Bull 300 Vacuum Manual

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Congratulations on your decision to get the Power of SASE behind you! SASE is committed to excellence, excellence in the quality of products we sell and excellence in service and support after the sale. It is important to us that your business continues to succeed and grow, and we know that the right products, service and support can have a great impact on your bottom line.

SASE has made great strides in the concrete preparation and polishing industry over the years. With a 40,000 square foot distribution and service facility in Seattle, a 22,000 square foot distribution and service facility in Knoxville, and local sales and technical support representatives throughout the United States, SASE is able to provide unsurpassed service and technical support for the contractor.

At SASE we engineer and manufacture our own equipment, which allows us to be in control of the quality of the equipment we sell. SASE offers a complete line of concrete preparation and polishing equipment, our newest introduction being our new line of PDG planetary diamond grinders, which is setting a new standard for the concrete grinding and polishing industry. SASE is also the leader in diamond tooling technology.

We look forward to a long and prosperous partnership with you! Thank you again for choosing SASE. You won't regret having the Power of SASE behind your company!

Sincerely,

SASE Company, Inc.

Jim Weder

President

SASE BULL 300 Series Vacuum System Operating Instructions

Instructions for Installation, Repair, and Maintenance

CONTENTS

FOREWORD

To achieve the safe installation and operation of your new BULL 300 vacuum system, we urge you to become familiar with the information in this manual.

The SASE BULL 300 industrial vacuum cleaning system is designed for heavy duty operation. The mechanical and electrical components are of a robust nature and will provide long life with minimal maintenance even under severe conditions.

This manual describes the installation and preventative care requirements to ensure their maximum life and to provide virtually trouble-free operation for years ahead.

Past experience indicates that the majority of part replacements and repairs occur due to misuse or carelessness by personnel not qualified to operate and service this equipment. Observance of the instructions in this manual will minimize references to those Sections pertaining to Repair and Replacement.

WARRANTY

SASE Company, Inc. warrants this equipment to operate within the limits of our specification when properly used, properly operated, and properly maintained. Various subsystems are warranted as follows:

All metal work excluding paint:	6 years Limited to failure of structural due to poor workmanship.
Vacuum Producer :	6 months Limited to premature failure due to poor workmanship by manufacturer.
Filters:	2 years (4000 hours) Limited to premature failure due to poor workmanship.

Any part proven defective in material and workmanship shall be duplicated without charge F.O.B. your jobsite. This warranty excludes normal wear and tear of parts or equipment, and especially excludes degradation from normal abrasion of corrosion.

Please note! The vacuum producer requires unrestricted air flow! Running the BULL 300 "deadheaded" for more than a few minutes will overheat the vacuum producer and void the warranty.

This warranty shall be void if the equipment has been altered or if any attempt to repair this equipment has been made by persons, institutions or firms not authorized by SASE to make repairs.

SASE will not be responsible for any costs of LABOUR to remove or re-install equipment, TOOLS, MATERIALS, INSURANCE, OVERHEAD or any INCIDENTAL, SPECIAL, CONSEQUENTIAL or other expenses which may be incurred by the purchaser in the execution of this warranty.

SASE will NOT assume any responsibility under terms of this warranty in parts or equipment which have not been paid for in full, or where an account is outstanding for 60 days or more.

Please call 800.522.2606 with any questions!

Health and Safety Recommendations

The Information Contained In This Section Can Help Prevent Serious Personal Injury.

PLEASE READ THIS SECTION CAREFULLY BEFORE OPERATING OR SERVICING THIS EQUIPMENT.

This section outlines s ome of the health and safety issues that must be acknowledged when operating or servicing your SASE industrial vacuum cleaning system.

It is important that plant operators are made aware of the responsibility incumbent on them to take all necessary precautions to ensure their health and safety, and that plant authorities implement the procedures necessary toward this end.

We strongly advise that you, the customer, add to, and tailor, these safety recommendations to suit your own particular working and operating environment.

Explosive Dust

Please contact us if your process changes so we may help evaluate your risk.

The operators of this equipment must always be aware of the physical and chemical properties of the dust particles being collected. A surprising number of dusts are flammable or prone to explosion when mixed with air as we find with a filter receiver application.

