BURR KING MFG. CO., INC
1220 Tamara Lane
Warsaw, MO 65355
www.burrking.com
(660)438-8998 • 800-621-2748
Fax (660)438-8991

VibraKing 150sx & 200sx

Instruction Manual

Model 15000 Shown

Model 20000 Shown

Burr King VibraKing
150sx & 200sx 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 fir 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.

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 @ WWW.BURRKING.COM

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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 Mac Carthy
President

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February 2005

OPERATOR, and OPERATING AREA SAFETY

Subject equipment includes Grinders, buffers, polishers, and other rotating equipment. Serious injury or death may occur if minimum safety precautions are not understood, and obeyed by operators and those other persons who may be in the immediate vicinity of the subject equipment. Persons who operate, or are in the immediate vicinity of the subject equipment must be properly trained in, and use, minimum safety precautions and procedures for such machinery.

Minimum safety requirements to operate, or work in the immediate vicinity subject equipment:

1. Read and understand all operating instructions, manuals, labels, and other information provided with the equipment.
2. Install the equipment according to manufacturer's instructions.
3. Securely bolt the equipment to a rigid, structurally sound mounting surface.
4. Use and wear proper eye and face protection.
5. Use and wear proper protection for the body, hands, fingers, feet, and legs.
6. Review and understand all machine guards, adjustments, and points of exposure to potential injury.
7. Do not remove, tamper with, or otherwise alter, equipment guards, and other safety features.
8. Insure the machine is adjusted, and remains adjusted according to manufacture's requirements.
9. Maintain the equipment in good operating condition.
10. Have another person who is knowledgeable in proper and safe operation of the subject equipment demonstrate proper and safe operation to all operators, and to those persons who might be in the immediate vicinity of the subject equipment.
11. Use work piece holding devices when ever possible that diminish the possibility that persons will come in contact with moving machine pieces, or spark/debris output from the machine.
12. Use spark and debris arresting apparatus. Such apparatus should be connected to the machine so as to contain dust and debris that is generated, and to suppress sparks thereby limiting human inhalation risk, and the risk of fire or explosion.
13. Use appropriate inhalation apparatus to protect person from ingestion and/or inhalation of sparks, debris, smoke, particulates, etc.
14. Avoid mixing different metals, alloys, and materials. To mix such materials might create a fire or explosion hazard.
15. Protect persons from work pieces, particulates, etc. that could be forcibly ejected from the machine. For example, a buffing wheel or grinding belt can "grab" a work piece while the work piece is being buffed, polished, ground, or otherwise conditioned, resulting in forcible ejection toward the operator or those in the vicinity of the machine. The use of leather aprons, gloves, and eye shields are examples of protective gear that may be effective. In general do not grind, buff, or otherwise engage the traveling belt, wheel, or disc surface with the work piece pointing into the direction from which the belt, wheel, or disc is traveling. However, if you choose to do so be aware the work piece may lodge in the traveling belt, wheel, or disc and be forcibly, and dangerously ejected.
16. Do not operate this machine if the gap (nip point) between a moving belt, wheel or disc and the work support surface exceeds 1/8 inch.
17. Do not operate this machine if the gap between the moving abrasive belt, disc or wheel and the adjacent face

page 1 continued on next page

Continued from page 1

of the work rest (or table) will permit passage of the work piece through the gap (nip point). Note, however, that certain alloys such as titanium may create conditions where grinding debris can accumulate in a tight gap creating a potential fire hazard. **When in doubt consult with your safety officer**. Failure to observe this warning may result in the work piece or other item being caught in this gap, and/or being forcibly ejected. Failure to heed this warning may cause serious bodily harm to the operator and/or bystanders. **NEVER USE THIS EQUIPMENT IF YOU ARE NOT PROPERLY TRAINED IN ITS OPERATION and/or SAFE USE! IF IN DOUBT STOP and ASK FOR GUIDANCE!**

18. Never position the work rest table at an acute angle between the top of the work rest table and the moving belt or wheel. Doing so will create "nip point" that can cause serious injury should an operator body part become entangled (pulled into) the nip point created by this acute angle.
19. Do not operate the equipment, or allow others to operate the equipment without proper training in these and other rotating machinery safety requirements.
20. Do not perform maintenance on the equipment unless you are fully qualified to do so, and understand all necessary safety and operating requirements.
21. Do not leave the machine unattended while it is running.
22. Correct equipment or safety problems immediately. Do not operate the equipment when it requires maintenance, or correction.
23. Install and use high quality abrasive belts, wheels, discs, media, etc., as appropriate to your machine. Understand and follow the operating requirements provided by the manufacturer of these materials.

