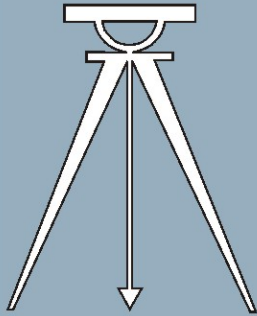


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- Document ECNs: Latest



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

Installation

ALL HYDRO-CUSHION Washer-Extractors

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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, NEGLIGENCE, 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.

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 —

Trademarks

BNUUUU02.R01 0000158093 A.2 7/13/17 1:11 PM Released

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

Table 1 Trademarks

AutoSpot™	GreenTurn™	Milnor®	PulseFlow®
CBW®	GreenFlex™	MilMetrix®	PurePulse®
Drynet™	Hydro-cushion™	MilTouch™	Ram Command™
E-P Express®	Linear Costa Master™	MilTouch-EX™	RecircONE®
E-P OneTouch®	Linear Costo™	Miltrac™	RinSave®
E-P Plus®	Mentor®	MultiTrac™	SmoothCoil™
Gear Guardian®	Mildata®	PBW™	Staph Guard®

End of document: BNUUUU02

Installation

1

Safety—Tilting Washer-Extractors

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.



WARNING 3: Crush Hazards—Tilting machines only—The machine housing will crush your body or limbs if it descends or falls while you are under it. Housing can descend with power off or on. Manual operation of tilting valves overrides safety interlocks. Improper operation of manual tilting valves may cause the housing to descend.

- 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.



WARNING 4: Strike and Crush Hazards—Machines with power operated door—The moving door can strike you or crush or pinch your limbs if caught between the door and machine. Some doors move automatically.

- Keep yourself and others clear of movement areas and paths.
- Keep both hands on the controls while operating.
- Do not operate the machine with malfunctioning two-hand manual controls.



WARNING 5: Crush Hazards—Tilting machines only—The machine can crush your body or limbs if you are caught between the tilting housing and a stationary object. Some machines tilt automatically.

- Keep yourself and others clear of movement areas and paths.
- Keep both hands on the controls while operating.
- Do not operate the machine with malfunctioning two-hand manual controls.



WARNING 6: Crush Hazards—Suspended machines only—Spaces between the shell and housing can close and crush or pinch your limbs. The shell moves within the housing during operation.

- Do not reach into the machine housing or frame.
- Keep yourself and others clear of movement areas and paths.

4. Safety Alert Messages—Cylinder and Processing Hazards

[Document BIUUUS13]

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



DANGER 7: Entangle and Sever Hazards—Contact with goods being processed can cause the goods to wrap around your body or limbs and dismember you. The goods are normally isolated by the locked cylinder door.

- 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.
- Do not operate the machine with a malfunctioning door interlock.
- Open pocket machines only—Do not jog the cylinder and pull the goods at the same time.
- Open pocket machines only—Keep yourself and others clear of cylinder and goods during jogging operation.
- Do not operate the machine with malfunctioning two-hand manual controls.
- 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 [8]: 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. The turning cylinder is normally isolated by the locked cylinder door.

- 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.
- Do not operate the machine with a malfunctioning door interlock.
- Open pocket machines only—Keep yourself and others clear of cylinder and goods during jogging operation.
- Do not operate the machine with malfunctioning two-hand manual controls.



WARNING [9]: 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 [10]: Explosion and Fire Hazards—Flammable substances can explode or ignite in the cylinder, drain trough, or sewer. The machine is designed for washing with water, not any other solvent. Processing can cause solvent-containing goods to give off flammable vapors.

- Do not use flammable solvents in processing.
- Do not process goods containing flammable substances. Consult with your local fire department/public safety office and all insurance providers.

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

5.1. Damage and Malfunction Hazards

5.1.1. Hazards Resulting from Inoperative Safety Devices



DANGER [11]: Entangle and Sever Hazards—Cylinder door interlock—Operating the machine with a malfunctioning door interlock can permit opening the door when the cylinder is turning and/or starting the cycle with the door open, exposing the turning cylinder.

- Do not operate the machine with any evidence of damage or malfunction.



WARNING 12: 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 13: 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 14: 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 15: Crush Hazards—Down limit switches (machines with front and rear tilt cylinders)—Failure of both front or both rear limit switches allows the seated tilt wheels on a tilted machine to lift from their cradles. The housing will fall and lunge forward or rearward.

- Do not operate the machine with any evidence of damage or malfunction.

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.



WARNING 17: Explosion Hazards—Cylinder—A damaged cylinder can rip apart during extraction, puncturing the shell and discharging metal fragments at high speed.

- Do not operate the machine with any evidence of damage or malfunction.



WARNING 18: Explosion Hazards—Clutch and speed switch (multiple motor machines)—A damaged clutch or speed switch can permit the low speed motor to engage during extract. This will over-speed the motor and pulleys and can cause them to rip apart, discharging metal fragments at high speed.

- Stop the machine immediately if any of these conditions occur: • abnormal whining sound during extract • skidding sound as extract ends • clutches remain engaged or re-engage during extract

5.2. Careless Use Hazards

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



WARNING 19: 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.

5.2.2. Careless Servicing Hazards—Vital Information for Service Personnel (see also service hazards throughout manuals)



WARNING [20]: 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 [21]: 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 [22]: Crush Hazards—Tilting machines only—The machine housing will crush your body or limbs if it descends or falls while you are under it. Housing can descend with power off or on. Manual operation of tilting valves overrides safety interlocks. Improper operation of manual tilting valves may cause the housing to descend.

- Secure both red safety supports in accordance with the instructions furnished, then lock out and tag out power at the main machine disconnect before working under the tilted machine.
- Do not operate the manual tilt valves with anyone under the machine.
- Do not operate the tilt controls with anyone under the machine.



WARNING [23]: Crush Hazards—Tilting machines with front and rear tilt cylinders—The housing will fall and lunge forward or rearward if the tilt wheels on the non-tilted end lift out of their cradles, even with safety supports in place.

- Understand the consequences of operating manually.



WARNING [24]: 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 —

About the Forces Transmitted by Milnor® Washer-extractors

During washing and extracting, all washer-extractors transmit both static and dynamic (cyclic) forces to the floor, foundation, or any other supporting structure. During washing, the impact of the goods as they drop imparts forces which are quite difficult to quantify. Size for size, both rigid and flexibly-mounted machines transmit approximately the same forces during washing. During extracting, rigid machines transmit forces up to 30 times greater than equivalent flexibly-mounted models. The actual magnitude of these forces vary according to several factors:

- machine size,
- final extraction speed,
- amount, condition, and type of goods being processed,
- the liquor level and chemical conditions in the bath preceding extraction, and
- other miscellaneous factors.

Estimates of the maximum force normally encountered are available for each Milnor® model and size upon request. Floor or foundation sizes shown on any Milnor® document are only for on-grade situations based only on previous experience without implying any warranty, obligation, or responsibility on our part.

1. Rigid Machines

Size for size, rigid washer-extractors naturally require a stronger, more rigid floor, foundation, or other supporting structure than flexibly-mounted models. If the supporting soil under the slab is itself strong and rigid enough and has not subsided to leave the floor slab suspended without support, on grade installations can often be made directly to an existing floor slab if it has enough strength and rigidity to safely withstand our published forces without transmitting undue vibration. If the subsoil has subsided, or if the floor slab itself has insufficient strength and rigidity, a deeper foundation, poured as to become monolithic with the floor slab, may be required. Support pilings may even be required if the subsoil itself is “springy” (i.e., if its resonant frequency is near the operating speed of the machine). Above-grade installations of rigid machines also require a sufficiently strong and rigid floor or other supporting structure as described below.

2. Flexibly-mounted Machines

Size for size, flexibly-mounted machines generally do not require as strong a floor, foundation, or other supporting structure as do rigid machines. However, a floor or other supporting structure having sufficient strength and rigidity, as described in [Section 3](#), is nonetheless vitally important for these models as well.

3. How Strong and Rigid?

Many building codes in the U.S.A. specify that laundry floors must have a minimum live load capacity of 150 pounds per square foot (732 kilograms per square meter). However, even compliance with this or any other standard does not necessarily guarantee sufficient rigidity. In any event, it is the sole responsibility of the owner/user to assure that the floor and/or any other supporting structure exceeds not only all applicable building codes, but also that the floor and/or any other supporting structure for each washer-extractor or group of washer-extractors actually has sufficient strength and rigidity, plus a reasonable factor of safety for both, to support the weight of all the fully loaded machine(s) including the weight of the water and goods, and including the published 360° rotating sinusoidal RMS forces that are transmitted by the machine(s). Moreover, the floor, foundation, or other supporting structure must have sufficient

rigidity (i.e., a natural or resonant frequency many times greater than the machine speed with a reasonable factor of safety); otherwise, the mentioned 360° rotating sinusoidal RMS forces can be multiplied and magnified many times. It is especially important to consider all potential vibration problems that might occur due to all possible combinations of forcing frequencies (rotating speeds) of the machine(s) compared to the natural frequencies of the floor and/or any other supporting structure(s). A qualified soil and/or structural engineer must be engaged for this purpose.

Figure 1: How Rotating Forces Act on the Foundation

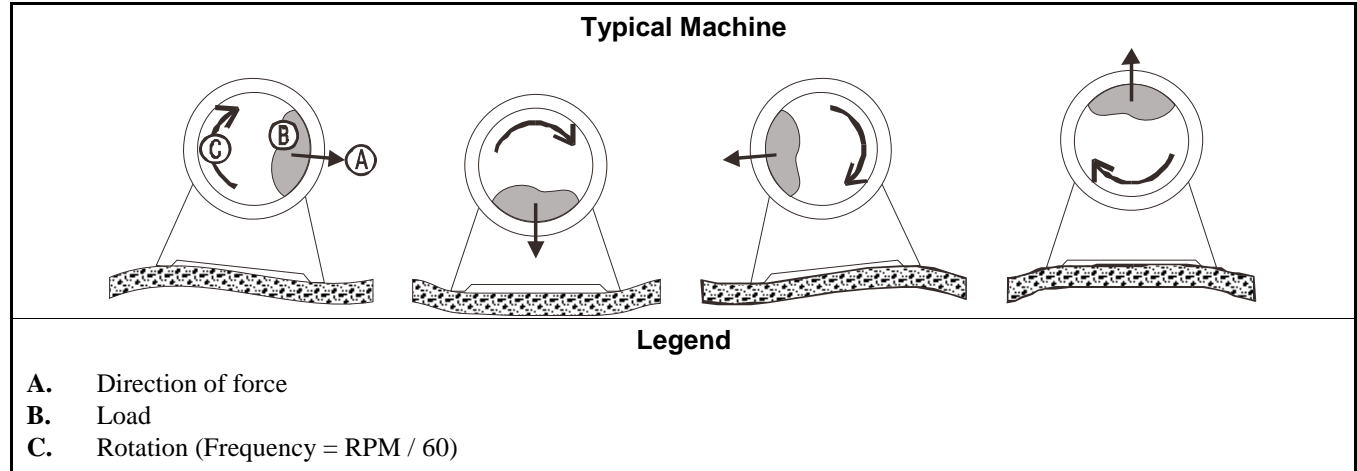


Figure 1 above is intended to depict both on-grade and above-grade installations and is equally applicable to flexibly-mounted washer-extractors, as well as to rigid models installed either directly on a floor slab or on a foundation poured integrally with the slab. Current machine data is available from Milnor® upon request. All data is subject to change without notice and may have changed since last printed. It is the sole responsibility of every potential owner to obtain written confirmation that any data furnished by Milnor® applies for the model(s) and serial number(s) of the specific machines.

— End of BIWUUI02 —

BIUUUI02HD (Published) Book specs- Dates: 20160713 / 20160713 / 20160713 Lang: ENG01 Applic: HDU

Tag Guidelines for the Models Listed Below

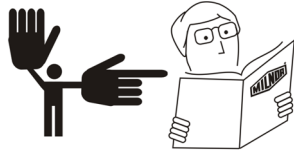
42044CP2 42044NP2 42044SP2 42044SP3 42044WP2 42044WP3 60044SP2
60044SP3 60044WP2 60044WP3 72044SP2 72044SP3 72044WP2 72044WP3

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 at the bottom of the tag, and 3) the meaning of the tag.

Display or Action



Explanation

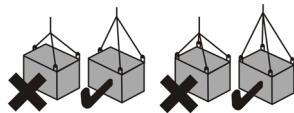
Read the manuals before proceeding. This symbol appears on most tags. The machine ships with safety, operator, and routine maintenance guides for customer use. Milnor dealer manuals for installing, servicing, and commissioning this machine are also available from the Milnor Parts department.



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



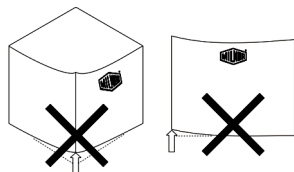
B2TAG94078: Do not forklift here; do not jack here; do not step here—whichever applies.



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).



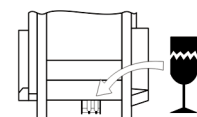
B2TAG94081: Motor must rotate in this direction. On single motor washer-extractors and centrifugal extractors, the drive motor must turn in this direction during draining and extraction. This tag is usually wrapped around a motor housing. If the motor turns in the opposite direction when the machine 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.



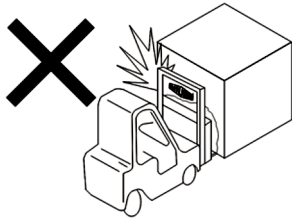
B2TAG94097: The cylinder must rotate **counterclockwise** during draining and extraction (spin) when viewed from here (rear of machine). Otherwise, reverse the electric power connections, as explained in the schematic manual.



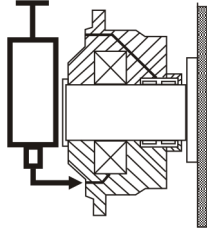
B2TAG94117: The brake assembly under the machine is fragile. Fork lift only under main structural supports.

Display or Action

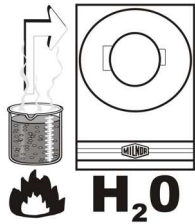
Explanation



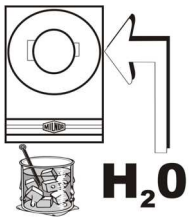
B2TAG94118: Do not strike shipping container during fork-lifting. Fragile components inside.



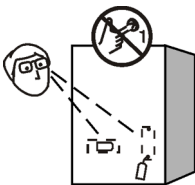
B2TAG96007: Add grease here. Refer to the preventive maintenance schedule in the service manual.



B2T2001013: Hot water connection.



B2T2001014: Cold water connection.



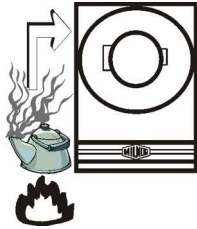
B2T2001028: Look for tags inside the machine. These tags may identify shipping restraints to be removed or components to be installed. Do not start the machine until these actions are completed.



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.

Tag Guidelines for the Models Listed Below

Display or Action



Explanation

B2T2004027: Steam connection (optional)

— End of BIUUUI02 —

BIUUUI02HR (Published) Book specs- Dates: 20160713 / 20160713 / 20160713 Lang: ENG01 Applic: HRU

Tag Guidelines for the Models Listed Below

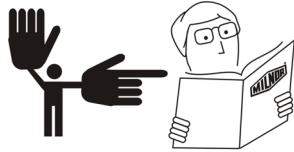
42044SR2 42044SR3 42044WR2 42044WR3 60044SR2 60044SR3 60044WR2
60044WR3 72044SR2 72044SR3 72044WR2 72044WR3

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 at the bottom of the tag, and 3) the meaning of the tag.

Display or Action



Explanation

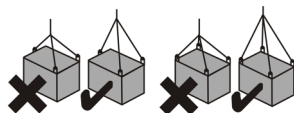
Read the manuals before proceeding. This symbol appears on most tags. The machine ships with safety, operator, and routine maintenance guides for customer use. Milnor dealer manuals for installing, servicing, and commissioning this machine are also available from the Milnor Parts department.



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



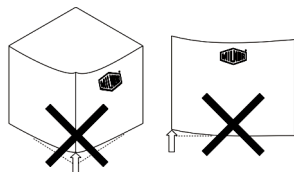
B2TAG94078: Do not forklift here; do not jack here; do not step here—whichever applies.



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).



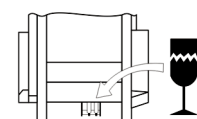
B2TAG94081: Motor must rotate in this direction. On single motor washer-extractors and centrifugal extractors, the drive motor must turn in this direction during draining and extraction. This tag is usually wrapped around a motor housing. If the motor turns in the opposite direction when the machine 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.



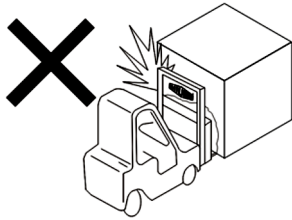
B2TAG94097: The cylinder must rotate **counterclockwise** during draining and extraction (spin) when viewed from here (rear of machine). Otherwise, reverse the electric power connections, as explained in the schematic manual.



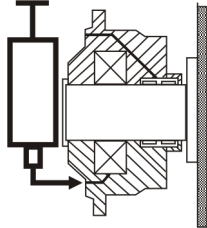
B2TAG94117: The brake assembly under the machine is fragile. Fork lift only under main structural supports.

Display or Action

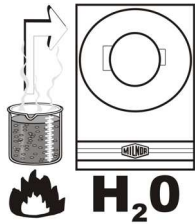
Explanation



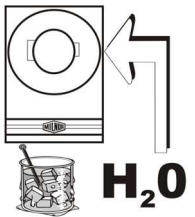
B2TAG94118: Do not strike shipping container during fork-lifting. Fragile components inside.



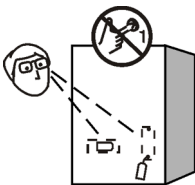
B2TAG96007: Add grease here. Refer to the preventive maintenance schedule in the service manual.



B2T2001013: Hot water connection.



B2T2001014: Cold water connection.



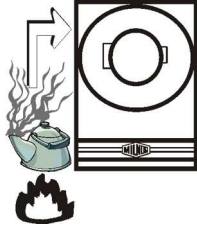
B2T2001028: Look for tags inside the machine. These tags may identify shipping restraints to be removed or components to be installed. Do not start the machine until these actions are completed.



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.

Tag Guidelines for the Models Listed Below

Display or Action



Explanation

B2T2004027: Steam connection (optional)

— End of BIUUUI02 —

Prevent Damage from Chemical Supplies and Chemical Systems

BNUUUR02.C01 0000160549 A.2 8/29/17 3:22 PM Released

All Milnor® washer-extractors and CBW® tunnel washers use stainless steel with the AISI 304 specification. This material gives good performance when chemical supplies are correctly applied. If chemical supplies are incorrectly applied, this material can be damaged. The damage can be very bad and it can occur quickly.

Chemical supply companies usually:

- supply chemical pump systems that put the supplies in the machine,
- connect the chemical pump system to the machine,
- write wash formulas that control the chemical concentrations.

The company that does these procedures must make sure that these procedures do not cause damage. **Pellerin Milnor Corporation accepts no responsibility for chemical damage to the machines it makes or to the goods in a machine.**

1. How Chemical Supplies Can Cause Damage

BNUUUR02.R01 0000160548 A.2 A.4 8/30/17 3:15 PM Released

Dangerous Chemical Supplies and Wash Formulas

Some examples that can cause damage are:

- a very high concentration of chlorine bleach,
- a mixture of acid sour and hypo chlorite,
- chemical supplies (examples: chlorine bleach, hydrofluosilicic acid) that stay on the stainless steel because they are not quickly flushed with water.

The book “Textile Laundering Technology” by Charles L. Riggs gives data about correct chemical supplies and formulas.

Incorrect Configuration or Connection of Equipment

Many chemical systems:

- do not prevent a vacuum in the chemical tube (for example, with a vacuum breaker) when the pump is off,
- do not prevent flow (for example, with a valve) where the chemical tube goes in the machine.

Damage will occur if a chemical supply can go in the machine when the chemical system is off. Some configurations of components can let the chemical supplies go in the machine by a siphon ([Figure 1. Incorrect Configurations That Let the Chemical Supply Go In the Machine by a Siphon](#)). Some can let chemical supplies go in the machine by gravity ([Figure 2. Incorrect Configurations That Let the Chemical Supply Go In the Machine by Gravity](#)).

Figure 1. Incorrect Configurations That Let the Chemical Supply Go In the Machine by a Siphon

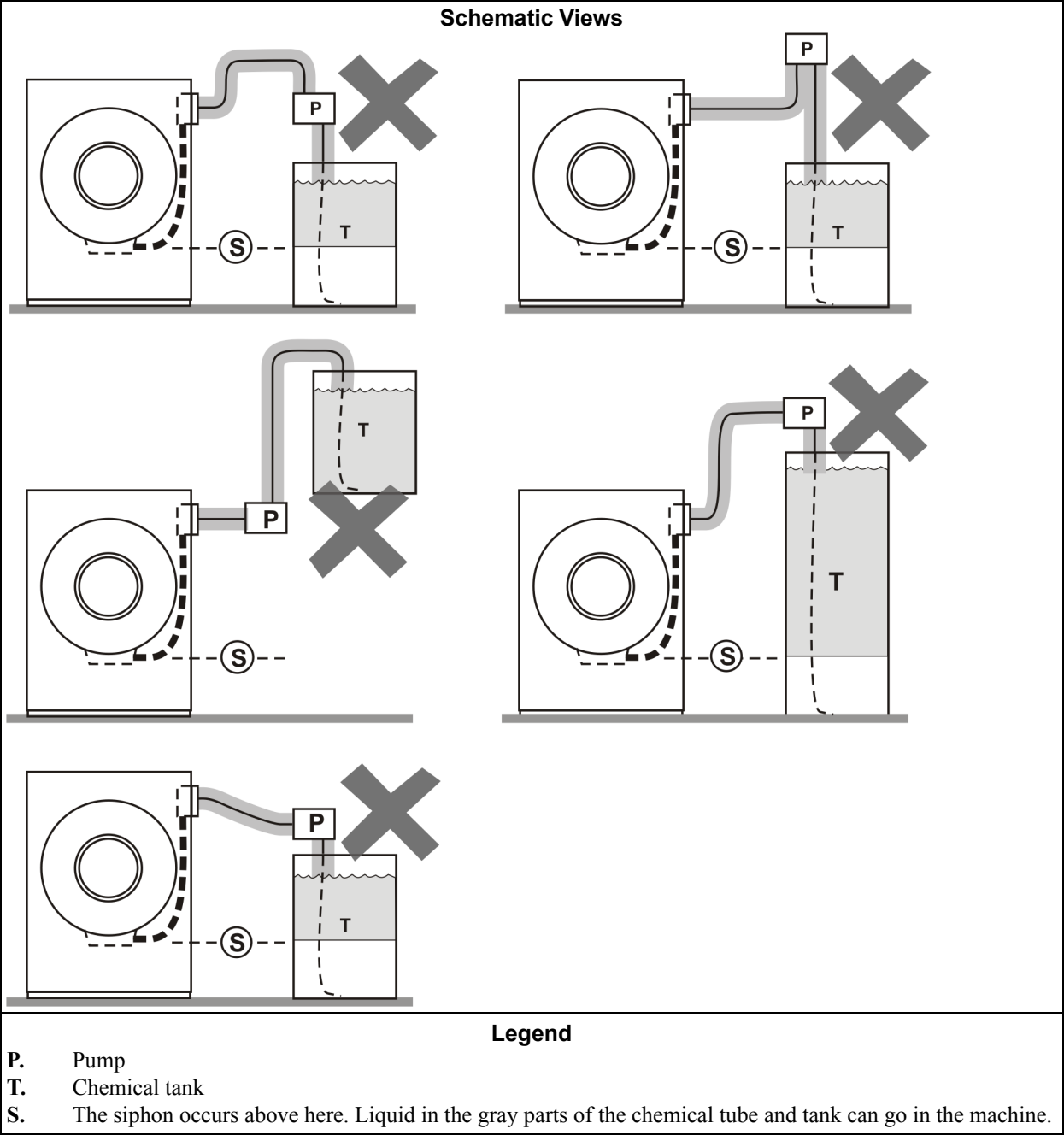
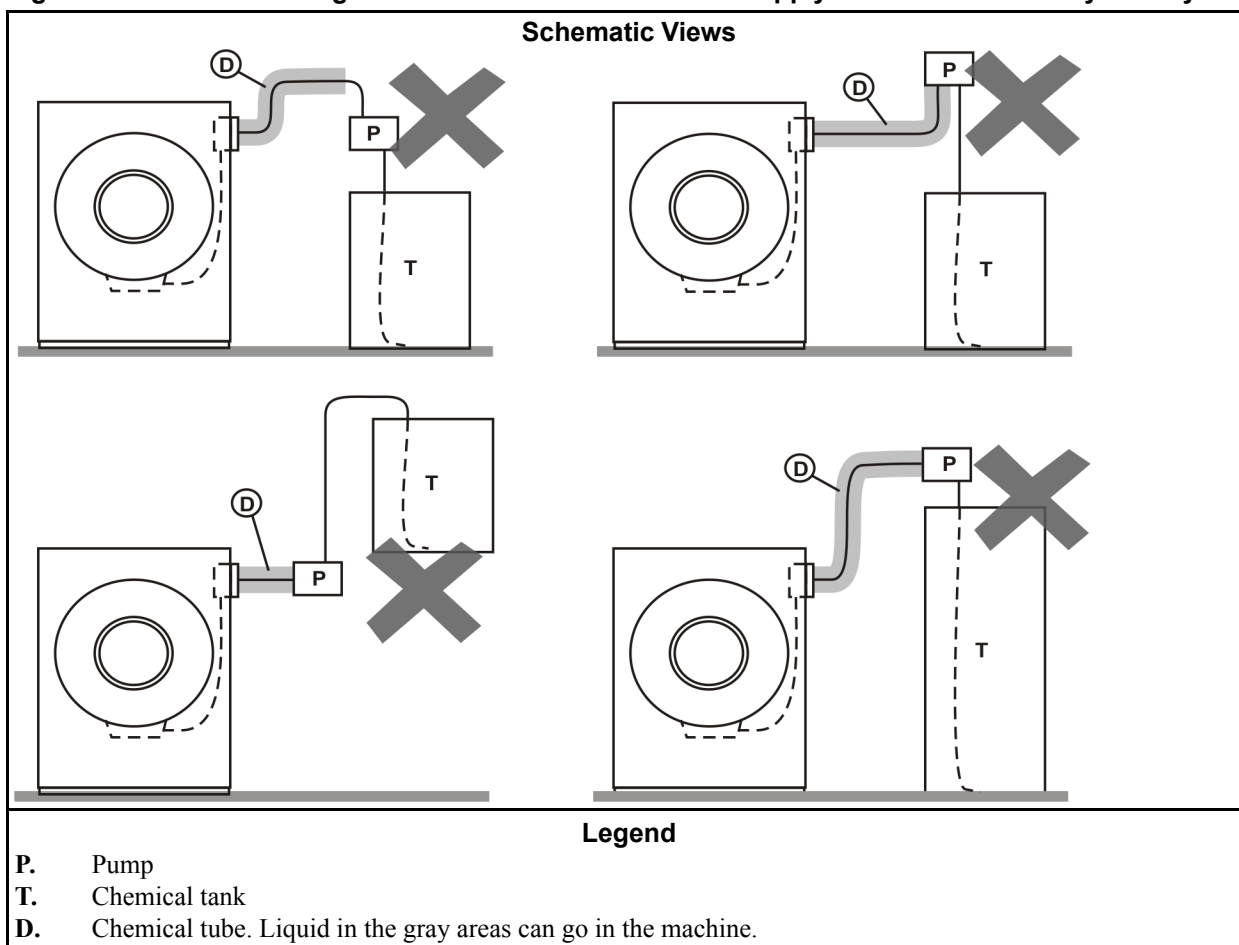


Figure 2. Incorrect Configurations That Let the Chemical Supply Go In the Machine by Gravity

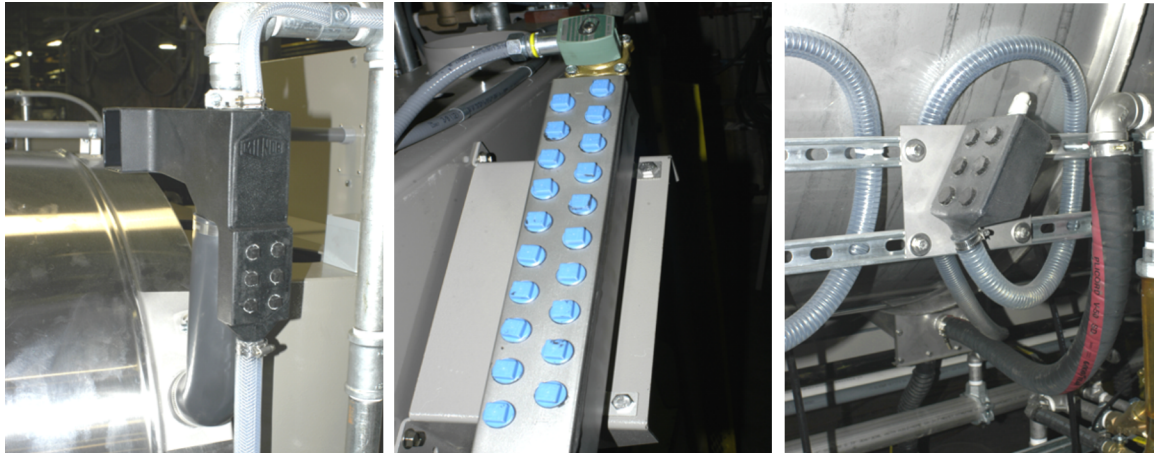
2. Equipment and Procedures That Can Prevent Damage

BNUUUR02.R02 0000160545 A.2 A.8 8/30/17 3:28 PM Released

Use the chemical manifold supplied.

There is a manifold on the machine to attach chemical tubes from a chemical pump system. The manifold has a source of water to flush the chemical supplies with water.

Figure 3. Examples of Manifolds for Chemical Tubes. Your equipment can look different.



Close the line.

If the pump does not always close the line when it is off, use a shutoff valve to do this.

Do not let a vacuum occur.

Supply a vacuum breaker in the chemical line that is higher than the full level of the tank.

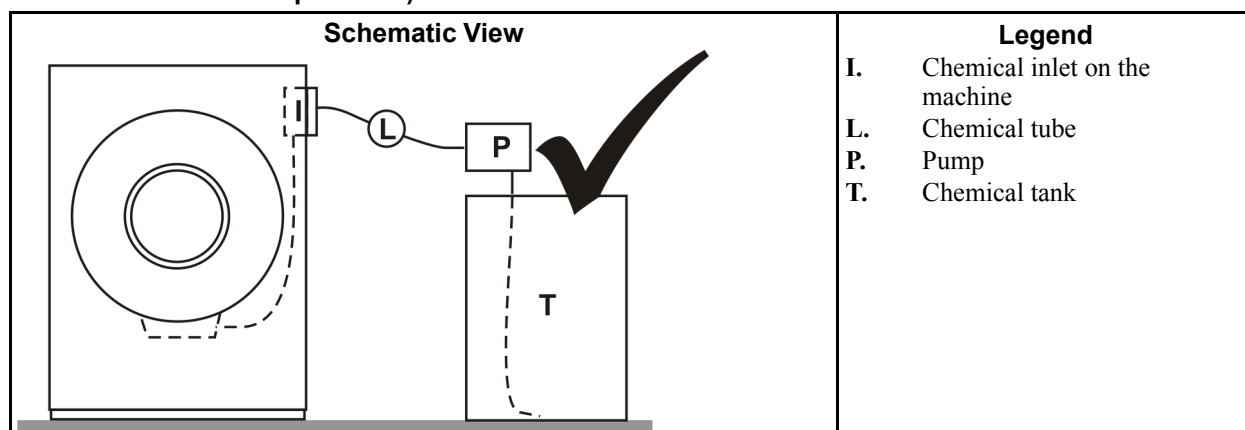
Flush the chemical tube with water.

If the liquid that stays in the tube between the pump and the machine can flow in the machine, flush the tube with water after the pump stops.

Put the chemical tube fully below the inlet.

It is also necessary that there is no pressure in the chemical tube or tank when the system is off.

Figure 4. A Configuration that Prevents Flow in the Machine When the Pump is Off (if the chemical tube and tank have no pressure)



Prevent leaks.

When you do maintenance on the chemical pump system:

- Use the correct components.
- Make sure that all connections are the correct fit.
- Make sure that all connections are tight.

End of document: BNUUUR02

HANDLING AND SETTING PROCEDURES FOR OPEN POCKET HYDRO-CUSHION[®] MACHINES

Handling Precautions

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

NOTE: Once the machine is given to the carrier for delivery, it is solely the 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 is damaged in any way during shipment.** Milnor[®] will be glad to assist you in filing your claim, but is not responsible for any shipping damage to the machine once it has been delivered to the carrier in good condition.

2. When lifting a machine by crane, always connect to the four lifting rings provided.
3. Use skids for fork lifting. If possible, leave the machine on shipping skids until it is about to be 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, motors, etc., located under the machine.**
4. Never push, pull or exert pressure on any components which protrude from the machine frame, such as the shell front, door, supply injector, electric boxes, controls, belt guards, inlet piping, etc.
5. Be sure shell door is secured so that it cannot swing open during installation.
6. The hold down bolts, brackets and spacers (marked with red) which hold the shell rigid in the frame must be removed prior to operation. However, they should not be loosened

⚠ WARNING

Rigger is liable for damages both directly and indirectly caused by rigging.

□ 4 point pick-up

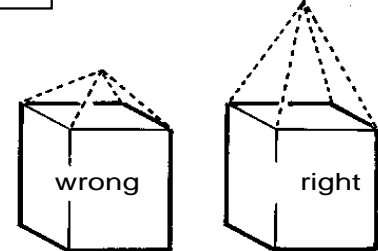


FIGURE 1 (MSIN0203AE)
Lifting Instructions

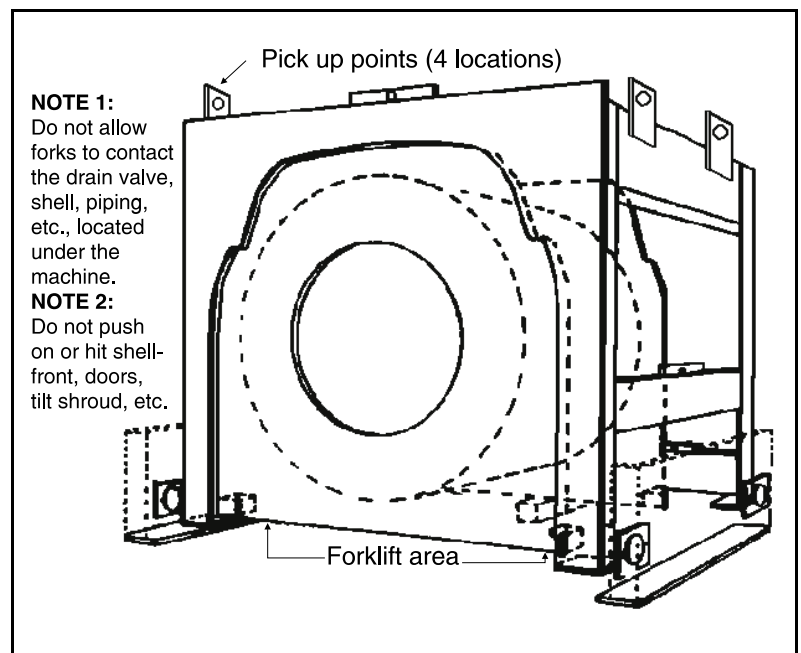


FIGURE 2 (MSIN0203AE)
Pickup and Forklift Area

until the machine is ready to be grouted. On tilting machines, the hold down bolts or clamps that hold the tilt wheels securely in their cradles must not be removed or loosened until after the machine is grouted. Also, remove the tie wrap that secures the *vibration safety switch*. Remove these items just prior to operation.

Site Requirements

Space Requirements

1. All openings and corridors through which equipment must pass during installation must be large enough to accommodate the width and the height of the machine (as shown on the dimensional drawings). It is occasionally possible to reduce the overall dimensions by removing piping or other special modifications. Consult Milnor[®] for additional information.
2. Sufficient clearance must be provided for normal operation and maintenance procedures.

Operational Requirements

1. Allow sufficient ventilation for the heat and vapors of normal operation to dissipate.
2. Provide easy access to controls. Operators must be able to view all status lights and reach all controls associated with the machine (e.g., electrical power connections, water and steam shut-offs).

Foundation Requirements—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*.

Drain Requirements—An open trench must be provided in the floor for draining. Its size (as a minimum) and location (centered under the drain valve) should be as shown on the dimensional drawing and with a minimum slope of 1/8" per foot to sewer. Even where one trench serves several machines the cross section area of the trench shown on the dimensional drawing is normally acceptable since draining is intermittent and the portion of the trench located under each machine is sufficient to contain most, if not all, of the outfall from one machine. Refer to local codes for sanitary requirements such as traps, etc.

Setting Procedures

In order to protect against lateral “creeping” of the machine during operation, due to vibration, it is recommended to roughen the area of the floor where grout will be applied. Anchor bolts are not required; they are however, recommended on tilting machines. Anchor bolt locations are shown on the dimensional drawing for each machine. With the machine near the final destination, unbolt the shipping skids. Observing all precautions, lift the machine off its skids and lower the machine onto blocks as follows.

For 42", 48" and 64" Open Pocket Machines

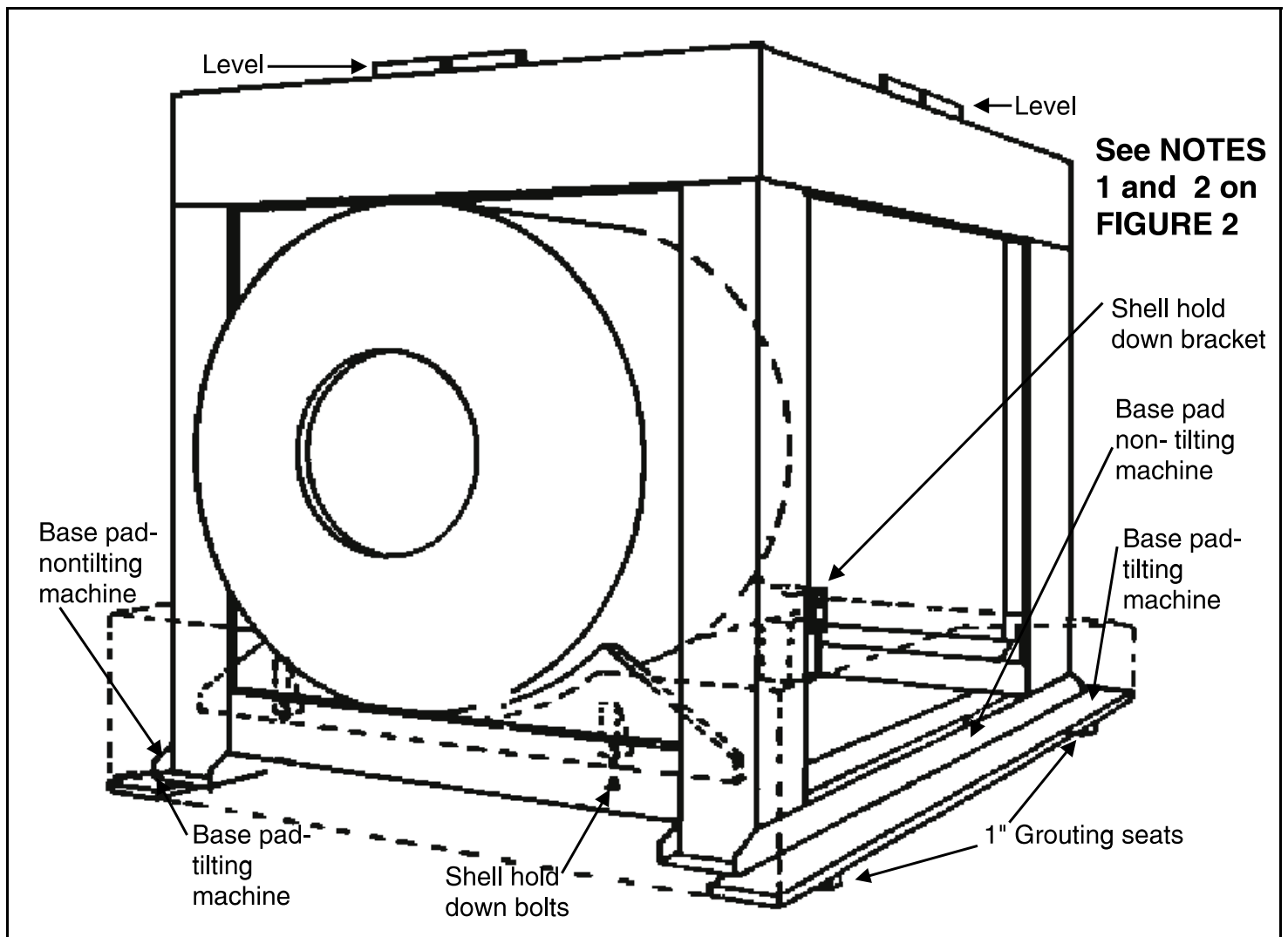


FIGURE 3 (MSIN0203AE)
Setting 42", 48", or 64" Open Pocket Machines

1. Place blocks in each of the four corners of the foundation. The blocks should be high enough to hold the base plate approximately 1" above top of slab (See FIGURE 3).
2. Lower the machine onto blocks and shim the machine as required until it is level. When leveling the machine, place the level on the top edge of the frame, not on the belt guard.

⚠ WARNING ⚠

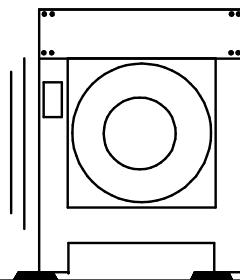
REMOVE SHIPPING RESTRAINTS BEFORE ATTEMPTING TO RUN MACHINE but only after machine is in place. Restraints are usually marked with red, and may be concealed behind access panels.

REPLACE THOSE FEATURES WHICH ARE PART OF MACHINE STRUCTURE.

FIGURE 4 (MSIN0203AE)
Shipping Restraints

3. When the machine is level and has room for at least 1" of grout under each base plate, apply the grout under the full length of each base plate. Take care to fill all voids with grout to assure that there is a solid base of grout under each base plate (for additional information, see "Grouting and Anchoring Considerations" in this section).
4. When the grout has hardened, tighten down the anchor bolts (if used) evenly using only one quarter turn on each bolt before moving to the next one. While tightening, frequently skip from front to back and right to left to insure uniform tension. After tightening all bolts, check each bolt at least twice during the first week of operation. At this point, service connections (air and electric power) should be made to the machine. See "HYDRO-CUSHION[®] SERVICE CONNECTIONS..." for procedures.

⚠ WARNING ⚠



A SUSPENSION TYPE MACHINE CAN "WALK" OUT OF POSITION DURING EXTRACT, ENDANGERING PERSONNEL AND DAMAGING EQUIPMENT, IF NOT PROPERLY INSTALLED.

Roughen floor, install anchor bolts and grout under all base pads to prevent "teeter-totter" and sideways movement.

REMOVE ALL SHIPPING RESTRAINTS but only after machine is in place.

THE MACHINE WILL MALFUNCTION AND MAY BE DAMAGED UNLESS ALL SHIPPING RESTRAINTS (USUALLY MARKED WITH RED) ARE REMOVED. Restraints may be located behind access covers. These include but are not limited to:

- Cylinder hold-down bolts, brackets, straps and/or blocking (suspension type machines).
 - Vibration safety switch restraint (all 36" and larger machines).
- REPLACE FASTENERS WHICH ARE PART OF MACHINE STRUCTURE.

TO REMOVE BRAKE BAND SHIPPING BLOCK once machine is connected to electricity and air.

1. Energize machine.
2. Turn brake on using manual operating procedures (see manual).
3. Insure that no one can inadvertently operate the machine controls; then using tools, not bare hands, remove block while brake is released.
4. Manually turn brake off.

FIGURE 5 (MSIN0203AE)
Anchor and Grout Warning

5. With air and power connected, set the Master Switch to *FORMULA* or to *ON* (as appropriate) to activate the push-downs, then remove hold down bolts and plates (marked with red) which hold the shell to the frame. De-energize machine.
6. On 42" and 48" tilting machines only, remove the four hold down bolts (marked with red) that hold the lower side frame channels to the base pad. On 64" tilt forward only machines (BTL models), remove the rear tilt wheel clamps only. On 64" tilt both way machines (BTN models), remove all four tilt wheel clamps. Clamps to be removed will be marked with red.

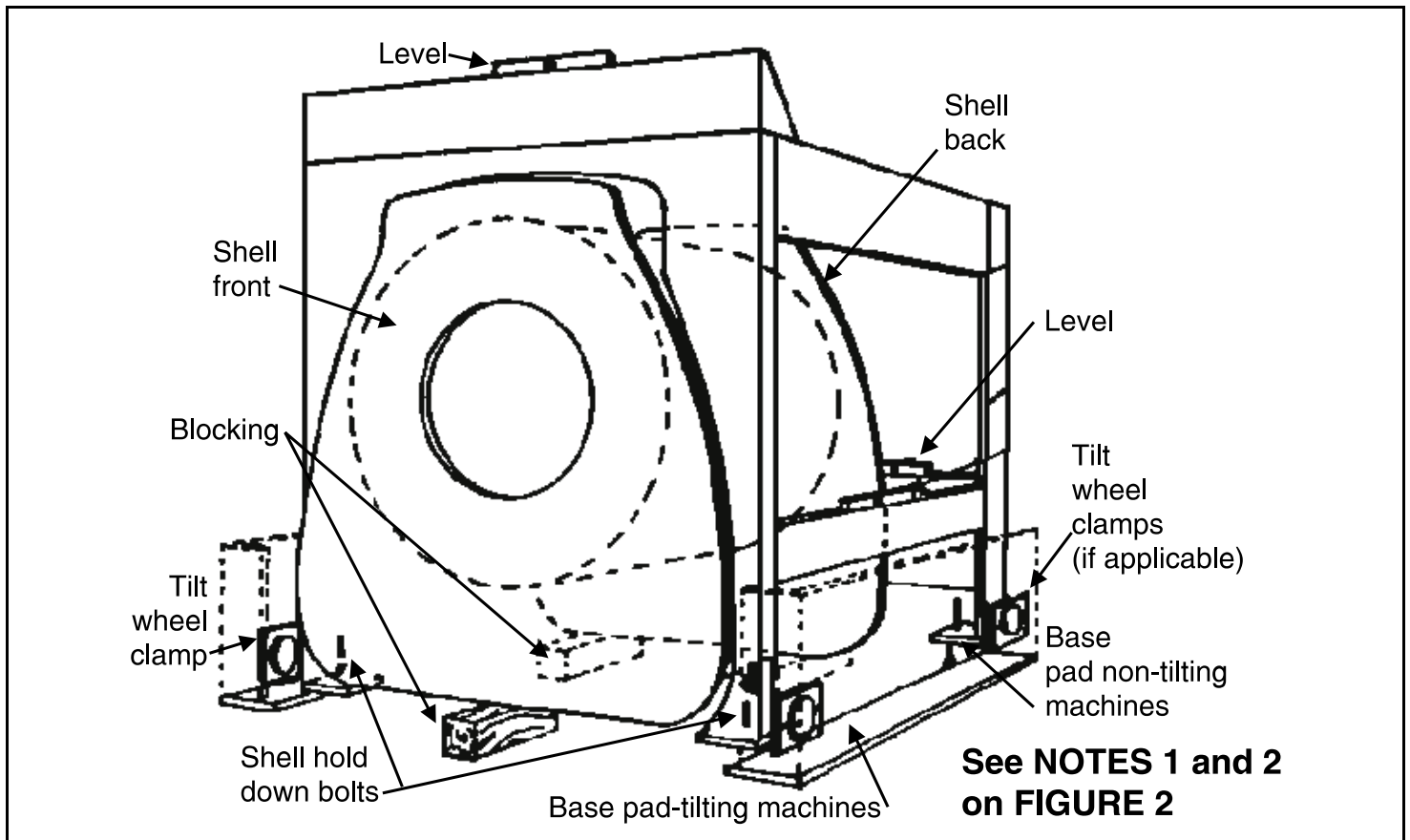


FIGURE 6 (MSIN0203AE)
Setting 52" and 60" Open Pocket Machines

INSTALLERS!!
 IF MACHINE TILTS
 DURING OPERATION,
 ALLOW CLEARANCE
 WHEN INSTALLING
 AND CONNECTING
 SERVICE. SEE
 DIMENSIONAL
 DRAWING FOR
 GENERAL CONCEPT.

