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Installation and Service

36026X8J and X8W Washer-Extractors

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

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

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PELLERIN MILNOR CORPORATION
LIMITED STANDARD WARRANTY

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

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

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

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

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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.

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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 —

Safety—Suspended, Open Pocket, Non-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.

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 3: 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 4: 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 5: Crush Hazards—Contact with the turning cylinder can crush your limbs. The cylinder will repel any object you try to stop it with, possibly causing the object to strike or stab you. 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 [6]: Confined Space Hazards—Confinement in the cylinder can kill or injure you. Hazards include but are not limited to panic, burns, poisoning, suffocation, heat prostration, biological contamination, electrocution, and crushing.

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

WARNING [7]: Explosion and Fire Hazards—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 [8]: 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 [9]: 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 [10]: 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 [11]: 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.

5.1.2. Hazards Resulting from Damaged Mechanical Devices

WARNING [12]: 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 [13]: 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 14: 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 15: 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 16: 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 17: 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 18: 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 360º 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 360º 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

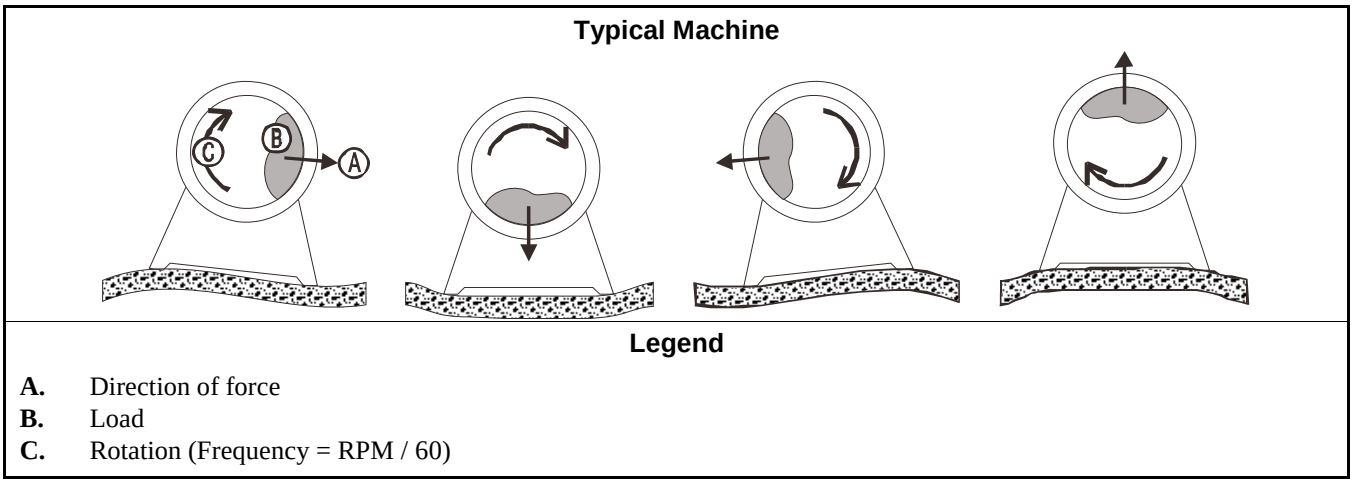


Figure 1 above is intended to depict both on-grade and above-grade installations and is equally applicable to flexibly-mounted washer-extractors, as well as to rigid models installed either directly on a floor slab or on a foundation poured integrally with the slab. Current machine data is available 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.

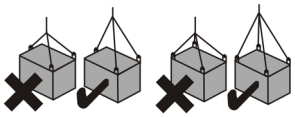
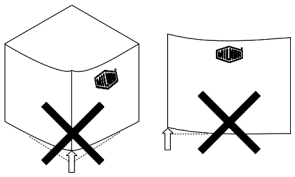
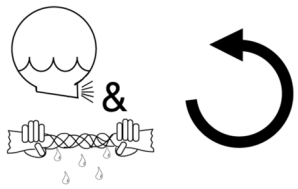
— End of BIWUUI02 —

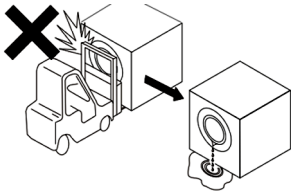
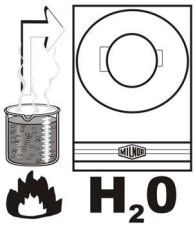
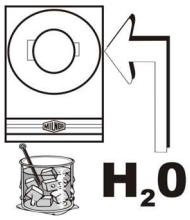
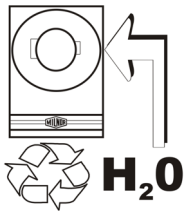
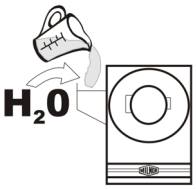
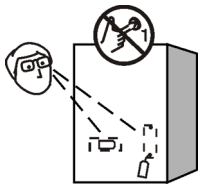
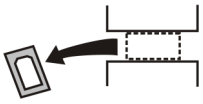
Understanding the Tag Guidelines for the Models Listed Below

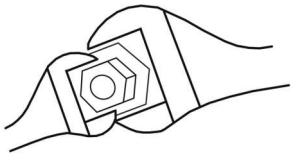
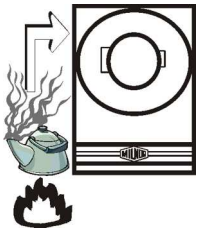
30022X8J 30022X8W 36026X8J 36026X8W 42026X7J 42026X7W 42032X7J 42032X7W

Several installation guidelines and precautions are displayed symbolically, on tags placed at the appropriate locations on the machine. Some are tie-on and others are adhesive tags. Tie-on tags and white, adhesive tags may be removed after installation. Yellow adhesive tags must remain on the machine.

Most tags contain only symbols (no words). A few are worded. The explanations below, start with the tag part number (displayed on the tag). If a tag contains no words, the meaning of the tag is explained below. If the tag contains words, the explanation below simply repeats the wording.

Display or Action	Explanation
	Read the manual before proceeding. This symbol appears on most tags. The machine ships with a complete set of manuals. The safety, installation, and electrical schematic manuals are particularly important to installers.
	B2TAG88005: This carefully built product was tested and inspected to meet Milnor® performance and quality standards by
	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.

Display or Action	Explanation
	B2TAG94099: Do not strike the shell door when fork-lifting. This can cause the door to leak.
	B2T2001013: Hot water connection.
	B2T2001014: Cold water connection.
	B2T2001015: Reuse (third) water connection (optional).
	B2T2001016: Flushing water connection. This is the water that goes into the supply compartment or pumped chemical manifold to flush chemicals into the machine (optional).
	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.

Display or Action	Explanation
	B2T2003001: Hold the side of the connection stationary with a wrench as you tighten the connection with another wrench. Otherwise, you may twist components, such as valves, damaging them.
	B2T2004027: Steam connection (optional)

— End of BIUUUI02 —

Avoiding Damage From Allied Remote Chemical Delivery Systems

Milnor® does not manufacture or supply remote chemical delivery systems and this document is meant only to illustrate some of the possible problems that can be minimized during installation of such systems by the chemical supply company. Milnor washer-extractors and CBW® batch washers (tunnels) are available with convenient inlets for such systems (see Figure 1). Most common of the types of systems currently used in commercial laundering operations are pumped chemical systems. Other types, such as constant pressure, re-circulating ring main systems have also been, and may continue to be used with Milnor equipment.

This document warns about some of the possible hazards posed by chemical systems and lists certain requirements needed to minimize those hazards. The procedures for interfacing with allied chemical systems and information pertinent to chemical use in general are provided elsewhere in the product manuals (see Note 1).

Figure 1: Pumped Chemical Inlets on CBW Batch Washer

Note 1: Misuse of laundering chemicals (such as injecting excessive concentrations of chlorine bleach or permitting acid sours to react with hypo chlorite) due to incorrect formulation can also be hazardous. Information pertinent to chemical use is provided elsewhere in the product manuals.

1. How a Chemical System Can Damage the Machine It Serves

Milnor has manufactured washer-extractors and tunnel washers with the same stainless steel specification since its founding. Every batch of steel used is certified and documented by the steel mill. Testing of samples damaged by corrosion have, in every case, proven the steel to be well within the AISI 304 specification.

Chemical products commonly found in the laundry industry, when used in **established** dosages and proper operating parameters, under the auspices of an experienced chemical specialist, should produce satisfactory results, with no consequential detrimental effects. The industry has published standards in Riggs and Sherrill, “Textile Laundering Technology”. However, the stainless steel can be damaged and even destroyed by **abnormal** contact with chlorine bleach, hydrofluosilicic acid and other commonly used chemicals, as will occur if chemicals are unintentionally leaked into the machine, particularly when it is no longer in use and especially when machine surfaces are dry.

Some chemical systems have been found to permit chemicals to dribble from the supply lines, or worse, to siphon from the supply tank into the machine, during operation and long after the system is shut down—as after working hours and during weekends. If this occurs, **deterioration (rusting) of the stainless steel and damage to any textiles therein will inevitably result. If this condition goes undetected, machine damage is likely to be catastrophic.** No machine is immune to such damage.

CAUTION 1: Equipment and Textile Damage Hazards—Chemicals leaked into the machine, particularly when it is idle can destroy machine components and textiles left in the machine. **Pellerin Milnor Corporation accepts absolutely no responsibility for damage to its equipment or to textiles therein from abnormal contact with chemicals.**

- Ensure that the chemical system prevents unintentional release of chemicals.
- Inspect regularly for proper operation and evidence of damage.

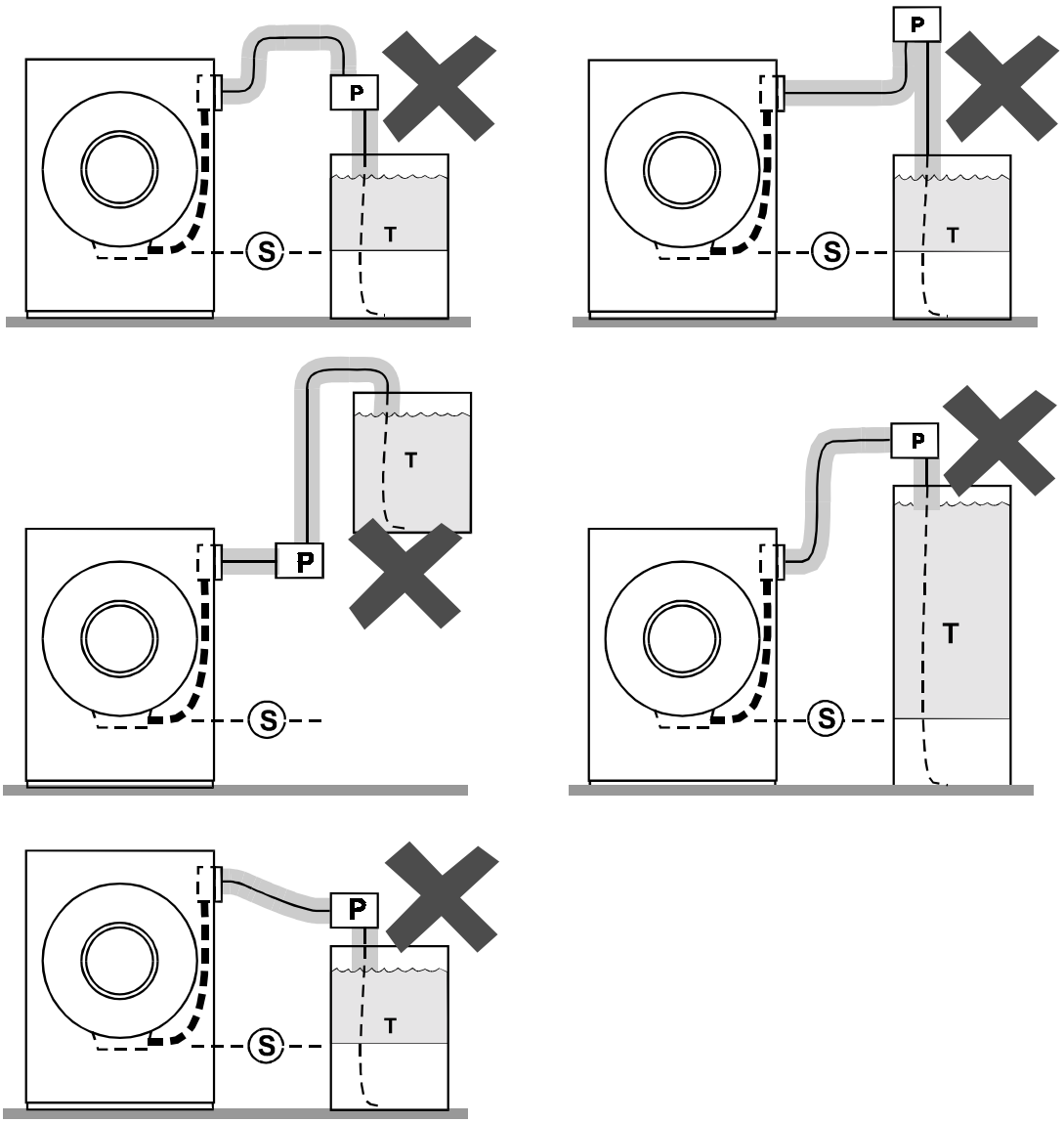
2. Requirements for Chemical Systems Used With Milnor Machines

It is the responsibility of the chemical system manufacturer and supplier to ensure that their system is safe for personnel and equipment. Some important points are described below.

2.1. Ensure the System Cannot Siphon.—The supply system must be designed to counteract any siphoning that could occur as a result of having a sealed supply line between the bottom of the chemical tank and the internal machine connection at the drain trough. As shown in the Figure 2 examples, if the pump (P) and/or the valving does not provide positive closure and there is no vacuum breaker protection, siphoning is likely to occur. In each of the Figure 2 illustrations, the volume of chemical in the tank above the siphon level (S), and indicated by shading, will flow into the machine.

Figure 2: Siphoning From the Chemical Tank into the Machine

Examples

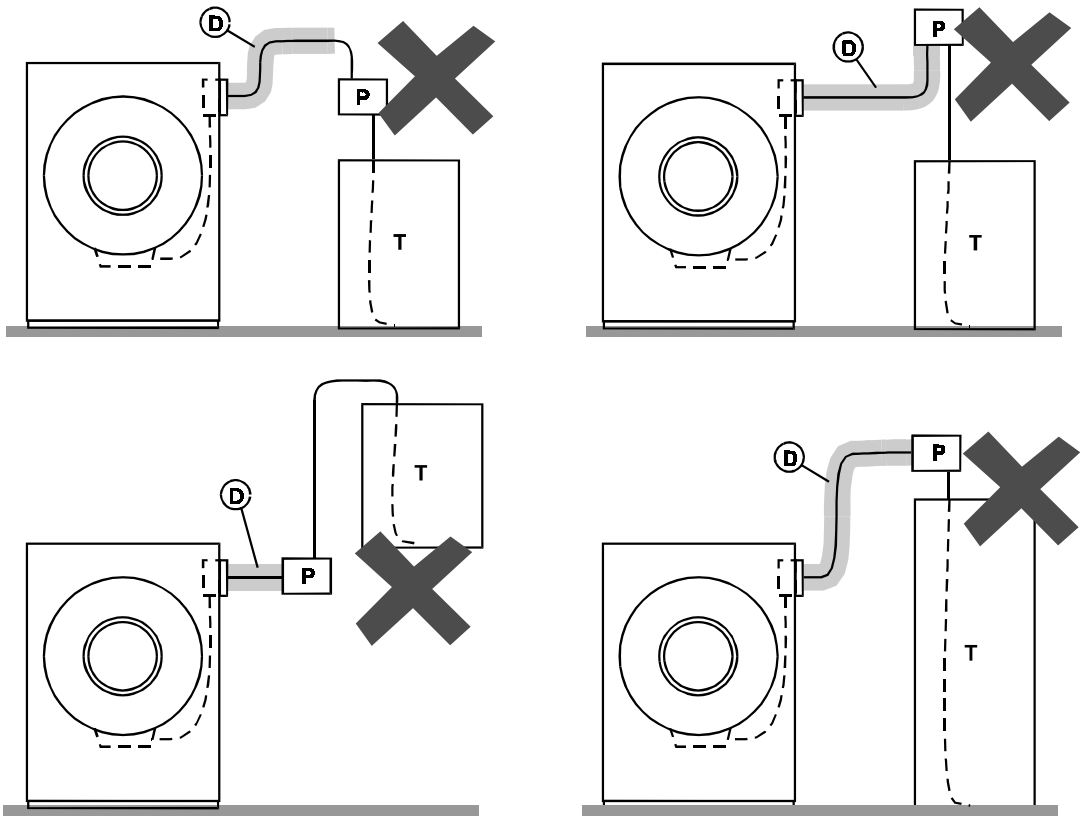


Legend

P. Pump
S. Siphon level. Shading indicates the chemical delivery line and tank content that can siphon into the machine.
T. Chemical tank

2.2. Ensure the Chemical Lines Cannot Dribble—The pumped chemical system may provide a means of positively closing the chemical line at the pump location, but not at the injection site. Hence, any concentrated chemical that remains in the injection line between the pump and the machine is free to flow into the machine. Some examples of this are shown in Figure 3.

Figure 3: Dribbling From Chemical Supply Line Into Machine (assumes positive closure at the pump)



Legend

D. Portion of supply line, the contents of which can dribble into the machine
P. Pump
T. Chemical tank

3. Design and Installation Recommendations

It is the responsibility of the chemical system manufacturer and supplier to use whatever measures are necessary to ensure that their system is safe for personnel and equipment. The following are some of the possible methods the manufacturer or supplier may wish to use, as appropriate.

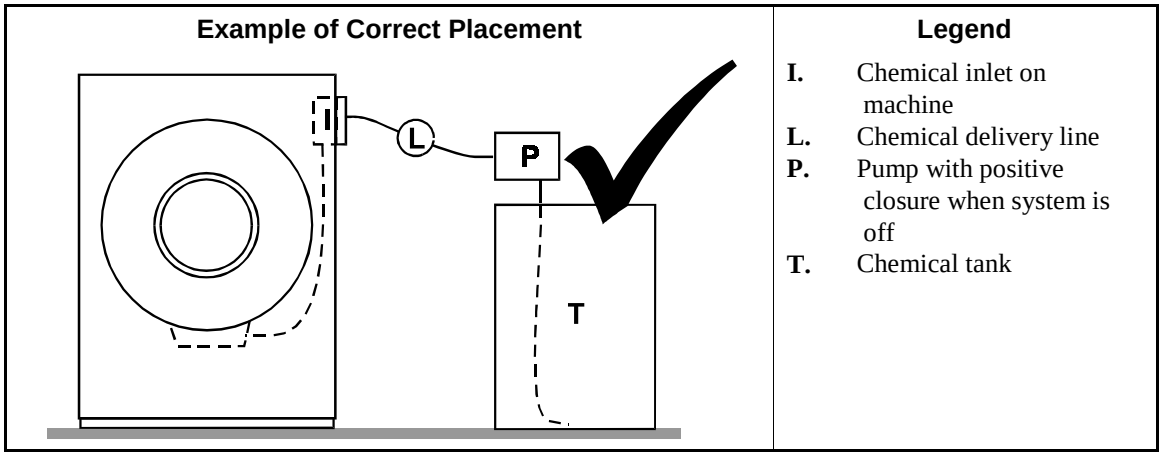
3.1. Siphoning: Positively close the line.—If the pump does not provide positive closure when the system is off, employ a shutoff valve in the line to serve this purpose.

3.2. Siphoning: Break the siphon.—Provide an air gap or vacuum breaker in the chemical delivery line. This must be located above the "full" line of the tank.

3.3. Dribbling: Flush the entire chemical delivery line.—If any concentrated chemical that remains in the injection line between the pump and the machine is free to flow into the machine, employ a system that flushes the entire line between the pump and the injection point with fresh water after each injection.

3.4. Dribbling: Locate the entire chemical line below the machine inlet.—Assuming the chemical system does not retain any line pressure and that the pump provides positive closure when the system is off, locate the entire chemical delivery line below the level of the chemical inlet. An example of this is shown in Figure 4.

Figure 4: Locating a Pumped Chemical System With Positive Closure To Protect Against Machine Damage



4. Guarding Against Leaks

All personnel who may work with the chemical system (e.g., chemical system manufacturer, chemical system supplier, chemical supplier, operator, maintenance personnel) should be vigilant in observing for leaks in the system. When connecting, or reconnecting chemical lines, whether at installation, after taking samples, or when replacing components, at a minimum ensure that:

1. the proper components are used,
2. all connections are the proper fit, and
3. all components are securely connected.

CAUTION 2: Injury and Damage Hazards—Chemicals leaking from a chemical system may be corrosive or toxic. Such chemicals can injure personnel and damage equipment.

- Use care when connecting chemical lines.
- Inspect regularly for leaks.

— End of BIWUUI03 —

Service and Maintenance

1

BIMUUI01 (Published) Book specs- Dates: 20030213 / 20030213 / 20030213 Lang: ENG01 Applic: MUU

Washer-Extractor Installation

1. Handling

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.

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.

2. Moving the Machine into Place

1. Use skids for fork lifting. If possible, leave the machine on shipping skids until it is near its final position. Once skids are removed, carefully place forks under base. Do not allow the forks to come in contact with valves, piping, motors, etc., located under the machine. Do not push or hit the shell front when uncrating or installing the machine as it may cause the door to leak.
2. Never push, pull, lift, jack, or exert pressure on any components that protrude from the machine frame (shell front, door, electric boxes, controls, guards, conduits, conveyors, piping, valves, drains, vents, tilt frames, etc.).
3. Do not pull on door conduit to help move the machine as the door switch may require readjustment.

3. Site Requirements

3.1. Space Requirement

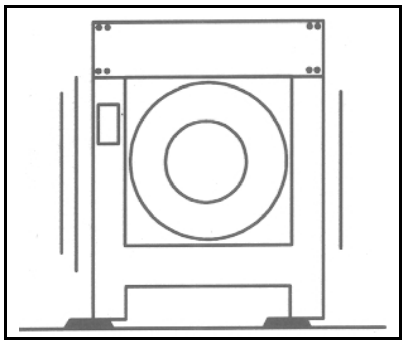
1. All openings and corridors through which equipment must pass during installation must be large enough to accommodate the width and the height of the machine as shown on the dimensional drawings. It is occasionally possible to reduce the overall dimensions by removing piping or other special modifications.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

3.2. 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 shutoffs, etc.)

3.3. Foundation Requirement—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.

Figure 1: Vibration warning



CAUTION 1: Machine Damage Hazards—Improperly installed suspension type machines can "walk" out of position during extract, endangering personnel and damaging equipment.

- Roughen floor. Install anchor bolts and grout under all base pads to prevent "teeter-totter" and sideways movement.
- Remove shipping restraints after machine is in place. Failure to remove all restraints (usually painted red) will cause malfunctions and damage. Restraints may be located behind access covers. These include, but are not limited to:
- Cylinder hold-down bolts, brackets, straps and/or blocking. Replace all fasteners which are part of the machine structure.
- Vibration safety switch restraint

4. Setting Procedures

To protect against lateral creeping of the machine during operation (due to vibration), roughen the area of the floor where the grout will be applied. Anchor bolts are required.

1. With the machine near the final location, unbolt the shipping skids. Observing all precautions, lift the machine off its skids and lower the machine onto blocking. Shim the blocking until the machine is level and approximately l" (25) clearance exists under each base pad. Install anchor bolts as shown on the dimensional drawing, but do not tighten bolts until grout is completely dry.
2. Apply grout between the existing foundation floor and the base pads, observing the following considerations:
   - 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.

CAUTION 2: Vibration and Malfunction Hazard—Voids under the base pads can magnify vibration and cause unsatisfactory operation.

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

3. Tighten anchor bolts 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.

5. Before Running Machine

CAUTION 3: Machine Damage Hazards—Machine can be damaged if shipping restraints are improperly utilized. These include various bolts, brackets, weldments and safety stands (painted red), and the vibration safety switch (tie wrapped).

- DO NOT remove shipping restraints until installation is complete
- DO remove all shipping restraints before operating machine.

Prior to operation,

- Remove the red locking bolts from the front and back of the shell.
- Remove the red shipping bracket stands.
- Remove the tie wrap that secures the vibration safety switch.
- Check the perforated cylinder for smoothness before placing machine in service. Milnor cannot accept cylinder finish damage claims after machine is in service.

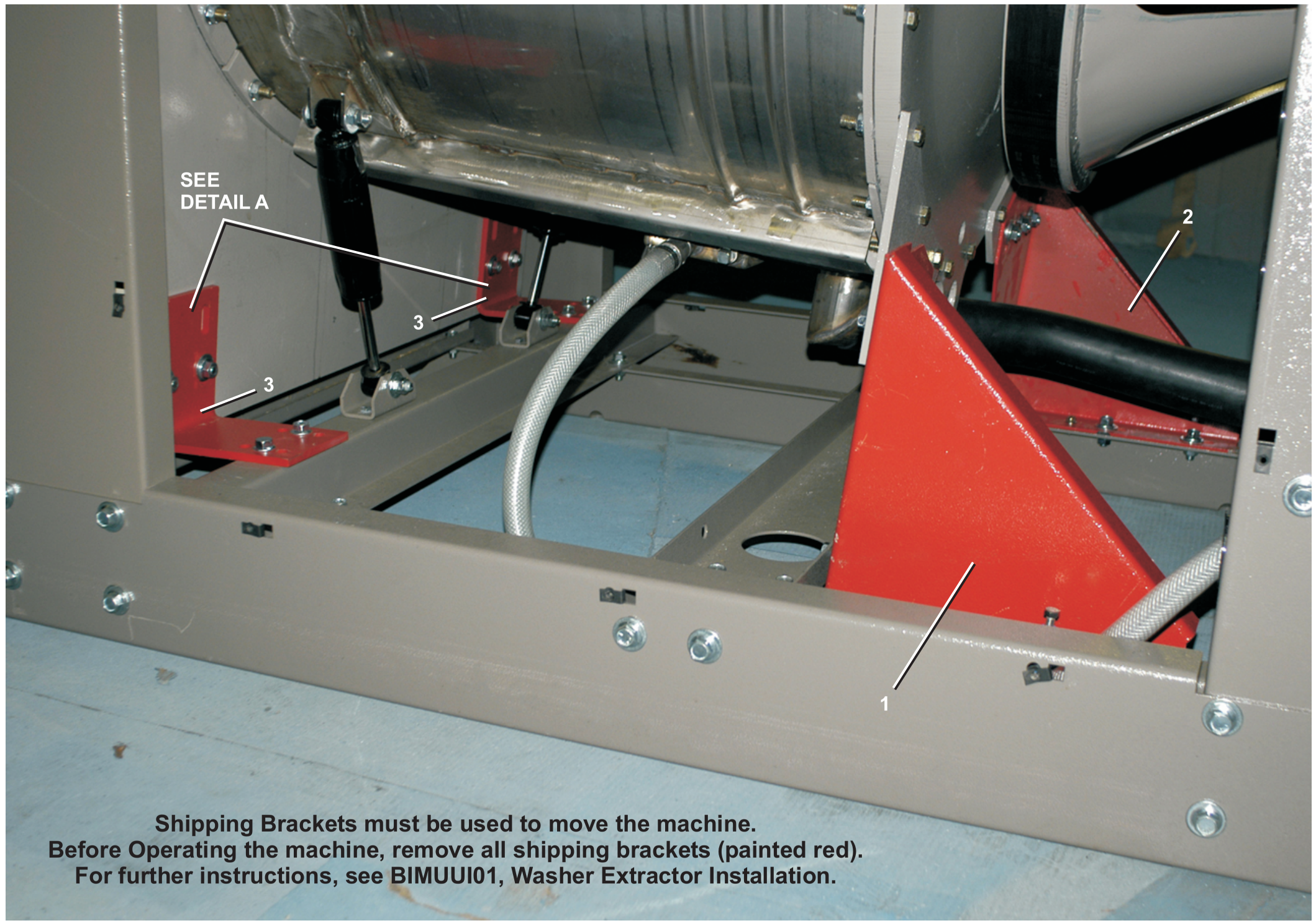
— End of BIMUUI01 —

Shipping Brackets

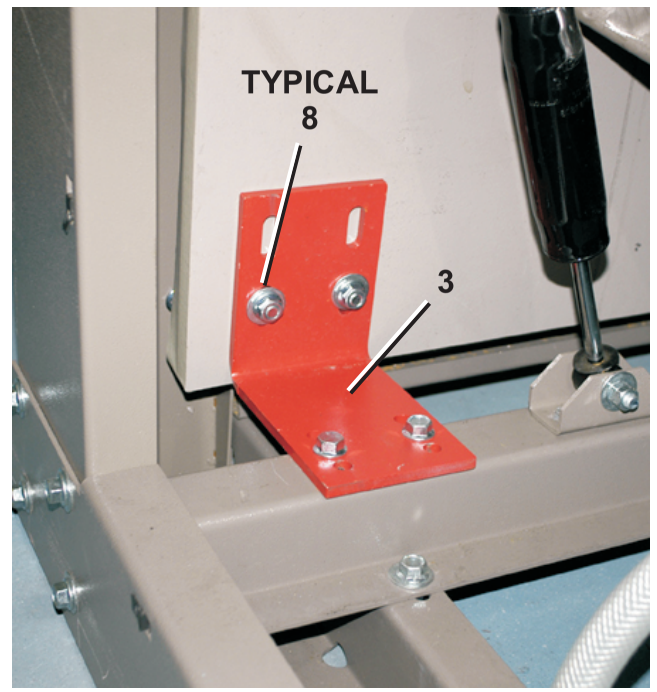
3626X8J,X8W 4226X7J,X7W 4232X7J,X7W

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

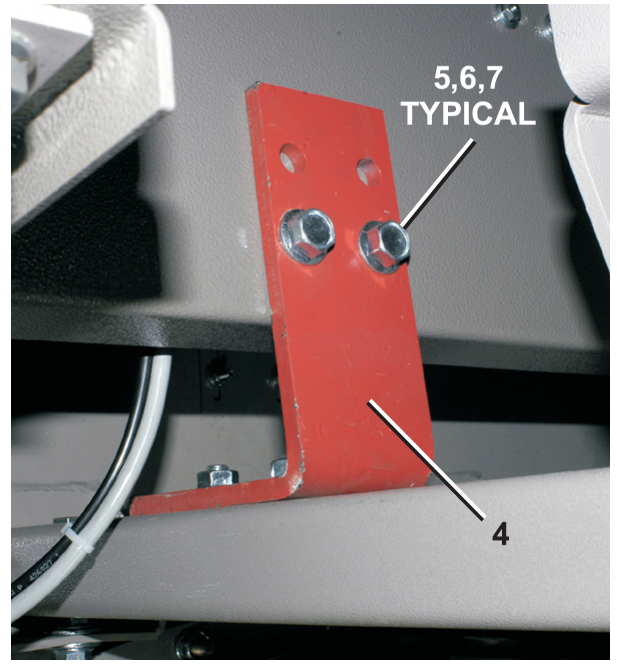
Litho in U.S.A.



**Shipping Brackets must be used to move the machine.
Before Operating the machine, remove all shipping brackets (painted red).
For further instructions, see BIMUUI01, Washer Extractor Installation.**



DETAIL A: LOWER FRONT



DETAIL B: UPPER FRONT

Shipping Brackets

3626X8J,X8W 4226X7J,X7W 4232X7J,X7W

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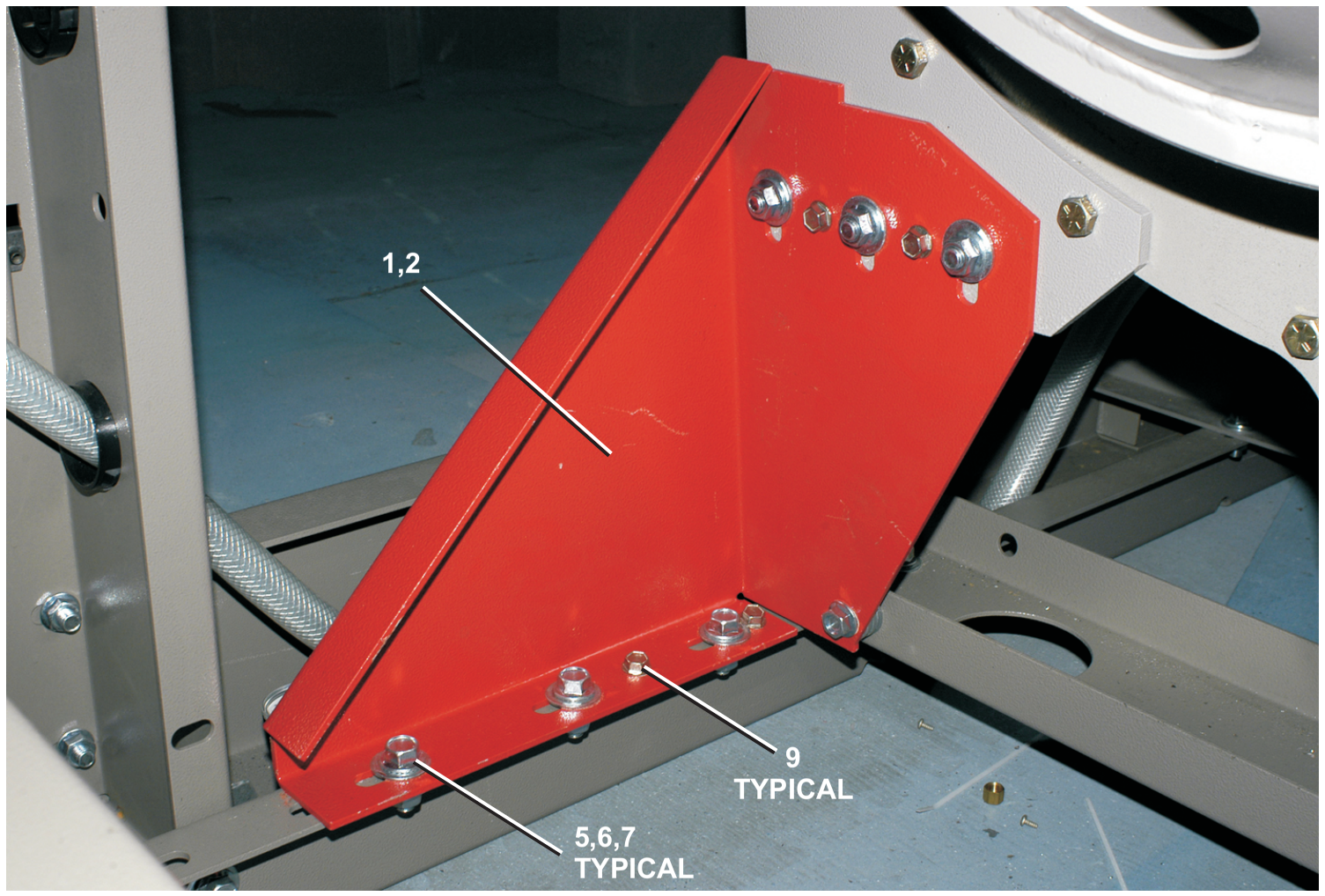
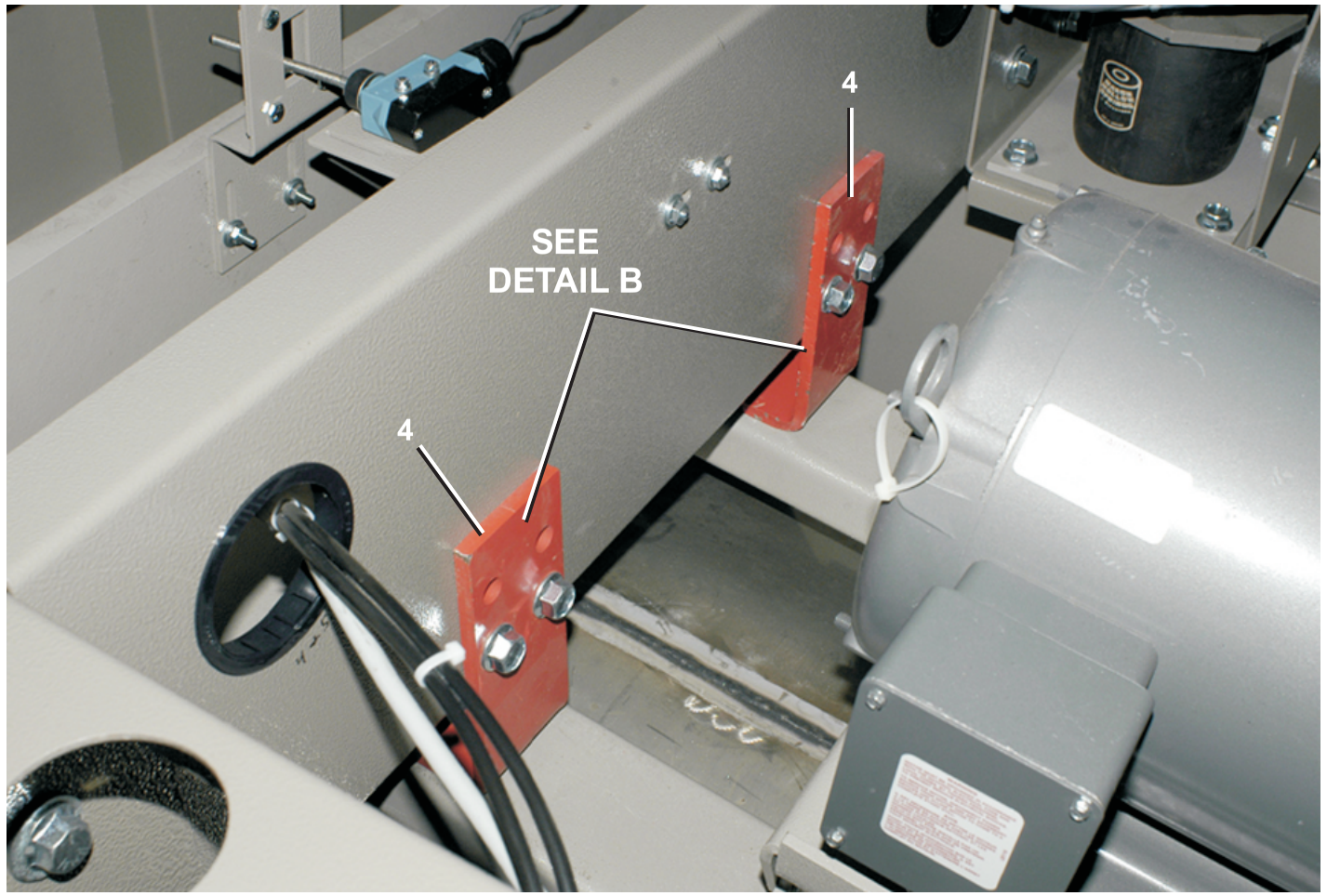
REAR SHIPPING BRACKET





UPPER FRONT

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

Litho in U.S.A.