Rotational Speed Warning, Contact Wheels

Scope: Contact wheels manufactured by Burr King Manufacturing Company, Inc., which have rubber or urethane tires. Examples include but are not limited to stock codes 202, 302, 402, 502,702, 802, 902, 1002, 1202 and variants. Variants have stock codes that begin with the base number; i.e. 802-S-55 is an 802 variant.

Users are warned not to exceed the below listed revolutions per minute (RPM) on the subject wheels. Failure to heed this warning may lead to tire de-bonding, fragmentation, or other mechanical failure. Such failures may cause serious personal injury to operators or bystanders, and/or cause property damage. All Burr King products are warranted for various time periods to be free of material and/or workmanship defects. Burr King Manufacturing Companies standard warranty policy is summarized as follows for contact wheels. 1 year from date of purchase if mounted on a Burr King machine purchased on the same date or 90 days if purchased as a spare or replacement part. Our warranty does not apply to wheels that are mounted on products not manufactured by Burr King Manufacturing Company, Inc. Users who mount Burr King manufactured contact wheels on product not manufactured by Burr King Manufacturing Company, Inc. do so at their own risk and assume all liability for having so mounted the contact wheel(s).

Remember good safety practice demands guarding to protect operators and bystanders from wheel failure and/or debris. Never use the subject contact wheels without proper guarding that meets commonly accepted safe practice. See OSHA, U/L, CSA, CE, ISO and other respected safety standards.

Stock code Contact Wheel	Maximum Safe RPM
202, 302	10000
402, 502, 702 802	4400
902, 1002	2200
1202	1600

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Continued from page 2

Occupational Noise Exposure

Burr King products produce levels of noise consistent with their intended purposes. The level and spectral content of noise produced is dependent on the product type, the degree that the product is maintained in proper operating condition, the abrasive/media and accessories used, the specific application, and the surrounding environment. Noise levels produced by various Burr King grinders and polishers, as measured at the Burr King factory, range from 80 to 93 decibels. Product operators and persons in the immediate product vicinity should be protected from excessive noise does levels as prescribed in OSHA regulation 29, piece 1910.95 titled "Occupational Noise Exposure".

ROTATING EQUIPMENT CAN BE DANGEROUS TO OPERATORS AND THOSE WHO MAY BE IN ITS IMMEDIATE OPERATING VICINITY. IT IS THE ABSOLUTE AND DIRECT RESPONSIBILITY OF PURCHASERS, MANAGERS, AND OPERATORS OF THIS EQUIPMENT TO UNDERSTAND AND OBEY THE FOREGOING MINIMUM OPERATING SAFETY REQUIREMENTS. IF **YOU HAVE QUESTIONS OR SAFETY CONCERNS REGARDING OPERATING THE SUBJECT EQUIPMENT PLEASE CALL YOUR AUTHORIZED BURR KING DISTRIBUTOR, OR BURR KING MANUFACTURING AT 1-800-621-2748. YOUR SAFETY IS OUR FOREMOST CONCERN!**

Burr King Manufacturing disclaims any and all responsibility for injuries, damage, loss of income, or other adverse consequence as might be incurred by purchasers, managers, and operators of this equipment.

Page 3 is last page

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November 2004

Operating instructions for Models 150SX and 200SX VibraKING® enhanced performance vibratory bowls

The VibraKING 150SX and 200SX 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 150SX and 200SX bowls

- The bowls may be used with 50 or 60 hertz, 110/115/120 VAC, single-phase electrical power.
- The 2000 HZ vibratory frequency reduces process times.
- Vibratory amplitude is easily, and continuously adjustable from zero to full amplitude.
- A variable frequency model permits the vibratory frequency to be tuned to the media and part instilled into the bowl. Ask your distributor about variable frequency model 200SXV!
- 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 tenth horsepower DC motor rotating within a rotation range of 2000 to 2400 RPM (dependant on the bowl load instilled) provides vibratory energy to the bowl.
- Integrated AC to DC voltage conversion to facilitate the high performance, cool running DC motor.

