



BURR KING MFG. CO., INC

1220 Tamara Lane
Warsaw, MO 65355
www.burking.com

(660)438-8998 • Fax (660)438-8991

MODEL 1001 INSTRUCTION MANUAL



Model 11011 shown with optional dust scoop kits and wheels

MADE IN U.S.A.



- GRINDERS
- BUFFERS
- VIBRATORY
- DISC GRINDERS

BURR KING MODEL 1001 DEBURRING & POLISHING LATHE



BURR KING MFG. CO., INC.

1220 TAMARA LANE

WARSAW MO 65355

WWW.BURRKING.COM

(660) 438-8998 • (800) 621-2748

FAX (660) 438-8991

January 2019

Burr King Manufacturing Company, Inc. warrants the below product to be free of defects 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 manufacture. 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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January 01, 2019

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)

A handwritten signature in black ink, appearing to read "Don MacCarthy".

Don MacCarthy
President

Burr King Model 1001

Congratulations on your purchase of a Burr King polishing lathe. Please take a moment to complete and mail your product warranty registration card. Doing so will validate your machine's warranty period and ensure prompt service if needed. Thank you for purchasing a product from Burr King Manufacturing.

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WARNING!


Do not operate machine if warning and/or instruction labels are missing or damaged. Contact Burr King for replacement labels.

WARNING

-  Ejection hazard. Stay clear.
-  Flying debris and dust hazards.
-  Wear appropriate PPE. Avoid injury.
-  Read manual before using machine.

1-800-621-2748 Label 17

Model 1001

-  • Before mounting wheel on this machine, be sure that the speed control is set to a speed below the maximum safe speed indicated for the wheel.
- Under no circumstances should grinding wheels be used on this machine.

WARNING

Moving parts can crush and cut. Keep clear of moving parts.

1-800-621-2748 Label 18

SAFETY

- READ AND FOLLOW INSTRUCTIONS FOR USE
- USE APPROPRIATE EYE, FACE, HAND, AND BODY PROTECTION
- DO NOT EXCEED MAXIMUM RATED SPEED
- SECURELY BOLT THE MACHINE/PEDESTAL TO A STRUCTURALLY SOUND SURFACE
- FOLLOW SAFETY OPERATION INSTRUCTIONS POSTED IN THE WORK PLACE

www.burrking.com
1-800-621-2748

BURR KING



WARNING: Cancer and Reproductive Harm—
www.P65Warnings.ca.gov

Product Specifications

The Burr King policy of continuous improvement determines the right to change specification without notice

Stock/Model Number	11011-11999
Product Family.....	1001
Voltage	120V 1Ph – 480V 3PH Depending on SKU
Motor	1-1/2 HP / 1.1 KW and up
Motor RPM	1725
Spindle RPM	250-2500
Wheel Dimensions	Up to 10” / 254mm
Arbor/Shaft.....	3/4” / 19.05mm
Polishing Wheel Lathe Wheel	10” x 2” Maximum
Shipping Weight.....	170 lbs. / 77 kg
Dust Scoops.....	OPTIONAL





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M1001 Polishing Lathe Important Safety Instructions OPERATOR, and OPERATING AREA SAFETY



WARNING!

WHEN USING ELECTRIC TOOLS, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED TO REDUCE RISK OF FIRE, ELECTRIC SHOCK AND PERSONAL INJURY.

READ AND SAVE ALL INSTRUCTIONS FOR FUTURE REFERENCE

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.

1. READ ALL INSTRUCTIONS

- Read and understand all operating instruction, manuals, labels, and other information provided with the equipment.

2. KEEP WORK AREA CLEAN

- Cluttered areas and benches invite injuries.

3. CONSIDER WORK AREA ENVIRONMENT

- Do Not expose power tools to rain
- Do Not use equipment in damp or wet locations.
- Keep work area well lit.
- Do Not use equipment in presence of flammable liquids or gases

4. GUARD AGAINST ELECTRICAL SHOCK

- Prevent body contact with grounded surfaces. For example: pipes, radiators. Disconnect from power source when not in use. Never use if electrical cord is damaged or wet. Always keep electrical cords clear of rotating parts and belt while in motion. Electrical installation shall be in accordance with applicable codes and regulations.

5. KEEP CHILDREN AWAY

- Do Not let visitors contact tool or cord
- All visitors should be kept away from work area

6. DRESS PROPERLY

- Do Not wear loose clothing or jewelry.
- Non-Skid footwear is recommended when working with equipment.
- Wear protective hair coverings to contain long hair.
- Wear proper attire to protect eye, hand, face, arm, leg, feet and body that is adequate to protect against flying debris, forcibly ejected work pieces, broken abrasive belts, etc.

7. USE SAFETY GLASSES

- Everyday eyewear does not feature impact resistance lenses, and they are NOT safety glasses

8. WEAR DUST MASK

- Some dust created by polishing/buffing activities may contain chemicals known to cause cancer, birth defects or other harm. Provide adequate ventilation.

9. SPARK AND DEBRIS ARRESTING APPARATUS

- To further reduce the exposure you may wish to connect an apparatus to the machine to contain dust and debris/spark arresting device to suppress sparks thereby limiting human inhalation risk, and risk of fire or explosion

10. KEEP ALL GUARDS IN PLACE AND PROPERLY ADJUSTED

- Keep all guards in place and in working order.
- Do not reach inside the safety guards while the machine is running.
- 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.

11. AVOID CONTACT WITH THE WHEEL

- The wheel running is an aggressive cutting tool.

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. SECURE THE POLISHING LATHE

- Bolt the equipment securely to the stand or other stable surface to avoid tipping when unit is in operation.

13. BEFORE SERVICING

- Disconnect the machine from the power source.

14. NEVER LEAVE TOOL RUNNING UNATTENDED

- Turn power off. Don't leave until the polishing lathe comes to a complete stop.

15. DO NOT USE NEAR FLAMMABLE MATERIALS

- Sparks from use can cause fires.

16. HOLD MATERIAL TIGHTLY

- Always hold the work piece firmly and apply steady pressure.
- 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.

17. DO NOT USE DAMAGED WHEELS

- Wheels that show excessive wear should be discarded.

18. USE WHEELS FROM RESPECTED MANUFACTURES

- Not all wheels are created equal. Wheels that are very inexpensive are usually manufactured cheaply.
- Use wheels of proper size

19. KNOW WHAT YOUR POLISHING/BUFFING/DEBURRING

- Avoid mixing different metals, alloys, and materials. To mix such materials might create a fire or explosion hazard
- Exotic materials such as titanium, magnesium, and other chemically active materials will present fire and explosion hazards that if ignored can result in grave personal injury and/or property damage.
- Consult with your material supplier or other qualified expert regarding the materials on which you wish to work.

20. KEEP POLISHING LATHE MAINTAINED

- If damaged parts are found, immediately discontinue use of the polishing lathe and order replacement parts.
- Never perform maintenance on the polishing lathe with its electrical power source connected.

21. DO NOT USE STONE WHEELS

- The use of stone or vitreous wheels on any Burr King grinder is prohibited. The machine guarding and dust scoops if equipped are not suitable for these types of wheels. To do so will create an operator safety hazard.