Parts List—Shipping Brackets

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

Used In	Item	Part Number	Description	Comments
.				
			----------ASSEMBLIES----------	
			none	
			----------COMPONENTS----------	
all	1	02 13595	BRKT=SHIP REAR RT 36X	
all	2	02 13595A	BRKT=SHIP REAR LEFT 36X	
all	3	02 23543	BRKT=SHIP LOWER FRNT	
all	4	02 23544	BRKT=SHIP 42/36X UPPER FRNT	
all	5	15K129	HEXFLGSCR 1/2-13X1-1/4ZN. GR 5	
all	6	15G222B	HEXFLGNUT 1/2-13 ZINC	
all	7	15U280	FL+WASHER(USS STD)1/2 ZNC PL+D	
all	8	15K154G	INDHEXFLGSCR 1/2-13X1+3/4GR5 Z	
all	9	15P200	TRDCUT-F HXWASHD 3/8-16X3/4NIK	

BIMUUI02 (Published) Book specs- Dates: 20050117 / 20050117 / 20050117 Lang: ENG01 Applic: MXB

Service Connections

1. General

Required service connections, (depending on machine model and optional features) are as follows:

1. Piped inlets and outlets (cold water, hot water, flush water, direct steam, liquid supply and drain to sewer). The sizes and locations of piped inlets and outlets are shown on the dimensional drawing for your machine.
2. Electrical power connections.

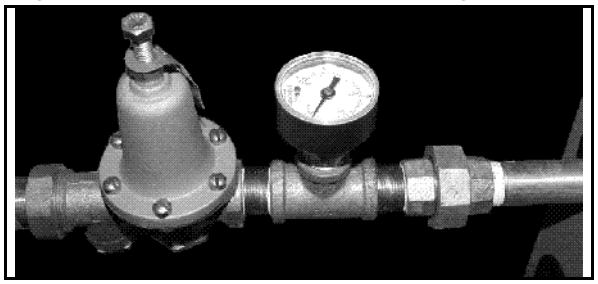
2. Requirements for Piped Connections

Notice 1: Machine Damage Hazards—Valve bodies will be ruined if twisted and distorted.

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

1. Inlet pressures must be within the minimum/maximum range specified. Pressure outside of the specified range may cause the machine to operate inefficiently or malfunction and may damage machine components.
2. A separate flush water valve pressure regulator set for approximately 28 psi (193 kPa) is shipped with the machine (Figure 1). Install this regulator on the flush water inlet when installing piping.
3. Throughly flush all water lines before making connections.
4. We recommend installing 40 mesh strainers or filters in front of the cold, hot and third water valves.
5. When connecting water and steam inlets, always install unions and shut off valves at the point of connection to permit removal of the machine components for servicing, when necessary.

Figure 1: Flush water valve pressure regulator



CAUTION 2: 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.

2.1. Piped Inlet Specifications

Table 1: Piped Inlets

Connection Description	Source Requirements	Piping Requirements, Comments
Cold water inlet	3/4" NPT	Pipe material per plumbing code
Hot water inlet		
Third water inlet (optional)		
Hot water for supply		
Air supply	1/4" NPT	
Steam inlet (if equipped)	3/4" NPT	
Liquid supply inlet	3/8" or 1/2"	Flexible tubing as supplied by the chemical supplier

2.2. Piped Outlet Specifications

Table 2: Outlets

Connection Description	Destination Requirements or Description	Piping Specifications
Drain	3" pipe socket joint, unrestricted gravity feed to sewer (external back pressure may extend wash times - Do not reduce)	Rubber hose, PVC or other approved material per plumbing code
Vent	3"	

3. Power Connections and Precautions

WARNING 3: Electrocution and Electrical Burn Hazards—Contact with high voltage will electrocute or burn you. Power switches on the machine and the control box do not eliminate these hazards. High voltage is present at the machine unless the main machine power disconnect is off.

- Do not service machine unless qualified and authorized.

Notice 4: Machine Damage Hazards—Voltage fluctuations of more than 10% above or below the specified voltage for your machine can damage electrical components, especially motors.

- Any such conditions should be corrected prior to commissioning your machine.

The customer must furnish a remotely mounted disconnect switch with lag type fuses or 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 the fuse and wire sizing information in the schematic manual and on the machine nameplate. See dimensional drawings in this manual for electrical connection locations.

1. Electrical connections must be made by a competent electrician.
2. See fuse and wire sizing information in the schematic manual and on the machine nameplate. If the wire runs more than 50 feet, increase by one wire size for each additional 50 feet.
3. Only use Bussman Fusatron FRN (up to 250V), FRS (up to 600V) or similar lag fuses, the nameplate fuse sizes must not be applied to standard fuses.
4. Stinger leg, if any, must be connected to terminal L3, never to terminals L1 or L2.
5. Make power and liquid supply electrical connections within junction boxes on the rear of the machine.

6. Verify motor rotation (Figure 2). See the operating and trouble shooting manual for more information. If the cylinder turns in the wrong direction, interchange the wires connected to L1 and L2. Never move L3 under any circumstances. All motors are phased for proper rotation. Never attempt to reconnect motors or the motor control devices.
7. 240/208 volt machines are shipped set for 240 volt operation from the factory (Figure 3). Place the line voltage switch in the 208 volt position if the supply voltage is 208 volts.

Figure 2: Correct Rotation During Drain and Extract (when viewing front of machine)

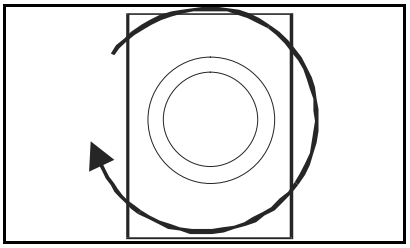
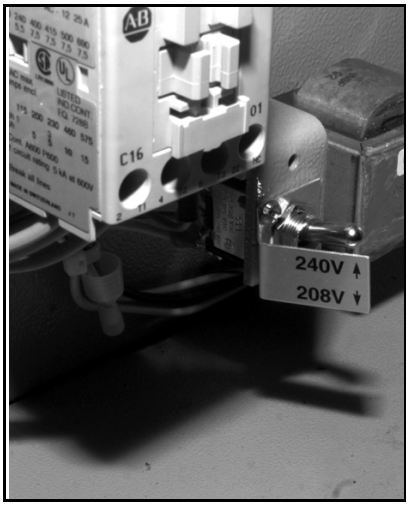


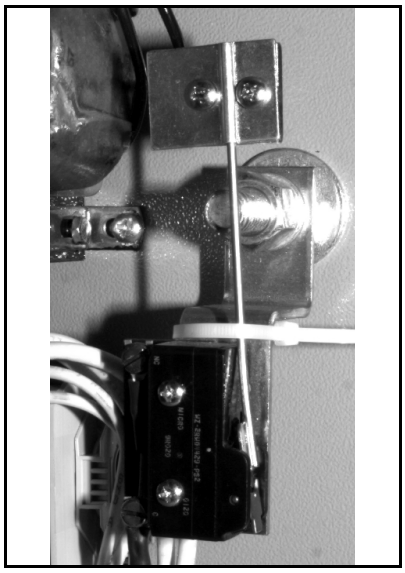
Figure 3: Line Voltage Switch Set for 240 Volt Operation



4. Remove Shipping Restraints

Remove all shipping restraints (usually marked in red). Restraints may be located behind access panels. Restraints may include the vibration switch restraint (Figure 4).

Figure 4: Typical Vibration Switch Showing Restraint in Place



5. Check Cylinder Surface

Check the perforated cylinder for smoothness. Milnor will not accept responsibility for the cylinder finish after the machine is placed in service.

— End of BIMUUI02 —

BIMUUM01 (Published) Book specs- Dates: 20060509 / 20060509 / 20060509 Lang: ENG01 Applic: MXB

Preventive Maintenance

As required by the warranty and to achieve optimum performance and service life from Milnor washer-extractors, the schedules, instructions and precautions herein must be strictly followed.

WARNING 1: Entangle and Crush Hazards—Guards, covers, and panels—Operating the machine with any guard, cover, or panel removed exposes moving components.

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

CAUTION 2: Pinch Hazard-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.

- NEVER place fingers in gap between shell and frame.

1. Lubrication Precautions [Document BIUUUM01]

CAUTION 3: Machine Damage Hazard—Improper lubrication can damage machine components and cause the machine to malfunction.

- Do not mix petroleum and synthetic based lubricants.
- Do not use an unspecified lubricant without consulting the lubricant manufacturer.
- Do not apply grease with a pneumatic grease gun. Use only a hand-operated grease gun.
- Do not over-lubricate.
- Always clean grease fittings before adding grease. Clean off excess grease.
- Ensure that lubricants do not drip onto belts, brake shoes or drums.

WARNING 4: 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.

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

1.1. Pumping Grease—Pump grease slowly, taking 10-12 seconds to complete each stroke. A grease gun can build up extremely high pressure which will force seals out of position and cause them to leak.

1.2. **Grease Quantity**—Apply the quantity of grease called for in the checklist. Over-lubrication can be as damaging as under-lubrication. Where quantities are stated in strokes, one stroke of the grease gun is assumed to provide .0624 fluid oz. (1.77 grams) (by volume) of grease. Therefore, one fluid ounce (28.3 grams) of grease would be provided by 16 stokes of the grease gun. Determine the flow rate of your grease gun by pumping one ounce into a calibrated container. If fewer than 16 stokes are required, all quantities in strokes in the chart should be reduced accordingly, and if more than 16 strokes are required, the number of strokes should be increased. Before starting lubrication, make sure your grease gun is working and that you get a full charge of grease with every stroke.

1.3. **Lubricant Specifications**—Lubricant specifications are provided in the preventive maintenance checklist. Lubricants should be purchased locally. If a specified lubricant is not available locally, it is permissible to substitute a product that has been specified as equivalent by the lubricant manufacturer. If you cannot obtain either the specified lubricant or a valid equivalent locally, contact the Milnor Service Department for assistance.

2. Main Bearing Housing Preventive Maintenance

WARNING 5: Entangle and Sever Hazards—Guards, covers, and panels—Operating the machine with any guard, cover, or panel removed exposes moving components.

- Power is ON and cylinder is turning during the following procedure. Permit only qualified maintenance personnel to perform this procedure.

Grease water seals and main bearings as follows:

1. Locate the seal and bearing grease fittings plate (Figure 1).
2. Place the machine in a wash step (see operating manual).
3. With the cylinder turning, grease the water seals and bearings as called for in the “Preventive Maintenance Checklist” and “Lubrication Precautions.”
4. Clean excess lubricant from the machine.

3. Preventive Maintenance

Table 1: Preventive Maintenance Checklist

Components		Action	Frequency	Specifications/References/Figures
Main Bearing Housing	Bearings	Slowly grease, 2 strokes - 0.12 fluid ounces (3.54 grams) at two locations.	Monthly	Shell Alvania EP (or equivalent). See "Bearing Housing Maintenance Points."
	Water seals	Slowly grease, 1 stroke - 0.06 fluid ounces (1.77 grams) at one location.	Monthly	
Drive Train	Drive belts	Inspect belt(s) and pulley for wear. Test belt tension.	Every four months	See "Drive Belt Service and Service Notes" in this section.
	Inverter fans and vents	Verify fan operation and vacuum out vents.	Monthly	See "Drive Train Maintenance Points."
Suspension	Rubber springs	Inspect for cracks and deterioration.	Monthly	See "Suspension Maintenance Points."
	Ball bushings	Slowly grease, 1 stroke - 0.06 fluid ounces (1.77 grams) at one location.	Every two months	Shell Alvania EP (or equivalent). See "Suspension Maintenance Points."
	Shocks	Inspect for leaks and deterioration.	Every four months	See "Suspension Maintenance Points."
Foundation	Bolts	Check bolts for tightness and wear. Tighten or replace as necessary.	Every four months	Dimensional drawings
Chemical Supply (if so equipped)	Supply hoses	Inspect for leaks and deterioration, observe operation.	Every four months	See "Service Notes" in this section
	Flushing supply injection valve strainers (if so equipped)	Inspect and clean the strainers in supply injector valves and clean out each compartment.		
Steam	Steam strainer (if so equipped)	Inspect and clean strainer	Every four months	

4. Drive Belt Service

Check tension for a new belt according to the following schedule and tighten belt if needed, as described below.

- After 24 hours operation (three eight-hour shifts)
- After 80 hours operation (ten eight-hour shifts)
- After 160 hours operation (twenty eight-hour shifts)

- If the belt is new, accurately measure the outer diameter of the belt. This measurement is L1. Find L1 in the table, then locate the "L2" entry corresponding to L1. Tie a string to this length and install the belt, then:
  1. Fit string to the outer diameter of both pulleys and slowly raise motor platform until string is tight.
  2. After the belt has run 24 hours or longer, measure the outer diameter again, then see L2 in the "Initial belt tension" column of the table. Find the corresponding "L3" length. Tie a string to this length.
  3. Once again, fit string to the outer diameter of both pulleys, then slowly raise motor platform until string is tight.
- If tightening an existing belt, see step 2 above.

Table 2: 36026X Final Drive Tension

Initial belt size (new belts only)	Initial belt tension (new belts and existing belts)	Final belt tension (existing belts only)
L1 (inches)	**L2 (inches)**	**L3 (inches)**
116	116.3	116.6
116.2	116.5	116.8
116.4	116.7	117
116.6	116.9	117.2
116.8	117.2	117.4
117	117.4	117.6
117.2	117.6	117.8
117.4	117.8	118
117.6	118	118.2
117.8	118.2	118.4
118	118.4	118.6
118.2	118.6	118.8
118.4	118.8	119
118.6	119	119.2
118.8	119.2	119.4
119	119.4	119.6
119.2	119.6	119.8
119.4	119.8	120
119.6	120	120.2
119.8	120.2	120.4
120	120.4	120.6
120.2	120.6	120.8
120.4	120.8	121
120.6	121	121.2
120.8	121.2	121.4
121	121.4	121.6
121.2	121.6	121.8
121.4	121.8	122
121.6	122	122.2

5. Service Notes

All V-belts are not alike. So-called “Super” or “High Capacity” belts frequently have considerably higher capacities than “Standard” belts. Sometimes a particular manufacturer's V-belts will be more suitable for a certain application and another manufacturer's V-belts may be suitable for a different application. This may occur in spite of the fact that both manufacturer's V-belts are reputedly “interchangeable.” Because of this, it is always best to purchase replacement belts from the original manufacturer of the equipment. If you do not wish to do this, we suggest

that when you replace the belts, you purchase the exact style and type belts with which the machine was originally equipped. This is the best way to achieve belt life on your replacement belts equal to the life of the original set. If you are not satisfied with the life of the original set, you should ask our factory if a better belt has been developed for the specific application.

Dry bleaches may cause the inside of the supply injector to show evidence of mild rusting. If this occurs, carefully clean away rusting at least once a week. Always inject dry bleach from the cup or scoop. Never allow dry bleach to come into direct contact with the stainless steel components of the supply injector.

6. Service Items

Figure 1: Bearing, Seal and Motor Grease Points

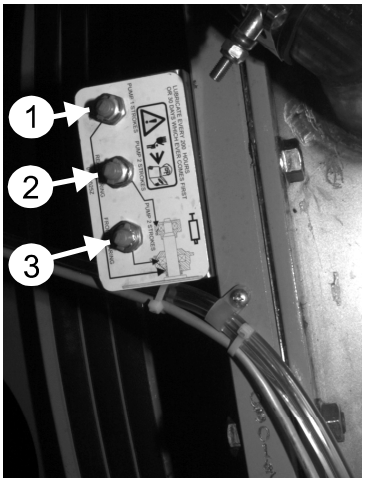
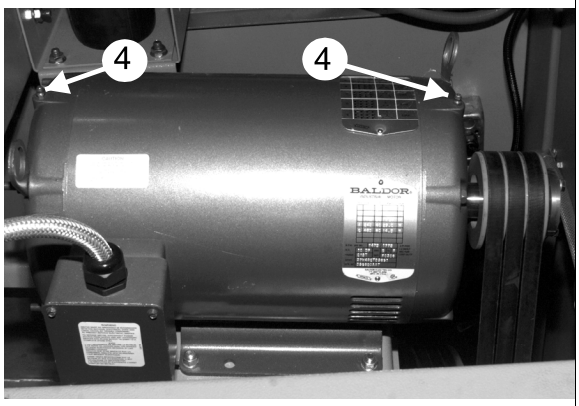
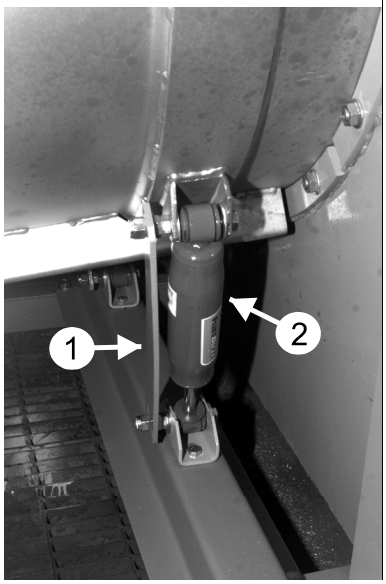
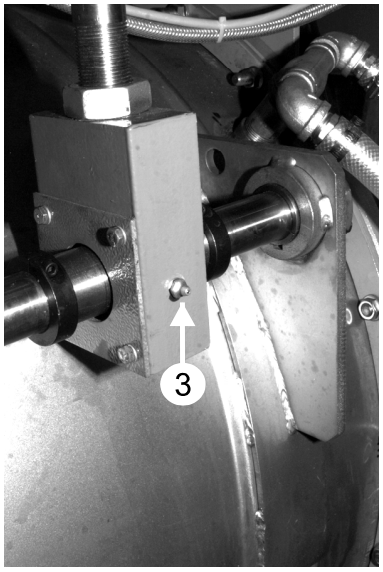
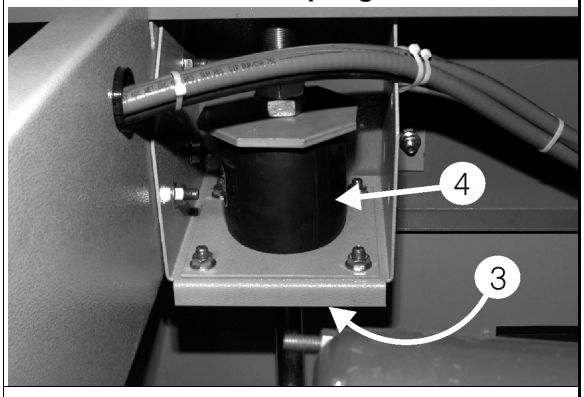
Bearing and seal grease points	Motor grease points (If so equipped)	Legend
		**1.** Seal grease fitting **2.** Bearing grease fitting **3.** Bearing grease fitting **4.** Motor grease fittings (if so equipped)

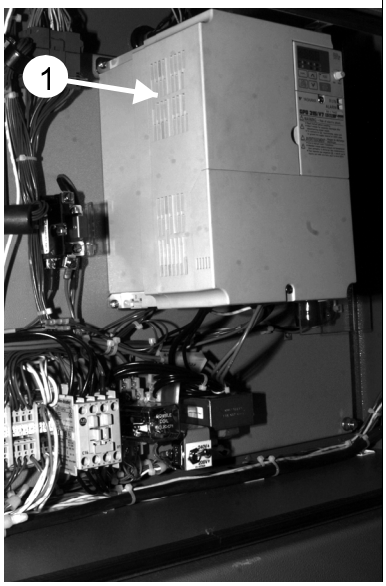
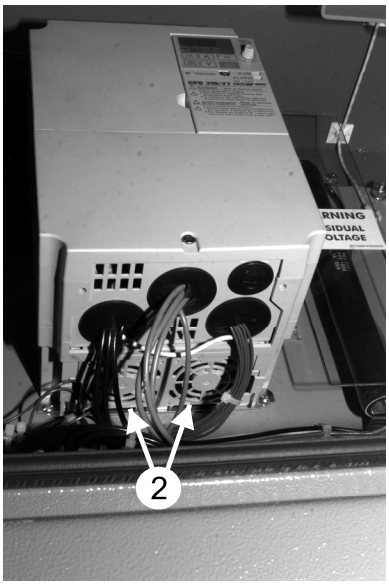
Figure 2: Suspension Maintenance Points

Shock	Ball bushing grease point	Rubber springs
		

Legend

1. Shipping bracket (remove before operation)
2. Shock (two locations)
3. Ball bushing grease fittings
4. Rubber spring

Figure 3: Drive train maintenance points

Inverter vents	Inverter fans	Legend
		**1.** Vents **2.** Fans

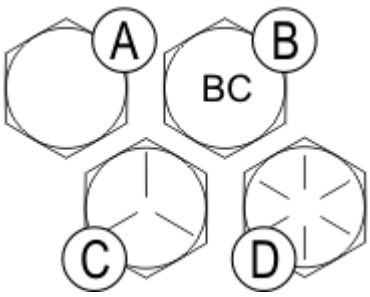
— End of BIMUUM01 —

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

Fastener Torque Requirements

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

Figure 1: Common Bolts Used in Milnor Equipment

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

1. Torque Values

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

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

1.1. Carbon Steel Fasteners

1.1.1. Without Threadlocking Compound

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

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

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

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

Table 3: Torque Values for Plated Fasteners 5/16-inch and Smaller

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

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

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

1.1.2. With Threadlocking Compound

Table 5: Threadlocking Compound Selection by Bolt Size

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

Table 6: Torque Values for Applications of LocTite 222

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

Table 7: Torque Values for Applications of LocTite 242

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

Table 8: Torque Values for Applications of LocTite 262

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

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

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

Table 10: Torque Values for Applications of LocTite 277

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

1.2. Stainless Steel Fasteners

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

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

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

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

2. Preparation

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

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

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

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

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

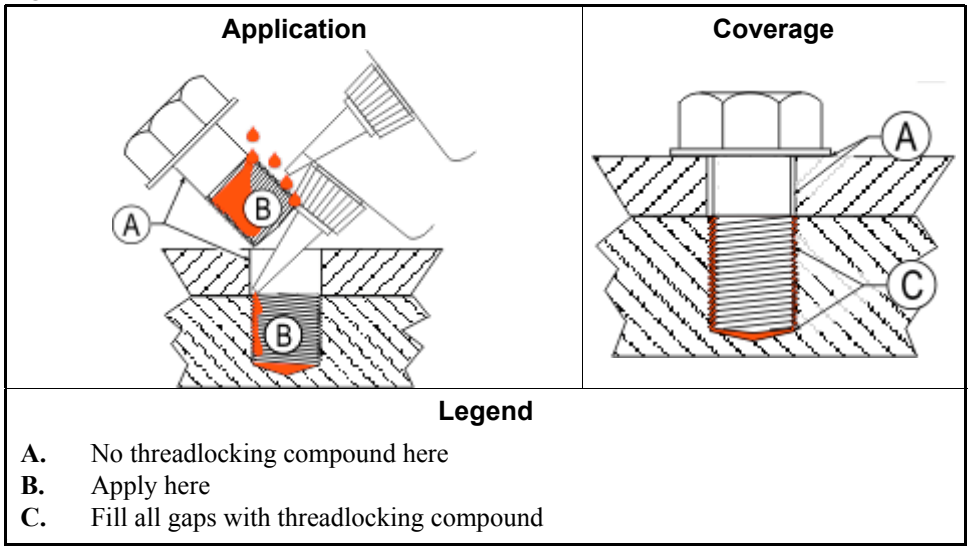
3. Application of Threadlocking Compound

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

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

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

Figure 2: Blind Hole



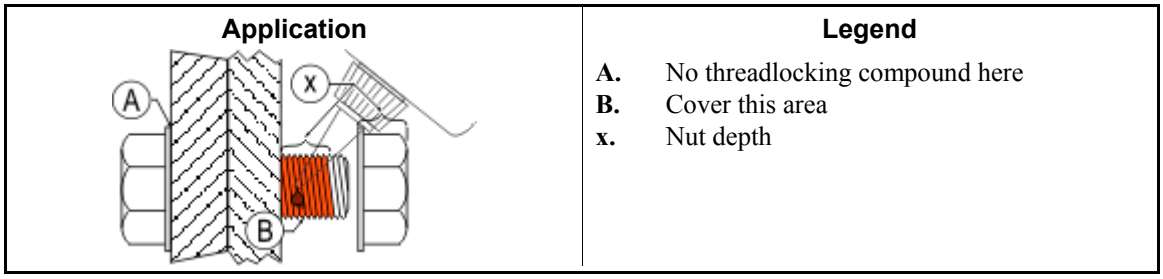
3.1. Blind Holes

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

3.2. Through Holes

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

Figure 3: Through Hole

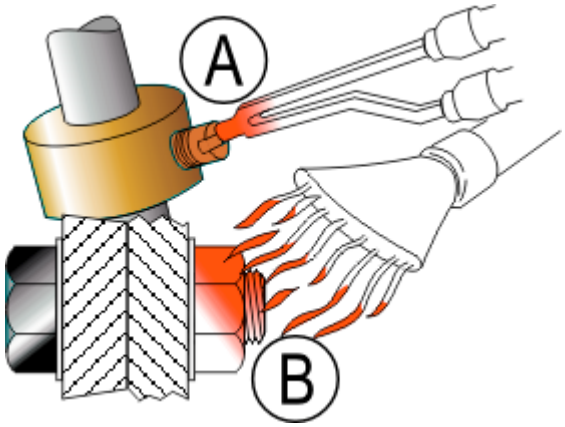


3.3. Disassembly—For low-strength and medium-strength products, disassemble with hand tools.

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

Figure 4: Disassembly

Use Localized Heat



Legend

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

— End of BIUUUM04 —

Safety Placard Use and Placement

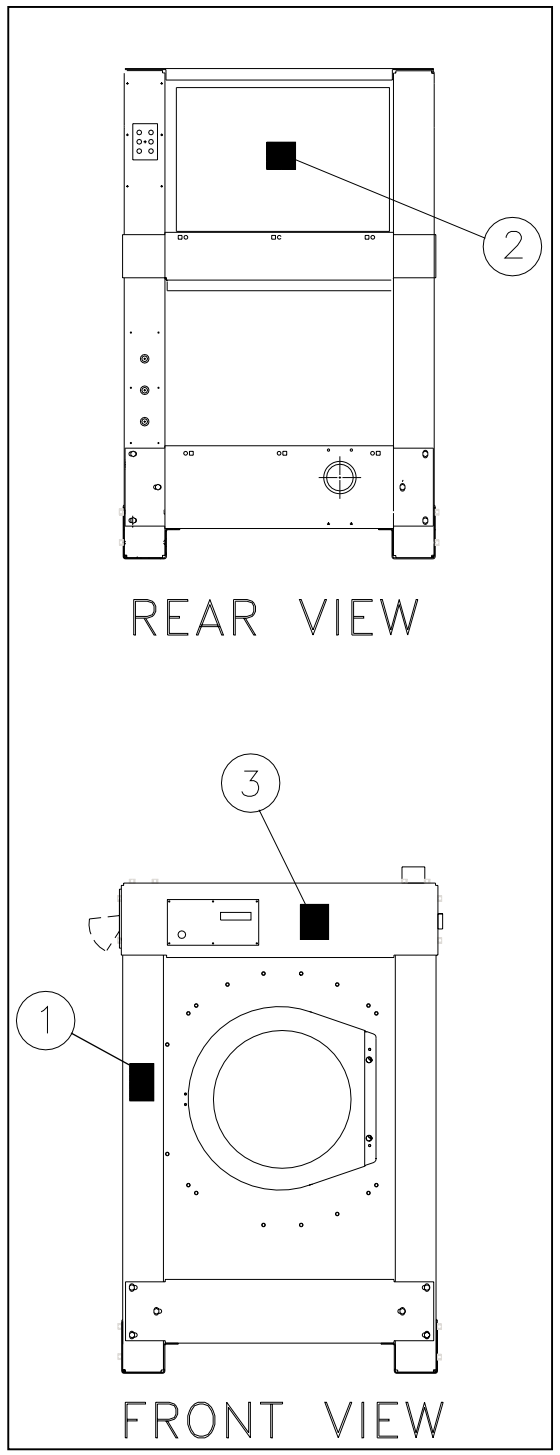
30022, 36026X8J & 42026, 42032X7J

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

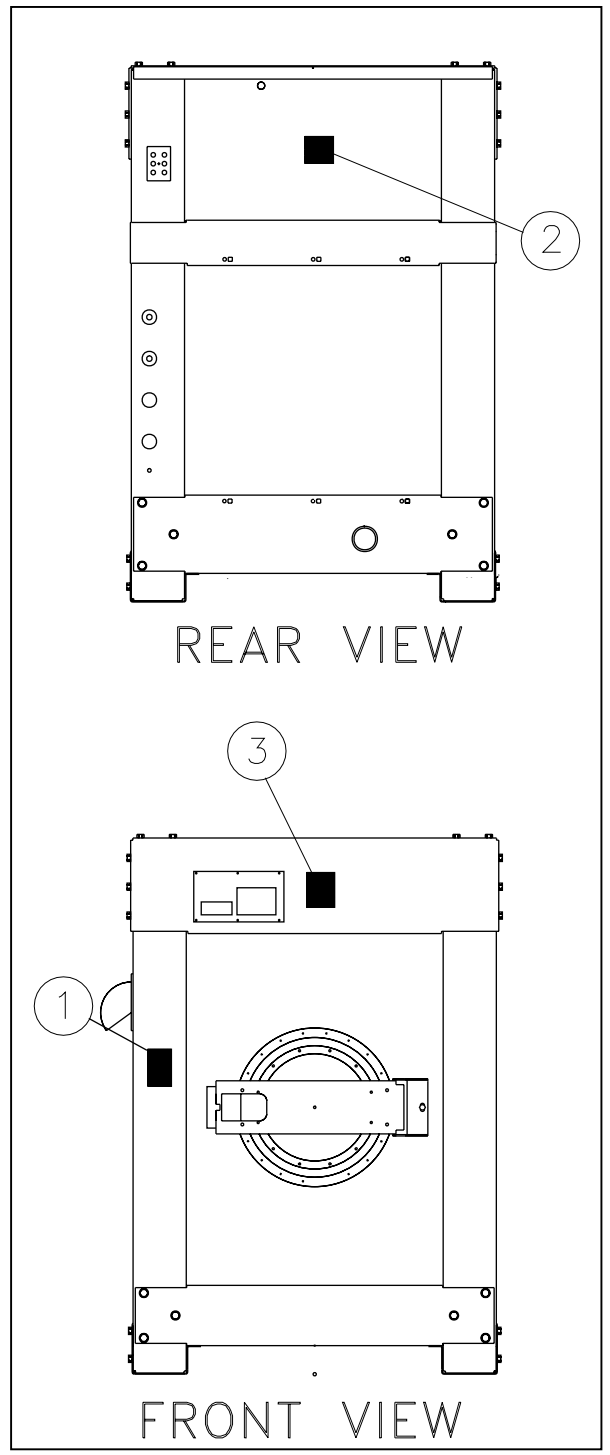
Litho in U.S.A.

Notes:

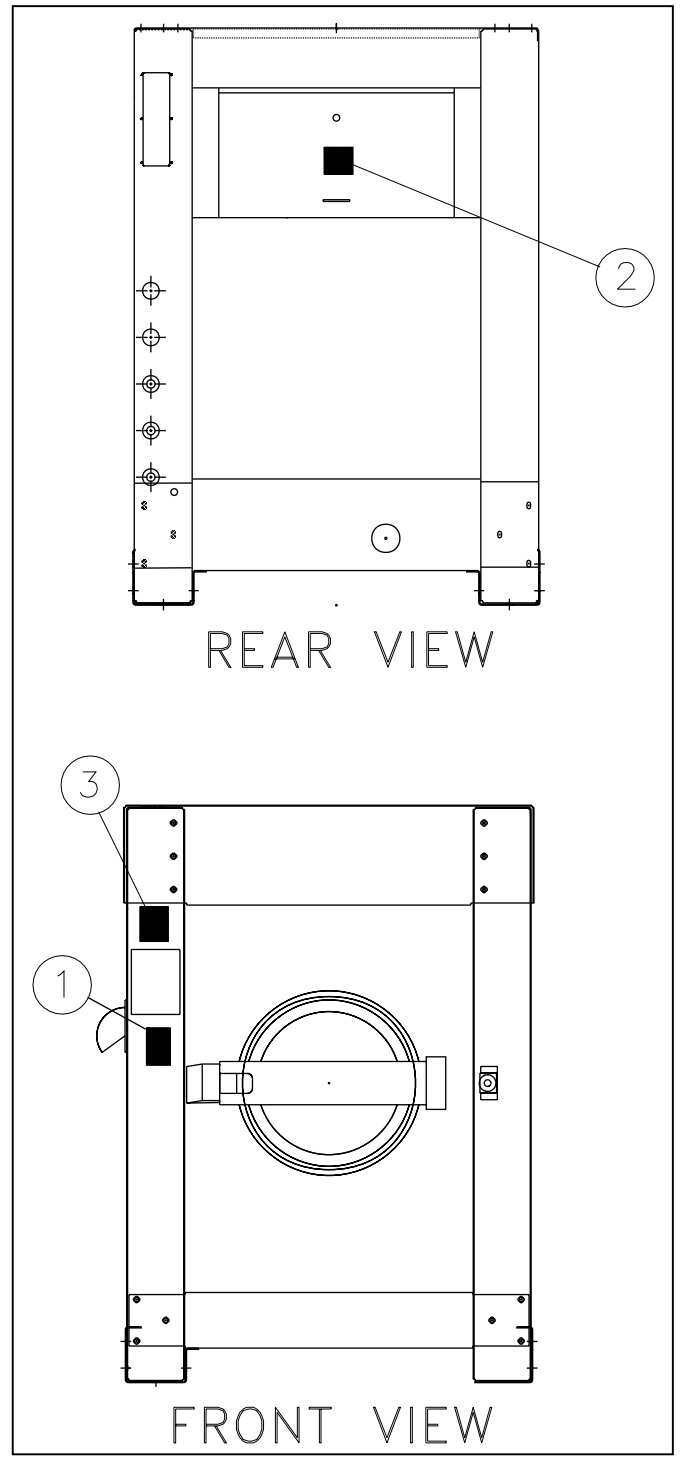
1. **Replace placard immediately, if removed or unreadable.**
2. **Approximate locations of placards are shown. Mounting holes are provided on machine. Use #8 self-tapping screws.**



30022X8J



36026X8J



42026 & 42032X7J

Pellerin Milnor Corporation
P. O. Box 400, Kenner, LA 70063-0400
Litho in U.S.A.

Parts List—Safety Placard Use and Placement

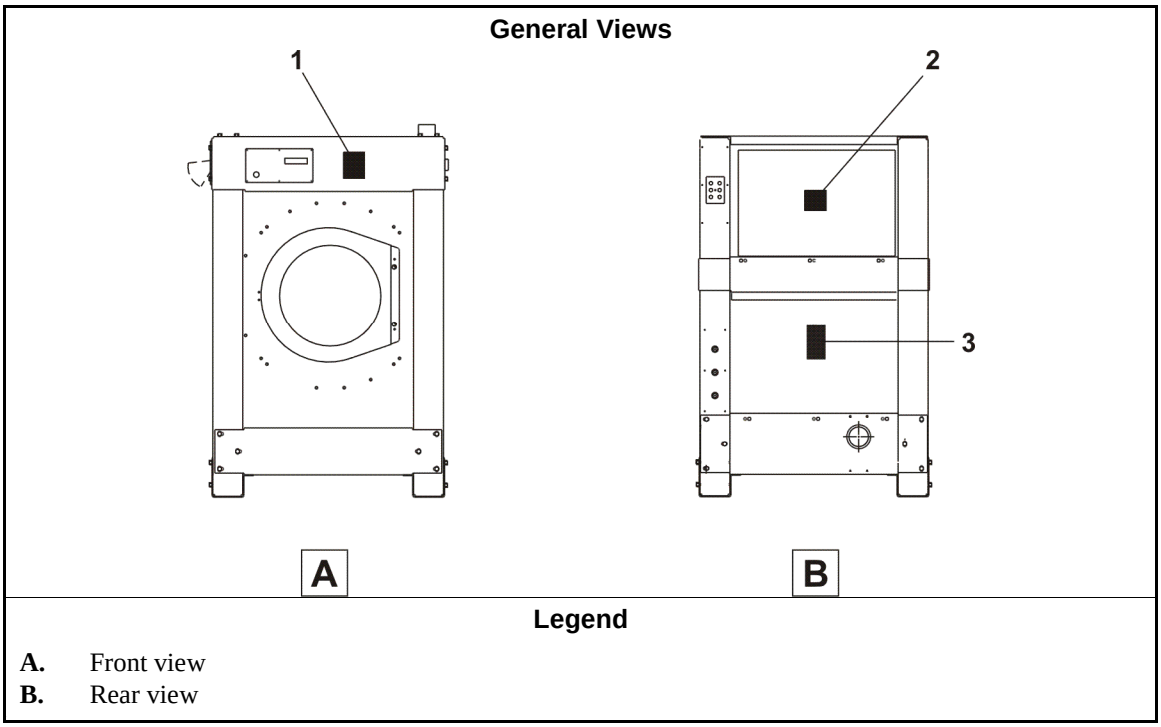
Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
			----------ASSEMBLIES----------	
			none	
			----------COMPONENTS----------	
all	1	01 10631A	NPLT:SHELL FRT WARN NOTILT-TCA	
all	2	01 10377A	NPLT:ELEC HAZARD LG-TCATA	
all	3	01 10699A	NPLT:SERV HZRD-PLYEST-TCATA	

Safety Placards and Locations— ISO 30022X8J, 36026X8J, 42026X7J, 42032X7J

- This document is for placards that agree with: ISO
- If the placard is removed or you cannot read it, replace the placard immediately.
- If the placard is aluminum, the mounting holes are on the machine. Use #8 self-tapping screws. If the placard is vinyl, put the placard in the approximate location shown.