At receipt and prior to using you VibraKING® bowl

Before leaving the Burr King factory your VibraKING® 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 you're 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® 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® 5000** is an excellent work station on which to mount your VibraKING® bowl. The StandPAK® 5000 incorporates a process timer, power distribution panel, and receiver for the **FilterPAK® 4000** all in stable, rugged steel base that is professionally finished.
- Select a work location near an AC power output plug that provides 110/115/120 VAC, single phase, 50-60 hertz electrical power of at least 2 amperes current capability.

***Avoid electrocution hazards*. The 150SX and 200SX bowls are 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.**

***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) may create a fire/explosion hazard that could result in personal injury, or death. Use only clean water with recommended soaps in your VibraKING® 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® 4000** 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®4000**) or to your fluid container. The bowl plugs are ¼ inch NP threads. If you purchased a **CombiPAK® 150 or 200** 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 0-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 (1508) provided to the lower port using the barb adapter provided (1507). Use the clamp stop (1509) provided to stop drain flow during processing.
- 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:
    - 150SX – 35 pounds (generally 25 pounds of media, 10 pounds of parts)
    - 200SX – 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 150SX water level volume is 10 quarts (0.33 cubic feet), and the 200SX 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 110/115/120 VAC, single-phase, 50-60 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 to 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 to little rotate the bottom weight so that it is in closer alignment (more concentric) with the upper weight. If the vibratory amplitude was to 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.

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.

Motor life

The motor uses armature brushes that wear with service. Ordinarily the brushes will provide about 1000 hours or more of service life. When the brushes wear to the point that the motor operates intermittently or not at all replace the brushes. Brush replacement requires removal of the motor from the assembly, withdrawal of the old brushes (two, one on each side of the motor with flat screw slots to facilitate removal), and installation of new brushes. Contact Burr King Mfg. for brush replacements.

Tips for getting the best service from your model 150SX or 200SX 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.
- Maintain your media and equipment in a clean condition. If you use a re-circulating, filtration system such as the Burr King **FilterPAK® 4000**, 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® 4000** 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® 4000**.
- **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".

