



# IsoMet™ High Speed Precision Cutter

# IsoMet™ High Speed and High Speed Pro



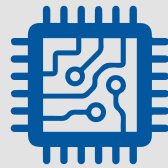


## IsoMet High Speed Features

The IsoMet High Speed is a versatile table top precision saw that provides efficient and precise cuts for any application. The innovative machine and vise designs make setup quick and simple by using the precision laser. Align cuts quickly by using three axis blade movement, and tool-less vising adjustment. Optimize cut quality throughout the blade life with the automatic dressing system.



Precision cutting is vital for thermal spray coatings analysis. The diamond blade minimizes the damage to a cut surface for analysis.



A challenge of micro-sectioning is to create a planar surface at a specified location. Precision alignment to an accuracy of one micron is crucial for analysis.



Specialized materials are valuable and minimizing scrap is important. Confidence in sectioning equipment to perform the same process every time.

**EFFICIENT**  
**CONSISTENT**  
**PRECISE**

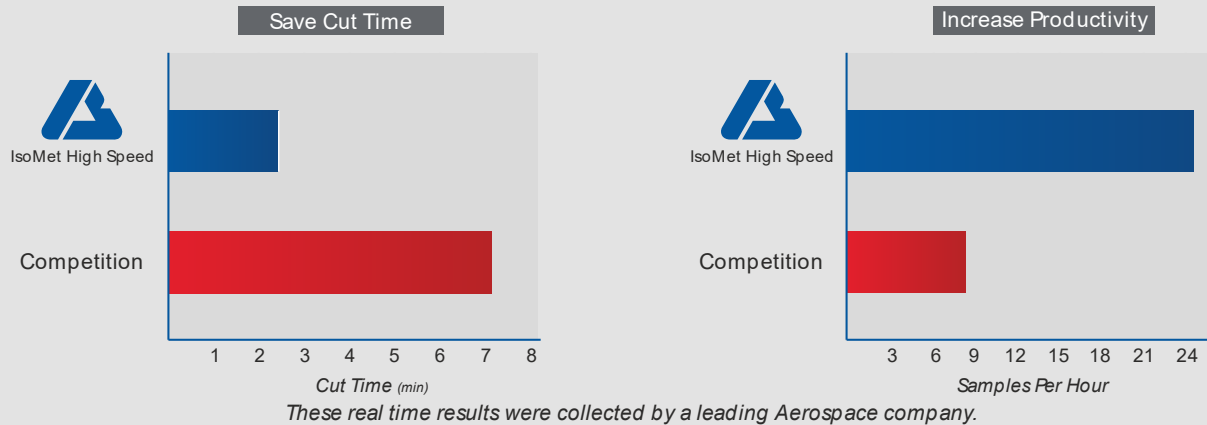




# Efficient

## Save Time

The IsoMet High Speed has a blade motor power of 2kW, which is the strongest motor on the market. This motor power ensures the blade will minimize the deformation of the sample surface, saving you time later in the material preparation process. Reduce the cut time without impacting the surface quality. In a side by side comparison, the IsoMet High Speed cut over 2.5X faster than a leading competitor with the same or better cut quality.





# Minimize Setup



Buehler's Rapid Rail System allows users to secure samples in the cutting chamber and begin the next cut within seconds.

