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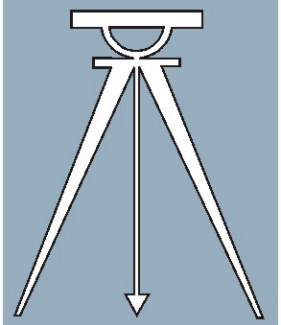
Installation

Dryers, Conditioners and Shakers

5040, 5840,5858, 5880



Read the separate safety manual before installing, operating, or servicing

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

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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, FOB our factory. 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 —

1 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.

2. 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: 20160712 / 20160712 / 20160712 Lang: ENG01 Applic: PDU PDG

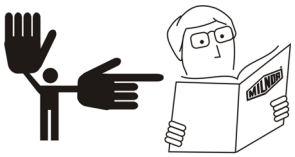
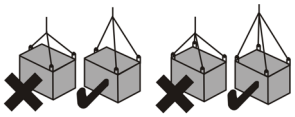
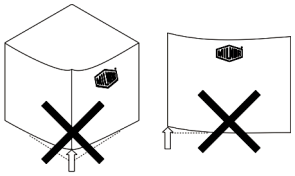
Tag Guidelines for the Models Listed Below

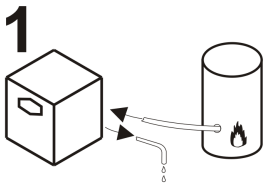
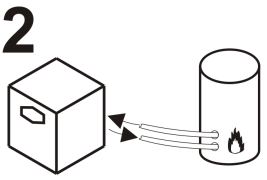
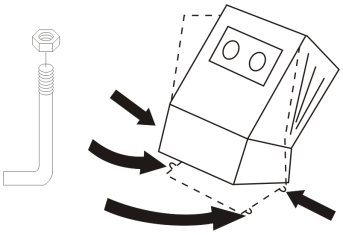
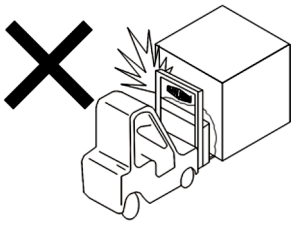
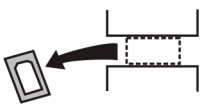
50040CS1	**50040SA1**	**50040SB1**	**50040TG1**	**50040TS1**	**50040TT1**	**5040TG2L**
5040TG2R	**5040TS2L**	**5040TS2R**	**58040CS1**	**58040CT1**	**58040SA1**	**58040SB1**
58040TG2	**58040TS1**	**58040TT1**	**58058CS1**	**58058CT1**	**58058RS1**	**58058SA1**
58058SB1	**58058TG2**	**58058TS1**	**58058TT1**	**58080CS1**	**58080CT1**	**58080SA1**
58080TG1	**58080TS1**	**58080TT1**	**64058TG1**	**6458ATG1**	**6458TG1L**	**6458TG1R**
6458TS1L	**6458TS1R**	**72072TG1**	**7272TG1L**	**7272TG1R**	**8282TG1L**	**8282TG1R**
8282TS1L	**8282TS1R**	**DRYVAC01**	**DRYVAC02**			

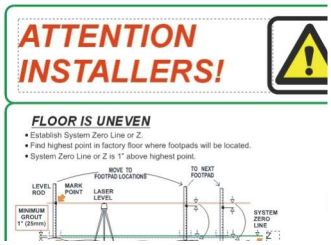
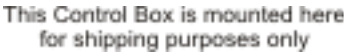
Notice 1: This information may apply to models in addition to those listed above. It applies to paper tags. It does not apply to the vinyl or metal safety placards, which must remain permanently affixed to the machine and replaced if no longer readable.

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	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 —

BIUUUI02PS (Published) Book specs- Dates: 20160712 / 20160712 / 20160712 Lang: ENG01 Applic: PDU PDS

Tag Guidelines for the Models Listed Below

50040CS1	**50040SA1**	**50040SB1**	**50040TG1**	**50040TS1**	**50040TT1**	**5040TG2L**
5040TG2R	**5040TS2L**	**5040TS2R**	**58040CS1**	**58040CT1**	**58040SA1**	**58040SB1**
58040TG2	**58040TS1**	**58040TT1**	**58058CS1**	**58058CT1**	**58058RS1**	**58058SA1**
58058SB1	**58058TG2**	**58058TS1**	**58058TT1**	**58080CS1**	**58080CT1**	**58080SA1**
58080TG1	**58080TS1**	**58080TT1**	**64058TG1**	**6458ATG1**	**6458TG1L**	**6458TG1R**
6458TS1L	**6458TS1R**	**72072TG1**	**7272TG1L**	**7272TG1R**	**8282TG1L**	**8282TG1R**
8282TS1L	**8282TS1R**	**DRYVAC01**	**DRYVAC02**			

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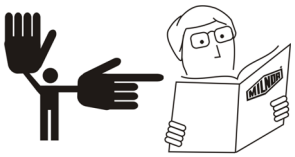
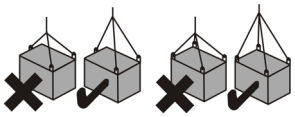
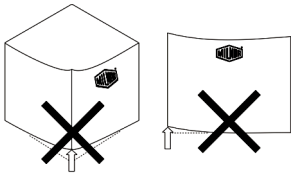
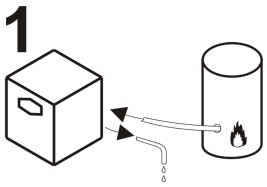
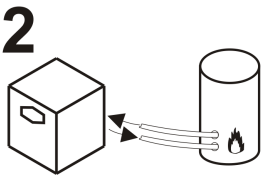
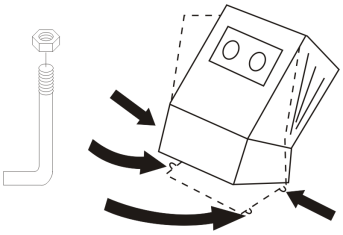
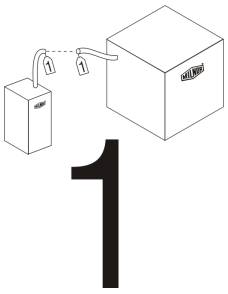
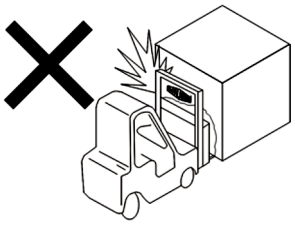
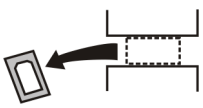
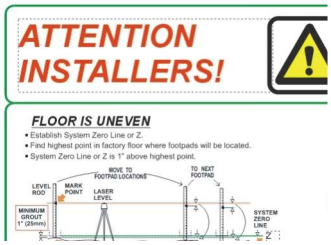
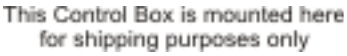
	Read the manuals before proceeding. This symbol appears on most tags. The machine ships with safety, operator, and routine maintenance guides for customer use. Milnor dealer manuals for installing, servicing, and commissioning this machine are also available from the Milnor Parts department.
	B2TAG88005: 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	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.)

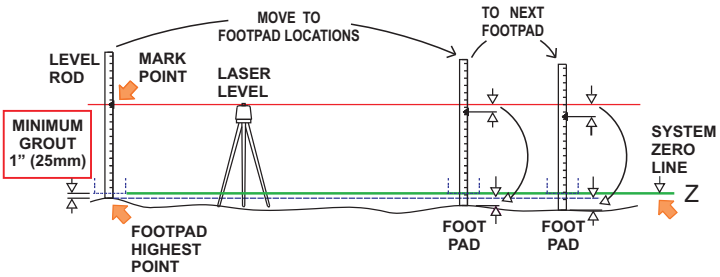
— End of BIUUUI02 —

Installation 2

ATTENTION INSTALLERS!

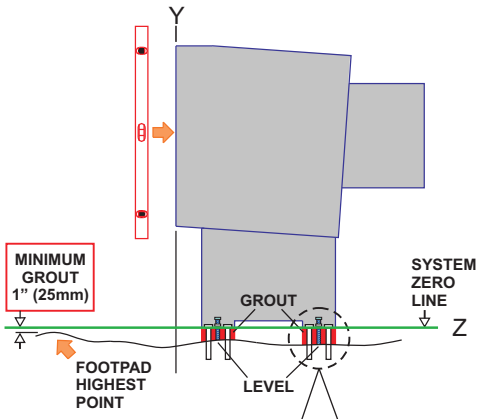
FLOOR IS UNEVEN

- Establish System Zero Line or Z.
- Find highest point in factory floor where footpads will be located.
- System Zero Line or Z is 1" above highest point.



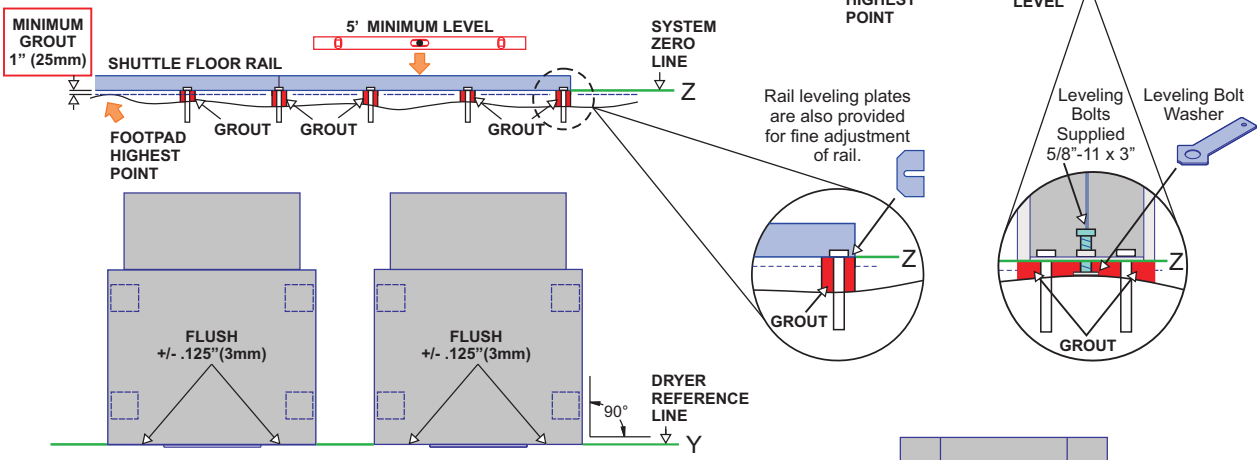
DRYER FEET MUST BE GROUTED

- Level with leveling bolt to System Zero Line or Z.
- Grout & anchor all footpads.

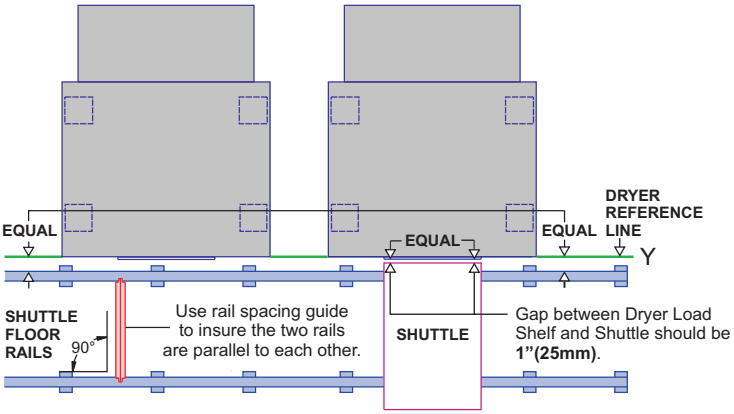


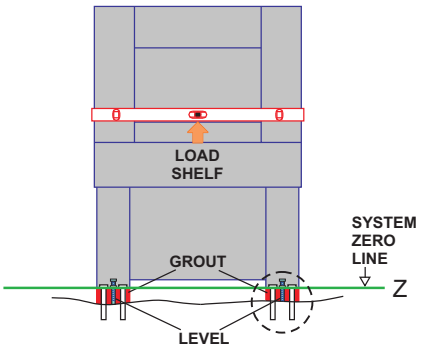
SHUTTLE RAIL BRACKETS MUST BE GROUTED TO Z

- Shim & level to System Zero Line or Z.
- Grout & anchor all brackets.



DRYER FACES MUST BE FLUSH





DRYER MUST BE LEVEL

SHUTTLE RAILS MUST BE PERFECTLY PARALLEL TO DRYER FACES

- Floor rails must be parallel, level, and square along entire length of rail.

B2T2007003/2013125A

BIPD6I02 (Published) Book specs- Dates: 20160914 / 20160914 / 20160914 Lang: ENG01 Applic: PD6

Dryer Assembly and Setting

This document gives general instructions for shippers and installers. Several other documents in the installation manual provide more detailed instructions on specific tasks related to installation. Review all of the installation-related documents before proceeding.

1. Handling Precautions

The machine is disassembled at the Milnor factory in two or more assemblies: the main dryer housing, the pedestal base, and if necessary, one or more other assemblies. The machine is shipped from the Milnor factory in three or more containers. Major assemblies are palletized or skidded and there are one or more boxes containing loose parts such as connecting brackets.

1. Remove the protective coverings (leaving the machine on its shipping skids) and examine the components carefully for possible shipping damage. If the machine is damaged, notify the transportation company immediately.

   Note 1: Once the machine is given to the carrier for delivery, it is the sole responsibility of the **carrier** to ensure that no damage occurs during transit. In addition to readily apparent damage, carriers are liable for concealed damage. **Do not hesitate to file a claim with the carrier if the machine has been damaged in any way during shipment.** Milnor® will be glad to assist you in filing your claim, but is not responsible for shipping damage to the machine once it has been delivered to the carrier in good condition.

2. Lifting brackets are provided on the top of the house and are tagged as such. Spreader bars are mounted between the lifting brackets. The lifting brackets must be used if lifting by crane.
3. Use the skids for fork lifting and, if possible, leave the machine on its shipping skids until it is about to be assembled and placed in its final position. Once the skids are removed, take care in placing forks under the machine. **Do not allow the forks to come in contact with valves, piping, etc., located on the machine.**
4. Never push, pull, or exert pressure on any components that protrude from the machine frame.
5. Consult the Milnor factory if components such as the blower housing must be removed to fit machine through openings.

Some dryers are paired for installation immediately adjacent to each other. When installing these machines, the spreader bar mounting bolts (Figure 3) are inaccessible once the machines are mounted side by side. Remove the spreader bar immediately after installing the legs, before setting or anchoring dryer. Do not remove the lift plates as they are used to tie machines together.

Figure 1: Front Lifting Bracket

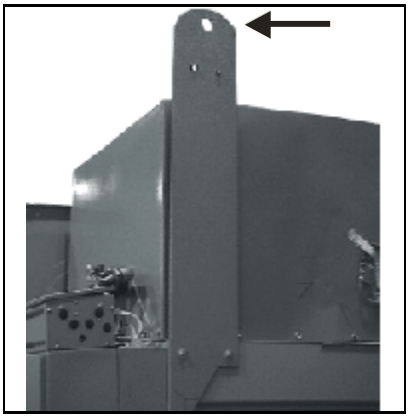


Figure 2: Rear Lifting Bracket

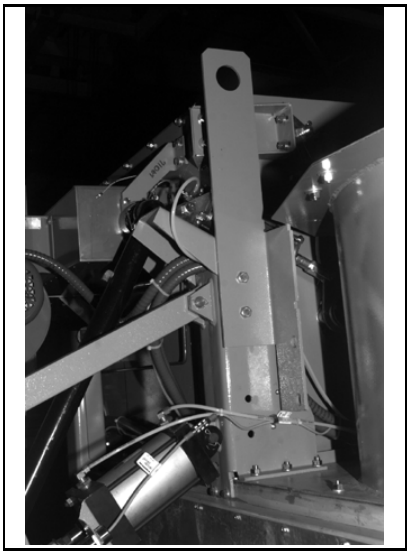


Figure 3: Spreader Bar Between Front Lifting Plates

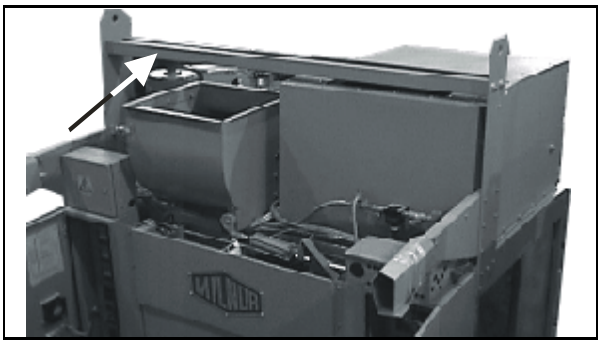
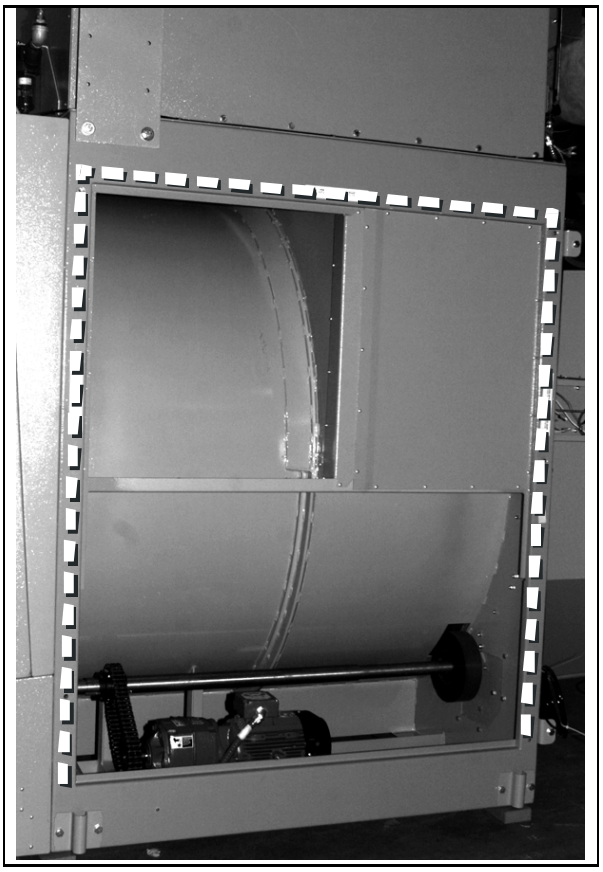


Figure 4: Apply sealing foam to left house before setting into position



2. Site Requirements

2.1. Dryer Environment—The dryer must not be installed or stored in an area where it will be exposed to water and/or weather.

2.2. Clearances—Observe the following:

- Sufficient clearances must exist to move the machine into the laundry. All openings and corridors through which equipment must pass must be of sufficient size to accommodate the sizes of the skidded assemblies (see the dimensional drawing). It is occasionally possible to reduce the overall dimensions by removing piping and by other special modifications. Consult the Milnor factory for more information.
- Provide sufficient clearance around machine for normal operation and maintenance procedures.
- Ensure sufficient clearance between hot surfaces, such as the dryer exhaust vent, and any combustable building materials.
- Ensure sufficient ventilation exists for the heat and vapors of normal operation to dissipate.
- Provide adequate airflow for optimum machine performance. Normally, this means connecting the machine to an outside air source.

2.3. Foundation—The machine must be anchored in accordance with the installation instructions. The floor and/or all other support components must have sufficient strength (and rigidity with due consideration for the natural or resonant frequency thereof) to withstand the fully loaded weight of the machine including the wet goods and any repeated sinusoidal (rotating) forces generated during its operation. Determining the suitability of floors, foundations, and other supporting structures normally requires analysis by a qualified structural engineer.

3. Assembly

3.1. Installing the Legs on the House—It is usually easiest to install the legs on the house then use a fork lift to set the machine in place.

1. Read all related tags prior to assembly.
2. Verify that the doors are closed and secured.
3. Unfasten house from the shipping skid. Once skids are removed, take care in placing forks under the machine. **Do not allow forks to come in contact with valves, piping, motors, etc., located under the machine.**
4. Install the provided foam seal along the path indicated by decals on the machine. This seal is only installed on the left side machine of a left and right pair (Figure 4).
5. Raise the house using the three designated lifting plates located on the top of the machine.
6. Install the legs and filler plates on the house.
7. Remove the spreader bar (Figure 3).
8. Carefully move the machine into place.
9. Repeat the assembly process as required for the adjacent machine (if paired).

3.2. Anchoring

WARNING 1: Crush and Machine Damage Hazards—This machine has a rearward center of mass.

- Install anchor bolts as soon as machine is in position and before making service connections. Install anchor bolts in accordance with the dimensional drawing.
- Keep bystanders clear of machine during installation.

Machines must be securely anchored to an adequate foundation. Anchor bolt locations and foundation specifications are provided on the dimensional drawing. However, do not install anchor bolts until the machine is on site so that the machine itself may be used to determine precise anchor bolt locations. Consult Milnor if any obstruction prevents the installation of any anchor bolts. **Anchor bolts cannot be indiscriminately omitted.**

3.3. Leveling Procedures

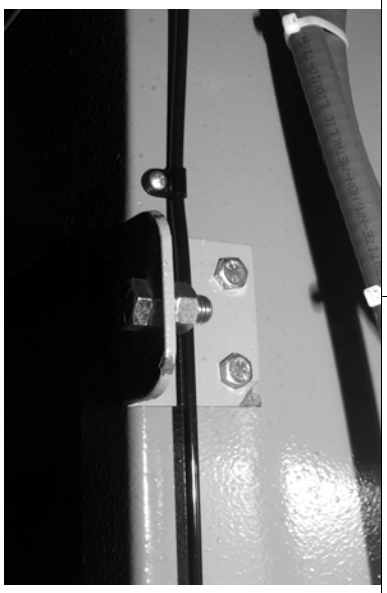
1. Establish System Zero Line or Z. Find the highest point in the factory floor where footpads will be located. The system Zero Line or Z is 1"(25MM) above the highest point.
2. Install the anchor bolts.
3. Level with leveling bolts until the bottom of the pedestal feet are on System Zero Line or Z. Level **both left to right and front to back**.
4. Use a carpenter's level to verify that the machine is level.
5. Dryer feet must be grouted. Grout all footpads.
6. Tighten all foundation bolts until they contact the top of the base plates.
7. Tighten all the bolts evenly, **one-quarter of a turn each time on every bolt** until all bolts are uniformly tight. After tightening, check each fastener separately at least twice.

3.4. Machine-to-Machine Brackets—Machine to machine brackets hold paired dryers in place after each machine is anchored and leveled. Install these brackets as follows:

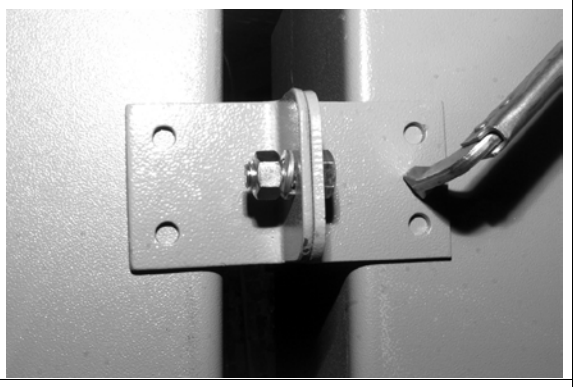
- Install the rear brackets (Figure 5).
- Assemble front machine-to-machine leg bracket. Mark and drill mounting holes and install the leg bracket (Figure 5).
- Install bolts between the front lift plates of adjacent machine pairs. Do not tighten bolts at this time.
- Slide the lift plate spacers in between the front lift plates (Figure 5). Tighten bolts when done.

Figure 5: Machine-to-Machine Brackets and Spacers

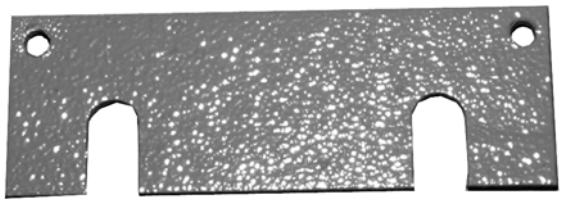
Rear machine-to-machine bracket (two locations)



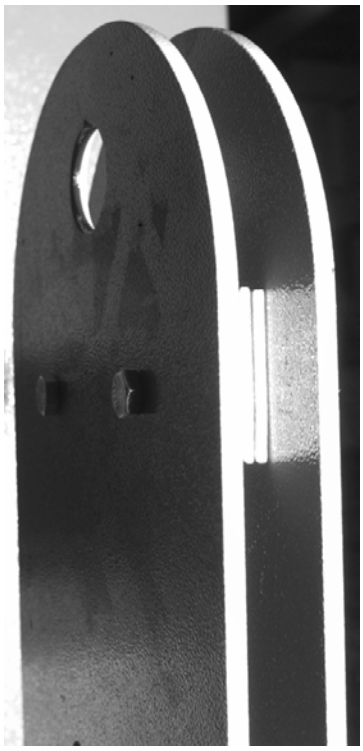
Front machine-to-machine leg bracket



Lift plate spacer



Adjacent front lift plates showing installed spacers and bolts



3.5. Check Cylinder Interior—Check the interior of the perforated cylinder for smoothness before placing the machine in service. Milnor cannot accept claims for damage to the cylinder's smooth finish after the machine has been placed in service.

— End of BIPD6I02 —

Proximity Safeguarding for Automatic Shuttle Conveyors

Proximity safeguarding—a means of preventing personnel from entering the path of a machine, such as an industrial robot, that moves within a large area.

1. Applicability

This document—

applies to Milnor® automated laundering systems with shuttle conveyors that move without operator intervention (automatic operation),

does *not* apply to shuttles that require operator input continually, such as directing all shuttle movements (manual operation).

2. References for Proximity Safeguarding

ANSI Z8.1-2006 “American National Standard for Commercial Laundry and Drycleaning Equipment and Operations - Safety Requirements”

OSHA Standard 29 CFR § 1910.212 “General Requirements for All Machines”

OSHA Directive STD 01-12-002 - Pub 8-1.3 “Guidelines for Robotic Safety”

ANSI/RIA R15.06-1999 “American National Standard for Industrial Robots and Robot Systems—Safety Requirements”

ANSI/ASME B15.1-2000 “Safety Standard for Mechanical Power Transmission Apparatus”

OSHA Publication 3067 “Concepts and Techniques of Machine Safeguarding”

European Standard prEN-ISO/DIS 10472-1 “Safety Requirements for Industrial Laundry Machinery”

3. Hazards To Personnel in Proximity to Shuttle Conveyors

Milnor automated laundering systems use automatic shuttle conveyors to transport goods among the processing machines in the system. Depending on model, an automatic shuttle conveyor may move in any of the following ways, in addition to running its conveyor belt(s):

- It may travel along (traverse) a line of machines (typically dryers).
- Its conveyor bed(s) may ascend and descend (elevate) within the machine frame.
- Its conveyor bed(s) may extend and retract within the machine frame.
- The conveyor bed and frame may pivot.
- Wet goods shuttles have a bucket that elevates and tilts.

These motions pose strike, crush, sever, and entrapment hazards to personnel in proximity to the shuttle. **For the safety of personnel, owner/users must provide proximity safeguarding that protects personnel from the moving shuttle.**

A common method of proximity safeguarding is safety fencing with interlocked gates that disable the shuttle when a gate is opened. When a shuttle is disabled, this will eventually cause other machines in the system to hold (wait for action from another machine), but it will not necessarily cause them to immediately stop moving. In the case of a tunnel system, the press or centrifugal extractor can pose additional hazards to personnel in proximity to the equipment. **Hence, the safeguards must also disable any presses or extractors.** Tunnels and dryers do not pose a significant hazard to personnel merely because they are in proximity to the equipment, and need not be automatically disabled.

WARNING 1: Multiple Hazards—Proximity safeguarding provides only partial protection and only against injury resulting from entering the shuttle path. It is not a substitute for proper lockout/tagout procedures and good safety practices.

- Always lockout/tagout any individual machine (or follow the published maintenance procedures) when performing maintenance or clearing a fault on that machine.
- Ensure that all personnel understand the safeguards and do not attempt to defeat them.
- Inspect safeguards weekly to ensure that they are not mechanically or electrically circumvented.

4. How Milnor Accommodates Proximity Safeguarding

Milnor provides connection points on shuttles, presses and centrifugal extractors for interfacing with devices such as gate interlock switches. These connection points are tagged for easy identification. When Milnor provides equipment layout drawings for an automated laundering system, it indicates on the drawing, the perimeter of the shuttle movement area that must be guarded. The following hazard statement is displayed on connection point tags as well as equipment layout drawings prepared by Milnor:

WARNING 2: Strike, Crush, Sever, and Entrapment Hazards—Serious bodily injury or death can result to personnel in proximity to machinery/systems that traverse, elevate, extend, pivot, and/or tilt. The following mandatory minimum safety requirements must be installed with the machinery system (local codes may require additional precautions):

- Safety fence enclosing machine movement areas,
- Lockable electrical interlocks on all gates, properly interfaced as shown on machine schematics, to disable machine movement when any gate is opened,
- Signs to alert personnel to these hazards, placed prominently around the fenced area.

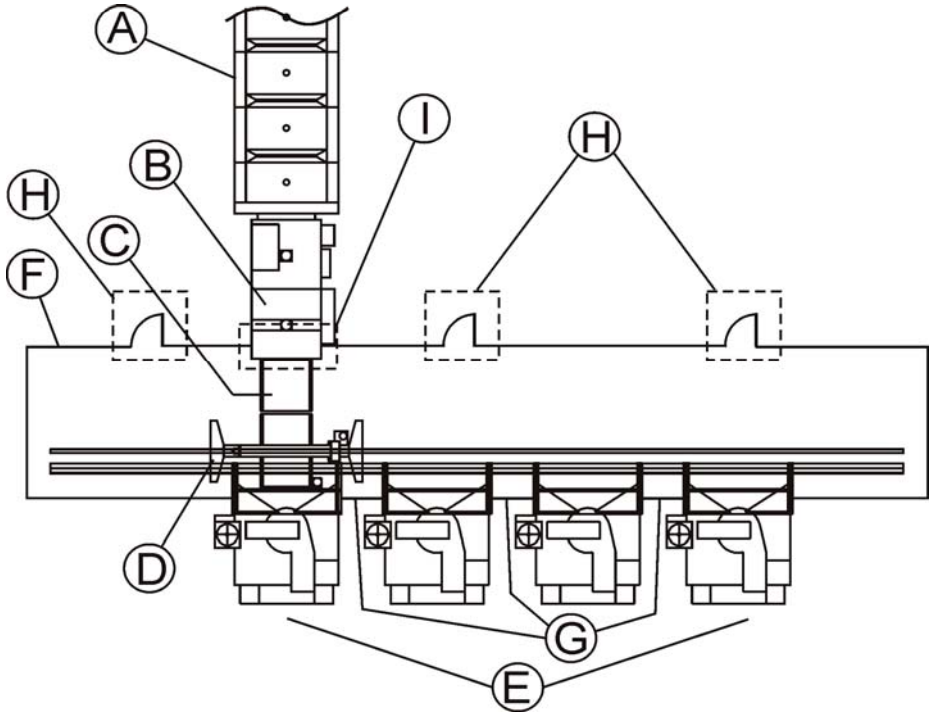
Although the objectives of proximity safeguarding are the same anywhere, design requirements vary with local codes (which occasionally change) and with the plant layout. For this reason, Milnor does not provide detailed designs or materials for proximity safeguarding. If the necessary expertise does not exist within the owner/user's organization, consult appropriate sources such as local engineers or architects specializing in industrial facility design.

5. Examples of Safety Fencing With Interlocked Gates

Fencing with interlocked gates like that depicted in Figure 1 and Figure 2, may be used to meet the proximity safeguarding requirement. Should the owner/user choose this method, the following information may be useful. However, **this information may not satisfy current or local code requirements. The owner/user must determine its suitability for his particular facility.**

Figure 1: Example Fence Layout for Automated Laundering System Where One Tunnel Serves a Bank of Dryers

Plan View of Laundering System

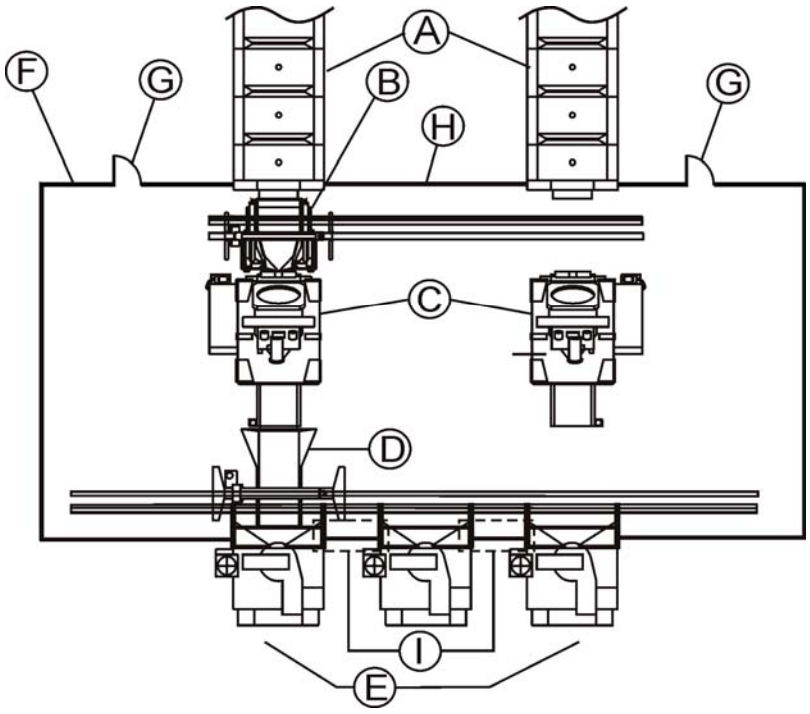


Legend

- **A.** Continuous Batch Washer (tunnel)
- **B.** Press extractor
- **C.** COINC inclined conveyor
- **D.** Traversing and elevating shuttle conveyor for pressed cakes
- **E.** Bank of dryers
- **F.** Fence enclosing path of shuttle
- **G.** Fence segments between dryers
- **H.** Electrically interlocked gates. Gates swing outward at least 90 degrees and swing area is marked on floor. Provide multiple gates for long fence runs.
- **I.** Fence restricts access to unload end of press, but does not obstruct access to press controls.

Figure 2: Example Fence Layout for Automated Laundering System Where Two Tunnels Serve a Bank of Dryers

Plan View of Laundering System



Legend

- **A.** Continuous Batch Washers (tunnels)
- **B.** Traversing and elevating shuttle conveyor for wet goods
- **C.** Centrifugal extractors
- **D.** Traversing and elevating shuttle conveyor for loose goods
- **E.** Bank of dryers
- **F.** Fence enclosing paths of both shuttles and both centrifugal extractors
- **G.** Gates interlocked with both shuttles and both centrifugal extractors.
- **H.** Fence segment between tunnels.
- **I.** Fence segments between dryers.

5.1. Fence Dimensions—The fence must discourage climbing over and prevent crawling under.

5.2. Fence Materials and Setback—The fence must be constructed of materials and located so as to prevent personnel from reaching through gaps in the fence and contacting the enclosed machinery.

5.3. Gates—Personnel gates must be held firmly closed but permit personnel to easily pass through when necessary. Gates must be equipped with a positive latching arrangement to prevent accidental opening. Adequate floor space must be provided to allow the gate to swing at least 90 degrees when fully open. Gates must open outward; that is, away from the fenced perimeter. The floor must be permanently marked to show the gate's swing area, to discourage obstructing its movement.

5.4. Control Circuitry—All gates must be electrically interlocked with any shuttle conveyors within the fenced area and with any presses or centrifugal extractors that the fence either encloses or intersects. Opening any gate must have the following effects:

1. Shuttle(s), press(es), and/or centrifugal extractor(s) stop moving immediately.
2. An audible alarm sounds.
3. Shuttle(s), press(es), and/or centrifugal extractor(s) cannot be restarted merely by closing the gate(s), but must be restarted at the machine control panel once the gate(s) are closed.

Milnor shuttles, presses and centrifugal extractors provide such functionality when properly interfaced with gate interlock switches.

5.5. System Emergency Stop Switches—The laundry must establish rules and procedures that prohibit personnel from remaining within the fenced area with machine(s) enabled, except in accordance with published maintenance procedures. System emergency stop switches (panic buttons) should be provided inside and outside the fenced perimeter. Emergency stop switches should be located so that personnel anywhere inside the fenced perimeter are only a short distance from a switch, and they should be clearly marked as to their locations and function. Connect switches in series with the gate interlocks so that pressing an emergency stop switch performs the same control function as opening a gate.

5.6. Isolating Individual Machine Controls—The interlock circuitry for each machine must be electrically isolated from that of the other machines. Hence, each gate interlock switch must provide as many pairs of dry contacts as there are machines to interface to. A pair of switch contacts must never be shared by two or more machines.

5.7. Recommended Signage—Safety placards should be posted along the fence and at each gate, alerting personnel to the hazards within. At minimum, the size of lettering and distance between placards should be such that anyone contemplating entering the fenced area will likely see and read the placard first. Wording should be provided in each native language spoken by laundry personnel.

— End of BISUUI01 —

Air and Ductwork Requirements for Milnor® Pass-through Dryers

Notice 1: This document, along with the dimensional drawings for the various dryer models, 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 the dimensional drawing for a given model (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 the dimensional drawing for a given model (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 back 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.

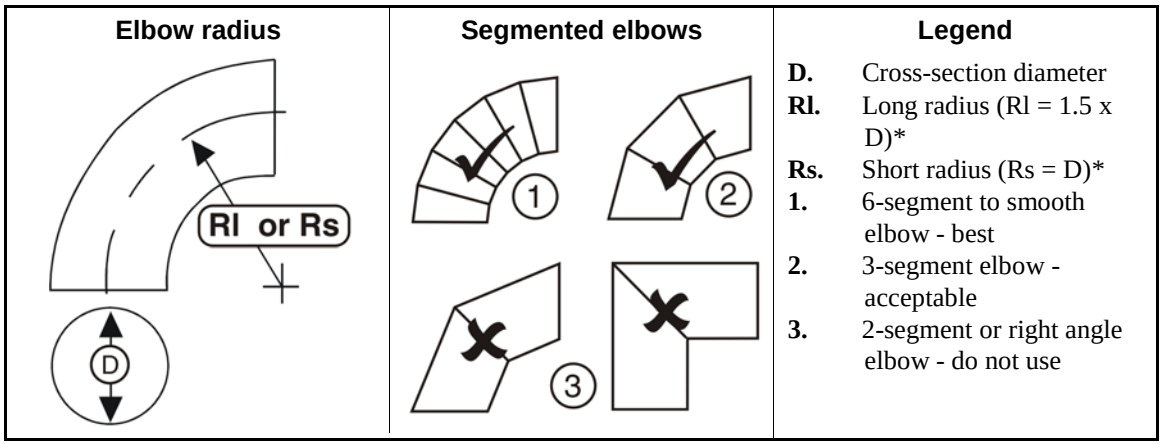
Today, facility designers generally prefer internal lint screens (a Milnor option) or close-coupled lint collection systems installed on each dryer. However, if the facility uses a common powered lint collection system, you can connect the air exhaust from two or more dryers to this system if you run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

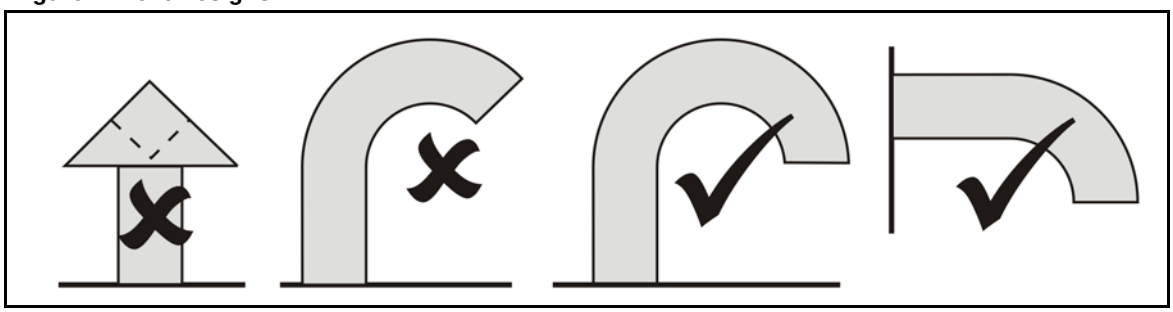
Figure 1: Round duct elbow fabrication



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.

