



**BURR KING MFG. CO., INC**

1220 Tamara Lane

Warsaw, MO 65355

[www.burking.com](http://www.burking.com)

(660)438-8998 • Fax (660)438-8991

**MADE IN U.S.A.**



**BURR KING®**

- \* GRINDERS
- \* BUFFERS
- \* VIBRATORY
- \* DISC GRINDERS

# VIBRAKING 200/200c INSTRUCTION MANUAL



*Model 20000-1 Shown*



*Model 20000-3 Shown*



## BURR KING VIBRAKING 200/200c VIBRATORY BOWLS

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June, 2007

Burr King Manufacturing Company, Inc. warrants the below product to be free in material and workmanship. The period of warranty is 1 year (90 days for vibratory bowls of 20 quart and lesser volume) from the date of purchase. No warranty is provided for products that have been modified, abused, handled carelessly, where repairs have been made or attempted by others, or for freight damage. No warranty is provided for three phase electric motors, controllers, etc. when the motors, controllers are not protected by magnetic starters that were supplied and installed by Burr King Manufacturing Company, Inc. No other warranty, written or verbal is authorized by Burr King Manufacturing Company, Inc.

During the warranty period Burr King Manufacturing Company, Inc (or its authorized suppliers or agents) will replace or repair the below product without charge if the product is found by Burr King Manufacturing Company, Inc. to be defective. To receive warranty services you must contact Burr King Manufacturing Company, Inc. and receive authorization for warranty service. Unless otherwise authorized by Burr King Manufacturing Company, Inc. Products (see \* below) must be returned to the factory to receive warranty service.

\*Motors, speed controllers, and certain other accessories are warranted by their respective manufactures. To receive warranty service on these items you must contact a brand label service center that supports the product in need of service. Burr King Manufacturing Company, Inc. will assist you in locating a service center.

For the first thirty days after purchase, and when Burr King Manufacturing Company, Inc. authorizes warranty service, we will pay normal and necessary surface freight charges both ways (except for items in \*). After thirty days the customer is responsible for all freight charges. Where possible Burr King Manufacturing Company, Inc. may elect to make on site service and/or repairs necessary to return the product to serviceable condition.

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To assure prompt warranty service it is necessary that you complete and return the below warranty information to Burr King Manufacturing Company, Inc. please **FAX** or **MAIL** at your convenience.

Product model: \_\_\_\_\_ Serial number: \_\_\_\_\_  
Date Purchased: \_\_\_\_\_ Purchased from: \_\_\_\_\_  
Address: \_\_\_\_\_ City: \_\_\_\_\_ State/Prov: \_\_\_\_\_ Postal code \_\_\_\_\_

Your company name: \_\_\_\_\_  
Address: \_\_\_\_\_ City: \_\_\_\_\_ State/Prov: \_\_\_\_\_ Postal code \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_  
Your name: \_\_\_\_\_ Title: \_\_\_\_\_

How did you learn about Burr King products?

Trade show \_\_\_ Web \_\_\_ Industrial Distributor \_\_\_ Advertisement \_\_\_ Other \_\_\_\_\_ Which one: \_\_\_\_\_

What is the intended use of this product? \_\_\_\_\_

Please indicate the general work types performed at your company, check all that apply:

Fabrication \_\_\_ Machining \_\_\_ Casting \_\_\_ Molding \_\_\_ Welding \_\_\_ Finishing \_\_\_ Assembly \_\_\_ Research \_\_\_ Other \_\_\_

Please indicate the primary product focus of your company; check all that apply:

Aircraft/Missile \_\_\_ Automotive \_\_\_ Contract machine \_\_\_ Contract Fabrication \_\_\_ Agricultural \_\_\_ Maintenance \_\_\_ Recreational \_\_\_

Job shop \_\_\_ Foundry \_\_\_ Construction \_\_\_ Arts \_\_\_ Orthopedic \_\_\_ Dental \_\_\_ Medical \_\_\_ Other \_\_\_\_\_

Please tell us what we can do to improve our products:

\_\_\_\_\_  
\_\_\_\_\_

May we contact you? Yes \_\_\_ No \_\_\_

**Thank you for purchasing Burr King products!**

**REGISTER ONLINE @  
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June 21, 2007

**LETTER OF AUTHENTICITY**

This letter is to certify that all Burr King Belt grinders, Disc grinders, Polishing machines Vibra King Chambers and Bowls are manufactured and assembled in the United States of America.

(Tariff number 847990 criterion A)

Don MacCarthy  
President

See our catalog at [www.burrking.com](http://www.burrking.com)

contact us at [info@burrking.com](mailto:info@burrking.com)



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July 2020

## **Operating instructions for Models 200 and 200c VibraKING<sub>®</sub> enhanced performance vibratory bowls**

The VibraKING 200 and 200c enhanced performance vibratory bowls are bench top, or stand mounted vibratory processing machines. The bowls are compatible with ceramic, plastic, shell, cob, and most other media types. The bowls include a port for fluid induction, and a port for fluid draining. The bowls are excellent for de-burring, de-scaling, cleaning, surface moderating, and polishing of metals, plastics, and other materials.



### **Improved performance features of the 200c bowl**

- The 200c comes from the factory with a 2" ID discharge chute. The new chute design also comes with our latest designed and patent pending chute plug. The plug has double seals designed to drastically reduce and eliminate leaks. At any time your 200 bowl maybe upgraded to the 200c bowl with the chute. Contact your authorized Burr King dealer or the Burr King factory and request part number 1520-1.

### **Improved performance features of the 200 and 200c bowls**

- The bowls may be used with 60 hertz, 120 VAC, single-phase electrical power.
  - Vibratory amplitude is easily, and continuously adjustable from zero to full amplitude.
  - The bowls may be operated with media/part loads from light to full capacity without damage provided the counterweights are adjusted for the load (see next page).
- A one fifth horsepower AC motor rotating within a rotation range of 1500 to 1700 RPM (dependent on the bowl load instilled) provides vibratory energy to the bowl.

### **At receipt and prior to using you VibraKING<sub>®</sub> bowl**

Before leaving the Burr King factory your VibraKING<sub>®</sub> bowl was completely tested and inspected to assure that is was complete, functional, damage free, and properly packaged for shipment. You should:

- **Inspect** the equipment for completeness and shipping damage. If anything is missing contact your equipment supplier, or Burr King Manufacturing. If there is shipping damage file a claim with the freight carrier that delivered the bowl,
- **Read** all instructions completely. If you have questions please contact your equipment supplier or Burr King Manufacturing for assistance,
- **Verify** that you have your media and compound of choice,
- **Locate** the warranty card, complete it, and return it to Burr King Manufacturing. This will insure that we can better assist you in the unlikely event you require warranty service.

