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Read the

separate safety manual before

installing,

operating, or servicing

Installation and Service DRYVAC02



PELLERIN MILNOR CORPORATION POST OFFICE BOX 400, KENNER, LOUISIANA 70063-0400, U.S.A.

Table of Contents MPIDRYVCAE/22085A

| Page | Description | Document |
|------|---|-----------------------|
| 1 | Limited Standard Warranty | BMP720097/2019036 |
| 2 | How to Get the Necessary Repair Components | BIUUUD19/20081231 |
| 3 | Trademarks | BNUUUU02/2021104A |
| 5 | 1. Safety | |
| 6 | Safety—Dryers, Conditioners, and Shakers | BIUUUS27PD/20051111 |
| 12 | Tag Guidelines | BIUUUI02PG/20180426 |
| 15 | Tag Guidelines | BIUUUI02PS/20180426 |
| 19 | 2. Service and Maintenance | |
| 20 | Fire Safety System Operation and Maintenance | BNDGUH01/2021392 |
| 26 | Torque Requirements for Fasteners | BIUUUM04/20180109 |
| 35 | 3. Dryvac Assemblies | |
| 36 | House Assembly | BMP120038/2020373A |
| 44 | Blower and Bearing Installation | BMP120039/2020373A |
| 46 | Blower Bearing 5050, 6450, 6458, 6464, 7272, 7676, 8282 | |
| | Dryers | BMP010033/2020503A |
| 48 | Drive Chart | BMP120040/2012464B |
| 49 | Sprinkler System | BMP120037/2020373A |
| 53 | Watts Ball Valves and Repair Kits | BMP920007/1996067V |
| 55 | 4. Installation Drawings | |
| 56 | Attention Installers! Dryer Shuttle Rail Installation | B2T2007003/2019193A |
| 57 | Air and Ductwork Requirements for Milnor® Pass-through | |
| | Dryers | BIPDGI01EN/20171009 |
| 65 | Dimensional Drawing - DRYVAC02 Remote Autolint | |
| | Collector | BDDRYV21BE/2018025D |
| 67 | Dimensional Drawing - Recommended Lint Collector Piping | BD6458DLCPBE/2014453D |

PELLERIN MILNOR CORPORATION LIMITED STANDARD WARRANTY

We warrant to the original purchaser that MILNOR machines including electronic hardware/software (hereafter referred to as "equipment"), will be free from defects in material and workmanship for a period of one year from the date of shipment (unless the time period is specifically extended for certain parts pursuant to a specific MILNOR published extended warranty) from our factory with no operating hour limitation. This warranty is contingent upon the equipment being installed, operated and serviced as specified in the operating manual supplied with the equipment, and operated under normal conditions by competent operators.

Providing we receive written notification of a warranted defect within 30 days of its discovery, we will—at our option—repair or replace the defective part or parts, EX Factory (labor and freight specifically NOT included). We retain the right to require inspection of the parts claimed defective in our factory prior to repairing or replacing same. We will not be responsible, or in any way liable, for unauthorized repairs or service to our equipment, and this warranty shall be void if the equipment is tampered with, modified, or abused, used for purposes not intended in the design and construction of the machine, or is repaired or altered in any way without MILNOR's written consent.

Parts damaged by exposure to weather, to aggressive water, or to chemical attack are not covered by this warranty. For parts which require routine replacement due to normal wear—such as gaskets, contact points, brake and clutch linings, belts, hoses, and similar parts—the warranty time period is 90 days.

We reserve the right to make changes in the design and/or construction of our equipment (including purchased components) without obligation to change any equipment previously supplied.

ANY SALE OR FURNISHING OF ANY EQUIPMENT BY MILNOR IS MADE ONLY UPON THE EXPRESS UNDERSTANDING THAT MILNOR MAKES NO EXPRESSED OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE OR PURPOSE OR ANY OTHER WARRANTY IMPLIED BY LAW INCLUDING BUT NOT LIMITED TO REDHIBITION. MILNOR WILL NOT BE RESPONSIBLE FOR ANY COSTS OR DAMAGES ACTUALLY INCURRED OR REQUIRED AS A RESULT OF: THE FAILURE OF ANY OTHER PERSON OR ENTITY TO PERFORM ITS RESPONSIBILITIES, FIRE OR OTHER HAZARD, ACCIDENT, IMPROPER STORAGE, MIS-USE, NEGLECT, POWER OR ENVIRONMENTAL CONTROL MALFUNCTIONS, DAMAGE FROM LIQUIDS, OR ANY OTHER CAUSE BEYOND THE NORMAL RANGE OF USE. REGARDLESS OF HOW CAUSED, IN NO EVENT SHALL MILNOR BE LIABLE FOR SPECIAL, INDIRECT, PUNITIVE, LIQUIDATED, OR CONSEQUENTIAL COSTS OR DAMAGES, OR ANY COSTS OR DAMAGES WHATSOEVER WHICH EXCEED THE PRICE PAID TO MILNOR FOR THE EQUIPMENT IT SELLS OR FURNISHES.

THE PROVISIONS ON THIS PAGE REPRESENT THE ONLY WARRANTY FROM MILNOR AND NO OTHER WARRANTY OR CONDITIONS, STATUTORY OR OTHERWISE, SHALL BE IMPLIED.

WE NEITHER ASSUME, NOR AUTHORIZE ANY EMPLOYEE OR OTHER PERSON TO ASSUME FOR US, ANY OTHER RESPONSIBILITY AND/OR LIABILITY IN CONNECTION WITH THE SALE OR FURNISHING OF OUR EQUIPMENT TO ANY BUYER.

BIUUUD19 (Published) Book specs- Dates: 20081231 / 20081231 / 20081231 Lang: ENG01 Applic: UUU

How to Get the Necessary Repair Components



This document uses Simplified Technical English. Learn more at http://www.asd-ste100.org.

You can get components to repair your machine from the approved supplier where you got this machine. Your supplier will usually have the necessary components in stock. You can also get components from the Milnor[®] factory.

Tell the supplier the machine model and serial number and this data for each necessary component:

- The component number from this manual
- The component name if known
- The necessary quantity
- The necessary transportation requirements
- If the component is an electrical component, give the schematic number if known.
- If the component is a motor or an electrical control, give the nameplate data from the used component.

To write to the Milnor factory:

Pellerin Milnor Corporation Post Office Box 400 Kenner, LA 70063-0400 UNITED STATES

Telephone: 504-467-2787 Fax: 504-469-9777 Email: parts@milnor.com

- End of BIUUUD19 -

BNUUUU02 / 2021104A

Trademarks

BNUUUU02 0000158094 F.2 3/3/21 9:47 AM Released

BNUUUU02.R01 0000158093 F.2 E.2 3/3/21 9:47 AM Released

These words are trademarks of Pellerin Milnor® Corporation and other entities:

| Table 1. Trademarks | | | |
|------------------------|----------------------------|--------------------------|---------------------------|
| AutoSpot TM | GreenFlex TM | MilMetrix® | PulseFlow® |
| CBW® | GearTrace TM | MilTouch TM | RAM Command TM |
| Drynet TM | GreenTurn [™] | MilTouch-EX [™] | RecircONE® |
| E-P Express® | Hydro-cushion [™] | MILRAIL TM | RinSave® |
| E-P OneTouch® | Mentor® | Miltrac [™] | SmoothCoil™ |
| E-P Plus® | Mildata® | PBWTM | Staph Guard® |
| Gear Guardian® | Milnor® | | |

End of document: BNUUUU02

Safety

BIUUUS27 (Published) Book specs- Dates: 20051111 / 20051111 / 20060323 Lang: ENG01 Applic: PDU

Safety—Dryers, Conditioners, and Shakers

1. General Safety Requirements—Vital Information for Management Personnel [Document BIUUUS04]

Incorrect installation, neglected preventive maintenance, abuse, and/or improper repairs, or changes to the machine can cause unsafe operation and personal injuries, such as multiple fractures, amputations, or death. The owner or his selected representative (owner/user) is responsible for understanding and ensuring the proper operation and maintenance of the machine. The owner/user must familiarize himself with the contents of all machine instruction manuals. The owner/user should direct any questions about these instructions to a Milnor® dealer or the Milnor® Service department.

Most regulatory authorities (including OSHA in the USA and CE in Europe) hold the owner/user ultimately responsible for maintaining a safe working environment. Therefore, the owner/user must do or ensure the following:

- recognize all foreseeable safety hazards within his facility and take actions to protect his personnel, equipment, and facility;
- work equipment is suitable, properly adapted, can be used without risks to health or safety, and is adequately maintained;
- where specific hazards are likely to be involved, access to the equipment is restricted to those employees given the task of using it;
- only specifically designated workers carry out repairs, modifications, maintenance, or servicing;
- information, instruction, and training is provided;
- workers and/or their representatives are consulted.

Work equipment must comply with the requirements listed below. The owner/user must verify that installation and maintenance of equipment is performed in such a way as to support these requirements:

- control devices must be visible, identifiable, and marked; be located outside dangerous zones; and not give rise to a hazard due to unintentional operation;
- control systems must be safe and breakdown/damage must not result in danger;
- work equipment is to be stabilized;
- protection against rupture or disintegration of work equipment;
- guarding, to prevent access to danger zones or to stop movements of dangerous parts before the danger zones are reached. Guards to be robust; not give rise to any additional hazards; not be easily removed or rendered inoperative; situated at a sufficient distance from the danger zone; not restrict view of operating cycle; allow fitting, replacing, or maintenance by restricting access to relevant area and without removal of guard/protection device;
- suitable lighting for working and maintenance areas;
- maintenance to be possible when work equipment is shut down. If not possible, then protection measures to be carried out outside danger zones;
- work equipment must be appropriate for preventing the risk of fire or overheating; discharges of gas, dust, liquid, vapor, other substances; explosion of the equipment or substances in it.

- 1.1. Laundry Facility—Provide a supporting floor that is strong and rigid enough to support–with a reasonable safety factor and without undue or objectionable deflection–the weight of the fully loaded machine and the forces transmitted by it during operation. Provide sufficient clearance for machine movement. Provide any safety guards, fences, restraints, devices, and verbal and/or posted restrictions necessary to prevent personnel, machines, or other moving machinery from accessing the machine or its path. Provide adequate ventilation to carry away heat and vapors. Ensure service connections to installed machines meet local and national safety standards, especially regarding the electrical disconnect (see the National Electric Code). Prominently post safety information, including signs showing the source of electrical disconnect.
- **1.2. Personnel**—Inform personnel about hazard avoidance and the importance of care and common sense. Provide personnel with the safety and operating instructions that apply to them. Verify that personnel use proper safety and operating procedures. Verify that personnel understand and abide by the warnings on the machine and precautions in the instruction manuals.
- **1.3. Safety Devices**—Ensure that no one eliminates or disables any safety device on the machine or in the facility. Do not allow machine to be used with any missing guard, cover, panel or door. Service any failing or malfunctioning device before operating the machine.
- 1.4. Hazard Information—Important information on hazards is provided on the machine safety placards, in the Safety Guide, and throughout the other machine manuals. Placards must be kept clean so that the information is not obscured. They must be replaced immediately if lost or damaged. The Safety Guide and other machine manuals must be available at all times to the appropriate personnel. See the machine service manual for safety placard part numbers. Contact the Milnor Parts department for replacement placards or manuals.
- **1.5. Maintenance**—Ensure the machine is inspected and serviced in accordance with the norms of good practice and with the preventive maintenance schedule. Replace belts, pulleys, brake shoes/disks, clutch plates/tires, rollers, seals, alignment guides, etc. before they are severely worn. Immediately investigate any evidence of impending failure and make needed repairs (e.g., cylinder, shell, or frame cracks; drive components such as motors, gear boxes, bearings, etc., whining, grinding, smoking, or becoming abnormally hot; bending or cracking of cylinder, shell, frame, etc.; leaking seals, hoses, valves, etc.) Do not permit service or maintenance by unqualified personnel.
 - Safety Alert Messages—Internal Electrical and Mechanical Hazards [Document BIUUUS11] The following are instructions about hazards inside the machine and in electrical enclosures.



WARNING 1: **Electrocution and Electrical Burn Hazards**—Contact with electric power can kill or seriously injure you. Electric power is present inside the cabinetry unless the main machine power disconnect is off.

- Do not unlock or open electric box doors.
- Do not remove guards, covers, or panels.
- Do not reach into the machine housing or frame.
- Keep yourself and others off of machine.
- Know the location of the main machine disconnect and use it in an emergency to remove all electric power from the machine.



WARNING 2: **Entangle and Crush Hazards**—Contact with moving components normally isolated by guards, covers, and panels, can entangle and crush your limbs. These components move automatically.

- Do not remove guards, covers, or panels.
- Do not reach into the machine housing or frame.
- Keep yourself and others off of machine.
- Know the location of all emergency stop switches, pull cords, and/or kick plates and use them in an emergency to stop machine motion.



CAUTION 3: Burn Hazards—Contact with hot goods or machine components can burn you.

- Do not remove guards, covers, or panels.
- Do not reach into the machine housing or frame.

3. Safety Alert Messages—External Mechanical Hazards [Document

BIUUUS12]

The following are instructions about hazards around the front, sides, rear or top of the machine.

4. Safety Alert Messages—Cylinder and Processing Hazards

[Document BIUUUS13]

The following are instructions about hazards related to the cylinder and laundering process.



DANGER 4: Entangle and Sever Hazards—Contact with goods being processed can cause the goods to wrap around your body or limbs and dismember you.

- Do not attempt to open the door or reach into the cylinder until the cylinder is stopped.
- Do not touch goods inside or hanging partially outside the turning cylinder.
- Know the location of all emergency stop switches, pull cords, and/or kick plates and use them in an emergency to stop machine motion.
- Know the location of the main machine disconnect and use it in an emergency to remove all electric power from the machine.



WARNING 5: **Crush Hazards**—Contact with the turning cylinder can crush your limbs. The cylinder will repel any object you try to stop it with, possibly causing the object to strike or stab you.

- Do not attempt to open the door or reach into the cylinder until the cylinder is stopped.
- Do not place any object in the turning cylinder.



WARNING 6: **Confined Space Hazards**—Confinement in the cylinder can kill or injure you. Hazards include but are not limited to panic, burns, poisoning, suffocation, heat prostration, biological contamination, electrocution, and crushing.

• Do not attempt unauthorized servicing, repairs, or modification.



WARNING 7: **Explosion and Fire Hazards**—Petroleum and latex materials are flammable. They can produce explosive fumes when heated.

- Do not use flammable solvents in processing.
- Do not load machine with goods containing dry cleaning materials.
- Do not use the machine in the presence of solvent fumes.



WARNING 8: **Poison and Corrosion Hazards**—Synthetic solvents such as perchloroethylene are toxic. They can produce poisonous phosgene gas (mustard gas) and/or

corrosive hydrochloric acid when heated.

- Do not load machine with goods containing dry cleaning materials.
- Do not use the machine in the presence of solvent fumes.



WARNING 9: **Fire Hazards**—Overheated goods can catch fire spontaneously in the machine or after discharge.

- Verify the overheat control system and plant fire extinguishers are functioning before operating the machine. Be sure to turn water supply on after testing.
- In the event of a fire, thoroughly wet all goods.
- Test or inspect the system after every automatic actuation, or monthly.



CAUTION 10: **Burn Hazards**—Contact with hot goods or machine components can burn you.

- Do not remove guards, covers, or panels.
- Do not reach into the machine housing or frame.
- Use care when handling recently-processed goods.

5. Safety Alert Messages—Unsafe Conditions [Document BIUUUS14]

5.1. Damage and Malfunction Hazards

5.1.1. Hazards Resulting from Inoperative Safety Devices



WARNING 11: Multiple Hazards—Operating the machine with an inoperative safety device can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.

• Do not tamper with or disable any safety device or operate the machine with a malfunctioning safety device. Request authorized service.



WARNING 12: Electrocution and Electrical Burn Hazards—Electric box doors— Operating the machine with any electric box door unlocked can expose high voltage conductors inside the box.

- Do not unlock or open electric box doors.

WARNING 13: **Entangle and Crush Hazards**—Guards, covers, and panels—Operating the machine with any guard, cover, or panel removed exposes moving components.

• Do not remove guards, covers, or panels.



WARNING 14: Fire Hazards—Sprinkler and overheat control—Failure to supply water to the sprinkler or to open the manual valve, or failure of the overheat control, eliminates the machine's internal fire protection. Normally the machine stops and water is sprayed into the cylinder if outlet temperature reaches 240 degrees Fahrenheit (116 degrees Celsius).

- Verify the overheat control system and plant fire extinguishers are functioning before operating the machine. Be sure to turn water supply on after testing.
- Keep the manual shut-off test valve open except when testing.
- Test or inspect the system after every automatic actuation, or monthly.



WARNING 15: Explosion and Fire Hazards—Gas train—Operating the machine with damaged or malfunctioning gas valves, safeties, controls, or piping can permit gas to escape into the fire box, cylinder, or laundry room. The enclosure will explode if gas comes in contact with any spark or flame.