# Easy to Use

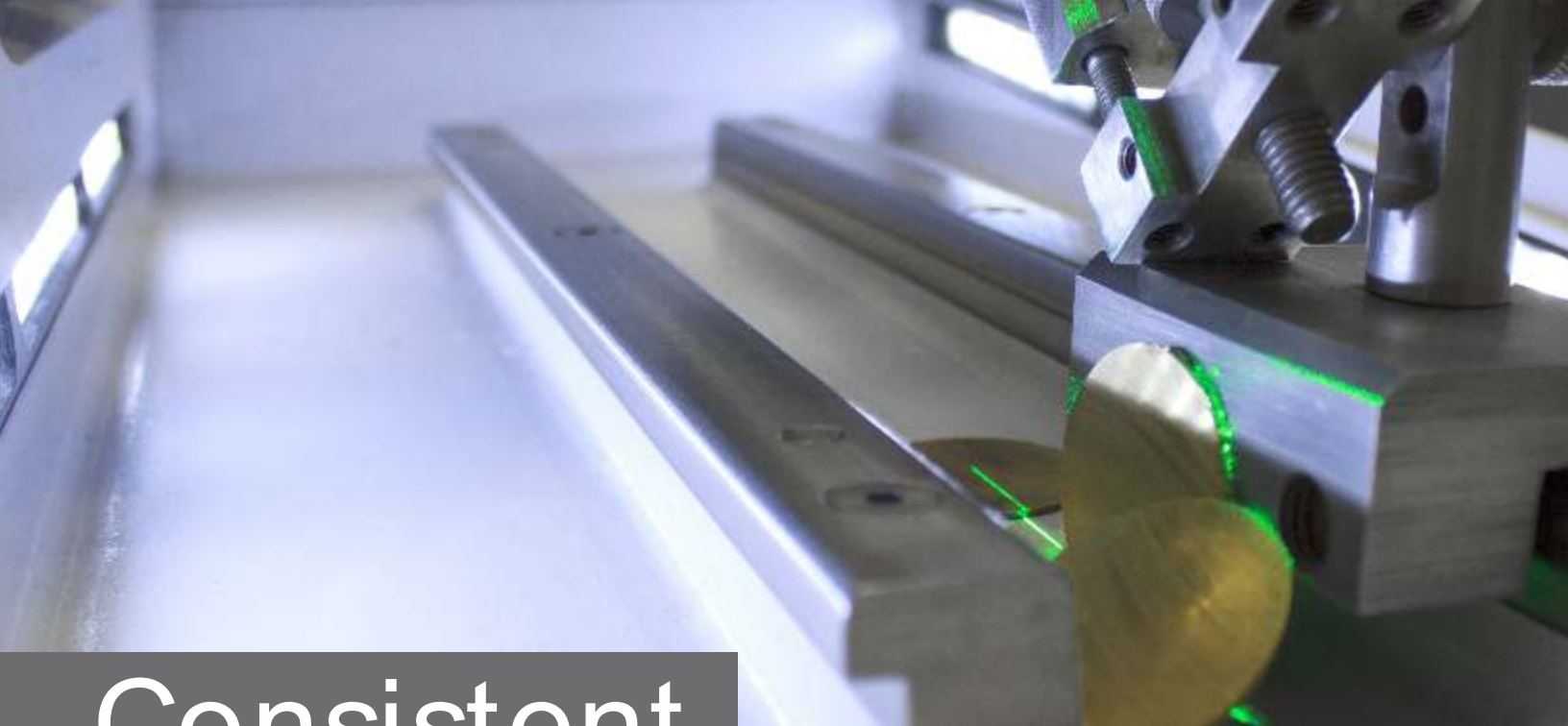
The IsoMet High Speed has a variety of programmable capabilities. The simple user interface keeps the most important and frequently used features within one touch from the home screen.



Available in 10 different languages



The new vise system has reduced the need for tools and allows for rapid changing of samples and sample types with the same vise.



# Consistent

## Smart Cut

SmartCut™ adjusts the cut speed in real time to ensure the cut quality is not compromised while maintaining the efficiency of a powerful cut.



From the Home screen, Press the "Smart Cut" button.



Watch the "Motor" icon adjust to optimize the cut

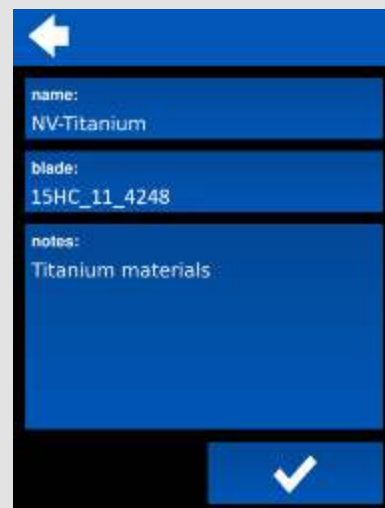


## Repeatable Cut

Improve consistency with saved methods that load preprogrammed parameters from the home screen. Methods remove the need to remember cut parameters.



From the Home screen, either save or recall methods by pressing the "Saved Method" or "Method" button.





# Precise

## Alignment

The machine has an accuracy of one micron in the X direction. The precision of the machine is all in the blade movement reducing the potential to revise and manually move samples.