Table 1: Units of Measure

Type of Measurement	English Unit		Metric Unit	
	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

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.

Table 2: Duct Components and Their Pressure Drops

Air Specifications			Duct components, sizes, and pressure drops										
			Equivalent** cross-sections			Pressure drop - iwc (Pa)							
			Round	Rectangular***		Straight	90 Degree Elbows						
							Smooth round		3-segment round		Rectangular		
Dryer Model Prefix	Air flow - scfm (nlpm)	Velocity* for given cross-section - fpm (mpm)	Diameter in (mm)	Height - in (mm)	Width - in (mm)	iwc per 100 feet (or Pa per 100 meters)	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)	
58058	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)	
				19 (483)	18 (457)						13.5 (343)	
				20 (508)	17 (432)						12.75 (324)	
				22 (559)	16 (406)						12 (305)	
58080	Contact factory											
6450 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)

*** A velocity of at least 2000 fpm (610 mpm) helps keep lint particles in suspension.**

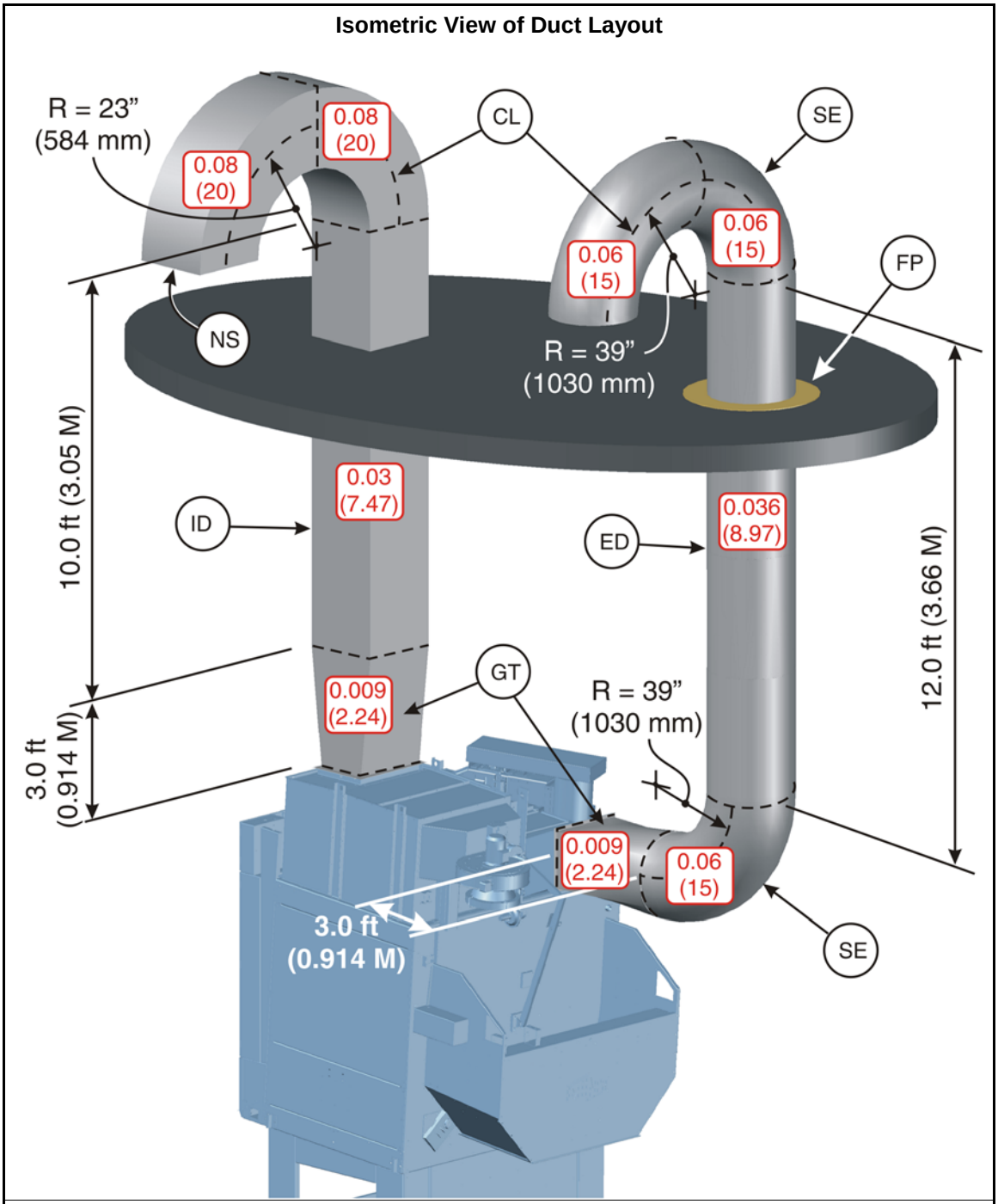
**** Equivalent means that the rectangular cross sections have the same pressure drop as the round cross-section.**

***** 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.

Figure 3: Example Duct Layout for Model 6464TG1L Dryer



Legend

CL. Center line.
ED. Exhaust duct. This example uses 26 inch (660 mm) diameter round duct.
FP. Fire protection per construction codes.
GT. Gradual transitions. Treat as straight duct of the same size as their larger end.
ID. Inlet duct. This example uses 24 inch (610 mm) high by 23 inch (584 mm) wide rectangular duct.
NS. No screen on inlet duct fresh air intake.
SE. Smooth elbows (six or more segments). This example uses large radius elbows.

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:

$$0.3 \times 10 / 100 = 0.03 \text{ iwc}$$

Metric example:

$$243 \times 3.05 / 100 = 7.47 \text{ Pa}$$

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

PD_1 - Pressure drop for the most upstream (inlet-end) component

PD_2, PD_3, ... - 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:

$$0.08 + 0.08 + 0.03 + 0.009 + 0.009 + 0.06 + 0.036 + 0.06 + 0.06 = 0.424 \text{ iwc}$$

Metric example:

$$20 + 20 + 7.47 + 2.24 + 2.24 + 15 + 8.97 + 15 + 15 = 105.92 \text{ Pa}$$

— End of BIPDGI01 —

Utility Requirements For Gas, Steam and Thermal Oil Dryers

This document applies to all Milnor pass-through dryer models. It specifies heating fuel and air intake requirements and gives general information on all utility connections. Additional information about utility connections is located in the following documents:

dimensional drawing for your machine—gives pipe sizes, connection types, and connection locations

laundry layout drawings for your system—give the control connections, which are system-dependent

document BIPDGI01 "Air and Ductwork Requirements..."—gives design criteria for customer-supplied inlet and outlet ductwork

external fuse and wire document for your machine—gives customer-supplied fuse, circuit breaker, and wire sizes for the available machine voltages

machine nameplate—gives the voltage for your machine

The connections which may be required depending on machine model and options are:

1. Piped inlets and outlets: heating fuel (natural gas, propane, steam, or thermal oil), sprinkler (cold) water, compressed air, gas line vent, gas test tap, steam condensate return, vacuum breaker drain.
2. Ducted inlets and outlets: main air intake, main air exhaust
3. Electric power connections and removal of related shipping restraint
4. Control connections
5. Bumper guard attachment

1. Plumbing and Other Mechanical Connections

1.1. Hazards and Precautions

1.1.1. All Models

WARNING 1: 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).

CAUTION 2: Machine Damage Hazards—

- Do not distort valve bodies. Hold tension against these valves with a wrench on the side of the valve onto which the pipe is being connected to prevent twist distorting the valve.
- Always install unions and shut off valves at the water and steam connection points to permit removal of the machine components for servicing.

1.1.2. Gas and Propane Models

WARNING 3: Explosion and Fire Hazards—Improperly installed gas-fired devices can release gas.

- Conform with local codes or, in their absence, with the **National Fuel Gas Code, ANSI Z223.1/NFPA 54** or the **Natural Gas and Propane Installation Code, CSA B149.1** or a superseding directive.

- Electrically ground the machine in accordance with local codes or, in their absence, with the **National Electric Code, ANSI/NFPA 70** or the **Canadian Electrical Code, CSA C22.1** or a superseding directive.
- Install a minimum 1/2 inch NPT plugged tap, accessible for test gauge connection, immediately upstream of the gas supply connections to the dryer.
- Install vent lines on any regulator vents and vent this gas to the outdoors.

WARNING 4: Explosion, Fire, and Machine Damage Hazards—Excessive gas pressure can damage gas train components, possibly resulting in the release of gas.

- Make sure that the pressure of gas entering the dryer is regulated to the maximum specified in this document.
- Isolate the dryer from the gas supply for any pressure testing of the incoming gas supply line.

1.1.3. Steam and Thermal Oil Models

CAUTION 5: Machine Malfunction Hazard—Steam traps rated at 85 to 180 psi (586 to 1241 kPa) will not operate properly below 60 psi (414 kPa). Steam traps rated at 160 to 225 psi (1103 to 1551 kPa) will not operate properly below 115 psi (793 kPa).

- Conform to the rated pressure of the steam coil as stated on the machine nameplate.
- Choose a steam trap with a pressure rating corresponding to the actual pressure supplied.

CAUTION 6: Machine Damage Hazards—Allow steam coil to preheat and purge condensate before operating dryer or conditioner.

- Verify that the facility boiler has operated at least 15 minutes before the dryer receives the first load each day.

CAUTION 7: Machine Damage Hazards—Steam coil antifreeze is drained at the factory but some residue may remain.

- Route the steam condensate return line to the sewer for the first hour of operation to prevent residual antifreeze from entering the boiler system.

1.2. Heating Fuel and Air Intake Requirements—These requirements are given in the following two tables. The first table covers models in production on or after January 1, 2016. The second table covers models that were no longer in production as of January 1, 2016.

The nameplate designations for certain newer dryer models (the first table) changed from a 5-digit numeric prefix to a 4-digit numeric prefix, but the specifications remain the same. If you have one of these models, your nameplate may show 5050_ or 50050_, 6450_ or 64050_, 6458_ or 64058_, 6464_ or 64064_.

Newer gas dryer models (the first table) include the 5050_ (or 50050_) models which are only available with the air heat burner design, the 6450_ (or 64050_), 7676_, and 8282_ models, which are only available with the ratio air burner design, and the 6458_ (or 64058_) and 6464_ (or 64064_) models, which are available with either burner design. Older dryer models (the second table) were only available with air heat or older burner design.

Table 1: Gas, Steam, and Air Intake - Newer Dryer Models

Model number prefix	5050_ 50050_	6450_ 64050_	6458_ 64058_	6464_ 64064_	7676_	8282_
Capacity basis - lb (kg)	**150 (68)**	**220 (100)**	**250 (113)**	**300 (136)**	**500 (227)**	**630 (2860**
Gas inlet with air heat burner (natural gas and propane models)						
Maximum Btu/hr (kcal/hr) at x" (mm) water column	950,000 (240,000) @ 13.5" (343)	n.a.	1,800,000 (453,000) @ 13.5" (343)	1,800,000 (453,000) @ 13.5" (343)	n.a.	n.a.
Average Btu/hr (kcal/hr) at x" (mm) water column	495,000 (124,738) @ 13.5" (343)	n.a.	825,000 (207,900) @ 13.5" (343)	990,000 (249,480) @ 13.5" (343)	n.a.	n.a.
Gas inlet with ratio air burner (natural gas and propane models)						
Maximum Btu/hr (kcal/hr) at x" (mm) water column	n.a.	1,600,000 (403,000) @ 25" (635)	1,800,000 (453,000) @ 25" (635)	1,800,000 (453,000) @ 25" (635)	3,000,000 (756,000) @ 40" (1016)	pending
Average Btu/hr (kcal/hr) at x" (mm) water column	n.a.	726,000 (182,952) @ 25" (635)	825,000 (207,900) @ 25" (635)	990,000 (249,480) @ 25" (635)	1,650,000 (415,793) @ 40" (1016)	2,079,000 (523,899) @ 40" (1016)
Steam inlet (steam models)						
Maximum Lb/Hr (kg/hr)	820 (372)	pending	1,990 (903)	1,990 (903)	3,223 (1462)	pending
Average Lb/Hr (kg/hr)	382 (173)	561 (254)	638 (289)	765 (347)	1,275 (578)	1,606 (728)
Maximum boiler horsepower (kw)	23.8 (10.8)	pending	57.7 (26.2)	57.7 (26.2)	93.4 (42.4)	pending
Average boiler horsepower (kw)	11.1 (8.3)	16.3 (12.1)	18.5 (13.8)	22.2 (16.5)	37.0 (27.6)	46.6 (34.7)
Thermal oil inlet (thermal oil models) - Consult Milnor factory						
Main air intake						
Maximum scfm (cu m/min)	3,600 (102)	7,500 (212)	8,500 (241)	8,500 (241)	14,000 (396)	14,000 (396)
Maximum allowable back pressure	0.5" water column					
Combustion (non-ducted, ambient) air intake with air heat burner (natural gas and propane models)						
Maximum scfm (cu m/min) to blower	250 (7)	n.a.	715 (20)	715 (20)	n.a.	n.a.
Maximum scfm (cu m/min) to fire box	400 (11)	n.a.	500 (14)	500 (14)	n.a.	n.a.
Total	650 (18)	n.a.	1215 (34)	1215 (34)	n.a.	n.a.
Combustion (non-ducted, ambient) air intake with ratio air burner (natural gas and propane models)						
Maximum scfm (cu m/min) to blower	n.a.	400 (11)	400 (11)	400 (11)	600 (17)	pending

Table 2: Gas, Steam, and Air Intake - Older Dryer Models

Model number prefix	5040_ 50040_	58040_	58058_	58080_	72072_ with tower	72072_ no tower
Capacity basis - lb (kg)	**110 (50)**	**150 (68)**	**220 (100)**	**300 (136)**	**425 (193)**	**425 (193)**
Gas inlet (natural gas and propane models)						
Maximum Btu/hr (kcal/hr) at x" (mm) water column	950,000 (240,000) @ 13.5" (343)	950,000 (240,000) @ 13.5" (343)	1,400,000 (350,000) @ 13.5" (343)	1,800,000 (453,000) @ 13.5" (343)	2,700,000 (680,000) @ 18" (457)	2,700,000 (680,000) @ 18" (457)
Average Btu/hr (kcal/hr) at x" (mm) water column	363,000 (91,476) @ 13.5" (343)	495,000 (124,738) @ 13.5" (343)	726,000 (182,952) @ 13.5" (343)	990,000 (249,480) @ 13.5" (343)	1,402,500 (353,430) @ 18" (457)	1,402,500 (353,430) @ 18" (457)
Steam inlet (steam models)						
Maximum lb/hr (kg/hr)	600 (272)	600 (272)	950 (431)	1300 (590)	n.a.	n.a.
Average lb/hr (kg/hr)	127 (280)	173 (382)	561 (254)	765 (347)	n.a.	n.a.
Maximum boiler horsepower (kw)	17.4 (7.9)	17.4 (7.9)	27.5 (12.5)	37.7 (17.1)	n.a.	n.a.
Average boiler horsepower (kw)	8.1 (3.7)	11.1 (5.0)	16.3 (7.4)	22.2 (10.1)	n.a.	n.a.
Thermal oil inlet (thermal oil models) - Consult Milnor factory						
Main air intake						
Maximum scfm (cu m/min)	3,600 (102)	3,600 (102)	5,000 (142)	6,800 (193)	10,000 (283)	14,000 (396)
Maximum allowable back pressure	0.5" (water column)					
Combustion (non-ducted, ambient) air intake (natural gas and propane models)						
Maximum scfm (cu m/min) to blower	250 (7)	250 (7)	400 (11)	500 (14)	715 (20)	715 (20)
Maximum scfm (cu m/min) to fire box	400 (11)	n.a.	n.a.	n.a.	900 (25)	900 (25)

1.3. Other Mechanical Requirements

Main air intake and exhaust ducting—Per document BIPDGI01 "Air and Ductwork Requirements..."

Sprinkler water inlet—Minimum 35 PSI (2.4 ATU). Must reliably provide 60 USg (227 liters) per minute for fire safety.

Compressed air inlet—Clean and dry 85 PSI (5.8 ATU) to 110 PSI (7.5 ATU)

Compressed air inlet for optional internal lint filter—85 PSI (5.8 ATU) to 110 PSI (7.5 ATU). Air usage estimate: 110 scf (3.1 cubic meter) in 15 seconds when activated.

Customer-supplied connector between the gas inlet and the gas supply piping—a listed connector in compliance with ANSI Z21.24 CSA 6.10 “Standard for Connectors for Gas Appliances”

Customer-supplied tap (gas/propane models)—1/2" NPT plugged tap, accessible for test gauge connection. Install immediately upstream of the gas supply connections to the dryer.

Gas line vent (gas/propane models)—1/4" stainless steel. Must be vented from the regulator vent to the exterior of the building.

Steam condensate outlet (steam models)—Per plumbing code. Return condensate to boiler through a steam trap of the correct size. Two steam traps are available from Milnor: One for 85 - 180 PSI (6 - 12 ATU) and one for 160 - 225 PSI (11 - 15 ATU).

Vacuum breaker (steam models)—Vent the tube to the sewer.

2. Electrical Connections

2.1. Hazards and Precautions

WARNING 8: Severe injury and machine damage hazards —Electric power can shock or electrocute you. Incorrect electrical connections can damage machine components.

- Do not attempt electric power connections unless qualified and authorized.
- Prior to making power connections, read the instructions on all related tags.
- Connect the “stinger leg” if any, only to terminal L3, never to terminals L1 or L2.
- Verify all motor rotation. If the cylinder turns in the wrong direction, interchange the wires connected to L1 and L2. Never move L3.

CAUTION 9: Machine Damage Hazards—The blower motor or other drive components can be destroyed if the blower bearing shipping restraint is incorrectly handled.

- Perform the steps given in Section 2.2.

CAUTION 10: Risk of malfunction and damage—Wiring errors can cause damage and incorrect operation.

- Label all wires if you must disconnect them to service the control.

2.2. Remove Blower Shipping Bracket and Reconnect Motor Contactor Coil

—The machine was shipped with a blower shipping restraint (Figure 1). This bracket immobilizes the blower bearing, preventing bearing damage during shipping. Connections to one side of the blower motor contactor coil (Figure 2), are removed after testing, to prevent blower operation with bracket in place. When the machine is in its final position, remove the restraint and reconnect the contactor coil as follows:

1. Unbolt and remove red restraint.
2. Install the belt guard.
3. Locate the blower contactor inside the high voltage electric box.
4. Match the tagged coil wire with the tagged contactor coil terminal and reconnect.

Figure 1: Blower Shipping Restraint

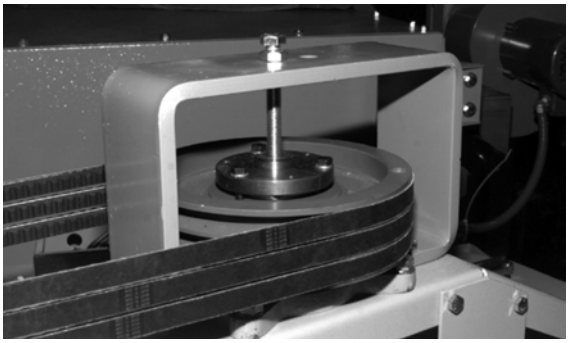


Figure 2: Reconnect Blower Contactor Coil Wires

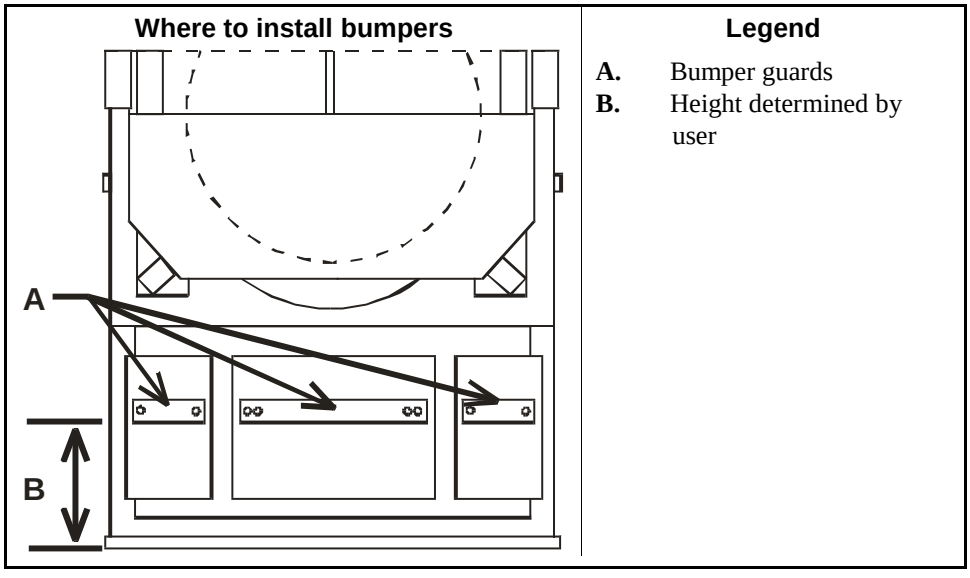
2.3. Electric Power Connection Capacities—The customer must furnish a remotely mounted disconnect switch with lag type fuses or circuit breakers, and wiring between this box and the fuse box on the machine. Refer to the machine nameplate and the external fuse and wire document for your machine to determine the sizes of these fuses or circuit breakers, and wires.

2.4. Control Connections—Refer to the layout drawings for your laundering system.

3. Bumper Guard Installation

The machine is supplied with bumper guards which must be installed on the rear of the machine when the machine is on site. The guards protect the machine from the constant impact of laundry carts placed under the discharge door. Hence the height at which the guards are installed must match the height of the carts used. See Figure 3.

Figure 3: Bumper Guard Installation



— End of BIPDUI01 —

ABOUT THE STEAM AND HOT OIL CONTROL SYSTEMS FOR MILNOR DRYERS

MILNOR steam dryers are available with an optional Y-type ON/OFF steam valve. MILNOR hot oil dryers use a modulating oil inlet/bypass valve.

How To Protect Steam Coils From Water Hammer Damage

Steam coils can be damaged when steam pressure is suddenly applied to a water (condensate) filled coil, or when the steam is "wet" with a high water content. The damage occurs because the condensate is forced through the coils with great speed causing a water hammer condition which can be likened to many jack hammers inside the coil. The result will be damaged coils, especially at the ends where the water must turn quickly.

⚠ CAUTION ⚠

Steam coils that have been damaged by water hammer are not warrantied. Any steam coil making a popping sound or cracking sound is in grave danger of serious water hammer damage.

1. Maintain the bypass piping (machines with optional ON/OFF valve, FIGURE 1) in good working order, to prevent cracking and popping sounds when steam is turned on. Do not operate Dryer unless bypass piping is in good working order.

2. If a steam trap must be replaced, be sure the pressure rating of the replacement trap is suitable for the steam pressure in your plant and that the replacement trap's capacity is equivalent to the original equipment.

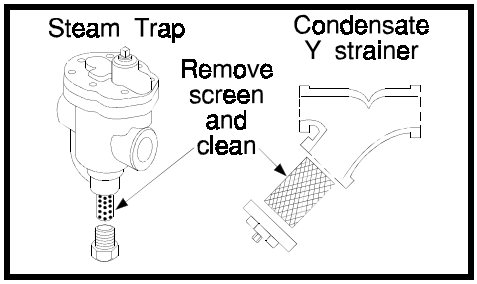
⚠ CAUTION ⚠

DRYERS WITH STEAM TRAPS RATED 85-180 PSI (6-12 ATU) WILL NOT OPERATE PROPERLY BELOW 60 PSI (4 ATU). STEAM TRAPS RATED 160-225 PSI (11-15 ATU) WILL NOT OPERATE PROPERLY BELOW 115 PSI (8 ATU). These pressure ranges refer only to the range of pressures through which the trap may be reasonably expected to operate properly. They are not necessarily an indication of the safe operating pressure for the steam coil. Always refer to the nameplate for the specific dryer to determine the maximum permissible pressures.

About the Standard Steam Control System

1. Each Dryer has a strainer and steam trap (FIGURE 1), to handle steam that condenses in the coil as it heats the passing air which dries the goods.

⚠ CAUTION ⚠



Clean and "blow down" steam trap and strainer screens after 40 hours of operation and periodically thereafter. Clogged strainer screens will cause longer drying times.

About the Optional On-Off Steam Control System with Y-type, Air Operated Valve

In addition to the steam trap and strainer, dryers equipped with the optional Main Steam Inlet ON/OFF valve are fitted with:

a. A steam inlet valve which is open whenever the Dryer is drying (whenever the Cooldown Bypass Damper is closed). This normally closed (air-to-open) valve shuts off the flow of steam to the Dryer during Cool-down, if the Dryer Master Switch is OFF, and whenever the Dryer is not being used.

b. Bypass piping to keep coils warm and condensate minimized while the Main Steam Inlet valve is OFF, but machine is in standby, with steam provided to the machine.

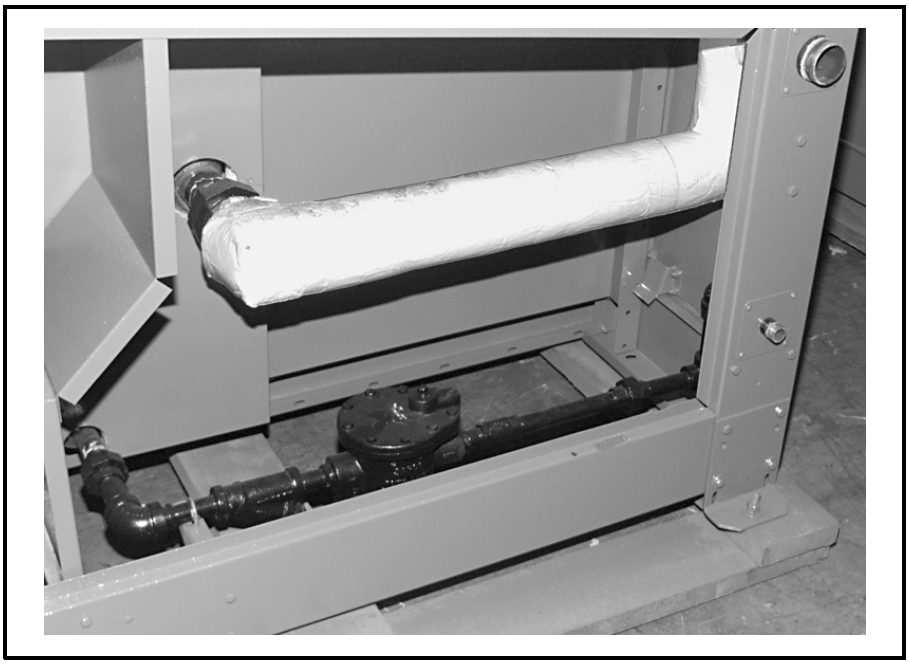


FIGURE 1 (MSSM0102BE)
Standard Steam Piping

About the Modulating Hot Oil Valve

How Modulated Hot Oil Works—Hot air inlet and outlet temperatures are monitored by the dryer control. When the dryer control detects actual temperatures that are either under or over the desired value it signals the hot oil positioner and valve to change the percent of pressurized hot oil sent to the dryer heating coil, verses the percent that bypasses the heating coil. All oil is returned to the oil heater.

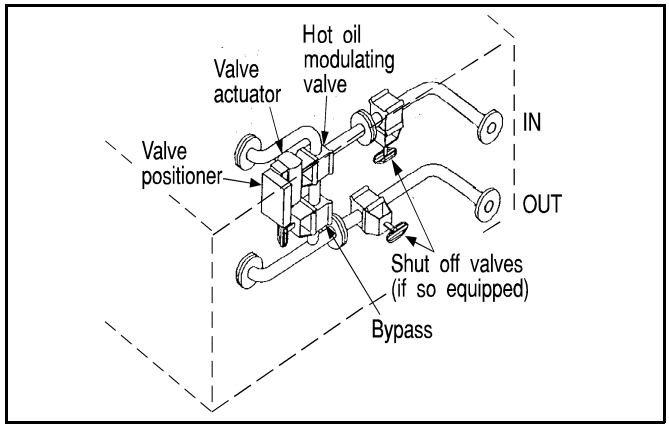


FIGURE 2 (MSSM0102BE)
Hot Oil Piping

How to Manually Command a Modulating Valve Position—This procedure applies to hot oil machines.

1. Shut off oil to dryer.
2. Turn dryer on.

After the power-up sequences, the display shows

```
WAITING FOR LOAD
******************
```

MANUAL LOAD — **Accesses Manual Load menu**

```
SELECT DRYCODE
00 REDRY
```

For Quick Return to Automatic from Manual Load menu

CANCEL ESCAPE, CANCEL ESCAPE, etc. — returns to automatic

```
WAITING FOR LOAD
*
```

ENTER NEXT — **Accepts the default drycode 00** and prompts for load size.

```
ENTER LOAD SIZE
0 FULL LOAD
```

ENTER NEXT — **Accepts the default load size** (full load) and prompts the operator to load dryer. Ignore this prompt.

```
LOAD DRYER WITH
REDRY
```

ENTER NEXT — **Starts the cycle.** When loading sequence ends, display appears as shown below.

```
LOADING
```

```
00F TIF TOF 000  VP
XXX XXXAXXX XXX XXX
```

Alternates with

```
00F TIF TOF 0021 AIR
XXX XXXDXXX XXX  XXX
```

MANUAL — **Stops the timer and accesses the manual control panel** for temperature, damper, and basket rotation.

```
TIFHTOF LDA MVP BSPD
XXX+XXX XXX XXX XXXX
```

hold MOD VALVE POSITION + ↓ — Closes modulating valve position. Hold keys until MVP=000.

```
TIFHTOF LDA MVP BSPD
XXX+XXX XXX 000 XXXX
```

Dryer will continue at minimum valve position until commanded to return to automatic.

CANCEL ESCAPE Returns to automatic.

Follow the step-by-step procedure to set the system components.

When Recalibration is Required–The hot oil positioner and valve are calibrated prior to shipping, replacing either component necessitates re-calibration. To recalibrate:

⚠ DANGER ⚠

SHOCK HAZARD—Electrical power can cause death or severe injury. Lock OFF and tag out power to the Dryer main bus at the wall disconnect before servicing.

1. Turn machine off, lock OFF and tag out.

⚠WARNING⚠

BURN HAZARD—Hot surfaces will cause severe burns. Shut off and tag out hot oil flow to dryer at external shut-off valve and allow piping to cool before servicing.

2. Shut off the hot oil to the dryer, tag out external valve.
3. Remove the valve positioner covers and the position indicator dial.

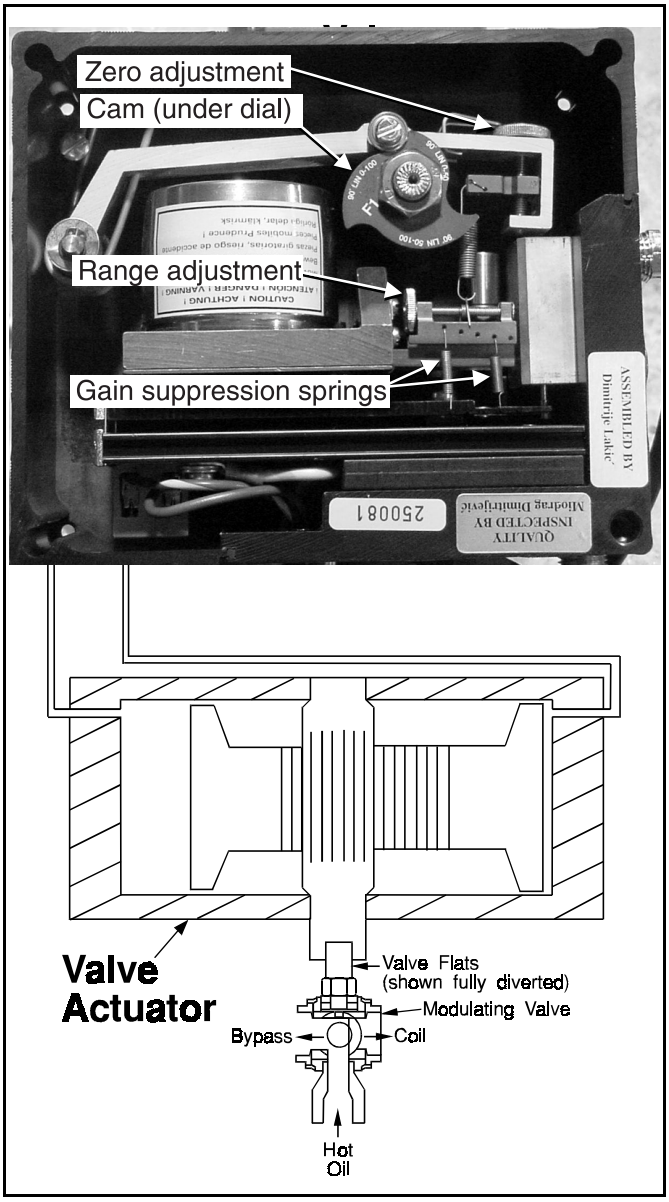


FIGURE 3 (MSSM0102BE)
Hot Oil Modulating Valve and Positioner

4. Verify that the lower arm bearing rests on the portion of the cam labeled 0-100%. See FIGURE 4.
5. Check that two gain suppression springs are mounted in positions 1 and 4 (as shown in FIGURE 3).

Calibrating the Hot Oil Positioner/Valve

The positioner cam must be adjusted so that the valve travels from fully diverted to fully open as the modulating valve position varies from 000 to 255. Refer to "How to Manually Command a Modulating Valve Position" elsewhere in this section then follow the step by step procedures below.

⚠ WARNING ⚠

ELECTRIC SHOCK HAZARD—Machine power is on and positioner covers removed for the following procedures. Exposed terminals are energized at 120VAC or higher. You can be killed or severely injured by contact with these terminals. Do not touch any wire terminals when calibrating or verifying settings.

Calibrating the Positioner/Valve for Minimum Temperature

hold MOD VALVE POSITION **+** ↓ **Closes modulating valve. Hold keys until MVP=000.**

TIFHTOF	LDA	MVP	BSPD
XXX+XXX	XXX	000	XXXX

1. Check that the lower arm ball bearing rests near the deepest part of the cam curve as shown on FIGURE 4. If not, move the zero adjustment thumbwheel (FIGURE 3) until the ball bearing is in this position. If this can not be achieved, loosen the cam retaining nut, move the cam, then use the zero adjustment thumbwheel for adjustment (the cam may rotate slightly with the nut as it is tightened, be sure to allow for this).
2. After setting, check that the modulating valve flats are aligned at a 90 degree angle to the modulating valve (FIGURE 3 and 6). This ensures no hot oil reaches the dryer heating coil. All of the hot oil is returned to the heater.

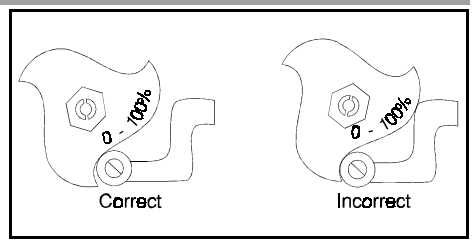


FIGURE 4 (MSSM0102BE)
Cam Setting at Modulating Valve Position 000

hold MOD VALVE POSITION **+** ↑ **Opens modulating valve. Hold keys until MVP=255.**

TIFHTOF	LDA	MVP	BSPD
XXX+XXX	XXX	255	XXXX

NOTE: Due to mechanical considerations, settings past 200 have a very minor effect on the valve.

Calibrating the Positioner/Valve for Maximum Temperature

1. Check that the lower arm ball bearing rests on the highest part of the cam curve (FIGURE 5). If the ball bearing is not at the tip, turn the range adjustment (FIGURE 3).
2. After setting, check that the diverter valve flats are aligned exactly parallel to the diverter valve, permitting full flow to the dryer heating coil.

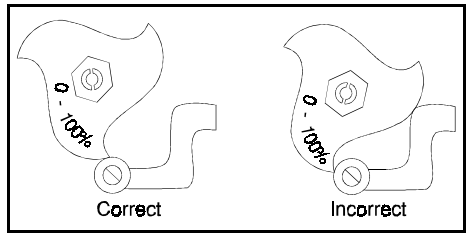


FIGURE 5 (MSSM0102BE)
Cam Setting at Modulating Valve Position 255

Verifying Positioner/Valve Settings

hold MOD VALVE POSITION **+** ↓	**Closes modulating valve. Hold until MVP=200, verify settings then repeat for 150, 100, 050, and 000.**	TIFHTOF LDA MVP BSPD XXX+XXX XXX 200 XXX

Since the zero and range adjustments affect each other, verify that for each of the five MVP's commanded, the valve moves approximately 1/5 of the way from fully open to fully diverted, and:

- The ball bearing follows the cam slope evenly.
- The cam zero and range settings are correct for fully open and fully diverted positions.

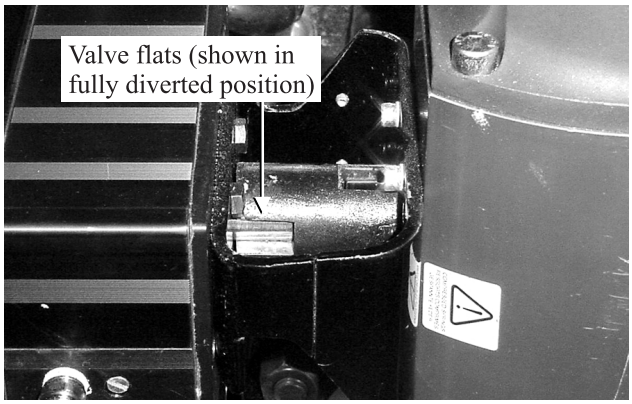


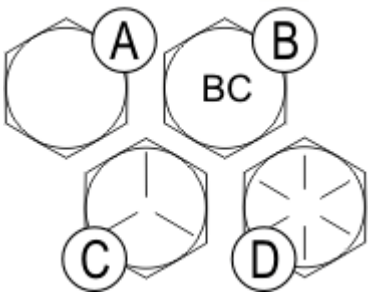
FIGURE 6 (MSSM0102BE)
Modulating Valve Flats

BIUUUM04 (Published) Book specs- Dates: 20080506 / 20080506 / 20080506 Lang: ENG01 Applic: UUU

Fastener Torque Requirements

Torque requirements for other fasteners are specified in the specific document which describes the assembly. **If fastener torque specifications or threadlocking compound requirements in an assembly document vary from the specifications in this document, use the assembly document.**

Figure 1: Common Bolts Used in Milnor Equipment

Bolt Head Identifying Marks	Legend
	**A.** SAE Grades 1 and 2, ASTM A307, and stainless steel **B.** ASTM A354 Grade BC **C.** SAE Grade 5, ASTM A449 **D.** SAE Grade 8 and ASTM A354 BD

1. Torque Values

The tables below list the standard size, grade, threadlocking compound, and torque requirements for fasteners commonly used on Milnor® equipment.