FIGURE 7 (MSIN0203AE)
Tilting Precautions

WARNING

1. MACHINE MUST BE LEVEL AND GROUTED BEFORE THE SHIPPING LOCKDOWN CLAMPS FOR THE TILT BASE ARE REMOVED. THIS IS NECESSARY BECAUSE IF YOU REMOVE THEM BEFORE THE MACHINE IS LEVEL AND GROUTED THEN IT IS POSSIBLE TO HAVE ONE LEG NOT PROPERLY LEVELED.
2. REMOVE SHIPPING TILT WHEEL LOCKDOWN CLAMPS BEFORE ATTEMPTING TO TILT MACHINE.
3. TILT BOTH WAY - REMOVE ALL FOUR.
 TILT FORWARD ONLY - REMOVE REAR TWO.

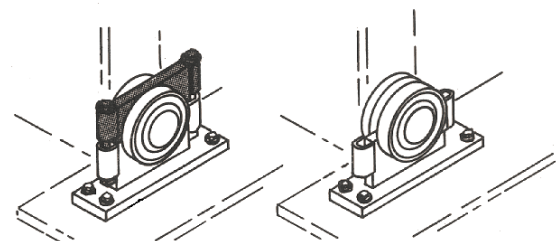


FIGURE 8 (MSIN0203AE)
Tilt Wheel Clamps (BTN and BTL models only)

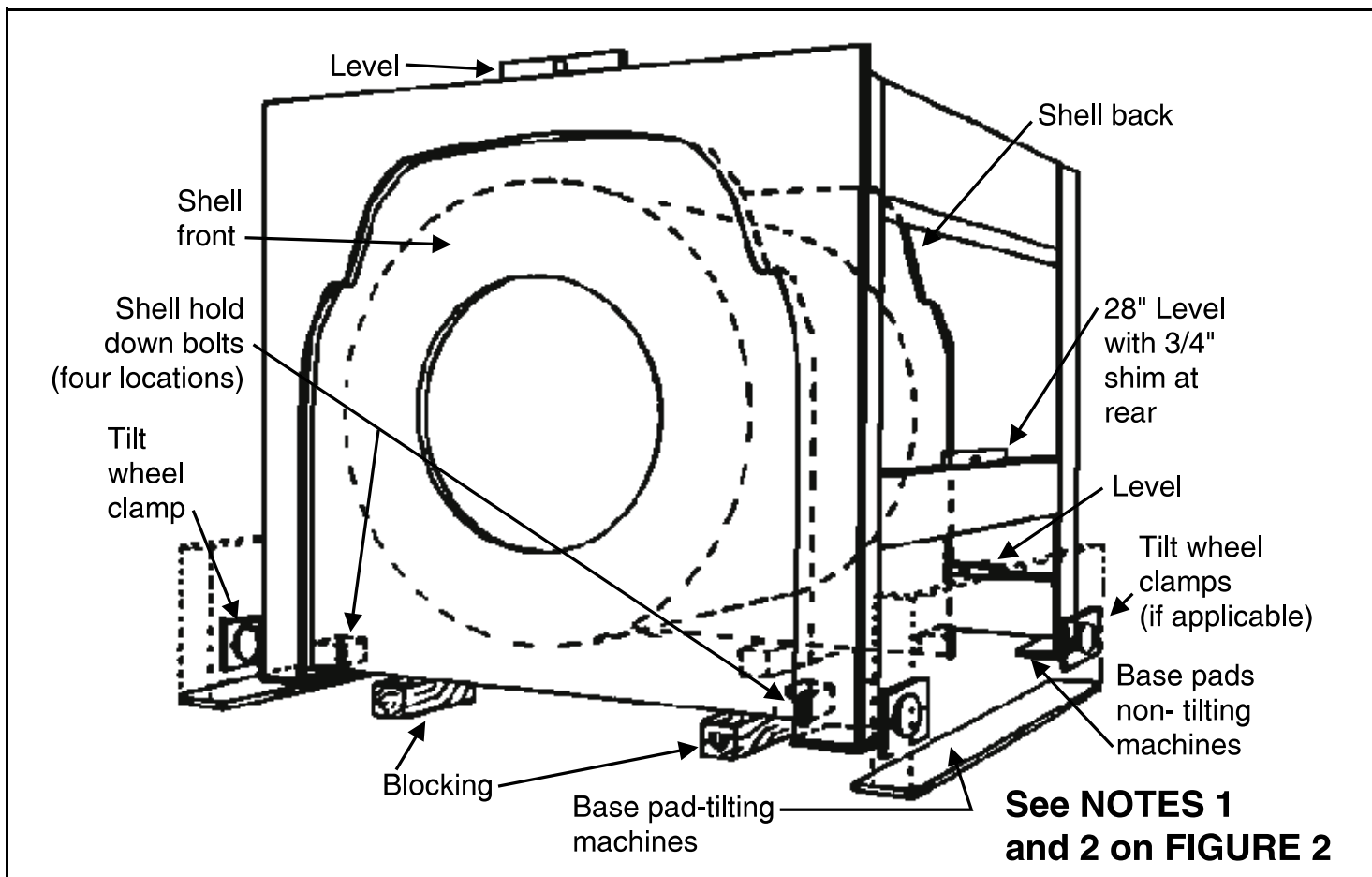


FIGURE 9 (MSIN0203AE)
Setting 72" Open Pocket Machines

52", 60" and 72" Open Pocket Machines

1. Lower the machine onto removable blocking, such that the shell front and shell back are resting on the blocking as shown in FIGURES 6 and 9 (For 52" and 60" machines, place blocking with one in the front and two in the rear. For 72" machines, place two in the front and one in the rear). The blocking must provide for 1" minimum clearance between the floor and the base pads.
2. Place a level on the frame front, upper right and left cross brace, and lower rear cross brace. 52" and 60" machines must be level at each of these locations. 72" machines sit at a 1° angle sloping down to the back. To approximate this angle when leveling on the side cross braces, use a 28" bubble level with 3/4" shim at the rear.
3. When the machine is level and has room for at least one inch of grout under each base pad, apply the grout under the full length of each base pad. Take care to fill all voids with grout to assure that there is a solid base of grout under each base pad (for additional information, see "Grouting and Anchoring Considerations" in this section).
4. When the grout has hardened, remove the shell hold-down bolts. The shell will be lifted by the HYDRO-CUSHION® springs so that the temporary blocking may be removed.

- 5. If anchor bolts were provided, install the nuts and tighten.
- 6. On tilting machines, remove all four tilt wheel clamps and check to be sure the machine is resting on all four tilt wheels. If not, use the spacers provided with the machine to raise the “high” wheel. Shim between the cradle and the base pad. The spacers must be installed so that the down limit switch rests on the shim plate.
- 7. On tilt forward only machines (WTG/WTL models) replace the tilt wheel clamps on the front tilt wheels only.

A CAUTION A

VIBRATION AND MALFUNCTION HAZARD—Voids under base pads can magnify vibration and cause unsatisfactory operation.

- ☞ Grout must displace total clearance between base pads and existing floor.
- ☞ Voids must not exist.

Grouting and Anchoring Considerations—Observe the following considerations when applying grout and anchoring machine:

- Use only industrial strength non-shrinking grout. Pack or trowel by hand.
- If the grout (after mixing) is too thin (causing it to flow from under the base pads), install temporary cardboard framing around pads to retain the grout until it cures.
- If grout after (mixing) is of proper consistency, pack or trowel by hand.

RE-INSTALL ANY BOLTS REMOVED FOR SHIPPING IN UPPER CROSS-BRACES (OR ELSEWHERE) AFTER MACHINE HAS BEEN IN-STALLED.

FIGURE 10 (MSIN0203AE)
Bolt Warning

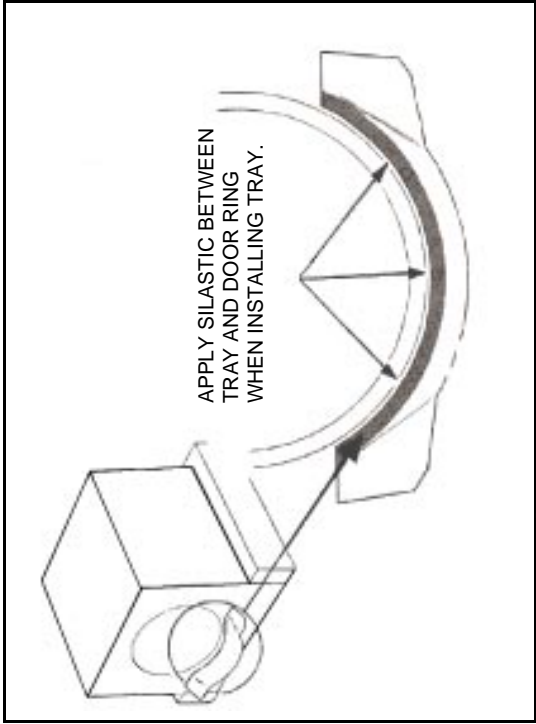


FIGURE 11 (MSIN0203AE)
64" and 72" Open Pocket Machines
(If applicable)

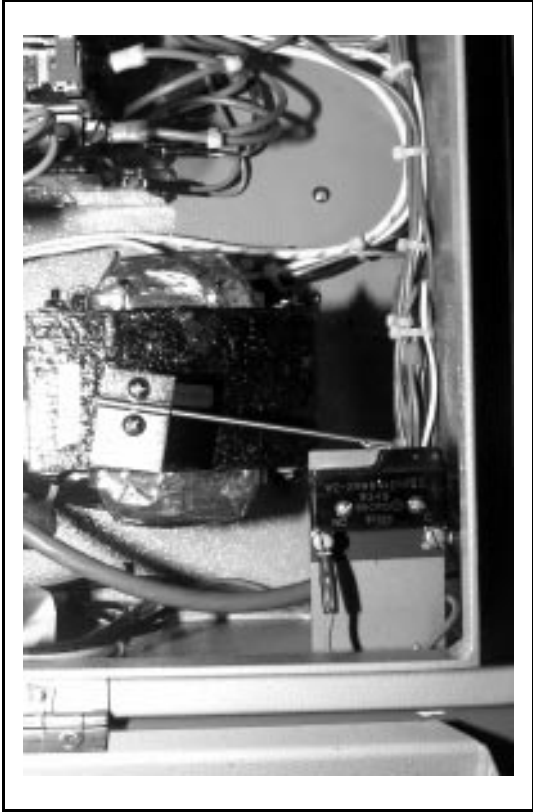


FIGURE 12 (MSIN0203AE)
Vibration Switch

DO NOT REMOVE DRIP SHIELDS.

THE AIRMOUNTS ON THIS MACHINE ARE COVERED WITH PLASTIC DRIP SHIELDS FOR PROTECTION AGAINST EXPOSURE TO OIL.



FIGURE 13 (MSIN0203AE)
Drip Shields

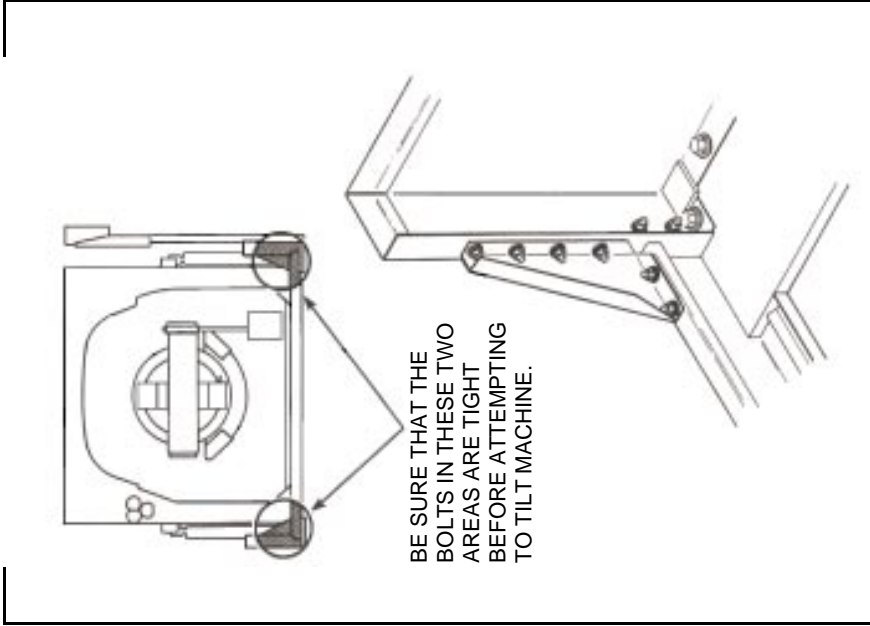


FIGURE 14 (MSIN0203AE)
72044 WTB Machines

HANDLING AND SETTING PROCEDURES FOR DIVIDED CYLINDER, HYDRO-CUSHION[®] MACHINES

Handling Precautions

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

NOTE: Once the machine is given to the carrier for delivery, it is solely the 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 a carrier if the machine is damaged in any way during shipment.** Milnor[®] will be glad to assist you in filing your claim, but is not responsible for any shipping damage to the machine once it has been delivered to the carrier in good condition.

⚠ WARNING

Rigger is liable for damages both directly and indirectly caused by rigging.

NOTE

ON SOME MODELS, LIFTING POINTS ARE CONCEALED BEHIND BELT GUARD.

☐ 4 point pick-up

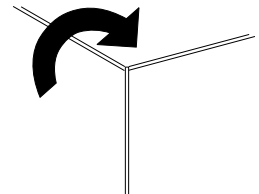
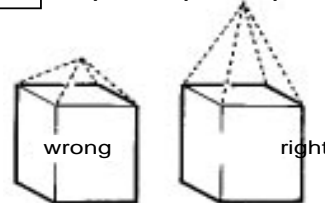
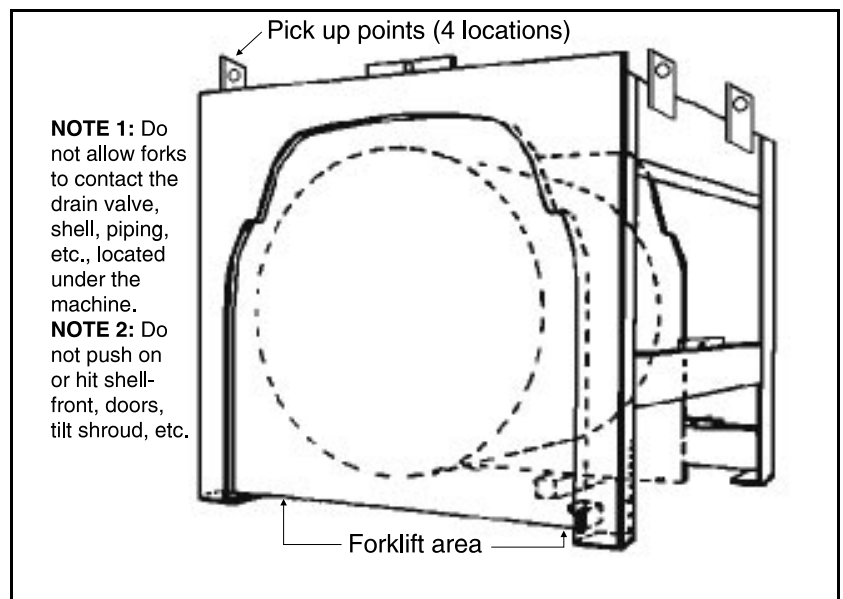


FIGURE 1 (MSIN0301AE)
Lifting Instructions

2. When lifting an uncrated machine by crane, always connect to the four lifting rings provided. Use skids for fork lifting. Once the skids are removed, take care in placing forks under the machine. **Do not allow the forks to come in contact with the drain valve, shell, piping, etc., located under the machine.**
3. Never push, pull, or exert pressure on any components which protrude from the machine frame, such as the shell front, door, supply injector, electric boxes, controls, belt guards, inlet piping, etc.
4. Be sure shell door(s) is secured so that it cannot swing open during installation.
5. The hold down bolts, brackets, and spacers (marked with red) that hold the shell rigid in the frame must be removed prior to operation. However, they should not be loosened until the machine is ready to be grouted. In addition, the tie wrap that secures the vibration safety switch (see FIGURE 8) must be removed after installation and before operation.



NOTE 1: Do not allow forks to contact the drain valve, shell, piping, etc., located under the machine.

NOTE 2: Do not push on or hit shell-front, doors, tilt shroud, etc.

FIGURE 2 (MSIN0301AE)
Pickup and Forklift Area

Site Requirements

Space Requirements

1. All openings and corridors through which equipment must pass during installation must be large enough to accommodate the width and height of the machine (as shown on the dimensional drawings). It is occasionally possible to reduce the overall dimensions by removing piping or other special modifications. Consult Milnor[®] for additional information.
2. Sufficient clearance must be provided for normal operation and maintenance procedures.

Operational Requirements

1. Allow sufficient ventilation for the heat and vapors of normal operation to dissipate.
2. Provide easy access to controls. Operators must be able to view all status lights and reach all controls associated with the machine (e.g., electrical power connections, water and steam shut-offs).

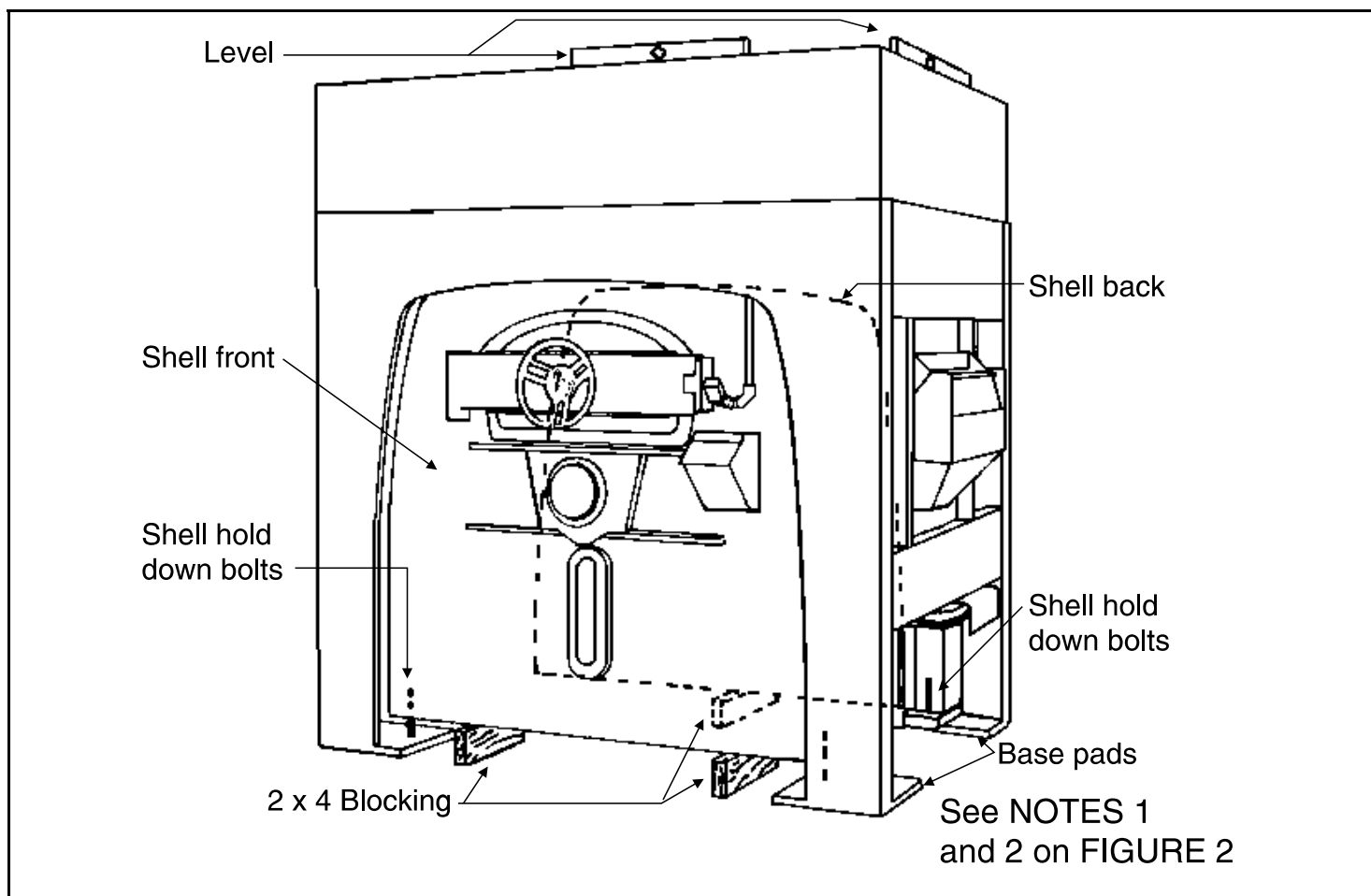


FIGURE 3 (MSIN0301AE)
Setting a Divided Cylinder Machine
(Procedure applies to all Divided cylinders and Staph-Guards[®])

Foundation Requirements—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.*

Drain Requirements—An open trench must be provided in the floor for draining. Its size (as a minimum) and location (centered under the drain valve) should be as shown on the dimensional drawing and with a minimum slope of 1/8" per foot to the sewer. Even where one trench serves several machines, the cross section area of the trench shown on the dimensional drawing is normally acceptable since draining is intermittent and the portion of the trench located under each machine is sufficient to contain most, if not all, of the outfall from one machine. Refer to local codes for sanitary requirements such as traps, etc.

⚠ WARNING ⚠

REMOVE SHIPPING RESTRAINTS BEFORE ATTEMPTING TO RUN MACHINE but only after machine is in place. Restraints are usually marked with red, and may be concealed behind access panels.
REPLACE THOSE FEATURES WHICH ARE PART OF MACHINE STRUCTURE.

FIGURE 4 (MSIN0301AE)
Shipping Restraints

Setting Procedures

To protect against lateral “creeping” of the machine during operation, due to vibration, roughen the area of the floor where grout will be applied. Anchor bolts are required for most of the models covered by this document (refer to the machine dimensional drawing). Once the foundation is prepared, the shipping skids are removed and the machine is ready to be set in its desired position. See FIGURES 3 and 7, then proceed as follows:

1. Lower the machine onto three short lengths of 2 x 4's such that the shell front is resting on two of them and the third is centered under the shell back.
2. Put shims on top of the 2 x 4's until the machine has approximately 1" clearance under each base pad and is level. Check level as shown in FIGURE 3.
3. When the machine is level and has room for 1" of grout under each base pad, apply the grout. Fill all holes under the base pads so that each pad is resting upon a solid base of grout.
4. When the grout has hardened, tighten down the anchor bolts and *remove the four hold down bolts.* The shell will be lifted by the Hydro-cushion[®] cylinders so that the 2 x 4 blocking may be removed.

⚠ CAUTION ⚠

WITH SKIDS REMOVED THERE IS MINIMAL CLEARANCE BETWEEN BRAKE SHOE ARMS AND GROUND.

BE CAREFUL NOT TO DAMAGE THESE PARTS WHEN MOVING THIS EQUIPMENT. MANUFACTURER NOT RESPONSIBLE FOR CONCEALED DAMAGE. INSPECT BRAKE ARMS TO PROTECT YOUR INTEREST.

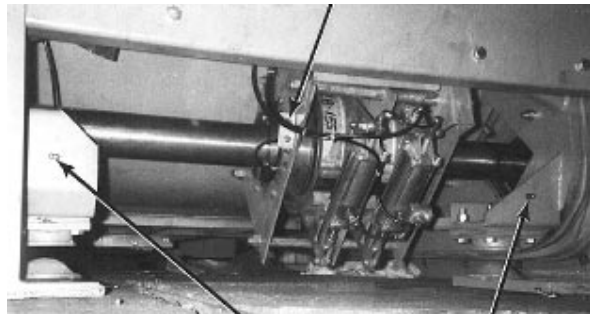


FIGURE 5 (MSIN0301AE)
60" and 72" Staph-Guard[®]

DO NOT REMOVE DRIP SHIELDS.

THE AIRMOUNTS ON THIS MACHINE ARE COVERED WITH PLASTIC DRIP SHIELDS FOR PROTECTION AGAINST EXPOSURE TO OIL.

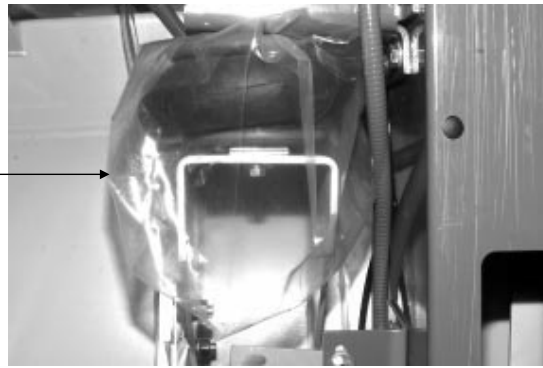
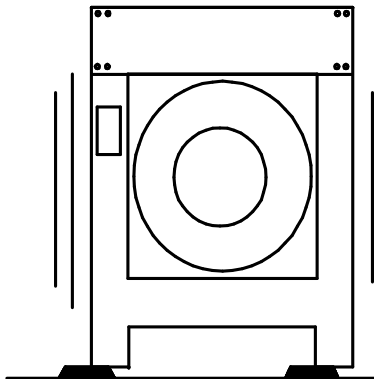


FIGURE 6 (MSIN0301AE)
Drip Shields

⚠ WARNING ⚠



A SUSPENSION TYPE MACHINE CAN "WALK" OUT OF POSITION DURING EXTRACT, ENDANGERING PERSONNEL AND DAMAGING EQUIPMENT, IF NOT PROPERLY INSTALLED.

Roughen floor, install anchor bolts and grout under all base pads to prevent "teeter-totter" and sideways movement.

REMOVE ALL SHIPPING RESTRAINTS but only after machine is in place.

THE MACHINE WILL MALFUNCTION AND MAY BE DAMAGED UNLESS ALL SHIPPING RESTRAINTS (USUALLY MARKED WITH RED) ARE REMOVED. Restraints may be located behind access covers. These include but are not limited to:

- Cylinder hold-down bolts, brackets, straps and/or blocking (suspension type machines).
- Vibration safety switch restraint, FIGURE 8 (all 36" and larger machines).

REPLACE FASTENERS WHICH ARE PART OF MACHINE STRUCTURE.

FIGURE 7 (MSIN0301AE)
Anchor and Grout Warning

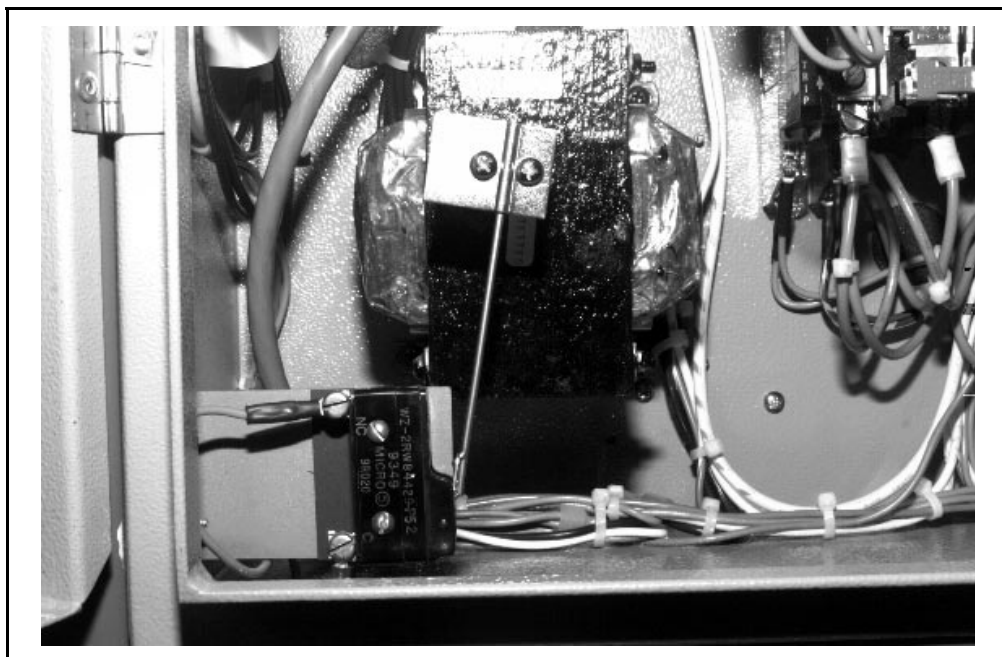


FIGURE 8 (MSIN0301AE)
Vibration Switch

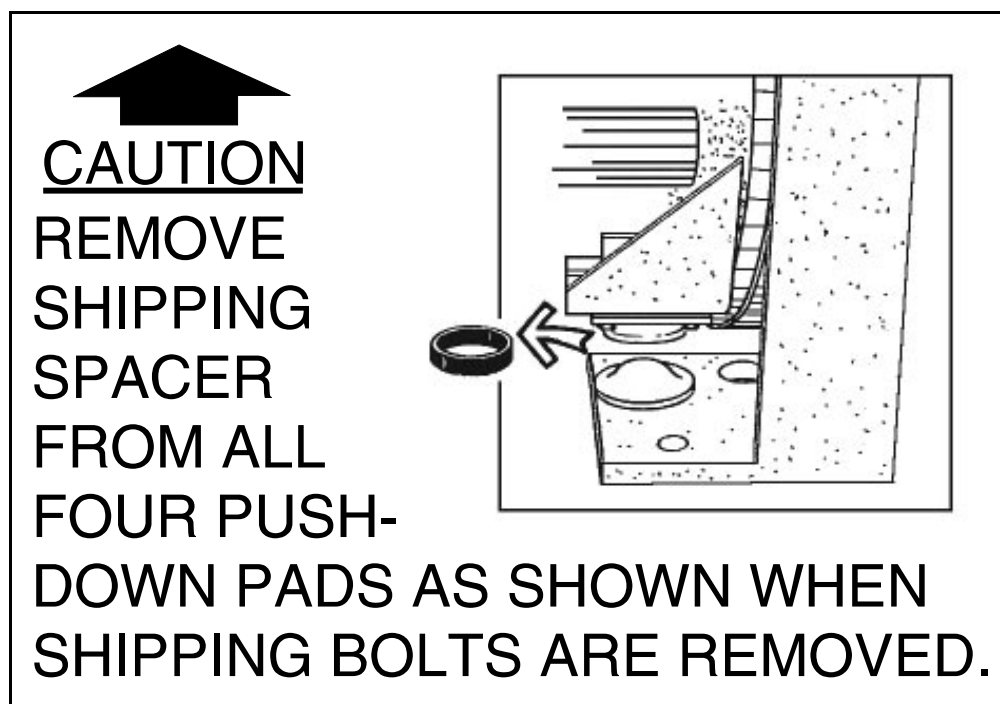


FIGURE 9 (MSIN0301AE)
60" Staph-Guard®

HYDRO-CUSHION[®] SERVICE CONNECTIONS

General

These service connections are required:

1. Piped inlets and outlets (cold water, hot water, “third” water, reuse water, flushing supply water, Spray down and/or cool-down water, steam, central liquid supply, peristaltic pump inlets, compressed air inlet, vent, reuse and/or drain).
2. Electric power connections (for additional information see “EXTERNAL FUSE AND WIRE SIZES FOR MILNOR[®] MACHINES” - MAEFUSE1AE).

IT IS NORMAL FOR THE VEGETABLE FIBER GASKET ON THIS SHELLFRONT TO LEAK SLIGHTLY WHEN THE MACHINE IS FIRST COMMISSIONED. IT SHOULD STOP LEAKING AFTER THE FIRST FEW LOADS ARE PROCESSED.

FIGURE 1 (MSIN0201BE)
All Machines

Requirements for Piped Connections

Inlet pressures must be within the minimum/maximum range specified. Pressures outside of the specified range may cause the machine to operate inefficiently or malfunction, and may damage machine components.

⚠ CAUTION ⚠



MACHINE DAMAGE—Valve bodies will be ruined if twisted and distorted.

- ☞ Hold the connection side of the valve with a wrench when connecting plumbing.

⚠ CAUTION ⚠

MACHINE DAMAGE—Piping will be damaged if struck by tilting machine.

- ☞ Route piping to tilting machines carefully.

⚠ CAUTION ⚠



Machine Damage Hazards—Pumped chemical systems, if not properly installed, can cause corrosion damage.

- ☞ See the reference manual for precautions and additional information before making any chemical connections.

Piped Inlet/Outlet Specifications—The piped inlet and outlet requirements are as follows (see dimensional drawings for the size and location of connection points):

Piped Inlets

Description of Connection	Source Requirements	Piping Specifications
Cold water inlet	See dimensional drawing for size. 30 - 65 PSI (2.10 - 4.57 kilogram/centimeter)	Pipe material per plumbing code (see “Piped Inlet Precautions,” in this section)
Hot water inlet		
“Third” water inlet		
Reuse water inlet		
Steam inlet	See dimensional drawing for size. 30 - 115 PSI (2.10 - 4.57 kilogram/centimeter)	Pipe material per plumbing code (see “Steam Precautions,” in this section)
Flushing water for supply injector (Divided cylinder, 52", and 72" open pocket non-tilt machines only)	See dimensional drawing for size. 30 - 65 PSI (2.10 - 4.57 kilograms)	Pipe material per plumbing code (see “Flushing Water Connections,” in this section)
Peristaltic pump inlets	1/2" NPT	Flexible tubing as specified by chemical supplier (see “Peristaltic Pump Connections,” in this section)
Central liquid supply	1/2" and 3/8" NPT	Flexible tubing as specified by chemical supplier
Compressed air inlet	See dimensional drawing for size. 85 - 115 PSI (5.97 - 8.08 kilogram/centimeter)	Pipe material per plumbing code

Outlet Specifications—The outlet requirement is as follows. See dimensional drawings for connection sizes and locations.

Outlets

Description of Connection	Destination Requirements or Description	Piping Specifications
Drain to reuse (if so equipped) or Drain to sewer	Provide a centrally located open trench, with a minimum slope of 1/8" per foot (10 mm per meter) (See dimensional drawing)	<i>Do not</i> connect dump valves to drain. Attach short pieces of hose to dump valves to control splashing. <i>Do not</i> immerse ends of hoses. (see “Drains” in this section)
Vent	See dimensional drawing	Flexible tubing supplied by others (see “Vents” in this section)

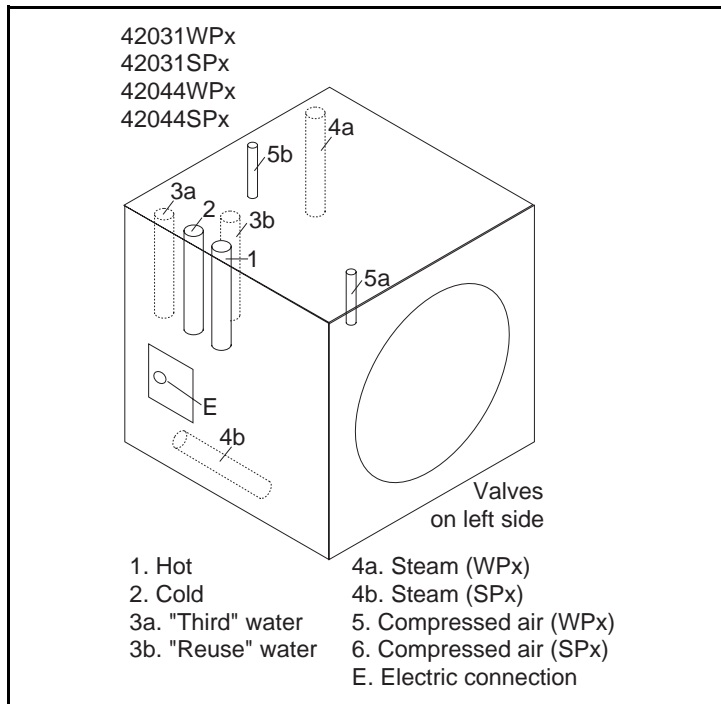


FIGURE 2 (MSIN0201BE)
42031, 42044 Non-Tilting, Open Pocket and Staph-Guard® Service Connections

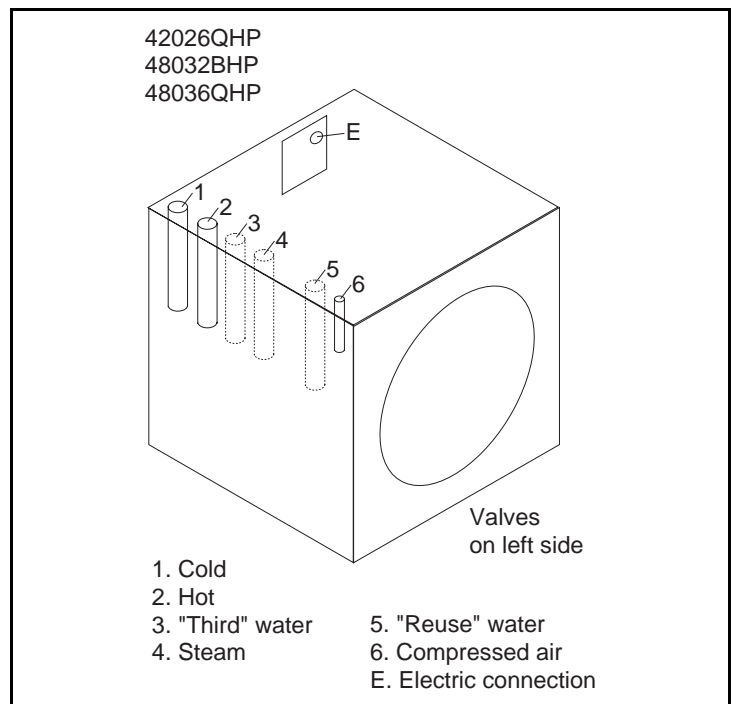


FIGURE 3 (MSIN0201BE)
42026, and 42032 Non-Tilting, Open Pocket Service Connections

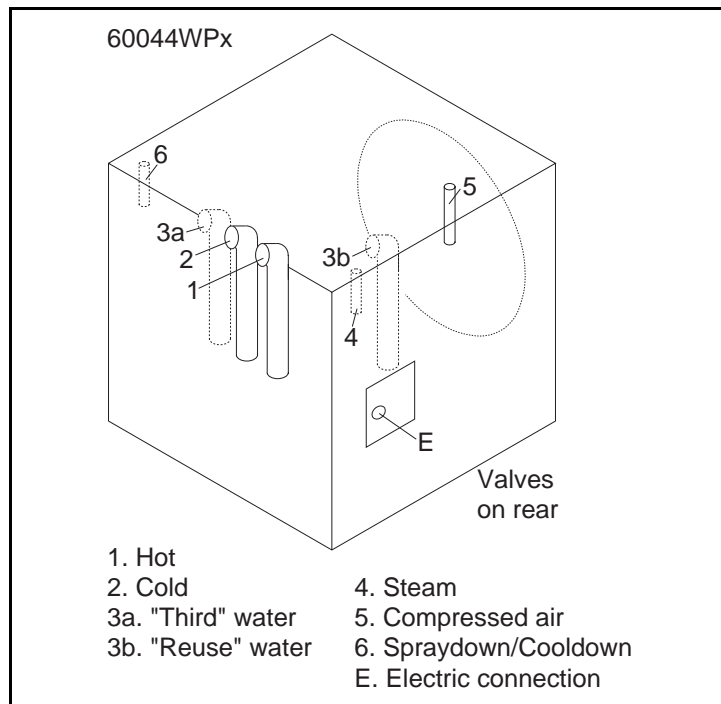


FIGURE 4 (MSIN0201BE)
60044 Non-Tilting, Open Pocket Service Connections

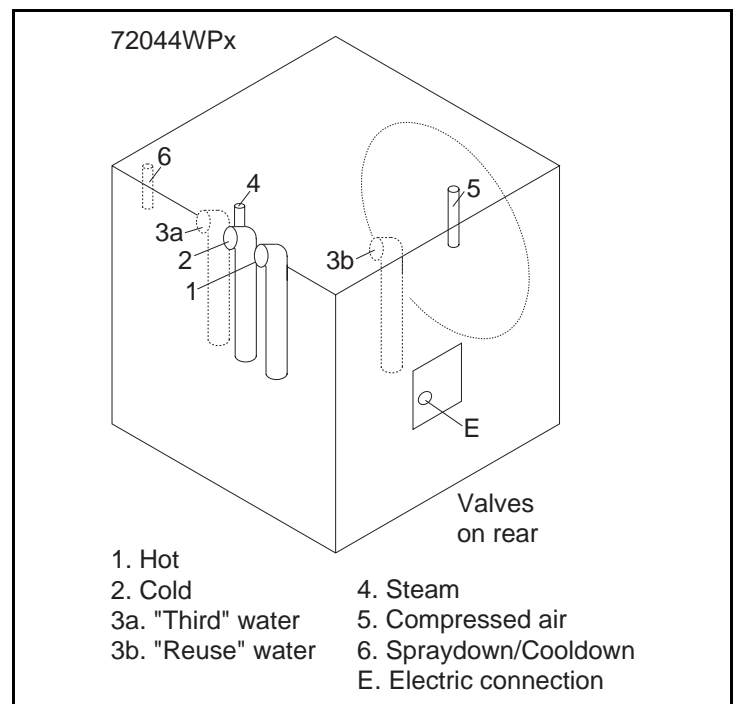


FIGURE 5 (MSIN0210BE)
72044 Non-Tilting, Open Pocket Service Connections

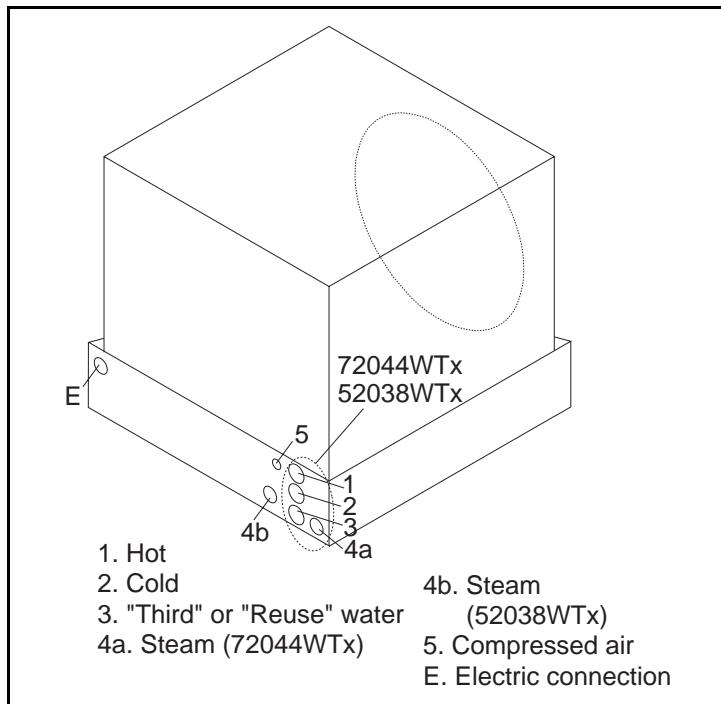


FIGURE 6 (MSIN0201BE)
**72044 and 52038 Tilting,
Open Pocket Service Connections**

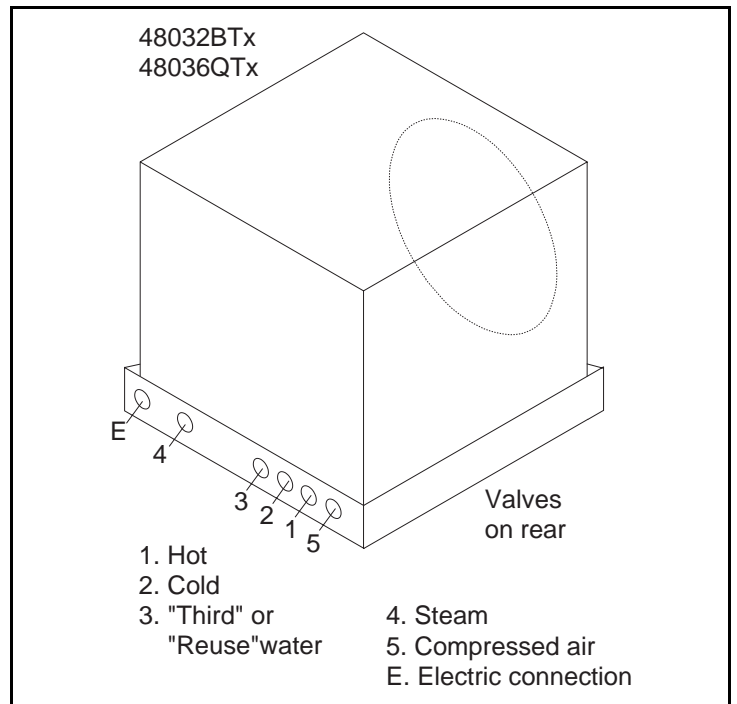


FIGURE 7 (MSIN0201BE)
**48032, 48036 Tilting, Open Pocket
Service Connections**

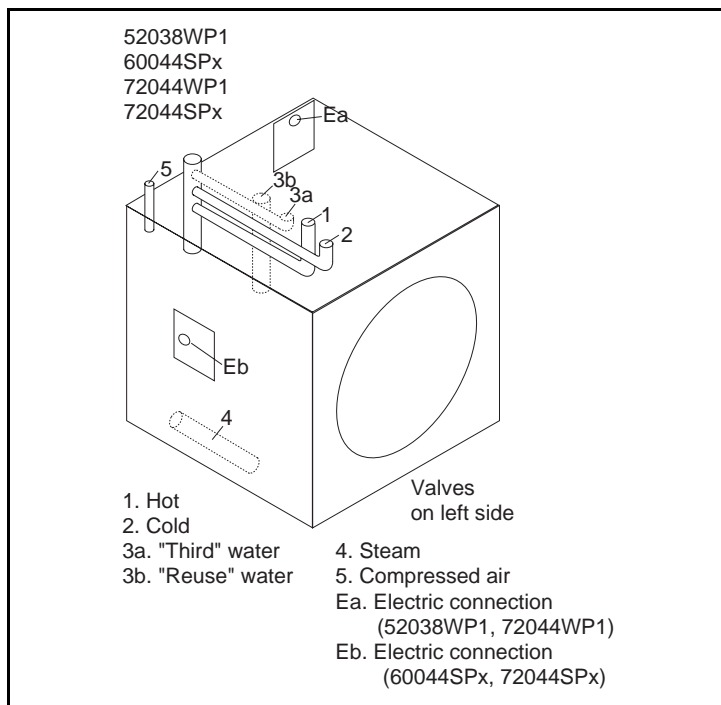


FIGURE 8 (MSIN0201BE)
**52038 and 60044 Non-Tilting Open Pocket
and Staph-Guard® Service Connections**

**STEAM POP-OFF VALVE (HAS
BEEN PRE-SET TO 125 PSI).
PIPE RELIEF PORT TO COVERED
DRAIN. DO NOT INSTALL A STEAM
TRAP ON THIS LINE.**

FIGURE 9 (MSIN0201BE)
Indirect Steam Machines Only

Please check perforated cylinder for smoothness
before placing machine in service.

We cannot accept claims for damage to cylinder's
smooth finish after machine has been placed in
service.

PELLERIN MILNOR CORPORATION

FIGURE 10 (MSIN0201BE)
All Machines

Piped Inlet Precautions

Machines are supplied with one to three air operated ball valves (functions and positions are shown in FIGURES 2 through 8). The flow rate of a ball valve is far greater than that of a globe valve of equal nominal size. Do not use improperly sized globe type shut-off valves in front of ball valves (see FIGURE 11). Additional precautions are as follows:

- Always use unions at the point of connection to permit removal of the valve assembly for service.
- Do not connect reuse water to any other inlet. Reuse water has a detrimental effect on devices (e.g., supply injector) supplied by other inlets.
- Do not use globe type shut-off valves on reuse water. Reuse water lint may clog this type of valve.
- Inlet valves may experience “water hammer” at higher water pressures. Inlet valve actuators (air cylinders) are fitted with needle valves to adjust how fast the inlet valve closes. If water hammer is experienced, slightly reduce the closing rate of the inlet valve. Pressure regulators or shock absorbers may be necessary.

Steam Requirements—Steam inlets are located near water inlet valves (except Staph-Guard[®] models). Size the line from the header to the machine at least one size larger than the steam valve.

Flushing Water for Supply Injector

NOTE : Tilting, 42", 48", and 64" open pocket machines fitted with flushing supply injectors have an internal connection to the hot (or cold, if hot is not available) water inlet.

Divided cylinder, 52", and 72" open pocket non-tilting machines require an external connection. Supply injectors require a dependable hot water supply that does not boil over or contain steam. Use cold water if the hot water supply does not meet the above conditions.

- Connect directly from water supply to the supply injector water pressure reducing valve.
- Use at least one size larger pipe than the water pressure reducing valve.
- Verify a reading of 28 PSI (1.96 kilograms per square centimeter) on the water pressure gauge. This pressure protects the downstream supply injector solenoid valves. These valves are rated for a maximum static pressure of 30 PSI (2.10 kilograms per square centimeter). Pressures above this may cause the valve coils to burn out.

