

AbrasiMatic® 300

Abrasive Cutter

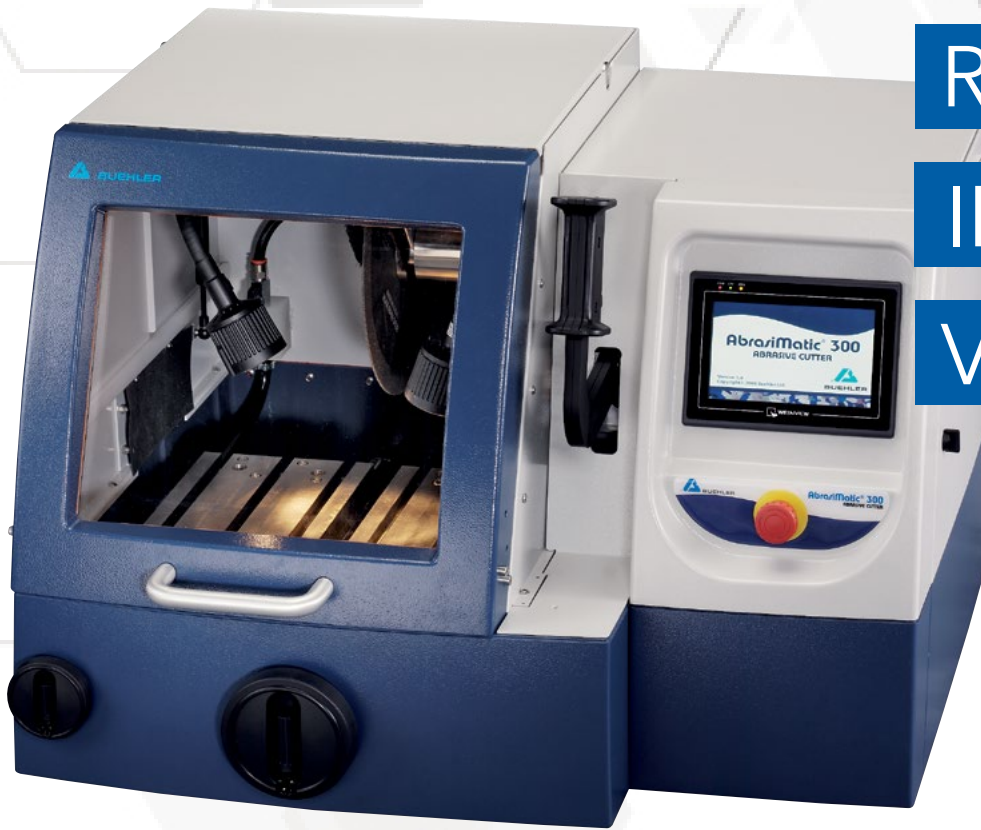


AbrasiMatic® 300

RELIABLE

INTUITIVE

VERSATILE



AbrasiMatic 300 is Designed for Demanding Environments

The AbrasiMatic 300 Abrasive Cutter is built for demanding workloads. The bench-top cutter features manual cutting in the Z direction, automatic and manual cutting in the Y direction, and optional serial positioning in the X direction. This gives the user the maximum versatility to section a wide variety of sample materials, sizes and geometries.



- Cut large parts with the powerful 5hp [3.7kW] motor
- Utilize the depth of the cutting chamber to section longitudinal parts up to 10.25in [260mm]
- Choose between manual and automatic cut modes to achieve the best cut for the application
- Utilize the Cut Flexibility, Achieve great results, Trust the Proven Durability

Proven Reliability



1 Powerful & Reliable Motor

The AbrasiMatic 300 features a powerful 5Hp [3.7kW] motor. Accepting blades up to 12" [305mm] diameter, the motor can power through parts as large as 4.375mm [110mm] tall. To greatly improve reliability and lifetime, the motor is removed from the cutting chamber so it is protected from debris and coolant.

2 Manual Operation

The machine features a manual Z handle to increase the number of cut modes available to the user. The manual cutting lever gives the user tactile feedback as they progress through the cut, just like on a manual machine.

