one of the key ways in which The AbrasiMet XL Pro makes the sectioning process easier. All recent programs and primary sectioning functions are on the main screen making it easy to either launch a program or set up your cut in as little time as possible.



## 1 Repeatable Cut

Saved methods make loading the correct program easy to quickly start your cut. By reducing the time in between cuts, the total cycle time is reduced.

## 2 Cut Type

The cut type screen opens a menu to choose between 4 cutting types: Z-cut, Y-cut, planar cut, and manual cut. The flexibility in cutting method allows the user to choose the cutting option best for their needs.

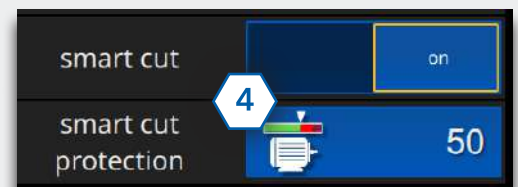
## 3 Homing and Tracking

The machine always keeps track of its relative position in comparison to the home position. This allows the user to repeatably make the same cut by returning to the set "Home" position.

## 4 Variable SmartCut

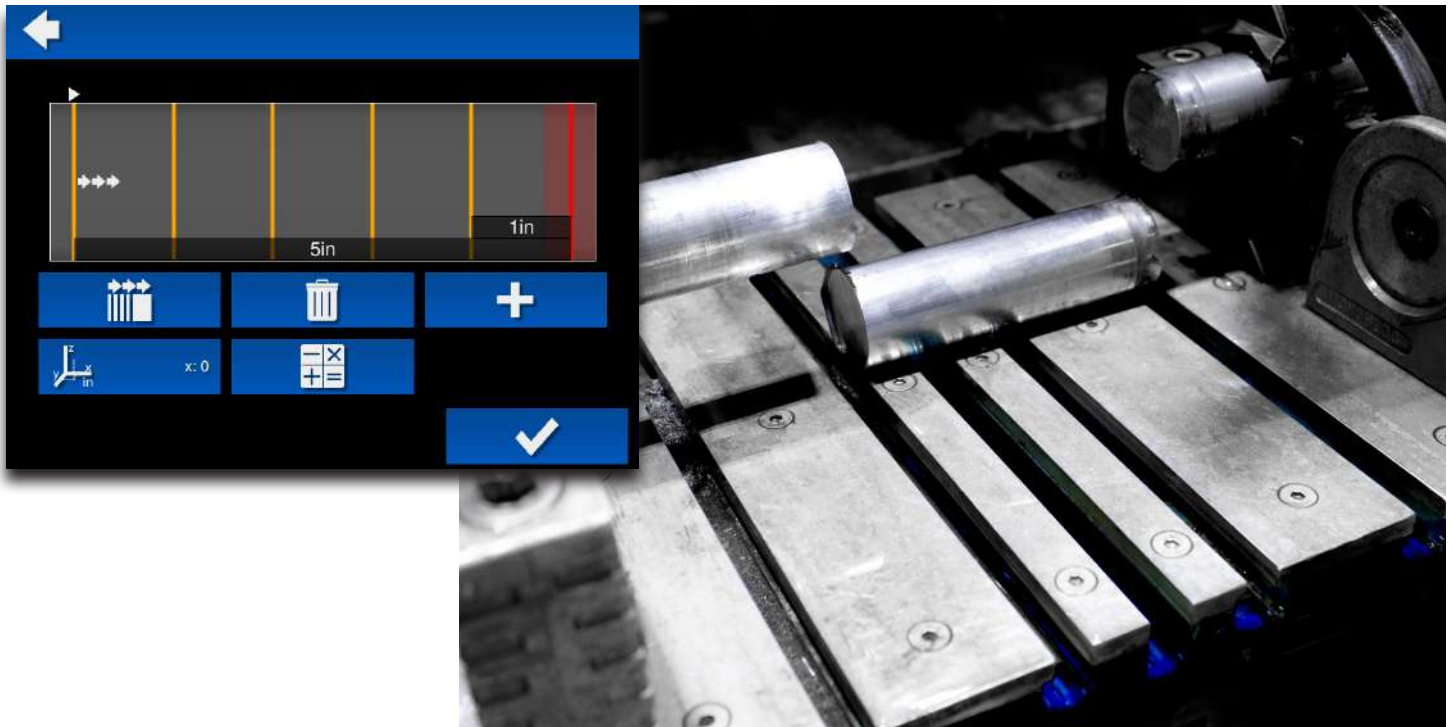
Smart Cut takes the guess work out of setting appropriate feed rate for material samples of varying hardness and dimension. The smart cut system automatically adjusts the feed rate to limit the potential for damage to the motor, abrasive blade and sample in the event motor load approaches its max limit. By doing this, SmartCut helps the user optimize feed rate and cut quality for any given application.