22. ROTATIONAL SPEED WARNING, CONTACT WHEELS

Users are warned not to exceed the below listed revolutions per minute (RPM) on wheels. Failure to heed this warning may lead to 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.

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.

23. 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 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 660-438-8998. 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.

24. TRAINING

- Do train operators and others in safe operating practices
- Post these instructions so they are available for future reference and new operators.



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M1001 Dust Scoop Installation

Your new Model 1001 Polishing Lathe is fully assembled and ready to use. If you have ordered the optional dust scoop kits please follow the directions below. The dust scoops are not wheel guards. The dust scoop primary function is to funnel particulate to a collection unit. The dust scoops will accommodate wheels up to 10" in diameter and up to 2" in width. If you have any questions or need assistance please contact the factory.



To install dust scoop kit first remove 3 – 1/4 -28 allen head screw (p/n 1435) which hold the shroud/dust cover (p/n 1034-1) to the bearing mount housing (p/n 1033-1). The 1034-1 shroud and allen screws will not be used with the dust scoop kits. Keep the shroud and hardware for future use if you wish to discontinue use of the dust scoops.

Next use the bearing mount shroud (p/n 1034-2) included in the DS kit and mount to the bearing mount housing (p/n 1033-1). Make sure the orientation matches the mounting locations on the dust scoop (p/n DS1022(RH/LH)). Next use the 1/4-28 x 3/4 socket head cap screws (p/n 1435) with washer (p/n 2-0065) and lock washer (p/n 5-0032) to mount the dust scoop to the bearing mount shroud.





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Operating instructions for the Model 1001 Polishing Lathe

The Model 1001 polisher is a double spindle polishing lathe. It is designed to use cotton, nylon, flap, wire, and other buffing and/or de-burring wheels. Your Model 1001 may be fixed speed (single or three phase), or variable speed single phase depending on the configuration ordered. The Model 1001 has an optional dust collection adapter that will connect to a dust collection system with a recommended minimum of 500 CFPM.

Stone, vitreous, or other type grinding wheels must not be used on the Model 1001. For maximum effectiveness, and operator safety use wheels manufactured by well-respected manufacturers.

- Use wheels that are the proper size and type for your machine.
- Do not use wheels that are old and/or excessively worn.
- Do not operate the buffing wheel in a reverse rotation. The spindle must rotate CCW when viewed from the right side (opposite of the motor).
- Do not exceed the maximum recommended buffing wheel speed (see the manufacturer's instructions), or the 2500 RPM spindle speed for which your Model 1001 is designed to operate, whichever is less.

Prior to operating the Model 1001 please take time to do the following:

1. Ensure that you have received all of the items that you ordered. Compare the packing slip with your purchase order, and of course with the physical items received.
2. Verify that there is no obvious shipping damage. If shipping damage is discovered notify the freight carrier of your intention to file a freight damage claim; they will assist you.
3. Verify that the AC power that is identified on the machine matches the AC power that you intend to operate the machine. Do not modify the Model 1001 wiring or other electrical controls without the advice of the factory or a competent electrician.
4. Do not modify or defeat any AC wiring safety feature. In example, do not remove the grounding pin on the AC plug.
5. Read the Operator, and Operating Area Safety Instructions carefully. Ensure that all persons who will operate the Model 1001, or who will work in the vicinity of the Model 1001 read, understand, and comply with these instructions.
6. Ensure that the Model 1001 is located in an area that provides safe access to the machine such that operators have clear and unobstructed working space. The work place should be free from floor obstructions, trip points, and other faults that may reduce operator safety.
7. Ensure that the Model 1001 AC power source is properly sized for wire, and properly fused. As a guide the following electrical service will reliably operate your 1.5 HP Model 1001 (you should consult a competent electrician):

<u>Service</u>	<u>Minimum wire size</u>	<u>Maximum fuse size</u>
120VAC/1PH	12AWG copper	20 Ampere fast
220VAC/1PH	12AWG copper	10 Ampere fast
220VAC/3PH	12AWG copper	7 Ampere fast
440VAC/3PH	12AWG copper	3 Ampere fast

8. All three phase electrical installations should include a magnetic starter. Magnetic starters protect motors from “double phasing”, overheating, etc. thereby reducing the risk of damage to the equipment and/or fire hazard to your facility.

Functional operating instructions for the Model 1001 polishing lathe

The Model 1001 was fully tested and verified to comply with requirements prior to shipping from the factory. No adjustments should be necessary. You should perform the following steps:

1. With the machine securely bolted to its table, pedestal, and/or floor point connect the AC power to its source.
2. Ensure the buffing wheels are firmly tightened to the spindle. A buffing wheel running in reverse rotation can unscrew from the spindle, creating a serious personnel safety hazard. Insure that the Model 1001 spindle operates CCW when viewed from the right side of the machine. Note that the left spindle has a left-hand thread that assures the left buffing wheel will not spin off of the machine during correct rotation of the spindle. The right spindle has a right-hand thread.
3. Your Model 1001 has been shipped to you with 2 cap plugs on each end of the spindle it is very important that once you have selected the wheel you will be using on your machine that you cut the plug to the size of the exposed thread. Failure to do so may expose the operator to risk of injury should clothing or loose objects become snagged on the exposed area.
4. Engage the motor by placing the ON/OFF switch to ON. The wheel should rotate smoothly in a CCW direction with the front face of the buffing wheel moving toward the floor. If either of these conditions are not met turn the machine OFF immediately.

If the Model 1001 runs in reverse direction you must correct this by changing the main drive motor rotation direction. **FIRST DISCONNECT THE MACHINE FROM ITS AC POWER SOURCE. A COMPETENT ELECTRICIAN SHOULD PERFORM ALL ELECTRICAL WORK ON THE MODEL 1001.**

All single-phase Model 1001 polishing lathes are set up for correct rotation at the factory. The phasing of your “in-house” electric service will affect three phase Model 1001 rotation.

- 1) Reverse the motor direction of a fixed speed three-phase motor by reversing any two legs of the input power lines.
- 2) Reverse the motor direction of a fixed speed single phase motor by reversing leads 5 and 8 found within the metal wiring box located on the motor, or as otherwise instructed on the actual motor label.
- 3) Reverse the direction of a variable speed motor by following the instructions supplied with the motor.

If your Model 1001 is equipped with variable speed control the wheel speed can be adjusted using the speed control that will be mounted on the motor or on a separate control box.

If your Model 1001 is fixed speed, or variable speed turn the machine ON or OFF using the controls provided, or by using the controls that are provided in your or by Burr King magnetic starters, etc.

Maintenance

FIRST DISCONNECT THE MACHINE FROM ITS AC POWER SOURCE.

Every thirty days or if the drive belt slips check the drive belt tension to adjust the belt tension:

- Remove the two screws that secure the aluminum cover plate on the right side of the main casting. This plate bears the mark “Model 1001”.
- Loosen (do not remove) the two elastic nuts (use a 9/16-inch socket) inside the main frame near the rear drive pulley. Use care not to nick or otherwise damage the pulley. The pulley has a series of shallow groves that drive the Micro-V flat drive belt. Any damage to the groves will shorten belt life significantly.
- Pull the main frame forward in respect to the motor. The frame will slide across the motor face with the above elastic nuts loose.