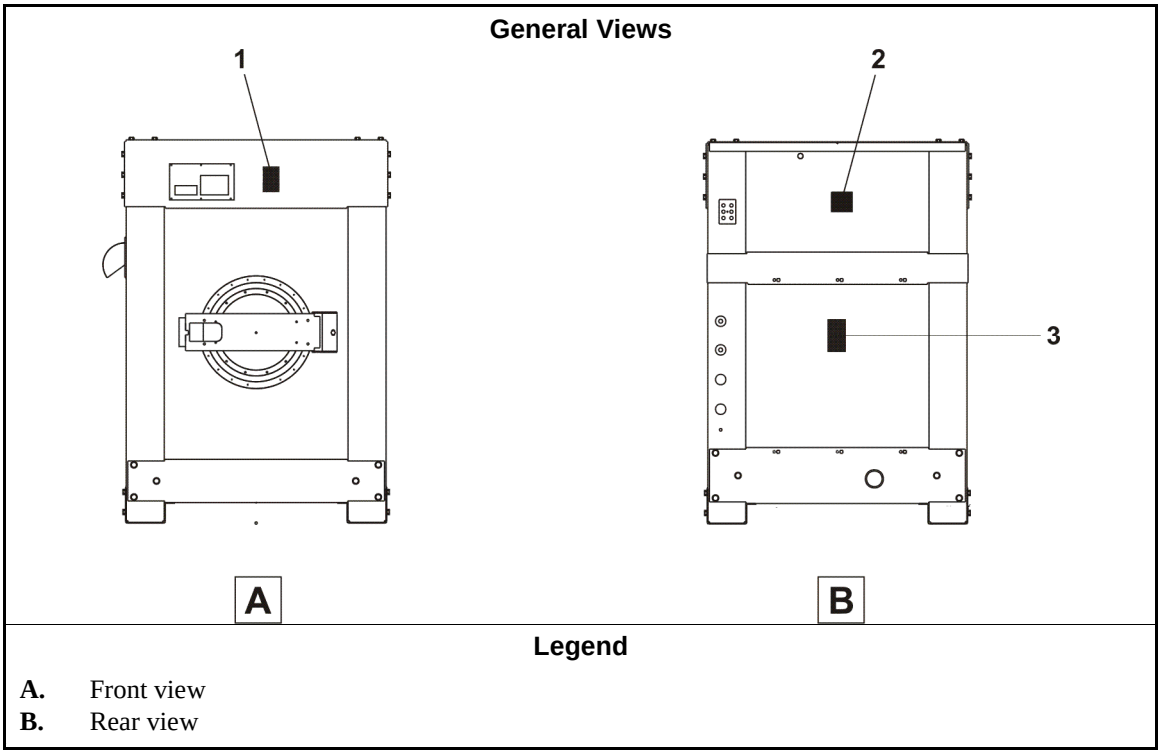
Figure 1: 30022X8J



Legend

A. Front view
B. Rear view

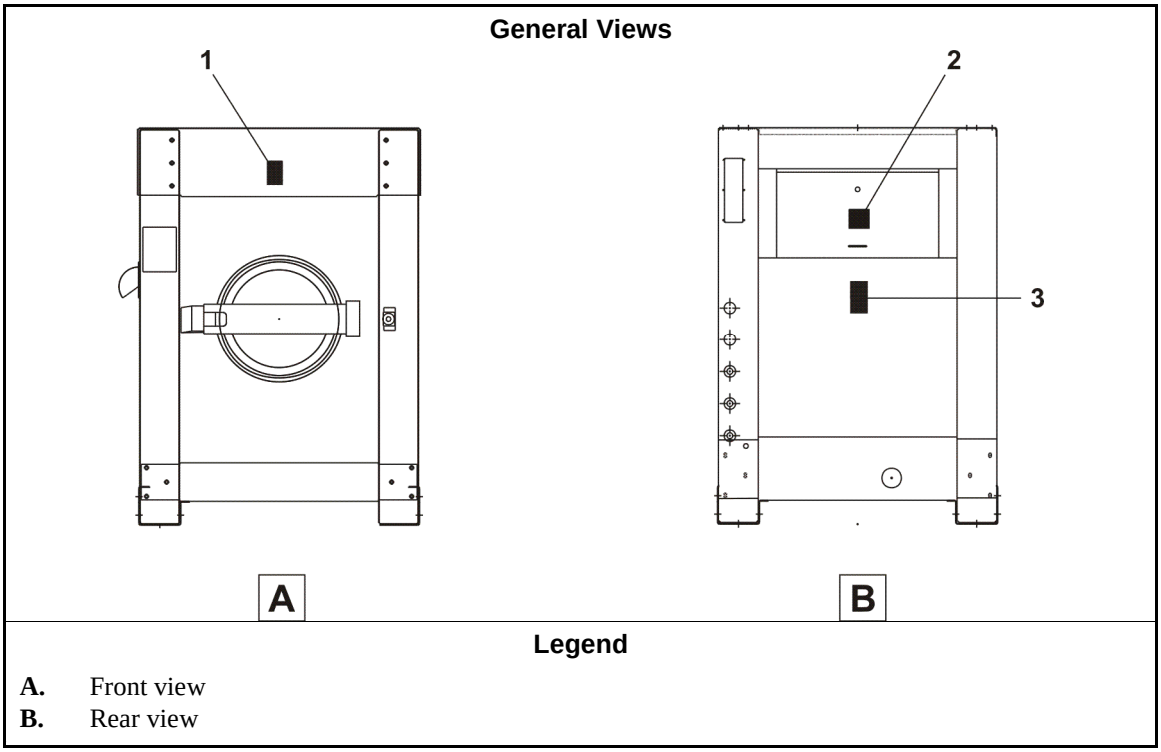
Figure 2: 36026X8J



Legend

A. Front view
B. Rear view

Figure 3: 42026X8J, 42032X8J



Legend

A. Front view
B. Rear view

Table 1: Parts List—Safety Placards and Locations - ISO

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.

Used In	Item	Part Number	Description/Nomenclature	Comments
Assemblies				
none				
Components				
all	1	01 10631X	Safety placard	
all	2	01 10377	Safety placard	
all	3	01 10628X	Safety placard	

— End of BIIFBM02 —

Safety Placard Use and Placement

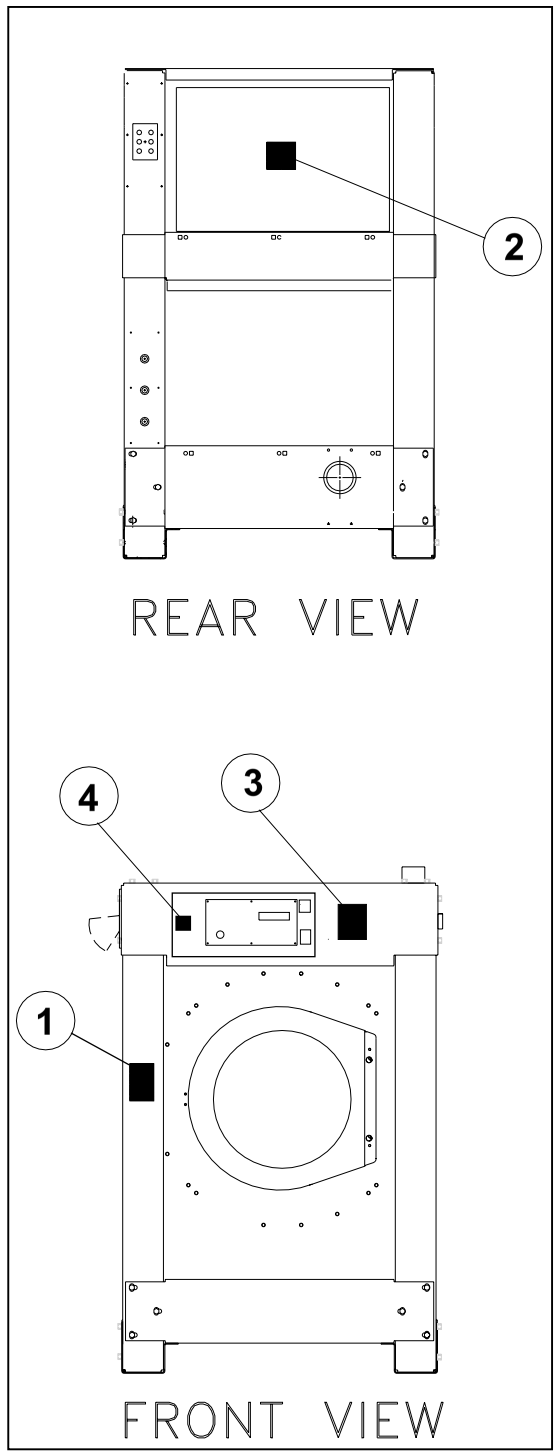
30022, 36026X8W & 42026, 42032X7W

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

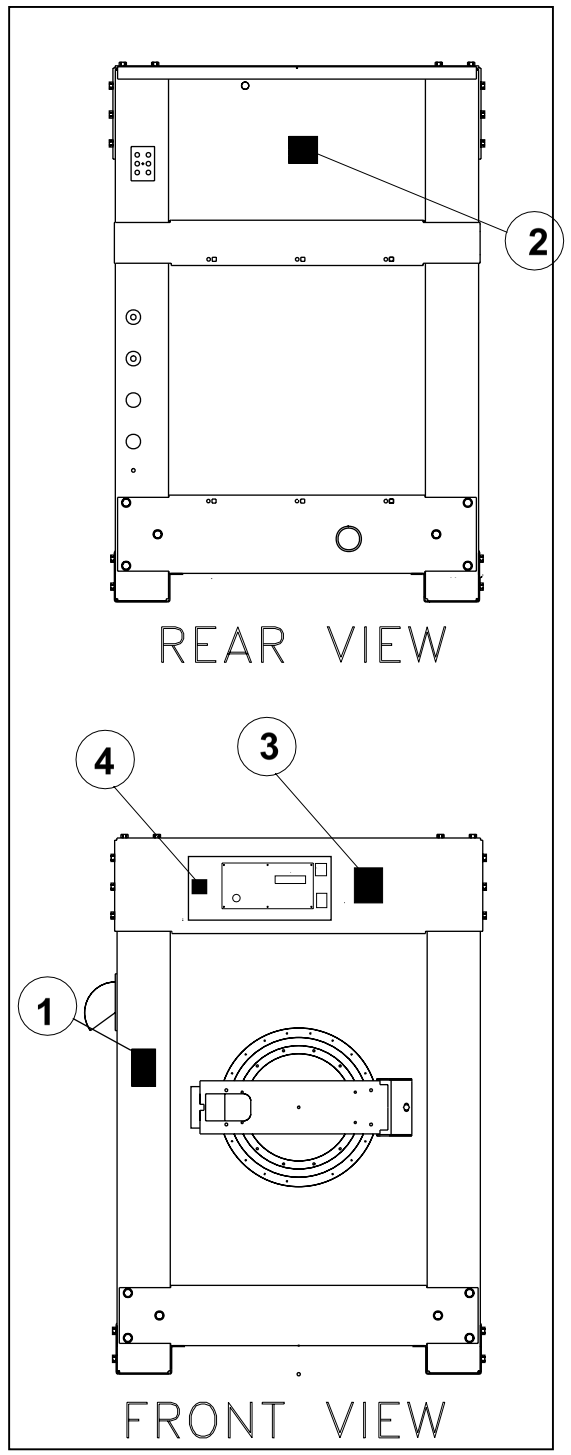
Litho in U.S.A.

Notes:

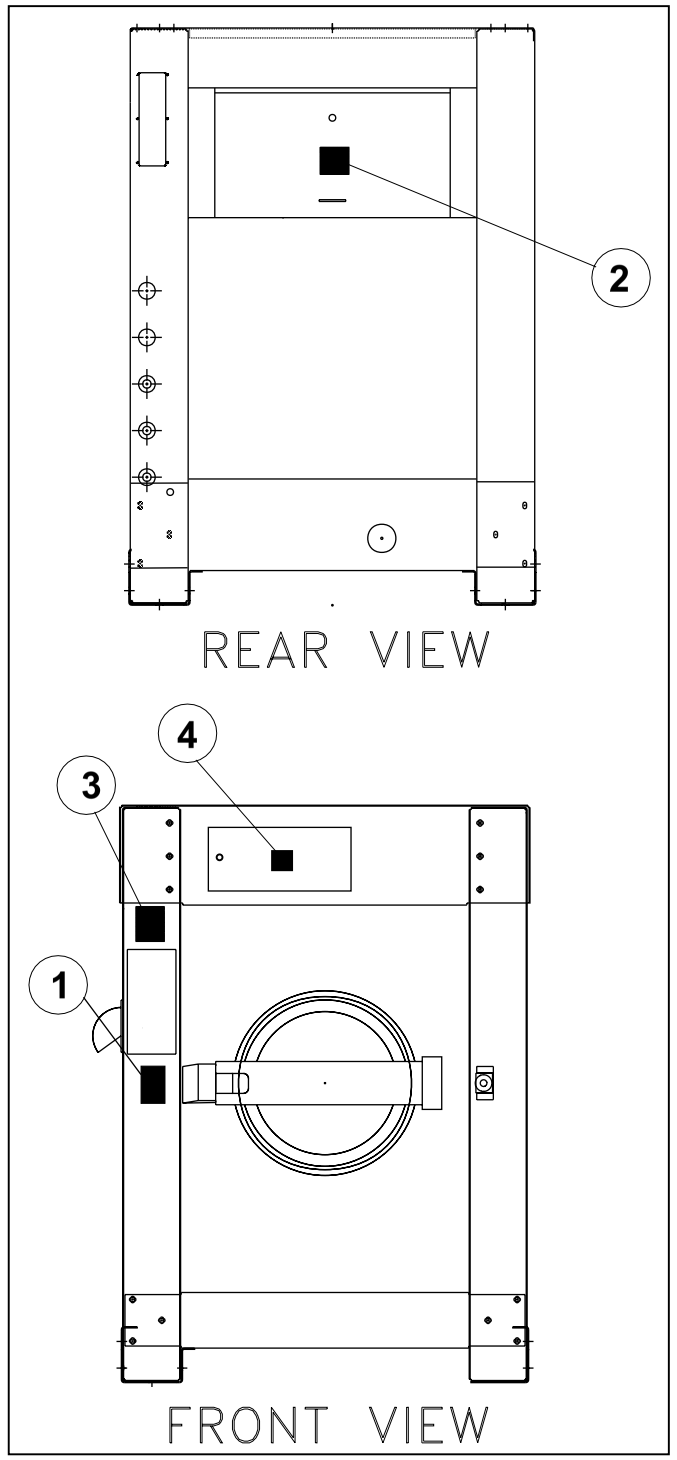
1. **Replace placard immediately, if removed or unreadable.**
2. **Approximate locations of placards are shown. Mounting holes are provided on machine. Use #8 self-tapping screws.**



30022X8W



36026X8W



42026 & 42032X7W

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

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Parts List—Safety Placard Use and Placement

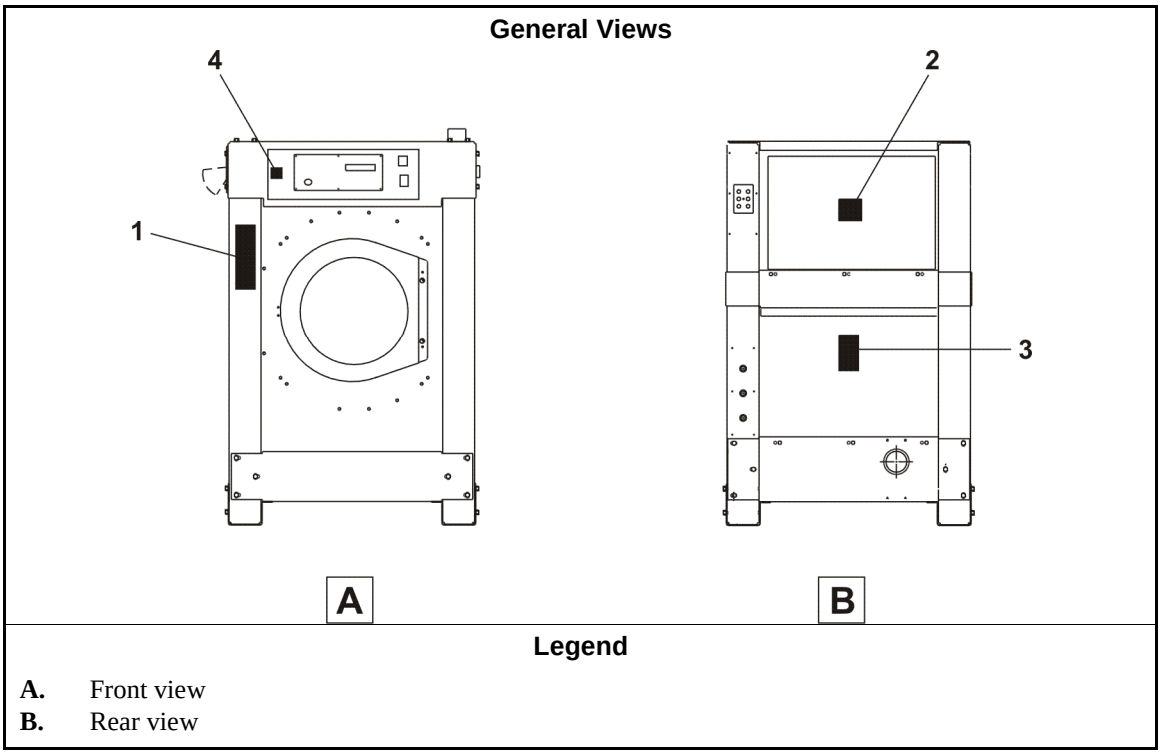
Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
----------ASSEMBLIES----------				
			none	
----------COMPONENTS----------				
all	1	01 10631A	NPLT:SHELL FRT WARN NOTILT-TCA	
all	2	01 10377A	NPLT:ELEC HAZARD LG-TCATA	
all	3	01 10699A	NPLT:SERV HZRD-PLYEST-TCATA	
X8W	4	01 10375C	NPLT:E-HAZARD SM VERTCL-TCATA	
X7W	4	01 10377A	NPLT:ELEC HAZARD LG-TCATA	

Safety Placards and Locations—ISO 30022X8W, 36026X8W, 42026X7W, 42032X7W

- This document is for placards that agree with: ISO
- If the placard is removed or you cannot read it, replace the placard immediately.
- If the placard is aluminum, the mounting holes are on the machine. Use #8 self-tapping screws. If the placard is vinyl, put the placard in the approximate location shown.

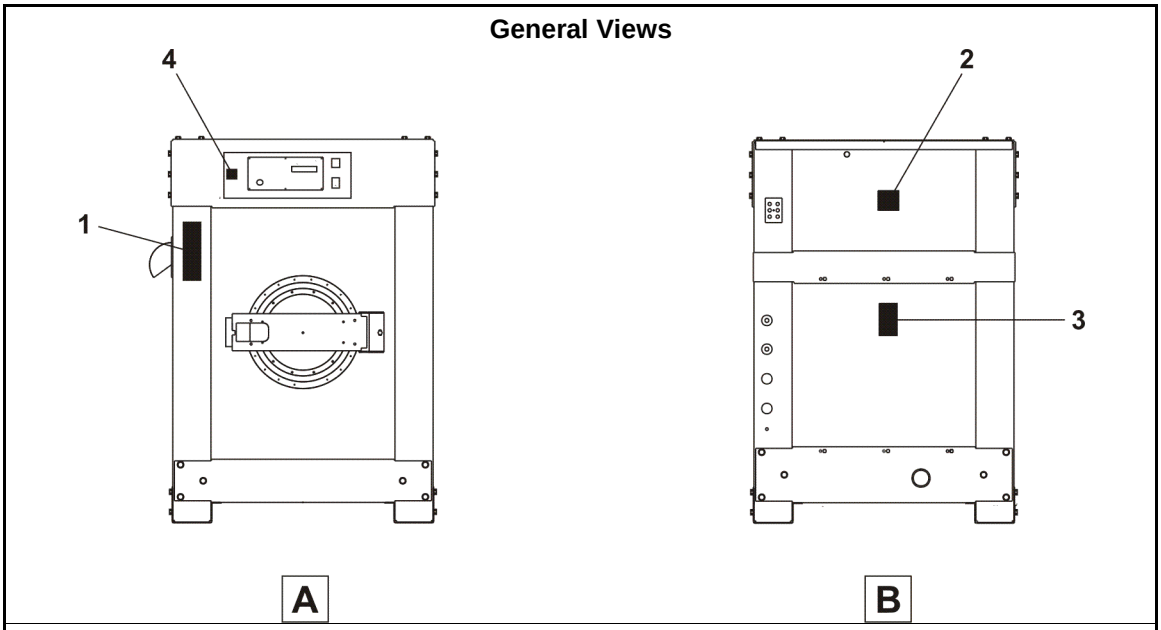
Figure 1: 30022X8W



Legend

A. Front view
B. Rear view

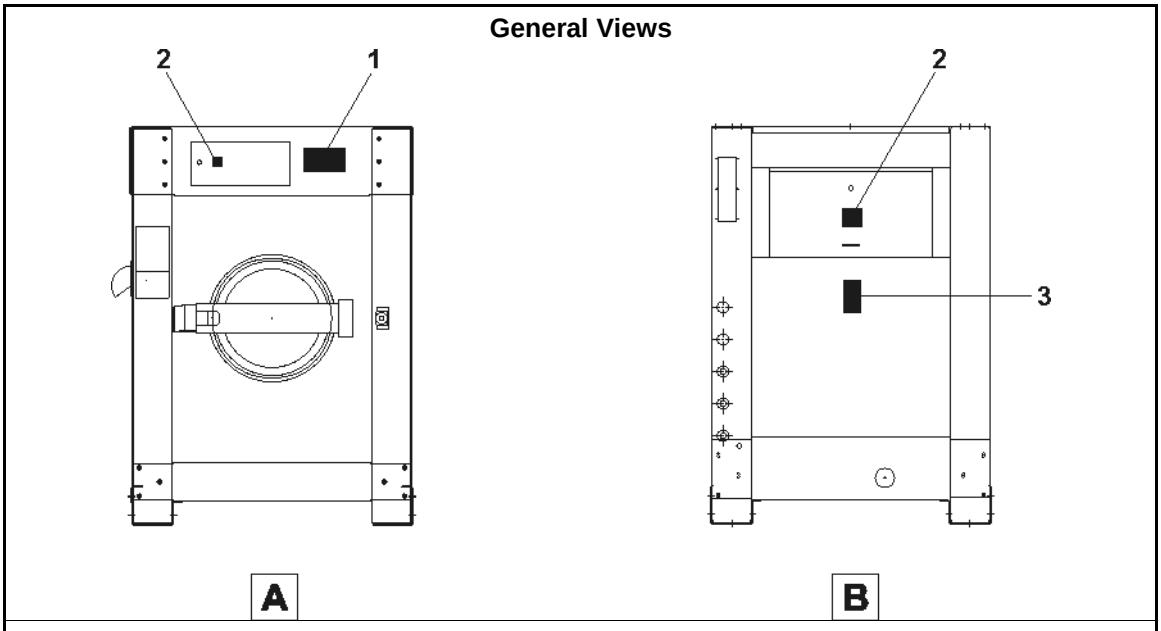
Figure 2: 36026X8W



Legend

A. Front view
B. Rear view

Figure 3: 42026X7W and 42032X7W



Legend

A. Front view
B. Rear view

Table 1: Parts List—Safety Placard Location X8W - ISO

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.				
Used In	**Item**	**Part Number**	**Description/Nomenclature**	**Comments**
Assemblies				
none				
Components				
X8W	1	01 10631X	Safety placard	
X7W	1	01 10631Y	Safety placard	
all	2	01 10377	Safety placard	
all	3	01 10628X	Safety placard	
X8W	4	01 10375	Safety placard	

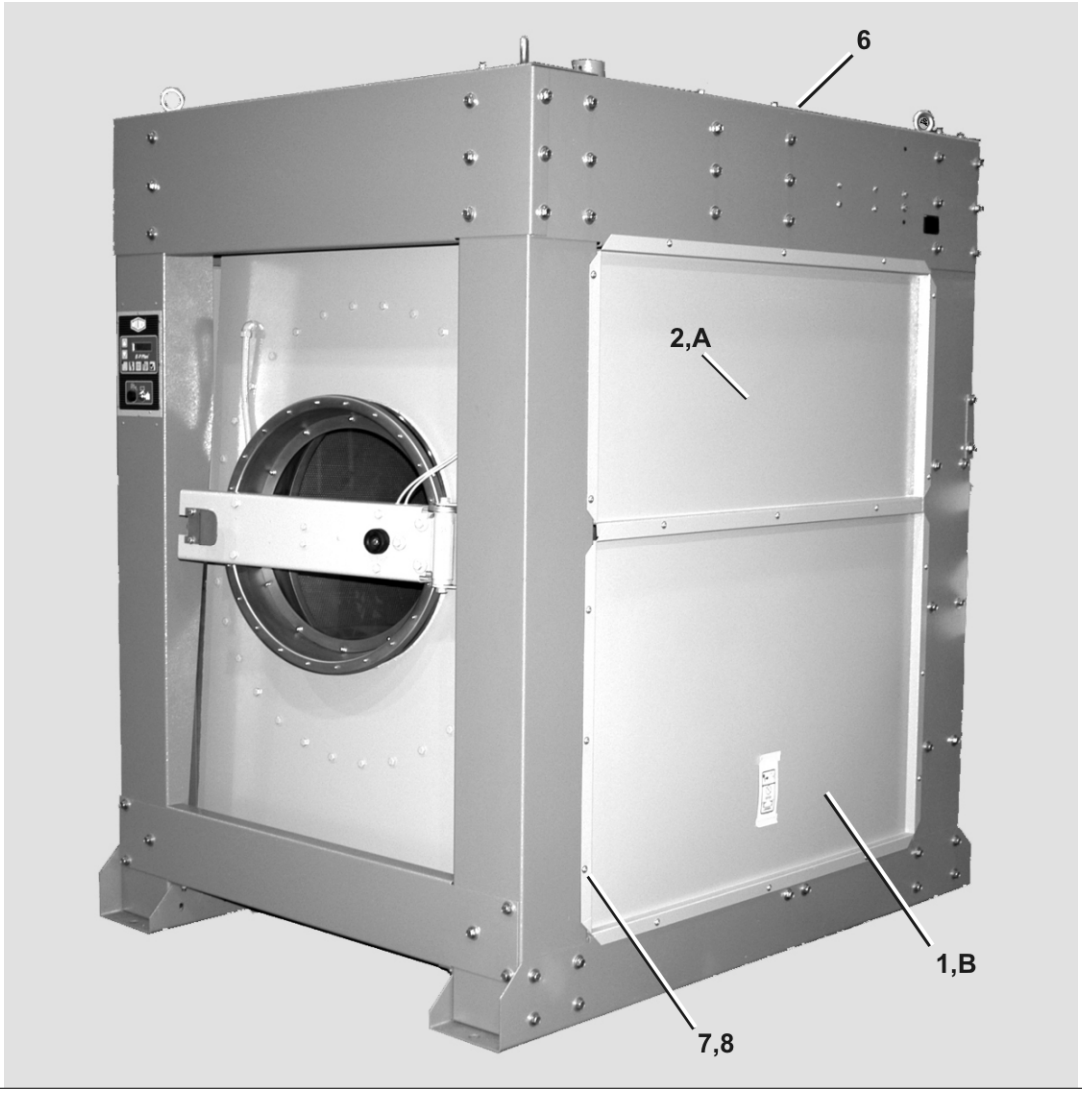
— End of BIIFBM03 —

BIMXCM01 (Published) Book specs- Dates: 20110914 / 20110914 / 20110914 Lang: ENG01 Applic: MXC

Panels and Covers

Figure 1: Panels and Covers

Front view

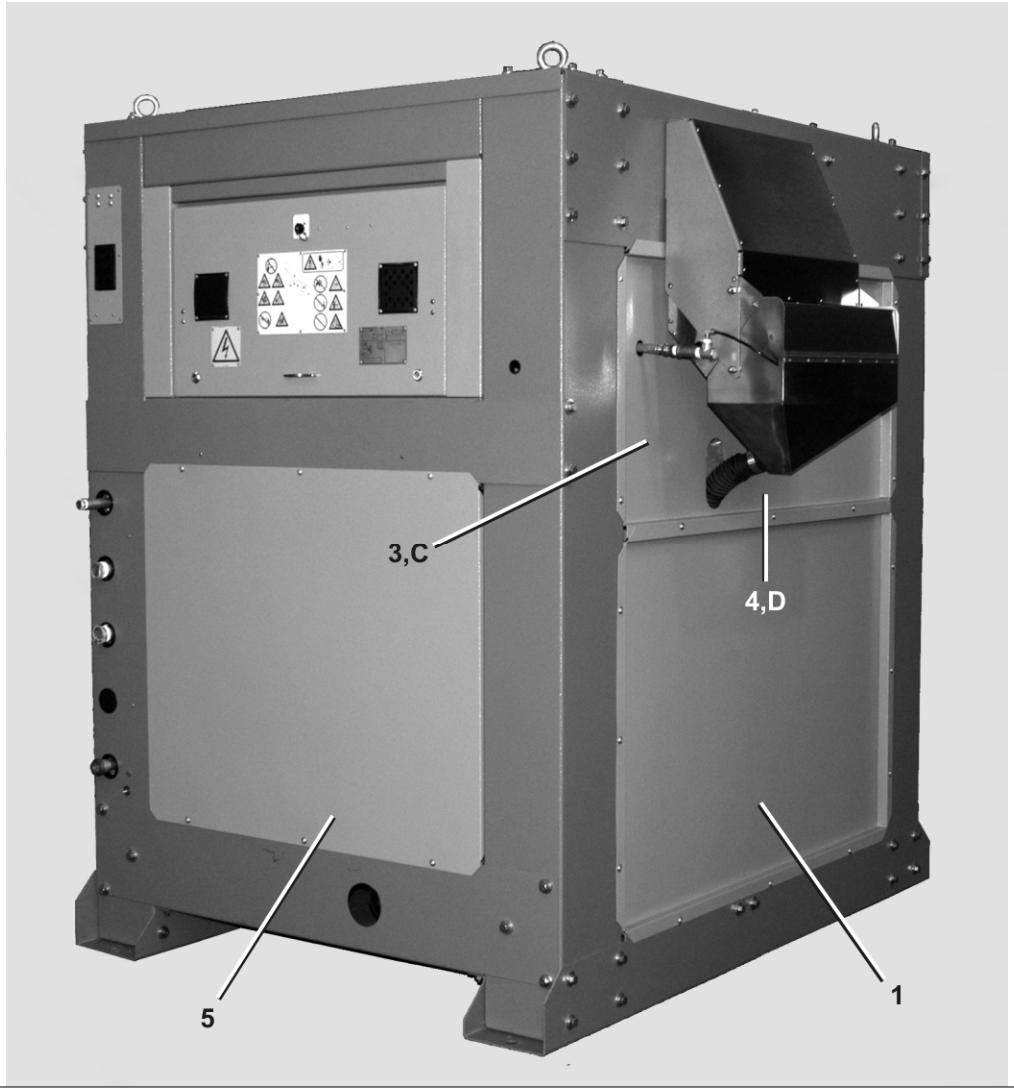


Legend

A. Models: 4226X,4232X
B. Models: 3626 The right cover is one piece.

Figure 2: Panels and Covers

Rear view



Legend

C. This is the cover used with the soap chute.
D. This is the cover used with the five compartments for dry chemical supply.

Table 1: Parts List— Panels and Covers

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.

Used In	Item	Part Number	Description/Nomenclature	Comments
			Assemblies	
	A	GGS3626X7	Installation Group 3626X7	3626X7
	B	GGS4226X	Installation Group 4226X	4226X
	C	GGS4232X	Installation Group 4232X	4232X
			Components	
A	1	02 13525	Cover, Right side, 3626X	
A	1	02 13525A	Cover, Left side, 3626X	
B	1	02 23525A	Cover, Left side, Right side, 4226X	
C	1	02 24525	Cover, Left side, Right side, 4232X	
B	2	02 23585	Cover, Right side, 4226X	
C	2	02 24525A	Cover, Right side, 4232X	
A	3	02 13585A	Cover, Soap chute, 3626X	
B	3	02 23585A	Cover, Soap chute,4226X	
C	3	02 24525B	Cover, Soap chute, 4232X	
A	4	02 13585B	Cover, Five compartments for dry chemical supplies, 3626X	
B	4	02 23585B	Cover, Five compartments for dry chemical supplies, 4226X	
C	4	02 24525C	Cover, Five compartments for dry chemical supplies, 4232X	
all	5	02 13529	Cover, Rear	
A	6	02 13532	Cover, Top, 3626X	
B	6	02 23532	Cover, Top, 4226X	
C	6	02 24532	Cover, Top, 4232X	
all	7	15N110H	Bolt	
all	8	15G004HB	Nut	

— End of BIMXCM01 —

Drive Assemblies 2

BIMXCM02 (Published) Book specs- Dates: 20130307 / 20130307 / 20130307 Lang: ENG01 Applic: MXC

Drive Components Identification

Figure 1: General View

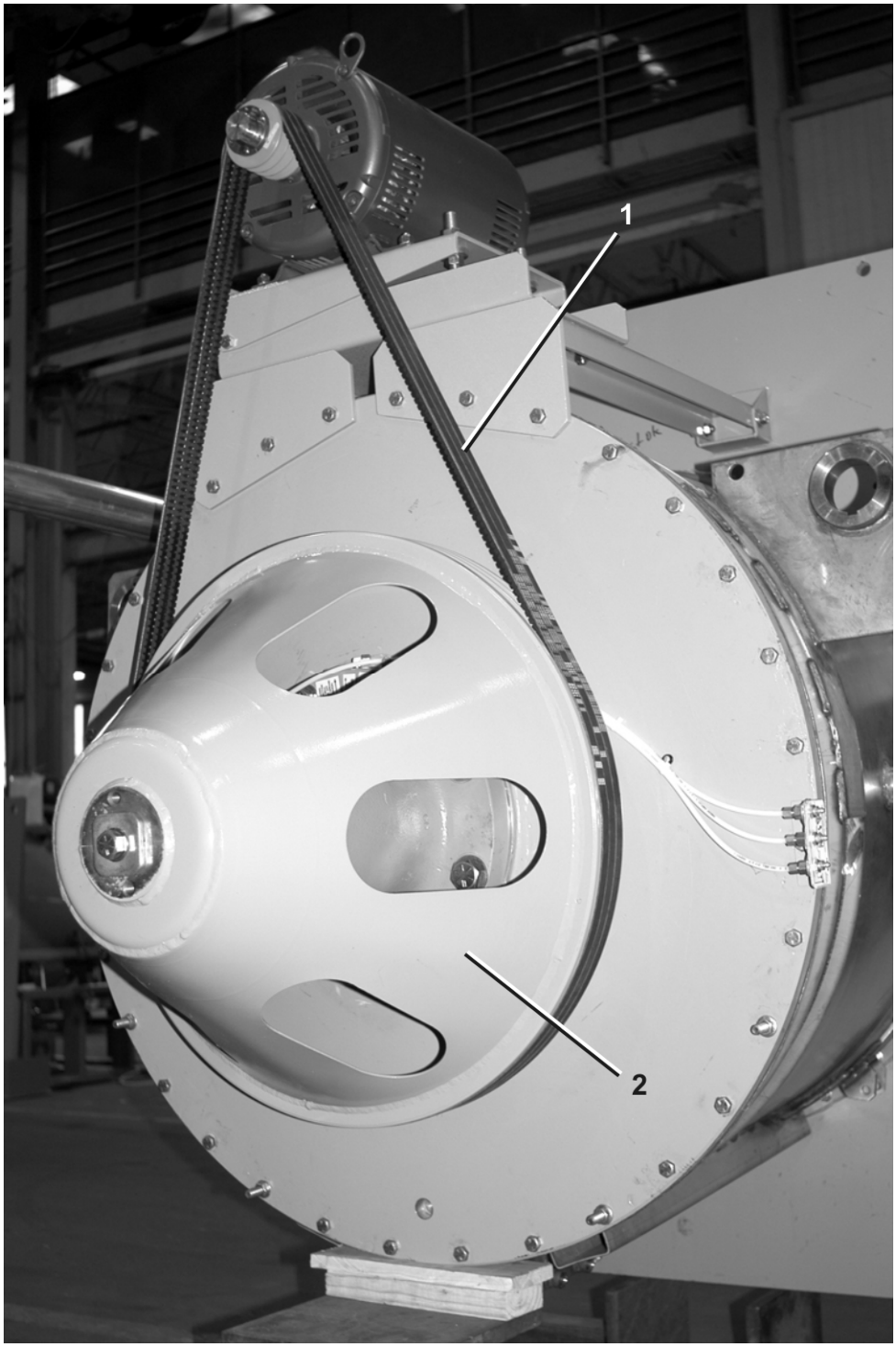
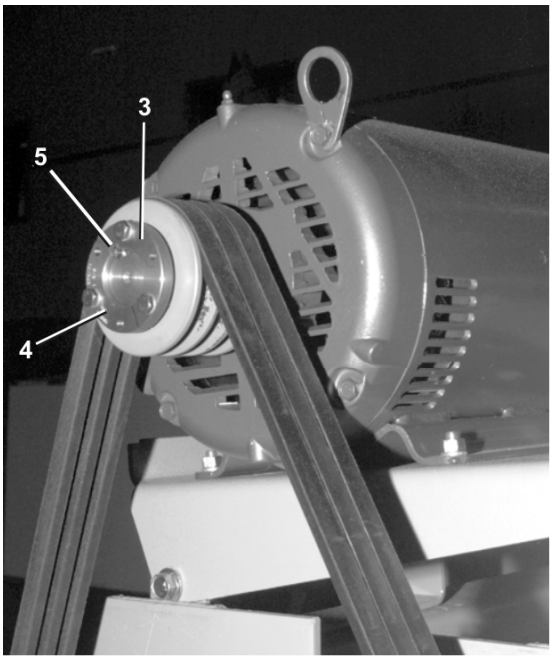


Figure 2: Detailed views



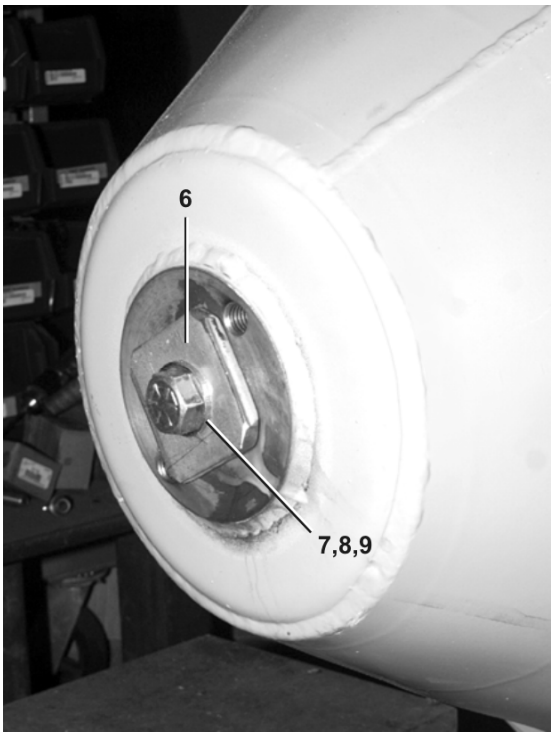


Table 1: Parts List—Drive Components Identification

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.