### **Equipment start-up**

- Place the bowl on a stable, working surface such as a solid workbench, metal pedestal, or the Burr King **StandPAK<sub>®</sub> 5000** process stand. Avoid surfaces that are slick or any other work surface that could place a person (or property) in danger should the bowl fall from, or otherwise be dislodged from the work surface. Burr King's **StandPAK<sub>®</sub> 5000** is an excellent work station on which to mount your VibraKING<sub>®</sub> bowl. The StandPAK<sub>®</sub> 5000 incorporates a process timer, power distribution panel, and receiver for the **FilterPAK<sub>®</sub> 4001** all in stable, rugged steel base that is professionally finished.
- Select a work location near an AC power output plug that provides 120 VAC, single phase, 60 hertz electrical power of at least 2 amperes current capability.



***Avoid electrocution hazards.*** The 200/200c is not NEMA 4 or NEMA 4X rated. They must not be used in a manner that allows fluids to enter the unit base, power cord, on/off switch, or electrical plug. *This machine must be installed with a GFCI outlet to minimize the risk of electric shock or electrocution. If your machine is configured for 208-240 volts you should install a GFCI circuit in your electrical distribution panel.*

***Avoid fire and explosion hazards.*** The use of fluids other than water and Burr King specified soaps in the bowl (or any associated fluid re-circulating system) might create a fire/explosion hazard that could result in personal injury, or death. Use only clean water with recommended soaps in your VibraKING<sub>2</sub> bowl and associated accessories.

- If you intend to use dry media such as walnut shell, or corncob the bowl ports should be left plugged.
- If you intend to use manually induced fluids, the bowl ports should remain plugged.
- If you intend to use a re-circulating fluid system (such as the **FilterPAK<sub>2</sub> 4001** filtration system) connect the fluid input through an appropriate metering valve to the port on the upper rim of the bowl. Connect the drain line from the lower port on the bowl to the drain input on the re-circulating device (i.e. the **FilterPAK<sub>2</sub> 4001**) or to your fluid container. The bowl plugs are ¼ inch NP threads. If you purchased a **CombiPAK<sub>2</sub> 200 or 200c** you are supplied with a brass, clog resistant drain accessory. If this accessory is not installed in the drain of the bowl install it by threading the drain accessory from the inside of the bowl out with the supplied O-ring to the inside wall of the bowl. Place the provided ½-20 nut on the portion of the accessory that extends out of the bowl wall and tighten sufficiently to compress but not crush the o-ring. Connect the drain hose to this accessory. Note: it is common for new media to slough of small particles that may clog the bowl drain. The clog resistant drain can be cleaned with a reverse flow air blast into the bowl (**be sure to empty the bowl first and do wear protective eyewear when doing this**). If you purchased a basic bowl machine connect the drain line (2008) provided to the lower port using the barb adapter provided (2007). Use the clamp stop (2009) provided to stop drain flow during processing.



**The two plugs can be removed to connect a re-circulating fluid system.**

- Fill the bowl with your media of choice. The media should be filled to a level approximately 1 inch below the top of the center post of the bowl.
- If you intend to use fluids, mix the fluids per the manufacturer's instructions and introduce the fluids into the bowl either manually, or via your re-circulating system. The fluid input quantity should be adjusted to completely wet the media, but not to leave standing fluid in the bowl.
- Instill your parts into the bowl. The maximum combined media plus part load is:
  - 200 & 200c – 50 pounds (generally 35 pounds of media, 15 pounds of parts)Typically, ceramic media will weight 90 to 110 pounds per cubic foot. Plastic media will weight from 40 to 60 pounds per cubic foot. Shell and cob media will weigh 20 to 40 pounds per cubic foot. The 200 water level volume is 10 quarts (0.33 cubic feet), and the 200c is 20 quarts (0.66 cubic feet).
- Install the bowl lid. Using the lid will dampen generated noise, and reduce fluid evaporation.
- Connect the bowl to the 120 VAC, single-phase, 60 hertz electrical service.
- Turn the unit ON. The media and parts should rotate in a toroid form (a doughnut shape), with the media and parts circulating vigorously from the bowl outside toward the inner bowl post, then downward to return to the bowl edge.



- **Counter weight adjustment.** If the media and part rotation is insufficient (or too aggressive) do the following:
  - Disconnect the AC electrical power.
  - Remove the bowl (with its media load) by loosening and withdrawing the 3/8-16 wing nut that secures the bowl to the base, retain the wing nut and any washers that are present.
  - Place the unit on its side (secured so that it will not roll off the work surface) and loosen two wing nuts and remove the safety screen inside the unit base, retain all hardware.
  - Note the position of the two round counter weights that are mounted on the ½ inch shaft of the motor.
  - Loosen the setscrew on the bottom weight only. If the vibratory amplitude was too little rotate the bottom weight so that it is in closer alignment (more concentric) with the upper weight. If the vibratory amplitude was too great rotate the bottom weight such that it is lesser alignment (less concentric) with the upper weight and re-tighten the setscrew. Maximum vibratory amplitude occurs when the two weights are exactly concentric with each other. Repeat this process as required until you obtain a vigorous, yet smooth toroid media and part rotation.
  - Reassemble the unit by reversing the disassembly steps described above. Securely tighten all hardware.



**Amplitude adjustment can be made by loosening the bottom weight and rotating as described on the left.**

### **Removing and replacing the bowl**

The bowl may be removed to empty, clean, maintenance, or other reasons. When replacing the bowl insure that the two bosses on the underside of the bowl span one of the rubber isolators on which the bowl rests. These bosses prevent the bowl from rotating during bowl operation. Insure that the bosses DO NOT rest on any isolator. Insure that the bowl is held down using the large flat washer and wing nut provided.

