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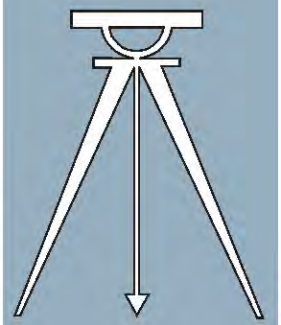
Installation

Membrane Press



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

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

Table of Contents
MPIPRESSAE/19193A

PELLERIN MILNOR CORPORATION
LIMITED STANDARD WARRANTY

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

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

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

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

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

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

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

BMP720097/19036

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

How to Get the Necessary Repair Components

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

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

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

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

To write to the Milnor factory:

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

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

— End of BIUUUD19 —

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

BIUUUS27 (Published) Book specs- Dates: 20051111 / 20051111 / 20060323 Lang: ENG01 Applic: PP2

Safety—Two Stage Membrane Press

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 and Entrap Hazards—The main bell will crush your body or limbs if it descends while you are under it. The tamper can crush or entrap you if it descends while you are under it. Bell and tamper can descend with power off or on.

- Do not reach into the machine housing or frame.
- Use the factory supplied gaff-hook to move objects inside the housing.

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: Crush Hazards—Spaces between the press and the receiving conveyor can close and crush or pinch your limbs. The sled extends to discharge goods onto the receiving conveyor (COINC) and some COINCS pivot to discharge.

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

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

4.1. Damage and Malfunction Hazards

4.1.1. Hazards Resulting from Inoperative Safety Devices

WARNING 5: 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 6: 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 7: 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.

4.1.2. Hazards Resulting from Damaged Mechanical Devices

WARNING 8: 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.

4.2. Careless Use Hazards

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

WARNING 9: Multiple Hazards—Careless operator actions can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.

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

CAUTION 10: Goods Damage and Wasted Resources—Entering incorrect cake data causes improper processing, routing, and accounting of batches.

- Understand the consequences of entering cake data.

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

WARNING 11: 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 12: 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 13: Crush Hazards—The main bell will crush your body or limbs if it descends while you are under it. The tamper can crush or entrap you if it descends while you are under it. Bell and tamper can descend with power off or on.

- Secure both red safety stands in accordance with the instructions furnished, then lock out

and tag out power at the main machine disconnect before working under the bell.

- Shut off air pressure to the tamper and brace it with wood blocking if you must work with any part of your body under the tamper.

— End of BIUUUS27 —

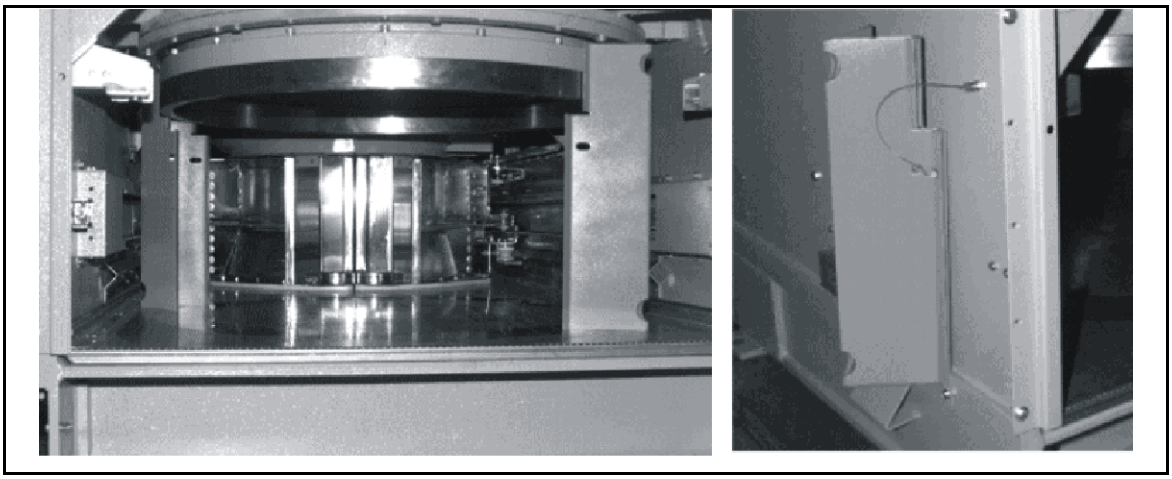
How To Use the Red Safety Support(s) for Maintenance

1. What Safety Supports are Provided and Why

These machines are provided with two safety stands. After the main bell is raised, the stands are placed under the bell.

Use the safety support(s) whenever the maintenance to be performed requires you to place any part of your body in or near the path of the vertically moving portion of the machine. When not in use, stow the safety supports as explained herein.

Figure 1: Safety Stands for 2-station Press Models (deployed shown at left, stowed shown at right)



WARNING 1: Crush Hazard—The safety stands provide protection against the un-powered descent of the bell during maintenance in the event of a failure of the up locks. They are not intended to restrain the bell from coming down under power.

- Never work in or near the path of the vertically moving portion of the machine unless the safety supports are deployed and power is locked out/tagged out.
- Do not attempt to rest the bell on the safety stands by lowering it under power. Use care not to manually command the bell down with the supports in place.
- When working near the installed safety stands use care not to knock the stands out of position.
- Maintain the safety support(s) in good condition.
- When not in use, stow these safety components in the location provided on the machine.

2. How to Deploy the Safety Support(s)

2.1. Put the Machine In Position to Accept the Safety Support(s)—At the controls, use the *Manual* mode to raise the bell.

2.2. Put the Safety Support(s) in Position—Install the stands through the nearest door; do not reach across the bed. Place the safety stands on opposite sides of the bell (180 degrees apart). Under normal conditions, the raised bell is also held up by the pneumatic up locks, even with power and air off. **Do not attempt to rest the bell on the safety stands by lowering it under power** (even though it may drift down onto the stands).

2.3. **Secure the Safety Support(s) and the Machine**—Lock out/tag out power to the machine.

— End of BIUUUS06 —

Proximity Safeguarding for Automatic Shuttle Conveyors

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

1. Applicability

This document—

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

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

2. References for Proximity Safeguarding

ANSI Z8.1-2016 “American National Standard for Commercial Laundry and Drycleaning Equipment and Operations - Safety Requirements”

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

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

ANSI/RIA R15.06-2012 “American National Standard for Industrial Robots and Robot Systems- Safety Requirements”

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

OSHA Publication 3067 “Concepts and Techniques of Machine Safeguarding”

ISO 10472-1 “Safety Requirements for Industrial Laundry Machinery”

3. Hazards To Personnel in Proximity to Shuttle Conveyors

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

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

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

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

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

lockout/tagout procedures and good safety practices.

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

4. How Milnor Accommodates Proximity Safeguarding

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

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

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

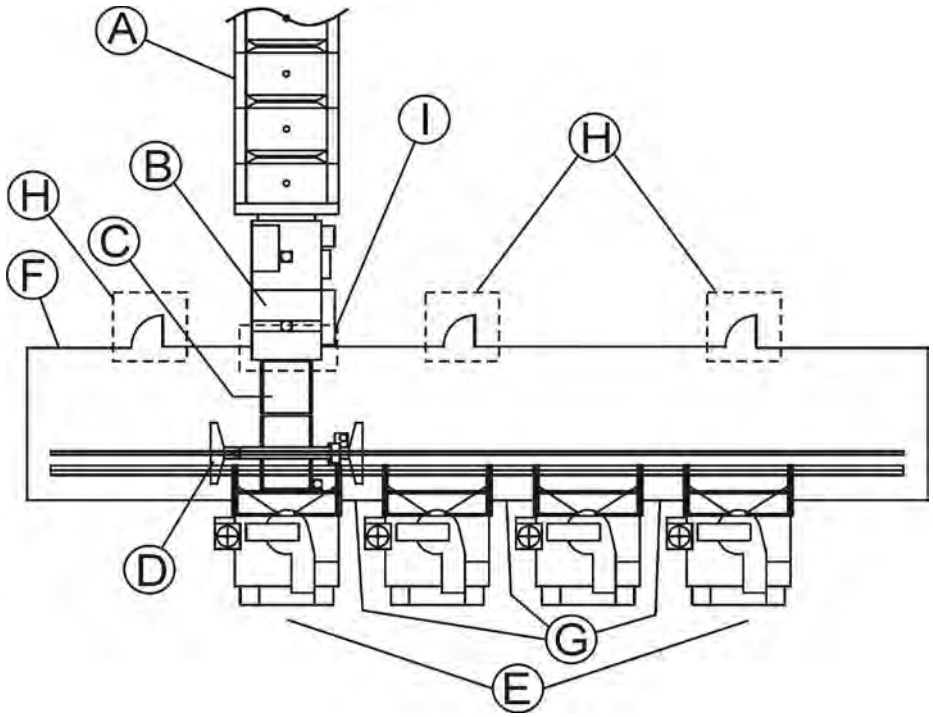
Although the objectives of proximity safeguarding are the same anywhere, design requirements vary with local codes (which occasionally change) and with the plant layout. For this reason, Milnor does not provide detailed designs or materials for proximity safeguarding. If the necessary expertise does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