3 Easy to use 3-Axis Control

In addition to manual Z control, the standard machine comes with Y-axis control, which can be controlled both automatically or manually for maximum flexibility in setup and cutting. To further increase positioning and cut flexibility, a movable X-table can be added to give 3 axes of movement.

4 Large Chamber & Retractable Hood

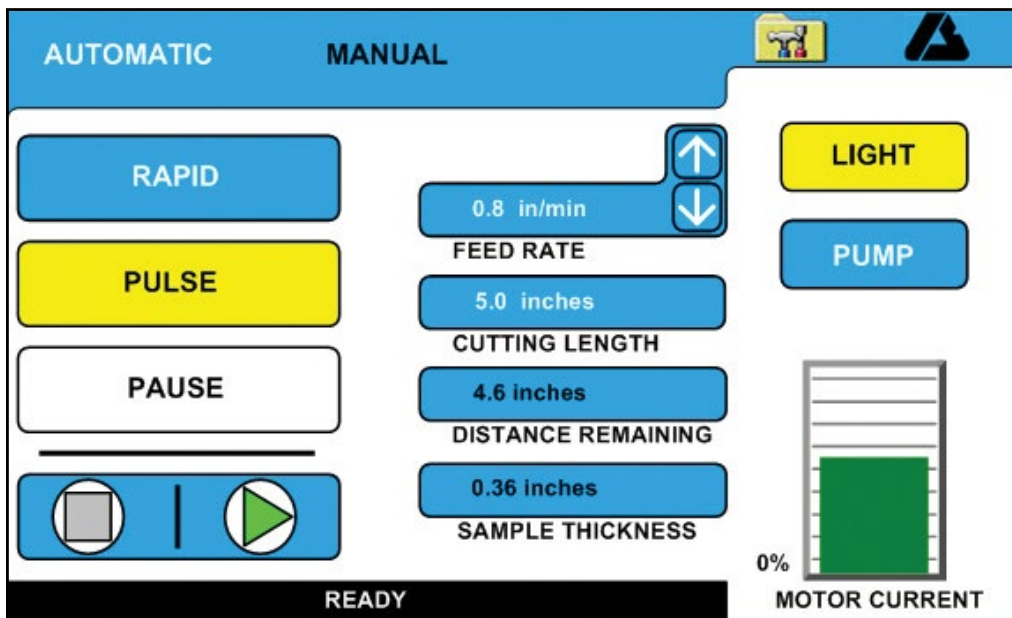
The chamber stretches the entire depth of the machine to allow for long cuts in the Y direction giving the user more cut flexibility. The chamber features LED lights to illuminate the cutting table to increase visibility. The hood opens up and folds backwards to further open up the chamber and allow for easy access during vising.



Intuitive Control

Touchscreen

The Abrasimatic® 300 features a touchscreen that allows the user to cut in automatic mode by setting cutting length and feed rate. Automatic mode increases cutting consistency while freeing the user to do other work. In automatic mode, Buehler's SmartCut feature automatically reduces feed rate to protect the motor from stalling. The Pulse cutting feature can also be chosen in automatic mode to improve cut quality.





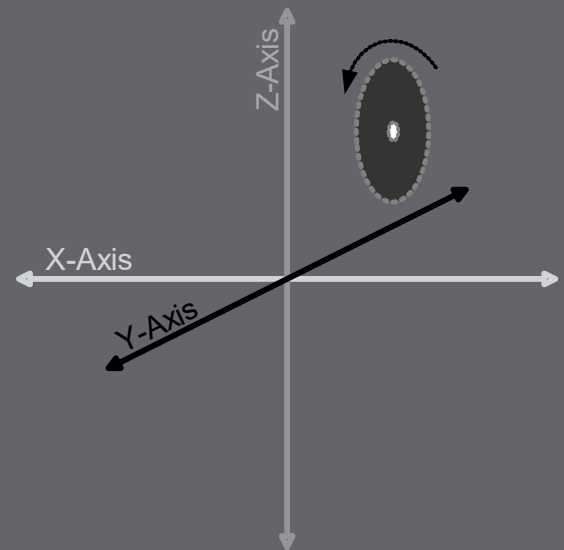
Cut Versatility

There are 3 options a user can choose from to section a sample. These options allow the choice of:

1. Manual "chop" style cutting in Y and Z axis using the Manual lever and the Y-table handle.
2. Automated longitudinal cutting in the Y-axis using the Y-axis motor feed and touch-screen options.
3. Manual Serial Cut using the X-axis handle

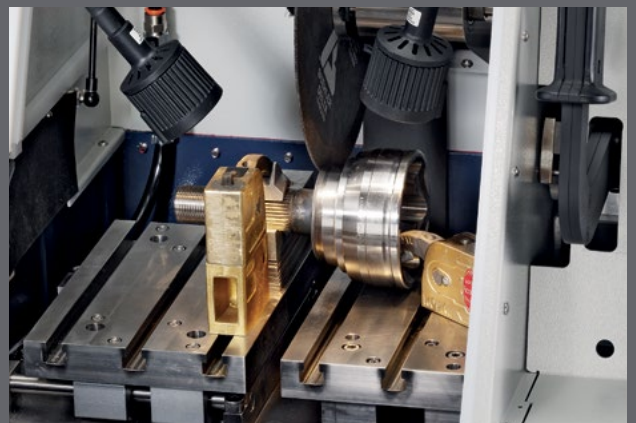
Manual chop action sectioning in the Z-axis provides quick and simple cutting action using the manual arm control lever. Manual Y-axis permits sectioning of long and irregularly shaped samples, while automatic Y sectioning allows the user to achieve consistent and repeatable results without the need to operate the machine.

The optional X-axis sectioning mode provides a method for parallel cutting without having to remove and re-secure a sample.



Recirculation System

Effective sample cooling is a key to produce quality cuts without burning. The 22gal [83ℓ] coolant system runs automatically during cutting and can also be turned on manually to allow the user to clean the chamber using the manual coolant hose. The reservoir features a triple baffle design to trap debris ensuring a clean intake of coolant back to the blade. The system is equipped with a rolling cart to make moving to clean the tank quick and easy.