- Do not operate the machine with any evidence of damage or malfunction.
- Stop the machine immediately and alert authorities if you smell gas.

5.1.2. Hazards Resulting from Damaged Mechanical Devices



WARNING 16: Multiple Hazards—Operating a damaged machine can kill or injure personnel, further damage or destroy the machine, damage property, and/or void the warranty.
Do not operate a damaged or malfunctioning machine. Request authorized service.

5.2. Careless Use Hazards

5.2.1. Careless Operation Hazards—Vital Information for Operator Personnel (see also operator hazards throughout manual)



WARNING 17: **Multiple Hazards**—Careless operator actions can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.

- Do not tamper with or disable any safety device or operate the machine with a malfunctioning safety device. Request authorized service.
- Do not operate a damaged or malfunctioning machine. Request authorized service.
- Do not attempt unauthorized servicing, repairs, or modification.
- Do not use the machine in any manner contrary to the factory instructions.
- Use the machine only for its customary and intended purpose.
- Understand the consequences of operating manually.



CAUTION 18: Goods Damage and Wasted Resources—Entering incorrect cake data causes improper processing, routing, and accounting of batches.

- Understand the consequences of entering cake data.
- 5.2.2. Careless Servicing Hazards—Vital Information for Service Personnel (see also service hazards throughout manuals)



WARNING 19: Electrocution and Electrical Burn Hazards—Contact with electric power can kill or seriously injure you. Electric power is present inside the cabinetry unless the main machine power disconnect is off.

- Do not service the machine unless qualified and authorized. You must clearly understand the hazards and how to avoid them.
- Abide by the current OSHA lockout/tagout standard when lockout/tagout is called for in the service instructions. Outside the USA, abide by the OSHA standard in the absence of any other overriding standard.



WARNING 20: **Entangle and Crush Hazards**—Contact with moving components normally isolated by guards, covers, and panels, can entangle and crush your limbs. These components move automatically.

• Do not service the machine unless qualified and authorized. You must clearly understand the hazards and how to avoid them.

• Abide by the current OSHA lockout/tagout standard when lockout/tagout is called for in the service instructions. Outside the USA, abide by the OSHA standard in the absence of any other overriding standard.



WARNING 21: **Confined Space Hazards**—Confinement in the cylinder can kill or injure you. Hazards include but are not limited to panic, burns, poisoning, suffocation, heat prostration, biological contamination, electrocution, and crushing.

• Do not enter the cylinder until it has been thoroughly purged, flushed, drained, cooled, and immobilized.

- End of BIUUUS27 -

BIUUUI02PG (Published)Book specs- Dates: 20180426 / 20180426 / 20180426 Lang: ENG01 Applic: PDG

Tag Guidelines for the Models Listed Below

5050TG1L 5050TG1R 6450TG1L 6450TG1R 6458TG1L 6458TG1R 6464TG1L 6464TG1R 7676TG1L 7676TG1R 8282TG1L 8282TG1R

Notice 1: This information may apply to models in addition to those listed above. It applies to paper tags. It does not apply to the vinyl or metal safety placards, which must remain permanently affixed to the machine and replaced if no longer readable.

Paper tags on the machine provide installation guidelines and precautions. The tags can be tie-on or adhesive. You can remove tie-on tags and white, adhesive tags after installation. Yellow adhesive tags must remain on the machine.

The following entries explain the installation tags. Each entry includes: 1) the tag illustration, 2) the tag part number displayed st the bottom of the tag, and 3) the meaning of the tag.

Display or Action

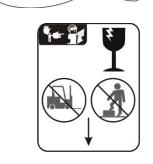
Explanation



THANK YOU

for purchasing Milnor Machinery. Read the manuals before proceeding. This symbol appears on most tags. The machine ships with safety, operator, and routine maintenance guides for customer use. Milnor dealer manuals for installing, servicing, and commissioning this machine are also available from the Milnor Parts department.

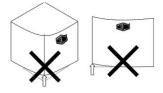
B2TAG88005: This carefully built product was tested and inspected to meet Milnor[®] performance and quality standards by (identification mark of tester).



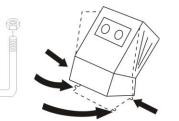
B2TAG94078: Do not forklift here; do not jack here; do not step here—whichever applies.

B2TAG94079: Rig for crane lifting (either 3-point or 4-point, depending on the number of lifting eyes provided) using a steep angle on the chains (closer to vertical than horizontal).

B2TAG94081: Motor must rotate in this direction. On single motor washer-extractors and centrifugal extractors, the drive motor must turn in this direction during draining and extraction. This tag is usually wrapped around a motor housing. If the motor turns in the opposite direction when the machine is first tested, the electrical hookup is incorrect and must be reversed as explained in the schematic manual.



B2TAG94084: Do not lift from one corner of the machine, as this can cause the frame to rack, damaging it.



B2TAG94101: The dryer has a rearward center of gravity and must be firmly anchored to the floor at all four corners.

Display or Action

Explanation

B2TAG94102 shown—others similar: Match up the components with this number. These tags are used to pair up electrical or hose connections between major components of a machine shipped dis-assembled.

B2TAG94118: Do not strike shipping container during fork-lifting. Fragile components inside.

B2T2001017: Foam seal must be installed here before dryers are bolted together.

B2T2002013: Do not start the machine until shipping restraints are removed. This tag will appear on the outside of the machine to alert you to the presence of internal shipping restraints. A tag will also appear on the restraint to help identify it. Most, but not all shipping restraints display the color red. Some shipping restraints are also safety stands. Do not discard these.



B2T2007003: Install the shuttle rail in accordance with this instruction and the installation manual.

This Control Box is mounted here for shipping purposes only

B2T2014022: This control box is mounted here for shipping purposes only. (Only used on 64" and 76" gas and steam dryers with a blower inverter.)

— End of BIUUUI02 —

BIUUUI02 (Published) Book specs- Dates: 20180426 / 20180426 / 20180426 Lang: ENG01 Applic: PDH PDO PDS

Tag Guidelines for the Models Listed Below

5050SA1L 5850SA1R 6458TT1L 6458TT1R 5050TS1L 5050TS1R 6458TS1L 6458TS1R 6464TS1L 6464TS1R 7676TS1L 7676TS1R 8282TS1L 8282TS1R MT140S1L MT140S1R

Notice 1: This information may apply to models in addition to those listed above. It applies to paper tags. It does not apply to the vinyl or metal safety placards, which must remain permanently affixed to the machine and replaced if no longer readable.

Paper tags on the machine provide installation guidelines and precautions. The tags can be tie-on or adhesive. You can remove tie-on tags and white, adhesive tags after installation. Yellow adhesive tags must remain on the machine.

The following entries explain the installation tags. Each entry includes: 1) the tag illustration, 2) the tag part number displayed st the bottom of the tag, and 3) the meaning of the tag.

Display or Action

Explanation





Read the manuals before proceeding. This symbol appears on most tags. The machine ships with safety, operator, and routine maintenance guides for customer use. Milnor dealer manuals for installing, servicing, and commissioning this machine are also available from the Milnor Parts department.

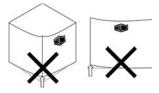
B2TAG88005: This carefully built product was tested and inspected to meet Milnor[®] performance and quality standards by (identification mark of tester).



B2TAG94078: Do not forklift here; do not jack here; do not step here—whichever applies.

B2TAG94079: Rig for crane lifting (either 3-point or 4-point, depending on the number of lifting eyes provided) using a steep angle on the chains (closer to vertical than horizontal).

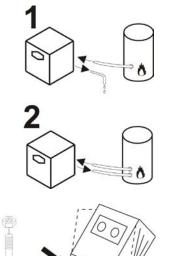
B2TAG94081: Motor must rotate in this direction. On single motor washer-extractors and centrifugal extractors, the drive motor must turn in this direction during draining and extraction. This tag is usually wrapped around a motor housing. If the motor turns in the opposite direction when the machine is first tested, the electrical hookup is incorrect and must be reversed as explained in the schematic manual.



B2TAG94084: Do not lift from one corner of the machine, as this can cause the frame to rack, damaging it.

Display or Action

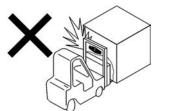
Explanation



B2TAG94091: Drain the condensate to the sewer during first one hour after commissioning a new machine or replacing the steam coil. This flushes out any residual anti-freeze that might be in the steam coil. After one hour, condensate can be returned to the boiler.

B2TAG94101: The dryer has a rearward center of gravity and must be firmly anchored to the floor at all four corners.

B2TAG94102 shown—others similar: Match up the components with this number. These tags are used to pair up electrical or hose connections between major components of a machine shipped dis-assembled.



B2TAG94118: Do not strike shipping container during fork-lifting. Fragile components inside.



B2T2001017: Foam seal must be installed here before dryers are bolted together.

B2T2002013: Do not start the machine until shipping restraints are removed. This tag will appear on the outside of the machine to alert you to the presence of internal shipping restraints. A tag will also appear on the restraint to help identify it. Most, but not all shipping restraints display the color red. Some shipping restraints are also safety stands. Do not discard these.

Display or Action

ATTENTION INSTALLERS! FLOOR SUBJECT HOUSE SUBJECT

This Control Box is mounted here for shipping purposes only

Explanation

B2T2007003: Install the shuttle rail in accordance with this instruction and the installation manual.

B2T2014022: This control box is mounted here for shipping purposes only. (Only used on 64" and 76" gas and steam dryers with a blower inverter.)

— End of BIUUUI02 —

Service and Maintenance

Fire Safety System Operation and Maintenance

BNDGUH01.C01 0000382704 B.2 9/24/21 11:44 AM Released

NOTICE: If the fire safety system is in operation (if there is a flow of water from the rear of the dryer)—go to Section 5 : If Water Flow Occurs, page 5.

fire safety system the water nozzles and related equipment that put water in the dryer to stop a fire in the basket.

Water flow will start automatically if the temperature becomes too high, as told in Section 1 : Fire Safety Functions and Components, page 1. You can also start it manually. Pull the operation handle or use the control panel as told in Section 4 : How to Do a Test of the Fire Safety System, page 4. The system will start a flow of water. The water will go into the basket through the perforations. Do a test of this system at the intervals given in the routine maintenance schedule.

1. Fire Safety Functions and Components

BNDGUH01.C02 0000384000 B.2 9/24/21 11:44 AM Released

This section gives the fire safety functions and components for 6464_ and 7272_ models. Components and their locations can be different on other dryer models but the functions are the same.

| Sensor type | Temperatur | e switch (closes temperature) | at specified | | gives continuous a to the controller | | |
|---|--|---|--|---|---|--|--|
| Sensor name | ST225-1 & 2 | ST550A & B | STBB | | Т3 | | |
| Location | Basket/outlet duct (Figure 1, page 2, Figure 3, page 2, Fig- ure 4, page 2) | Inlet duct Fig- ure 1, page 2, Figure 2, page 2 | At burner (Figure 1, page 2, Fig- ure 5, page 2) | Outlet duct (Figure 3, page 2) | | | |
| Safety limit (the | | 550° F (288° | 175° F (79° | -Three | safety limits in so | oftware– | |
| temperature or condition that causes the given result) | C) | C) | C) | 5° F increase for 15 seconds or 15° F increase for 5 seconds during min fire* | Higher than 220° F (104° C) for 5 seconds** | 240°F (116°C) | |
| Occurs when temperature is too high | and all dryer | Flame goes off. If the flame will not come on, see the line below this one. | | Each step before the cooldown is subsequently cancelled while the condition continues. | | Water flows and all dryer func- tions stop. | |
| Display when temperature is too high | THREE WIRE DIS- ABLED error and operator alarm. | Initially none. If the flame will not come on, the CHECK ERROR LIGHTS error and operator alarm occur. | | The controller shows "MINF" and puts data in the record of dry cycle details. | The controller shows ">220" and puts data in the record of dry cycle details. | OUTLET TEMP EX- CEEDED 240 Df - POWER DOWN error and operator alarm. | |
| Necessary procedure | See Section 5 : If Water Flow Occurs, page 5 | If the error given in the line above this one occurs, see "Error Messages" in the op- erator guide. | | See Section 2 : A Fire and Outlet 7 ceeded 220° Faul | Femperature Ex- | See Section 5 : If Water Flow Occurs, page 5 | |
| * This does not a ** This does not | | - | do not use mod | lulation. | | | |

Table 1. Fire Safety Functions for 6464_ and 7272_ Dryer Models

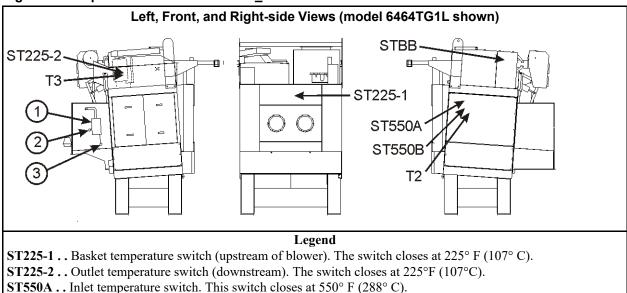


Figure 1. Component Locations for 6464_ Models

ST550B.. Secondary inlet temperature switch. This switch closes at 550° F (288° C). **STBB**.. Burner housing temperature switch. This switch closes at 175° F (79° C).

STDD: Using temperature switch. This switch closes at 1/5 T (7/7 C).

T2. Inlet temperature thermocouple. The fire safety system does not use this component.

- ${\tt T3..Outlet}$ temperature thermocouple. This component gives temperature data to the controller.
- ${\tt 1} \dots Sprinkler \ valve \ assembly$
- $\mathbf{2}\ldots \mathbf{R}$ eset handle
- **3**... Operation handle

Figure 2. View of ST550A, ST550B and T2

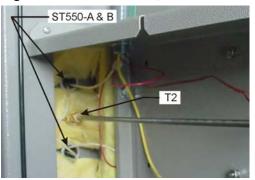


Figure 4. View of ST225-2 and T3







Figure 5. View of STBB



2. About the Min Fire and Outlet Temperature Exceeded 220° **Faults**

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The function of these faults is to prevent conditions that can cause a fire. The controller does the necessary steps. There are no other steps for the operator to do immediately. But the controller puts data about the fault in the record of dry cycle details. These faults usually cause unsatisfactory operation. To prevent these faults, it can be necessary to change some procedures as told in the subsequent sections. Heat system adjustments and repairs are not routine maintenance. Speak to your dealer or Milnor[®].

2.1. Min Fire (MINF)

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This condition applies to dryers that use gas or propane. Minimum fire is when the controller tells the modulating gas valve to go to the position 000. The correct condition is when the gas valve is open a small, stable increment. Under this condition, a **min fire** fault occurs if the controller senses that the outlet temperature increases. This fault usually shows that the goods became too hot and could catch fire. (One more symptom is if the goods have a burned smell.) When this fault occurs, the controller immediately goes to the subsequent cool down step. Some causes of min fire faults include:

- The goods are held against the basket—The correct condition is that the goods tumble in the basket. If the basket speed is too high, centrifugal force can hold the goods against the basket. Then the part of the goods that is against the basket can become too hot.
- The gas valve does not operate correctly—For example, the valve throttle cannot move down fully because it is damaged. This can prevent the min fire position.
- Min fire is set too high—The min fire position must be adjusted correctly when the gas and air as told in the procedure to set the heat system. Damage to components can cause this adjustment to change.

Outlet Temperature Exceeded 220° (degrees Fahrenheit) 2.2.

.C05 0000384216 B.2 A.2 9/16/21 11:33 AM Released

This fault applies to all dryers except those with steam valves that do not modulate. The value 220° F (104° C) is 5°F (3° C) below the temperature that will close the outlet temperature switches (Fenwal switches) and start water flow. It cancels each subsequent heat step if the outlet temperature is higher than 220° F (104° C) for five seconds or more at the start of the step. This fault can also occur if the goods are held against the cylinder or the gas valve is damaged. The function of this fault is to make water flow not necessary, if the goods are not on fire. But if the goods catch fire, the temperature switches will quickly close to start water flow.

How to Prevent Water Flow When No Fire Occurs 3. 21 11:44 AM Released

If water flow occurs when there is no fire, two possible causes are:

A temperature switch is damaged. This is the usual cause. For example, material can hit a temperature probe and bend it. This can be a piece of goods that goes through a space where seals are worn. It is necessary to replace a damaged probe. The probe can also give an incorrect value if it has plastic contamination. It is necessary to remove the contamination.

• **Temperatures are not in the correct range.** The conditions described in Section 2.1 : Min Fire (MINF), page 3 can cause water flow if they are severe enough.

If water flow occurs when there is no fire, correct the cause. **Do not remove the fire safety system from operation.** If a fire occurs, this system is your first and best protection against a fire that is out of control.