5. Examples of Safety Fencing With Interlocked Gates

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

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

Plan View of Laundering System

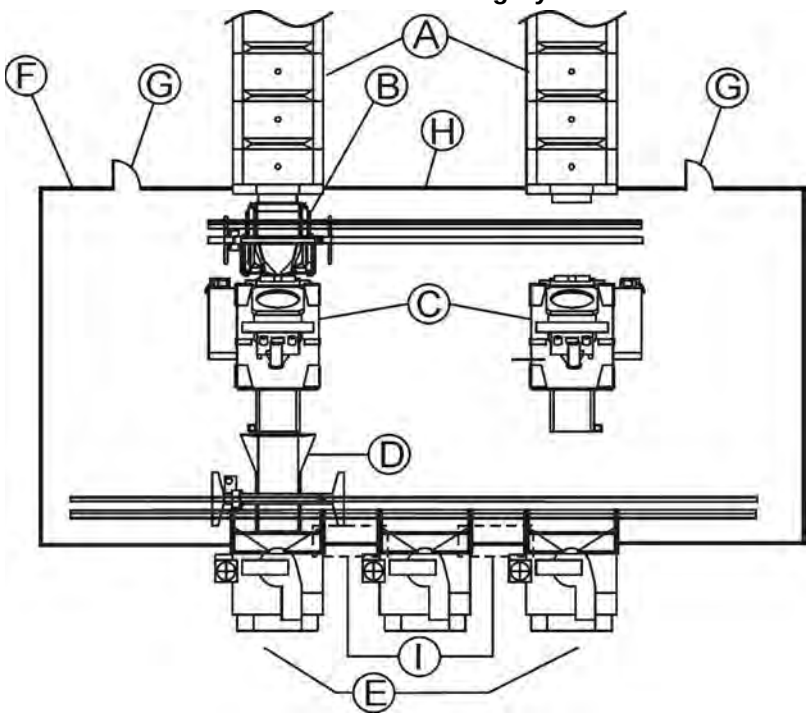


Legend

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

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

Plan View of Laundering System



Legend

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

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

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

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

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

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

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

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

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

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

— End of BISUUI01 —

Glossary of Tag Illustrations—Press

MSIUEPTGAE/9449BV

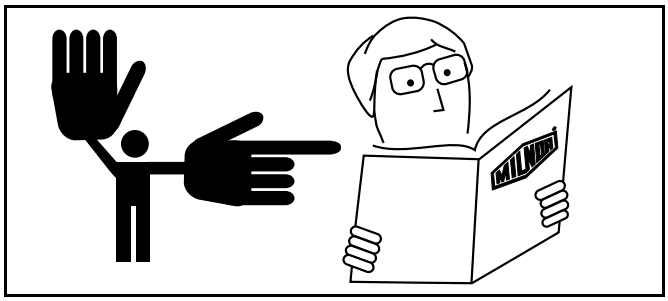
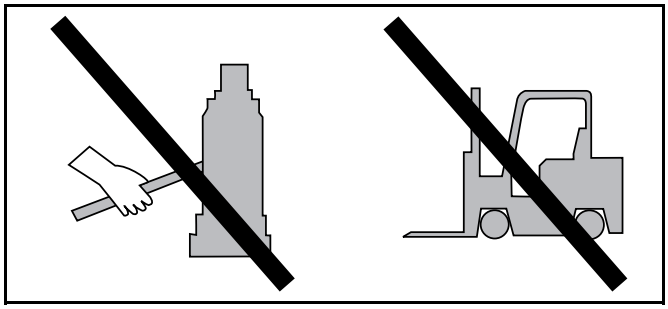
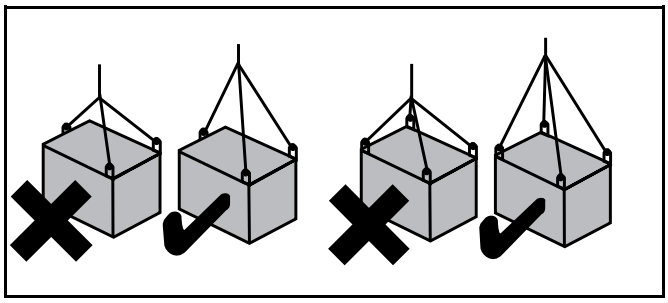
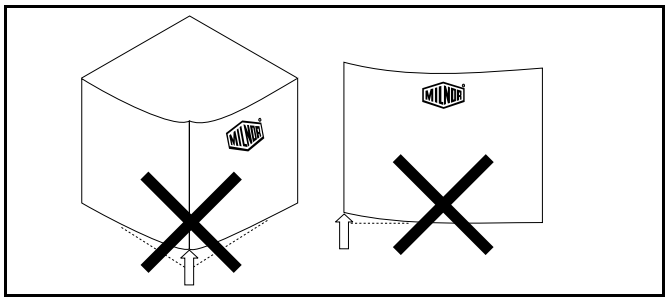
Illustration	Explanation
	Stop! Read the manual first for complete instructions before continuing.
	Do not jack the machine here. Do not lift the machine here.
	Use three point or four point lifting as determined by the lifting eyes furnished. Rig the load using lifting cables of sufficient size and length to ensure cables are not over-stressed.
	Do not lift the machine from one corner or one side edge.

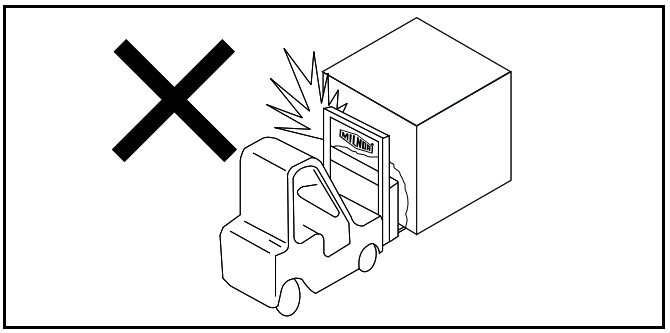
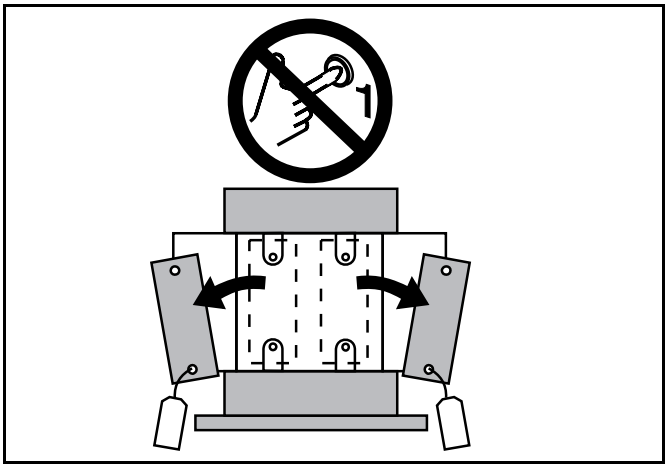
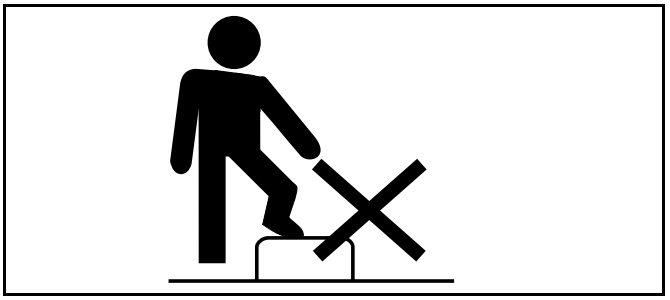
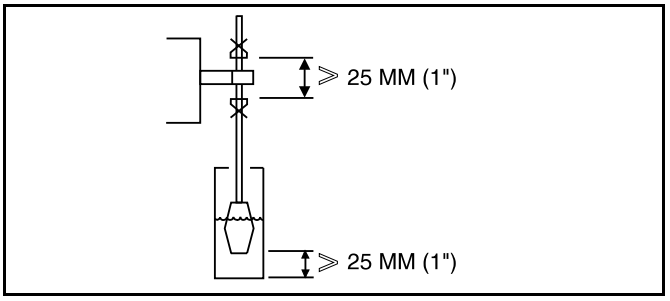
Illustration	Explanation
	Do not strike machine or components during fork lifting.
	Do not start this machine until the packing materials, lifting brackets, etc. with this tag attached or behind this panel are removed. These materials are painted red. Safety stands or brackets (also painted red) may be provided with this machine. Do not discard safety stands or brackets
	Do not step or stand on this machine part.
	Maintain a 25 mm. (1") minimum clearance between float clips. Set "low level" so that the bottom of the float is always at least 25mm (1") above the bottom of the float tube.

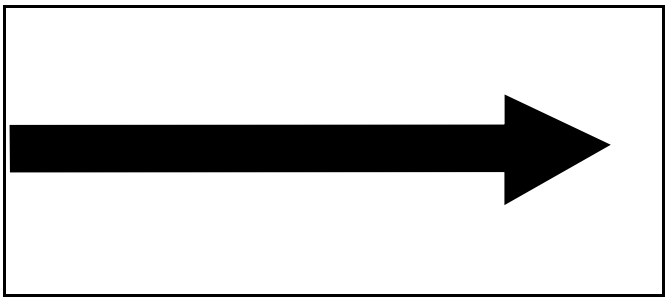
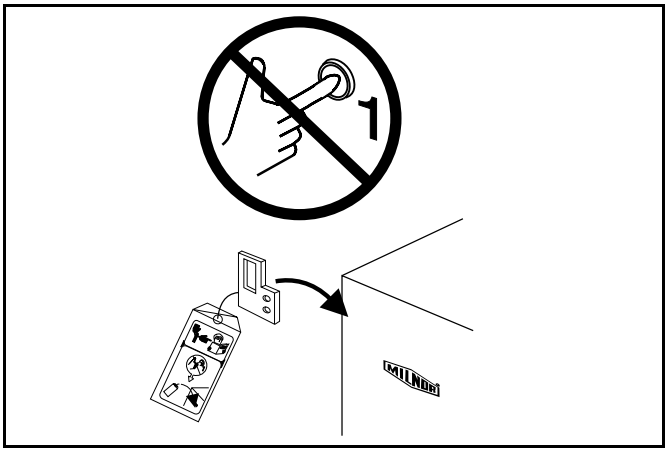
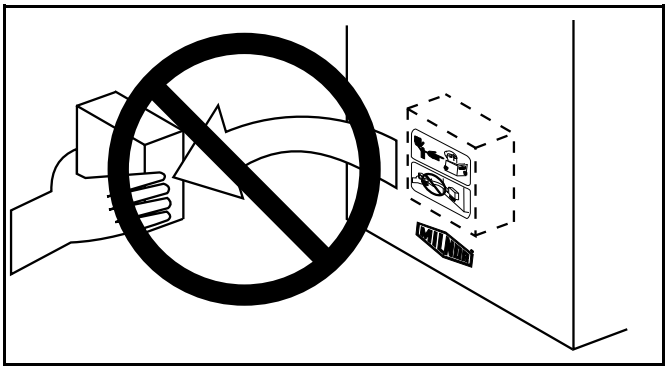
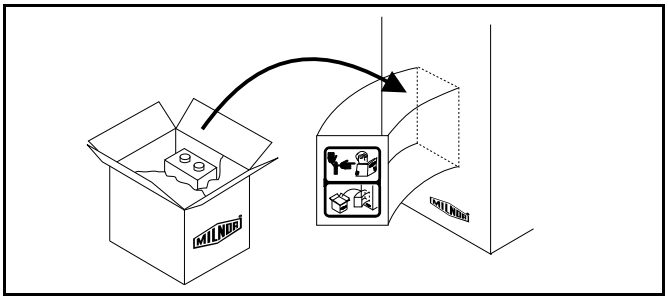
Illustration	Explanation
	This motor or pump should rotate in the direction of the arrow.
	Do not start this machine until the part with this tag is installed on the machine.
	Do not remove this component from the machine.
	Install the appropriate part here before operating the machine.

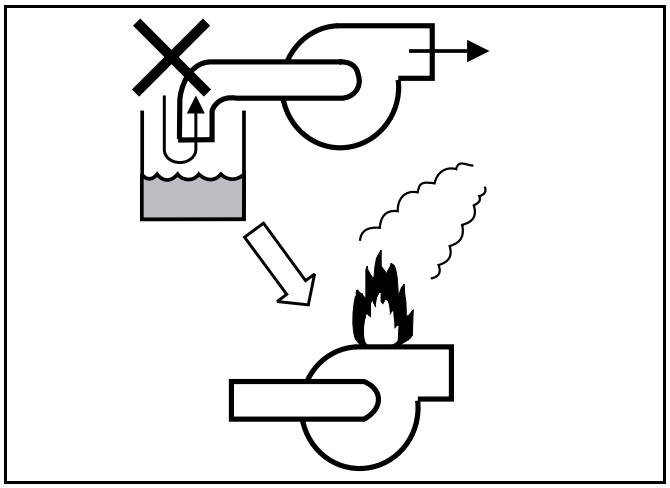
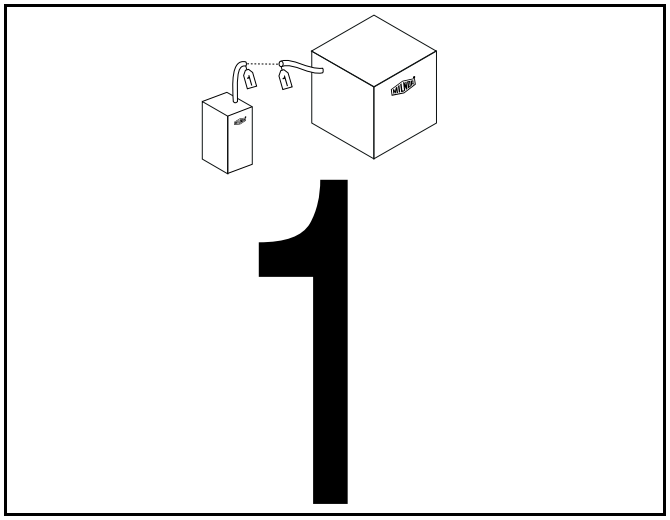
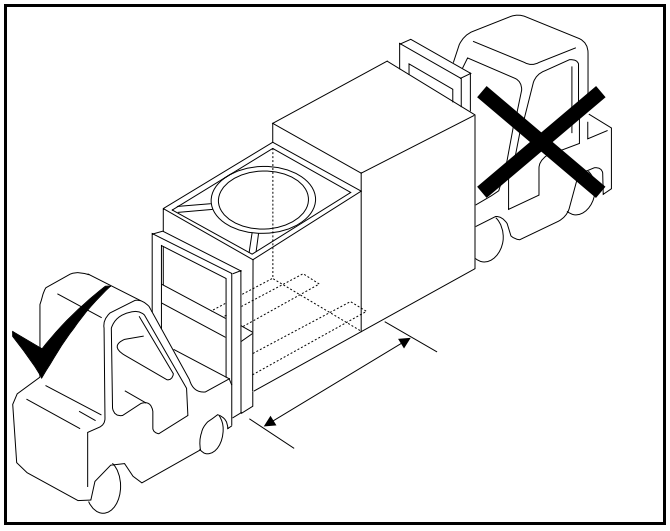
Illustration	Explanation
	Do not operate this pump unless the pump inlet is immersed in water. The pump will burn up if operated without water.
	Machine was shipped in parts. Join connections with matching tags (Join 1 and 1, join 2 and 2, 3 and 3, and so on.).
	Lift the press from in front of the main press side. Do not lift from the pre-press side.