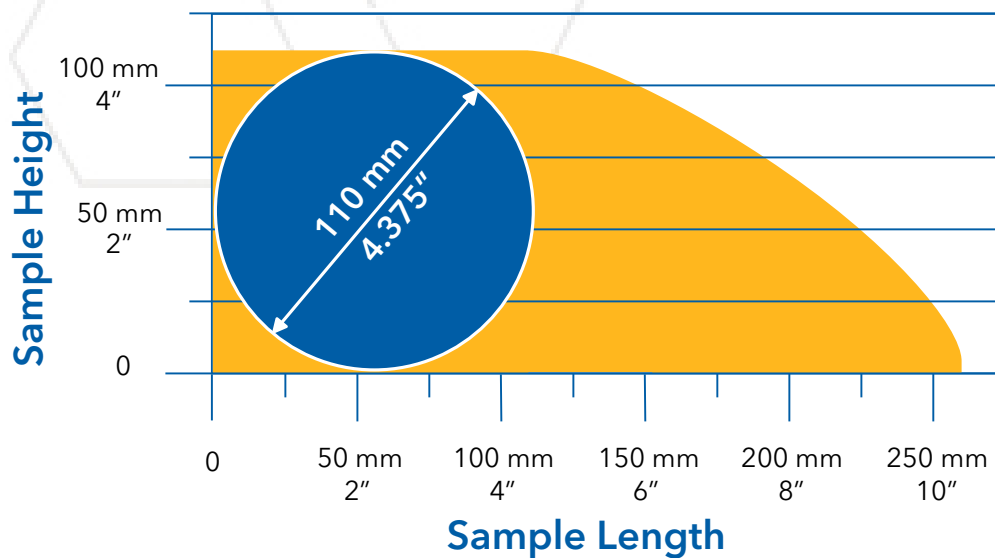
Technical Specifications

Operations

Voltage/Frequency/Phase	230VAC, 60Hz; 460VAC, 60Hz; 220VAC, 50Hz; 380VAC, 50Hz / 3 phase
Power Consumption	4.0kW
Maximum Current	15.7amps @ 220/230VAC; 7.9amps @ 460VAC; 9.1amps @ 380VAC
Motor Power	5Hp [3.7kW]
Recirculation Tank Capacity	22gal [83ℓ]
Hose Fitting Sizes	Intake: 1 in [25mm]; Discharge: 2 in [50mm]
Sound Rating	78dBA - no load
Fume Extractor Size	3in [75mm] cut-out diameter
Control Panel	7in [175mm] diagonal; 320x240 pixels; 256 color screen, backlight NEMA4 [IP 65] water resistant
T-slot table dimensions	14.375 W x 10in D [365 x 254mm]; 12mm wide t-slots
Travel movement	Z-Axis: 5.75in [150mm]; Y-Axis: 10.25in [260mm]; X-Axis: 2.75in [70mm]
Auto Y-Axis Feed Rate	0.3-5in/min [0.1-2.5mm/sec]
Abrasive Wheel Diameter & Arbor	Maximum 12in [305mm] & 1.25in [32mm]
Wheel Speed	2600rpm @ 50/60Hz; 8200 surface ft/min [2700 surface m/min]
Maximum Cut Diameter	4.375in [110mm]
Cutting Chamber	36 W x 22 D x 8in H [914 x 558 x 203mm]



Y and Z axis Cut Capacity



AbrasiMatic 300 cutting envelope (with new 12in [305mm] blade) is one of the largest in its class with up to 10.25in [260mm] longitudinal cutting capacity.



Ordering Information

AbrasiMatic 300

Z and Y-axis only

Part Number	Voltage/Frequency
10-2190-260	200-240VAC, 60Hz
10-2190-460	440-480VAC, 60Hz
10-2190-250	200-240VAC, 50Hz
10-2190-400	380-400VAC, 50Hz

X, Y, Z-axes

Part Number	Voltage/Frequency
10-2193-260	200-240VAC, 60Hz
10-2193-460	440-480VAC, 60Hz
10-2193-250	200-240VAC, 50Hz
10-2193-400	380-400VAC, 50Hz



Required Consumables



Abrasive Blades

Range in sizes from 10in [254mm] to 12in [305mm]



Cool 3 10-6010

Water miscible fluid concentrate (2.6gal, 10L)



Recirculating System

10-2332-260 [200-240VAC, 60Hz]
10-2332-460 [440-480VAC, 60Hz]
10-2332-250 [200-240VAC, 50Hz]
10-2332-400 [380-400VAC, 50Hz]

Vising Options

MetKlump VIII

95-C1822 (Right)
95-C1821 (Left)
Holds specimens up to 3.125in [80mm]



Medium Speed Clamping Vise

10-3545 (Right)
10-3544 (Left)
Max Opening: 2.75" [70mm]
Clamping Plate: 3.2" x 1.4" [80 x 35mm]



Medium Sliding Vise Kit

10-3541 (Right)
10-3540 (Left)
Holds parts of any width.



Fastener Vise

95-C1702
Must be held by another vise such as MetKlump™



Vertical Clamping Kit

10-3531 (small)
10-3523 (large)



Riser Blocks

10-3532 (small)
10-3528 (large)
Increase height of vertical clamp by 2.4in [60mm] for small and 2.9in [74mm] for large