### **Tips for getting the best service from your model 200 or 200c enhanced performance vibratory bowl**

- Use the proper media to reach the result you expect. Burr King Manufacturing will assist you in selecting the proper media, compound, and process. Use media that will obtain your desired finish without lodging inside part cavities. Burr King Manufacturing's media is available in several grades, shapes, and material types to be best for many part materials. Finishes can be obtained from a light matte to a chrome like shine dependent on part material type and incoming part finish quality.
- Use the proper fluids (compounds) with your media of choice. Burr King recommends **BKS-60** low suds soap for non-ferrous materials, and **AR-60** anti-rust soap for ferrous materials. Typically, these soaps are mixed at 1 to 3 ounces per 1 gallon of clean water. Note that anti-rust soaps such as AR-60 will not provide extended rust inhibition. If you require more than a few hours of rust inhibition, you should dip your parts in a commercially available rust inhibitor solution. Burr King has several other compounds that produce some great finishes. Please view the attached flyer located at the end of this manual to see what we have to offer. If you still have questions please contact your dealer or the Burr King factory.
- Maintain your media and equipment in a clean condition. If you use a re-circulating, filtration system such as the Burr King **FilterPAK, 4001**, it will greatly reduce the need to clean your bowl and media. Without a filtration system, you will need to clean your bowl and media at regular intervals to remove media sludge, and material fines that will accumulate inside the bowl.
- Do not allow your parts to rest in the bowl for extended periods. Doing so may result in stained, oxidized, or etched parts.
- If your process uses ceramic or plastic media, clean and dry your parts immediately after withdrawing them from the vibratory bowl. With dry media such as shell or cob cleaning may not be necessary.

- Establish a process time that allows the media and compounds of choice to process your parts to the desired finish; control this process time from part load to part load in order to assure consistent load-to-load results.
- Change your media when its size is reduced to a point that the media lodges in part cavities, if any. Also change your media if its shape changes to a point where it will not reach desired surfaces.
- Pre-mix your fluids (compounds) to assure consistent mixture. Too much soap will delay results, too little soap will reduce finish quality, and limit media life.
- Control the quality of the incoming part condition. Variation in lot-to-lot incoming part quality may cause variation in the vibratory process output.

#### **Accessories and supplies that are available from your Burr King equipment supplier**

- **Media and compounds** of many descriptions.
- **FilterPAK\_ 4001** filtration systems with integrated fluid pump, filter, and fluid reservoir.
- **StandPAK\_ 5000** vibratory base with integrated process timer, bowl mount surface, power distribution panel, and integrated receiver for the **FilterPAK\_ 4001**.
- **Spare bowls**, and replacement parts.



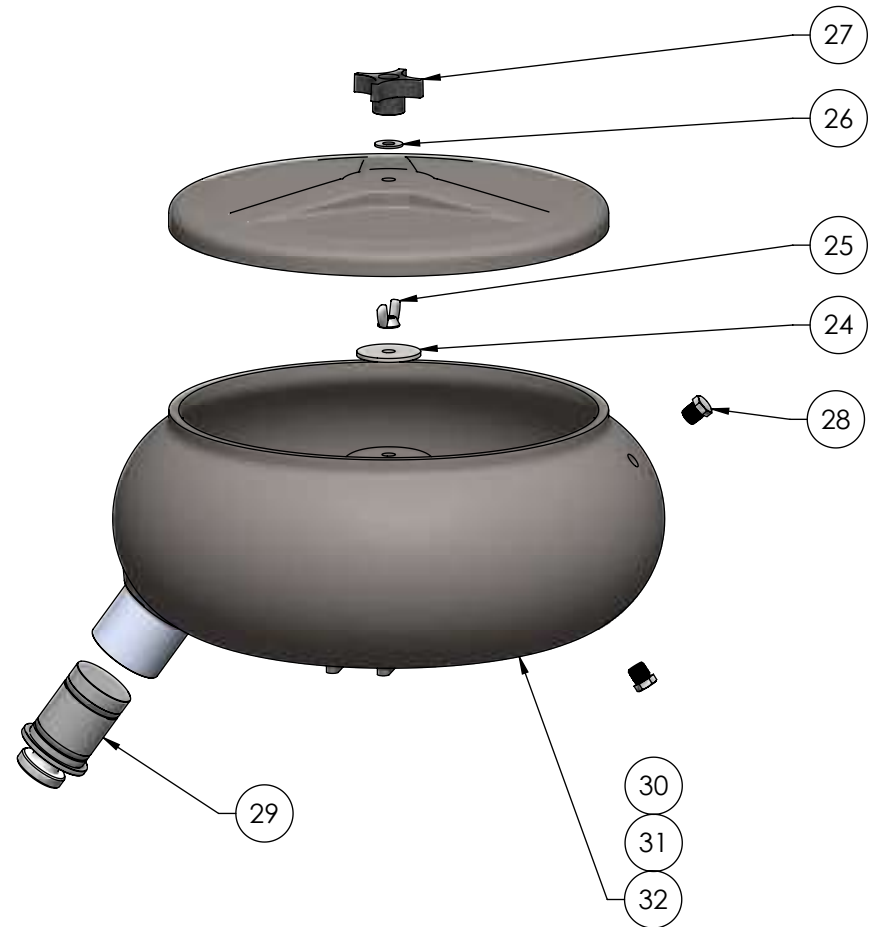
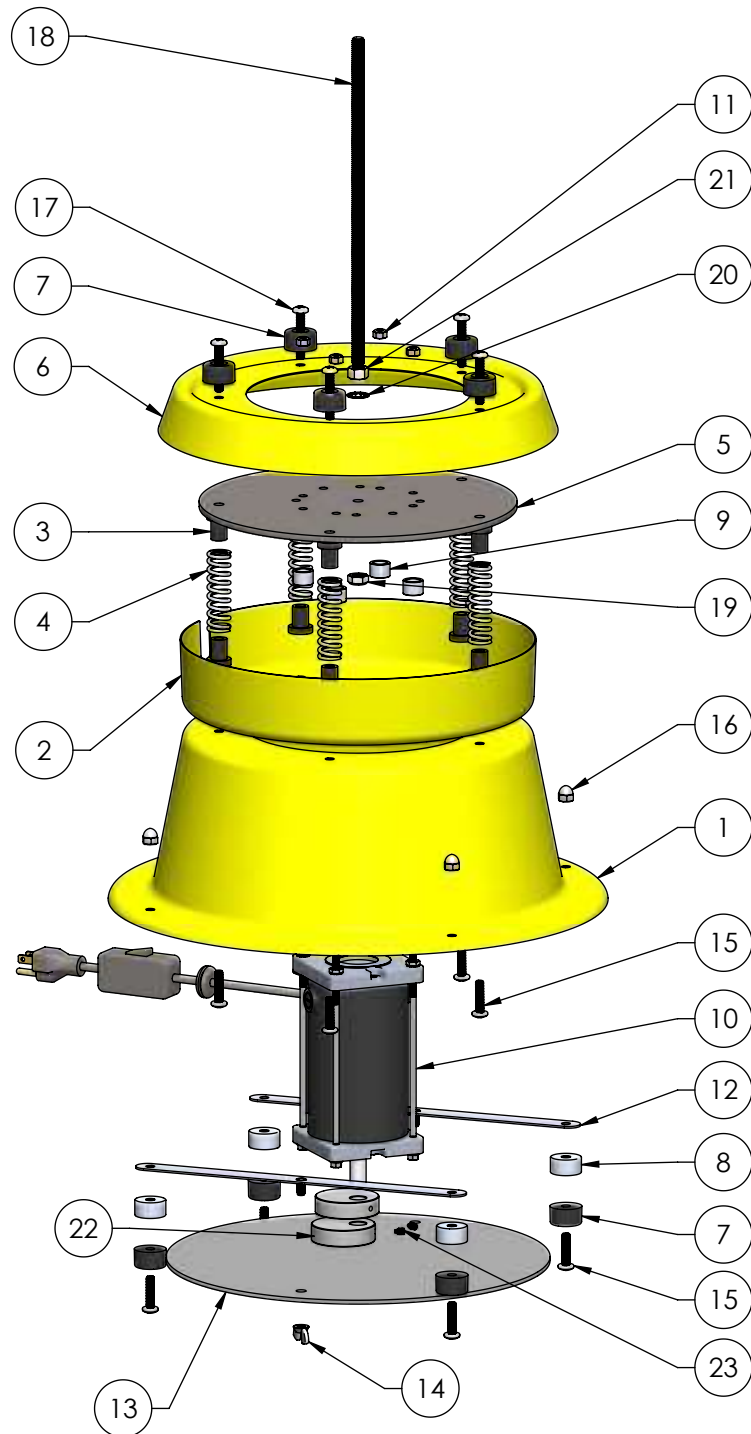
#### **Occupational Noise Exposure**