4. How to Do a Test of the Fire Safety System

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- Prevent a new load: Set the Load Allowed/ Not Allowed (2)/2) switch to Not Allowed (2) to prevent a new load.
- 2. Let the dryer empty: Let the dryer operate until it releases the load it has.
- 3. Close the manual water valve: Close the valve to prevent water flow. This valve is on the sprinkler assembly. The assembly is usually on the side of the dryer discharge shroud.
- 4. Start a test of sprinkler AUTOMATIC operation:
 - If there is a controller on the dryer, see "Manual Mode Menu Functions" in the reference manual.
 - If this dryer is part of a Dryer/Shuttle (DrynetTM) system, do the steps listed below at the DrynetTM controller:
 - a. Select Admin Logon and enter the administrator password.
 - b. Select (click) the display for the dryer you will do the test on.
 - c. Select (click) Manual mode.
 - d. Go to **Sprinkler Functions** on the right side of the screen and select (click) **Sprinkler** [**Off**] to release the sprinkler valve. This is a toggle. The display shows **Sprinkler** [**On**].
- 5. Examine the automatic sprinkler valve.
 - **CAUTION:** Sluggish valve operation can interfere with fire suppression.



- ▶ Remove any build-up of foreign matter on components.
- Make sure components move freely.
- 6. Let the water flow for a short while: Open the manual valve on the sprinkler assembly. Make sure that water flows from the rear of the dryer. Close the valve for the subsequent part of the test.
- 7. Set the system again: Pull the sprinkler reset handle down fully. It must latch.
- 8. Start a test of sprinkler MANUAL operation: Select a dry code and run it manually.



CAUTION: The manual water valve must be closed to prevent water flow during this test.

9. **Opereate the fire safety system manually:** When the heat source starts to make heat, pull down the sprinkler operation handle.

10. Make sure that a shutdown occurs:

- The automatic valve opens (the reset handle releases).
- The THREE WIRE DISABLED message appears.
- The operator alarm sounds.
- All dryer functions stop.
- 11. Stop the dry code.
- 12. Set the system again: Pull the sprinkler reset handle down fully. It must latch.
- 13. Open the manual valve.



- **WARNING:** A closed manual valve will prevent water flow in an emergency.
 - Make sure the manual value is open and remains open during operation.

14. Put the dryer in operation again.

This concludes the fire safety system test.

5. If Water Flow Occurs

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A serviceable fire safety system will operate if a fire in the basket occurs. But it can also operate for other causes. Temperature switches (Fenwal switches) in the outlet duct operate the system at 225° F (107° C). If the Fenwal switches are not serviceable, the dryer software operates the system at 240° F (116° C).

1. **Examine the dryer condition:** If there is a fire, let water flow continue until the fire is extinguished.



CAUTION: Use extreme care if you must look through the door glass or get near a part of the machine.

2. Set the system again when it is safe:

- a. Turn the Master switch off \bigotimes , then on (\bigotimes) again. If the software caused the fire safety system to operate, this is necessary to remove the "Desires Sprinkler" output signal.
- b. Pull the sprinkler reset handle down fully. It must latch.

This step helps to keep water damage to a minimum and allows you to use the manual controls.

- 3. Did a fire occur?
 - NO: Put the dryer in operation again.
 - YES: Continue these steps.

- 4. Do a test of basket movement:
 - a. Set the Load Allowed/Not Allowed (^{*D}/^{*D}) switch to Not Allowed (^{*D}) to prevent a new load.
 - b. Press Start (1). The operator alarm stops and the display shows WAITING FOR LOAD. LOADING NOT ALLOWED.
 - c. Set the Automatic/Manual Rotation switch (4) to Manual Rotation (2).
 - d. Hold the Jog Direction switch (\bigcirc / \bigcirc) in one of the two directions no longer than necessary to make sure that the basket turns.
- 5. Did the basket turn?
 - NO: Stop. Repairs are necessary. Consult your dealer or the Milnor® factory.
 - **YES:** Continue these steps.
- 6. Carefully remove the goods: Use the manual controls to release the goods.



WARNING: Hot goods — can catch fire spontaneously,

► Keep fire equipment available.



- Stay away from the goods.
- 7. **Remove power. Look for damage.** With power removed from the machine, examine the full machine for damage.

Look carefully at the air seals, support rollers, primary blower, and electrical cables on top of the machine. Also examine electrical components for moisture.

- 8. **Connect power. Examine dryer functions:** In the manual mode, operate all outputs. For example, the gas valve, lint removal.
- 9. Damage?
 - YES: Stop. Repairs are necessary. Consult your dealer or the Milnor® factory.
 - NO: Continue.
- 10. Put the dryer in operation again: Put all manual controls in the automatic position (

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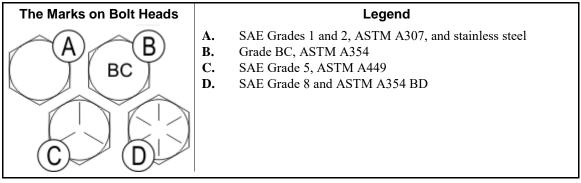
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Torque Requirements for Fasteners

This document uses Simplified Technical English. Learn more at http://www.asd-ste100.org.

The document about the assembly gives the torque requirements for other fasteners. **If fastener torque specifications or threadlocker requirements in an assembly document are different from this document, use the assembly document.**

Figure 1: The Bolts in Milnor[®] Equipment



1. Torque Values

SE

These tables give the standard dimension, grade, threadlocker, and torque requirements for fasteners frequently used on Milnor[®] equipment.

Note 1: Data from the Pellerin Milnor[®] Corporation "Bolt Torque Specification" (bolt_torque_milnor.xls/2002096).

1.1. Fasteners Made of Carbon Steel

1.1.1. Without a Threadlocker

Table 1: Torque Values for Standard Fasteners with Maximum 5/16-inch Diameters and No Lubricant

| | | The Grade of the Bolt | | | | | | | | | |
|-----------|--------------|-----------------------|--------------|-----|--------------|-----|--------------|-----|--|--|--|
| | Grade 2 | | Grade 5 | | Grade 8 | | Grade BC | | | | |
| Dimension | Pound-Inches | N-m | Pound-Inches | N-m | Pound-Inches | N-m | Pound-Inches | N-m | | | |
| 1/4 x 20 | 66 | 7 | 101 | 11 | 143 | 16 | 126 | 14 | | | |
| 1/4 x 28 | 76 | 9 | 116 | 13 | 163 | 18 | | | | | |
| 5/16 x 18 | 136 | 15 | 209 | 24 | 295 | 33 | 258 | 29 | | | |
| 5/16 x 24 | 150 | 17 | 232 | 26 | 325 | 37 | | | | | |

| | | | | The Grade | of the Bolt | | | |
|------------|------------|------|------------|-----------|-------------|------|------------|------|
| | Grad | de 2 | Gra | de 5 | Gra | de 8 | Grade | e BC |
| Dimension | Pound-feet | N-m | Pound-feet | N-m | Pound-feet | N-m | Pound-feet | N-m |
| 3/8 x 16 | 20 | 27 | 31 | 42 | 44 | 59 | 38 | 52 |
| 3/8 x 24 | 23 | 31 | 35 | 47 | 50 | 68 | | |
| 7/16 x 14 | 32 | 43 | 49 | 66 | 70 | 95 | 61 | 83 |
| 7/16 x 20 | 36 | 49 | 55 | 75 | 78 | 105 | | |
| 1/2 x 13 | 49 | 66 | 75 | 102 | 107 | 145 | 93 | 126 |
| 1/2 x 20 | 55 | 75 | 85 | 115 | 120 | 163 | | |
| 9/16 x 12 | 70 | 95 | 109 | 148 | 154 | 209 | 134 | 182 |
| 9/16 x 18 | 78 | 106 | 121 | 164 | 171 | 232 | | |
| 5/8 x 11 | 97 | 131 | 150 | 203 | 212 | 287 | 186 | 252 |
| 5/8 x 18 | 110 | 149 | 170 | 231 | 240 | 325 | | |
| 3/4 x 10 | 172 | 233 | 266 | 361 | 376 | 510 | 329 | 446 |
| 3/14 x 16 | 192 | 261 | 297 | 403 | 420 | 569 | | |
| 7/8 x 9 | 167 | 226 | 429 | 582 | 606 | 821 | 531 | 719 |
| 7/8 x 14 | 184 | 249 | 473 | 641 | 668 | 906 | | |
| 1 x 8 | 250 | 339 | 644 | 873 | 909 | 1232 | 796 | 1079 |
| 1 x 12 | 274 | 371 | 704 | 954 | 994 | 1348 | | |
| 1 x 14 | 281 | 381 | 723 | 980 | 1020 | 1383 | | |
| 1 1/8 x 7 | 354 | 480 | 794 | 1077 | 1287 | 1745 | 1126 | 1527 |
| 1 1/8 x 12 | 397 | 538 | 891 | 1208 | 1444 | 1958 | | |
| 1 1/4 x 7 | 500 | 678 | 1120 | 1519 | 1817 | 2464 | 1590 | 2155 |
| 1 1/4 x 12 | 553 | 750 | 1241 | 1682 | 2012 | 2728 | | |
| 1 3/8 x 6 | 655 | 888 | 1469 | 1992 | 2382 | 3230 | 2085 | 2827 |
| 1 3/8 x 12 | 746 | 1011 | 1672 | 2267 | 2712 | 3677 | | |
| 1 1/2 x 6 | 869 | 1178 | 1949 | 2642 | 3161 | 4286 | 2767 | 3751 |
| 1 1/2 x 12 | 979 | 1327 | 2194 | 2974 | 3557 | 4822 | | |

 Table 2: Torque Values for Standard Fasteners Larger Than 5/16-inch Diameters and No Lubricant

| | | The Grade of the Bolt | | | | | | | | | |
|-----------|--------------|-----------------------|--------------|-----|--------------|-----|--------------|-----|--|--|--|
| | Grade 2 | | Grade 5 | | Grade 8 | | Grade BC | | | | |
| Dimension | Pound-Inches | N-m | Pound-Inches | N-m | Pound-Inches | N-m | Pound-Inches | N-m | | | |
| 1/4 x 20 | 49 | 6 | 76 | 9 | 107 | 12 | 95 | 11 | | | |
| 1/4 x 28 | 56 | 6 | 88 | 10 | 122 | 14 | | | | | |
| 5/16 x 18 | 102 | 12 | 156 | 18 | 222 | 25 | 193 | 22 | | | |
| 5/16 x 24 | 113 | 13 | 174 | 20 | 245 | 28 | | | | | |

| | | The Grade of the Bolt | | | | | | | | | | |
|------------|------------|-----------------------|------------|------|------------|---------|------------|------|--|--|--|--|
| | Grad | le 2 | Gra | de 5 | Grae | Grade 8 | | e BC | | | | |
| Dimension | Pound-feet | N-m | Pound-feet | N-m | Pound-feet | N-m | Pound-feet | N-m | | | | |
| 3/8 x 16 | 15 | 20 | 23 | 31 | 33 | 44 | 29 | 38 | | | | |
| 3/8 x 24 | 17 | 23 | 26 | 35 | 37 | 49 | | | | | | |
| 7/16 x 14 | 24 | 32 | 37 | 50 | 52 | 71 | 46 | 61 | | | | |
| 7/16 x 20 | 27 | 36 | 41 | 55 | 58 | 78 | | | | | | |
| 1/2 x 13 | 37 | 49 | 56 | 76 | 80 | 106 | 70 | 93 | | | | |
| 1/2 x 20 | 41 | 55 | 64 | 85 | 90 | 120 | | | | | | |
| 9/16 x 12 | 53 | 70 | 81 | 110 | 115 | 153 | 101 | 134 | | | | |
| 9/16 x 18 | 59 | 79 | 91 | 122 | 128 | 174 | | | | | | |
| 5/8 x 11 | 73 | 97 | 113 | 150 | 159 | 212 | 139 | 186 | | | | |
| 5/8 x 18 | 83 | 110 | 127 | 172 | 180 | 240 | | | | | | |
| 3/4 x 10 | 129 | 173 | 200 | 266 | 282 | 376 | 246 | 329 | | | | |
| 3/14 x 16 | 144 | 192 | 223 | 297 | 315 | 420 | | | | | | |
| 7/8 x 9 | 125 | 166 | 322 | 430 | 455 | 606 | 398 | 531 | | | | |
| 7/8 x 14 | 138 | 184 | 355 | 474 | 501 | 668 | | | | | | |
| 1 x 8 | 188 | 250 | 483 | 644 | 682 | 909 | 597 | 796 | | | | |
| 1 x 12 | 205 | 274 | 528 | 716 | 746 | 995 | | | | | | |
| 1 x 14 | 210 | 280 | 542 | 735 | 765 | 1037 | | | | | | |
| 1 1/8 x 7 | 266 | 354 | 595 | 807 | 966 | 1288 | 845 | 1126 | | | | |
| 1 1/8 x 12 | 298 | 404 | 668 | 890 | 1083 | 1444 | | | | | | |
| 1 1/4 x 7 | 375 | 500 | 840 | 1120 | 1363 | 1817 | 1192 | 1590 | | | | |
| 1 1/4 x 12 | 415 | 553 | 930 | 1261 | 1509 | 2013 | | | | | | |
| 1 3/8 x 6 | 491 | 655 | 1102 | 1470 | 1787 | 2382 | 1564 | 2085 | | | | |
| 1 3/8 x 12 | 559 | 758 | 1254 | 1672 | 2034 | 2712 | | | | | | |
| 1 1/2 x 6 | 652 | 870 | 1462 | 1982 | 2371 | 3161 | 2075 | 2767 | | | | |
| 1 1/2 x 12 | 733 | 994 | 1645 | 2194 | 2668 | 3557 | | | | | | |

Table 4: Torque Values for Plated Fasteners Larger Than 5/16-inch Diameters and No Lubricant

1.1.2. With a Threadlocker

Table 5: Threadlocker by the Diameter of the Bolt (see Note 2)

| | | Dimension | | | | | | | | |
|-----------------|----------|------------------|------------------|----------|--|--|--|--|--|--|
| LocTite Product | 1/4-inch | 1/4- to 5/8-inch | 5/8- to 7/8-inch | 1-inch + | | | | | | |
| LocTite 222 | OK | | | | | | | | | |
| LocTite 242 | | 0 | | | | | | | | |
| LocTite 262 | | | OK | | | | | | | |
| LocTite 272 | | | High temperature | | | | | | | |
| LocTite 277 | | | | OK | | | | | | |

Note 2: The acceptable bolt size ranges for various LocTite[®] threadlocking products is the LocTite manufacturer's **general** recommendation. Specific applications sometime require that a LocTite product is applied to a bolt size outside the ranges shown here. For example, Milnor specifies LocTite 242 for use on certain 1" bolt applications and has confirmed this usage with the LocTite manufacturer. You may see variances such as this in the documentation for specific machine assemblies.

| | | The Grade of the Bolt | | | | | | | | | |
|-----------|------------------|-----------------------|------------------|---------|------------------|---------|------------------|------|--|--|--|
| | Grade 2 | | | Grade 5 | | Grade 8 | | e BC | | | |
| Dimension | Pound-inc hes | N-m | Pound-inc hes | N-m | Pound-inc hes | N-m | Pound-inc hes | N-m | | | |
| 1/4 x 20 | 60 | 7 | 96 | 11 | 132 | 15 | 108 | 12 | | | |
| 1/4 x 28 | 72 | 8 | 108 | 12 | 144 | 16 | | | | | |

Table 6: Torque Values if You Apply LocTite 222

Table 7: Torque Values if You Apply LocTite 242

| | | | | The Grade | e of the Bolt | | | |
|-----------|------------|------|------------|-----------|---------------|-----|------------|------|
| | Grad | de 2 | Gra | de 5 | Grade 8 | | Grad | e BC |
| Dimension | Pound-feet | N-m | Pound-feet | N-m | Pound-feet | N-m | Pound-feet | N-m |
| 5/16 x 18 | 11 | 15 | 17 | 23 | 25 | 34 | 22 | 30 |
| 5/16 x 24 | 13 | 18 | 19 | 26 | 27 | 37 | 27 | 37 |
| 3/8 x 16 | 20 | 27 | 31 | 42 | 44 | 60 | 38 | 52 |
| 3/8 x 24 | 23 | 31 | 35 | 47 | 50 | 68 | | |
| 7/16 x 14 | 32 | 43 | 49 | 66 | 70 | 95 | 61 | 83 |
| 7/16 x 20 | 36 | 49 | 55 | 75 | 78 | 106 | | |
| 1/2 x 13 | 49 | 66 | 75 | 102 | 107 | 145 | 93 | 126 |
| 1/2 x 20 | 55 | 75 | 85 | 115 | 120 | 163 | | |
| 9/16 x 12 | 70 | 95 | 109 | 148 | 154 | 209 | 134 | 182 |
| 9/16 x 18 | 78 | 106 | 121 | 164 | 171 | 232 | | |
| 5/8 x 11 | 97 | 132 | 150 | 203 | 212 | 287 | 186 | 252 |
| 5/8 x 18 | 110 | 149 | 170 | 230 | 240 | 325 | | |