With Variable SmartCut, the first variable motor limiting function by Buehler, users can now set the level of SmartCut protection to maximize the motor reliability and optimize the machine for the best cut quality for the given application. Higher SmartCut protection limits the load and wear on the motor and can increase the motor and blade lifetime.



# Serial Sectioning

Set up multiple cuts to be automatically performed by the machine. With precise X movement of the blade, users can set uniform or custom cut widths to perform the desired sections without re-clamping the sample.



# Customize to Your Application



## Cleaning & Washdown

Both the washdown and spray hose features can be activated through the touch screen. Users can clean the viewing windows with the washdown feature, which sprays coolant fluid to increase visibility. Users can use the external spray nozzle to rinse and clean the chamber.



## ! Table Collision Warning

Introducing the **NEW** "Table Collision Warning" feature to reduce the risk of cutting into the vise table. Set the maximum cut depth and a warning message will appear if a user attempts to cut below this limit.

# Programmable Features



## SmartCut

Protects the motor from stalling and automatically adjusts to max speed for part size and hardness



## SmartCut Sensitivity

Set the level of SmartCut Protection to optimize the machine for a specific application



## Serial Cut

Cut multiple samples in one program



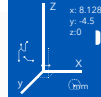
## Passcode Lock

Selectively lock out machine settings



## Table Collision Warning

Set Z-limit to protect T-slot table from being cut.



## Movement Tracking

Track movement and set "home" position



## Homing Button

Automatically bring blade and table to "Home" position



## Washdown

Set the time for washdown when activated



## Saved Methods

Save programmed cut parameters



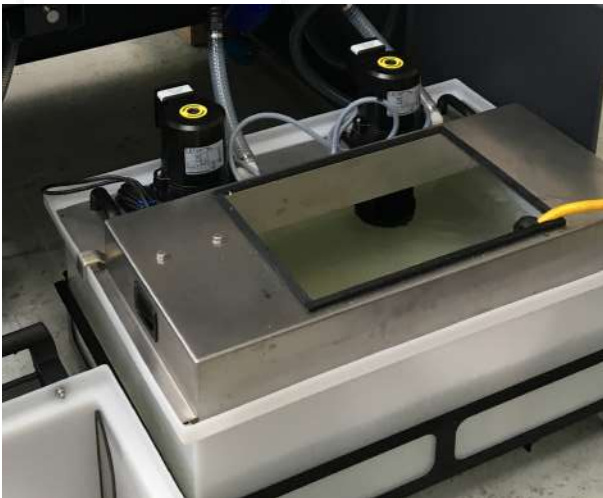
## Green Laser

Easy alignment of cut on sample

# Recirculation/Filtration Tank

Buehler's new recirculation tank design makes the cleaning process simpler and faster without using any consumables, allowing users to spend more of their time on the rest of the sample prep process.

The system comes equipped with two powerful pumps which will always ensure quality cuts with a strong coolant flow. The high capacity of the system, 45gal [170L], in combination with the design, maximizes the time in between cleaning out the full system.



The dual tank design is the differentiating feature of the system. By regularly cleaning out the inner tank, which traps large debris, users can extend the lifetime of their coolant and spend less time cleaning the full system. Additionally the system comes equipped with a vibration unit to keep the filtration screen clear and compact the debris to further extend the time between cleanings.

When it comes time to clean out the entire system, simply detach the recirculation system from the machine and roll it to the disposal area.