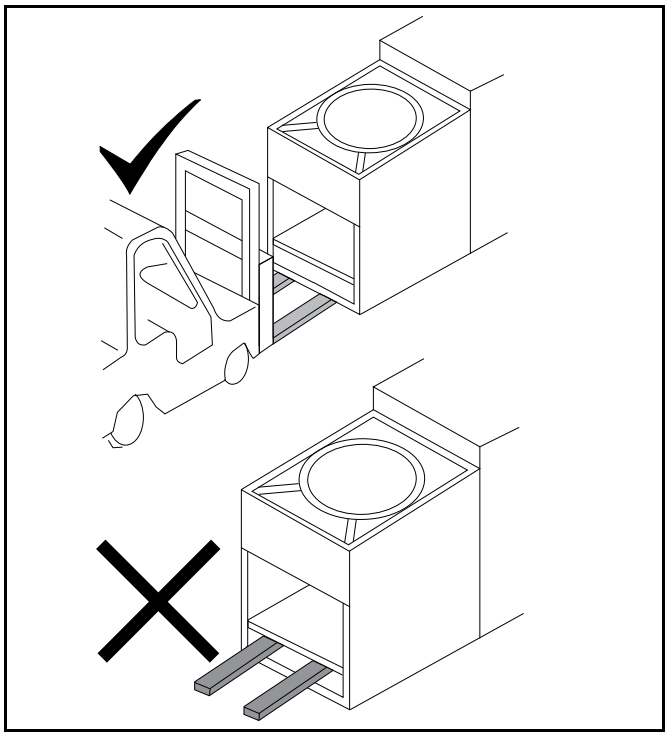
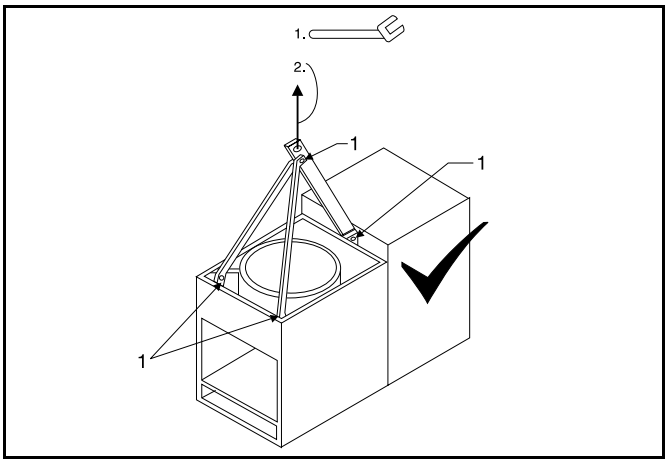
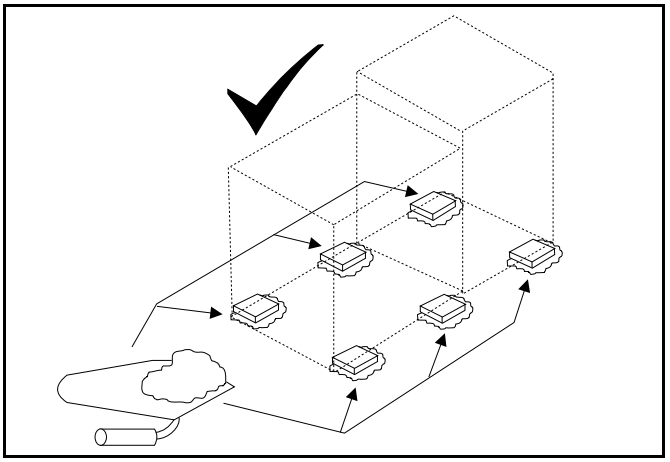
Illustration	Explanation
	Place fork lift blades under the machine. Do not place blades between the machine frame and press bed.

Illustration	Explanation
	When crain lifting: 1. Attach bridle for lifting by securing points labeled 1. 2. Lift from point labeled 2.
	Grout the press at each of six footpads.

Installation 1

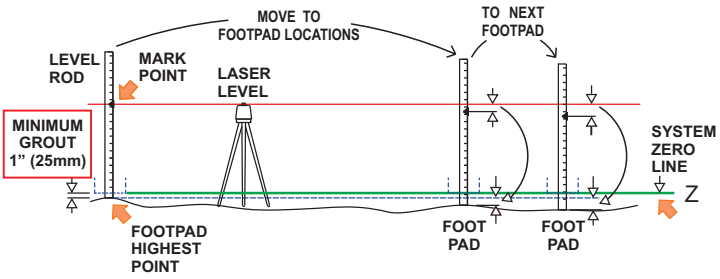
ATTENTION INSTALLERS!

PRESS MUST BE HIGH ENOUGH

If you set the press at a low area of the floor, you may not have sufficient clearance for the tunnel. It will be necessary to reinstall the press higher

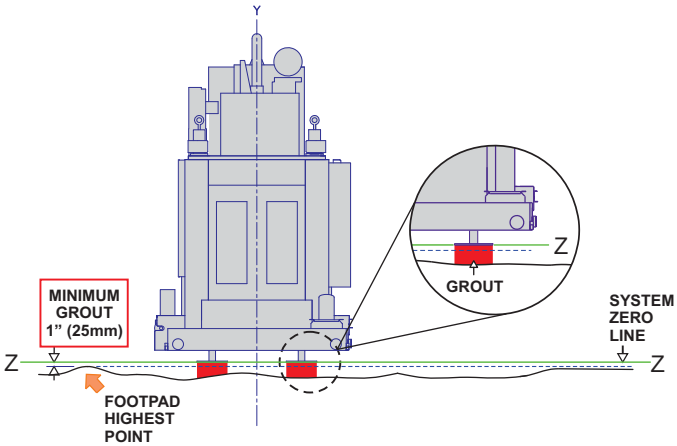
- Establish the System Zero Line or Z.
- Refer to the dimensional drawings of the various machines for required heights.

FLOOR IS UNEVEN



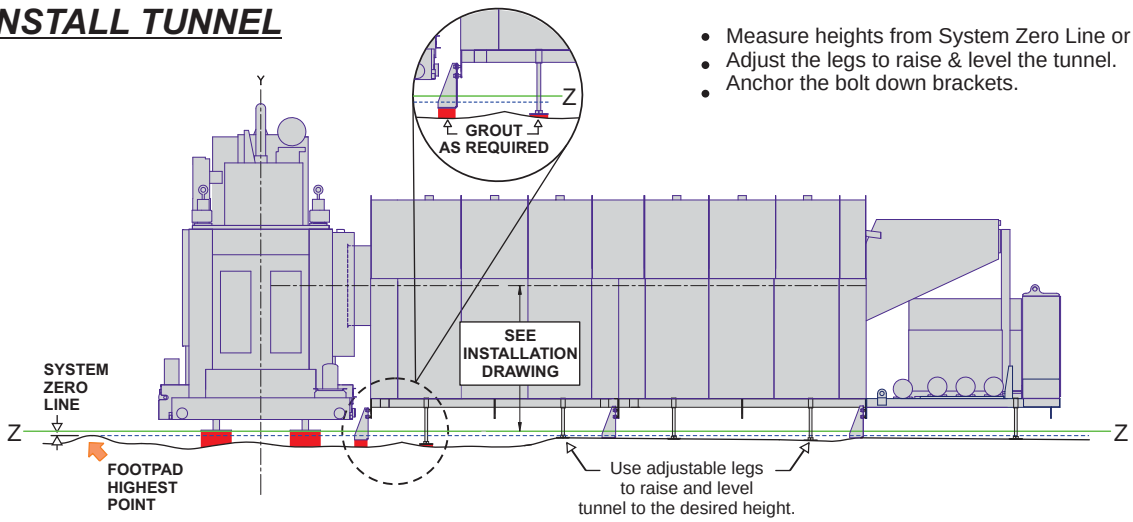
- Establish System Zero Line or Z.
- Find highest point in factory floor where footpads will be located.
- System Zero Line or Z is 1" above highest point.

INSTALL PRESS FIRST



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

INSTALL TUNNEL



- Measure heights from System Zero Line or Z.
- Adjust the legs to raise & level the tunnel.
- Anchor the bolt down brackets.

B2T2010023/2019193A

HANDLING A MEMBRANE PRESS

⚠ CAUTION ⚠

Remove all packing the secures the pre-press and lifting brackets for shipping before attempting to lift or operate the press.

Forklifting

Place forklift completely under the main press side of the machine. Do not insert blades into location A in FIGURE 1. Do not use the rear, bottom corner of the pre-press as a fulcrum. Never forklift from under the pre-press.

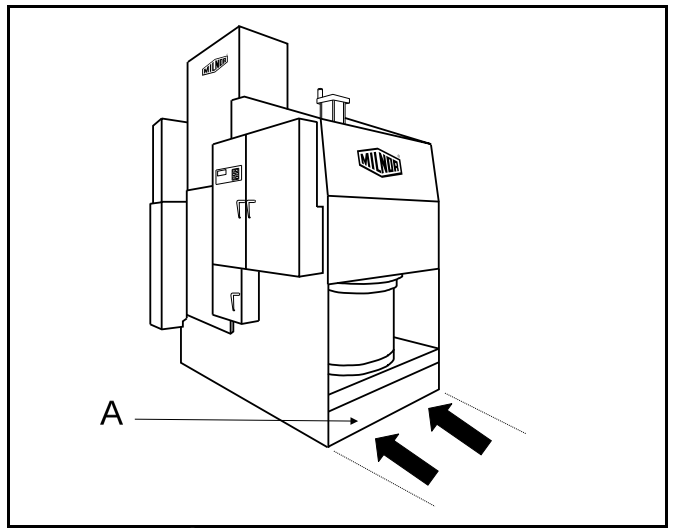


FIGURE 1 (MSIN0907AE)
Forklifting Procedure

Crane Lifting

Install bridle as shown in FIGURE 2. Reattach center support at point A. (A steel pin and cotter pin are provided. Be sure to secure the pin with the cotter pin.) Tighten bolts at A, B, and C. Remove the cosmetic panel from the main press. Lift from point D. Be careful not to bind hoses or wires when lifting.

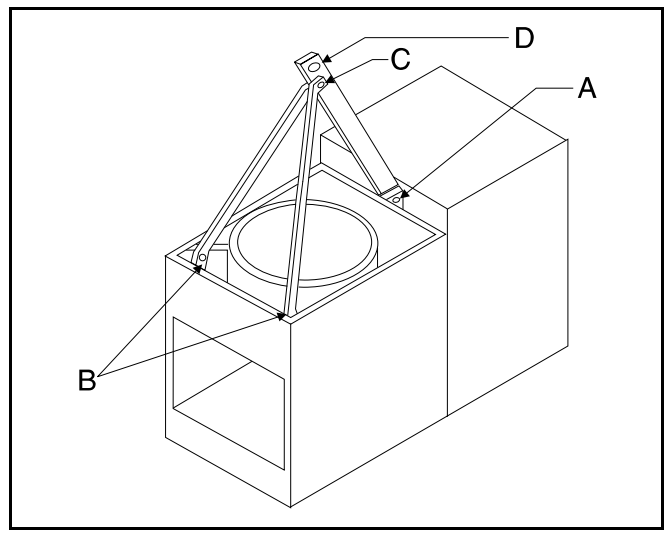


FIGURE 2 (MSIN0907AE)
Crane Lifting

Grouting

The press must be grouted at each footpad. Any press installed on terrazzo floor may also require bolting. Consult factory concerning terrazzo floor.

PRESS LEVEL AND ALIGNMENT REQUIREMENTS

⚠ WARNING ⚠

CRUSH HAZARDS—Components such as the tamper and sled can move during installation if not securely blocked. This can crush and entangle limbs and damage the machine.

☞ **Do not move, level, or align the press unless moving components are properly blocked.**

⚠ WARNING ⚠

Lift the press using only the lifting points provided. (This will lift the pre-press tank first so weight is never imposed on it.)

