



*Materials Science*

**MAGER**

*June 2018*

# MAGER SCIENTIFIC, INC.

Mager has provided the Materials and Metallurgical fields with high-quality sample preparation products since 1961. We are proud of our past and excited for the future as we continue to offer you innovative new products that maximize effectiveness and efficiency in your sample preparation techniques.

Our corporate practice remains avoiding automatic annual price increases. Many of our stock items have not been raised in several years. Effective June 1, 2018 it is necessary to implement price adjustments to keep pace with raw material costs. Mager's commitment to providing the best consumables at fair and reasonable prices continues.

Lots of exciting developments are underway in 2018! Our sales and service teams are growing to better serve you, as are our product offerings. Qness GmbH, manufacturer of an outstanding full lineup of hardness testers, is now distributed through Mager in the USA. Clemex, the premiere image analysis software suite, is now available on our Nikon microscopes. ATM GmbH is set to release a new batch of innovative products for metallography. Mager continues to be your trusted source for advanced automation applications.

Our materials science consumable offering features many new products and tutorials:

- The new CO-300 Series cut off wheels feature tough, cool cutting, ruby grains
- A full listing of ATM consumables can be found at [www.shopmager.com](http://www.shopmager.com)
- Akasel has created a series of "how-to" videos for consumables, which can be viewed at: <https://www.akasel.com/documentation/video.html>

Did you know there are 4 Mager mobile laboratories available for demonstration at your site? Request a visit by emailing [mml@magersci.com](mailto:mml@magersci.com).



Keep in touch by joining our mailing list! Email [magernews@magersci.com](mailto:magernews@magersci.com) to request to be added.

*Mager Makes the Difference*

## Ordering Information

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[www.shopmager.com](http://www.shopmager.com) or [www.magersci.com](http://www.magersci.com)

**Email**

[sales@magersci.com](mailto:sales@magersci.com)

**Credit Cards**

Visa / MasterCard / American Express

**Mailing Address**

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Mager Scientific, Inc.  
1100 Baker Road  
Dexter, Michigan 48130-1523

**Standard Terms:**

Net 30 Days  
F.O.B.: Dexter, MI  
VIA: UPS / FedEx

## Special Ordering Programs

For bulk purchasing options beyond those listed in our catalog or scheduled product releases, please contact your sales executive or our main office.

*Products shown represent the latest available at time of printing. Prices are subject to change without notice.  
Technical information for all products is available upon request.*

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# Cutting

## Mager Resin Bond Progressive Cut Off Wheels

Variable abrasive density across the radius assures a constant cutting rate as the wheel wears and the outside diameter gets smaller. High purity, calcined aluminum oxide removes heat from the point of contact as the abrasive breaks down to expose new cutting edges. Wheels are made with smooth sides and have a metal arbor washer for toughness.

## Rubber Bond Cut Off Wheels

Thin Aluminum Oxide and Silicon Carbide cut off wheels are used for low deformation cutting in a wide variety of materials. Use for cutting smaller cross sections on difficult-to-cut materials where you need to minimize material loss.

## Cutting Fluids

Description	Quantity	Part #	Price
<b>Nitrite-Free Coolant Concentrate</b>			
For use in abrasive cut off machines. Mix with water approximately 25:1			
Nitrite-Free Coolant Concentrate	1 quart	CO-100-NF	\$16.00
Nitrite-Free Coolant Concentrate	1 gallon	CO-101-NF	46.00
Nitrite-Free Coolant Concentrate	5 gallons	CO-101-5-NF	207.00

# Precision Cutting

## Miniature Abrasive Cut Off Wheels

Thin Aluminum Oxide miniature abrasive cut off wheels are for use on high speed, water cooled precision sectioning machines. Resin bonded wheels will break down and stay sharp to quickly cut metallic specimens.

Description		Quantity	Part #	Price
5 x .018 x ½", Al <sub>2</sub> O <sub>3</sub> 125 x .45 x 12.7 mm	rubber bond, fine grain	5/box	CO-142	\$142.00
5 x .032 x ½", Al <sub>2</sub> O <sub>3</sub> 125 x .80 x 12.7 mm	resin bond, coarse grain	5/box	CO-143	142.00
6 x .039 x ½", Al <sub>2</sub> O <sub>3</sub> 150 x 1 x 12.7 mm	resin bond, coarse grain	5/box	CO-144	115.00
6 x .024 x ½", Al <sub>2</sub> O <sub>3</sub> 150 x .60 x 12.7 mm	rubber bond, fine grain	5/box	CO-145	115.00
6 x .020 x ½", Al <sub>2</sub> O <sub>3</sub>	resin bond, hard materials	5/box	CO-9456	130.00
6 x .020 x ½", Al <sub>2</sub> O <sub>3</sub> 150 x .5 x 12.7 mm	resin bond, medium-hard materials	5/box	CO-9457	130.00

## Diamond Wafering Blades

Wafering Blades have a high concentration metal matrix diamond rim. Excellent cutting rate and a long lifetime is achieved as the bond breaks down to expose new cutting facets. Designed for use on very hard or brittle materials. All blades have a ½" (12.7 mm) arbor hole to fit most machine models.

Description		Quantity	Part #	Price
3 x .006 x ½", high concentration grit 320 76 x .15 x 12.7 mm		each	CO-150	\$185.00
4 x .012 x ½", high concentration grit 320 102 x .30 x 12.7 mm		each	CO-152	205.00
5 x .015 x ½", high concentration grit 320 127 x .38 x 12.7 mm		each	CO-154	245.00
6 x .017 x ½", high concentration grit 320 152 x .43 x 12.7 mm		each	CO-156	315.00
Small Dressing Stick .5 x .5 x 3" 12.7 x 12.7 x 6 mm	Small diamond blades	each	CO-103	10.00
Large Dressing Stick 25 x 25 x 150 mm 1 x 1 x 6"	Large diamond blades; diamond grinding discs	each	CO-10020	29.00



# 8" Abrasive Cut Off Wheels

## Resin Bond

Description	Recommended Use	Quantity	Part #	Price
8 x .062 x ½", Al <sub>2</sub> O <sub>3</sub> 203 x 1.6 x 12.7 mm	hard stock	5/box	CO-131	\$65.00
8 x .035 x ½", Al <sub>2</sub> O <sub>3</sub> 203 x .90 x 12.7 mm	hard stock-thin kerf	5/box	CO-137	65.00
8 x .062 x ½", Al <sub>2</sub> O <sub>3</sub> 203 x 1.6 x 12.7 mm	medium hard stock	5/box	CO-133	65.00
200 x 1.5 x 12.7 mm, Al <sub>2</sub> O <sub>3</sub> 8 x .060 x ½ mm	medium hard stock	5/box	CO-148	65.00
8 x .035 x ½", Al <sub>2</sub> O <sub>3</sub> 203 x .90 x 12.7 mm	friable stock-thin kerf	5/box	CO-138	65.00
8 x .035 x ½", SiC 203 x .90 x 12.7 mm	non-ferrous stock	5/box	CO-139	65.00

The **ATM Brillant 220**  
**8" Cut Off Machine**  
is a wet abrasive saw with the  
ability to make precision cuts





# 10" Abrasive Cut Off Wheels

## Resin Bond

Description	Recommended Use	Quantity	Part #	Price
250 x 1.6 x 32 mm, Al <sub>2</sub> O <sub>3</sub>	medium-hard stock	10/box	CO-206	\$129.00
250 x 1.6 x 32 mm, Al <sub>2</sub> O <sub>3</sub>	medium-hard stock	50/box	CO-206V	580.00
10 x .063 x 1 1/4"				
ATM H250 Wheels				
250 x 1.5 x 32 mm, Al <sub>2</sub> O <sub>3</sub>	medium-hard stock	10/box	92004465	217.00
10 x .063 x 1 1/4"				
10 x .060 x 1 1/4", Al <sub>2</sub> O <sub>3</sub>	medium-hard stock	10/box	CO-306	135.00
10 x .060 x 1 1/4", Al <sub>2</sub> O <sub>3</sub>	medium-hard stock	50/box	CO-306V	595.00
10 x .060 x 1 1/4", Al <sub>2</sub> O <sub>3</sub>	medium-hard stock	10/box	CO-304	155.00
254 x 1.5 x 32 mm	reinforced			

## Rubber Bond

Description	Recommended Use	Quantity	Part #	Price
250 x 1.6 x 32 mm, Al <sub>2</sub> O <sub>3</sub>	hard stock	10/box	CO-062	\$139.00
250 x 1.6 x 32 mm, Al <sub>2</sub> O <sub>3</sub>	medium stock	10/box	CO-064	139.00
10 x .063 x 1 1/4"				
250 x 1.6 x 32 mm, SiC	non-ferrous stock	10/box	CO-044	139.00
10 x .063 x 1 1/4"				
250 x 1.1 x 32 mm, Al <sub>2</sub> O <sub>3</sub>	hard stock-thin kerf	10/box	CO-068	139.00
10 x .045 x 1 1/4"				

The **ATM Brilliant 240**  
**10" Cut Off Machine**  
 is a semi-automatic saw with  
 generous access and chamber space



# 12" Abrasive Cut Off Wheels

## Resin Bond

Description	Recommended Use	Quantity	Part #	Price
300 x 2.0 x 32 mm, Al <sub>2</sub> O <sub>3</sub>	medium-hard stock	10/box	CO-226	\$149.00
300 x 2.0 x 32 mm, Al <sub>2</sub> O <sub>3</sub> 12 x .079 x 1¼"	medium-hard stock	50/box	CO-226V	670.00
300 x 2.0 x 32 mm, Al <sub>2</sub> O <sub>3</sub>	medium-hard stock	10/box	CO-326	155.00
300 x 2.0 x 32 mm, Al <sub>2</sub> O <sub>3</sub>	medium-hard stock	50/box	CO-326V	695.00
300 x 2.0 x 32 mm, Al <sub>2</sub> O <sub>3</sub> 12 x .079 x 1¼"	medium-hard stock reinforced	10/box	CO-324	180.00
300 x 2.0 x 32 mm, Al <sub>2</sub> O <sub>3</sub> 12 x .079 x 1¼"	medium-hard stock reinforced	50/box	CO-324V	810.00
ATM H300 Wheels				
300 x 2.0 x 32 mm, Al <sub>2</sub> O <sub>3</sub> 12 x .079 x 1¼"	medium-hard stock	10/box	92004431	299.00