## Serial Sectioning

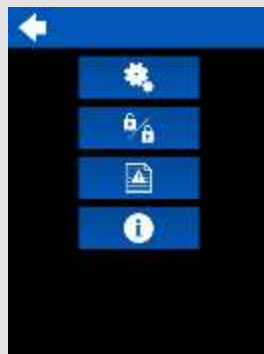
With precise X movement of the blade, make multiple cuts on one sample all within one programmed cut. For the versatile lab, cut location can either be uniformly or placed individually.

## High Quality Cut

Consistent cuts are vital to sample analysis. The IsoMet High Speed allows features to be locked on the machine to ensure the same parameters are used every time. Program the automatic dressing system to maintain consistent cut quality and extend diamond blade life. Reduce the frequency of changing the dressing stick with the new optimized dressing wheel design.



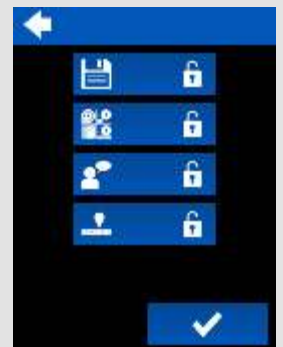
From the Home screen, press the "Menu" button.



From the Menu screen, press the "Lock" button.










This screen allows for multiple features of the machine to be locked during standard operation.



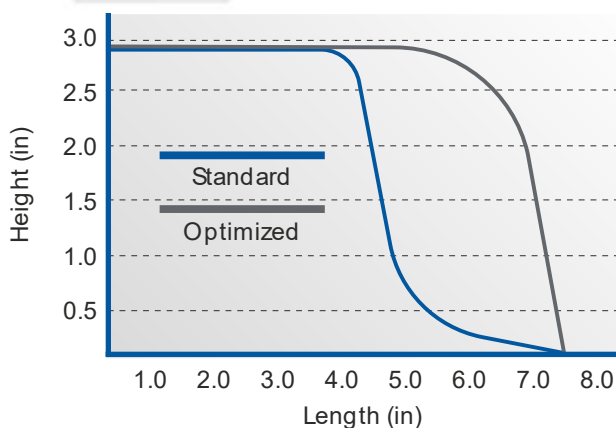
# Match Versatility with the IsoMet High Speed

The IsoMet High Speed is a quality machine with the focus on efficiency, consistency, and precision. The IsoMet High Speed Pro has all the benefits of the IsoMet High Speed with added features to enhance the user experience.

	IsoMet High Speed Pro	IsoMet High Speed
 <b>Smart Cut</b> Automatically optimize cuts	●	●
 <b>Serial Cut</b> Cut multiple samples in one program	●	●
 <b>Passcode Lock</b> Selectively lock out machine settings	●	●
 <b>Saved Methods</b> Save programmed cut parameters	●	
 <b>Automatic Dressing System</b> Dress blades automatically during cuts	●	
 <b>Z Axis Movement</b> Adjust cut location for optimization	●	
 <b>Green Laser</b> Easy alignment of cut on sample	●	

## Cut Capacity

The IsoMet High Speed has the benefits of precision with the versatility of sample size. To achieve optimal cut capacity, creative vising is required.





# Technical Specifications

## IsoMet High Speed

## IsoMet High Speed Pro

### Operation

Cut Operation	Automatic, Manual, or Smart Cut control Linear Blade Feed	
Units	English and Metric	
Blade Movement Axis	Horizontal and Linear (X, Y)	Horizontal, Linear, Vertical (X, Y, Z)
Display	6.5in LCD Display with LED Back lighting	
Controls	Touch Screen; Precision Controllers;	
Lighting	2 LED Strip, Adjustable brightness	
Programming	Retains Last Settings Serial Sectioning	Retains Last Settings Customizable Methods Serial Sectioning
Laser	Green Laser	