☞ **Never lift, jack, or support the press by the pre-press tank.**

☞ **Do not put rollers under the pre-press when moving it. Failure to lift the press properly will distort the perforated press bed and void all warranty.**

Leveling Requirements

Once the press is in place, the main press bed should be leveled.

1. Using a carpenter's level on the bed directly beneath the bell, check the level of the bed under the bell from side to side *and* front to back. See FIGURE 1.
2. If the main press is not level, shim it using the jacking pads until it is level. This shimming will allow you to begin aligning the machine. See FIGURE 1.

Aligning Requirements

The following steps explain how to align the main press with the pre-press. See FIGURE 1 when aligning.

1. Raise pre-press access doors (both sides).
2. Alignment lines (piano wire) are provided for both sides of the press. This alignment line is attached to the end of the pre-press access door lip. It is coiled and taped there for shipment.
3. Uncoil the alignment wire and bracket. Run the wire along the pre-press access door lip and inside the main press wall.
4. Attach the alignment brackets to the holes provided at the unload end of the main press.
5. If the alignment wire does not match the red paint markings inside the main press, shim the pre-press until it is aligned.

Make sure the perforated press bed is *absolutely flat.* If twisted, bent, or distorted, intermittent gaps will occur between the perforated bed sheet and the bottom of the pre-press sled as the sled moves forward to deliver goods under the main press. These gaps will catch goods, causing press faults and potentially damaging the goods.

Finishing Steps

1. If shims were required to either level the main press or align the pre-press, replace them with grout.
2. Once aligned, remove all brackets and wire used for leveling and aligning.

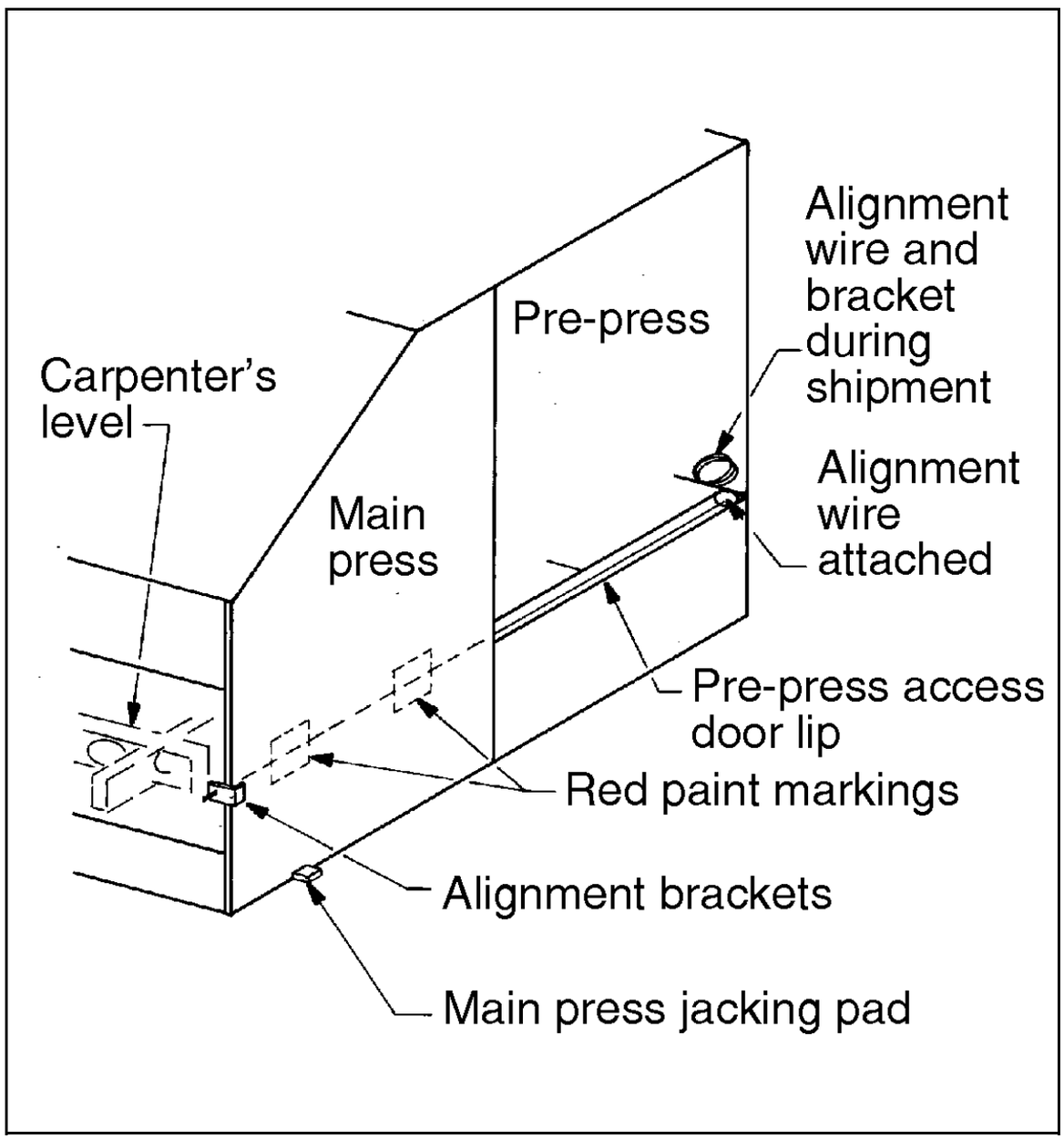


FIGURE 1 (MSIND418AE)
Aligning the Press

Installing the Press With a Receiving Shuttle

The press sled protrudes 2 1/2" beyond its discharge end during transfer. To avoid conflict between the two machines, the appropriate distance must be maintained between them when installed. FIGURES 2 and 3 show appropriate distances for installing and receiving elevating shuttle and receiving stationary conveyor, respectively.

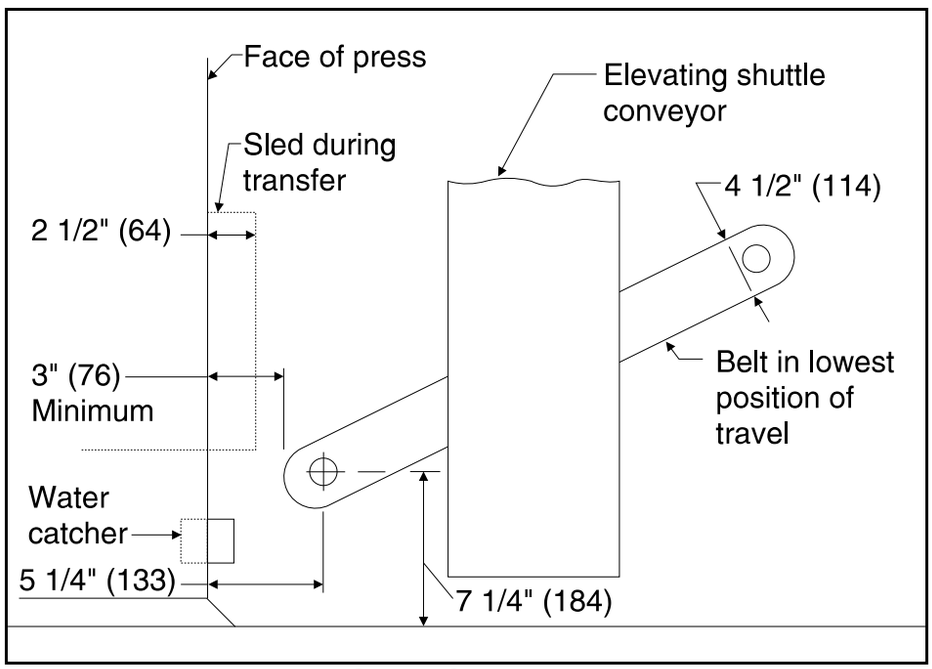


FIGURE 2 (MSIND418AE)
Required Clearance Between Press and Receiving Elevating Shuttle

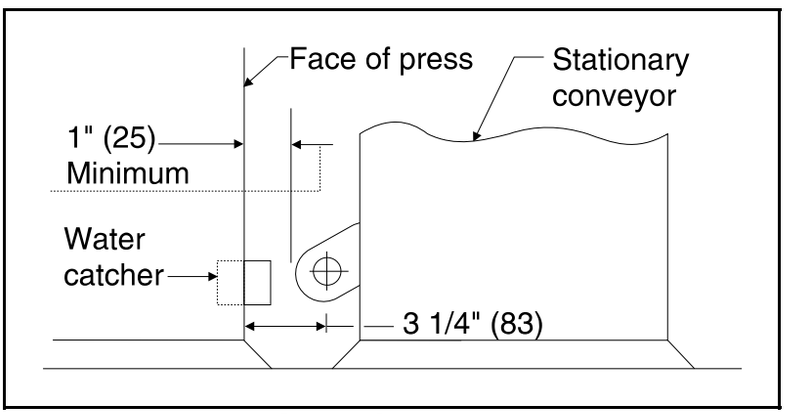


FIGURE 3 (MSIND418AE)
Required Clearance Between Press and Receiving Stationary Conveyor

SERVICE CONNECTIONS AND ADJUSTMENTS FOR THE MEMBRANE PRESS

These are normal service connections for the press:

- Piped inlets and outlets: fresh water inlet for upper water tank, reuse water inlet from CBW® finish zone, reuse water outlet to CBW® flush tank, compressed air inlet, and drip drain to sewer.
- Electric power connections.
- Electrical control connections.

Precautions for Piped Connections

Observe these precautions when making plumbing connections:

1. Inlet air pressure must be within the minimum/maximum range displayed on your machine nameplate. Pressure outside of the specified range may cause the machine to operate inefficiently or to malfunction and damage machine components.
2. Do not distort valve bodies when connecting plumbing. Hold tension against these valves with a pipe wrench, etc., on the side of the valve to which the pipe is being connected. Otherwise, the valve will be twisted and distorted.
3. When connecting water inlets, always furnish unions at the point of connection. This permits removal of the valve assembly if servicing is necessary.
4. The water inlet valve on your machine is of the *ball valve* construction. The flow rate of a ball valve is far greater than that of a globe valve of equal normal size. Do not use globe type shut-off valves in front of ball valves unless the globe valve is equivalent in size to the ball valve.

Piped Inlet Specifications

These are the piped inlet requirements. See the press dimensional drawing for sizes, locations, and types of connections required.

Piped Inlets

To	From or Source	Piping Specifications	Comments
Water inlet for upper tank	Cold, fresh water	Any approved material per plumbing code	This inlet admits water only when required to make up for water loss through evaporation and overflow, when cooling water is called for. Do not treat water with oil. Set maximum water temperature not to exceed 125˚F (52˚C)
Reuse water inlet	Finish zone outlet on CBW®	Per CBW® Reference manual	The drain connection must be installed to the underside of the trough on the unload end of the last module, with the hardware provided. This water is not used by the press. It combines with water extracted from goods and is subsequently returned to the CBW® for reuse.
Compressed air inlet	85 PSI minimum to 100 PSI maximum	Run 1" NPT minimum pipe. Run 1-1/4" NPT pipe for lines longer than 75 feet (23 meters).	Air used for pneumatic controls and to actuate the several air cylinders.

Insufficient air pressure (or volume, which is generally caused by piping that is too small or otherwise restricted) will cause the bell to raise slowly (or not at all). This may cause one of these conditions:

1. Increased press cycle time which reduces CBW® output.
2. Stolen press cycle time, which reduces the total time-on pressure and causes the goods to come out wet.

Piped Outlet Specifications

These are the piped outlet requirements. See the press dimensional drawing for sizes, locations, and types of connection points.

Piped Outlets

To	From or Source	Piping Specifications	Comments
Reuse water outlet	CBW® flush tank	Per CBW® Reference manual	
Drip drain to sewer	Sanitary sewer per plumbing code	Rubber hose or PVC pipe	Drains off small amounts of extracted water from water catcher.

Electric Power Connections

The customer must furnish a remotely mounted disconnect switch with lag type fuses and wiring between this box and the motor contactor box on the machine. The sizes of these fuses and wires, along with the motor fuses supplied with your machine, depend on the machine voltage. For your machine specifications, see these documents:

Electric Power Requirement References

Specifications	Document	Document Location
Machine voltage; external fuse and wire sizes	Machine nameplate	Affixed to machine frame
	Fuse and wire size information	Schematic manual
Motor fuses	Motor fuse nameplate	Affixed to door of motor contactor box

NOTE: Because motors come phased in, only change incoming power lines.