- The belt is properly tensioned when a force of approximately 5 pounds will deflect the belt approximately ¼ inch near the center of the belt track.
- Tighten the two elastic nuts and reinstall the cover plate.

Vacuum or otherwise remove dust and debris build-up regularly from the machine,

There are no other maintenance actions required. All bearings are sealed for life and require no lubrication.

Remember for operator safety and the continued effectiveness of your Model 1001:

Do not defeat the safety guards and other safety provisions of the Model 1001.

Do not reach inside the safety guards while the machine is running. To do so is hazardous.

Do not use fluids in your buffing process unless your Model 1001 is designed for liquid operation (NEMA 4, 4X). To do so may create an electrical safety hazard.

Do not use your Model 1001 to polish explosive materials unless it is equipped with explosion proof electrical devices and motor.

Do not mix alloys in your buffing. To do so may create an explosion hazard.

Do not use stone or vitreous wheels on the Model 1001. To do so will create an operator safety hazard.

Do use eye, hand, face, arm, leg, feet and body protection that is adequate to protect against flying debris, forcibly ejected work pieces, etc.

Do not wear loose fitting, or hanging clothing that might become entangled in the rotating wheels, or shafts.

Do train operators and others in safe operating practices.

Post these or equivalent instructions such they are available for ready operator reference.

For spare parts, or other assistance contact your Burr King distributor; or, contact Burr King Manufacturing at 660-438-8998.





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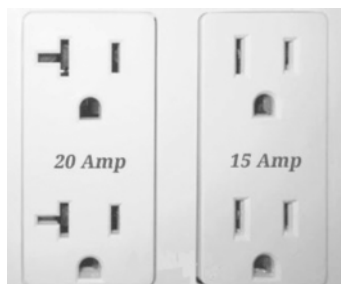
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Variable Speed Controller Instruction Manual Addendum

Congratulations on the purchase of your new Burr King. Your machine has been configured with a variable speed controller also known as a VFD (variable frequency drive)



Your VFD operates on 120 volt single phase power. The VFD converts this power to 220 volt 3 phase power.

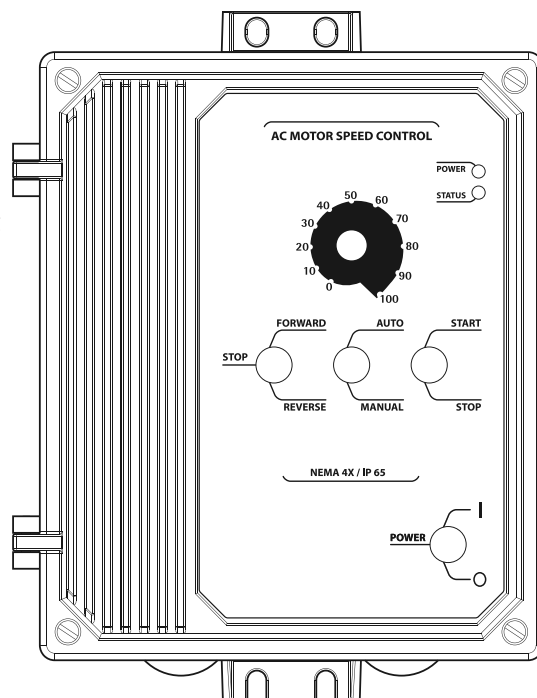
Your machine requires a 20 amp / 120 volt circuit to operate. **NOTE:** Do not confuse the plug for a 220 volt circuit. Applying 220 volt power to your preconfigured VFD is not only dangerous to you it will also damage the VFD and possibly the motor.

If you are not familiar with electrical codes or are uncomfortable with electricity please contact an electrician for further assistance.

About your controller

The VFD controller consists of a start - stop switch and a potentiometer. Since this controller is used for many different applications we have installed dust tight plugs on the forward/reversing, and auto/manual switch locations.

Your machine is NOT configured to run in a reverse direction and modifying your controller to run in a reverse direction is not recommended and will void any factory warranties. Running your machine in the reverse direction may cause bodily harm. If you need to run your machine in a reverse direction, please contact the factory for proper components to run your machine without harm to you or the people that maybe around your machine.



Operating Your Variable Speed Machine

Instructions to start your machine

After your machine has been plugged in to the correct voltage, move the stop/start switch to the lower most position. Raise the switch to the upper most/ "START" position and release. The switch will return to a "RUN" position. To stop the machine simply move the switch to the "STOP" position.

The "RUN" position is a neutral position. If the event that you loose power to the machine, the machine will not automatically start after the power is restored. Also if the controller detects an overload at the motor, it will disengage and not restart until the operator switches the controller to the "STOP" position, then returns it to the "START" position.

After switching your machine to "STOP" you will notice that a braking system will apply a controlled amount of force to reduce the time needed for your machine to come to a complete stop. Your machine may not come to a complete stop prior to the brake disengaging.

IMPORTANT: If you are running a non-contact rubber wheel on your machine, this brake may cause the wheel to come loose.

The shutdown procedure for your machine should be first to reduce the speed of the machine by moving the potentiometer to "0" then switching the machine to the stop position.

NOTE: Your machine has been set to turn at 10% speed at "0". This is a designed safety measure, and not a defect.

What speed to run your machine

The controller shows the speed in percentage, meaning if your machine is set to run at 100% it is running approximately 8000 SFPM, and at 50% it is running 4,000 SFPM.

To figure your SFPM please visit our online calculator at www.burrking.com/SFPM

If you are removing large amounts of material with a coarse abrasive belt you will want to run your machine at 100% giving you the best performance. Running at the maximum speed when using a coarse belt allows the part to run cooler and the operator to exert less pressure. New generation abrasives are designed to run at these higher speeds and will perform best when running at the higher speeds.

If you are removing small amounts, detail work or polishing with a finer belt you may find that slowing the machine down will help you control the heat in the part and only remove the amount of material desired.

Please contact Burr King or your abrasive supplier for more information on proper speeds for your application and belt selection. We have knowledge on many of the abrasive belts and can help you get the most out of your new machine.

Detailed controller information

A startup guide was included with your machine. If you need a full copy of the manual please visit



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Variable Speed Controller Instruction Manual Addendum

Congratulations on the purchase of your new Burr King. Your machine has been configured with a variable speed controller also known as a VFD (variable frequency drive)

Your VFD operates on 220 volt, single phase power. The VFD converts this power to 220 volt 3 phase power.

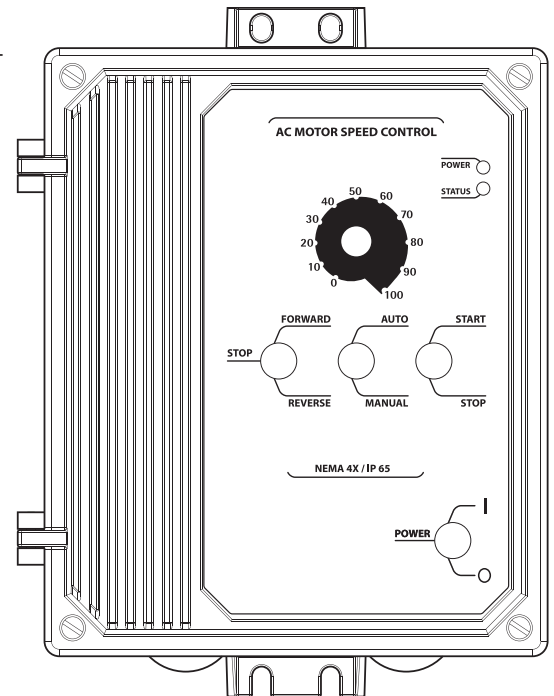
Your machine requires a 15 amp / 220 volt single phase circuit to operate. Applying three phase power to your preconfigured VFD is not only dangerous to you it will also damage the VFD and possibly the motor.