## Rubber Bond

Description	Recommended Use	Quantity	Part #	Price
300 x 1.6 x 32 mm, Al <sub>2</sub> O <sub>3</sub>	extra hard stock	10/box	CO-070	\$165.00
300 x 1.6 x 32 mm, Al <sub>2</sub> O <sub>3</sub>	hard stock	10/box	CO-072	165.00
300 x 1.6 x 32 mm, Al <sub>2</sub> O <sub>3</sub>	medium stock	10/box	CO-074	165.00
Ⓢ 300 x 1.6 x 32 mm, Al <sub>2</sub> O <sub>3</sub> 12 x .063 x 1¼"	soft stock	10/box	CO-076	165.00
300 x 1.6 x 32 mm, SiC 12 x .063 x 1¼"	non-ferrous stock	10/box	CO-079	165.00
300 x 1.1 x 32 mm, Al <sub>2</sub> O <sub>3</sub> 12 x .045 x 1¼"	hard stock-thin kerf	10/box	CO-078	165.00

Ⓢ Available via Special Order

# 14" Abrasive Cut Off Wheels

## Resin Bond

Description	Recommended Use	Quantity	Part #	Price
350 x 2.5 x 32 mm, Al <sub>2</sub> O <sub>3</sub>	medium-hard stock	10/box	CO-246	\$215.00
350 x 2.5 x 32 mm, Al <sub>2</sub> O <sub>3</sub> 14 x .100 x 1¼"	medium-hard stock	50/box	CO-246V	965.00
350 x 2.5 x 32 mm, Al <sub>2</sub> O <sub>3</sub>	medium-hard stock	10/box	CO-346	220.00
350 x 2.5 x 32 mm, Al <sub>2</sub> O <sub>3</sub>	medium-hard stock	50/box	CO-346V	990.00
350 x 2.5 x 32 mm, Al <sub>2</sub> O <sub>3</sub> 14 x .100 x 1¼"	medium-hard stock reinforced	10/box	CO-344	245.00
350 x 2.5 x 32 mm, Al <sub>2</sub> O <sub>3</sub> 14 x .100 x 1¼"	medium-hard stock reinforced	50/box	CO-344V	1100.00
<b>ATM H350 Wheels</b>				
350 x 2.0 x 32 mm, Al <sub>2</sub> O <sub>3</sub> 14 x .079 x 1¼"	medium-hard stock	10/box	92004467	340.00
14 x .100 x 1¼", SiC 350 x 2.5 x 32 mm	non-ferrous stock	10/box	CO-089	198.00

## The ATM Brilliant 250 12"-14" Cut Off Machine

offers automatic and manual feed versions with unique features like pulse cutting and EasyNut, which makes wheel exchange a snap



# 16" - 17" Abrasive Cut Off Wheels

## Resin Bond

Description	Recommended Use	Quantity	Part #	Price
ATM H400 Wheels				
400 x 3.0 x 32 mm, Al <sub>2</sub> O <sub>3</sub> 16 x .120 x 1 1/4"	hard-medium stock	10/box	92004432	\$404.00
400 x 3.0 x 32 mm, Al <sub>2</sub> O <sub>3</sub>	hard-medium stock	5/box	CO-256	145.00
400 x 3.0 x 32 mm, Al <sub>2</sub> O <sub>3</sub> 16 x .120 x 1 1/4"	hard-medium stock	25/box	CO-256V	650.00
400 x 3.0 x 32 mm, Al <sub>2</sub> O <sub>3</sub>	medium-hard stock	5/box	CO-356	195.00
400 x 3.0 x 32 mm, Al <sub>2</sub> O <sub>3</sub> 16 x .120 x 1 1/4"	medium-hard stock	25/box	CO-356V	875.00
432 x 3.0 x 32 mm, Al <sub>2</sub> O <sub>3</sub> 17 x .120 x 1 1/4"	hard-medium stock	5/box	CO-266	155.00

The **ATM Brilliant 275**  
**17 - 20" Automatic Cut**  
**Off Machine** boasts multi-  
axis cutting control for an  
impressive selection of  
sectioning modes



# Cold Mounting

## Epoxies

Aka-Cure epoxy system uses *one* low viscosity resin and your choice of *two* liquid hardeners for fast or slow curing applications. Uniquely formulated for low shrinkage and good edge retention. Ideal for heat sensitive or large samples.

Description	Quantity	Part #	Price
⚡ Aka-Resin (1 L resin) Resin can be used with Slow or Quick hardeners	each	CM-8510	\$86.00
⚡ Aka-Cure, Slow Hardener (250 ml) Mix Ratio: 12 g hardener / 100 g resin 8 to 24 hour cure at room temperature	each	CM-8560	44.00
⚡ Aka-Cure, Quick Hardener (500 ml) Mix ratio: 26.3 g hardener / 100 g resin 30 minute cure at 80° C	each	CM-8591	86.00

## Acrylic/Polyester

Technovit® two and three part systems are fast curing (<15 minutes), high performance mounting systems for encapsulation.

Description	Quantity	Part #	Price
<i>2 part system; clear cure, excellent for high volume applications</i>			
⚡ Technovit® 4006 Large Kit (2 kg powder / 1 liquid)	each	CM-251	\$300.00
<i>2 part system; copper filled conductive resin for SEM</i>			
⚡ Technovit® 5000 Kit (1 kg powder / 500 ml liquid)	each	CM-5000	220.00

## Acrylic

Quickmount is a two component, powder/liquid acrylic system. Simple to use, Quickmount is excellent for mounting materials where low hardness and some shrinkage are acceptable.

Description	Quantity	Part #	Price
⚡ 5# Quickmount Kit (5 lbs / 60 oz)	each	CM-221	\$196.00

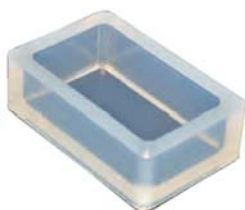
⚡ Ground shipments only - Hazardous shipping fees may apply

# Cold Mounting

## Silicone Mold Cups

For use with quick curing Acrylic and Acrylic-Polyester mounting resins. Mount is easily released from durable, reusable mold cup. For use with Technovit® and Quickmount systems.

Description	Quantity	Part #	Price
2 mm (1.25") round silicone mold cup	each	MS-2505	\$20.00
38 mm (1.5") round silicone mold cup	each	MS-2506	22.00
50 mm (2") round silicone mold cup	each	MS-5568	30.00
70 x 40 mm (2.75 x 1.5") rectangular silicone mold cup	each	MS-2510	37.00



## Teflon Mold Cups

Very durable, reusable molds for use with Epoxy mounting resins. Mold base snaps tightly, preventing leaks. Mount is easily removed from tough, non-stick Teflon material.

Description	Quantity	Part #	Price
32 mm (1.25") round Teflon mold cup	each	MS-2515	\$65.00
38 mm (1.5") round Teflon mold cup	each	MS-2516	101.00
50 mm (2") round Teflon mold cup	each	MS-2518	74.00
70 mm (2.75") round Teflon mold cup	each	MS-2519	155.00
65 x 35 mm (2.55 x 1.38") rectangular Teflon mold cup	each	92002520	236.00
85 x 45 mm (3.35 x 1.77") rectangular Teflon mold cup	each	92002521	271.00






## 2-Part Plastic Mold Cups

Reusable molds for use with Epoxy mounting resins. Slightly angled sides allow for easy mount removal while built in bevel helps prevent mount from grabbing on work surface. Mold base snaps tightly, preventing leaks.

Description	Quantity	Part #	Price
30 mm (1.18") round plastic mold cups	10/pkg	MS-8830	\$42.00
40 mm (1.57") round plastic mold cups	10/pkg	MS-8840	48.00
50 mm (2") round plastic mold cups	10/pkg	MS-8850	55.00



# Mounting Supplies

Miscellaneous Mounting Supplies				
Description		Quantity	Part #	Price
Silicone Aerosol Mold Release		16 oz	MS-152	\$16.00
Aka No-Stick Liquid Mold Release <i>for room temperature or cold mounting</i>		250 ml	CM-8420	30.00
Powder Mold Release <i>for hot or compression mounting</i>		50 g	MS-154	20.00
Stainless Steel Shot		1 lb	MS-512	22.00
Sample Clips, stainless steel coil		100/pkg	MS-090	54.00
Sample Clips, white plastic coil		100/pkg	MS-091	38.00
Aka-Trio Plastic Sample Clip, black		100/pkg	MS-8810	40.00
Sample Clips, clear plastic		100/pkg	92002663	49.00
Sample Clips, black plastic		100/pkg	92002707	49.00
Sample Clips, red plastic		100/pkg	92002708	49.00
Sample Clips, grey plastic		100/pkg	92002709	49.00



# Hot Mounting

## Compression Molding Powders

Formulated powders offer excellent edge retention and hardness. All thermosetting powders are designed to polymerize between 300° F and 350° F (150-177° C) at specific molding pressures.

Description	Molding Pressure		Quantity	Part #	Price
	PSI	Bar			
Phenolic Powders					
Black	2200-4900	152-338	5 lbs	MP-111-5	\$22.00
Black	2200-4900	152-338	25 lbs	MP-111-25	93.00
Black	2200-4900	152-338	50 lbs	MP-111-50	165.00
Black	2200-4900	152-338	275 lbs	MP-111-275	847.00
Black Fine Grind	2200-4900	152-338	5 lbs	MP-142-5	72.00
Black Fine Grind	2200-4900	152-338	25 lbs	MP-142-25	306.00
Black Fine Grind	2200-4900	152-338	50 lbs	MP-142-50	576.00
Red	2200-4900	152-338	5 lbs	MP-118-5	30.00
Red	2200-4900	152-338	25 lbs	MP-118-25	127.00
Red	2200-4900	152-338	50 lbs	MP-118-50	225.00
Red	2200-4900	152-338	250 lbs	MP-118-250	1050.00
Green	2200-4900	152-338	5 lbs	MP-123-5	30.00
Green	2200-4900	152-338	25 lbs	MP-123-25	127.00
Green	2200-4900	152-338	50 lbs	MP-123-50	225.00
Green	2200-4900	152-338	250 lbs	MP-123-250	1050.00

The **ATM Floor Model Mounting Presses**, built into SystemLab cabinets for seamless integration with your lab, available in two and three unit models



# Hot Mounting

## Specialty Molding Powders

All specialty powders are designed to polymerize between 300° F and 350° F (150-177° C) at specific molding pressures.