Table 8: Torque Values if You Apply LocTite 262

| | | The Grade of the Bolt | | | | | | | | | |
|-----------|------------|-----------------------|------------|-----|------------|-----|------------|-----|--|--|--|
| | Grade 2 | | Grade 5 | | Grade 8 | | Grade BC | | | | |
| Dimension | Pound-feet | N-m | Pound-feet | N-m | Pound-feet | N-m | Pound-feet | N-m | | | |
| 3/4 x 10 | 155 | 210 | 240 | 325 | 338 | 458 | 296 | 401 | | | |
| 3/4 x 16 | 173 | 235 | 267 | 362 | 378 | 512 | | | | | |
| 7/8 x 9 | 150 | 203 | 386 | 523 | 546 | 740 | 477 | 647 | | | |
| 7/8 x 14 | 165 | 224 | 426 | 578 | 601 | 815 | | | | | |

| | The Grade of the Bolt | | | | | | | | | |
|------------|-----------------------|------|------------|------|------------|------|------------|------|--|--|
| | Grade 2 | | Grade 5 | | Grade 8 | | Grade BC | | | |
| Dimension | Pound-feet | N-m | Pound-feet | N-m | Pound-feet | N-m | Pound-feet | N-m | | |
| 1 x 8 | 350 | 475 | 901 | 1222 | 1272 | 1725 | 1114 | 1510 | | |
| 1 x 12 | 383 | 519 | 986 | 1337 | 1392 | 1887 | | | | |
| 1 x 14 | 393 | 533 | 1012 | 1372 | 1428 | 1936 | | | | |
| 1-1/8 x 7 | 496 | 672 | 1111 | 1506 | 1802 | 2443 | 1577 | 2138 | | |
| 1-1/8 x 12 | 556 | 754 | 1247 | 1691 | 2022 | 2741 | | | | |
| 1-1/4 x 7 | 700 | 949 | 1568 | 2126 | 2544 | 3449 | 2226 | 3018 | | |
| 1-1/4 x 12 | 774 | 1049 | 1737 | 2355 | 2816 | 3818 | | | | |
| 1-3/8 x 6 | 917 | 1243 | 2056 | 2788 | 3335 | 4522 | 2919 | 3958 | | |
| 1-3/8 x 12 | 1044 | 1415 | 2341 | 3174 | 3797 | 5148 | | | | |
| 1-1/2 x 6 | 1217 | 1650 | 2729 | 3700 | 4426 | 6001 | 3873 | 5251 | | |
| 1-1/2 x 12 | 1369 | 1856 | 3071 | 4164 | 4980 | 6752 | | | | |

Table 9: Torque Values if You Apply LocTite 272 (High-Temperature)

| Table 10: Torque Values | if You Apply LocTite 277 |
|-------------------------|--------------------------|
|-------------------------|--------------------------|

| | The Grade of the Bolt | | | | | | | | | |
|------------|-----------------------|------|------------|------|------------|------|------------|------|--|--|
| | Grade 2 | | Grade 5 | | Grade 8 | | Grade BC | | | |
| Dimension | Pound-feet | N-m | Pound-feet | N-m | Pound-feet | N-m | Pound-feet | N-m | | |
| 1 x 8 | 325 | 441 | 837 | 1135 | 1181 | 1601 | 1034 | 1402 | | |
| 1 x 12 | 356 | 483 | 916 | 1242 | 1293 | 1753 | | | | |
| 1 x 14 | 365 | 495 | 939 | 1273 | 1326 | 1798 | | | | |
| 1-1/8 x 7 | 461 | 625 | 1032 | 1399 | 1674 | 2270 | 1464 | 1985 | | |
| 1-1/8 x 12 | 516 | 700 | 1158 | 1570 | 1877 | 2545 | | | | |
| 1-1/4 x 7 | 650 | 881 | 1456 | 1974 | 2362 | 3202 | 2067 | 2802 | | |
| 1-1/4 x 12 | 719 | 975 | 1613 | 2187 | 2615 | 3545 | | | | |
| 1-3/8 x 6 | 851 | 1154 | 1909 | 2588 | 3097 | 4199 | 2710 | 3674 | | |
| 1-3/8 x 12 | 970 | 1315 | 2174 | 2948 | 3526 | 4781 | | | | |
| 1-1/2 x 6 | 1130 | 1532 | 2534 | 3436 | 4110 | 5572 | 3597 | 4877 | | |
| 1-1/2 x 12 | 1271 | 1723 | 2852 | 3867 | 4624 | 6269 | | | | |

1.2. Stainless Steel Fasteners

Table 11: Torque Values for Stainless Steel Fasteners 5/16-inch and Smaller

| | 316 Stainless | | 18-8 St | ainless | 18-8 Stainless with Loctite 767 | |
|-----------|------------------|-----|------------------|---------|------------------------------------|-----|
| Dimension | Pound-Inc hes | N-m | Pound-Inc hes | N-m | Pound-Inc hes | N-m |
| 1/4 x 20 | 79 | 9 | 76 | 9 | 45 | 5 |
| 1/4 x 28 | 100 | 11 | 94 | 11 | 56 | 6 |
| 5/16 x 18 | 138 | 16 | 132 | 15 | 79 | 9 |
| 5/16 x 24 | 148 | 17 | 142 | 16 | 85 | 10 |

| | 316 Stainless | | 18-8 Stainless | | 18-8 Stainless with Loctite 767 | |
|------------|----------------|------|----------------|------|------------------------------------|-----|
| Dimension | Pound-feet N-m | | Pound-feet | N-m | Pound-feet | N-m |
| 3/8 x 16 | 21 | 28 | 20 | 27 | 12 | 16 |
| 3/8 x 24 | 23 | 31 | 22 | 29 | 13 | 18 |
| 7/16 x 14 | 33 | 44 | 31 | 42 | 19 | 25 |
| 7/16 x 20 | 35 | 47 | 33 | 45 | 20 | 27 |
| 1/2 x 13 | 45 | 61 | 43 | 58 | 26 | 35 |
| 1/2 x 20 | 47 | 64 | 45 | 61 | 27 | 37 |
| 9/16 x 12 | 59 | 81 | 57 | 77 | 34 | 46 |
| 9/16 x 18 | 66 | 89 | 63 | 85 | 38 | 51 |
| 5/8 x 11 | 97 | 131 | 93 | 125 | 56 | 75 |
| 5/8 x 18 | 108 | 150 | 104 | 141 | 62 | 84 |
| 3/4 x 10 | 132 | 179 | 128 | 173 | 77 | 104 |
| 3/4 x 16 | 130 | 176 | 124 | 168 | 75 | 101 |
| 7/8 x 9 | 203 | 275 | 194 | 263 | 116 | 158 |
| 7/8 x 14 | 202 | 273 | 193 | 262 | 116 | 157 |
| 1 x 8 | 300 | 406 | 287 | 389 | 172 | 233 |
| 1 x 14 | 271 | 367 | 259 | 351 | 156 | 211 |
| 1-1/8 x 7 | 432 | 586 | 413 | 560 | 248 | 336 |
| 1-1/8 x 12 | 408 | 553 | 390 | 529 | 234 | 317 |
| 1-1/4 x 7 | 546 | 740 | 523 | 709 | 314 | 425 |
| 1-1/4 x 12 | 504 | 683 | 480 | 651 | 288 | 390 |
| 1-1/2 x 6 | 930 | 1261 | 888 | 1204 | 533 | 722 |
| 1-1/2 x 12 | 732 | 992 | 703 | 953 | 422 | 572 |

Table 12: Torque Values for Stainless Steel Fasteners Larger Than 5/16-inch

2. Preparation

WARNING 2: Fire Hazard—Some solvents and primers are flammable.

- Use threadlocker and primers with sufficient airflow.
- Do not use flammable material near ignition sources.
- 1. Clean all threads with a wire brush or a different tool.
- 2. Remove the grease from the fasteners and the mating threads with solvent. Make the parts dry.

Note 3: LocTite 7649 Primer[™] or standard solvents will remove grease from parts.

3. Apply a spray of LocTite 7649 Primer[™] or equal on the fasteners and the mating threads. Let the primer dry for one minute minimum.

3. How to Apply a Threadlocker



CAUTION 3: **Malfunction Hazard**—Heat, vibration, or mechanical shocks can let the fasteners loosen if you do not apply the threadlocker correctly. Loose fasteners can cause malfunctions of the equipment.

• Read the threadlocker manufacturer's instructions and warnings. Obey these instructions.

Apply the threadlocker only to the areas where the fastener threads and the mating threads engage.

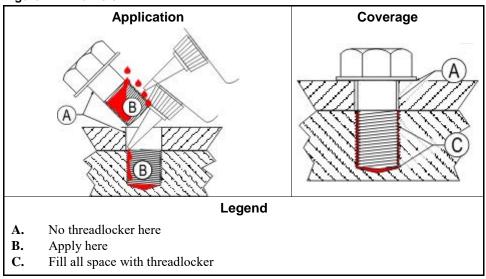


Figure 2: Blind Hole

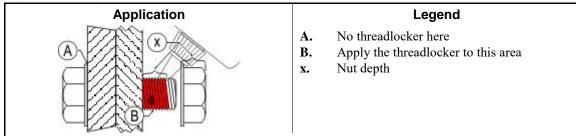
3.1. Blind Holes

- 1. Apply the threadlocker down the threads to the bottom of the hole.
- 2. Apply the threadlocker to the bolt.
- 3. Tighten the bolt to the value shown in the correct table (Table 5 to Table 11).

3.2. Through Holes

- 1. Put the bolt through the assembly.
- 2. Apply the threadlocker only to the bolt thread area that will engage the nut.
- 3. Tighten the bolt to the value shown in the correct table (Table 5 to Table 11).

Figure 3: Through Hole



3.3. Disassembly—For high-strength threadlocker, apply heat for five minutes. Disassemble with hand tools while the parts are hot.

For low-strength and moderate-strength threadlocker, disassemble with hand tools.

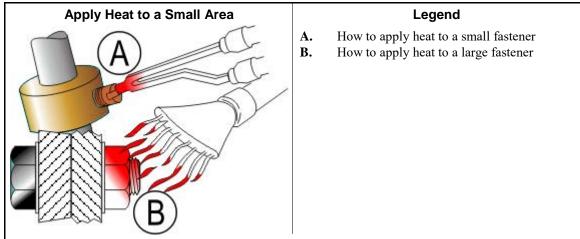


Figure 4: Disassembly

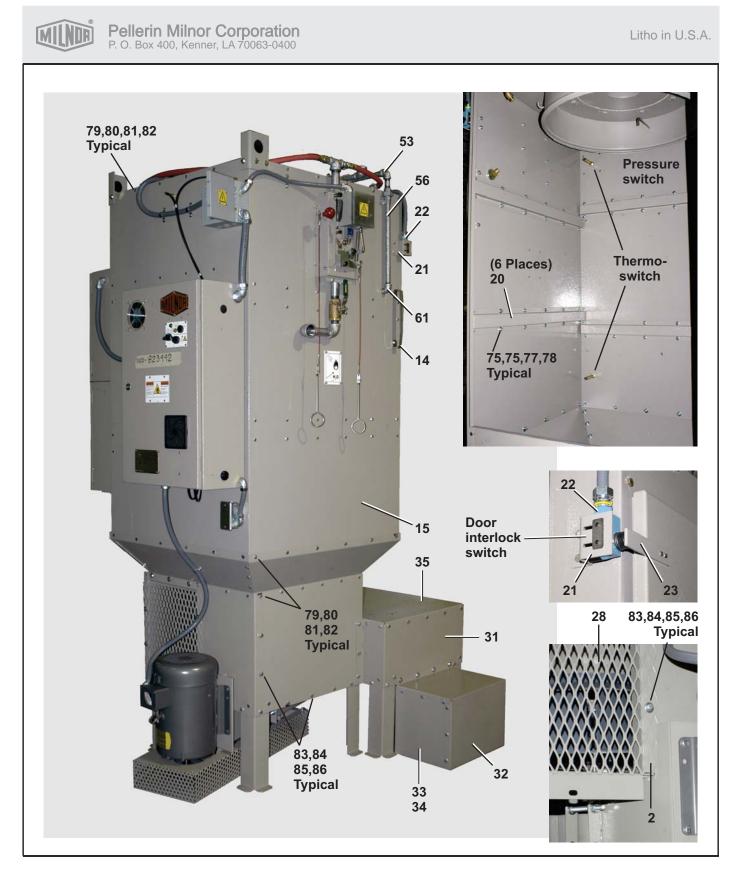
- End of BIUUUM04 -

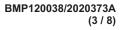
Dryvac Assemblies

BMP120038/2020373A (1 / 8)



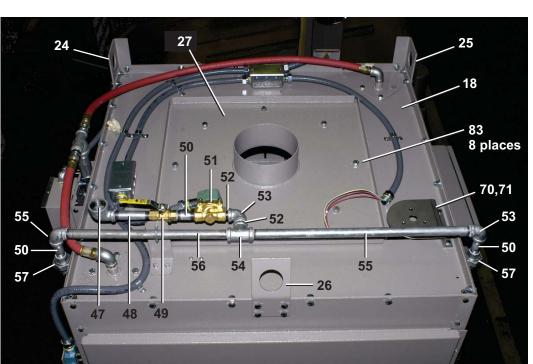
BMP120038/2020373A (2 / 8)

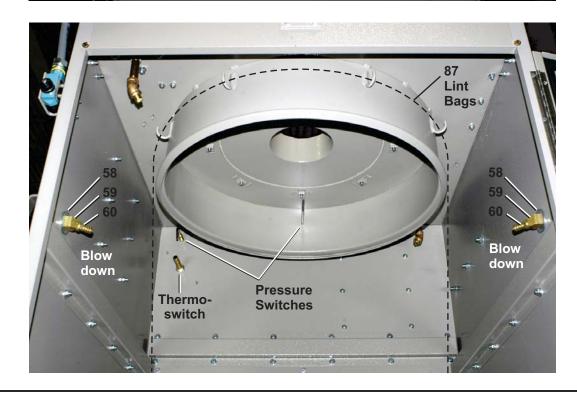


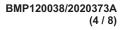




Blow Down Pipe Assembly:

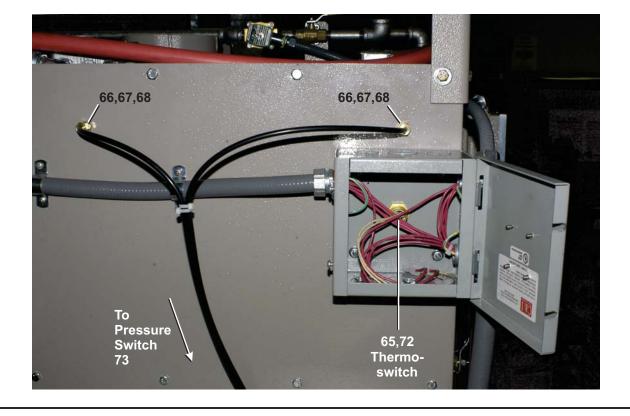








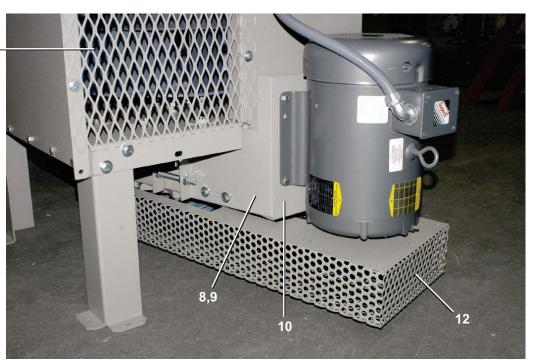
Pressure Switch:



Litho in U.S.A.



Exhaust outlet for blower fan -

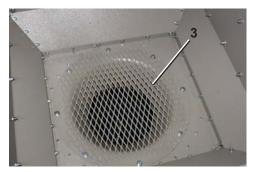




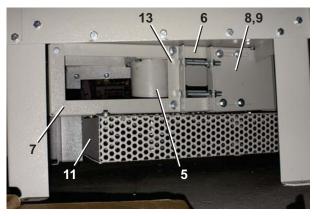
WARNING: MULTIPLE HAZARDS— A strong flow of hot air, lint, and other material goes in the cabinet when the Dryvac unit operates. When you open the cabinet door, the interlock switch on the door prevents or stops operation. If you remove the grill on the exhaust outlet for the blower fan, this does not stop operation. The blower fan is a strong, high speed fan.

• If the interlock switch does not operate correctly, repair the machine immediately.

• Remove power to the machines before you do maintenance in the blower housing.



(For Blower And Bearing Installation, See BMP120039 & BMP010033.)