If you are not familiar with electrical codes or are uncomfortable with electricity please contact an electrician for further assistance.

About your controller

The VFD controller consists of a start - stop switch and a potentiometer. Since this controller is used for many different applications we have installed dust tight plugs on the forward/reversing, and auto/manual switch locations.

Your machine is NOT configured to run in a reverse direction and modifying your controller to run in a reverse direction is not recommended and will void any factory warranties. Running your machine in the reverse direction may cause bodily harm. If you need to run your machine in a reverse direction, please contact the factory for proper components to run your machine without harm to you or the people that maybe around your machine.



Operating Your Variable Speed Machine

Instructions to start your machine

After your machine has been plugged in to the correct voltage, move the stop/start switch to the lower most position. Raise the switch to the upper most/ "START" position and release. The switch will return to a "RUN" position. To stop the machine simply move the switch to the "STOP" position.

The "RUN" position is a neutral position. If the event that you loose power to the machine, the machine will not automatically start after the power is restored. Also if the controller detects an overload at the motor, it will disengage and not restart until the operator switches the controller to the "STOP" position, then returns it to the "START" position.

After switching your machine to "STOP" you will notice that a braking system will apply a controlled amount of force to reduce the time needed for your machine to come to a complete stop. Your machine may not come to a complete stop prior to the brake disengaging.

IMPORTANT: If you are running a non-contact rubber wheel on your machine, this brake may cause the wheel to come loose. The shutdown procedure for your machine should be first to reduce the speed of the machine by moving the potentiometer to "0" then switching the machine to the stop position.

NOTE: Your machine has been set to turn at 10% speed at "0". This is a designed safety measure, and not a defect.

What speed to run your machine

The controller shows the speed in percentage, meaning if

your machine is set to run at 100% it is running approximately 8000 SFPM, and at 50% it is running 4,000 SFPM.

To figure your SFPM please visit our online calculator at www.burrrking.com/SFPM

If you are removing large amounts of material with a coarse abrasive belt you will want to run your machine at 100% giving you the best performance. Running at the maximum speed when using a coarse belt allows the part to run cooler and the operator to exert less pressure. New generation abrasives are designed to run at these higher speeds and will perform best when running at the higher speeds.

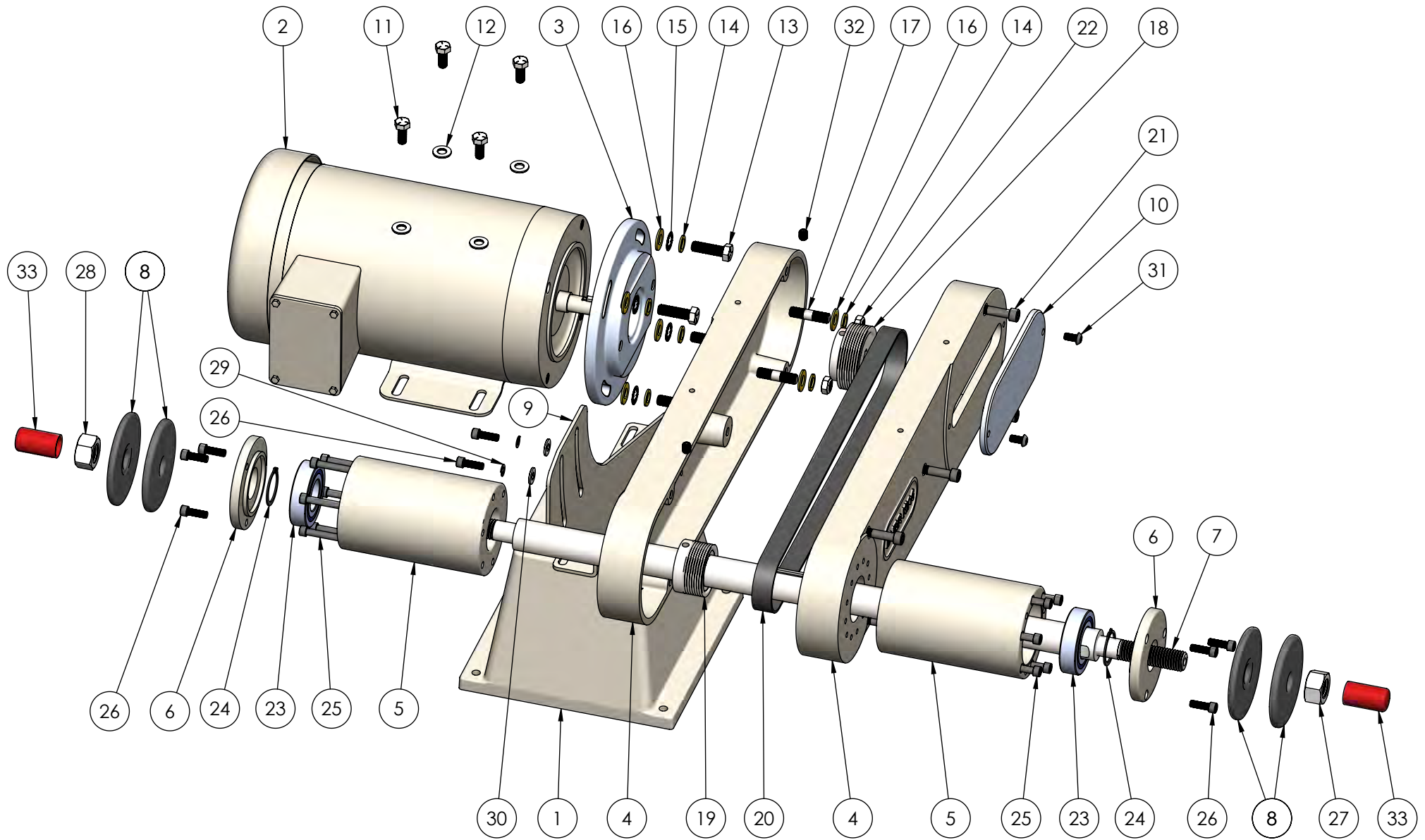
If you are removing small amounts, detail work or polishing with a finer belt you may find that slowing the machine down will help you control the heat in the part and only remove the amount of material desired.

Please contact Burr King or your abrasive supplier for more information on proper speeds for your application and belt selection. We have knowledge on many of the abrasive belts and can help you get the most out of your new machine.