**Burr King vibratory bowls produce levels of noise consistent with their intended purposes. The level and spectral content of noise produced is dependent on the bowl size, the degree that the bowl is maintained in proper operating condition, the abrasive/media and accessories used, the specific application, use or not of the supplied lid, and the surrounding environment. Noise levels produced by various Burr King vibratory bowls, as measured at the Burr King factory, range from 76 to 88 decibels. Product operators and persons in the immediate product vicinity should be protected from excessive noise does levels as prescribed in OSHA regulation 29, part 1910.95 titled “Occupational Noise Exposure”.**

#### **Warranty**

Burr King Manufacturing warrants the 200 and 200c against defects in material and/or workmanship for a period of ninety days after original customer purchase. This warranty is in lieu of all other warranties, either expressed or implied. Customer induced damage, miss-application, and/or abuse is not covered by warranty. To receive warranty service you must provide the serial number of your bowl, and its original date of purchase, then request a return authorization from Burr King Manufacturing, or an authorized distributor. All material, for which warranty service or replacement is requested must be returned, freight prepaid to the factory for evaluation. Burr King will (at its sole discretion) repair or replace items that qualify under this warranty. In the event warranty coverage is extended by Burr King the warranty service will be performed without charge (including return surface freight charges) to locations within the contiguous United States. For all other destinations, or for other freight modes, warranty terms are FOB Warsaw, MO USA.

# MODEL 150/200/200C EXPLODED VIEW



**BURR KING**

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# **MODEL 150/200/200C PARTS LIST**

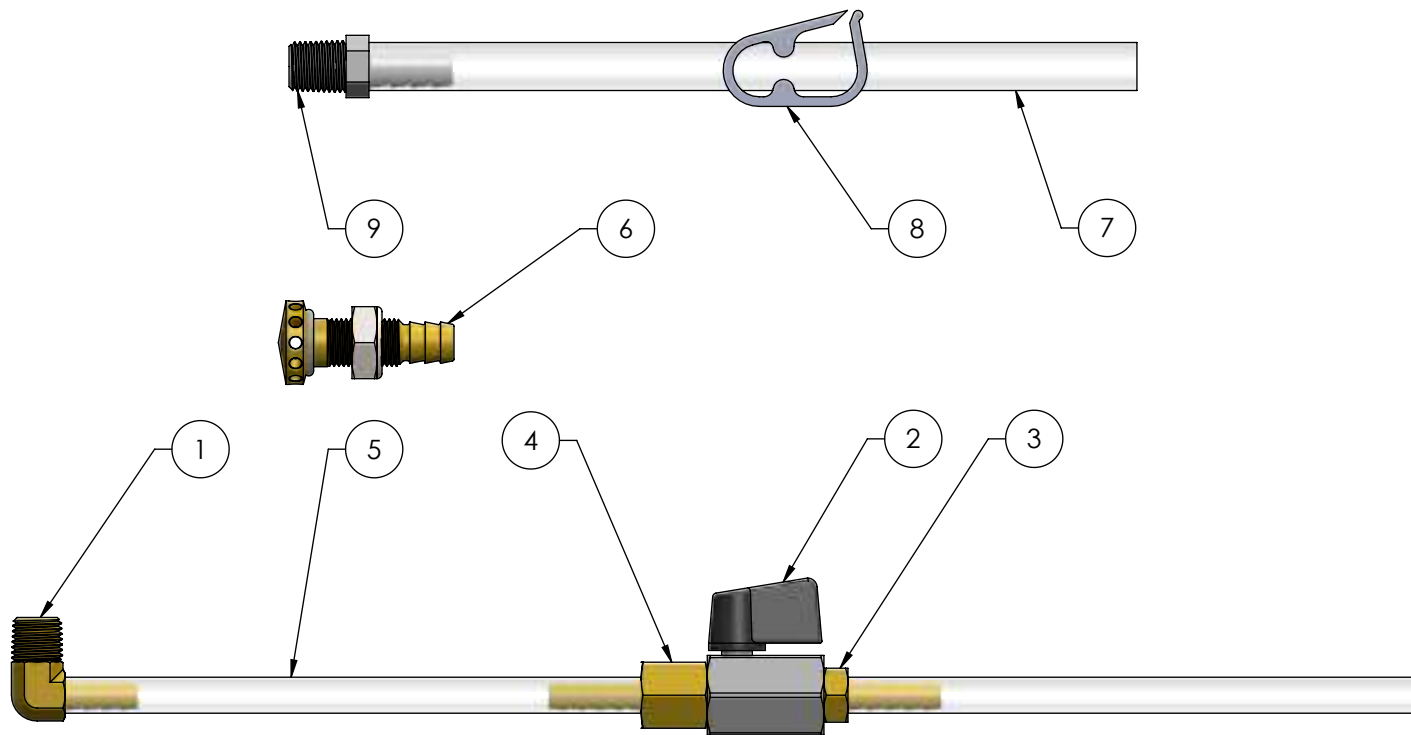
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1517-2	BASE 150/200	1
2	1516-2	COVER-SPRING	1
3	1513	PERCH-SPRING	10
4	1514	SPRING	5
5	1512-2	PLATE-MOTOR	1
6	1511	SKIRT-SPRING	1
7	1515-1	GROMMET/BUMPER	9
8	1521	SPACER-FOOT	4
9	1523-1	SPACER-MOTOR	4
10	1535	MOTOR 1/5 HP 115V	1
11	2B	NUT 10-32 NYLOK	4
12	1518	BRACKET-COVER	2
13	1519	SCREEN-SAFETY	1
14	10B	NUT 1/4-20 WING	2
15	8B	SCREW 1/4-20 x 1 PAN HEAD	9
16	11B	NUT 1/4-20 ACORN	4
17	1B	SCREW 1/4-20 x 1 1/2 PAN HEAD	5
18	1502	SHAFT 3/8-16 THD.	1
19	4-0005	NUT 3/8-16 NYLOK JAM	1
20	5-0014	WASHER 3/8 INTERNAL STAR	1
21	12B	NUT 3/8-16 GR. 5	1
22	1530	WEIGHT-COUNTER	2
23	3-0016	SET SCREW 10-24 x 1/4 BT	2
24	1504	WASHER 3/8 FENDER	1
25	1503	NUT 3/8-16 WING	1
26	40	WASHER 3/8 SAE	1
27	1500	KNOB 3/8-16	1
28	1506	PLUG 1/4 NPT PLASTIC	2
29	1550	PLUG-CHUTE (ASSY)	1
30	1510	150 BOWL & LID	1
31	1520	200 BOWL & LID	1
32	1520-1	200C BOWL & LID W/CHUTE	1