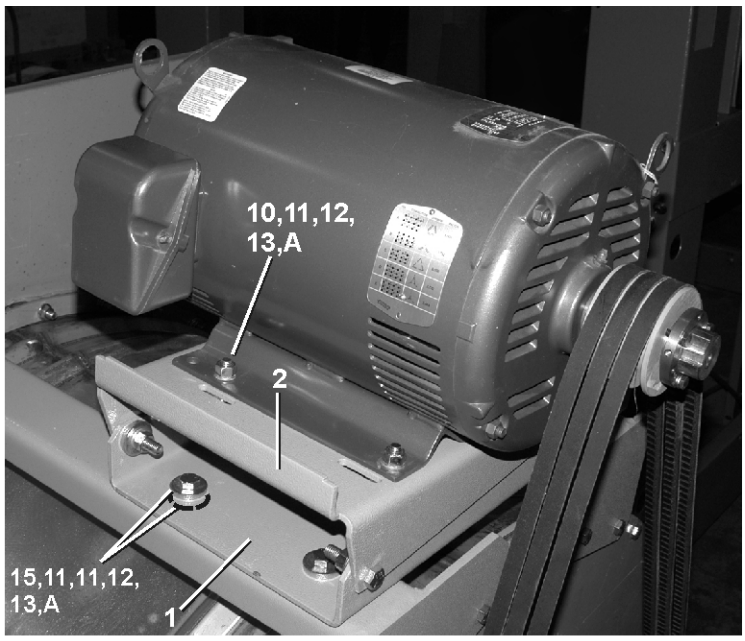
Used In	Item	Part Number	Description/Nomenclature	Comments
Assemblies				
	A	D17 00550	Drive chart 3626X 50/60CYL	3626X8J
	B	D17 00650	Drive chart 4226/32X 50/60CYC	4226X7J,X7W, 4232X7J,X7W
Components				
A	1	56VB122XM3	V-belt	
B	1	56VB131XB3	V-belt	
all	2	X2 21931	Pulley	
all	3	56034B3SH	V-pulley	
all	4	56Q1GSH	Bushing	
all	5	15E230	Key	
all	6	02 14359A	Spacer	
all	7	15U321H	Washer	
all	8	15K232A	Bolt	
all	9	20C008C	Adhesive, LCT24241	

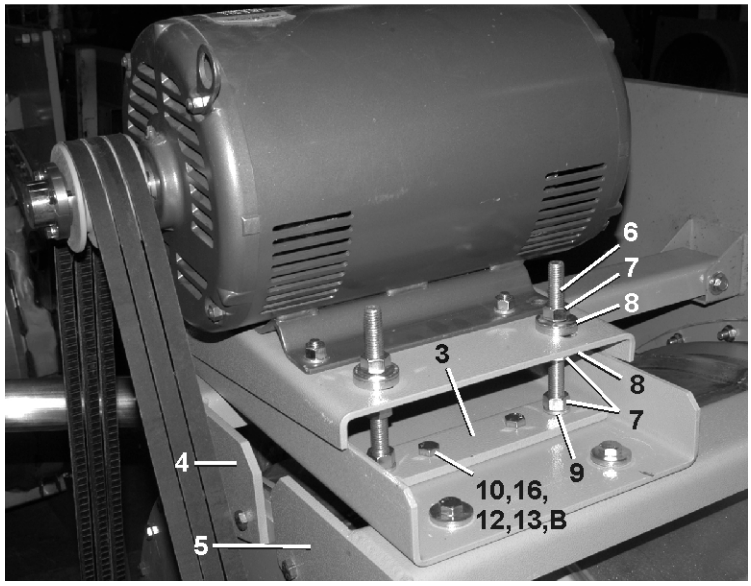
— End of BIMXCM02 —

BIMXCM03 (Published) Book specs- Dates: 20110914 / 20110914 / 20110914 Lang: ENG01 Applic: MXC

Drive Motor Installation

Figure 1:



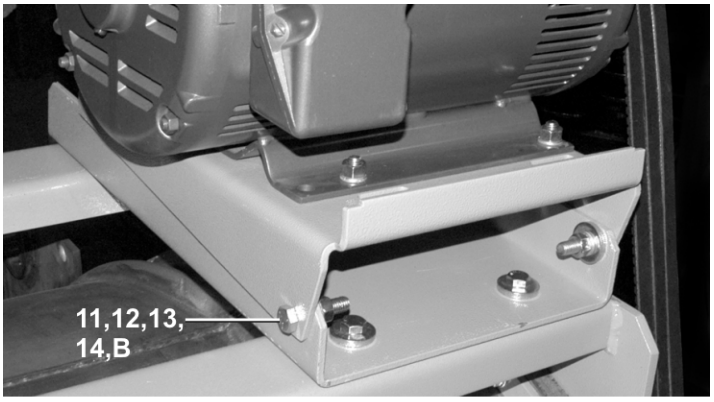


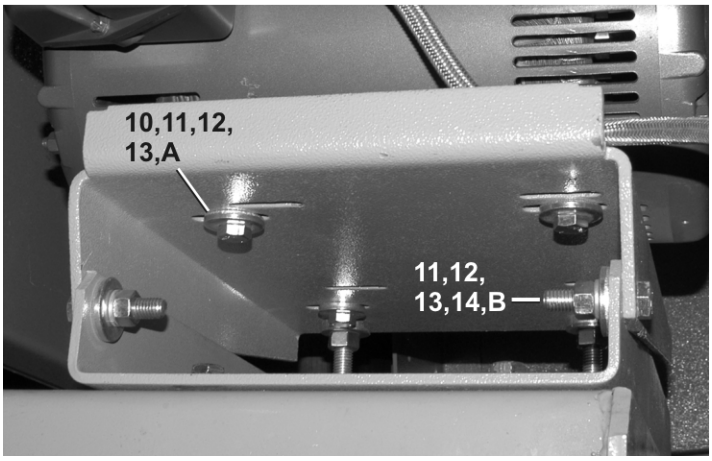
Legend

A. instances 4
B. instances 2

Figure 2: Drive Motor Installation

Additional Views





Legend

A. instances 4
B. instances 2

Table 1: Parts List— Drive Motor Installation

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.

Used In	Item	Part Number	Description/Nomenclature	Comments
			Assemblies	
	A	ADB3626X7	Installation Group 3626X7	3626X8J,X8W
	B	ADB4226X	Installation Group 4226X, 4232X	4226X7J,X7W 4232X7J, X7W
			Components	
all	1	02 21061B	Mounting plate	
all	2	02 21061	Mounting plate	
all	3	02 21062	Plate	
all	4	W2 13504	Piece part	
all	4	W2 23504	Weldment	
A	5	W2 13504A	Piece part	
B	5	W2 23504A	Piece part	
all	6	15B186	Bolt, 5/8-11x7	
all	7	15G238	Nut, 5/8	
all	8	17W030	Washer, Spherical, 5/8	
all	9	15U315	Washer, Lock, 5/8	
all	10	15K162	Bolt, 1/2-13X1.5	
all	11	15U490	Washer, 1+1/2X17/32X1/4	
all	12	15U300	Washer, Lock, 1/2	
all	13	15G230	Nut, 1/2-13	
all	14	15K180	Bolt, 1/2-13X2	
all	15	15K173A	Bolt, 1/2-13X1.75	
all	16	15U280	Washer	

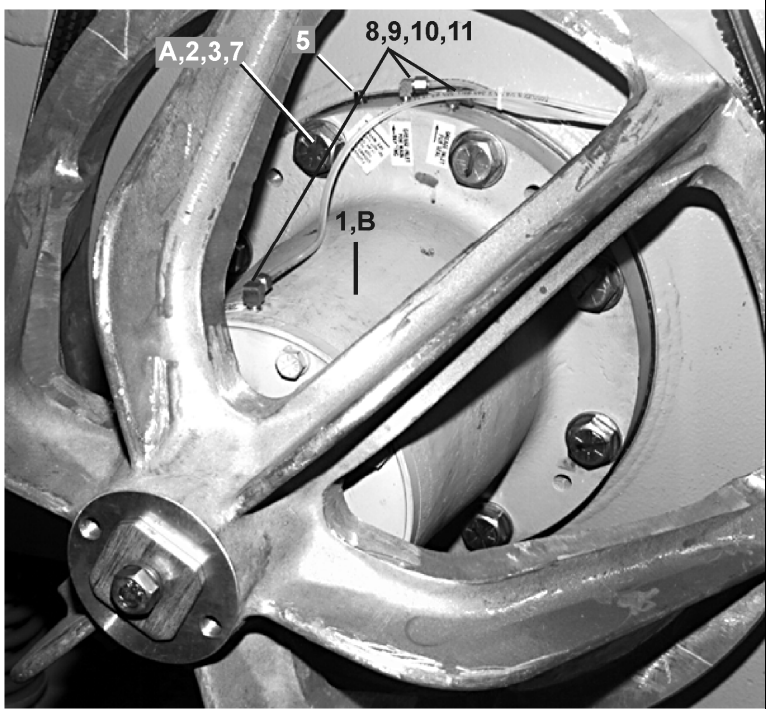
— End of BIMXCM03 —

BIMXCM04 (Published) Book specs- Dates: 20130228 / 20130228 / 20130228 Lang: ENG01 Applic: MXC

Bearing Housing Installation

Figure 1: Bearing Housing Installation

General View



Legend

A. instances 8
B. shown: 3630F8J, 4232F7J

Figure 2: Lubricant

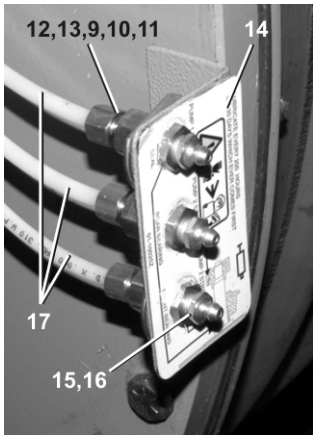


Figure 3: O-ring

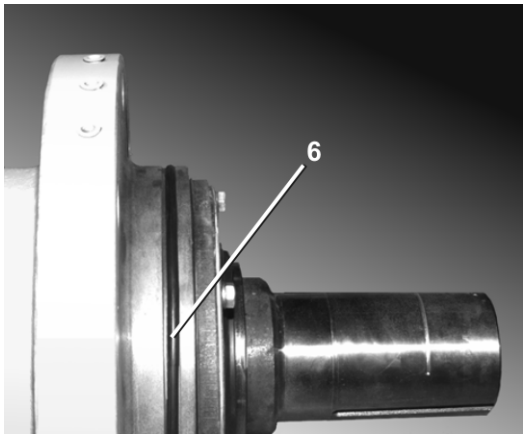


Table 1: Parts List—Bearing Housing Components and Installation

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.				
Used In	**Item**	**Part Number**	**Description/Nomenclature**	**Comments**
Assemblies				
	A	GBM4226X7	Installation Group 4226X, 4232X	4226X, 4232X
	B	GBM3626X7	Installation Group 3626X7	3626X
	X			USA-made models only
	Y			China-made models only
Components				
A,X	1	ABM42001	Assembly, Bearing housing	
A,Y	1	98CMCR4205	Assembly, Bearing housing	
B,X	1	ABM35001	Assembly, Bearing housing	
B,Y	1	98CMCR3606	Assembly, Bearing housing	
all	2	15K235K	Bolt, 1-14X3	
all	3	15U393	Washer, Flat, 1"	
all	5	5SP0CFESSV	Plug, Square head with vent, 1/8"	
A	6	60C176	O-ring, 10"X1/4"	
B	6	60C170	O-ring, 8"X3/16	
all	7	20C007G	Adhesive, Threadlock, LCT24231	
all	8	53A031B	Pipe Fitting, 90 degree, .25X1/8	
all	9	53A059A	Nut, 1/4"	
all	10	53A500	Pipe fitting, 1/4"	
all	11	53A501	Pipe fitting	
all	12	53A007B	Pipe fitting	
all	13	15U281A	Washer, Clipped, 1/2	
all	14	01 10025Z	Label, Lubricant	
all	15	5SB0E0CBEO	Hexbush, 1/4X1/8	
all	16	54M015	Pipe fitting, Lubricant	
all	17	60E004TC	Flexible tubing, 1/4"	

— End of BIMXCM04 —

Bearing Assembly

3630F8J, 3626X8J,X8W

BMP040023/2013095B
(Sheet 1 of 3)

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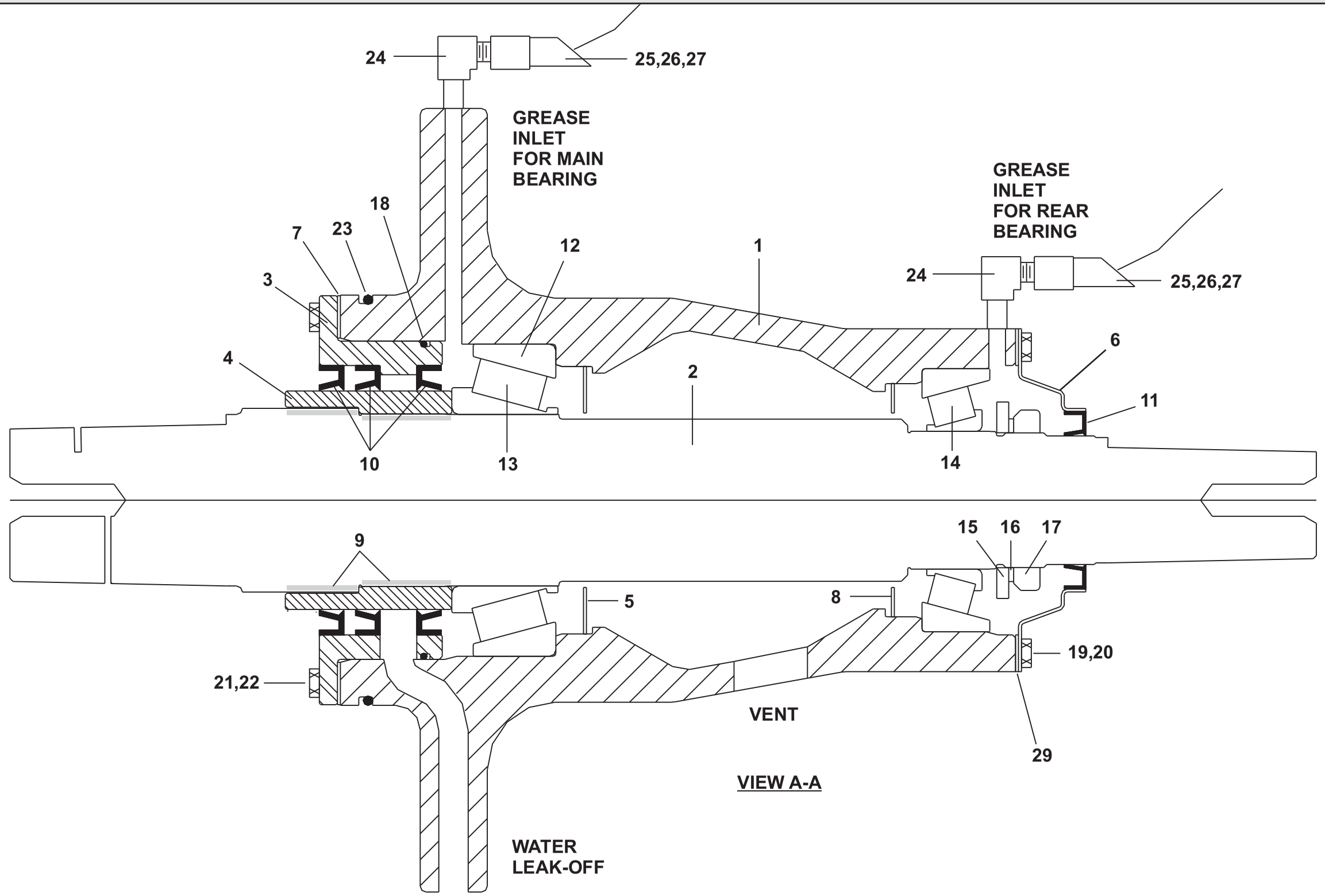
Litho in U.S.A.



Bearing Assembly

3630F8J, 3626X8J,X8W

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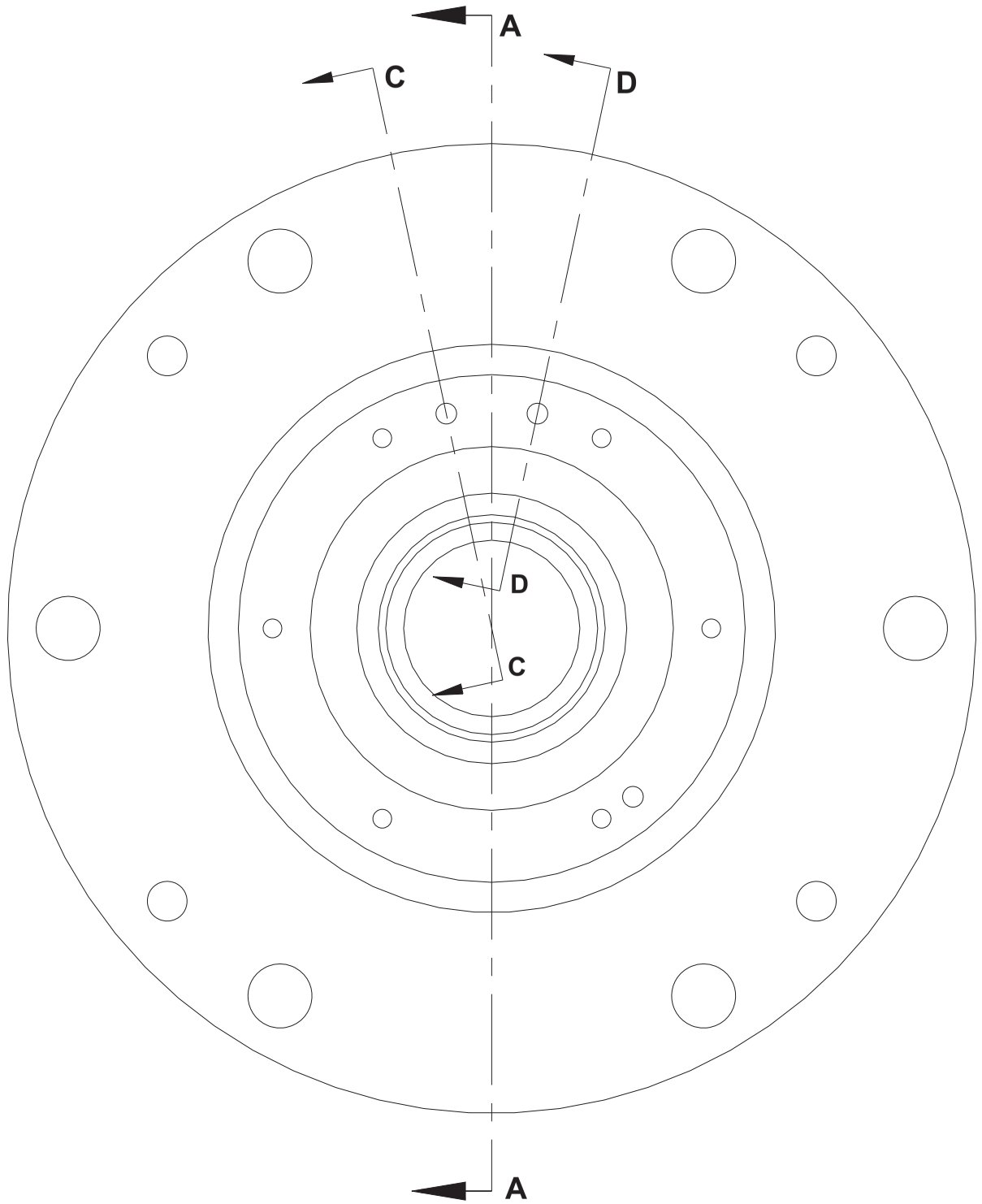
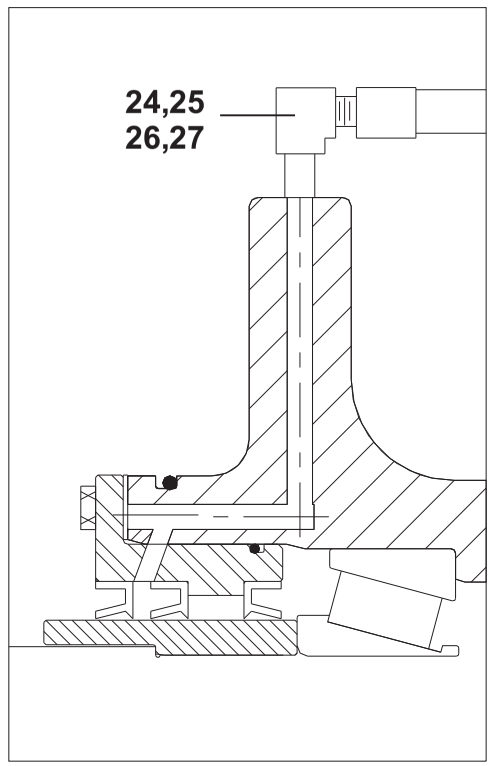
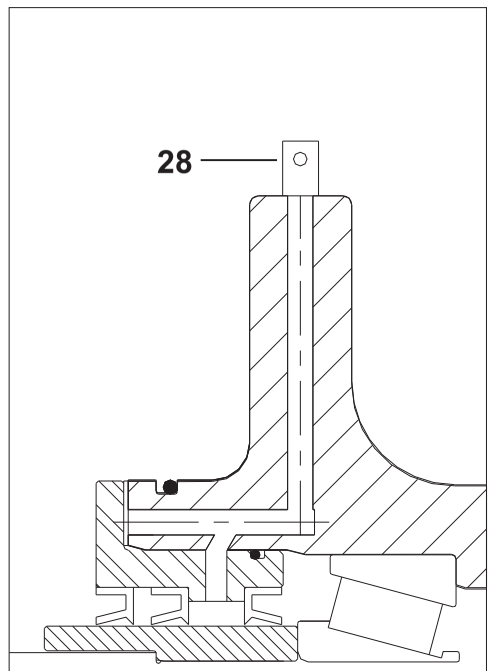
Litho in U.S.A.



VIEW B-B



C-C
GREASE INLET
FOR SEALS



D-D
FLUSHING
FOR SEALS

70

Pellerin Milnor Corporation
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Litho in U.S.A.

Parts List—Bearing Assembly

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

Used In	Item	Part Number	Description	Comments
			----------ASSEMBLIES----------	
	A	ABN35001	ASSY= FRNTBNG 3630F8 STD	3630F8J
	B	ABN3626X7	ASSY=FRNTBNG 3626X7	3626X8J,X8W
	C	ABM35001	MAIN BEARING ASSY=3630F8	3630F8J,3626X8J,X8W (USA-made models only) Contains items 3-22,29
	D	98CMCD3606	36X8 BEARING HOUSING	3626X8J,X8W (China-made models only) Contains items 3-22,29
			----------COMPONENTS----------	
all	1	X2 21540	MACH=MAIN BEARING HOUSE 3630	
all	2	X2 21543A	MACH=MAIN SHAFT 3626X7	
all	3	X2 21541	MACH=FRONT SEAL HOLDER 3630F	
all	4	X2 21544	SEAL SLEEVE=3630 BRG ASSY	
all	5	02 21542	FRONT GREASE SHIELD 3630F	
all	6	02 21545	REAR SEAL HOLDER 3630F8	
all	7	02 21547	GASKET=FRNT SEAL HOLDR 3630F	
all	8	02 21550	REAR GREASE SHIELD 3630F	
all	9	20C011C	RETAIN CMPD 250CC LCT#609-41	
all	10	24S114	SEAL 4.5X5.5X.50 JM# 9170 LUP	
all	11	24S053	SEAL 2.625X3.625X.437#10051L5	
all	12	54A337	CUP 6535 SKF 1/BOX	
all	13	54A336	CONE 6580 S-ROW S-BORE SKF1/BX	
all	14	54A335465	TIMK H414210 2-24/H414249 2-51	
all	15	56ATW14	TONGUE WASH TIM K91514 FOR N14	
all	16	56AHW114	TW114 BEARING LOCWASHER	
all	17	56AHN14	N14 BEARING LOCKNUT	
all	18	60C160J	ORING 6+1/4ID1/8CS BUNA70 #259	
all	19	15K039	HXCAPSCR 1/4-20UNC2AX3/4 GR5 Z	
all	20	15U180	LOCKWASHER MEDIUM 1/4 ZINCPL	
all	21	15K112	HXCAPSCR 3/8-16X1+1/2 SS18-8	
all	22	15U260	LOCKWASHER MEDIUM 3/8 SS18-8	

Parts List, cont.—Bearing Assemby

Used In	Item	Part Number	Description	Comments
all	23	60C170	ORING 8"IDX3/16CS BUNA70 #369	
all	24	5N0C01KG42	NPT NIP 1/8X1.5 TBE GALSTL S40	
all	25	53A500	SLEEVE DELRIN 1/4"OD#60PT-4	
all	26	53A501	TUBE INSERT .163"OD #63PT-4-40	
all	27	53A059A	NUT 1/4"BR.HOLYOKE AND #61A-4	
all	28	5SP0CFESSV	NPTPLUG1/8SQSLDBLKSTL LVENT125	
All	29	02 21546	EXCLUDER SEAL GASKET	

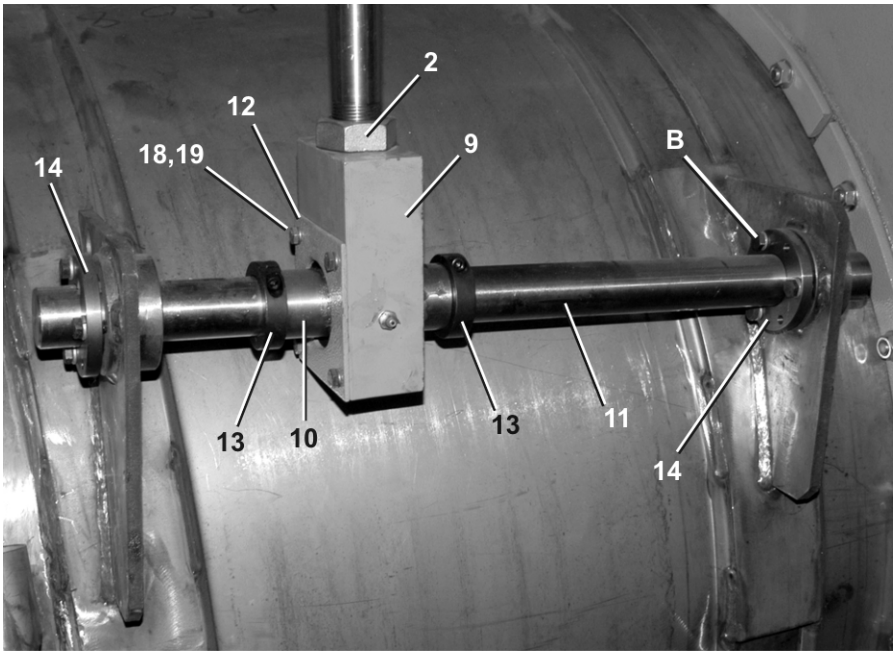
Suspension 3

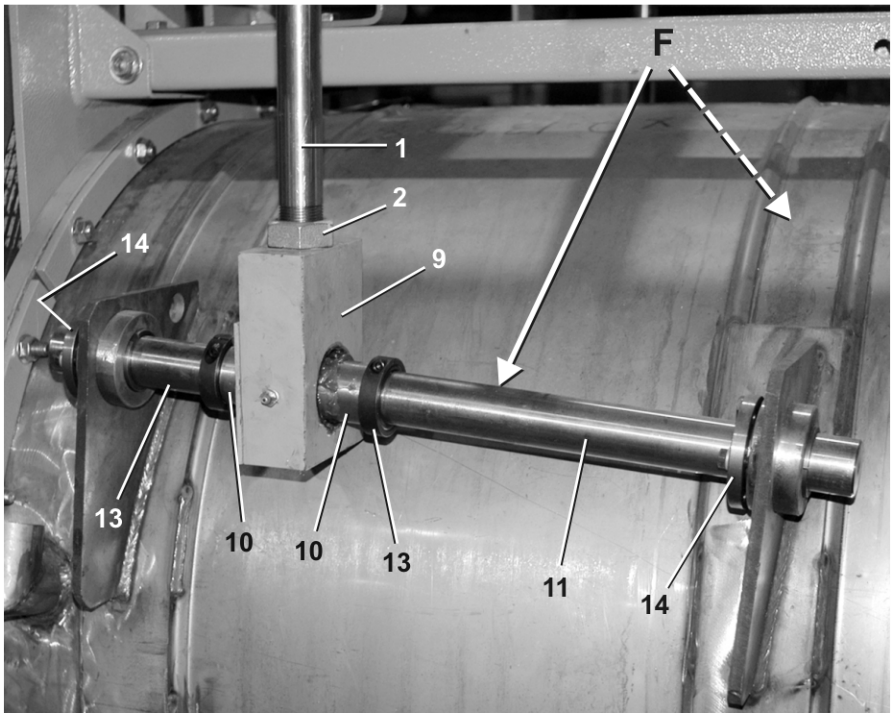
BIMXCM06 (Published) Book specs- Dates: 20110914 / 20110914 / 20110914 Lang: ENG01 Applic: MXC

Suspension Components and Installation

Figure 1: Suspension Components and Installation

General Views





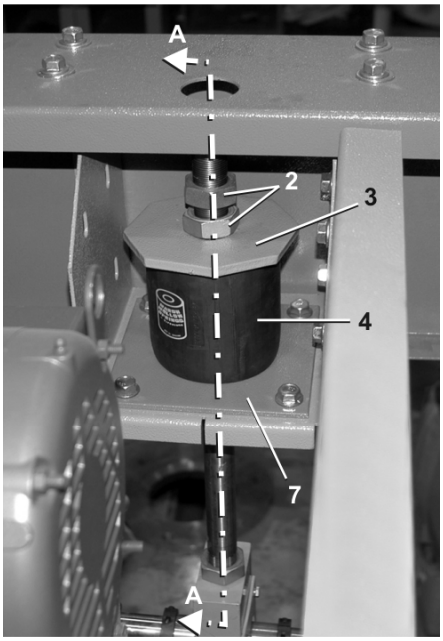
Legend

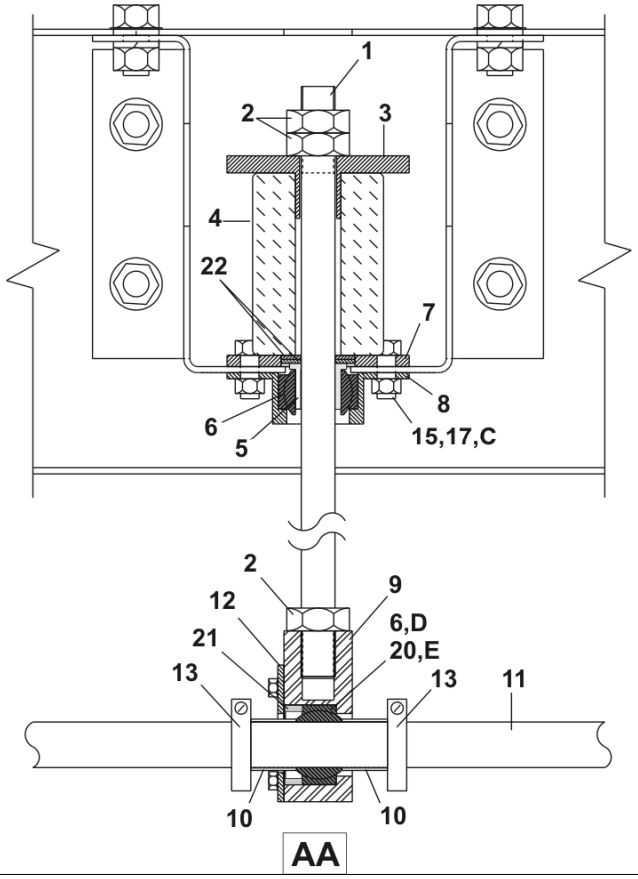
B. Torque to 30 Ft. Lbs.

F. The two sides use the same suspension.

Figure 2: Suspension Components and Installation

Detailed views





Legend

AA. Cross Section
C. instances 4
D. Models: 3626X
E. Models: 42226X, 4232X

Figure 3: Bottom view

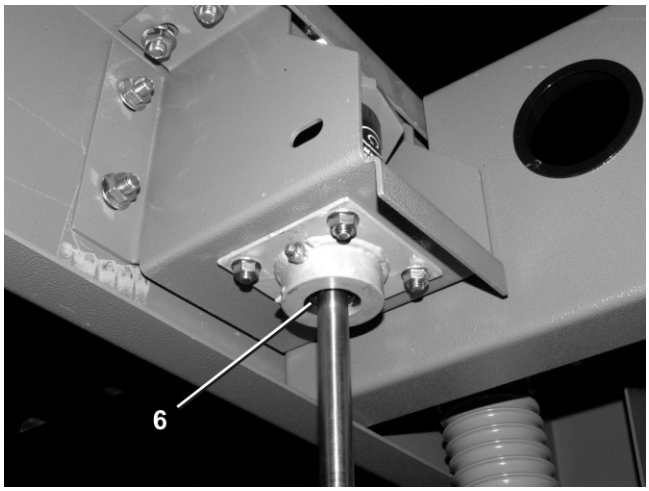


Table 1: Parts List— Suspension Components and Installation

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.