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

1.1. Carbon Steel Fasteners

1.1.1. Without Threadlocking Compound

Table 1: Torque Values for Dry Fasteners 5/16-inch and Smaller

	Bolt Grade							
	Grade 2		Grade 5		Grade 8		Grade BC	
Bolt Size	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	--	--

Table 2: Torque Values for Dry Fasteners Larger Than 5/16-inch

	Bolt Grade							
	Grade 2		Grade 5		Grade 8		Grade BC	
Bolt Size	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 3: Torque Values for Plated Fasteners 5/16-inch and Smaller

	Bolt Grade							
	Grade 2		Grade 5		Grade 8		Grade BC	
Bolt Size	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	--	--

Table 4: Torque Values for Plated Fasteners Larger Than 5/16-inch

	Bolt Grade							
	Grade 2		Grade 5		Grade 8		Grade BC	
Bolt Size	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	--	--

1.1.2. With Threadlocking Compound

Table 5: Threadlocking Compound Selection by Bolt Size

	Bolt Size			
LocTite Product	1/4"	1/4" – 5/8"	5/8" – 7/8"	1" +
LocTite 222	OK			
LocTite 242		OK		
LocTite 262			OK	
LocTite 272			High temperature	
LocTite 277				OK

Table 6: Torque Values for Applications of LocTite 222

	Bolt Grade							
	Grade 2		Grade 5		Grade 8		Grade BC	
Bolt Size	Pound-inches	N-m	Pound-inches	N-m	Pound-inches	N-m	Pound-inches	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 7: Torque Values for Applications of LocTite 242

	Bolt Grade							
	Grade 2		Grade 5		Grade 8		Grade BC	
Bolt Size	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 for Applications of LocTite 262

	Bolt Grade							
	Grade 2		Grade 5		Grade 8		Grade BC	
Bolt Size	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	--	--

Table 9: Torque Values for Applications of LocTite 272 (High Temperature)

	Bolt Grade							
	Grade 2		Grade 5		Grade 8		Grade BC	
Bolt Size	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 10: Torque Values for Applications of LocTite 277

	Bolt Grade							
	Grade 2		Grade 5		Grade 8		Grade BC	
Bolt Size	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 Stainless		18-8 Stainless with Loctite 767	
Nominal Bolt Size	Pound-Inches	N-m	Pound-Inches	N-m	Pound-Inches	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

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

Bolt Size	316 Stainless		18-8 Stainless		18-8 Stainless with Loctite 767	
	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

2. Preparation

WARNING 1: Fire Hazard—Some solvents and primer products are flammable.

- Use in a well ventilated area.
- Do not use flammable products near ignition sources.

1. Clean all threads with a wire brush, a tap, or a die.
2. Degrease the fasteners and the mating threads with a cleaning solvent. Wipe the parts dry.

   Note 2: LocTite 7649 Primer N™ will remove grease from parts, but it costs more than a standard organic or petroleum solvent.

3. Prime the fasteners and the mating threads with LocTite 7649 Primer N™ or equal. Allow the primer to dry for at least one minute.

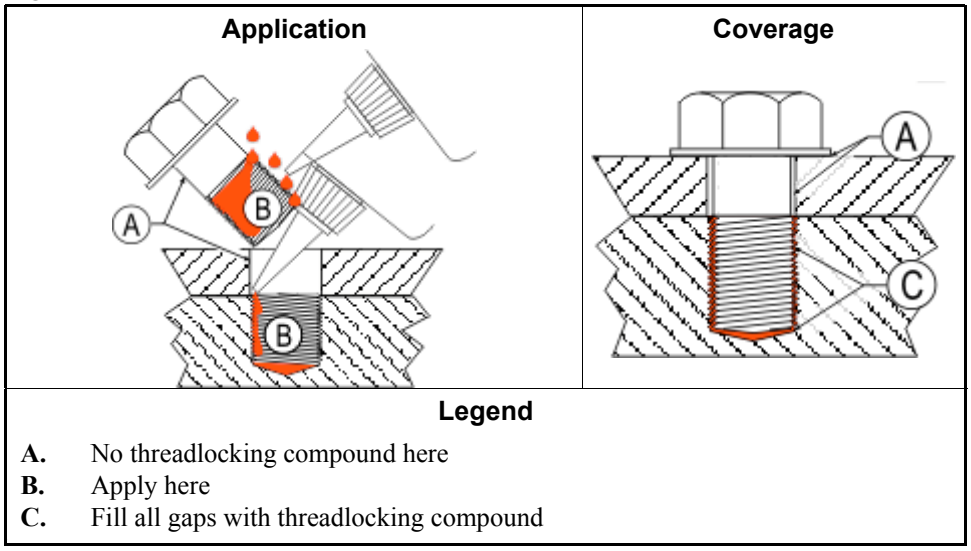
3. Application of Threadlocking Compound

CAUTION 2: Malfunction Hazard—Improper application of threadlocking compounds may result in fasteners becoming loose from impact, heat, or vibration. Loose fasteners can cause the equipment to malfunction.

- Read and follow the threadlocking compound manufacturer's instructions and warnings.

Apply threadlocking compound to the thread engagement areas of fasteners and mating threads only.

Figure 2: Blind Hole



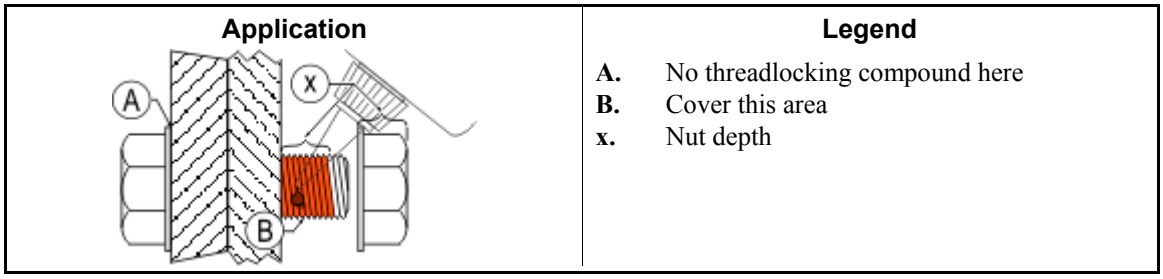
3.1. Blind Holes

1. Apply several drops of threadlocking compound down the female threads to the bottom of the hole.
2. Apply several drops of threadlocking compound to the bolt.
3. Tighten bolt to value shown in the appropriate table (Table 5 through Table 11).

3.2. Through Holes

1. Insert bolt through assembly.
2. Apply several drops of threadlocking compound to the bolt thread area that will engage the nut.
3. Tighten bolt to value shown in the appropriate table (Table 5 through Table 11).

Figure 3: Through Hole

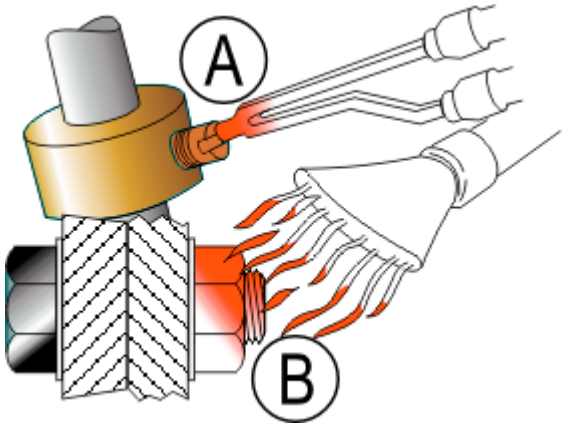


3.3. Disassembly—For low-strength and medium-strength products, disassemble with hand tools.

For high-strength products, apply localized heat for five minutes. Disassemble with hand tools while the parts are still hot.

Figure 4: Disassembly

Use Localized Heat



Legend

A. Soldering gun heating small fastener
B. Torch heating large fastener

— End of BIUUUM04 —

HANDLING AND ERECTING 50040 DRYERS

Handling Precautions

After testing, depending on configuration the machine is disassembled and shipped as two components: the house and the pedestal assembly.

1. Remove the protective coverings (leaving the machine on its shipping skids) and examine the components carefully for possible shipping damage. If machine is damaged, notify the transportation company immediately.

NOTE: Once the machine is given to the carrier for delivery, it is the sole responsibility of the **carrier** to ensure that no damage occurs during transit. In addition to readily apparent damage, carriers are liable for concealed damage. **Do not hesitate to file a claim with the carrier if the machine has been damaged in any way during shipment.** Milnor® will be glad to assist you in filing your claim, but is not responsible for shipping damage to the machine once it has been delivered to the carrier in good condition.

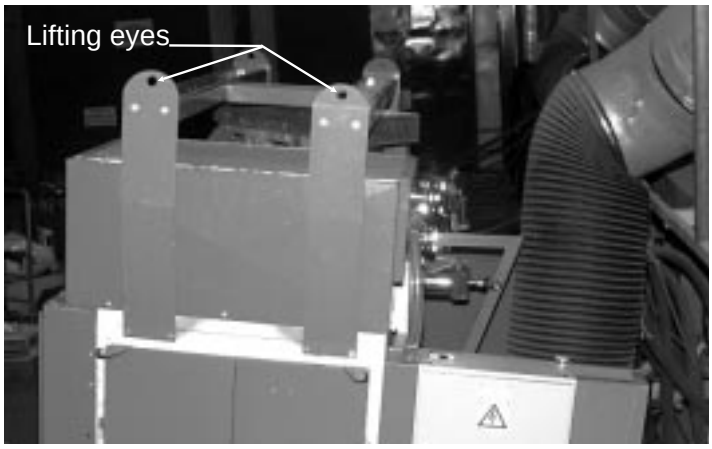


FIGURE 1(MSIN0129AE)
Lifting Eyes

2. Lifting rings are provided on the top of the house (FIGURE 1) and are tagged as such. These lifting rings must be used for crane lifting.

3. Use the skids for fork lifting and, if possible, leave the machine on its shipping skids until it is about to be assembled and placed in its final position. Once the skids are removed, take care in placing forks under the machine. **Do not allow the forks to come in contact with valves, piping, etc., located on the machine.**

4. Never push, pull, or exert pressure on any components that protrude from the machine.

5. Consult Milnor® factory if components such as the blower housing must be removed to fit machine through openings.

⚠ CAUTION ⚠

Sufficient clearance and access must be provided on all sides for service procedures.

Site Requirements

The following requirements must be taken into consideration when transporting and locating the machine to a particular site within the laundry.

Space Requirements

1. Sufficient clearance to move the machine into the laundry. All openings and corridors through which equipment must pass must be of sufficient size to accomodate the width and height of the skidded house assembly (shown on the dimensional drawing), which is the largest of the parts of the machine (house and pedestal) skidded separately for shipment. It is occasionally possible to reduce the overall dimensions by removing piping and by other special modifications. Consult the Milnor® factory for more information.
2. Sufficient clearance for normal operation and maintenance procedures.

Operational Requirements

1. Sufficient ventilation for the heat and vapors of normal operation to dissipate.
2. Adequate airflow for optimum machine performance. Normally, this means connecting the machine to an outside air source. See “HOW TO SIZE INLET AND DISCHARGE AIR DUCTING” (see Table of Contents) for details.

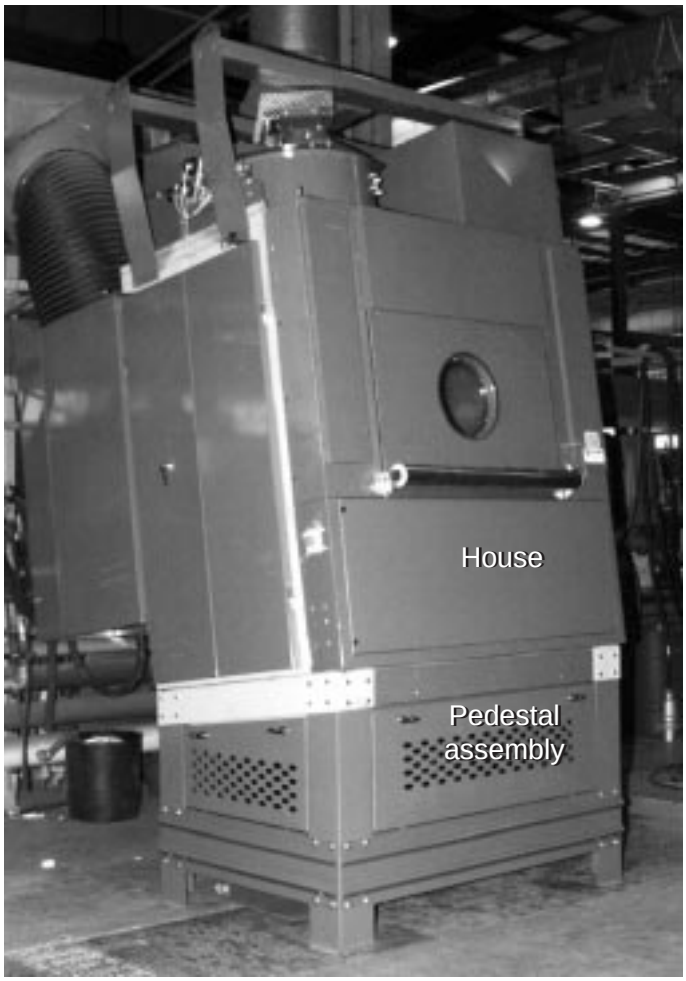


FIGURE 2 (MSIN0129AE)
House and Pedestal Assembly

Foundation Requirements—The machine must be anchored in accordance with the installation instructions. The floor and/or all other support components must have sufficient strength (and rigidity with due consideration for the natural or resonant frequency thereof) to withstand the fully loaded weight of the machine including the wet goods and any repeated sinusoidal (rotating) forces generated during its operation. Determining the suitability of floors, foundations, and other supporting structures normally requires **analysis by a qualified structural engineer.**

Anchoring Requirements

⚠ DANGER ⚠

CRUSH AND MACHINE DAMAGE HAZARDS—This machine has a rearward center of mass and will fall rearward (toward the discharge end) if not properly anchored to the foundation.

- ☞ **Install anchor bolts as soon as machine is in position and before making service connections. Install anchor bolts in accordance with the dimensional drawing.**
- ☞ **Keep bystanders clear of machine during installation.**

Machines must be securely anchored to an adequate foundation. Anchor bolt locations and foundation specifications are provided on the dimensional drawing (see Table of Contents). Never install anchor bolts securely in the foundation using only the information on the dimensional drawing. Anchor bolts must not be installed until the machine is on site so that the machine itself may be used to determine precise anchor bolt locations. Consult Milnor® if any obstruction prevents the installation of any anchor bolts. **Anchor bolts cannot be indiscriminately omitted.**

Installing the Pedestal Assembly

If the machine is to be on a raised pedestal, the pedestal and house may be mated prior to setting, or the pedestal set in place, then the house installed, whichever is more convenient. It is usually easiest to first fit the pedestal assembly to the house.

⚠ DANGER ⚠

CRUSH AND MACHINE DAMAGE HAZARD— This machine has a rearward center of mass and will fall rearward (toward the discharge end) if not properly anchored to the foundations.

- ☞ **Install anchor bolts as soon as machine is in position and before making service connections. Install anchor bolts in accordance with the dimensional drawing.**
- ☞ **Keep bystanders clear of machine during installation.**

1. Read all related tags prior to assembly.
2. Remove covers, cosmetic covers, and electrical access covers.
3. Verify that the doors are closed and secured.
4. Unfasten house from the shipping skid. Once skids are removed take care in placing forks under the machine. **Do not allow forks to come in contact with valves, piping, motors, etc., located under the machine.**

Installing the House on the Pedestal Assembly

⚠ WARNING ⚠

CRUSHING AND AMPUTATION HAZARD— Keep body parts away from sections being joined.

1. Raise the house using the four designated lifting rings located on the top of the machine.
2. Assemble the pedestal to the housing.

Leveling Procedures

1. After the anchor bolts are installed, level the machine **both left to right and front to back** by inserting furnished shims under each footpad as needed.
2. Use a carpenter's level to verify that the machine is level.
3. Tighten all foundation bolts until they contact the top of the base plates.
4. Tighten all the bolts evenly, **one-quarter of a turn each time on every bolt** until all bolts are uniformly tight. After tightening, check each fastener separately at least twice.

Check Cylinder Interior

Check the interior of the perforated cylinder for smoothness before placing the machine in service. Milnor® cannot accept claims for damage to the cylinder's smooth finish after the machine has been placed in service.

HANDLING AND ERECTING MILNOR 580xx DRYERS, CONDITIONERS, AND SHAKERS

Handling Precautions

After testing, a MILNOR machine is disassembled and shipped as two components: the base and the basket housing.

1. Remove the protective coverings (leaving the machine on its shipping skids) and examine the components carefully for possible shipping damage. If machine is damaged, notify the transportation company immediately. Check that base and basket serial numbers match prior to assembly.

NOTE: Once the machine is given to the carrier for delivery, it is the sole responsibility of the **carrier** to ensure that no damage occurs during transit. In addition to readily apparent damage, carriers are liable for concealed damage. **Do not hesitate to file a claim with the carrier if the machine has been damaged in any way during shipment.** MILNOR will be glad to assist you in filing your claim, but is not responsible for shipping damage to the machine once it has been delivered to the carrier in good condition.

2. Lifting rings are provided on the top of the basket housing and are tagged as such. These lifting rings must be used for crane lifting.

3. Use the skids for fork lifting and, if possible, leave the machine on its shipping skids until it is about to be assembled and placed in its final position. Once the skids are removed, take care in placing forks under the machine. Do not allow the forks to come in contact with valves, piping, etc., located on the machine.

4. Never push, pull, or exert pressure on any components that protrude from the machine frame.

5. Consult MILNOR factory if components such as the blower housing must be removed to fit machine through openings.

⚠ CAUTION ⚠

Sufficient clearance and access must be provided on all sides for service procedures.

Site Requirements

The following requirements must be taken into consideration when transporting and locating the machine to a particular site within the laundry.

Space Requirements

1. Sufficient clearance to move the machine into the laundry. All openings and corridors through which equipment must pass must be of sufficient size to accomodate the width and height of the skidded basket housing assembly (shown on the dimensional drawing), which is the larger of the two parts of the machine (base and basket housing) skidded separately for shipment. Note that pedestals (if supplied) are shipped disassembled.

It is occasionally possible to reduce the overall dimensions by removing piping and by other special modifications. Consult the MILNOR factory for more information.

2. Sufficient clearance for normal operation and maintenance procedures. Be sure to provide a means of safe maintenance access for pedestal mounted machines.

Operational Requirements

1. Sufficient ventilation for the heat and vapors of normal operation to dissipate.
2. Adequate airflow for optimum machine performance. Normally, this means connecting the machine to an outside air source. See "HOW TO SIZE INLET AND DISCHARGE AIR DUCTING" (see Table of Contents) for details.

Foundation Requirements—The machine must be anchored in accordance with the installation instructions. The floor and/or all other support components must have sufficient strength (and rigidity with due consideration for the natural or resonant frequency thereof) to withstand the fully loaded weight of the machine including the wet goods and any repeated sinusoidal (rotating) forces generated during its operation. Determining the suitability of floors, foundations, and other supporting structures normally requires **analysis by a qualified structural engineer.**

Pedestal Assembly

If the machine is to be on a raised pedestal, the base and basket housing may be mated prior to setting onto the pedestal, or the base may be set onto the pedestal first, then the basket housing mated to it, whichever is more convenient. It is usually easiest to first fit the pedestal assembly to the base. See "TYPICAL DRYER PEDESTAL ASSEMBLIES" in this section for the optional pedestal components.

⚠ DANGER ⚠

CRUSH AND MACHINE DAMAGE HAZARDS—This machine has a rearward center of mass and will fall rearward (toward the discharge end) if not properly anchored to the foundation.

- ☞ **Install anchor bolts as soon as machine is in position and before making service connections. Install anchor bolts in accordance with the dimensional drawing.**
- ☞ **Keep bystanders clear of machine during installation.**

Assembling the Base and Basket Housing

See FIGURE 2 during the following procedures.

1. Read all related tags prior to assembly.
2. Remove the four side covers, the lower front cosmetic cover, and the electrical access cover plate (lower right front side).
3. Verify that the relay cabinet doors are closed and secured.
4. Unfasten basket housing from the shipping skid.
5. Apply **high temperature silastic** (provided with dryers and conditioners) to the top inside edge of the three base openings as shown below (FIGURE 1).

NOTE: Install the AutoLint pickup box on the basket housing before setting the basket housing on the base.

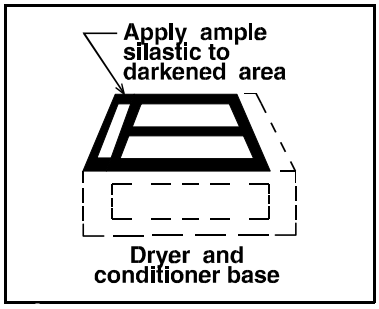


FIGURE 1 (MSIN0108AE)
Applying Silastic

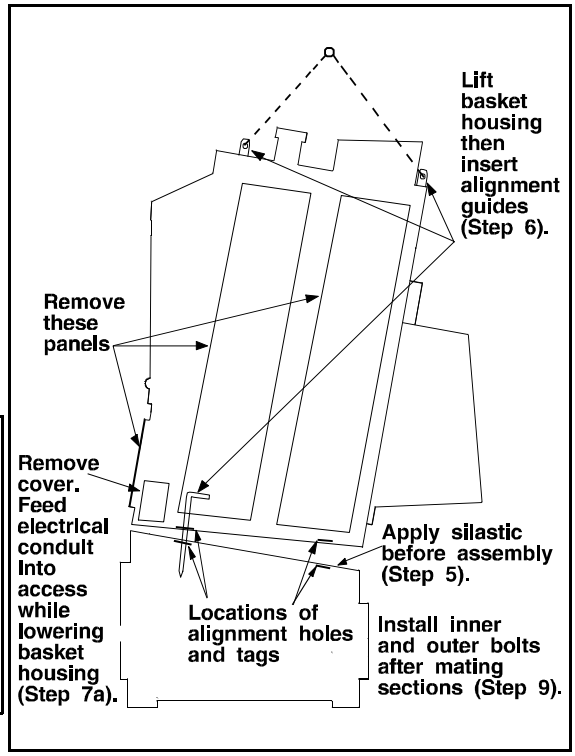


FIGURE 2 (MSIN0108AE)
Assembling Base and Basket

⚠ CAUTION ⚠

Silastic must effectively seal the firebox opening, as proper firebox sealing is critical!

6. Raise the basket housing using the three designated lifting rings located on the top of the machine housing. Insert the two alignment guides supplied with machine through the holes identified by alignment tags (FIGURE 3) as shown in FIGURE 2.

⚠ WARNING ⚠

CRUSHING AND AMPUTATION HAZARDS—Keep body parts away from sections being joined.

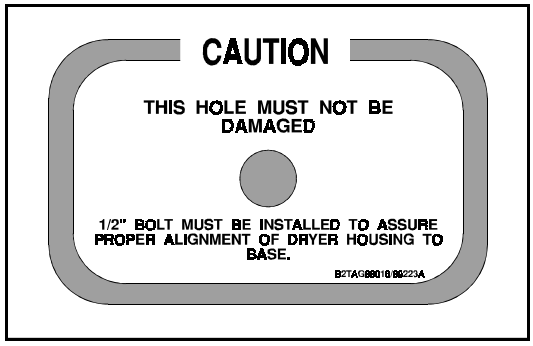


FIGURE 3 (MSIN0108AE)
Alignment Tag

NOTE: See FIGURE 2 during the following procedure.

7. Lower basket housing onto the base while observing the following:

   a. Use the electrical access panel (FIGURE 2) to help pass the flexible conduits and wires (located under the right front corner of the base) through the right front corner of the basket housing **as the basket housing is being lowered.**

b. Direct the alignment guides into the correct hole on the base (left and right front corners). The alignment guides must not be allowed to back out of the basket housing. Reposition the basket housing if required to prevent the alignment guides from backing out and ensure proper alignment.

c. Before basket housing seats on the base, align the housing/base bolt holes in order not to disturb the silastic (dryers, conditioners only).

8. Remove alignment guides.

9. Within the basket housing sides, install the bolts as follows:

- Outer bolts (4 per side) use two regular flat washers, a lock washer, and a nut.
- Inner bolts (under basket) use a thick flat washer and a lock washer.

Anchoring Requirements

Machines must be securely anchored to an adequate foundation. Anchor bolt locations and foundation specifications are provided on the dimensional drawing (see Table of Contents). Never install anchor bolts securely in the foundation using only the information on the dimensional drawing. Anchor bolts must not be installed until the machine is on site so that the machine itself may be used to determine precise anchor bolt locations. Consult MILNOR if any obstruction prevents the installation of any anchor bolts. **Anchor bolts cannot be indiscriminately omitted.**

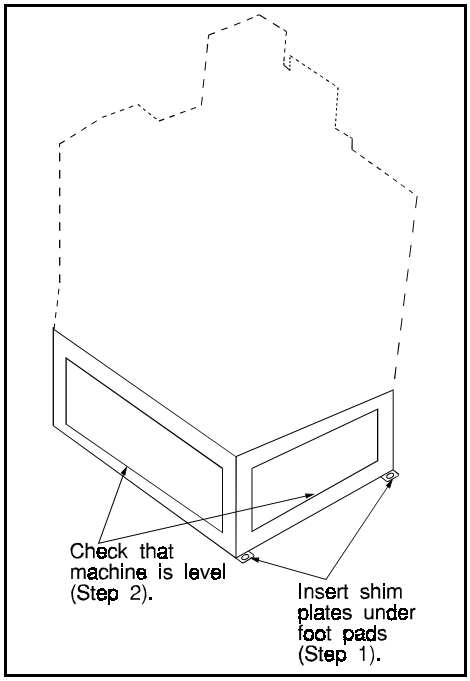


FIGURE 4 (MSIN0108AE)
Anchoring Machine

Leveling Procedures

1. After the anchor bolts are installed, level the machine **both left to right and front to back**, by inserting furnished shims under each footpad (see FIGURE 4) as needed.

2. **Use a carpenter's level to verify that the machine is level** (see FIGURE 4).

3. Tighten all foundation bolts until they contact the top of the base plate.

4. Tighten all the bolts evenly, **one-quarter of a turn each time on each bolt** until all bolts are uniformly tight. After tightening, check each fastener separately at least twice.

Check Cylinder Interior

Check the interior of the perforated cylinder for smoothness before placing the machine in service. Milnor cannot accept claims for damage to the cylinder's smooth finish after the machine has been placed in service.

Connections Between Base and House

These instructions supplement the dryer electrical schematics and tags supplied with the dryer.

⚠ DANGER ⚠

SHOCK HAZARD—Electrical power can cause death or severe injury. Before making electrical connections, lock OFF and tag out power at the wall disconnect for the dryer.

Machines can have up to five different types of connections between the base and the house:

1. Electrical control connections (dryers only).
2. Combustion motor conduit, spark plug and flame rod connections (gas dryers only).
3. Cylinder drive motor conduit connections (all machines).
4. Pneumatic connections, (steam and hot oil dryers).
5. Cylinder drive belt (all machines).

Consult FIGURE 5 for location of connections.

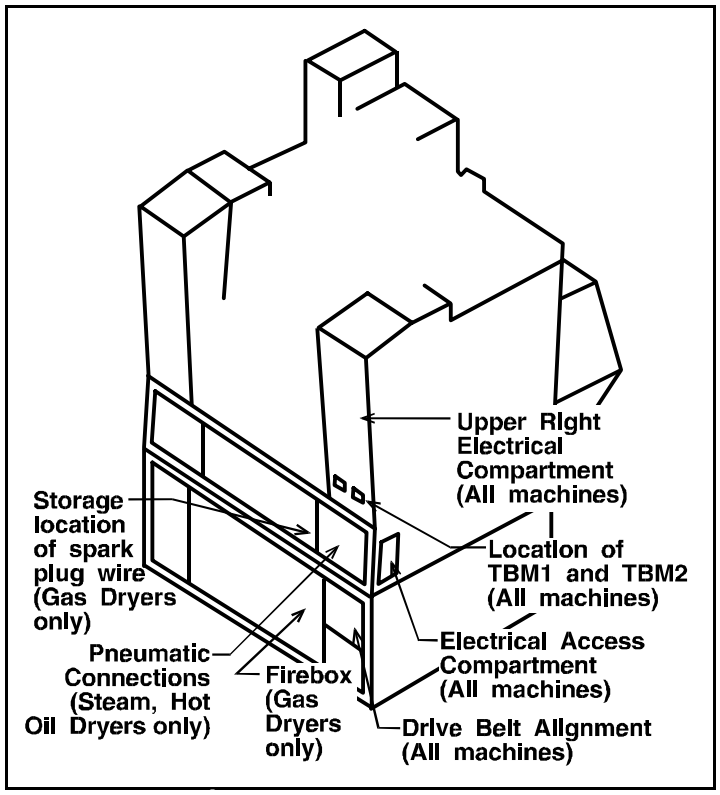


FIGURE 5 (MSIN0108AE)
Control Connection Locations

Gas Dryer Electrical Control Connections

1. Secure the conduits and connectors (located in the Electrical Access Compartment) as shown in FIGURE 6.

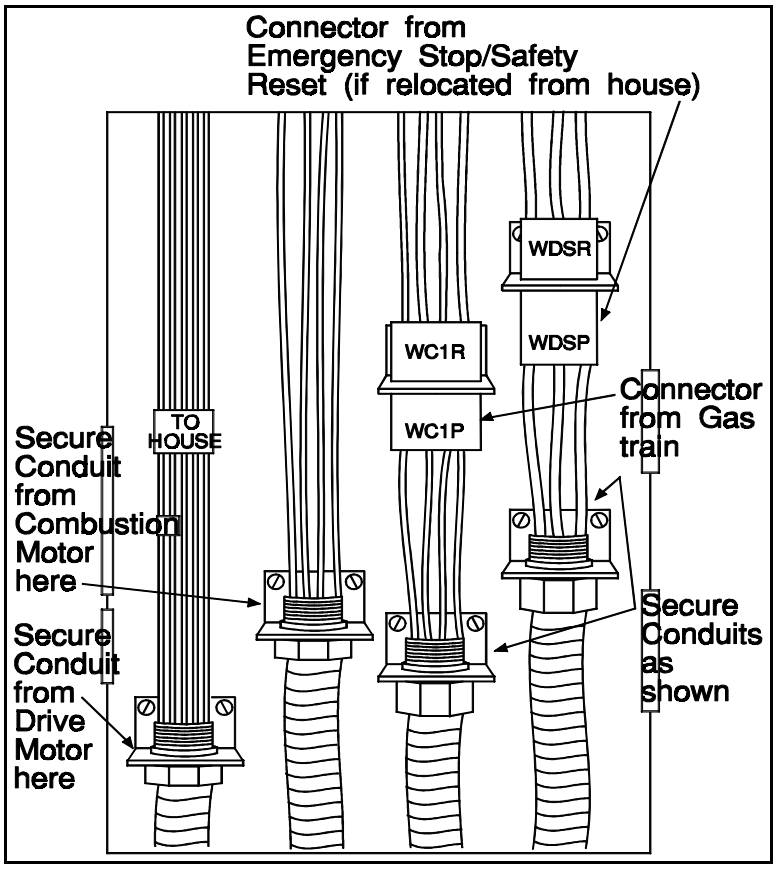


FIGURE 6 (MSIN0108AE)
Installing Gas Dryer Conduits and Connectors

2. Make fire box connections (located in the Firebox) as shown in FIGURE 7.

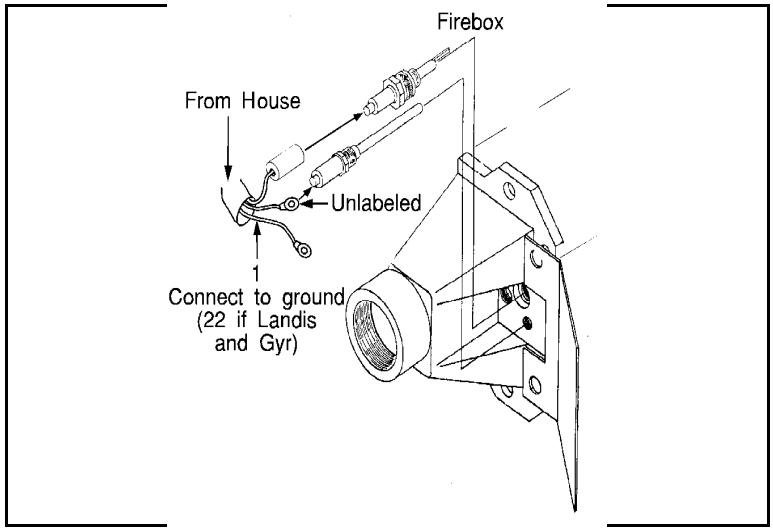


FIGURE 7 (MSIN0108AE)
Installing Gas Dryer Fire Box Connections

3a. For machines without variable speed cylinder drive, make connections from the cylinder drive and combustion motor conduits (located in the Electrical Access Compartment) to TBM1 and TBM2 (located in the Upper Right Hand Electrical Compartment) as shown in FIGURE 8.

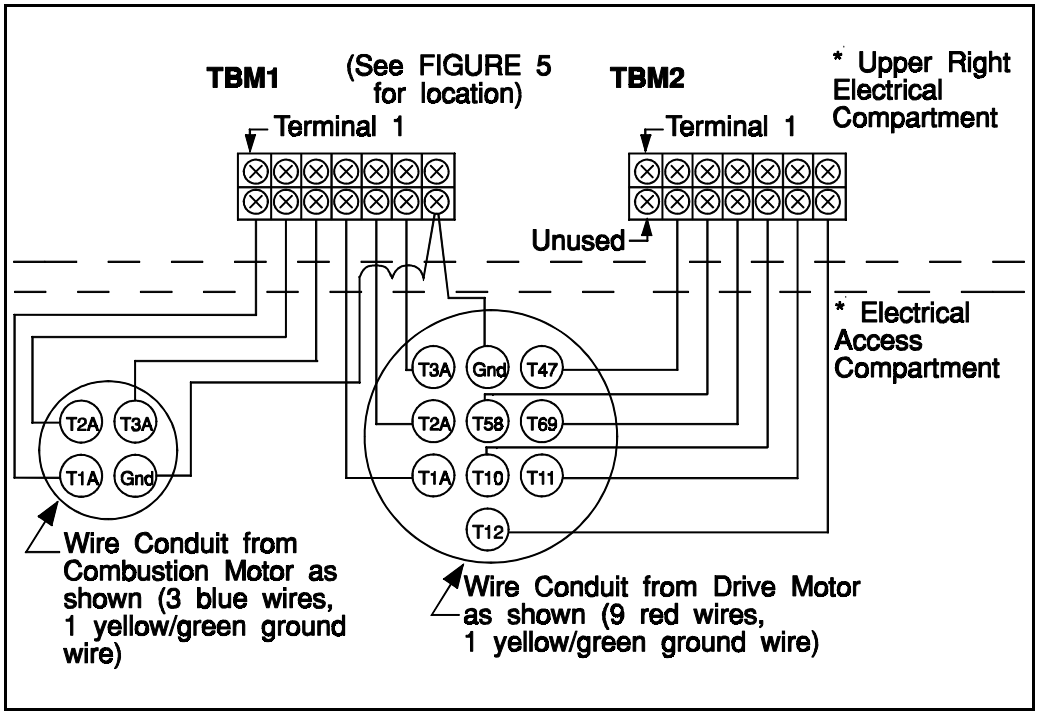


FIGURE 8 (MSIN0108AE)
Connecting Gas Dryer Drive and Combustion Motor Conduits (WITHOUT Variable Speed Cylinder Drive)

b. For machines with variable speed cylinder drive, make connections from the cylinder drive and combustion motor conduits (located in the Electrical Access Compartment) to TB1 (located in the Upper Right Hand Electrical Compartment) as shown in FIGURE 9.