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**JULY 2020**

# MODEL 150/200 OPTIONAL FITTINGS

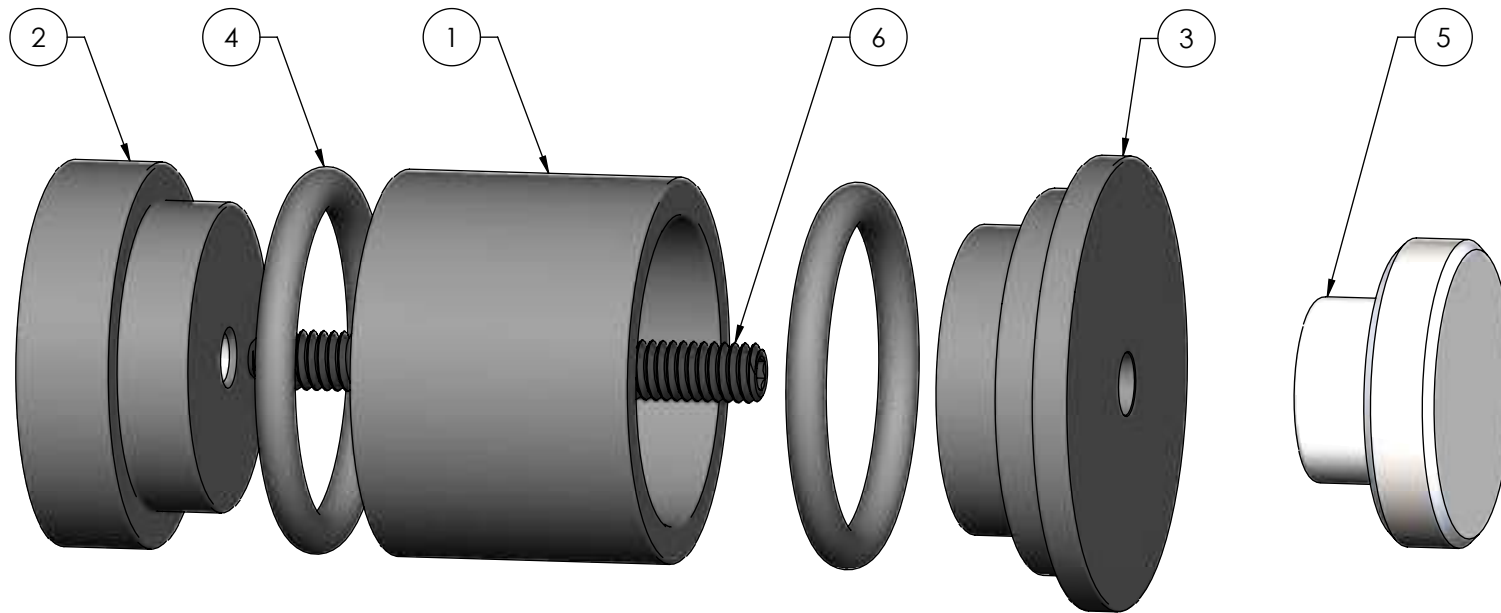


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	3341-1	BARB-HOSE EL 1/4 x 1/4	1
2	3337	VALVE-BALL 1/4 x 1/4	1
3	3339	BARB-HOSE ML 1/4 x 1/4	1
4	3340	BARB-HOSE FM 1/4x1/4	1
5	3408	HOSE-CLEAR 1/4 x 3/8	2
6	1537	DRAIN-BRASS (ASSY)	1
7	1508	HOSE-CLEAR 3/8 x 1/2	1
8	1509	CLAMP-HOSE	1
9	1507	ADAPTER-HOSE 1/4 NPT	1

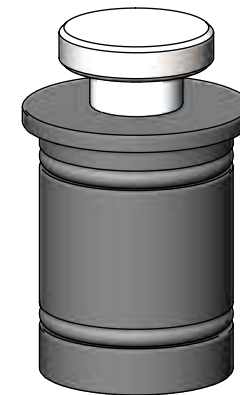
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# 1550 CHUTE PLUG-EXPLODED VIEW & PARTS LIST