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Parts List—House Assembly Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

| Used In | ltem | Part Number | Description | Comments |
|---------|------|-------------|-------------------------------|----------------|
| | | | | |
| | | | REFERENCE ASSEMBLIES | |
| | A | A75LC002C | 36X36 LINT COLLECT BOX ASSY | |
| | В | A75VS008A | BAG BLOW DN PIPE ASSY=36X36 | REFERENCE ONLY |
| | С | A75LC008 | 36X36 PRESSURE SWITCH ASSY | REFERENCE ONLY |
| | | | COMPONENTS | |
| all | 1 | 07 50708 | BLOWER ENCLOSURE-LINT BOX | |
| all | 2 | 07 50709 | BLOWER ENCLOSURE-OUTLET SIDE | |
| all | 3 | 07 50710 | BLOWER INLET COVER-LINT BOX | |
| all | 4 | 07 50711 | LEG-LINT COLLECTOR BOX | |
| all | 5 | A75BG004 | BLW BRG HSE ASSY=2001354 | |
| all | 6 | 07 50712 | CHANN-BRG MT UPPER BLOWER | |
| all | 7 | W7 50713 | WLDMT-BRG MT LOWER BLOWER | |
| all | 8 | 07 50714 | BKT-BLOWER BELT ADJ-RH | |
| all | 9 | 07 50715 | BKT-BLOWER BELT ADJ-LH | |
| all | 10 | 07 50716 | MOTOR MOUNTING PLATE | |
| all | 11 | 07 50717 | BRKT-BELT GUARD-LINT BOX | |
| all | 12 | A75LC004 | *BELT GUARD-LINT BOX ASSY | |
| all | 13 | 07 50252 | ANGLE=BELT ADJ BLOWER MOTOR | |
| all | 14 | 02 175037 | HANDLE=SHELDOR=WED-SS | |
| all | 15 | 07 50778 | 36X36 DRYVAC BOX | |
| all | 16 | 07 50776 | 36X36 DRYVAC BOX-FRONT-TOP | |
| all | 17 | 07 50777 | 36X36 DRYVAC BOX-FRONT-BTM | |
| all | 18 | W7 50699A | *LINT BOX TOP WELDMENT 36X36 | |
| all | 19 | 01 10020 | NPLT SMALL "MILNOR" LOGO | |
| all | 20 | 07 50775 | 36X36 DRYVAC BOX STIFFENER | |
| all | 21 | 03 BZ2X2Y | +BRKT:DRY VAC DOOR SW | |
| all | 22 | 09R012 | MICSW SPDT PAINTED BZE6-RN 01 | |
| all | 23 | 03 BF1X5Y | PLATE:DRY VAC DOOR SW ACTR | |
| all | 24 | 07 50700A | REAR DRYVAC LIFT BRKT RT | |
| all | 25 | 07 50700B | REAR DRYVAC LIFT BRKT LF | |
| all | 26 | 07 50700C | FRONT DRYVAC LIFT BRKT | |
| all | 27 | W7 50608 | WLMT=DRYVAC LINT TOP | |
| all | 28 | 07 50753 | BLOWER OUTLET COVER-DRYVAC | |
| all | 29 | 07 50771 | 36X36 DRYVAC ADAPTER FRAME L | |



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Parts List—House Assembly Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

| Used In | ltem | Part Number | Description | Comments |
|---------|------|-------------|---------------------------------|----------|
| | | | | |
| all | 30 | 07 50771A | 36X36 DRYVAC ADAPTER FRAME S | |
| all | 31 | 07 50772 | 36X36 DRYVAC STEP FRAME WRAP | |
| all | 32 | 07 50769A | 36X36 DRYVAC SIDE STEP | |
| all | 33 | 07 50773 | 36X36 DRYVAC STEP SPPT RT | |
| all | 34 | 07 50773A | 36X36 DRYVAC STEP SPPT LF | |
| all | 35 | A75LC003A | DOOR-36X36 LINT COLLECT BOX | |
| all | 36 | 27A012LTKS | LOCK"T"HANDL,S.LTCH&MTGHDW | |
| all | 37 | 07 50057 | RING=SIGHGLASS LOAD DOOR | |
| all | 38 | 02 09215 | DRGLASS 12 3/8DIA SS STAMPED | |
| all | 39 | 02 02366A | GASKET DOORGLASS = DRYER | |
| all | 40 | 15N158 | HEXCAPSCR 1/4-20NCX1/2SS18-8 | |
| all | 41 | 15U181 | LOCKWASHER MEDIUM 1/4 SS18-8 | |
| all | 42 | 15G170 | HEXNUT 1/4-20UNC2 SS18-8 | |
| all | 43 | 07 50074 | DOOR FRONT PANEL HINGE | |
| all | 44 | 15J065 | POPRIVET 5/32 DIA X.425L AL/ST | |
| all | 45 | 60A006B | NEO RUBBER STRIP 1/4"X1"W/PSA | |
| all | 46 | 01 10410X | NPLT:AUTOLINT SYSTEM-ISO | |
| all | 47 | 01 10410X | NPLT:AUTOLINT SYSTEM-ISO | |
| all | 47 | 5SL1KNFACK | NPTELB 90DEG 1X1/2 GALMAL 150# | |
| all | 48 | 5N0K04AG42 | NPT NIP 1/2X4 TBE GALSTL SK40 | |
| all | 49 | 96D034 | BALLVALVE 1/2" WATTS #6400-SS | |
| all | 50 | 5N0K02KG42 | NPT NIP 1/2X2.5 TBE GALSTL S40 | |
| all | 51 | 96TDC2AA37 | 1/2"N/C2WY120V50/60C VLV(DRYVC) | |
| all | 52 | 5N0KCLSG42 | NPT NIP 1/2XCLS TBE GALSTLSK40 | |
| all | 53 | 5SL0KNFA | NPTELB 90DEG 1/2 GALMAL 150# | |
| all | 54 | 5S0KNFA | NPT TEE 1/2" GALMAL 150# | |
| all | 55 | 5N0K20AG42 | NPT NIP 1/2X20 TBE GALSTL SK40 | |
| all | 56 | 5N0K15AG42 | NPT NIP 1/2X15 TBE GALSTL SK40 | |
| all | 57 | 5SU0KNF | NPT UNION 1/2" GALMAL 150# | |
| all | 58 | 15U314SST | FLATWASH 1.750D 11/16ID .134TS | |
| all | 59 | 5SL0GBEL | NPTELB 45DEG STRT 3/8 BRASS125 | |
| all | 60 | 51E505 | HOSESTEM BRASS 3/8H XMPT | |
| all | 61 | 5SL0KNFA0G | NPTELB 90DEG 1/2X3/8 GALMAL150 | |
| all | 62 | 07 50815 | 36X36 PRESSURE SWTCH TUBE-LG | |



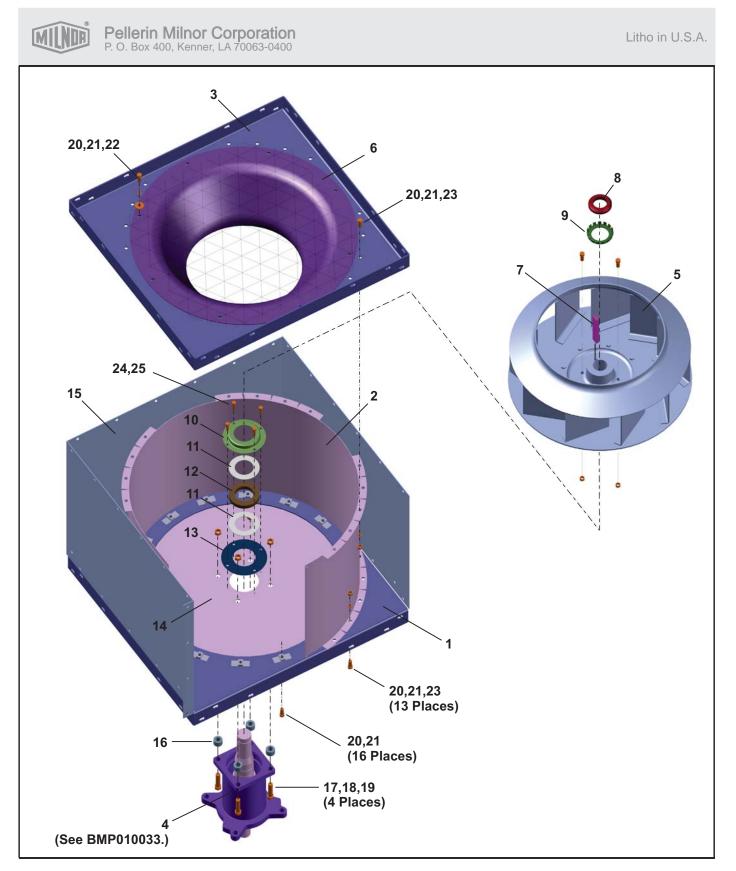
Litho in U.S.A.

Parts List—House Assembly Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

| Used In | Item | Part Number | Description | Comments |
|---------|------|-------------|---------------------------------------|----------|
| - 11 | | 07 50040 | | |
| all | 63 | 07 50816 | PRESSURE SWITCH TUBING-SHORT | |
| all | 64 | 53A005B | BODYMALCON1/4X1/8COMP #B68A-4A | |
| all | 65 | 53A042 | BULKHDUNION 1/4"COMP.BODY ONLY | |
| all | 66 | 60E004NTN | TUBING NYL(NAT)1/4"ODX.127ID | |
| all | 67 | 53A059A | NUT 1/4"BR.HOLYOKE AND #61A-4 | |
| all | 68 | 53A059 | SLEEVE 1/4"BRASS PH#60C-4 | |
| all | 70 | 09H026V37 | BEACON ROTARY 90MM AMBER CE ALLEN BRA | DLEY |
| all | 71 | 03 BZ5X6Y | BRKT:M6 DRY-VAC ROTAT BEACON | |
| all | 72 | 30R0225P | THERMOSW.FENWAL CLOSE @ 225F | |
| all | 75 | 15K037 | HEXCAPSCR 1/4-20UNC2AX5/8 GR5 | |
| all | 76 | 15U180 | LOCKWASHER MEDIUM 1/4 ZINCPL | |
| all | 77 | 15U185 | FLATWASHER(USS STD) 1/4" ZNC P | |
| all | 78 | 15G165 | HXNUT 1/4-20UNC2BSAE ZC GR2 | |
| all | 79 | 15K060 | HXCAPSCR 5/16-18UNCAX3/4 GR5 Z | |
| all | 80 | 15U210 | LOKWASHER MEDIUM 5/16 ZINCPL | |
| all | 81 | 15U200 | FLATWASHER(USS STD) 5/16"ZNC P | |
| all | 82 | 15G185 | HXNUT 5/16-18UNC2B SAE ZINC GR | |
| all | 83 | 15K095 | HXCPSCR 3/8-16UNC2AX1 GR5 ZINC | |
| all | 84 | 15U255 | LOCKWASHER MEDIUM 3/8 ZINCPL | |
| all | 85 | 15U240 | FLATWASHER(USS STD) 3/8" ZNC P | |
| all | 86 | 15G205 | HXNUT 3/8-16UNC2B ZINC GR2 | |
| all | 87 | A75SD017A | LINT COLLECT BAG 36X48 ASSY | |
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Blower and Bearing Installation DRYVAC02

BMP120039/2020373A (1 / 2)





Litho in U.S.A.

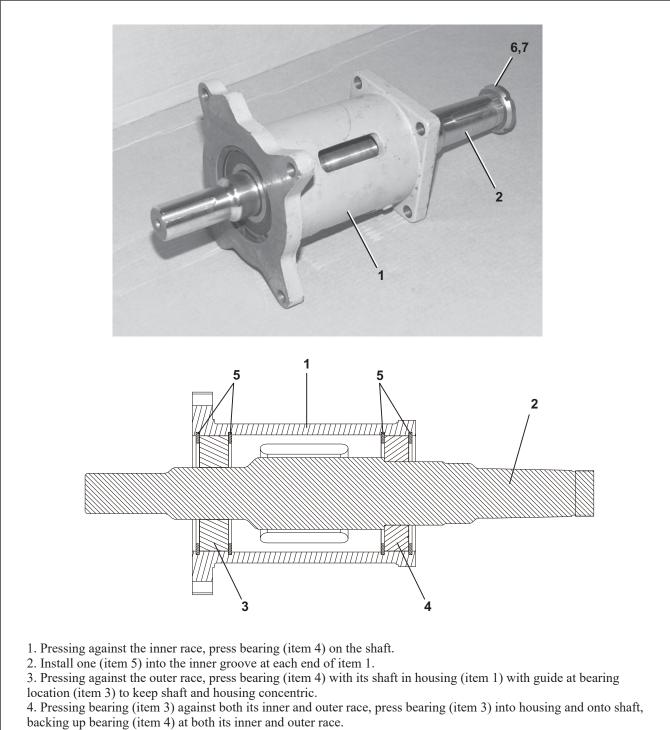
Parts List—Blower and Bearing Installation Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

| | ltem | Part Number | Description | Comments |
|-----|------|-------------|--------------------------------|--|
| | | | | |
| | A | A75LC002D | 36X36 LINT COLLECT ASSY-DRYV | FOR REFERENCE ONLY ORDER REQUIRED PARTS INDIVIDUALLY |
| | | | COMPONENTS | |
| all | 1 | 07 50706 | BOTTOM BLOWER-LINT BOX | |
| all | 2 | 07 50707 | WRAPPER BLOWER-LINT BOX | |
| all | 3 | 07 50705 | TOP BLOWER-LINT BOX | |
| all | 4 | A75BG004 | BLW BRG HSE ASSY=2001354 | |
| all | 5 | 13E203T | BLOWER WHL 20"CL-3 CW TAPERHUB | |
| all | 6 | 07 50477 | +20" DIA INLET NOZZLE | |
| all | 7 | 15E225 | SQMACHKEY 3/8X1+1/2 NOTAPER-NO | |
| all | 8 | 56AHN08 | N08 BEARING LOCKNUT | |
| all | 9 | 56AHW108 | TW108 BEARING LOCKWASHER | |
| all | 10 | 07 50286 | BLOWER SHAFT SEAL CAP | |
| all | 11 | 07 50288 | BLOWER SHAFT TEFLON SEAL | |
| all | 12 | 07 50287 | BLOWER SHAFT FELT SEAL | |
| all | 13 | 07 50727A | BLOWER SEAL RETAINER | |
| all | 14 | 07 50727 | BLOWER COVER PLATE-LINT BOX | |
| all | 15 | 07 50708 | BLOWER ENCLOSURE-LINT BOX | |
| all | 16 | 07 50184 | BLWR BRG HSE SPACE SH=00143 | |
| all | 17 | 15K191 | HXCAPSCR 1/2-13UNC2AX2.5 GR5 Z | |
| all | 18 | 15U300 | LOKWASHER REGULAR 1/2 ZINC PLT | |
| all | 19 | 15G230 | HXNUT 1/2-13UNC2B SAE ZINC GR2 | |
| all | 20 | 15K095 | HXCPSCR 3/8-16UNC2AX1 GR5 ZINC | |
| all | 21 | 15U255 | LOCKWASHER MEDIUM 3/8 ZINCPL | |
| all | 22 | 15U240 | FLATWASHER(USS STD) 3/8" ZNC P | |
| all | 23 | 15G205 | HXNUT 3/8-16UNC2B ZINC GR2 | |
| all | 24 | 15K039 | HXCAPSCR 1/4-20UNC2AX3/4 GR5 Z | |
| | 25 | 15U180 | LOCKWASHER MEDIUM 1/4 ZINCPL | |

BMP010033/2020503A

Blower Bearing

5050, 64050, 64058, 64064, 72072, 76076, 82082 Dryers

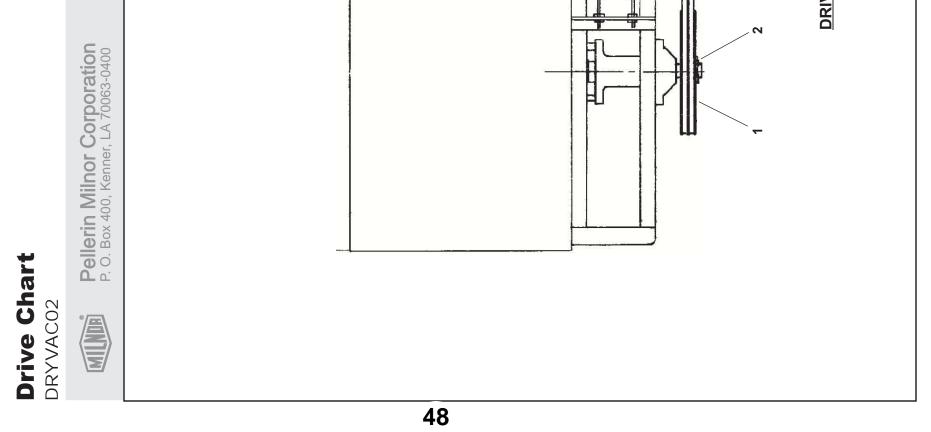


5. Install retaining rings (item 5) into outer grooves.

Parts List—Blower Bearing Assembly Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