### Dimensions

Blade Position Settings	Horizontal: 0 - 2in [0 - 50mm]	Horizontal: 0 - 2in [0 - 50mm] Vertical: 0 -2in [0 - 50mm]
Cut Length Range	0.01 - 7.25 in [1mm - 184mm]	
Cut Length Increment	0.01 in [1mm]	
Feed Rate Range	0.04 - 1 in/min [1 - 25mm/min]	
Feed Rate Increment	0.01in increments [1mm increments]	
Blade Speed	200-5000rpm	
Cut Capacity Diameter	2.8in [71mm]	
Coolant Systems	Built-in Recirculating System, 1gal [4L]	
Flow Rate Wash Down Hose	2L/min	
Flow Rate on Blade	2.5L/min	
Wafering Blade Diameters	3 - 8in [76-203mm]	
Abrasive Blade Diameters	5 - 8in [127 - 200mm]	
Cut Chamber Size	9in x 20in [228mm x 508mm]	
Machine Dimensions	Width: 24in [610mm] Depth: 30in [762mm] Height (Hood Opened): 36in [915mm] Height (Hood Closed): 19in [483mm]	
Weight	157Lbs [71.2kg]	

### Electrical

Motor Power at 220VAC	2.68Hp [2kW]
Main Power	100 - 240VAC, 50-60Hz, 1 Phase
Noise Level	58dB
Safety Features	Interlock Hood Switch, Emergency Stop
Compliance	CE Directives

# Ordering Information

## Get Started

Choose the IsoMet High Speed model to best fit lab needs.



### IsoMet High Speed (11-2600)

*Includes:*  
Rapid Rails, Rapid Rail Vise Holder  
and Single Saddle Chuck

Rapid Rail Vise Holder



Single Saddle Chuck



### IsoMet High Speed Pro (11-2700)

*Includes:*  
Rapid Rails, Rapid Rail Vise Holder,  
Single Saddle Chuck and Dressing Wheel.

Rapid Rail Vise Holder



Single Saddle Chuck



Dressing Wheel



## Required Accessories

Visit [www.buehler.com](http://www.buehler.com) to select application specific blades and flanges.



### Precision Blades

Range in sizes from  
3in[76mm] to 8in[203mm]

-or-

### Abrasive Blades

Range in sizes from 5in[127mm] to  
7.87in[200mm]



+

### Flange Sets



Range in sizes from 3in[76mm]  
to 6in[152mm]

+

### Cooling Fluid



Water miscible fluid concentrate

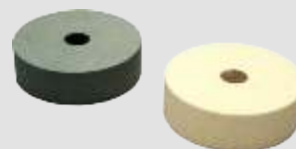
## Optional Accessories

### External Recirculating System Kit (11-2640)



Increases cutting fluid capacity to 7gal  
[26.5L] at 1.25gal/min [4.7L/min]

### Dressing Wheel



Part Number:

11-2655 20 HC, 15HC, 20LC,  
15LC, CBN HC, and  
CBN LC blades

11-2656 10 LC and 5LC blades



# Additional Vising Options

The IsoMet comes with the Rapid Rails installed.

## Rapid Rail Vise Holder (11-2660)

Increase productivity with additional rapid rail holders



## Large, Single Saddle Chuck (11-2661)

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



## Double Saddle Chuck (11-2662)

Securely holds specimens up to 1.5in [38mm] from 2 points



## Quick Clamp Vise

Stainless steel chuck holds mounted samples



Part Number:  
 11-2666 1.25in[30mm]  
 11-2667 1.5in[40mm]

## Fastener Chuck (11-2687)

Holds specimens up to 2in [50mm] for longitudinal sectioning



## Large Bone Chuck (11-2494)

Ideal for clamping bone, plastics, or other semi-rigid specimens up to 2in [50mm] in diameter



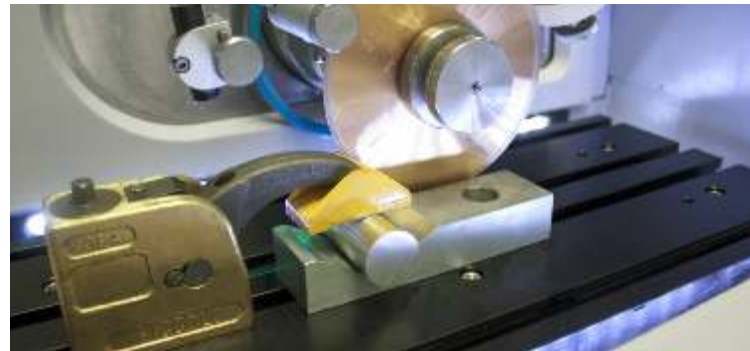
## Irregular Specimen Chuck (11-1185)