Materials or processes presenting such hazards MUST be identified by the customer.

The customer must also be alert to any changes in the dust material or process. If a new process is introduced after the installation of the vacuum system which changes the composition, quantity, or most especially the chemical type of material being introduced into the vacuum system, this may greatly increase the chance of explosion and fire.

If your process is to be changed, or if you have any concerns, we suggest you contact us to see how we can assist you to ensure that the operation of your SASE industrial vacuum cleaning system is as safe as possible.

Isolate Electrical Before Maintenance

Company specific lockout and safety procedures should be inserted in this section.

DO NOT ATTEMPT ANY MAINTENANCE WORK UNTIL ALL ELECTRICAL GEAR HAS BEEN ISOLATED.

Isolate all electrical before removing any guards, covers or accessories before beginning any maintenance or repair work.

Always lock out the main system blower disconnect before opening any inspection door on any separator or filter receiver.

Before re-connecting the electrical supply, ensure that all guards, covers and accessories are correctly replaced.

Implement Measures to Handle Respirable Dust

Operators must be fitted with appropriate respirators and must wear protective clothing if handling dust that may be irritating or even toxic.

We recommend that the MSDS's for each of the dusts to be handled by the vacuum system be included in this manual, and that specific measures to handle problem materials be clearly identified in those sections of this manual where the operator is exposed to these dusts; i.e. filter bag replacement, etc.

Use Suitable Electrical Warning Notices

Do NOT leave electrical gear live and unattended without a suitable warning notice.

Distinctive warning notices must be provided for posting in a conspicuous position to any piece of electrical equipment or machinery on which maintenance is being carried out, and which, for any reason whatsoever, is liable to be left unattended while in a live condition.

Use CAUTION When Using the Hoses

SASE vacuum systems use blowers that develop very high vacuum conditions which can be dangerous if caution is not observed.

> DO NOT PUT THE END OF THE HOSE AGAINST YOUR SKIN OR CLOTHES OR THOSE OF OTHERS!

Remove the hose from the inlet valve to dislodge materials that plug the end of tools.

Maintenance Instructions

This Section Contains Information about the Upkeep and Maintenance of the SASE BULL300 Industrial Vacuum System

This section contains information of the following topics:

This equipment is designed for full time operation under the most severe conditions; however, proper maintenance procedures must be observed.

Please read and follow the instructions on the following pages to ensure proper operation of each of the components of your system.

The Filtration System

The SASE BULL 300 Series of vacuum systems is designed to handle super-fine powders, so the filtration sub-system is its "heart" and must be maintained properly. The unit is equipped with fourteen (14) inverted bag type tubular filters which collect the fine dust particles on the filter's inside surfaces during operation.

Before commissioning, remove top motor housing and check to ensure all bags are firmly secured to the lower bag plate. The top of the bags are attached to the top of the filter housing by use of bolts and nuts; and the bags must not be loose or out of place.

NOTE: A loose or unsecured bag will allow product to pass through the filter separator and will plug t he in-line filter.

The filter bags should be shaken at least daily, preferably after each use. To shake filter bags, simply shut off the vacuum and shake the filter assembly arm swiftly back and forth. This rapid movement will dislodge particles on the inside of the filter bag surfaces and drop them into the dust can.

NOTE: The unit must be OFF in order to shake the filters.

If the filters are to be replaced, please replace them ALL at once, or they will be a constant source of frustration.

Filter Bag Maintenance

The following is a recommended program of preventative maintenance:

1. Check that the filters are seated properly and that they do not appear to be leaking WEEKLY. There should be NO appreciable or visible dust inside the filter housing.
2. Replace ALL the filters if wear points or holes are noticed.
3. If the secondary filter cartridge becomes plugged, check for holes or leakage in the primary filter bags, or upgrade the primary filter material to a more efficient type.
4. Replace the secondary filter cartridge when it becomes dirty.
5. DO NOT WASH filters. This will destroy the PTFE coating and cause them to 'blind'; which will cause the motor to overheat and fail.

Removing Filter Bags

Operators must be outfitted with appropriate respirators and must wear protective clothing if handling dust that may be irritating or toxic.