WARNING

Some of the water inlet and/or steam valves on this machine may be of the "ball valve" construction. The flow rate of a ball type valve is far greater than that of an equal size globe valve. DO NOT USE GLOBE TYPE SHUT OFF VALVES IN FRONT OF BALL VALVES UNLESS THE GLOBE VALVE IS SELECTED IN ACCORDANCE WITH THE FOLLOWING TABLE:

BALL VALVE SIZE	EQUIVALENT GLOBE VALVE SIZE
1- 1/4" normal flow	2-1/2"
1- 1/2" normal flow	2-1/2"
2" normal flow	3"
* 2" full port fast flow	4"

* Used as water inlet valves on MILNOR 7244 machines.

NOTICE: IF VALVE IS ACCIDENTLY PIPED TO THE WRONG WATER LINE, MERELY INTERCHANGE THE AIR TUBE (IF VALVE IS AIR-OPERATED). NEVER INTERCHANGE ANY ELECTRICAL CONNECTIONS (NOT APPLICABLE FOR THIS MACHINE ON WHICH A SINGLE CONNECTION SERVES MORE THAN ONE WATER-USING DEVICE.)

FIGURE 11 (MSIN0201BE)
All Hydro-Cushion[®] Machines

- If the water pressure reducing valve “chatters” while flushing, verify gauge pressure is 28 PSI. If pressure is correct then re-locate the water pressure reducing valve approximately 10 feet further upstream.
- Tubing connection in the top of the pressure reducing valve is a “bleed - off” line and normally discharges into the supply injector, but can be connected to any convenient drain.

Optional Cooldown Water Connection—Open pocket tilting and non-tilting machines that use cool-down are internally connected to the cold water connection and do not require external connection. Divided cylinder machines require a separate cold water connection.

Optional Spray down Water Connection—Rapid load machines use a separate cold water connection. A machine equipped for both cooldown and spray down uses one inlet for both functions.

Liquid Supplies—Machines equipped with the optional central liquid supply injection in lieu of a flushing supply have a set of supply valves and a supply manifold.

▲ CAUTION ▲

Never connect hard piping directly to the drain valve outlet.

- ☞ **Drain valves are connected to the suspended portion of the machine, and move up to 3" in any direction when the machine is operating, and up to 18" along an arc in the case of tilting machines.**

Drains—Depending upon whether single or dual drain valves are supplied, the installation should provide for a single or double recessed trench under the machine, as shown on the dimensional drawing, in order to accommodate the rapid, large volume outfall which occurs when the drain opens. When dual drain valves are furnished (for water reuse) the drain-to-sewer is located to the front and the drain-to-reuse, to the rear, unless specified otherwise. These positions are easily swapped by interchanging the air lines on top of each drain valve air cylinder. Never make changes to electrical circuits. A short length of flexible hose may be attached to drain valves on non-tilting machines to control splashing, especially if the drain valve is not centered over the trench. Connecting this flexible hose directly to hard drain piping is not recommended as this may be too restrictive to allow complete draining. If this is necessary, the drain valve may in most cases be mounted with the drain outlet facing rearward or forward, to facilitate the routing of drain piping. Consult Milnor[®] for further information.

▲ CAUTION ▲

Do not connect a powered ventilator to a Staph - Guard[®] as this may defeat the internal venting mechanism. Consult Milnor[®] for additional information.

▲ CAUTION ▲

The shell vent outlet on tilting machines moves when tilting. Rigid vent connections cannot be made to tilting machines. Consult Milnor[®] if extenuating circumstances require external venting.

Vent— Because of the relatively small volume of exhaust air produced by a washer-extractor (versus a dryer, for example) it is almost never necessary to vent a washer-extractor to the outside. One possible exception is with Staph-Guard[®] models, for sanitary reasons. Note, however, that even without exterior venting, the vent mechanism on Staph-Guard[®] machines will draw air in from the clean side and exhaust it to the soil side, providing a barrier wall has been properly installed in accordance with the machine dimensional drawing.

Precautions for Electrical Connections

⚠ DANGER ⚠



ELECTROCUTION HAZARD—Contact with high voltages can kill or seriously injure you.

⚡ All electrical connections must be made by a competent electrician.

When Making Electrical Power Connections

1. Connections must be made by a competent electrician.
2. See fuse and wire sizing information in the schematic manual and on the machine nameplate.
3. “Stinger leg,” if any, must be connected to terminal L3 only.
4. Make power and liquid supply electrical connections within junction boxes on rear of machine.
5. Use only Bussman Fusetron FRN (up to 250V), FRS (up to 600V) or similar lag fuses. The nameplate fuse sizes must not be applied to standard fuses.
6. See nameplate and wire sizing information in the schematic manual for fuse and wire sizes. For wire runs of more than 50 feet (15.24), increase by one wire size per each additional 50 feet (15.24).
7. Verify all motor rotation (see the Mark II washer-extractor reference manual for further information).

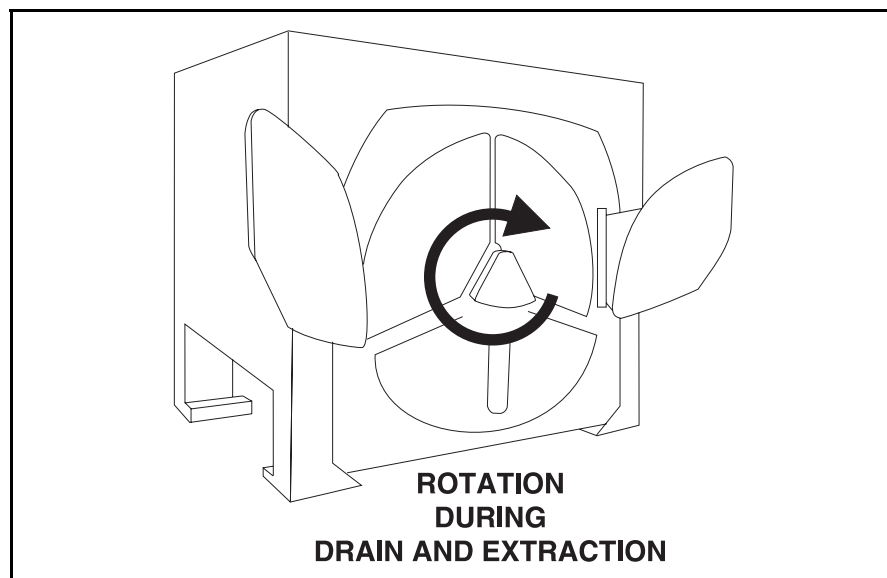


FIGURE 12 (MSIN0201BE)
Cylinder Rotation (Viewed from front)

Electric Power Connections

⚠ CAUTION ⚠

Voltage fluctuations of more than 10% above or below the specified voltage for the machine are extremely detrimental to electrical components, especially motors.

✎ Correct any such conditions prior to commissioning the machine.

The customer must furnish a remotely mounted disconnect switch with lag type fuses, circuit breakers, and wiring between the electrical service box and the junction box on the machine. The sizes of these fuses and wires, along with the motor fuses supplied with the machine, depend on the machine voltage. See fuse and wire sizing information in the schematic manual and on the machine nameplate. If machine has been in storage or transit for several months, the time relay(s) may not time out correctly the first time. After a few operations they will correct themselves. Do not condemn them until they are allowed to operate several times.

WARNING FOR ANY MACHINE

IF POWER SERVICE HAS A "HOT LEG" OR "STINGER" ALWAYS CONNECT THE "STINGER" TO L3 ONLY. TO REVERSE ROTATION OF 3 PHASE MACHINE INTERCHANGE ONLY THE INCOMING L1 AND L2 LINES, NEVER L3.
(NEVER CONNECT A "STINGER" TO A SINGLE PHASE MACHINE).

Example: 240V

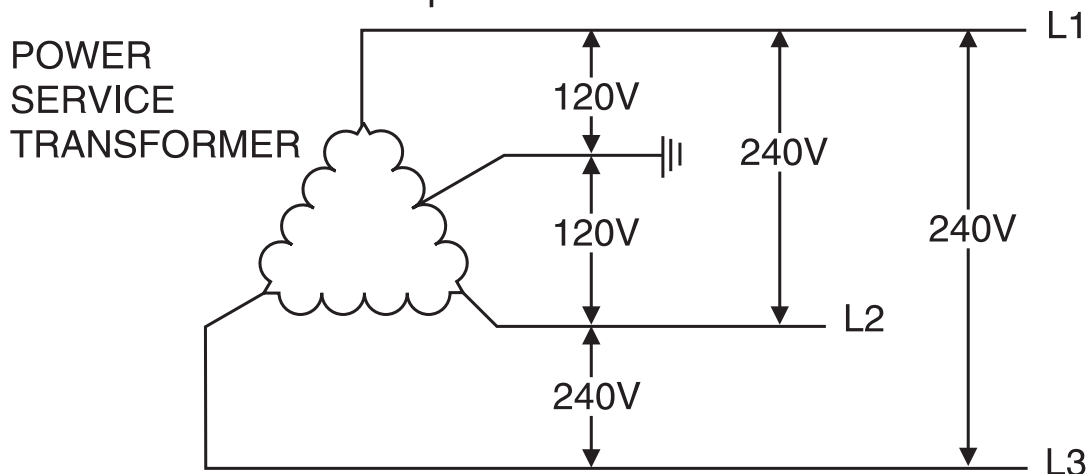


FIGURE 13 (MSIN0201BE)
Electrical Service Example

⚠ CAUTION

USE ONLY YOUR FINGERS TO DEPRESS THE KEYS.

NEVER USE SHARP OBJECTS.

WHEN USED PROPERLY THIS KEYPAD WILL WITHSTAND HEAVY INDUSTRIAL USE.

DAMAGE MAY OCCUR IF KEYS ARE DEPRESSED BY A SCREWDRIVER, PEN, ETC.

FIGURE 14 (MSIN0201BE)
All Machines

WARNING

DO NOT TAMPER WITH INDIVIDUAL CONNECTIONS ON THIS "WIRE-WRAPPED" CONTROLLER, OTHERWISE THE WIRE WRAPS MAY BE LOOSENED WHEREUPON ELECTRICAL CONTINUITY COULD BECOME INTERMITTENT CAUSING THE CONTROL TO MALFUNCTION.

DO NOT MODIFY ANY OF THESE CIRCUITS.

DO NOT CUT OR ADD ANY WIRES IN THIS SYSTEM. TAMPERING WITH THIS WIRING WITHOUT WRITTEN PRIOR PERMISSION WILL VOID THE WARRANTY.

REQUEST INSTRUCTIONS FROM THE FACTORY SHOULD IT BE DESIRED TO MODIFY ANY OF THE CIRCUITS.

FIGURE 15 (MSIN0201BE)
All Machines

AIR CONNECTION

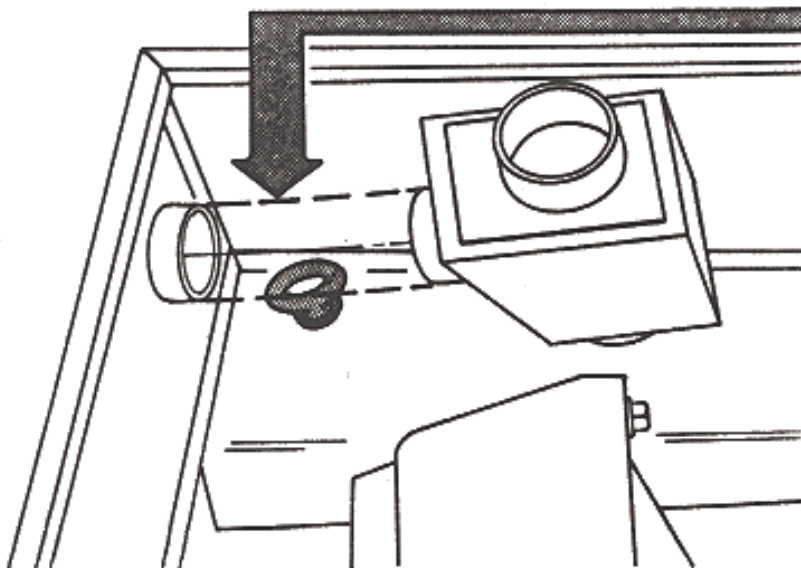
MINIMUM 85 PSI (Generally)

MAXIMUM 110 PSI (Check nameplate on machine)

THE BRAKE INTERLOCK PRESSURE SWITCH WILL NOT PERMIT THE MACHINE TO EXTRACT IF THE AIR PRESSURE IS TOO LOW. THE MACHINE WILL ROTATE AT DRAIN SPEED INSTEAD.

If this happens, check your air compressor. If your gauge shows more than 85 PSI the gauge is probably faulty. Some air compressors are set with too great a pressure differential between the lowest pressure obtainable and the highest pressure obtainable. Hence, if your compressor is set to go on at 60 PSI and off at 110 PSI, the machine will extract quite satisfactorily whenever the air pressure is above 85 PSI, but will not enter extraction at all when the pressure is below 85 PSI.

FIGURE 16 (MSIN0201BE)
All Machines



THIS HOSE FROM THE STAPH AIRTROL ASSEMBLY TO THE CLEAN SIDE VENT SCREEN WAS REMOVED FOR SHIPPING PURPOSES TO PERMIT ATTACHMENT OF LOADING SLING TO SHIPPING EYE BOLT.

REINSTALL AS SHOWN BEFORE OPERATING MACHINE.

FIGURE 17 (MSIN0201BE)
Staph-Guard® Machines

⚠ CAUTION ⚠

WHEN MAKING ELECTRICAL POWER CONNECTIONS:

1. Connections must be made by a competent electrician.
2. Before making power connections, read the instructions on all related tags.
3. "Stinger leg", if any, must be connected to terminal L3 only.
4. Only use Bussman Fusetron FRN (up to 250V), FRS (up to 600V) or similar lag fuses. The nameplate fuse sizes must not be applied to standard fuses.
5. See nameplate for fuse and wire size. If wire runs more than 50 feet, increase by one wire size per each additional 50 feet.

NOTE:

BEFORE SHIPPING, ALL MOTORS ARE PROPERLY PHASED FOR CORRECT ROTATION. IT IS POSSIBLE TO REVERSE THE DIRECTION OF ROTATION IN A 3 PHASE MACHINE BY INTERCHANGING THE INCOMING POWER LEADS. THEREFORE, THE ROTATION OF A 3 PHASE MACHINE MUST BE OBSERVED AND CORRECTED WHEN THE MACHINE IS FIRST INSTALLED. IF IT IS NECESSARY TO REVERSE THE ROTATION, SIMPLY SWAP THE INCOMING POWER LINES TO THE MACHINE (NEVER MOVE L3 IF L3 IS A STINGER LEG) - NEVER ATTEMPT TO RECONNECT MOTORS OR THE MOTOR CONTROL DEVICES.

FIGURE 18 (MSIN0201BE)
All Hydro-Cushion[®] Machines

CHEMICAL INLET VALVES

VALVE

1/2" Stainless steel
1/2" PVC

FLOW RATE

24 USGPM (H₂O @ 15 PSI)
30 USGPM (H₂O @ 15 PSI)

The approximate full-open flow rate of this chemical inlet valve is shown above. At lower pressure, the flow will be reduced approximately as the square root of the ratio obtained by dividing the actual applied pressure by 15 PSI (1ATU).

The calibrating valve can vary the flow from full-open to about 25 % of full-open. See TABLE 1 and FIGURE 1 below for description of valve positioning. Never use this calibrate valve to reduce the flow to less than 25% because the resultant flow will not be consistent.

Should 25% of full-flow be too great, reduce the amount of chemicals actually injected by (1) reducing the chemical pressure, or (2) reducing the stock chemical concentration (increasing the dilution), or (3) reducing the time the chemical valve is commanded by the SITMIL to remain open. (However, the valve should never be commanded to open less than about 10 seconds, because the opening and closing time of the chemical inlet valve would become a large percentage of the injection time and thus cause certain variations in the amount of chemical actually injected).

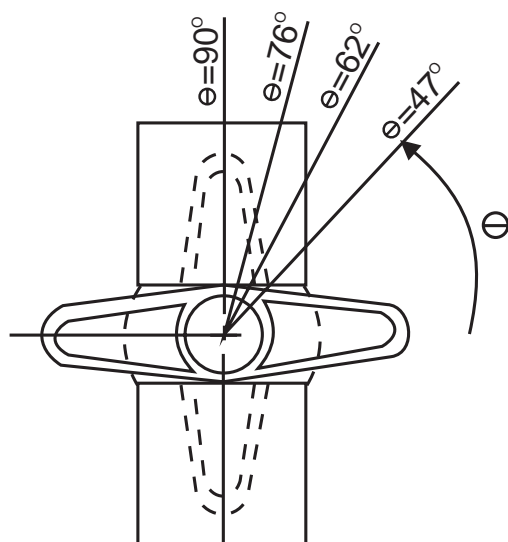


FIGURE 1

FLOW	VALVE POSITIONING REF. Θ
25%	47°
50%	62°
75%	76°
FULL	90°

TABLE 1

FIGURE 19 (MSIN0201BE)
Central Liquid Supply Systems

WATER CONNECTION FOR:
AUTOMATIC SUPPLY INJECTOR
AND BALANCING VALVES (If
machine is so equipped).

USE HOT WATER IF IT IS AVAILABLE.

SET PRESSURE REGULATOR FOR
28 PSI WHEN THERE IS NO FLOW
OF FLUSHING OR BALANCING WATER.

FIGURE 20 (MSIN0201BE)
**Divided Cylinder, 52" and 72"
Open Pocket Non-Tilt Machines**

NOTE: CALIBRATE SUPPLIES
#1 AND #2 TWICE.

SUPPLIES #1 AND #2 HAVE TWO FLOW
RATES: NORMAL RATE FOR TIMES
A. A1, B, AND B1; HIGH RATE FOR C
AND C1. CALIBRATE BOTH #1 AND #2
AT TIME A OR B AND AT TIME C.

FIGURE 21 (MSIN0201BE)
**Calibrating Liquid
Supply Manifold**

If cooldown strainer was removed
for shipment it must be reinstalled
before cold water can be connected to
cooldown valve.

FIGURE 22 (MSIN0201BE)
**Cooldown/Spraydown Machines
(If applicable)**

DRY BLEACHES MAY CAUSE THE
INSIDE OF THIS SUPPLY INJECTOR
TO SHOW EVIDENCE OF MILD RUSTING.
IF THIS CONDITION OCCURS, BE
CERTAIN TO CAREFULLY CLEAN
AWAY THE RUSTING AT LEAST ONCE
A WEEK.
ALWAYS INJECT DRY BLEACH FROM THE
CUP OR SCOOP. NEVER ALLOW THE
DRY BLEACH TO COME IN DIRECT
CONTACT WITH THE STAINLESS STEEL
COMPONENTS OF THE SUPPLY INJECTOR.

FIGURE 23 (MSIN0201BE)
Bleach Precaution

NOTICE

WHEN MACHINE IS NOT IN USE
FOR EXTENDED PERIODS, LEAVE
DOOR OPEN OR TURN ELECTRICAL
SERVICE DISCONNECT "OFF" A TO
DE-ENERGIZE SECOND BRAKE AIR
VALVE COIL.

FIGURE 24 (MSIN0201BE)
Door Precaution

STEAM CONDENSATE RETURN LINE

CUSTOMER TO INSTALL AN APPROPRIATE
SIZED STEAM TRAP, WHEN SAME IS NOT
FURNISHED WITH MACHINE.

FIGURE 25 (MSIN0201BE)
Indirect Steam Condensate Return

REUSE TANK INSTALLATION AND OPERATION

MSINA409AE/9841AV

Install Assemblies That Were Removed for Shipment

The reuse tank and related assemblies were removed after testing and shipped separately. Once the washer extractor is positioned and grouted (and not before), install the following assemblies that were removed for shipment.

- Overhead reuse tank
- Reuse pump
- Level switch wiring
- Associated piping

Assemble the reuse tank on the ground then lift tank into place and connect hoses. Use the reuse system schematic (FIGURE 1), photographs (FIGURES 2 through 7), and electrical schematic W6W2BDU (in the electrical schematic manual) as assembly aids. See table below for the approximate tank and pump weights.

Approximate Tank and Pump Weights

	42044WP2	60044WP2
Assembled reuse tank	390 Pounds (177 Kilograms)	550 Pounds (250 Kilograms)
Reuse pump	150 Pounds (68 Kilograms)	300 Pounds (136 Kilograms)

Operation—The reuse system is automatically controlled by the washer-extractor wash program as follows:

1. When the wash program calls for reuse drain, the washer-extractor opens the reuse drain and signals the reuse pump to start. The reuse drain closes after three minutes to keep the reuse pump from running dry. After the reuse drain closes the reuse pump stops. The regular drain valve then opens, sending any remaining water to the drain trench.
2. Should the reuse pump send too much water to the overhead tank, excess water automatically overflows to the drain trench, via the overflow pipe.
3. If the water level in the tank drops below minimum level (as monitored by the level switch), then the make-up water valve opens, adding fresh cold water to the reuse tank.

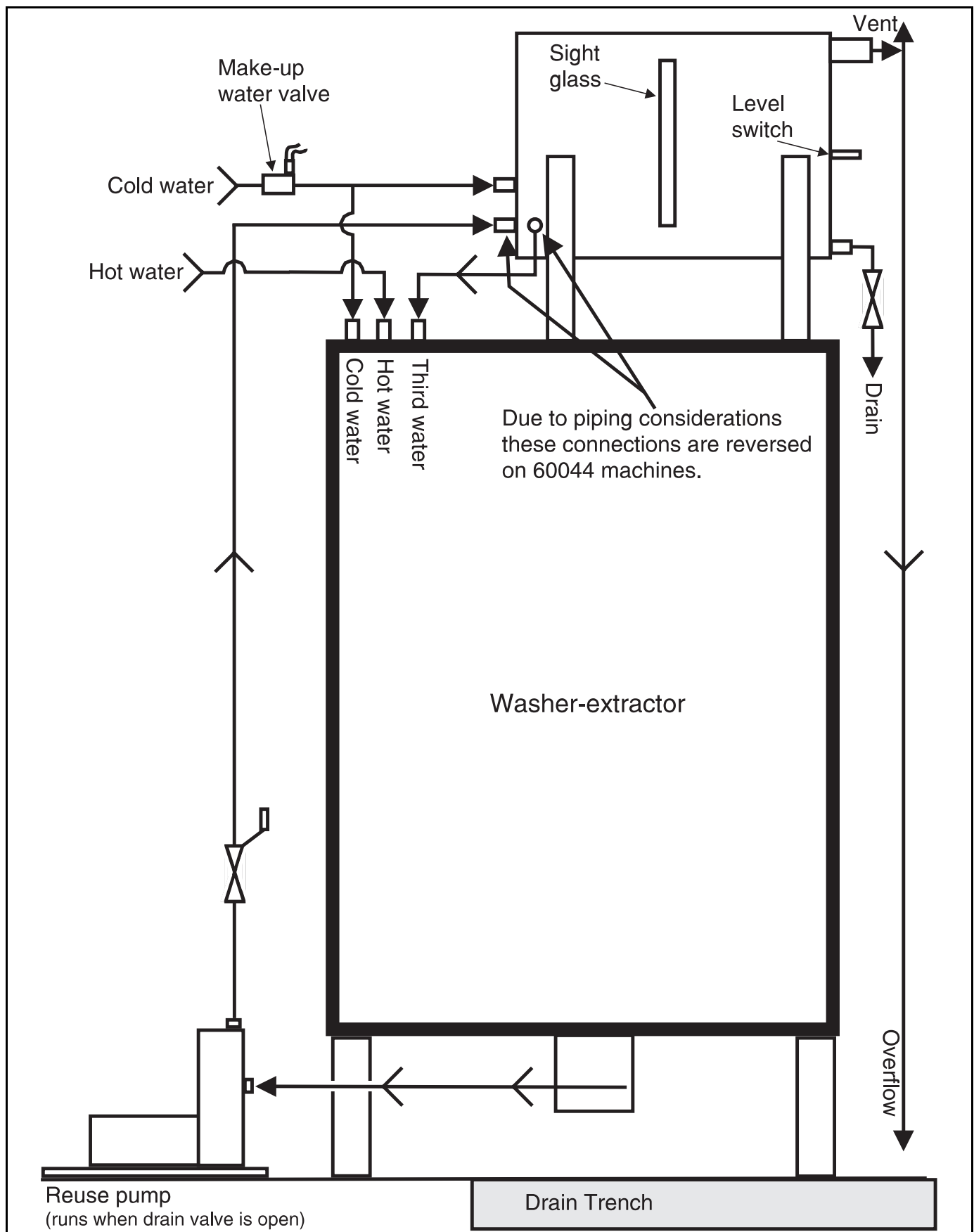


FIGURE 1: Reuse System Schematic

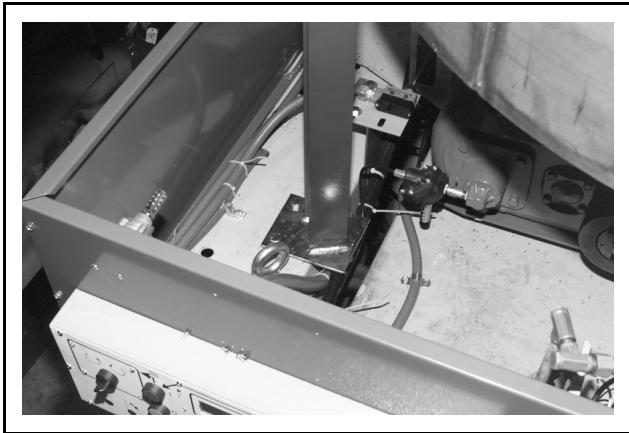


FIGURE 2: Right Front Reuse Tank Mount
(42044WP2 shown)

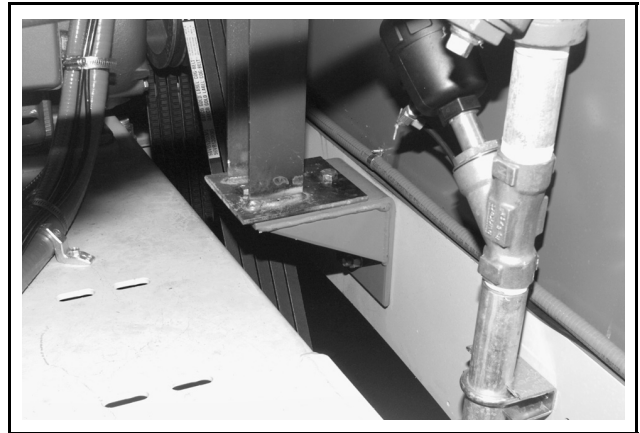


FIGURE 3: Rear Reuse Tank Mount
(42044WP2 shown)

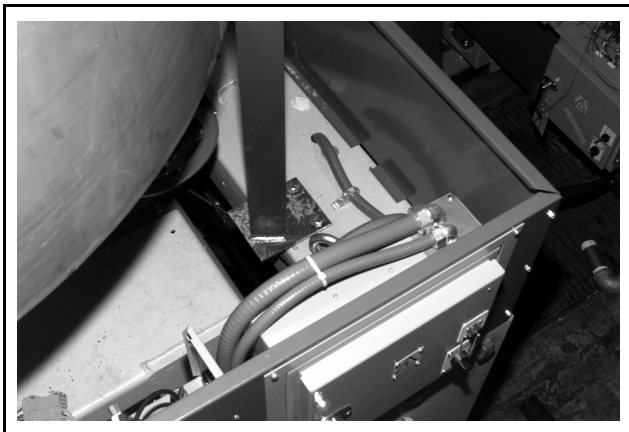


FIGURE 4: Left Front Reuse Tank Mount
(42044WP2 shown)

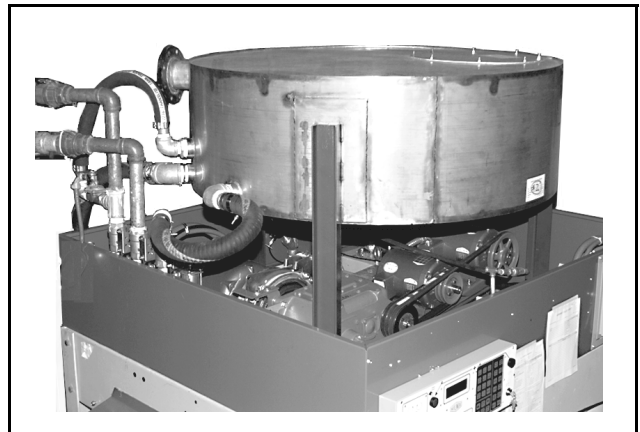


FIGURE 5: Reuse Tank In Position
(42044WP2 shown)

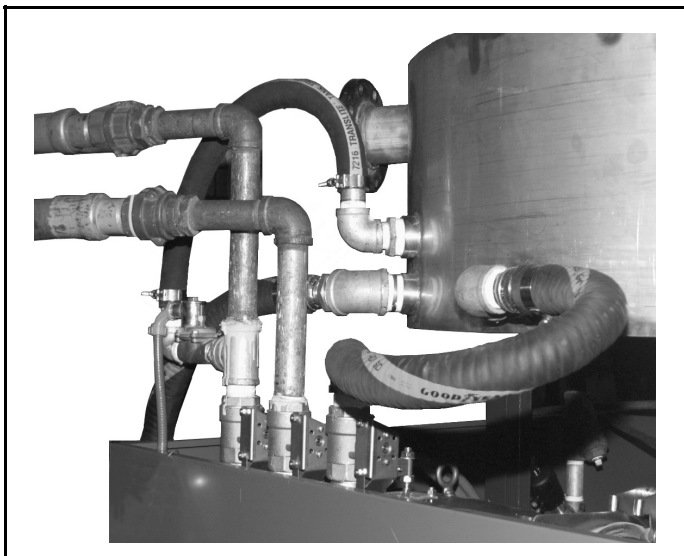


FIGURE 6: Reuse Piping Details (42044WP2 shown)

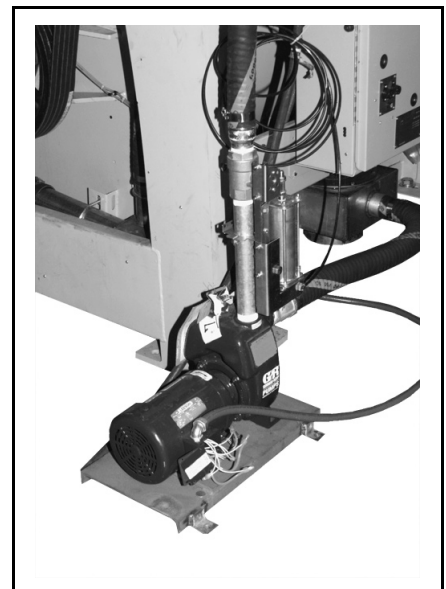
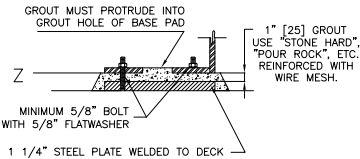
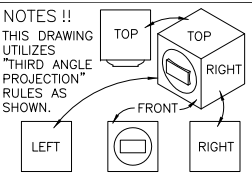


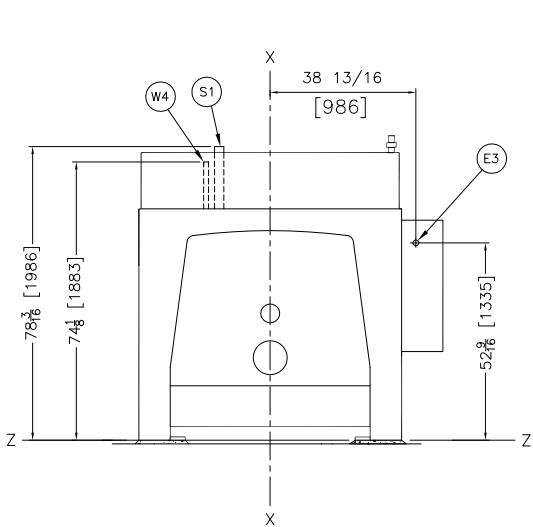
FIGURE 7: Reuse Pump Details
(42044WP2 shown)

Dimensional Drawings

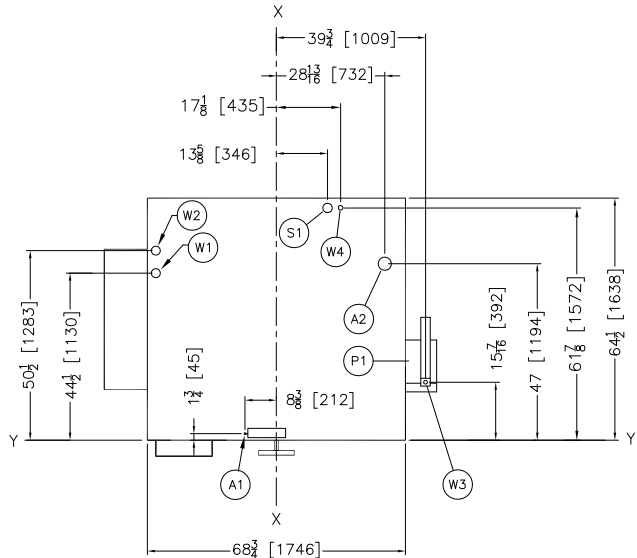
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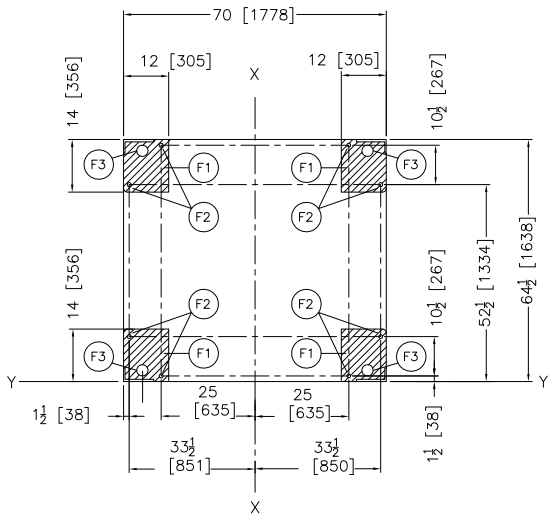
RECOMMENDED DECK MOUNTING DETAIL



REAR VIEW



PLAN VIEW



FOUNDATION PLAN VIEW

W4	INDEPENDANT COOLDOWN WATER INLET, 3/4" NPT
W3	HOT WATER FOR FLUSHING PERISTALTIC, 1/2" NPT.
W2	COLD WATER INLET CONNECTION, 1 1/2" NPT.
W1	HOT WATER INLET CONNECTION, 1 1/2" NPT.
T1	CENTER OF GRAVITY, EMPTY MACHINE.
S1	STEAM INLET CONNECTION, 1 1/4" NPT
M1	SINGLE MOTOR DRIVE
P1	PERISTALTIC SUPPLY CONNECTION, MAXIMUM 15 PORTS, 1/2" NPT CONNECTIONS
F3	GROUT HOLES, 3" DIAMETER, 1 PER PAD.
F2	(8) 1-1/16" DIAMETER ANCHOR BOLTS HOLES, ANCHOR (1) BOLT PER PAD MINIMUM. 5/8" X 6" BOLTS MINIMUM.
F1	FOUNDATION BASE PADS, 4 PLACES.
E4	ELECTRICAL CONTROL BOX
E3	MAIN ELECTRICAL CONNECTION
E2	MICROPROCESSOR CONTROL BOX
E1	MICROPROCESSOR CONTROL PANEL
D1	DRAIN VALVE, 8" DIAMETER.
A2	VENT, 3 1/2" DIAMETER.
A1	COMPRESSED AIR INLET CONNECTION, 1/4" NPT.
ITEM	LEGEND

NOTES	
11	SHIM TO LEVEL THE MACHINE AND ALLOW FOR 1" [25] MINIMUM GROUT. ANCHOR WITH ONE ANCHOR BOLT PER PAD, MINIMUM. USE 5/8" BOLTS, MINIMUM. SEE INSTALLATION MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS.
10	"STEAM HAMMER", CAUSED BY WET STEAM OR CONDENSATION, MAY BE PREVENTED BY INSTALLING A TRAP IMMEDIATELY BEFORE THE STEAM VALVE.
9	ITEMS SHOWN ON THIS PAGE ARE STANDARD OF THIS MACHINE. FOR OPTIONS SEE BD4244CPAB.
8	DO NOT PRE-PIPE ANY CLOSER THAN 60 [1524].
7	DRAIN VALVE MAY MOVE ± 1 1/2 [38] IN ANY DIRECTION DURING OPERATION AND MUST NOT BE RIGIDLY CONNECTED TO DRAIN.
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.

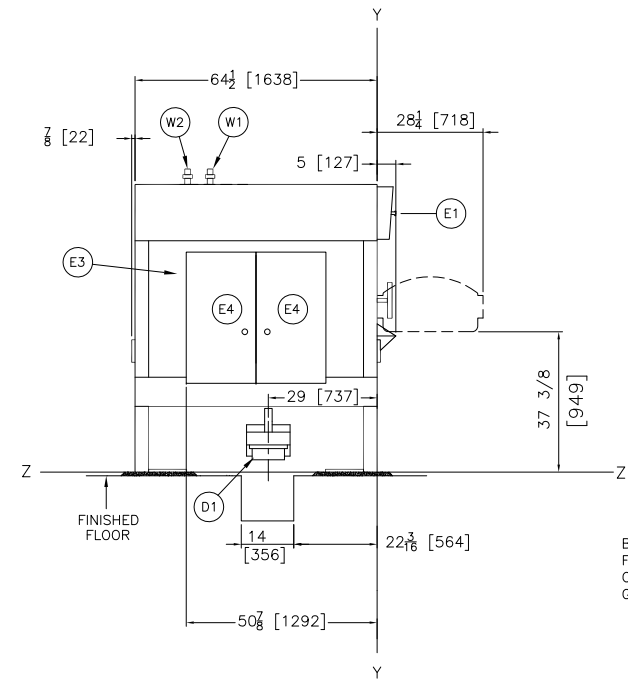
ATTENTION
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42044CP2, NP2 SM

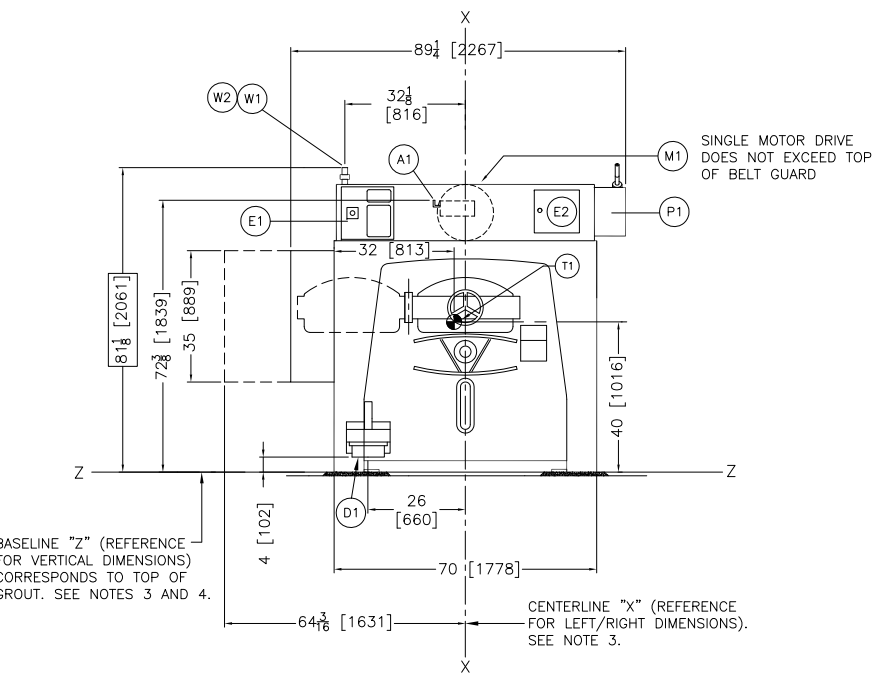
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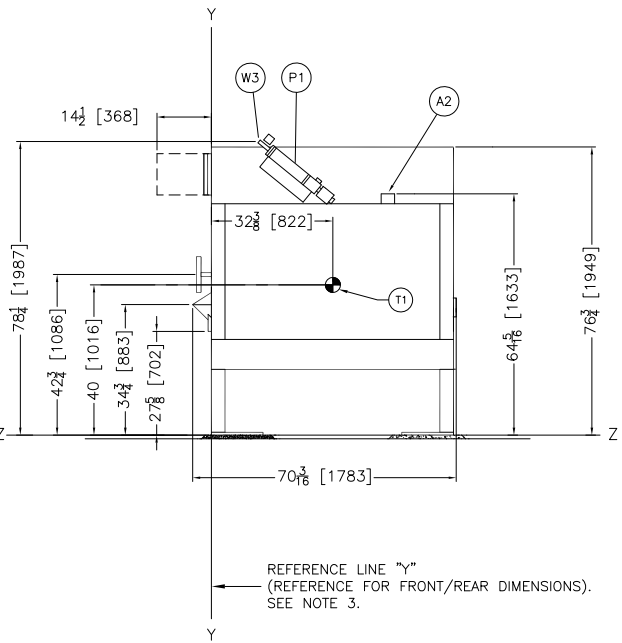
MILNOR PELLERIN MILNOR CORPORATION
P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467-9591,
FAX 504/469-1849, Email: mktg@milnor.com



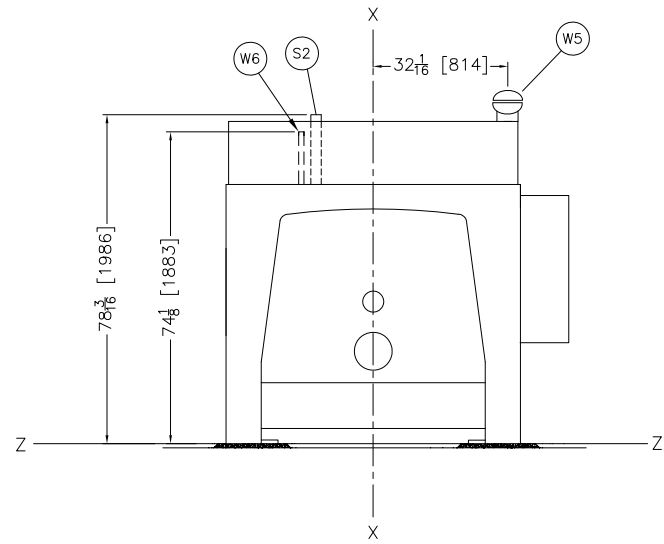
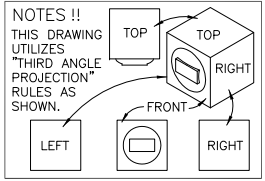
LEFT VIEW



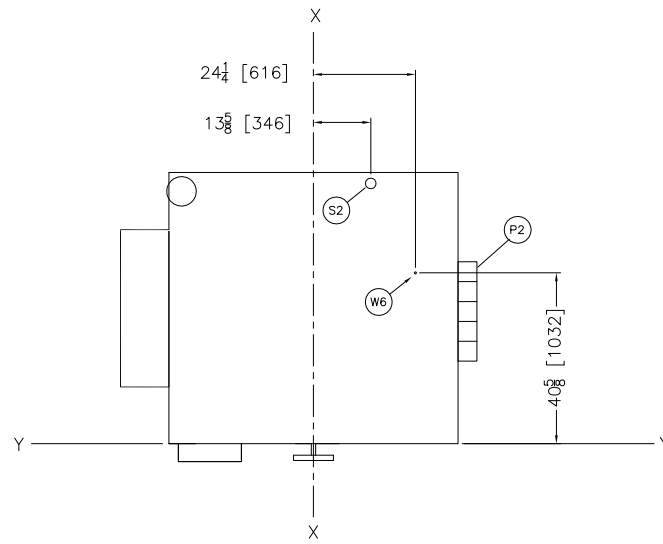
FRONT VIEW



RIGHT VIEW

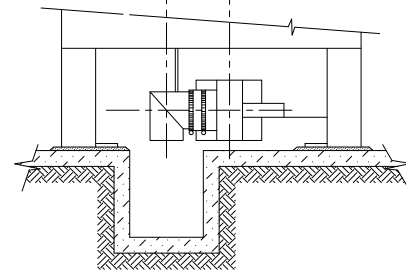


REAR VIEW

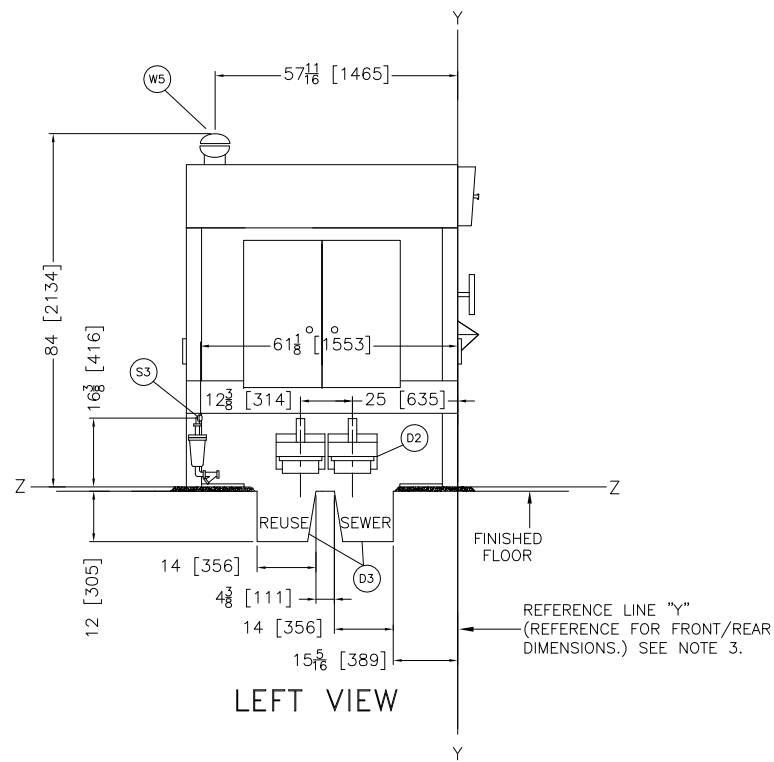


PLAN VIEW

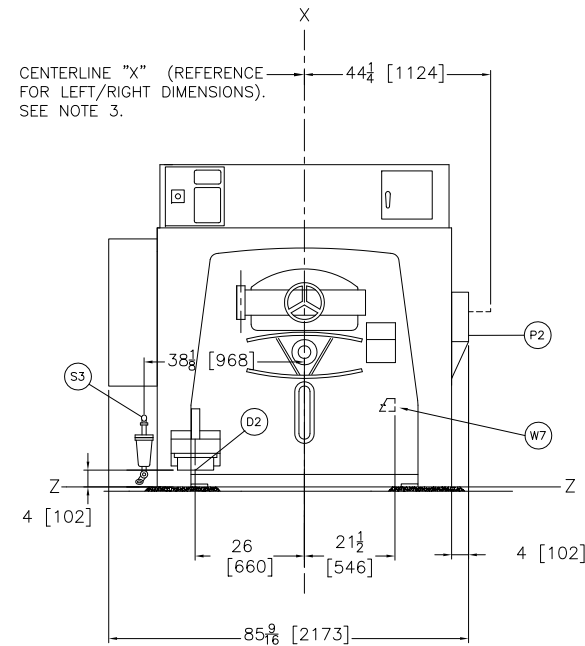
13 3/8[340] MINIMUM
14 3/8[365] MAXIMUM



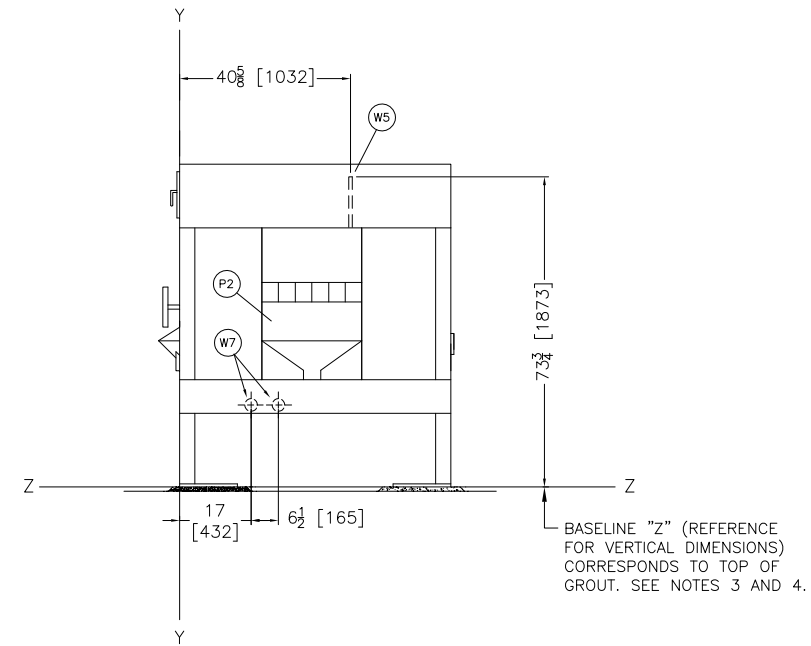
DRAIN VALVE ALTERNATE
90 DEGREE POSITION



LEFT VIEW



FRONT VIEW



RIGHT VIEW

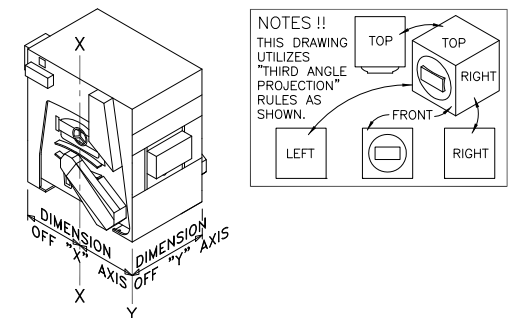
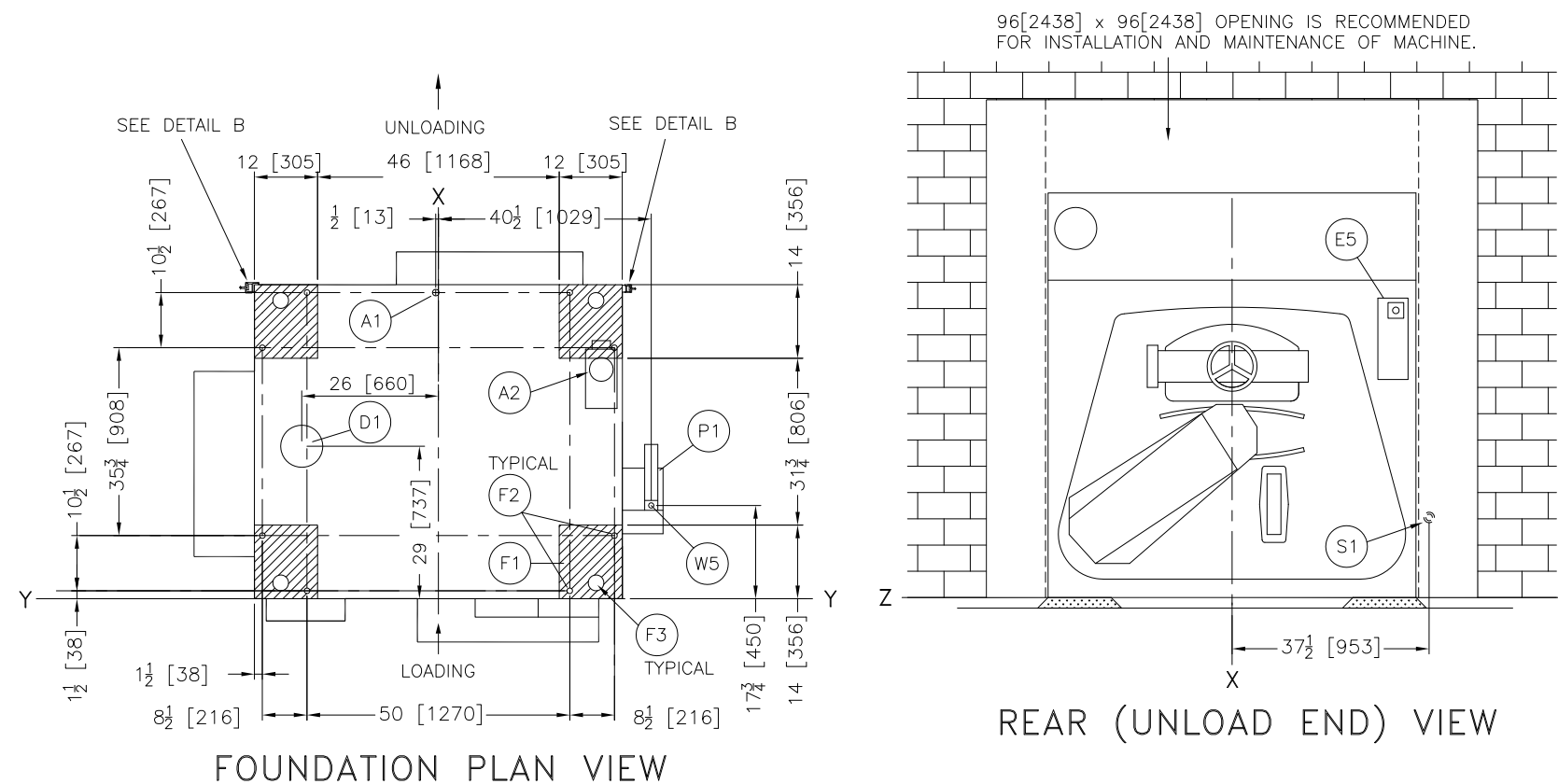
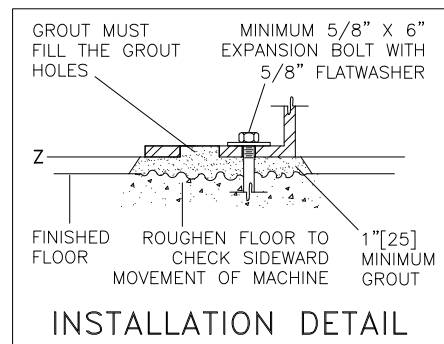
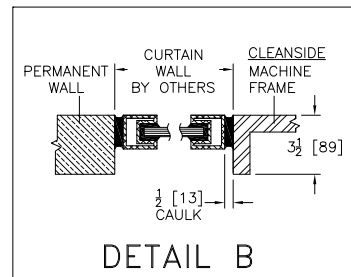
W7	SALT WATER INLETS 3"NPT, OPTIONAL, NP2 ONLY.
W6	HOT WATER FOR FLUSHING SUPPLY INJECTOR 1/2"NPT
W5	OPTIONAL SIPHON BREAKER
S3	STEAM CONDENSATE OUTLET, 3/4" NPT. USED WHEN EQUIPPED WITH INDIRECT STEAM ONLY.
S2	OPTIONAL INDIRECT STEAM INLET, 2" NPT.
P2	OPTIONAL 5 COMPARTMENT SUPPLY
D3	DUAL DRAIN TROUGH
D2	DUAL DRAIN VALVES, 8" DIAMETER.
ITEM	LEGEND

NOTES	
8	DO NOT PRE-PIPE ANY CLOSER THAN 60 [1524].
7	DRAIN VALVE MAY MOVE $\pm 1 1/2$ [38] IN ANY DIRECTION DURING OPERATION AND MUST NOT BE RIGIDLY CONNECTED TO DRAIN.
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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.
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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.	