Used In	Item	Part Number	Description/Nomenclature	Comments
			Assemblies	
	A	GMS3626X7	Installation Group	3626X8J,X7W
	B	GMS4226X	Installation Group 4226X	4226X7J,X7W
	C	GMS4232X	Installation Group 4232X	4232X7J,X7W
			Components	
A	1	02 13521	Rod	
BC	1	02 23521	Rod	
all	2	15G264A	Nut, 1+1/4-12	
A	3	W2 13524	Washer	
BC	3	W2 23524	Washer	
A	4	60B136	Rubber spring, 4.5X2X6	
BC	4	60B141	Rubber spring, 6.5X2X8	
all	5	54E024DRF	Flange bearing, 1.25X1.5X2.0	
all	6	54A724	Ball bushing, 1.5"	
A	7	02 13523	Plate	
BC	7	02 23523	Plate	
A	8	W2 13522	Mounting components	
BC	8	W2 23522	Mounting components	
A	9	X2 13521E	Mounting components	
BC	9	X2 23521E	Mounting components	
A	10	02 13524D	Spacer	
BC	10	02 23524D	Spacer	
A	11	02 13521F	Rod	
B	11	02 23521F	Rod	
C	11	02 24521F	Rod	
A	12	02 13521E	Plate	
BC	12	02 23521E	Plate	
A	13	54JH11500A	Shaft collar, 1.5"	
BC	13	54JH22000C	Shaft collar, 2"	
A	14	56Q1KP1	Bushing, 1+1/2"	
BC	14	56Q2AQ1S	Bushing, 2.0	
A	15	15K129	Bolt, 1/2-13X1-1/4	
BC	15	15K154G	Bolt, 1/2-13X1+3/4	
all	17	15G222B	Nut, 1/2-13	
all	18	15K041	Bolt, 1/4-20X1	
all	19	15U180	Washer, Lock, 1/4	
BC	20	54A732	Ball bushing, 2"	
A	21	02 13521J	Spacer	
BC	21	02 23521J	Spacer	
all	22	15U349A	Washer, 1.275X 2.275X.120	

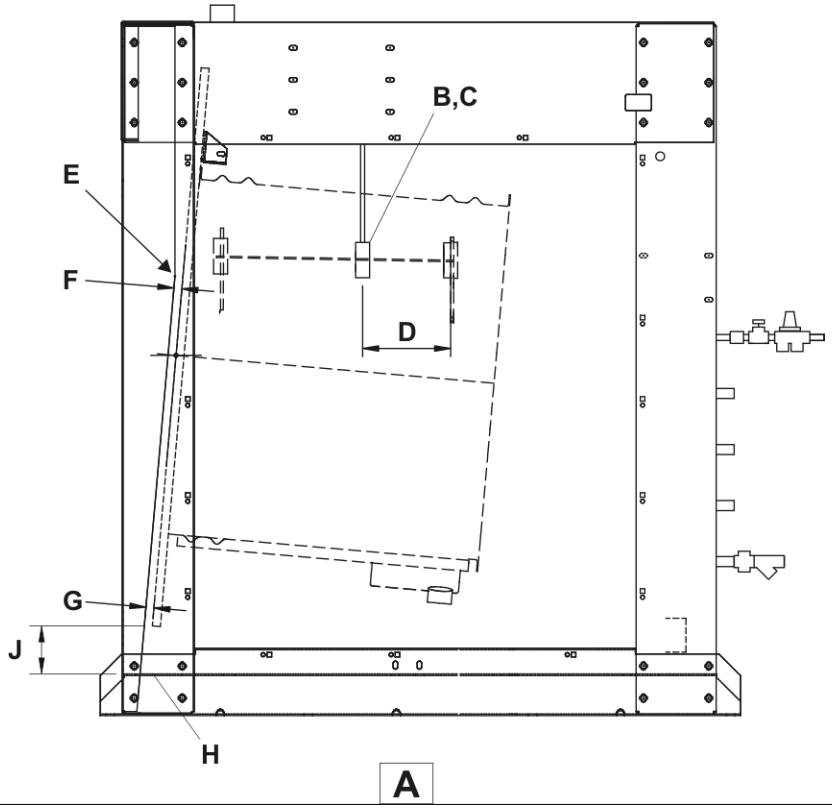
— End of BIMXCM06 —

BIMXCM07 (Published) Book specs- Dates: 20110914 / 20110914 / 20110914 Lang: ENG01 Applic: MXC

Suspension Settings

Figure 1: Suspension Settings

The initial positions for the suspension.

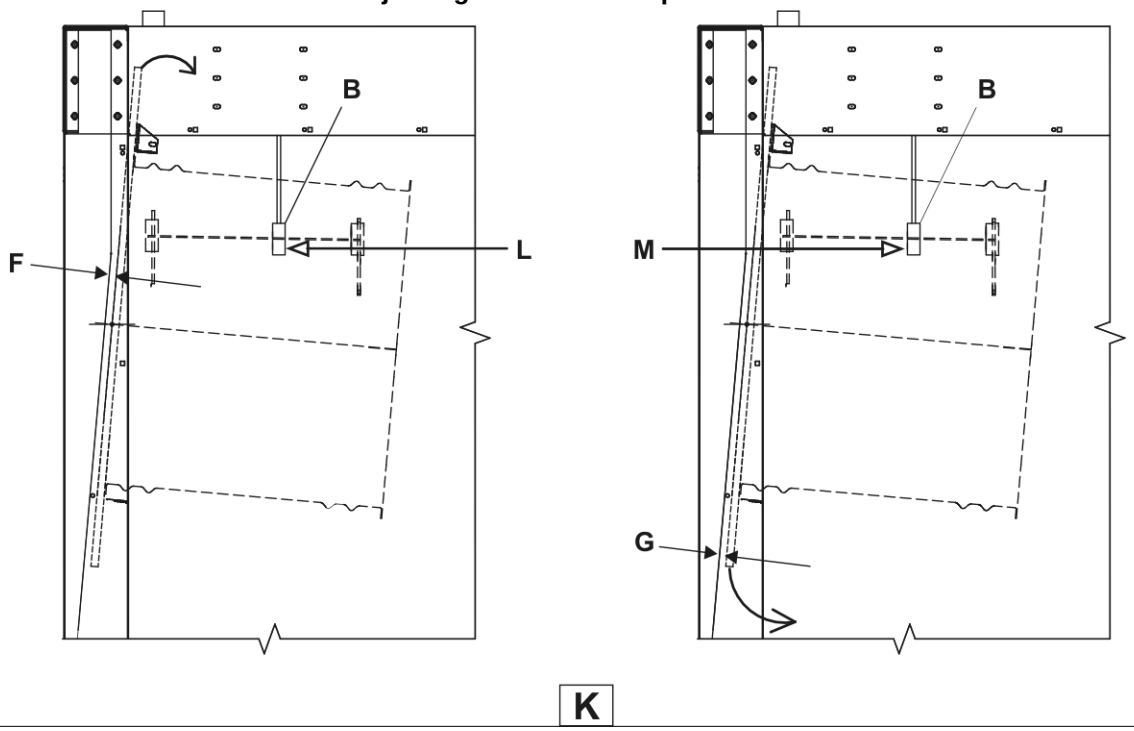


	D
3022X8_	4-1/2”[114]
3626X8_	6-1/2”[165]
4226X7_	8”[203]
4232X7_	11”[279]

Legend

A. The initial positions for the suspension.
B. Lower ball bushing
C. Initially set the lower ball bushing the distance "D" from the shell mounting bracket.
D. Chart dimensions
E. The point on the front corner posts where the angle changes.
F. This dimension must be in this range: 1.50"[38] +/- .125"[3].
G. This dimension must be in this range: 1.25"[32] +/- .125"[3].
H. The top of the inside base channel.
J. This dimension must be in this range: 6"[152] +/- .5"[13].

Figure 2: Detailed views



Legend

F. This distance should be 1.50"[38] +/- .125"[3].
G. This distance should be 1.25"[32] +/- .125"[3].
K. Adjusting the shell front positions.
L. Tap the ball bushing forward to increase the space between the upper shell front and the angle of the corner posts.
M. Tap the ball bushing rearward to increase the space between the lower shell front and the angle of the corner posts.

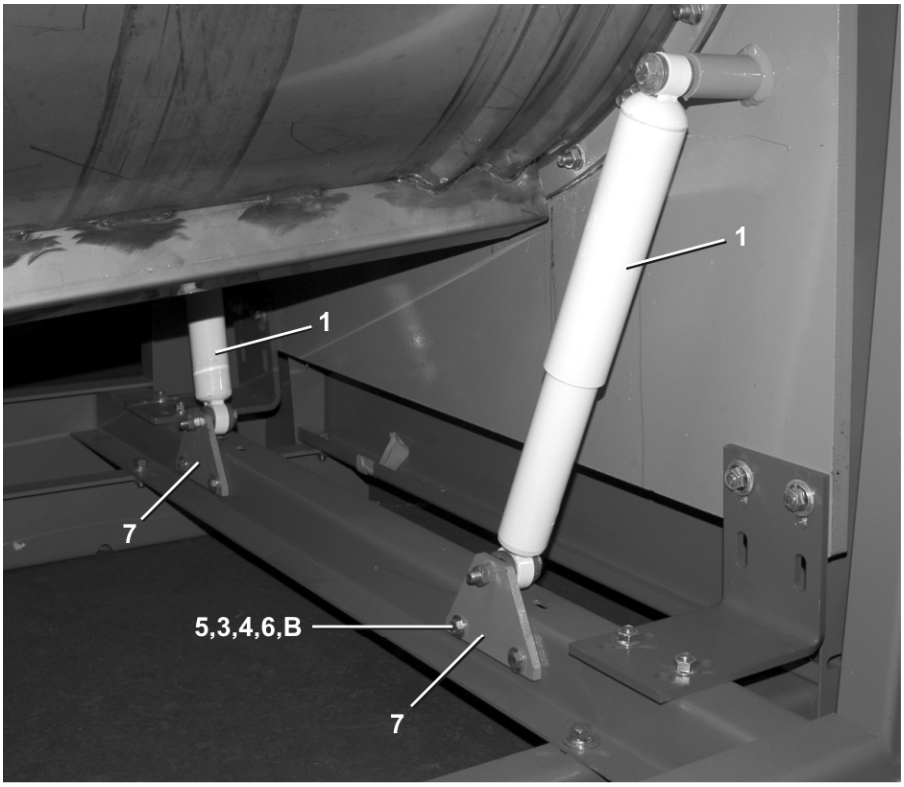
— End of BIMXCM07 —

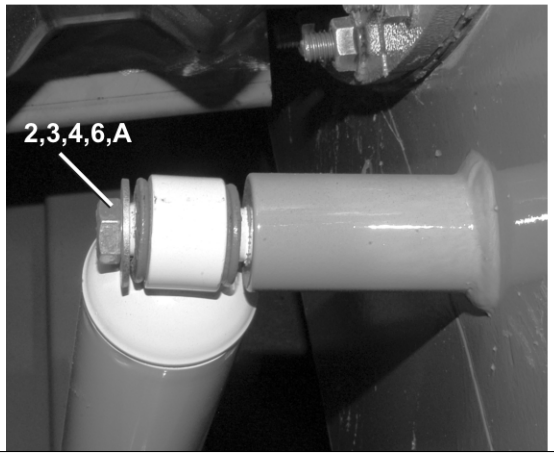
BIMXCM08 (Published) Book specs- Dates: 20110914 / 20110914 / 20110914 Lang: ENG01 Applic: MXC

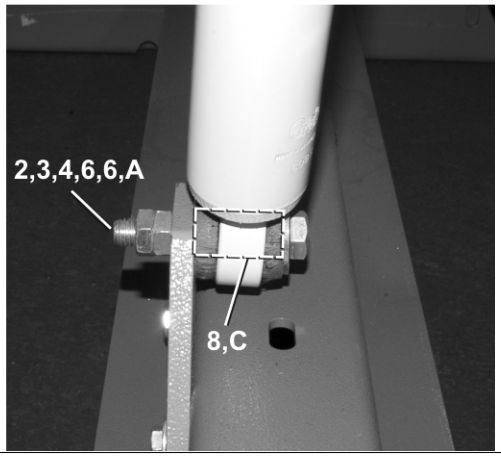
Shock Absorbers

Figure 1: Shock Absorbers

Installed views







Legend

A. instances 2
B. instances 4
C. Models: 4226X7J, 4226X7W, 4232X7J, 4232X7W

Table 1: Parts List—Shock Absorbers

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.

Used In	Item	Part Number	Description/Nomenclature	Comments
Assemblies				
	A	GIC3626X7	Installation Group	3626X8J, X8W
	B	GIC4226X	Installation Group	4226X7J, X7W, 4232X7J, X7W
Components				
A	1	60BS6838	Shock absorber	
B	1	60BS6832	Shock absorber	
all	2	15K198	Bolt, 1/2-13X3	
all	3	15U300	Washer, Lock, 1/2	
all	4	15U280	Washer, 1/2	
all	5	15K173A	Bolt, 1/2-13X1.75	
all	6	15G230	Nut, 1/2-13	
all	7	02 23501C	Mounting components	
B	8	05 20187B	Mounting stud	

— End of BIMXCM08 —

Shell and Door Assemblies

4

Door Assembly

3626X8J,X8W

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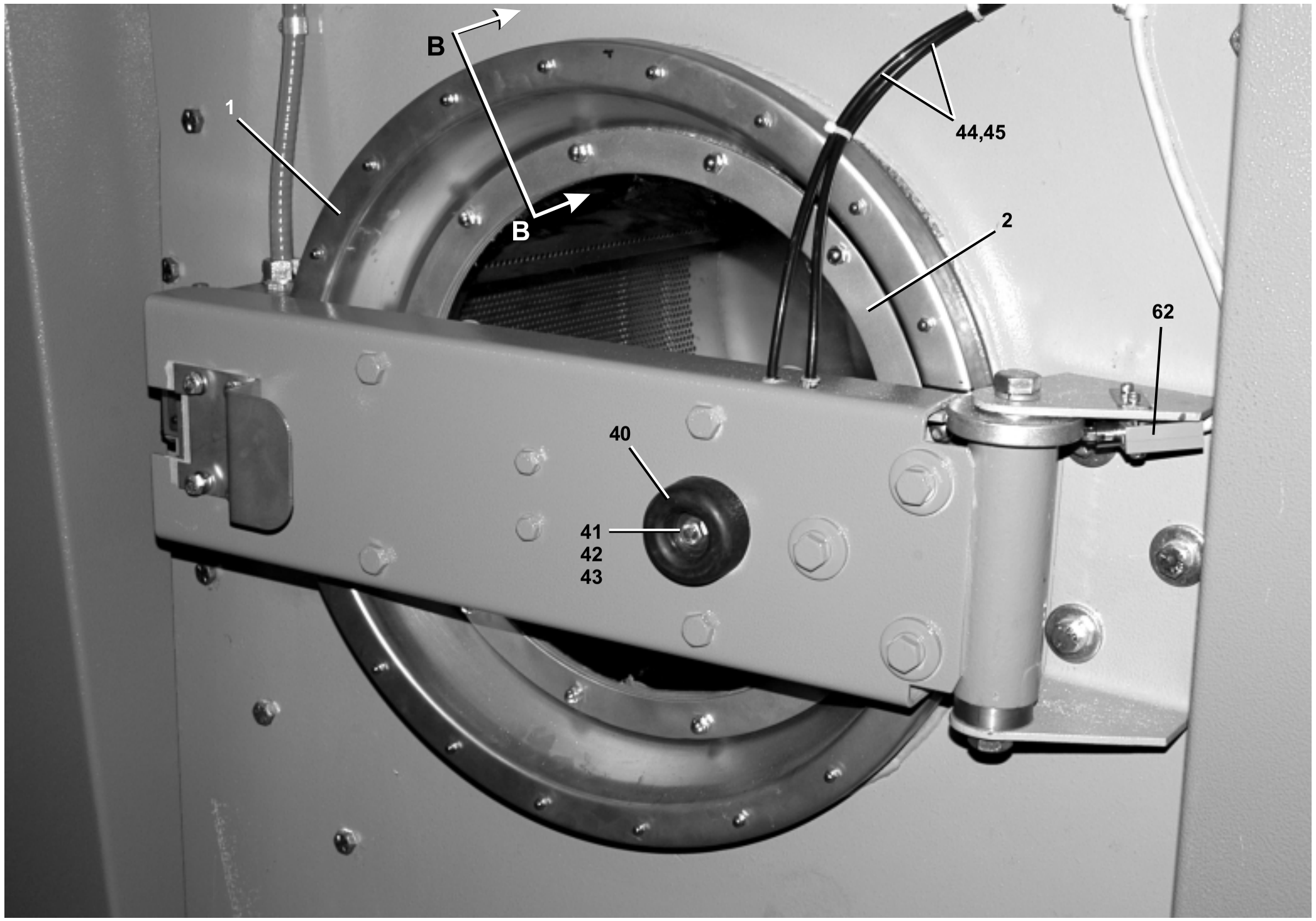
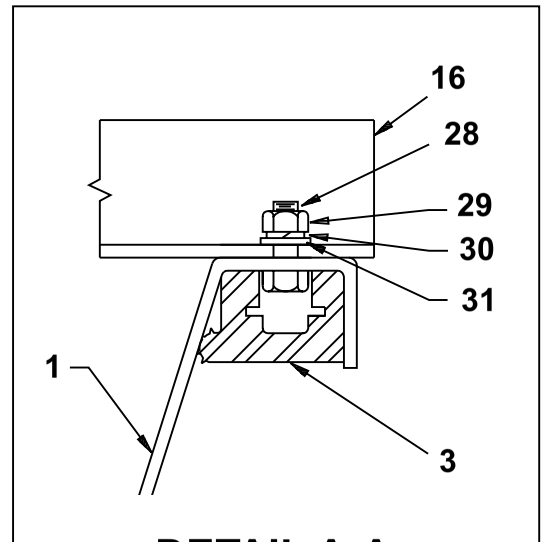
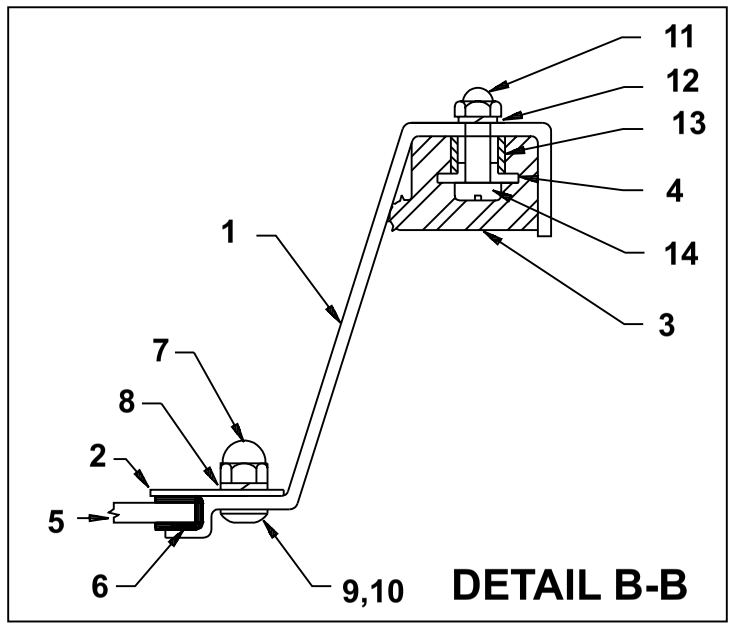




DETAIL A-A



DETAIL B-B

Door Assembly

3626X8J,X8W

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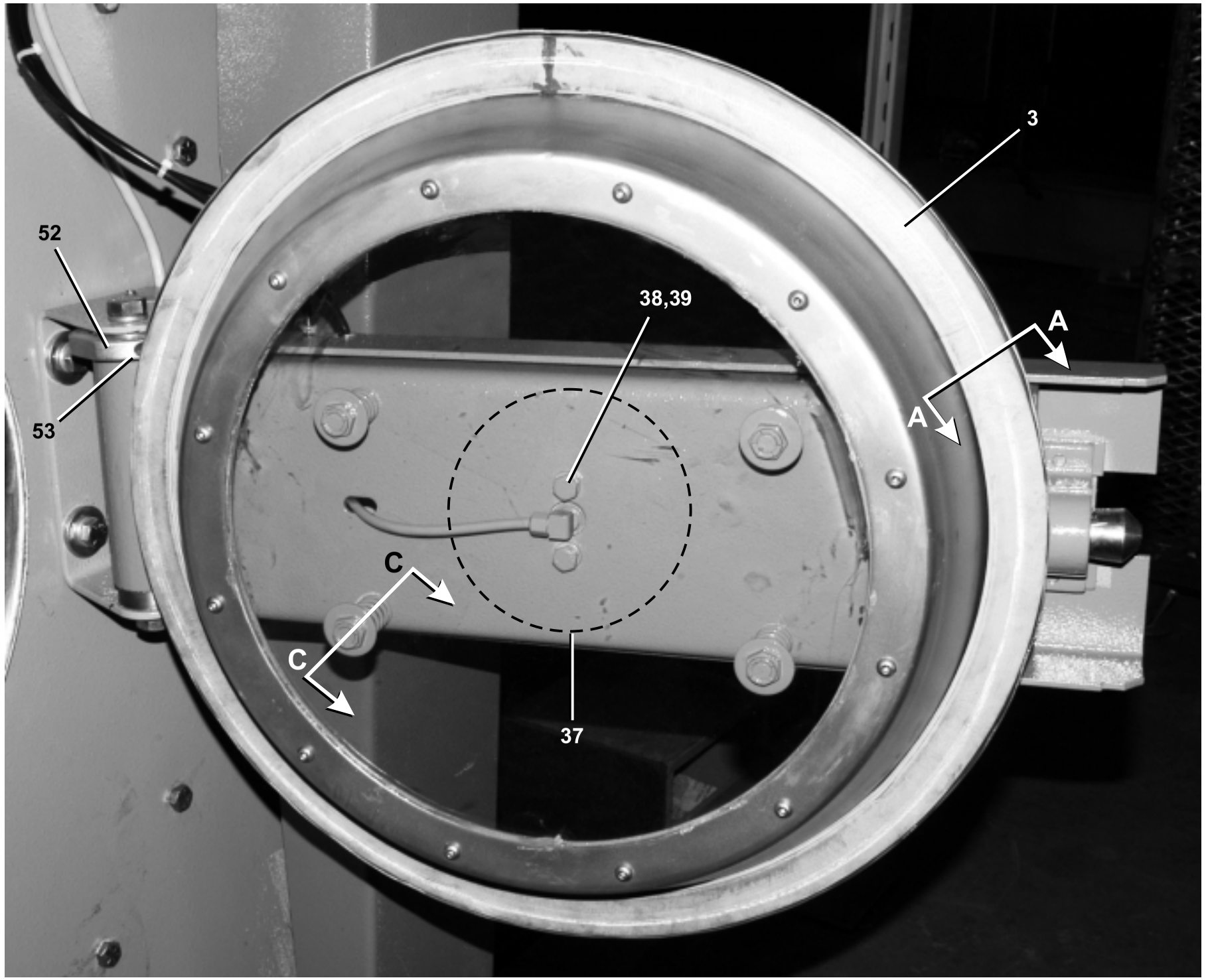

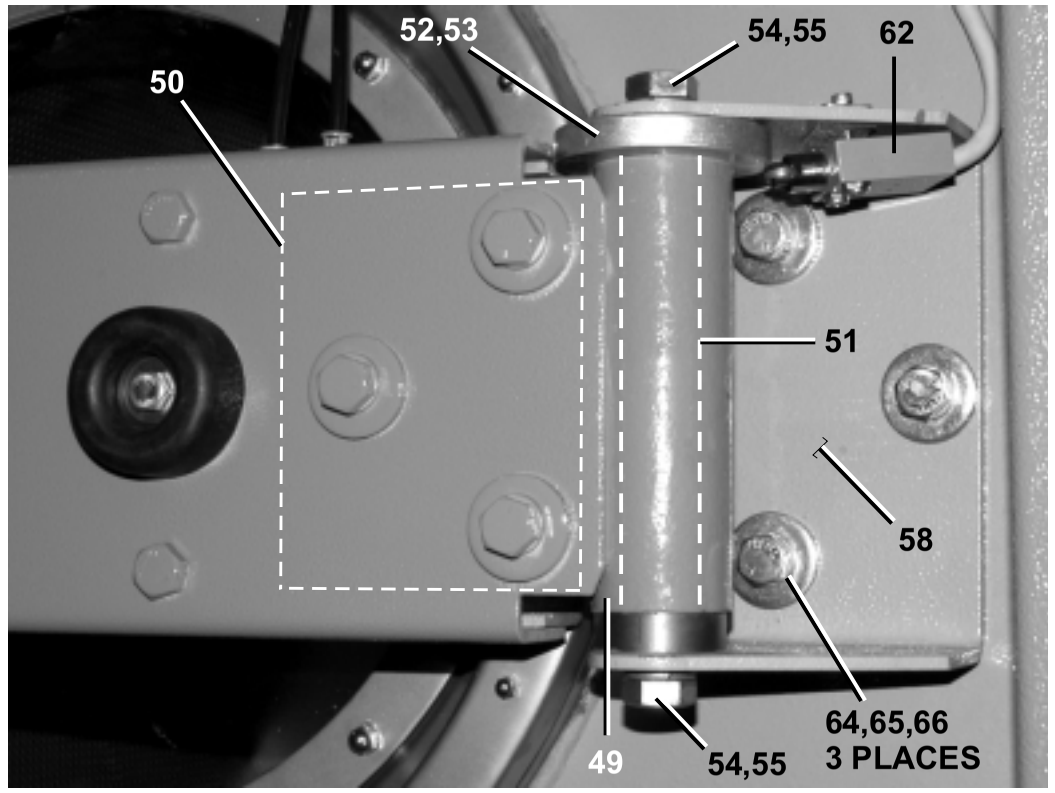

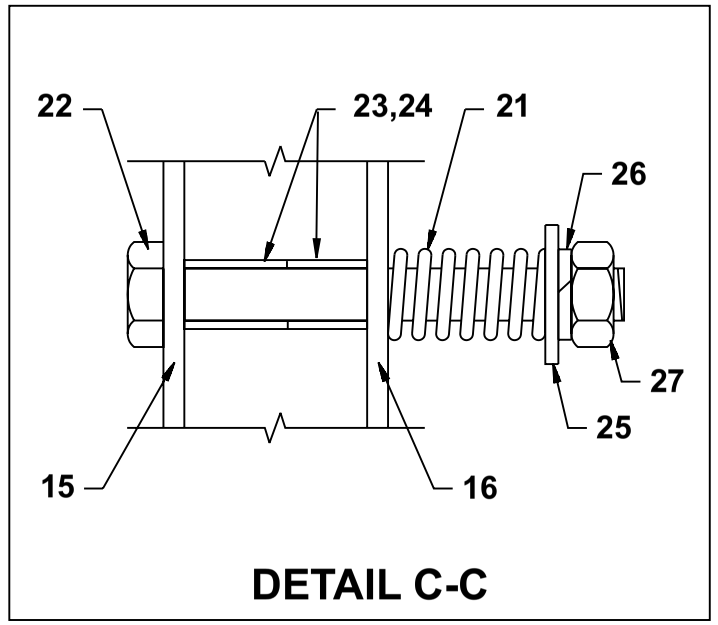

DETAIL C-C

Door Assembly

3626X8J,X8W

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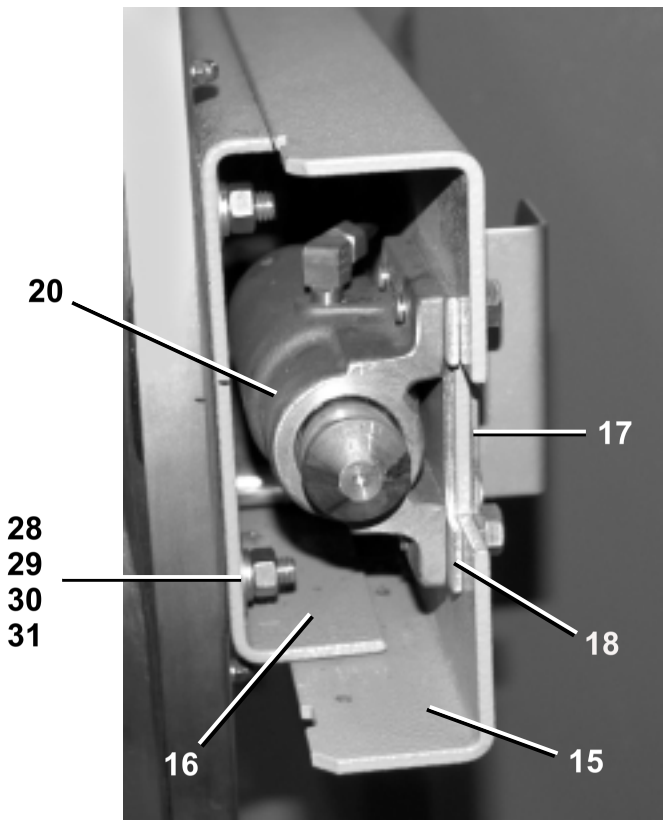

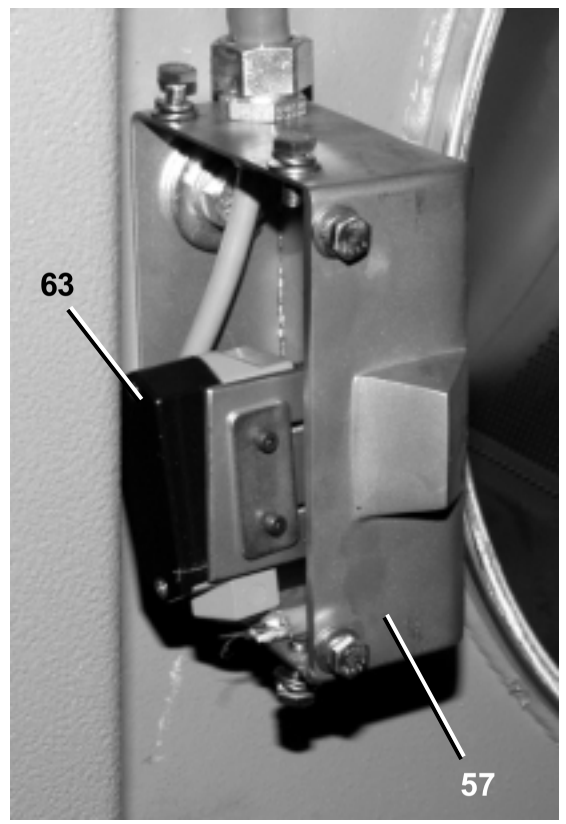

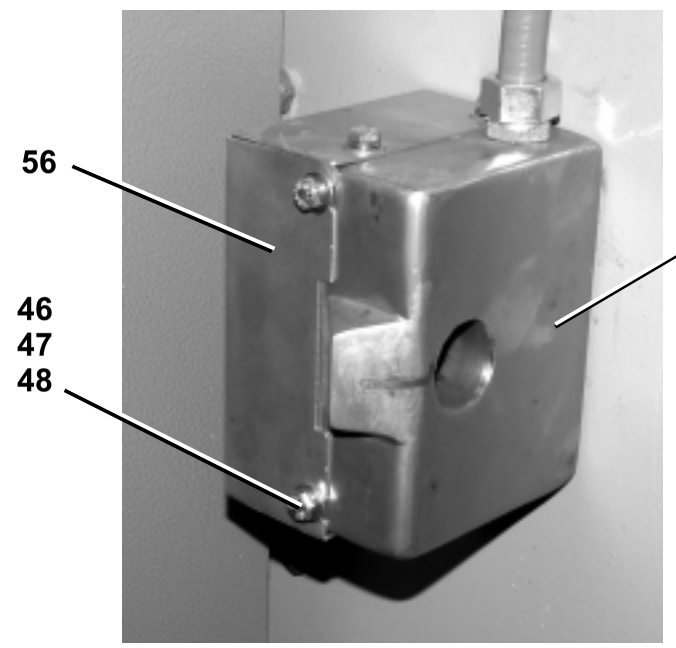

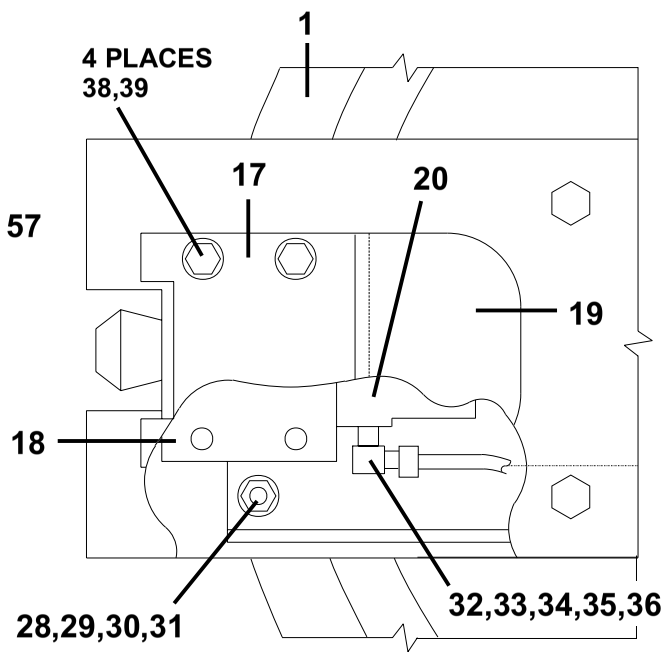

Parts List—Door Assembly 3626X

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

Used In	Item	Part Number	Description	Comments
			----------ASSEMBLIES----------	
	A	GSD3626X8	INSTAL=SHELL DOOR 3626X8	
	B	ASD11015C	ASSY=20" DOOR CHNL AIR OPP	
	C	ASD11015J	ASSY=20"DOOR 42032F8J/P AROP	
	D	ASD3626X	ASSY=20"DOOR HINGE AIROP	
			----------COMPONENTS----------	
all	1	02 11790H	DOOR=20" 304 SS 42F	
all	2	02 11790N	GLASS CLAMPING PLATE 20"DOOR	
all	3	02 11792D	DOOR GASKET=GREY EPDM	
all	4	02 11793	RETAINER=DOOR GASKET RING	
all	5	02 12008B	GLASS=20"DOOR 15.5"DIA 42F	
all	6	02 12054G	GASKET=20"DOOR 16.5DIA GLASS	
all	7	15G140	HXCAPNT 1/4-20 #C250=20 NKLPLT	
all	8	15U181	LOCKWASHER MEDIUM 1/4 SS18-8	
all	9	15K033	BUTSOKCAPSCR 1/4-20X5/8 SS18-8	
all	10	24G020N	ROLLED WASH.252ID NYLTITE 25W	
all	11	15G095	HXCPNUT 8-32 UNC2 BRASS NKL PL	
all	12	15U120B	LOCKWASHER MEDIUM #8 SS18-8	
all	13	27B260156S	SPCRSLD.26ID.375OD.156L 316SS	
all	14	15N091	PANHDMACHSCR 8/32UNC2X1/2 S/S	
all	15	02 11169A	+CHANNEL DOOR=OUTER 4226QWE	
all	16	02 11170A	CHANNEL DOOR=INNER 4226QWE	
all	17	02 15633	ADJPLATE=DOORLATCH CAD	
all	18	02 15633B	DR LATCH ADJ PLATE-16 GA	
all	19	02 15633A	DOOR LATCH HANDLE 42Q	
all	20	SA 15 028	* DOOR LATCH ASSY-DIVCYLS	
all	21	02 18187	SPRING=OUTER DOOR 60WEHU CAD	
all	22	15K202T	HEXCAPSCR 1/2-13 X 4.75 ZINC	
all	23	27B2400K1P	SPCRROLL.5ID1.75L.062T STLZNC	
all	24	27B2400K0N	SPCRROLL.5ID.687L.062T STLZNC	
all	25	15U280	FL+WASHER(USS STD)1/2 ZNC PL+D	
all	26	15U300	LOKWASHER REGULAR 1/2 ZINC PLT	

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Parts List—Door Assembly 3626X

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

Used In	Item	Part Number	Description	Comments
all	27	15G234	LOKNUT 1/2-13NC CAD FLXLOC#21F	
all	28	15K096A	HXCPSCR.3/8-16X1SS18-8.123HD.H	
all	29	15U260	LOCKWASHER MEDIUM 3/8 SS18-8	
all	30	15G206	HEXNUT 3/8-16 UNC2 SS 18-8	
all	31	15U245	FLTWASH 3/8 STD COMM 18-8 SS	
all	32	53A031B	BODY-EL90MALE.25X1/8 #269C-42B	
all	33	53A059A	NUT 1/4"BR.HOLYOKE AND #61A-4	
all	34	53A500	SLEEVE DELRIN 1/4"OD#60PT-4	
all	35	53A501	TUBE INSERT .163"OD #63PT-4-40	
all	36	5SB0E0CBEO	NPTHEXBUSH 1/4X1/8 BRASS 125#	
all	37	60B090	AIRMT S-131 1CONV.F#W013587731	
all	38	15K095	HXCPSCR 3/8-16UNC2AX1 GR5 ZINC	
all	39	15U255	LOCKWASHER MEDIUM 3/8 ZINCPL	
all	40	60C075	TRUCK BUMPER 2+1/2ODW3/8HO.613	
all	41	15K125	HEXCAPSCR 3/8-16UNC2AX2.5 GR5-	
all	42	15U240	FLATWASHER(USS STD) 3/8" ZNC P	
all	43	15G205	HXNUT 3/8-16UNC2B ZINC GR2	
all	44	60E004TE	1/4"OD X.170"ID NYL(BLK)TUBING	
all	45	12P1AGSB	SNAPBUSH 3/8"MH X 1/4" T=1/8	
all	46	15U135S	FLATWASH#10 .5620DX.203IDX.04+	
all	47	15N117	RDMACSCR 10-24UNC2X3/8SS18-8	
all	48	15U160	LOCKWASHER MEDIUM #10 SS18-8	
all	49	X2 15016A	DR HINGE MACHINED 7.499 LG	
all	50	X2 15016	DR HINGE MACHINED 6.218 LG	
all	51	02 11162B	HINGE PIN=20" DOOR-INTNLTHDS	
all	52	54JH13125C	DOOR HINGE COL SPLIT3.12ALUM	
all	53	15K041E	SKCPSCR 1/4-20X1+1/4"BLK	
all	54	15K221	HEXCAPSCR 5/8-11 UNC2X2GR5 ZIN	
all	55	15U315	LOKWASHER MEDIUM 5/8 ZINCPL	
all	56	02 13507E	COVER STRICKER BOX 3626X	
all	57	W2 13507C	WELD=DOOR STRICKER 3626X	
all	58	02 13507B	BRACKET=DOOR HINGE	
all	59	15K151	HXCAPSCR 1/2-13UNC24X1.25 GR5	
all	60	15U300	LOKWASHER REGULAR 1/2 ZINC PLT	
all	61	15U490	FLAWASH 1+1/2X17/32X1/4ZINC	
all	62	09RM01212S	CAPSW 12' 180DEG ROLLER SILVER	
all	63	09R008BSTD	* 09R008B+MOUNTING HDWRE+INST	
all	64	15K145	HXCAPSCR 1/2-13UNC2AX3/4 GR5 P	
all	65	15U310	LOKWASHER REGULAR 1/2 SS18-8	
all	66	15U285	FLATWASHER 1/2 STD COMM SS18-8	
.				