Detailed controller information

A startup guide was included with your machine. If you need a full copy of the manual please visit <https://acim.nidec.com/drives/kbelectronics>

M1001 EXPLODED VIEW



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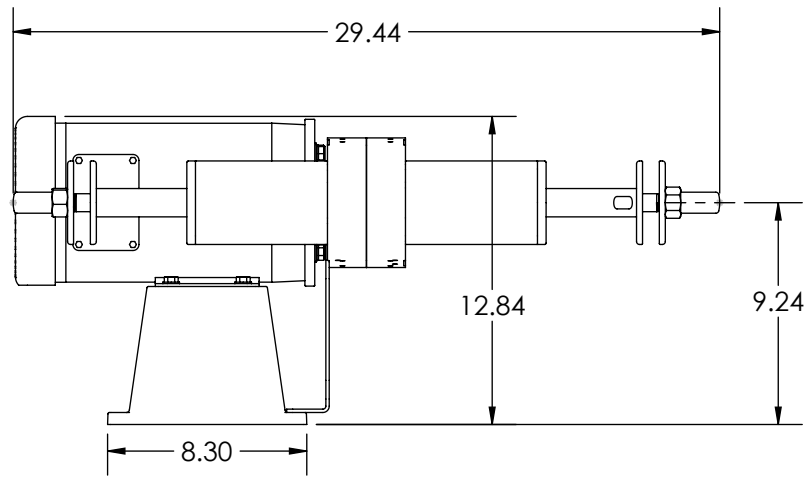
M1001 PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	941	BASE-MACHINE	1
2	56C	MOTOR-CALL CUSTOMER SERVICE	1
3	908-1	C-FACE ADAPTER	1
4	1026A-2M	FRAME ASSEMBLY (M1001)	1
5	1033-1	MOUNT-BEARING	2
6	1034-1	SHROUD-BEARING	2
7	1028-7	SHAFT-SPINDLE	1
8	1030	FLANGE, WHEEL	4
9	1049-1	BRACKET-SUPPORT	1
10	1035	PLATE-COVER	1
11	37	CAPSCREW 5/16-18 X 3/4	4
12	4	WASHER 5/16 SAE	4
13	1-0003	CAPSCREW 3/8-16 x 1 1/4	4
14	17	WASHER 3/8 AN960-616	6
15	5-0014	WASHER 3/8 INTERNAL STAR	4
16	42	WASHER 3/8 FLAT GR.8	6
17	920	STUD 3/8 x 1 1/2 DOUBLE	2
18	20-0014	PULLEY-2.5 x .625	1
19	20-0013-1	PULLEY-2 x 30MM	1
20	1039-1	BELT- MICRO-V	1
21	2-0027	SHCS 5/16-18 x 2	5
22	39	NUT 3/8-24 JAM ESNA	2
23	11-0015	BALL BEARING	2
24	701J	RING-RETAINING 1 3/16	2
25	7-0015	SHCS 1/4-28 x 5	12
26	1435	SHCS 1/4-28 x 3/4	8
27	7-0013	NUT 3/4-10 R.H.	1
28	7-0014	NUT 3/4-10 L.H.	1
29	5-0032	WASHER 1/4 SPLIT LOCK	2
30	2-0065	WASHER 5/16 SAE	2
31	2-0028	BHSHCS 1/4-28 x 1/2	2
32	25	SET SCREW 5/16-18 X 3/8 CP	2
33	CAP	CAP-SAFETY 3/4	2

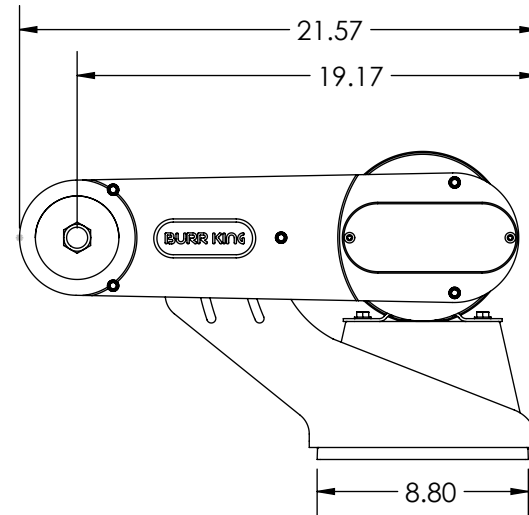
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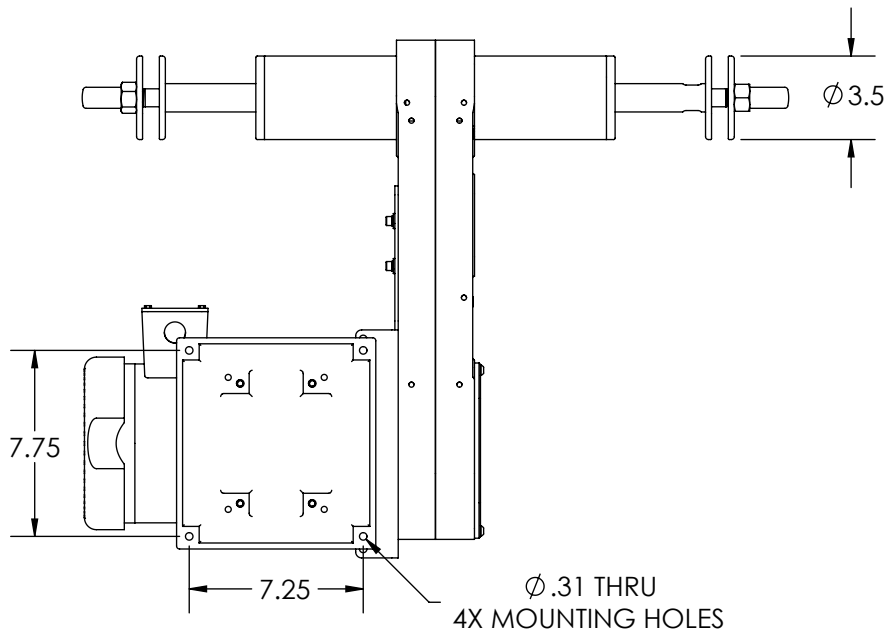
M1001 FOOTPRINT