42044CP2/3 NP2/3 SM OPTIONS

DM	0	0.5M	1M	DWG#	BD4244CPBB
INCHES	0	12	24	36	2011515D

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FAX 504/469-1849, Email: mktg@milnor.com



W5	HOT WATER FOR FLUSHING PERISTALTIC, 1/2" NPT.
W4	INDEPENDANT COOLDOWN CONNECTION, 3/4" NPT.
W3	OPTIONAL THIRD WATER INLET CONNECTION, 1 1/2" NPT.
W2	COLD WATER INLET CONNECTION, 1 1/2" NPT.
W1	HOT WATER INLET CONNECTION, 1 1/2" NPT.
S1	STEAM INLET CONNECTION, 1 1/4" NPT.
P2	SOAP CHUTE
P1	PERISTALTIC SUPPLY CONNECTION
M1	SINGLE MOTOR DRIVE
F3	GROUT HOLES, 3" DIAMETER, 1 PER PAD.
F2	(8) 1-1/16" DIAMETER ANCHOR BOLTS HOLES, ANCHOR (1) BOLT PER PAD MINIMUM. 5/8" X 6" BOLTS MINIMUM.
F1	FOUNDATION BASE PADS, 4 PLACES.
E5	REAR CONTROLS
E4	EMERGENCY STOP
E3	MiTouch-EX TM TOUCH SCREEN CONTROLLER
E2	HIGH VOLTAGE CONTROL BOXES
E1	MAIN ELECTRICAL CONNECTION
D1	DRAIN VALVE, 8" DIAMETER. SHOWN IN PUSHED DOWN POSITION. ALSO, SEE NOTES 9 & 10.
A2	STAPHAIRTROL
A1	COMPRESSED AIR INLET CONNECTION, 1/4" NPT.
ITEM	LEGEND

NOTES

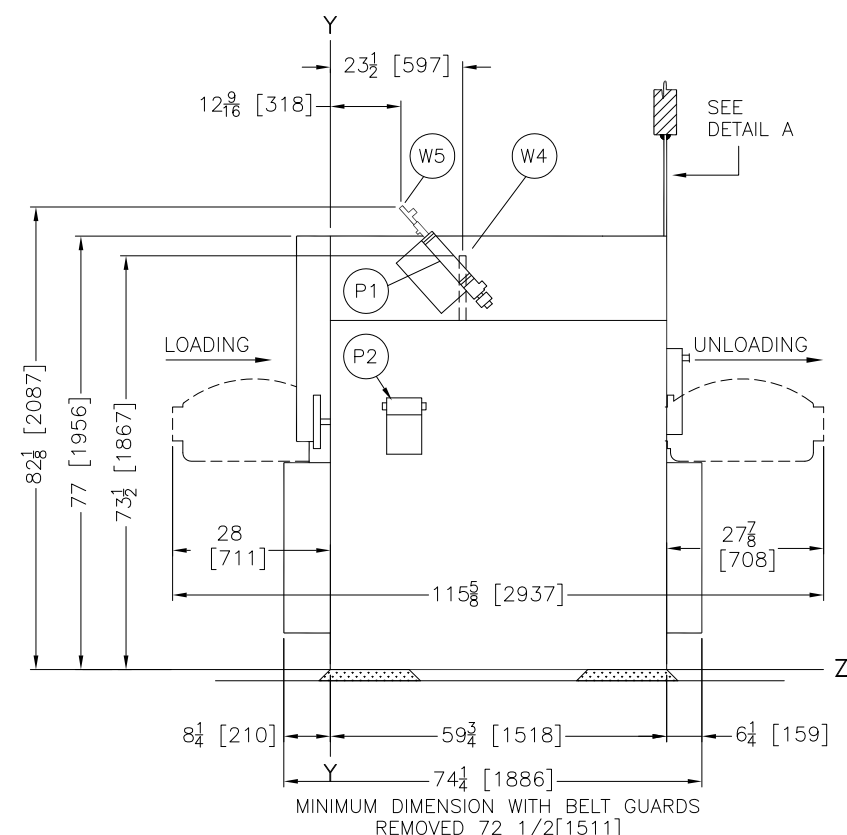
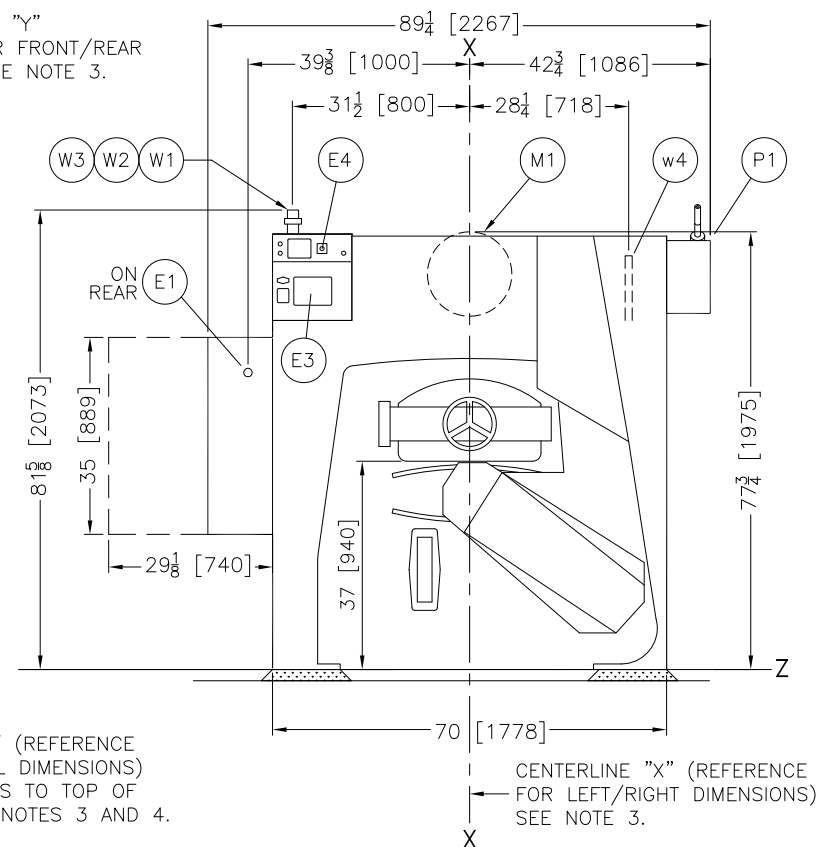
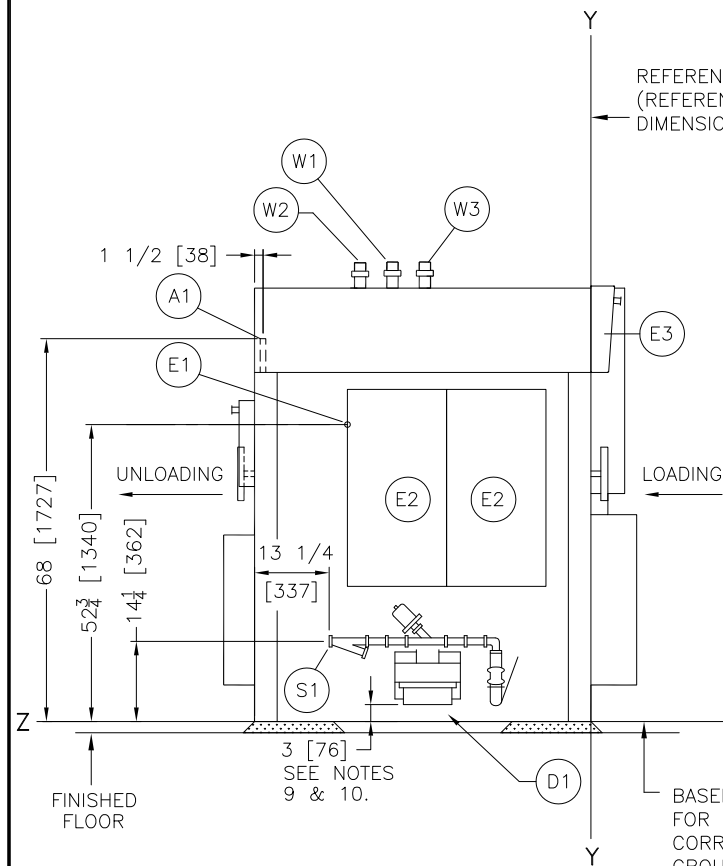
- 15 SHIM TO LEVEL THE MACHINE AND ALLOW FOR 1" [25] MINIMUM GROUT. ANCHOR WITH ONE ANCHOR BOLT PER PAD, MINIMUM, USE 5/8" X 6" BOLTS, MINIMUM. SEE INSTALLATION MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS.
- 14 ITEMS SHOWN ON THIS PAGE ARE STANDARD OF THIS MACHINE. FOR OPTIONS SEE BOM244SPB3.
- 13 DO NOT PRE-PIPE ANY CLOSER THAN 60 [1524].
- 12 "STEAM HAMMER" CAUSED BY WET STEAM OR CONDENSATION, MAY BE PREVENTED BY INSTALLING A TRAP IMMEDIATELY BEFORE THE STEAM VALVE.
- 11 DRAIN VALVE TO GUTTER PIPING ARRANGEMENT CAN BE REVERSED BY REVERSING DRAIN VALVE AIR CONNECTION. DO NOT CHANGE ANY ELECTRICAL CONNECTIONS.
- 10 THIS DIMENSION IS WITH CYLINDER IN "PUSHED DOWN" POSITION. PUSH DOWN TRAVEL IS APPROXIMATELY 2 1/2 [64].
- 9 DRAIN VALVE MAY MOVE $\pm 1 \frac{1}{2}$ [38] IN ANY DIRECTION DURING OPERATION AND MUST NOT BE RIDGELY CONNECTED TO DRAIN.
- 8 SHADED AREAS DENOTE BASE PLATES WHICH SHOULD BE CONTINUOUSLY SUPPORTED.
- 7 IT IS NECESSARY TO PUT A 1" [25] THICK BED OF GROUT BENEATH THIS MACHINE TO INSURE THE STAPH-GRAUP BRAKE ASSEMBLY WILL NOT HIT THE FLOOR.
- 6 AS OF THIS WRITING, THE MINIMUM CLEARANCE REQUIRED BY U.S. NATIONAL ELECTRIC CODES, FROM ELECTRIC COX TO ANY OBJECT IS:
 - 36 [914] IF OBJECT IS AN UNGROUNDED (INSULATED) WALL.
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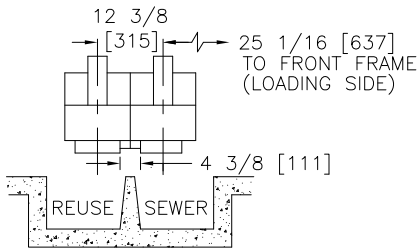
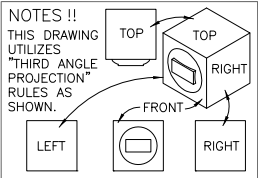
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ATTENTION

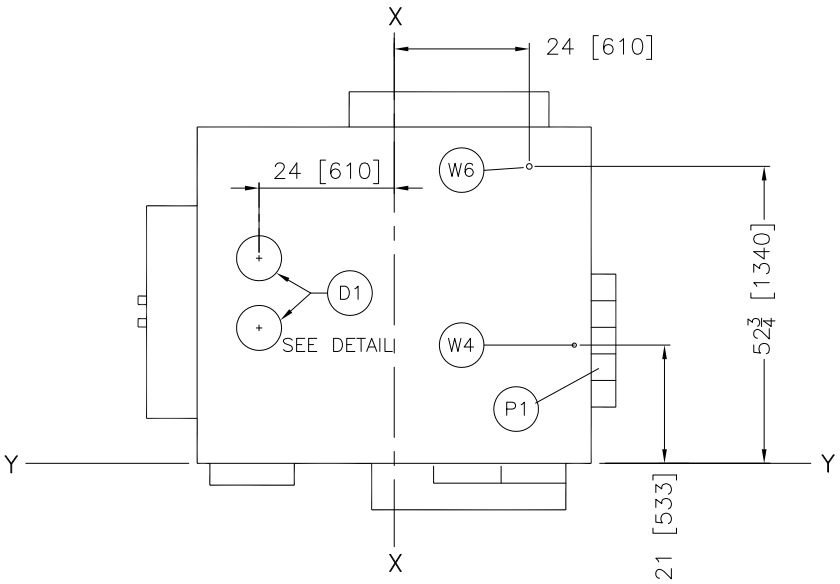
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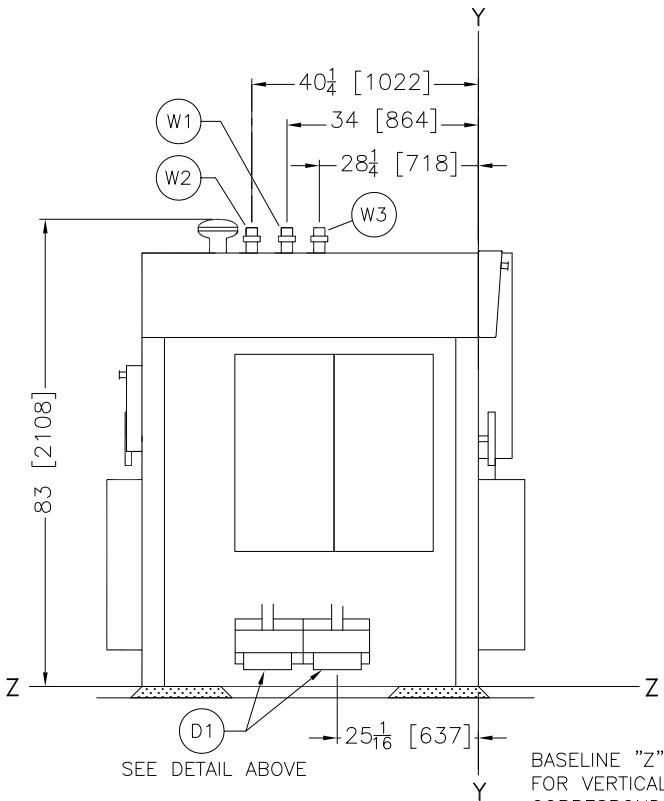


OPTIONAL WATER REUSE
DUAL DRAIN VALVE

(SEE NOTES 8 & 9)
NOT TO SCALE

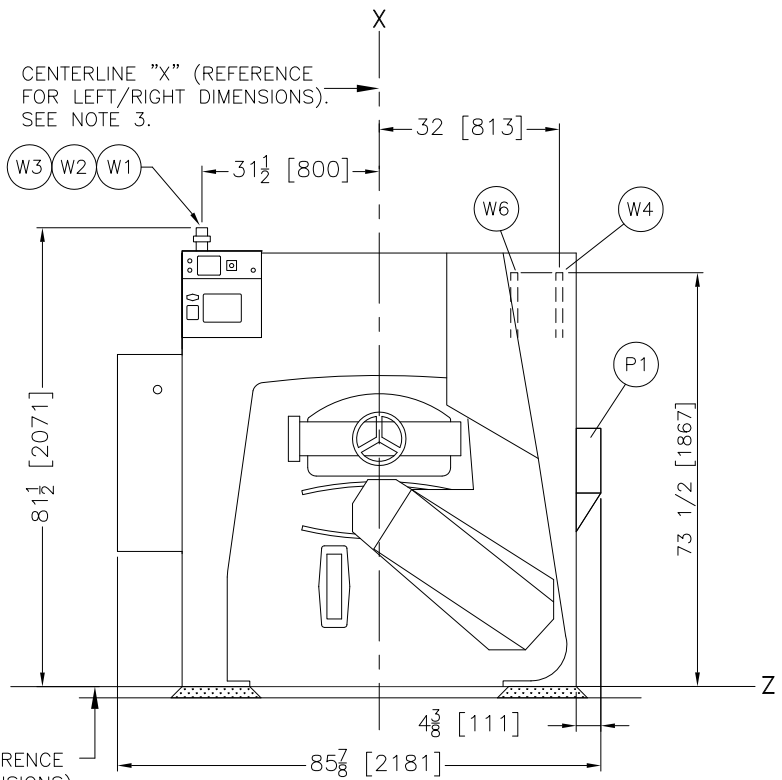


PLAN VIEW

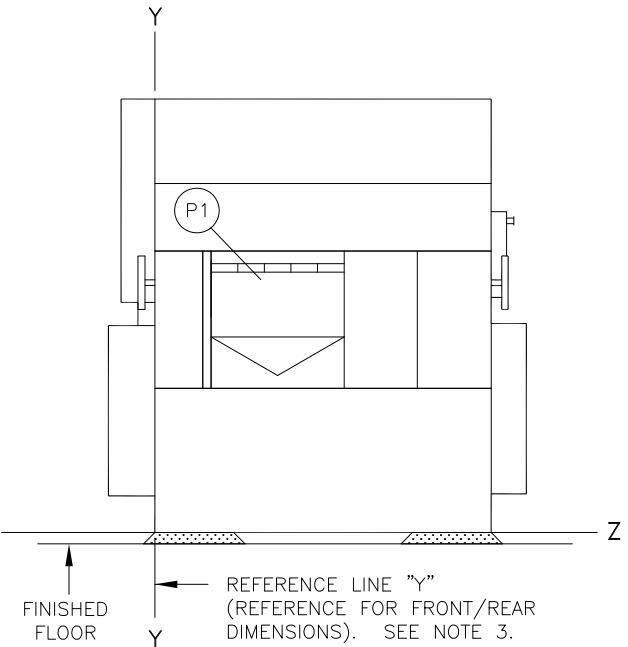


LEFT VIEW

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



FRONT (LOAD END) VIEW



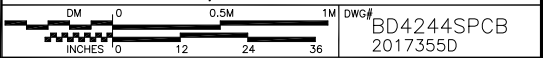
RIGHT VIEW

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

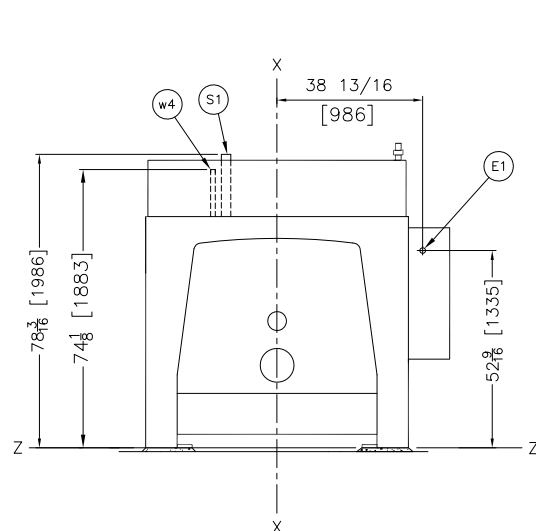
W6	HOT WATER FOR FLUSHING OPTIONAL 5 COMPARTMENT SUPPLY 1/2"NPT CONNECTION
W4	INDEPENDANT COOLDOWN WITH OPTIONAL VACUUM BREAKER CONNECTION, 3/4" NPT.
W3	OPTIONAL THIRD WATER INLET CONNECTION WITH OPTIONAL VACUUM BREAKER. 1 1/2" NPT.
W2	COLD WATER INLET CONNECTION WITH VACUUM BREAKER, 1 1/2" NPT.
W1	HOT WATER INLET CONNECTION WITH VACUUM BREAKER, 1 1/2" NPT.
P1	OPTIONAL 5 COMPARTMENT SUPPLY
D1	DUAL DRAIN VALVE, TWO, 8" DIAMETER. SEE DETAIL.
ITEM	LEGEND

- NOTES**
- 12 THE LOCATION OF CERTAIN OPTIONAL COMPONENTS WILL VARY WITH THE COMBINATIONS OF OPTIONS ORDERED. THESE OPTION COMBINATIONS ARE NOT SHOWN. CONSULT FACTORY FOR MORE INFORMATION.
 - 11 DO NOT PRE-PIPE ANY CLOSER THAN 60 [1524].
 - 10 "STEAM HAMMER", CAUSED BY WET STEAM OR CONDENSATION, MAY BE PREVENTED BY INSTALLING A TRAP IMMEDIATELY BEFORE THE STEAM VALVE.
 - 9 DRAIN VALVE TO GUTTER PIPING ARRANGEMENT CAN BE REVERSED BY REVERSING DRAIN VALVE AIR CONNECTION. DO NOT CHANGE ANY ELECTRICAL CONNECTIONS.
 - 8 DRAIN VALVE MAY MOVE $\pm 1 \frac{1}{2}$ [38] IN ANY DIRECTION DURING OPERATION AND MUST NOT BE RIGIDLY CONNECTED TO DRAIN.
 - 7 IT IS NECESSARY TO PUT A 1 [25] THICK BED OF GROUT BENEATH THIS MACHINE TO INSURE THE STAFF-GUARD BRAKE ASSEMBLY WILL NOT HIT THE FLOOR.
 - 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.

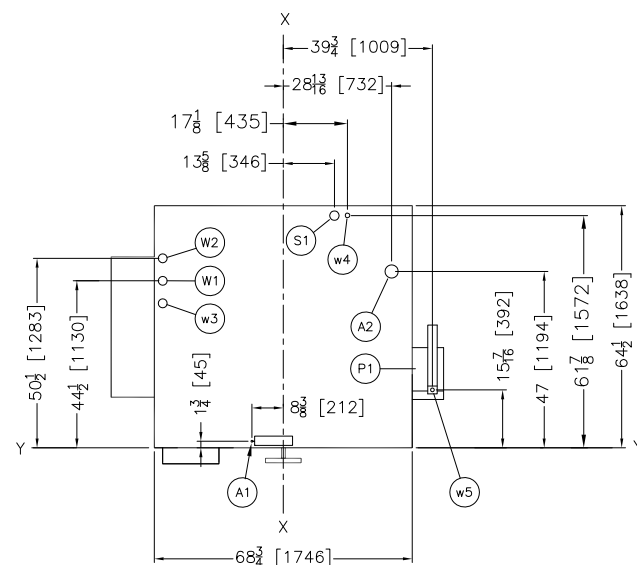
42044SR2/SR3 SM OPTIONS



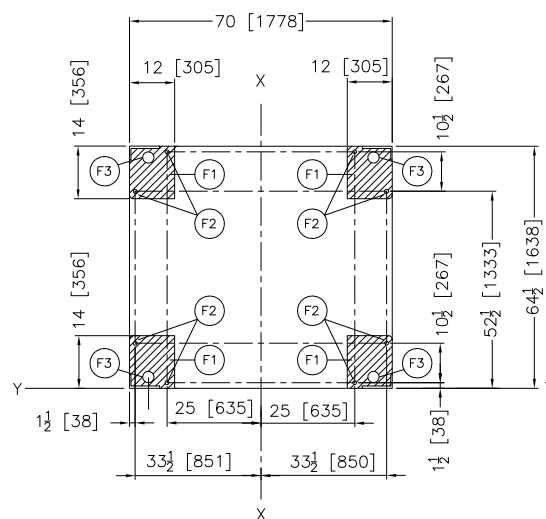
MILNOR PELLERIN MILNOR CORPORATION
P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467-9591,
FAX 504/469-1849, Email: milnorinfo@milnor.com



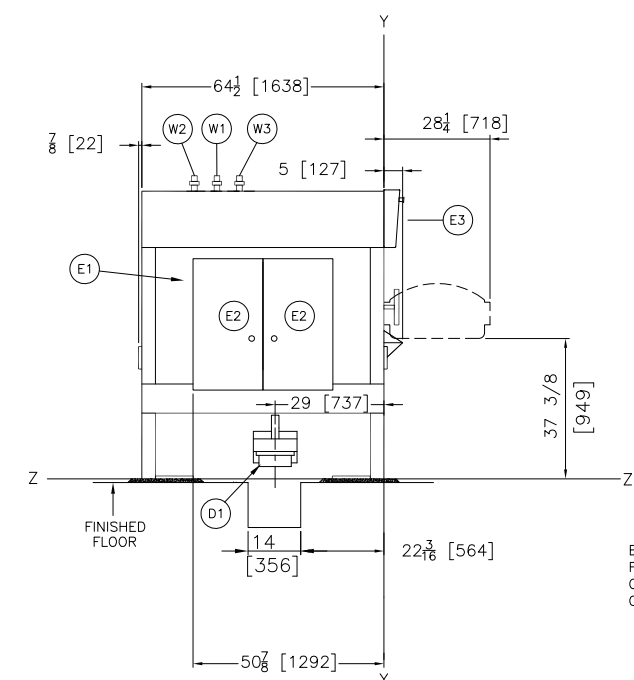
REAR VIEW



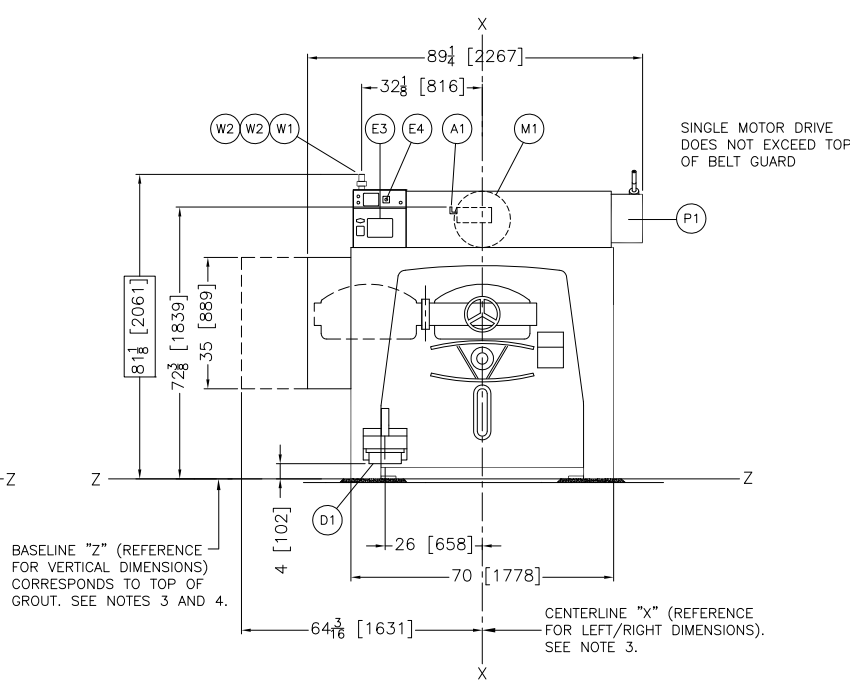
PLAN VIEW



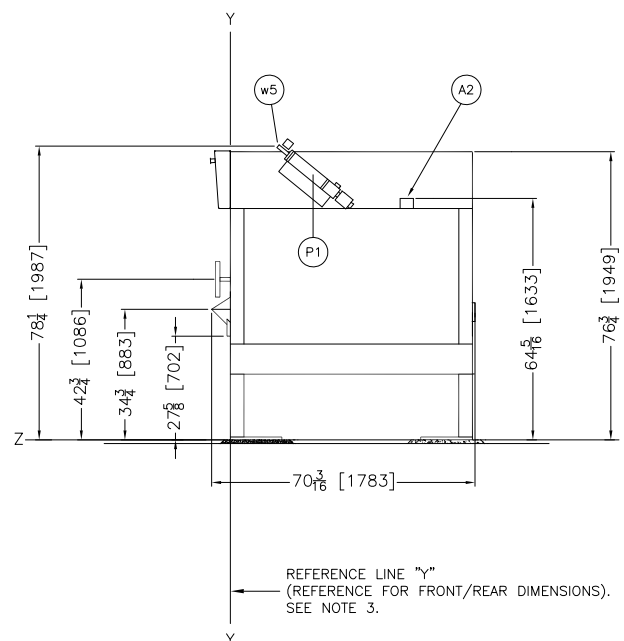
FOUNDATION PLAN VIEW



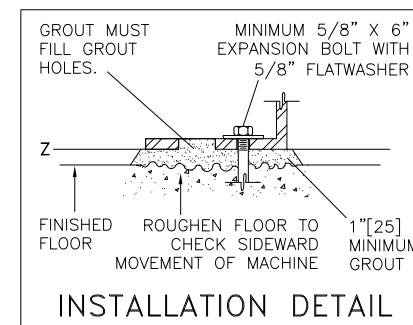
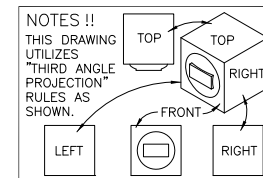
LEFT VIEW



FRONT VIEW



RIGHT VIEW



W5	HOT WATER FOR FLUSHING PERISTALTIC, 1/2" NPT.
W4	INDEPENDANT COOLDOWN WATER INLET, 3/4" NPT
W3	OPTIONAL THIRD WATER INLET CONNECTION, 1 1/2" NPT.
W2	COLD WATER INLET CONNECTION, 1 1/2" NPT.
W1	HOT WATER INLET CONNECTION, 1 1/2" NPT.
S1	STEAM INLET CONNECTION, 1 1/4" NPT
M1	SINGLE MOTOR DRIVE
P1	PERISTALTIC SUPPLY CONNECTION, MAXIMUM 15 PORTS, 1/2" NPT CONNECTIONS
F3	GROUT HOLES, 3" DIAMETER, 1 PER PAD.
F2	(8) 1-1/16" DIAMETER ANCHOR BOLTS HOLES, ANCHOR (1) BOLT PER PAD MINIMUM. 5/8" X 6" BOLTS MINIMUM.
F1	FOUNDATION BASE PADS, 4 PLACES.
E4	EMERGENCY STOP
E3	MiTouch-EX™ TOUCH SCREEN CONTROLLER
E2	HIGH VOLTAGE CONTROL BOXES
E1	MAIN ELECTRICAL CONNECTION
D1	DRAIN VALVE, 8" DIAMETER.
A2	VENT, 3 1/2" DIAMETER.
A1	COMPRESSED AIR INLET CONNECTION, 1/4" NPT.
ITEM	LEGEND

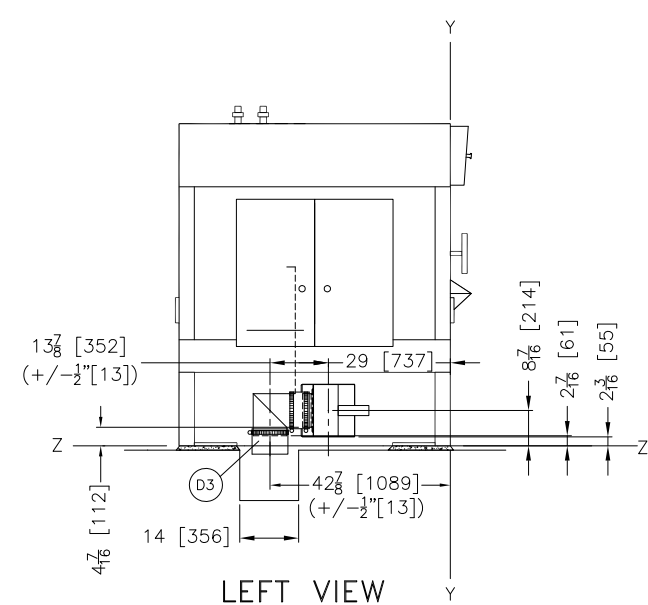
NOTES	
10	SHIM TO LEVEL THE MACHINE AND ALLOW FOR 1" [25] MINIMUM GROUT. ANCHOR WITH ONE ANCHOR BOLT PER PAD, MINIMUM. USE 5/8" X 6" BOLTS, MINIMUM. SEE INSTALLATION MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS.
9	"STEAM HAMMER", CAUSED BY WET STEAM OR CONDENSATION, MAY BE PREVENTED BY INSTALLING A TRAP IMMEDIATELY BEFORE THE STEAM VALVE.
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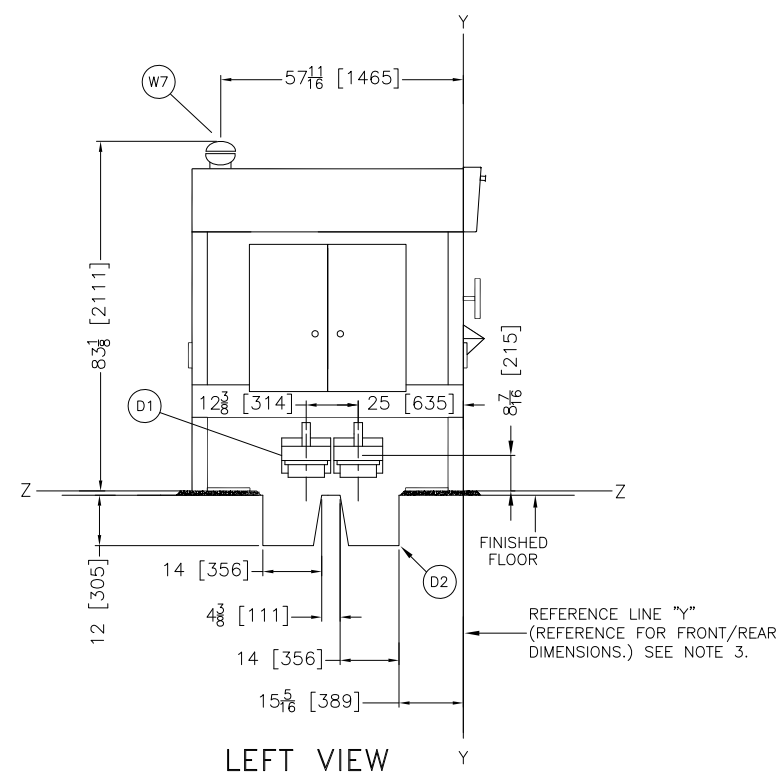
ATTENTION
THE FLOOR AND/OR OTHER SUPPORT COMPONENTS MUST HAVE SUFFICIENT STRENGTH (AND RIGIDITY WITH DUE CONSIDERATION FOR NATURAL OR RESONANT FREQUENCY THEREOF) TO WITHSTAND THE FULLY LOADED WEIGHT OF THE MACHINE INCLUDING THE GOODS, THE WATER, AND ANY REPEATED SINUSOIDAL (ROTATING) FORCES GENERATED DURING ITS OPERATION. WRITE THE FACTORY FOR ADDITIONAL MACHINE DATA FOR USE BY A COMPETENT SOIL AND/OR STRUCTURAL ENGINEER.

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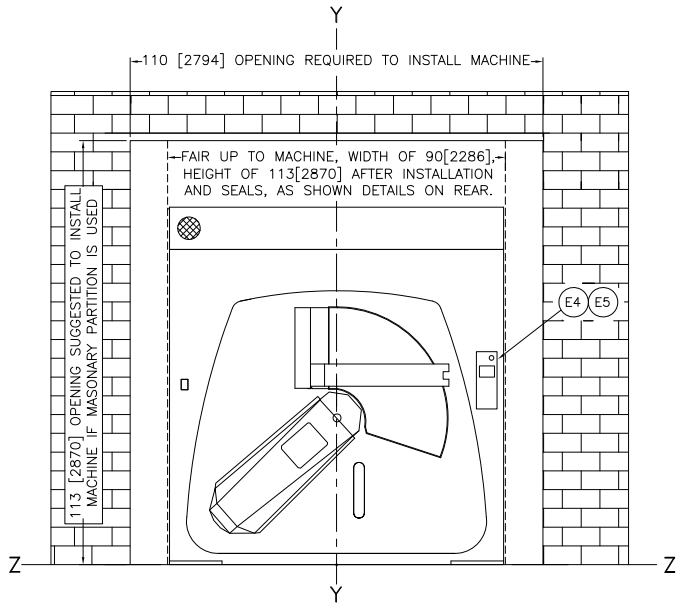
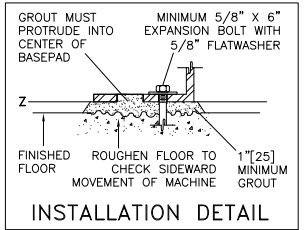
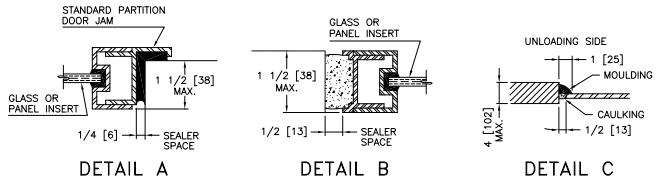
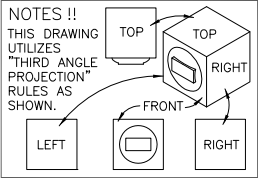
LEFT VIEW



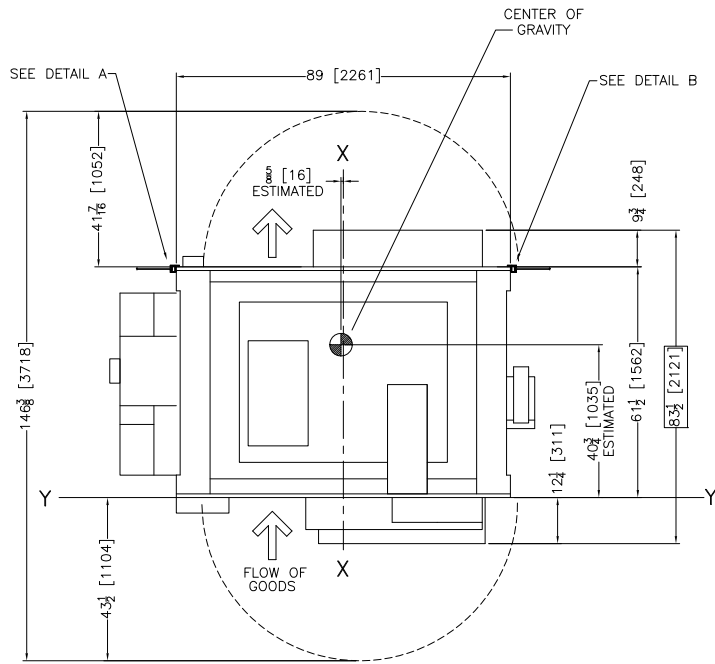
LEFT VIEW



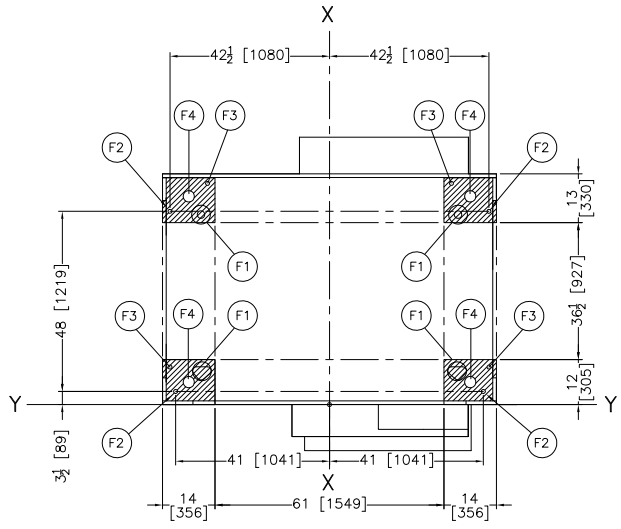
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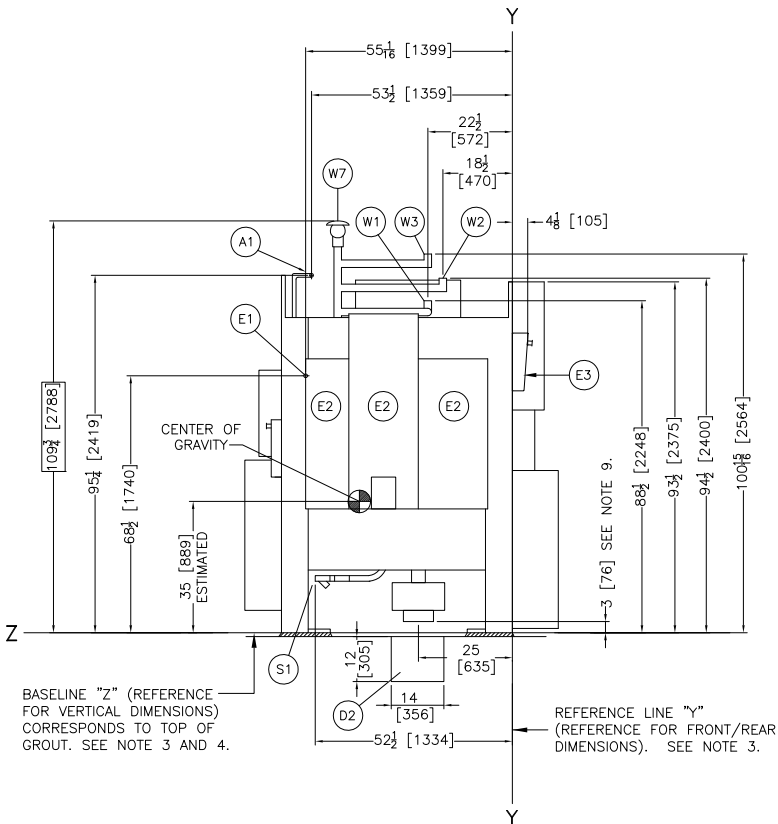
REAR VIEW
CLEAN SIDE