Precautions for Power Connections

1. Connections must be made by a competent electrician.
2. Prior to making power connections, read the instructions on all related tags.
3. “Stinger leg”, if any, must be connected to terminal L3; not L1 or L2.
4. Only use Bussman Fustron FRN (up to 250V), FRS (250V 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 one wire size for every 50 feet.
6. Check machine for proper phasing. See “MANUALLY OPERATING AND VIEWING INPUTS”. . . in the Reference manual, and verify the pumps are properly rotating. If the pumps rotate in the wrong direction, interchange the wires connected to L1 and L2. Never move L3 if L3 is a stinger leg.

Electric Control Connections

Unlike stand-alone machines, all CBW® system components, including the press, require power and control cabling between themselves and their external, remotely located controllers. Three sources of information describe various aspects of these connections and must be consulted:

1. CBW® System Interconnections—This document is the primary source of information on required field connections. It describes each typical component to component interface and the field connections required.
2. Cabling Diagram—A unique cabling diagram is provided with each CBW® system and shows schematically the overall wiring scheme between the components of that installation.
3. Schematic Manuals—These are the sets of electrical schematics for each system component and its associated controller (i.e., dryer, press, shuttle, CBW®, etc.). The primary purpose of these schematics is to show circuit logic. Although these schematics are of limited value in making field connections, the signal routing table provided with each set of schematics can assist in tracing individual conductors through each connection point including some of those between components.

Preparing Pressure Pump for Operation

⚠ CAUTION ⚠

The pressure pump will be damaged after one minute of operation unless the press tank contains water prior to operation.

1. Ensure pressure pump flow restrictor orifice is installed before attempting operation. See FIGURE 1.
2. Install high pressure pump strainer in pre-press. See FIGURE 2.

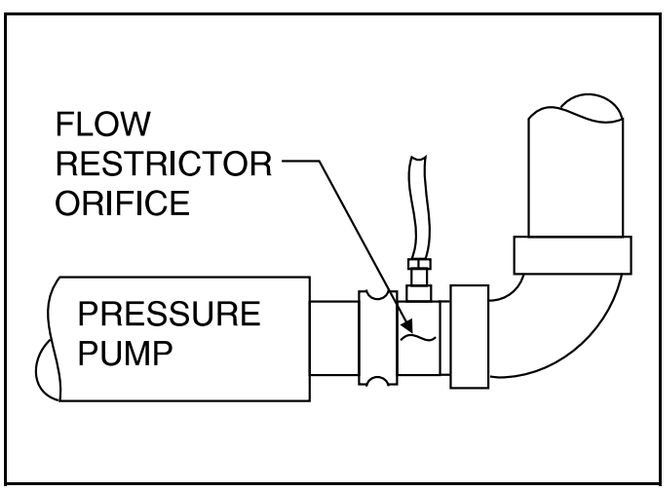


FIGURE 1 (MSIND420AE)
Flow Restrictor Orifice

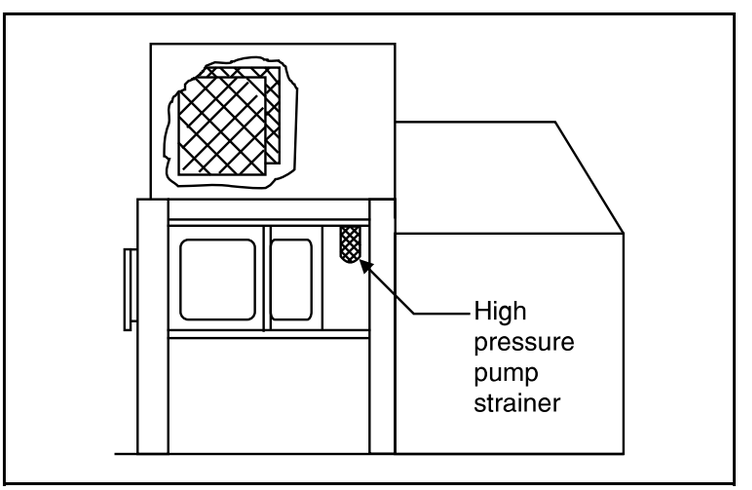


FIGURE 2 (MSIND420AE)
High Pressure Pump Strainer

How To Set the Level Switch for the Press Water Return Pump

⚠ CAUTION ⚠

The press water return pump will be damaged after one minute of operation unless the pump contains water prior to operation.

- ☞ **Ensure that the pump never runs long enough to evaporate all the water.**
- ☞ **Make sure all *level switches* controlling the pump are set so that its suction connection is always flooded.**

NOTE 1: If the press water return pump is supplied by the customer, ensure it is able to pump solids suspended in water.

NOTE 2: You can see the water level in the pre-press tank by moving the sled approximately 10 inches (250mm) towards the main bell section and shining a flashlight through the perforations.

NOTE 3: The pre-press tank will overflow, if the water level inside the tank rises to approximately 2 inches (50 mm) below the perforated bed sheet, 6+ inches (165 mm) above the bottom of the tank. An overflow almost always indicates that the pump is not working correctly—almost never that the pre-press tank is leaking.

The *level switch* for the water return pump should be adjusted to stop the water pump when approximately 1 inch (25 mm) of water is left in the pre-press tank and to turn the pump back on again when the level has risen about 2 inches (50 mm), to a total level of 3 inches (75 mm). This adjustment will make the pump seem to “suck air,” because it will make a gurgling sound. The pump will operate properly despite the gurgling sound.

1. If the level switch is set so high that a gurgling sound never occurs, the capacity of the tank to accept the additional rapid flow of water at the beginning of a new press cycle will surely cause the pre-press tank to overflow.
2. A pump with too high of a pumping capacity will exceed the capacity of the suction connection on the pre-press tank. This will cause the pump to suck air, cavitate, stop pumping, and permit the pre-press tank to overflow.
3. Make sure there are no air leaks in the suction piping to the pump. This will have the same effect as an oversized pump.

BIUUUM04 (Published) Book specs- Dates: 20180109 / 20180109 / 20180109 Lang: ENG01 Applic: UUU

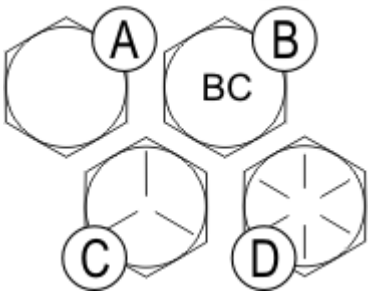
Torque Requirements for Fasteners

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

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

Figure 1: The Bolts in Milnor® Equipment

The Marks on Bolt Heads



Legend

A. SAE Grades 1 and 2, ASTM A307, and stainless steel
B. Grade BC, ASTM A354
C. SAE Grade 5, ASTM A449
D. SAE Grade 8 and ASTM A354 BD

1. Torque Values

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

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

1.1. Fasteners Made of Carbon Steel

1.1.1. Without a Threadlocker

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

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

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

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

Table 3: Torque Values for Plated Fasteners with Maximum 5/16-inch Diameters and No Lubricant

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

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

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

1.1.2. With a Threadlocker

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

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

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

Table 6: Torque Values if You Apply LocTite 222

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

Table 7: Torque Values if You Apply LocTite 242

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

Table 8: Torque Values if You Apply LocTite 262

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

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

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

Table 10: Torque Values if You Apply LocTite 277

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

1.2. Stainless Steel Fasteners

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

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

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

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

2. Preparation

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

- Use threadlocker and primers with sufficient airflow.
- Do not use flammable material near ignition sources.

1. Clean all threads with a wire brush or a different tool.
2. Remove the grease from the fasteners and the mating threads with solvent. Make the parts dry.

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

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

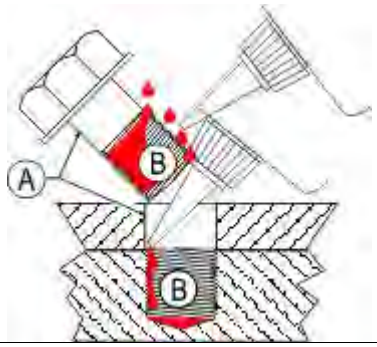
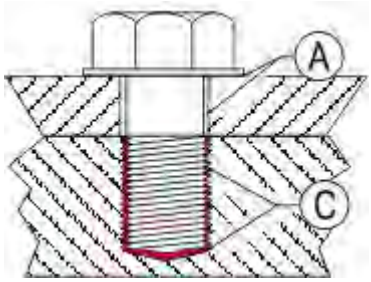
3. How to Apply a Threadlocker

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

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

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

Figure 2: Blind Hole

Application	Coverage
	

Legend

A. No threadlocker here
B. Apply here
C. Fill all space with threadlocker

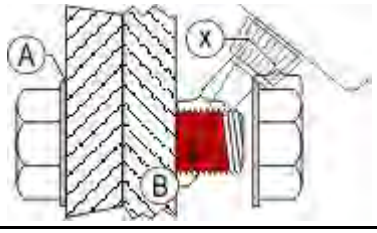
3.1. Blind Holes

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

3.2. Through Holes

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

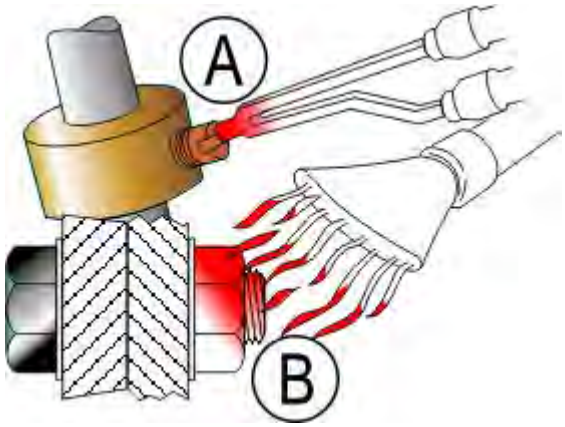
Figure 3: Through Hole

Application	Legend
	**A.** No threadlocker here **B.** Apply the threadlocker to this area **x.** Nut depth

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

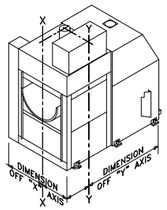
For low-strength and moderate-strength threadlocker, disassemble with hand tools.

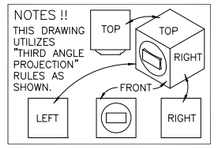
Figure 4: Disassembly

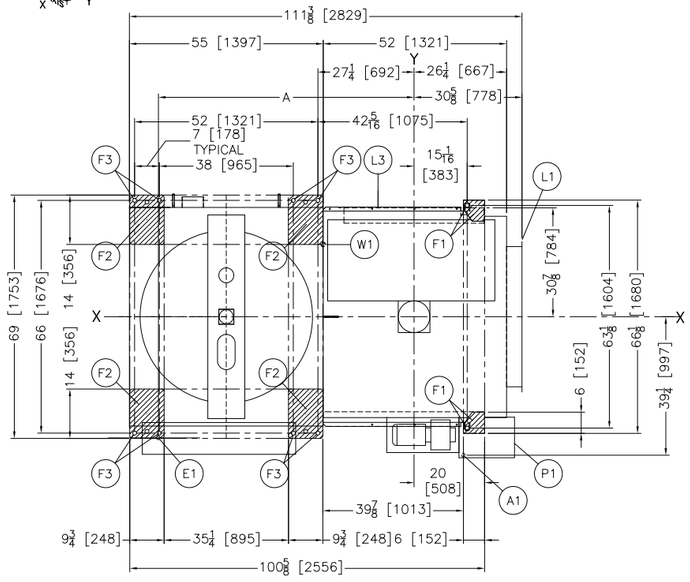
Apply Heat to a Small Area	Legend
	**A.** How to apply heat to a small fastener **B.** How to apply heat to a large fastener

