Diamond and CBN Blades for Abrasive Cutters, 32mm Arbor (qty 1)

[Part Number / Blade Thickness]

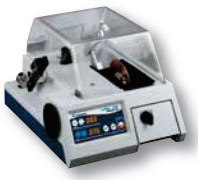
Available only in Europe, Africa, Middle East & Asia

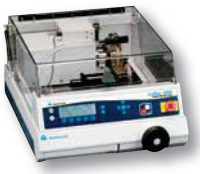
Recommended Use	Blade Type	200mm for Cuto 10, SamplMet™	250mm for Cuto 20, AbrasiMet™ & AbrasiMatic™ Families	300mm for AbrasiMatic 300, PowerMet™ 1000, Cuto 35	350mm for PowerMet 2000, Delta™ Family, Cuto 75A	400mm for Delta Family, Cuto 75A	450mm for Delta Family
General Use	Diamond	114608E 1.2mm	114610 1.3mm				
Hard Materials	Diamond	114808E 1.2mm	114810E 1.2mm	103056 1.4mm	114814E 1.5mm	104056 2mm	
Ceramic and Petrographic samples	Diamond	114709E* 1.2mm	114710E 1.2mm	103053 2.2mm	114714E 1.5mm		
Plastics and Polymers	Diamond		102557 1.25mm				
General use, hardened steel, HRC55 and Up	CBN	102050 1.3mm	102551 1.2mm	103051 1.9mm	103551 2mm	104050 1.7mm	104556 2mm

** 230mm Ø*

PRECISION CUTTERS

When sectioning small, delicate, or extremely hard materials, precision cutters are a must. These cutters primarily use thin, metal bonded diamond wafering blades which allow for more precise cuts, less material (kerf) loss and less induced deformation. Very thin abrasive wheels can also be used on larger models. Blade selection is based on the material type. The goal is to find a blade that will create the best surface finish while providing a suitable cut time for the operator. In order to have optimum cut times and minimal deformation, it is essential to use ample coolant. This will provide adequate coolant to keep the sample and blade cool, remove any debris from the cutting area and enable the abrasive to provide the best cutting action.




	IsoMet™ Low Speed	IsoMet 1000	IsoMet 4000	IsoMet 5000	PetroThin™ Thin Sectioning System
Maximum Wheel Diameter	5in [127mm]	7in [178mm]	8in [203mm]	8in [203mm]	8in [203mm]
Controls	Manual	Manual	Manual	Manual or Auto	Manual
Cut Style	Gravity Fed	Gravity Fed	Auto Feed or SmartCut™	Auto Feed, SmartCut Grinding	Thin Sectioning
Sample Movement	Z-axis	Z-axis	X-axis	X-axis	X-axis, Z-axis
Wheel Movement			Y-axis	Y-axis	
Maximum Cutting Capacity*	1.77in [45mm]	2.5in [64mm]	3in [76mm]; 2 x 6.5 x 1in [51 x 165 x 25mm]	3in [76mm]; 2 x 6.5 x 1in [51 x 165 x 25mm]	Petrographic Glass Slides: 1.06 x 1.81in [27x46mm] or 3 x 1in [76.2 x 25.4mm]

**Maximum cutting capacity assumes largest size blade with smallest flange.*

Products available Worldwide unless noted by the following:

1 North & South America

2 Europe, Africa & Middle East

3 Asia

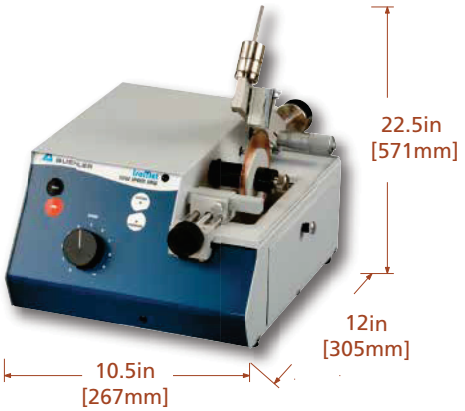
IsoMet™ Low Speed Cutter

- Compact cutter uses gravity feed system to provide constant feed rate
- Produces minimum deformation
- ±5µm or ±0.0001in positioning via manual micrometer
- 0.02Hp motor
- 0-300rpm