Description	Molding Pressure		Quantity	Part #	Price
	PSI	Bar			
Diallyl Phthalate Powders					
Mineral Filled, Blue	3500-5000	241-345	5 lbs	MP-135-5	\$105.00
Mineral Filled, Blue	3500-5000	241-345	25 lbs	MP-135-25	446.00
Mineral Filled, Blue	3500-5000	241-345	50 lbs	MP-135-50	840.00
Glass Filled, Blue	3500-5000	241-345	5 lbs	MP-137-5	115.00
Glass Filled, Blue	3500-5000	241-345	25 lbs	MP-137-25	487.00
Glass Filled, Blue	3500-5000	241-345	50 lbs	MP-137-50	920.00
Lucite™ Powder					
Transparent	3000	207	5 lbs	MP-140-5	65.00
Transparent	3000	207	25 lbs	MP-140-25	276.00
Transparent	3000	207	50 lbs	MP-140-50	520.00
Epoxy Powder					
Black Epoxy Powder	2000-4200	138-290	5 lbs	MP-141-5	72.00
Black Epoxy Powder	2000-4200	138-290	25 lbs	MP-141-25	306.00
Black Epoxy Powder	2000-4200	138-290	50 lbs	MP-141-50	576.00
Conductive/SEM Powder					
Graphite filled; high conductivity; <0.5% voltage loss					
Technotherm™ 3000	1200-2000	83-138	1 kg (2.2 lbs)	MP-160-2	120.00

The **ATM Opal 460 Mounting Press** features a large LCD display with an easy to use interface, easily interchangeable mold assembly and double mount capabilities to increase productivity



# Grinding Stones

## Grinding Stones

Stones designed to fit the ATM Stone Grinder and Struers Abraplan™ stone grinding machines. Optimized abrasive and bond type will reduce dressing and produce a finer finish.

Description	Grit Size	Quantity	Part #	Price
For ATM Universal Stone Grinder, Abraplan™				
356 mm Al <sub>2</sub> O <sub>3</sub> Stone	60 grit	each	GP-981	\$505.00
356 mm Al <sub>2</sub> O <sub>3</sub> Stone	150 grit	each	GP-982	505.00
356 mm SiC Stone	150 grit	each	GP-986	520.00
For ATM SA375 Stone Grinder				
350 mm Al <sub>2</sub> O <sub>3</sub> Stone with plate	100 grit	each	92008703	661.00
350 mm Al <sub>2</sub> O <sub>3</sub> Stone with plate	180 grit	each	92008709	728.00
350 mm SiC Stone with plate	80 grit	each	92008704	735.00

The **ATM Stone Grinder** is a high speed grinding machine with automatic dressing for fast plane grinding



## SiC Grit Abrasive Grading Comparison Chart

<b>USA (ANSI/CAMI)</b>									
Grit Size	80	120	180	240	320	400	600		
Approximate Micron Size (µm)	190	115	80	53	36	23	16		
<b>European (FEPA)</b>									
Grit Size	P80	P120	P180	P220	P500	P800	P1200	P2400	P4000
Approximate Micron Size (µm)	200	125	82	68	30	22	15	9	5

**USA - ANSI/CAMI** graded papers in both pressure sensitive adhesive back (PSA) and plain back formats. Heavy duty C-weight papers manufactured especially for us are waterproof and tough. Papers will not wrinkle with water cooling and the heavy backing will keep the papers from tearing up in automated preparation machines. PSA papers are tabbed for easy removal of the backing. Cut to inch (") dimensions.

**European - FEPA** graded papers in plain back formats. Heavy, waterproof C-weight paper backing with a unique electrostatically coated abrasive layer. E-coating makes the elongated SiC grains stand on end, creating a faster cutting grinding paper. P-grading assures a tighter size distribution of abrasive grain producing less scratching and a finer finish. These papers are cut to metric (mm) dimensions for use with clamping rings, adhesive discs or our new Rhaco adaptor.

## Grit Grabbers

Grit Grabbers are double-sided adhesive discs that can be used to adhere non-adhesive discs to the working wheel. Special gum rubber adhesive allows reuse of the discs for up to 50 grinding papers.

Description	Quantity	Part #	Price
8" Grit Grabbers	10/pkg	GP-400	\$30.00
10" Grit Grabbers	10/pkg	GP-402	50.00
12" Grit Grabbers	10/pkg	GP-404	60.00

## Aka-Rhaco Disc

Metal backed intermediate disc for magnetic systems. Plain back and PSA SiC papers adhere to the top, gel adhesive layer of the disc. The rigid backing helps to maintain flatness. *Works with Mager CAMI and FEPA plain back papers* as well as any PSA, Mylar or Foil backed grinding paper. Minimum life is 200+ plain back papers, 500+ papers with plastic/polymer backing.

Description	Quantity	Part #	Price
200 mm Aka-Rhaco Disc	each	GP-4312	\$58.00
250 mm Aka-Rhaco Disc	each	GP-4322	66.00
300 mm Aka-Rhaco Disc	each	GP-4332	80.00

# 8" Grinding

## 200 mm (8") FEPA Silicon Carbide Grinding Discs

Description	Grit Size	Quantity	Part #	Price
200 mm SiC plain back	P120	100 discs	GPE-8-120	\$75.00
200 mm SiC plain back	P220	100 discs	GPE-8-220	75.00
200 mm SiC plain back	P320	100 discs	GPE-8-320	75.00
200 mm SiC plain back	P500	100 discs	GPE-8-500	75.00
200 mm SiC plain back	P800	100 discs	GPE-8-800	75.00
200 mm SiC plain back	P1200	100 discs	GPE-8-1200	75.00
200 mm SiC plain back	P2400	100 discs	GPE-8-2400	108.00
200 mm SiC plain back	P4000	100 discs	GPE-8-4000	108.00

## Disc Adaptors

Grit Grabbers are double-sided adhesive discs that can be used to adhere non-adhesive discs to the working wheel. Special gum rubber adhesive allows reuse of the discs for up to 50 grinding papers. The Aka-Rhaco is a metal backed intermediate disc with a reusable gel adhesive layer that converts plain or adhesive backed grinding papers into rigid grinding discs. Minimum life is 200+ plain back papers, 500+ papers with plastic/polymer backing.

Description	Quantity	Part #	Price
8" Grit Grabbers	10/pkg	GP-400	\$30.00
200 mm Aka-Rhaco Disc	each	GP-4312	58.00
200 mm Magnetic Foil for 8" wheel	each	GP-8528	45.00

The **ATM Saphir 330**  
**8" or 10" Grinder/Polisher**  
is part of the Saphir series high  
torque machines with variable  
speed motors and welded  
aluminum chassis



# 8" Grinding

## 8" (203 mm) CAMI Silicon Carbide Grinding Discs, Plain Back

Description	Grit Size	Quantity	Part #	Price
8" SiC plain back	60 grit	100 discs	GP-100	\$78.00
8" SiC plain back	80 grit	100 discs	GP-101	60.00
8" SiC plain back	120 grit	100 discs	GP-102	60.00
8" SiC plain back	120 grit	500 discs	GP-102V	265.00
8" SiC plain back	180 grit	100 discs	GP-104	50.00
8" SiC plain back	180 grit	500 discs	GP-104V	225.00
8" SiC plain back	240 grit	100 discs	GP-106	50.00
8" SiC plain back	240 grit	500 discs	GP-106V	225.00
8" SiC plain back	320 grit	100 discs	GP-108	50.00
8" SiC plain back	320 grit	500 discs	GP-108V	225.00
8" SiC plain back	400 grit	100 discs	GP-110	50.00
8" SiC plain back	400 grit	500 discs	GP-110V	225.00
8" SiC plain back	600 grit	100 discs	GP-112	50.00
8" SiC plain back	600 grit	500 discs	GP-112V	225.00

## 8" (203 mm) CAMI Silicon Carbide Grinding Discs, PSA Back

Description	Grit Size	Quantity	Part #	Price
8" SiC PSA back	60 grit	100 discs	GP-142	\$120.00
8" SiC PSA back	80 grit	100 discs	GP-143	95.00
8" SiC PSA back	120 grit	100 discs	GP-144	95.00
8" SiC PSA back	120 grit	500 discs	GP-144V	440.00
8" SiC PSA back	180 grit	100 discs	GP-146	85.00
8" SiC PSA back	180 grit	500 discs	GP-146V	380.00
8" SiC PSA back	240 grit	100 discs	GP-148	85.00
8" SiC PSA back	240 grit	500 discs	GP-148V	380.00
8" SiC PSA back	320 grit	100 discs	GP-150	85.00
8" SiC PSA back	320 grit	500 discs	GP-150V	380.00
8" SiC PSA back	400 grit	100 discs	GP-152	85.00
8" SiC PSA back	400 grit	500 discs	GP-152V	380.00
8" SiC PSA back	600 grit	100 discs	GP-154	85.00
8" SiC PSA back	600 grit	500 discs	GP-154V	380.00

# 10" Grinding

## 250 mm (10") FEPA Silicon Carbide Grinding Discs

Description	Grit Size	Quantity	Part #	Price
250 mm SiC plain back	P120	100 discs	GPE-10-120	\$105.00
250 mm SiC plain back	P220	100 discs	GPE-10-220	105.00
250 mm SiC plain back	P320	100 discs	GPE-10-320	105.00
250 mm SiC plain back	P500	100 discs	GPE-10-500	105.00
250 mm SiC plain back	P800	100 discs	GPE-10-800	105.00
250 mm SiC plain back	P1200	100 discs	GPE-10-1200	105.00
250 mm SiC plain back	P2400	100 discs	GPE-10-2400	147.00
250 mm SiC plain back	P4000	100 discs	GPE-10-4000	147.00

## Disc Adaptors

Grit Grabbers are double-sided adhesive discs that can be used to adhere non-adhesive discs to the working wheel. Special gum rubber adhesive allows reuse of the discs for up to 50 grinding papers. The Aka-Rhaco is a metal backed intermediate disc with a reusable gel adhesive layer that converts plain or adhesive backed grinding papers into rigid grinding discs. Minimum life is 200+ plain back papers, 500+ papers with plastic/polymer backing.