— End of BIUUUM04 —

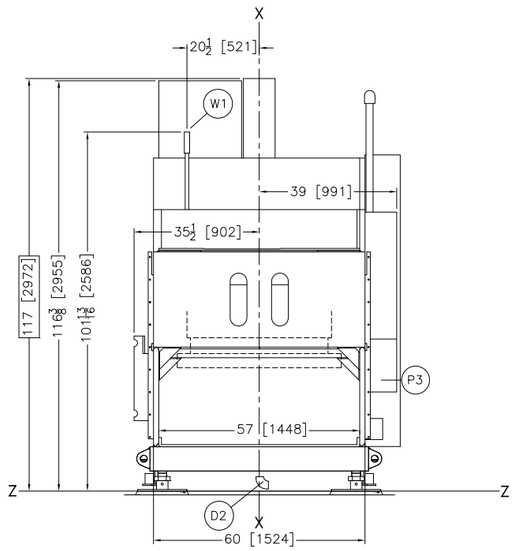
Dimensional Drawings 2



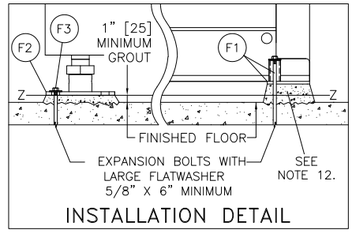




PLAN VIEW
(SEE NOTE 7)

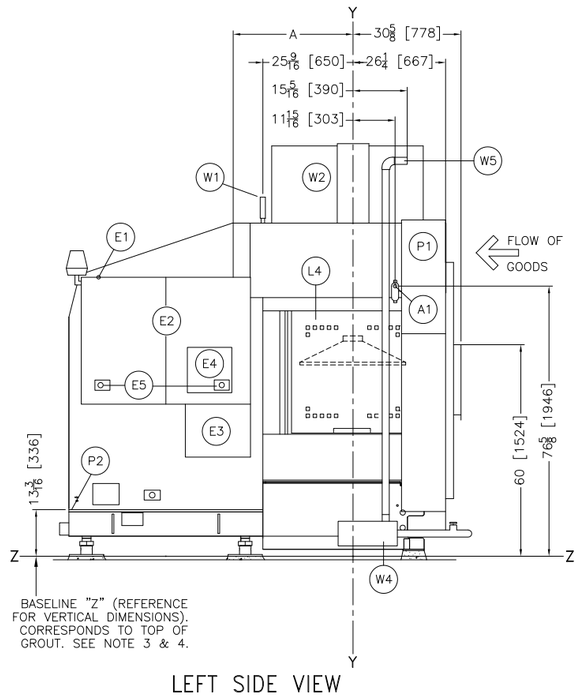


REAR (DISCHARGE END) VIEW
(SEE NOTE 7)

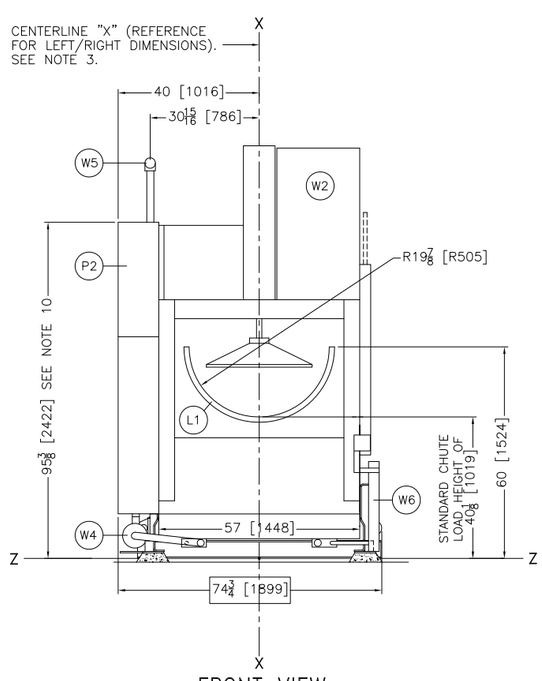


INSTALLATION DETAIL

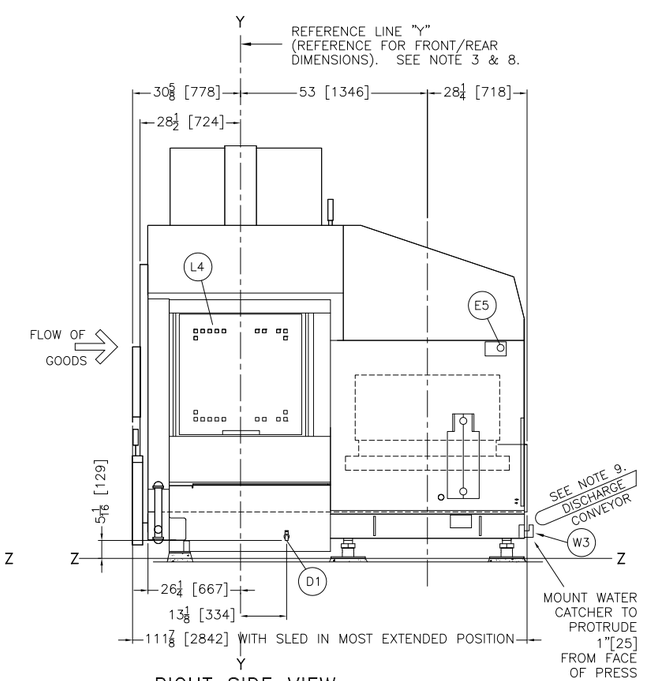
ITEM	LEGEND
W6	FLOAT TUBE FOR STRAIGHT–IN LOADING ALWAYS OPPOSITE
	OF CONTROLS.
W5	PRESS WATER TO REUSE OVERHEAD PIPING SUPPLIED BY
	PMC.
W4	PRESS WATER RETURN PUMP
W3	WATER CATCHER
W2	WATER TANK
W1	WATER INLET, 1/2" NPT, FEMALE CONNECTION.
P3	PRESS STANDS
P2	TOP OF PERFORATED PLATE (BED)
P1	SLED DRIVE BELT GUARD
L4	ACCESS DOOR, NOT USED FOR LOADING.
L3	RIGHT LOAD CHUTE POSITION FOR RIGHT DISCHARGE
	MP2501R
L1	CENTER LOAD CHUTE POSITION FOR MP2501CL
F3	1–1/8"[29] ANCHOR BOLT HOLES, USE MINIMUM 5/8" X 6"
	BOLTS. USE (1) BOLT PER PAD MINIMUM.
F2	PRESS FOOTPAD, 4 PLACES. GROUT FULLY UNDER ALL
	THE PADS
F1	PRE–PRESS FOOTPADS WITH 1–1/8"[29] DIA. ANCHOR
	BOLT HOLES, USE 5/8" X 6" BOLTS MINIMUM.
E5	EMERGENCY STOPS
E4	MICROPROCESSOR CONTROLS
E3	MICROPROCESSOR BOX
E2	HIGH & LOW VOLTAGE CONTROL BOXES
E1	MAIN ELECTRICAL CONNECTION
D3	DRAIN TO PRESS WATER RETURN PUMP (TO REUSE TANK)
	2" NPT MAY BE ON LEFT OR RIGHT.
D2	DRIP DRAIN TO SEWER, 2" HOSE CONNECTION.
D1	MANUAL DRAIN, 3/4" GARDEN HOSE CONNECTION
A1	AIR INLET, 1" NPT, FEMALE CONNECTION. RUN 1" MINIMUM
	PIPE. FOR LINES LONGER THAN 75 FEET [23 METERS],
	RUN 1 1/4" PIPE.



LEFT SIDE VIEW
(SEE NOTE 7)



FRONT VIEW
(SEE NOTE 7)



RIGHT SIDE VIEW
(SEE NOTE 7)

NOTES

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

11 SEE INTERFACE DIMENSIONAL DRAWING FOR POSITIONING OF MACHINES, GROUT THICKNESS AND HEIGHT OFF FLOOR. PRESS MUST BE GROUTED AT EACH FOOTPAD. FOR INSTALLATION ON TERAZZO CONSULT MILNOR FACTORY.

10 PRESS MAY BE SHIPPED WITH UPPER TANK AND PRE–PRESS HYDRAULIC CYLINDER REMOVED, BY SPECIAL ARRANGEMENT.

9 FACE OF PRESS TO:
(A) EDGE OF STATIONARY CONVEYOR OR COINC MUST BE 1"[25] MINIMUM.
(B) EDGE OF TRANSLATING CONVEYOR(SHUTTLE): EFFECTIVE 10–03 MUST BE 1–1/4"[57] MINIMUM. (CLEARANCE TO WATER CATCHER 1/4"[13])

8 REFERENCE LINE "Y" IS THE PREPRESS CENTER LINE AND APPLIES TO ALL THREE PRESS MODELS (RIGHT CENTER, AND LEFT HAND LOADING).

7 THIS DRAWING SHOWS MODELS MP2501CL AND MP2501R.
MP2501CL – IN–LINE (CENTER) DISCHARGE WITH LEFT SIDE CONTROLS
MP2501R – RIGHT DISCHARGE WITH LEFT SIDE CONTROLS

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

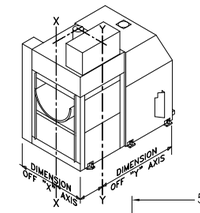
THE FLOOR AND/OR OTHER SUPPORT COMPONENTS MUST HAVE SUFFICIENT STRENGTH (AND RIGIDITY WITH DUE CONSIDERATION FOR NATURAL OR RESONANT FREQUENCY THEREOF) TO WITHSTAND THE FULLY LOADED WEIGHT OF THE MACHINE INCLUDING THE GOODS, THE WATER, AND ANY REPEATED SINUSOIDAL (ROTATING) FORCES GENERATED DURING ITS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