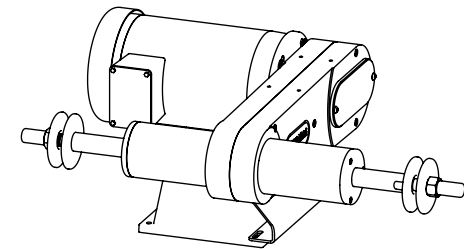
FRONT VIEW



R.H. VIEW

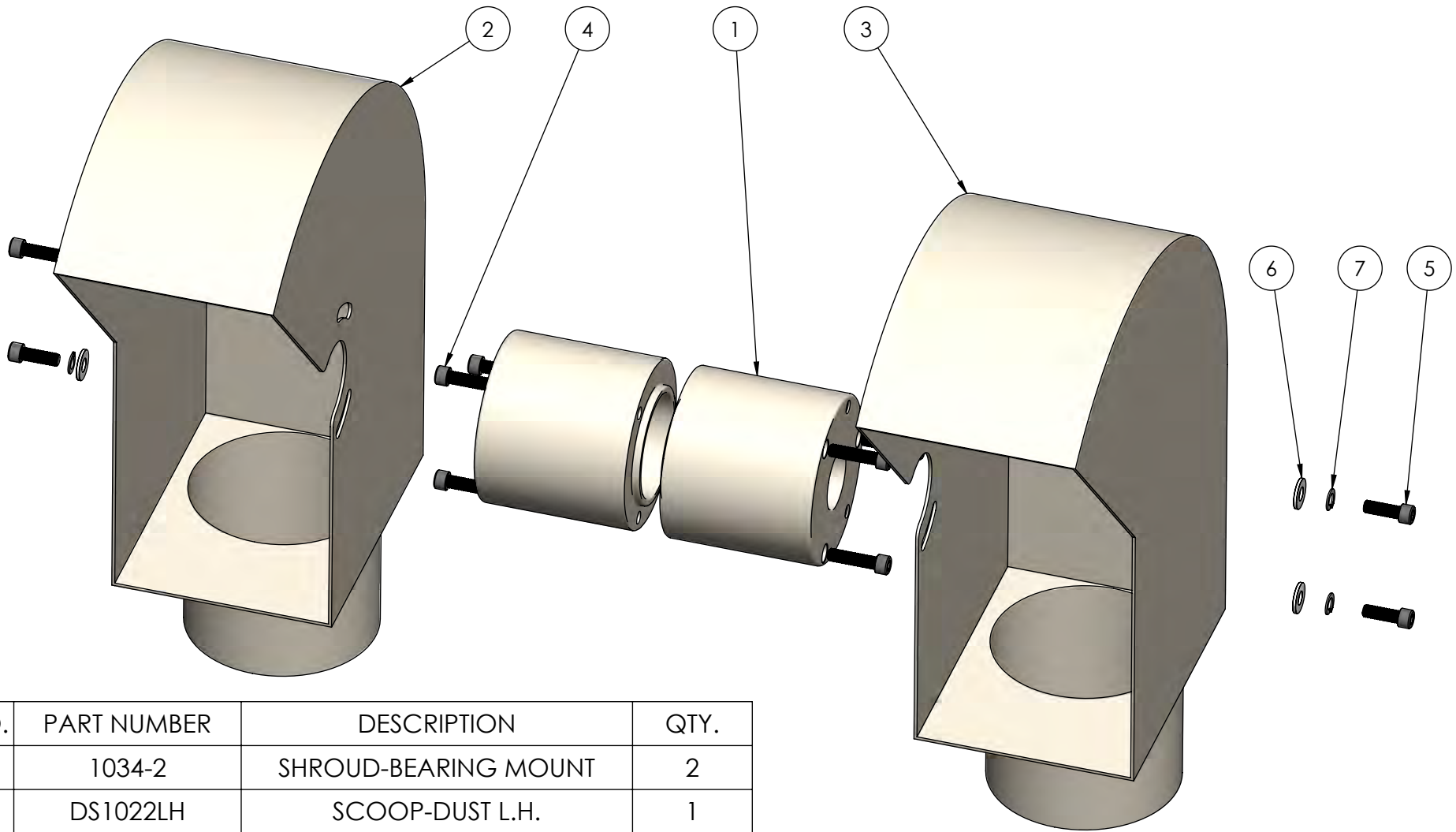


BOTTOM VIEW



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M1001 D.S. PARTS LIST



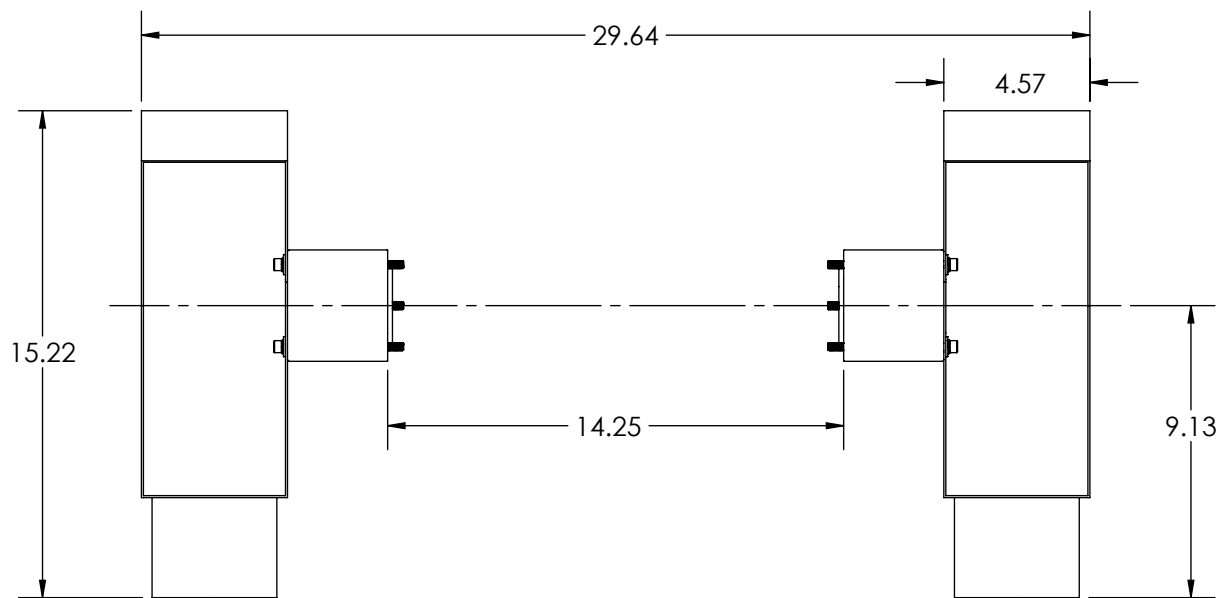
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1034-2	SHROUD-BEARING MOUNT	2
2	DS1022LH	SCOOP-DUST L.H.	1
3	DS1022RH	SCOOP-DUST R.H.	1
4	2-0026	SHCS 1/4-28 x 1	6
5	1435	SHCS 1/4-28 x 3/4	4
6	2-0065	WASHER 5/16 SAE	4
7	5-0032	WASHER 1/4 SPLIT LOCK	4

NOTE: 1034-2 REPLACES 1034-1 ON STANDARD M1001

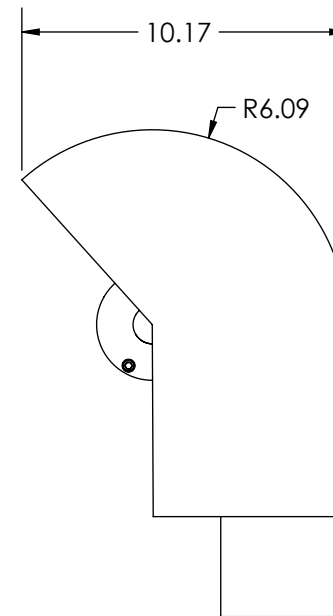


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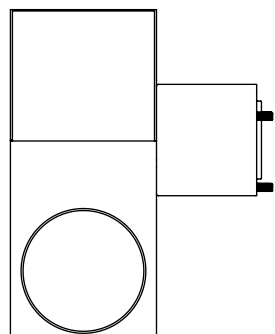
M1001 DUST SCOOP DIM.



