

TECHNICAL NOTES

Summit

Wet Granite Polishing

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Alpha® Summit is designed for use on radial arm polishing machines commonly used in marble shops and monument factories. It has been always difficult to polish the surfaces of granite to match the factory finish made by large machines. Now you can polish inlay pieces for fancy table tops, back sides of slabs to make furniture and interior walls and sides of monuments without sacrificing the quality of polish. You can bring back the life of scratched slabs with your old radial arm polisher in minutes.

The Alpha® three-part system redefines the meaning of production. Heavy duty Metal bond grits remove deep scratches evenly so you can work on the back side of slabs or sawn surfaces of monument blocks. Next is the sleek Resin bond grits which put on an unparalleled degree of polish. The Final Polisher brings out the beautiful inherent color and reflection. (6", 8" and 10" sizes available)



Type 1. Metal Bond Grits - Used for rough and medium grinding to remove coarse and uneven finishes. Very fast and even operation prepares the granite for polishing. (#50 - #80 - #200 - #400 grits)



Type 2. Resin Bond Grits - Begin the polishing process smoothly and easily. Reduces bouncing and damage. Superior performance compared to old fashion polishing methods. (#200 - #500 - #1000 - #2000 - #3000 grits)



Type 3. Final Polisher - Replaces dangerous lead and felt wheels. Messy powders or mixtures are eliminated. Brings out a beautiful high gloss finish. Choose **Black Buff** for darker stones like Absolute Black and Barre Gray. Choose **White Buff** for lighter granites.

Summit must only be used wet. This is necessary to reduce wear, and to make polishing easier. Also the water will help in eliminating harmful dust. **Use plenty of water** and after each grit change, rinse off the workpiece to remove slurry. It is important to make sure you are using the wheels in proper order without skipping grits. Rushing a job and skipping grits will almost surely give you unsatisfactory results. If a wheel seems to wear faster than the others, generally it is doing too much work. In most cases, you did not spend enough time on the prior grit. Refer usage specifications below for proper process.

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How to use

1. Cut workpiece to size and position it for a comfortable safe polishing position.
2. Use **Metal Bond #80 - #200 - #400** grits with care to eliminate all scratches and saw marks. Dry the area after each step and look for scratches and imperfections. Make sure to mix patterns of movement to polish evenly. Rubbing a yellow lumber crayon or China marker pencil will aid in finding scratches, even while the stone is wet. (For **Red colored granite**, Alpha® recommends using **#200 Resin Bond** grit instead of #400 metal bond after finishing **#200 Metal Bond** grit to complete perfect preparation for polishing stages.)
3. Move on to the **Resin Bond #500 - #1000 - #2000** grits. (For **Black colored Granite**, Alpha® also recommends using **#3000** grit to obtain inherent color and super reflection.)
4. Choose **Black Buff** for dark colored stone and **White Buff** for light colored granites. Wet the surface of workpiece. Run this wheel dry to generate heat. When the water is consumed, the process is complete.
5. Clean and dry all wheels for storage.

Helpful Hints

- Always a good idea to spend a little more time on the #1000 and #2000 grits. This will ensure you a high quality finish every time.
- On Absolute Black, use the Black Buff longer than you normally would on other stone. This will enhance the depth of color and increase gloss.
- Using a Gloss Checker as a polishing guide will keep your polishing consistent and less time consuming.
- If extra shine and deep color are required, use Black Buff first then polish with White Buff to obtain best result.
- Avoid random cut edges to prevent tearing.
- For your safety and to avoid damage of wheel, Alpha® recommends to mount each wheel to its own attachment plate with enclosed bolts permanently.
- Never add polishing powder or other abrasives to our Final Polishers. This will not make them work any better or faster. This will only ensure you frustration and unsatisfactory results.
- Important to build up some heat between the Final Polisher and stone. This will bring out an excellent gloss and depth of color. To do this, use only a little water to keep the wheel from drying and sticking on the stone. Do not use completely dry.
- When polishing edges of multiple pieces, make a flat surface by making a bundle of pieces on polishing table so you can work multiple edges at once with your radial arm polisher. This technique will give you the best result on granite flat edge with speed and ease. The Summit Wheels are for polishing granite. Generally speaking they are not recommended for marble. Wheel life may be too short on marble.
- When polishing, the wheels can go over the stone edge, but not more than one third of the wheel diameter. This will enable the operator to polish an entire slab right to the edge. But don't go too far off the edge or segment chipping will occur.