Horizontal Clamp for Vertical Clamp

10-3526

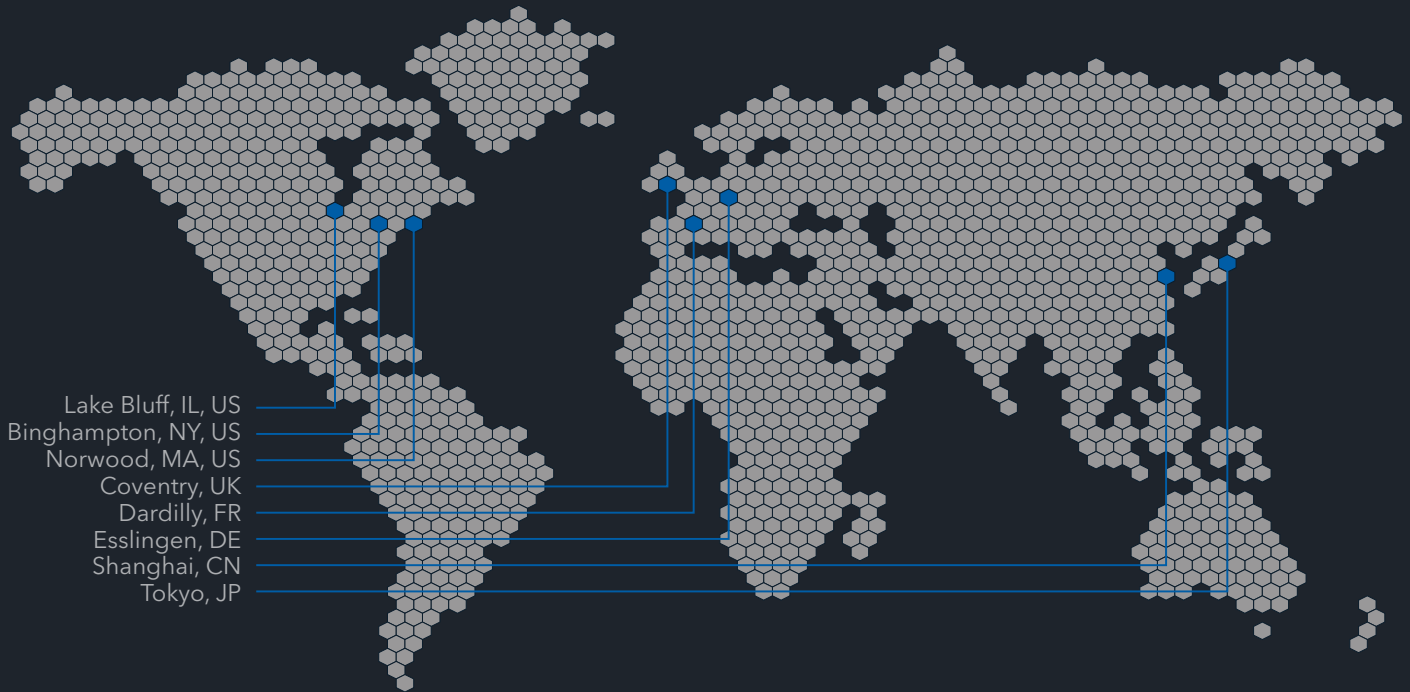


Vee Block Clamp Kit

10-3527



Buehler Worldwide Locations



Lake Bluff, IL, US
Binghampton, NY, US
Norwood, MA, US
Coventry, UK
Dardilly, FR
Esslingen, DE
Shanghai, CN
Tokyo, JP



BUEHLER

Solutions for Materials Preparation, Testing and Analysis

BUEHLER Worldwide Headquarters

BUEHLER North and South America

41 Waukegan Road, Lake Bluff, Illinois 60044

P: +1 847 295 6500 | 800 BUEHLER (800 283 4537)

W: www.buehler.com | **E:** info@buehler.com
shop.buehler.com

European Headquarters

BUEHLER Germany - Leinfelden-Echterdingen

ITW Test & Measurement GmbH

P: +49 (0) 711 4904690-0

W: www.buehler-met.de | **E:** info.eu@buehler.com
www.metallographie.biz

BUEHLER France - Dardilly

P: +33 (0) 800 89 73 71

W: www.buehler.fr | **E:** info.eu@buehler.com
www.metallographie.fr

BUEHLER United Kingdom - Coventry

P: +44 (0) 800 707 6273

W: www.buehler.co.uk | **E:** info.eu@buehler.com
www.metallography.biz

Asia Headquarters

BUEHLER China - Shanghai

ITW Test & Measurement (Shanghai) Co., Ltd.

P: +86 400 111 8683 | **F:** +86 21 6410 6671

W: www.buehler.cn | **E:** info.cn@buehler.com

BUEHLER Asia-Pacific

P: +86 400 111 8683

E: info.asia@buehler.com

BUEHLER Japan

P: +81 03 5439 5077 | **F:** +81 03 3452 7220

W: www.buehler.jp | **E:** info.japan@buehler.com