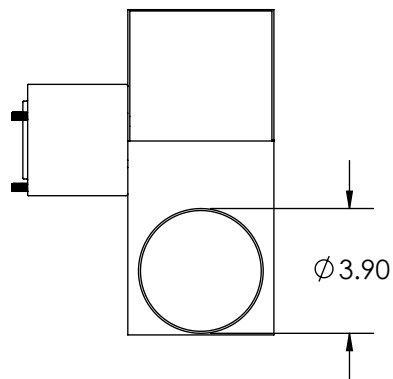
FRONT VIEW



R.H. VIEW



BOTTOM VIEW



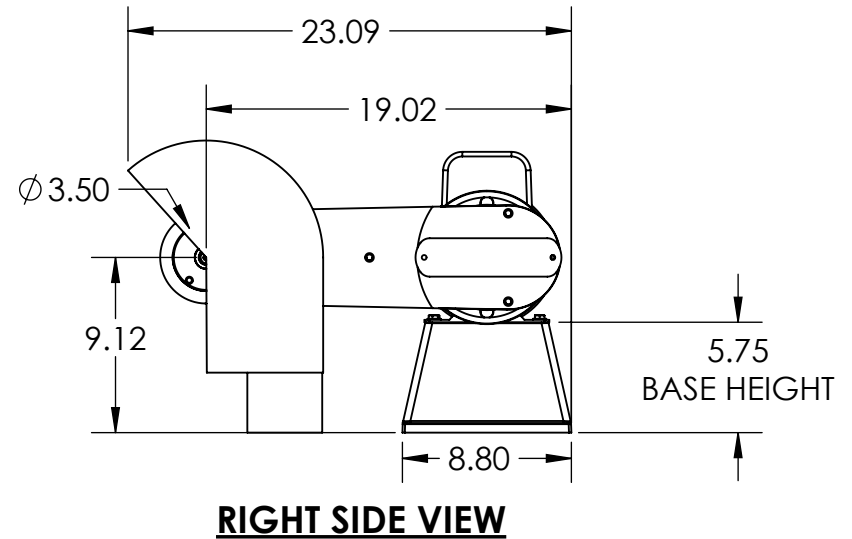
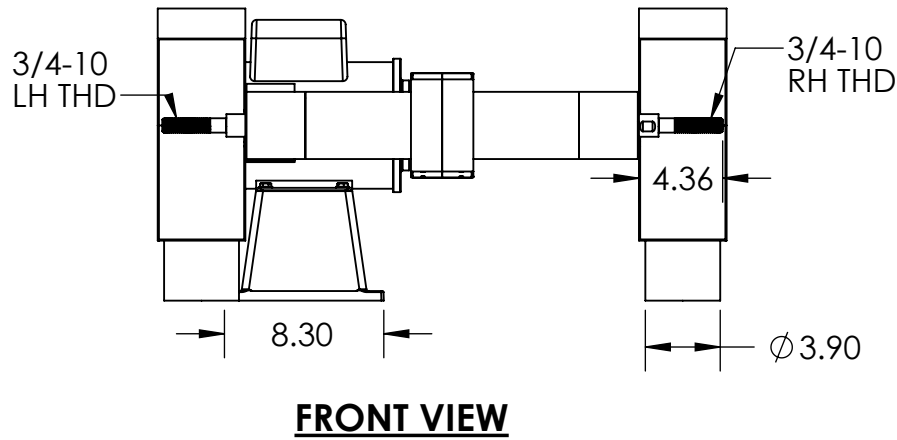
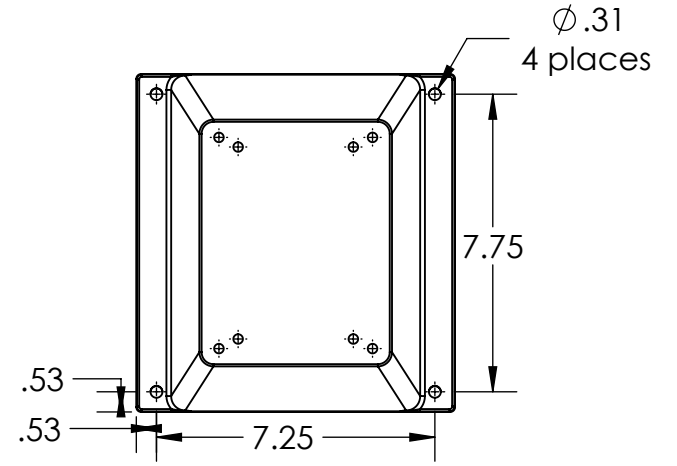
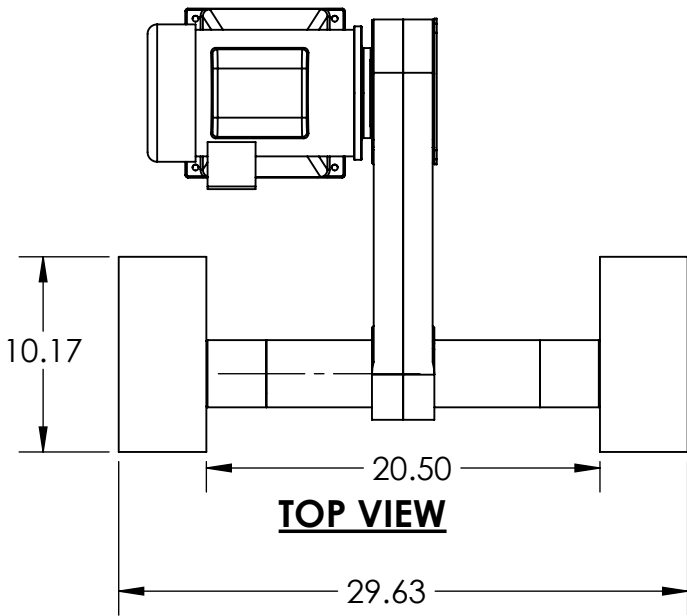
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NOTES:

- 1) All dims are approx
Since your motor may be different
center line dims are given