Access the filters by removing the vacuum producer section. To change the filter bags, unbolt each bag from on the filter shaker assembly inside the tank at the top.

Squeeze the spring cuff at the bottom of the bag compressing the snap ring into a "U" shape, and remove from the bag plate hole.

Installing New Filter Bags

The most common installation mistake is to release the cuff lower than it should be. The groove in the bag cuff matches the hole size exactly.

Grasp the spring cuff at the bottom of the bag and compress into a "U" shape. Insert into the proper hole in the bag plate, and release the bag bottom, assuring the "groove" in the bag cuff is centered in the bag plate hole .

Re-bolt to fasten the filters onto the filter shaker assembly.

After installing all the filter s, check the installation from below; all the filters should be neatly and evenly seated.

> WARNING: Failure to assure proper seating of the bag in the bag plate will allow material leakage.

The Inline Filter

The inline filter supplied with this unit will help prevent damage to the exhauster in case of failure of a primary filter bags.

Should the air flow of the *BULL 300* become reduced, check that the inline filter has not become blinded by dust, by removing the vacuum motor housing.

In this situation, inspect the bags for damage, or to see if they have become loose. Properly clean the bags if no damage is seen.

Remove the inline filter, and clean by back flushing with compressed air (NOT recommended), or replace the filter.

Restart the unit. If after a short period of time, the inline filter becomes plugged or blinded, replace the filter bags and the inline filter element.

Inline cartridge element re -order instructions.

PLEASE NOTE! The vacuum producer requires unrestricted air flow! Running the BULL 300 "deadheaded" for more than a few minutes will overheat the vacuum producer and void the warranty.

THIS UNIT IS NOT RECOMMENDED FOR CONNECTION TO A CENTRAL VACUUM PIPING NETWORK.

Please refer to that section for vacuum producer troubleshooting and maintenance instructions.

The following sub-sections describe typical maintenance requirements and the problems that can occur.

The Dust Can

The dust can supplied with this unit is operated by use of two over-center latches.

For proper operation, the dust can must be properly sealed with the filter housing. When in the latched up position, ensure that the pin of the over-center latch matches the hooks on the dust can.

Do not over-tighten the latches! Only a moderate pressure is required to form an airtight seal.

NOTE: Dispose of waste material in accordance with local environmental codes.

Vacuum Seals

If you experience a "lack of suction", almost certainly there is a leak in a seal somewhere in the system. The following is a short list of common fail points:

1. Check all gasket seals. If air is leaking in through these seals, dust will normally collect on the inside surface of the housing showing the exact location of the leak. Sometimes, running your hands around the door frame will allow you to locate the leak. Either way, replace the seals as required.

2. Especially check the dust can gaskets. If they are torn or worn, please replace them.

3. DO NOT over-tighten the lifting mechanism. Almost certainly that will cause more problems than it fixes. The dust can flange need only depress the gasket. The seal will form when the system is turned on. Over-tightening the lifting mechanism will only lead to premature wear of the gasket and will cause constant problems.

4. Check the hoses for cracks and leaks. A hose covered in duct tape is a sure indica tor that the hoses should be replaced.

AMETEK

LAMB ELECTRIC

Product Bulletin

Model: 121118-00

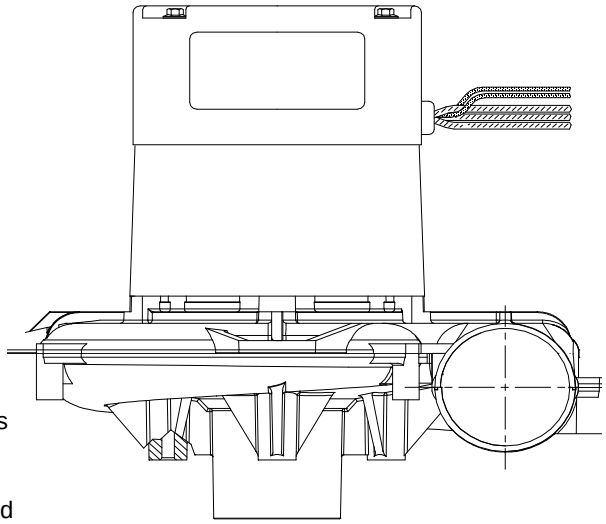
FLO-TEK

DESCRIPTION

- Brushless Motor
- Switch Reluctance (SR) Technology
- One-stage High Flow Fan design
- 120 volts, 50/60 Hz
- 9.1" / 231 mm diameter
- Dual 10mm ball bearings
- Tangential discharge
- All aluminum die cast housings used in motor construction
- Life expectancy: 5 -10 times more than the brush-motor equivalent.