BIIFGM19 (Published) Book specs- Dates: 20100708 / 20100708 / 20120629 Lang: ENG01 Applic: EUU

Door Latch

Figure 1: Door Latch

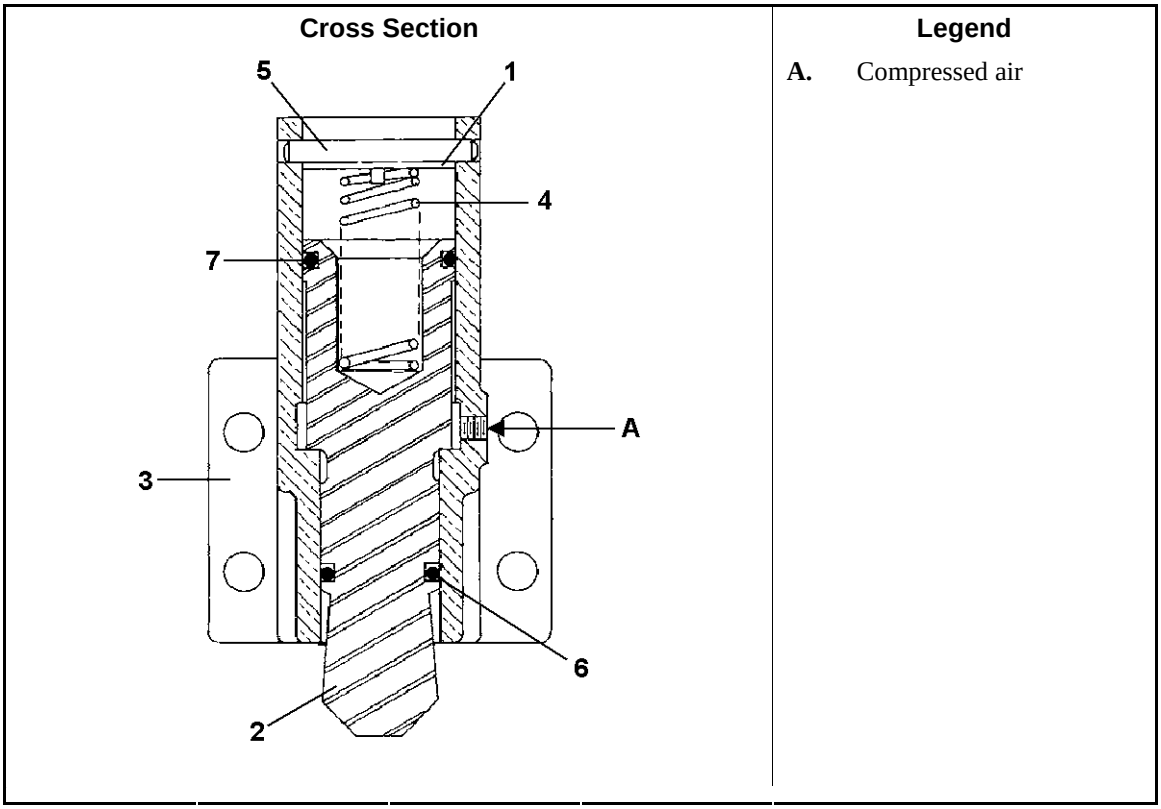


Table 1: Parts List—Door Latch

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.

Used In	Item	Part Number	Description/Nomenclature	Comments
Assemblies				
	A	SA 15 028	Assembly, Door latch	
Components				
all	1	02 15105	Retainer ring	
all	2	02 15297	Striker	
all	3	02 15298	Cylinder	
all	4	02 15836	Spring	
all	5	15H090	Pin	
all	6	60C122	O-ring, 1"X1/8	
all	7	60C128	O-ring, 1+3/8X1/8	

— End of BIIFGM19 —

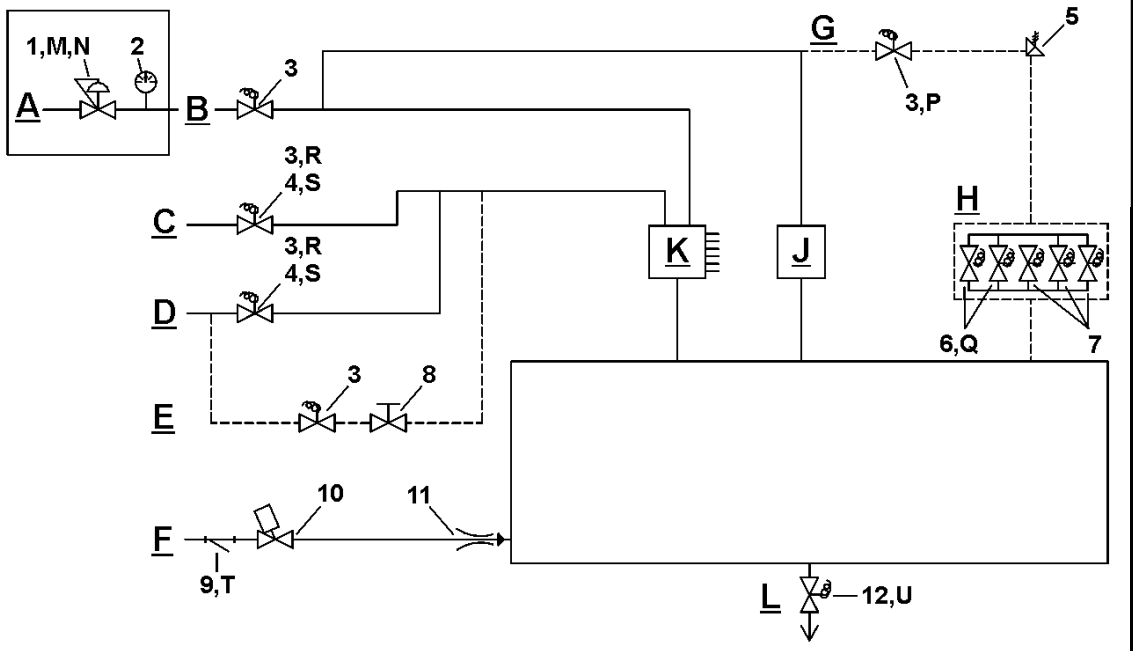
5 Water and Steam Piping and Assemblies

BIMXCM20 (Published) Book specs- Dates: 20130228 / 20130228 / 20130228 Lang: ENG01 Applic: MXC

Water and Steam Schematic and Primary Components

Figure 1: Water and Steam Schematic and Primary Components

Schematic



Legend

- **A.** Pressure regulator assembly
- **B.** Hot water to flush the chemical supplies
- **C.** Hot water line
- **D.** Cold water line
- **E.** Cooldown water line (optional)
- **F.** Steam line (optional)
- **G.** Water to the five compartments for dry chemical supplies
- **H.** Five compartments for dry chemical supplies (optional)
- **J.** Soap chute
- **K.** Six Inlets for Peristaltic Liquid Chemical Systems (optional)
- **L.** Drain valve
- **M.** Keep this component set to the correct pressure. 28 PSI (1.9 ATU)
- **N.** See the document BIMXCM22.
- **P.** Secondary location
- **Q.** See the document BIMXCM17.
- **R.** Models: 3626X8J, X8W
- **S.** Models: 4226X7J, X7W, 4232X7J, X7W
- **T.** Keep this component clean.
- **U.** See the document BIMXCM14.

Table 1: Parts List—Water and Steam Schematic and Primary Components

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.

Used In	Item	Part Number	Description/Nomenclature	Comments
Models:				
	A			3626X8J,X8W
	B			4226X7J,X7W, 4232X7J,X7W
	X			USA-made models only
	Y			China-made models only
Components				
X	1	96J031D	Pressure regulator, 3/4", 28#	
X	2	30N100	Pressure gauge, 1/8", 0-30 PSI	
A	3	96P056B71	Water valve, 3/4", usually closed, 230V50/60 ,electric operated	
B,X	4	96P152A71	Water valve, 1+1/4", usually closed, 240V, electric operated	
B,Y	4	98CX880115	Water valve, 1+1/4", usually closed, air operated	
all	5	96M001	Pressure relief valve, 1/2X3/8" , 31#	
all	6	96TDC2AA71	Water valve, 1/2", usually closed, 240V50/60C, electric operated	
all	7	96TCC2AA71	Water valve, 3/8", usually closed 240V50/60C, electric operated	
X	8	96D050A	Water valve, 3/4"	
X	9	51T030	Y-strainer, 3/4"	
X	10	96P040A71	Steam valve, 3/4", 240V50/60C 150PSI	
X	11	W2 02555A	Nozzle	
Y	11	98CX02555A	Nozzle	
X	12	96D250A71	Drain valve, 2", usually open, 240V 50/60C, electric operated	
Y	12	98CMCR3604	Drain valve, 2", usually open, air operated	

— End of BIMXCM20 —

Water Inlet Assemblies

3626X8J,X8W

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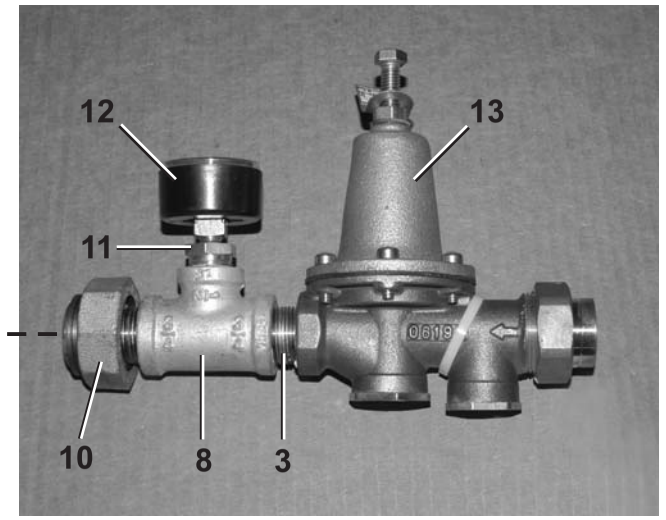
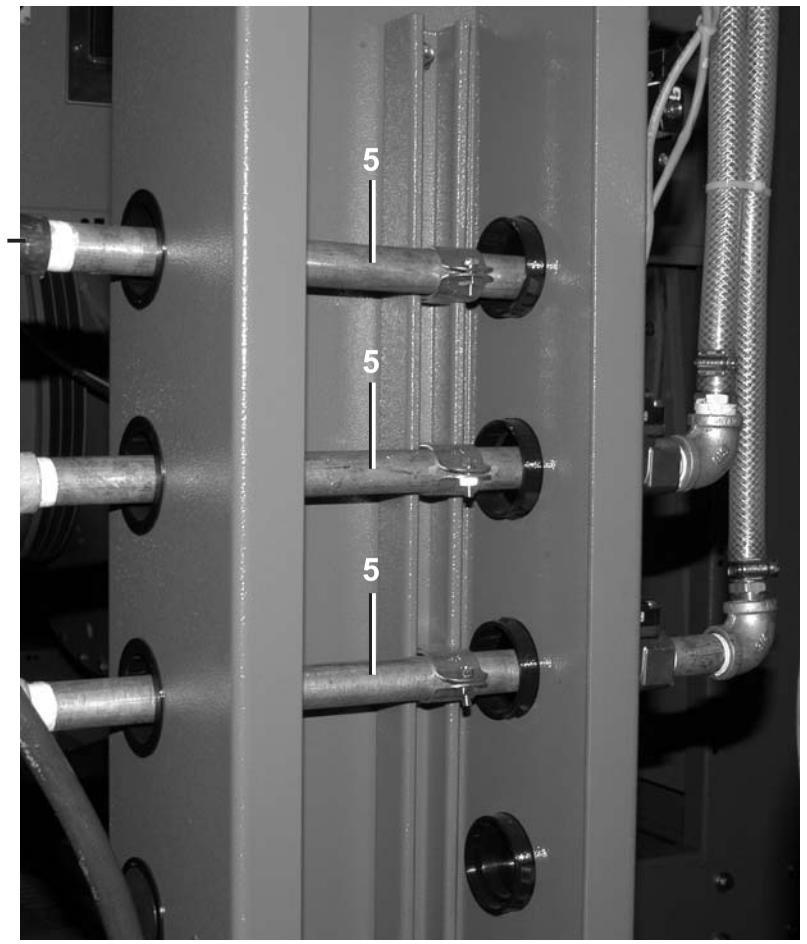
06

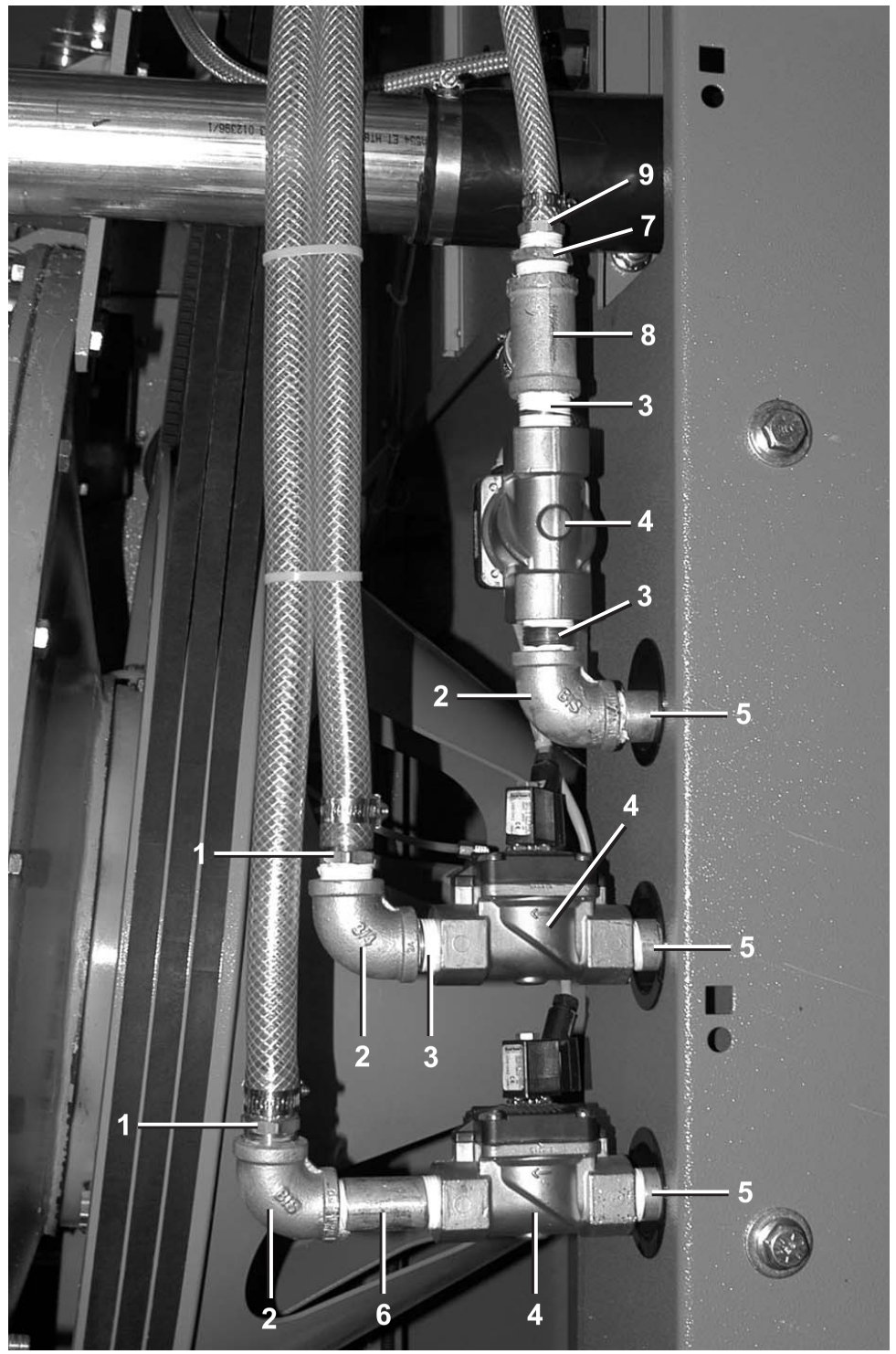




Hot Water
to Flush the
Chemical Supplies

Hot Water Inlet

Cold Water Inlet



Hot Water
to Flush the
Chemical Supplies

Hot Water Inlet

Cold Water Inlet

Water Inlet Assemblies

3626X8J,X8W

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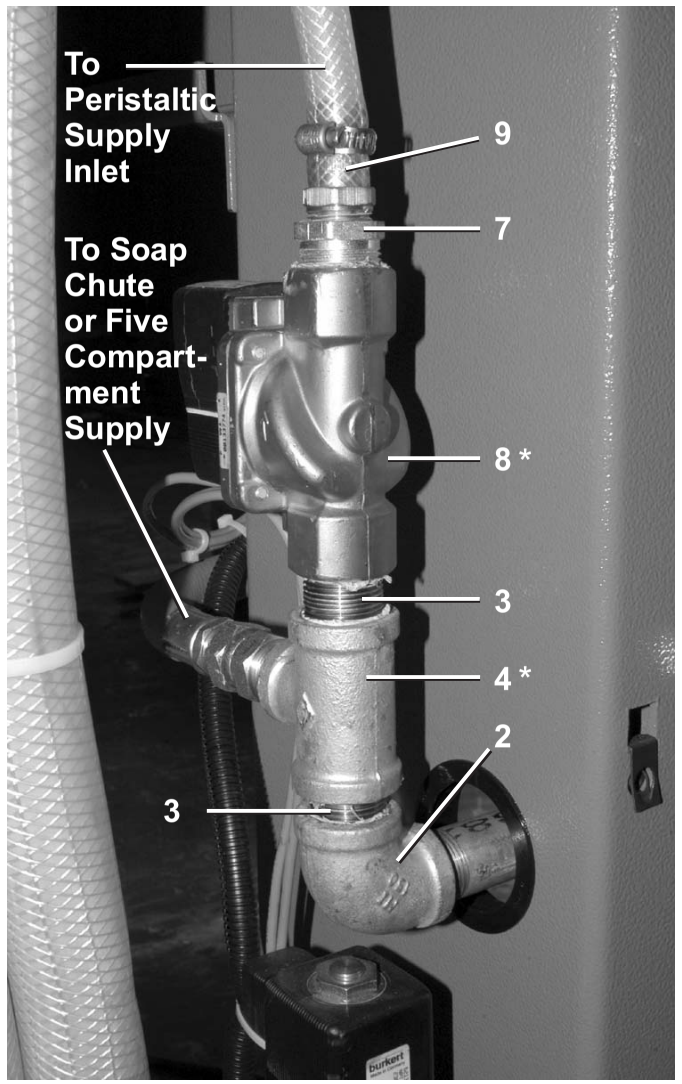
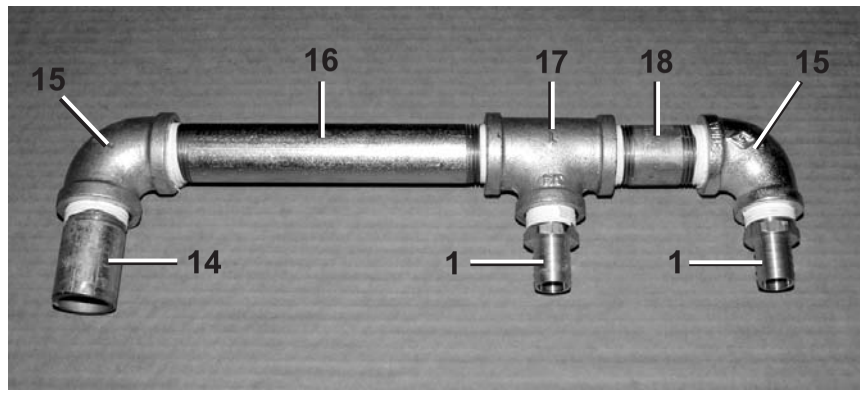
* The electric valve and the tee are reversed when there is no Five Compartment Supply.



Hot Water to Flush the Chemical Supplies

Inlet for Peristaltic Chemical Supplies
See BMP040050.



Parts List—Water Inlets

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

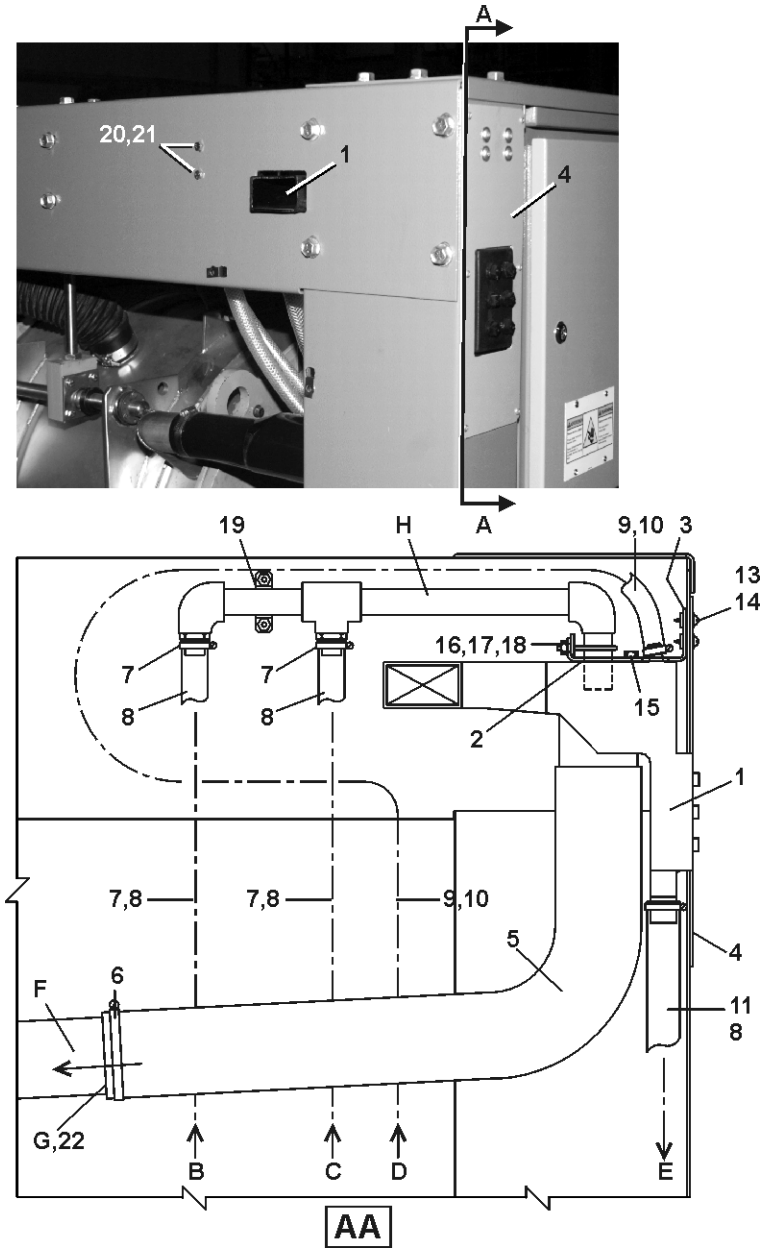
Used In	Item	Part Number	Description	Comments
.				
			----------ASSEMBLIES----------	
	A	AVW03010	H2O INLET VALVE HOT	
	B	AVW03011	H2O INLET VALVE COLD	
	C	AVW42006	FLUSH VALVE INLET 42X	
	D	AVW03013	3626X H20 MANIFOLD	
			----------COMPONENTS----------	
all	1	51E511	HOSESTEM BRASS 3/4MP X HOSEID	
all	2	5SL0PNFA	NPTELB 90DEG 3/4 GALMAL 150#	
all	3	5N0PCLSG42	NPT NIP 3/4XCLS TBE GALSTL S40	
all	4	96P056B71	3/4"NC 230V50/60 BURKERT #5281	
all	4A	96V415	COIL 240V 50/60 FOR BURK 5281	COIL KIT
all	4B	96V607	3/4"OPERATRWEAR KIT-FOR BURKERT#5281	WEAR KIT
all	4C	96V608	3/4"MAIN DIAPHRAMKIT-FOR BURKERT#5281	DIAPHRAGM KIT
all	4D	96P042VA37	DIN CONNECTOR W/CABLE BURK	CONNECTOR
all	5	5N0P14AG42	NPT NIPPLE 3/4X14 TBE GALSTL	
all	6	5N0P03AG42	NPT NIP 3/4X3 TBE GALSTL SK40	
all	7	5SB0P0KBEO	NPTHEXBUSH 3/4X1/2 BRASS 125#	
all	8	5S0PNFA0K	NPT TEE 3/4X3/4X1/2 GALMAL150#	
all	9	51E509	HOSESTEM BRASS 1/2MPX1/2HOSEID	
all	10	5SU0PNF	NPT UNION 3/4" GALMAL 150#	
all	11	5SB0K0CDEO	NPTHEXBUSH 1/2X1/8 GALCI 125#	
all	12	30N100	PRESSGAUGE 1/8"BACKCN.0-30PSI	
all	13	96J031D	3/4"PRESSREG SET 28# FEMXUN	
all	14	5N0P01PG41	NPT NIP 3/4X1.75 TOE GAL. S40	
all	15	5SL1ANFA0P	NPTELB 90DEG 1X3/4 GALMAL 150#	
all	16	5N1A07AG42	NPT NIP 1X7 TBE GALSTL SK40	
all	17	5S1ANFA0P1	NPT TEE 1X1X3/4" GALMAL 150#	
all	18	5N1A03AG42	NPT NIP 1X3 TBE GALSTL SK40	

BIMXCM11 (Published) Book specs- Dates: 20130827 / 20130827 / 20130827 Lang: ENG01 Applic: MXC

Inlet for Peristaltic Chemical Supplies and Water

Figure 1: Inlet for Peristaltic Chemical Supplies and Water

Right side view, Cross Section



Legend

- **AA.** Cross Section
- **B.** Cold water line
- **C.** Hot water line
- **D.** Water to the five compartments for dry chemical supplies
- **E.** Water and chemical supplies to the drain trough
- **F.** Water and chemical supplies to the shell
- **G.** Apply adhesive to the surfaces that connect. Then, tighten the clamp.
- **H.** See the document BIMXCM10.

Table 1: Parts List—Inlet for Peristaltic Chemical Supplies and Water

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.

Used In	Item	Part Number	Description/Nomenclature	Comments
Assemblies				
	A	ZBXJFVE20A	3626X8J H+C H2O INLET	3626X8J, X8W
	B	ZBXJFVE20A	42X H+C WATER VALVES	4226X7J,X7W 4232X7J,X7W
none				
Components				
all	1	02 03588M	Inlet manifold	
all	2	02 03588K	Cover	
all	3	02 03195A	Mounting bracket	
all	4	02 02930	Mounting plate	
all	5	02 03588X	Inlet manifold hose	
all	6	27A074	Clamp, 2+1/16-3"	
A	7	60E008A	Flexible tubing, .75"X1.025"	
B	7	60E014R	Flexible tubing, 1.25X1.75	
all	8	27A090	Clamp, 13/16-1.5"	
all	9	60E006C	Flexible tubing, .5X.75	
all	10	27A040	Clamp, 7/16-25/32	
all	11	60E010	Flexible tubing, 1"X1.312	
all	13	15N110H	Bolt, M6-1X25MM	
all	14	15G004HB	Nut, M6-1, 0.8-4MM	
all	15	15K031	Bolt, 1/4-20X1/2	
all	16	27A031C	U-bolt, 1.25, 5/16-18	
all	17	15G196	Nut, 5/16-18	
all	18	02 10539	Spacer	
all	19	12K108	Mounting bracket	
all	20	15K041	Bolt, 1/4-20X1	
all	21	15G178	Nut, 1/4-20	
all	22	20C009C	Adhesive #3032	

— End of BIMXCM11 —

BIMXCM12 (Published) Book specs- Dates: 20130228 / 20130228 / 20130228 Lang: ENG01 Applic: MXC

Steam Inlet Components and Installation

Figure 1: Steam line

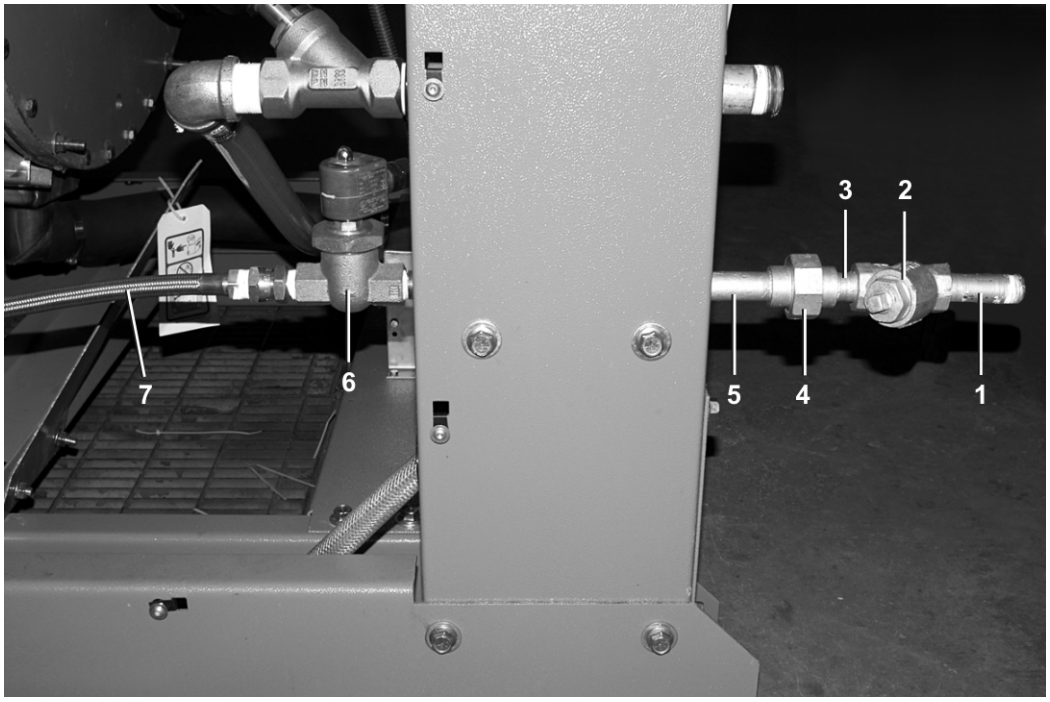


Figure 2: Steam nozzle

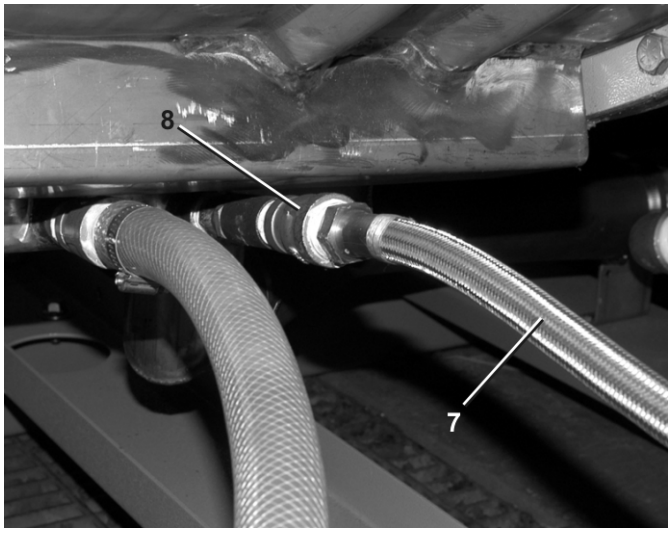


Table 1: Parts List—Steam Inlet Components and Installation

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.				
Used In	**Item**	**Part Number**	**Description/Nomenclature**	**Comments**
Assemblies				
	A	AVS3626001	Assembly	3626X8J,X8W 4226X7J,X7W 4232X7J,X7W
	X			USA-made models only
	Y			China-made models only
Components				
all	1	5N0P05AF42	Pipe nipple, 3/4X5	
all	2	51T030	Y-strainer, 3/4"	
all	3	5N0PCLSF42	Pipe nipple, 3/4XCLS	
all	4	51X019	Union, 3/4"	
all	5	5N0P16AF42	Pipe nipple, 3/4X16	
all	6	96P040A71	Valve, 3/4", 240V50/60C 150PSI	
X	7	60E512C28	Hose, 5/8"	
Y	7	98CX800414	Hose, 3/4"	
X	8	W2 02555A	Steam nozzle, 3/8"	
Y	8	98CX02555A	Steam nozzle, 3/8"	

— End of BIMXCM12 —

BIMXCM13 (Published) Book specs- Dates: 20110915 / 20110915 / 20110915 Lang: ENG01 Applic: MXC

Drain Valve Installation

Figure 1: General View

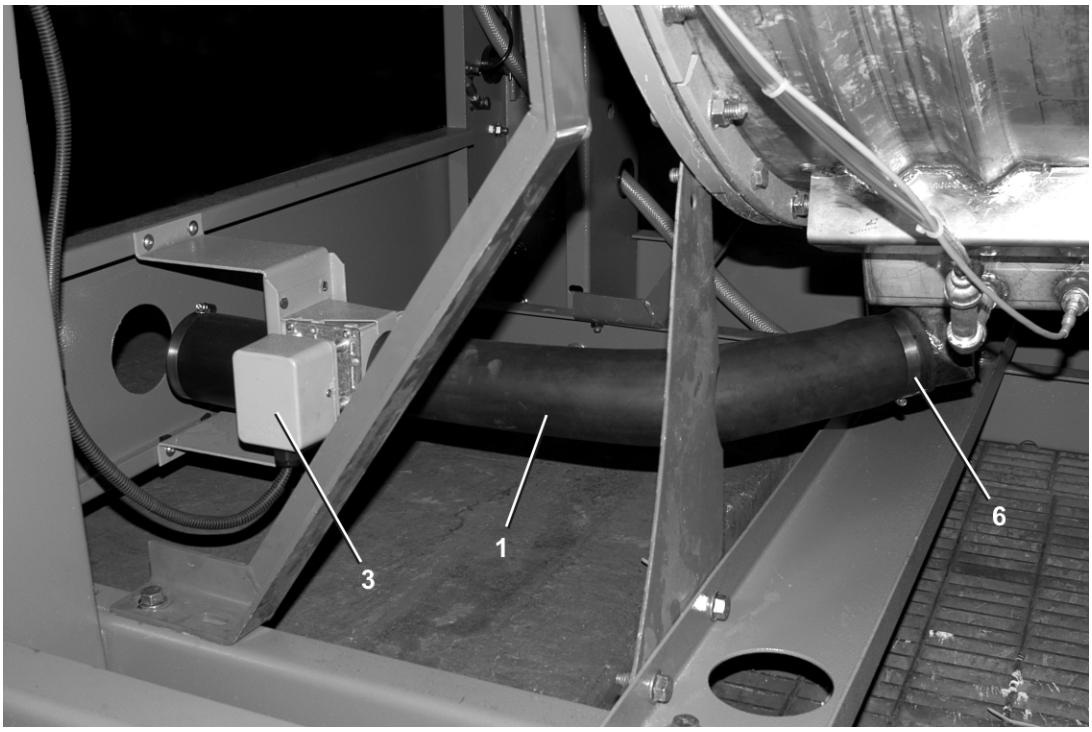
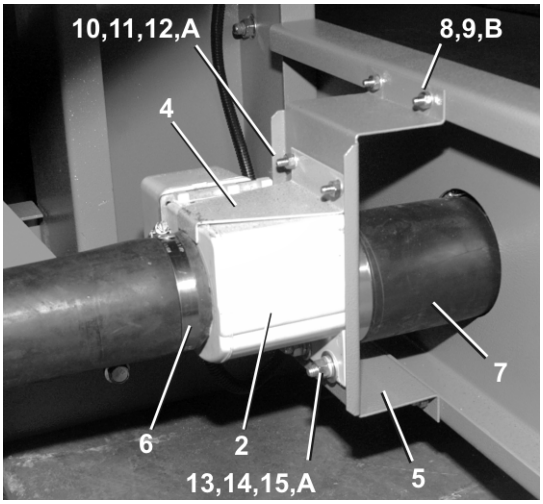


Figure 2: Drain valve

Detailed view



Legend

A. instances 2
B. instances 4

Table 1: Parts List—Drain Valve Installation

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.