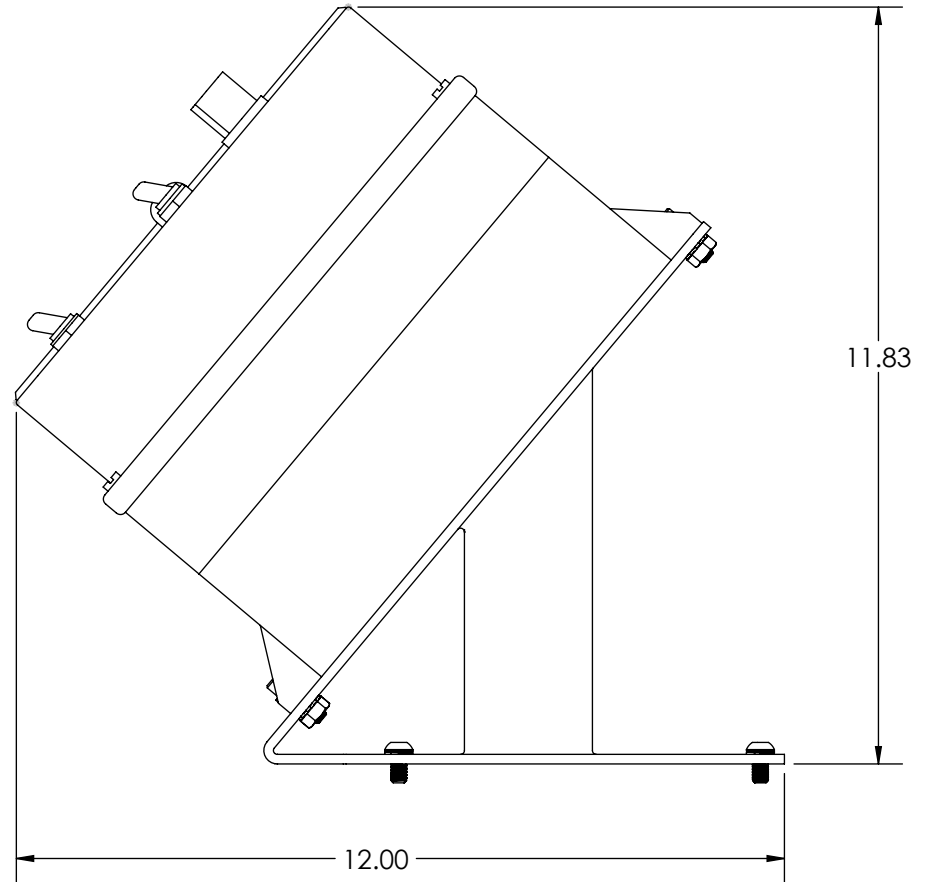
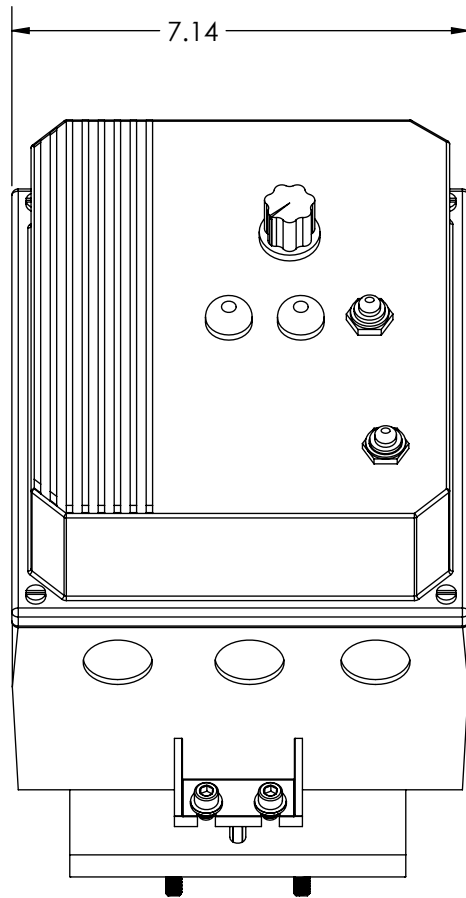
M1001
FOOT PRINT

MOUNTING PATTERN



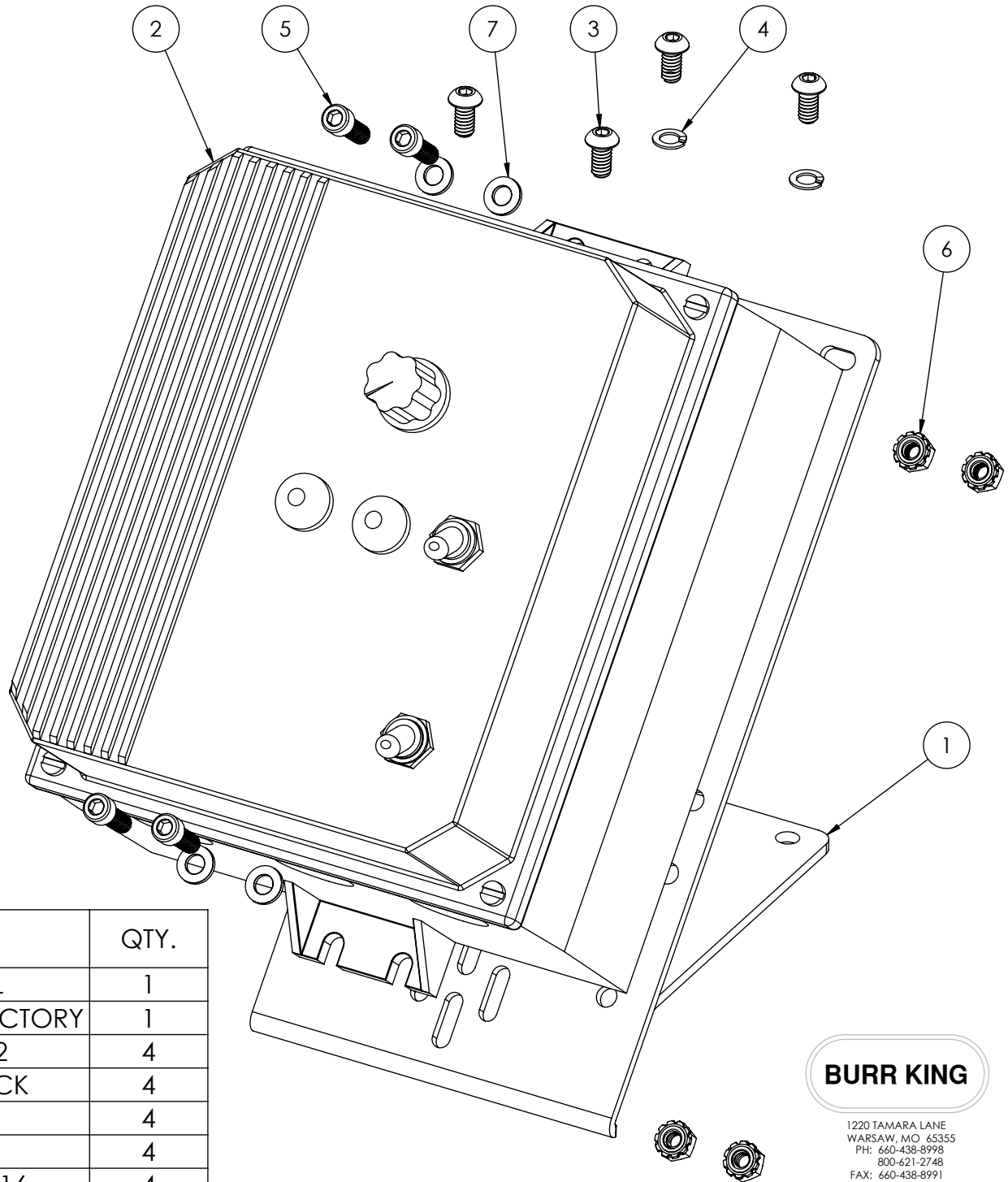
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		PH: 660-438-8998 800-621-2748 FAX: 660-438-8991 E-MAIL: info@burrking.com	
TITLE:		SHEET	1 OF 1
PART NO.	1001 w DS	REV.	A
DATE DRAWN:			

M1001 SPEED CONTROL DIMENSIONS



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M1001 SPEED CONTROL PARTS LIST



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	MB-4C4	BRACKET-CONTROL	1
2	S.C.	SPEED CONTROL-CALL FACTORY	1
3	2-0014	BHSHCS 1/4-20 X 1/2	4
4	5-0032	WASHER 1/4 SPLIT LOCK	4
5	209	SHCS 1/4-20 X 3/4	4
6	4-0013	NUT 1/4-20 KEP	4
7	5	WASHER 1/4 AN960-416	4

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