DESIGN APPLICATION

- Equipment operating in environments requiring separation of working air from motor ventilating air
- Designed to handle clean, dry, filtered air only



SPECIAL FEATURES

- "Generation II" (DIGITAL) Controller: no external low-voltage control power required. (See "INFIN-A-TEK Application Notes")
- UL component recognized (pending)
- IP Rating: 1.0
- **Speed control capability**
- High CFM fan system
- Thermally protected motor design
- Aluminum fan end bracket designed to dampen vibration and improve durability

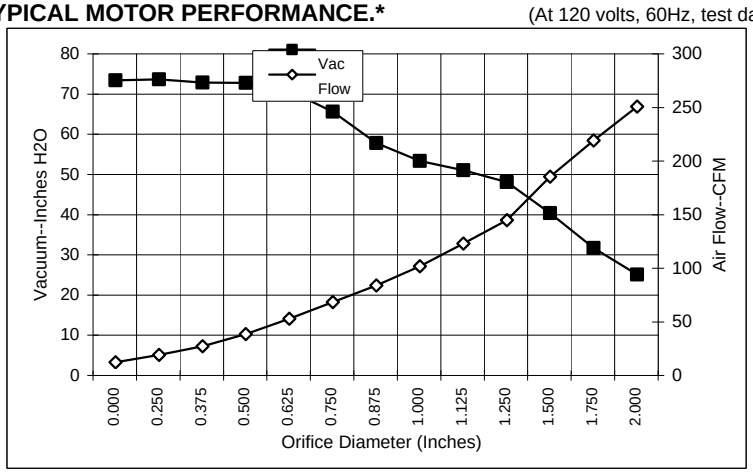
Please refer to INFIN-A-TEK Application Notes for details on the operation and wiring of this switched-reluctance motor.

INFIN-A-TEK

TYPICAL MOTOR PERFORMANCE.*

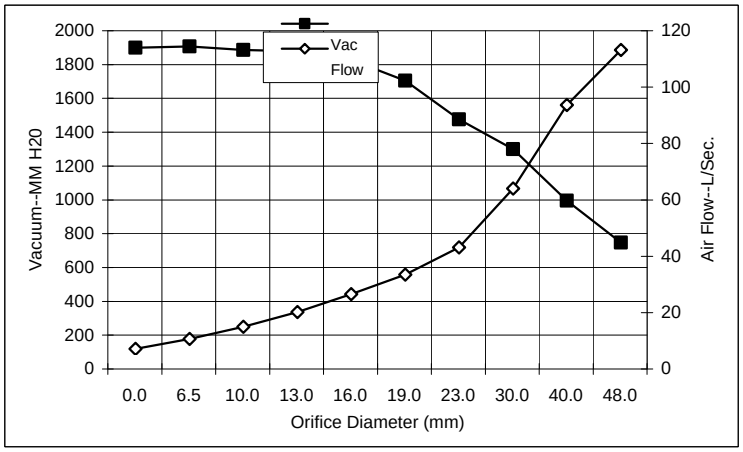
(At 120 volts, 60Hz, test data is corrected to standard conditions of 29.92 Hg, 68° F.)