# Technical Specifications

## AbrasiMet XL Pro

### Operation

<b>Cut Operation</b>	Automatic, Manual, or Smart Cut control Linear Blade Feed
<b>Units</b>	English and Metric
<b>Blade Movement Axis</b>	Horizontal, Vertical (X,Z)
<b>Table Movement Axis</b>	Linear (y)
<b>Cut Type</b>	Chop, Y-Feed, Planar
<b>Display</b>	10.5in [267mm] LCD Display with LED Back lighting
<b>Controls</b>	Touch Screen; Joystick Controller
<b>Lighting</b>	4 LED Strip, Adjustable brightness
<b>Programming</b>	Retains Last Settings, Serial Sectioning, Customizable Methods
<b>Laser</b>	Green Laser (520nm, Class 2)

### Dimensions

<b>Maximum Sample Width</b>	Up to 49in [1245mm]		
<b>Cut Length Increment</b>	0.01 in [1mm]		
<b>Recirculation/Filtration Tank Capacity</b>	45 gal [170L]		
<b>T-Slot Table Dimensions</b>	19.9in x 11.8in [505mm x 300mm]		
<b>Machine Dimensions</b>	Width: 54in [1372mm] Depth: 50.7in [1288mm] Height : 75in [1905mm]		
<b>Weight</b>	1750 lbs [794kg]		
<b>Blade Sizes</b>	14in [356mm]	16in [406mm]	18in [457mm]
<b>Blade Table Clearance</b>	9.71in [247mm]	8.71in [221mm]	7.71in [196mm]
<b>Cut Capacity</b>	5in [127mm]	6in [152mm]	7in [178mm]
<b>Blade Speed</b>	2100rpm	1900rpm	1860rpm

### Electrical

<b>Motor Power</b>	13.4Hp [10kW]
<b>Main Power</b>	380-480VAC, 3 Phase, 50/60Hz
<b>Max. Current</b>	25amp @ 460VAC
<b>Safety Features</b>	Interlock Door Switch, Emergency Stop, 2 Hand Operation for Blade Movement (Open Door), Smart Cut
<b>Compliance</b>	CE Directives

# Ordering Information

## Get Started

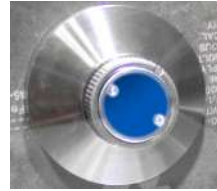


## AbrasiMet XL Pro

10-2320-400 (3-phase, 400-480 VAC)

### Includes:

Quick Lock Nut and Recirculation/Filtration Tank



Quick Lock Nut



Recirculation/Filtration Tank

## Required Consumables

Visit [www.buehler.com](http://www.buehler.com)



## Abrasive Blades

Range in sizes from  
14in [356mm] to 18in [457mm]



## Cool 3

10-6010

Water miscible fluid  
concentrate (2.6gal, 10L)

## Optional Accessory

Visit [www.buehler.com](http://www.buehler.com)



## Mist Extractor

10-2343-400

Use the Mist Extractor to  
remove vapor from the  
chamber and increase visibility.  
Highly recommended for  
customers without a current  
exhaust option.



# Vising Options

## Large Speed Clamping Vise

10-3547 (Right) 10-3546 (Left)

**Max Opening:** 7.3" [185mm]  
**Clamping Plate:** 3.1" x 3.5"  
 [78 x 89mm]

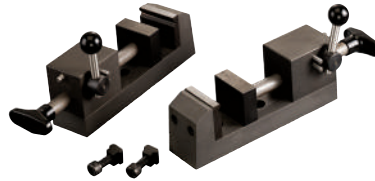


## MetKlamp VIII

95-C1822 (Right)

95-C1821(Left)

Holds specimens up to 1.5in  
 [38mm] from 2 point



## Large Sliding Vise Kit

10-3543 (Right)

10-3542 (Left)

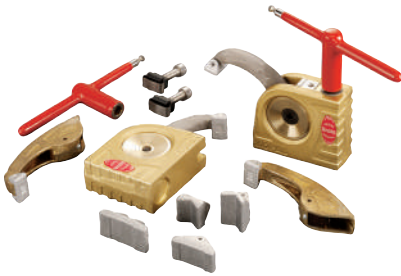
Holds parts of any width.



## Large Vertical Clamping Kit

10-3528

Provide a strong clamp for parts up to 7in  
 [180mm] in diameter



## Large Riser Blocks

10-3528

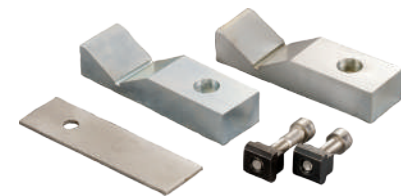
Increase the height of the Large  
 Vertical Clamps for larger parts.