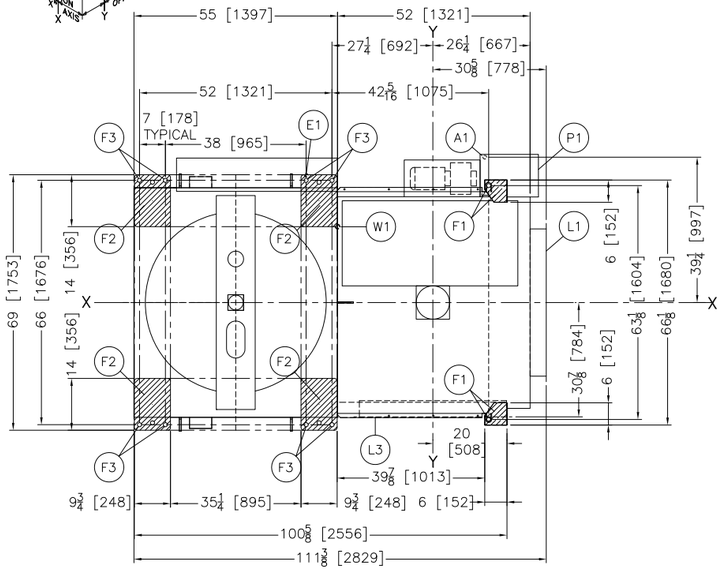
MP2501CL, MP2501R

DM 0 0.5M 1M
INCHES 0 12 24 36

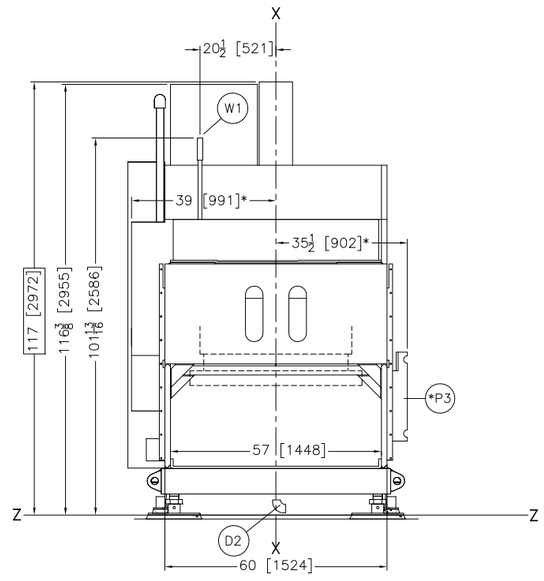
DWG# BDMP25CLCE 2015445D

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

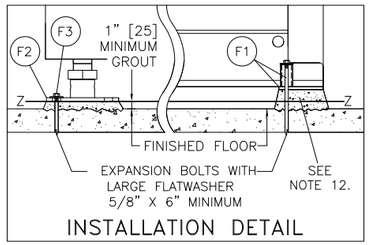




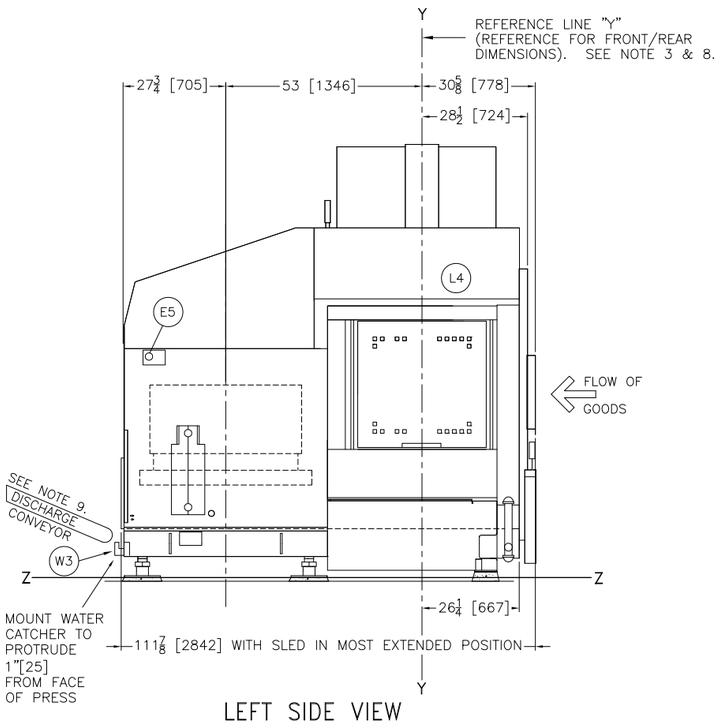
PLAN VIEW
(SEE NOTE 7)



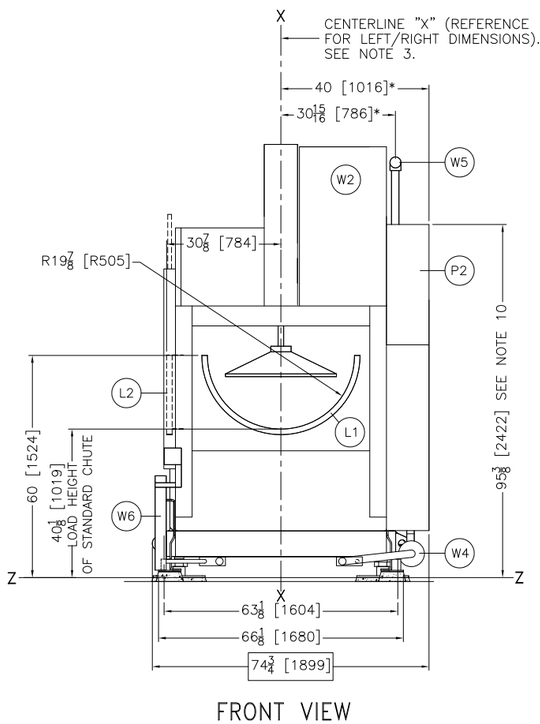
REAR (DISCHARGE END) VIEW
(SEE NOTE 7)



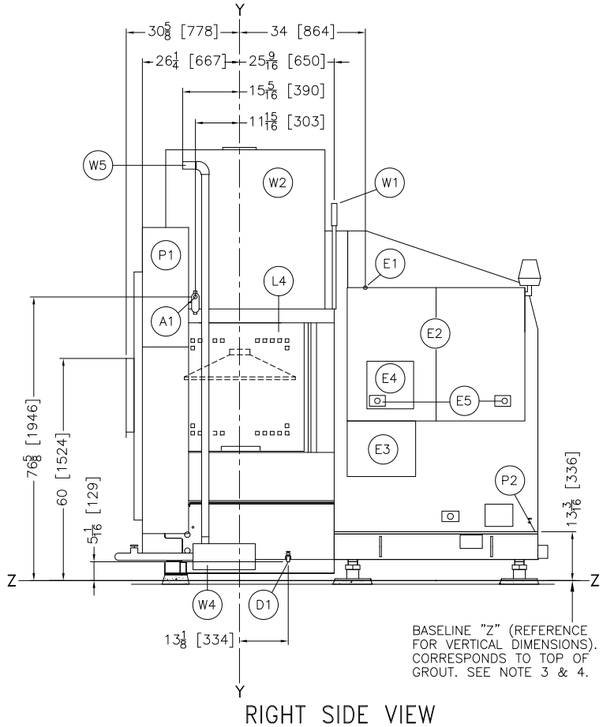
INSTALLATION DETAIL



LEFT SIDE VIEW
(SEE NOTE 7)



FRONT VIEW
(SEE NOTE 7)



RIGHT SIDE VIEW
(SEE NOTE 7)

ITEM	LEGEND
W6	FLOAT TUBE FOR STRAIGHT–IN LOADING ALWAYS OPPOSITE
	OF CONTROLS.
W5	PRESS WATER TO REUSE OVERHEAD PIPING SUPPLIED BY
	PMC.
W4	PRESS WATER RETURN PUMP
W3	WATER CATCHER
W2	WATER TANK
W1	WATER INLET, 1/2" NPT, FEMALE CONNECTION.
P3	PRESS STANDS
P2	TOP OF PERFORATED PLATE (BED)
P1	SLED DRIVE BELT GUARD
L4	ACCESS DOOR, NOT USED FOR LOADING.
L2	LOAD CHUTE POSITION FOR LEFT DISCHARGE, MP2501L.
L1	LOAD CHUTE POSITION FOR MP2501CR
F3	1–1/8"[29] ANCHOR BOLT HOLES, USE MINIMUM 5/8" X 6"
	BOLTS. USE (1) BOLT PER PAD MINIMUM.
F2	PRESS FOOTPAD, 4 PLACES. GROUT FULLY UNDER ALL
	THE PADS
F1	PRE–PRESS FOOTPADS WITH 1–1/8"[29] DIA. ANCHOR
	BOLT HOLES, USE 5/8" X 6" BOLTS MINIMUM.
E5	EMERGENCY STOPS
E4	MICROPROCESSOR CONTROLS
E3	MICROPROCESSOR BOX
E2	HIGH & LOW VOLTAGE CONTROL BOXES
E1	MAIN ELECTRICAL CONNECTION
D3	DRAIN TO PRESS WATER RETURN PUMP (TO REUSE TANK)
	2" NPT MAY BE ON LEFT OR RIGHT.
D2	DRIP DRAIN TO SEWER, 2" HOSE CONNECTION.
D1	MANUAL DRAIN, 3/4" GARDEN HOSE CONNECTION
A1	AIR INLET, 1" NPT, FEMALE CONNECTION. RUN 1" MINIMUM
	PIPE. FOR LINES LONGER THAN 75 FEET [23 METERS],
	RUN 1 1/4" PIPE.

NOTES

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

11 SEE INTERFACE DIMENSIONAL DRAWING FOR POSITIONING OF MACHINES, GROUT THICKNESS AND HEIGHT OFF FLOOR. PRESS MUST BE GROUTED AT EACH FOOTPAD. FOR INSTALLATION ON TERAZZO CONSULT MILNOR FACTORY.

10 PRESS MAY BE SHIPPED WITH UPPER TANK AND PRE–PRESS HYDRAULIC CYLINDER REMOVED, BY SPECIAL ARRANGEMENT.

9 FACE OF PRESS TO:
(A) EDGE OF STATIONARY CONVEYOR OR COINC MUST BE 1"[25] MINIMUM.
(B) EDGE OF TRANSLATING CONVEYOR(SHUTTLE): EFFECTIVE 10–03 MUST BE 1–1/4"[57] MINIMUM. (CLEARANCE TO WATER CATCHER 1/4"[13])

8 REFERENCE LINE "Y" IS THE PREPRESS CENTER LINE AND APPLIES TO ALL THREE PRESS MODELS (RIGHT, CENTER, AND LEFT DISCHARGE).

7 THIS DRAWING SHOWS MODELS MP2501CR AND MP2501L.
MP2501CR – IN–LINE (CENTER) DISCHARGE WITH RIGHT SIDE CONTROLS
MP2501L – RIGHT DISCHARGE WITH RIGHT SIDE CONTROLS

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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.

MP2501CR, MP2501L

DM 0 0.5M 1M
INCHES 0 12 24 36

DWG# BDMP25CRCE 2015445D

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NOTES !!
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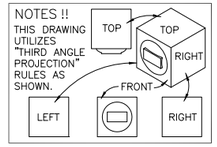
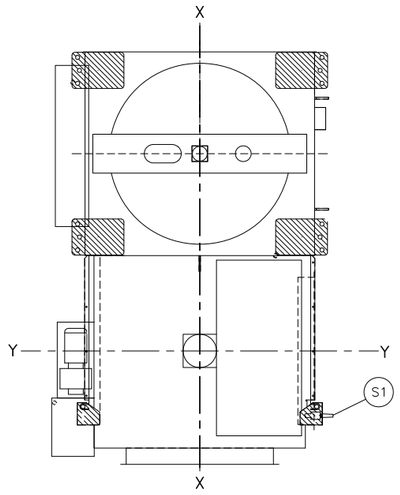
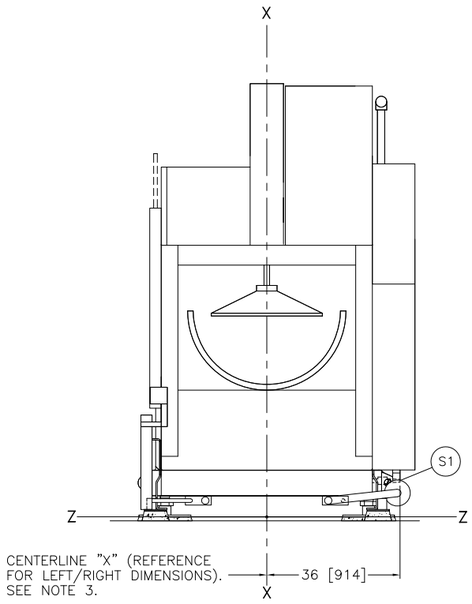
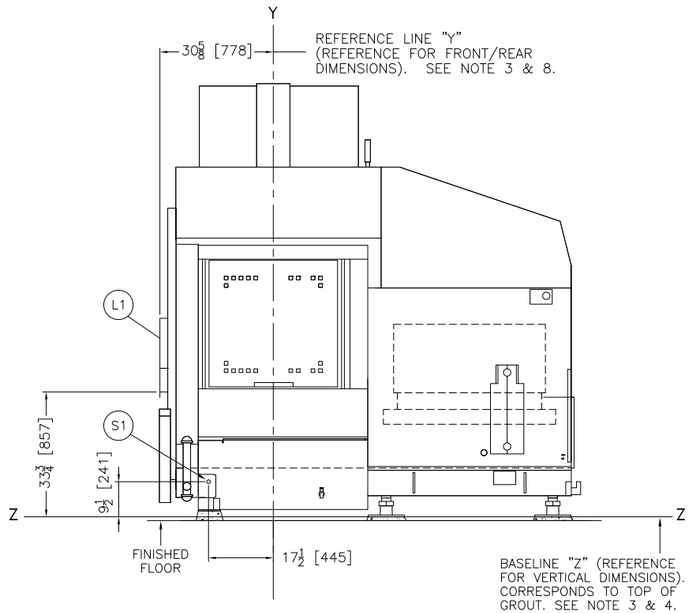




PLAN VIEW



FRONT VIEW



RIGHT SIDE VIEW

ITEM	LEGEND
S1	OPTIONAL, THERMO DISINFECTANT "STEAM INJECTOR," 3/4" NPT, MALE CONNECTION. ALWAYS OPPOSITE OF SLED DRIVE.
L1	OPTIONAL, LOWER LOAD CHUTE NOT FOR USE WITH MILNOR CBW. USE ONLY WITH BOTTOM TRANSFER MACHINES.