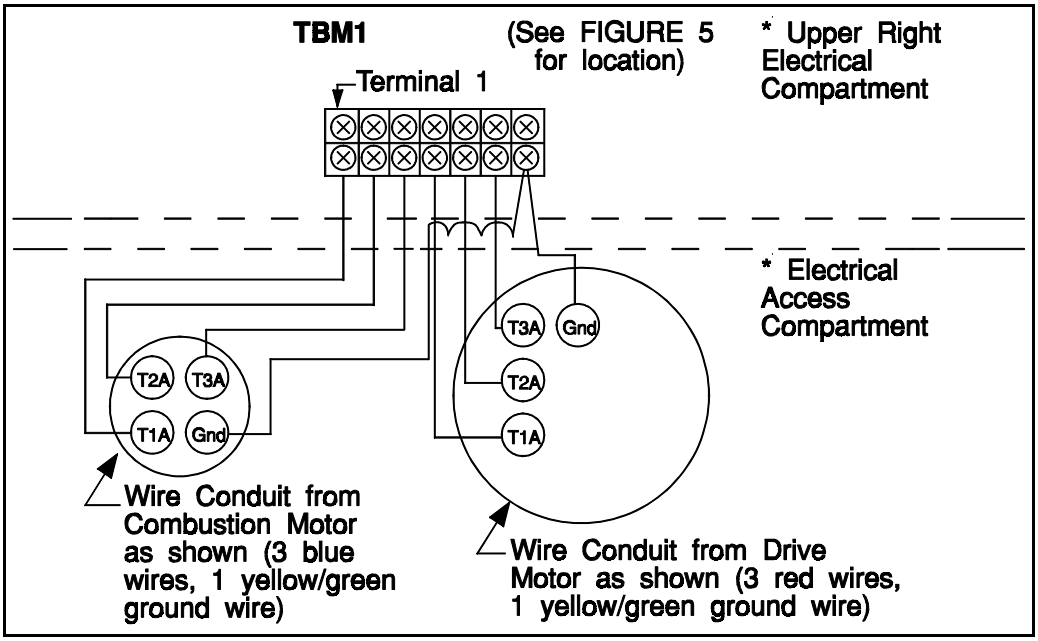


FIGURE 9 (MSIN0108AE)
Connecting Gas Dryer Motor Conduits (WITH Variable Speed Cylinder Drive)

Steam and Hot Oil Dryer Electrical Control Connections

1. Secure the conduit, connectors and ground wire (located in the Electrical Access Compartment) as shown in FIGURE 10.

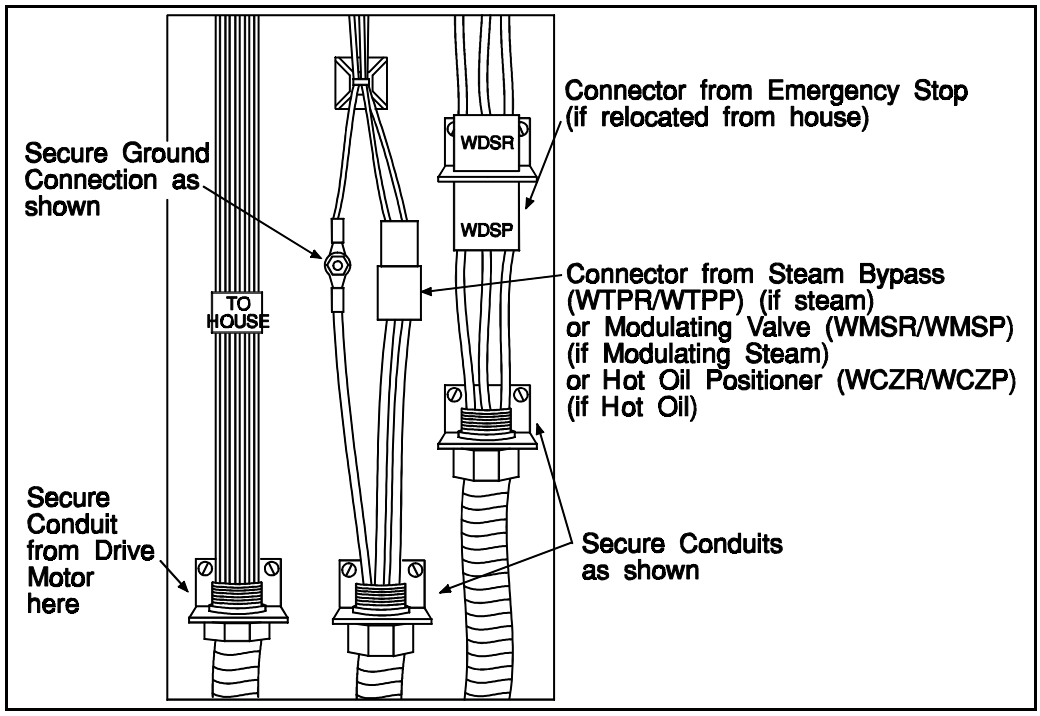


FIGURE 10 (MSIN0108AE)
Installing Steam and Hot Oil Dryer Conduits and Connectors

2. Make connections from the cylinder drive motor conduit (located in the Electrical Access Compartment) to TBM1 and TBM2 (located in the Upper Right Hand Electrical Compartment) as shown in FIGURE 11.

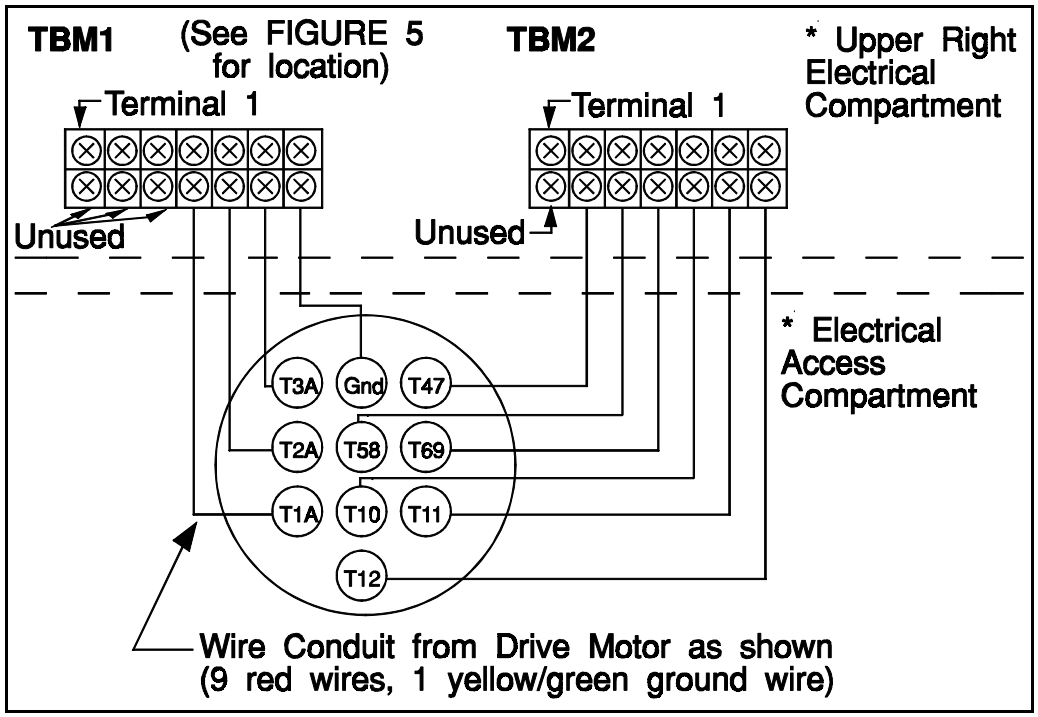


FIGURE 11 (MSIN0108AE)
Connecting Steam and Hot Oil Drive Motor Conduits

Steam and Hot Oil Dryer Pneumatic Control Connections

3a. For steam dryers, make the pneumatic connections (located at Pneumatic Connections) as shown in FIGURE 12.

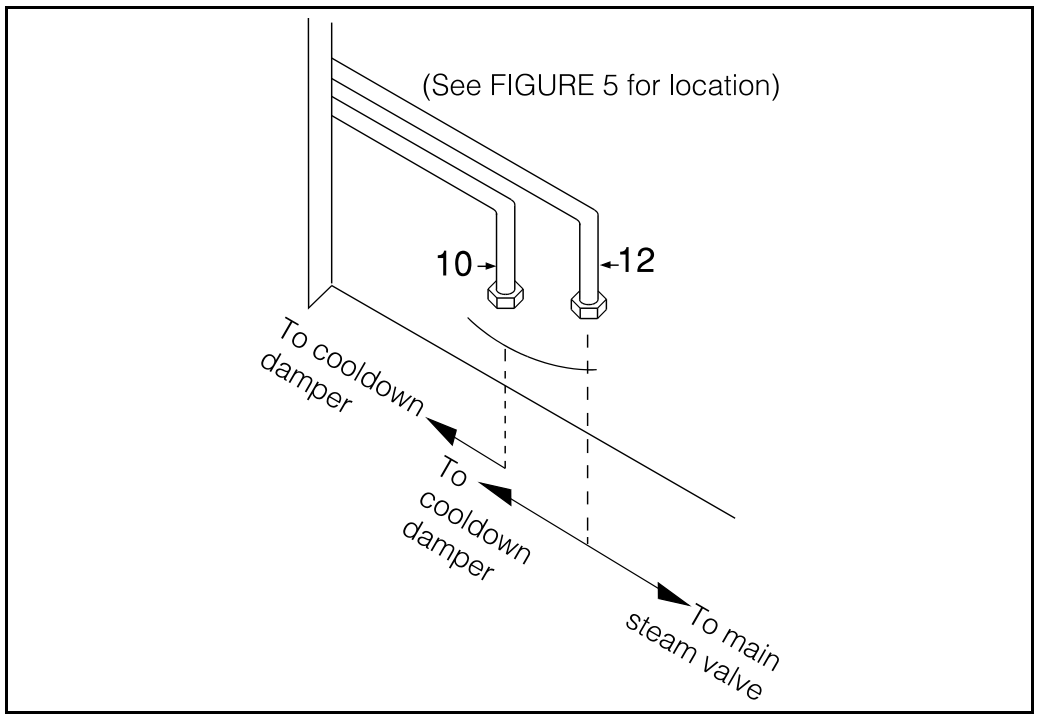


FIGURE 12 (MSIN0108AE)
Connecting Steam Dryer Pneumatic Tubes

b. For hot oil dryers, make the pneumatic connections (located at Pneumatic Connections) as shown in FIGURE 13.

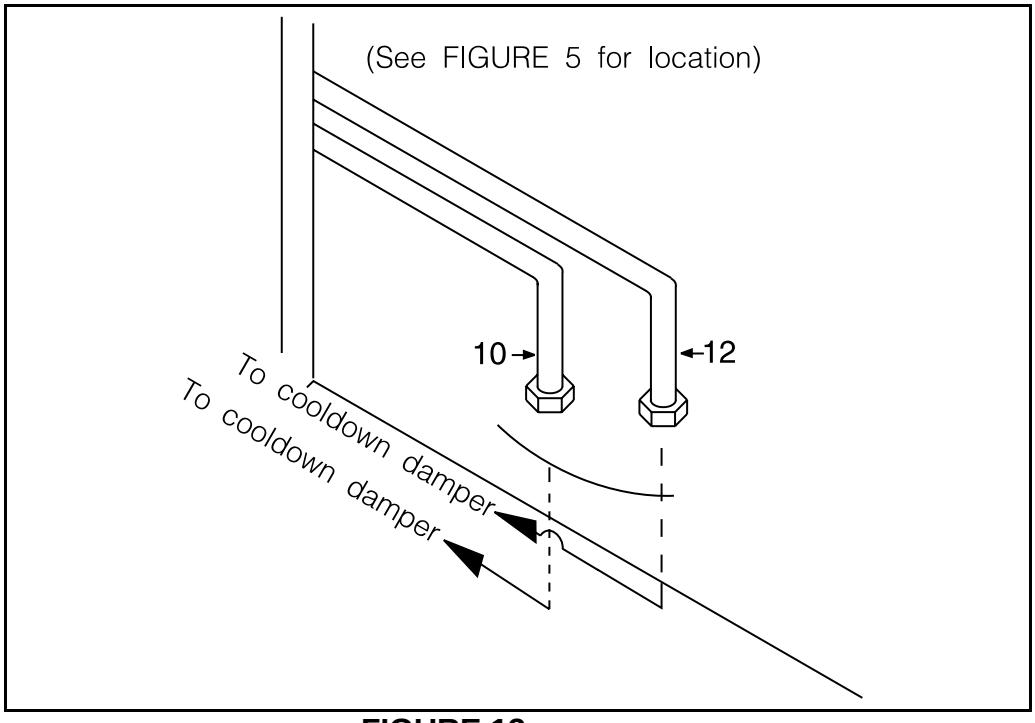


FIGURE 13 (MSIN0108AE)
Connecting Hot Oil Pneumatic Tubes

Conditioner and Shaker Electrical Controls

1. Secure the conduit and connector (located in the Electrical Access Compartment) as shown in FIGURE 14.

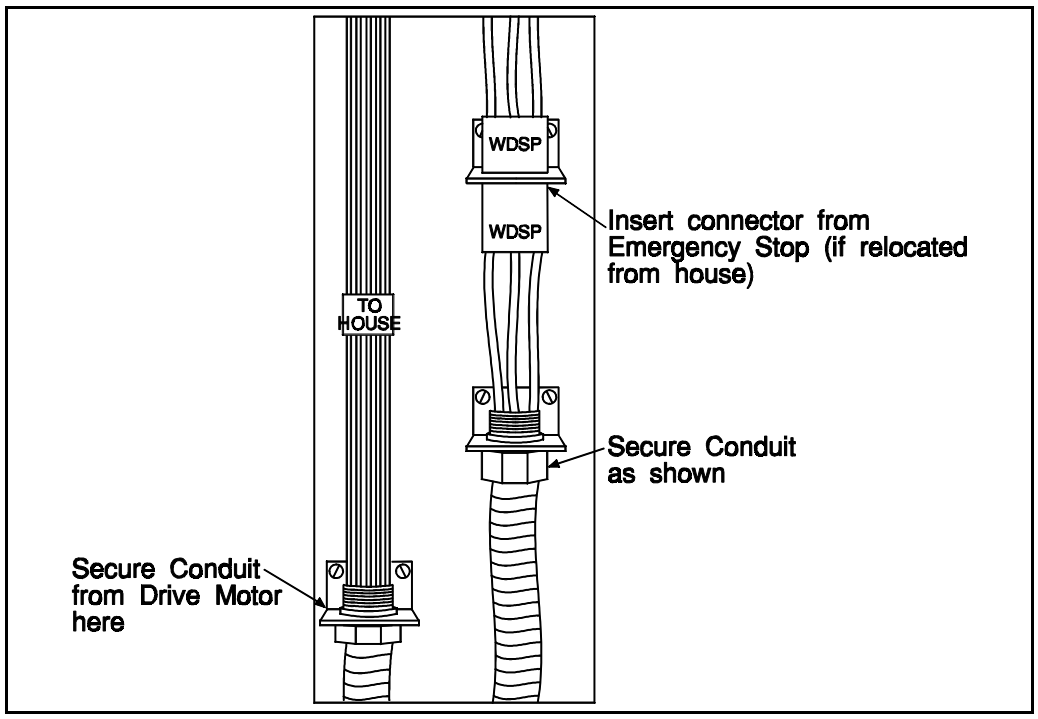


FIGURE 14 (MSIN0108AE)
Installing Conditioner and Shaker Conduit and Connector

2. Make connections from the cylinder drive motor conduit (located in the Electrical Access Compartment) to TBM1 and TBM2 (located in the Upper Right Hand Electrical Compartment) as shown in FIGURE 15.

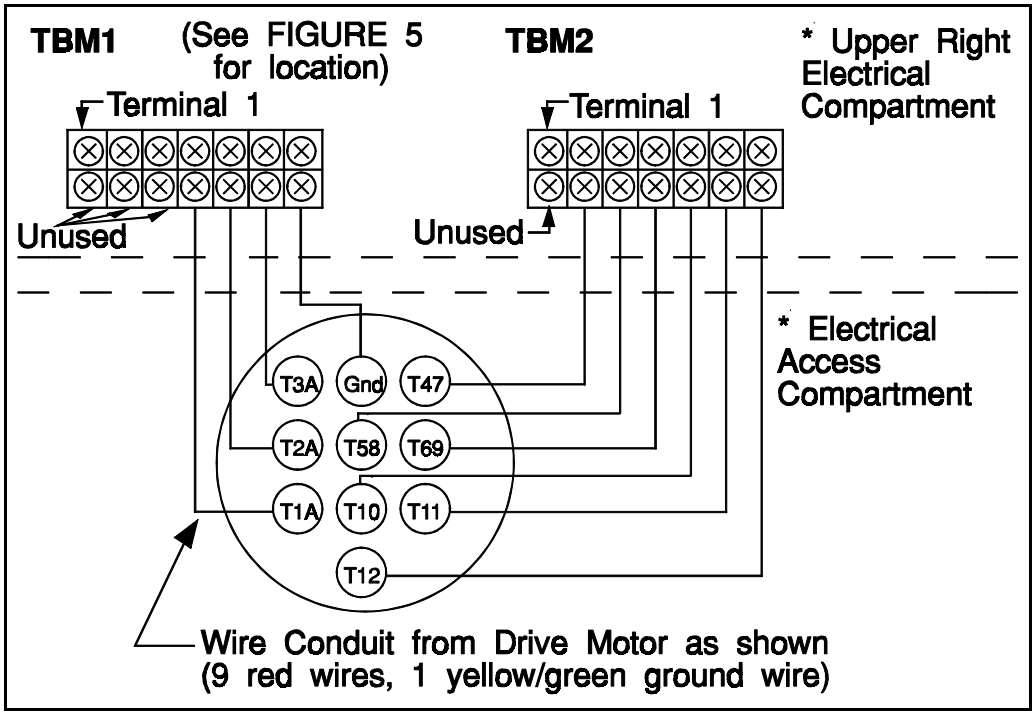


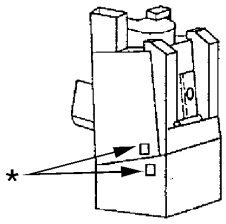
FIGURE 15 (MSIN0108AE)
Connecting Conditioner and Shaker Drive Motor Conduit

Cylinder Drive Belt Alignment and Tensioning

After connecting cylinder drive belt, align and tension the belt (Drive Belt Alignment) as shown in FIGURE 16.

⚠WARNING⚠

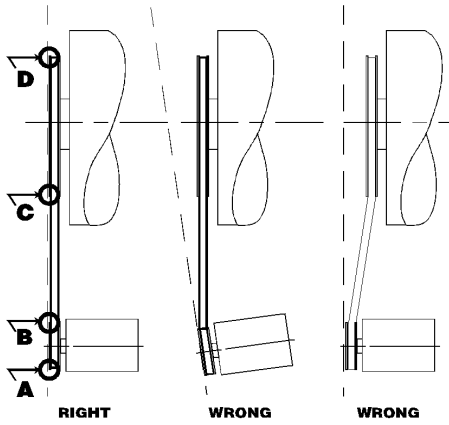
RE-ALIGNING CYLINDER DRIVE PULLEYS



* SERIAL NUMBERS ON LOWER BASE ASSEMBLY AND UPPER CYLINDER ASSEMBLY MUST MATCH! MIS-MATCHED ASSEMBLIES WILL NOT WORK CORRECTLY.

NOTE

RE-ALIGN CYLINDER DRIVE PULLEYS AND BELT AFTER RE-ASSEMBLY. BELT AND PULLEYS WERE PERFECTLY ALIGNED DURING MANUFACTURING, ASSEMBLY AND TEST, BUT THE UPPER AND LOWER HALVES OF THE DRYER MAY NOT RE-ASSEMBLE WITH EXACTLY THE SAME ALIGNMENT. IT WILL THUS BE NECESSARY TO CAREFULLY RE-ALIGN THE CYLINDER DRIVE.

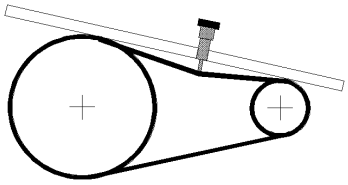


STRING TEST FOR PULLEY ALIGNMENT:

Starting with **smaller pulley,** stretch string from points A and B, then C and D. By starting with **smaller pulley,** degree of pulley misalignment is more visible. Pulleys are aligned when string touches A, B, C, and D.

1. **Pulley shafts must be parallel.**
2. **Pulley faces must be absolutely in line.**
3. **Edge of belt must not rub pulley guide rings for either direction. Rubbing will cause rapid belt wear (NOT covered by warranty).**

Belt Tensioning Requirements



Deflection = 20/64 - 21/64 (.79 - .83 cm)
Minimum Force = 8 3/4 foot pounds (11.86 Newton meters)
Maximum Force = 11 3/4 foot pounds (15.93 Newton meters)

NOTE: After aligning belt observe belt alignment with machine operating. If adjustment is necessary, lock off and tag out power before proceeding.

B2TAG86081/92542V

FIGURE 16 (MSIN0108AE)
Aligning and Tensioning the Cylinder Drive Belt

Service Connections For Gas, Steam and Hot Oil Dryers, Conditioners and Shakers

1. General

The connections which may be required depending on machine model and options are:

1. Piped Inlets and Outlets: cold water, compressed air, gas, steam, hot oil, steam condensate line or gas line vent, main air intake, main air exhaust. The sizes and locations of piped inlets and outlets are shown on the dimensional drawing for your machine.
2. Electric Power Connections.
3. Electrical Control Connections.

2. Precautions for Piped Connections

1. Inlet pressure must be within the range specified. Pressure outside of the range may cause the machine to operate inefficiently or to malfunction and may damage machine components.
2. When connecting water and steam inlets, always install unions and shut off valves at the point of connection to permit removal of the machine components for servicing, if necessary.
3. A vent line must be installed from the regulator vent to the outdoors (if applicable).
4. A minimum 1/2 inch NPT plugged tapping, accessible for test gauge connection, must be installed immediately upstream of the gas supply connections to the dryer (if applicable).

WARNING 1: Explosion and Fire Hazards—Improperly installed gas-fired devices have the potential for gas release.

- Conform with local codes or, in their absence, with the **National Fuel Gas Code, ANSI Z223.1/NFPA 54** or the **Natural Gas and Propane Installation Code, CSA B149.1** or a superseding directive.
- The machine must be electrically grounded in accordance with local codes or, in their absence, with the **National Electric Code, ANSI/NFPA 70** or the **Canadian Electrical Code, CSA C22.1** or a superseding directive.

WARNING 2: Explosion, Fire, and Machine Damage Hazards—Gas pressure in excess of 1/2 psi (3.5 kPa) can damage gas train components, possibly resulting in the release of gas.

- Disconnect the dryer and its manually operated appliance main gas valve from the gas supply for any pressure testing of that system at pressures in excess of 1/2 psi (3.5 kPa).
- Isolate the dryer from the gas supply by closing the equipment shutoff valve during any pressure testing of that system at pressures equal to or less than 1/2 psi (3.5 kPa).

CAUTION 3: Machine Malfunction Hazard—Steam traps rated at 85 to 180 psi (586 to 1241 kPa) will not operate properly below 60 psi (414 kPa). Steam traps rated at 160 to 225 psi (1103 to 1551 kPa) will not operate properly below 115 psi (793 kPa).

- Conform to the rated pressure of the steam coil as stated on the machine nameplate.
- Choose a steam trap with a pressure rating corresponding to the actual pressure supplied.

CAUTION 4: Machine Damage Hazards (Steam Dryers and Conditioners Only)—Allow steam coil to preheat and purge condensate before operating dryer or conditioner.

- Verify that the facility boiler has operated at least 15 minutes before the dryer receives the

first load each day.

CAUTION 5: Machine Damage Hazards—Do not distort valve bodies when plumbing.

- Hold tension against these valves with a wrench on the side of the valve onto which the pipe is being connected; otherwise, the valve will be twisted and distorted.

CAUTION 6: Machine Damage Hazards—Steam coil antifreeze is drained at the factory but some residue may remain.

- the steam condensate return line should be routed to the sewer for the first hour of operation to prevent residual antifreeze from entering the boiler system.

2.1. Piped Connections

Table 1: Piped Inlet Specifications (See dimensional drawings for connection point sizes and locations)

Source Requirements for Models							
Specification	50040	58040	58058	58080	64058	72072	Comments
Gas inlet (natural gas and propane models)							
Maximum BTU/HR (KCAL/HR) at x" (mm) water column	950,000 (240,000) @ 13.5" (343)	950,000 (240,000) @ 13.5" (343)	1,400,000 (350,000) @ 13.5" (343)	1,800,000 (453,000) @ 13.5" (343)	1,800,000 (453,000) @ 13.5" (343)	2,700,000 (680,000) @ 18" (457)	Pipe material per plumbing code.
Average BTU/HR (KCAL/HR) at x" (mm) water column	500,000 (126,500) @ 13.5" (343)	500,000 (126,500) @ 13.5" (343)	1,000,000 (253,000) @ 13.5" (343)	1,400,000 (352,000) @ 13.5" (343)	1,400,000 (352,000) @ 13.5" (343)	2,000,000 (504,000) @ 18" (457)	
Steam inlet (steam models)							
Steam range (85 - 180 PSI) (6 - 12 ATU) or (160 - 225 PSI) (11 - 15 ATU)	600 LB/HR (272 KG/HR)	600 LB/HR (272 KG/HR)	950 LB/HR (431 KG/HR)	1300 LB/HR (590 KG/HR)	1990 LB/HR (903 KG/HR)		Pipe material per plumbing code.
Boiler horsepower (actual) for sizing boiler	17 HP (12.75 kW) Note 1, 22 HP (16.5 kW) Note 2	17 HP (12.75 kW) Note 1, 22 HP (16.5 kW) Note 2	25 HP (18.75 kW) Note 1, 30 HP (22.5 kW) Note 2	35 HP (26.2 5kW) Note 1, 40 HP (30 kW) Note 2	58 HP (43.42 kW) Note 1, 68 HP (51 kW) Note 2		
Main air intake							
Maximum SCFM (CU M/MIN)	3,600 (102)	3,600 (102)	5,000 (142)	6,800 (193)	8500 (241)	10,000 (283)	See Note 3
Maximum allow-able back pressure	0.5" (water column)						
Combustion air intake (gas only)							
Maximum SCFM (CU M/MIN)		250 (7)	400 (11)	500 (14)		717 (20)	No ducting required.
Other connections							
Sprinkler water inlet	35 PSI (2.4 ATU). Must be reliable non-interrupted source for fire safety.						Piping material per plumbing code.
Compressed air inlet (all models)	Clean and dry 85 PSI (5.8 ATU) to 125 PSI (8.5 ATU)						
1/2" inch NPT tap (gas models only)	Plugged tap, accessible for test gauge connection, installed immediately upstream of the gas supply connections to the dryer.						

Note 1: Steam consumption values assume dryer is loaded to rated capacity and ignores external energy losses in either the steam delivery or condensate return piping.

Note 2: The horsepower "for sizing boiler" provides for actual consumption and some external energy losses. See “ABOUT THE STEAM AND HOT OIL CONTROL SYSTEMS.”.. (see Table of Contents).

Note 3: Ducting to exterior of building highly recommended, but may be left unpiped if laundry always open to outside air.

Table 2: Piped Outlet Specifications (See dimensional drawings for connection point sizes/locations)

Description of Connection	Destination Requirements	Piping Specifications	Comments
Gas line vent (Gas models only)	Must be vented to exterior of building	1/4" stainless steel or black iron	Carries off gas which might escape gas valves.
Steam condensate outlet (Steam models only)	Return to boiler through properly sized and installed steam trap	Per plumbing code	See "ABOUT THE STEAM AND HOT OIL CONTROL SYSTEMS..."
Vacuum breaker (steam)	Vent tube to sewer		See "HOW TO SIZE DRYER INLET AND DISCHARGE AIR DUCTING"
Main air outlet	Vent to exterior of building		

2.2. Precautions for Electrical Connections

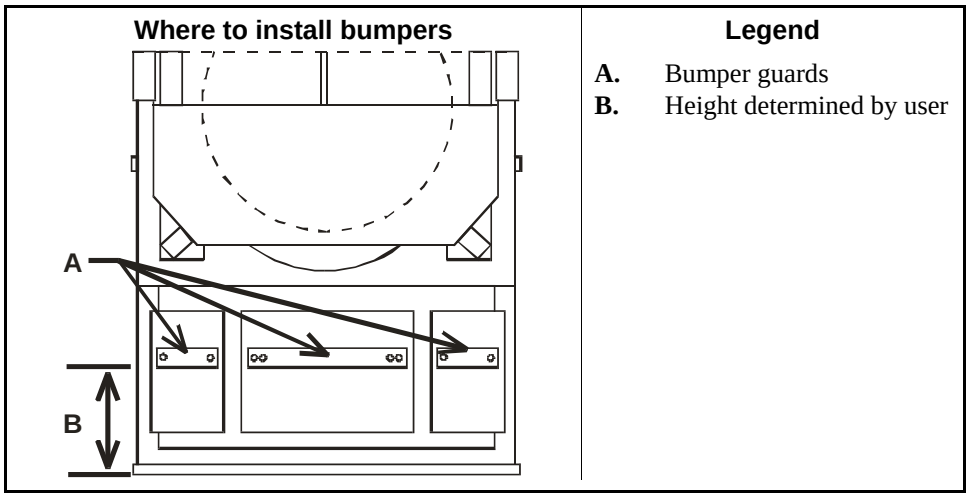
WARNING 7: Electrocution and Electrical Burn Hazards—Electrical source can cause death or severe injury. Connections must be made by a competent electrician.

1. Prior to making power connections, read the instructions on all related tags.
2. “Stinger leg” if any, must only be connected to terminal L3, never to terminals L1 or L2.
3. See fuse and wire sizing information in schematic manual and on machine nameplate.
4. Verify all motor rotation. If the cylinder turns in the wrong direction, interchange the wires connected to L1 and L2. Never move L3.

2.3. Electric Power Connections—The customer must furnish a remotely mounted disconnect switch with lag type fuses, circuit breakers, and wiring between this box and the fuse box on the machine. The sizes of these fuses and wires, along with the motor fuses supplied with your machine, depend on the machine voltage.

WARNING 8: 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).

Figure 1: Bumper Guard Installation



— End of BIPDUI01 —

HANDLING AND ERECTING AUTOLINT COLLECTORS

Handling Precautions

B **1**. Remove the protective coverings (leaving the machine on its shipping skids) and examine the components carefully for possible shipping damage. If machine is damaged, notify the transportation company immediately.

NOTE: Once the machine is given to the carrier for delivery, it is the sole responsibility of the **carrier** to ensure that no damage occurs during transit. In addition to readily apparent damage, carriers are liable for concealed damage. **Do not hesitate to file a claim with the carrier if the machine has been damaged in any way during shipment.** MILNOR will be glad to assist you in filing your claim, but is not responsible for shipping damage to the machine once it has been delivered to the carrier in good condition.

2. Lifting rings are provided on the top of the machine. These lifting rings must be used for crane lifting.

3. Use the skids for fork lifting and, if possible, leave the machine on its shipping skids until it is about placed in its final postion. Once the skids are removed, take care in placing forks under the machine. Do not allow the forks to come in contact with valves, piping, etc, located on the machine.

4. Never push, pull, or exert pressure on any components that protrude from the machine frame.

5. Consult MILNOR factory if components must be removed to fit machine through openings.

⚠ CAUTION ⚠

Sufficient clearance and access must be provided on all sides for service procedures.

Site Requirements

The following requirements must be taken into consideration when transporting and locating the machine to a particular site within the laundry.

Space Requirements

1. Sufficient clearance to move the machine into the laundry. All openings and corridors through which equipment must pass must be of sufficient size to accomodate the width and height of the assembly (shown on the dimensional drawing). It is occasionally possible to reduce the overall dimensions by removing piping and by other special modifications. Consult the MILNOR factory for more information.

2. Sufficient clearance for normal operation and maintenance procedures.

Foundation Requirements—The machine must be anchored in accordance with the installation instructions. The floor and/or all other support components must have sufficient strength (and rigidity with due consideration for the natural or resonant frequency thereof) to withstand the fully loaded weight of the machine. Determining the suitability of floors, foundations, and other supporting structures normally requires **analysis by a qualified structural engineer.**

B

Anchoring Requirements

Anchor bolt locations and specifications are provided on the dimensional drawing. Anchor bolts must not be installed until the machine is on site so that the machine itself may be used to determine precise anchor bolt locations. If any obstruction prevents the installation of any anchor bolts, consult the MILNOR Engineering Department. **Anchor bolts cannot be indiscriminately omitted.**

Leveling Procedures

1. With the machine placed near its final location, unbolt it from the shipping skids. Lift the machine off its skids and lower it into position.
2. After the anchor bolts are installed, level the machine **both left to right and front to back**, by inserting washers under each footpad as needed.
3. Use a carpenter's level to verify that the machine is level.
4. Tighten all foundation bolts until they contact the top of the base plate.
5. Tighten all the bolts evenly, **one-quarter of a turn each time on each bolt.** Skip to bolts front to back and from right to left frequently to ensure that all the bolts are uniformly tight. After tightening, check each fastener separately at least twice.

For connection information, see "WIRING CONNECTIONS FOR DRYVAC" (in the DRYVAC electrical manual).

SERVICE CONNECTIONS FOR AUTOLINT COLLECTORS

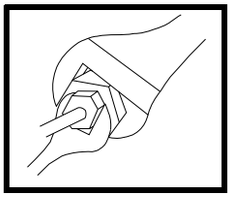
General

The required service connections are as follows:

1. Piped Inlets and Outlets: cold water, compressed air, air inlet duct, blower exhaust. The sizes and locations of piped inlets and outlets are shown on the dimensional drawing for your machine.
2. Electric Power Connections.
3. Control Power Connections.

Precautions for Piped Connections

⚠ CAUTION ⚠



Do not distort valve bodies when connecting plumbing. Hold tension against valves with a wrench on the side of the valve onto which the pipe is being connected; otherwise, the valve will be twisted and distorted.

1. Inlet connection must be made with piping at least as large as valve body connections.
2. Inlet pressure must be within the minimum/maximum range specified. Pressure outside of the specified range may cause the DRYVAC to operate inefficiently or to malfunction, causing machine damage.
3. When connecting water inlets, always install unions and shut off valves at the point of connection to permit removal of machine components for servicing.

Piped Inlet Specifications

Piped inlet requirements are as follows (see dimensional drawing for sizes and locations of connections):

Description of Connection	Specifications for Models		Comments
	DRYVAC 01	DRYVAC 02	
Air inlet duct	17" (432)	17" (432)	See “Ducting Precautions” in this section.
Sprinkler water inlet	35 PSI (2.4) ATU minimum		Pipe material per plumbing code. Must be a reliable and non-interrupted source for fire safety.
	1" NPT	1 1/4" NPT	
Compressed air inlet	Clean and dry 85 PSI (5.8 ATU) to 125 PSI (8.5 ATU)		Piping material per plumbing code.

Piped Outlet Specifications

Piped outlet requirements are as follows (see dimensional drawings for sizes and location of connections):

Description of Connection	Destination	Comments
Blower exhaust	Must vent to exterior of building	See “Ducting Precautions” below

Ducting Precautions

In addition to the general information provided in “HOW TO SIZE INLET AND DISCHARGE AIR DUCTING” (see Table of Contents) the following infomation applies specifically to DRYVACS:

1. Because multiple machines can sequence to one DRYVAC (with only one allowed to discharge at a time), one common duct can be used to link all machines to the DRYVAC.

2. Locate the DRYVAC as close to the machine(s) as possible. Route ducting carefully, as to not interfere with rails, blower actuation devices, or service and maintenance procedures.

3. DRYVAC ducts may be fabricated out of flexible duct with smooth insides and a 36" minimum radius on bends (wire-reinforced flexible ducts with “scalloped” insides are absolutely unacceptable).

Electric Power Connections

⚠ DANGER ⚠

SHOCK HAZARD—Electrical source can cause death or severe injury. Connections must be made by a competent electrician.

1. The customer must furnish a remotely mounted disconnect switch with lag type fuses, and wiring between this box and the fuse box on the machine.

2. Stinger leg, if any, must only be connected to terminal L3, never to terminals L1 or L2.

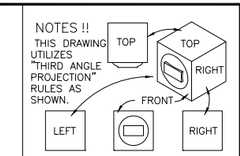
3. See fuse and wire sizing information in schematic manual and on machine nameplate.

4. Verify all motor rotation. If the blower turns in the wrong direction, interchange the wires connected to L1 and L2. Never move L3.

Dimensional Drawings 3

WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 58080TG1/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 58058TG2/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 58040TG2/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 5040TG2L/TS2L		USE THIS COSHA SIDE RAIL EXTENDERS		A 5040TS2 DRYERS	
INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
–	–	–	–	0	0	0	0	0	0	57 1/2	1461
–	–	–	–	3 1/2	89	3 1/2	89	3 1/2	89	61	1549
–	–	–	–	10 1/2	267	10 1/2	267	10 1/2	267	68	1727
–	–	0	0	14	356	14	356	14	356	71 1/2	1816
–	–	3 1/2	89	17 1/2	445	17 1/2	445	17 1/2	445	75	1905
0	0	7	178	21	533	21	533	21	533	78 1/2	1994
3 1/2	89	10 1/2	267	24 1/2	622	24 1/2	622	24 1/2	622	82	2083
10 1/2	267	17 1/2	445	31 1/2	800	31 1/2	800	31 1/2	800	89	2261
17 1/2	445	24 1/2	622	38 1/2	978	38 1/2	978	38 1/2	978	96	2438
24 1/2	622	31 1/2	800	45 1/2	1156	45 1/2	1156	45 1/2	1156	103	2616
31 1/2	800	38 1/2	978	52 1/2	1334	52 1/2	1334	52 1/2	1334	110	2794
38 1/2	1156	45 1/2	1156	59 1/2	1511	59 1/2	1511	59 1/2	1511	117	2972
45 1/2	1156	52 1/2	1334	66 1/2	1689	66 1/2	1689	66 1/2	1689	124	3150

NOTES !!
THIS DRAWING UTILIZES "THIRD ANGLE PROJECTION" RULES AS SHOWN.

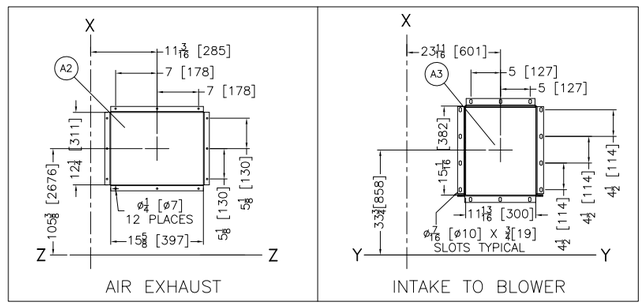


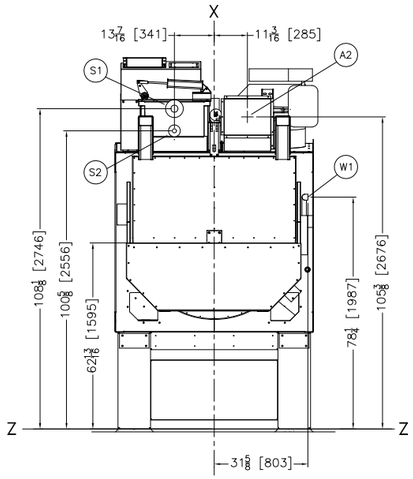
STEAM CONSUMPTION:
(MAXIMUM STEAM CONSUMPTION WITH LOAD)
LOAD: 110 LB [50KG]
STEAM PER HOUR: 600 LBS [272 KG]
AT 225 PSI/[15.3 ATU]
ACTUAL BOILER HP: 17 HP

AIR:
85–110 PSI
CONNECTION: 1" NPT
AIR USAGE (ESTIMATED) AVERAGE PER DRYER CYCLE: 1.5 CFM
PEAK CONSUMPTION: 31.25 SCFM IN 15 SEC.

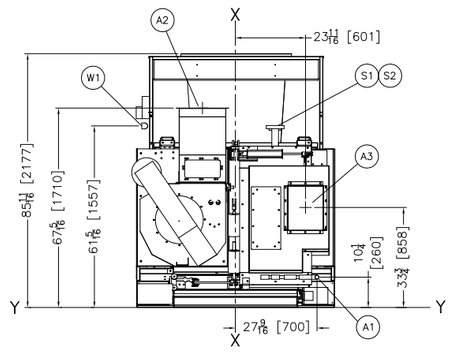
MAIN BLOWER AIR:
BLOWER DISCHARGE (AIR FLOW):
3,600 SCFM
RECOMMENDED DUCT SIZE (INLET & OUTLET): 18"[457] DIA.