Used In	Item	Part Number	Description/Nomenclature	Comments
			Assemblies	
	A	GVD3626X7	Installation Group, 3626X	3626X8J,X8W
	B	GVD4226X	Installation Group, 4226X7Z	4226X7J,X7W 4232X7J,X7W
			Components	
all	1	02 03245	Hose	
all	2	96D350A71	Drain valve, 3", 240V 50/60C	
all	3	96D35C0V	Cover	
all	4	02 02934A	Bracket	
A	5	02 13534	Bracket	
B	5	02 23534	Bracket	
all	6	27A088S	Clamp, 3+1/16-4"	
all	7	60B075	Hose	
all	8	15N110H	Bolt, M6-1X25MM	
all	9	15G004HC	Nut, M6-1, 3.5-6.5MM	
all	10	15K039	Bolt, 1/4-20X3/4	
all	11	15U185	Washer, 1/4"	
all	12	15G178	Nut, 1/4"-20	
all	13	15K095	Bolt, 3/8-16X1	
all	14	15U240	Washer, 3/8"	
all	15	15G198	Nut, 3/8-16	

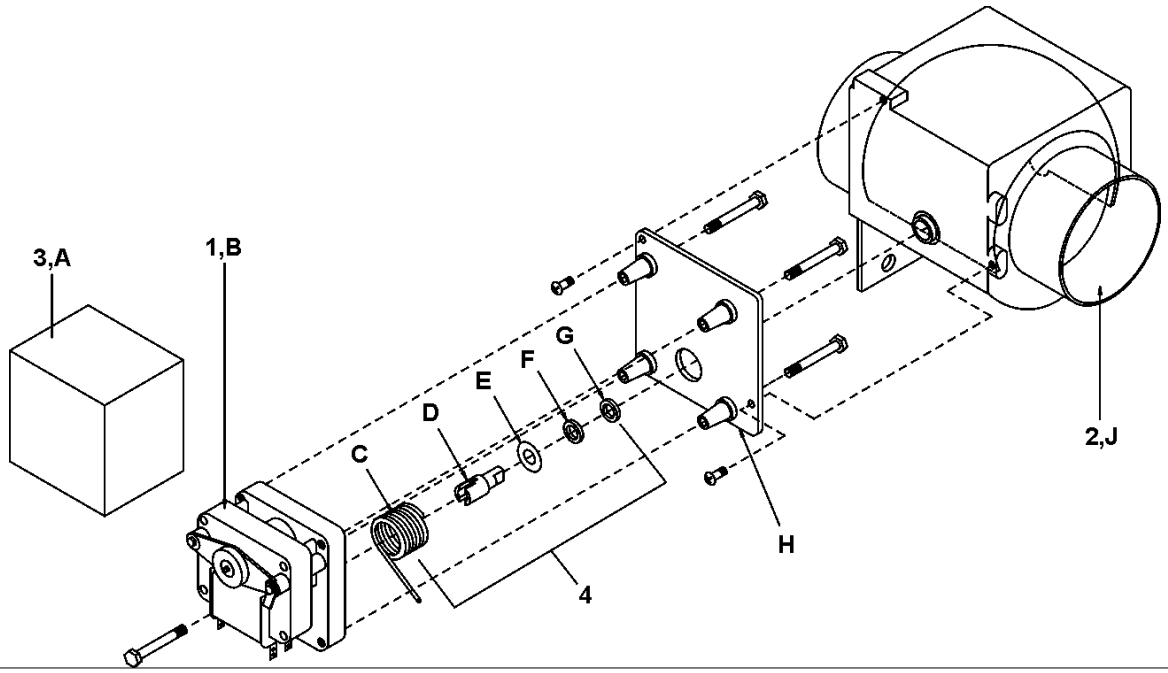
— End of BIMXCM13 —

BIMXCM14 (Published) Book specs- Dates: 20110915 / 20110915 / 20110915 Lang: ENG01 Applic: MXC

3 Inch Electrical Drain Valve

Figure 1: 3 Inch Electrical Drain Valve

Detailed view



Legend

- **A.** Cover
- **B.** Motor
- **C.** Spring
- **D.** Drive Pin
- **E.** Washer
- **F.** Bearing
- **G.** Seal
- **H.** Mounting plate
- **J.** Valve body

Table 1: Parts List—3 Inch Electrical Drain Valve

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.

Used In	Item	Part Number	Description/Nomenclature	Comments
Assemblies				
	A	96D350A37	Assembly, 120V 50/60C, Usually open	
	B	96D350A71	Assembly, 240V 50/60C , Usually open	
	C	96D350B71	Assembly, 240V 50/60C, Usually closed	
Components				
A	1	96D35MTR37	3 Inch electrical drain valve, 120V 50/60C	
BC	1	96D35MTR71	3 Inch electrical drain valve, 240V 50/60C	
B	2	96D35B0D	Body and ball	
all	3	96D35C0V	Cover	
all	4	96D35PIN	Drive pin kit	

— End of BIMXCM14 —

BIMXCM22 (Published) Book specs- Dates: 20130228 / 20130228 / 20130228 Lang: ENG01 Applic: MXC

Pneumatic Drain Valve (optional)

Figure 1: General Views

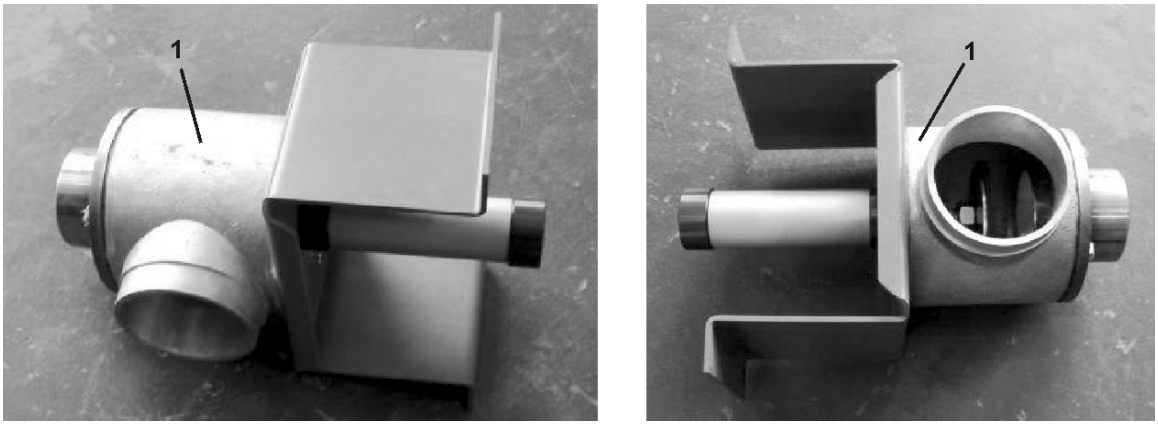


Figure 2: Installed view

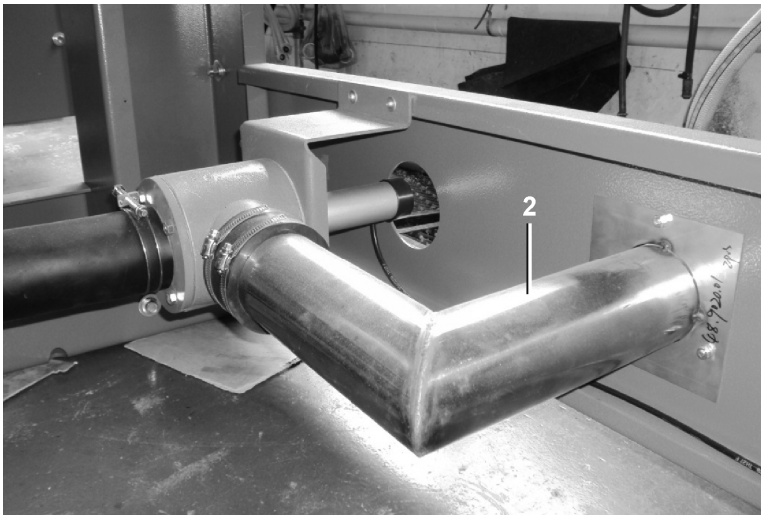


Table 1: Parts List— Pneumatic Drain Valve

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.

Used In	Item	Part Number	Description/Nomenclature	Comments
Components				
all	1	98CMCR3604	Pneumatic drain valve	
all	2	98CX489020	Weldment	

— End of BIMXCM22 —

BIMXCM23 (Published) Book specs- Dates: 20110915 / 20110915 / 20110915 Lang: ENG01 Applic: MXC

Electrical Heat (optional)

Figure 1: Electrical heat probe

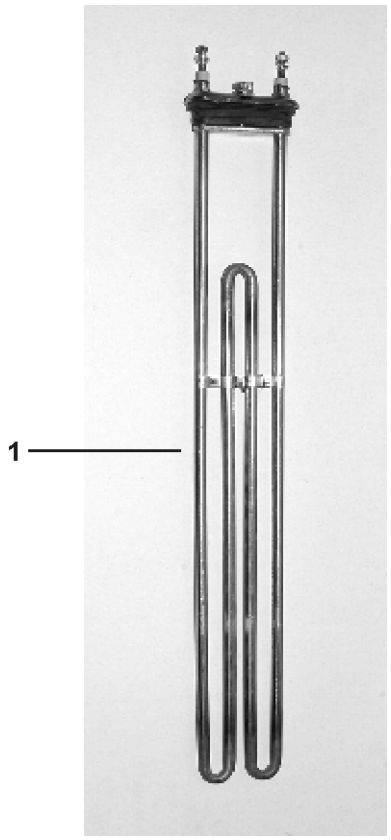


Table 1: Parts List— Electrical Heat

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.

Used In	Item	Part Number	Description/Nomenclature	Comments
Components				
all	1	98CMCR3604	Electrical heat probe	

— End of BIMXCM23 —

Chemical Supply Assemblies 6

BIMXCM15 (Published) Book specs- Dates: 20110915 / 20110915 / 20110915 Lang: ENG01 Applic: MXC

Soap Chute Components and Installation

Figure 1: Detailed views

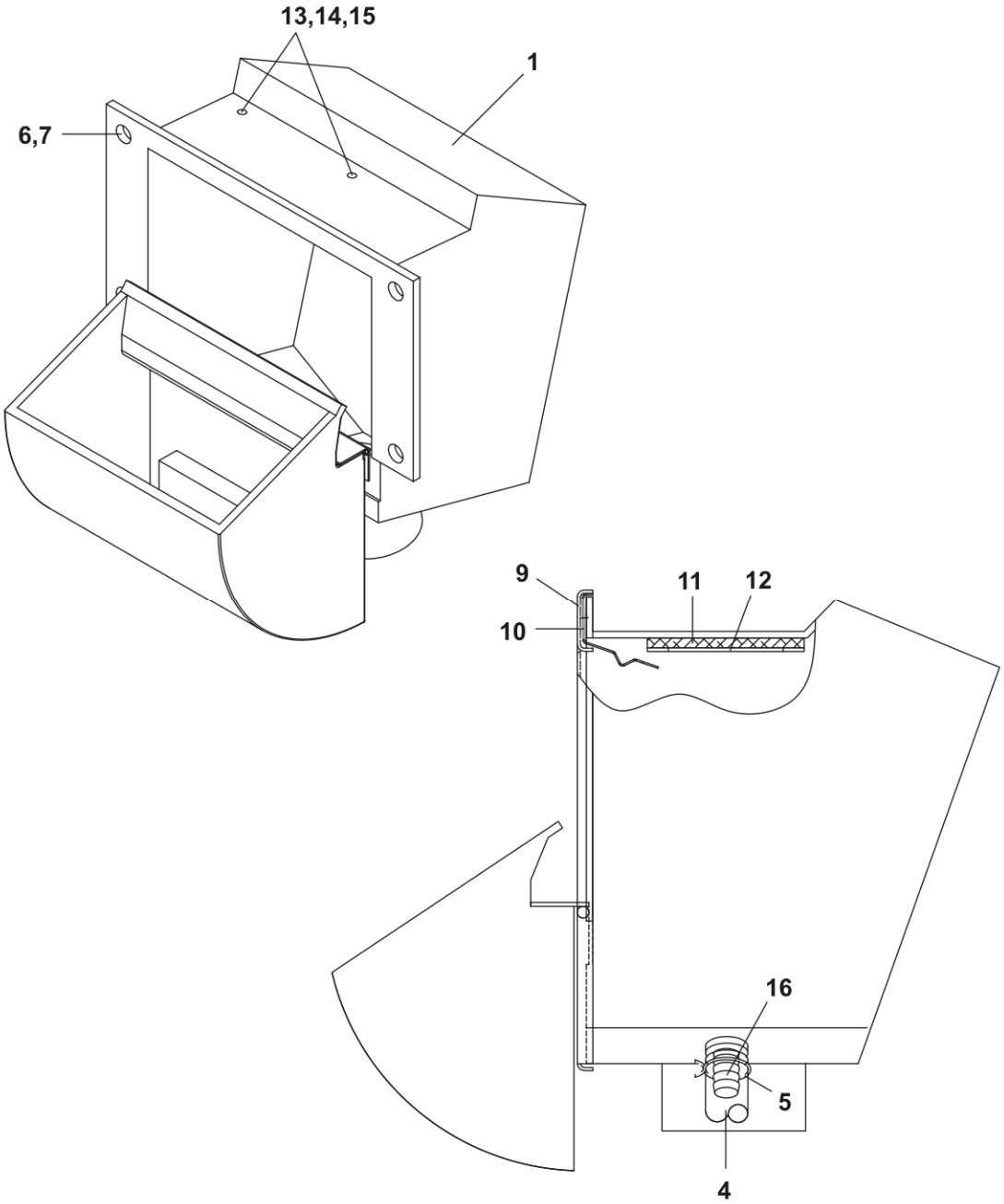
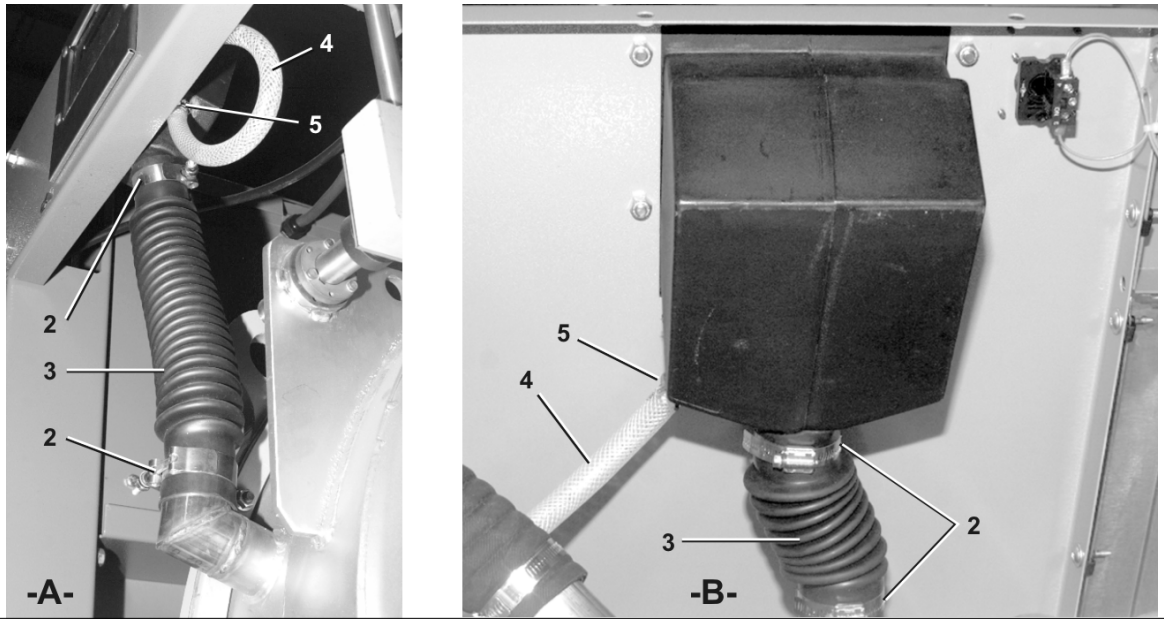


Figure 2: Soap Chute Components and Installation

Installed views



Legend

A. shown 3022X8J
B. shown 3022H8J

Table 1: Parts List—Soap Chute Components and Installation

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.

Used In	Item	Part Number	Description/Nomenclature	Comments
			Assemblies	
	A	GWS3022X8	Installation Group	3022X8J
	B	GWS3022H8	Installation Group	3022H8J
	C	GWS3626X7	Installation Group	3626X8J,X8W
	D	GWS4226X	Installation Group	4226X7J,X7W
	E	GWS4232X	Installation Group	4232X7J,X7W
	F	GWS35001C	Installation Group	3630F8R,F8S
	G	GWS42001C	Installation Group	4232F7R,F7S
			Components	
all	1	AWS30211A	Soap chute	
all	2	27A070	Hose clamp, T-bolt, 1.94"-2.25"	
ACF	3	02 03870D	Flexible tubing, 2"X14"	
B	3	02 03870C	Flexible tubing, 2"X8"	
DEG	3	02 03870	Flexible tubing, 2"X24"	
all	4	60E006C	Flexible tubing, .5"X.75"	
all	5	27A045	Hose clamp,Spring, .75"	
all	6	15K053	Bolt, 5/16-18X3/4"	
all	7	15G188	Nut, 5/16-18	
all	9	02 04215	Bezel	
all	10	02 04217	Latch	
all	11	02 04216	Mounting plate	
all	12	98A002AT	Pad, 6"X9"	
all	13	15G105	Nut, 8-32	
all	14	15N095	Bolt, 8-32X3/4"	
all	15	15U120B	Washer, Lock, 8-32	
all	16	51BB0KN00B	Hose stem, 1/2"	

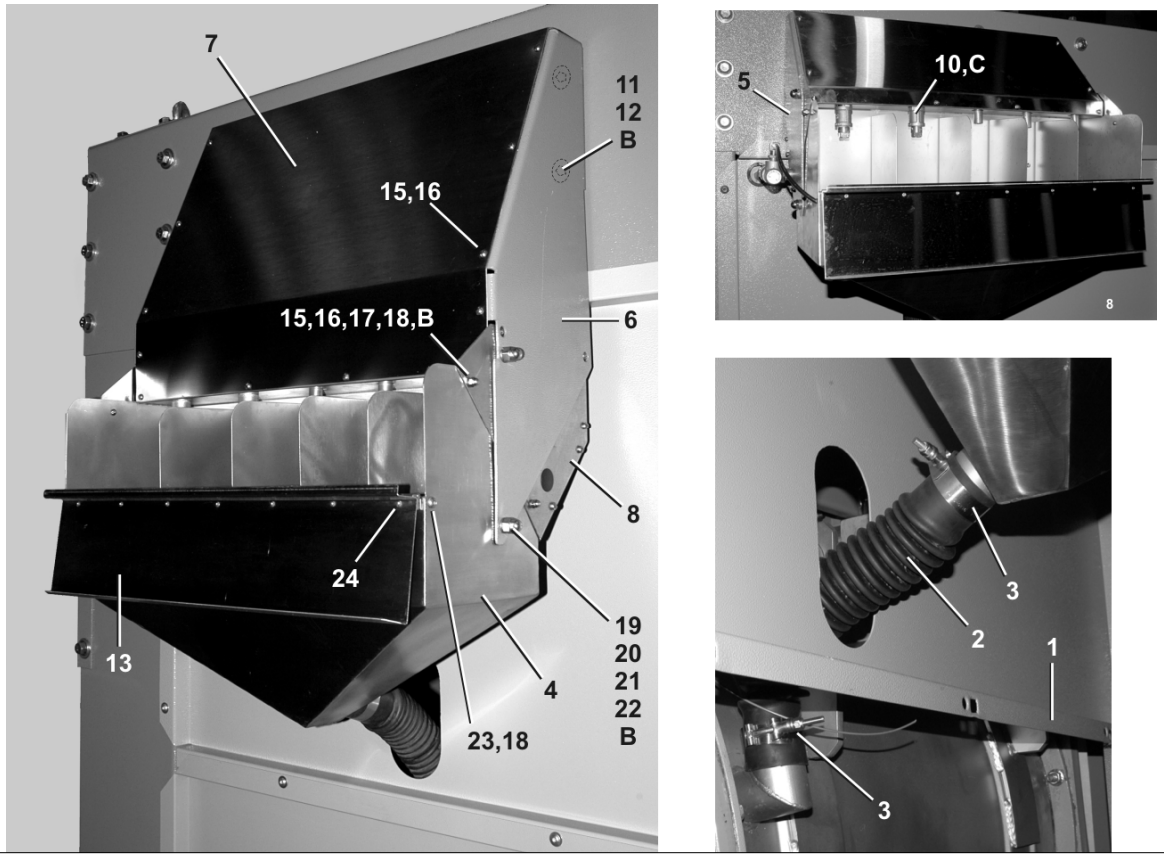
— End of BIMXCM15 —

BIMXCM16 (Published) Book specs- Dates: 20110915 / 20110915 / 20110915 Lang: ENG01 Applic: MXC

Five Compartments for Dry Chemical Supplies

Figure 1: Five compartments for dry chemical supplies

Installed views



Legend

B. instances 4
C. Valve manifold- See the document BIMXCM17.

Figure 2: Chemical supply inlets

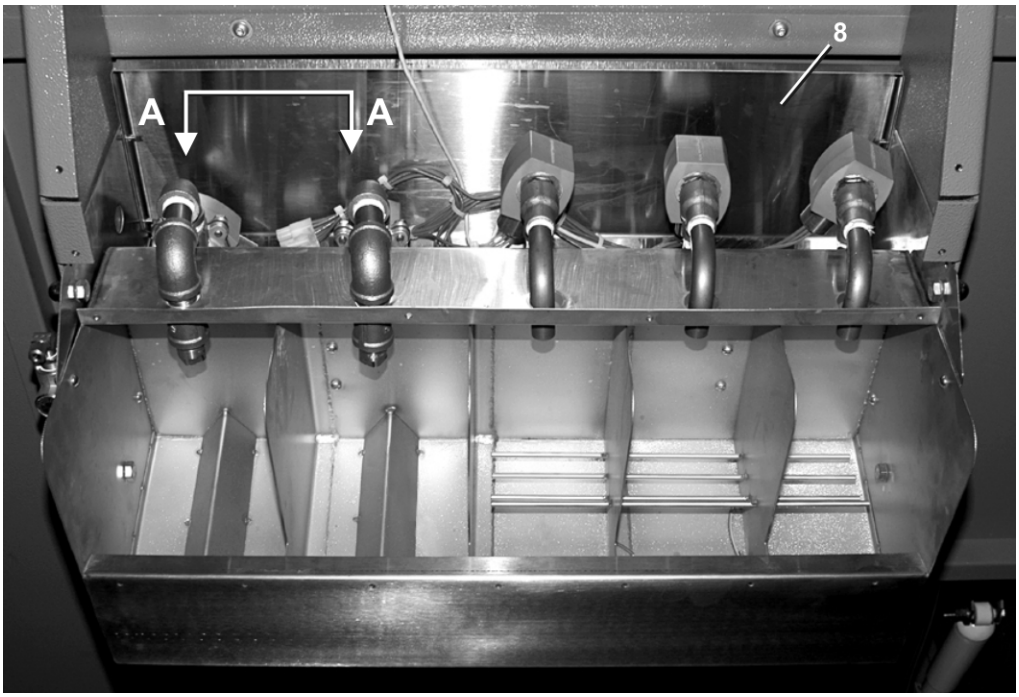
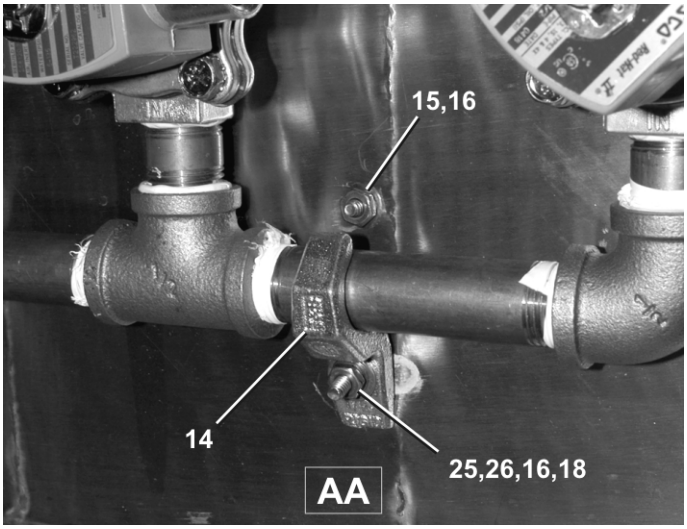


Figure 3: Valve manifold

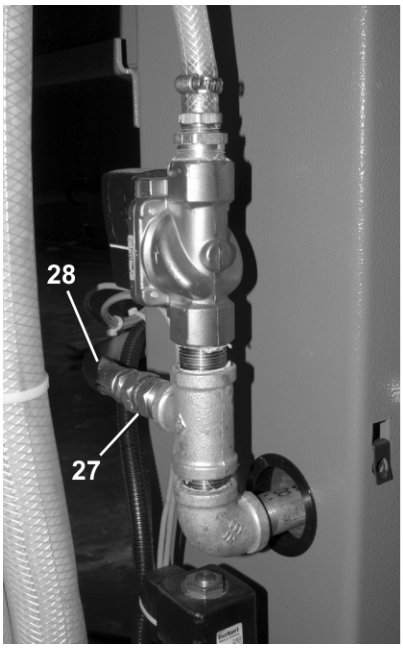
Mounting bracket



Legend

AA. Inside view

Figure 4: Hot water to flush the chemical supplies



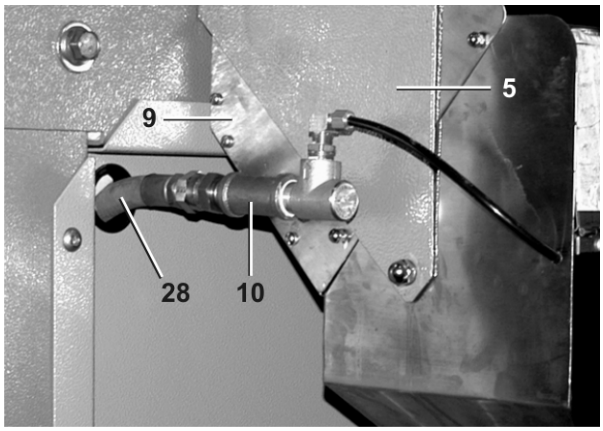


Table 1: Parts List—Five compartments for dry chemical supplies

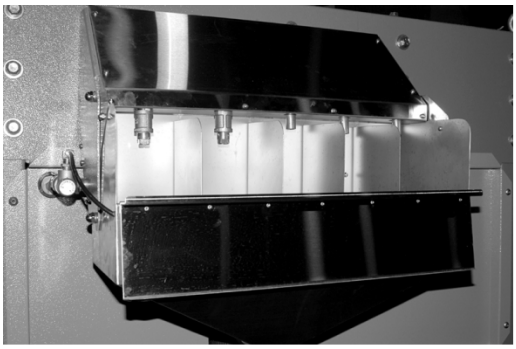
Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.

Used In	Item	Part Number	Description/Nomenclature	Comments
			Assemblies	
	A	GWS3626X5	Installation Group	3626X8J,X8W
	B	GWS4226X5	Installation Group	4226X7J,X7W
	C	GWS4232X5	Installation Group	4232X7J,X7W
	D	AWS3626X5	Assembly	3626X8J,X7W
	E	AWS4226X5	Assembly	4226X7J,X7W 4232X7J,X7W
			Components	
A	1	02 13585B	Cover	
B	1	02 23585B	Cover	
C	1	02 24525C	Cover	
all	2	02 03870D	Flexible tubing, 2"X 14"	
all	2	02 03870	Flexible tubing, 2"X24"	
all	3	27A070	Hose clamp, T-bolt, 1.94"-2.25"	
all	4	W2 21162B	Weldment	
A	5	02 13590	Bracket	
BC	5	02 23590	Bracket	
A	6	02 13590A	Bracket	
BC	6	02 23590A	Bracket	
A	7	02 13591	Cover	
BC	7	02 23591	Cover	
A	8	02 13592	Cover	
BC	8	02 23592	Cover	
all	9	02 09100	Piece part	
all	10	SA 16 034C	Valve assembly	
all	11	15K095	Bolt, 3/8-16X1	
all	12	15G198	Nut, 3/8-16	
all	13	SA 09 047	Cover	
all	14	27A017	Strap, 1/2"	
all	15	15N117	Bolt, 10-24X3/8	
all	16	15U160	Washer, Lock, #10	
all	17	24G018N	Washer, Nylon, .194	
all	18	15G130	Nut, 10-24	
all	19	15K086	Bolt, 3/8-16X3/4	
all	20	15U260	Washer, Lock, 3/8	
all	21	24G030N	Washer, Nylon, .379	
all	22	15G200SS	Nut, 3/8-16	
all	23	15K017	Bolt, 10-24X1/2	
all	24	15P100	Bolt, #8X3/8	
all	25	15N146	Bolt, 10-24X1	
all	26	15U135	Washer, Flat, 10-.437X.203X.04	
all	27	51X017	Union, 1/2"	
all	28	60E085C75A	Hose, 1/2"X75"	

— End of BIMXCM16 —

Valve Manifold for Five Compartments for Dry Chemical Supplies

Figure 1: General Views, Detailed view



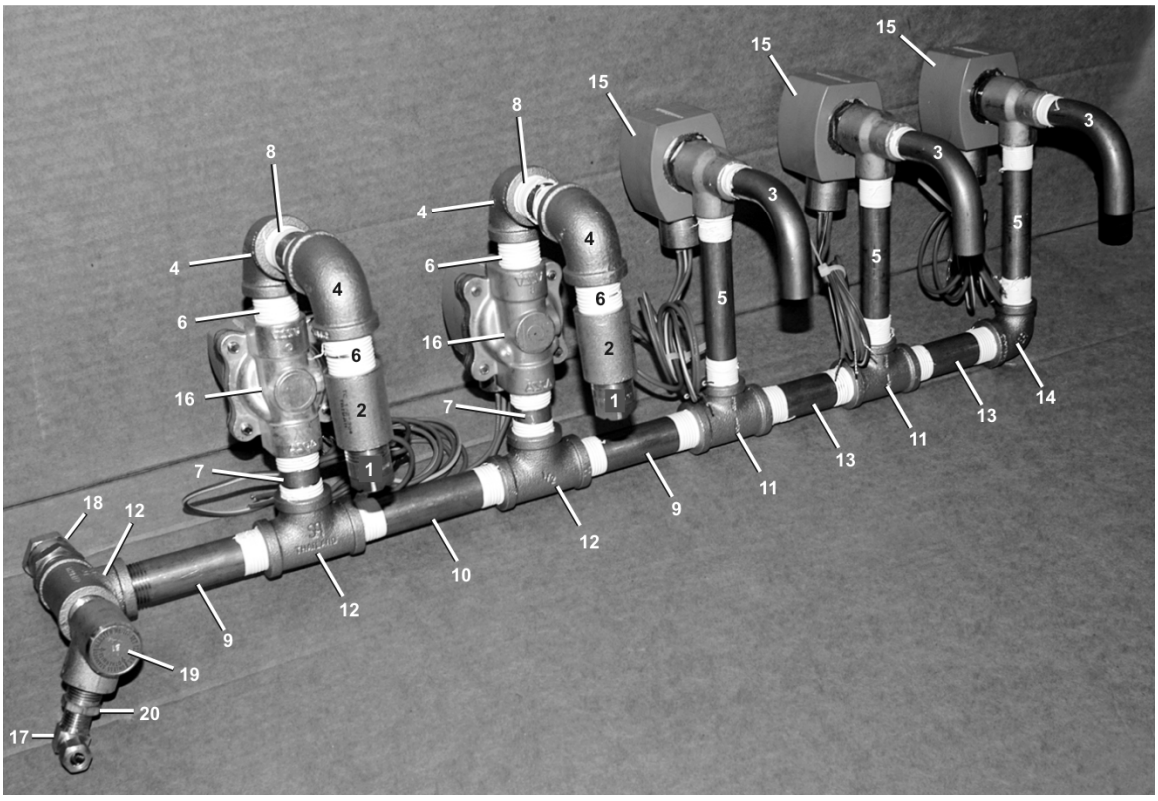


Table 1: Parts List—Valve Manifold for Five Compartments for Dry Chemical Supplies

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.

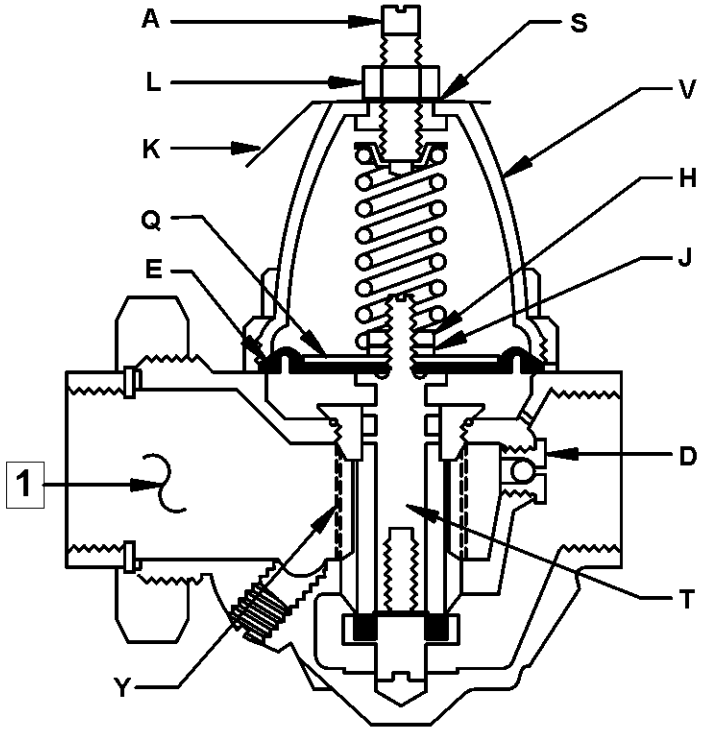
Used In	Item	Part Number	Description/Nomenclature	Comments
Assemblies				
	A	SA 16 034C	Assembly	
Components				
all	1	27A001	Nozzle, 1/2"	
all	2	5SCC0KSF1	Coupling, 1/2"	
all	3	02 09237	Pipe nipple	
all	4	5SL0KBEA	Elbow, 90 degree, 1/2"	
all	5	5N0G04KBE2	Pipe nipple, 3/8X4.5	
all	6	5N0KCLSBE2	Pipe nipple, 1/2XCLS	
all	7	5N0K01KBE2	Pipe nipple, 1/2X1.5	
all	8	5N0K02ABE2	Pipe nipple, 1/2X2	
all	9	5N0K03KB42	Pipe nipple, 1/2X3.5	
all	10	5N0K04ABE2	Pipe nipple, 1/2X4	
all	11	5S0KBEA0G	Tee, 1/2X1/2X3/8	
all	12	5S0KBEA	Tee, 1/2"	
all	13	5N0K03ABE2	Pipe nipple, 1/2X3	
all	14	5SL0KBEA0G	Elbow, 90 degree, 1/2X3/8	
all	15	96TCC2AA71	Valve, 3/8", 240V50/60C	
all	16	96TDC2AA71	Valve, 1/2", 240V50/60C	
all	17	53A031XB	Elbow, 90 degree, .25X.25	
all	18	51X017	Union, 1/2"	
all	19	96M001	Pressure relief valve, 1/2X3/8", 31#	
all	20	5SB0G0EDEO	Hexbush, 3/8X1/4, 125#	

— End of BIMXCM17 —

BIWUUM04 (Published) Book specs- Dates: 20110915 / 20110915 / 20110915 Lang: ENG01 Applic: WUU

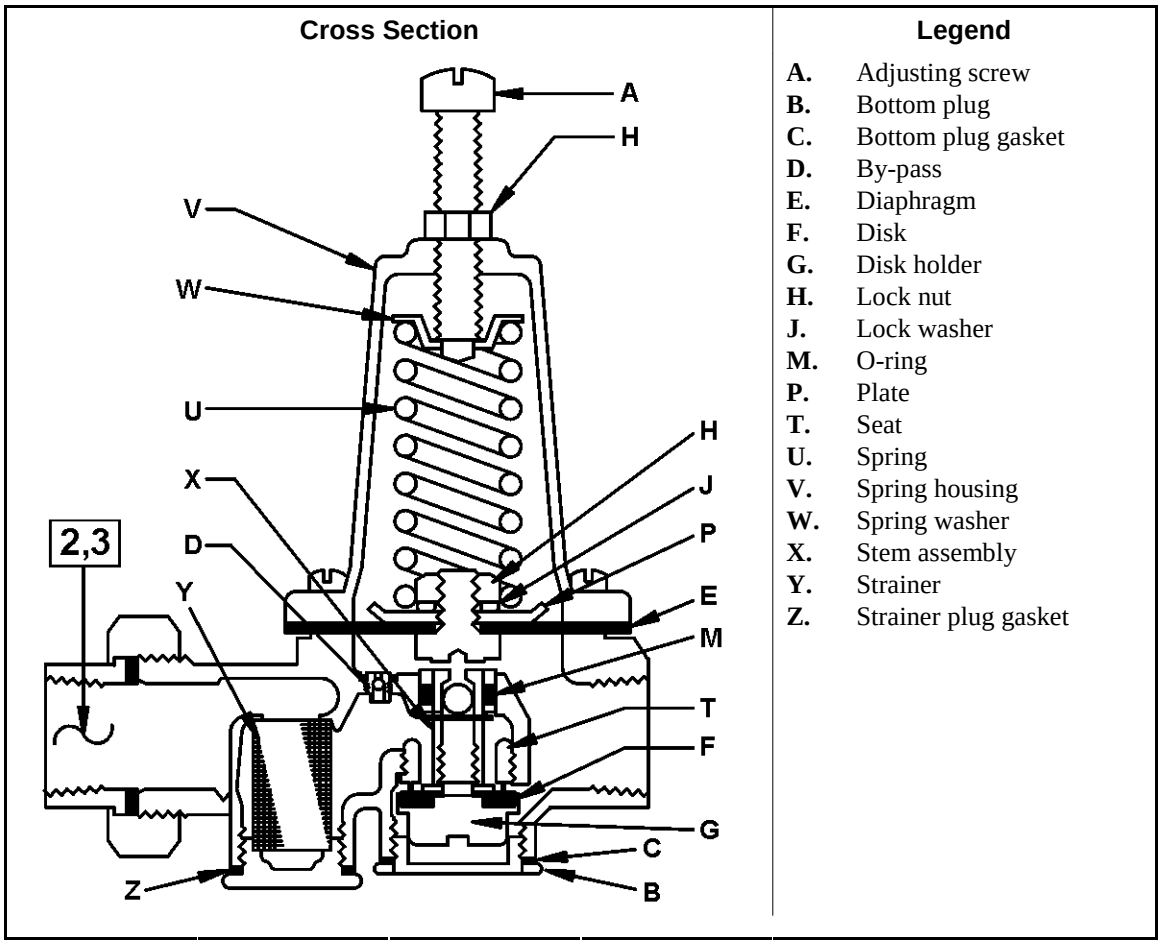
Pressure Regulators

Figure 1: Components and the procedure to clean pressure regulator (Item 1).