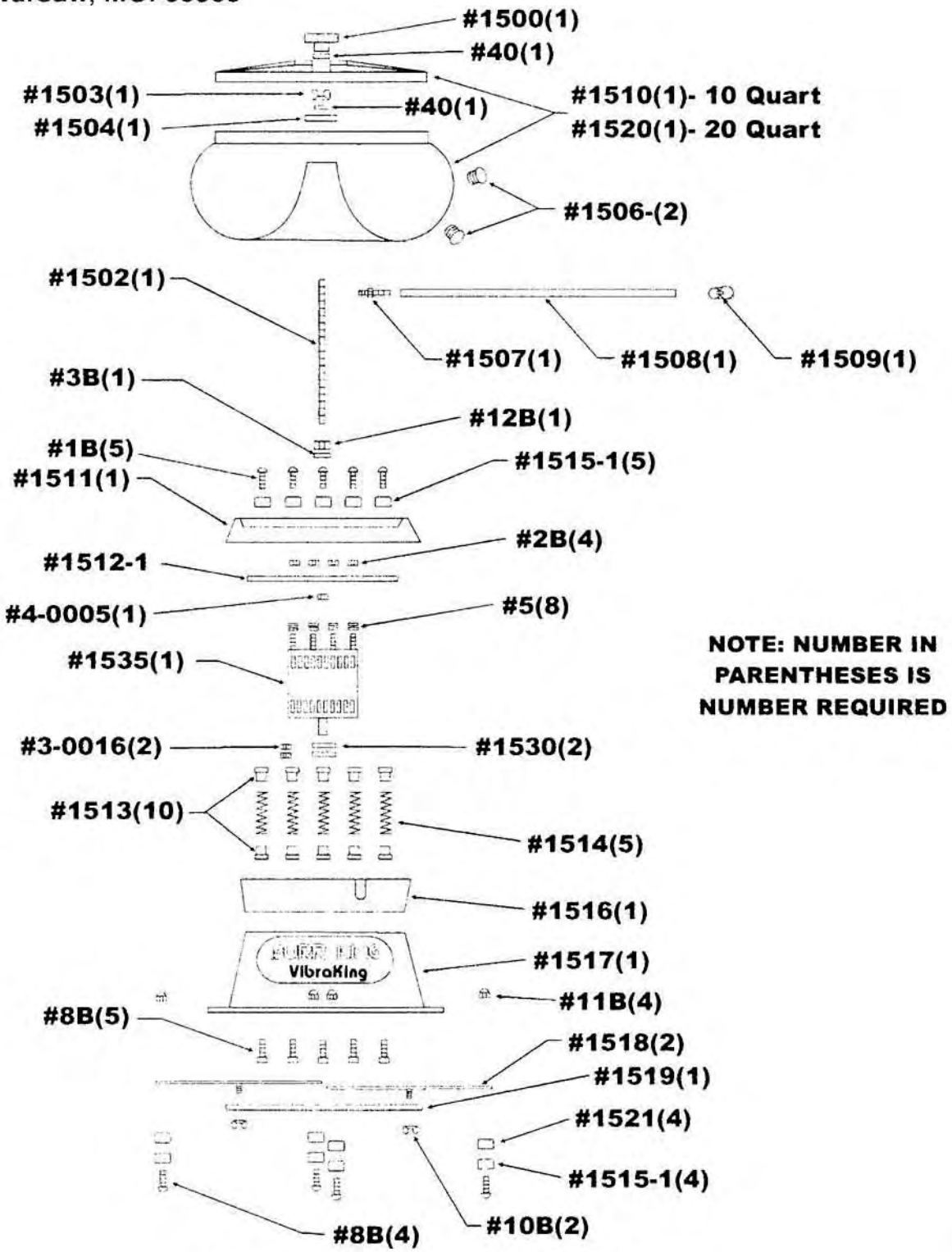
Warranty

Burr King Manufacturing warrants the 150SX, 200SX, and 200SXV 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.

BURR KING®

MODEL 150 SX - 10 Quart Bowl
MODEL 200 SX - 20 Quart Bowl

3 Tamara Lane
Warsaw, MO. 65355



NOTE: NUMBER IN PARENTHESES IS NUMBER REQUIRED

(SEE REVERSE SIDE FOR PART DESCRIPTION)

MASTER PARTS LISTING ***EFFECTIVE: OCTOBER 1, 2000***

150SX ***200SX***

10 QUART ***20 QUART***

BURR KING®

FOR STOCK CODE # 15000 & 20000

PH: (800) 621-2748 (660) 438-8998 FAX: (660) 438-8991 E-MAIL: burrking@lland.net WEB: www.burrking.com

PART	DESCRIPTION	QTY
1B	SCREW,PH,PHIL.1/4-20 X 1-1/2	5
2B	NUT, NYLOCK, 10-32	4
3B	WASHER, EXT. LOCK, 3/8	1
5	WASHER, AN 960-416	8
8B	SCREW,PH,PHIL.1/4-20 X 1	9
10B	NUT, WING, 1/4-20	2
11B	NUT, ACORN, 1/4-20	4
12B	NUT, HEX 3/8	1
3-0016	SCREW,SET, 10-24 X 1/4	2
4-0005	NUT, JAM, NYLOCK, 3/8 X 16	1
5-0019	WRENCH,ALLEN 3/32, SHORT ARM	1
40	WASHER, SAE, 3/8	2
1500	KNOB	1
1502	ALL THREAD, 3/8	1
1503	NUT, WING, 3/8-16	1
1504	WASHER ID 3/8 OD 2	1
1506	PLUG, PLASTIC	2
1507	ADAPTER, PLASTIC	1
1508	HOSE, PLASTIC	1
1509	CLAMP, PLASTIC	1
1510	BOWL & LID, 10 QUART	1
1511	SPRING, SKIRT	1
1512-1	PLATE, MOTOR MOUNTING	1
1513	SPRING, PERCH	10
1514	SPRING	5
1515-1	GROMMET, RUBBER	9
1516	COVER, SPRING	1
1517	BASE	1
1518	BRACKET	2
1519	SCREEN, SAFETY	1
1520	BOWL & LID, 20 QUART	1
1521	SPACER	4
1530	WEIGHTS, COUNTER	2
1535	MOTOR	1
1535KIT	MOTOR, KIT	1
	KIT CONSIST OF: 2B, 5, 3-0016, 5-0019, 1512-1, 1530, 1535 for models: 150S (S/N 4000 & below) 200S (S/N 16000 & below)	

CONTACT FACTORY FOR MOTOR OPTIONS

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

MADE IN THE U.S.A.