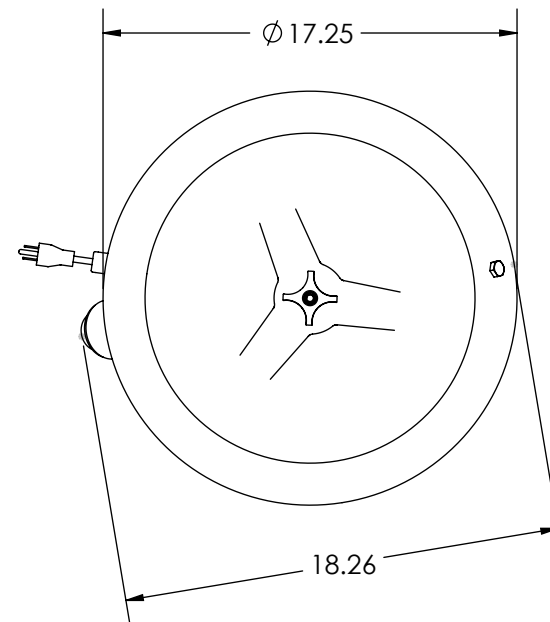
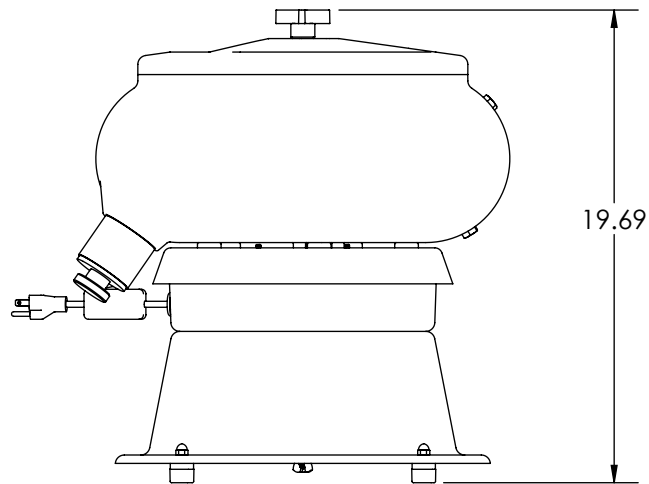
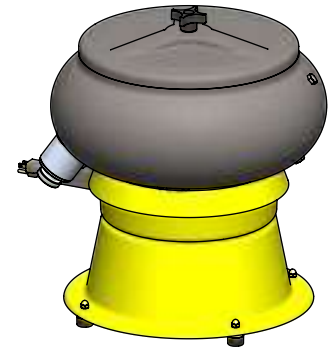
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1550A	TUBE-CHUTE PLUG	1
2	1550B	PLUG-CHUTE PLUG	1
3	1550C	CAP-CHUTE PLUG	1
4	1538-1	O-RING	2
5	711A	KNOB-TRACKING	1
6	921A-1	SET SCREW 5/16-18x2 3/4 CP	1



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# MODEL 150/200/200C FOOTPRINT



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**BURR KING®**

# PLASTIC & SYNTHETIC MEDIA

## PLASTIC MEDIA

## SYNTHETIC MEDIA

Formula	Color	Purpose	Formula	Color	Purpose
V	Light Green	Light Deburr Preplate finish	SY	Tan	Polish Edgebreak
X	Dark Green	General Deburr Preplate Finish	SV	Light Green	Light Deburr Preplate Finish
XV	Blue	Fast Deburr Preplate Finish	SX	Pink	General Deburr Preplate Finish
Z1	Tan	Fast Deburr Preplate Finish	SJ	Tangerine	Fast Deburr Preplate Finish

## STANDARD SHAPES & SIZES

<p>● No Minimum Required                      Δ Minimum 500 lb. Order</p> <p><b>Formulations</b></p> <p>PLASTIC      SYNTHETIC</p>									
<p><b>Cones</b></p> <p>A      B</p> <p>3/8"      3/8"</p> <p>1/2"      9/16"</p> <p>5/8"      7/8"</p> <p>3/4"      3/4"</p> <p>7/16"      5/8"</p> <p>1 1/4"      1 1/4"</p> <p>1"      1"</p> <p>1 3/4"      1 3/4"</p>									
V	X	XV	Z1	SY	SV	SX	SJ		
●	●	Δ	Δ	Δ	●	●	Δ		
●	●	Δ	●	●	●	Δ	Δ		
Δ	Δ	Δ	Δ	Δ	Δ	Δ	●		
●	●	Δ	●	●	●	●	Δ		
Δ	●	Δ	Δ	Δ	●	●	Δ		
Δ	●	Δ	Δ	Δ	Δ	Δ	Δ		
Δ	●	Δ	Δ	Δ	Δ	Δ	Δ		
Δ	●	Δ	Δ	Δ	Δ	Δ	Δ		

<p><b>Cylindrical Wedges</b></p> <p>A      B</p> <p>1/2"      5/8"</p> <p>3/4"      3/4"</p> <p>1 1/8"      1"</p> <p>1 1/2"      1 1/2"</p>									
V	X	XV	Z1	SY	SV	SX	SJ		
Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ		
Δ	Δ	Δ	●	Δ	Δ	Δ	Δ		
Δ	Δ	Δ	Δ	Δ	Δ	Δ	●		
Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ		

<p><b>Tetrahedrons</b></p> <p>A      B</p> <p>3/4"      3/4"</p> <p>1 1/8"      1 1/8"</p> <p>1 1/2"      1 1/2"</p>									
V	X	XV	Z1	SY	SV	SX	SJ		
Δ	●	Δ	●	Δ	Δ	Δ	Δ		
Δ	●	Δ	Δ	●	Δ	Δ	Δ		
Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ		

<p><b>Pyramids</b></p> <p>A      B      C</p> <p>1/4"      1/4"      1/4"</p> <p>3/8"      3/8"      3/8"</p> <p>3/8"      5/8"      3/8"</p> <p>1 5/8"      1"      1"</p> <p>2"      1 1/2"      1"</p>									
V	X	XV	Z1	SY	SV	SX	SJ		
●	●	Δ	●	Δ	Δ	Δ	Δ		
Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ		
Δ	●	Δ	●	Δ	Δ	●	Δ		
Δ	●	Δ	●	Δ	Δ	Δ	Δ		
Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ		

<p><b>Wedges</b></p> <p>A      B</p> <p>1"      3/4"</p> <p>1 1/2"      1"</p> <p>2"      1 1/4"</p>									
V	X	XV	Z1	SY	SV	SX	SJ		
Δ	●	Δ	Δ	Δ	Δ	Δ	Δ		
Δ	●	Δ	Δ	●	Δ	Δ	Δ		
Δ	Δ	Δ	Δ	Δ	Δ	Δ	●		

- \* Plastic media with low foam additive.
- \* Synthetic media is UF resin and sand mixture.
- \* Plastic media is polyester and sand mixture.
- \* Packaged in 50LB boxes.