ASTM DATA



Orifice (Inches)	Amps	Watts (In)	RPM	Vac (In.H2O)	Flow (CFM)	Air Watts
2.000	16.4	1758	20820	21.8	238.4	612
1.750	16.4	1750	20820	28.4	207.0	692
1.500	16.8	1771	21310	37.1	173.0	754
1.250	15.8	1654	22000	44.8	132.4	697
1.125	14.9	1600	22570	47.8	110.7	622
1.000	14.5	1488	22900	50.1	89.6	528
0.875	13.4	1410	23600	54.5	71.7	459
0.750	12.5	1317	24400	62.3	56.2	411
0.625	12.4	1293	25480	67.5	40.5	321
0.500	11.8	1223	26390	69.5	26.3	215
0.375	11.0	1161	26900	69.6	14.9	122
0.250	11.1	1158	27930	70.4	7.0	58
0.000	10.6	1110	28440	70.1	0.0	0

METRIC DATA



Orifice (mm)	Amps	Watts (In)	RPM	Vac (mm H2O)	Flow (L/Sec)	Air Watts
48.0	16.4	1754	20820	627	106.0	647
40.0	16.7	1765	21163	876	86.5	735
30.0	15.3	1624	22314	1180	56.9	656
23.0	13.7	1430	23425	1356	36.0	476
19.0	12.5	1317	24422	1585	26.4	409
16.0	12.4	1294	25437	1709	19.4	325
13.0	11.9	1230	26299	1760	13.1	226
10.0	11.1	1170	26824	1767	7.8	136
6.5	11.0	1158	27879	1787	3.5	61
0.0	10.6	1110	28440	1781	0.0	0

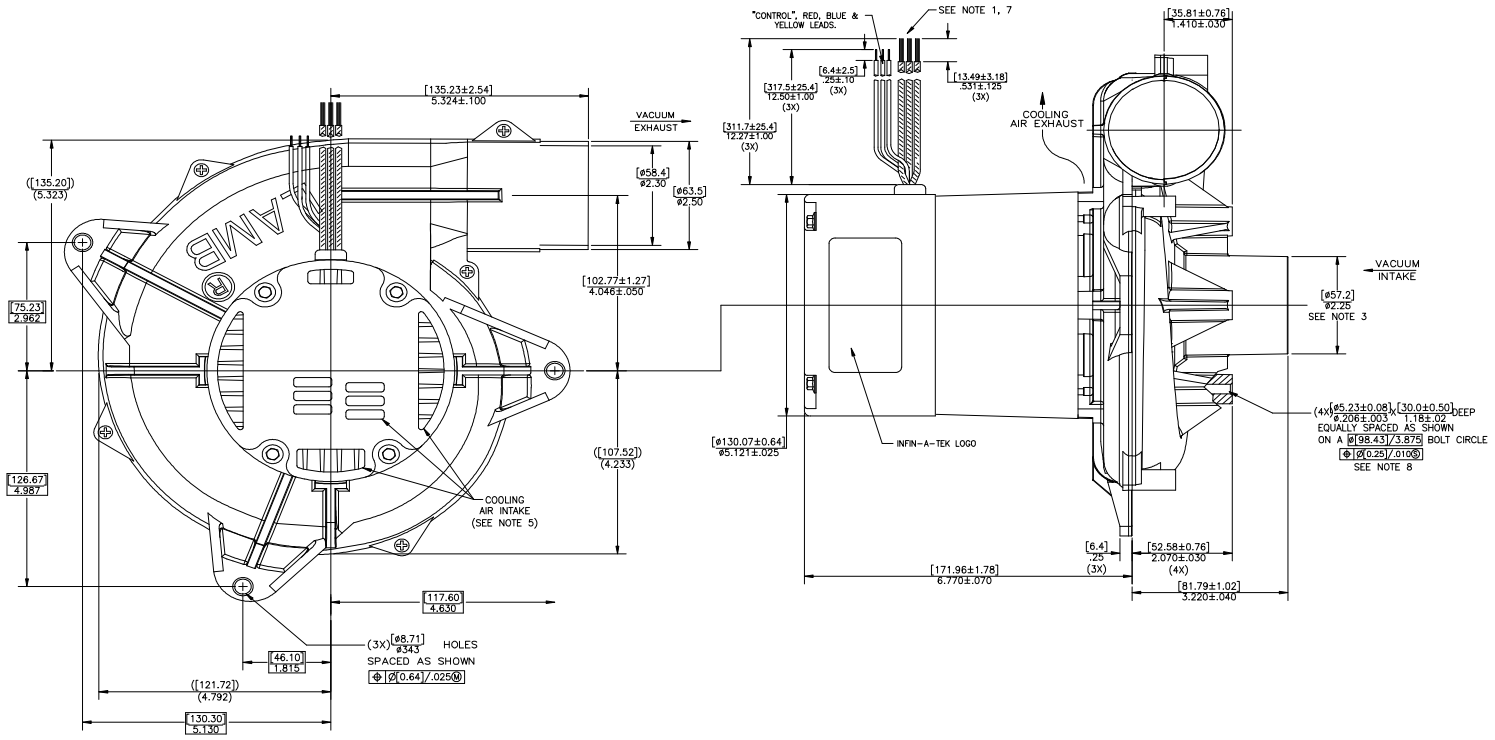
Note: Metric performance data is calculated from the ASTM data above.