## Vee Blocks Clamp Kit

10-3527

Raise samples above the table



# Premium Resin Abrasive Blades

**ALL NEW**



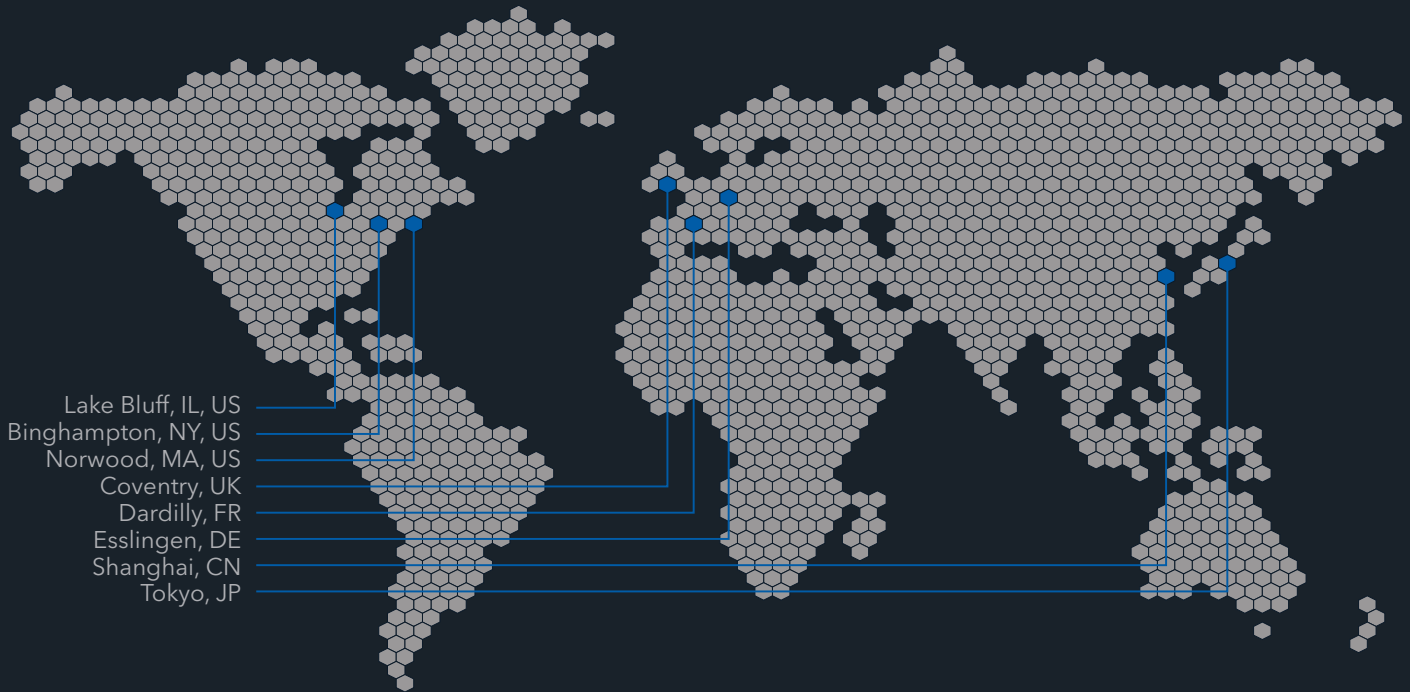
Buehler's new resin abrasive blades are individually targeted to cut a full range of metallic materials and last up to 3 times longer than competitor blades. Users can rely on the consistency of the blades while the longevity leads to fewer blade changeovers and purchases. Have confidence in the consistency, cut quality and new prolonged life of these blades to improve your preparation process.

**1.25in [32mm] Arbor (Qty 10)**

**Blade thickness for all blades listed below is 0.125in [3mm]**

Recommended Use	16in [406mm]
Non Ferrous Materials	10-31650-010
Ferrous Materials HRC 50-60	10-31612-010
Ferrous Materials >HRC 60	10-31610-010
Super Alloys	10-31605-010

# Buehler Worldwide Locations



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