## FORMULATIONS

### POLISH

Made of high alumina and contains no abrasives. Use with burnishing compounds to burnish metals or with loose abrasives or compounds for deburring. These pins produce a high luster finish and are suitable for use in all types of finishing equipment.

FORMULA	COLOR	PURPOSE	MEDIA WEAR	SURFACE FINISH	CU. F.T. BULK RATE
Polish	White	Polish/ Light deburr	Excellent	Bright	115-120
Fast Cut	Grey	Fast Cut	Good	Good	100-110

### FAST CUT

Made for fast cutting and deburring applications in all types of finishing equipment

## SHAPES/SIZES

STOCK \* NON STOCK \*\*

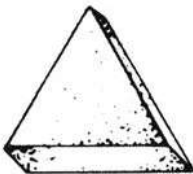
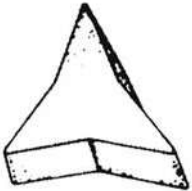

SHAPES	STANDARD SIZES (IN MM)		SHAPES	STANDARD SIZES (IN MM)	
<b>STRAIGHT CUT POLISHING CYLINDERS</b>	DIAMETER	LENGTH	<b>FAST CUT CYLINDERS</b>	DIAMETER	LENGTH
	1.3 **	3.0		1.5 *	5.0
	1.7 **	5.0		2.0 **	4.0
	2.5 *	8.0		2.0 **	7.0
	3.0 *	10		2.5 *	8.0
	4.5 *	14		3.0 **	6.0
	5.5 **	17		4.5 **	8.0
	7.0 **	23			
<b>POLISHING TRIANGLE</b>	DIAMETER	LENGTH	<b>FAST CUTTING TRIANGLE</b>	DIAMETER	LENGTH
	2.0 *	2.0		2.0 *	2.0
	3.0 **	3.0		3.0 *	3.0
	4.0 *	4.0		3.0 **	6.0
	6.0 *	6.0		4.0 **	8.0
				6.0 *	6.0
<b>POLISHING SPHERES</b>	DIAMETER		<b>FAST CUTTING SPHERES</b>	DIAMETER	
	2.0 *			2.0 **	
	3.0 *			3.0 *	
	4.0 *			4.0 *	
	5.0 **			5.0 **	
	6.0 *			6.0 **	
	8.0 *			9.0 *	
	10.0 **			10.0 **	

**NOTE:** The polishing pins and polishing spheres are stocked in both OH, and CA warehouses. Delivery on the other products listed - stock to eight weeks. Other sizes and non-standard items are available on special order, call for pricing and delivery. No stock 800lbs. minimum.

BURR KING MFG., INC.  
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# PREFORMED TUMBLING AND VIBRATORY CERAMIC ABRASIVES

NOTE: Green and Grey fields are in stock.  
 Non stock items 500lb. minimum

SIZE	STOCK			SHAPE	SIZE	STOCK			SHAPE
	P-20	P-40	P-60			P-20	P-40	P-60	
2 x 7/8				<b>ANGLE CUT TRIANGLE</b> 	1-7/8 x 5/8				<b>ANGLE CUT TRISTAR</b> 
2 x 11/16					1-3/8 x 7/16				
1-7/8 x 7/8					1-3/8 x 1/2				
1-7/8 x 5/8					1-1/8 x 1				
1-1/2 x 1-1/2					1-1/8 x 7/8				
1-1/2 x 1/2					1-1/8 x 3/8				
1-3/8 x 5/8					1-1/8 x 5/16				
1-3/8 x 1/2					7/8 x 3/8				
1-3/8 x 7/16					7/8 x 7/8				
1-1/8 x 1-1/8					7/8 x 5/16				
1-1/8 x 1					5/8 x 3/4				
1-1/8 x 7/8					5/8 x 5/16				
1-1/8 x 5/8					5/8 x 1/4				
1-1/8 x 3/8					3/8 x 3/16				
7/8 x 7/8					1-1/8 x 1-3/4				
7/8 x 3/8					7/8 x 1-3/4				
7/8 x 5/16					7/8 x 1-1/2				
3/4 x 3/4					3/4 x 1-1/2				
5/8 x 5/8					5/8 x 1-1/2				
5/8 x 1/2 x 5/16					5/8 x 1-1/8				
5/8 x 1/4				1/2 x 7/8					
5/8 x 3/8				7/16 x 7/8					
3/8 x 3/8				3/8 x 5/8					
3/8 x 1/4				5/16 x 5/8					
3/8 x 5/16				1/4 x 5/8					
3/8 x 3/16				3/16 x 5/8					
1/4 x 1/4				3/16 x 3/8					
1/4 x 5/16				5/32 x 5/16					
1/4 x 3/16				ACC ELLIPSE 22 Degrees				<b>ANGLE CUT CYLINDER</b> 	
7/8 x 1/4				3/8 x 5/8 x 5/8					
7/8 x 5/8				3/8 x 5/8 x 7/8					
1/4 x 3/16				1 x 3/8 x 1					
1/4 x 1/4				45 & 60 Degrees					
3/8 x 3/8				3/8 x 5/8					
7/16 x 7/16				5/8 x 1-1/8					
5/8 x 5/8				1/4 x 9/16					
3/4 x 3/4									
1 x 1									
1-1/2 x 1-1/2									
2 x 2									

Compositions, General Info., Anti rust and soap solution on back.

# **PREFORMED TUMBLING & VIBRATORY CERAMIC ABRASIVES**

## **COMPOSITIONS**

P-60 = Light cut, superior finish, leaves clean surface, good for aluminum parts. (78-80lbs.)

P-40 = Good cut and wear life, excellent finish, ideal for general purpose use, economical  
(89 to 90 lbs. per cubic foot)

P-20 = Fastest cut, for heavy deburring, matte finish. (85 to 90 lbs. per cubic foot)

## **GENERAL INFORMATION**

Successful parts processing depends not only on the capability of equipment used, but also on the type, shape and size of the media used.

Users whose work requires preforms will find that an understanding of the types available will influence the quality of their work as well as time cycles and operating procedure.