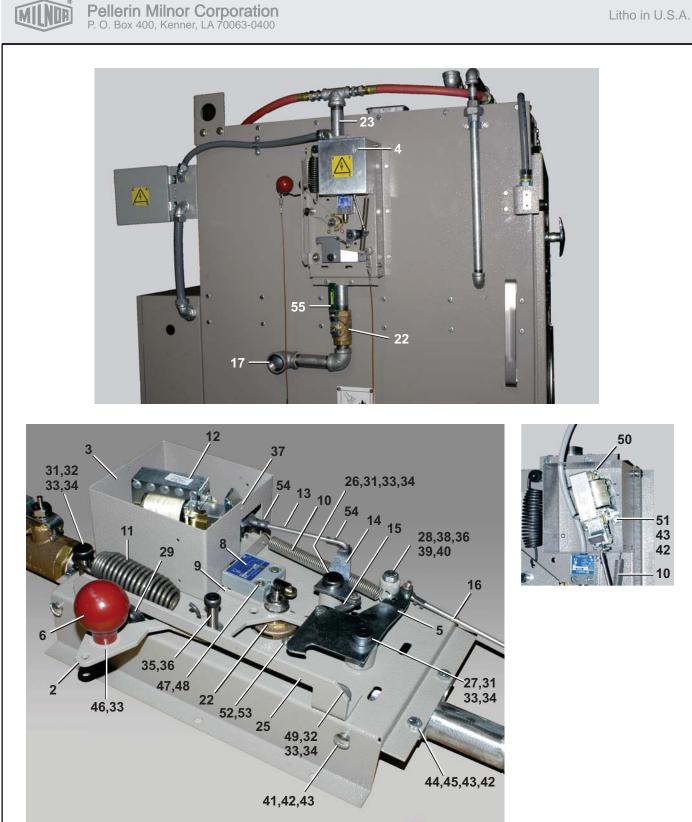
| Used In | ltem | Part Number | Description | Comments |
|---------|------|-------------|------------------------------|---|
| | | | ASSEMBLY | |
| | A | A75BG004 | BLW BRG HSE ASSY=2001354 | ASSEMBLY, CONTAINS ITEMS (1-7) BELOW |
| | | | COMPONENTSCOMPONENTS | |
| all | 1 | X7 50185 | BLOWR BRG HSE MACH=SNAP RING | |
| all | 2 | 07 50186 | BLOWER SHAFT=SNAP RING | |
| all | 3 | 54A073 | BALBRG NTN#6309LLBC3/5C 1/BX | |
| all | 4 | 54A072 | BALLBEAR NTN #6211BC3/5C | |
| all | 5 | 17B014A | INTER RETRING 3000-393 | |
| All | 6 | 56AHN08 | N08 BEARING LOCKNUT | |
| All | 7 | 56AHW108 | TW108 BEARING LOCKWASHER | |
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| BMP120040/2012464B (Sheet 1 of 1) Litho in U.S.A. | s (A, B, C, etc.) assigned to ong to an assembly. The item | Comments | | | | | | | | | | |
|---|---|-------------|-------------------------------|-------------|-----------------------------|--------------------------------|--------------------------------|--|--|-----|------------|--|
| | Parts List—Drive Chart Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration. | Description | *MK2 DRIVE CHART DRYVAC 60CYC | COMPONENTS | 1+3/8" BUSH VPUL QD TYPE SK | VPUL 2B5.6/A5.2 2BK62H R EQUAL | 1+3/8" BUSH VPUL TYPE H,D,ORQT | | | | | |
| | sembly first, then rred to in the "Use) assigned to com | Part Number | D75 00360 * | 56074B2SK V | 56Q1GSK 1 | - | 56Q1GH 1 | | | | | |
| | orrect ass are refei | ltem | 4 | + | 7 | ю | 4 | | | | | |
| | Find the co assemblies numbers (1 | Used In | | all | all | all | all | | | | | |
| | | | | | | | | | | 5 4 | RIVE CHART | |



Sprinkler System DRYVAC02

BMP120037/2020373A (1 / 4)



Litho in U.S.A.

Sprinkler System DRYVAC02

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BMP120037/2020373A (2 / 4

Pellerin Milnor Corporation P. O. Box 400, Kenner, LA 70063-0400 60 61 . 59 62 57 56 57 58 60,61 62 8 63 64,65 63 A 64,65 0 -

Litho in U.S.A.



Litho in U.S.A.

Parts List—Sprinkler System Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

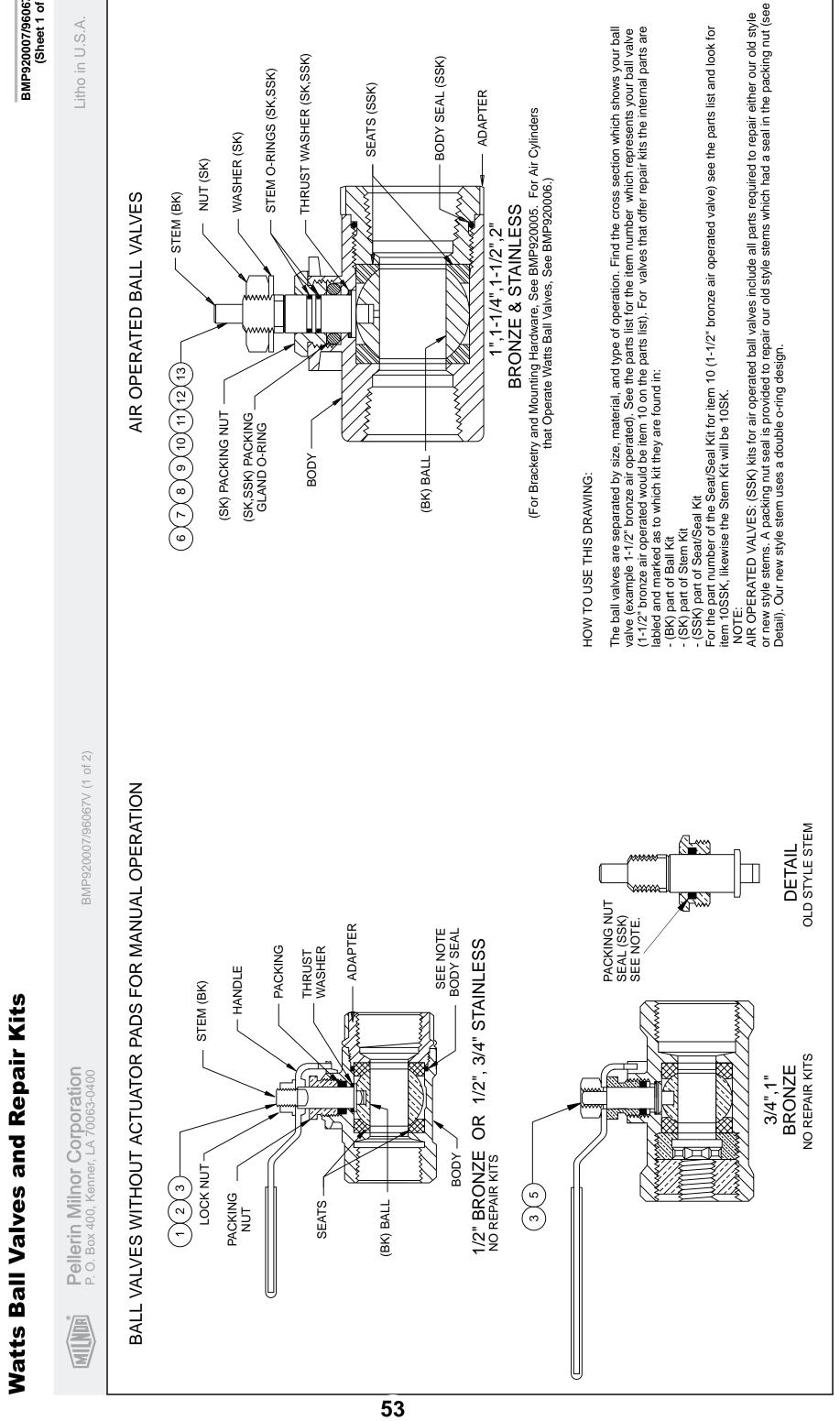
| Used In | ltem | Part Number | Description | Comments |
|---------|------|-------------|--------------------------------|-----------|
| | | | ASSEMBLIES | |
| | А | A75SM001B | SPRINKLER SYSTEM ASSY-36X36 | REFERENCE |
| A | В | A75SM005 | *ASSY=SPRINKLER MECH-1" VALVE | ASSEMBLY |
| | С | A75LC002F | PIPING-SPINKKLER ASSY 36X36 | REFERENCE |
| | | | COMPONENTS | |
| В | 1 | 07 50276A | SPRINKLER BASE PLATE MOD | |
| В | 2 | 07 50277A | SPRINKLER HANDLE-STAMPING | |
| В | 3 | 07 50278A | SOLENOID BOX=SPRINKLER MOD | |
| В | 4 | 07 50280 | COVER FOR SOLENOID BOX | |
| В | 5 | 07 50281 | LATCH ARM FOR SPRINKLER | |
| В | 6 | 12P100 | BALLKNOB RD PLASTIC DAVIES#45H | |
| В | 7 | 07 50449 | MICROSWITCH BACKPLATE | |
| В | 8 | 09RM01209S | CAPSW 9FT 180DEG ROLLER SILVER | |
| В | 9 | 07 50285 | SWITCH MOUNT SPACER PLATE | |
| В | 10 | 07 50293 | SPRING.500 0DX4.00LGX.049EXT | |
| В | 11 | 00 06102B | SPRING=1.35 O.D/4.49 LONG | |
| В | 12 | 09K061D | SOLENOID 120V 60C #8940 | |
| В | 13 | 07 50401 | SOLENOID LINKAGE ROD | |
| В | 14 | 07 50402 | TRIP LINK FOR SPRINKLER | |
| В | 15 | 07 50400 | LATCH ARM LINKAGE ROD | |
| В | 16 | 07 50436 | MANUAL TRIP HNDL 8.75" LONG | |
| В | 17 | 5SL1ENFA1A | NPTELB 90DEG 1.25X1 GALM 150# | |
| В | 18 | 5N1A05AG42 | NPT NIPPLE 1X5 TBE GALSTL SK40 | |
| В | 21 | 5N1ACLSG42 | NPT NIP 1XCLS TBE GALSTL SK40 | |
| В | 22 | 96D085WEXS | BALVAL 1"BRZWATTB6400SSZ1070SP | |
| В | 23 | 5N1A08AG42 | NPT NIP 1X8 TBE GALSTL Sk40 | |
| В | 25 | 07 50860 | +SPRINKLER RESET HANDLE STOP | |
| В | 26 | 07 50299 | DRYER SPRINKLER SPACER | |
| В | 27 | 07 50300 | .884 LONG SPRINKLER SPACER | |
| В | 28 | 07 50301 | .75 LONG SPRINKLER SPACER | |
| В | 29 | 60C080 | RECESS BUMPER RUBBERLAVELLE #7 | |
| В | 31 | 15C061 | HXSOKSTRIPBLT 1/2X1X3/8-16 | |
| В | 32 | 15U240 | FLATWASHER(USS STD) 3/8" ZNC P | |
| В | 33 | 15U255 | LOCKWASHER MEDIUM 3/8 ZINCPL | |
| | | | | |



Litho in U.S.A.

Parts List—Sprinkler System Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

| Used In | ltem | Part Number | Description | Comments |
|---------|------|-------------|--------------------------------------|----------|
| В | 34 | 15G205 | HXNUT 3/8-16UNC2B ZINC GR2 | |
| В | 35 | 15C048 | HXSOKSTRIPBLT 3/8X1X5/16-18 | |
| В | 36 | 15U200 | FLATWASHER(USS STD) 5/16"ZNC P | |
| В | 37 | 15P002 | TRDCUT-F PAN HD 6-32UNC2AX1/4" | |
| В | 38 | 15K070 | HXCAPSCR 5/16-18 UNC2A X1.5 GR | |
| В | 39 | 15U210 | LOKWASHER MEDIUM 5/16 ZINCPL | |
| В | 40 | 15G185 | HXNUT 5/16-18UNC2B SAE ZINC GR | |
| В | 41 | 15N162A | TRUSMACSCR 1/4-20UNC2AX1/2 ZIN | |
| В | 42 | 15G165 | HXNUT 1/4-20UNC2BSAE ZC GR2 | |
| В | 43 | 15U180 | LOCKWASHER MEDIUM 1/4 ZINCPL | |
| В | 44 | 27A019 | 1"PIPESTRAP 2HOLE STAMPED GALV | |
| В | 45 | 15K039 | HXCAPSCR 1/4-20UNC2AX3/4 GR5 Z | |
| В | 46 | 15K086D | HXCAPSCR 3/8-16 UNC2A X 7/8" 1 | |
| В | 47 | 15K021A | SOKCAPSCR 10-24UNCX1" LG S/S | |
| В | 48 | 15G126 | HXLOCKNUT NYLON 10-24 UNC SS N | |
| В | 49 | 15K091 | BTNHDSOKCAPSCR 3/8-16NCX1 GR5 | |
| В | 50 | 15N036 | PANMACHSCR SEM 6-32UNC2AX1/4 Z | |
| В | 51 | 15K030 | HEXCAPSCR 1/4-20UNC2X1/2 GR5 Z | |
| В | 52 | 15N130 | RDMACSCR 10-24UNC2A X 1/2 SS18 | |
| В | 53 | 15U150 | LOCKWASHER MEDIUM #10 ZINCPL | |
| В | 54 | 17N300 | 3/16" ROD CLIP 4L FMP#85303 | |
| В | 55 | 96D085H01 | LATCH-LOK HANDLE ONLY= WATTS #6LL-HK | |
| С | 56 | 5S0KNFA | NPT TEE 1/2" GALMAL 150# | |
| С | 57 | 51X017 | UNIONSTRADT 1/2"#1404-8-8 | |
| С | 58 | 60E085C11E | XOSE ASSY=1/2X11.25LG+ENDS | |
| С | 59 | 60E085C40A | HOSE ASSY=1/2"X40"LG | |
| С | 60 | 5SL0KNFA0G | NPTELB 90DEG 1/2X3/8 GALMAL150 | |
| С | 61 | 5N0GCLSG42 | NPT NIP 3/8XCLS TBE GALSTL S40 | |
| С | 62 | W7 50780 | *NOZZLE PLATE WLMT-DRYVAC | |
| С | 63 | 5N0G03ABE2 | NPT NIP 3/8X3 TBE BRASS STD | |
| С | 64 | 5SL0GBEK | NPTELB 45DEG 3/8 BRASS 125# | |
| С | 65 | 27A002 | NOZZLE BRASS 3/8" SPRAYSYSTEMS | |
| С | 66 | 5SL1ANFA | NPT ELBOW 90DEG 1" GALMAL 150# | |



BMP920007/96067V (Sheet 1 of 2)

| s and Repair Kits | | | | Parts Lis | Parts List, cont.—Watts Ball Valves and Repair Kits | ir Kits |
|------------------------------|---|--------------|--------|-------------|---|-------------------------------|
| onents. The item lette | oonents. The item letters (A, B, C, etc.) assigned to | Used In | ltem | Part Number | Description | Comments |
| list to the illustration. | | all | 008SSK | 96V086SSK | 02Z REPKIT 1.25BALVALSSK-02-RK-Z107 | |
| iption | Comments | all | 0 | 96D086WSS | 08Z BAVAL 1+1/4"SS WATTS S8000-Z107 | 1-1/4"STAINLESS-AIR OPER. |
| | | all | 009BK | 96V086BK | BALL KIT WATTS #1.25-BALL-RK-Z107 | |
| | | all | NS600 | 96V086A7SK | 02Z STEMKIT 1.25-1.5-ST-RK-Z107 | |
| TTS #6400-SS | 1/2"BRONZE-MANUAL. | all | XSS600 | 96V086SSK | 02Z REPKIT 1.25BALVALSSK-02-RK-Z107 | |
| | NO KITS | all | 10 | 96D087WEXS | 09Z BAVAL 1+1/2BRZ WATS#B6400SSZ107 | 1-1/2"BRONZE-AIR OPERATED |
| WATTS#S-8000 | 1/2"STAINLESS-MANUAL | all | 010BK | 96V087BK | Ball kit watts #1.5-ball-rk-z107 | |
| SA6 | | all | 010SK | 96V086A7SK | 02Z STEMKIT 1.25-1.5-ST-RK-Z107 | |
| TTS#3SSK-02-RK | | all | 010SSK | 96V087SSK | 02Z REPAIR KIT 1.5" BALL VALVE | |
| WATTS#B6100 | 3/4"BRONZE-MANUAL, NO KITS | all | 7 | 96D087WSS | 08Z BAVAL 1+1/2"SS WATTS S8000-Z107 | 1-1/2"STAINLESS-AIR/ OPER. |
| WATTS#S-8000 | 3/4"STAINLESS-MANUAL | all | 011BK | 96V087BK | BALL KIT WATTS #1.5-BALL-RK-Z107 | |
| S #4BSK-SSRK | | all | 011SK | 96V086A7SK | 02Z STEMKIT 1.25-1.5-ST-RK-Z107 | |
| TTS#4SSK-02-RK | | all | 011SSK | 96V087SSK | 02Z REPAIR KIT 1.5" BALL VALVE | |
| TS#B6100 BRZ | 1" BRONZE-MANUAL , | al | 12 | 96D088WEXS | 09Z BALVAL 2" BRZ WATTS#B6400SSZ107 | 2"BRONZE-AIR OPERATED |
| | NO KITS | all | 012BK | 96V088BK | BALL KIT WATTS #2-BALL-RK-Z28 | |
| TS#B6400SSZ107 | 1" BRONZE-AIR | all | 012SK | 96V088SK | 03Z STEM KIT 2" WATTS#2-ST-RK-Z107 | |
| | | all | 012SSK | 96V088SSK | 02Z REPKIT 2"VAL WAT2SSK-02-RK-Z107 | |
| _L-RK-Z107 S#1-ST-RK-Z107 | | all | 13 | 96D088WSS | 09Z BALVAL 2" SS WATTS S8000-Z107 | 2"STAINLESS-AIR OPERATED |
| SSK-02-KK-Z107 | | . | 0138K | OGV/DRREK | RALL KIT WATTS #2-BALL-RK-728 | |
| ⁻ S S8000-Z107 | 1" STAINLESS-AIR OPERATED | <u>ज</u> | 013SK | 96V088SK | 03Z STEM KIT 2" WATTS#2-ST-RK-Z107 | |
| L-RK-Z107 | | all | 013SSK | 96V088SSK | 02Z REPKIT 2"VAL WAT2SSK-02-RK-Z107 | |
| S#1-ST-RK-Z107 | | | | | | |
| ISSK-02-KK-Z107 | | | | | | |
| ATS#B6400SSZ107 | 1-1/4"BRONZE-AIR OPERATED | | | | | |
| BALL-RK-Z107 | | | | | | |
| T-RK-Z107 | | | | | | |