Adjusts to hold irregular shaped specimens up to 1in [25mm] in diameter



## T-slot bed (11-2707)

Add a T-Slot bed to the machine for additional vising options



## Small Speed Vise (460022)

Clamps specimens up to 58mm in height



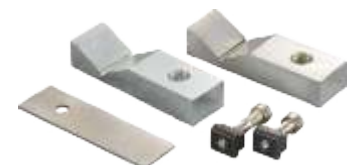
## Sliding Vise (11-2669)

6in [152mm] maximum opening, use requires flange to be 2in [50mm] or less



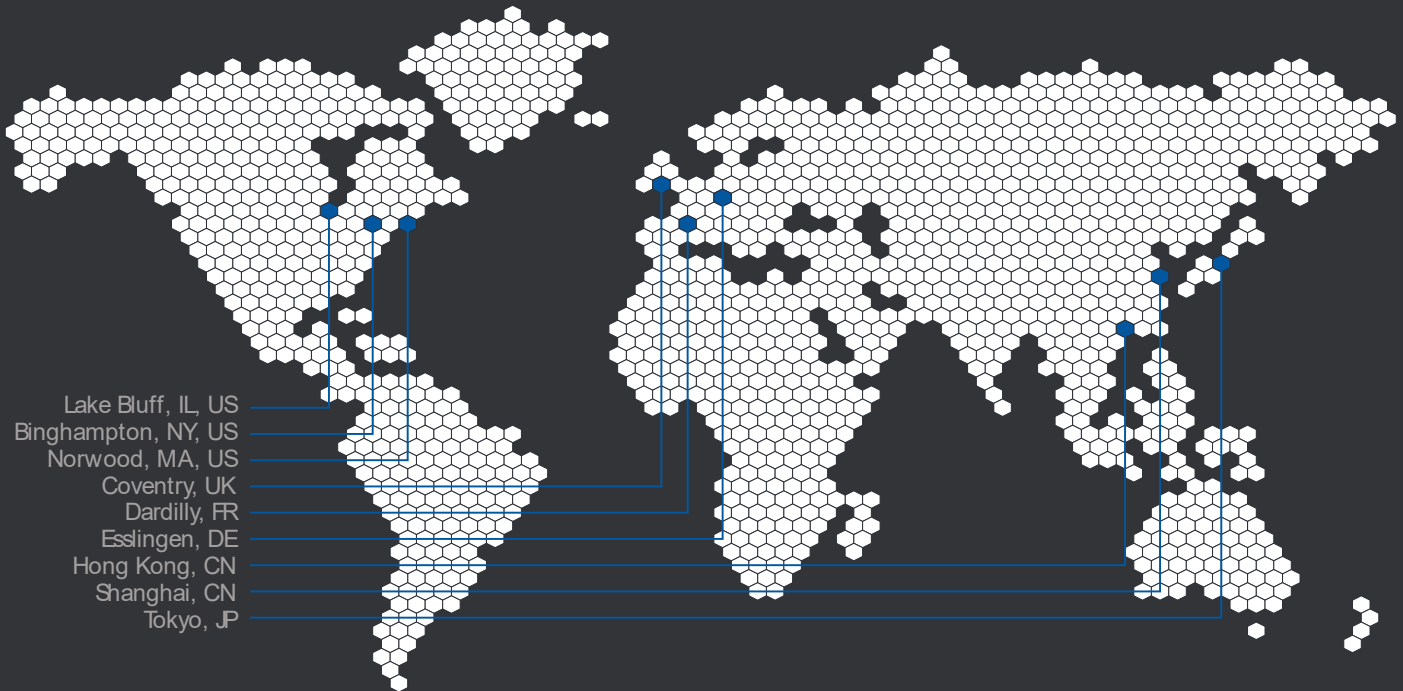
## Vee Blocks Clamp Kit (10-3527)

Raise samples above the table





# Buehler Worldwide Locations



Solutions for Materials Preparation, Testing and Analysis

## **BUEHLER**

41 Waukegan Road, Lake Bluff, Illinois 60044

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**W:** [www.buehler.com](http://www.buehler.com) | **E:** [info@buehler.com](mailto:info@buehler.com)

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