Description	Quantity	Part #	Price
10" Grit Grabbers	10/pkg	GP-402	\$50.00
250 mm Aka-Rhaco Disc	each	GP-4322	66.00
250 mm Magnetic Foil for 10" wheel	each	GP-5820	51.00

**ATM Floor Model Grinding/  
Polishing units** are available  
in 8", 10" and 12" formats





# 10" Grinding

## 10" (254 mm) CAMI Silicon Carbide Grinding Discs, Plain Back

Description	Grit Size	Quantity	Part #	Price
10" SiC plain back	60 grit	100 discs	GP-601	\$120.00
10" SiC plain back	80 grit	100 discs	GP-603	95.00
10" SiC plain back	120 grit	100 discs	GP-605	95.00
10" SiC plain back	120 grit	500 discs	GP-605V	425.00
10" SiC plain back	180 grit	100 discs	GP-607	75.00
10" SiC plain back	180 grit	500 discs	GP-607V	340.00
10" SiC plain back	240 grit	100 discs	GP-609	75.00
10" SiC plain back	240 grit	500 discs	GP-609V	340.00
10" SiC plain back	320 grit	100 discs	GP-611	75.00
10" SiC plain back	320 grit	500 discs	GP-611V	340.00
10" SiC plain back	400 grit	100 discs	GP-613	75.00
10" SiC plain back	400 grit	500 discs	GP-613V	340.00
10" SiC plain back	600 grit	100 discs	GP-615	75.00
10" SiC plain back	600 grit	500 discs	GP-615V	340.00

## 10" (254 mm) CAMI Silicon Carbide Grinding Discs, PSA Back

Description	Grit Size	Quantity	Part #	Price
10" SiC PSA back	60 grit	100 discs	GP-600	\$200.00
10" SiC PSA back	80 grit	100 discs	GP-602	160.00
10" SiC PSA back	120 grit	100 discs	GP-604	160.00
10" SiC PSA back	120 grit	500 discs	GP-604V	720.00
10" SiC PSA back	180 grit	100 discs	GP-606	120.00
10" SiC PSA back	180 grit	500 discs	GP-606V	540.00
10" SiC PSA back	240 grit	100 discs	GP-608	120.00
10" SiC PSA back	240 grit	500 discs	GP-608V	540.00
10" SiC PSA back	320 grit	100 discs	GP-610	120.00
10" SiC PSA back	320 grit	500 discs	GP-610V	540.00
10" SiC PSA back	400 grit	100 discs	GP-612	120.00
10" SiC PSA back	400 grit	500 discs	GP-612V	540.00
10" SiC PSA back	600 grit	100 discs	GP-614	120.00
10" SiC PSA back	600 grit	500 discs	GP-614V	540.00

# 12" Grinding

## 300 mm (12") FEPA Silicon Carbide Grinding Discs

Description	Grit Size	Quantity	Part #	Price
300 mm SiC plain back	P120	100 discs	GPE-12-120	\$135.00
300 mm SiC plain back	P220	100 discs	GPE-12-220	135.00
300 mm SiC plain back	P320	100 discs	GPE-12-320	135.00
300 mm SiC plain back	P500	100 discs	GPE-12-500	135.00
300 mm SiC plain back	P800	100 discs	GPE-12-800	135.00
300 mm SiC plain back	P1200	100 discs	GPE-12-1200	135.00
300 mm SiC plain back	P2400	100 discs	GPE-12-2400	183.00
300 mm SiC plain back	P4000	100 discs	GPE-12-4000	183.00

## Disc Adaptors

Grit Grabbers are double-sided adhesive discs that can be used to adhere non-adhesive discs to the working wheel. Special gum rubber adhesive allows reuse of the discs for up to 50 grinding papers. The Aka-Rhaco is a metal backed intermediate disc with a reusable gel adhesive layer that converts plain or adhesive backed grinding papers into rigid grinding discs. Minimum life is 200+ plain back papers, 500+ papers with plastic/polymer backing.

Description	Quantity	Part #	Price
12" Grit Grabbers	10/pkg	GP-404	\$60.00
300 mm Aka-Rhaco Disc	each	GP-4332	80.00
300 mm Magnetic Foil for 12" wheel	each	GP-5822	58.00

**Floor Model Grinding/Polishing units**  
can be configured multiple ways,  
ensuring safety and functionality



# 12" Grinding

## 12" (305 mm) CAMI Silicon Carbide Grinding Discs, Plain Back

Description	Grit Size	Quantity	Part #	Price
12" SiC plain back	60 grit	100 discs	GP-171	\$135.00
12" SiC plain back	80 grit	100 discs	GP-171-80	115.00
12" SiC plain back	120 grit	100 discs	GP-173	115.00
12" SiC plain back	120 grit	500 discs	GP-173V	520.00
12" SiC plain back	180 grit	100 discs	GP-175	100.00
12" SiC plain back	180 grit	500 discs	GP-175V	450.00
12" SiC plain back	240 grit	100 discs	GP-177	100.00
12" SiC plain back	240 grit	500 discs	GP-177V	450.00
12" SiC plain back	320 grit	100 discs	GP-179	100.00
12" SiC plain back	320 grit	500 discs	GP-179V	450.00
12" SiC plain back	400 grit	100 discs	GP-181	100.00
12" SiC plain back	400 grit	500 discs	GP-181V	450.00
12" SiC plain back	600 grit	100 discs	GP-183	100.00
12" SiC plain back	600 grit	500 discs	GP-183V	450.00

## 12" (305 mm) CAMI Silicon Carbide Grinding Discs, PSA Back

Description	Grit Size	Quantity	Part #	Price
12" SiC PSA back	60 grit	100 discs	GP-170	\$210.00
12" SiC PSA back	80 grit	100 discs	GP-170-80	185.00
12" SiC PSA back	120 grit	100 discs	GP-172	185.00
12" SiC PSA back	120 grit	500 discs	GP-172V	835.00
12" SiC PSA back	180 grit	100 discs	GP-174	160.00
12" SiC PSA back	180 grit	500 discs	GP-174V	720.00
12" SiC PSA back	240 grit	100 discs	GP-176	160.00
12" SiC PSA back	240 grit	500 discs	GP-176V	720.00
12" SiC PSA back	320 grit	100 discs	GP-178	160.00
12" SiC PSA back	320 grit	500 discs	GP-178V	720.00
12" SiC PSA back	400 grit	100 discs	GP-180	160.00
12" SiC PSA back	400 grit	500 discs	GP-180V	720.00
12" SiC PSA back	600 grit	100 discs	GP-182	160.00
12" SiC PSA back	600 grit	500 discs	GP-182V	720.00

# Coarse Grinding

## Silicon Carbide Grinding Belts

Description	Grit Size	Quantity	Part #	Price
4 X 36" SiC Belt Smooth Splice	50 grit	10/box	GP-240	\$97.00
4 X 36" SiC Belt Smooth Splice	80 grit	10/box	GP-242	87.00
4 X 36" SiC Belt Smooth Splice	120 grit	10/box	GP-246	86.00
4 X 36" SiC Belt Smooth Splice	180 grit	10/box	GP-248	86.00

## Zirconia Alumina (ZirAl) Grinding Products

ZirAl abrasive discs and belts may be used for wet or dry grinding. These products have a fast cutting rate and operate cooler than Silicon Carbide (SiC) abrasives. ZirAl products have a longer life than SiC. Please note the package quantities are different from standard SiC packaging.

Description	Grit Size	Quantity	Part #	Price
8" ZirAl Disc PSA back	60 grit	50/box	GP-520	\$158.00
12" ZirAl Disc PSA back	60 grit	25/box	GP-570	180.00
4 x 36" ZirAl Belt Smooth Splice	60 grit	5/box	GP-241	63.00

The **ATM Jade 700 Belt Grinder** is the perfect solution for quickly deburring parts or preparing them for X-ray chemical analysis. Stainless steel wear plates and belt covers assure years of trouble free use



## Aka-Apps have arrived!

Are you ready to improve sample preparation quality or curious if the 'new school' magnetic disc products will work for your lab? Akasel has developed application procedures based on their products for specific material groups. Each Aka-App is a comprehensive system that will deliver superior results to your lab.

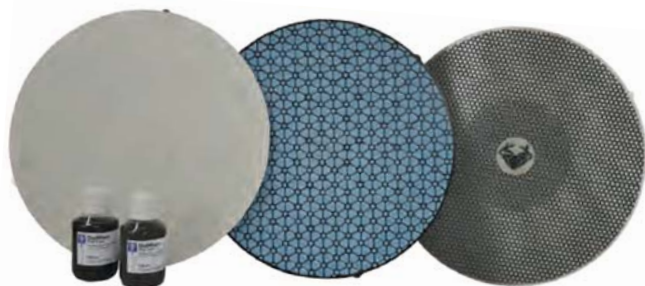
**Aka-Kit:** an introductory box of Akasel supplies that will allow you to evaluate the products and procedures outlined in the Aka-Note at a minimal investment

**Aka-Note:** Aka-Kits include a printed Aka-Note, which is a very detailed, step-by-step guide to performing the procedure steps exactly as tested at the Akasel research laboratory in Denmark

Aka-Kits are available in three size formats, 200 mm (8"), 250 mm (10") and 300 mm (12"). Everything you'll need to process your samples is included in the box.

Application specific kits include:

- Aka-Kit #1 Brass
- Aka-Kit #2 Ceramic Capacitors
- Aka-Kit #3 Titanium Alloys
- Aka-Kit #4 Aluminum Alloys
- Aka-Kit #5 Plasma Spray Coating (ceramic)
- Aka-Kit #6 Sintered Carbides
- Aka-Kit #7 Stainless and Duplex Steel
- Aka-Kit #8 Titanium Fasteners
- Aka-Kit #9 Carbon Composites
- Aka-Kit #10 Quick Method for Soft Materials 50-150 HV
- Aka-Kit #11 Quick Method for Medium Hard Materials 150-450 HV
- Aka-Kit #12 Quick Method for Hard Materials 450-2000 HV
- Aka-Kit #13 Electronic Parts
- Aka-Kit #14 Cast Iron
- Aka-Kit #15 Zinc Coated Steel



# Rigid Disc Grinding

## Akasel Diamond Grinding Discs

**Aka-Piatto** special resin bonded diamond grinding discs offer a significant improvement over other disc systems on the market. Color coded to grit size, they are designed to replace over 200 sheets of equivalent SiC grinding papers when used with a magnetic system. Uniform grind ensures perfect edge retention on a wide range of materials.



A computer simulation illustrates the actual wear pattern that develops on the grinding surface when using an automatic polisher. The highest wear areas are lighter in color. If you have used diamond grinding discs, you've probably noticed these areas wear out first.



Our Aka-Piatto diamond grinding discs have a wear compensation design that varies the density of abrasive pattern across the disc surface, concentrating more abrasive in the high wear regions. The result is higher removal rates, better surface flatness, and longer life compared to other brands. Add to this design a solid stainless steel base metal with finished edges and you will be amazed at the latest evolution in diamond grinding discs.

**Aka-Piatto+** is specifically designed for low-deformation grinding of very hard or brittle materials. The high diamond concentration yields smoother grinding which is particularly suitable for ceramics, cermets and other hard materials. The Aka-Piatto+ is a very economical solution to often costly diamond grinding platens.

**Aka-Largan** discs are highly effective for fine grinding and polishing of soft materials (<HV150). The combination of releasing built-in abrasive while applying diamond suspension allows for high removal rates, long life and perfectly plane samples. Largans may also be used to achieve superior edge retention on hard materials (>HV150) by replacing multiple polishing cloths with a single disc.

The **Aka-Allegran** fine grinding disc is designed to be used with diamond suspensions for the fine grinding step of materials above HV150. A small amount of suspension is required and superior results can be achieved with DiaMaxx suspensions. Low deformation fine grinding makes it possible to go right to a polishing cloth for a quick, final polish. The metal disc works directly on magnetic wheels.

## ATM Galaxy Diamond Grinding Discs

The **ATM Galaxy** system consists of five discs, optimal for use on medium to hard steels in manual and semi-automatic grinding. Designed to considerably reduce preparation time, these discs allow for taking samples from planar through fine grinding. Galaxy discs are used with water and easily integrate into any magnetic disc system.