* Data represents performance of a typical motor sampled from a large production quantity. Individual motor data may vary due to normal manufacturing variances.

Test Specs: TBD	**Minimum Sealed Vacuum: TBD**	**ORIFICE: 7/8"**	**Minimum Vacuum: TBD**	**Maximum Watts: TBD**

INFIN-A-TEK™ LAMB POWERED FLO-TEK

DIMENSIONS



NOTES

1. Leads: 18ga, stranded power leads; one black and one white, ground lead green with yellow stripe.
   Leads: 22ga, control leads: one red, one blue (or orange) and one yellow.
2. Motor Identification: Manufacturer's name, model number, voltage, frequency, inspection code, date of manufacture, agency recognition code, plant code, "Thermally Protected L 16.0A", "Made in the USA" and the following information: "Manufactured under patent nos: US5789893, TW81933, SG38957, ZA96/2766, US5760519, EP0702448B1, ZA95/7123 under license from Switched Reluctance Drive Ltd. Other U.S.and foreign patents pending, copyright code 1998, all rights reserved."
3. Mounting must not restrict this diameter.
4. **Allow (0.0026 Sq M) / 4.8" Sq In. (min) for cooling air intake and exhaust.**
5. Cooling air intake must be separated from cooling air exhaust.
6. Cooling air exhaust must be separated from vacuum exhaust.
7. Observe NEC wiring convention (black-line and white neutral) to insure proper placement of control module fuse in the circuit. **See wiring options 1 thru 4 of "INFIN-A-TEK Application Notes" for implementing the "control" feature (red, blue (or orange) & yellow leads).**
8. The INFIN-A-TEK blower utilizes a switched reluctance (SR) brushless motor, which is commutated electronically. Similar to a brush type series universal motor, this INFIN-A-TEK (SR) blower operates on AC voltage. The INFIN-A-TEK (SR) blower features an integral electronic control module that rectifies the "AC line voltage" to obtain the DC voltage required to power the motor. All switched reluctance motors are thermally protected using an auto-reset device.

IMPORTANT NOTES: *Pictorial and dimensional data are subject to change without notice. Contact factory for current revision levels.*

WARNING - When using AMETEK/Lamb Electric bypass motors in machines that come in contact with foam, liquid (including water) of other foreign substances, the machine must be designed and constructed to prevent those substances from reaching the fan system, motor housing and electrical components. Lamb vacuum motors other than hazardous duty models should not be applied in machines that come in contact with dry chemicals or other volatile materials. Failure to observe these precautions could cause flashing (depending on volatility) or electrical shock which could result in property damage and severe bodily injury, including death in extreme cases. All applications incorporating Lamb motors should be submitted to appropriate organizations or agencies for testing specifically related to the safety of your equipment.

AMETEK/Lamb Electric Division, 627 Lake Street, Kent, Ohio 44240 U.S.A.
Tel: (330) 673-3451 Fax: (330) 677-3812 Website: www.lambelectric.com