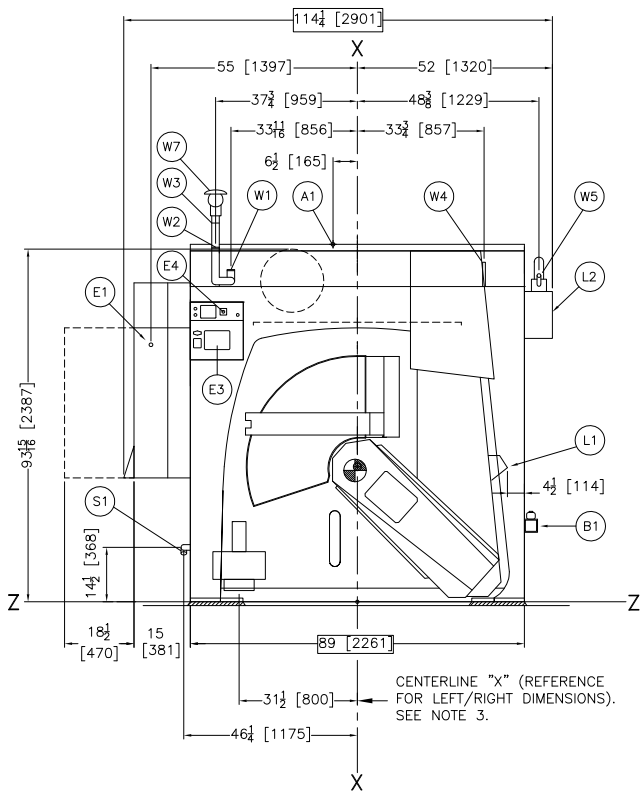
PLAN VIEW



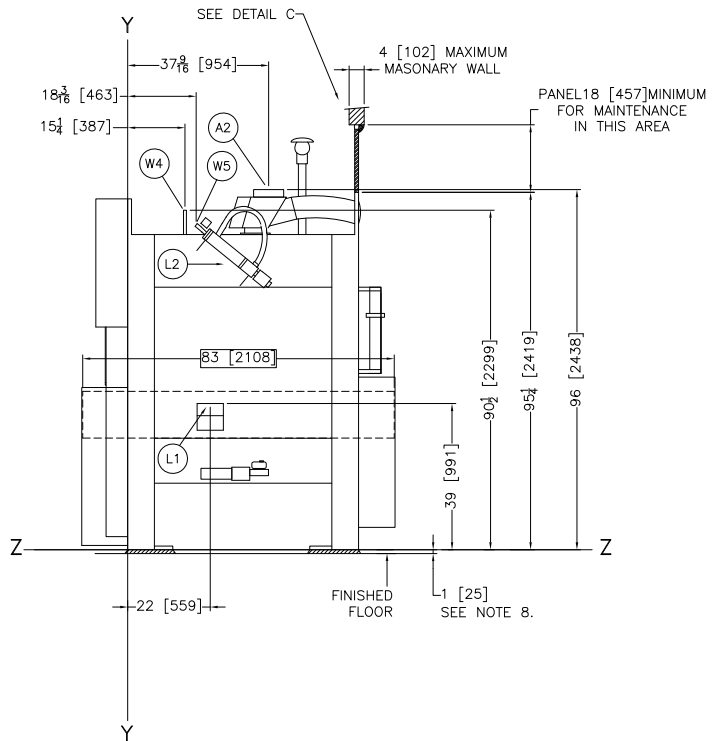
FOUNDATION PLAN



LEFT VIEW



FRONT VIEW
SOIL SIDE



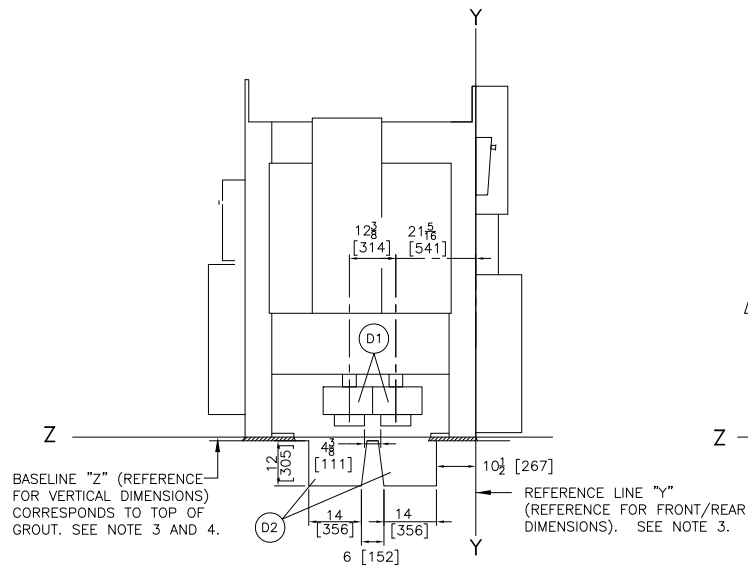
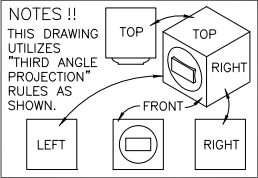
RIGHT VIEW

W7	OPTIONAL VACUUM BREAKER
W5	HOT WATER INLET FOR PERISTALTIC 1/2" NPT
W4	COOL DOWN INLET 1 1/4" NPT
W3	OPTIONAL THIRD WATER INLET CONNECTION 2" NPT
W2	COLD WATER INLET CONNECTION 2" NPT
W1	HOT WATER INLET CONNECTION 2" NPT
S1	1 1/4" NPT STEAM CONNECTION
L2	PERISTALTIC SUPPLY
L1	SOAP CHUTE
F4	GROUT HOLES
F3	1 1/16" DIAMETER ALTERNATE ANCHOR BOLT HOLES, IF (F2) IS INACCESSIBLE
F2	1 1/16" DIAMETER ANCHOR BOLT HOLES, USE MINIMUM 5/8" X 6" BOLTS MINIMUM. (1) BOLT PER PAD MINIMUM.
F1	FOUNDATION BASE PADS, 4 PLACES
E5	REAR CONTROLS
E4	EMERGENCY STOP
E3	MiTouch-EX™ TOUCH SCREEN CONTROLLER
E2	HIGH VOLTAGE CONTROL BOXES
E1	MAIN ELECTRICAL CONNECTION
D2	SINGLE DRAIN TROUGH
D1	DRAIN 8" DIAMETER DRAIN VALVE
B1	BRAKE AIR CYLINDER
A2	STAPHAIRTROL
A1	COMPRESSED AIR INLET 1/4" NPT
ITEM	LEGEND

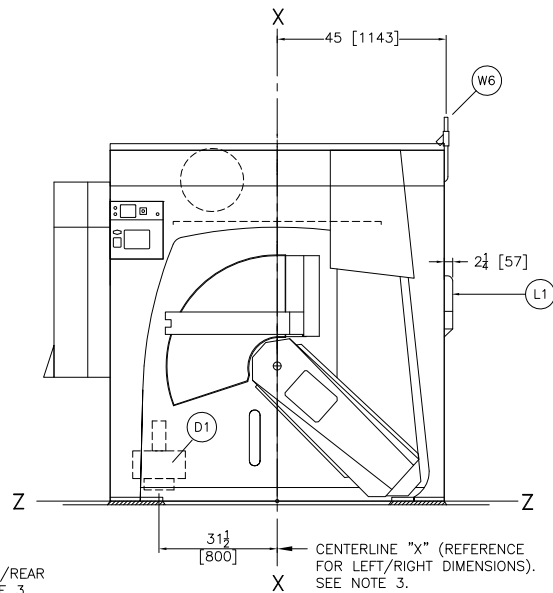
NOTES	
11	SHIM TO LEVEL THE MACHINE AND ALLOW FOR 1" [25] MINIMUM GROUT. ANCHOR WITH ONE ANCHOR BOLT PER PAD, MINIMUM USE 5/8" X 6" BOLTS, MINIMUM. SEE INSTALLATION MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS.
10	"STEAM HAMMER", CAUSED BY WET STEAM OR CONDENSATION, MAY BE PREVENTED BY INSTALLING A TRAP IMMEDIATELY BEFORE THE STEAM VALVE.
9	DRAIN VALVE MAY MOVE ± 1-1/2 [38] IN ANY DIRECTION DURING OPERATION AND MUST NOT BE RIGIDLY CONNECTED TO DRAIN.
8	SHADED AREA ARE BASE PLATES WHICH MUST BE CONTINUOUSLY SUPPORTED ON 1" [25] THICK GROUT. ALSO, THIS 1" [25] OF GROUT IS NECESSARY TO INSURE THE STAPH GUARD BRAKE WILL NOT HIT THE FLOOR.
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 (i.e. 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	BASLINE "Z" IS THE REFERENCE FOR ALL VERTICAL DIMENSIONS. ON MACHINES WITH FIXED BASE PADS, BASLINE "Z" CORRESPONDS TO THE BOTTOM OF THE BASE PAD. ON MACHINES WITH ADJUSTABLE FEET, BASLINE "Z" CORRESPONDS TO THE BOTTOM OF THE FEET WHEN ADJUSTED SO THAT THE MACHINE IS AT ITS MINIMUM ACCEPTABLE HEIGHT. ON TRAVELING SHUTTLES, BASLINE "Z" CORRESPONDS TO THE BOTTOM OF THE BOTTOM RAIL. THE DISTANCE BETWEEN BASLINE "Z" AND THE FINISHED FLOOR WILL VARY AS REQUIRED TO ENSURE BASLINE "Z" IS HORIZONTAL AND ANY INTERFACING MACHINES REQUIRING GROUT ARE SET ON A MINIMUM 1" [25] THICK GROUT BED.
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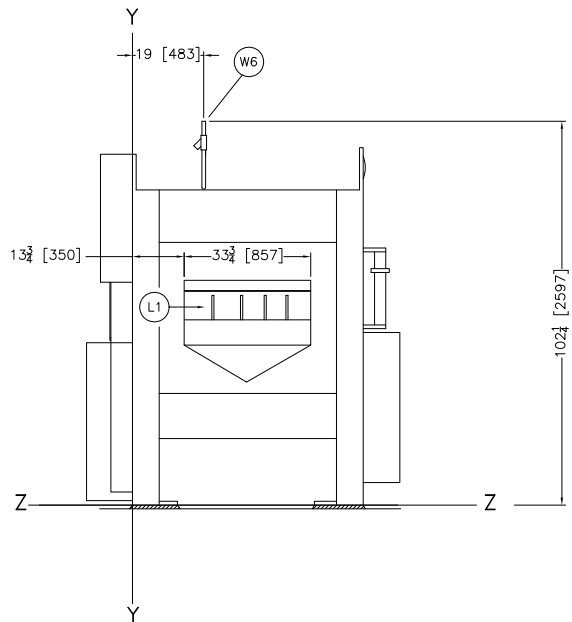




LEFT VIEW



FRONT VIEW
SOIL SIDE



RIGHT VIEW

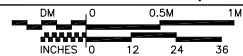
W6	1" NPT HOT WATER INLET FOR OPTIONAL 5 COMPARTMENT SUPPLY
L1	OPTIONAL 5 COMPARTMENT SUPPLY
D2	DUAL DRAIN TROUGH
D1	DUAL DRAIN VALVES 8" DIAMETER
ITEM	LEGEND

NOTES	
7	THE FRONTMOST DRAIN VALVE IS TO SEWER, THE REARWARD VALVE IS TO REUSE. THIS CAN BE REVERSED BY SWITCHING DRAIN VALVE AIR CONNECTIONS. DO NOT CHANGE THE ELECTRICAL CONNECTIONS.
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60044SR2/SR3 OPTIONS

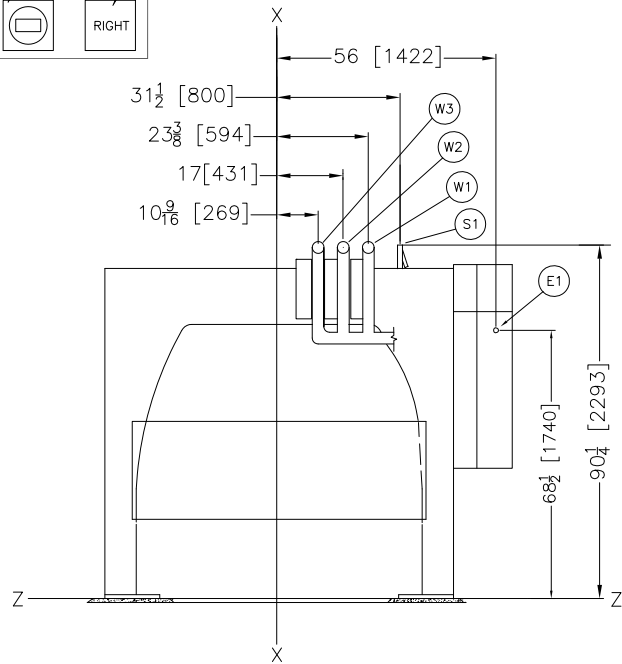


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2017355D

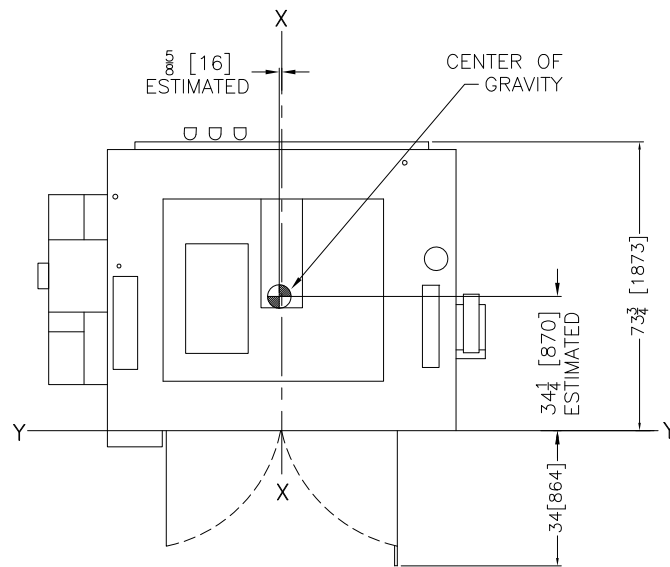


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FAX 504/469-1849, Email: milnorinfo@milnor.com

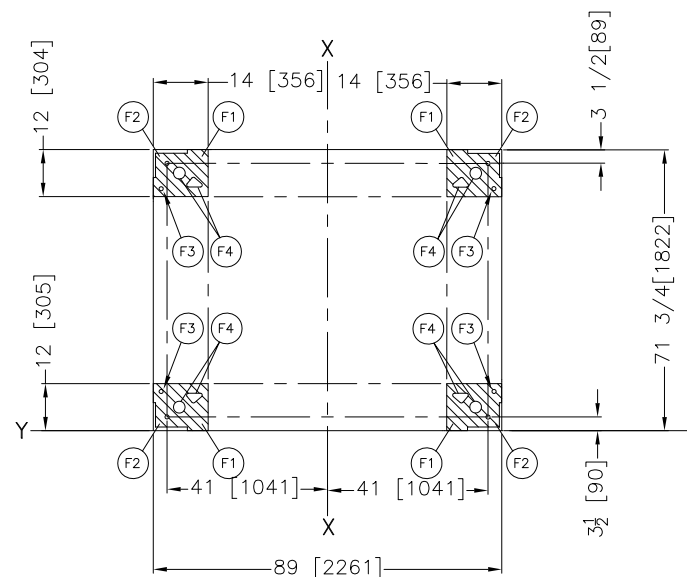
NOTES !!
THIS DRAWING UTILIZES "THIRD ANGLE PROJECTION" RULES AS SHOWN.



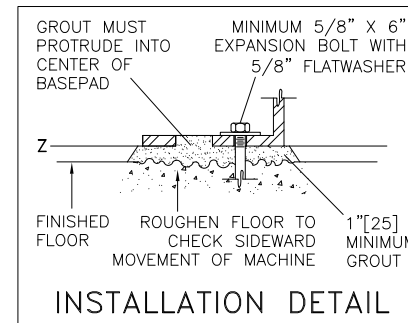
REAR VIEW



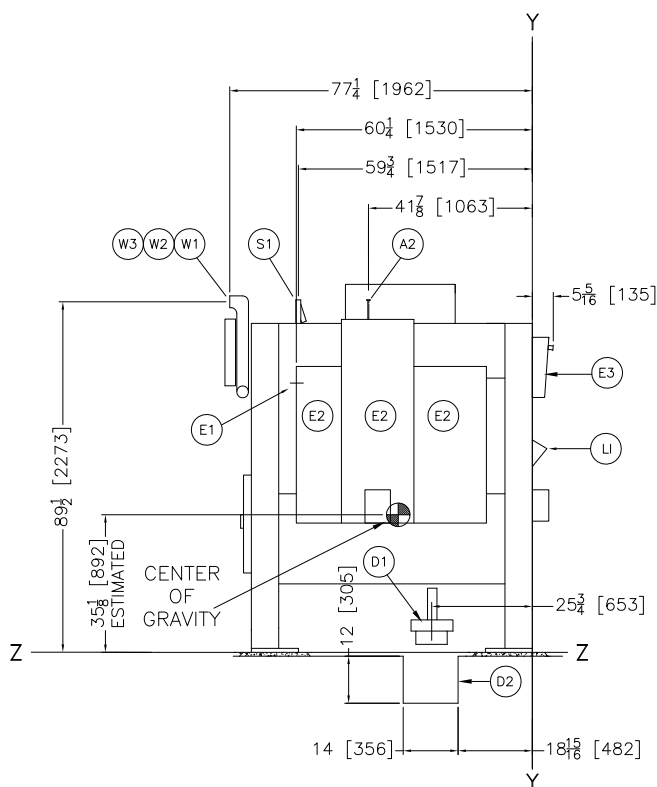
PLAN VIEW



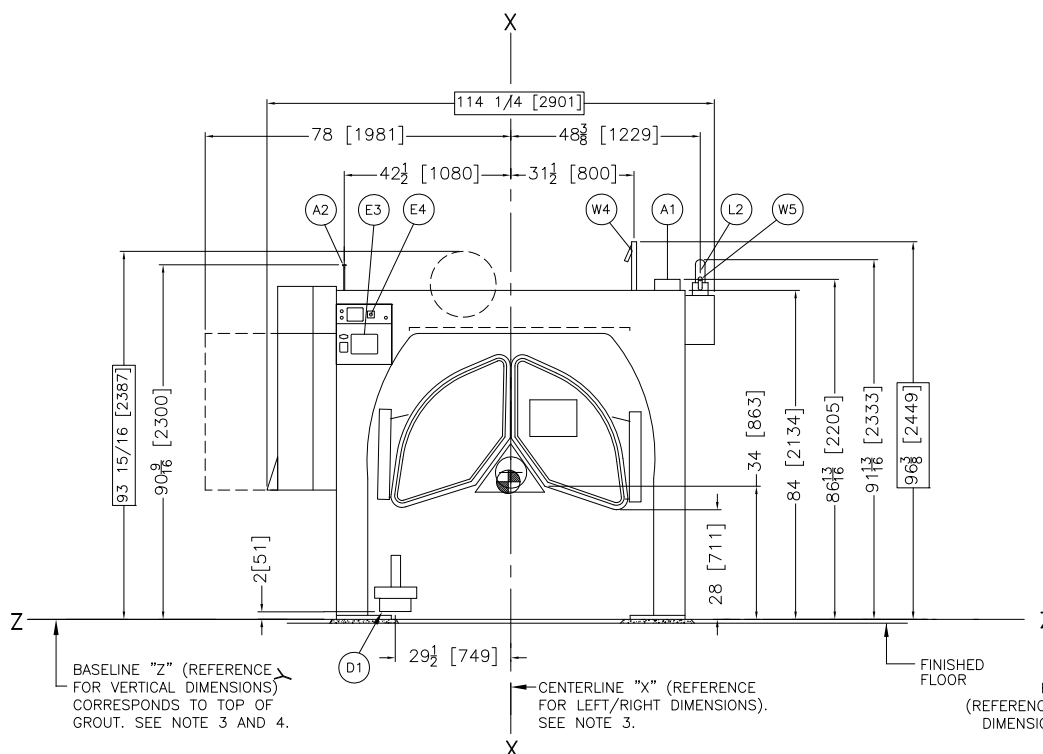
FOUNDATION
PLAN VIEW



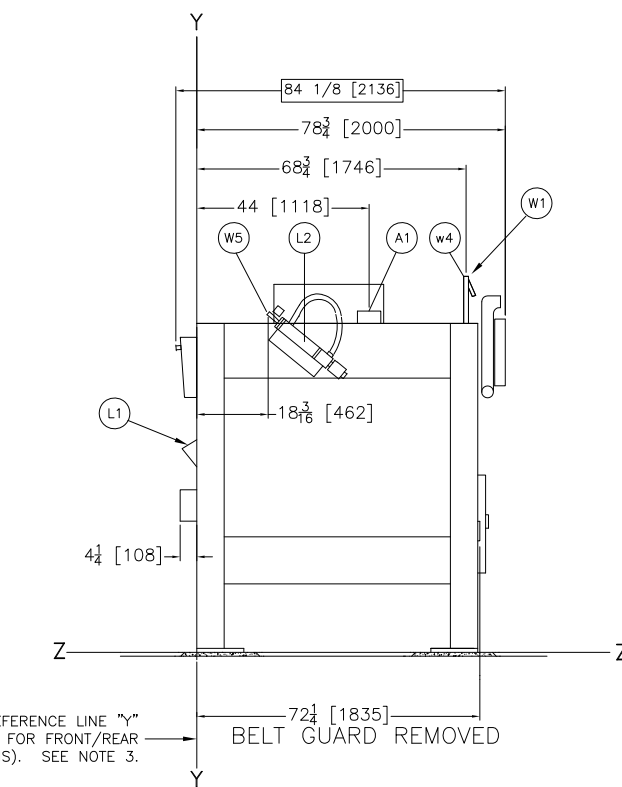
W5	1/2" NPT HOT WATER INLET FOR PERISTALTIC
W4	INDEPENDANT COOLDOWN INLET 1 1/4" NPT
W3	OPTIONAL THIRD WATER INLET CONNECTION 2" NPT
W2	COLD WATER INLET CONNECTION 2" NPT
W1	HOT WATER INLET CONNECTION 2" NPT
S1	1 1/4" NPT STEAM CONNECTION
L2	OPTIONAL PERISTALTIC SUPPLY CONNECTION
L1	SOAP CHUTE
F4	GROUT HOLES
F3	1 1/16" DIAMETER ALTERNATE ANCHOR BOLT HOLES, IF (F2) IS INACCESSIBLE
F2	1 1/16" DIAMETER ANCHOR BOLT HOLES, USE MINIMUM 5/8" X 6" BOLTS MINIMUM. (1) BOLT PER PAD MINIMUM.
F1	FOUNDATION BASE PADS, 4 PLACES
E4	EMERGENCY STOP
E3	MitTouch-EX™ TOUCH SCREEN CONTROLLER
E2	HIGH VOLTAGE CONTROL BOXES
E1	MAIN ELECTRICAL CONNECTION
D2	SINGLE DRAIN TROUGH
D1	DRAIN 8" DIAMETER DRAIN VALVE
A2	COMPRESSED AIR INLET 1/4" NPT
A1	VENT 6" DIAMETER
ITEM	LEGEND



LEFT VIEW



FRONT VIEW



RIGHT VIEW

NOTES

12 SHIM TO LEVEL THE MACHINE AND ALLOW FOR 1" [25] MINIMUM GROUT. ANCHOR WITH ONE ANCHOR BOLT PER PAD, MINIMUM. USE 5/8" X 6" BOLTS, MINIMUM. SEE INSTALLATION MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS.

11 "STEAM HAMMER", CAUSED BY WET STEAM OR CONDENSATION, MAY BE PREVENTED BY INSTALLING A "TRAP" IMMEDIATELY BEFORE THE STEAM VALVE.

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

9 DRAIN VALVE MAY MOVE ± 3 [76] IN ANY DIRECTION DURING OPERATION AND MUST NOT BE RIGIDLY CONNECTED TO DRAIN.

8 SHADED AREA ARE BASE PLATES WHICH MUST BE CONTINUOUSLY SUPPORTED ON 1" [25] THICK GROUT.

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.

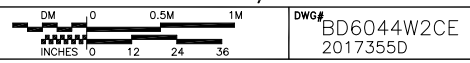
ATTENTION

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.

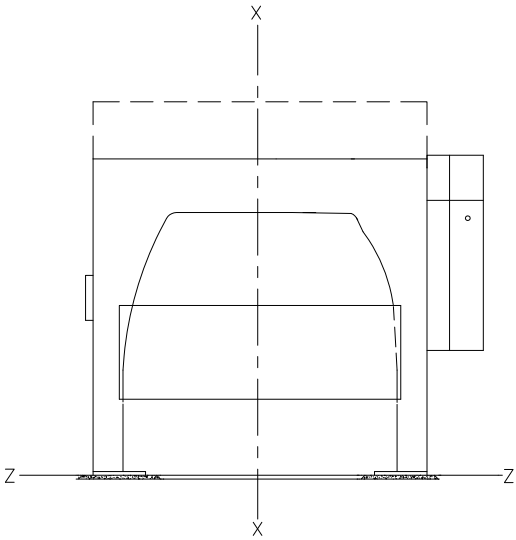
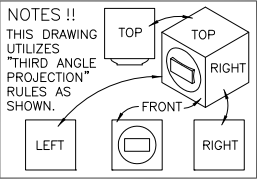
ATTENTION

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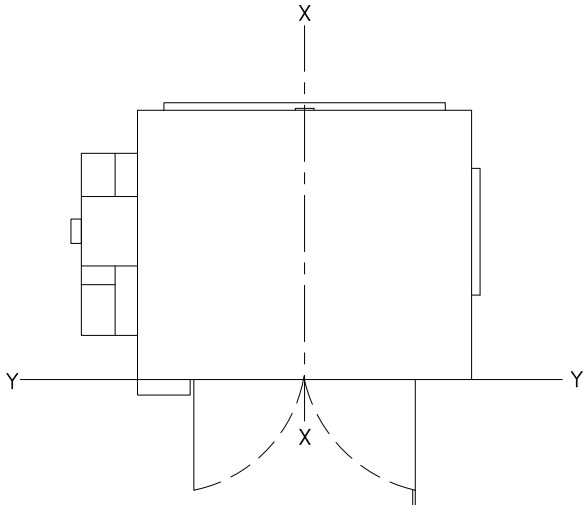
60044WR2/WR3



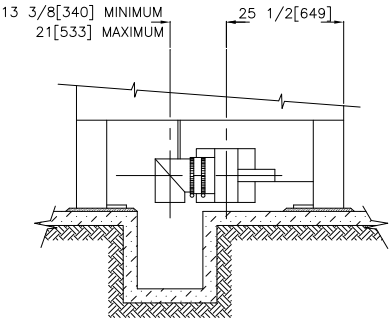
MILNOR PELLERIN MILNOR CORPORATION
P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467-9591,
FAX 504/469-1849, Email: milnorinfo@milnor.com



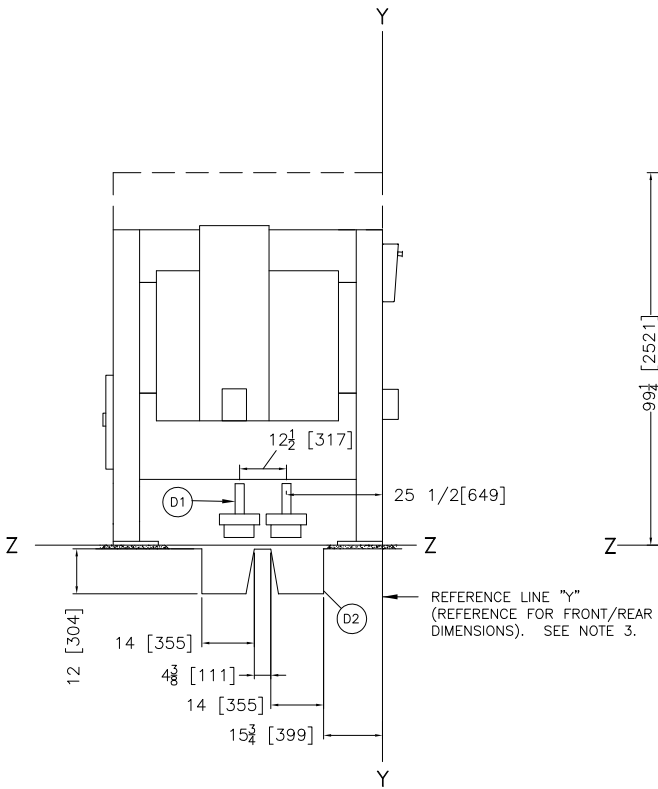
REAR VIEW



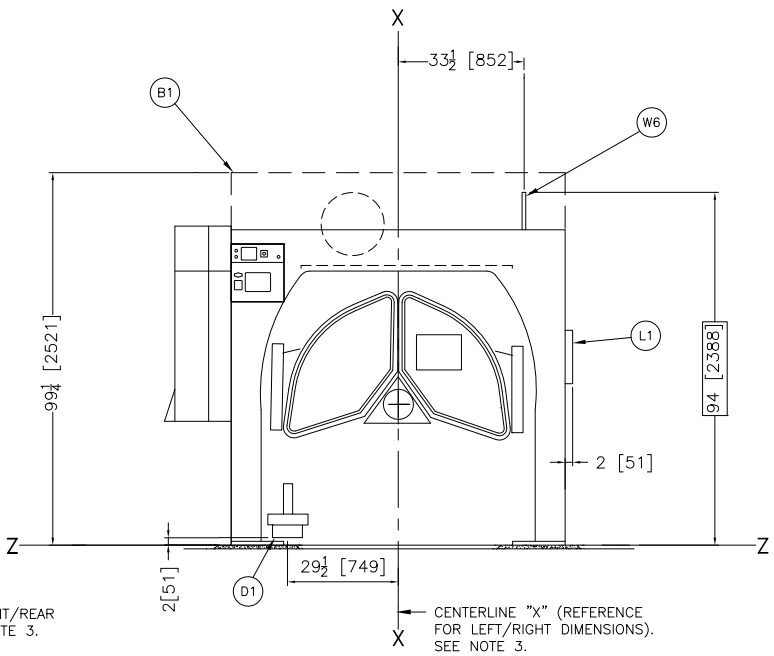
PLAN VIEW



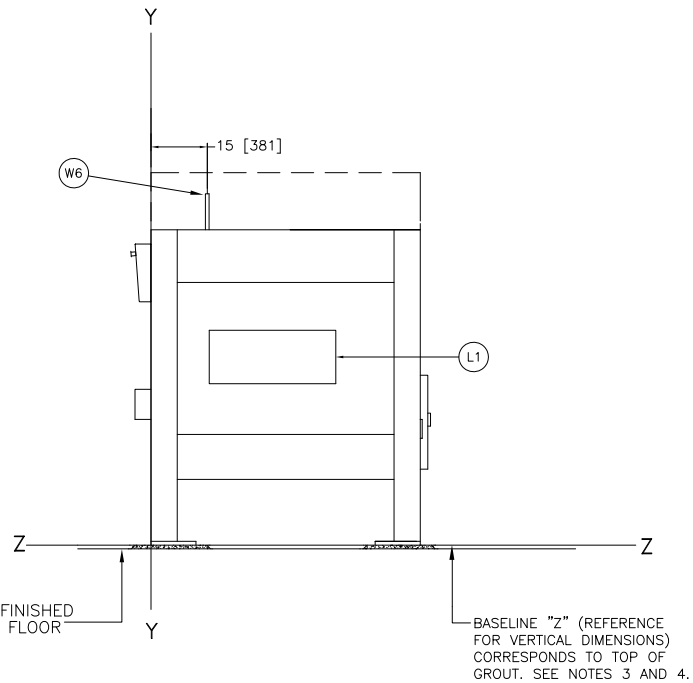
DRAIN VALVE ALTERNATE 90 DEGREE POSITION



LEFT VIEW



FRONT VIEW



RIGHT VIEW

W6	HOT WATER CONNECTION FOR OPTIONAL SUPPLY INJECTOR
	1" NPT
L1	FIVE COMPARTMENT SUPPLY
D2	DUAL DRAIN TROUGH
D1	DUAL DRAIN (2) - 8" DIAMETER DRAIN VALVES
B1	OPTIONAL UPPER BELT GUARD
ITEM	LEGEND

NOTES

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 CHECK LOCAL ELECTRIC CODES FOR FURTHER RESTRICTIONS.

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ATTENTION

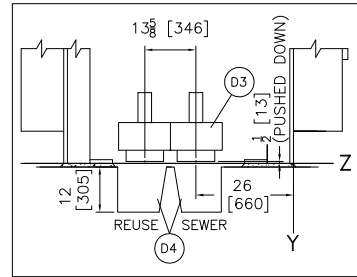
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60044WR2/WR3 OPTIONS

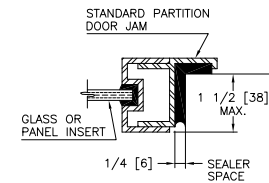
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2017355D

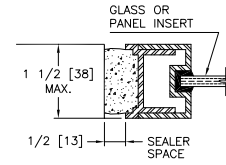
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P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467-9591,
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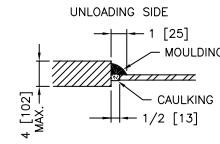
OPTIONAL DUAL DRAIN



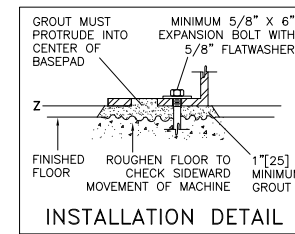
DETAIL A



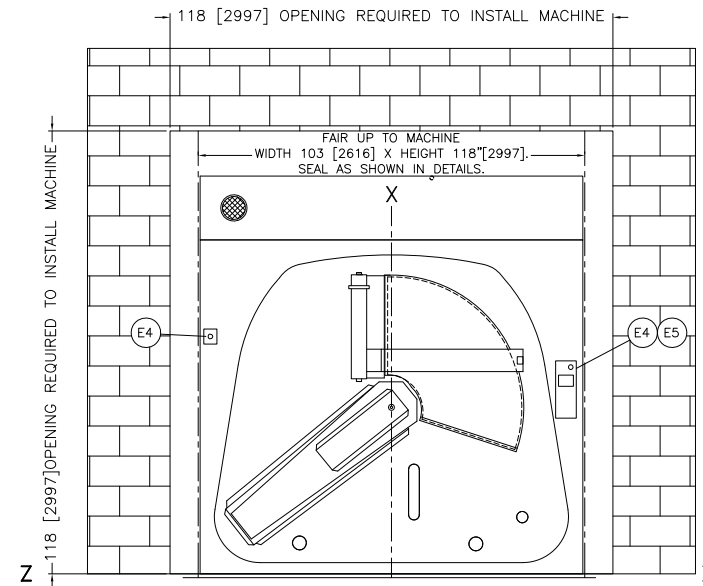
DETAIL B



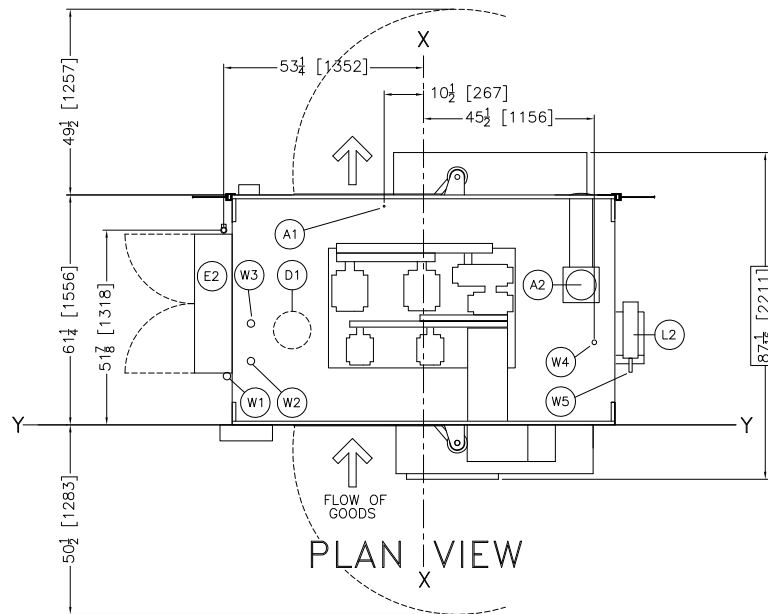
DETAIL C



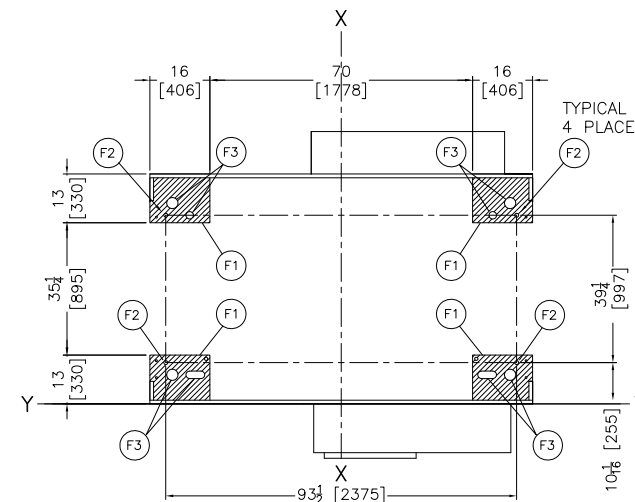
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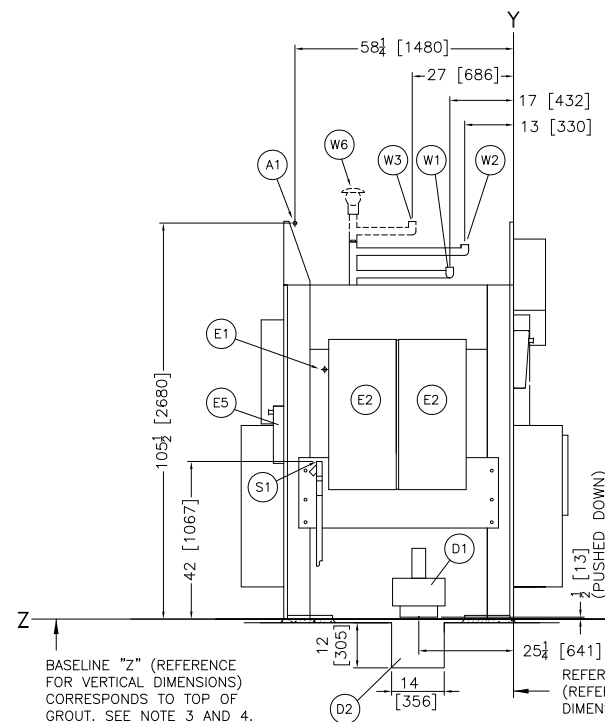
REAR VIEW
CLEAN SIDE



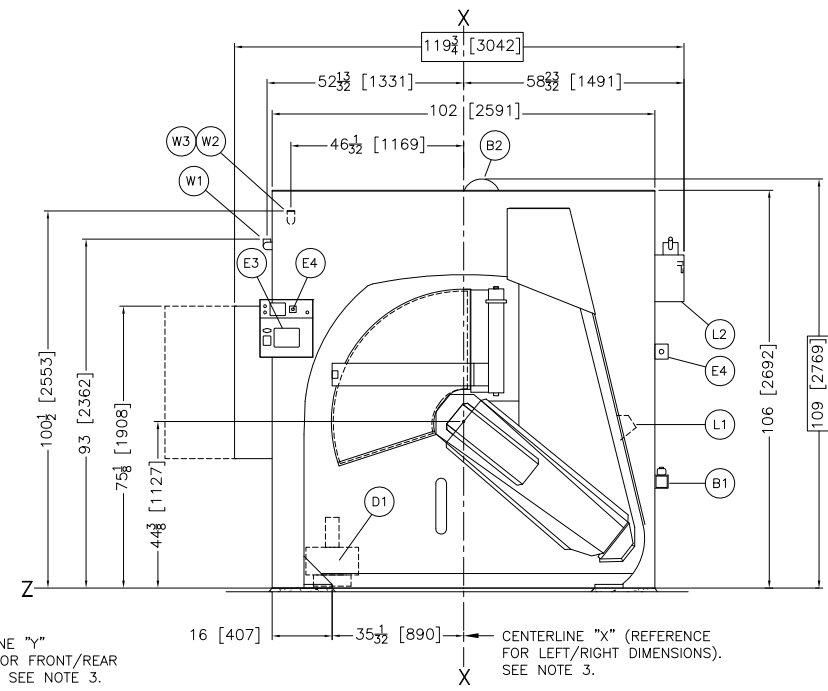
PLAN VIEW



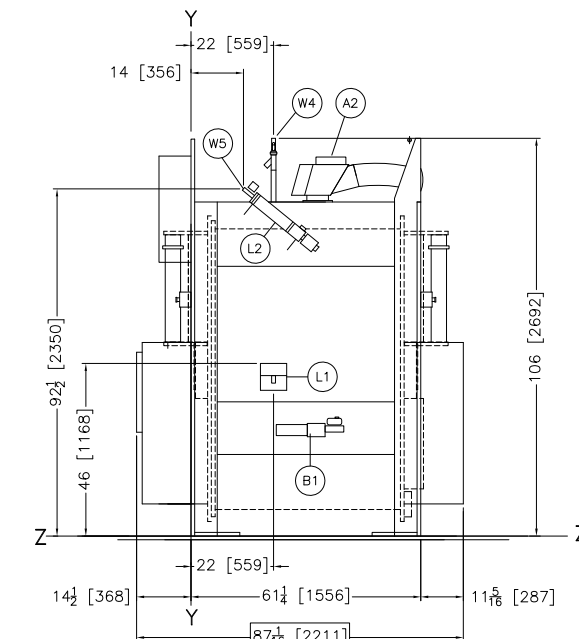
FOUNDATION
PLAN VIEW



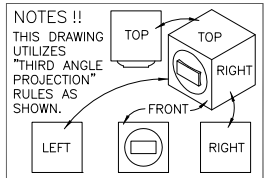
LEFT VIEW Y



FRONT VIEW
SOIL SIDE



RIGHT VIEW

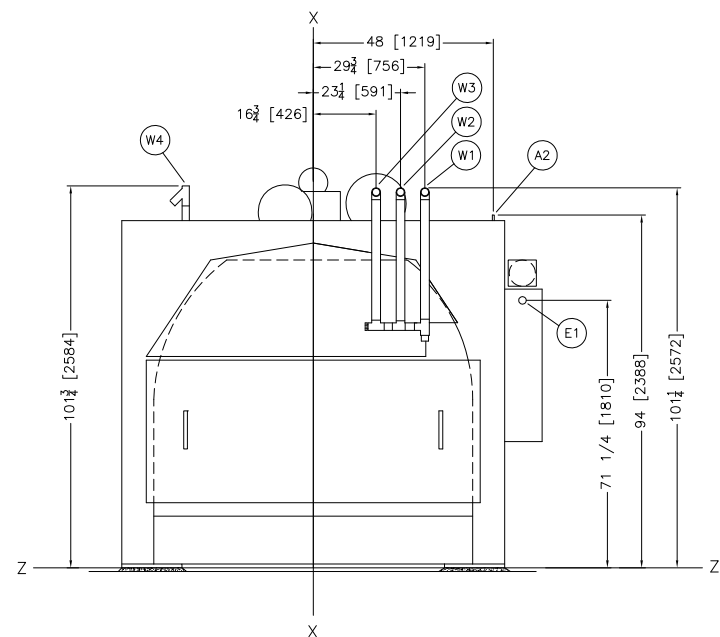


W6	OPTIONAL VACUUM BREAKER
W5	HOT WATER INLET FOR PERISTALTIC 1/2" NPT
W4	COOLDOWN INLET 1" NPT CONNECTION
W3	THIRD WATER INLET CONNECTION 2" NPT, OPTIONAL
W2	COLD WATER INLET CONNECTION 2" NPT
W1	HOT WATER INLET CONNECTION 2" NPT
S1	STEAM CONNECTION 1 1/4" NPT
L2	PERISTALTIC SUPPLY
L1	SOAP CHUTE
F3	GROUT HOLES
F2	1 1/16" DIAMETER ANCHOR BOLT HOLES, USE 5/8" x 6" BOLTS MINIMUM. (1) BOLT PER PAD MINIMUM.
F1	FOUNDATION BASE PADS, 4 PLACES
E5	REAR CONTROLS
E4	EMERGENCY STOP
E3	MitTouch-EX™ TOUCH SCREEN CONTROLLER
E2	HIGH VOLTAGE CONTROL BOXES
E1	MAIN ELECTRICAL CONNECTION
D2	OPTIONAL DUAL DRAIN TROUGHS
D3	OPTIONAL DUAL DRAINS, 10" DIAMETER
D2	SINGLE DRAIN TROUGH
D1	STANDARD DRAIN, 10" DIAMETER
B2	AUTOSPOT MOTOR
B1	BRAKE AIR CYLINDER
A2	STAPHAIRTROL, VENT 8"[203]
A1	COMPRESSED AIR INLET 1/4" NPT
ITEM	LEGEND

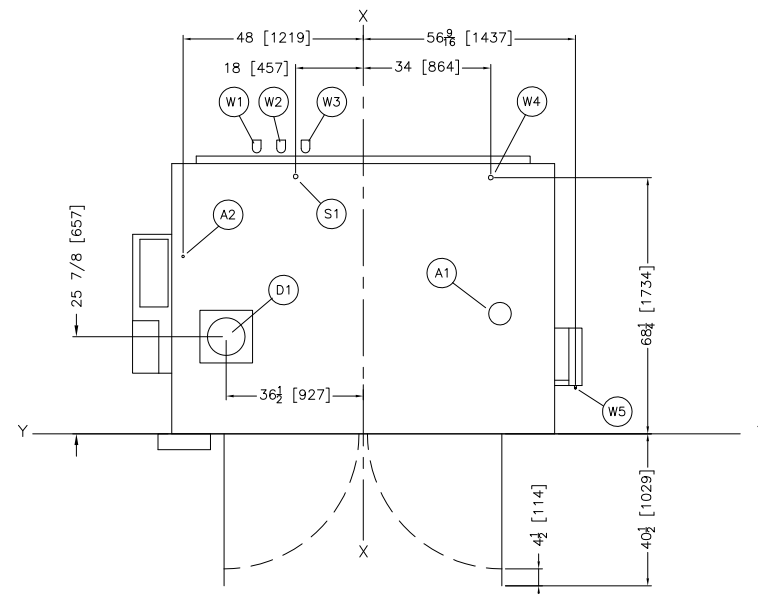
NOTES	
10	SHIM TO LEVEL THE MACHINE AND ALLOW FOR 1" [25] MINIMUM GROUT. ANCHOR WITH ONE ANCHOR BOLT PER PAD, MINIMUM, USE 5/8" x 6" BOLTS, MINIMUM. SEE INSTALLATION MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS.
9	"STEAM HAMMER", CAUSED BY WET STEAM OR CONDENSATION, MAY BE PREVENTED BY INSTALLING A TRAP IMMEDIATELY BEFORE THE STEAM VALVE.
8	DRAIN VALVE MAY MOVE ± 1-1/2 [38] IN ANY DIRECTION DURING OPERATION AND MUST NOT BE RIGIDLY CONNECTED TO DRAIN.
7	SHADED AREA ARE BASE PLATES WHICH MUST BE CONTINUOUSLY SUPPORTED ON 1"[25] THICK GROUT. ALSO, THIS 1"[25] OF GROUT IS NECESSARY TO INSURE THE STAPH GUARD BRAKE WILL NOT HIT THE FLOOR.
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.
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72044SR2/SR3