# Rigid Disc Grinding

## 200 mm (8") Formats

Description	Equivalent Grit Size		Quantity	Part #	Price
Aka-Piatto 80	P80	(200 µm)	each	GP-6520	\$125.00
Aka-Piatto 120	P120	(125 µm)	each	GP-6530	115.00
Aka-Piatto 220	P220	(68 µm)	each	GP-6540	105.00
Aka-Piatto 600	P600	(26 µm)	each	GP-6550	105.00
Aka-Piatto 1200	P1200	(15 µm)	each	GP-6560	105.00
Aka-Piatto 2400	P2400	(6 µm)	each	GP-6570	120.00
Ⓢ Aka-Piatto 80+	P80	(200 µm)	each	GP-6522	190.00
Ⓢ Aka-Piatto 120+	P120	(125 µm)	each	GP-6532	170.00
Aka-Piatto 220+	P220	(68 µm)	each	GP-6542	155.00
Ⓢ Aka-Piatto 600+	P600	(26 µm)	each	GP-6552	155.00
Ⓢ Aka-Piatto 1200+	P1200	(15 µm)	each	GP-6562	155.00
Aka-Largan 9	use with 3-15 µm diamond for materials <150HV		each	GP-5020	73.00
Aka-Allegran 9 Fine Grind	use with 3-15 µm diamond		each	GP-5010	73.00
Aka-Allegran 3 Fine Grind	use with 3-15 µm diamond		each	GP-5015	73.00
Aka-Allegran 1 Fine Grind	use with 0.05-15 µm diamond		each	GP-5017	73.00

## Accessories

Description		Quantity	Part #	Price
Dressing Stick	25 x 25 x 150 mm	each	CO-10020	\$29.00
200 mm magnetic foil	for 8" wheel	each	GP-8528	45.00

Ⓢ Available via Special Order

The **ATM 520 Saphir Grinder/Polisher**, available in 8" or 10" wheel formats, offers precision control and reproducibility





# Rigid Disc Grinding

## 250 mm (10") Formats

Description	Equivalent Grit Size		Quantity	Part #	Price
Aka-Piatto 80	P80	(200 µm)	each	GP-6620	\$135.00
Aka-Piatto 120	P120	(125 µm)	each	GP-6630	125.00
Aka-Piatto 220	P220	(68 µm)	each	GP-6640	115.00
Aka-Piatto 600	P600	(26 µm)	each	GP-6650	115.00
Aka-Piatto 1200	P1200	(15 µm)	each	GP-6660	115.00
Aka-Piatto 2400	P2400	(6 µm)	each	GP-6670	135.00
Ⓢ Aka-Piatto 80+	P80	(200 µm)	each	GP-6622	195.00
Ⓢ Aka-Piatto 120+	P120	(125 µm)	each	GP-6632	180.00
Aka-Piatto 220+	P220	(68 µm)	each	GP-6642	175.00
Ⓢ Aka-Piatto 600+	P600	(26 µm)	each	GP-6652	175.00
Ⓢ Aka-Piatto 1200+	P1200	(15 µm)	each	GP-6662	175.00
ATM Galaxy, Grey	P80-100		each	95004279	135.00
ATM Galaxy, Red	P100-120		each	95004310	135.00
ATM Galaxy, Green	P180-320		each	95004311	115.00
ATM Galaxy, Blue	P400-600		each	95004312	115.00
ATM Galaxy, Yellow	P800-1000		each	95004313	115.00
Aka-Largan 9	use with 3-15 µm diamond for materials <150HV		each	GP-5120	80.00
Aka-Allegran 9 Fine Grind	use with 3-15 µm diamond		each	GP-5110	80.00
Aka-Allegran 3 Fine Grind	use with 3-15 µm diamond		each	GP-5115	80.00
Aka-Allegran 1 Fine Grind	use with 0.05-15 µm diamond		each	GP-5117	80.00

## Accessories

Description		Quantity	Part #	Price
Dressing Stick	25 x 25 x 150 mm	each	CO-10020	\$29.00
250 mm magnetic foil	for 10" wheel	each	GP-5820	51.00

Ⓢ Available via Special Order

# Rigid Disc Grinding

## 300 mm (12") Formats

Description	Equivalent Grit Size		Quantity	Part #	Price
Aka-Piatto 80	P80	(200 µm)	each	GP-6720	\$195.00
Aka-Piatto 120	P120	(125 µm)	each	GP-6730	180.00
Aka-Piatto 220	P220	(68 µm)	each	GP-6740	155.00
Aka-Piatto 600	P600	(26 µm)	each	GP-6750	155.00
Aka-Piatto 1200	P1200	(15 µm)	each	GP-6760	155.00
Aka-Piatto 2400	P2400	(6 µm)	each	GP-6770	195.00
Ⓢ Aka-Piatto 80+	P80	(200 µm)	each	GP-6722	295.00
Ⓢ Aka-Piatto 120+	P120	(125 µm)	each	GP-6732	245.00
Aka-Piatto 220+	P220	(68 µm)	each	GP-6742	245.00
Ⓢ Aka-Piatto 600+	P600	(26 µm)	each	GP-6752	245.00
Ⓢ Aka-Piatto 1200+	P1200	(15 µm)	each	GP-6762	245.00
ATM Galaxy, Grey	P80-100		each	95004280	170.00
ATM Galaxy, Red	P100-120		each	95004314	170.00
ATM Galaxy, Green	P180-320		each	95004315	155.00
ATM Galaxy, Blue	P400-600		each	95004316	155.00
ATM Galaxy, Yellow	P800-1000		each	95004317	155.00
Aka-Largan 9	use with 3-15 µm diamond for materials <150HV		each	GP-5220	92.00
Aka-Allegran 9 Fine Grind	use with 3-15 µm diamond		each	GP-5210	92.00
Aka-Allegran 3 Fine Grind	use with 3-15 µm diamond		each	GP-5215	92.00
Aka-Allegran 1 Fine Grind	use with 0.05-15 µm diamond		each	GP-5217	92.00

## Accessories

Description		Quantity	Part #	Price
Dressing Stick	25 x 25 x 150 mm	each	CO-10020	\$29.00
300 mm magnetic foil	for 12" wheel	each	GP-5822	58.00

Ⓢ Available via Special Order

# Rigid Disc Polishing

## Rigid Disc Polishing

All Mager polishing cloths are available in rigid disc format for use with magnetic wheels.

Description	Recommended Use	Quantity	Part #	Price
Plaran 8" Disc	Hard polymer fine grinding surface. Use with 9 µm diamond instead of fine grit papers. Low deformation fine grinding can be followed by 3 µm step.	each	PD-4570	\$28.00
Plaran 10" Disc		each	PD-4670	33.00
Plaran 12" Disc		each	PD-4770	43.00
Pan W 8" Disc	Classic 6 µm chemotextile cloth, typically followed by Magercloth and 1 µm diamond. For general polishing. Good for steel inclusion rating procedure.	each	PD-532	15.00
Pan W 10" Disc		each	PD-535	20.00
Pan W 12" Disc		each	PD-536	27.00
Dura Pan 8" Disc	Classic non-woven chemotextile cloth with reliable film vapor adhesive. Use with various µm sizes and alcohol or glycol-based lubricants.	each	PD-732	15.00
Dura Pan 10" Disc		each	PD-735	20.00
Dura Pan 12" Disc		each	PD-736	27.00
Daran 8" Disc	Hard woven cloth for polishing with 1 - 6 µm diamond. Flat closed structure and high hardness help to achieve superior flatness.	each	PD-4550	28.00
Daran 10" Disc		each	PD-4650	33.00
Daran 12" Disc		each	PD-4750	43.00
Ramda 8" Disc	Woven acetate cloth best suited for polishing with 3 µm diamond. Flat closed structure and hardness are great for achieving superior flatness.	each	PD-4555	24.00
Ramda 10" Disc		each	PD-4655	28.00
Ramda 12" Disc		each	PD-4755	35.00
Dura Dac 8" Disc	Synthetic Silk - Ideal application is 3 µm diamond polish. High removal rates and good final finish on steel and hard alloys.	each	PD-370	14.00
Dura Dac 10" Disc		each	PD-372	18.00
Dura Dac 12" Disc		each	PD-374	25.00
Tru-Mol 8" Disc	Woven white wool cloth for diamond polishing on softer materials. Typically used with 3 µm diamond before a final oxide polish.	each	PD-300	24.00
Tru-Mol 10" Disc		each	PD-302	30.00
Tru-Mol 12" Disc		each	PD-304	37.00
Syn-Nap 8" Disc	Synthetic napped cloth, excellent for manual polishing. Typically used for a fast 3 µm diamond polish of unmounted/mounted steel specimens.	each	PD-330	14.00
Syn-Nap 10" Disc		each	PD-332	18.00
Syn-Nap 12" Disc		each	PD-334	25.00
Plural 8" Disc	Flocked synthetic cloth for 3 and 1 µm diamond polishing. A durable cloth, excellent for unmounted samples or manual polishing.	each	PD-4530	28.00
Plural 10" Disc		each	PD-4630	33.00
Plural 12" Disc		each	PD-4730	43.00
Durasilk 8" Disc	Fine woven natural silk cloth. Tough weave with reliable film vapor adhesive. Use with various µm sizes and alcohol or glycol-based lubricants.	each	PD-320	18.00
Durasilk 10" Disc		each	PD-322	23.00
Durasilk 12" Disc		each	PD-324	33.00

# Rigid Disc Polishing

## Rigid Disc Polishing

All Mager polishing cloths are available in rigid disc format for use with magnetic wheels.

Description	Recommended Use	Quantity	Part #	Price
Magercloth 8" Disc	Final polishing with diamond, alumina or colloidal silica. Durable light brown rayon fiber cloth for high removal rates and good final polish.	each	PD-471	\$13.00
Magercloth 10" Disc		each	PD-475	16.00
Magercloth 12" Disc		each	PD-480	22.00
Napal 8" Disc	Soft napped cloth for fine polishing with diamond or oxides. Best results achieved when used with 1 µm or finer abrasives.	each	PD-4520	28.00
Napal 10" Disc		each	PD-4620	33.00
Napal 12" Disc		each	PD-4720	43.00
Dura Chem 8" Disc	Neoprene-style cloth for final polishing with oxide suspensions. Dense cellular structure for long-term durability.	each	PD-740	30.00
Dura Chem 10" Disc		each	PD-742	46.00
Dura Chem 12" Disc		each	PD-744	42.00
Chemal 8" Disc	Porous neoprene cloth for final polishing of all materials with oxide suspensions. Resistant to acidic and alkaline suspensions.	each	PD-4510	32.00
Chemal 10" Disc		each	PD-4610	41.00
Chemal 12" Disc		each	PD-4710	54.00

## Magnetic Disc Adaptor

Round, magnetic, PSA backed foils adhere directly to platen, enabling any system to use rigid polishing or grinding discs.