(Includes 4in [102mm] IsoMet Blade for general sectioning, assorted weights, dressing stick, IsoCut™ Fluid, flanges and the following chucks: single saddle, irregular specimen and wafer)

Part Number	Voltage/Frequency
11-1280-160*	115VAC, 50/60Hz
11-1280-250†	230VAC, 50/60Hz
11-1280-170†	115VAC, 50-60Hz

** Micrometer in inches*
† Micrometer in millimeters



Approx. Weight: 25 lbs [11.3kg]

IsoMet 1000

- Simple to operate, gravity fed membrane panel controls
- Rotating vise for larger samples
- Optional table saw attachment
- 0.17Hp motor
- 100-975rpm

(Includes 6in [152mm] IsoMet Blade for sectioning electronic substrates, assorted weights, dressing stick, Cool 2 Fluid, flanges and the following chucks: single saddle, irregular specimen and wafer)

Part Number	Voltage/Frequency
11-2180	85-264VAC, 50/60Hz

Approx. Weight: 56 lbs [25kg]

Did You Know?

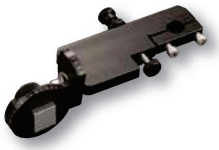
Many of the vises for abrasive cutting can also be used on the IsoMet 4000 and 5000 Precision Cutters by adding an 8mm T-Nut (part number 2680S249). *See pages 7-8 for vise selections.*

See pages iv-vi for ordering information or visit www.buehler.com.

IsoMet™ Low Speed Cutter Accessories

Goniometer

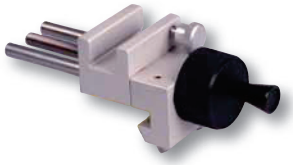
Rotates specimen along 3 axes



11-2381

Manual Feed Control Dressing Chuck

Enables blade dressing without removing the sample fixture



11-1196

Splash Guard Kit

Prevents lubricant from splashing out of saw

11-1199

IsoMet Low Speed Cutter & 1000 Accessories

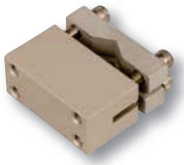
Swivel Arm Assembly

Swivels to position specimen cutting surface perpendicular to blade *(replaces support arm provided with cutter)*

11-1181

Small, Double Saddle Chuck

Securely holds specimen up to 0.875in [22mm] from 2 points



11-1183

Bar & Tube Chuck

Securely holds end of a bar tube up to 2in [50mm] long and 0.5in [13mm] in diameter

11-1184

Irregular Specimen Chuck

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

11-1185

Wafer Chuck

Use mounting wax, 40-8150 or 40-8145 *(pg. 34)* to glue specimens to wafer chuck. 1.125 x 2in [29 x 51mm]

11-1186

Single Saddle Chuck

Holds specimens up to 0.75in [19mm] in diameter

11-1187

Vacuum Chuck for Glass Slides

Holds specimens mounted to glass slides to chuck to chuck with vacuum force

11-1188 27 x 46mm

Mount Chuck

Aluminum chuck holds mounted samples

11-1189 1-1.25in [25-32mm]

Small Bone Chuck

Ideal for clamping bone, plastics, or other semi-rigid solids up to 1.5in [32mm] in diameter

11-1194

Products available Worldwide unless noted by the following:

1 North & South America

2 Europe, Africa & Middle East

3 Asia

IsoMet™ 1000 Accessories

Rotating Chuck Assembly

Rotates specimen chuck to increase the maximum cutting depth of the blade

11-2181

Table Saw Attachment

Transforms gravity fed IsoMet 1000 into convenient table saw

11-2182

800 gram Weight Set

Additional weights for gravity fed saws

11-2183

Swivel Arm Accessory

Swivels to position specimen cutting surface perpendicular to blade *(replaces provided support arm)*

11-2184

Goniometer

Rotates specimen along 3 axes

11-2185

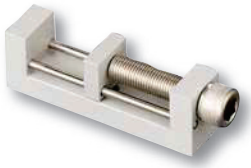
Table Saw Splash Guard

Catches splashing lubricant when used in conjunction with the Table Saw Attachement *(11-2182)*