1. Remove the spring's housing and all parts above the diaphragm.
2. Remove the diaphragm lock nut, the lock washer, pressure plate, and diaphragm from the valve stem.
3. Loosen the seat cylinder from the body and remove the assembly.
4. Open the gate valve to clean.
5. Clean all strainers.
6. To assemble the regulator, use the opposite procedure. Tighten or loosen the adjustment screw to get the necessary pressure of 28 PSI (1.9 ATU).

Figure 2: Components and the procedure to clean pressure regulators (Items 2 & 3).



1. Remove the bottom plug and gasket.
2. Loosen the disk holder with a screwdriver or socket wrench.
3. Examine the disk and clean.
4. Remove the seat, if necessary, with an allen wrench or socket wrench.
5. Remove the adjustment screw, the nut, and the screws for the spring housing. Lift off the spring housing, the washer, and the spring.
6. Remove the lock nut, lock washer, plate, and diaphragm.
7. Lift the stem assembly up to remove it from the body.
8. Clean all strainers.
9. To assemble the regulator, use the opposite procedure. Tighten or loosen the adjustment screw to get the necessary pressure of 28 PSI (1.9 ATU).

Table 1: Parts List—Pressure regulator

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.

Used In	Item	Part Number	Description/Nomenclature	Comments
Assemblies				
none				
Components				
all	1	96J030FF	Pressure regulator, 1/2", 28#	1/2" Regulator (used on 3621V models only)
all	2	96J030D	Pressure regulator, 1/2", 28#	1/2" Regulator (used all other models)
all	3	96J031D	Pressure regulator, 3/4", 28#	3/4" Regulator (all models that use 3/4" regulators)

— End of BIWUUM04 —

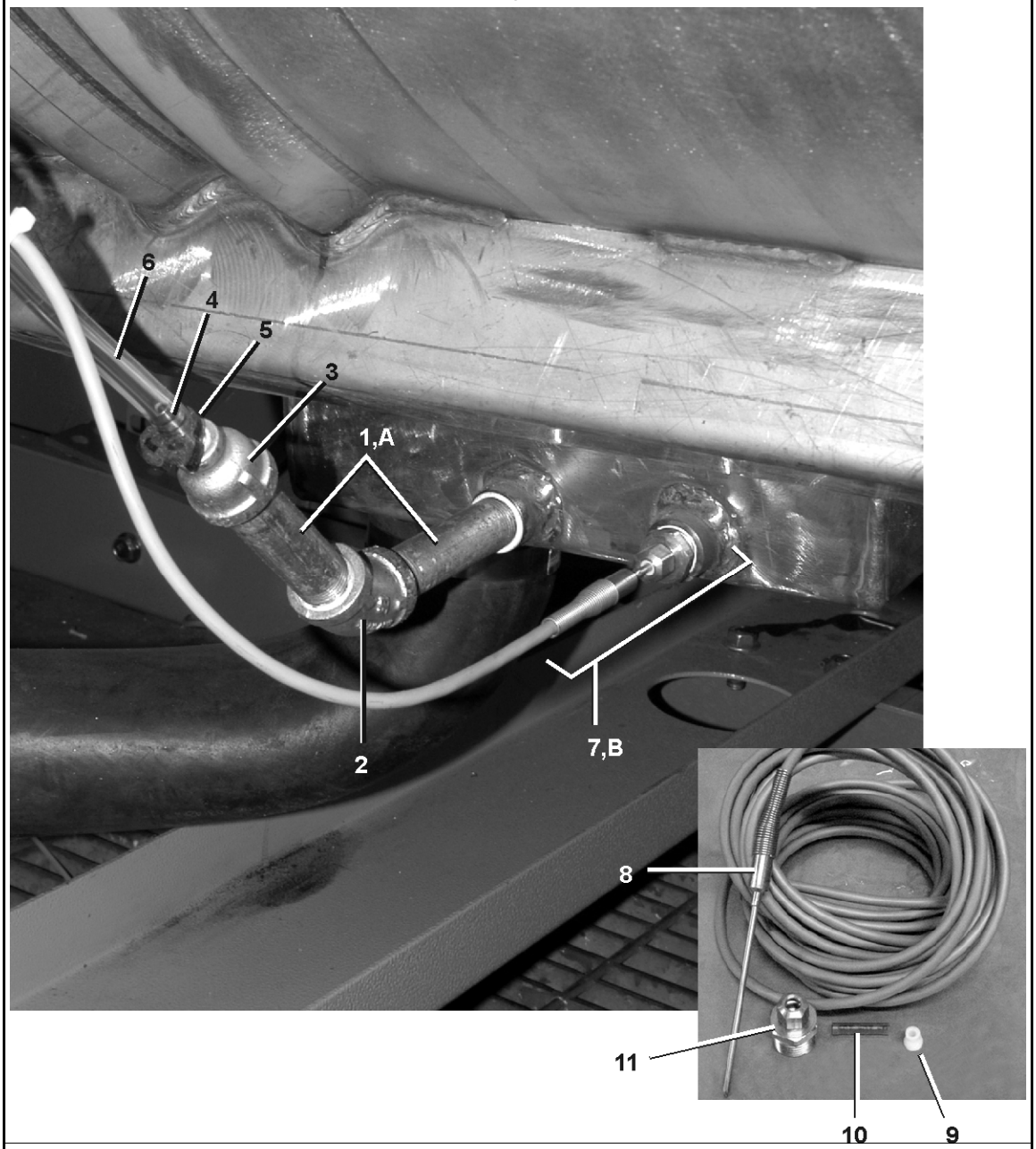
7 Control and Sensing Assemblies

BIMXCM18 (Published) Book specs- Dates: 20110915 / 20110915 / 20110915 Lang: ENG01 Applic: MXC

Water Level Switch and Temperature Sensor

Figure 1: Water Level Switch and Temperature Sensor

Installed view, Detailed view



Legend

A. Air chamber for the pressure switch
B. Temperature sensor

Table 1: Parts List—Water Level Switch and Temperature Sensor

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.

Used In	Item	Part Number	Description/Nomenclature	Comments
		Assemblies		
	A	ALL30211	Assembly	
		Components		
all	1	5N0K04AG42	Pipe nipple, 1/2X4	
all	2	5SL0KNFK	Elbow, 45 degree, 1/2"	
all	3	5SR0K0ENF	Reducer, 1/2X1/4	
all	4	51E502A	Hose stem, 1/8X3/16	
all	5	27A047	Hose clamp, 1/8	
all	6	60E004NT	Flexible tubing, 1/4"X1/8"	
all	7	30R0043PB	Assembly, Temperature sensor	
all	8	30R0043P	Temperature sensor	
all	9	30R0043PF	Pipe fitting .25	
all	10	09B067	Connector 16-22GA.	
all	11	51A026E	Connector, 1/4X1/2MPT	

— End of BIMXCM18 —

Excursion Switch (Unwanted Movement Switch) Components and Installation

Figure 1: Excursion switch

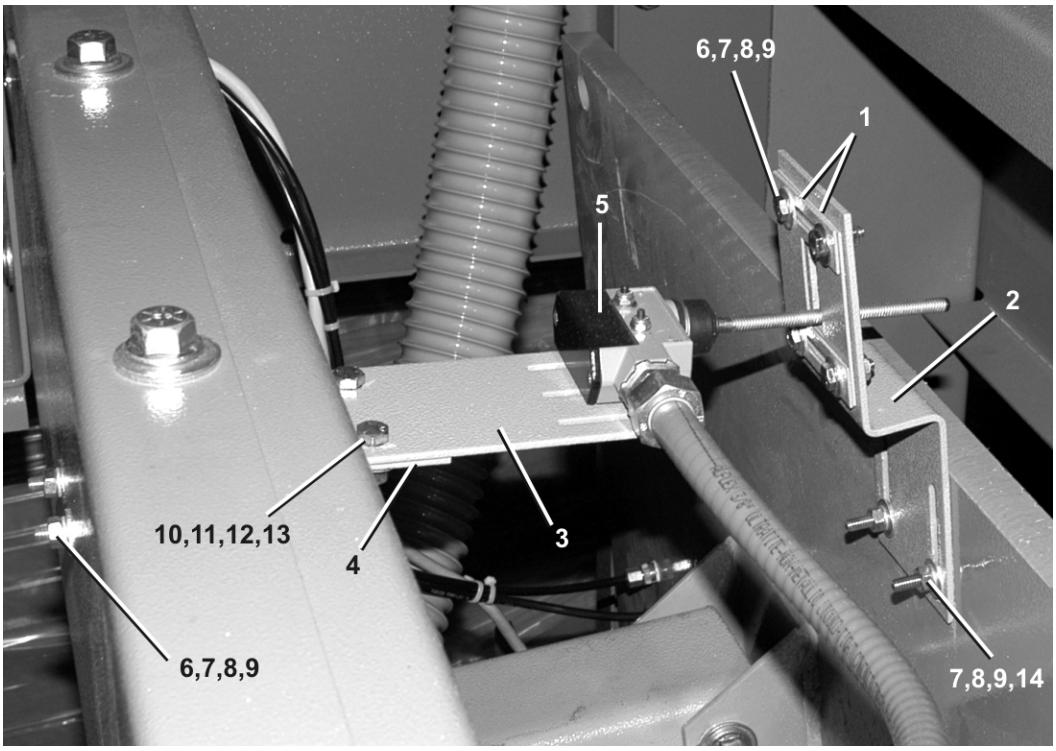


Table 1: Parts List—Excursion switch

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.				
Used In	**Item**	**Part Number**	**Description/Nomenclature**	**Comments**
Assemblies				
	A	GES36261	Installation Group	3626X7J, X7W
	B	GES4226X	Installation Group	4226X7J, X7W 4232X7J, X7W
Components				
all	1	02 02938B	Bracket	
all	2	02 02938	Bracket	
all	3	02 13539B	Bracket	
all	4	02 13539A	Bracket	
all	5	09R008ASTD	Switch	
all	6	15K039	Bolt, 1/4-20X3/4	
all	7	15U185	Washer, 1/4"	
all	8	15G177	Nut, 1/4-28	
all	9	15U180	, 1/4	
all	10	15G205	Nut, 3/8-16	
all	11	15U255	Washer, Lock, 3/8	
all	12	15U240	Washer, Flat, 3/8"	
all	13	15K085	Bolt, 3/8-16X3/4	
all	14	15K046	Bolt, 1/4-20X 2"	

— End of BIMXCM19 —

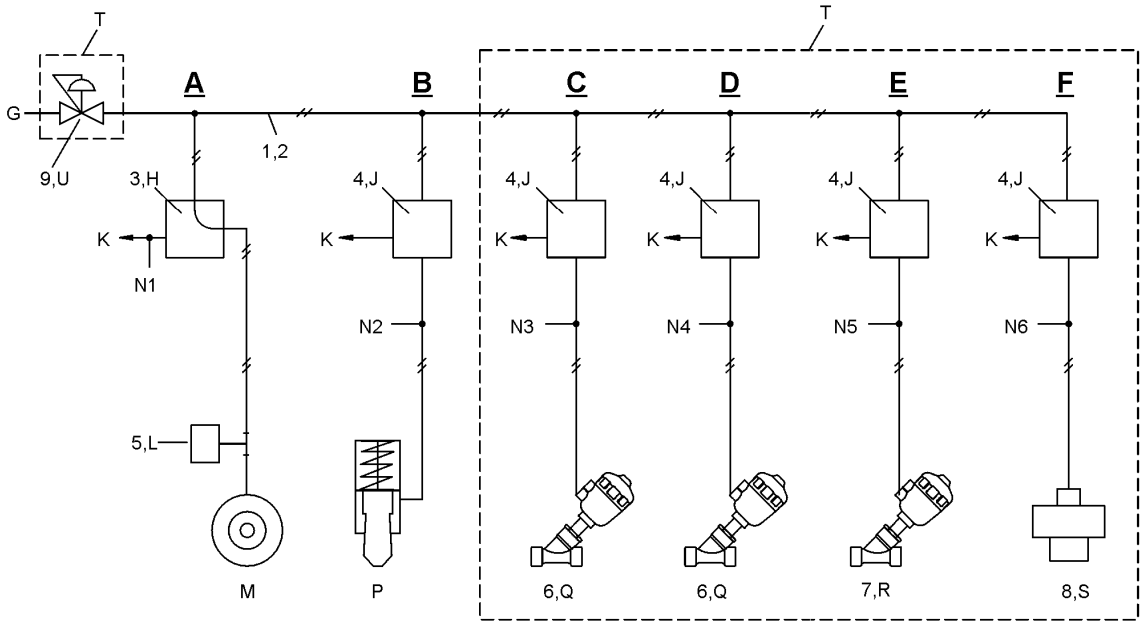
Pneumatic Assemblies 8

BIMXCM21 (Published) Book specs- Dates: 20130827 / 20130827 / 20130827 Lang: ENG01 Applic: MXC

Pneumatic Schematic

Figure 1: Pneumatic Schematic

Schematic



Legend

A. Door seal
B. Door latch
C. Compressed air, 85-125 PSI (5.8-8.5 ATU)
D. Hot water line
E. Cold water line
F. Steam line
G. Drain valve
H. Usually open
J. Usually closed
K. Exhaust
L. Pressure switch, Close at 62 lbs.
M. Pneumatic bellows actuator
N1. The door seals are deflated when the pilot valve is energized.
N2. The spring locks the door closed latch. The door closed latch is opened when the pilot valve is energized.
N3. The hot water valve is opened when the pilot valve is energized.
N4. The cold water valve is opened when the pilot valve is energized.
N5. The steam valve is opened when the pilot valve is energized.
N6. The drain valve is opened when the pilot valve is energized.
P. Door latch
Q. Water valve, air operated
R. Steam valve, air operated
S. Drain valve, air operated
T. China-made models only
U. Air regulator

Table 1: Parts List— Pneumatic Schematic

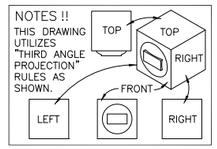
Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.				
Used In	**Item**	**Part Number**	**Description/Nomenclature**	**Comments**
Assemblies				
		AVA75X7J	Assembly	
	A			3626X8J,X8W 4226X7J,X7W 4232X7J,X7W USA-made models only
	B			3626X8J,X8W 4226X7J,X7W 4232X7J,X7W China-made models only
Components				
A	1	X3 01507D	Manifold	
A	2	03 LF1X5K	Manifold, Retainer	
all	3	96R302B71	Pilot valve, 1/8", Usually open, 240V50/60	
all	4	96R301B71	Pilot valve 1/8", Usually closed, 240V50/60	
all	5	09N082A	Pressure switch, 62#	
B	6	98CX880115	Water valve, 1-1/4",air operated	4226X7J,X7W 4232X7J,X7
B	7	96D0009E	Steam valve, 3/4", air operated	
B	8	98CMCR3604	Drain valve, air operated	
B	9	98CX880511	Air regulator	

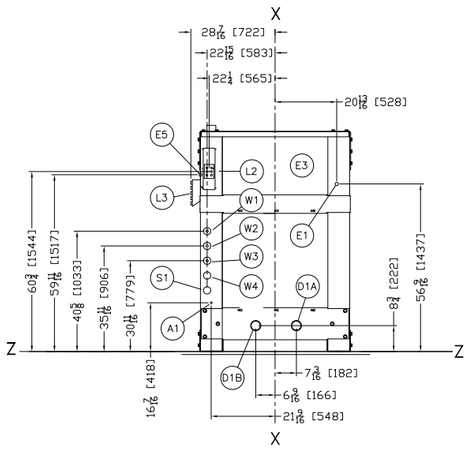
— End of BIMXCM21 —

Dimensional Drawings

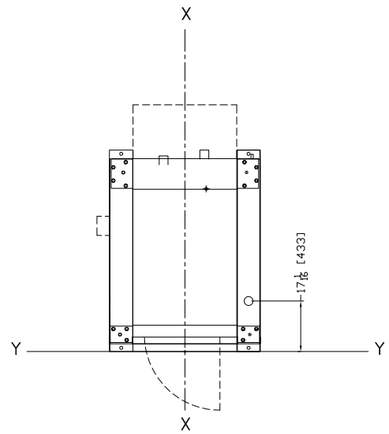
9

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





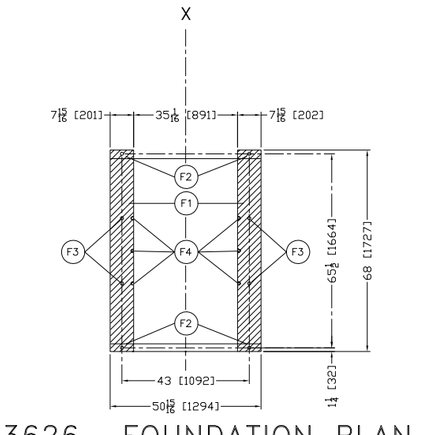
REAR VIEW



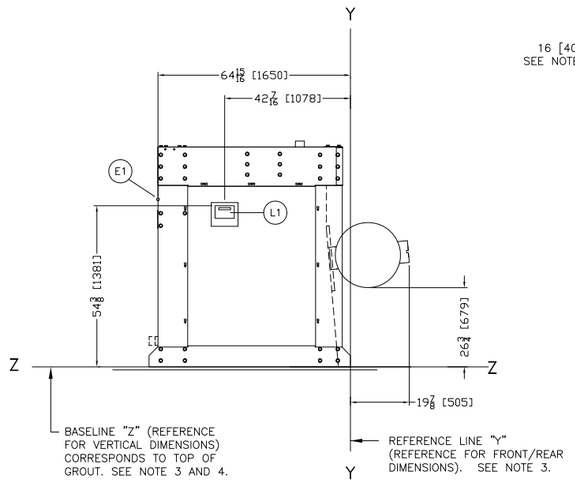
PLAN VIEW

GROUT MUST PROTRUDE INTO GROUT & ANCHOR BOLT HOLES IN BASE PAD
DRAIN HOLES ON INSIDE OF FLOOR CHANNEL MUST BE KEPT FREE OF GROUT.
1" [25] MINIMUM GROUT
FINISHED FLOOR
Z
MINIMUM 5/8" X 6" EXPLANSION BOLT WITH 5/8" FLATWASHER
ROUGHEN FLOOR TO CHECK SIDEWARD MOVEMENT OF MACHINE.

INSTALLATION DETAIL



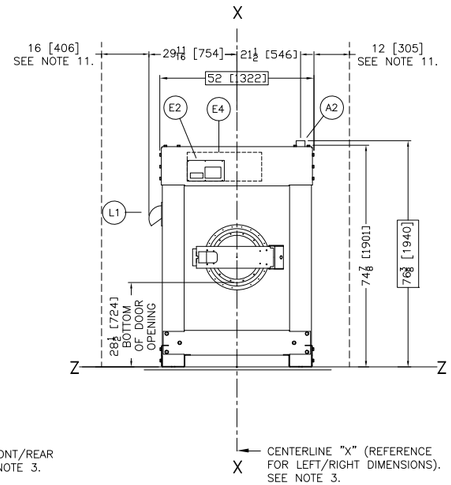
3626 Y FOUNDATION PLAN



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

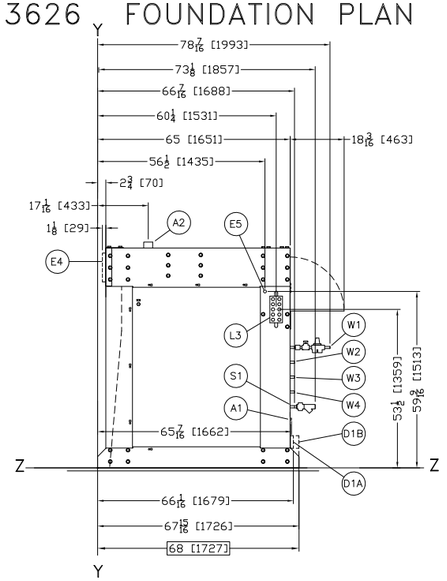
REFERENCE LINE "Y" (REFERENCE FOR FRONT/REAR DIMENSIONS). SEE NOTE 3.

LEFT VIEW



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

FRONT VIEW



RIGHT VIEW

W4	OPTIONAL THIRD WATER INLET, 3/4" NPT
W3	COLD WATER INLET, 3/4" NPT
W2	HOT WATER INLET, 3/4" NPT
W1	HOT WATER FOR SUPPLY, 3/4" NPT CONNECTION, PRESSURE
	REGULATOR ASSEMBLY, REMOVED FOR SHIPPING, MUST BE
	ADDED AT INSTALLATION.
S1	OPTIONAL STEAM INLET, 3/4" NPT CONNECTION, Y-STRAINER,
	REMOVED FOR SHIPPING, MUST BE ADDED AT INSTALLATION.
L3	ADDITIONAL LIQUID SUPPLY INLETS FOR 15 PORT PERISTALTIC
	X8W MODELS ONLY.
L2	STANDARD LIQUID SUPPLY INLETS, SEE NOTE 10.
L1	STANDARD SOAP CHUTE
F4	DRAIN HOLES
F3	GROUT HOLES
F2	(4) 1-1/16" DIAMETER ANCHOR BOLT HOLES, USE
	5/8" X 6" BOLTS MINIMUM.
F1	BASEPADS, SEE NOTE 8.
E5	MAIN ELECTRICAL CONNECTION, X8W ONLY
E4	MICROPROCESSOR BOX & CONTROLS, X8W ONLY
E3	MICROPROCESSOR CONTROL BOX
E2	MICROPROCESSOR CONTROL PANEL
E1	MAIN ELECTRICAL CONNECTION, X8J ONLY
D1B	PNEUMATIC DRAIN TO REAR, 3" PIPE SOCKET JOINT
	(AZ MODELS)
D1A	ELECTRIC DRAIN TO REAR, 3" PIPE SOCKET JOINT
	(NOT AZ MODELS)
A2	VENT, 3" O.D. DIAMETER
A1	MAIN AIR, 1/4"NPT CONNECTION
ITEM	LEGEND

NOTES

11 12"[305] MINIMUM CLEARANCE IS RECOMMENDED FOR SERVICE TO MACHINE ON SIDES NOT REQUIRING OPERATOR ACCESS. 16"[406] MINIMUM IS RECOMMENDED FOR OPERATOR ACCESS TO SOAP SUPPLY. SEE LOCAL ELECTRIC CODES FOR REQUIRED CLEARANCES.

10 STANDARD LIQUID SUPPLY INLETS COMES WITH THREE SETS OF FIVE FITTINGS. ONE SET OF 3/8" FITTINGS, ONE SET OF 1/2" FITTINGS, AND ONE SET OF PLUGS WHICH ARE SHIPPED ON MACHINE.

9 SHIM TO LEVEL THE MACHINE AND ALLOW FOR 1" [25] MINIMUM GROUT. ANCHOR ALL LABELED ANCHOR BOLT HOLES, USE 5/8" X 6" BOLTS, MINIMUM. SEE INSTALLATION MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS.

8 SHADED AREA DENOTES BASE PADS WHICH MUST BE CONTINUOUSLY SUPPORT.

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

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

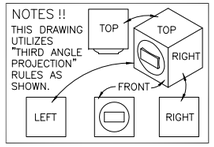
THE FLOOR AND/OR OTHER SUPPORT COMPONENTS MUST HAVE SUFFICIENT STRENGTH (AND RIGIDITY WITH DUE CONSIDERATION FOR NATURAL OR RESONANT FREQUENCY THEREOF) TO WITHSTAND THE FULLY LOADED WEIGHT OF THE MACHINE INCLUDING THE GOODS, THE WATER, AND ANY REPEATED SINUSOIDAL (ROTATING) FORCES GENERATED DURING ITS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

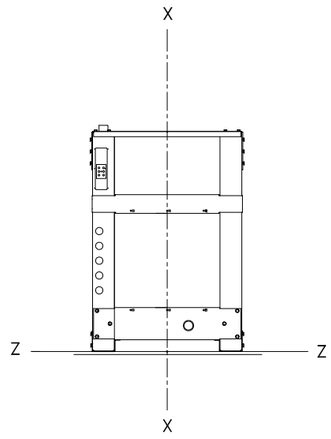
3626X8J,X8W

DM 0 0.5M 1M
INCHES 0 12 24 36

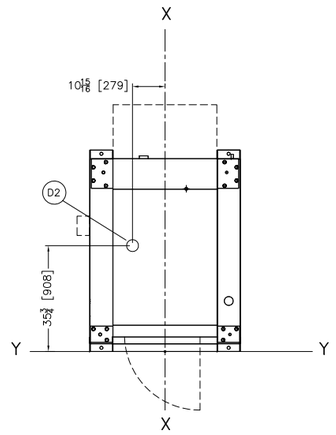
DWG# BD3626X8BE
2012285D

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

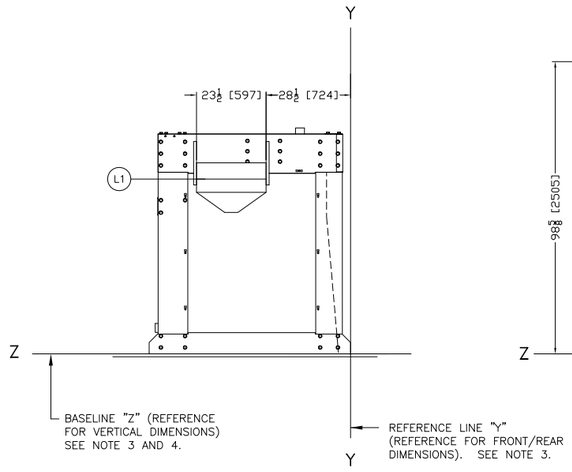




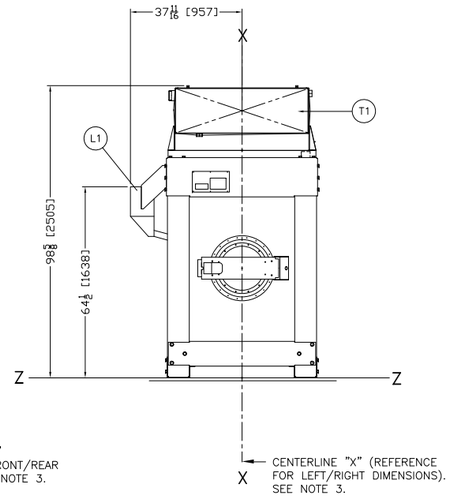
REAR VIEW



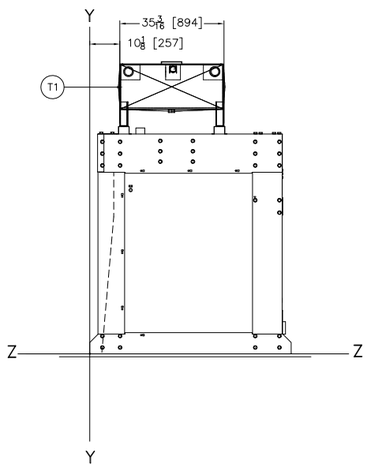
PLAN VIEW



LEFT VIEW



FRONT VIEW



RIGHT VIEW

ITEM	LEGEND
	CONNECTION
D2	OPTIONAL SINGLE DRAIN DOWN, 3" PIPE SOCKET JOINT
L1	5 COMPARTMENT SUPPLY
T1	X8W OPTIONAL TANK (PIPING NOT SHOWN)

NOTES

6 AS OF THIS WRITING, THE MINIMUM CLEARANCE REQUIRED BY U.S. NATIONAL ELECTRIC CODES, FROM ELECTRIC BOX TO ANY OBJECT IS:
36 [914] IF OBJECT IS AN UNGROUNDED (INSULATED) WALL.
42 [1067] IF OBJECT IS A GROUNDED WALL (ie. BARE CONCRETE, BRICK, ETC.)
48 [1219] IF OBJECT IS ANY LIVE PART.
CHECK LOCAL ELECTRIC CODES FOR FURTHER RESTRICTIONS.

5 CUSTOMER TO SUPPLY CIRCUIT BREAKER OR FUSED BRANCH CIRCUIT DISCONNECT (SAFETY) SWITCHES WITH LAG TYPE FUSES FROM POWER SOURCE TO MACHINE. A SEPARATE GROUND WIRE MUST BE CONNECTED FROM DISCONNECT TO EQUIPMENT.

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

3 USE REFERENCE LINES "X", "Y", AND "Z" TO LOCATE ALL SERVICE CONNECTIONS.

2 NUMBERS IN BRACKETS [] DENOTE DIMENSIONS IN MILLIMETERS.

1 ALL DIMENSIONS SHOWN ARE APPROXIMATE, SUBJECT TO NORMAL MANUFACTURING TOLERANCES, AND TO OCCASIONAL CHANGES WITHOUT NOTICE THROUGH REDESIGN AND/OR RELOCATION OF COMPONENTS, ETC. DO NOT USE FOR CONSTRUCTION UNLESS CERTIFIED, AND IN NO EVENT PRE-PIPE CLOSER THAN FIVE FEET FROM MACHINE. FACTORY MUST BE CONSULTED FOR DIMENSIONS IF MACHINE IS TO BE MOVED THROUGH NARROW OR LOW CORRIDORS OR OPENINGS.

ATTENTION

MOST REGULATORY AUTHORITIES (INCLUDING OSHA IN THE USA) HOLD THE OWNER/USER ULTIMATELY RESPONSIBLE TO MAINTAIN A SAFE WORKING ENVIRONMENT. ACCORDINGLY, THE OWNER/USER MUST RECOGNIZE ALL FORESEEABLE SAFETY HAZARDS, FURNISH SAFETY INSTRUCTIONS AND GUIDANCE TO ALL PERSONNEL WHO MAY COME IN CONTACT WITH THE INSTALLATION, AND PROVIDE ALL NECESSARY ADDITIONAL SAFETY GUARDS, FENCES, RESTRAINTS, DEVICES, ETC., NOT FURNISHED BY THE EQUIPMENT MANUFACTURER OR VENDOR.

ATTENTION

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

3626X8J, X8W OPTIONS

DM 0 0.5M 1M
INCHES 0 12 24 36

DWG# BD3626X8BB
2010376D

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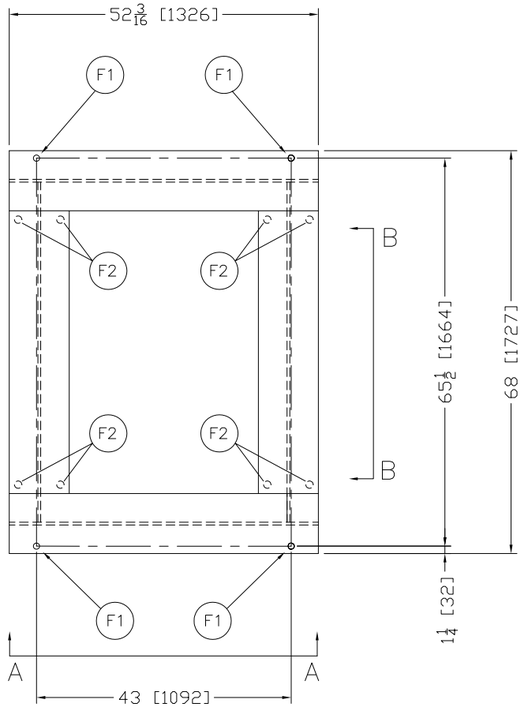
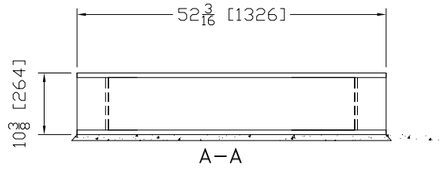
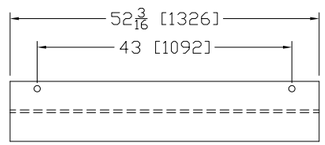
P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467-9591,
FAX 504/469-1849, Email: mktg@milnor.com

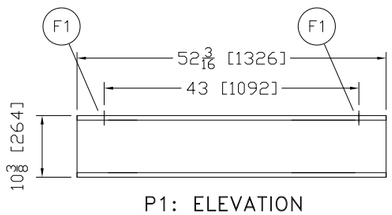




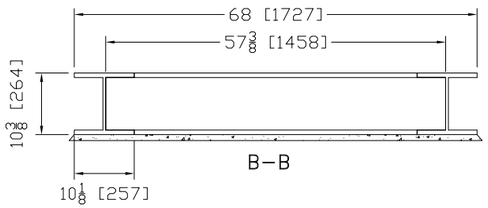


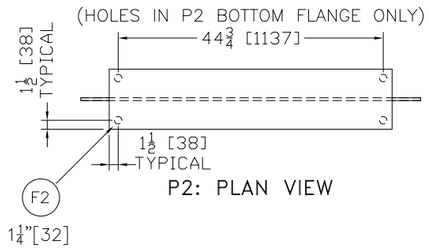
(FOR HOLES IN P1, SEE ASSEMBLED PLAN)

P1: PLAN VIEW

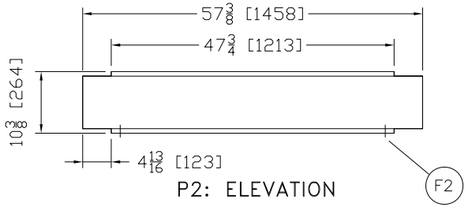


P1: ELEVATION

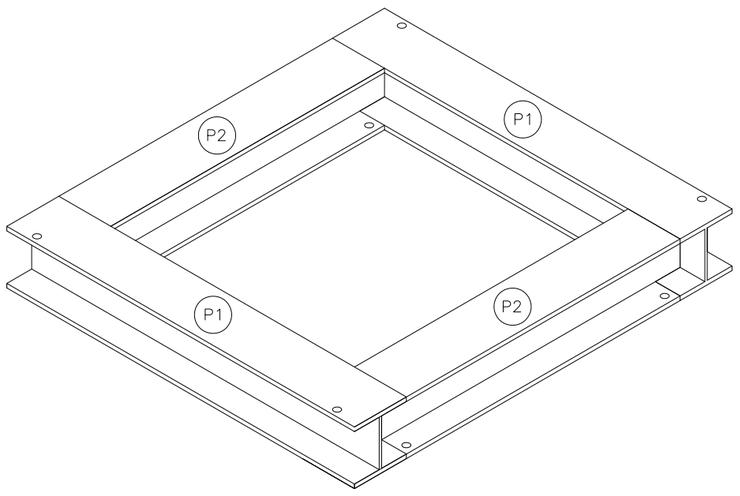




P2: PLAN VIEW



P2: ELEVATION



W10x68
RECOMMENDED

ITEM	LEGEND
F2	1 1/4" [32] GROUT HOLES, PEDESTAL BOTTOM FLANGE TO TOP OF GROUT
F1	1 1/4"[32] ANCHOR BOLT HOLES, PEDESTAL TOP FLANGE TO MACHINE

NOTES

5 THIS DRAWING SHOWS THE PEDESTAL DESIGN FOR MILNOR 36026F8J/F8W. MACHINES. THIS BASE MAY BE USED WHENEVER LOCAL CONDITIONS ARE SUCH THAT MACHINE OPERATION WOULD BE ENHANCED BY RAISING THE MACHINE SETTING 10 3/8" [264] INCHES.

4 IF MACHINE IS TO BE BOLTED TO PEDESTAL BASE, BOLT HOLES IN PEDESTAL TOP FLANGE SHOULD BE LOCATED AND DRILLED ONLY AFTER MACHINE IS ON SITE AND CAN BE USED AS A TEMPLATE FOR BOLT HOLE LOCATIONS. IF BASE IS TO BE BOLTED TO FOUNDATION, CUSTOMER MUST DETERMINE LOCATION OF BOLT HOLES IN BOTTOM FRAME.

3 WHEN INSTALLING MACHINE AND PEDESTAL BASE, IT IS RECOMMENDED TO LAY THE PEDESTAL ON A MINIMUM 1 [25] THICK GROUT BED AND BOLT THE MACHINE TO IT. ALTERNATELY, THE MACHINE MAY BE WELDED TO THE BASE, PROVIDED IT IS SHIMMED AS REQUIRED TO INSURE THERE IS NO DISTORATION OF THE MACHINE BASE PLATES OR FRAME.

2 THIS BASE MUST BE FABRICATED LOCALLY AND SHOULD BE MADE SQUARE AND LEVEL. IT IS NOT SUPPLIED BY PELLERIN MILNOR CORP. THIS DRAWING CONVEYS NO EXPRESS OR IMPLIED WARRANTY WITH REGARD TO THE CONSTRUCTION AND/OR SUITABILITY OF THIS ASSEMBLY.

1 NUMBERS IN BRACKETS [ ] DENOTE DIMENSIONS IN MILLIMETERS.

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.

PEDESTAL BASE 3626X8J,X8W

SCALE: 1" = 1'–0"

DWG# BD3626XBASAE 2012365D

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