We are totally capable of rendering assistance in your selection of specific media and equipment for your particular problem in deburring and finishing.

We base our recommendations and technical information on testing we consider reliable, but they are based on information we assume is correct from our dealers, agents and customers.

## **SOAP SOLUTIONS**

**AR-60** - Anti Rust solution is the neutral liquid used for prevention of oxidation and rust formation. Excellent for rinse after tumbling to prevent spotting and streaking of aluminum and magnesium. Can be mixed hot or cold. When used as a dip will impart a dry, on oily microscopic film which does not require removal for subsequent operations. Anti rust is mildly sudsy.

**BKS-60** soap solution has a slightly alkaline liquid that is especially designed for vibratory equipment as it is a low sudser. Contains some petroleum additives.

# VIBRATORY MEDIA GUIDE

*Burr King Vibratory Media comes in all different shapes, sizes and resin formulas. Dry polishing media such as Walnut Shell or super aggressive Duralum nuggets, we will help you fine the right media for your application. Vibratory Media can remove the*

*nasty slag from Plasma cut parts but it can also polish to a near mirror finish.*

*Our Vibratory Test Lab will lend you a hand when looking for the process best suited for your parts. Let us help you choose the right media for you.*

**CERAMIC:** Produced by mixing clay or other vitreous materials with abrasives. Used on ferrous and non ferrous metals. Will leave various finish from a light cut to a aggressive cut depending on the grade.



**PLASTIC:** A abrasive which is a petroleum-based plastic media Normally used on non-ferrous materials such as aluminum. Most commonly used when a low RMS micro-finish is desired, or where the finish must be substantially free of impingement damage which is seen if using ceramic media on aluminum or soft material.



**SYNTHETIC:** A blend of urea formaldehyde resin and abrasive material, such as aluminum oxide or silicon carbide. Synthetics provide environmental benefits due to its clean, non-foaming residue. Synthetics however have a lower specific gravity than plastic, meaning they do not remove material as aggressively. This type of media is a good choice for delicate parts. Synthetics do have a higher wear rate than plastic.



**DURALUM:** These nuggets are used to remove slag and mil scale. Also removes heavy flash from plasma or laser cut parts. Primarily used on ferrous material.



## BURNISHING:

This media is free of abrasive particles and is used for lapping, light deburring, and cleaning of parts. Commonly used with stainless steel, porcelain and carbon steel.



**WALNUT SHELL:** Black Walnut shell abrasive is used to polish soft metals, fiberglass, wood, plastics and stone. It works as a deburring and deflashing product for moldings, castings, and electrical parts. It is an efficient soft abrasive when used to tumble and polish gun castings, jewelry, and metal parts due to its resistance to breakdown. The media has a natural color.

**WSC50:** Black Walnut shell impregnated with chromium oxide and used for polishing white metals such as sterling, silver and stainless steel. Best used with harder metals. WSC50 green in color.



**WSR50:** Black Walnut shell impregnated with rouge and used to polish yellow metals such as gold, brass and copper. WSR50 media is red in color.

**CORN COB:** Smooth flowing abrasive made from the hard woody ring of the cob. This is used as a tumbling and vibratory media to absorb dirt and oils, and dry parts without affecting the surface of the part. Cob is biodegradable and non-toxic. Corn Cob has natural color.



**TREATED COB:** Corn cob treated with aluminum oxide and used for polishing ferrous or non ferrous soft metals. Works well for aluminum.

*(See price list for current list pricing, there are many media shapes, sizes and grits available)*

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# VIBRATORY SOAPS & COMPOUNDS



*Burr King Vibratory Soaps & Compounds are more than just soap. Our vibratory compounds lubricate, clean, emulsify, suspend, cushion & flush your vibratory system keeping it running at it's optimum state.*

*Our compounds also improve the finish, cleaning and brightening of your parts. Using the right compounds decrease cycle times and extend media life. Let us help you choose the right solution for you.*

## FERROUS

**AR-60:** Anti-rust liquid is used for prevention of oxidation and rust formation. This is an inhibitor only which lasts up to two days. (047)

**RUST X-100:** Anti rust dip used for the prevention of oxidation and rust formation. Lasts up to two months if not diluted. (Rust X-100)

**RUST X-300:** Rust remover that is environmentally-safe, water-based product. Removes rust in minutes without scrubbing. Use on rusted tools, auto parts, and firearms to restore parts to like-new condition. (Rust X-300)

**BKS-45:** A liquid cleaning and deburring compound for use with non-metallic medias. Uniquely formulated low foaming chemical to eliminate plastic and synthetic media foaming problems and maximize plastic and synthetic media efficiency. Free rinsing, leaving no troublesome powdery residue. Non-chelated for ease of waste treatment. Excellent for Anodizing. (045)

### Burnish

**BKB-40:** Burnish compound helps prevent ferrous parts from rusting. Produces a bright finish on zinc, brass, copper, steel, and stainless steel. (BKB-40)

## ANTI-STICK BEADS

Crystal beads used to help prevent parts from sticking together or to the wall of the machine. Not recommended for flow-through systems. (AS-5)

**BURR KING®**

## NON-FERROUS

**BKS-60:** General purpose cleaner with a blend of quality raw materials proven to be an excellent compound for controlling the white film residue. Use with plastic, synthetic and ceramic media. (048)

**BKS-70:** Slightly alkaline, safe for aluminum and all your metals, provides bright/clean parts, free rinsing. (048-1)

**BKS-45:** A liquid cleaning and deburring compound for use with non-metallic medias. Uniquely formulated low foaming chemical to eliminate plastic and synthetic media foaming problems and maximize plastic and synthetic media efficiency. Free rinsing, leaving no troublesome powdery residue. Non-chelated for ease of waste treatment. Excellent for Anodizing. (045)

### Burnish

**BKS-32:** Burnish compound is used for burnishing, deburring, and cleaning all types of metals and alloys in a wide range of applications. It is ideal for flow-through systems. Not for zinc and aluminum die cast. (046)

## DEFOAMER

**BKDF:** A low foam liquid, alkaline, non-abrasive cutting compound developed to overcome the foaming problems encountered in vibratory finishing machines when using plastic media. This compound when properly used will remove oils, grease, etc (BKDF)

## CITRIC ACID CRYSTALS

Citric Acid Crystals are used to help remove rust and paint from all materials. Can also brighten up yellow metals. If used for rust removal, part must be dipped in a anti-rust compound upon removing them from the acid solution. (9981)