Description	Quantity	Part #	Price
200 mm magnetic foil for 8" wheel	each	GP-8528	\$45.00
250 mm magnetic foil for 10" wheel	each	GP-5820	51.00
300 mm magnetic foil for 12" wheel	each	GP-5822	58.00

# Polishing Cloths

## Polishing Cloths

All Mager polishing cloths come with a PSA backing.

Description	Recommended Use	Quantity	Part #	Price
Aka Plaran, 200 mm	Hard polymer fine grinding surface. Use with 9 µm diamond instead of fine grit papers. Low deformation fine grinding can be followed by 3 µm step.	5/pkg	PC-4570	\$80.00
Aka Plaran, 250 mm		5/pkg	PC-4670	110.00
Aka Plaran, 300 mm		5/pkg	PC-4770	140.00
Pan W 8"	Classic 6 µm chemotextile cloth, typically followed by Magercloth and 1 µm diamond. For general polishing. Good for steel inclusion rating procedure.	10/pkg	PC-532	62.00
Pan W 10"		10/pkg	PC-535	101.00
Pan W 12"		10/pkg	PC-536	137.00
Dura Pan 8"	Classic non-woven chemotextile cloth with reliable film vapor adhesive. Use with various µm sizes and alcohol or glycol-based lubricants.	10/pkg	PC-732	56.00
Dura Pan 10"		10/pkg	PC-735	97.00
Dura Pan 12"		10/pkg	PC-736	129.00
Aka Daran, 200 mm	Hard woven cloth for polishing with 1 - 6 µm diamond. Flat closed structure and high hardness help to achieve superior flatness.	5/pkg	PC-4550	80.00
Aka Daran, 250 mm		5/pkg	PC-4650	110.00
Aka Daran, 300 mm		5/pkg	PC-4750	140.00
Aka Ramda, 200 mm	Woven acetate cloth best suited for polishing with 3 µm diamond. Flat closed structure and hardness are great for achieving superior flatness.	5/pkg	PC-4555	69.00
Aka Ramda, 250 mm		5/pkg	PC-4655	91.00
Aka Ramda, 300 mm		5/pkg	PC-4755	105.00
Dura Dac 8"	Synthetic Silk - Ideal application is 3 µm diamond polish. High removal rates and good final finish on steel and hard alloys.	10/pkg	PC-370	50.00
Dura Dac 10"		10/pkg	PC-372	78.00
Dura Dac 12"		10/pkg	PC-374	110.00
Tru-Mol 8"	Woven white wool cloth for diamond polishing on softer materials. Typically used with 3 µm diamond before a final oxide polish.	10/pkg	PC-300	135.00
Tru-Mol 10"		10/pkg	PC-302	190.00
Tru-Mol 12"		10/pkg	PC-304	235.00
Syn-Nap 8"	Synthetic napped cloth, excellent for manual polishing. Typically used for a fast 3 µm diamond polish of unmounted/mounted steel specimens.	10/pkg	PC-330	50.00
Syn-Nap 10"		10/pkg	PC-332	78.00
Syn-Nap 12"		10/pkg	PC-334	110.00
Aka Plural, 200 mm	Flocked synthetic cloth for 3 and 1 µm diamond polishing. A durable cloth, excellent for unmounted samples or manual polishing.	5/pkg	PC-4530	80.00
Aka Plural, 250 mm		5/pkg	PC-4630	110.00
Aka Plural, 300 mm		5/pkg	PC-4730	140.00
Durasilk 8"	Fine woven natural silk cloth. Tough weave with reliable film vapor adhesive. Use with various µm sizes and alcohol or glycol-based lubricants.	10/pkg	PC-320	97.00
Durasilk 10"		10/pkg	PC-322	143.00
Durasilk 12"		10/pkg	PC-324	215.00

# Polishing Cloths

## Polishing Cloths

All Mager polishing cloths come with a PSA backing.

Description	Recommended Use	Quantity	Part #	Price
Magercloth 8"	Final polishing with diamond, alumina or colloidal silica. Durable light brown rayon fiber cloth for high removal rates and good final polish.	10/pkg	PC-471	\$42.00
Magercloth 10"		10/pkg	PC-475	65.00
Magercloth 12"		10/pkg	PC-480	90.00
Aka Napal, 200 mm	Soft napped cloth for fine polishing with diamond or oxides. Best results achieved when used with 1 $\mu$ m or finer abrasives.	5/pkg	PC-4520	80.00
Aka Napal, 250 mm		5/pkg	PC-4620	110.00
Aka Napal, 300 mm		5/pkg	PC-4720	140.00
Dura Chem 8"	Neoprene-style cloth for final polishing with oxide suspensions. Dense cellular structure for long-term durability.	10/pkg	PC-740	185.00
Dura Chem 10"		10/pkg	PC-742	305.00
Dura Chem 12"		10/pkg	PC-744	350.00
Aka Chermal, 200 mm	Porous neoprene cloth for final polishing of all materials with oxide suspensions. Resistant to acidic and alkaline suspensions.	5/pkg	PC-4510	115.00
Aka Chermal, 250 mm		5/pkg	PC-4610	155.00
Aka Chermal, 300 mm		5/pkg	PC-4710	199.00

The **ATM Saphir 560 Grinder/Polisher** is ideally suited for a variety of tasks such as handling large sample sizes and processing high volume applications



# Polishing Accessories

## Magnetic Disc Adaptor

Round, magnetic, PSA backed foils adhere directly to platen, enabling any system to use rigid polishing or grinding discs.

Description	Quantity	Part #	Price
200 mm magnetic foil for 8" wheel	each	GP-8528	\$45.00
250 mm magnetic foil for 10" wheel	each	GP-5820	51.00
300 mm magnetic foil for 12" wheel	each	GP-5822	58.00

## Aka-Ronan Disc

Intermediate disc to allow use of adhesive (PSA) backed cloths on magnetic disc systems. Unique 3D textured surface eliminates air bubbles and makes polishing cloths more efficient.

Description	Quantity	Part #	Price
Aka-Ronan 200 mm Disc for 8" adhesive cloths	each	GP-4310	\$44.00
Aka-Ronan 250 mm Disc for 10" adhesive cloths	each	GP-4320	48.00
Aka-Ronan 300 mm Disc for 12" adhesive cloths	each	GP-4330	52.00

## Aka-Rhaco Disc

Metal backed intermediate disc with reusable gel adhesive layer converts adhesive backed polishing cloths into rigid polishing discs. Remove the protective barrier from the gel surface and apply your cloth with backing liner still intact.

Description	Quantity	Part #	Price
Aka-Rhaco 200 mm Disc	each	GP-4312	\$58.00
Aka-Rhaco 250 mm Disc	each	GP-4322	66.00
Aka-Rhaco 300 mm Disc	each	GP-4332	80.00

## Rigid Disc

These rigid metal discs can be used to convert an adhesive backed polishing cloth into a rigid polishing disc. The polishing cloth is applied directly to the rigid disc.

Description	Quantity	Part #	Price
Rigid Polishing Disc, 8" (No Cloth)	each	PD-8	\$8.00
Rigid Polishing Disc, 10" (No Cloth)	each	PD-10	9.00
Rigid Polishing Disc, 12" (No Cloth)	each	PD-12	12.00



# Diamond Polishing

## Inside Mager Diamonds

Mager's diamond suspensions are **packaged** in metric sizes.

Unit of Measure	Ounces	Quarts	Gallons
250 ml	8.456	0.264	0.066
500 ml	16.912	0.528	0.132
1 L (1000 ml)	33.824	1.057	0.264
5 L (5000 ml)	169.120	5.285	1.321

Tight tolerances on **particle size** produce superior diamonds. Modern sorting techniques utilizing electronic and optical quality control ensure that our monocrystalline and polycrystalline diamonds adhere to the tightest industry standards. This consistency affords you highly reproducible results.

Grain Size	Median (50%)	Median Tolerance	Max. Grain Size (99%)
0.05	0.05	0.04 - 0.06	0.15
0.1	0.09	0.07 - 0.11	0.25
0.25	0.21	0.18 - 0.24	0.53
1.0	1.0	0.95 - 1.05	1.70
3.0	2.84	2.70 - 2.97	4.10
6.0	5.7	5.42 - 5.98	7.90
9.0	9.6	9.12 - 10.08	12.90

Diamond **concentration** impacts the preparation time and quality of your results. Our suspensions are packed with up to 50% more diamond than competing products. Permanent suspension ensures a consistent amount of diamond is dispensed with each dose. The higher concentration will give you a finer finish, providing superior results in up to 30% less time.

Product	Diamond Content
PolyLube All-In-One Suspension	10 ct/L
DiaMaxx All-In-One Suspensions	20 ct/L
Polycrystalline & Monocrystalline Suspension	20 ct/L
Polycrystalline+ Suspension	40 ct/L
Polycrystalline & Monocrystalline Sticks	250 ct/L
Polycrystalline Paste	500 ct/L

Choice of **lubricant** is also important. Lubricant creates distance between the sample and the abrasive. A thin film yields high contact, causing "deeper" scratches and higher removal—desirable in fine grinding or polishing of all but the softest materials. Conversely, a thick film offers low contact. This results in finer scratches and lower removal during final polishing or when preparing soft materials such as copper and aluminum.

Product	Lubricant Layer
Blue Diamond Lubricant	Thinnest
Aka-Lube Blue	
Aka-Lube Clear+	
Green Diamond Lubricant	
Diamond Paste Thinner	
Lapping Oil	
	Thickest

# Diamond Polishing

Synthetic diamonds are manufactured to create **Polycrystalline** diamond form crystal lattices. In simple terms, they look more like rock candy than gem stones. During polishing, multiple cutting facets produce a finer finish in less time. Other benefits include longer cloth life and better micron size control. All diamond types are not the same; polycrystalline diamond is the best choice for the metallography lab.

## Polycrystalline Diamond Suspensions

High concentration suspensions are designed to be used with diamond lubricants. Made specifically for automatic dosing systems, the diamond will not settle out of suspension and is accurately size graded for the best finish possible.