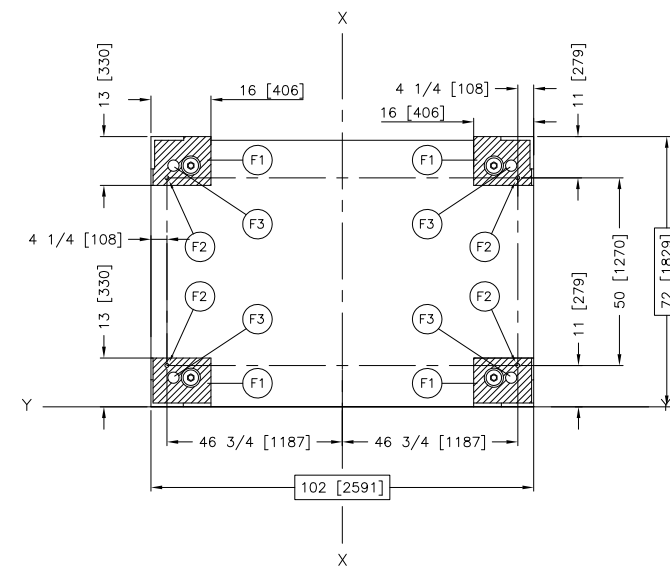




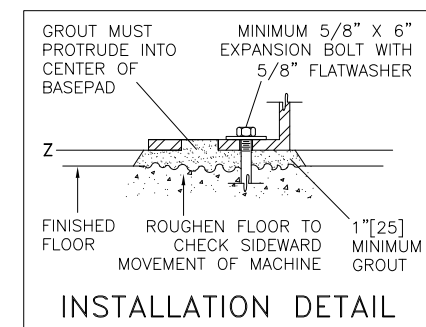
REAR VIEW



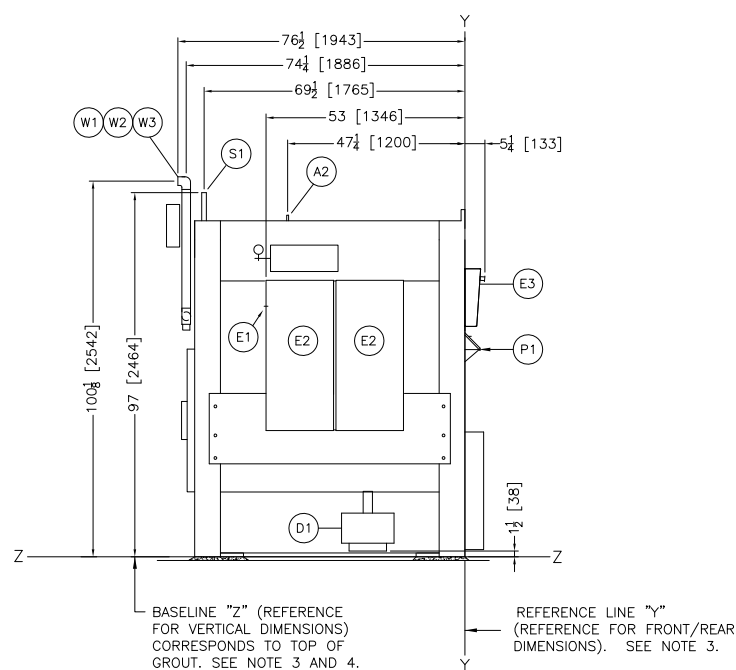
PLAN VIEW



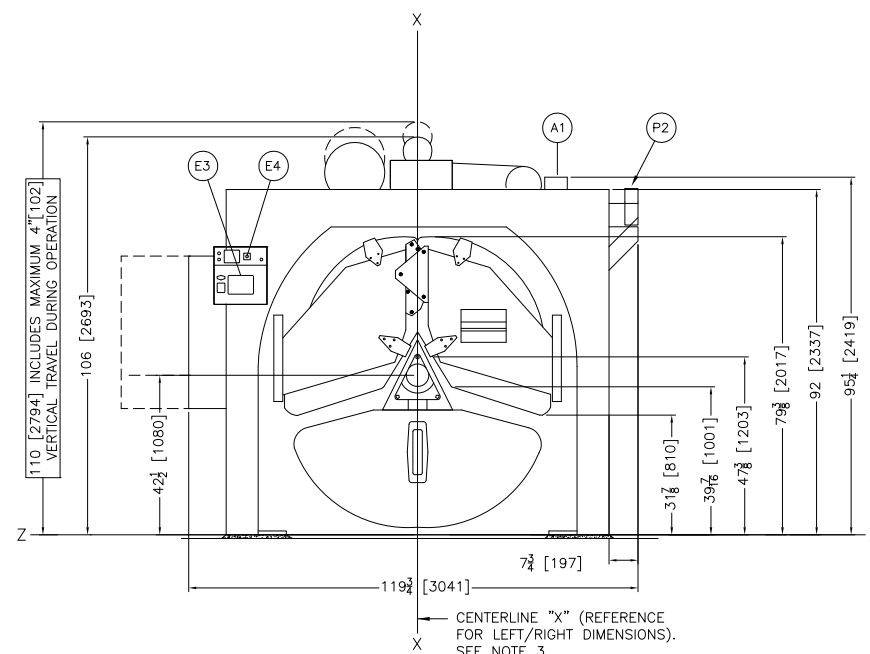
FOUNDATION PLAN VIEW



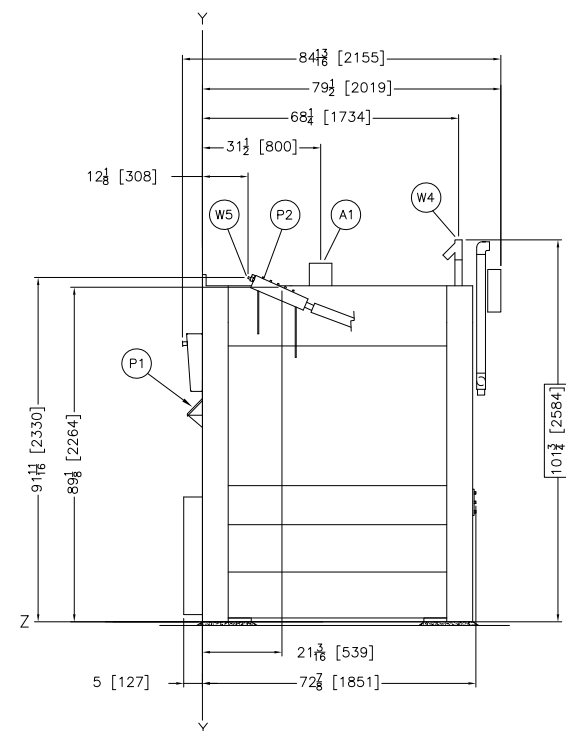
W5	HOT WATER FOR PERISTALTIC SUPPLY 1/2" NPT
W4	INDEPENDANT COOLDOWN INLET 1-1/4" NPT
W3	THIRD WATER INLET CONNECTION 2" NPT
W2	COLD WATER INLET CONNECTION 2" NPT
W1	HOT WATER INLET CONNECTION 2" NPT
S1	1-1/4" NPT STEAM SUPPLY CONNECTION
P2	PERISTALTIC SUPPLY MANIFOLD
P1	SOAP CHUTE
F3	GROUT HOLES
F2	(4) 1 1/16" DIAMETER ANCHOR BOLT HOLES. USE MINIMUM 5/8" X 6" BOLTS MINIMUM. (1) BOLT PER PAD MINIMUM.
F1	FOUNDATION BASE PADS, 4 PLACES
E4	EMERGENCY STOP BUTTON
E3	MiTouch-EX™ TOUCH SCREEN CONTROLLER
E2	HIGH VOLTAGE CONTROL BOXES
E1	MAIN ELECTRICAL CONNECTION
D2	SINGLE DRAIN TROUGH
D1	DRAIN 10" DIAMETER DRAIN VALVE
A2	COMPRESSED AIR INLET 1/4 NPT
A1	VENT 6" DIAMETER
ITEM	LEGEND



LEFT VIEW



FRONT VIEW



RIGHT VIEW

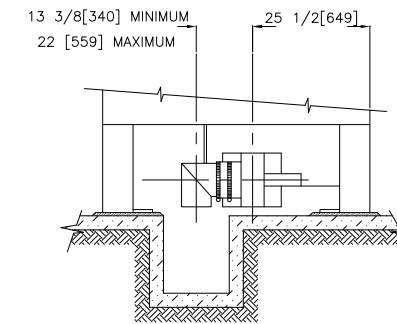
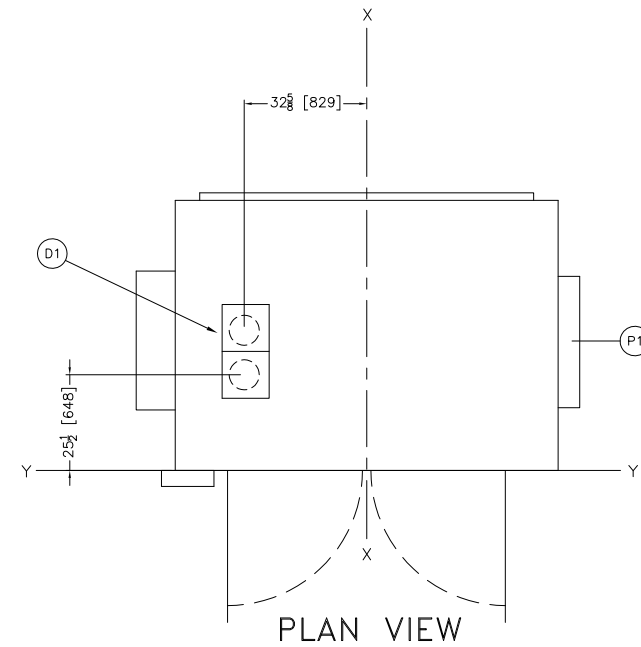
NOTES	
11	"STEAM HAMMER", CAUSED BY WET STEAM OR CONDENSATION, MAY BE PREVENTED BY INSTALLING A TRAP IMMEDIATELY BEFORE THE STEAM VALVE.
10	DO NOT PRE PIPE CLOSER THAN 60" [1524]
9	DRAIN VALVE MAY MOVE ± 3 (76) IN ANY DIRECTION DURING OPERATION AND MUST NOT BE RIGIDLY CONNECTED TO DRAIN.
8	SHADED AREAS ARE BASE PLATES WHICH MUST BE CONTINUOUSLY SUPPORTED ON 1" THICK GROUT.
7	SHIM TO LEVEL THE MACHINE AND ALLOW FOR 1" [25] MINIMUM GROUT. ANCHOR WITH ONE ANCHOR BOLT PER PAD, MINIMUM. USE 5/8" X 6" BOLTS, MINIMUM. SEE INSTALLATION MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS.
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 (i.e. BARE CONCRETE, BRICK, ETC.). 48 [1209] 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.
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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.	

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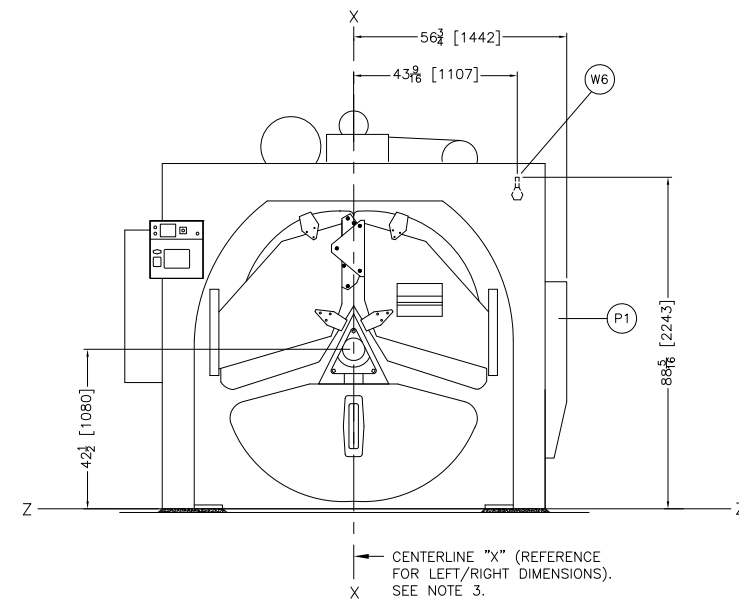
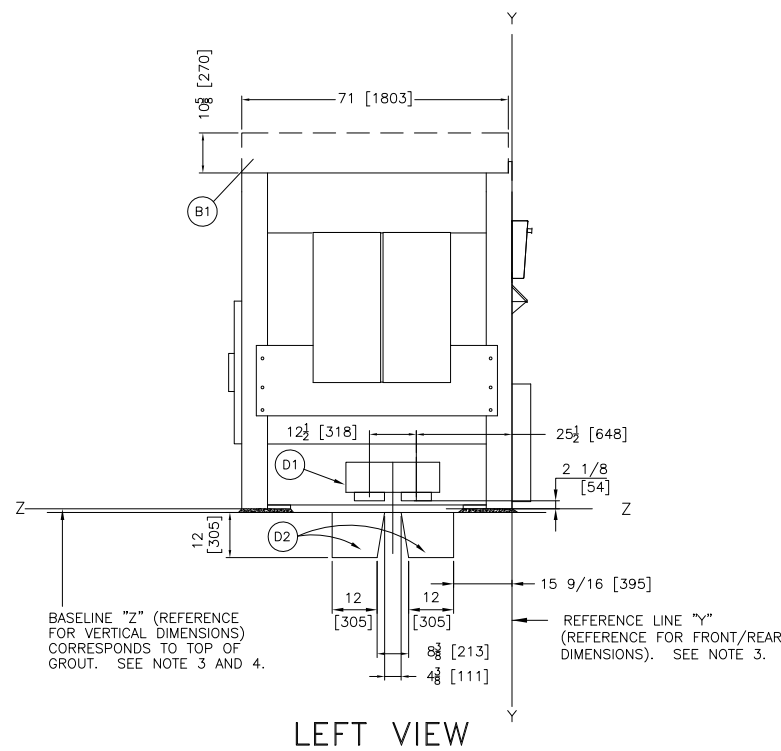
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MILNOR PELLERIN MILNOR CORPORATION

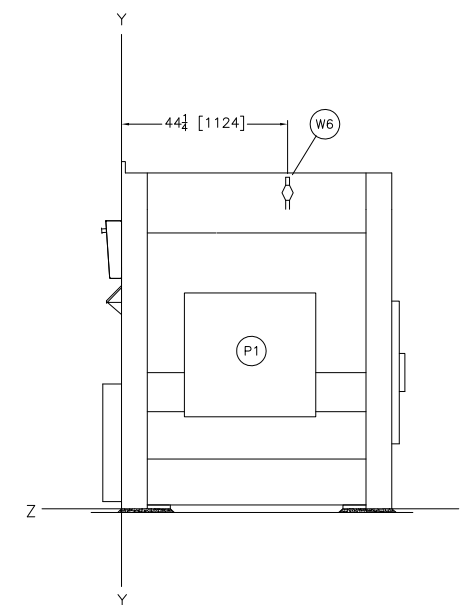
P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467-9591,
 FAX 504/468-3094, Email: milnorinfo@milnor.com



DRAIN VALVE ALTERNATE
90 DEGREE POSITION



FRONT VIEW



RIGHT VIEW

W6	HOT WATER FOR OPTIONAL 5 COMPARTMENT SUPPLY 3/4" NPT
P1	5 COMPARTMENT SUPPLY
D2	DUAL DRAIN TROUGH
D1	DUAL DRAIN (2)–8" DIAMETER DRAIN VALVES
B1	OPTIONAL UPPER BELT GUARD
ITEM	LEGEND

NOTES

- 9 "STEAM HAMMER", CAUSED BY WET STEAM OR CONDENSATION, MAY BE PREVENTED BY INSTALLING A TRAP IMMEDIATELY BEFORE THE STEAM VALVE.
- 8 DO NOT PIRE PIPE CLOSER THAN 60" [1524]
- 7 DRAIN VALVE MAY MOVE ± 3 (76) IN ANY DIRECTION DURING OPERATION AND MUST NOT BE RIGIDLY CONNECTED TO DRAIN.
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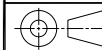
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ATTENTION

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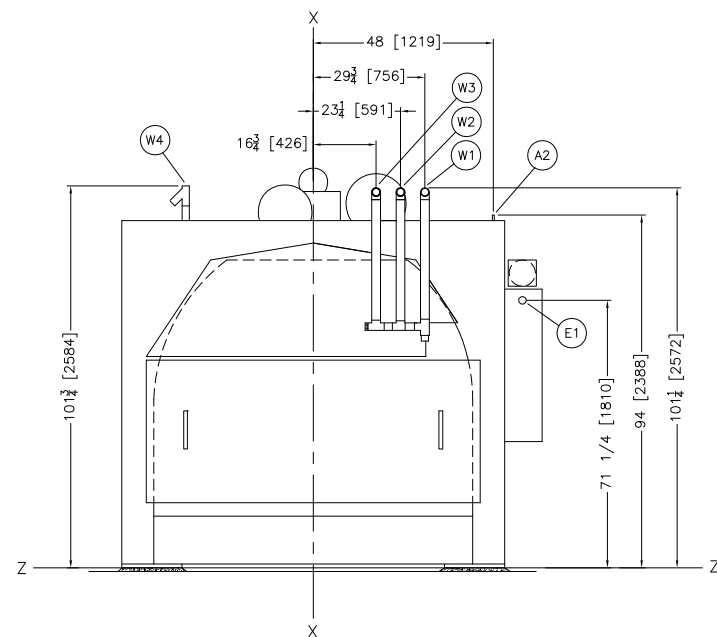
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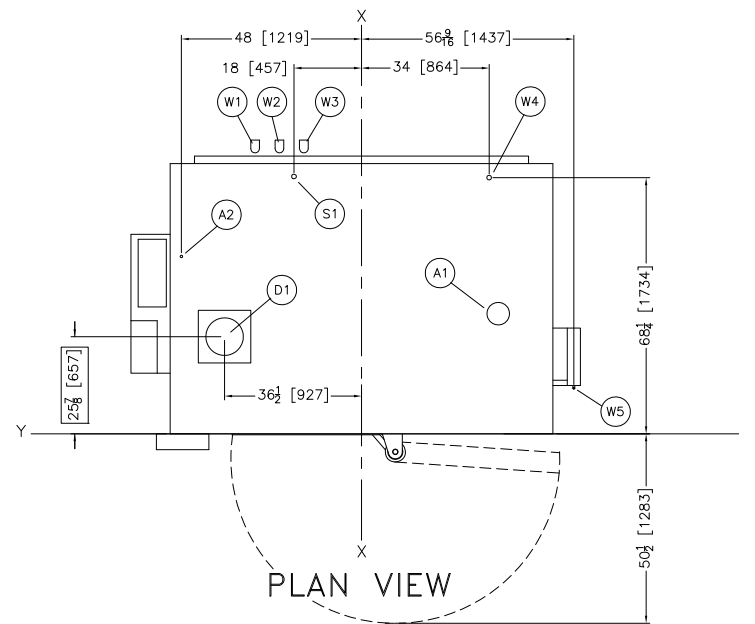
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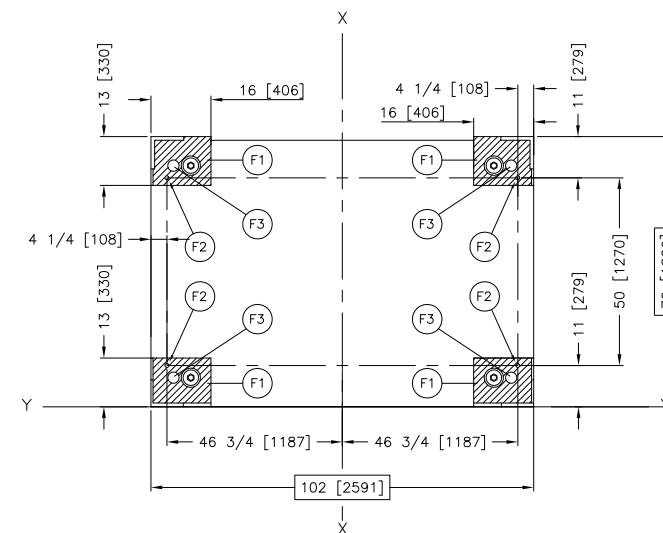
PELLERIN MILNOR CORPORATION
P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467-9591,
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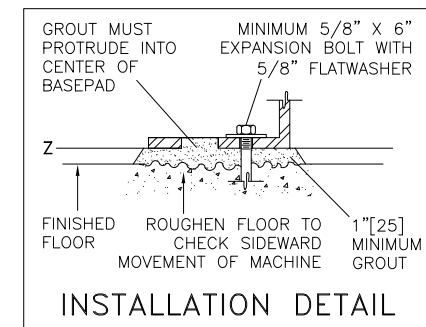
REAR VIEW



PLAN VIEW

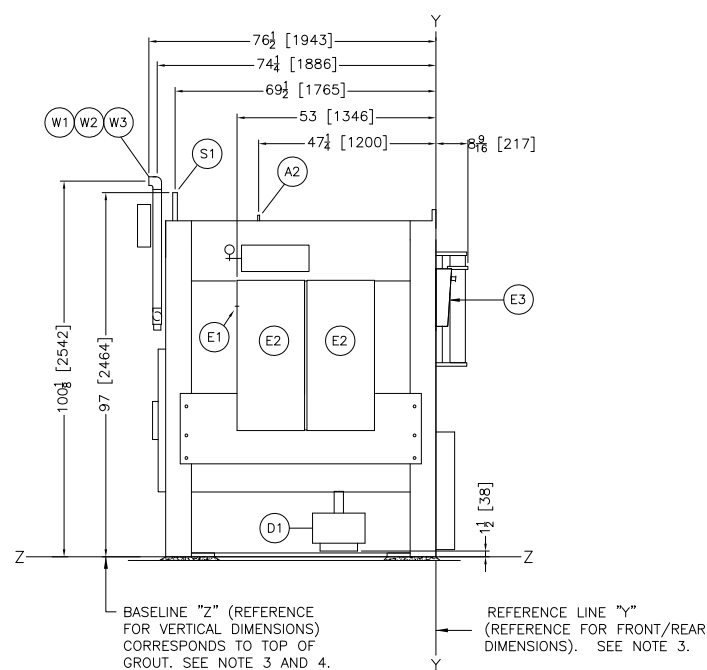


FOUNDATION PLAN VIEW

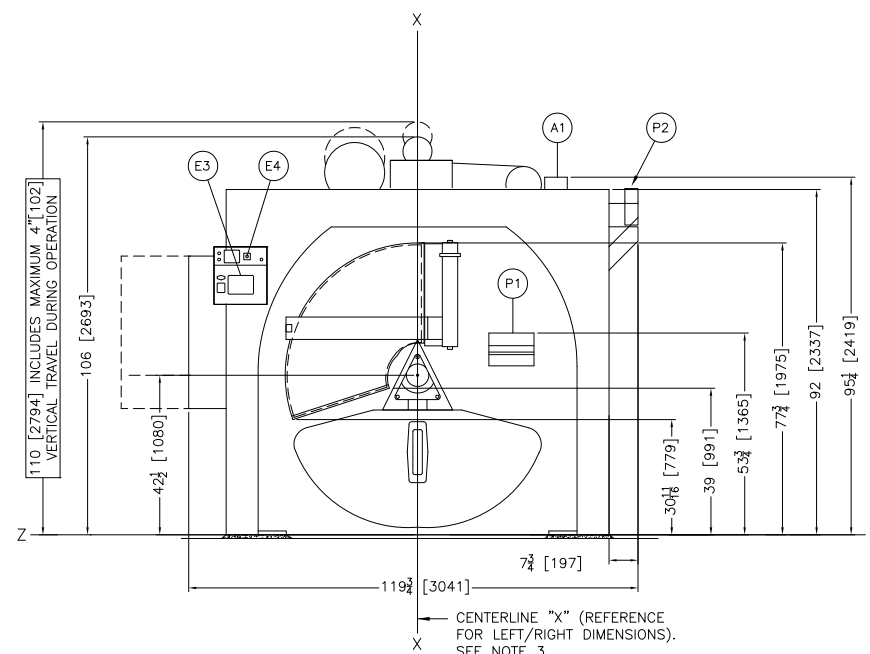


W5	HOT WATER FOR PERISTALTIC SUPPLY 1/2" NPT
W4	INDEPENDANT COOLDOWN INLET 1-1/4" NPT
W3	THIRD WATER INLET CONNECTION 2" NPT
W2	COLD WATER INLET CONNECTION 2" NPT
W1	HOT WATER INLET CONNECTION 2" NPT
S1	1-1/4" NPT STEAM SUPPLY CONNECTION
P2	PERISTALTIC SUPPLY MANIFOLD
P1	SOAP CHUTE
F3	GROUT HOLES
F2	(4) 1 1/16" DIAMETER ANCHOR BOLT HOLES. USE MINIMUM 5/8" X 6" BOLTS MINIMUM. (1) BOLT PER PAD MINIMUM.
F1	FOUNDATION BASE PADS, 4 PLACES
E4	EMERGENCY STOP BUTTON
E3	MiTouch-EX™ TOUCH SCREEN CONTROLLER
E2	HIGH VOLTAGE CONTROL BOXES
E1	MAIN ELECTRICAL CONNECTION
D2	SINGLE DRAIN TROUGH
D1	DRAIN 10" DIAMETER DRAIN VALVE
A2	COMPRESSED AIR INLET 1/4 NPT
A1	VENT 6" DIAMETER
ITEM	LEGEND

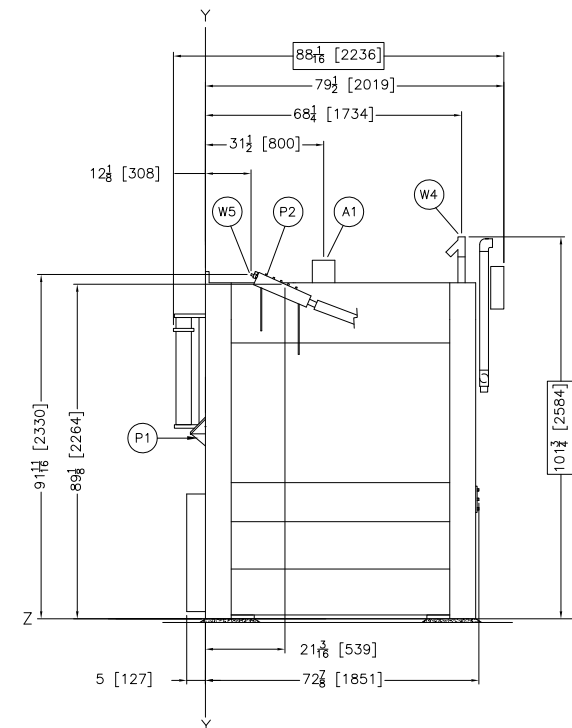
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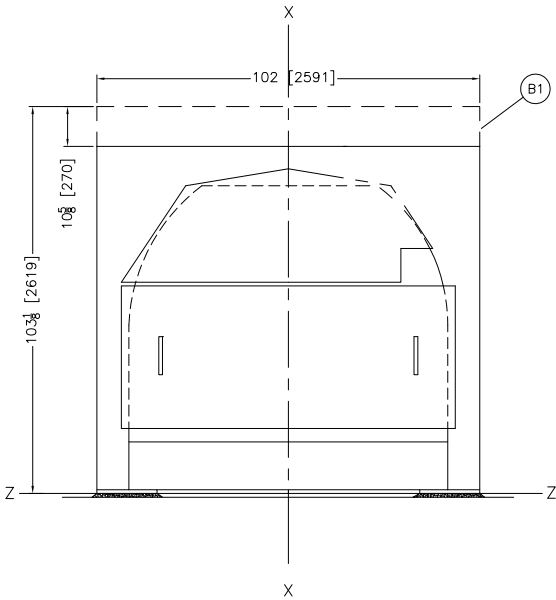
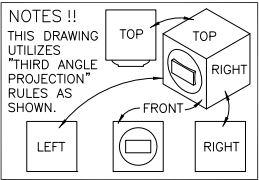
LEFT VIEW



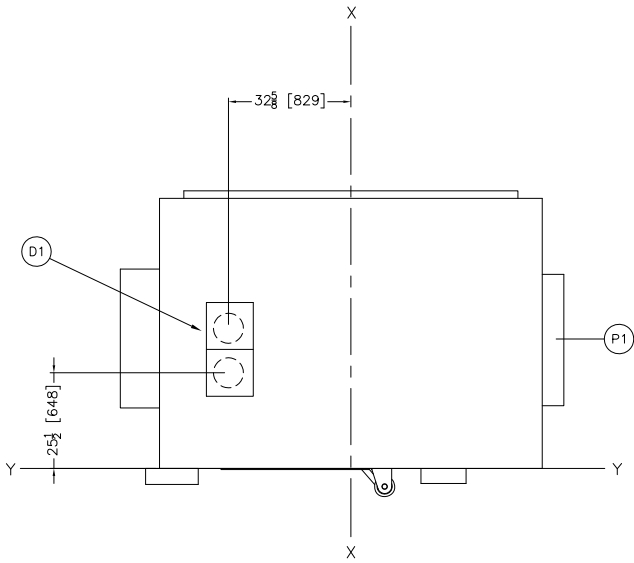
FRONT VIEW



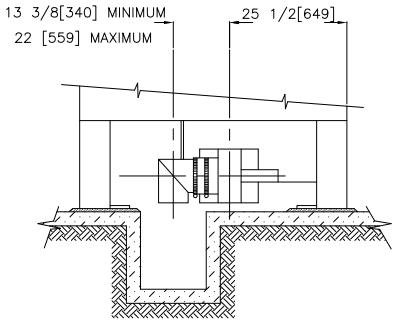
RIGHT VIEW



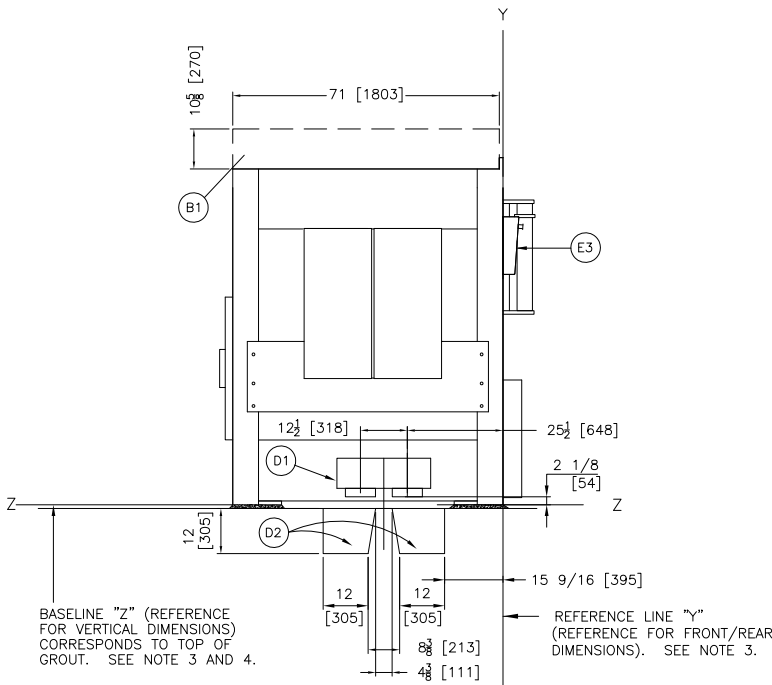
REAR VIEW



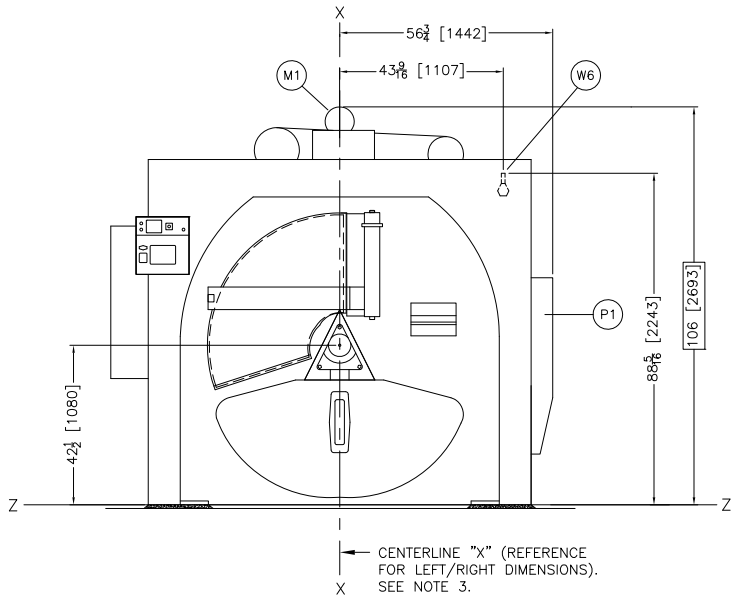
PLAN VIEW



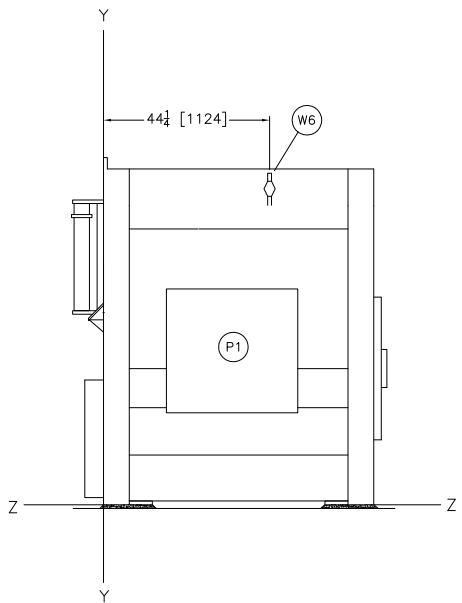
DRAIN VALVE ALTERNATE
90 DEGREE POSITION



LEFT VIEW



FRONT VIEW



RIGHT VIEW

W6	HOT WATER FOR OPTIONAL 5 COMPARTMENT SUPPLY
	3/4" NPT
P1	5 COMPARTMENT SUPPLY
M1	OPTIONAL AUTOSPOT MOTOR
D2	DUAL DRAIN TROUGH
D1	DUAL DRAIN (2)-8" DIAMETER DRAIN VALVES
B1	OPTIONAL UPPER BELT GUARD
ITEM	LEGEND

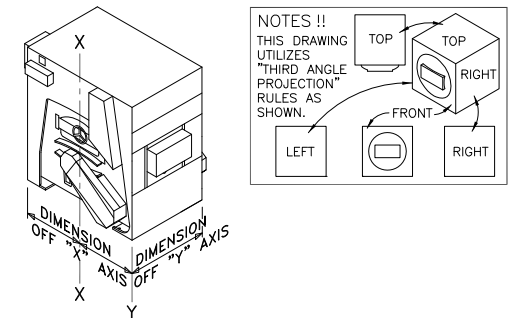
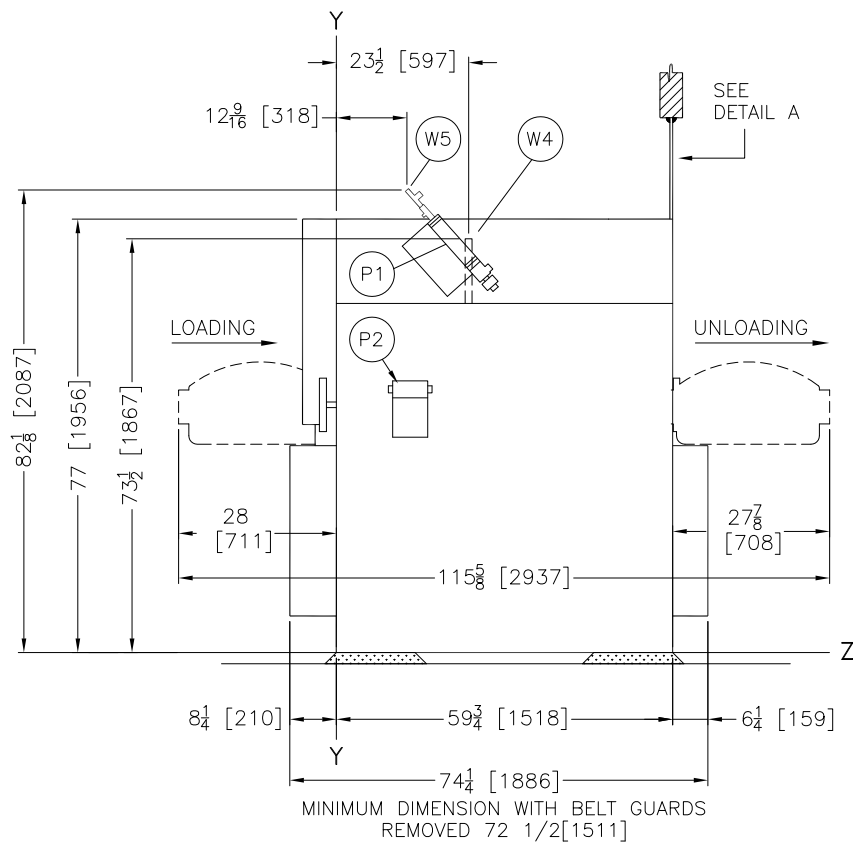
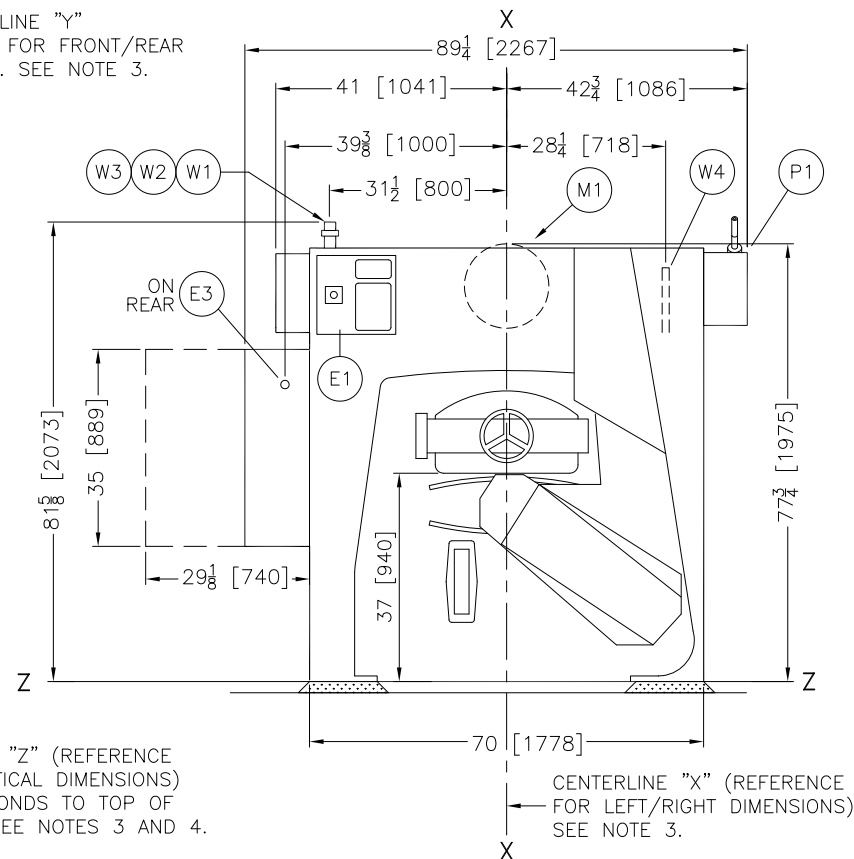
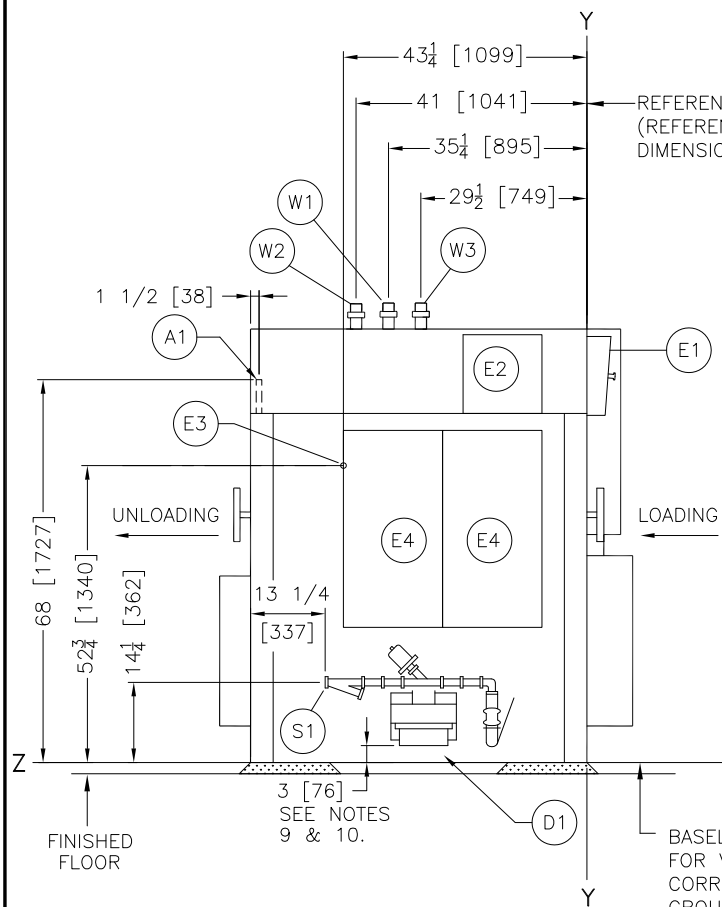
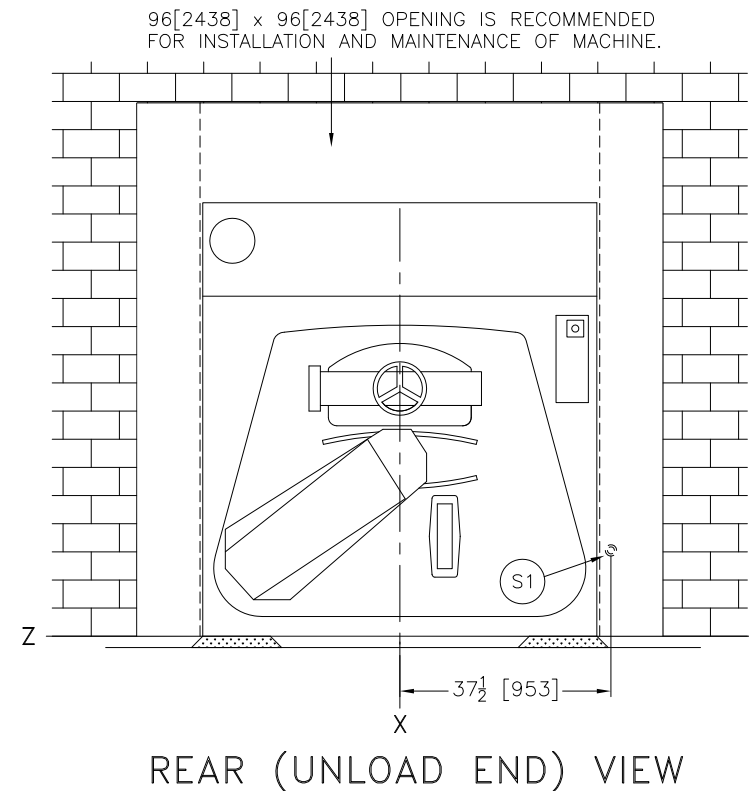
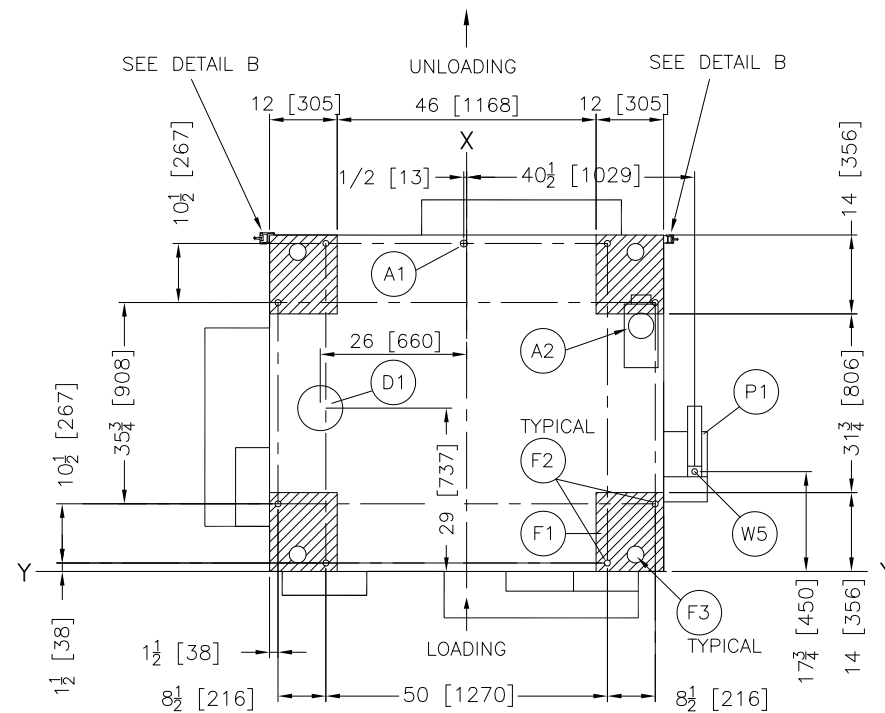
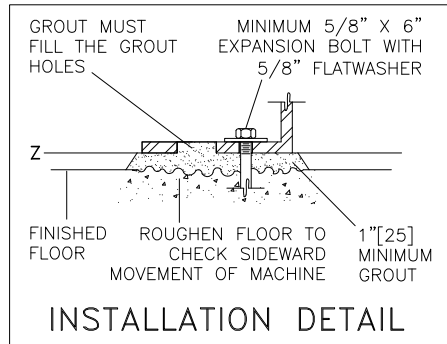
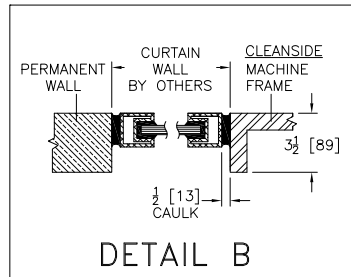
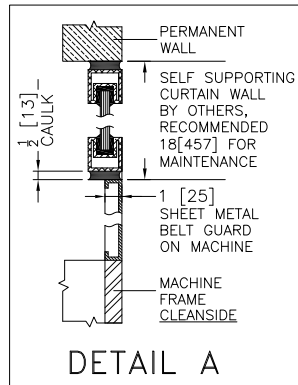
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72044WR3 OPTIONS

DWG# BD7244W3BB 2017355D

MILNOR PELLERIN MILNOR CORPORATION

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



W5	HOT WATER FOR FLUSHING PERISTALTIC, 1/2" NPT.
W4	INDEPENDANT COOLDOWN CONNECTION, 3/4" NPT.
W3	OPTIONAL THIRD WATER INLET CONNECTION, 1 1/2" NPT.
W2	COLD WATER INLET CONNECTION, 1 1/2" NPT.
W1	HOT WATER INLET CONNECTION, 1 1/2" NPT.
S1	STEAM INLET CONNECTION, 1 1/4" NPT.
P2	SOAP CHUTE
P1	PERISTALTIC SUPPLY CONNECTION
M1	SINGLE MOTOR DRIVE
F3	GROUT HOLES, 3" DIAMETER, 1 PER PAD.
F2	(8) 1-1/16" DIAMETER ANCHOR BOLTS HOLES, ANCHOR (1) BOLT PER PAD MINIMUM. 5/8" X 6" BOLTS MINIMUM.
F1	FOUNDATION BASE PADS, 4 PLACES.
E4	ELECTRICAL CONTROL BOX
E3	ELECTRICAL CONNECTION
E2	MICROPROCESSOR CONTROL BOX
E1	MICROPROCESSOR CONTROL PANEL
D1	DRAIN VALVE, 8" DIAMETER. SHOWN IN PUSHED DOWN POSITION. ALSO, SEE NOTES 9 & 10.
A2	STAPHAIRTROL
A1	COMPRESSED AIR INLET CONNECTION, 1/4" NPT.
ITEM	LEGEND

- NOTES**
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 - ITEMS SHOWN ON THIS PAGE ARE STANDARD OF THIS MACHINE. FOR OPTIONS SEE BD4244SPAB.
 - DO NOT PRE-PIPE ANY CLOSER THAN 60 [1524].
 - "STEAM HAMMER", CAUSED BY WET STEAM OR CONDENSATION, MAY BE PREVENTED BY INSTALLING A TRAP IMMEDIATELY BEFORE THE STEAM VALVE.
 - DRAIN VALVE TO GUTTER PIPING ARRANGEMENT CAN BE REVERSED BY REVERSING DRAIN VALVE AIR CONNECTION. DO NOT CHANGE ANY ELECTRICAL CONNECTIONS.
 - THIS DIMENSION IS WITH CYLINDER IN "PUSHED DOWN" POSITION. PUSH DOWN TRAVEL IS APPROXIMATELY 2 1/2 [64].
 - DRAIN VALVE MAY MOVE $\pm 1 1/2$ [38] IN ANY DIRECTION DURING OPERATION AND MUST NOT BE RIGIDLY CONNECTED TO DRAIN.
 - SHADED AREAS DENOTE BASE PLATES WHICH SHOULD BE CONTINUOUSLY SUPPORTED.
 - IT IS NECESSARY TO PUT A 1 [25] THICK BED OF GROUT BENEATH THIS MACHINE TO INSURE THE STAPH-GUARD BRAKE ASSEMBLY WILL NOT HIT THE FLOOR.
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42044SP2/SP3 SM

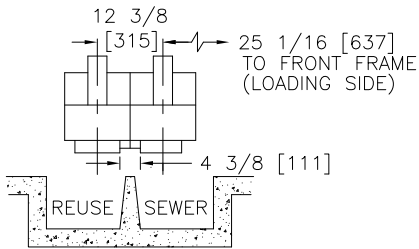
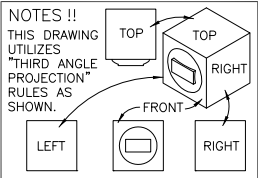
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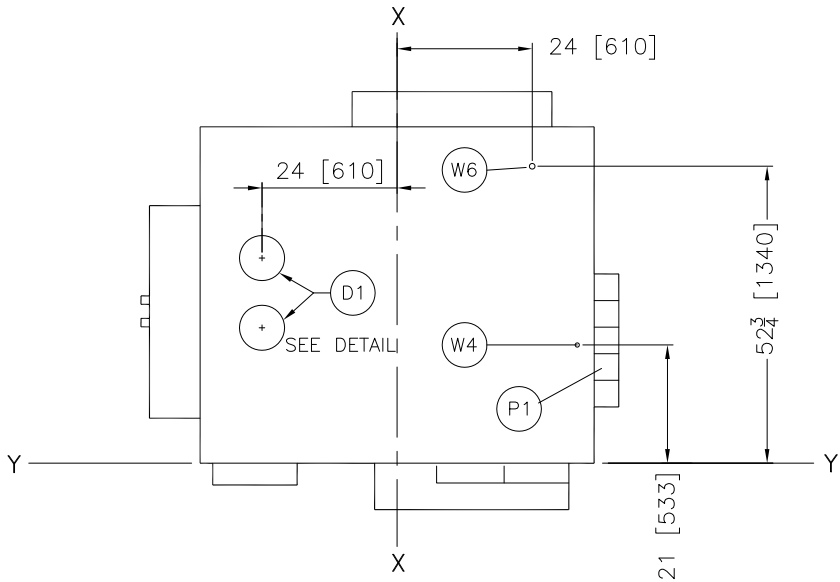
MILNOR PELLERIN MILNOR CORPORATION