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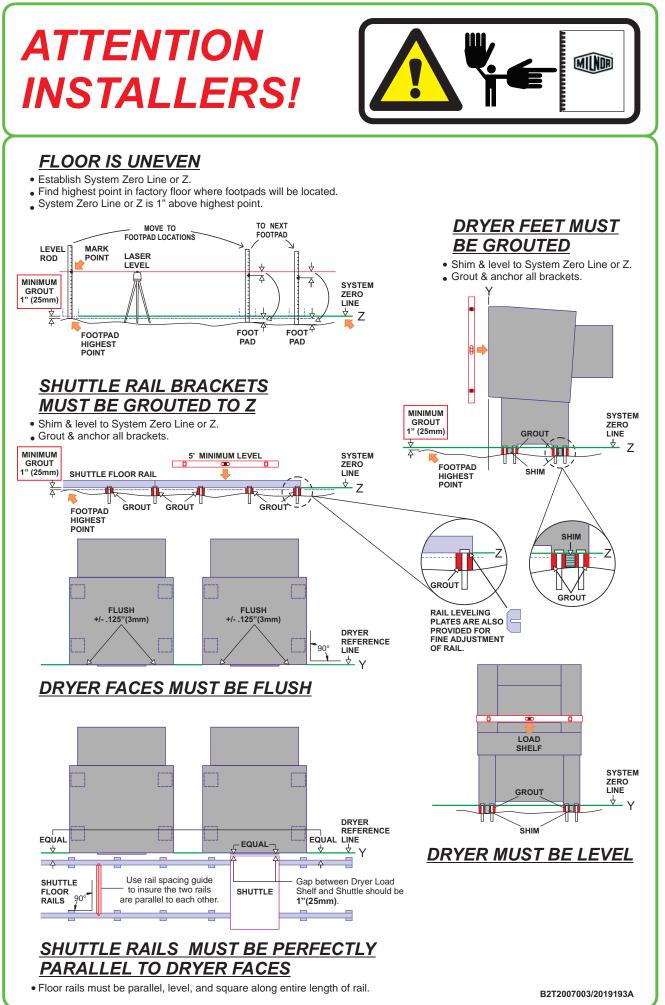
BMP920007/96067V (Sheet 2 of 2)

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Pellerin Milnor Corporation P. O. Box 400, Kenner, LA 70063-0400

| | Find the cor assemblies a numbers (1, 2 | correct ass es are refer (1, 2, 3, etc. | Parts List- sembly first, then rred to in the "Used) assigned to comp | Parts List—Watts Ball Valves and I virrect assembly first, then find the needed components. are referred to in the "Used In" column to identify which (2, 3, etc.) assigned to components relate the parts list to the |
|----|---|---|---|---|
| | Used In | ltem | Part Number | Description |
| | | | | ASSEMBLIES |
| | | | | |
| | all | | 96D034 | 04Z BALLVALVE 1/2" WATTS #64 |
| | all | 7 | 96D040WSS | 01Z 1/2" BALLVALVE S/S WATTS |
| | all | 002BK | 96V040BK | BALL KIT WATTS #BV4SSA6 |
| | all | 002SSK | 96V040SSK | 01Z REPKIT 1/2"VAL WATTS#3S |
| 54 | ଆ | e | 96D050A | 01Z 3/4"BALLVALVE BRZ WATTS |
| | all | 4 | 96D055WSS | 01Z 3/4"BALLVALVE S/S WATTS# |
| | all | 004BK | 96V055BK | BALL & STEM KIT WATTS #4BSI |
| | all | 004SSK | 96V055SSK | 01Z REPKIT 3/4"VAL WATTS#4S |
| | all | 5 | 96D084 | 01Z BALL VALVE 1" WATTS#B61 |
| | = | c | | |
| | ଆ | œ | 96D085WEXS | 01/2 BALVAL 1" BKZ WALLS#B64 |
| | all | 006BK | 96V085BK | BALL KIT WATTS #1-BALL-RK-Z |
| | all | 006SK | 96V085SK | 02Z STEM KIT 1" WATTS#1-ST-I |
| | all | 006SSK | 96V085SSK | 02Z REPKIT 1"BALVAL#1SSK-02 |
| | all | 7 | 96D085WSS | 07Z BALVAL 1" SS WATTS S8000 |
| | all | 007BK | 96V085BK | BALL KIT WATTS #1-BALL-RK-Z [.] |
| | all | 007SK | 96V085SK | 02Z STEM KIT 1" WATTS#1-ST-I |
| | all | 007SSK | 96V085SSK | 02Z REPKIT 1"BALVAL#1SSK-02 |
| | all | 80 | 96D086WEXS | 08Z BAVAL 1+1/4BRZ WATS#B64 |
| | | 008BK | 96V086BK | BALL KIT WATTS #1.25-BALL-RK |
| | all | 008SK | 96V086A7SK | 02Z STEMKIT 1.25-1.5-ST-RK-Z1 |
| | | | | |

Installation Drawings



BIPDGI01 (Published) Book specs- Dates: 20171009 / 20171009 / 20171009 Lang: ENG01 Applic: PDG

Air and Ductwork Requirements for Milnor[®] Pass-through Dryers

Notice 1: This document, along with document BIPDUI01 "Utility Requirements For Gas, Steam and Thermal Oil Dryers", gives air and ductwork requirements for Milnor pass-through dryers. It also provides limited guidance for the layout of ductwork. Milnor accepts no responsibility for ductwork design or liability for damage or injury caused by ductwork.

1. Air Requirements



CAUTION 2: Risk of equipment malfunction—Insufficient air will cause dryers to malfunction and/or greatly reduce drying efficiency. Excessive back-pressure will cause dryers to malfunction.

1.1. Air Flow—All Milnor pass-through dryers move air, called main air, through the goods. The quantity of main air specified in document BIPDUI01 "Utility Requirements For Gas, Steam and Thermal Oil Dryers" (in standard cubic feet per minute or scfm) must be available at the dryer main air inlet.

In addition, gas dryers use laundry room air for combustion. The quantity of combustion air specified in document BIPDUI01 "Utility Requirements For Gas, Steam and Thermal Oil Dryers" (in standard cubic feet per minute or scfm) must be available at the dryer combustion air inlet.

1.2. Back Pressure—The total pressure drop imposed by all external components that the main air must pass through (examples: ductwork, lint filters, rooftop ventilators) must be between 0 (zero) and 0.5 inch water column (125 Pascals).

For gas dryers, it is necessary to supply a sufficient quantity of air to the room where the dryers are located to replenish the combustion air taken in by the dryers and to prevent a low pressure condition in the room.

Note 1: The internal pressure drop between the dryer main air inlet and exhaust outlet fluctuates during operation and can greatly exceed the allowable external pressure drop.

2. Ductwork Requirements

It is often necessary to connect ductwork between the dryer main air inlet and outside air. It is always necessary to connect ductwork between the dryer air exhaust outlet and the exterior of the building.

2.1. Is Inlet Ductwork Necessary?—Use inlet ductwork to avoid negative air or if hazardous or corrosive fumes are present that could be drawn in to the dryers. Otherwise, consider the facility layout, operational procedures, and climatic conditions. It may be possible to take main air from the room in which the dryers are located, especially if this room is dedicated to the dryers and physically separated from other laundry activities. If conditions permit this arrangement, the facility can use barometric dampers to admit the quantity of outside air necessary to replenish the air taken in by the dryers. The air in the dryer room must be sufficient to meet the air requirements explained in Section 1.1 at all times that the dryers operate.

negative air—the condition in which air usage by equipment creates a negative air pressure in the room where the equipment is located relative to outside air pressure and starves the equipment of air



CAUTION 3: **Fire hazard**—Negative air will draw heat from a gas dryer into the room it is in. Nearby objects, such as roof beams can become very hot.

• Provide inlet ductwork when negative air would otherwise occur.

If main air cannot be supplied from inside the room the dryers are in, use inlet ductwork to connect the dryers to outside air. For gas dryers, use powered ventilation in the facility to replenish the combustion air taken in by the dryers.

2.2. Ductwork Durability



CAUTION 4: **Risk of mechanical failure**—The fluctuations in main air pressure that occur during dryer operation will cause thin-gauge steel ductwork to quickly fail from metal fatigue. Ducts with a rectangular cross-section can be damaged by these forces even when heavy gauge material is used. Rectangular ductwork on the exhaust side of the dryer is likely to fail.

• Consult a ductwork design professional before you use rectangular duct.

The ductwork must be able to withstand the large flexing forces imposed on it by the internal air pressure changes that occur during dryer operation. At minimum, straight sections fabricated from galvanized sheet steel must have the following material thickness:

- Round duct 20 gauge
- Rectangular duct 16 gauge

It can be necessary to increase material thickness and use stiffeners for long duct lengths, large duct sizes, transitions, and elbows.

Duct material must be able to withstand any corrosive forces imposed by the laundry environment. Galvanized sheet steel is usually sufficient, but special conditions can occur.

2.3. Ductwork Functionality



WARNING 5: Fire and equipment malfunction hazards—Incorrect ductwork design can promote the buildup of flammable lint or cause flammable materials near hot ductwork to ignite. It can also cause dryers to malfunction and greatly reduce productivity.

- Do not use any internal components in the ductwork (example: turning vanes).
- Obey codes that govern the clearances between hot ductwork and flammable construction materials (example: roofing).
- Do not connect ducts from different dryers together if you can avoid it. See Section 2.3.1.
- Do not use abrupt transitions or elbows with less than three segments. See Section 2.3.2.
- Provide inspection covers as necessary to keep the entire ductwork clean.

2.3.1. Multiple Dryers and Lint Collection



CAUTION 6: Risk of equipment malfunction—Dryers connected by common ductwork are likely to malfunction due to the fluctuation in pressure drop felt by each dryer as a result of the other dryers. This can occur even if the common duct is large enough to accommodate the combined output of all connected dryers.

• Consult a ductwork design professional if you must use common ductwork.

If space limitations or other factors make the use of common ductwork unavoidable, it will be necessary to provide a system to maintain back pressure within the range specified in Section 1.2 automatically. A system of this type could include pressure-sensing devices, a variable-speed booster fan, and a controller.

Today, facility designers generally prefer internal lint screens (a Milnor option) or close-coupled lint collection systems installed on each dryer. However, if the facility uses a common powered lint collection system, you can connect the air exhaust from two or more dryers to this system if you run separate ducts from each dryer. The system must be designed to:

- accommodate the maximum combined flow from all dryers connected to it.
- maintain a constant back pressure in the range given in Section 1.2.
- 2.3.2. **Transitions and Elbows**—Use smooth, gradual transitions. For calculations, consider any transition with a taper less than 7.5 degrees as straight duct. Consider a gradual transition that connects the main air inlet or exhaust outlet on the dryer to a larger size duct as the larger duct size.

See Figure 1. For round duct, prefer elbows with radius Rl. Do not use a smaller radius than Rs. Prefer elbows with six or more segments. Do not use elbows with less than three segments.

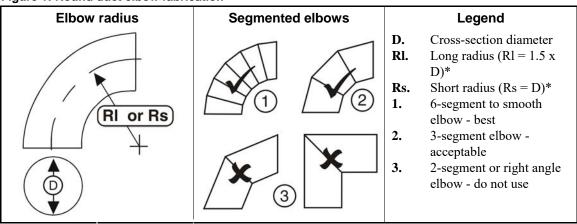
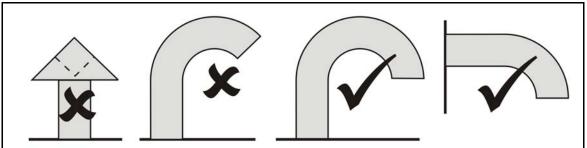


Figure 1: Round duct elbow fabrication

2.3.3. Vents—Wind loads can contribute significantly to variations in the external pressure drop felt by dryers. Only the vent designs identified with a check mark in Figure 2 adequately counteract the effect of wind load.

Do not use a screen in the vent for the main air inlet.

Figure 2: Vent Designs



3. Ductwork Layout and Pressure Drop Calculations

This section provides numeric data in the English and Metric units listed in Table 1. Metric units are shown in parentheses.

| Type of | En | glish Unit | Me | etric Unit |
|---------------|-------------|--------------------------------|-------------|-----------------------------|
| Measurement | Abbreviated | Term | Abbreviated | Term |
| Short length | in | inches | (mm) | millimeters |
| Long length | ft | feet | (M) | meters |
| Air flow | scfm | standard cubic feet per minute | (nlpm) | normal liters per minute |
| Air velocity | fpm | feet per minute | (mpm) | meters per minute |
| Pressure drop | iwc | inches water column | (Pa) | Pascals |

Table 1: Units of Measure

3.1. Duct Components and Their Pressure Drops—Table 2 gives selected round and rectangular duct sizes for each dryer model, in straight lengths and 90 degree elbows. If it is necessary to use components not given in the table (examples: other duct cross-sections, elbows with other than 90 degree angles), it will be necessary to refer to other texts or consult a ductwork design professional.