Description	Micron Size	Quantity	Part #	Price
Polycrystalline Diamond Suspension	0.05 µm	250 ml	DC-2203	\$150.00
Polycrystalline Diamond Suspension	0.1 µm	250 ml	DC-2205	145.00
Polycrystalline Diamond Suspension	0.25 µm	250 ml	DC-2210	90.00
Polycrystalline Diamond Suspension	0.5 µm	250 ml	DC-2219	88.00
Polycrystalline Diamond Suspension	1.0 µm	250 ml	DC-2220	83.00
Polycrystalline Diamond Suspension	1.0 µm	5 L	DC-2225	1328.00
Polycrystalline Diamond Suspension	3.0 µm	250 ml	DC-2230	83.00
Polycrystalline Diamond Suspension	3.0 µm	5 L	DC-2235	1328.00
Polycrystalline Diamond Suspension	6.0 µm	250 ml	DC-2240	83.00
Polycrystalline Diamond Suspension	6.0 µm	5 L	DC-2245	1328.00
Polycrystalline Diamond Suspension	9.0 µm	250 ml	DC-2250	83.00
Polycrystalline Diamond Suspension	9.0 µm	5 L	DC-2255	1328.00

## Polycrystalline+ Diamond Suspensions

This higher concentration version of our regular polycrystalline diamond product is ideal for preparing very hard or brittle materials.

Description	Micron Size	Quantity	Part #	Price
Polycrystalline+ Diamond Suspension	1.0 µm	250 ml	DC-2223	\$132.00
Polycrystalline+ Diamond Suspension	3.0 µm	250 ml	DC-2233	132.00
Polycrystalline+ Diamond Suspension	6.0 µm	250 ml	DC-2243	132.00
Polycrystalline+ Diamond Suspension	9.0 µm	250 ml	DC-2253	132.00

# Diamond Polishing

## DiaMaxx Polycrystalline All-In-One Diamond Suspensions

Water based permanent diamond suspension formulated with a nano-emulsion of stringently graded diamonds and an environmentally safe lubricant. The unique lubrication qualities of DiaMaxx Poly couple with the multi-faceted polycrystalline diamond to produce superior finishes while reducing preparation times. The suspensions are excellent for automatic dosing.

Description	Micron Size	Quantity	Part #	Price
DiaMaxx Poly Diamond Suspension	0.25 µm	500 ml	DC-301000	\$125.00
DiaMaxx Poly Diamond Suspension	0.25 µm	5 L	DC-301500	1125.00
DiaMaxx Poly Diamond Suspension	1.0 µm	500 ml	DC-302000	125.00
DiaMaxx Poly Diamond Suspension	1.0 µm	5 L	DC-302500	1125.00
DiaMaxx Poly Diamond Suspension	3.0 µm	500 ml	DC-303000	125.00
DiaMaxx Poly Diamond Suspension	3.0 µm	5 L	DC-303500	1125.00
DiaMaxx Poly Diamond Suspension	6.0 µm	500 ml	DC-304000	125.00
DiaMaxx Poly Diamond Suspension	6.0 µm	5 L	DC-304500	1125.00
DiaMaxx Poly Diamond Suspension	9.0 µm	500 ml	DC-305000	125.00
DiaMaxx Poly Diamond Suspension	9.0 µm	5 L	DC-305500	1125.00

## PolyLube All-In-One Diamond Suspensions

Oil based permanent diamond suspensions are pre-blended with lubricant, specifically designed to give high rates of removal for each micron size. These are excellent suspensions for manual or automatic dosing and do not require additional lubricant.

Description	Micron Size	Quantity	Part #	Price
PolyLube Diamond Suspension	0.25 µm	500 ml	DC-3010	\$80.00
PolyLube Diamond Suspension	0.25 µm	5 L	DC-3015	640.00
PolyLube Diamond Suspension	1.0 µm	500 ml	DC-3020	80.00
PolyLube Diamond Suspension	1.0 µm	5 L	DC-3025	640.00
PolyLube Diamond Suspension	3.0 µm	500 ml	DC-3030	80.00
PolyLube Diamond Suspension	3.0 µm	5 L	DC-3035	640.00
PolyLube Diamond Suspension	6.0 µm	500 ml	DC-3040	80.00
PolyLube Diamond Suspension	6.0 µm	5 L	DC-3045	640.00
PolyLube Diamond Suspension	9.0 µm	500 ml	DC-3050	80.00
PolyLube Diamond Suspension	9.0 µm	5 L	DC-3055	640.00

# Diamond Polishing

## Diamond Polishing Accessories

Description	Quantity	Part #	Price
500 ml Spray Bottle - Grey	each	MS-401	\$6.00
500 ml Spray Bottle - Blue	each	MS-403	6.00
500 ml Spray Bottle - Yellow	each	MS-406	6.00
500 ml Spray Bottle - Red	each	MS-409	6.00
500 ml Spray Bottle - Green	each	MS-415	6.00
500 ml Aka-Clean	each	MS-10000	19.00

## Diamond Polishing Lubricants

Description	Quantity	Part #	Price
Diamond Paste Thinner	1 quart	DP-700	\$16.00
Diamond Paste Thinner	1 gallon	DP-702	50.00
Lapping Oil	1 quart	DP-706	15.00
Lapping Oil	1 gallon	DP-708	44.00
Green Diamond Lubricant	1 gallon	DP-3610	78.00
Green Diamond Lubricant	5 gallons	DP-3620	351.00
⚠ Blue Diamond Lubricant	1 gallon	DP-710	73.00
⚠ Blue Diamond Lubricant	5 gallons	DP-712	325.00
⚠ Aka-Lube Blue Diamond Lubricant	1 L	DP-3500	42.00
Aka-Lube Clear+ Lubricant	1 L	DP-3800	40.00
Aka-Lube Clear Water-Free Lubricant	1 L	DP-3850	40.00

⚠ Ground shipments only - Hazardous shipping fees may apply

The **ATM Topas 130 Automated Dispensing Unit** can be adapted to any polishing machine for controlled peristaltic diamond dosing



# Diamond Polishing

**Monocrystalline** synthetic diamonds are developed for general metallographic polishing. Less expensive to produce, these diamonds are an excellent choice to reduce lab costs for routine work.

## Monocrystalline Diamond Suspensions

Water based permanent suspensions are designed to be used in conjunction with diamond lubricants. They work well with manual or automatic dosing and are a good way to reduce costs for routine metallography.

Description	Micron Size	Quantity	Part #	Price
Monocrystalline Diamond Suspension	1.0 µm	250 ml	DC-2320	\$52.00
Monocrystalline Diamond Suspension	1.0 µm	5 L	DC-2325	832.00
Monocrystalline Diamond Suspension	3.0 µm	250 ml	DC-2330	52.00
Monocrystalline Diamond Suspension	3.0 µm	5 L	DC-2335	832.00
Monocrystalline Diamond Suspension	6.0 µm	250 ml	DC-2340	52.00
Monocrystalline Diamond Suspension	6.0 µm	5 L	DC-2345	832.00
Monocrystalline Diamond Suspension	9.0 µm	250 ml	DC-2350	52.00
Monocrystalline Diamond Suspension	9.0 µm	5 L	DC-2355	832.00

## DiaMaxx All-In-One Diamond Suspensions

Permanent diamond suspensions formulated with a nano-emulsion of stringently graded diamonds and an environmentally safe lubricant. The unique lubrication qualities of DiaMaxx produces superior surface finishes while reducing preparation times. The suspensions are excellent for automatic dosing.

Description	Micron Size	Quantity	Part #	Price
DiaMaxx Diamond Suspension	1.0 µm	500 ml	DC-3220	\$86.00
DiaMaxx Diamond Suspension	1.0 µm	5 L	DC-3225	775.00
DiaMaxx Diamond Suspension	3.0 µm	500 ml	DC-3230	86.00
DiaMaxx Diamond Suspension	3.0 µm	5 L	DC-3235	775.00
DiaMaxx Diamond Suspension	6.0 µm	500 ml	DC-3240	86.00
DiaMaxx Diamond Suspension	6.0 µm	5 L	DC-3245	775.00
DiaMaxx Diamond Suspension	9.0 µm	500 ml	DC-3250	86.00
DiaMaxx Diamond Suspension	9.0 µm	5 L	DC-3255	775.00

# Diamond Polishing

## Polycrystalline Diamond Pastes

High concentration, oil and water soluble, in 10 gram syringes.

Description	Micron Size	Quantity	Part #	Price
Polycrystalline Diamond Compound	0.25 µm	10 grams	DC-2610	\$98.00
Polycrystalline Diamond Compound	1.0 µm	10 grams	DC-2620	\$98.00
Polycrystalline Diamond Compound	3.0 µm	10 grams	DC-2630	\$98.00
Polycrystalline Diamond Compound	6.0 µm	10 grams	DC-2640	\$98.00
Polycrystalline Diamond Compound	9.0 µm	10 grams	DC-2650	\$98.00
Polycrystalline Diamond Compound	15.0 µm	10 grams	DC-2660	\$98.00

## Polycrystalline Diamond Sticks

The same high quality polycrystalline diamond as used in our suspensions is now available in oil and water soluble 20 ml sticks. Easy and mess-free, diamond sticks are ideal for charging new polishing cloths.

Description	Micron Size	Quantity	Part #	Price
Polycrystalline Diamond Stick	0.25 µm	20 ml	DC-1610	\$115.00
Polycrystalline Diamond Stick	1.0 µm	20 ml	DC-1620	115.00
Polycrystalline Diamond Stick	3.0 µm	20 ml	DC-1630	115.00
Polycrystalline Diamond Stick	6.0 µm	20 ml	DC-1640	115.00
Polycrystalline Diamond Stick	9.0 µm	20 ml	DC-1650	115.00

## Diamond Aerosol Sprays

Purest diamond format, only ethanol added, in an inverted spray can.

Description	Micron Size	Quantity	Part #	Price
⚠ Polycrystalline Diamond Spray	1.0 µm	5 oz / 150 ml	DC-294	\$60.00
⚠ Polycrystalline Diamond Spray	3.0 µm	5 oz / 150 ml	DC-296	60.00
⚠ Polycrystalline Diamond Spray	6.0 µm	5 oz / 150 ml	DC-298	75.00
⚠ Polycrystalline Diamond Spray	9.0 µm	5 oz / 150 ml	DC-299	75.00

⚠ Ground shipments only - Hazardous shipping fees may apply

# Diamond Polishing

## Monocrystalline Diamond Pastes

Synthetic diamond, oil and water soluble, in 18 gram syringes.

Description	Micron Size	Quantity	Part #	Price
Monocrystalline Diamond Compound	1.0 µm	18 grams	DC-114	\$40.00
Monocrystalline Diamond Compound	3.0 µm	18 grams	DC-118	60.00
Monocrystalline Diamond Compound	6.0 µm	18 grams	DC-122	75.00
Monocrystalline Diamond Compound	9.0 µm	18 grams	DC-126	85.00

## Monocrystalline Diamond Sticks

The same high quality monocrystalline diamond as used in our suspensions is now available in oil and water soluble 20 ml sticks. Easy and mess-free, diamond sticks are ideal for charging new polishing cloths.