11-2186

Fastener Chuck

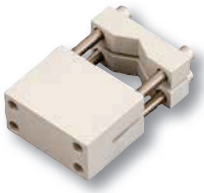
Holds specimen up to 2in [50mm] for longitudinal sectioning



11-2482

Large, Double Saddle Chuck

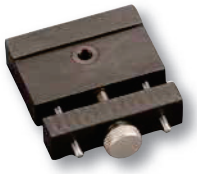
Securely holds specimen up to 1.5in [38mm] from 2 points



11-2483

Glass Slide Chuck

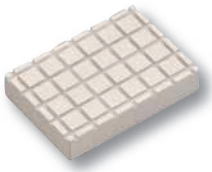
Holds 27 x 46mm, 1 x 2in, or 1 x 3in glass slides



11-2484

Wafer Chuck

Use mounting wax (40-8150) to glue specimens to wafer chuck



11-2486 1.75 x 2.5in [44 x 64mm]

Medium, Single Saddle Chuck

Holds up to 1in [25mm] specimen

11-2487

Glass Slide Chuck

Holds 2 x 3in glass slides

11-2488

Mount Chuck

Holds mounted samples

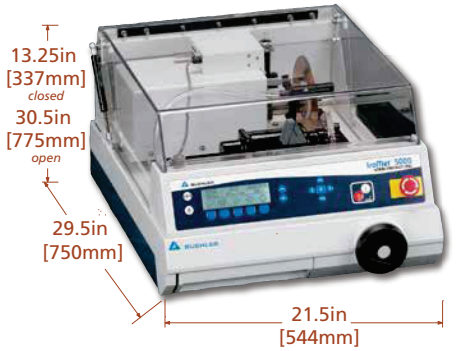
11-2489 1.5in [40mm]

See pages iv-vi for ordering information or visit www.buehler.com.

IsoMet™ 4000 and 5000

- Simple to operate, automatic precision cutter
- SmartCut™ adjusts feed rate to eliminate damage to system or sample
- Rotating vise for larger samples
- IsoMet 5000 includes cup grinding capabilities, 35 preprogrammed and 20 customizable methods
- Compatible with external recirculating system
- 1.25Hp motor

(Includes 7in [178mm] IsoCut™ Blade for sectioning ferrous alloys and superalloys, 7in abrasive wheels, T-slot table, automatic dressing system, dressing stick, Cool 2 Fluid, 1 set of flanges and the following chucks: irregular specimen, single saddle and 1.25in [32mm] round specimen)



Approx. Weight: 130 lbs [56kg]

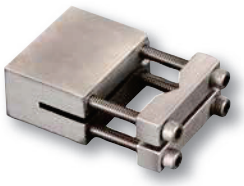
IsoMet 4000	Voltage/Frequency
11-2680 *with internal recirculation system*	85-264VAC, 50/60Hz
11-2675 *with external recirculation system*	85-264VAC, 50/60Hz

IsoMet 5000	Voltage/Frequency
11-2780 *with internal recirculation system*	85-264VAC, 50/60Hz
11-2775 *with external recirculation system*	85-264VAC, 50/60Hz

IsoMet 4000 & 5000 Accessories

Double Saddle Chuck

Securely holds specimens up to 0.875in [22mm] from 2 points



11-2682

Single Saddle Chuck

Holds specimens up to 0.875in [22mm] in diameter

11-2683

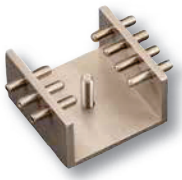
Mount Chuck

Stainless steel chuck holds mounted samples

11-2684 1.25in [32mm]
11-2685 1.5in [38mm]

Irregular Specimen Chuck

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



11-2686

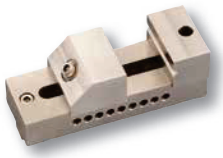
Fastener Chuck

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

11-2687

Sliding Vise

Attaches to T-slot table and holds specimens up to 2.5in [65mm]



