

Technical Notes

Summit Metal Bond Wheels

Alpha® Summit Metal Bond wheels for radial arm wet polishers begin the polishing process. They grind and hone the granite surface making it smooth enough to take a polish. These wheels remove gang saw marks and prepare the granite surface for transition to polishing grits. This particular bond is ideal for the North American markets. Fabrication applications of countertops, tabletops, and the backside of slabs are quickly and easily made smooth. Monument applications of interior walls, sides, undersides and tops are easily processed. These wheels are aggressive and are designed for high quality performance. They are long lasting and provide fast, consistent results. We recommend a speed of 400 RPMs at medium to light pressure with constant water flow for best results. Available in three common sizes and four grits, the Alpha® Summit Metal Bond wheels will fill a variety of applications and fit on most common radial arm polishers.

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Part No.	Size	Recommended For	Grit	Color	Bond Type
SM060050	6"	Granite	50	Green	Metal
SM060080	6"	Granite	80	Blue	Metal
SM060200	6"	Granite	200	Yellow	Metal
SM060400	6"	Granite	400	Orange	Metal
SM080050	8"	Granite	50	Green	Metal
SM080080	8"	Granite	80	Blue	Metal
SM080200	8"	Granite	200	Yellow	Metal
SM080400	8"	Granite	400	Orange	Metal
SM100050	10"	Granite	50	Green	Metal
SM100080	10"	Granite	80	Blue	Metal
SM100200	10"	Granite	200	Yellow	Metal
SM100400	10"	Granite	400	Orange	Metal

How to Use

Attach the Alpha® Metal Summit Wheel to your machine.

Adjust to the correct RPM range for your diameter wheel size

Adjust BAR pressure.

Set RPM range for your wheel diameter.

Turn on Water Supply.

Start your grinding process

Always review the operation manual for the proper setup procedure.

Frequently Asked Questions (FAQs)

What materials can I use the Alpha® Summit Metal Bond Wheels on?

Alpha® Summit Metal Bond Wheels are designed for use on granite, engineered stone and marble. (Please be aware the life of Summit Wheels will be shorter when used on marble).

Alpha® Summit Metal Bond Wheels are offered in what sizes?

Alpha® Summit Metal Bond Wheels are available in 6", 8" and 10" diameters.

What grits are available for the Alpha® Summit Metal Bond Wheels?

#50, #80, #200, #400

What is the RPM range I should use the Alpha® Summit Metal Bond Wheels?

6" = 800 RPM

8" = 600 RPM

10" = 400 RPM

What BAR pressure I should use when using the Alpha® Summit Metal Bond Wheels? We suggest the following

6" = 35 lbs.

8" = 75 lbs.

10" = 85 lbs.

(Please note that the Metal Bond Wheels are very aggressive; you may only need the weight of the spindle head in some cases for your grinding applications)

What is the grit sequence of the Alpha® Summit Metal Bond Wheels?

#50, #80, #200, #400

Do I need to use all the Metal Bond Wheels in sequence?

Yes. However; in some cases, you may not need to use the #50 grit first. This #50 grit wheel is extremely aggressive and is designed to remove deep scratches and clean up the gang saw marks on the backside of granite.

What is the polishing sequence for use of all Alpha® Summit Wheels for granite application?

Normal polishing sequence for all granites except (RED Granites) is as follows:

#50M, #80M, #200M, #400M, #500R, #1000R, #2000R, #3000R and BUFF (Black or White)

For polishing "Red" granites, we recommend the following polishing sequence:

#50M, #80M, #200M, #200R, #500R, #1000R, #2000R, #3000R and BUFF (Black or White)

I need to grind the back side of my granite to make table legs, can I start with the #80 Metal Bond Wheel?

Yes. We recommend starting with our #50 grit Metal Bond Wheels since this wheel is much more aggressive and will smooth the material quicker than the #80 grit Metal Bond Wheel.

Alpha® Summit Metal Bond Wheels are available in three sizes, which one should I use for my polishing needs?

The 10" diameter wheels are the most popular size today. Fabricators are using this size for large area polishing and repairs on slabs, countertops and vanities.

The 8" diameter wheels are also popular; however, it does not cover as much area as our 10" diameter wheels.

The 6" diameter wheels are used for polishing the backside of backsplashes and scratch repairs around sink bowls as well as small tiles. The 6" diameter wheels are also popular for the monument production.

Why does Alpha® offer a #200 Metal Bond and #200 Resin Bond Wheel?

We offer both metal and resin bond for the #200 grit due to the different granite hardness classifications. When polishing red granites, we recommend the following grit sequence:

#50M, #80M, #200M, #200R, #500R, #1000R, #2000R, #3000R and Buff. We double-up on the #200 grit for red granites and eliminate the #400 Metal from the polishing sequence to prepare the surface of material (eliminating all metal bond scratches) prior to moving on to the resin wheels which product the final polish on the granite.

Alpha® Summit Metal Bond Wheels can be used to grind Engineered Stone, can the Alpha® Resin Wheels polish the Engineered Stone?

Yes. It is true the Alpha® Metal Bond Wheels can be used to grind engineered stone; however; our Resin Bond Wheels are not suitable for polishing Engineered Stone.

The Alpha® Summit Metal Bond Wheels come with threaded bolts and thread pins, what are these used for?

These bolts and pins are used for attachment purposes. The threaded bolts are used to secure adapters or plates directly to the Summit Wheels.

The threaded pins are another quick way to be able to use the Summit Wheels. The best way to mount the wheels to any radial arm machine is to drill two 3/8" holes into your radial arm drive plate. Then the two threaded drive pins are screwed onto the Summit Wheel. The two drive pins simply slide onto the holes for fast secure wheel changes. (See diagram for how to drill your drive plate)

What machines could these Alpha® Metal Bond Summit Wheels be used on?

Radial Arm Polishers/Work Stations and Computerized Numerical Controlled (CNC) machines.

Do I need to use water when using the Alpha® Summit Metal Wheels?

Yes. Water is required for all Summit Wheels (Metal, Resin and Buff).

Do I use the same amount of water for the Summit Buffing Wheel compared to the Metal & Resin Wheels?

No. We recommend you wet the surface of the material and buff one particular area to generate heat build-up when using the Final Buffing Wheels. Once you start to generate heat build-up, move the Buffing Wheel to other areas of the material to create heat-build up. If the surface becomes dry, add a little water for lubrication. Do not run this wheel completely dry!

Helpful Hints

- When using the Metal Bond Wheels, move the wheel in a quick pattern motion. Do not stay still in one area, these wheels are aggressive and will make the stone uneven.
- When using the Resin Bond Wheels, move the wheel in a slow consistent polishing pattern. Moving the wheel slow allows the diamonds to perform to their potential.
- Spending more time on the #1000 and #2000 grits is highly recommended to assure a high quality finish.
- Polishing Black Granite, use the Black Buff a little longer than you would normally, this will enhance the depth of color and increase the gloss.
- To achieve a little more extra shine, we recommend using the black buff first then follow-up using the white Buff to obtain optimal results.
- The use of the Alpha® Gloss checker is recommended for checking the consistency of the polish between grits.
- Do Not Skip Grits!

Reference

For more product information, visit us on the web at www.alpha-tools.com.