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- Never stay in one place too long. The stone will become scarred or dish shaped, and the wheel's face will not remain flat. Rounding off of the segments will result.
- Polishing times are based on 400 RPM at medium to light pressure. If your machine runs slower, increase listed time.
- Increasing the pressure will shorten time needed, but wheel life will also be reduced.

Frequently Asked Questions (FAQs)

How can I adapt a Summit wheel onto my old radial arm polishing machine?

If your machine has a round attachment to glue on magnesite abrasive Bricks for marble, all you have to do is to drill two 3/8" holes according to paper template provided in the box. There are several patterns so choose most suitable combination according to the diameter of your attachment. Then you screw in drive pins (included) on to Summit wheel. Your attachment piggybacks on to Summit wheel and you are ready to polish. If your attachment plate has Frankfurt shoes, ask about Summit Frankfurt Style.

My polisher has two speeds. Which speed should I select for best results?

Optimum speed varies depending on diameter of wheel. Generally speaking, most of radial arm polishing machines have two speeds. You should select one closer following guide line.

Can Summit be used on marble?

Summit works best on granite and harder marble, but may be used on softer marble as long as you are aware of wheel wear. Use plenty of water with less pressure and avoid polishing Travertine and other abrasive materials.

Why do you make so many sizes?

Most of marble shops use 10" diameter since they have been using 10" magnesite bond abrasive for marble and they are using the same attachment. However, if you polish small cut to size material, 8" diameter became handy to polish evenly with random movements. If you are polishing side of monument, 6" diameter fits the best due to standard size of monuments. For other special applications, other sizes from 4" up to 14" may be available upon your request, call for more info.

How long does Summit last?

Due to the many types of natural stone being polished these days, it is very hard to say exactly how long Summit wheel will last. However, if used properly your wheels will last a long time. Studies have shown that no other product comes close to the life of the Summit wheel.

We followed your instructions and the stone is shiny, but absolute black looks grayish?

To get a good deep polish, all grits need to be used, no skipping, all the way from #80 to #3000 and then the Black Buff completes the job. Polishing at the wrong RPM or not spending enough time on each grit can cause hazy areas to be noticed. Please follow step-by-step instructions listed below.

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Can I go off the slab ends with the Final Polisher as I usually do for marble with felt wheel?

No. You cannot go off the edges like felt wheels. You must apply final polisher flat against the surface. If your wheel sticks out more than 1" - 2" over the edge, you are risking damage.

Can these wheels be used on my Italian style floor polishing machine?

Although it may be possible to polish granite floor, we do not recommend Summit for floor application. Alpha® recommends the fantastic Advantage Floor Restoration Discs for your Italian style machine.

Why are these wheels so expensive, I've seen other diamond wheels that look similar for less? Alpha® Summit is the GENUINE ORIGINAL which continues to be perfected by years and years of research and development. Other companies have attempted to copy our ideas, but they have been unable to provide the speed of operation, life of wheels and most of all they just don't get the quality of polish. We always hear complaints that people tried other brands but they just didn't work as well. Remember this when it comes to purchasing diamond polishing equipment "You get what you pay for!"

Do we really need all of the grits, somebody told me you only need three grits?

Yes. Using anything less than the full system will not ensure you a high quality finish. Skipping grits and not spending enough time are not advised and will yield unsatisfactory results. Summit is a complete modern effective system, which will prove its value under the toughest of work conditions and the most demanding inspections. To get the best quality finish, follow the step by step instructions on page one.

What kind of polishing powder should we use to finish up?