WATER:
SPRINKLER REQUIREMENTS: 1.25" NPT, RUN 1.25" DIAMETER PIPE MINIMUM
PRESSURE: 60 USG PER MINUTE



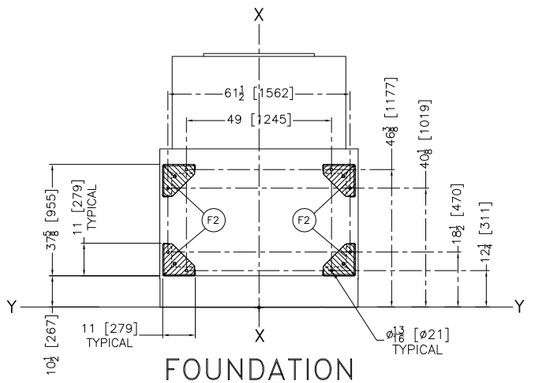


REAR VIEW



PLAN VIEW

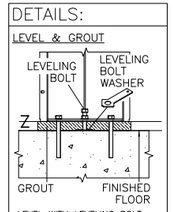
ZERO PEDESTAL SHOWN
ADJUST ALL VERTICAL DIMENSIONS TO THE PEDESTAL SPECIFIED.
SEE NOTE 13.



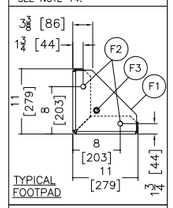
FOUNDATION PLAN VIEW

DETAILS:

LEVEL & GROUT

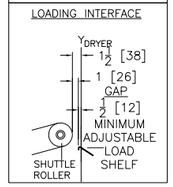


LEVEL WITH LEVELING BOLT TO "Z", GROUT AND ANCHOR ALL FOOTPADS. SEE NOTE 14.

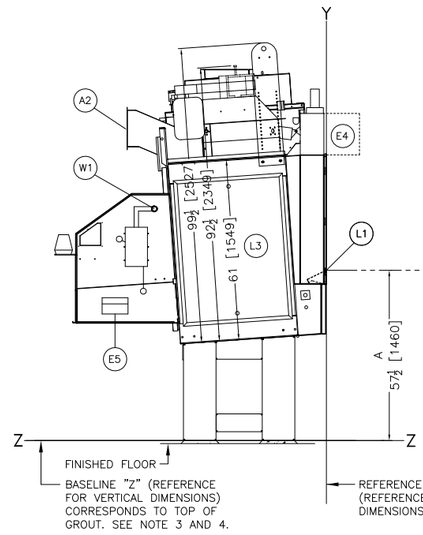


TYPICAL FOOTPAD

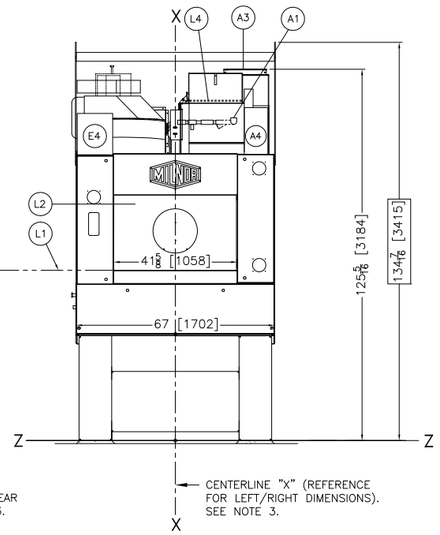
LOADING INTERFACE



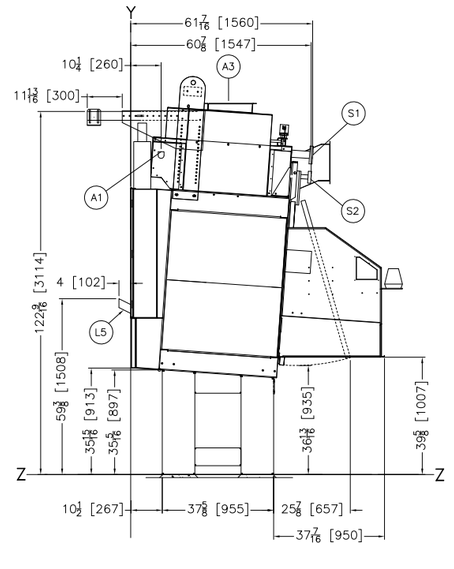
ITEM	LEGEND
W1	SPRINKLER WATER CONNECTION, 1–1/4" NPT
T1	OPTIONAL BEACON
S2	STEAM CONDENSATE RETURN, 1" FLANGED CONNECTION
S1	STEAM INLET, 2" FLANGED CONNECTION
L5	OPTIONAL LOAD SHELF FOR LOOSE GOODS SHUTTLES THAT
	STICK TO DISCHARGE ONLY.
L4	REMOVABLE LINT FILTER FOR INTAKE TO BLOWER
L3	ACCESS DOORS TO OPTIONAL INTERNAL LINT FILTER
L2	LOAD DOOR OPENING SIZE: 42"(1067) WIDE BY 28"(711)
	HIGH FOR STANDARD DOOR.
L1	LOADING HEIGHT, LOAD SHELF
F3	LEVELING BOLT (5/8"–11 X 3") SUPPLIED.
F2	BASE PLATES, 4 PLACES
F1	ANCHOR BOLT HOLES, 13/16" DIAMETER, 8 PLACES
E5	MANUAL CONTROLS
E4	MICROPROCESSOR BOX
E3	LOW VOLTAGE BOX
E2	HIGH VOLTAGE BOX
E1	MAIN ELECTRICAL CONNECTION
A4	AIR VALVE BOX
A3	INTAKE TO COMBUSTION BLOWER
A2	AIR EXHAUST
A1	COMPRESSED AIR INLET, 1" NPT CONNECTION



LEFT VIEW



FRONT VIEW



RIGHT VIEW

NOTES

14 DRYER FOOT SUPPORT PLATES ARE WELDED TO THE BOTTOM OF PEDESTAL LEGS TO ALLOW A GREATER GROUTING SURFACE BETWEEN PEDESTAL LEGS AND FINISHED FLOOR. USE LEVELING BOLTS TO LEVEL THE DRYER TO BASELINE 'Z' (COINCIDES WITH BOTTOM OF LEGS.) DRYER FEET MUST BE GROUTED & ANCHORED TO FLOOR.

13 THIS DRAWING SHOWS THE DRYER WITH A 36–13/16"[935] DISCHARGE HEIGHT. WE CALL THE PEDESTAL BASE TO DO THIS A "ZERO PEDESTAL".
DRYERS MAY BE ORDERED WITH A PEDESTAL TO INCREASE THE MACHINE HEIGHT IN (+)1.75"[44] INCREMENTS. ALL VERTICAL DIMENSIONS MUST BE ADJUSTED FOR THE SPECIFIED PEDESTAL.

12 THIS DRYER REQUIRES SIGNIFICANT SCFM OF AMBIENT AIR (EXCLUSIVE OF THE INLET DUCT) TO OPERATE CORRECTLY. THIS IS USED BY THE COMBUSTION AIR BLOWER FOR PROPER COMBUSTION BY THE BURNER. APPROPRIATE DUCTING OR VENTILATION DAMPERS SHOULD BE INSTALLED IN THE FACILITY TO ENSURE NO VACUUM EXISTS TO STARVE THE DRYERS OF THIS AIR REQUIREMENT.

11 DO NOT PRE–PIPE ANY CLOSER THAN 60 [1524].

10 DO NOT USE ANY TYPE OF TURNING VANES IN THE DRYER EXHAUST DUCTING AS THESE WILL IMMEDIATELY PLUG WITH LINT.

9 MINIMUM CLEARANCE FOR MAINTENANCE = 24"[610]. SOME JURISDICTIONS REQUIRE UP TO 30"(762) CLEARANCE. CONSULT LOCAL CODES. IN COSHA INSTALLATIONS MINIMUM DISTANCES FROM DRYER TO WALL IS DETERMINED BY COSHA REQUIREMENT. SEE DRAWING BDSHTCLRBE FOR MINIMUM DIMENSION OF COSHA AT LAST STOPPING PLACE (MAY BE DRYER) TO WALL.

8 DRYER IS DISASSEMBLED INTO TWO MAJOR COMPONENTS, THE BASE AND THE FRAME, FOR SHIPMENT. CONSULT MILNOR FACTORY IF COMPONENTS SUCH AS BLOWER HOUSING MUST BE REMOVED TO FIT MACHINE THROUGH OPENING.

7 DO NOT RUN PIPING OR CONDUIT OVER BLOWER HOUSING SO BLOWER MAY BE REMOVED FOR SERVICING IF NEEDED.

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 FOR FURTHER 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 REFERENCE FOR ALL VERTICAL DIMENSIONS. ON MACHINES WITH FIXED BASE PADS, BASELINE "Z" CORRESPONDS TO THE BOTTOM OF THE BASE PAD. ON MACHINES WITH ADJUSTABLE FEET, BASELINE "Z" CORRESPONDS TO THE BOTTOM OF THE FEET WHEN ADJUSTED SO THAT THE MACHINE IS AT ITS MINIMUM ACCEPTABLE HEIGHT. ON TRAVERSING SHUTTLES, BASELINE "Z" CORRESPONDS TO THE BOTTOM OF THE BOTTOM RAIL. THE DISTANCE BETWEEN BASELINE "Z" AND THE FINISHED FLOOR WILL VARY AS REQUIRED TO ENSURE BASELINE "Z" IS HORIZONTAL AND ANY INTERFACING MACHINES 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 MAINTAIN A SAFE WORKING ENVIRONMENT. ACCORDINGLY, THE OWNER/USER MUST RECOGNIZE ALL FORESEEABLE 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, FENCES, RESTRAINTS, DEVICES, ETC., NOT FURNISHED BY THE EQUIPMENT MANUFACTURER OR VENDOR.

ATTENTION
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5040TS2L

DM 0 0.5M 1M
INCHES 0 12 24 36

DWG# BD5040SLDE 2014116D

PELLERIN MILNOR CORPORATION
P.O. Box 400 Kenner, LA 70063, USA. Phone 504/467–9591,
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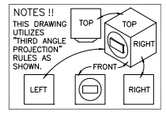
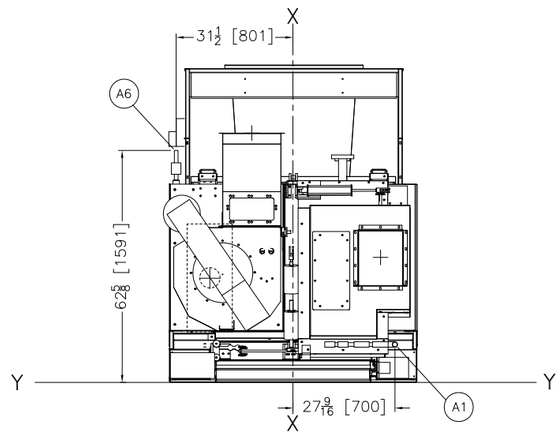
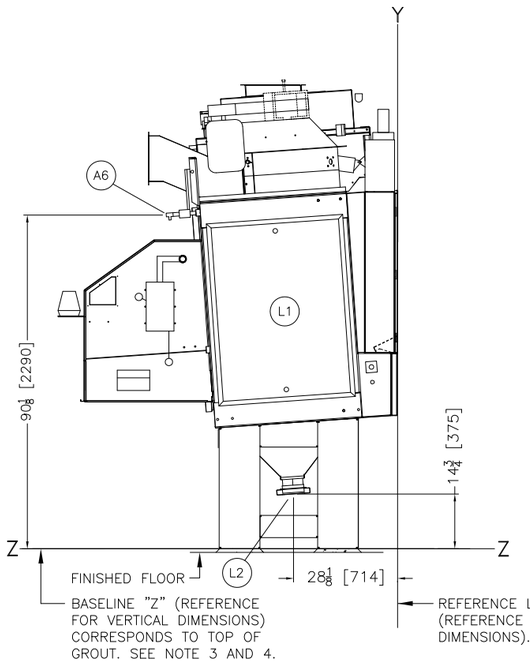


ADDITIONAL AIR REQUIREMENTS FOR (L1)– OPTIONAL INTERNAL LINT FILTERS (SEE NOTES 8 & 10.)

AIR PRESSURE REQUIREMENTS: 85–110 PSI
CONNECTION (A2): 1"NPT
AIR USAGE (ESTIMATED):
110 SCF IN 15 SECONDS WHEN ACTIVATED



PLAN VIEW



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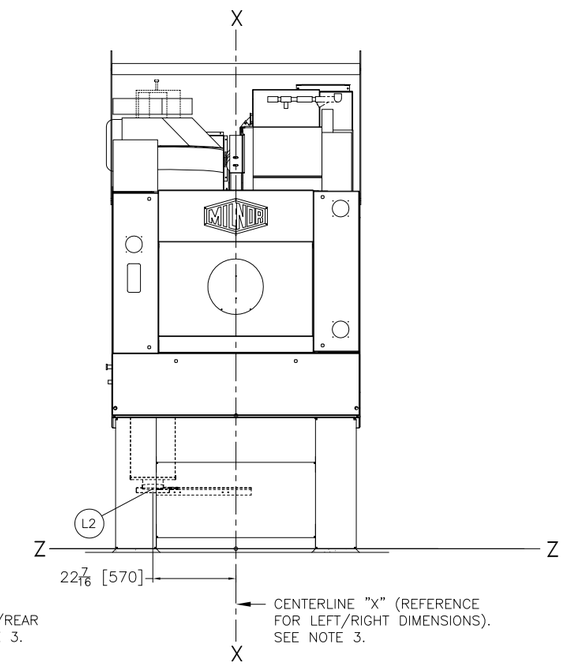
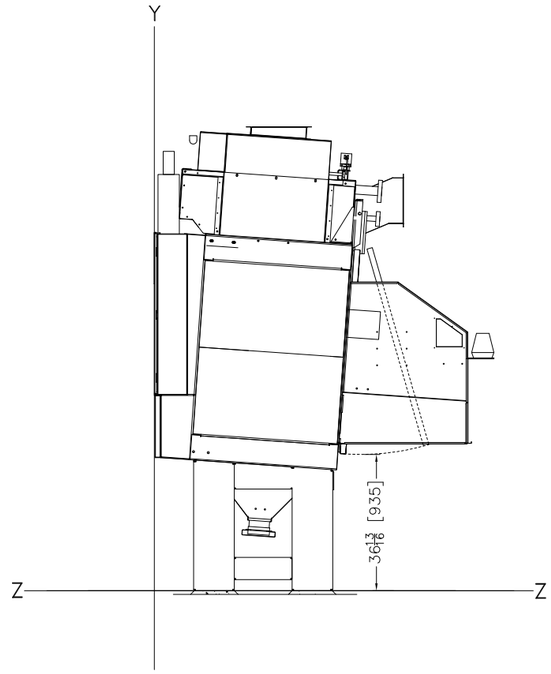


FRONT VIEW



RIGHT VIEW

L2	LINT OUTLET (6" FLEX HOSE CONNECTION) FOR OPTIONAL INTERNAL LINT SCREEN. PIPES TO DRYVAC OR LINT COLLECTOR BY OTHERS. SEE NOTES AND DRAWING BD6458DLCPBE FOR RECOMMENDED PIPING.
L1	OPTIONAL INTERNAL LINT SCREENS, BEHIND PANEL
A6	1" NPT AIR CONNECTION/OPTIONAL INTERNAL LINT SCREENS
ITEM	LEGEND

NOTES

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5040TS2L OPTIONS

DM 0 0.5M 1M
INCHES 0 12 24 36

DWG# BD5040SLDB 2012474D

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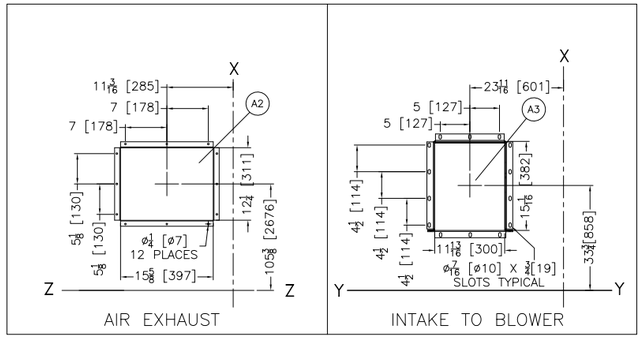

WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 58080TG1/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 58058TG2/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 58040TG2/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 5040TG2L/TS2L		USE THIS COSHA SIDE RAIL EXTENDERS		A 5040TS2 DRYERS	
INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
–	–	–	–	0	0	0	0	0	0	57 1/2	1461
–	–	–	–	3 1/2	89	3 1/2	89	3 1/2	89	61	1549
–	–	–	–	10 1/2	267	10 1/2	267	10 1/2	267	68	1727
–	–	0	0	14	356	14	356	14	356	71 1/2	1816
–	–	3 1/2	89	17 1/2	445	17 1/2	445	17 1/2	445	75	1905
0	0	7	178	21	533	21	533	21	533	78 1/2	1994
3 1/2	89	10 1/2	267	24 1/2	622	24 1/2	622	24 1/2	622	82	2083
10 1/2	267	17 1/2	445	31 1/2	800	31 1/2	800	31 1/2	800	89	2261
17 1/2	445	24 1/2	622	38 1/2	978	38 1/2	978	38 1/2	978	96	2438
24 1/2	622	31 1/2	800	45 1/2	1156	45 1/2	1156	45 1/2	1156	103	2616
31 1/2	800	38 1/2	978	52 1/2	1334	52 1/2	1334	52 1/2	1334	110	2794
38 1/2	1156	45 1/2	1156	59 1/2	1511	59 1/2	1511	59 1/2	1511	117	2972
45 1/2	1156	52 1/2	1334	66 1/2	1689	66 1/2	1689	66 1/2	1689	124	3150

NOTES !!
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TOP
TOP
RIGHT
FRONT
LEFT
RIGHT

STEAM CONSUMPTION:
(MAXIMUM STEAM CONSUMPTION WITH LOAD)
LOAD: 110 LB [50KG]
STEAM PER HOUR: 600 LBS [272 KG]
AT 225 PSI/[15.3 ATU]
ACTUAL BOILER HP: 17 HP

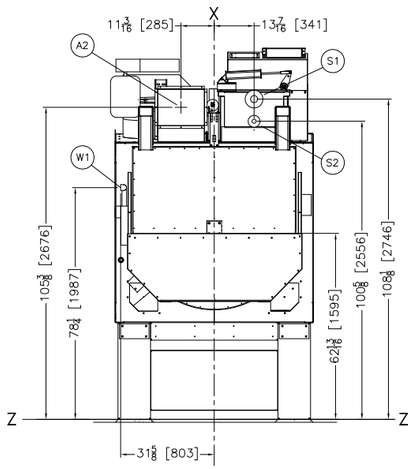
AIR:
85–110 PSI
CONNECTION: 1" NPT
AIR USAGE (ESTIMATED) AVERAGE PER DRYER CYCLE: 1.5 CFM
PEAK CONSUMPTION: 31.25 SCFM IN 15 SEC.

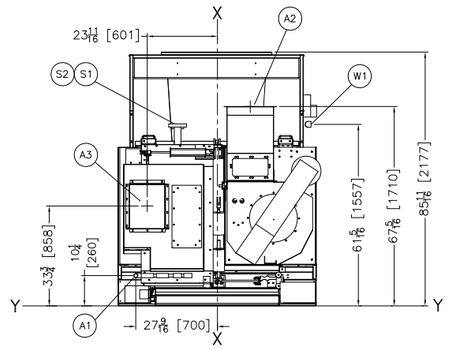
MAIN BLOWER AIR:
BLOWER DISCHARGE (AIR FLOW):
3,600 SCFM
RECOMMENDED DUCT SIZE (INLET & OUTLET): 18"[457] DIA.

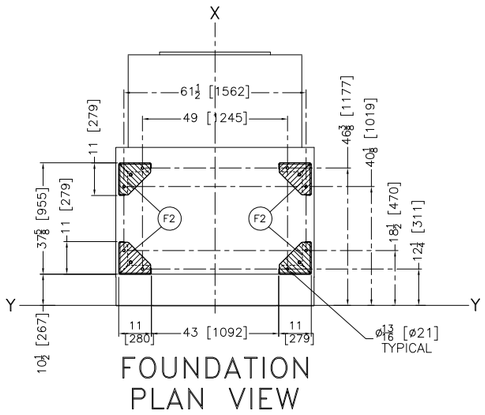
WATER:
SPRINKLER REQUIREMENTS: 1.25" NPT, RUN 1.25" DIAMETER PIPE MINIMUM
PRESSURE: 60 USG PER MINUTE

ITEM	LEGEND
W1	SPRINKLER WATER CONNECTION, 1–1/4" NPT
T1	OPTIONAL BEACON
S2	STEAM CONDENSATE RETURN, 1" FLANGED CONNECTION
S1	STEAM INLET, 2" FLANGED CONNECTION
L5	OPTIONAL LOAD SHELF FOR LOOSE GOODS SHUTTLES THAT
	STICK TO DISCHARGE ONLY.
L4	REMOVABLE LINT FILTER FOR INTAKE TO BLOWER
L3	ACCESS DOORS TO OPTIONAL INTERNAL LINT FILTER
L2	LOAD DOOR OPENING SIZE: 42"(1067) WIDE BY 28"(711)
	HIGH FOR STANDARD DOOR.
L1	LOADING HEIGHT, LOAD SHELF
F3	LEVELING BOLT (5/8"–11 X 3") SUPPLIED.
F2	BASE PLATES, 4 PLACES
F1	ANCHOR BOLT HOLES, 13/16" DIAMETER, 8 PLACES
E5	MANUAL CONTROLS
E4	MICROPROCESSOR BOX
E3	LOW VOLTAGE BOX
E2	HIGH VOLTAGE BOX
E1	MAIN ELECTRICAL CONNECTION
A4	AIR VALVE BOX
A3	INTAKE TO COMBUSTION BLOWER
A2	AIR EXHAUST
A1	COMPRESSED AIR INLET, 1" NPT CONNECTION

ZERO PEDESTAL SHOWN
ADJUST ALL VERTICAL DIMENSIONS TO THE PEDESTAL SPECIFIED.
SEE NOTE 13.







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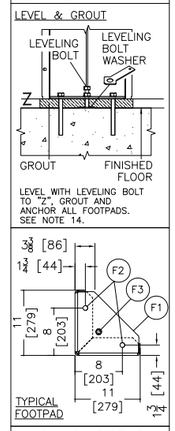

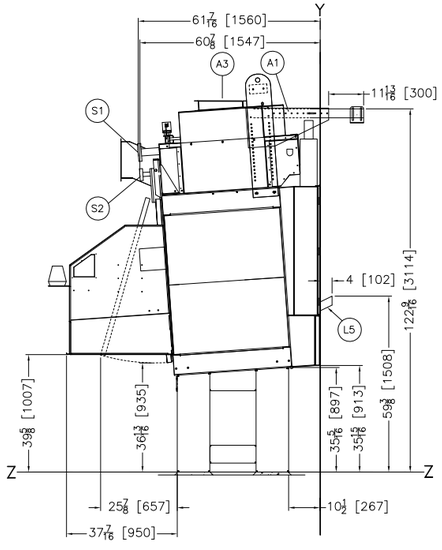

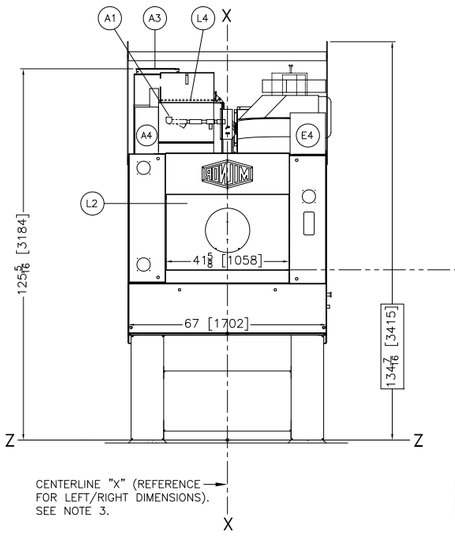

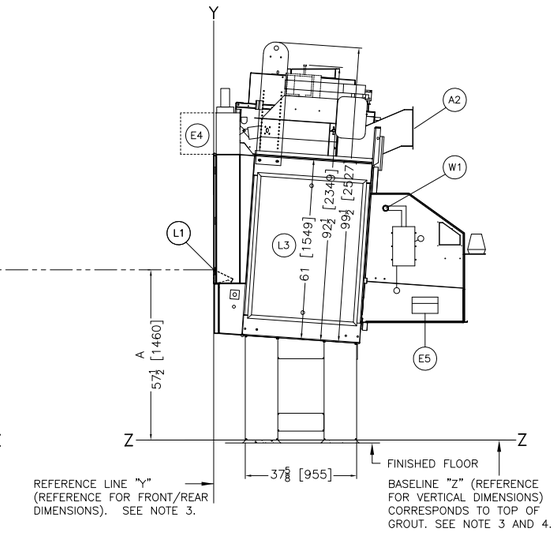

NOTES

14 DRYER FOOT SUPPORT PLATES ARE WELDED TO THE BOTTOM OF PEDESTAL LEGS TO ALLOW A GREATER GROUTING SURFACE BETWEEN PEDESTAL LEGS AND FINISHED FLOOR. USE LEVELING BOLTS TO LEVEL THE DRYER TO BASELINE 'Z' (COINCIDES WITH BOTTOM OF LEGS.) DRYER FEET MUST BE GROUTED & ANCHORED TO FLOOR.

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12 THIS DRYER REQUIRES SIGNIFICANT SCFM OF AMBIENT AIR (EXCLUSIVE OF THE INLET DUCT) TO OPERATE CORRECTLY. THIS IS USED BY THE COMBUSTION AIR BLOWER FOR PROPER COMBUSTION BY THE BURNER. APPROPRIATE DUCTING OR VENTILATION DAMPERS SHOULD BE INSTALLED IN THE FACILITY TO ENSURE NO VACUUM EXISTS TO STARVE THE DRYERS OF THIS AIR REQUIREMENT.

11 DO NOT PRE–PIPE ANY CLOSER THAN 60 [1524].

10 DO NOT USE ANY TYPE OF TURNING VANES IN THE DRYER EXHAUST DUCTING AS THESE WILL IMMEDIATELY PLUG WITH LINT.

9 MINIMUM CLEARANCE FOR MAINTENANCE = 24"[610]. SOME JURISDICTIONS REQUIRE UP TO 30"(762) CLEARANCE. CONSULT LOCAL CODES. IN COSHA INSTALLATIONS MINIMUM DISTANCES FROM DRYER TO WALL IS DETERMINED BY COSHA REQUIREMENT. SEE DRAWING BDSHTCLRBE FOR MINIMUM DIMENSION OF COSHA AT LAST STOPPING PLACE (MAY BE DRYER) TO WALL.

8 DRYER IS DISASSEMBLED INTO TWO MAJOR COMPONENTS, THE BASE AND THE FRAME, FOR SHIPMENT. CONSULT MILNOR FACTORY IF COMPONENTS SUCH AS BLOWER HOUSING MUST BE REMOVED TO FIT MACHINE THROUGH OPENING.

7 DO NOT RUN PIPING OR CONDUIT OVER BLOWER HOUSING SO BLOWER MAY BE REMOVED FOR SERVICING IF NEEDED.

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5040TS2R

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INCHES 0 12 24 36

DWG# BD5040SRDE 2014116D

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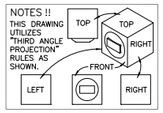

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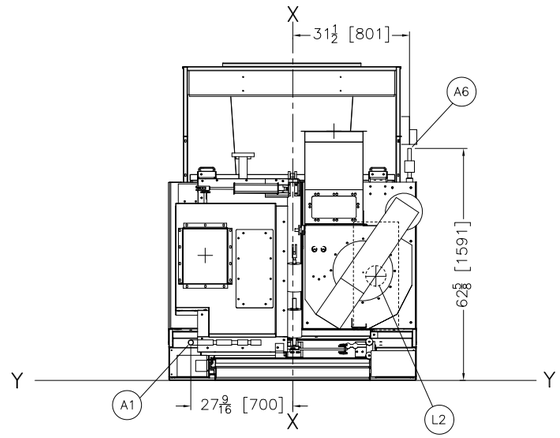
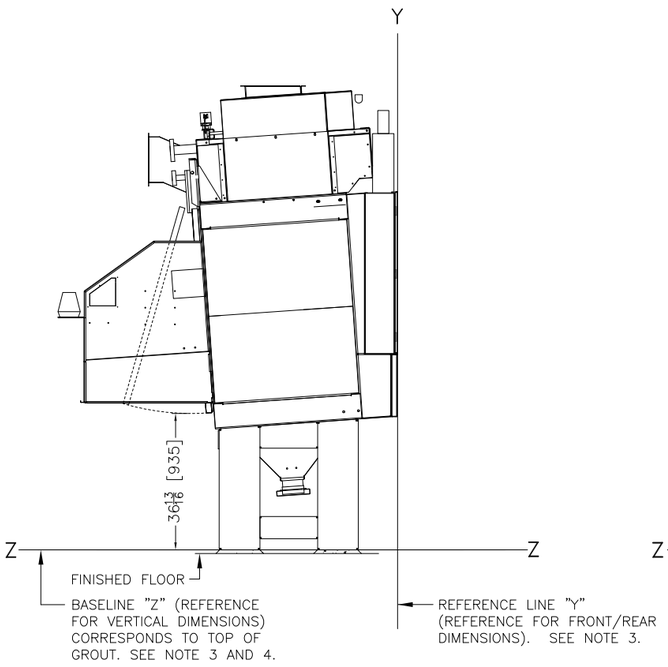


PLAN VIEW



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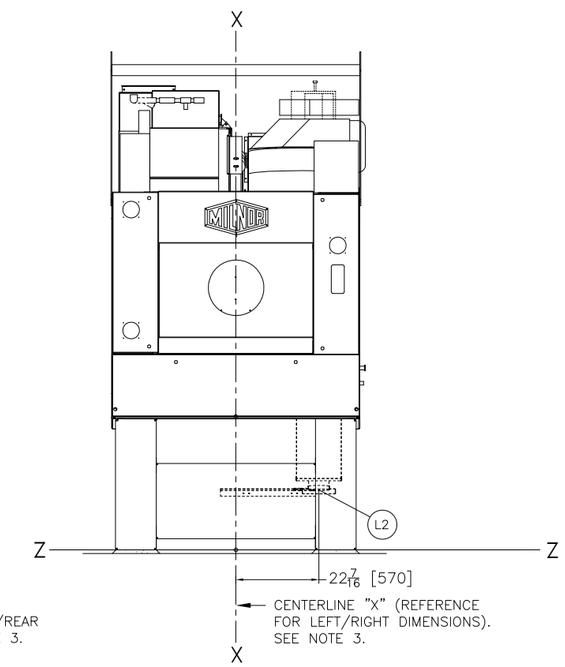

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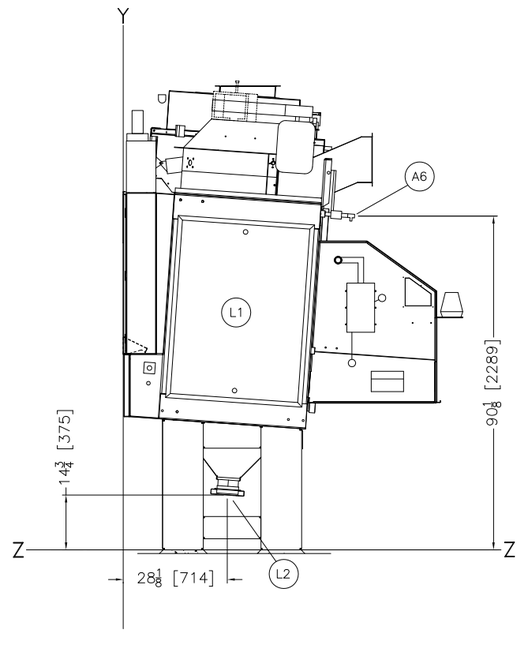

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ATTENTION

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ATTENTION

THE FLOOR AND/OR OTHER SUPPORT COMPONENTS MUST HAVE SUFFICIENT STRENGTH (AND RIGIDITY 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 SINUSOIDAL (ROTATING) FORCES GENERATED DURING ITS OPERATION. WRITE THE FACTORY FOR ADDITIONAL MACHINE DATA FOR USE BY A COMPETENT SOIL AND/OR STRUCTURAL ENGINEER.

5040TS2R OPTIONS

DM 0 0.5M 1M
INCHES 0 12 24 36

DWG# BD5040SRDB 2012474D

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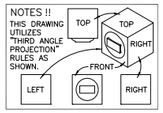
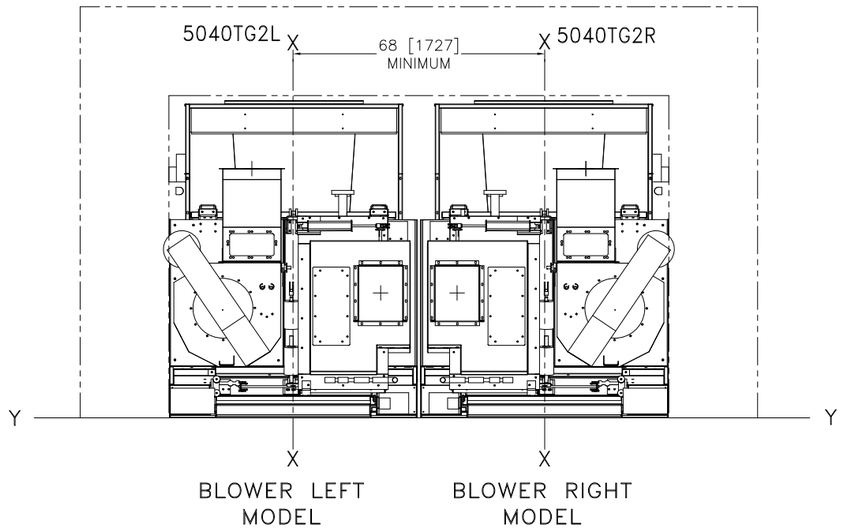
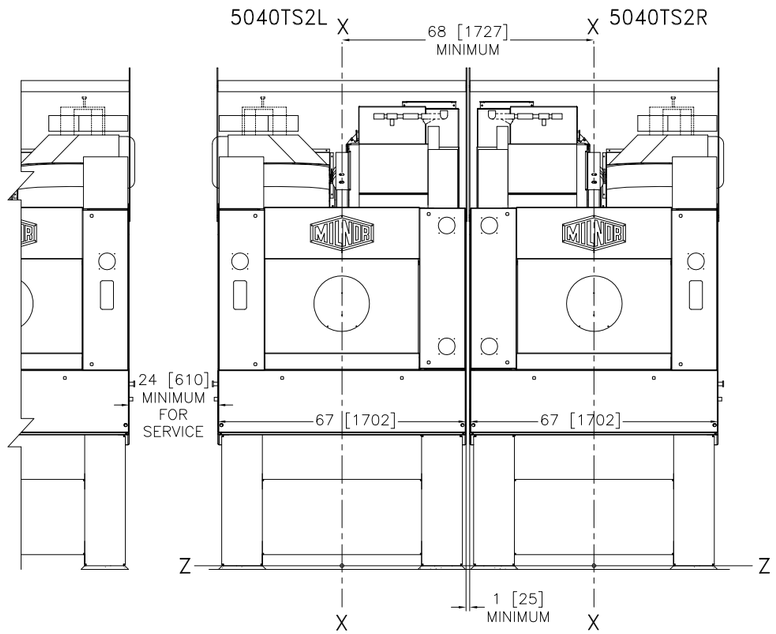
FAX 504/469–1849, Email: milnorinfo@milnor.com





PLAN VIEW



FRONT VIEW
MIRRORED INSTALLATION

NOTES

6 AS OF THIS WRITING, THE MINIMUM CLEARANCE REQUIRED BY U.S. NATIONAL ELECTRIC CODES, FROM ELECTRIC BOX TO ANY OBJECT IS:
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4 BASELINE "Z" IS THE REFERENCE FOR ALL VERTICAL DIMENSIONS. ON MACHINES WITH FIXED BASE PADS, BASELINE "Z" CORRESPONDS TO THE BOTTOM OF THE BASE PAD. ON MACHINES WITH ADJUSTABLE FEET, BASELINE "Z" CORRESPONDS TO THE BOTTOM OF THE FEET WHEN ADJUSTED SO THAT THE MACHINE IS AT ITS MINIMUM ACCEPTABLE HEIGHT. ON TRAVERSING SHUTTLES, BASELINE "Z" CORRESPONDS TO THE BOTTOM OF THE BOTTOM RAIL. THE DISTANCE BETWEEN BASELINE "Z" AND THE FINISHED FLOOR WILL VARY AS REQUIRED TO ENSURE BASELINE "Z" IS HORIZONTAL AND ANY INTERFACING MACHINES REQUIRING GROUT ARE SET ON A MINIMUM 1"[25] THICK GROUT BED.

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5040TS2L & 5040TS2R PAIRED

DM 0 0.5M 1M
INCHES 0 12 24 36

DWG# BD5040SPDE 2012101D

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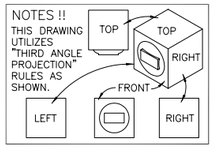
NOTES !!
THIS DRAWING UTILIZES "THIRD ANGLE PROJECTION" RULES AS SHOWN.

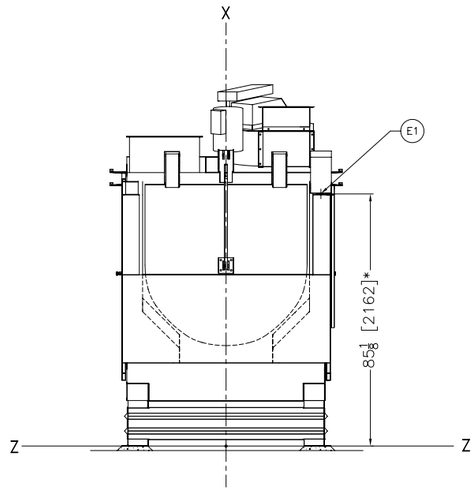


WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 58080TG1/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 58058TG2/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 58040TG2/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 50040TS1/CS1/SA1		USE THIS COSHA SIDE RAIL EXTENDERS		A LOAD ROLLER 50040CS1/SA1		A LOAD DOOR SHELF 50040CS1/SA1	
INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
–	–	–	–	0	0	0	0	0	0	57	1448	59	1499
–	–	–	–	3 1/2	89	3 1/2	89	3 1/2	89	60 1/2	1537	62 1/2	1588
–	–	–	–	10 1/2	267	10 1/2	267	10 1/2	267	67 1/2	1715	69 1/2	1765
–	–	0	0	14	356	14	356	14	356	71	1803	73	1854
–	–	3 1/2	89	17 1/2	445	17 1/2	445	17 1/2	445	74 1/2	1892	76 1/2	1943
0	0	7	178	21	533	21	533	21	533	78	1981	80	2032
3 1/2	89	10 1/2	267	24 1/2	622	24 1/2	622	24 1/2	622	81 1/2	2070	83 1/2	2121
10 1/2	267	17 1/2	445	31 1/2	800	31 1/2	800	31 1/2	800	88 1/2	2248	90 1/2	2299
17 1/2	445	24 1/2	622	38 1/2	978	38 1/2	978	38 1/2	978	95 1/2	2426	97 1/2	2477
24 1/2	622	31 1/2	800	45 1/2	1156	45 1/2	1156	45 1/2	1156	102 1/2	2604	104 1/2	2654
31 1/2	800	38 1/2	978	52 1/2	1334	52 1/2	1334	52 1/2	1334	109 1/2	2781	111 1/2	2832
38 1/2	1156	45 1/2	1156	59 1/2	1511	59 1/2	1511	59 1/2	1511	116 1/2	2959	118 1/2	3010
45 1/2	1156	52 1/2	1334	66 1/2	1689	66 1/2	1689	66 1/2	1689	123 1/2	3137	125 1/2	3188
52 1/2	1334	59 1/2	1511	N/A	N/A	N/A	N/A	73 1/2	1867	130 1/2	3315	132 1/2	3366
59 1/2	1511	66 1/2	1689	N/A	N/A	N/A	N/A	80 1/2	2045	137 1/2	3493	139 1/2	3543
66 1/2	1689	N/A	N/A	N/A	N/A	N/A	N/A	87 1/2	2223	144 1/2	3670	146 1/2	3721

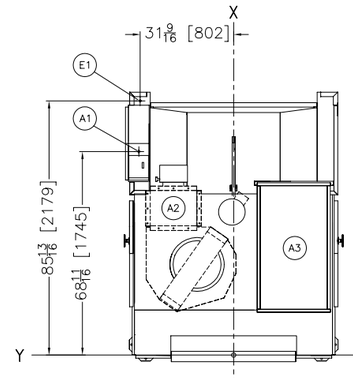
AIR FLOW

MAX. EXHAUST AIR (SEE NOTES)	3600 SCFM (102 CU M/MIN.)