BURR KING®

PLASTIC & SYNTHETIC MEDIA

PLASTIC MEDIA

SYNTHETIC MEDIA

Formula	Color	Purpose	Formula	Color	Purpose
V	Light Green	Light Deburr Preplate finish	SP	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

● No Minimum Required
Δ Minimum 500 lb. Order

Cones

A	B	V	X	XV	Z1	SP	SV	SX	SJ
3/8"	3/8"	Δ	●	●	●	Δ	●	●	●
1/2"	9/16"	●	●	Δ	●	Δ		●	
5/8"	7/8"	Δ	Δ	Δ	Δ	Δ	Δ	●	●
3/4"	3/4"	●	●	●	●	Δ	●	●	
1"	1"	Δ	●	Δ	Δ	Δ	Δ	Δ	Δ
1 1/4"	1 1/4"	●	●	Δ	●	Δ	●	Δ	Δ
1 1/2"	1 1/2"	Δ	Δ	Δ	Δ	Δ	Δ	●	Δ
1 3/4"	1 3/4"	Δ		Δ	Δ	Δ	Δ	Δ	Δ
2 1/2"	3"	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ

Triangles

A	B	C	V	X	XV	Z1	SP	SV	SX	SJ
5/8"	3/8"	1/2"	Δ	Δ	Δ		Δ	Δ	Δ	
1 1/4"	7/8"	5/8"	●	●	Δ	Δ	Δ	Δ	●	Δ

TriStars

A	B	V	X	XV	Z1	SP	SV	SX	SJ
1 3/4"	3/4"	Δ	●			Δ	Δ	Δ	Δ
2"	1"	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ

Cylindrical Wedges

A	B	V	X	XV	Z1	SP	SV	SX	SJ
5/8"	1/2"	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
3/4"	3/4"	Δ	Δ	Δ	Δ	Δ	Δ		
1 1/8"	1"	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
1 1/2"	1 1/2"	Δ	Δ	Δ	Δ	Δ	Δ	Δ	●

Tetrahedrons

A	B	V	X	XV	Z1	SP	SV	SX	SJ
3/4"	3/4"	Δ	●	●	Δ	Δ	Δ	Δ	
1 1/8"	1 1/8"	Δ	●	Δ	Δ	Δ	●	Δ	●
1 1/2"	1 1/2"	Δ	●	Δ	Δ	Δ	Δ	Δ	Δ

Pyramids

A	B	C	V	X	XV	Z1	SP	SV	SX	SJ
1/4"	1/4"	1/4"	●	●	Δ	●	Δ	Δ	Δ	Δ
3/8"	3/8"	3/8"	●	●	Δ	●	Δ	Δ	Δ	Δ
3/8"	5/8"	3/8"	Δ	●		Δ	Δ	Δ	●	Δ
1 5/8"	1"	1"	Δ	●	●	●	Δ	Δ	Δ	●
2"	1 1/2"	1"	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ

Wedges

A	B	V	X	XV	Z1	SP	SV	SX	SJ
1"	3/4"	Δ	●	Δ	●	Δ	Δ	●	Δ
1 1/2"	1"	Δ	●	Δ	Δ	Δ	Δ	Δ	●
2"	1 1/4"	Δ		Δ	Δ	Δ	Δ	Δ	●
2 1/2"	1 1/2"	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ

Formulations

PLASTIC: V, X, XV, Z1 — SYNTHETIC: SP, SV, SX, SJ

* 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

	Formula	Color	Purpose	Media wear	Surface Finish	Cu. F.T. Bulk Rate
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.	Polish	White	Polish/ Light deburr	Excellent	Bright	115-120
Fast Cut Made for fast cutting and deburring applications in all types of finishing equipment	Fast Cut	Grey	Fast Cut	Good	Good	100-110

Shapes/Sizes Stock * Non Stock **

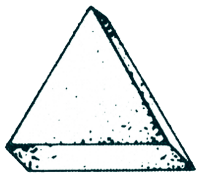
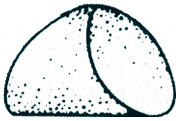
Shapes	Standard Sizes (in mm)		Shapes	Standard Sizes (in mm)	
	Diameter	Length		Diameter	Length
Straight Cut Polishing Cylinders	1.3 ** 1.7 ** 2.5 * 3.0 * 4.5 * 5.5 ** 7.0 **	3.0 5.0 8.0 10 14 17 23	**Fast Cut Cylinders**	1.5 * 2.0 ** 2.0 ** 2.5 * 3.0 ** 4.5 **	5.0 4.0 7.0 8.0 6.0 8.0
	Diameter	Length		Diameter	Length
Polishing Triangle	2.0 * 3.0 ** 4.0 * 6.0 *	2.0 3.0 4.0 6.0	**Fast Cutting Triangle**	2.0 * 3.0 * 3.0 ** 4.0 ** 6.0 *	2.0 3.0 6.0 8.0 6.0
	Diameter			Diameter	
Polishing Spheres	2.0 * 3.0 * 4.0 * 5.0 ** 6.0 * 8.0 * 10.0**		**Fast Cutting Spheres**	2.0 ** 3.0 * 4.0 * 5.0 ** 6.0 ** 9.0 * 10.0**	