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

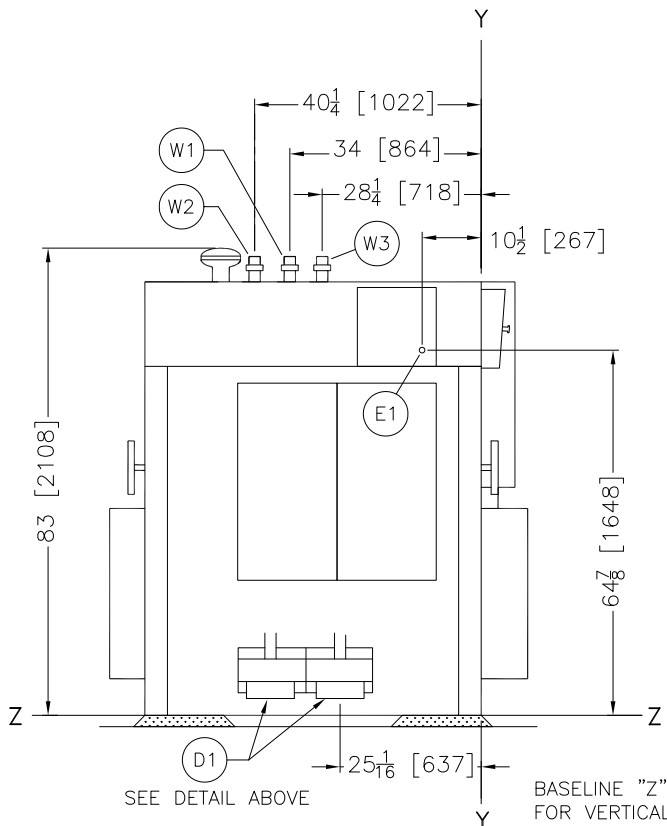


OPTIONAL WATER REUSE
DUAL DRAIN VALVE

(SEE NOTES 8 & 9)
NOT TO SCALE

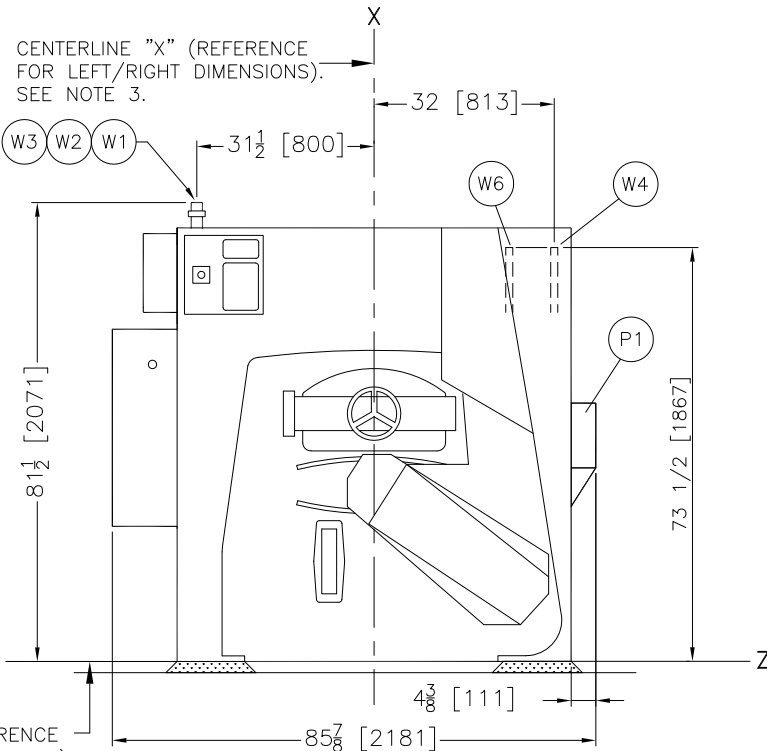


PLAN VIEW

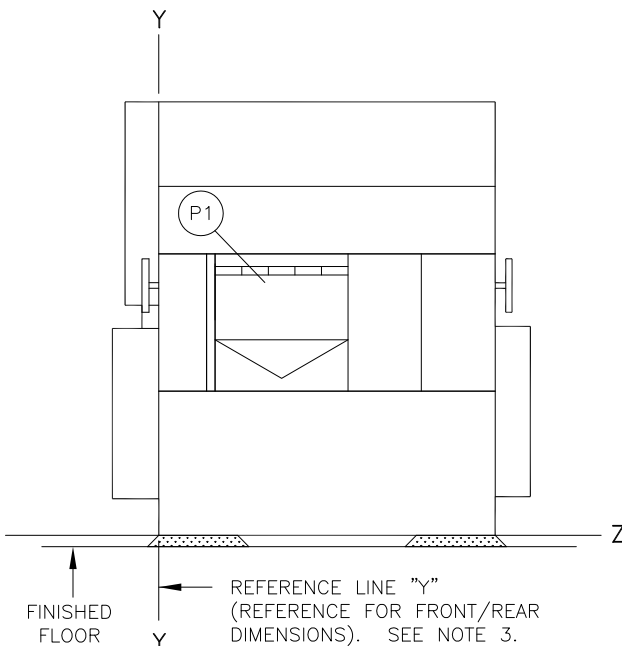


LEFT VIEW

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



FRONT (LOAD END) VIEW



RIGHT VIEW

W6	HOT WATER FOR FLUSHING OPTIONAL 5 COMPARTMENT SUPPLY 1/2"NPT CONNECTION
W4	INDEPENDANT COOLDOWN WITH OPTIONAL VACUUM BREAKER CONNECTION, 3/4" NPT.
W3	OPTIONAL THIRD WATER INLET CONNECTION WITH OPTIONAL VACUUM BREAKER. 1 1/2" NPT.
W2	COLD WATER INLET CONNECTION WITH VACUUM BREAKER, 1 1/2" NPT.
W1	HOT WATER INLET CONNECTION WITH VACUUM BREAKER, 1 1/2" NPT.
P1	OPTIONAL 5 COMPARTMENT SUPPLY
E1	MILDATA CONNECTION
D1	DUAL DRAIN VALVE, TWO, 8" DIAMETER. SEE DETAIL.
ITEM	LEGEND

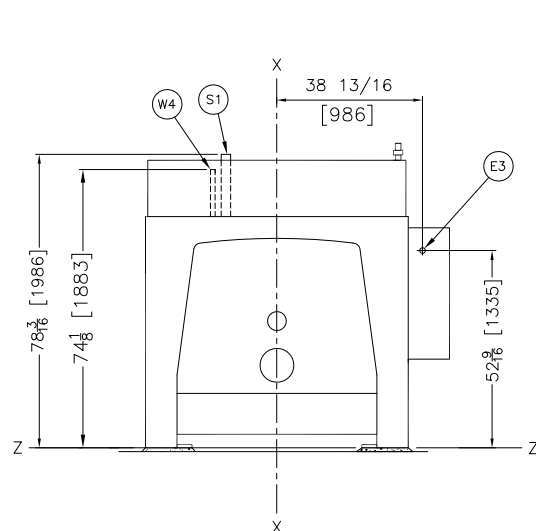
- NOTES**
- 12 THE LOCATION OF CERTAIN OPTIONAL COMPONENTS WILL VARY WITH THE COMBINATIONS OF OPTIONS ORDERED. THESE OPTION COMBINATIONS ARE NOT SHOWN. CONSULT FACTORY FOR MORE INFORMATION.
 - 11 DO NOT PRE-PIPE ANY CLOSER THAN 60 [1524].
 - 10 "STEAM HAMMER", CAUSED BY WET STEAM OR CONDENSATION, MAY BE PREVENTED BY INSTALLING A TRAP IMMEDIATELY BEFORE THE STEAM VALVE.
 - 9 DRAIN VALVE TO GUTTER PIPING ARRANGEMENT CAN BE REVERSED BY REVERSING DRAIN VALVE AIR CONNECTION. DO NOT CHANGE ANY ELECTRICAL CONNECTIONS.
 - 8 DRAIN VALVE MAY MOVE $\pm 1 1/2$ [38] IN ANY DIRECTION DURING OPERATION AND MUST NOT BE RIGIDLY CONNECTED TO DRAIN.
 - 7 IT IS NECESSARY TO PUT A 1 [25] THICK BED OF GROUT BENEATH THIS MACHINE TO INSURE THE STAFF-GUARD BRAKE ASSEMBLY WILL NOT HIT THE FLOOR.
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42044SP2/SP3 SM OPTIONS

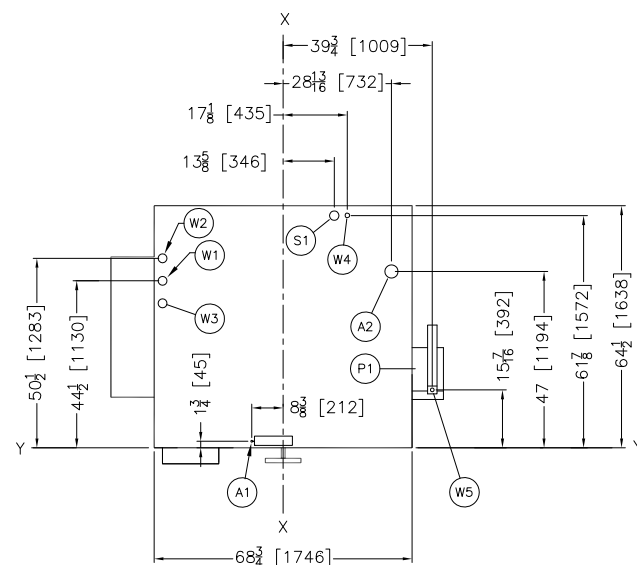
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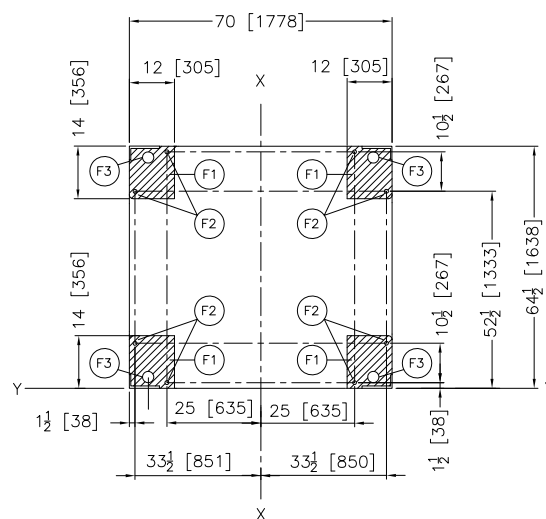
MILNOR PELLERIN MILNOR CORPORATION
P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467-9591,
FAX 504/469-1849, Email: mktg@milnor.com



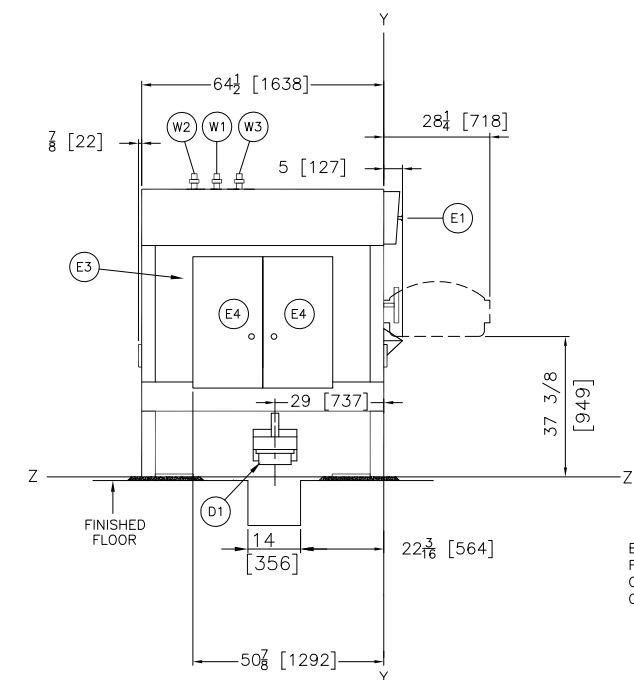
REAR VIEW



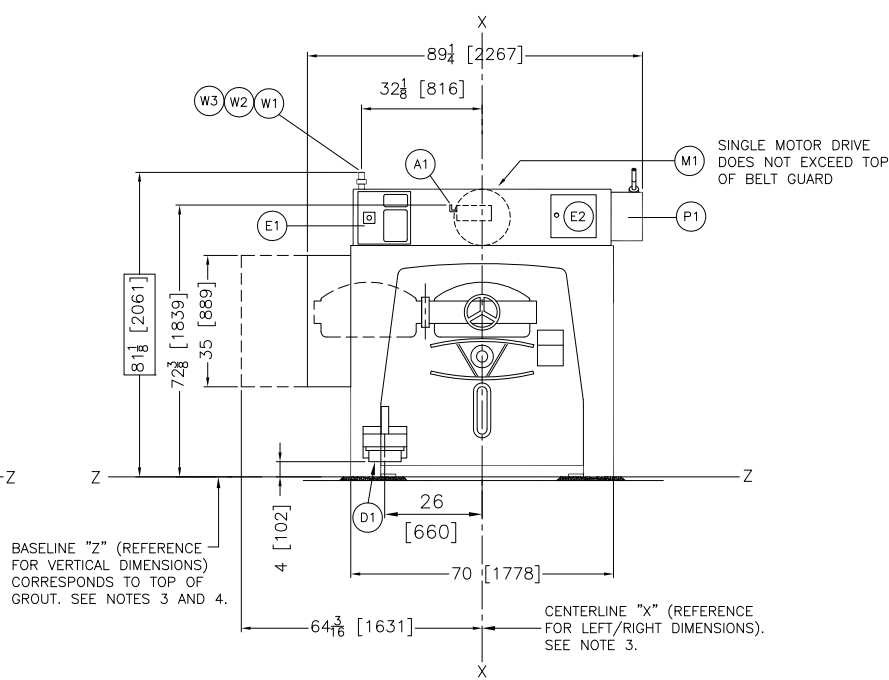
PLAN VIEW



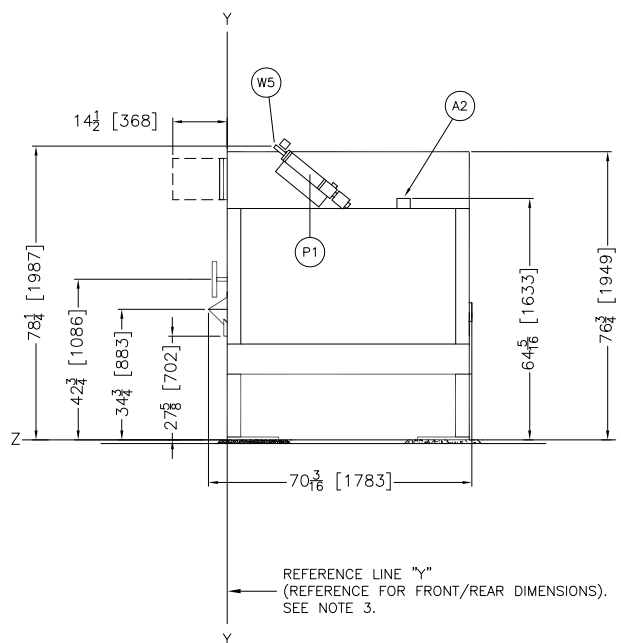
FOUNDATION PLAN VIEW



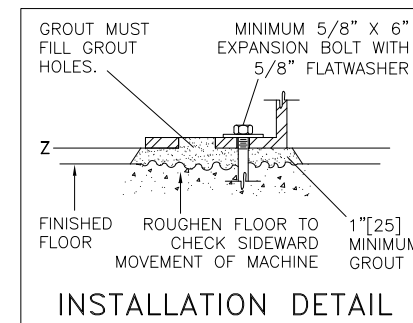
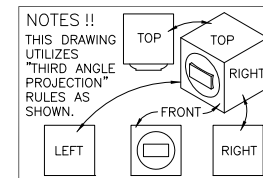
LEFT VIEW



FRONT VIEW



RIGHT VIEW



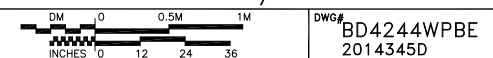
W5	HOT WATER FOR FLUSHING PERISTALTIC, 1/2" NPT.
W4	INDEPENDANT COOLDOWN WATER INLET, 3/4" NPT
W3	OPTIONAL THIRD WATER INLET CONNECTION, 1 1/2" NPT.
W2	COLD WATER INLET CONNECTION, 1 1/2" NPT.
W1	HOT WATER INLET CONNECTION, 1 1/2" NPT.
S1	STEAM INLET CONNECTION, 1 1/4" NPT
M1	SINGLE MOTOR DRIVE
P1	PERISTALTIC SUPPLY CONNECTION, MAXIMUM 15 PORTS, 1/2" NPT CONNECTIONS
F3	GROUT HOLES, 3" DIAMETER, 1 PER PAD.
F2	(8) 1-1/16" DIAMETER ANCHOR BOLTS HOLES, ANCHOR (1) BOLT PER PAD MINIMUM. 5/8" X 6" BOLTS MINIMUM.
F1	FOUNDATION BASE PADS, 4 PLACES.
E4	ELECTRICAL CONTROL BOX
E3	MAIN ELECTRICAL CONNECTION
E2	MICROPROCESSOR CONTROL BOX
E1	MICROPROCESSOR CONTROL PANEL
D1	DRAIN VALVE, 8" DIAMETER.
A2	VENT, 3 1/2" DIAMETER.
A1	COMPRESSED AIR INLET CONNECTION, 1/4" NPT.
ITEM	LEGEND

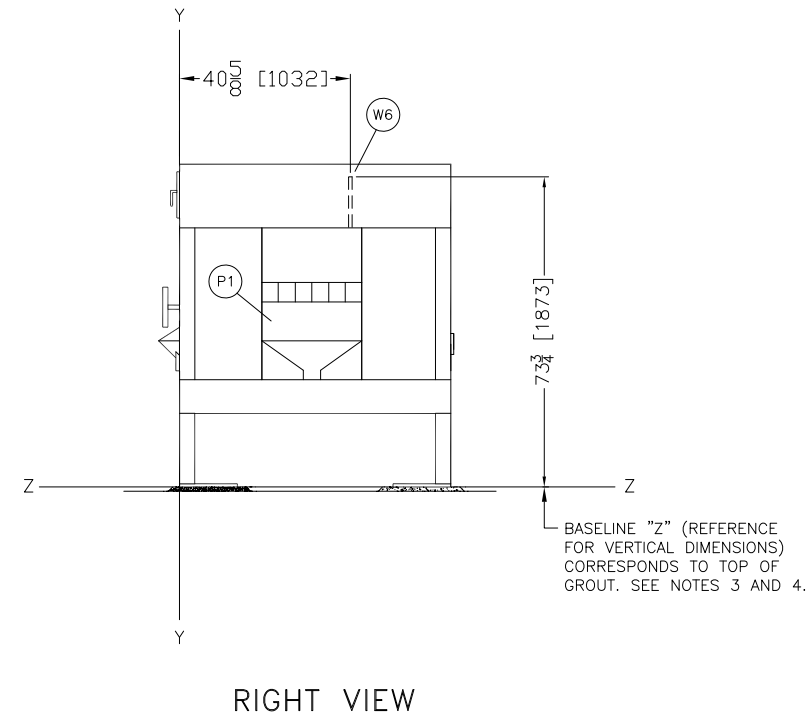
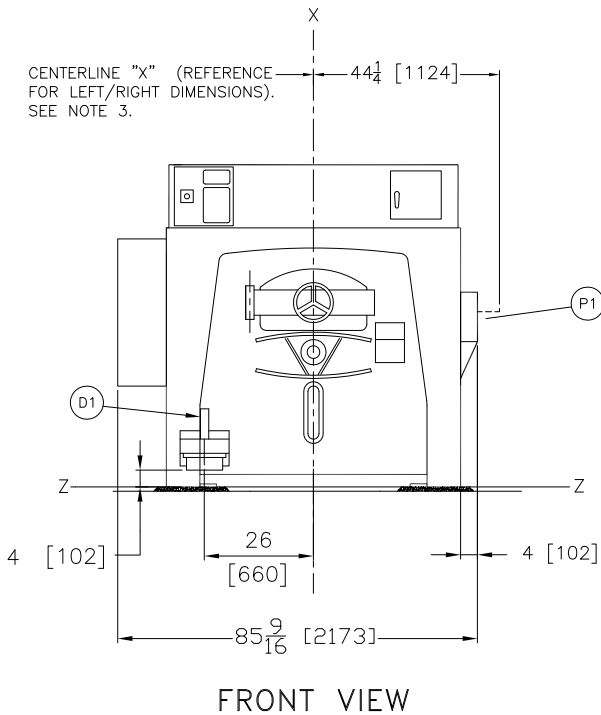
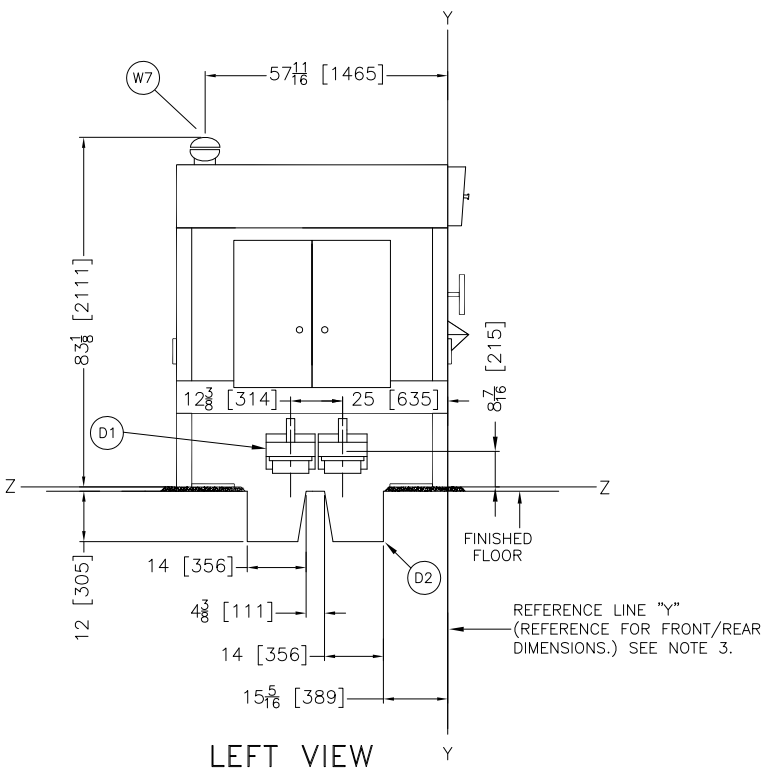
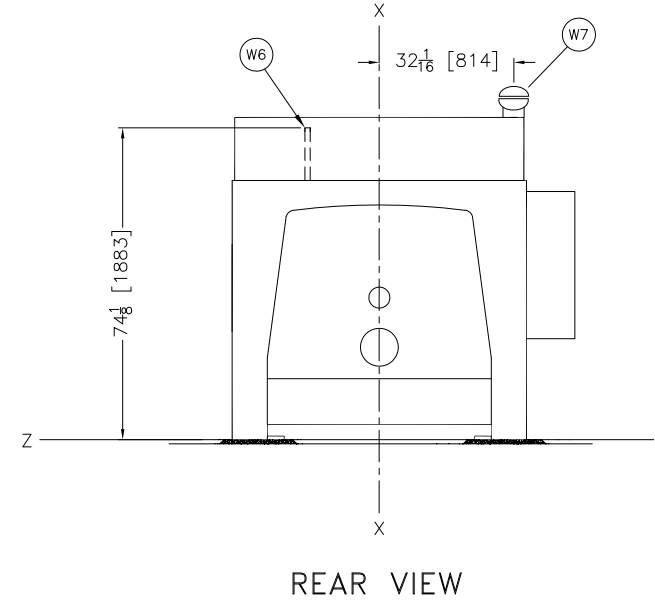
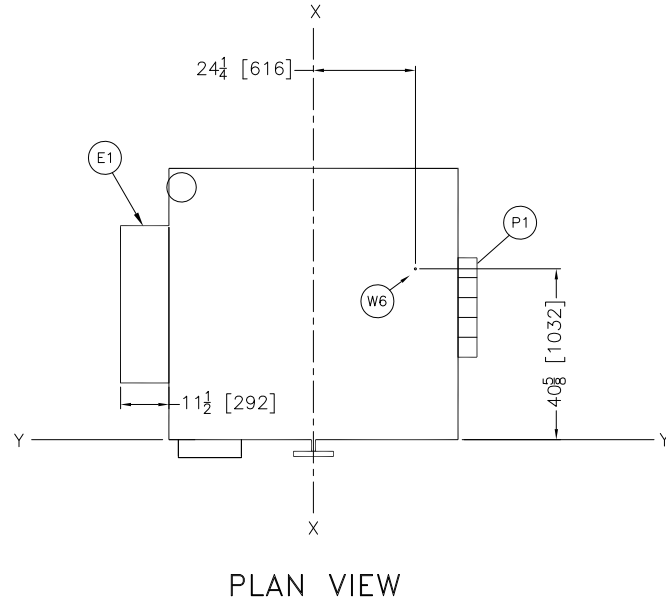
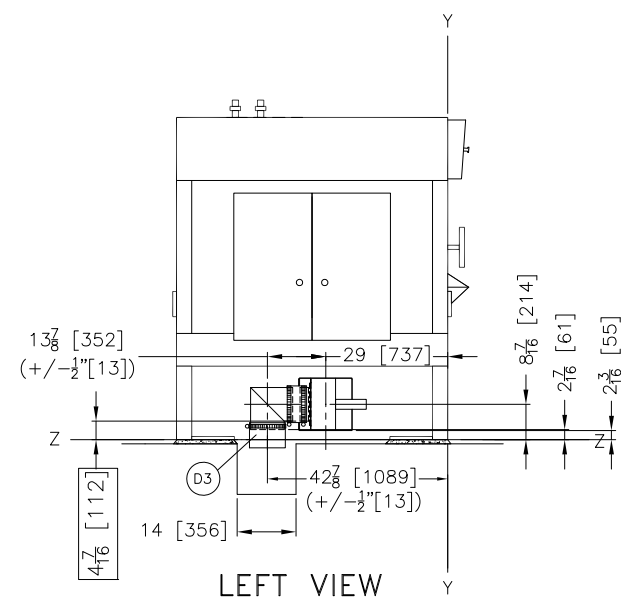
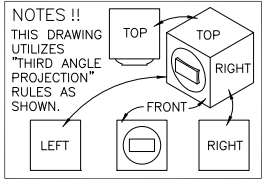
NOTES	
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42044WP2/3 SM



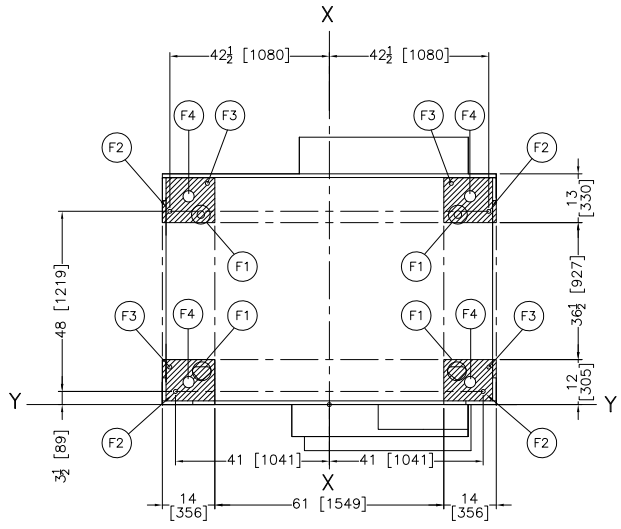
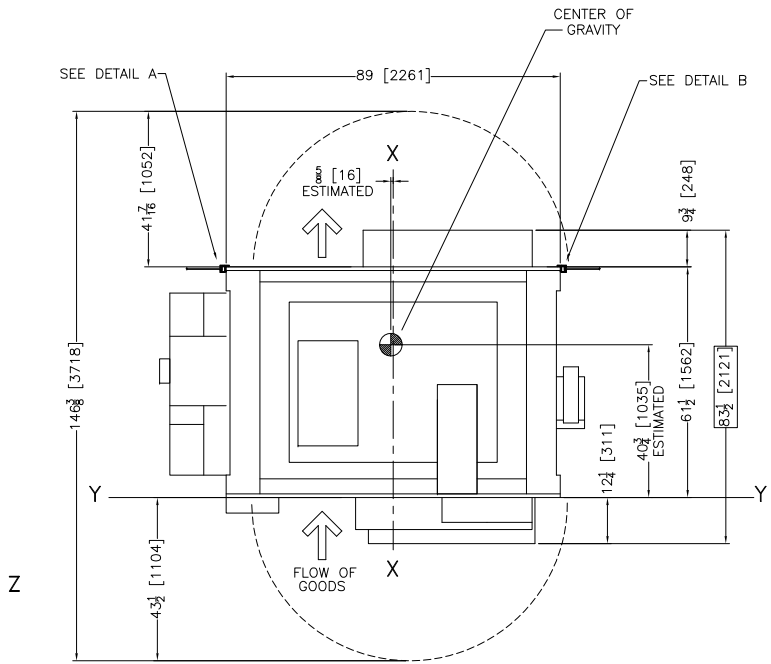
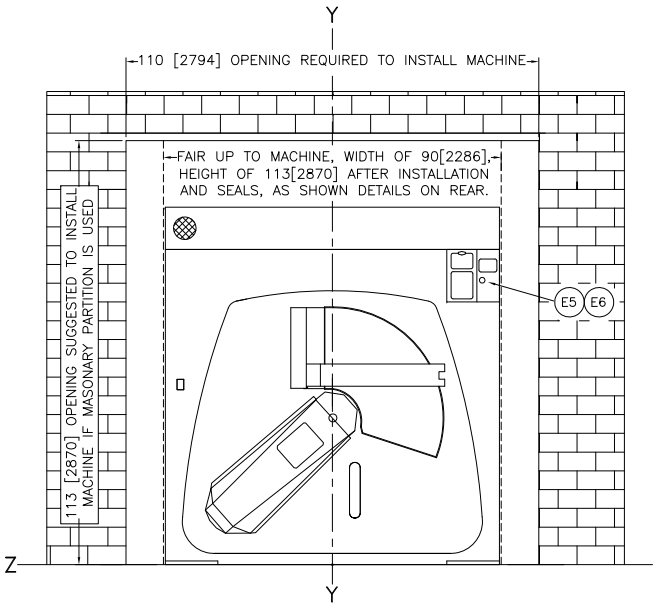
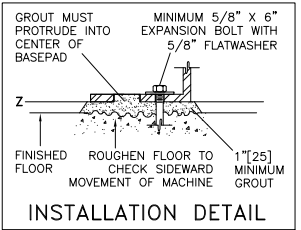
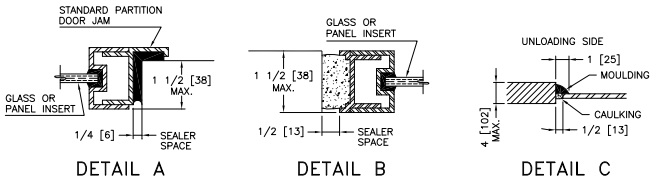
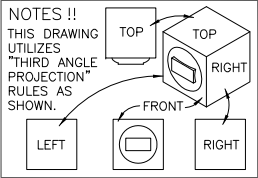


W7	OPTIONAL SIPHON BREAKER
W6	HOT WATER FOR FLUSHING OPTIONAL SUPPLY INJECTOR
	1/2"NPT
P1	OPTIONAL 5 COMPARTMENT SUPPLY
D3	SINGLE DRAIN ROTATED 90 DEGREES TO REAR, 8" DIAMETER (6" LENGTH OF 8" DIAMETER HOSE SUPPLIED)
D2	DUAL DRAIN TROUGH
D1	DRAIN VALVE, 8" DIAMETER.
ITEM	LEGEND

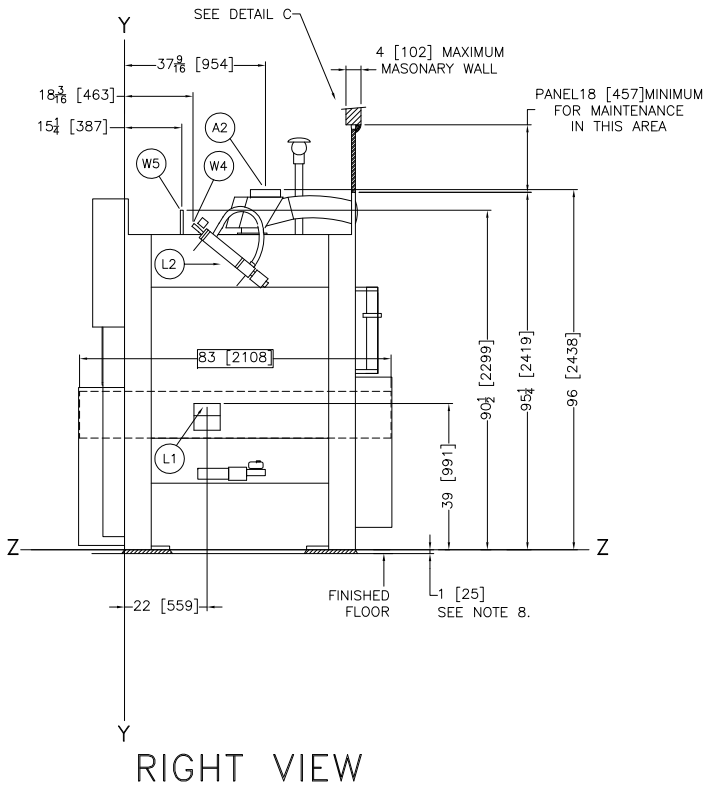
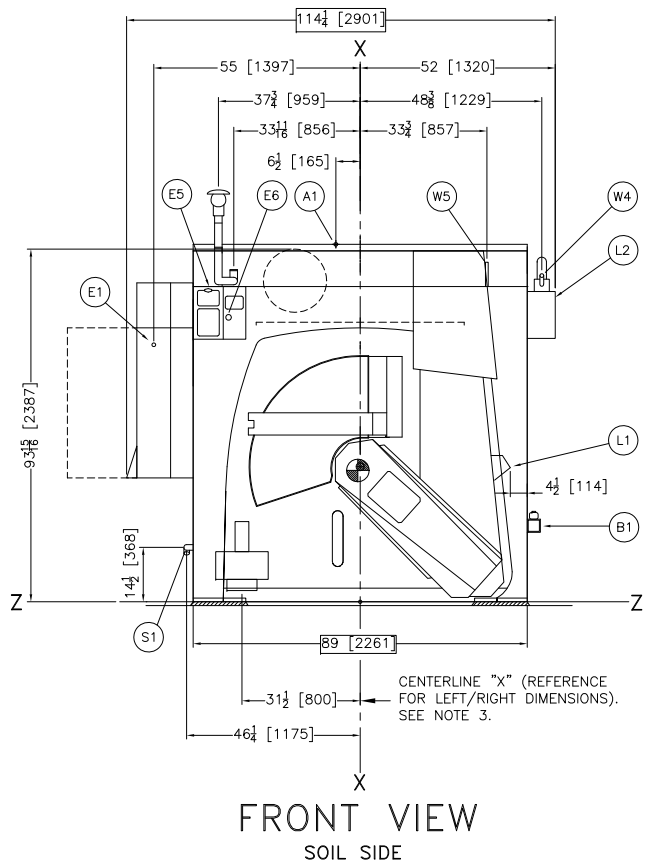
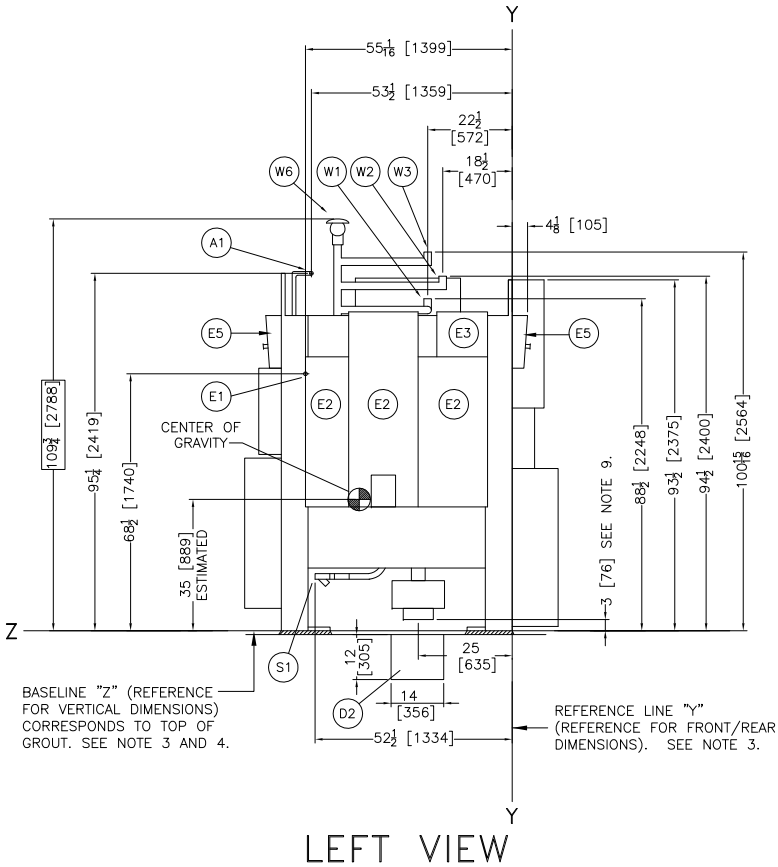
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42044WP2/3 SM OPTIONS





W6	OPTIONAL VACUUM BREAKER
W5	COOL DOWN INLET 1 1/4" NPT
W4	HOT WATER INLET FOR PERISTALTIC 1/2" NPT
W3	THIRD WATER INLET CONNECTION 2" NPT
W2	COLD WATER INLET CONNECTION 2" NPT
W1	HOT WATER INLET CONNECTION 2" NPT
S1	1 1/4" NPT STEAM CONNECTION
L2	PERISTALTIC SUPPLY
L1	SOAP CHUTE
F4	GROUT HOLES
F3	1 1/16" DIAMETER ALTERNATE ANCHOR BOLT HOLES, IF (F2) IS INACCESSIBLE
F2	1 1/16" DIAMETER ANCHOR BOLT HOLES, USE MINIMUM 5/8" X 6" BOLTS MINIMUM. (1) BOLT PER PAD MINIMUM.
F1	FOUNDATION BASE PADS, 4 PLACES
E6	EMERGENCY STOP
E5	MICROPROCESSOR CONTROL PANEL
E3	MICROPROCESSOR BOX
E2	HIGH VOLTAGE CONTROL BOXES
E1	MAIN ELECTRICAL CONNECTION
D2	SINGLE DRAIN TROUGH
D1	DRAIN 8" DIAMETER DRAIN VALVE
B1	BRAKE AIR CYLINDER
A2	STAPHAIRTROL
A1	COMPRESSED AIR INLET 1/4" NPT
ITEM	LEGEND



NOTES

11 SHIM TO LEVEL THE MACHINE AND ALLOW FOR 1" [25] MINIMUM GROUT. ANCHOR WITH ONE ANCHOR BOLT PER PAD, MINIMUM USE 5/8" X 6" BOLTS, MINIMUM. SEE INSTALLATION MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS.

10 "STEAM HAMMER", CAUSED BY WET STEAM OR CONDENSATION, MAY BE PREVENTED BY INSTALLING A TRAP IMMEDIATELY BEFORE THE STEAM VALVE.

9 DRAIN VALVE MAY MOVE $\pm 1-1/2$ [38] IN ANY DIRECTION DURING OPERATION AND MUST NOT BE RIGIDLY CONNECTED TO DRAIN.

8 SHADED AREA ARE BASE PLATES WHICH MUST BE CONTINUOUSLY SUPPORTED ON 1" [25] THICK GROUT. ALSO, THIS 1" [25] OF GROUT IS NECESSARY TO INSURE THE STAPH GUARD BRAKE WILL NOT HIT THE FLOOR.

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 (i.e. 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 TRAVELING 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.

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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

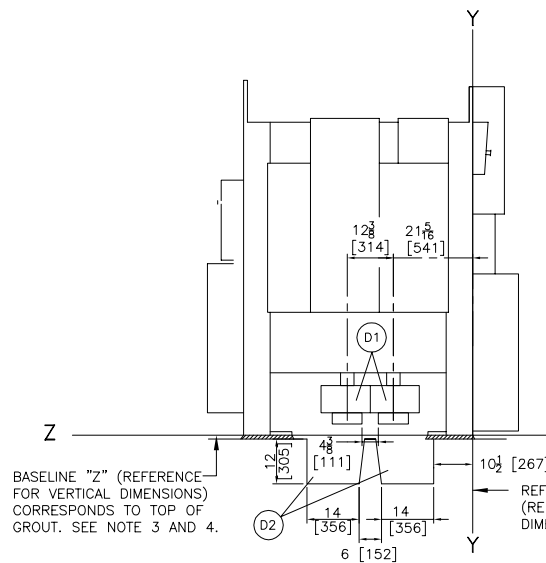
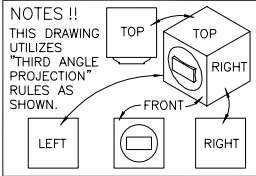
THE FLOOR AND/OR OTHER SUPPORT COMPONENTS MUST HAVE SUFFICIENT STRENGTH (AND RIGIDITY WITH DUE CONSIDERATION FOR NATURAL OR RESONANT FREQUENCY THEREOF) TO WITHSTAND THE FULLY LOADED WEIGHT OF THE MACHINE INCLUDING THE GOODS, THE WATER, AND ANY REPEATED SINUSOIDAL (ROTATING) FORCES GENERATED DURING ITS OPERATION. WRITE THE FACTORY FOR ADDITIONAL MACHINE DATA FOR USE BY A COMPETENT SOIL AND/OR STRUCTURAL ENGINEER.

6044SP2/SP3 SM

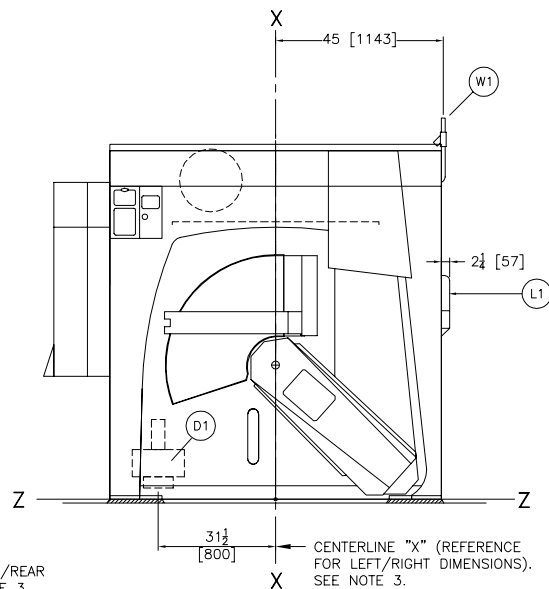
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2011023D

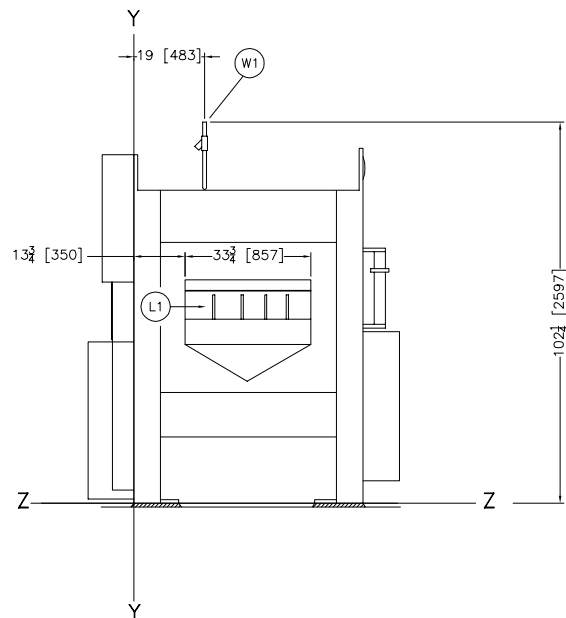
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FAX 504/469-1849, Email: mktg@milnor.com



LEFT VIEW



FRONT VIEW
SOIL SIDE



RIGHT VIEW

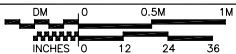
W1	1" NPT HOT WATER INLET FOR 5 COMPARTMENT SUPPLY
L1	OPTIONAL 5 COMPARTMENT SUPPLY
D2	DUAL DRAIN TROUGH
D1	DUAL DRAIN VALVES 8" DIAMETER
ITEM	LEGEND

- NOTES**
- THE FRONTMOST DRAIN VALVE IS TO SEWER, THE REARWARD VALVE IS TO REUSE. THIS CAN BE REVERSED BY SWITCHING DRAIN VALVE AIR CONNECTIONS. DO NOT CHANGE THE ELECTRICAL CONNECTIONS.
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ATTENTION
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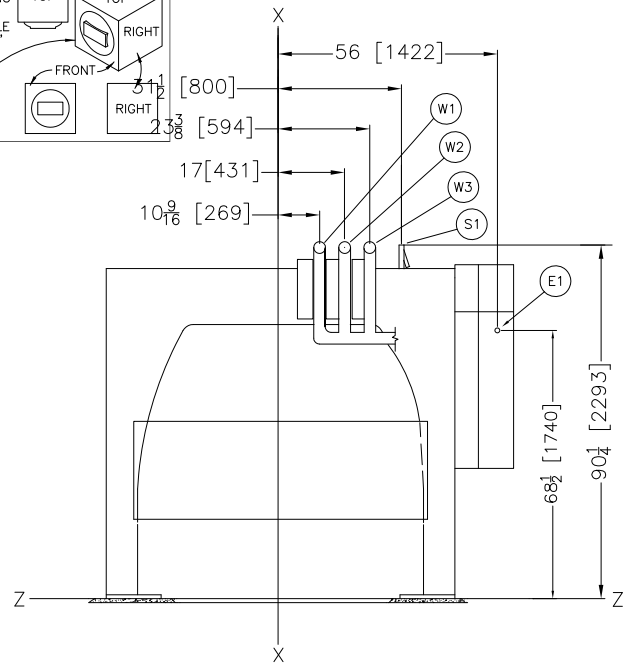
OPTIONS 6044SP2/SP3 SM



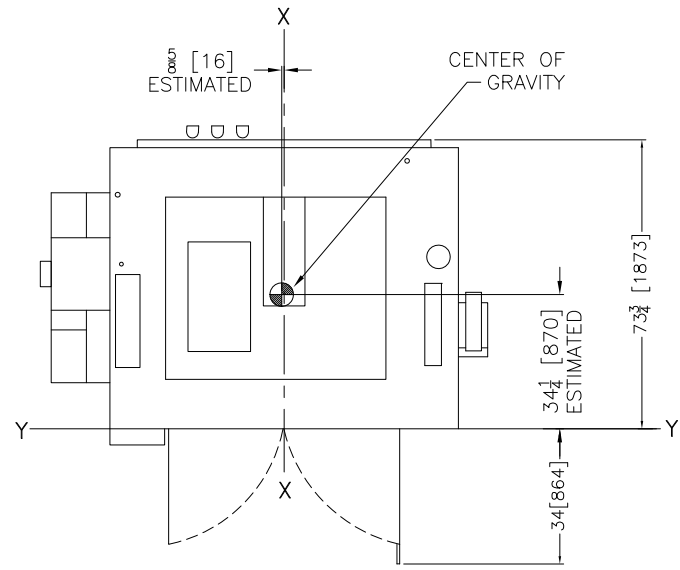
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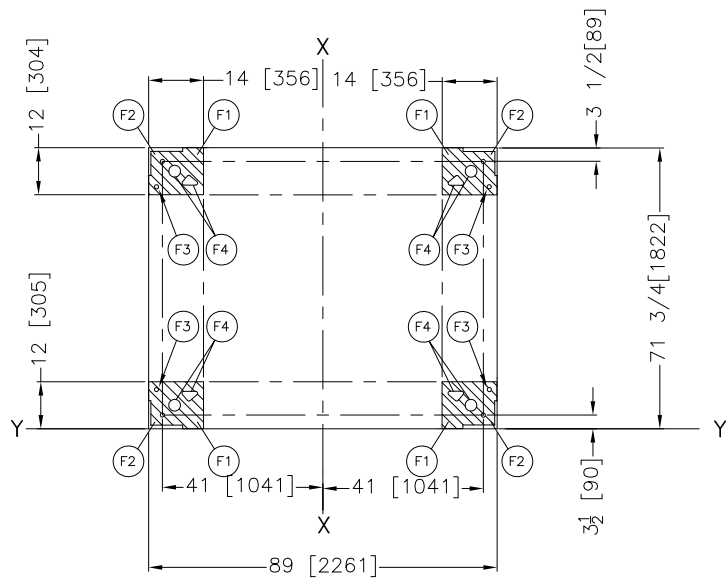
NOTES !!
THIS DRAWING UTILIZES "THIRD ANGLE PROJECTION" RULES AS SHOWN.