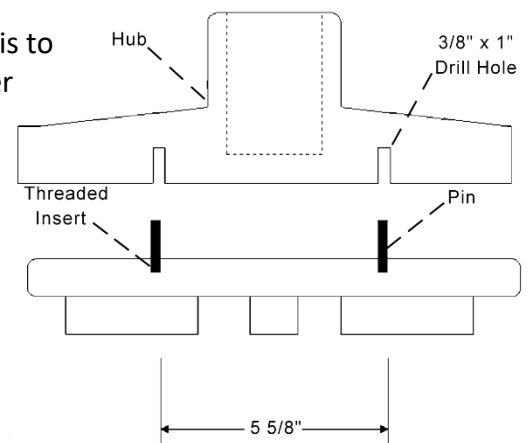
We don't recommend the use of any sloppy and hazardous chemicals and loose powders. Alpha® designed a Final Polisher which works better and quicker than any traditional final polishing method. Try our Black Buff for dark stone or White Buff for light colored stone.

Mounting the Wheels

The best way to mount the wheels to any radial arm machine is to drill two holes into your radial arm drive plate. Then two driver pins are screwed into the Summit Polishing Wheel. The two drive pins simply slide into the holes for fast secure wheel changes.

For 10" wheels drill two 3/8" holes 5-5/8" apart, about 1" deep. For 6" or 8" wheels drill two 3/8" holes 3" apart, 1" deep.

If you have any questions, please call us at 800-648-7229.