NOTES

8 OPTIONS SHOWN ON THIS PAGE APPLY TO ALL MODELS; MP2501CL,CR,L,& R. MP2501CL SHOWN.

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MP2501CL,CR,L,R OPTIONS

DM 0 0.5M 1M
INCHES 0 12 24 36

DWG# BDMP250PCE 2015445D

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NOTES !!
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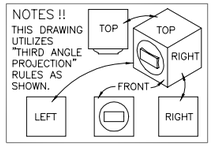
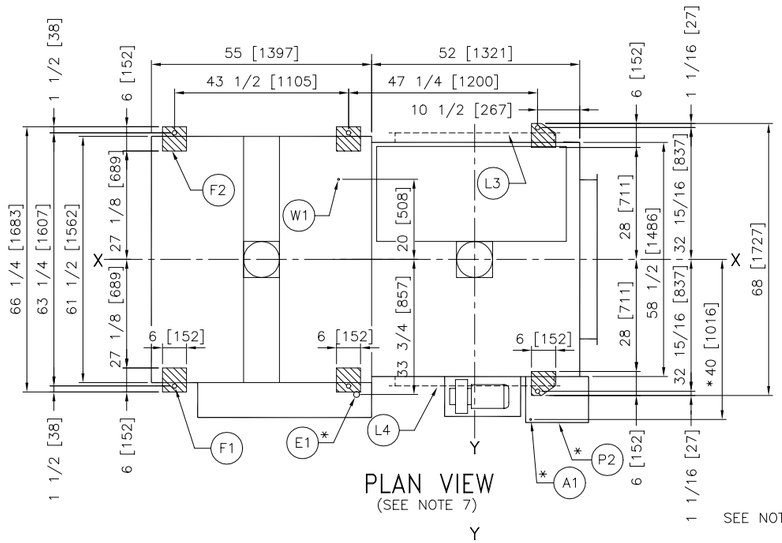
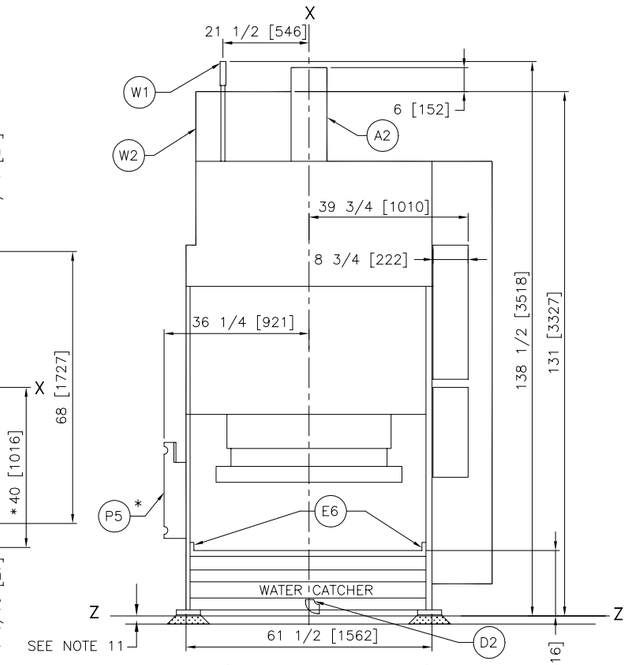
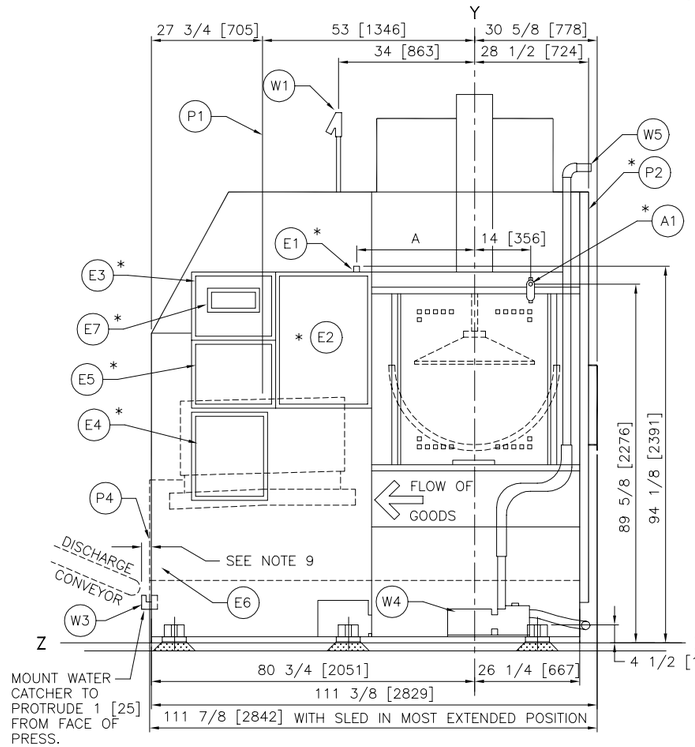




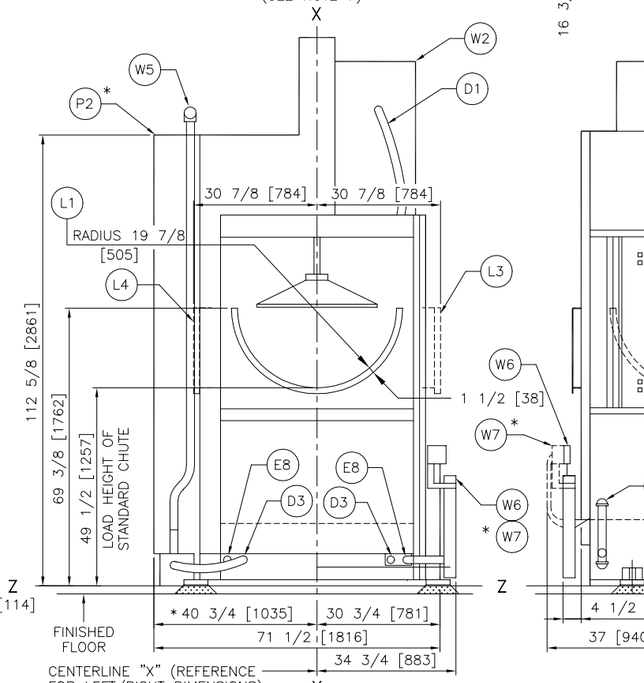
PLAN VIEW
(SEE NOTE 7)



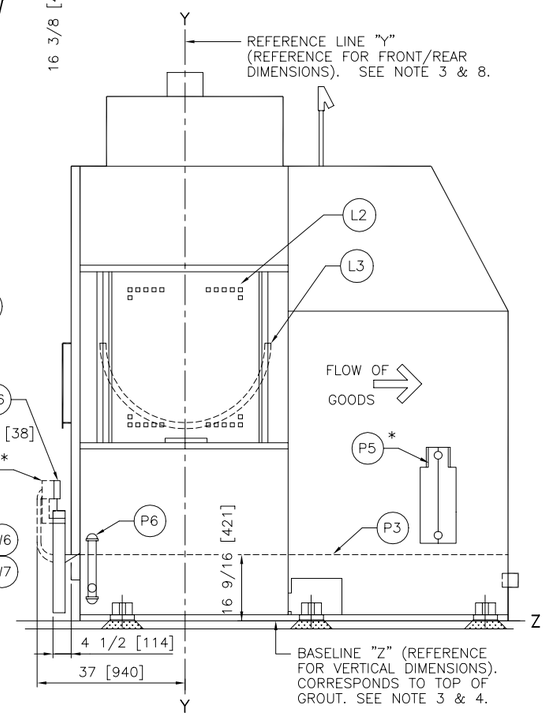
REAR (DISCHARGE END) VIEW
(SEE NOTE 7)



LEFT SIDE VIEW
(SEE NOTE 7)



FRONT VIEW
(SEE NOTE 7)



RIGHT SIDE VIEW
(SEE NOTE 7)

W7	LOCATION OF FLOAT CHAMBER WHEN RIGHT OR LEFT
	LOADING, ALWAYS OPPOSITE OF CONTROLS.
W6	FLOAT TUBE FOR STRAIGHT-IN LOADING ALWAYS OPPOSITE
	OF CONTROLS.

DIMENSION THAT VARIES		
ELECTRICS SIDE	DIMENSION "A" INCHES	mm
RIGHT	29 1/2	748
LEFT	79 1/2	2019

ITEM	LEGEND
W5	PRESS WATER TO REUSE OVERHEAD PIPING SUPPLIED BY PMC.
W4	PRESS WATER RETURN PUMP
W3	WATER CATCHER
W2	WATER TANK
W1	WATER INLET, 1/2" NPT, FEMALE CONNECTION.
P6	OIL SITE GAUGE
P5	PRESS STANDS
P4	SLED IN MOST EXTENDED POSITION
P3	TOP OF PERFORATED PLATE (BED)
*P2	SLED DRIVE BELT GUARD
P1	CENTERLINE OF MAIN PRESS
L4	LOAD CHUTE POSITION FOR LEFT HAND LOADING (MP2601L OR MP2606L).
L3	LOAD CHUTE POSITION FOR RIGHT HAND LOADING (MP2601R OR MP2606R).
L2	ACCESS DOOR, NOT USED FOR LOADING.
L1	CENTER OF RADIUS OF LOAD CHUTE FLANGE (ALIGNS WITH CENTER OF RADIUS OF ADJACENT CBW EXIT RING).
F2	BASE PLATES, SHADED AREAS REQUIRE SUPPORT.
F1	ANCHOR BOLT HOLES, 1 1/8" DIAMETER, 1" ANCHOR BOLTS, MUST PROTRUDE 6 [152] MINIMUM ABOVE BASELINE Z.
E8	LOCATIONS FOR LEVEL SWITCH CONNECTIONS, 3/4" NPT MAY BE ON LEFT OR RIGHT.
E7	PROGRAMMING AND OPERATING CONTROLS.
E6	INTERNAL PHOTOEYES. (EFFECTIVE ON MACHINES MANUFACTURED SINCE 87271. NOVEMBER 26, 1986).
*E5	CBW INTERFACE BOX, (ELECTRICAL CONNECTION FROM CBW).
E4	MICROPROCESSOR BOX
*E3	RELAY BOARD BOX
*E2	MOTOR CONTACTOR BOX
E1	ELECTRICAL POWER CONNECTION
D3	DRAIN TO PRESS WATER RETURN PUMP (TO REUSE TANK) 2" NPT MAY BE ON LEFT OR RIGHT.
D2	DRIP DRAIN TO SEWER, 2" HOSE CONNECTION.
D1	OVERFLOW DRAIN, INTERNALLY PIPED.
A2	AIR CYLINDER FOR MAIN PRESS.
*A1	AIR INLET, 1" NPT, FEMALE CONNECTION. RUN 1" MINIMUM PIPE. FOR LINES LONGER THAN 75 FEET [12 METERS], RUN 1 1/4" PIPE.

NOTES

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

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10 PRESS MAY BE SHIPPED WITH UPPER TANK AND PRE-PRESS HYDRAULIC CYLINDER REMOVED, BY SPECIAL ARRANGEMENT.

9 FACE OF PRESS TO:
(A) EDGE OF STATIONARY CONVEYOR OR COINC MUST BE 1"[25] MINIMUM.
**(B) EDGE OF TRANSLATING CONVEYOR(SHUTTLE): **OBSOLETE MUST BE **2-1/4"[57] MINIMUM. (CLEARANCE TO WATER CATCHER 1-1/4"[32])
(B) EDGE OF TRANSLATING CONVEYOR(SHUTTLE): EFFECTIVE 10-03 MUST BE 1-1/4"[57] MINIMUM. (CLEARANCE TO WATER CATCHER 1/4"[6])

8 REFERENCE LINE "Y" IS THE PREPRESS CENTER LINE AND APPLIES TO ALL THREE PRESS MODELS (RIGHT CENTER, AND LEFT HAND LOADING).

7 STRAIGHT-IN (MP6003CL/CR) LOADING SHOWN, FOR RIGHT HAND LOADING ALL COMPONENTS AND DIMENSIONS SHOWN WITH AN ASTERISK (*) ARE ON THE SAME SIDE. FOR LEFT HAND LOADING, THEY ARE ON THE OPPOSITE SIDE.

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MP2601 & MP2606 CR/CL/R/L

DM 0 0.5M 1M
INCHES 0 12 24 36
DWG# BDMP2601AE 2003414D

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