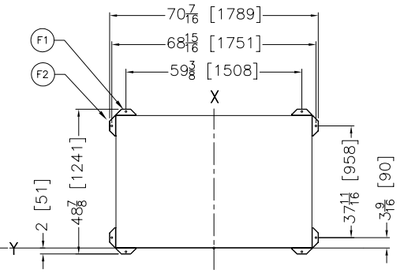
NOTE: MAX. ALLOWABLE BACK PRESSURE AT MAX. AIRFLOW + 1/2" WATER COLUMN



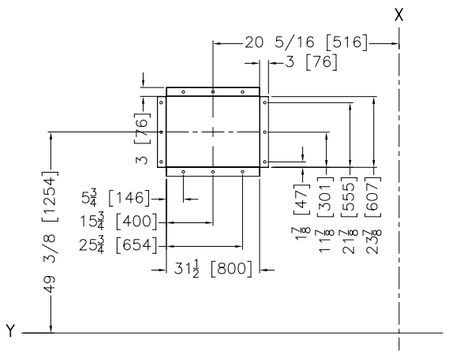
REAR VIEW



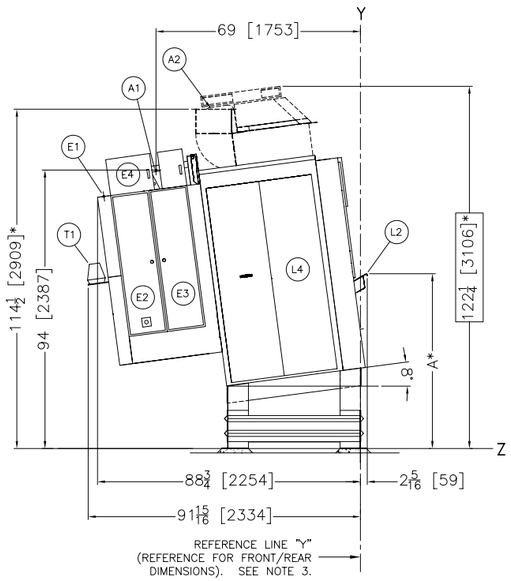
PLAN VIEW



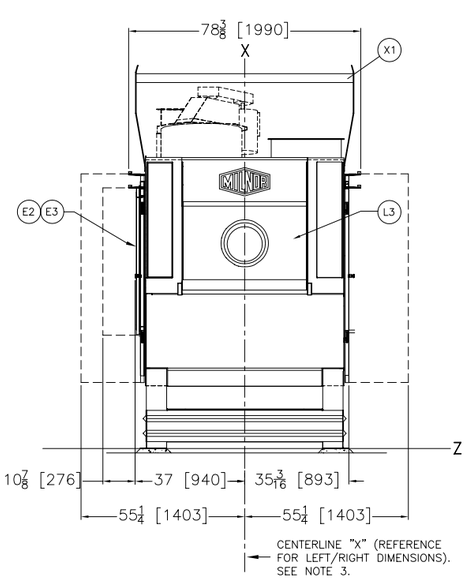
FOUNDATION PLAN VIEW



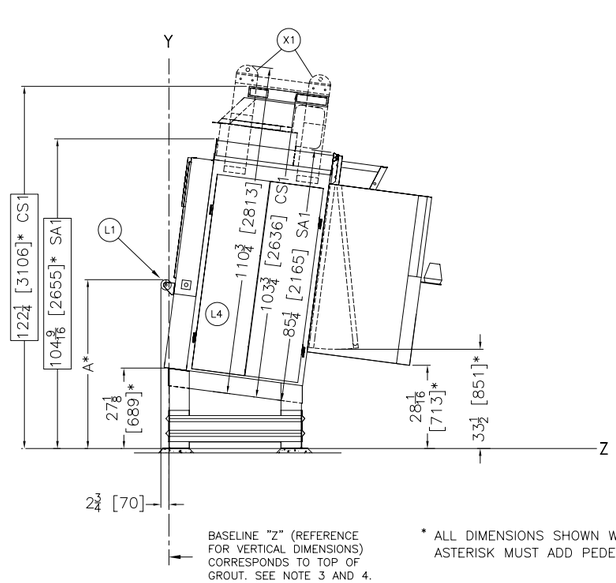
EXHAUST DUCT DETAIL



LEFT VIEW



FRONT VIEW



RIGHT VIEW

* ALL DIMENSIONS SHOWN WITH (*) ASTERISK MUST ADD PEDESTAL HEIGHT.

ITEM	LEGEND
X1	SHIPPING BRACKETS
T1	OPTIONAL BEACON
L4	LOWER CYLINDER LIP–UNLOAD END.
L3	LOAD DOOR OPENING SIZE: 42"(1067) WIDE BY 28"(711) HIGH FOR STANDARD DOOR.
L2	LOADING HEIGHT, OPTIONAL LOAD DOOR SHELF
L1	LOADING HEIGHT, TOP OF ROLLER
F2	BASE PLATES
F1	ANCHOR BOLT HOLES, 5/8" DIAMETER BOLTS.
E4	MICROPROCESSOR BOX
E3	LOW VOLTAGE BOX
E2	HIGH VOLTAGE BOX
E1	MAIN ELECTRICAL CONNECTION
A3	AIR INTAKE (CS1 ONLY); (CAPPED FOR SA1 – TUMBLER)
A3	AIR INTAKE (CS1 ONLY)
A2	BLOWER EXHAUST (CS1 – CONTITIONER ONLY)
A1	MAIN AIR INLET, 1/4 NPT CONNECTION

NOTES

12 DO NOT PRE-PIPE ANY CLOSER THAN 60 [1524].

11 DO NOT USE ANY TYPE OF TURNING VANES IN THE DRYER EXHAUST DUCTING AS THESE WILL IMMEDIATELY PLUG WITH LINT.

10 MINIMUM CLEARANCE FOR MAINTENANCE = 25". SOME JURISDICTIONS REQUIRE UP TO 30"(762) CLEARANCE. CONSULT LOCAL CODES. IN COSHA INSTALLATIONS MINIMUM DISTANCES FROM DRYER TO WALL IS DETERMINED BY COSHA REQUIREMENT. SEE DRAWING BD76COINCB FOR MINIMUM DIMENSION OF COSHA AT LAST STOPPING PLACE (MAY BE DRYER) TO WALL.

9 DRYER IS DISASSEMBLED INTO TWO MAJOR COMPONENTS, THE BASE AND THE FRAME, FOR SHIPMENT. CONSULT MILNOR FACTORY IF COMPONENTS SUCH AS BLOWER HOUSING MUST BE REMOVED TO FIT MACHINE THROUGH OPENING.

8 DO NOT RUN PIPING OR CONDUIT OVER BLOWER HOUSING SO BLOWER MAY BE REMOVED FOR SERVICING IF NEEDED.

7 CONTROL PANEL FOR DRYER MAY BE INSTALLED IN ANY CONVENIENT LOCATION CONTROL CABLE FROM DRYER TO PANEL SUPPLIED BY MILNOR AND PRICED SEPARATELY.

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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.

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50040 CS1, SA1

DM 0 0.5M 1M
INCHES 0 12 24 36

DWG# BD5040CSCE 2008182D

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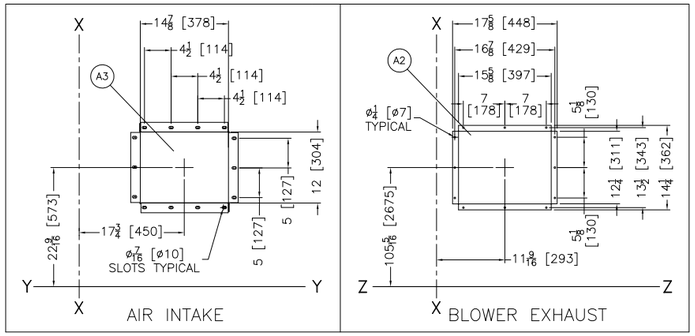
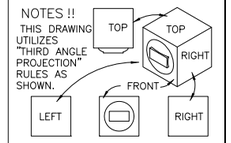


WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 58080TG1/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 58058TG2/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 58040TG2/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 5040TG2L/TS1		USE THIS COSHA SIDE RAIL EXTENDERS		A 5040TG2L DRYERS	
INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
–	–	–	–	0	0	0	0	0	0	57 1/2	1461
–	–	–	–	3 1/2	89	3 1/2	89	3 1/2	89	61	1549
–	–	–	–	10 1/2	267	10 1/2	267	10 1/2	267	68	1727
–	–	0	0	14	356	14	356	14	356	71 1/2	1816
–	–	3 1/2	89	17 1/2	445	17 1/2	445	17 1/2	445	75	1905
0	0	7	178	21	533	21	533	21	533	78 1/2	1994
3 1/2	89	10 1/2	267	24 1/2	622	24 1/2	622	24 1/2	622	82	2083
10 1/2	267	17 1/2	445	31 1/2	800	31 1/2	800	31 1/2	800	89	2261
17 1/2	445	24 1/2	622	38 1/2	978	38 1/2	978	38 1/2	978	96	2438
24 1/2	622	31 1/2	800	45 1/2	1156	45 1/2	1156	45 1/2	1156	103	2616
31 1/2	800	38 1/2	978	52 1/2	1334	52 1/2	1334	52 1/2	1334	110	2794
38 1/2	1156	45 1/2	1156	59 1/2	1511	59 1/2	1511	59 1/2	1511	117	2972
45 1/2	1156	52 1/2	1334	66 1/2	1689	66 1/2	1689	66 1/2	1689	124	3150



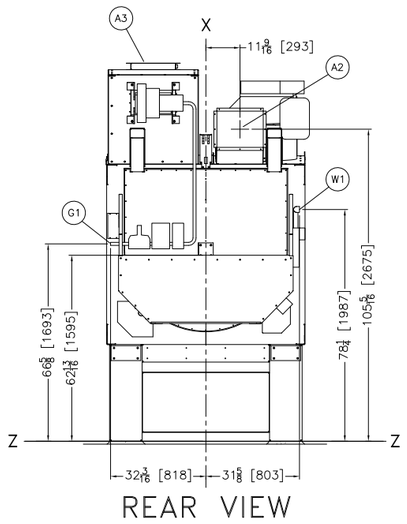
GAS CONSUMPTION:
MAXIMUM NATURAL GAS CONSUMPTION: 950,000 BTU/HR (240,000 KCAL/HR)
AVERAGE NATURAL GAS CONSUMPTION: 500,000 BTU/HR (126,500 KCAL/HR)
GAS PRESSURE REQUIREMENTS: 13.5" W.C. AT EACH MACHINE CONNECTION: 1" NPT
BURNER RATING: 1M BTU/HR MAX FLAME

AIR:
85–110 PSI
CONNECTION: 1" NPT
AIR USAGE (ESTIMATED) AVERAGE PER DRYER CYCLE: 1.5 CFM
PEAK CONSUMPTION: 31.25 SCFM IN 15 SEC.

MAIN BLOWER AIR:
BLOWER DISCHARGE (AIR FLOW): 3600 SCFM
RECOMMENDED DUCT SIZE (INLET & OUTLET): 18"[457] DIA.

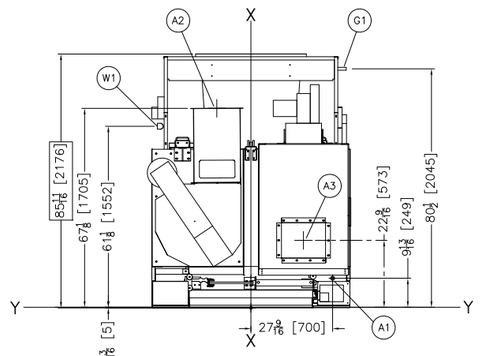
COMBUSTION AIR:
COMBUSTION AIR BLOWER: 250 SCFM
FIRE BOX: 400 SCFM
TOTAL AIR: 650 SCFM

WATER:
SPRINKLER REQUIREMENTS: 1.25" NPT, RUN 1.25" DIAMETER PIPE MINIMUM
PRESSURE: 60 USG PER MINUTE

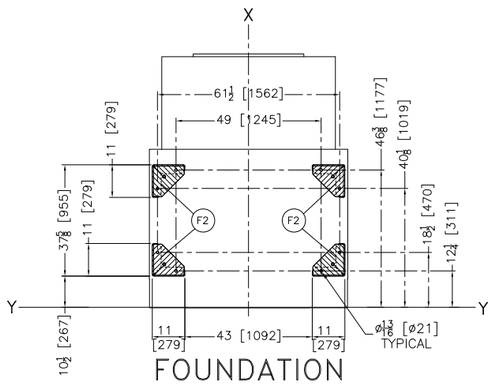


REAR VIEW

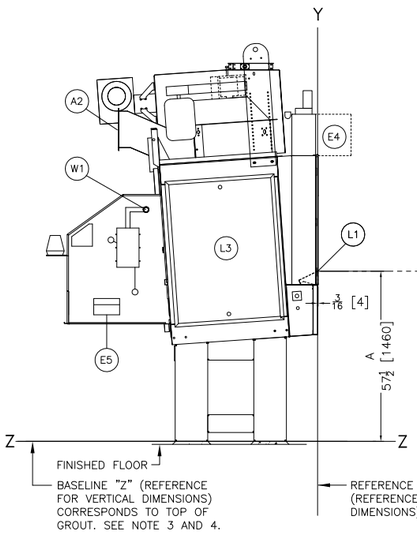
ZERO PEDESTAL SHOWN
ADJUST ALL VERTICAL DIMENSIONS TO THE PEDESTAL SPECIFIED.
SEE NOTE 13.



PLAN VIEW



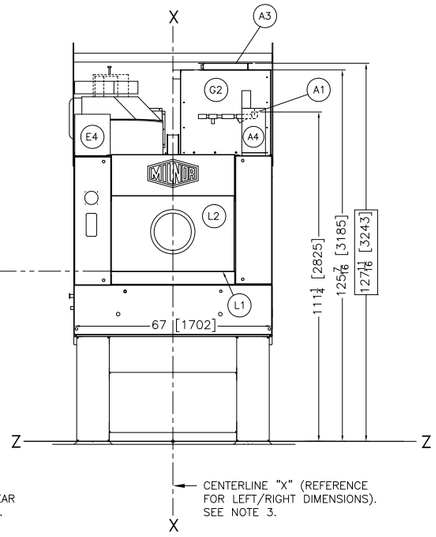
FOUNDATION PLAN VIEW



FINISHED FLOOR
BASELINE "Z" (REFERENCE FOR VERTICAL DIMENSIONS) CORRESPONDS TO TOP OF GROUT. SEE NOTE 3 AND 4.

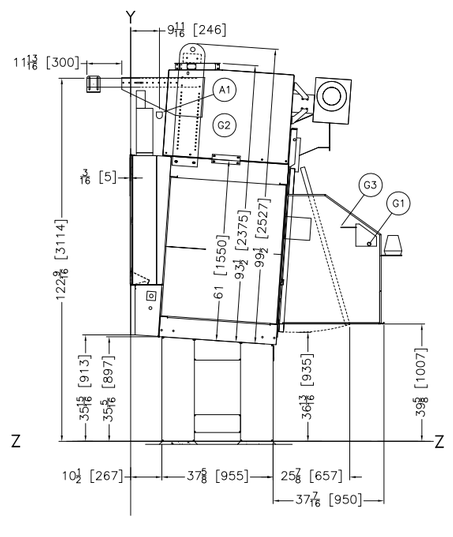
LEFT VIEW

REFERENCE LINE "Y" (REFERENCE FOR FRONT/REAR DIMENSIONS). SEE NOTE 3.



FRONT VIEW

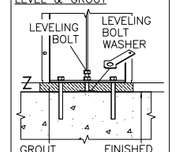
CENTERLINE "X" (REFERENCE FOR LEFT/RIGHT DIMENSIONS). SEE NOTE 3.



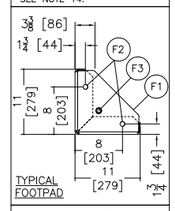
RIGHT VIEW

DETAILS:

LEVEL & GROUT

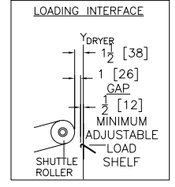


LEVEL WITH LEVELING BOLT TO "Z". GROUT AND ANCHOR ALL FOOTPADS. SEE NOTE 14.



TYPICAL FOOTPAD

LOADING INTERFACE



ITEM	LEGEND
W1	SPRINKLER WATER CONNECTION, 1–1/4" NPT
T1	OPTIONAL BEACON
L3	ACCESS DOORS TO LINT FILTER
L2	LOAD DOOR OPENING SIZE: 42"(1067) WIDE BY 28"(711) HIGH FOR STANDARD DOOR.
L1	LOADING HEIGHT, LOAD SHELF
G3	GAS LINE VENT TO ATMOSPHERE, 1/8" STAINLESS TUBING
G2	BURNER UNIT
G1	MAIN GAS INLET, 1"NPT
F3	LEVELING BOLT (5/8"–11 X 3") SUPPLIED.
F2	BASE PLATES, 4 PLACES
F1	ANCHOR BOLT HOLES, 13/16" DIAMETER, 8 PLACES
E5	MANUAL CONTROLS
E4	MICROPROCESSOR BOX
E3	LOW VOLTAGE BOX
E2	HIGH VOLTAGE BOX
E1	MAIN ELECTRICAL CONNECTION
A4	AIR VALVE BOX
A3	AIR INTAKE TO BURNER
A2	AIR EXHAUST
A1	MAIN AIR INLET, 1" NPT CONNECTION

NOTES

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5040TG2L

DM 0 0.5M 1M
INCHES 0 12 24 36

DWG# BD5040TLCE 20141320

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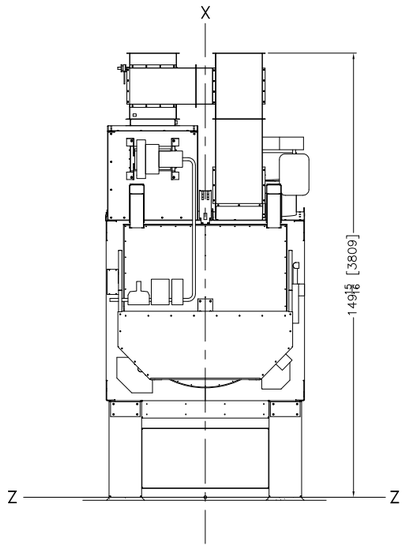
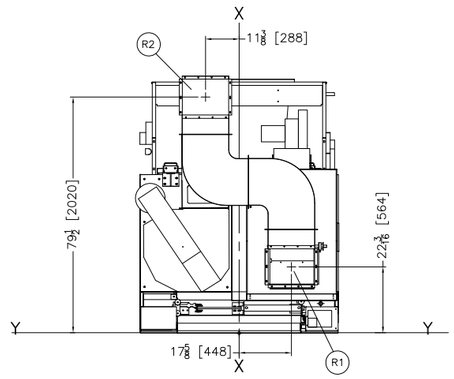
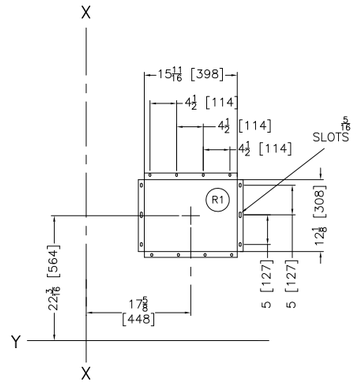
P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467–9591,
FAX 504/469–1849, Email: milnorinfo@milnor.com



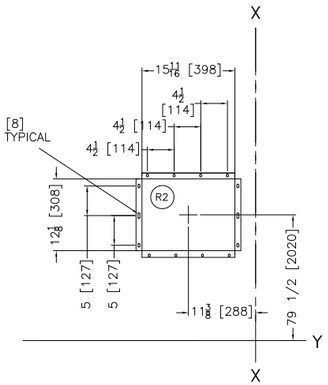
REAR VIEW



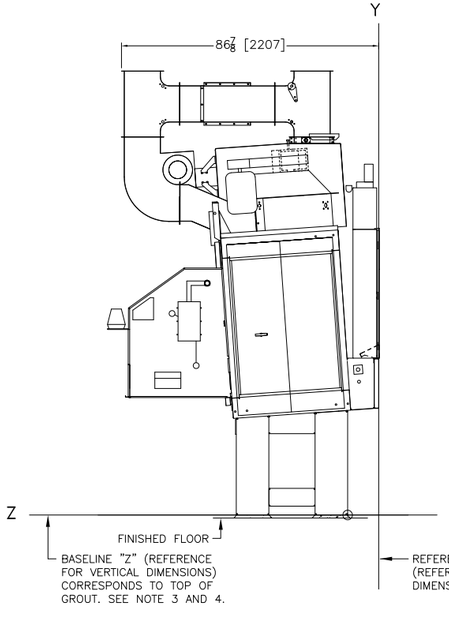
PLAN VIEW



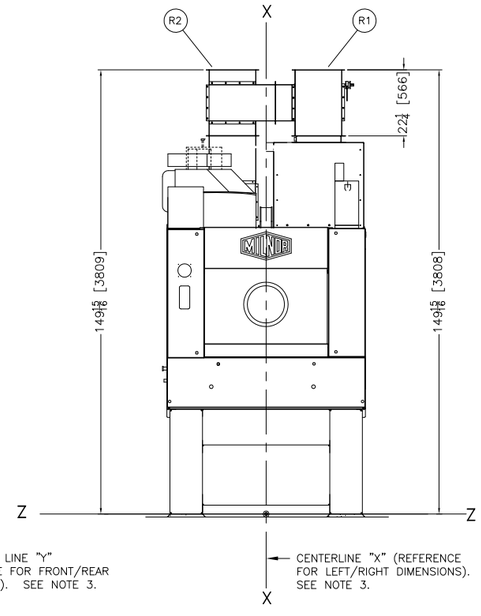
AIR INTAKE



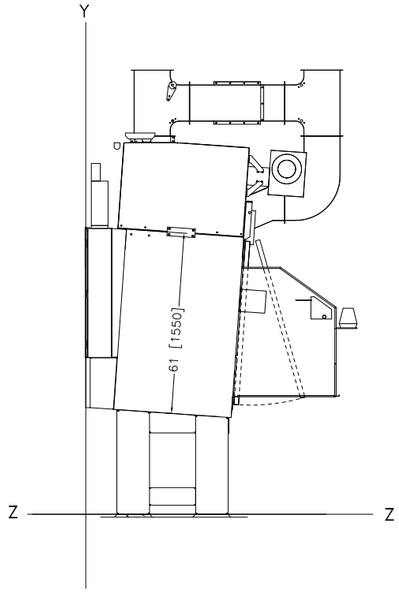
BLOWER EXHAUST



LEFT VIEW



FRONT VIEW



RIGHT VIEW

ITEM	LEGEND
R2	AIR EXHAUST – RECIRCULATION DUCTING
R1	AIR INTAKE TO BURNER – RECIRCULATION DUCTING

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5040TG2L – RECIRC OPTION

DM 0 0.5M 1M
INCHES 0 12 24 36

DWG# BD5040TLCC 2012101D

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P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467-9591,
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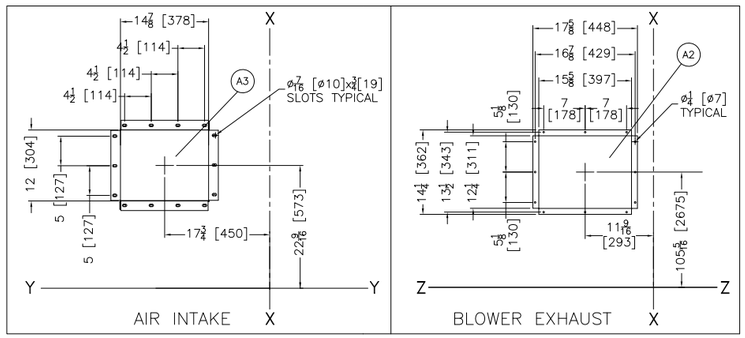
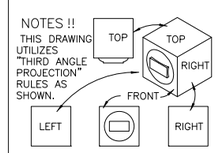


WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 58080TG1/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 58058TG2/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 58040TG2/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 5040TG2L/TS1		USE THIS COSHA SIDE RAIL EXTENDERS		A 5040TG2R DRYERS	
INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
–	–	–	–	0	0	0	0	0	0	57 1/2	1461
–	–	–	–	3 1/2	89	3 1/2	89	3 1/2	89	61	1549
–	–	–	–	10 1/2	267	10 1/2	267	10 1/2	267	68	1727
–	–	0	0	14	356	14	356	14	356	71 1/2	1816
–	–	3 1/2	89	17 1/2	445	17 1/2	445	17 1/2	445	75	1905
0	0	7	178	21	533	21	533	21	533	78 1/2	1994
3 1/2	89	10 1/2	267	24 1/2	622	24 1/2	622	24 1/2	622	82	2083
10 1/2	267	17 1/2	445	31 1/2	800	31 1/2	800	31 1/2	800	89	2261
17 1/2	445	24 1/2	622	38 1/2	978	38 1/2	978	38 1/2	978	96	2438
24 1/2	622	31 1/2	800	45 1/2	1156	45 1/2	1156	45 1/2	1156	103	2616
31 1/2	800	38 1/2	978	52 1/2	1334	52 1/2	1334	52 1/2	1334	110	2794
38 1/2	1156	45 1/2	1156	59 1/2	1511	59 1/2	1511	59 1/2	1511	117	2972
45 1/2	1156	52 1/2	1334	66 1/2	1689	66 1/2	1689	66 1/2	1689	124	3150



GAS CONSUMPTION:
MAXIMUM NATURAL GAS CONSUMPTION: 950,000 BTU/HR (240,000 KCAL/HR)
AVERAGE NATURAL GAS CONSUMPTION: 500,000 BTU/HR (126,500 KCAL/HR)
GAS PRESSURE REQUIREMENTS: 13.5" W.C. AT EACH MACHINE
CONNECTION: 1" NPT
BURNER RATING: 1M BTU/HR MAX FLAME

AIR:
85–110 PSI
CONNECTION: 1" NPT
AIR USAGE (ESTIMATED) AVERAGE PER DRYER CYCLE: 1.5 CFM
PEAK CONSUMPTION: 31.25 SCFM IN 15 SEC.

MAIN BLOWER AIR:
BLOWER DISCHARGE (AIR FLOW): 3600 SCFM
RECOMMENDED DUCT SIZE (INLET & OUTLET): 18"[457] DIA.

COMBUSTION AIR:
COMBUSTION AIR BLOWER: 250 SCFM
FIRE BOX: 400 SCFM
TOTAL AIR: 650 SCFM

WATER:
SPRINKLER REQUIREMENTS: 1.25" NPT, RUN 1.25" DIAMETER PIPE MINIMUM
PRESSURE: 60 USG PER MINUTE

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T1	OPTIONAL BEACON
L3	ACCESS DOORS TO LINT FILTER
L2	LOAD DOOR OPENING SIZE: 42"(1067) WIDE BY 28"(711) HIGH FOR STANDARD DOOR.
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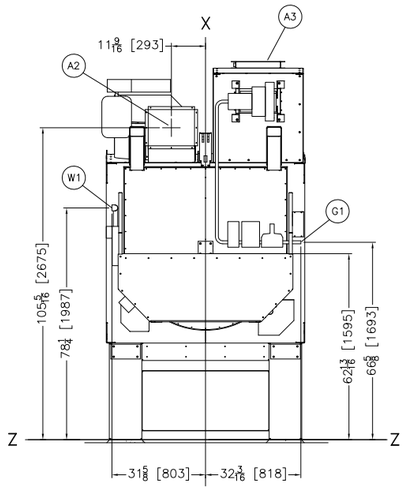
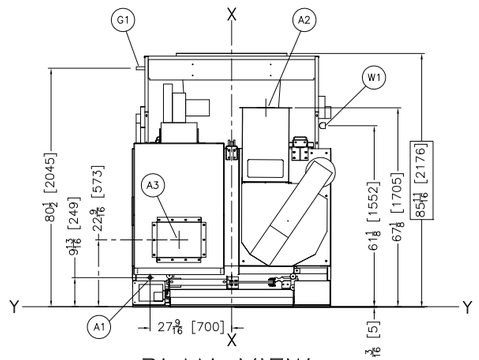
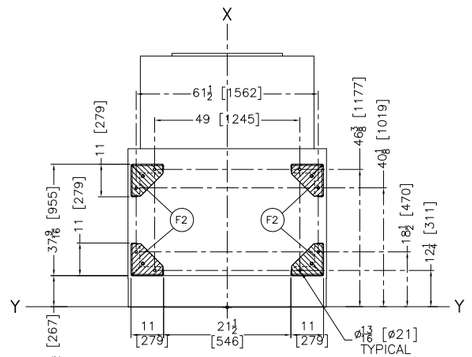
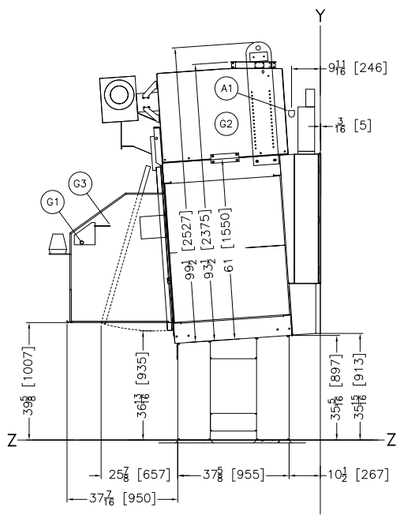
A1	MAIN AIR INLET, 1" NPT CONNECTION
ITEM	LEGEND

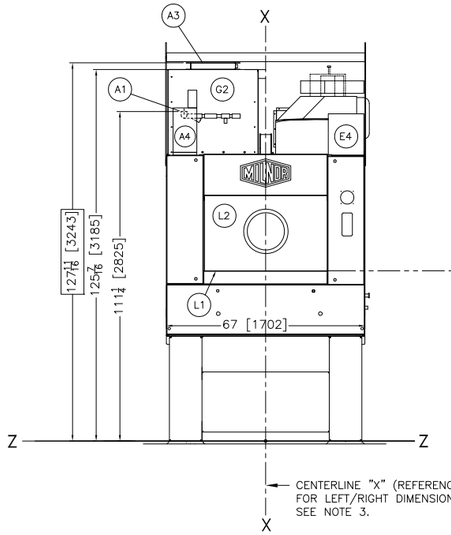
ZERO PEDESTAL SHOWN
ADJUST ALL VERTICAL DIMENSIONS TO THE PEDESTAL SPECIFIED.
SEE NOTE 13.

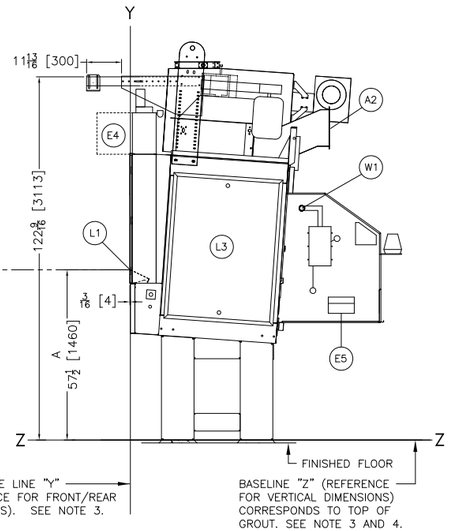






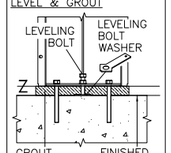






DETAILS:

LEVEL & GROUT



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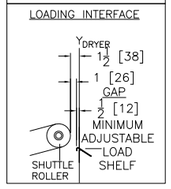
TYPICAL FOOTPAD

LOADING INTERFACE



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ATTENTION

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5040TG2R

DM 0 0.5M 1M
INCHES 0 12 24 36

DWG# BD5040TRCE 2014132D

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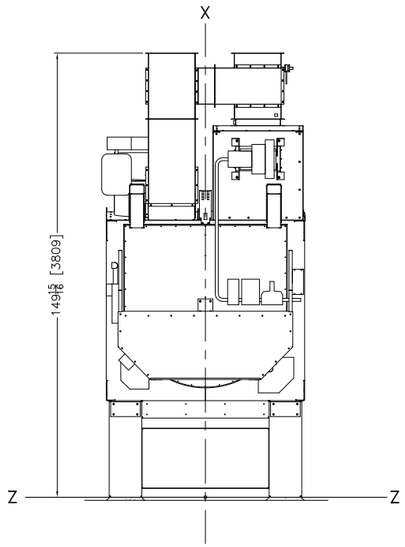
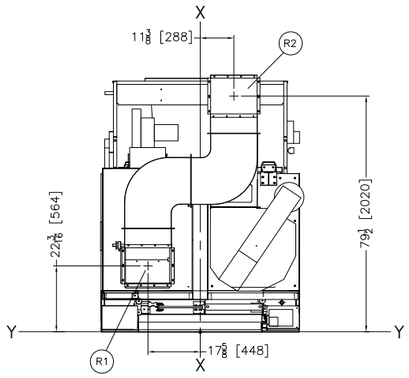
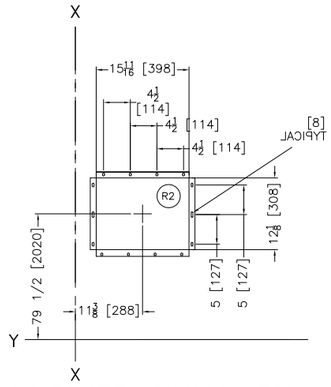


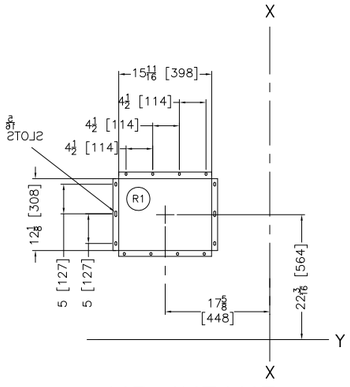
REAR VIEW



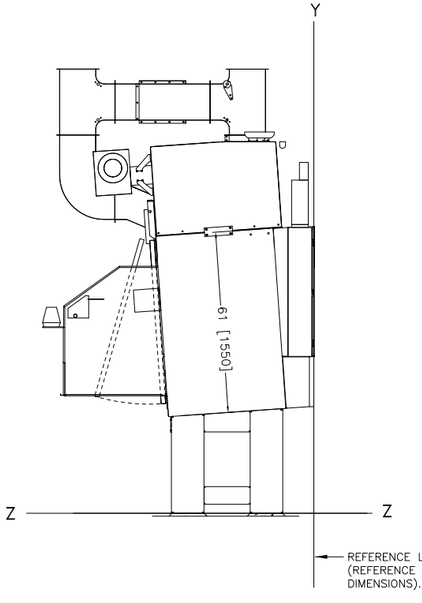
PLAN VIEW



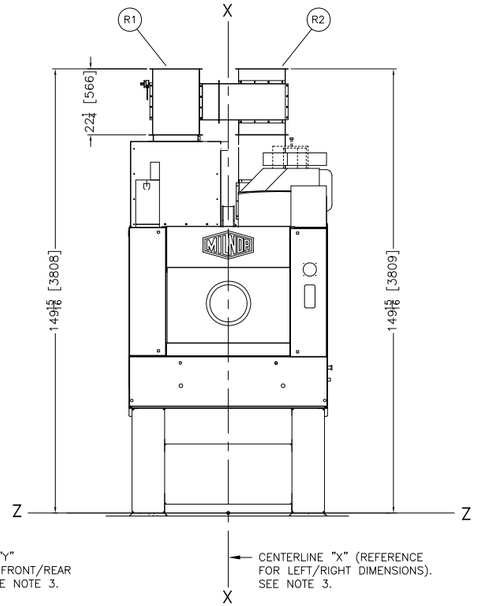
BLOWER EXHAUST



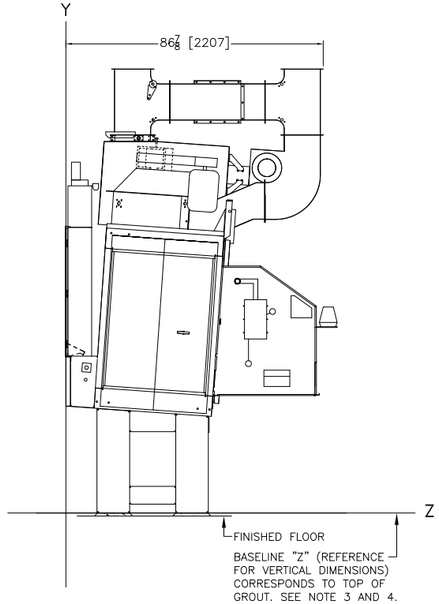
AIR INTAKE



LEFT VIEW



FRONT VIEW



RIGHT VIEW

ITEM	LEGEND
R2	AIR EXHAUST – RECIRCULATION DUCTING
R1	AIR INTAKE TO BURNER – RECIRCULATION DUCTING

NOTES

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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 FOR FURTHER RESTRICTIONS.