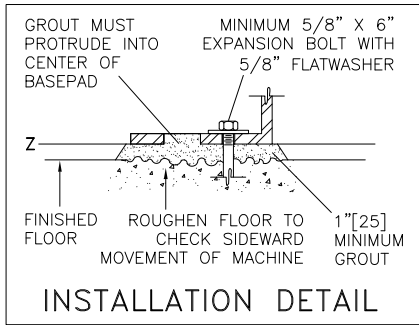
REAR VIEW



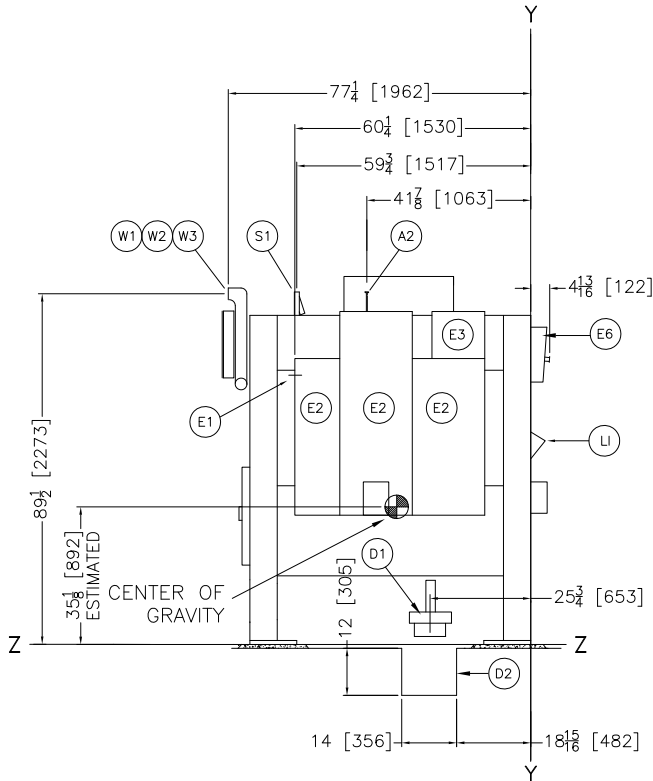
PLAN VIEW



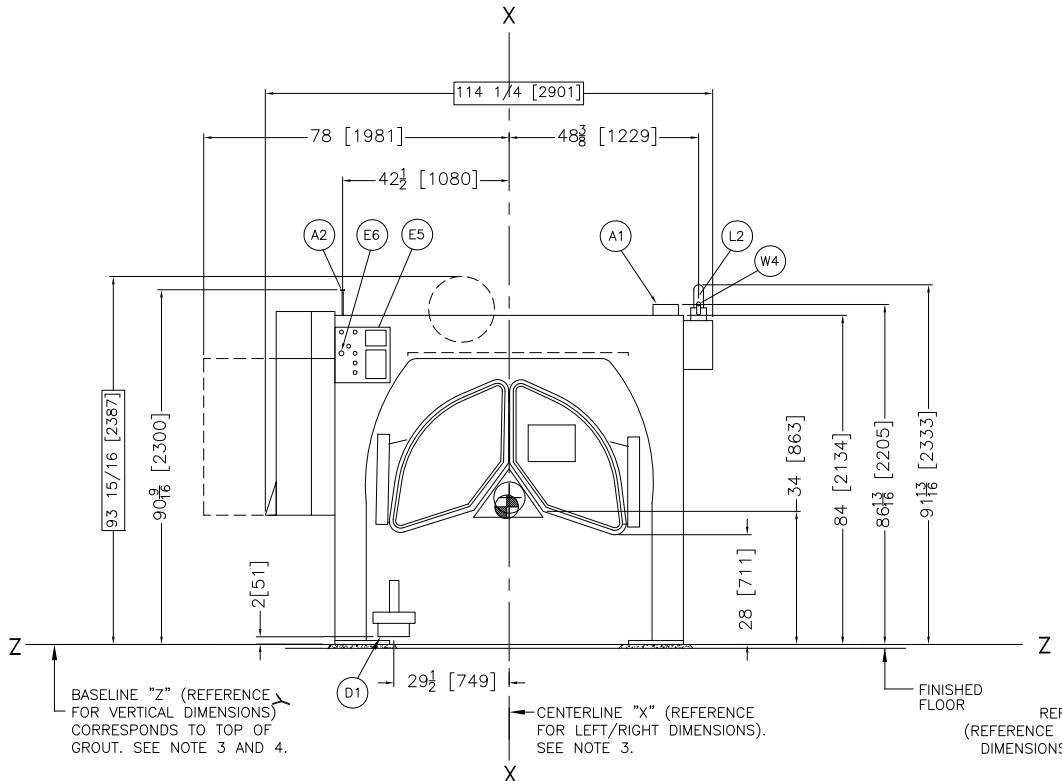
FOUNDATION
PLAN VIEW



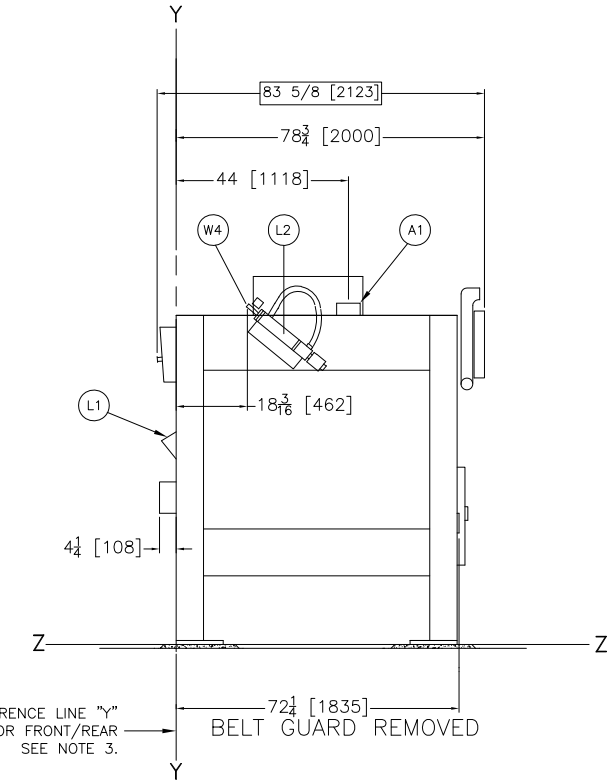
W4	1/2" NPT HOT WATER INLET FOR PERISTALTIC
W3	HOT WATER INLET CONNECTION 2" NPT
W2	COLD WATER INLET CONNECTION 2" NPT
W1	THIRD WATER INLET CONNECTION 2" NPT
S1	1 1/4" NPT STEAM CONNECTION
L2	OPTIONAL PERISTALTIC SUPPLY CONNECTION
L1	SOAP CHUTE
F4	GROUT HOLES
F3	1 1/16" DIAMETER ALTERNATE ANCHOR BOLT HOLES, IF (F2) IS INACCESSIBLE
F2	1 1/16" DIAMETER ANCHOR BOLT HOLES, USE MINIMUM 5/8" X 6" BOLTS MINIMUM. (1) BOLT PER PAD MINIMUM.
F1	FOUNDATION BASE PADS, 4 PLACES
E6	EMERGENCY STOP
E5	MICROPROCESSOR CONTROL PANEL
E3	MICROPROCESSOR BOX
E2	HIGH VOLTAGE CONTROL BOXES
E1	MAIN ELECTRICAL CONNECTION
D2	SINGLE DRAIN TROUGH
D1	DRAIN 8" DIAMETER DRAIN VALVE
A2	COMPRESSED AIR INLET 1/4" NPT
A1	VENT 6" DIAMETER
ITEM	LEGEND



LEFT VIEW



FRONT VIEW



RIGHT VIEW

NOTES

12 SHIM TO LEVEL THE MACHINE AND ALLOW FOR 1" [25] MINIMUM GROUT. ANCHOR WITH ONE ANCHOR BOLT PER PAD, MINIMUM. USE 5/8" X 6" BOLTS, MINIMUM. SEE INSTALLATION MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS.

11 "STEAM HAMMER", CAUSED BY WET STEAM OR CONDENSATION, MAY BE PREVENTED BY INSTALLING A "TRAP" IMMEDIATELY BEFORE THE STEAM VALVE.

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

9 DRAIN VALVE MAY MOVE ± 3 [76] IN ANY DIRECTION DURING OPERATION AND MUST NOT BE RIGIDLY CONNECTED TO DRAIN.

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ATTENTION

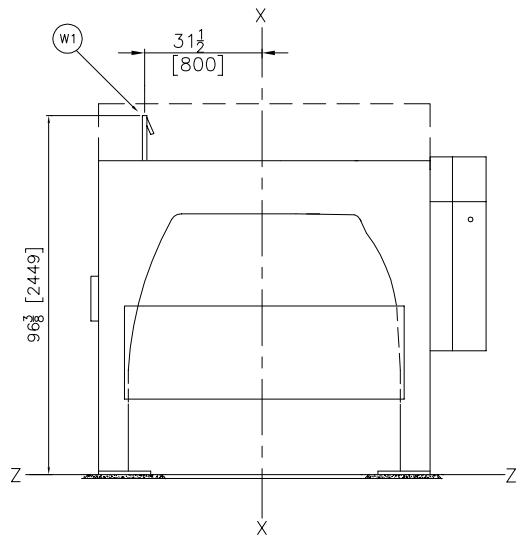
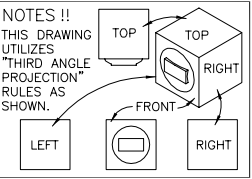
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60044WP2 SM

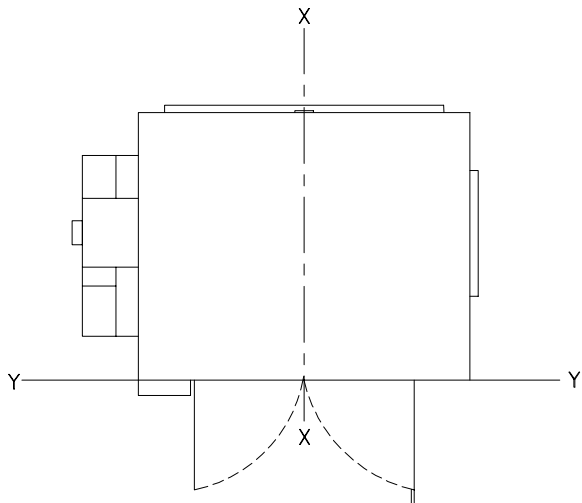
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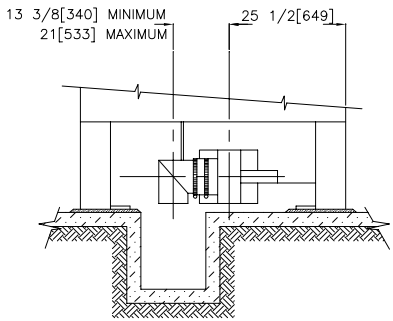
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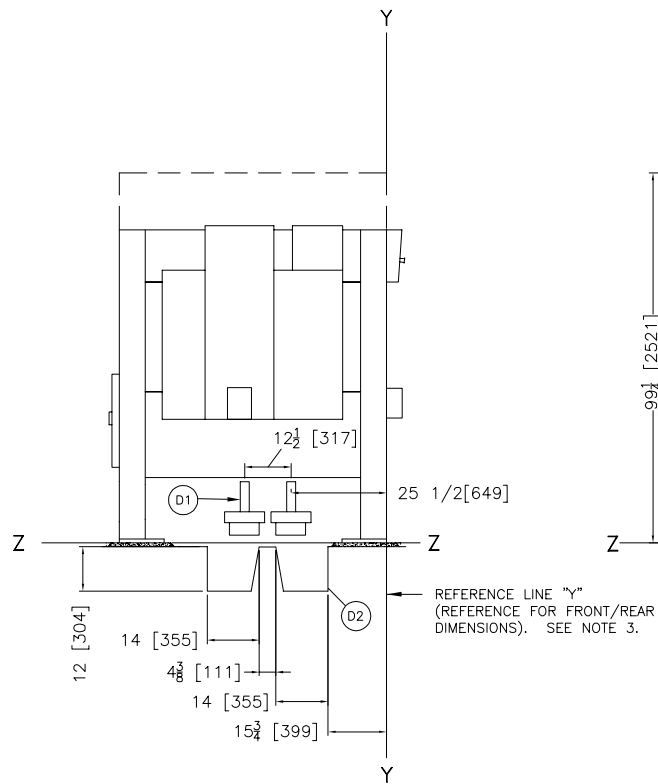
REAR VIEW



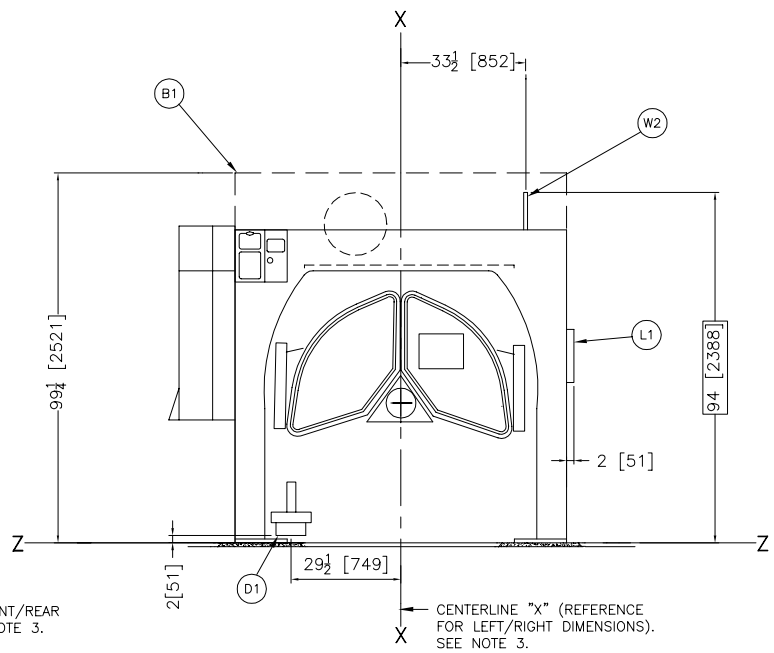
PLAN VIEW



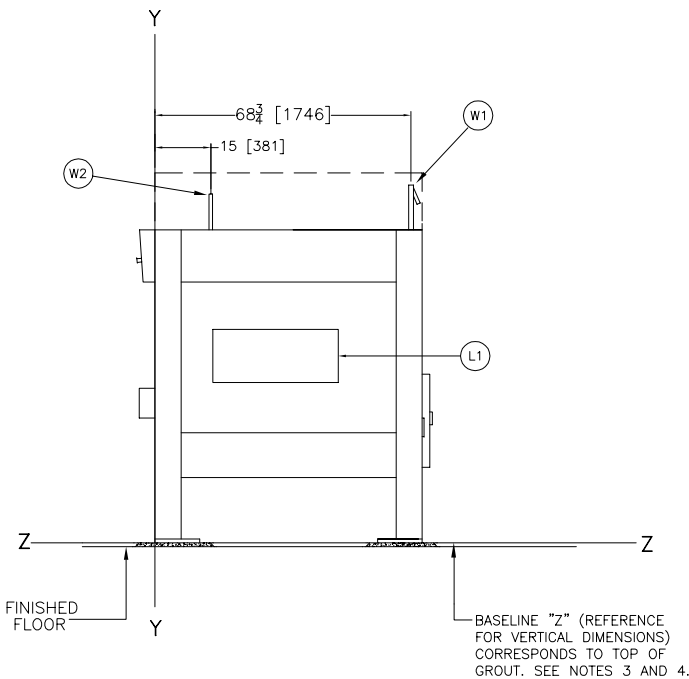
DRAIN VALVE ALTERNATE
90 DEGREE POSITION



LEFT VIEW



FRONT VIEW



RIGHT VIEW

W2	HOT WATER CONNECTION FOR SUPPLY INJECTOR 1" NPT
W1	OPTIONAL INDEPENDANT COOLDOWN INLET 1 1/4" NPT
L1	FIVE COMPARTMENT SUPPLY
D2	DUAL DRAIN TROUGH
D1	DUAL DRAIN (2)- 8" DIAMETER DRAIN VALVES
B1	OPTIONAL UPPER BELT GUARD
ITEM	LEGEND

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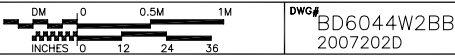
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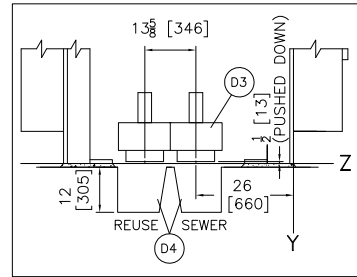
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60044WP2 SM OPTIONS

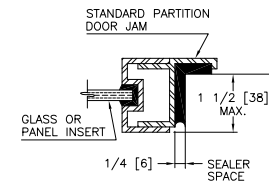


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2007202D

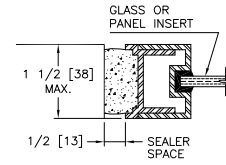
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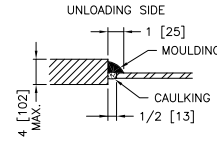
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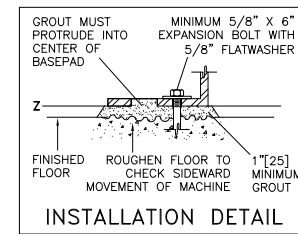
DETAIL A



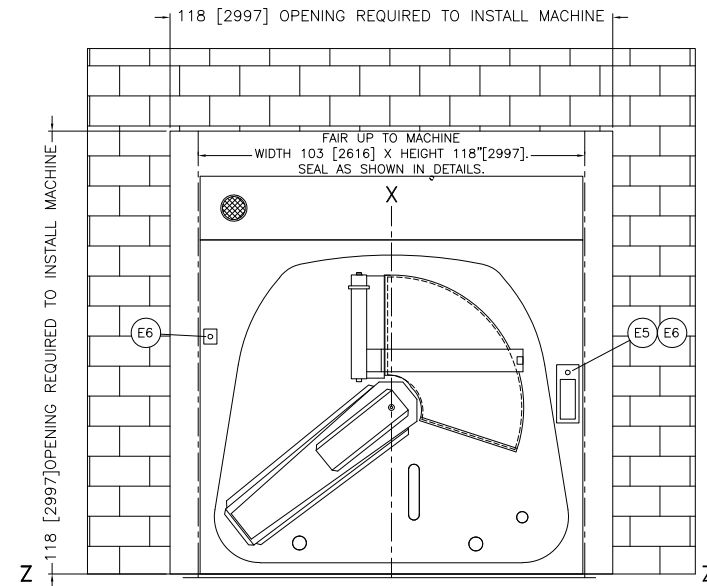
DETAIL B



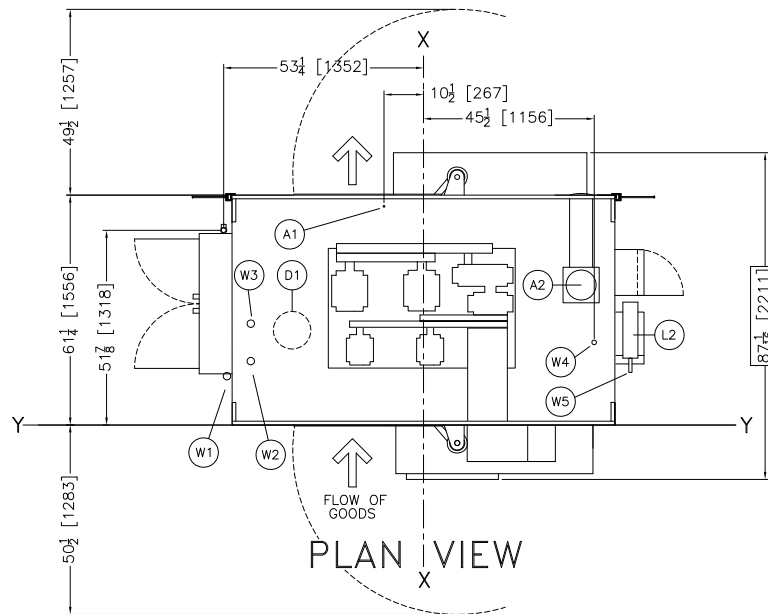
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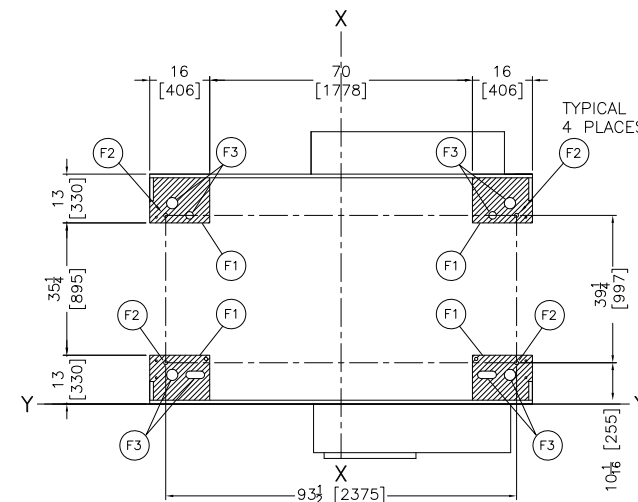
INSTALLATION DETAIL



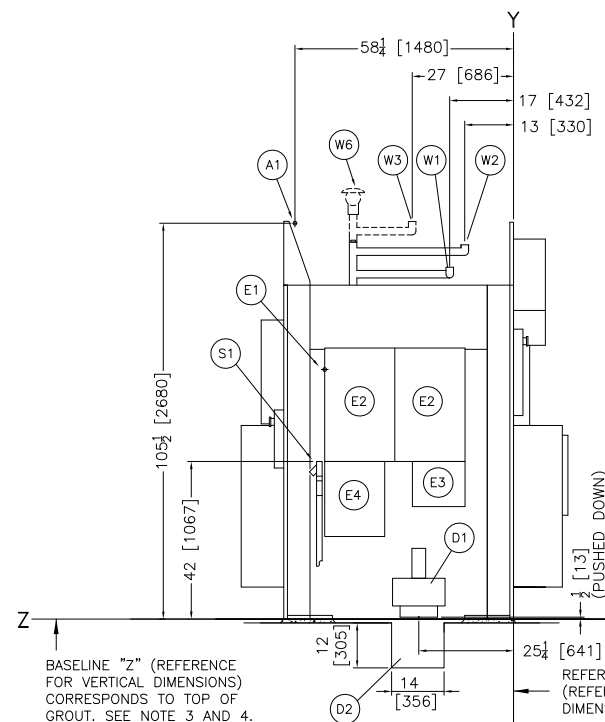
REAR VIEW
CLEAN SIDE



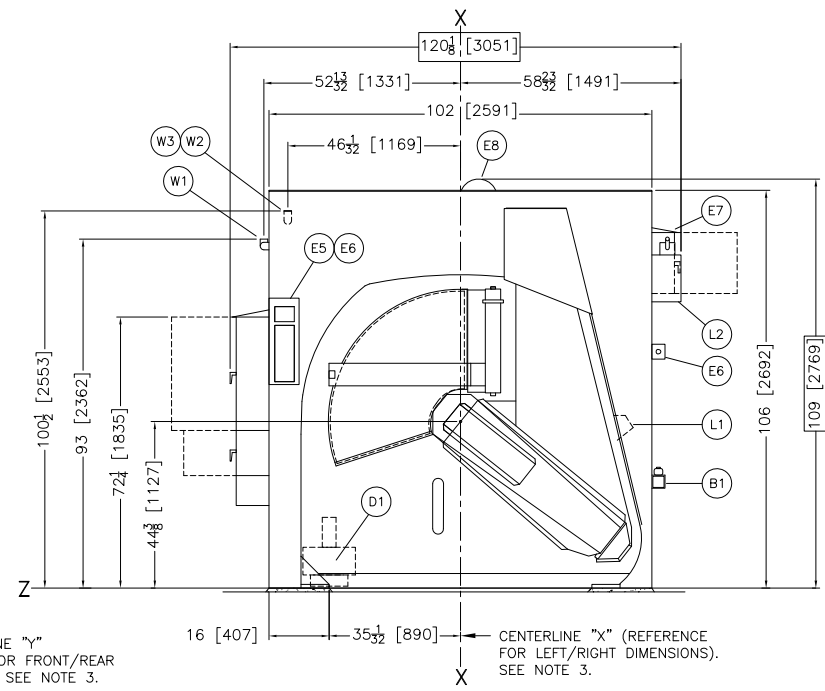
PLAN VIEW



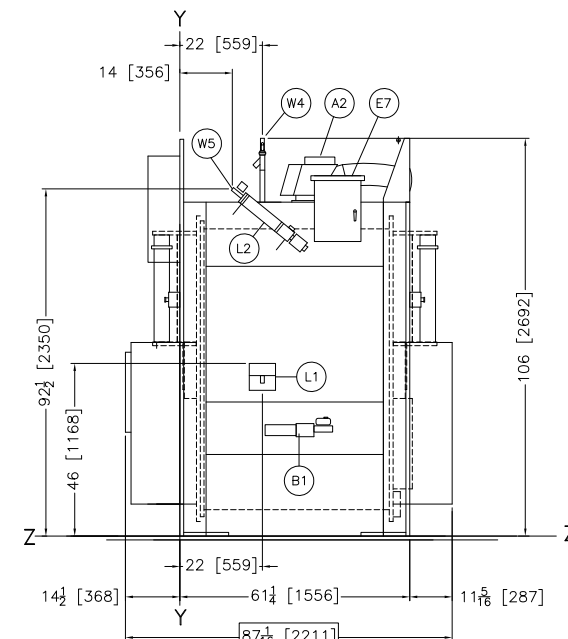
FOUNDATION
PLAN VIEW



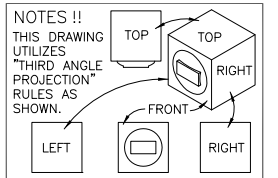
LEFT VIEW



FRONT VIEW
SOIL SIDE



RIGHT VIEW



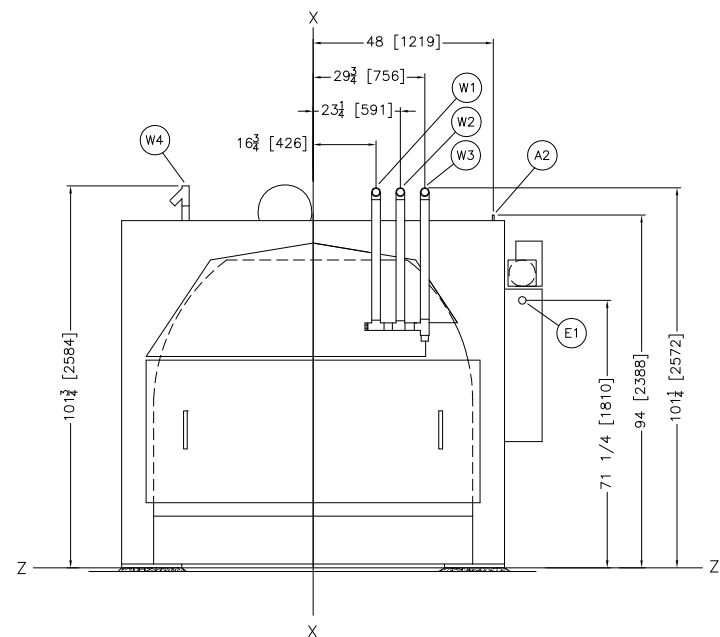
W6	OPTIONAL VACUUM BREAKER
W5	HOT WATER INLET FOR PERISTALTIC 1/2" NPT
W4	COOLDOWN INLET 1" NPT CONNECTION
W3	THIRD WATER INLET CONNECTION 2" NPT, OPTIONAL
W2	COLD WATER INLET CONNECTION 2" NPT
W1	HOT WATER INLET CONNECTION 2" NPT
S1	STEAM CONNECTION 1 1/4" NPT
L2	PERISTALTIC SUPPLY
L1	SOAP CHUTE
F3	GROUT HOLES
F2	1 1/16" DIAMETER ANCHOR BOLT HOLES, USE 5/8" x 6"
	BOLTS MINIMUM. (1) BOLT PER PAD MINIMUM.
F1	FOUNDATION BASE PADS, 4 PLACES
E8	AUTOSPOT MOTOR
E7	INTERPRET RELAY BOX
E6	EMERGENCY STOP
E5	MICROPROCESSOR CONTROL PANEL
E4	AUTOSPOT BOX
E3	MICROPROCESSOR BOX
E2	HIGH VOLTAGE CONTROL BOXES
E1	MAIN ELECTRICAL CONNECTION
D2	OPTIONAL DUAL DRAIN TROUGHS
D3	OPTIONAL DUAL DRAINS, 10" DIAMETER
D2	SINGLE DRAIN TROUGH
D1	STANDARD DRAIN, 10" DIAMETER
B1	BRAKE AIR CYLINDER
A2	STAPHAIRTROL, VENT 8"[203]
A1	COMPRESSED AIR INLET 1/4" NPT
ITEM	LEGEND

NOTES	
10	SHIM TO LEVEL THE MACHINE AND ALLOW FOR 1" [25] MINIMUM GROUT. ANCHOR WITH ONE ANCHOR BOLT PER PAD, MINIMUM. USE 5/8" X 6" BOLTS, MINIMUM. SEE INSTALLATION MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS.
9	"STEAM HAMMER", CAUSED BY WET STEAM OR CONDENSATION, MAY BE PREVENTED BY INSTALLING A TRAP IMMEDIATELY BEFORE THE STEAM VALVE.
8	DRAIN VALVE MAY MOVE ± 1-1/2 [38] IN ANY DIRECTION DURING OPERATION AND MUST NOT BE RIGIDLY CONNECTED TO DRAIN.
7	SHADED AREA ARE BASE PLATES WHICH MUST BE CONTINUOUSLY SUPPORTED ON 1"[25] THICK GROUT. ALSO, THIS 1"[25] OF GROUT IS NECESSARY TO INSURE THE STAPH GUARD BRAKE WILL NOT HIT THE FLOOR.
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.	

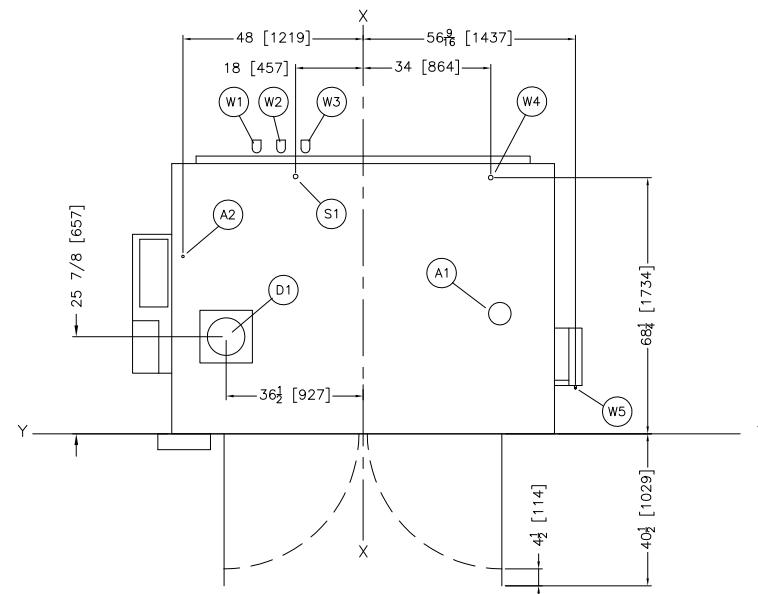
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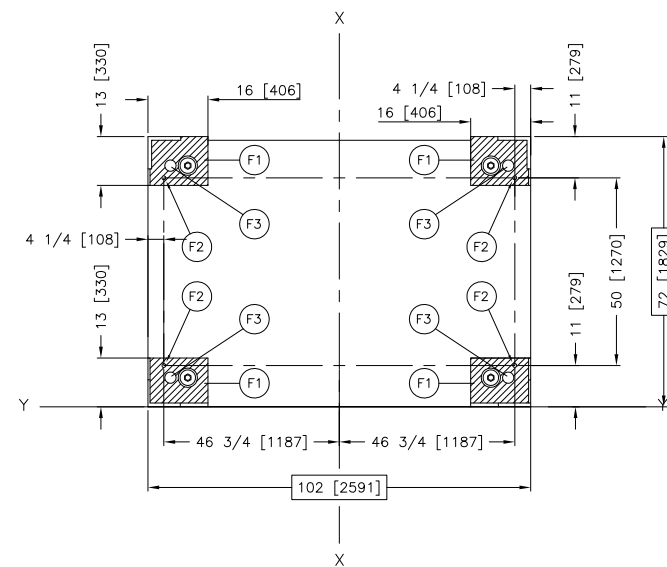
MILNOR PELLERIN MILNOR CORPORATION
P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467-9591,
FAX 504/469-1849, Email: mktg@milnor.com



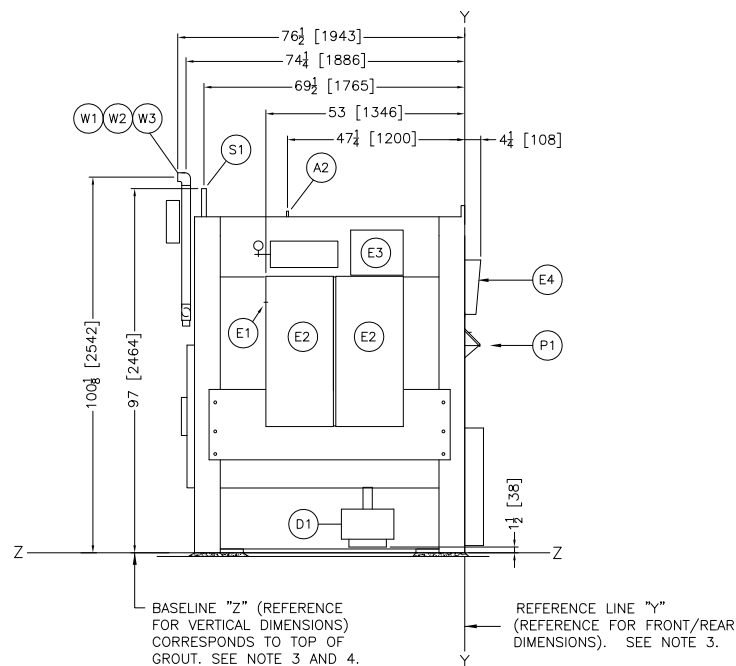
REAR VIEW



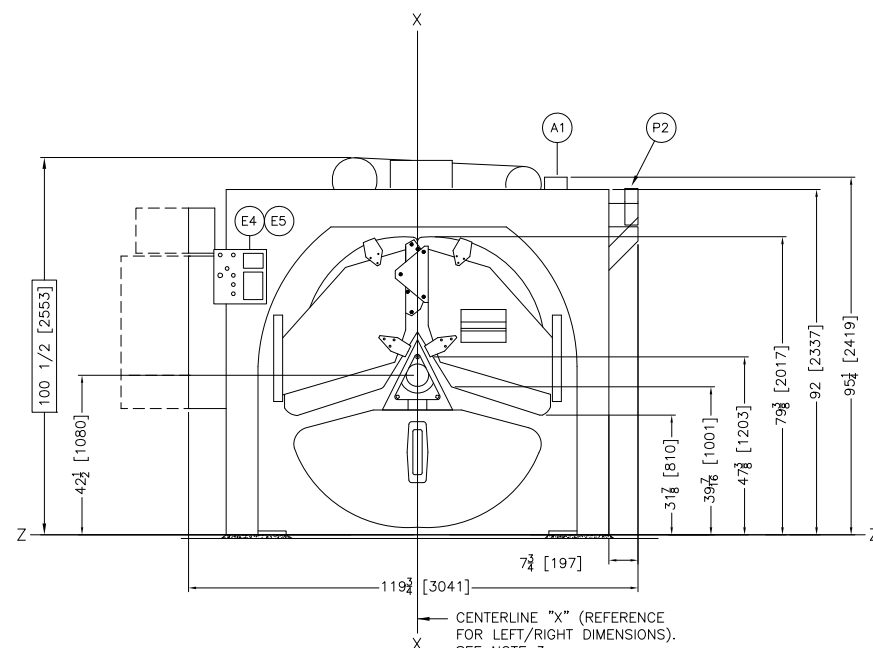
PLAN VIEW



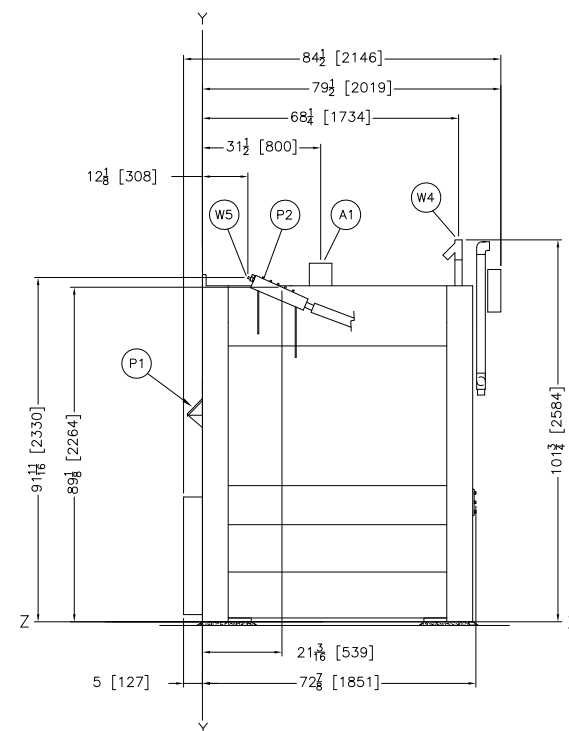
FOUNDATION PLAN VIEW



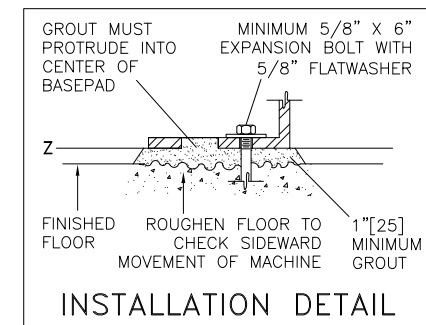
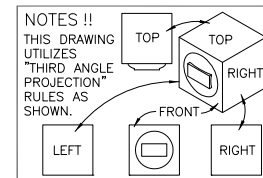
LEFT VIEW



FRONT VIEW



RIGHT VIEW



W5	INDEPENDANT COOLDOWN INLET 1-1/4" NPT
W4	HOT WATER FOR PERISTALTIC SUPPLY 1/2" NPT
W3	HOT WATER INLET CONNECTION 2" NPT
W2	COLD WATER INLET CONNECTION 2" NPT
W1	THIRD WATER INLET CONNECTION 2" NPT
S1	1-1/4" NPT STEAM SUPPLY CONNECTION
P2	PERISTALTIC SUPPLY MANIFOLD
P1	SOAP CHUTE
F3	GROUT HOLES
F2	(4) 1 1/16" DIAMETER ANCHOR BOLT HOLES, USE MINIMUM 5/8" X 6" BOLTS MINIMUM. (1) BOLT PER PAD MINIMUM.
F1	FOUNDATION BASE PADS, 4 PLACES
E5	EMERGENCY STOP BUTTON
E4	MICROPROCESSOR MKVI CONTROL PANEL
E3	MICROPROCESSOR BOX
E2	HIGH VOLTAGE CONTROL BOXES
E1	MAIN ELECTRICAL CONNECTION
D2	SINGLE DRAIN TROUGH
D1	DRAIN 10" DIAMETER DRAIN VALVE
A2	COMPRESSED AIR INLET 1/4 NPT
A1	VENT 6" DIAMETER
ITEM	LEGEND

NOTES

- "STEAM HAMMER", CAUSED BY WET STEAM OR CONDENSATION, MAY BE PREVENTED BY INSTALLING A TRAP IMMEDIATELY BEFORE THE STEAM VALVE.
- DO NOT PRE PIPE CLOSER THAN 60" [1524]
- DRAIN VALVE MAY MOVE ± 3 (76) IN ANY DIRECTION DURING OPERATION AND MUST NOT BE RIGIDLY CONNECTED TO DRAIN.
- SHADED AREAS ARE BASE PLATES WHICH MUST BE CONTINUOUSLY SUPPORTED ON 1" THICK GROUT.
- SHIM TO LEVEL THE MACHINE AND ALLOW FOR 1" [25] MINIMUM GROUT. ANCHOR WITH ONE ANCHOR BOLT PER PAD, MINIMUM. USE 5/8" X 6" BOLTS, MINIMUM. SEE INSTALLATION MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS.
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 CHECK LOCAL ELECTRIC CODES FOR FURTHER RESTRICTIONS.
- 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.
- 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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ATTENTION

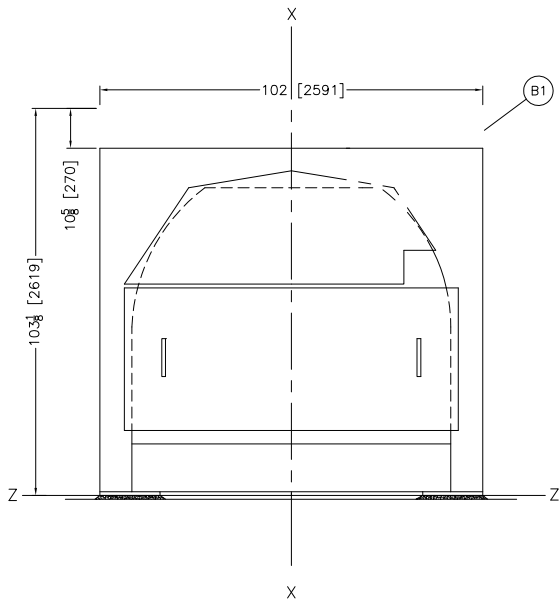
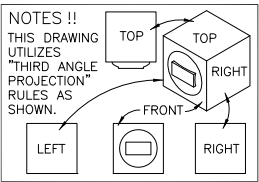
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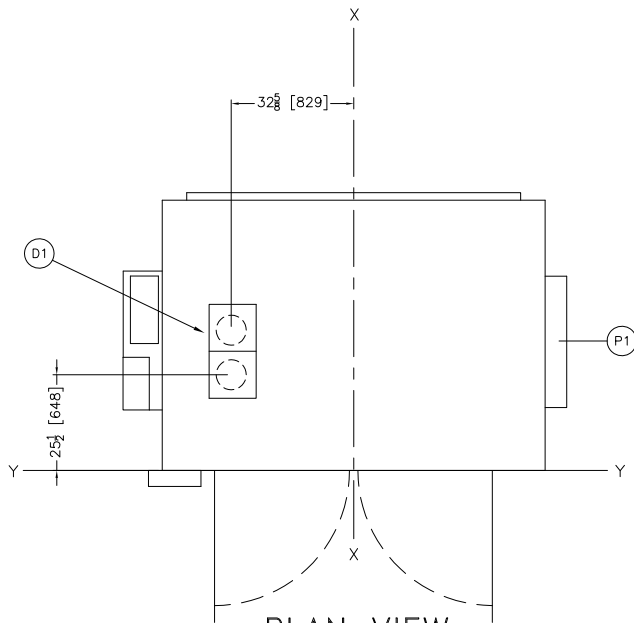
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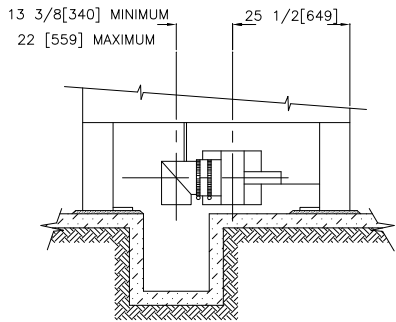




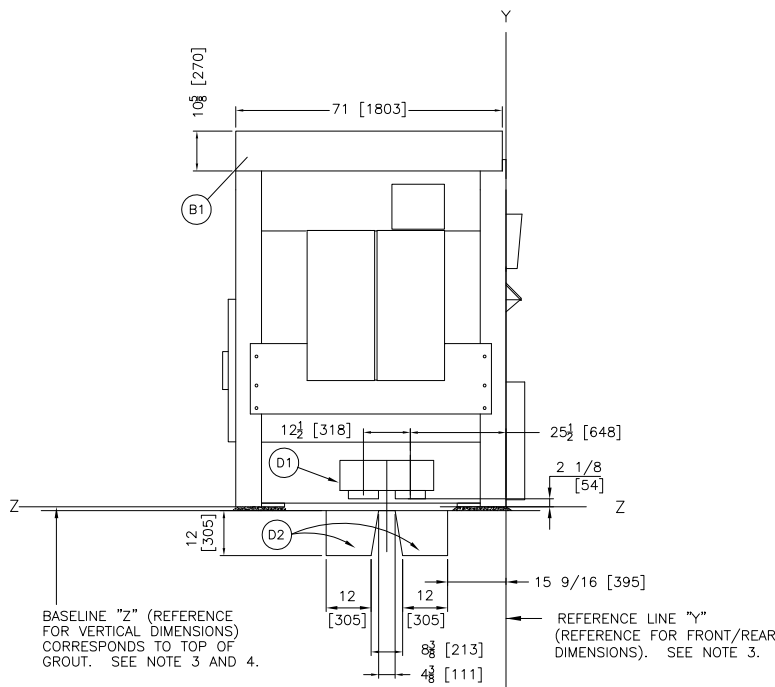
REAR VIEW



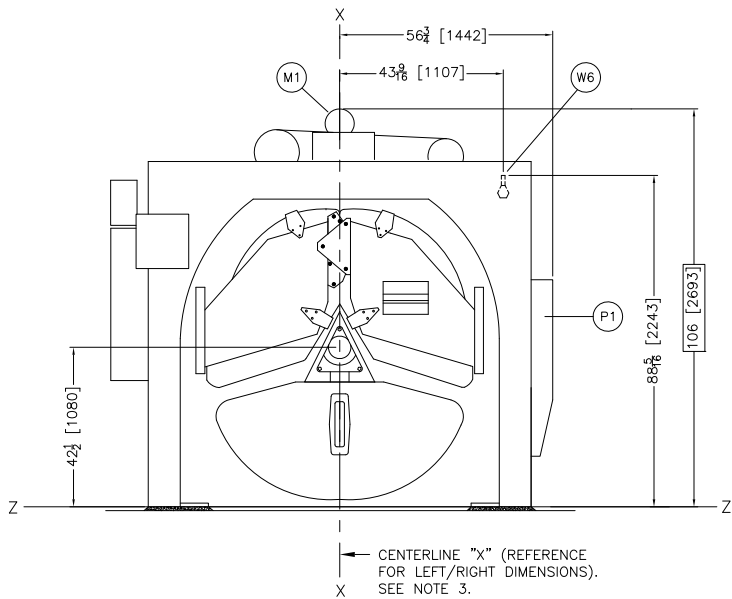
PLAN VIEW



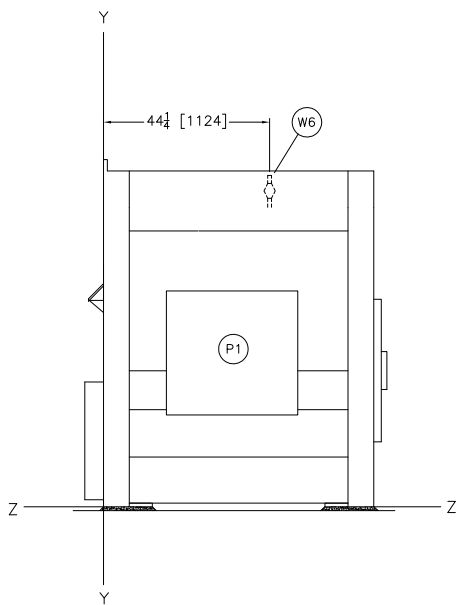
DRAIN VALVE ALTERNATE
90 DEGREE POSITION



LEFT VIEW



FRONT VIEW

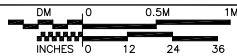


RIGHT VIEW

W6	HOT WATER FOR OPTIONAL 5 COMPARTMENT SUPPLY
	3/4" NPT
P1	5 COMPARTMENT SUPPLY
M1	OPTIONAL AUTOSPOT MOTOR
D2	DUAL DRAIN TROUGH
D1	DUAL DRAIN (2)-8" DIAMETER DRAIN VALVES
B1	OPTIONAL UPPER BELT GUARD
ITEM	LEGEND

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