POLISHING PARAMETERS FOR SUMMIT APPLICATIONS

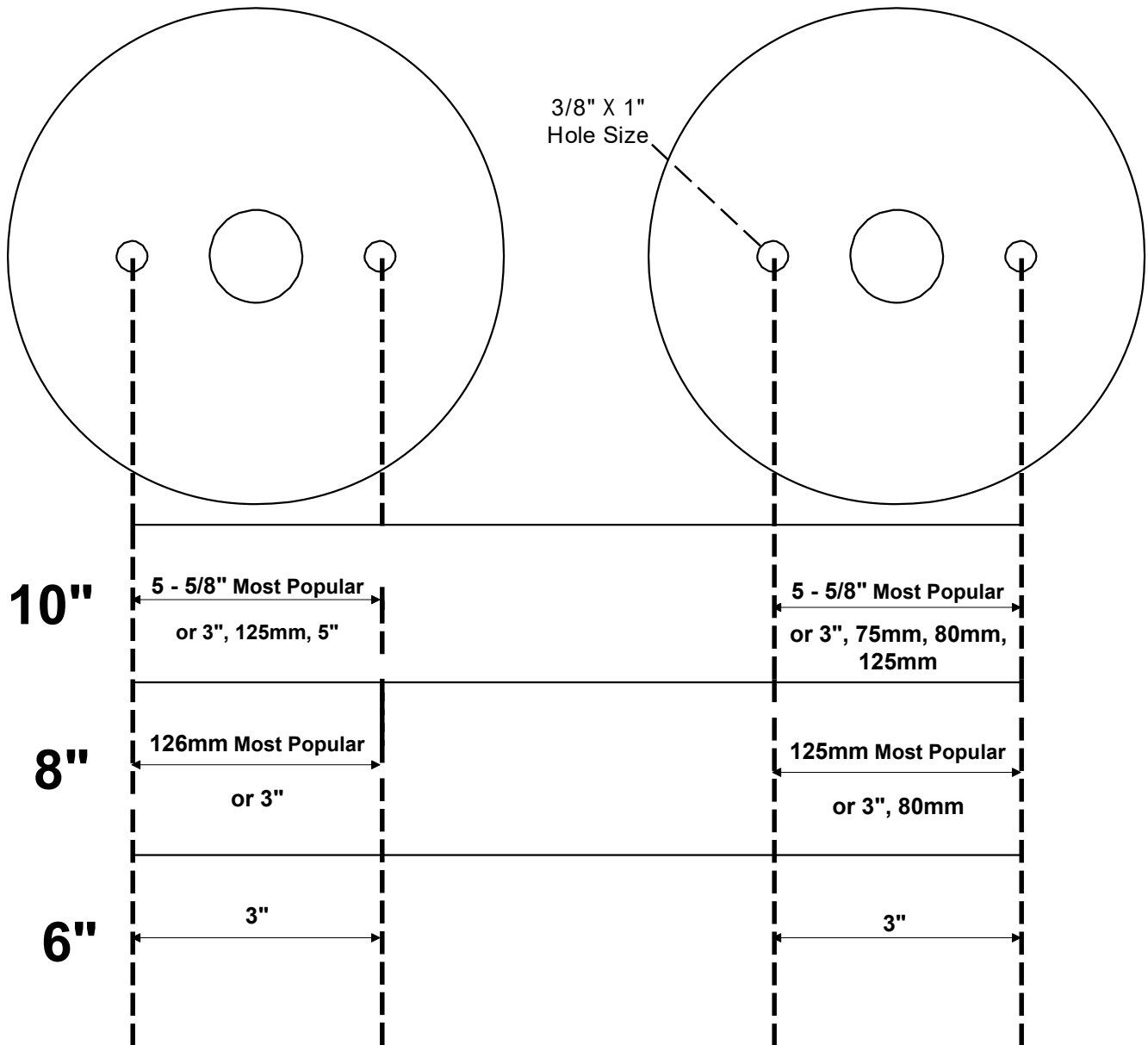
TYPE	METAL BOND			RESIN BOND					FINAL POLISHER			
	80	200	400	200	500	1000	2000	3000	BUFF			
GRIT COLOR	BLUE	YELLOW	ORANGE	YELLOW	ORANGE	DK. GREEN	LT. GREEN	BROWN	BLACK OR WHITE			
STONE COLOR												
BLACK	1	2	3	-	4	5	6	7		8		
GREY	1	2	3	-	4	5	6			7		
RED	1	2	-	3	4	5	6			7		
MINUTES PER SQ. FT	1	1.5	1	1	1	1	1	1		1		
R P M	1312 FT / MIN. (Peripheral Speed)			1476 FT / MIN. (Peripheral Speed)					1640 FT / MIN. (Peripheral Speed)			
	6"1312 FT / (3.14 x 0.5') =840 8" = 630 10" = 500 12" = 420 14" = 360 16" = 310			6" 1476 FT / (3.14 X 0.5') 940 8" = 710 10" = 560 12" = 470 14" = 400 16" = 350					6" 1640 FT/(3.14 X 0.5') =1050 8" = 780 10" = 630 12" = 520 14" = 450 16" = 390			
P R E S S U R E	Recommended Range			Recommended Range					Recommended Range			
	14 to 21 Lbs. / SQ. IN.			11 TO 14 Lbs. / SQ. IN.					6 TO 9 Lbs. / SQ. IN.			
		GRITS 200 up to 2,000		GRIT 3,000 ONLY								
		MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.			
		14 LBS	21LBS	11 LBS	14 LBS	11 LBS	14 LBS	6 LBS	9 LBS			
	6" =	35	55	6" =	80	100	6" =	60	75	6" =	150	225
	8" =	75	115	8" =	150	185	8" =	105	135	8" =	260	390
10" =	85	125	10" =	175	220	10" =	120	150	10" =	340	510	
12" =	130	195	12" =	220	275	12" =	160	200	12" =	520	785	
14" =	140	205	14" =	285	360	14" =	210	260	14" =	705	1055	
16" =	155	230	16" =	275	340	16" =	200	250	16" =	210	315	
W A T E R	5.3 to 8.0 GAL. / MIN			4.0 to 5.3 GAL. / MIN.					0.05 to 0.80 GAL. / MIN.			
	10 to 23 FT / MIN.			10 to 23 FT / MIN.					10 to 23 FT / MIN.			
C O V E R A G E	10 to 23 FT / MIN.			10 to 23 FT / MIN.					10 to 23 FT / MIN.			
	10 to 23 FT / MIN.			10 to 23 FT / MIN.					10 to 23 FT / MIN.			

**Note: Above specifications DO NOT apply to Frankfurt type.
For information on Frankfurt Summit, please call 800-648-7229.**

Drill Patterns for Drive Plates

Metal Bond

**Resin Bond
&
Final Buff**



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