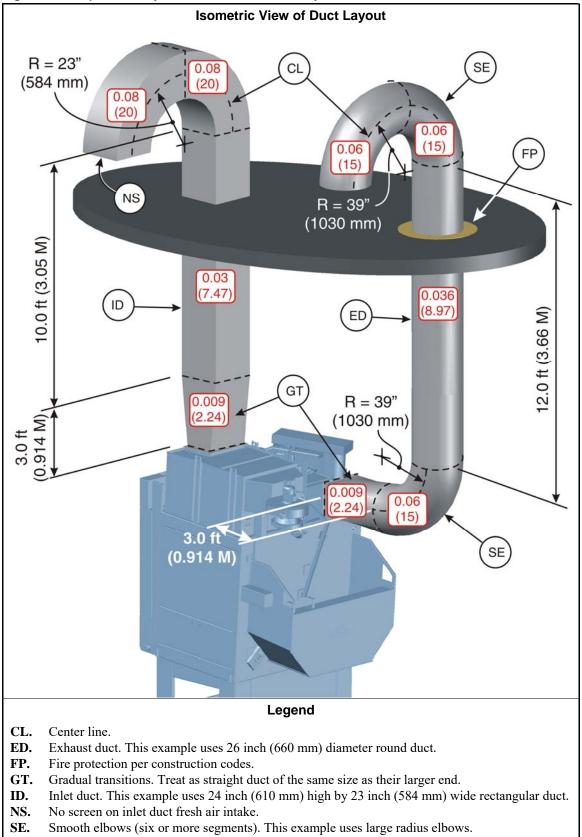
| A | Air Specifications | | Duct components, sizes, and pressure drops | | | | | | | | | |
|--------------------------------|------------------------------|---|--|---------------------|--------------------------|---|-----------------------|----------------------|-----------------------|----------------------|---------------------|--------------|
| | Air flow - scfm (nlpm) | Velocity* for given cross- section - fpm (mpm) | Equivale | nt** cross | Pressure drop - iwc (Pa) | | | | | | | |
| | | | Round Rectangular* | | gular*** | Straight | | 90 Degree Elbows | | | | |
| Dryer Model Prefix | | | Diameter in (mm) | Height - in (mm) | Width - in (mm) | iwc per 100 feet (or Pa per 100 meters) | Smooth round | | 3-segment round | | Rectangular | |
| | | | | | | | Rs Short radius | Rl Long radius | Rs Short radius | Rl Long radius | Radius - in (mm) | iwc (Pa) |
| 50040 5040 5050 58040 | 3600 (101941) | 2034 (620) | 18 (457) | 14 (356) | 20 (508) | 0.31 (253) | 0.1 (25) | 0.07 (17) | 0.13 (32) | 0.11 (27) | 15 (381) | 0.09 (22) |
| | | | | 15 (381) | 19 (483) | | | | | | 14.25 (362) | |
| | | | | 16 (406) | 17 (432) | | | | | | 12.75 (324) | |
| | | | | 17 (432) | 16 (406) | | | | | | 12 (305) | |
| | | | | 19 (483) | 15 (381) | | | | | | 11.25 (286) | |
| | | | | 20 (508) | 14 (356) | | | | | | 10.5 (267) | |
| | 5200 (147248) | 2384 (727) | 20 (508) | 16 (406) | 22 (559) | 0.37 (302) | 0.13 (32) | 0.09 (22) | 0.17 (42) | 0.14 (35) | 16.5 (419) | 0.12 (30) |
| | | | | 17 (432) | 20 (508) | | | | | | 15 (381) | |
| | | | | 18 (457) | 19 (483) | | | | | | 14.25 (362) | |
| 58058 | | | | 19 (483) | 18 (457) | | | | | | 13.5 (343) | |
| | | | | 20 (508) | 17 (432) | | | | | | 12.75 (324) | |
| | | | | 22 (559) | 16 (406) | | | | | | 12 (305) | |
| 58080 | | | | | Co | ntact facto | ory | | | | | 1 |
| 6450 | 6000 (169901) | 2400 (732) | 22 (559) | 20 (508) | 19 (483) | 0.30 (245) | 0.09 (22) | 0.06 (15) | 0.18 (45) | 0.14 (35) | 14.25 (362) | 0.12 (30) |
| 6458 6464 | 8500 (240693) | 2400 (732) | 26 (660) | 24 (610) | 23 (584) | 0.30 (245) | 0.09 (22) | 0.06 (15) | 0.18 (45) | 0.14 (35) | 23 (584) | 0.08 (20) |
| 72072 (with tower) | 10000 (283168) | 2100 (640) | 30 (762) | 23 (584) | 33 (838) | 0.15 (123) | 0.21 (52) | 0.17 (42) | 0.28 (70) | 0.24 (60) | 31 (787) | 0.14 (35) |
| | | | | 24 (610) | 31 (787) | | | | | | 30 (762) | |
| | | | | 25 (635) | 30 (762) | | | | | | 28.75 (730) | |
| | | | | 26 (660) | 28 (711) | | | | | | 28 (711) | |
| | | | | 27 (686) | 27 (686) | | | | | | 27.25 (692) | |
| | | | | 28 (711) | 26 (660) | | | | | | 26.75 (679) | |
| | | | | 30 (762) | 25 (635) | | | | | | 24.5 (622) | |
| | | | | 31 (787) | 24 (610) | | | | | | 23.75 (603) | |
| | | | | 33 (838) | 23 (584) | | | | | | 22.75 (578) | |
| 7272 7676 8282 | 14000 (396436) | 2600 (792) | 32 (813) | 27 (686) | 29 (737) | 0.28 (229) | 0.11 (27) | 0.08 (20) | 0.21 (52) | 0.13 (32) | 27 (686) | 0.13 (32) |

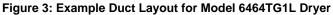
** Equivalent means that the rectangular cross sections have the same pressure drop as the round cross-section.

*** Field data determines the number of rectangular cross-sections shown for each dryer model.

3.2. Example Layout—To provide a more comprehensive example, Figure 3 shows both rectangular and round duct. However, avoid using rectangular duct if possible, especially for the exhaust ductwork.

Figure 3 shows the pressure drop values taken from Table 2 and used in the example equations in Section 3.3 superimposed on each piece of duct.





3.3. Pressure Drop Equations and Examples—Calculate the pressure drop for each straight length of duct as follows:

$$PD_{s} = PD_{100} \times L / 100$$

Where: $PD_s = Pressure drop for a straight length$ $PD_{100} = Pressure drop per 100 feet (or 100 meters) as given in table$ L = Length of straight section in feet (or meters)

The following examples calculate the pressure drop for the 10 ft (3.05 M) length of rectangular duct in Figure 3.

English example:

0.3 x 10 / 100 = 0.03 iwc

Metric example:

 $243 \times 3.05 / 100 = 7.47 Pa$

Calculate the total pressure drop as follows:

$$PD_T = PD_1 + PD_2 + PD_3 + \ldots + PD_n + PD_F$$

Where:

PD_T - Total external pressure drop

PD₁ - Pressure drop for the most upstream (inlet-end) component

PD₂, PD₃, ... - Pressure drop for each next duct component in sequence

 PD_n - Pressure drop for the most downstream (exhaust-end) component

PD_F - Pressure drop contributed by the external lint collection system, if any.

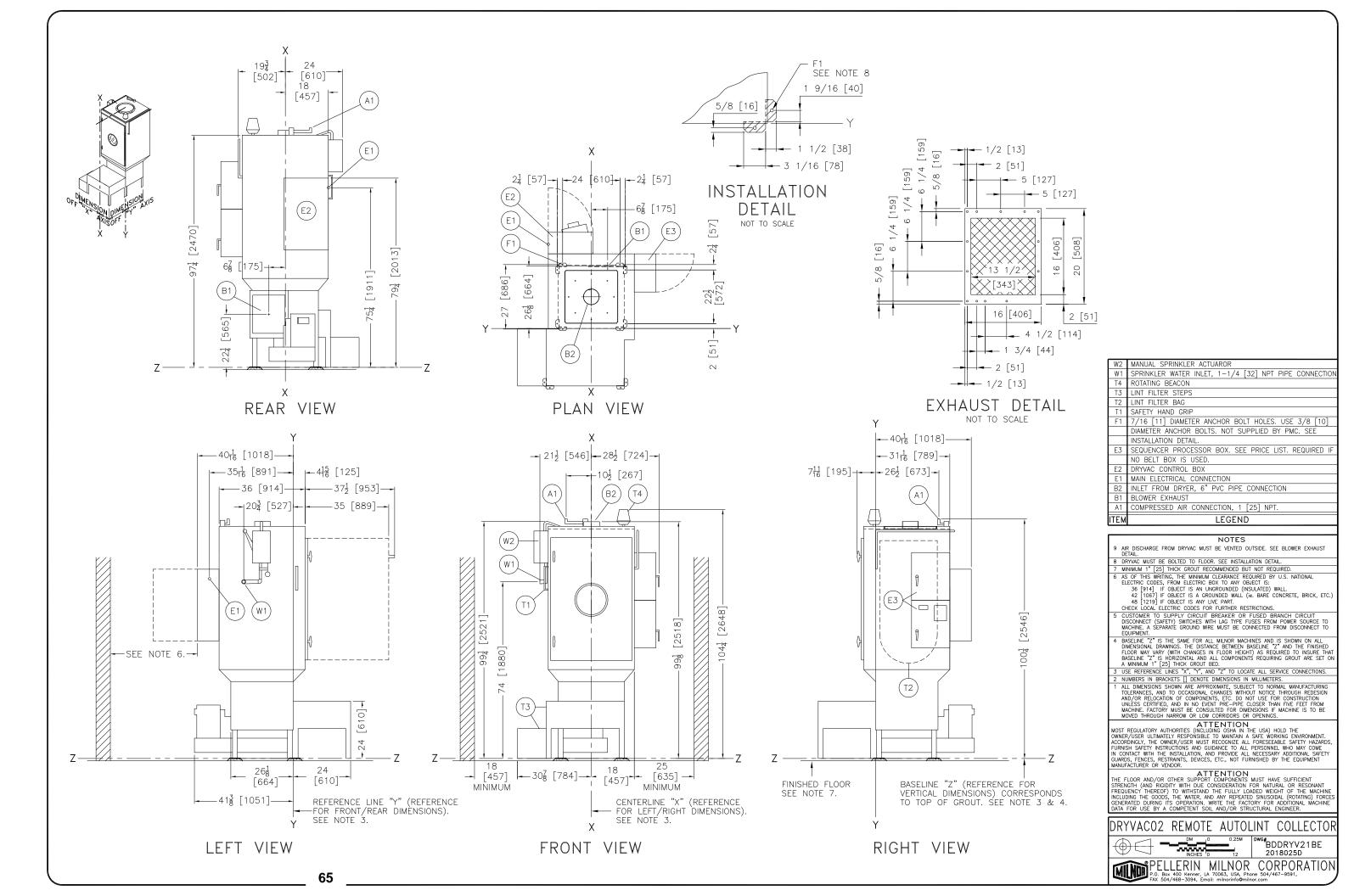
The following examples calculate the total pressure drop for the layout shown in Figure 3 after the pressure drops for all straight sections have been calculated. The dryer in the example layout uses internal lint screens. The installation does not have a separate, external lint collection system.

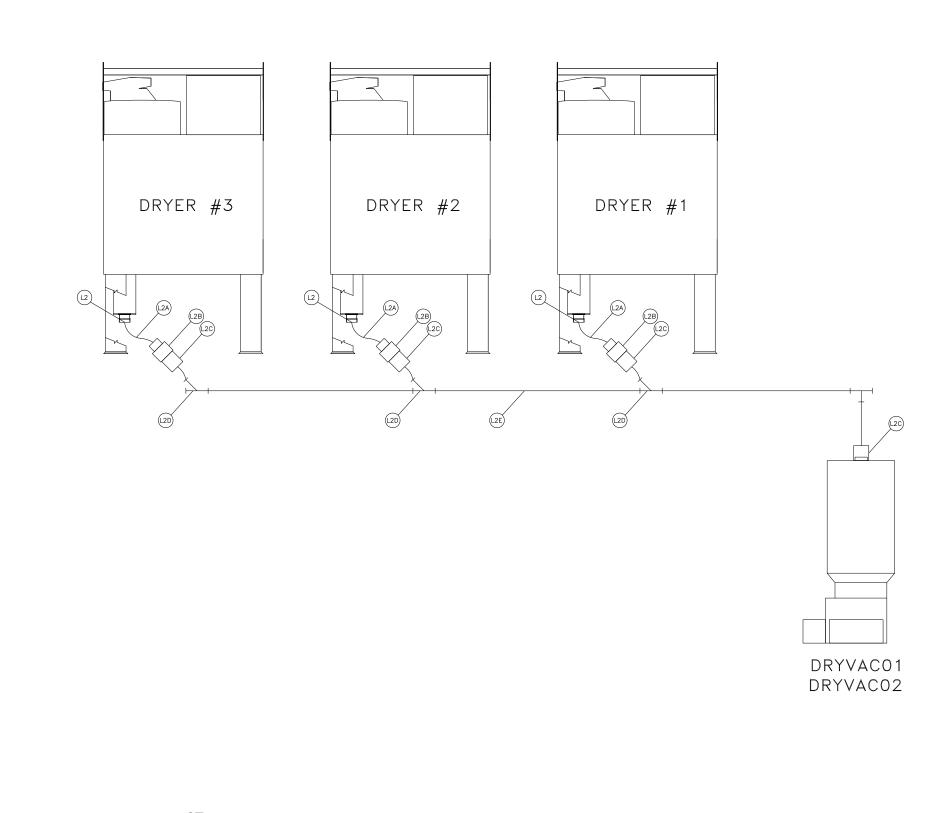
English example:

0.08 + 0.08 + 0.03 + 0.009 + 0.009 + 0.06 + 0.036 + 0.06 + 0.06 = 0.424 iwc

Metric example:

- End of BIPDGI01 -





67

| ADDITIONAL AIR REQUIREMENTS FOR (L1)— OPTIONAL INTERNAL LINT FILTERS (SEE NOTE 7.) AIR PRESSURE REQUIREMENTS: 85–110 PSI CONNECTION (A2): 1"NPT AIR USAGE (ESTIMATED): 110 SCF IN 15 SECONDS WHEN ACTIVATED |
|--|
| |
| |
| L2E 6" SHC40 PVC (NOT SUPPLIED PMC.) |
| L2D 6" Y - PVC (NOT SUPPLIED PMC.) L2C 6" NO HUB CONNECTOR (NOT SUPPLIED PMC.) L2B REDUCER 6" X 6", (PART W7-71865, SUPPLIED PMC) L2A 6" FLEX HOSE (NOT SUPPLIED PMC.) L2 LINT OUTLET (6" FLEX HOSE CONNECTION) FOR OPTIONAL INTERNAL LINT SCREEN. PIPES TO DRYVAC01, DRYVAC02 OR LINT COLLECTOR BY OTHERS. |
| NOTES 8 SEE DRYER OPTION PAGES FOR ADDITIONAL DIMENSIONAL INFORMATION FOR OPTIONAL |
| INTERNAL LINT GEREENS. TOR BOTTONAL DIMENSIONAL INTERNAL I |
| 6 AS OF THIS WRITING, THE MINIMUM CLEARANCE REQUIRED BY U.S. NATIONAL ELECTRIC CODES, FROM ELECTRIC BOX TO ANY OBJECT IS: 36 [914] IF OBJECT IS AN UNGROUNDED (INSULATED) WALL 42 [1067] IF OBJECT IS A GROUNDED WALL (ie. BARE CONCRETE, BRICK, ETC.) 48 [1219] IF OBJECT IS ANY LIVE PART. CHECK LOCAL ELECTRIC CODES FORTHER RESTRICTIONS. |
| 5 CUSTOMER TO SUPPLY CIRCUIT BREAKER OR FUSED BRANCH CIRCUIT DISCONNECT (SAFETY) SWITCHES WITH LAG TYPE FUSES FROM POWER SOURCE TO MACHINE. A SEPARATE GROUND WIRE MUST BE CONNECTED FROM DISCONNECT TO EQUIPMENT. |
| 4 BASELINE "Z" IS THE SAME FOR ALL MILNOR MACHINES AND IS SHOWN ON ALL DIMENSIONAL DRAWINGS. THE DISTANCE BETWEEN BASELINE "Z" AND THE FINISHED FLOOR MAY VARY (WITH CHANGES IN FLOOR HEIGHT) AS REQUIRED TO INSURE THAT BASELINE "Z" IS HORIZONTAL AND ALL COMPONENTS REQUIRING GROUT ARE SET ON A MINIMUM 1" [25] THICK GROUT BED. |
| 3 USE REFERENCE LINES "X", "Y", AND "Z" TO LOCATE ALL SERVICE CONNECTIONS. 2 NUMBERS IN BRACKETS [] DENOTE DIMENSIONS IN MILLIMETERS. |
| 1 ALL DIMENSIONS SHOWN ARE APPROXIMATE, SUBJECT TO NORMAL MANUFACTURING TOLERANCES, AND TO OCCASIONAL CHANGES WITHOUT NOTICE THROUGH REDESIGN AND/OR RELOCATION OF COMPONENTS, ETC. DO NOT USE FOR CONSTRUCTION UNLESS CERTIFIED, AND IN NO EVENT PRE-PIPE CLOSER THAN FIVE FEET FROM MACHINE, FACTORY MUST BE CONSULTED FOR DIMENSIONS IF MACHINE IS TO BE MOVED THROUGH NARROW OR LOW CORRIDORS OR OPENINGS. |
| ATTENTION MOST REGULATORY AUTHORITIES (INCLUDING OSHA IN THE USA) HOLD THE OWNER/USER ULTIMATELY RESPONSIBLE TO MANTAIN A SAFE WORKING ENVIRONMENT. ACCORDINGLY, THE OWNER/USER MUST RECOGNIZE ALL FORSEEABLE SAFETY HAZARDS, FURNISH SAFETY INSTRUCTIONS AND GUIDANCE TO ALL PERSONNEL WHO MAY COME IN CONTACT WITH THE INSTALLATION, AND PROVIDE ALL NECESSARY ADDITIONAL SAFETY GUARDS, FRUCSS, RESTRAINTS, DEVICES, ETC., NOT FURNISHED BY THE EQUIPMENT MANUFACTURER OR VENDOR. |
| ATTENTION THE FLOOR AND/OR OTHER SUPPORT COMPONENTS MUST HAVE SUFFICIENT STRENGTH (AND RIGDITY WITH DUE CONSIDERATION FOR NATURAL OR RESONANT FREQUENCY THEREOF) TO WITHSTAND THE FULLY LOADED WEIGHT OF THE MACHINE INCLUDING THE GOODS, THE WATER, AND ANY REPEATED SINUSIDIAL (ROTATING) FORCES GENERATED DURING ITS OPERATION. WRITE THE FACTORY FOR ADDITIONAL MACHINE DATA FOR USE BY A COMPETENT SOIL AND/OR STRUCTURAL ENGINEER. |
| RECOMMENDED LINT COLLECTOR PIPING |
| DM 0 0.5M 1M BD6458DLCPBE NOTES 0 12 24 36 2014453D |
| PELLERIN MILNOR CORPORATION |