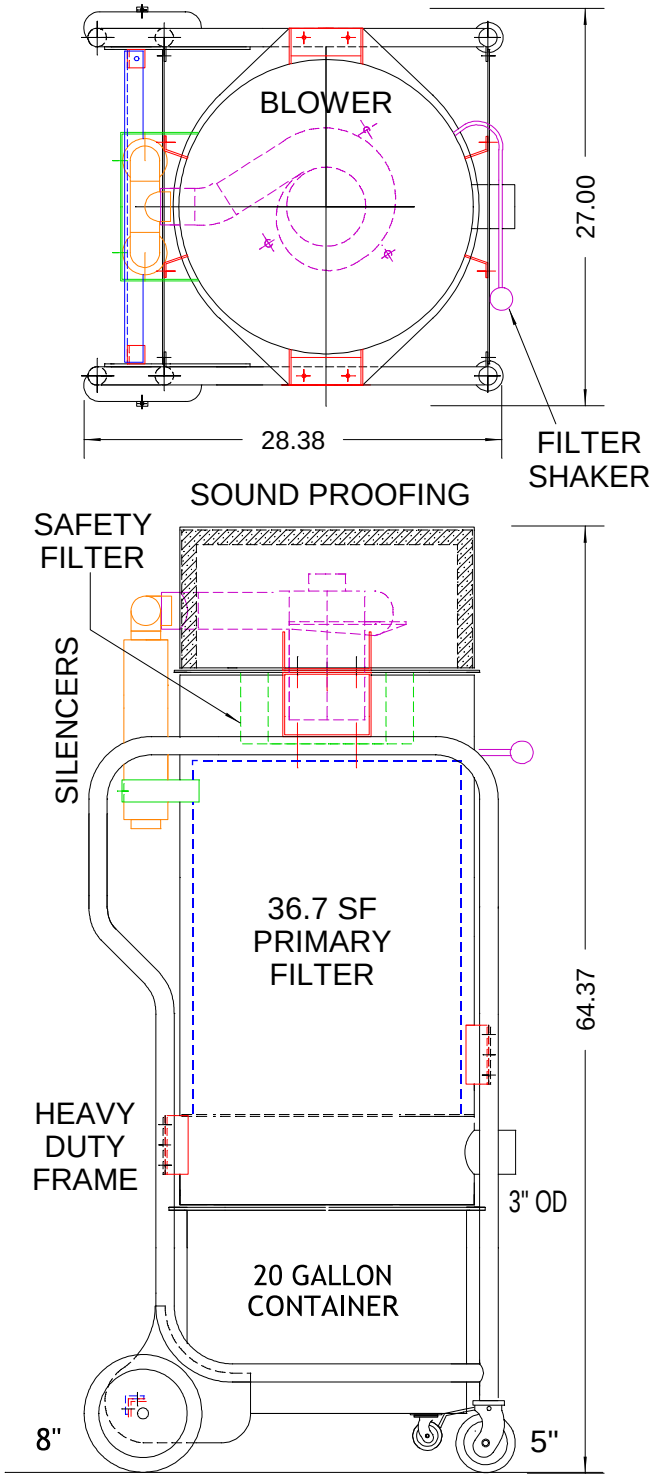
LIFETIME SERIES VACUUM SYSTEM
MODEL SASE BULL 300

FEATURES:

- EXCLUSIVE 320 CFM VACUUM MOTOR RATED FOR OVER 4000 HOURS USE
- 36.7 SQ FOOT MAIN FILTER RATED 99.9% EFFICIENCY AT 0.5 MICRONS
- EXTERNAL FILTER SHAKER COMPLETELY RECONDITIONS THE FILTERS IN SECONDS
- BUILT-IN SAFETY FILTER HELPS LONG LIFE OF THE VACUUM MOTOR
- HUGE FILTER AND 20 GALLON CAPACITY ALLOW OPERATION ALL DAY LONG WITHOUT CONSTANT, COSTLY SHUTDOWNS
- FILTERS LAST 1 - 2 YEARS AT LEAST
- SUPER QUIET OPERATION
- HEAVY DUTY STEEL FRAME COMPLETELY SURROUNDS FOR IN-TRUCK PROTECTION
- DRAG UP STAIRWAYS OR INTO THE TRUCK WITH JUST ONE MAN
- POWDER COATED FINISH FOR LONG LASTING PROTECTION
- SOFT WHEELS WON'T SCUFF FLOORS

THIS VACUUM HAS BEEN DESIGNED SPECIFICALLY FOR THE WOOD FLOOR CONTRACTOR WHO DEMANDS RELIABLE OPERATION WITH ALMOST NO SERVICE IN ABUSIVE JOBSITE CONDITIONS

320 CFM AND 70" WG
120-1-60 16A
106 LBS



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