Description	Micron Size	Quantity	Part #	Price
Monocrystalline Diamond Stick	1.0 µm	20 ml	DC-1720	\$65.00
Monocrystalline Diamond Stick	3.0 µm	20 ml	DC-1730	65.00
Monocrystalline Diamond Stick	6.0 µm	20 ml	DC-1740	65.00
Monocrystalline Diamond Stick	9.0 µm	20 ml	DC-1750	65.00

The **ATM Saphir X-Change 10" Fully Automatic Grinder Polisher System** provides extremely efficient specimen processing and repeatable results





# Water-Free Polishing

## Water-Free Products for Non-Aqueous Preparation

Water-free diamond suspensions are used for preparing samples that are sensitive to attack from water-based solutions. Using these products can eliminate some residual polishing artifacts such as pitting, staining, or pullout. Materials which can benefit from these products include galvanized or zinc-coated materials, zinc and magnesium alloys, and calcium-treated steels. Use like standard diamond suspensions with alcohol based or water-free lubricants.

Description	Micron Size	Quantity	Part #	Price
Aka-Poly Water-Free Diamond Suspension	0.25 µm	250 ml	DC-2010	\$135.00
Aka-Poly Water-Free Diamond Suspension	1.0 µm	250 ml	DC-2020	135.00
Aka-Poly Water-Free Diamond Suspension	3.0 µm	250 ml	DC-2030	135.00
Aka-Poly Water-Free Diamond Suspension	6.0 µm	250 ml	DC-2040	135.00
Aka-Poly Water-Free Diamond Suspension	9.0 µm	250 ml	DC-2050	135.00

## Water-Free Lubricants

Description	Quantity	Part #	Price
⚠ Aka-Lube Blue Diamond Lubricant	1 L	DP-3500	\$42.00
Aka-Lube Clear Water-Free Lubricant	1 L	DP-3850	40.00
⚠ Blue Diamond Lubricant	1 gallon	DP-710	73.00
⚠ Blue Diamond Lubricant	5 gallons	DP-712	325.00

## Water-Free Final Polishing Suspension

Description	Micron Size	Quantity	Part #	Price
Water-Free Fumed Silica Suspension	0.2 µm	1 L	AP-1060	\$113.00

⚠ Ground shipments only - Hazardous shipping fees may apply

## SystemLab

ATM's build to order program  
tailors equipment to your needs

The **ATM SystemLab 3X**  
with dual Saphir 550 polishing systems



# Final Polishing

## Alumina Suspensions

Permanent alumina suspensions are agglomerate-free ("CR"). The neutral, non-toxic base will not dry out on the polishing pad and is completely water soluble.

Description	Micron Size	Quantity	Part #	Price
Gamma B "CR" Suspension	0.05 µm	6 oz	AP-352	\$16.00
Alpha "CR" Suspension	0.1 µm	6 oz	AP-358	16.00
Alpha A "CR" Suspension	0.3 µm	6 oz	AP-354	16.00
Alpha C "CR" Suspension	1.0 µm	6 oz	AP-356	16.00

## Colloidal Final Polishing Suspensions

Colloidal Silica Suspension is basic with a pH of approximately 10.6 and is excellent for non-ferrous materials and titanium.

Colloidal Alumina Suspension is acidic with a pH of approximately 4.0 and is excellent for stainless steels and nickle based alloys.

Description	Micron Size	Quantity	Part #	Price
Colloidal Silica Suspension	0.03 µm	32 oz	AP-342	\$27.00
Colloidal Silica Suspension, Alkaline	0.05 µm	1 L	AP-1020	90.00
Colloidal Silica Suspension, Alkaline	0.2 µm	1 L	AP-1080	86.00
Colloidal Alumina Suspension	0.05 µm	32 oz	AP-348	68.00

## Fumed Final Polishing Suspensions

The pH of Fumed Silica Suspensions may be altered during manufacturing and can therefore be basic or acidic. Fumed abrasive particles are formed dry and therefore have larger particle sizes than their colloidal counterparts.

Description	Micron Size	Quantity	Part #	Price
Fumed Silica, Alkaline	0.12 µm	1 L	AP-1000	\$84.00

## Water-Free Final Polishing Suspension

The polishing action of this non-aqueous version of Fumed Silica is not a chemical-mechanical process as with the other silica suspensions. The absence of water removes the notion of etching and oxidation, therefore resulting in a purely mechanical polish.

Description	Micron Size	Quantity	Part #	Price
Water-Free Fumed Silica Suspension	0.2 µm	1 L	AP-1060	\$113.00

# Final Polishing

## Alumina Powders

All Mager powders are type "CR" aluminas, agglomerate-free, premium polishing powders. They are calcined to a high purity of 99.9% then "deagglomerated" to break down the large agglomerates that would otherwise cause scratches. The result is an alumina that provides shorter times to scratch-free finishes and better overall results.

Description	Micron Size	Quantity	Part #	Price
Gamma B "CR" Powder	0.05 µm	1 lb	AP-312	\$73.00
Gamma B "CR" Powder	0.05 µm	5 lbs	AP-314	328.00
Alpha A "CR" Powder	0.3 µm	1 lb	AP-302	73.00
Alpha A "CR" Powder	0.3 µm	5 lbs	AP-304	328.00
Alpha C "CR" Powder	1.0 µm	1 lb	AP-322	73.00
Alpha C "CR" Powder	1.0 µm	5 lbs	AP-324	328.00

The **ATM SystemAutomat** is an affordable, fully automated solution for high volume labs. It offers efficiency and reproducibility at its finest



In addition to our full line of metallurgical consumables, Mager is proud to offer you the best sample preparation and inspection equipment in the business. Contact your technical representative or visit [magersci.com](http://magersci.com) for more information on these fine products.



## **ATM Metallurgical Equipment**

### **Material Sample Preparation**

- Cut Off Machines
- Mounting Presses
- Grinding & Polishing Systems
- Micro Hardness Tester



## **Qness Hardness Testers**

### **Automatic or Manual Testing**

- Micro Hardness Testers
- Rockwell Hardness Testers
- Macro Hardness Testers



## **Nikon Microscopes**

### **Industrial Applications**

- Stereo & Macro Microscopes
- Inverted Metallographs
- Upright Inspection Microscopes



## **Digital Cameras & Imaging Software**

### **Light Microscopy Imaging Solutions**

- Nikon Digital Cameras & NIS Elements
- Diagnostic Instruments & SPOT Imaging
- QImaging Cameras
- MediaCybernetics - Image Pro Series



## **Eltra Elemental Analyzers**

### **Solid Materials Testing**

- Carbon / Sulfur
- Oxygen / Nitrogen / Hydrogen

# Met Sample Preparation Equipment

## Material Sample Preparation Equipment from ATM GmbH

### Tabletop Cut Off Machines

BR200 Manual Cut Off Saw, 10" Wheels  
BR220 Automatic Precision Saw, 3"-8" Wheels  
BR230 Manual Cut Off Saw, 10"-12" Wheels  
BR240 Semi-Automatic Cut Off Saw 10"  
BR250 Automatic Cut Off Saw, 10"-12" Wheels



### Floor Model Cut Off Machines

BR255 Manual Cut Off Saw, 14"-16" Wheels  
BR265 Automatic Cut Off Saw, 14"-16" Wheels  
BR275 Automatic Cut Off Saw, 17"-20" Wheels  
BR285 Automatic Cut Off Saw, 20"-24" Wheels  
BR2000 Automatic Cut Off Saw, 24"-32" Wheels  
BR 3D Automatic Cut Off Saw, 17"-20" Wheels



### Mounting Presses

OP410 Automatic Mounting Press, 1"-1.5" Mounts  
OP460 Automatic Mounting Press, 1"-2" Mounts  
OP480 Automatic Mounting Press, 2"-2.75" & Rectangular Mounts



### Coarse Grinding

JADE 700 Dual Belt Grinder  
SA375 Automatic Stone Grinder



### Manual Grinding/Polishing

SA320 Single Wheel Grinder/Polisher, 8"-10" Format  
SA330 Dual Wheel Grinder/Polisher, 8"-10" Format  
SA350 Single Wheel Grinder/Polisher, 10"-12" Format  
SA360 Dual Wheel Grinder/Polisher, 10"-12" Format



### Semi-Automatic Grinding/Polishing Systems

SA520 Single Wheel System, 8"-10" Format  
SA530 Dual Wheel System, 8"-10" Format  
SA550 Single Wheel System, 10"-12" Format  
SA560 Dual Wheel System, 10"-12" Format

### Fully Automatic Grinding/Polishing Systems

SystemAutomat, 12" Format  
X-Change, 10" Format



# Light Microscopy Equipment

## Materials Science Microscopes from Nikon

### Stereo Microscopes

SMZ-445 Stereo Microscope, 0.8x-3.5x zoom range  
SMZ-745 Stereo Microscope, 0.67x-5.0x zoom range  
SMZ-800 Stereo Microscope, 1.0x-6.30x zoom range  
SMZ-1270 Stereo Microscope, 0.63x-8x zoom range  
SMZ-18 Stereo Microscope, 0.75x-13.5x zoom range  
SMZ-25 Stereo Microscope, 0.63x-15.75x zoom range



### Metallographs

MA100 Inverted Metallograph  
MA200 Advanced Inverted Metallograph



### Upright Microscopes

LV150N Reflected Light Microscope  
LV100ND Reflected/Transmitted Light Microscope



### Digital Cameras and Imaging Solutions

Nikon DS Digital Cameras  
NIS Elements Imaging Documentation & Analysis Software  
Diagnostic Instruments SPOT Digital Cameras  
SPOT Imaging Solutions  
QImaging Digital Cameras  
Media Cybernetics Image ProSeries





# Analysis Equipment

## Qness Hardness Testers

*Manual and Fully Automatic Models Available*

### Micro Hardness Testers

CHD Master Vickers up to 10 kg

Q10 Vickers / Knoop / Brinell up to 10 kg

Q30 Vickers / Knoop / Brinell up to 30 kg

Q60 Vickers / Knoop / Brinell up to 60 kg



### Rockwell Hardness Testers

Q150-A/A+ Rockwell / Brinell / Vickers / Knoop up to 250 kg

Q150-M/R Rockwell / Brinell / Vickers up to 250 kg



### Macro Hardness Testers

Q250 Rockwell / Brinell / Vickers up to 250 kg

Q750 Rockwell / Brinell / Vickers up to 750 kg

Q3000 Rockwell / Brinell / Vickers up to 3,000 kg

## ELTRA Elemental Analyzers

ELEMENTRAC CS-i Carbon / Sulfur Analyzer

ELEMENTRAC ONH-p Oxygen / Nitrogen / Hydrogen Analyzer

CS-2000 Carbon / Sulfur Analyzer Dual Furnace

H-500 Hydrogen Analyzer

Autoloaders





# Online Ordering



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