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5040TG2R – RECIRC OPTION

DM 0 0.5M 1M
INCHES 0 12 24 36

DWG# BD5040TRCC 2012101D

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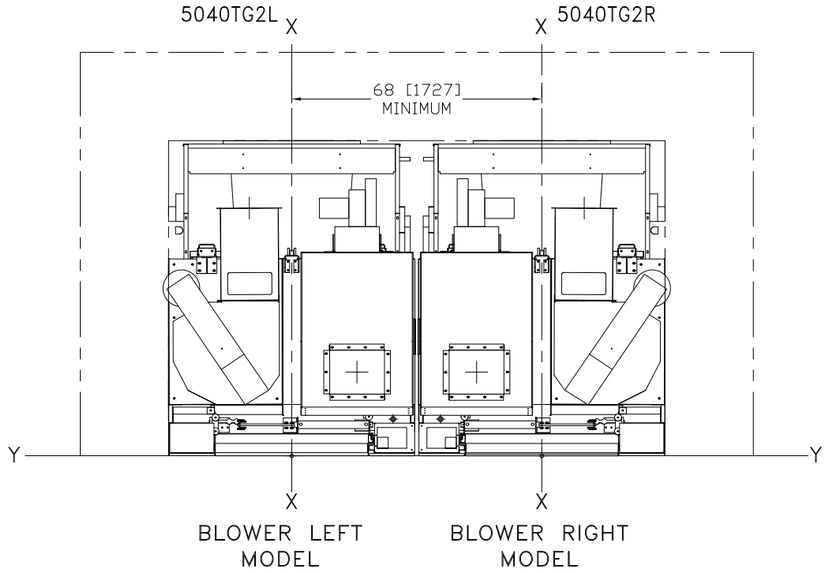
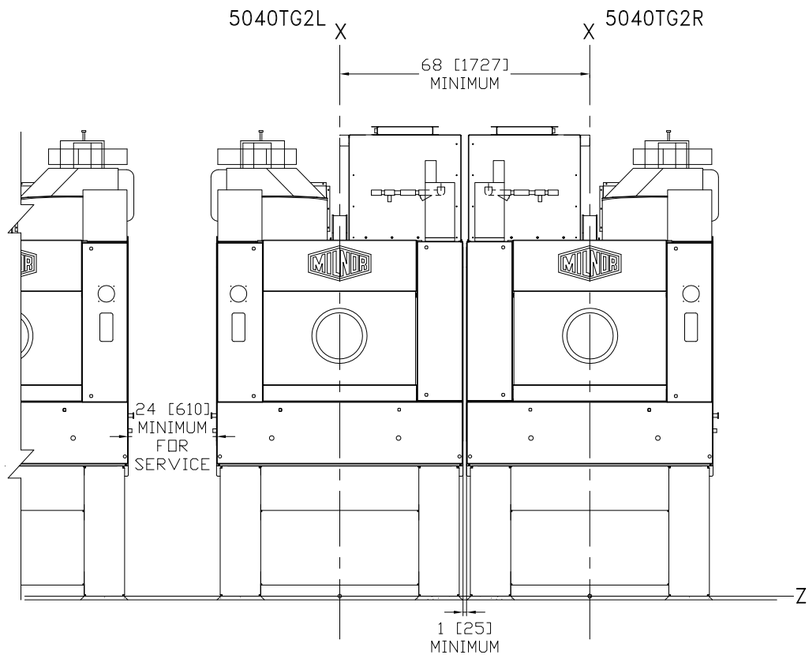


PLAN VIEW



FRONT VIEW
MIRRORED INSTALLATION

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5040TG2L & 5040TG2R PAIRED

DM 0 0.5M 1M
INCHES 0 12 24 36

DWG# BD5040TPCE 2012101D

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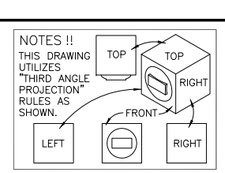
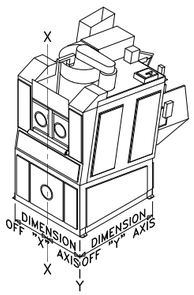
NOTES !!
THIS DRAWING UTILIZES "THIRD ANGLE PROJECTION" RULES AS SHOWN.





DRYERS ON CORRESPONDING PEDESTALS								SHUTTLE		A		A	
PEDESTAL EXTENDER 58080TG1/TS1		PEDESTAL EXTENDER 58058TG2/TS1		PEDESTAL EXTENDER 58040TG2/TS1		PEDESTAL EXTENDER 50040TS1		SIDE RAIL EXTENDER		LOAD ROLLER HEIGHT DRYER		LOAD DOOR SHELF HEIGHT DRYER	
INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
				0	0	0	0	7	178	57 1/4	1454	–	–
				3 1/2	89	3 1/2	89	10 1/2	267	60 3/4	1543	62 1/2	1586
				7	178	7	178	14	356	64 1/4	1632	66 **	1650
				10 1/2	267	10 1/2	267	17 1/2	445	67 3/4	1721	69 1/2	1765
		0	0	14	356	14	356	21	553	71 1/4	1810	73	1854
		3 1/2	89	17 1/2	445	17 1/2	445	24 1/2	622	74 3/4	1899	76 1/2	1943
0	0	7	178	21	533	21	533	28	711	78 1/4	1988	80	2032
3 1/2	89	10 1/2	267	24 1/2	622	24 1/2	622	31 1/2	800	81 3/4	2076	83 1/2	2121
7	178	14	356	28	711	28	711	35	889	85 1/4	2165	87	2210
10 1/2	267	17 1/2	445	31 1/2	800	31 1/2	800	38 1/2	978	88 3/4	2254	90 1/2	2299
14	356	21	553	35	889	35	889	42	1067	92 1/4	2343	94	2388
17 1/2	445	24 1/2	622	38 1/2	978	38 1/2	978	45 1/2	1156	95 3/4	2432	97 1/2	2477
21	553	28	711	42	1067	42	1067	49	1245	99 1/4	2521	101	2565
24 1/2	622	31 1/2	800	45 1/2	1156	45 1/2	1156	52 1/2	1334	102 3/4	2610	104 1/2	2654
31 1/2	800	38 1/2	978	52 1/2	1334	52 1/2	1334	59 1/2	1511	109 3/4	2788	111 1/2	2832
38 1/2	978	45 1/2	1156	59 1/2	1511	59 1/2	1511	66 1/2	1689	116 3/4	2965	118 1/2	2997
45 1/2	1156	52 1/2	1334	66 1/2	1689	66 1/2	1689	73 1/2	1867	123 3/4	3143	125 1/2	3188

* ASTERISK DENOTES DIMENSIONS THAT INCREASE WITH PEDESTAL EXTENDERS. ADD PEDESTAL HEIGHT TO DIMENSIONS FOR CORRECT HEIGHTS.

GAS CONSUMPTION	58040TG2
MAXIMUM NATURAL GAS CONSUMPTION	950,000 BTU/HR (240,000 KCAL/HR)
AVERAGE NATURAL GAS CONSUMPTION	500,000 BTU/HR (126,500 KCAL/HR)
STEAM CONSUMPTION	**58040TS1**
MAXIMUM STEAM CONSUMPTION WITH 110 LB (50 KG LOAD)	600 LB (272 KG) OF STEAM PER HOUR AT 120 PSI (8.2 ATU) OR APPROX. 17 ACTUAL BOILER HP

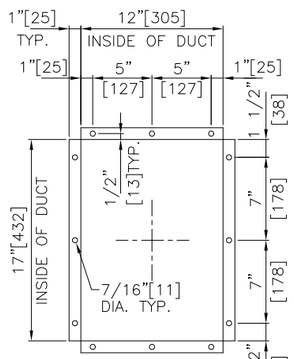
NOTE: STEAM CONSUMPTION VALUES ASSUME NO EXTERNAL ENERGY LOSSES IN EITHER THE STEAM DELIVERY OR CONDENSATE RETURN PIPING. MINIMUM RECOMMENDED BOILER SIZE IS 22 HP PER DRYER TO PROVIDE FOR ABOVE CONSUMPTION PLUS EXTERNAL ENERGY LOSS.

AIR FLOW

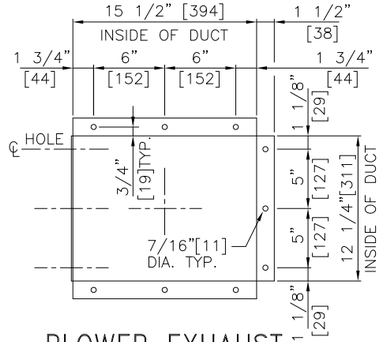
MAX. EXHAUST AIR (SEE NOTES)	3600 SCFM (102 CU M/MIN.)
MAX. COMBUSTION AIR (SEE NOTE 17.)	250 SCFM (7 CU M/MIN.)
RECOMMENDED DUCT SIZE FOR INLET & OUTLET DUCTS	– 18"[457] DIAMETER

NOTE: MAX. ALLOWABLE BACK PRESSURE AT MAX. AIRFLOW + 1/2" WATER COLUMN

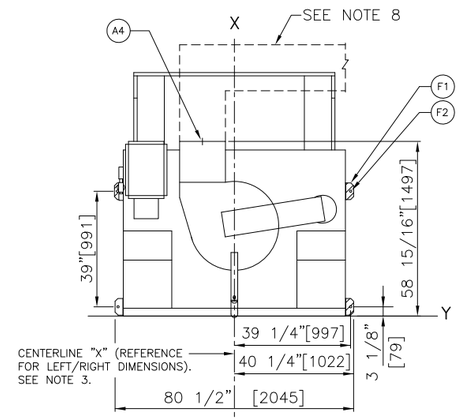
ITEM	LEGEND
W1	SPRINKLER WATER INLET CONNECTION, 1 1/2" NPT. RUN
	1 1/2" NPT PIPE MINIMUM. SPRINKLER IS STANDARD ON
	GAS MODEL ONLY.
S2	STEAM CONDENSATE RETURN LINE, 3/4" NPT. ONLY ON TS1.
S1	STEAM INLET, 2" NPT. ONLY ON TS1 MODEL.
N1	STANDARD SHROUD.
L4	LOADING HEIGHT – OPTIONAL LOAD DOOR SHELF
L3	LOADING HEIGHT – ROLLER LOADING
L2	LOWER CYLINDER LIP – UNLOAD LIP.
L1	LOAD DOOR OPENING – STANDARD 42 [1067] WIDE x 32
	[813] HIGH.
H1	HOT OIL 1 1/2" IPS FLANGED 4 BOLT
	CONNECTIONS. (TT1 MODELS ONLY)
G4	GAS MODULATING VALVE(S) COVER
G3	GAS PRESSURE SAFETY SWITCHES – TG2 MODELS ONLY
G2	GAS LINE VENT 1/8" NPT ONLY ON TG2 MODEL.
G1	GAS INLET 1" NPT. ONLY ON TG2 MODEL.
F2	ANCHOR BOLT HOLES 7/8" DIAMETER.
F1	BASE PLATES (SHADED AREA REQUIRES SUPPORT) 2 3/4
	[70] x 5 5/8 [143]. IF NO PEDESTAL LEGS.
E5	FAN FOR ELECTRICAL CONTROLS
E4	EMERGENCY STOP BUTTONS
E3	SERIAL CONTROL CONNECTION FROM BELTBOX
E2	CONTROL CABLE CONNECTION POINT
E1	MAIN ELECTRICAL CONNECTION TO JUNCTION BOX
A4	BLOWER EXHAUST
A3	BLOWER INTAKE
A2	COMBUSTION AIR INTAKE – TG2 MODELS ONLY
A1	COMPRESSED AIR INLET, 1"NPT CONNECTION



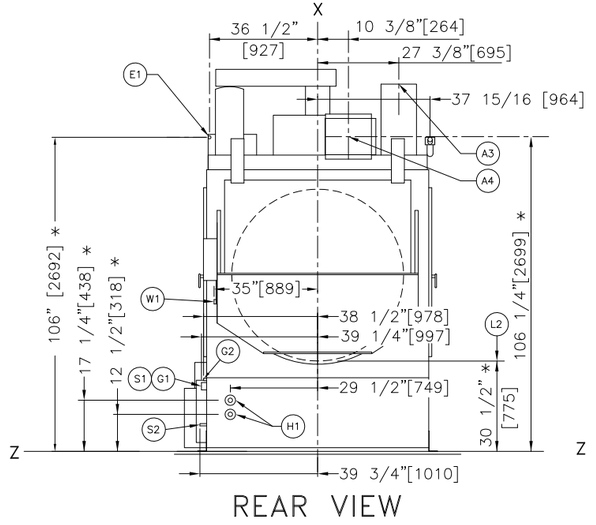
BLOWER INTAKE DUCT DETAIL



BLOWER EXHAUST DUCT DETAIL
(SEE NOTE 14)



PLAN VIEW



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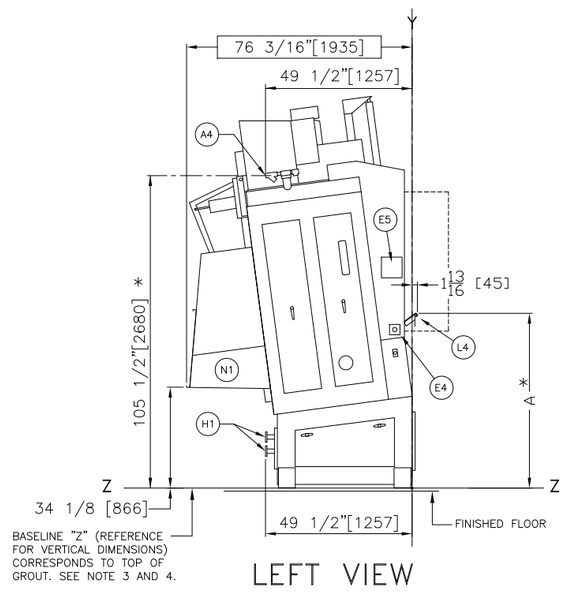
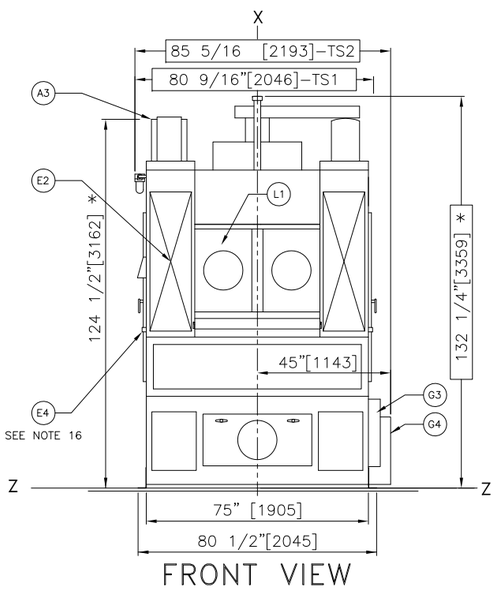
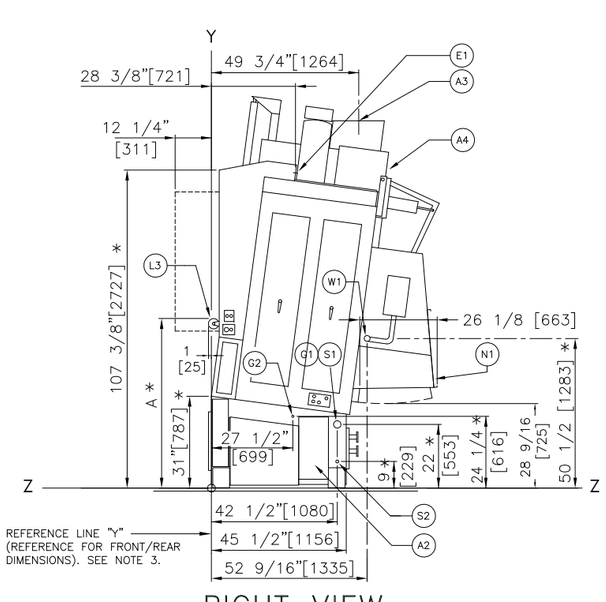


LEFT VIEW



FRONT VIEW



RIGHT VIEW

NOTES

17 THIS DRYER REQUIRES SIGNIFICANT SCFM OF AMBIENT AIR (EXCLUSIVE OF THE INLET DUCT) TO OPERATE CORRECTLY. THIS IS USED BY THE COMBUSTION AIR BLOWER FOR PROPER COMBUSTION BY THE BURNER. APPROPRIATE DUCTING OR VENTILATION DAMPERS SHOULD BE INSTALLED IN THE FACILITY TO ENSURE NO VACUUM EXISTS TO STARVE THE DRYERS OF THIS AIR REQUIREMENT.

16 EMERGENCY STOP BUTTONS ARE RELOCATED TO BASE IF MACHINE USES 17 1/2" OR LONGER PEDESTAL EXTENDERS.

15 DRYER LEGS (PEDESTAL EXTENDERS) AND SHUTTLE SIDE RAIL EXTENDERS RAISE THE MACHINE AS SHOWN IN THE CHART. TO USE DRYERS OF DIFFERENT SIZES AND ANY SHUTTLE (EXCEPT COSHA 113) ON THE SAME RAIL SYSTEM (SHUTTLE DISCHARGE HEIGHT/DRYER LOAD HEIGHTS MUST MATCH), SELECT EXTENDERS FROM THE SAME LINE OF THE CHART.

14 THE AUTOLINT DUCT IS ONLY FOR CONNECTION WITH OPTIONAL AUTOLINT REMOTE COLLECTOR. IT DOES NOT REPLACE THE BLOWER EXHAUST OUTLET WHICH MUST STILL BE ACCOMMODATED.

13 DO NOT USE ANY TYPE OF TURNING VANES IN THE DRYER EXHAUST DUCTING AS THESE WILL IMMEDIATELY PLUG WITH LINT.

12 MINIMUM CLEARANCE FOR MAINTENANCE = 18" [458]. SOME JURISDICTIONS REQUIRE UP TO 30" [762] CLEARANCE. CONSULT LOCAL CODES. IN SHUTTLE INSTALLATIONS, MINIMUM DISTANCES FROM DRYER TO WALL IS DETERMINED BY SHUTTLE REQUIREMENTS. SEE DRAWING, BDSHTCLRBE, FOR MINIMUM DIMENSION OF SHUTTLE AT LAST STOPPING PLACE (MAY BE DRYER) TO WALL.

11 DRYER IS DISASSEMBLED INTO TWO MAJOR COMPONENTS, THE BASE AND THE FRAME FOR SHIPMENT. CONSULT MILNOR FACTORY IF COMPONENTS SUCH AS BLOWER HOUSING MUST BE REMOVED TO FIT MACHINE THROUGH OPENING.

10 * DENOTES DIMENSIONS THAT INCREASE WITH PEDESTAL EXTENDERS. (SEE TABLE)

9 DO NOT RUN PIPING OR CONDUIT OVER BLOWER HOUSING, SO THAT THE BLOWER MAY BE REMOVED FOR SERVICING, IF NEEDED.

8 IF CUSTOMER SUPPLIED VENT IS TO TURN RIGHT AS SHOWN DASHED IN PLAN VIEW, 20" [508] CLEARANCE MINIMUM MUST BE HELD BETWEEN VENT AND DRYER FRAME, TO PREVENT INTERFERENCE WITH DOOR ACTUATOR.

7 CONTROL PANEL FOR DRYER MAY BE INSTALLED IN ANY CONVENIENT LOCATION. CONTROL CABLE FROM DRYER TO PANEL SUPPLIED BY MILNOR AND PRICED SEPARATELY.

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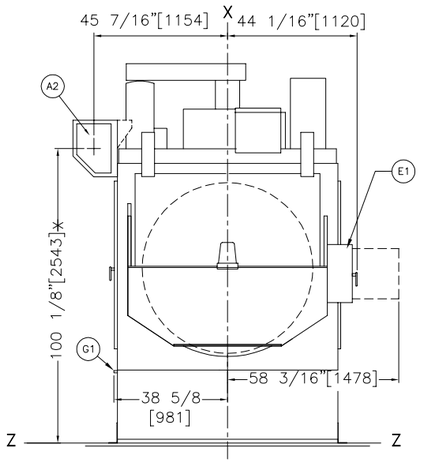
58040TG2, TT1, TS1 DRYER

DM 0 0.5M 1M
INCHES 0 12 24 36

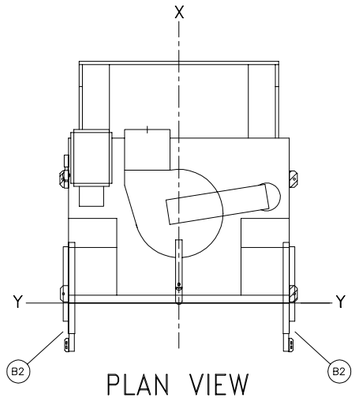
DWG# BD5840TGAE 2010476D

PELLERIN MILNOR CORPORATION
P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467-9591,
FAX 504/469-1849, Telex ITT 460124/PELM UI, Cable PELMILNOR

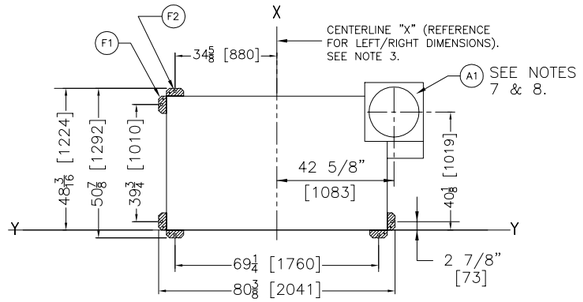
* ASTERISK DENOTES DIMENSIONS THAT INCREASE WITH PEDESTAL EXTENDERS.
ADD PEDESTAL HEIGHT TO DIMENSIONS FOR CORRECT HEIGHTS.
SEE CHART, BD5840TGAE.



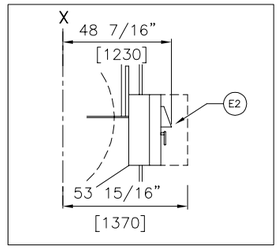
REAR VIEW



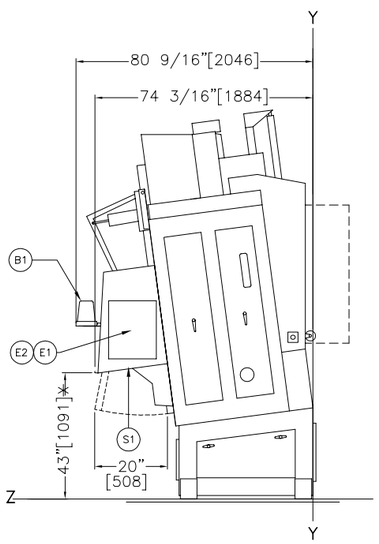
PLAN VIEW



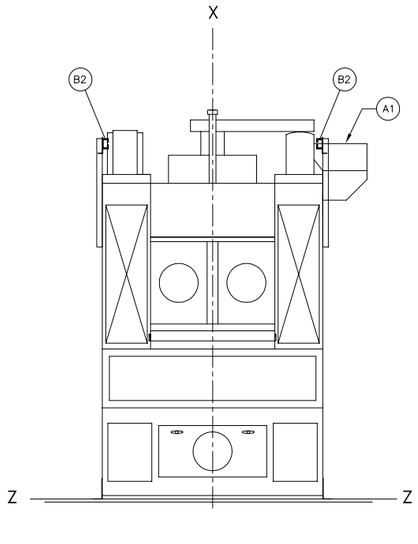
FOUNDATION PLAN



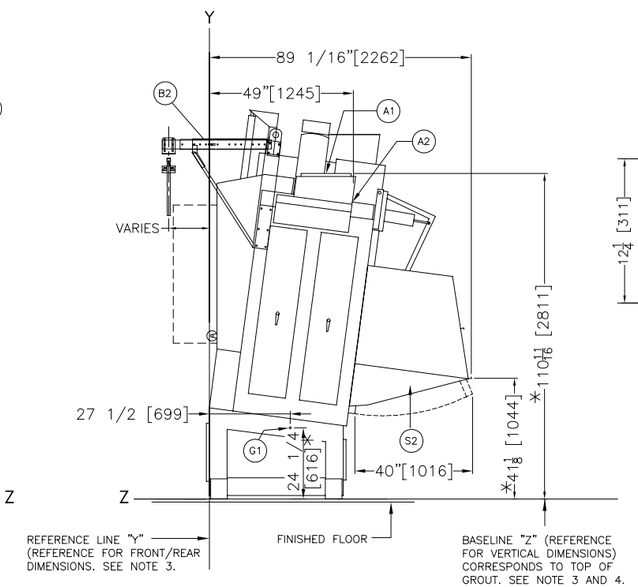
PARTIAL REAR VIEW
VARIABLE SPEED
CONTROL BOX



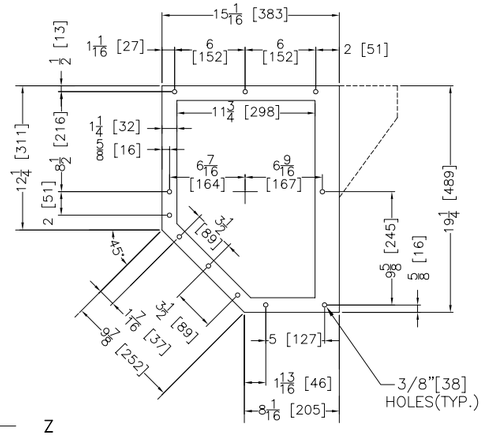
LEFT VIEW



FRONT VIEW



RIGHT VIEW



AUTOLINT OUTLET DUCT
VENTS REARWARD

ITEM	LEGEND
S2	INCREASED ANGLE DISCHARGE DOOR & SHROUD
S1	SHORTER SHROUD
G1	GAS TRAIN VENT 3/4" NPT
F2	ANCHOR BOLT HOLES, 7/8" DIAMETER
F1	PEDESTAL LEGS – BASE PLATES (SHADED AREAS
	REQUIRE SUPPORT)
E2	VARIABLE SPEED CONTROL BOX
E1	CONTROLLER ON LEFT SIDE DISCHARGE SHROUD
B2	OPTIONAL DRYER MOUNTED FESTOON RAIL SUPPORT (CART
	RAIL SHUTTLES)
B1	DISCHARGE ROTATING BEACON
A2	AUTOLINT OUTLET DUCT VENTS REARWARD
A1	AUTOLINT OUTLET DUCT VENTS UPWARD

NOTES

9 CONTROLLER MAY BE ORDERED WITH MOUNTING ON PEDESTAL IF DESIRED.

8 THE 17-1/8"(435) INSIDE DIAMETER FLANGE CONNECTION SHOULD BE SPOT WELDED AND SEALED WITH SILICONE. THE 17"(432) DUCTING TO THE REMOTE AUTOLINT COLLECTOR IS NOT SUPPLIED BY P.M.C.

7 THE AUTOLINT OUTLET DUCT IS ONLY FOR CONNECTION WITH OPTIONAL REMOTE AUTOLINT COLLECTOR. IT DOES NOT REPLACE THE BLOWER EXHAUST OUTLET WHICH MUST STILL BE ACCOMODATED.

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58040TG2,TS1,TT1 OPTIONS

DM 0 0.5M 1M
INCHES 0 12 24 36

DWG# BD5840TGAB
2007092D

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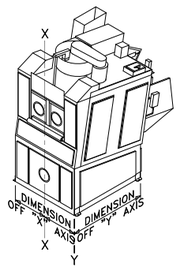
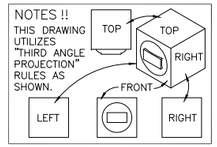


NOTES !!
THIS DRAWING UTILIZES "THIRD ANGLE PROJECTION" RULES AS SHOWN.



DRYERS ON CORRESPONDING PEDESTALS								SHUTTLE		A		A	
PEDESTAL EXTENDER 58080TG1/TS1		PEDESTAL EXTENDER 58058TG2/TS1		PEDESTAL EXTENDER 58040TG2/TS1		PEDESTAL EXTENDER 50040TS1		SIDE RAIL EXTENDER		LOAD ROLLER HEIGHT DRYER		LOAD DOOR SHELF HEIGHT DRYER	
INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
		0	0	14	356	14	356	21	553	71 1/4	1810	73	1825
		3 1/2	89	17 1/2	445	17 1/2	445	24 1/2	622	74 3/4	1899	76 1/2	1943
0	0	7	178	21	533	21	533	28	711	78 1/4	1988	80	2032
3 1/2	89	10 1/2	267	24 1/2	622	24 1/2	622	31 1/2	800	81 3/4	2076	83 1/2	2121
7	178	14	356	28	711	28	711	35	889	85 1/4	2165	87	2210
10 1/2	267	17 1/2	445	31 1/2	800	31 1/2	800	38 1/2	978	88 3/4	2254	90 1/2	2299
14	356	21	553	35	889	35	889	42	1067	92 1/4	2343	94	2388
17 1/2	445	24 1/2	622	38 1/2	978	38 1/2	978	45 1/2	1156	95 3/4	2432	97 1/2	2477
21	553	28	711	42	1067	42	1067	49	1245	99 1/4	2521	101	2565
24 1/2	622	31 1/2	800	45 1/2	1156	45 1/2	1156	52 1/2	1334	102 3/4	2610	104 1/2	2654
31 1/2	800	38 1/2	978	52 1/2	1334	52 1/2	1334	59 1/2	1511	109 3/4	2788	111 1/2	2832
38 1/2	978	45 1/2	1156	59 1/2	1511	59 1/2	1511	66 1/2	1689	116 3/4	2965	118 1/2	3010
45 1/2	1156	52 1/2	1334	66 1/2	1689	66 1/2	1689	73 1/2	1867	123 3/4	3143	125 1/2	3188

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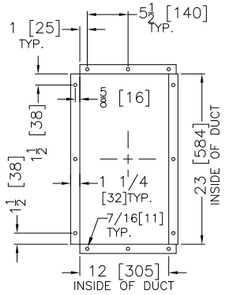
GAS CONSUMPTION	**58058TG2**
MAXIMUM NATURAL GAS CONSUMPTION	1,400,000 BTU/HR (350,000 KCAL/HR)
AVERAGE NATURAL GAS CONSUMPTION	1,000,000 BTU/HR (253,000 KCAL/HR)
STEAM CONSUMPTION	**58058TS1**
MAXIMUM STEAM CONSUMPTION WITH 220 LB (200 KG LOAD)	950 LB (431 KG) OF STEAM PER HOUR AT 120 PSI (8.2 ATU) OR APPROX. 25 ACTUAL BOILER HP

NOTE: STEAM CONSUMPTION VALUES ASSUME NO EXTERNAL ENERGY LOSSES IN EITHER THE STEAM DELIVERY OR CONDENSATE RETURN PIPING. MINIMUM RECOMMENDED BOILER SIZE IS 22 HP PER DRYER TO PROVIDE FOR ABOVE CONSUMPTION PLUS EXTERNAL ENERGY LOSS.

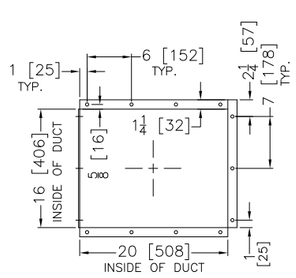
AIR FLOW	
MAX. EXHAUST AIR (SEE NOTE 13)	5000 SCFM (142 CU M/MIN.)
MAX. COMBUSTION AIR (SEE NOTE 18)	400 SCFM (11 CU M/MIN.)
RECOMMENDED DUCT SIZE FOR INLET & OUTLET DUCTS	– 20"[508] DIAMETER

NOTE: MAX. ALLOWABLE BACK PRESSURE AT MAX. AIRFLOW + 1/2" WATER COLUMN

ITEM	LEGEND
L3	LOADING HEIGHT – OPTIONAL LOAD DOOR SHELF LOADING
L2	LOADING HEIGHT – ROLLER LOADING
L1	LOAD DOOR OPENING – STANDARD 42 [1067] WIDE x 32 [813] HIGH.
G2	GAS INLET 1 1/2" NPT(TG2) OR STEAM INLET 2" NPT(TS1)
G1	GAS LINE VENT 1/8" NPT
F1	HOT OIL, 2" IPS FLANGED, 4 BOLT CONNECTIONS (TT1 MODEL ONLY)
E6	FAN FOR ELECTRICAL CONTROLS
E5	ANCHOR BOLT HOLES 7/8" (22) DIA.
E4	BASE PLATES (SHADED AREA REQUIRES SUPPORT) 2 3/4"(70) X 5 5/8"(143) IF NO PEDESTAL LEGS.
E1	LOWER CYLINDER LIP – UNLOAD END
D1	EMERGENCY STOP BUTTONS
C6	ELECTRICAL ACCESS TO MAIN ELECTRICAL CONNECTION
C5	SERIAL CONTROL CONNECTION FROM BELTBOX
C4	CONTROL CABLE CONNECTION POINT
C2	RELAY CABINETS
B3	COMBUSTION AIR INTAKE (TG2 MODEL ONLY)
B2	BLOWER EXHAUST
B1	BLOWER INTAKE
A6	STEAM CONDENSATE RETURN LINE (TS1 ONLY) 3/4" NPT.
A5	STEAM INLET 2" NPT
A4	AIR VALVE BOX
A2	COMPRESSED AIR INLET, 1" NPT
A1	SPRINKLER WATER INLET 1 1/4" NPT CONNECTION, RUN 1 1/4" PIPE MINIMUM (SEE NOTE 16)

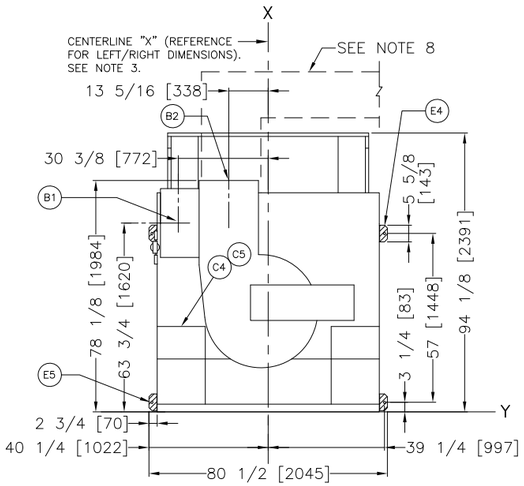


BLOWER INTAKE DUCT DETAIL

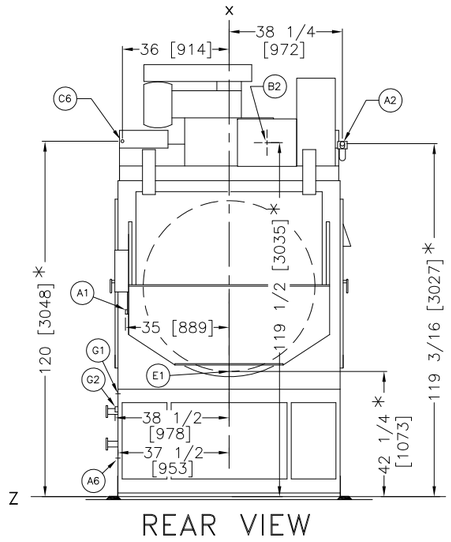


BLOWER EXHAUST DUCT DETAIL
(SEE NOTE 14)

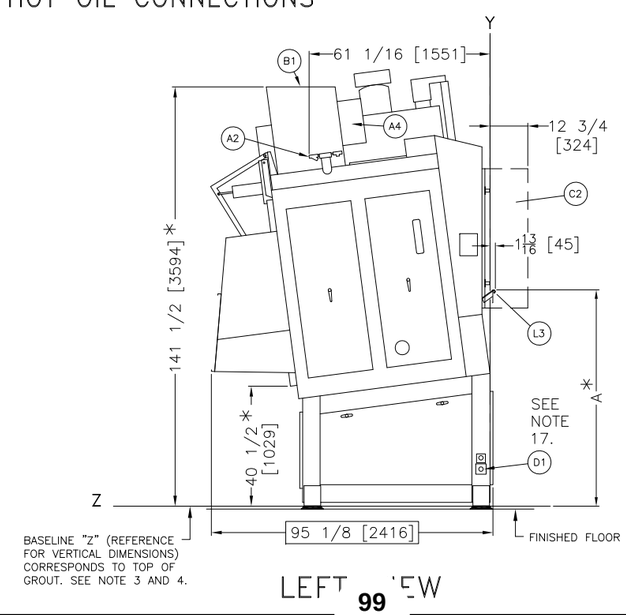
PARTIAL RIGHT VIEW
HOT OIL CONNECTIONS



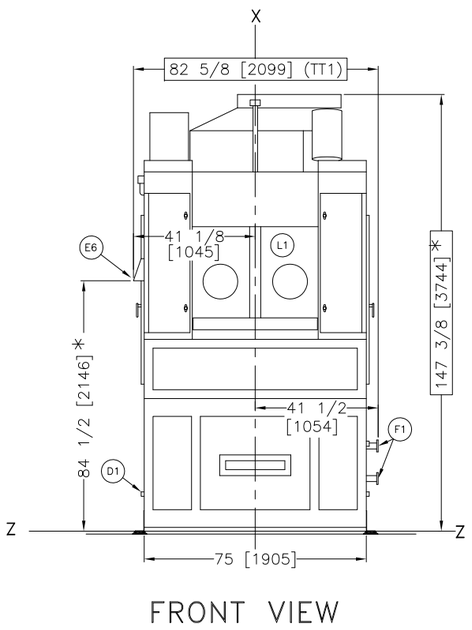
PLAN VIEW



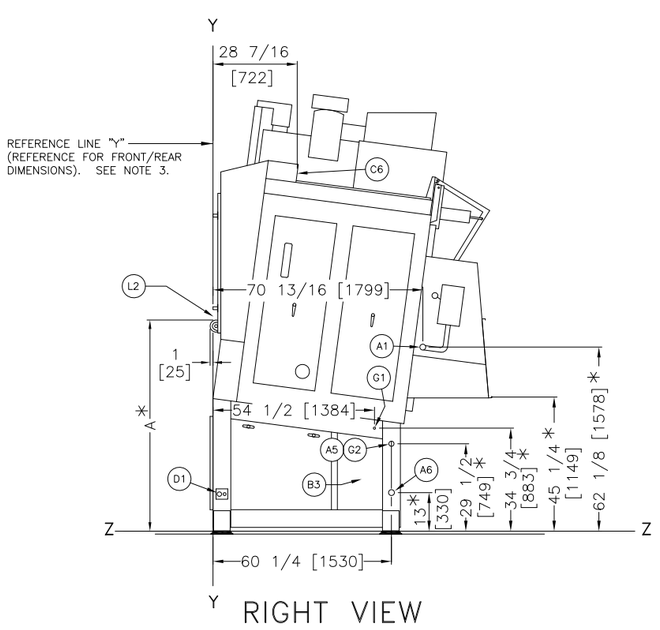
REAR VIEW



LEFT VIEW



FRONT VIEW



RIGHT VIEW

NOTES

18 THIS DRYER REQUIRES SIGNIFICANT SCFM OF AMBIENT AIR (EXCLUSIVE OF THE INLET DUCT) TO OPERATE CORRECTLY. THIS IS USED BY THE COMBUSTION AIR BLOWER FOR PROPER COMBUSTION BY THE BURNER. APPROPRIATE DUCTING OR VENTILATION DAMPERS SHOULD BE INSTALLED IN THE FACILITY TO ENSURE NO VACUUM EXISTS TO STARVE THE DRYERS OF THIS AIR REQUIREMENT.

17 EMERGENCY STOP BUTTONS ARE RELOCATED TO BASE IF MACHINE USES 17 1/2"" OR LONGER PEDESTAL EXTENDERS.

16 THE SPRINKLER AND ASSOCIATED WATER INLETS ARE STANDARD ON GAS MODEL–TG2 AND HOT OIL MODEL–TT1 AND ARE OPTIONAL ON STEAM MODEL–TS1.