11-2691

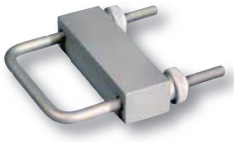
Large, Single Saddle Chuck

Holds specimens up to 2in [50mm] from 2 points

11-2285

Large Bone Chuck

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



11-2494

Products available Worldwide unless noted by the following:

1 North & South America

2 Europe, Africa & Middle East

3 Asia

IsoMet™ 4000 & 5000 Accessories

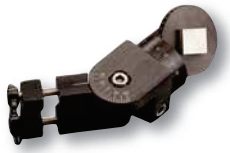
Slotted Vise

Adjusts in vertical direction to enable operator to cut a slot at a constant depth

11-2692

Goniometer

Rotates specimen along 3 axes



11-2693

Rotating Vise

Rotates specimen chuck to increase the maximum cutting depth of the blade

11-2695

Automatic Dressing System

Dresses blade prior to and during operation to optimize sectioning conditions

11-2696

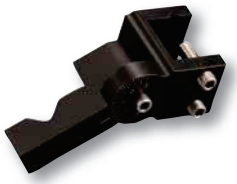
Precision Positioning System, 1µm

For manual sample positioning via precision micrometer

11-2699

Angle Vise

Precisely holds specimen for cutting at an angle with the chuck rotating left and right



11-2698

T-slot Y-axis bed

Additional T-slot for positioning vises

11-2701

T-slot X-axis bed

Additional T-slot for positioning vises

11-2702

Sliding Vise

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

11-2703

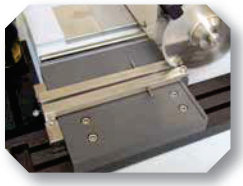
Thermal Spray Coating Chuck

Uniformly distributes clamping forces and reduce cracking of brittle thermal spray coatings

11-2704

Vise for solar cells or delicate flat parts

160 W x 160 D x 2mm capacity



11-2706 [2, 3]

Small Speed Vise

Clamps specimens up to 58mm in height

460022 [2, 3]

See pages iv-vi for ordering information or visit www.buehler.com.

IsoMet™ 4000 & 5000 Accessories

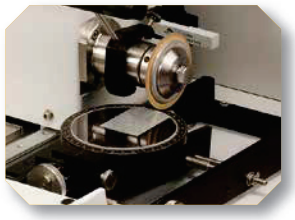
External Recirculating System Kit

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

11-2711

Precision Table

Precisely aligns specimen forward, backward, up and down



11-2694-160 [115VAC, 50/60Hz]
11-2694-250 [230VAC, 50/60Hz]

IsoMet Precision Cutter Accessories

Aluminum Flange Set

11-1191	1.75in [44mm]
11-1192	1.38in [35mm]
11-2678	2in [50mm]
11-2679	2.5in [64mm]
11-2282	3in [76mm]
11-2283	4in [102mm]
11-2284	5in [127mm]

Stainless Steel Flange Set

11-2688	3in [76mm]
11-2689	4in [102mm]
11-2690	5in [127mm]
11-2697	6in [152mm]

Chuck Padding

11-2496

Dressing Sticks

11-1190	3 x 0.5 x 0.5in [76 x 13 x 13mm] for 20HC, 15HC, 20LC, 15LC, CBN LC and CBN HC precision blades
11-2490	3 x 1 x 1in [76 x 25 x 25mm] for 20HC, 15HC, 20LC, 15LC, CBN LC a nd CBN HC precision blades
11-1290 *SO*	3 x 0.5 x 0.5in [76 x 13 x 13mm] for 10LC and 5LC precision blades

SO - Special Order. Items may have long lead times and minimum orders.

Tips, Tricks & Techniques:

For the best performance from your Precision Cutter System:

- Always tightly clamp your sample
- Use double saddle chucks for long parts such as rods
- Do not hand dress blades
- Mount spheres, unusual shapes and friable materials
- Use the largest flange for your blade and specimen
- Soft, gummy materials can build up on the blade during the cut

Products available Worldwide unless noted by the following:

1 North & South America
2 Europe, Africa & Middle East
3 Asia