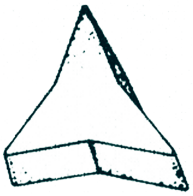
Note: The polishing pins and polishing spheres are stocked in both OH, and CA warehouses. Delivery on the other products listed - stock to eight weeks. Other sizes and non-standard items are available on special order, call for pricing and delivery. No stock 800lbs. minimum.

Burr King Mfg., Inc.
1220 Tamara Lane
Warsaw, MO 65355
(660) 438-8998 (800) 621-2748
Fax:(660) 438-8991

PREFORMED TUMBLING AND VIBRATORY CERAMIC ABRASIVES

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

Size	Stock P-20	Stock P-40	Stock P-60	Shape
2 x 7/8				Angle Cut Triangle  ACT
2 x 11/16	■	■		
1-7/8 x 7/8		■		
1-7/8 x 5/8	■	■		
1-1/2 x 1-1/2				
1-1/2 x 1/2				
1-3/8 x 5/8				
1-3/8 x 1/2		■		
1-3/8 x 7/16	■	■		
1-1/8 x 1-1/8		■		
1-1/8 x 1				
1-1/8 x 7/8	■	■		
1-1/8 x 5/8		■		
1-1/8 x 3/8	■	■	■	
7/8 x 7/8	■	■	■	
7/8 x 3/8	■	■	■	
7/8 x 5/16		■	■	
3/4 x 3/4		■		
5/8 x 5/8	■	■	■	
5/8 x 1/2 x 5/16		■	■	
5/8 x 1/4	■	■	■	
5/8 x 3/8		■		
3/8 x 3/8		■		
3/8 x 1/4	■	■		
3/8 x 5/16		■		
3/8 x 3/16	■	■	■	
1/4 x 1/4				
1/4 x 5/16		■		
1/4 x 3/16				
7/8 x 1/4		■		Triangle TRI
7/8 x 5/8		■		
1/4 x 3/16		■		
1/4 x 1/4		■		
3/8 x 3/8		■		Cylindrical Wedge CW 
7/16 x 7/16	■	■	■	
5/8 x 5/8	■	■	■	
3/4 x 3/4		■		
1 x 1	■	■	■	
1-1/2 x 1-1/2	■	■		
2 x 2				

Size	Stock P-20	Stock P-40	Stock P-60	Shape
1-7/8 x 5/8	■	■		Angle Cut Tristar  AC3S
1-3/8 x 7/16	■	■		
1-3/8 x 1/2				
1-1/8 x 1				
1-1/8 x 7/8		■		
1-1/8 x 3/8	■	■		
1-1/8 x 5/16				
7/8 x 3/8		■		
7/8 x 7/8		■		
7/8 x 5/16	■	■	■	
5/8 x 3/4		■		
5/8 x 5/16				
5/8 x 1/4	■	■	■	
3/8 x 3/16		■		
1-1/8 x 1-3/4				Angle Cut Cylinder ACC
7/8 x 1-3/4		■		
7/8 x 1-1/2		■	■	
3/4 x 1-1/2				
5/8 x 1-1/2	■	■	■	
5/8 x 1-1/8	■	■	■	
1/2 x 7/8		■		
7/16 x 7/8	■	■	■	
3/8 x 5/8	■	■	■	
5/16 x 5/8				
1/4 x 5/8	■	■	■	
3/16 x 5/8		■		
3/16 x 3/8	■	■	■	
5/32 x 5/16	■	■	■	
ACC ELLIPSE 22 Degrees				
3/8 x 5/8 x 5/8	■			
3/8 x 5/8 x 7/8				
1 x 3/8 x 1				
45 & 60 Degrees				
3/8 x 5/8		■		
5/8 x 1-1/8				
1/4 x 9/16				

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.