15 DRYER LEGS (PEDESTAL EXTENDERS) AND SHUTTLE SIDE RAIL EXTENDERS RAISE THE MACHINE AS SHOWN IN THE CHART. TO USE DRYERS OF DIFFERENT SIZES AND ANY SHUTTLE (EXCEPT COSHA 113) ON THE SAME RAIL SYSTEM (SHUTTLE DISCHARGE HEIGHT/DRYER LOAD HEIGHTS MUST MATCH), SELECT EXTENDERS FROM THE SAME LINE OF THE CHART.

14 THE AUTOLINT DUCT IS ONLY FOR CONNECTION WITH OPTIONAL AUTOLINT REMOTE COLLECTOR. IT DOES NOT REPLACE THE BLOWER EXHAUST OUTLET WHICH MUST STILL BE ACCOMMODATED.

13 DO NOT USE ANY TYPE OF TURNING VANES IN THE DRYER EXHAUST DUCTING AS THESE WILL IMMEDIATELY PLUG WITH LINT.

12 MINIMUM CLEARANCE FOR MAINTENANCE = 18" [458]. SOME JURISDICTIONS REQUIRE UP TO 30" [762] CLEARANCE. CONSULT LOCAL CODES. IN SHUTTLE INSTALLATIONS, MINIMUM DISTANCES FROM DRYER TO WALL IS DETERMINED BY SHUTTLE REQUIREMENTS. SEE DRAWING, BDSHTCLRBE, FOR MINIMUM DIMENSION OF SHUTTLE AT LAST STOPPING PLACE (MAY BE DRYER) TO WALL.

11 DRYER IS DISASSEMBLED INTO TWO MAJOR COMPONENTS, THE BASE AND THE FRAME FOR SHIPMENT. CONSULT MILNOR FACTORY IF COMPONENTS SUCH AS BLOWER HOUSING MUST BE REMOVED TO FIT MACHINE THROUGH OPENING.

10 * DENOTES DIMENSIONS THAT INCREASE WITH PEDESTAL EXTENDERS. (SEE TABLE)

9 DO NOT RUN PIPING OR CONDUIT OVER BLOWER HOUSING, SO THAT THE BLOWER MAY BE REMOVED FOR SERVICING, IF NEEDED.

8 IF CUSTOMER SUPPLIED VENT IS TO TURN RIGHT AS SHOWN DASHED IN PLAN VIEW, 20" [508] CLEARANCE MINIMUM MUST BE HELD BETWEEN VENT AND DRYER FRAME, TO PREVENT INTERFERENCE WITH DOOR ACTUATOR.

7 CONTROL PANEL FOR DRYER MAY BE INSTALLED IN ANY CONVENIENT LOCATION. CONTROL CABLE FROM DRYER TO PANEL SUPPLIED BY MILNOR AND PRICED SEPARATELY.

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.
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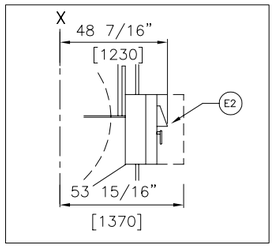
58058TG2, TS1, TT1 DRYER

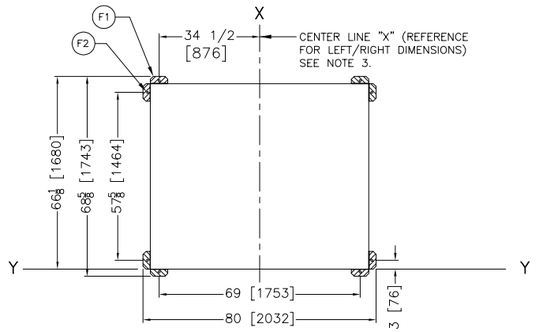
DM 0 0.5M 1M
INCHES 0 12 24 36

DWG# BD5858TGAE
2010476D

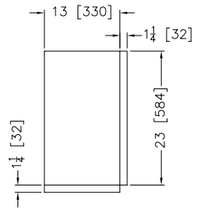
PELLERIN MILNOR CORPORATION
P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467–9591,
FAX 504/469–1849, Telex ITT 460124/PELM UI, Cable PELMILNOR



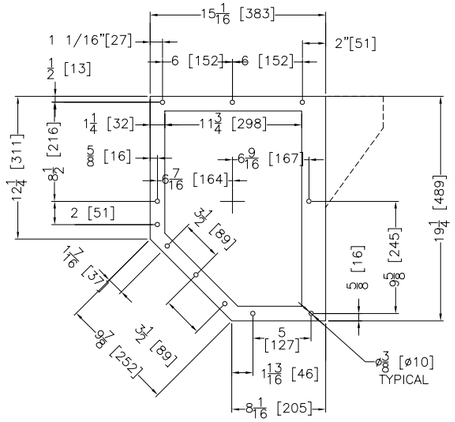
PARTIAL REAR VIEW
VARIABLE SPEED
CONTROL BOX



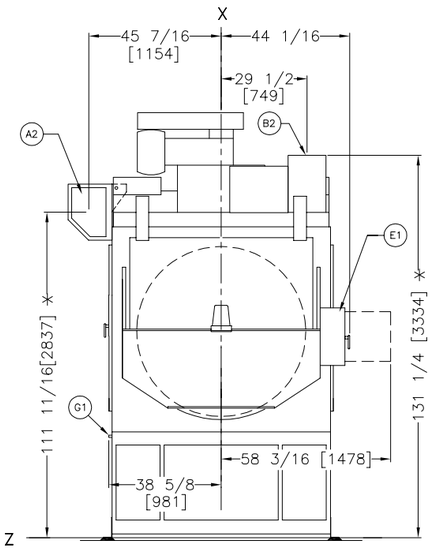
FOUNDATION PLAN



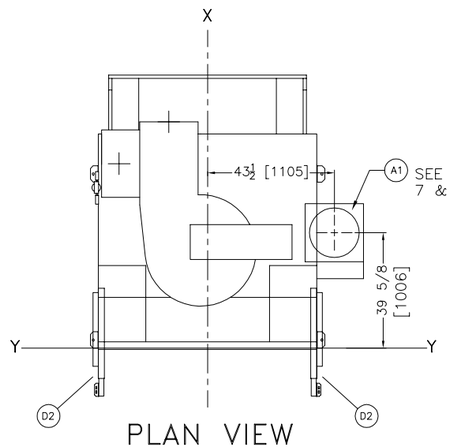
LOW CLEARANCE
BLOWER INTAKE
DUCT DETAIL



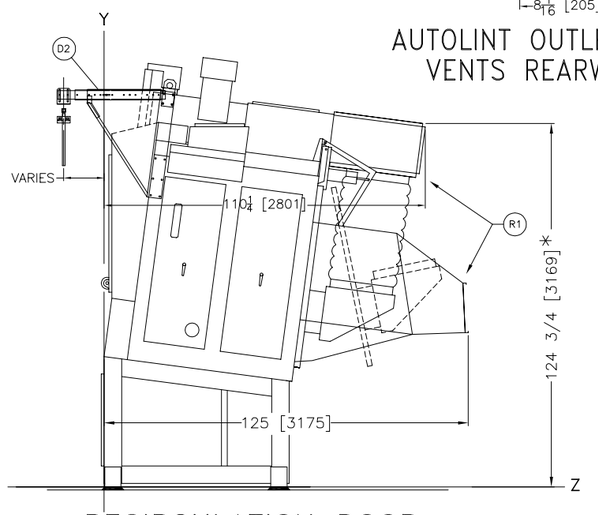
AUTOLINT OUTLET DUCT
VENTS REARWARD



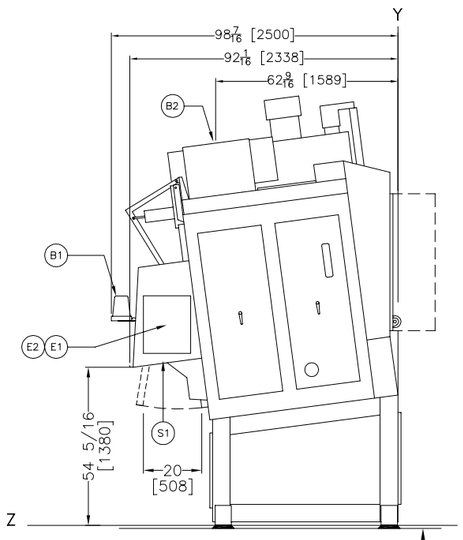
REAR VIEW



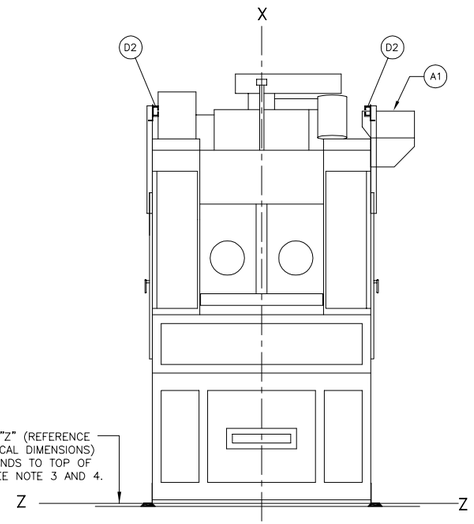
PLAN VIEW



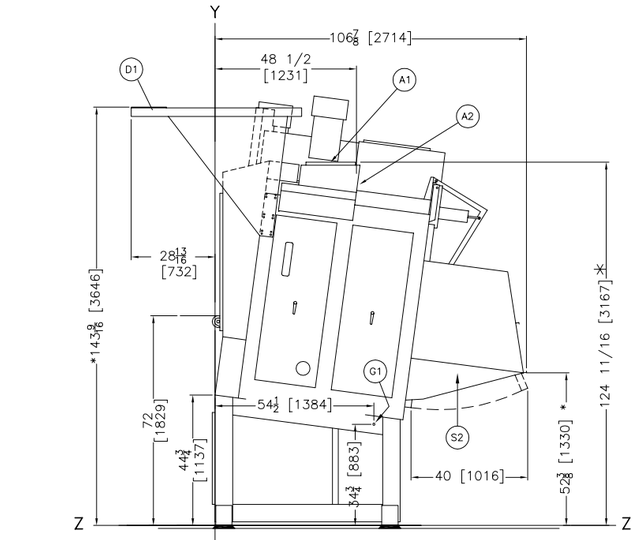
RECIRCULATION DOOR
AND SHROUD



LEFT VIEW

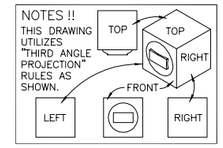


FRONT VIEW



REFERENCE LINE "Y" (REFERENCE FOR FRONT/REAR DIMENSIONS). SEE NOTE 3.

RIGHT VIEW



* ASTERISK DENOTES DIMENSIONS THAT INCREASE WITH PEDESTAL EXTENDERS. ADD PEDESTAL HEIGHT TO DIMENSIONS FOR CORRECT HEIGHTS, SEE CHART BD5858TGAE.

ITEM	LEGEND
A1	AUTOLINT OUTLET DUCT VENTS UPWARD
A2	AUTOLINT OUTLET DUCT VENTS REARWARD
B1	DISCHARGE ROTATING BEACON
B2	LOW CLEARANCE BLOWER INTAKE
D1	DRYER MOUNTED RAIL SUPPORT (T– RAIL)
D2	DRYER MOUNTED FESTOON RAIL SUPPORT (CART SHUTTLES)
E1	CONTROLLER ON LEFT SIDE DISCHARGE SHROUD
E2	VARIABLE SPEED CONTROL BOX
F1	PEDESTAL LEGS – BASE PLATES (SHADED AREAS REQUIRE SUPPORT)
F2	ANCHOR BOLT HOLES, 13/16" DIAMETER
G1	GAS TRAIN VENT 3/4" NPT
R1	RECIRCULATION DOOR AND SHROUD
S1	SHORTER SHROUD
S2	INCREASED ANGLE DISCHARGE DOOR & SHROUD

NOTES

9. CONTROLLER MAY BE ORDERED WITH MOUNTING ON PEDESTAL IF DESIRED.
8. THE 17–1/8"(435) INSIDE DIAMETER FLANGE CONNECTION SHOULD BE SPOT WELDED AND SEALED WITH SILICONE. THE 17"(432) DUCTING TO THE REMOTE AUTOLINT COLLECTOR IS NOT SUPPLIED BY P.M.C.
7. THE AUTOLINT OUTLET DUCT IS ONLY FOR CONNECTION WITH OPTIONAL REMOTE AUTOLINT COLLECTOR. IT DOES NOT REPLACE THE BLOWER EXHAUST OUTLET WHICH MUST STILL BE ACCOMODATED.
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 FOR FURTHER 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 MAINTAIN A SAFE WORKING ENVIRONMENT. ACCORDINGLY, THE OWNER/USER MUST RECOGNIZE ALL FORESEEABLE 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, FENCES, RESTRAINTS, DEVICES, ETC., NOT FURNISHED BY THE EQUIPMENT MANUFACTURER OR VENDOR.

ATTENTION

THE FLOOR AND/OR OTHER SUPPORT COMPONENTS MUST HAVE SUFFICIENT STRENGTH (AND RIGIDITY 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 SINUSOIDAL (ROTATING) FORCES GENERATED DURING ITS OPERATION. WRITE THE FACTORY FOR ADDITIONAL MACHINE DATA FOR USE BY A COMPETENT SOIL AND/OR STRUCTURAL ENGINEER.

58058TG2, TS1, TT1 OPTIONS

DM 0 0.5M 1M
INCHES 0 12 24 36

DWG# BD5858TGAB
2007032D

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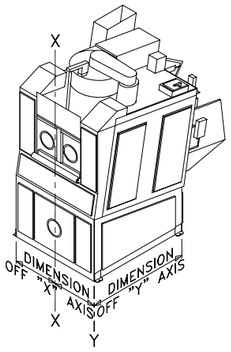
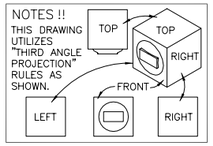
P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467–9591,
FAX 504/469–1849, Email: mktg@milnor.com





DRYERS ON CORRESPONDING PEDESTALS								SHUTTLE		A		A	
PEDESTAL EXTENDER 58080TG1/TS1		PEDESTAL EXTENDER 58058TG2/TS1		PEDESTAL EXTENDER 58040TG2/TS1		PEDESTAL EXTENDER 50040TS1		SIDE RAIL EXTENDER		LOAD ROLLER HEIGHT DRYER		LOAD DOOR SHELF HEIGHT DRYER	
INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
0	0	7	178	21	533	21	533	28	711	77 3/4	1975	80	2032
3 1/2	89	10 1/2	267	24 1/2	622	24 1/2	622	31 1/2	800	81 1/4	2064	83 1/2	2121
10 1/2	267	17 1/2	445	31 1/2	800	31 1/2	800	38 1/2	978	88 1/4	2242	90 1/2	2299
14	356	21	553	35	889	35	889	42	1067	91 3/4	2330	94	2388
17 1/2	445	24 1/2	622	38 1/2	978	38 1/2	978	45 1/2	1156	95 1/4	2419	97 1/2	2477
21	553	28	711	42	1067	42	1067	49	1245	98 3/4	2508	101	2565
24 1/2	622	31 1/2	800	45 1/2	1156	45 1/2	1156	52 1/2	1334	102 1/4	2597	104 1/2	2654
28	711	35	889	49	1245	49	1245	56	1422	105 3/4	2686	108	2743
31 1/2	800	38 1/2	978	52 1/2	1334	52 1/2	1334	59 1/2	1511	109 1/4	2775	111 1/2	2832
35	889	42	1067	56	1422	56	1422	63	1600	112 3/4	2864	115	2921
38 1/2	1156	45 1/2	1156	59 1/2	1511	59 1/2	1511	66 1/2	1689	116 1/4	2953	118 1/2	3010
42	1067	49	1245	63	1600	63	1600	70	1778	119 3/4	3042	121 3/4	3092
45 1/2	1156	52 1/2	1334	66 1/2	1689	66 1/2	1689	73 1/2	1867	123 1/4	3131	125 1/4	3181

* ASTERISK DENOTES DIMENSIONS THAT INCREASE WITH PEDESTAL EXTENDERS. ADD PEDESTAL HEIGHT TO DIMENSIONS FOR CORRECT HEIGHTS.

GAS CONSUMPTION	58080TG1
MAXIMUM NATURAL GAS CONSUMPTION	1,800,000 BTU/HR (453,000 KCAL/HR)
AVERAGE NATURAL GAS CONSUMPTION	1,400,000 BTU/HR (352,000 KCAL/HR)
STEAM CONSUMPTION	**58080TS1**
MAXIMUM STEAM CONSUMPTION WITH 330 LB (150 KG LOAD)	1300 LB (590 KG) OF STEAM PER HOUR AT 120 PSI (8.2 ATU) OR APPROX. 35 ACTUAL BOILER HP

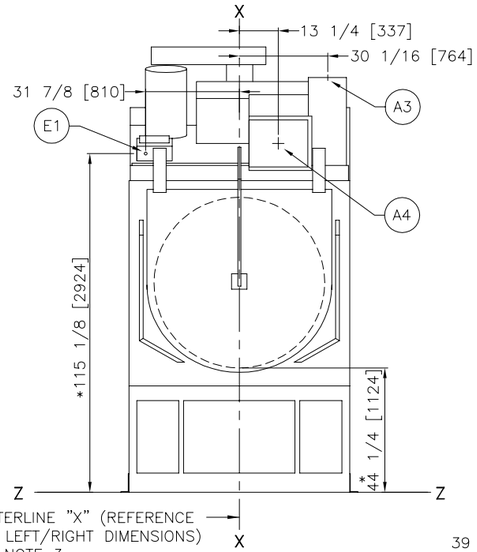
NOTE: STEAM CONSUMPTION VALVES ASSUME NO EXTERNAL ENERGY LOSSES IN EITHER THE STEAM DELIVERY OR CONDENSATE RETURN PIPING. MINIMUM RECOMMENDED BOILER SIZE IS 40 HP PER DRYER TO PROVIDE FOR ABOVE CONSUMPTION PLUS EXTERNAL ENERGY LOSS.

AIR FLOW

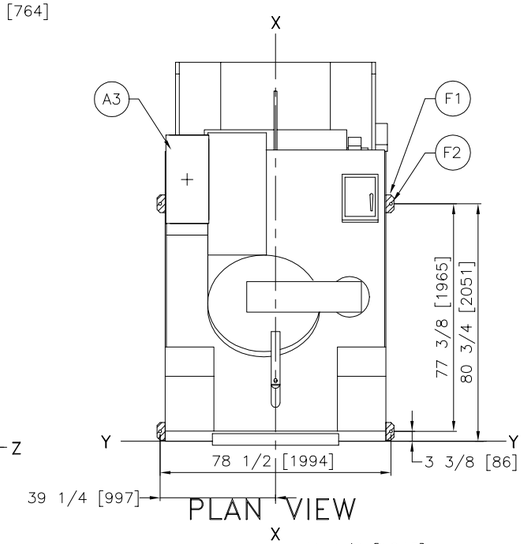
MAX. EXHAUST AIR (SEE NOTES)	6800 SCFM (193 CU M/MIN.)
MAX. COMBUSTION AIR (SEE NOTE 17.)	500 SCFM (14 CU M/MIN.)

NOTE: MAX. ALLOWABLE BACK PRESSURE AT MAX. AIRFLOW + 1/2" WATER COLUMN

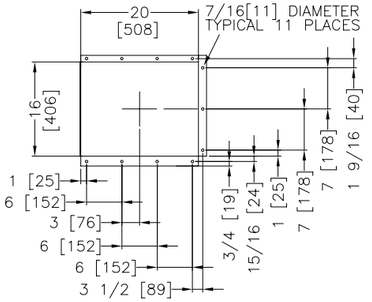
ITEM	LEGEND
W2	MANUAL SPRINKLER ACTUATOR. IF SUPPLIED.
W1	SPRINKLER WATER INLET CONNECTION, 1 1/2" NPT. RUN
	1 1/2" NPT PIPE MINIMUM. SPRINKLER IS STANDARD ON
	GAS MODEL ONLY.
S2	STEAM CONDENSATE RETURN LINE, 3/4" NPT. ONLY ON TS1.
S1	STEAM INLET, 2" NPT. ONLY ON TS1 MODEL.
N1	STANDARD SHROUD.
L4	LOADING HEIGHT, OPTIONAL LOAD DOOR SHELF LOADING
L3	LOADING HEIGHT, ROLLER LOADING
L2	LOWER CYLINDER LIP – UNLOAD LIP.
L1	LOAD DOOR OPENING – STANDARD 42 [1067] WIDE x 32
	[813] HIGH.
G2	GAS LINE VENT 3/4" NPT. ONLY ON TG1 MODEL.
G1	GAS INLET 1 1/2" NPT. ONLY ON TG1 MODEL.
F2	ANCHOR BOLT HOLES 7/8" DIAMETER.
F1	BASE PLATES (SHADED AREA REQUIRES SUPPORT) 2 3/4
	[70] x 5 5/8 [143]. IF NO PEDESTAL LEGS.
E5	FAN FOR ELECTRICAL CONTROLS
E4	EMERGENCY STOP BUTTONS
E3	SERIAL CONTROL CONNECTION FROM BELTBOX
E2	CONTROL CABLE CONNECTION POINT
E1	MAIN ELECTRICAL CONNECTION TO JUNCTION BOX
A4	BLOWER EXHAUST
A3	BLOWER INTAKE
A2	COMBUSTION AIR INTAKE
A1	COMPRESSED AIR INLET, 1–1/4"NPT CONNECTION



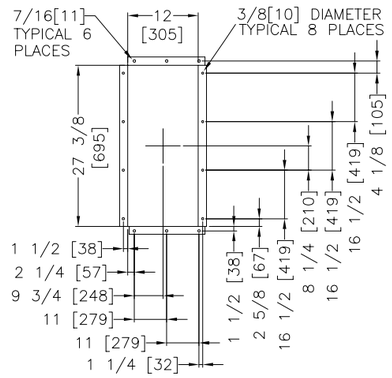
REAR VIEW



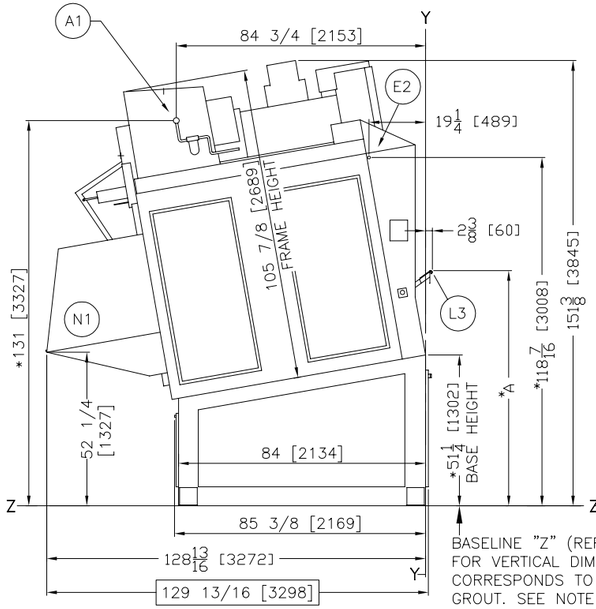
PLAN VIEW



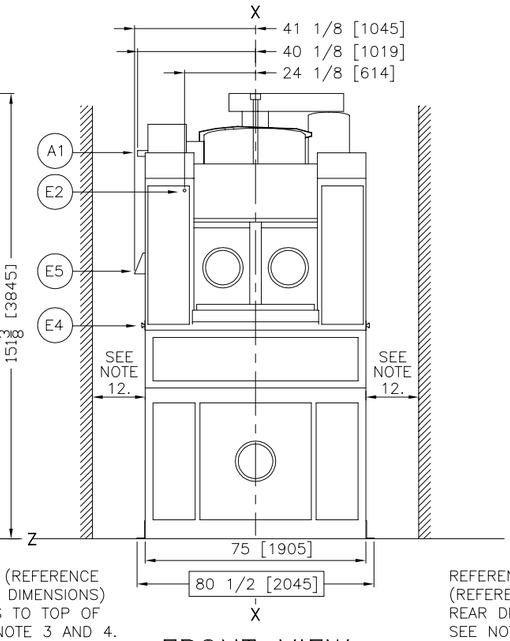
BLOWER EXHAUST DUCT DETAIL



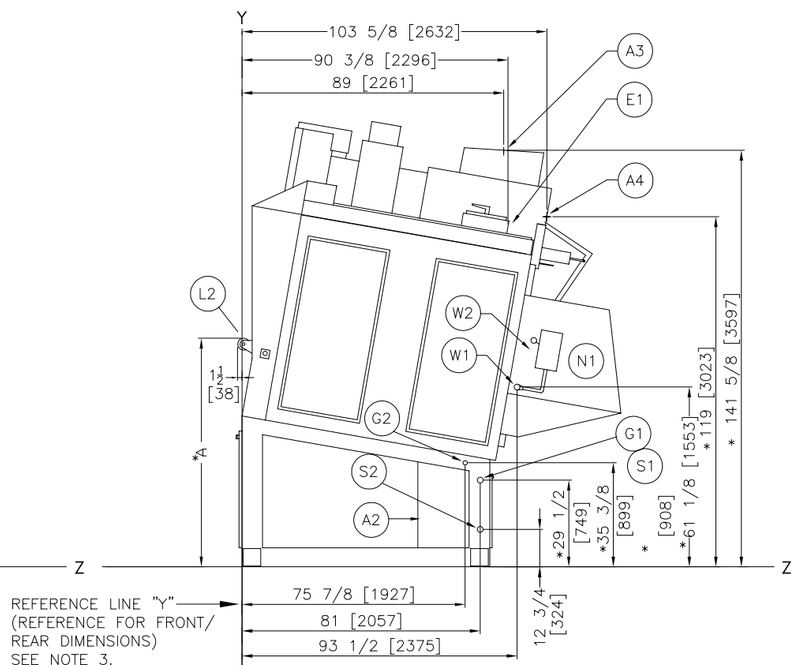
BLOWER INTAKE DUCT DETAIL



LEFT VIEW



FRONT VIEW



RIGHT VIEW

NOTES

17 THIS DRYER REQUIRES SIGNIFICANT SCFM OF AMBIENT AIR (EXCLUSIVE OF THE INLET DUCT) TO OPERATE CORRECTLY. THIS IS USED BY THE COMBUSTION AIR BLOWER FOR PROPER COMBUSTION BY THE BURNER. APPROPRIATE DUCTING OR VENTILATION DAMPERS SHOULD BE INSTALLED IN THE FACILITY TO ENSURE NO VACUUM EXISTS TO STARVE THE DRYERS OF THIS AIR REQUIREMENT.

16 EMERGENCY STOP BUTTONS ARE RELOCATED TO BASE IF MACHINE USES 17 1/2" OR LONGER PEDESTAL EXTENDERS.

15 DRYER LEGS (PEDESTAL EXTENDERS) AND SHUTTLE SIDE RAIL EXTENDERS RAISE THE MACHINE AS SHOWN IN THE CHART. TO USE DRYERS OF DIFFERENT SIZES AND ANY SHUTTLE (EXCEPT COSHA 113) ON THE SAME RAIL SYSTEM (SHUTTLE DISCHARGE HEIGHT/DRYER LOAD HEIGHTS MUST MATCH), SELECT EXTENDERS FROM THE SAME LINE OF THE CHART.

14 THE AUTOLINT DUCT IS ONLY FOR CONNECTION WITH OPTIONAL AUTOLINT REMOTE COLLECTOR. IT DOES NOT REPLACE THE BLOWER EXHAUST OUTLET WHICH MUST STILL BE ACCOMMODATED.

13 DO NOT USE ANY TYPE OF TURNING VANES IN THE DRYER EXHAUST DUCTING AS THESE WILL IMMEDIATELY PLUG WITH LINT.

12 MINIMUM CLEARANCE FOR MAINTENANCE = 18" [458]. SOME JURISDICTIONS REQUIRE UP TO 30" [762] CLEARANCE. CONSULT LOCAL CODES. IN SHUTTLE INSTALLATIONS, MINIMUM DISTANCES FROM DRYER TO WALL IS DETERMINED BY SHUTTLE REQUIREMENTS. SEE DRAWING, BDSHTCLRBE, FOR MINIMUM DIMENSION OF SHUTTLE AT LAST STOPPING PLACE (MAY BE DRYER) TO WALL.

11 DRYER IS DISASSEMBLED INTO TWO MAJOR COMPONENTS, THE BASE AND THE FRAME FOR SHIPMENT. CONSULT MILNOR FACTORY IF COMPONENTS SUCH AS BLOWER HOUSING MUST BE REMOVED TO FIT MACHINE THROUGH OPENING.

10 * = HEIGHT DIMENSION + PEDESTAL (LEG) HEIGHT DIMENSION. SEE TABLE.

9 DO NOT RUN PIPING OR CONDUIT OVER BLOWER HOUSING, SO THAT THE BLOWER MAY BE REMOVED FOR SERVICING, IF NEEDED.

8 IF CUSTOMER SUPPLIED VENT IS TO TURN RIGHT AS SHOWN DOTTED IN PLAN VIEW, 20" [508] CLEARANCE MINIMUM MUST BE HELD BETWEEN VENT AND DRYER FRAME, TO PREVENT INTERFERENCE WITH DOOR ACTUATOR.

7 CONTROL PANEL FOR DRYER MAY BE INSTALLED IN ANY CONVENIENT LOCATION. CONTROL CABLE FROM DRYER TO PANEL SUPPLIED BY MILNOR AND PRICED SEPARATELY.

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 FOR FURTHER 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.

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58080 TG1 & TS1

DM 0 0.5M 1M
INCHES 0 12 24 36

DWG# BD5880TGAE 2006494D

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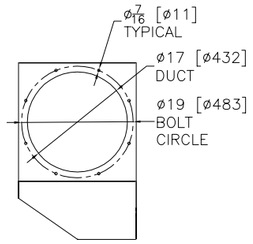
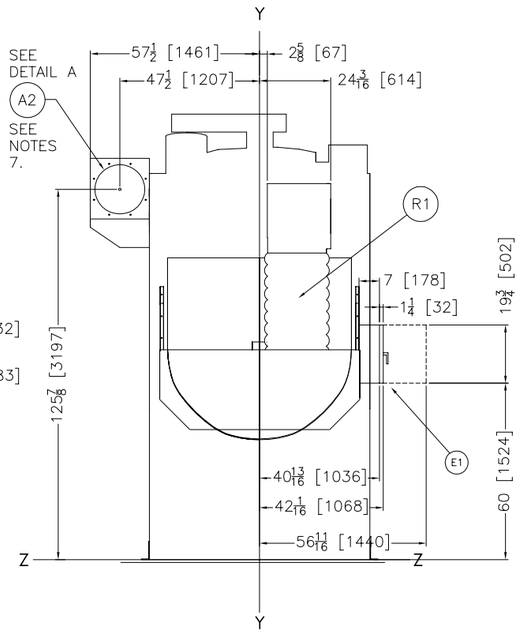
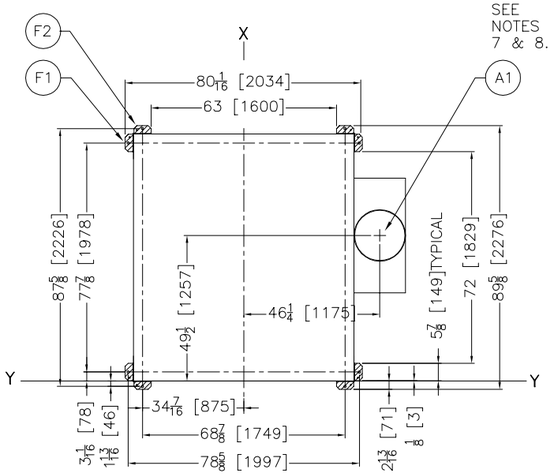
P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467-9591,
FAX 504/469-1849, Telex ITT 460124/PELM UI, Cable PELMILNOR



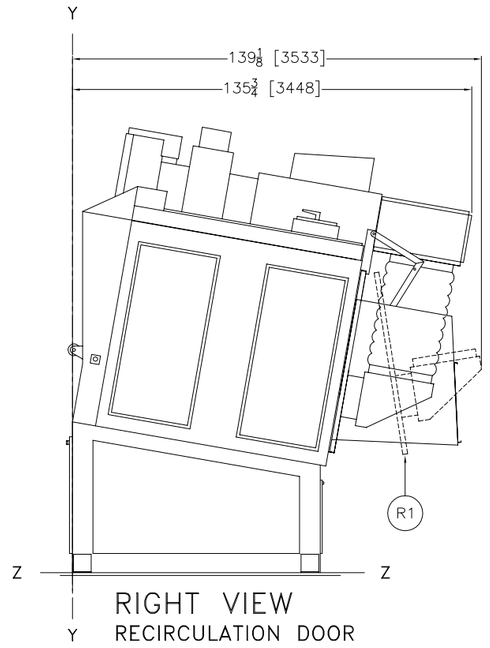
DETAIL A
REAR VIEW
LINT OUTLET DUCT
TO REAR OPTION



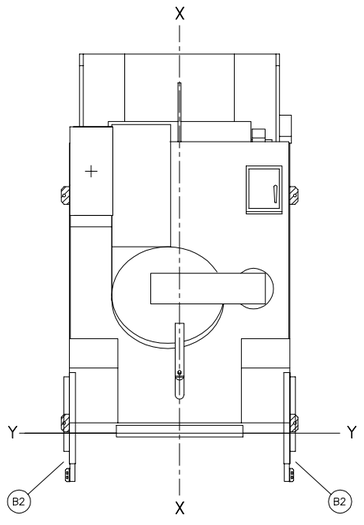
REAR VIEW



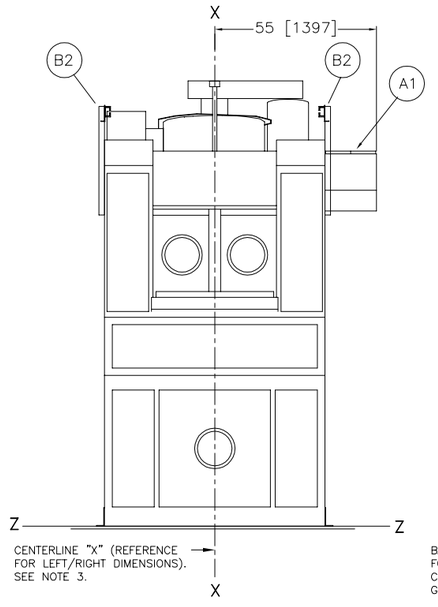
FLOUNDATION PLAN



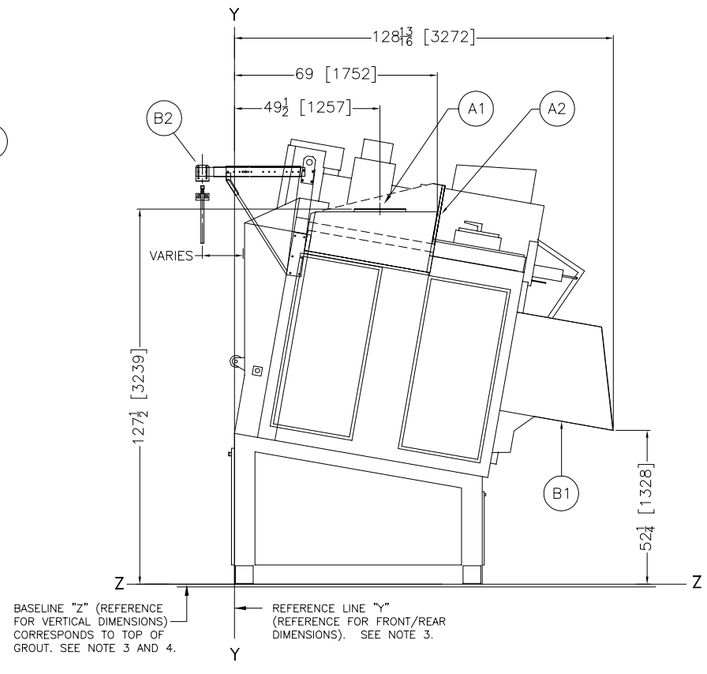
RIGHT VIEW
RECIRCULATION DOOR



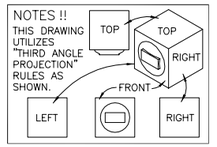
PLAN VIEW



FRONT VIEW



RIGHT VIEW



ITEM	LEGEND
E1	OPTIONAL DRYER CONTROL BOX
R1	OPTIONAL RECIRCULATION THROUGH DOOR
F2	ANCHOR BOLT HOLES 13/16"[21] DIAMETER
F1	PEDESTAL LEGS – BASE PLATES (SHADED AREAS REQUIRE SUPPORT)
B2	OPTIONAL DRYER MOUNTED FESTOON RAIL SUPPORT (CART DRIVEN SHUTTLES)
B1	SHORTER DISCHARGE SHROUD
A2	REAR DISCHARGE AUTOLINT DUCTING
A1	DUCTING TO REMOTE AUTOLINT COLLECTOR

NOTES

8 THE 7-1/8"(435) INSIDE DIAMETER FLANGE CONNECTION SHOULD BE SPOT WELDED AND SEALED WITH SILICONE. THE 17"(432) DUCTING TO THE REMOTE AUTOLINT COLLECTOR IS NOT SUPPLIED BY P.M.C.

7 THE AUTOLINT OUTLET DUCT IS ONLY FOR CONNECTION WITH OPTIONAL REMOTE AUTOLINT COLLECTOR. IT DOES NOT REPLACE THE BLOWER EXHAUST OUTLET WHICH MUST STILL BE ACCOMODATED.

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 FOR FURTHER 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 REFERENCE FOR ALL VERTICAL DIMENSIONS. ON MACHINES WITH WITH FIXED BASE PADS, BASELINE "Z" CORRESPONDS TO THE BOTTOM OF THE BASE PAD. ON MACHINES WITH ADJUSTABLE FEET, BASELINE "Z" CORRESPONDS TO THE BOTTOM OF THE FEET WHEN ADJUSTED SO THAT THE MACHINE IS AT ITS MINIMUM ACCEPTABLE HEIGHT. ON TRAVERSING SHUTTLES, BASELINE "Z" CORRESPONDS TO THE BOTTOM OF THE BOTTOM RAIL. THE DISTANCE BETWEEN BASELINE "Z" AND THE FINISHED FLOOR WILL VARY AS REQUIRED TO ENSURE BASELINE "Z" IS HORIZONTAL AND ANY INTERFACING MACHINES 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 MAINTAIN A SAFE WORKING ENVIRONMENT. ACCORDINGLY, THE OWNER/USER MUST RECOGNIZE ALL FORESEEABLE 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, FENCES, RESTRAINTS, DEVICES, ETC., NOT FURNISHED BY THE EQUIPMENT MANUFACTURER OR VENDOR.

ATTENTION

THE FLOOR AND/OR OTHER SUPPORT COMPONENTS MUST HAVE SUFFICIENT STRENGTH (AND RIGIDITY 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 SINUSOIDAL (ROTATING) FORCES GENERATED DURING ITS OPERATION. WRITE THE FACTORY FOR ADDITIONAL MACHINE DATA FOR USE BY A COMPETENT SOIL AND/OR STRUCTURAL ENGINEER.

58080 TG1 & TS1 OPTIONS

DM 0 0.5M 1M
INCHES 0 12 24 36

DWG# BD5880TGAB
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