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Installation— 36021C4E, V5J, V7J 36026V5J, V7J, V7W, 42026V6J, V6W 42030V6J Washer-Extractors







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

Table of Contents for MAI36VXXBE/2013082A

Page	Description	Document/ECN
1	About This Manual	MHI36QXXAE/2007086A
3	Limited Standard Warranty	BMP720097/2008272A
4	How to Get the Necessary Repair Components	BIUUUD19/20081231
5	Safety—Rigid Washer Extractors	BIUUUS27RU/20051111
10	About the Forces Transmitted by Milnor® Washer-	
	extractors	BIWUUI02/20001108
12	Understanding the Tag Guidelines	BIUUUI02RQ/20121017
16	Avoiding Damage from Allied Remote Chemical	
	Delivery Systems	BIWUUI03/20030306
21	Section 1: Installation	
22	Handling and Setting Procedures for CPE, NPE.	
	Qxx and Vxx Washer-Extractors	MSIN0206AE/2000304V
26	Service Connections	BIRQVI01AA/20050228
29	Section 2: Dimensional Drawings	
31	Dimensional Drawing - 36021C4E	BD3621C4BE/2010163D
33	Dimensional Drawing - 36021V5J	BD3621V5BE/2012383D
34	Dimensional Drawing - 36021V5J (Options)	BD3621V5BB/2012342D
35	Dimensional Drawing - 36026V5J	BD3626V5DE/2012383D
36	Dimensional Drawing - 36026V5J (Options)	BD3626V5DB/2012342D
37	Dimensional Drawing - Pedestal Base 36021/36026V5J	BD36V5BSBE/2010163D
39	Dimensional Drawing - 36021V7J,V7W	BD3621V7CE/2012342D
40	Dimensional Drawing - 36021V7J,V7W (Options)	BD3621V7CB/2012342D
41	Dimensional Drawing - 36026V7J, 36026V7W	BD3626V7CE/2012393D
42	Dimensional Drawing - 36026V7J, V7W Options	BD3626V7CB/2012342D
43	Dimensional Drawing - 42016V6J, V6W	BD4226V6CE/2012383D
44	Dimensional Drawing - 42026V6J, V6W Options	BD4226V6CB/2012342D
45	Dimensional Drawing - 42030V6J	BD4230V6AE/2012383D
46	Dimensional Drawing - 42030V6J Options	BD4230V6AB/2012342D
47	Dimensional Drawing - Pedestal Base 3621/26V7J,	
	4226/30V6J	BD42V6BSAE/2007463D

ABOUT THIS MANUAL

Scope—This instruction manual is intended to provide facility requirements and machine installation procedures for all Milnor 36021, 36026, 42026 and 42030 model rigid mount washer-extractors. See the safety manual for safety instructions before installing, servicing, or operating this machine. See the service manual for preventive maintenance, service procedures, and mechanical parts identification. See the operator guide for operator instructions. See the reference manual for programming, operating, and troubleshooting instructions.

Manual Number/Date Code (When To Discard or Save)—The manual number/date code is located on the inside front cover, upper right corner just above the manual name. Whenever the manual is reprinted with new information, part of this number changes. If the *date code* after the "/" changes, the new version applies to all machines covered by the old version, but is improved— thus the old version can be discarded. If the *manual number* before the "/" changes, the new manual covers only new machines. Example: Discard MATMODELAE/8739CV when MATMODELAE/8739DV is received (minor improvements). Also, discard MATMODELAE/8739DV when MATMODELAE/8746AV is received (major improvements). But keep MATMODELAE/8746FV when MATMODELBE/8815AV is received, since the new manual no longer applies to machines originally shipped with the old manual.

Documents and Change Bars—The individual documents comprising this manual use the same revision criteria as the manual. Text documents also display change bars. Example: When sectionMSOP0599AE/9135**B**V becomes MSOP0599AE/9135**C**V, change bars with the letter "C" appear next to all changes for this revision. For a major rewrite (e.g., MSOP0599AE/92**26**AV), all change bars are deleted.

For Assistance—Please call:

Pellerin Milnor Corporation Attn: Service Department P. O. Box 400 Kenner, LA 70063-0400 Phone:(504) 467-9591 Fax:(504) 467-9777

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

How to Get the Necessary Repair Components



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

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

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

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

To write to the Milnor factory:

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

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

- End of BIUUUD19 -

BIUUUS27 (Published) Book specs- Dates: 20051111 / 20051111 / 20060322 Lang: ENG01 Applic: RUU

Safety—Rigid 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.
 - 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—Cylinder and Processing Hazards

[Document BIUUUS13]

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



DANGER 3: 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.
- 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 4: **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.



WARNING 5: **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 6: **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.

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

4.1. Damage and Malfunction Hazards

4.1.1. Hazards Resulting from Inoperative Safety Devices



DANGER 7: **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 8: **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 9: 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 10: 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

• Do not remove guards, covers, or panels.



4.1.2. Hazards Resulting from Damaged Mechanical Devices

WARNING 11: 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 12: 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 13: 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

4.2. Careless Use Hazards

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



WARNING 14: **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.
- 4.2.2. Careless Servicing Hazards—Vital Information for Service Personnel (see also service hazards throughout manuals)



WARNING <u>15</u>: 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 16: 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 17: **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 —

BIWUUI02 (Published) Book specs- Dates: 20001108 / 20001108 / 20100609 Lang: ENG01 Applic: WUU

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 ongrade situations based only on previous experience without implying any warranty, obligation, or responsibility on our part.

1. Rigid Machines

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

2. Flexibly-mounted Machines

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

3. How Strong and Rigid?

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

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





Figure 1 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 -

BIUUUI02RQ (Published) Book specs- Dates: 20121017 / 20121017 / 20121017 Lang: ENG01 Applic: RQV

Understanding the Tag Guidelines for the Models Listed Below

36021V5J 36021V7J 36026V5J 36026V7J 36026V7W 42026V6J 42026V6W 42030V6J

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

B2TAG93013: This bearing housing was lubricated at the Milnor factory before shipment. (This tag not used on 42" V models.)



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



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.

B2TAG94081: Motor must rotate in this direction. On single



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.

B2TAG94099: Do not strike the shell door when fork-lifting. This can cause the door to leak.

Display or Action



H,0

H,0

Explanation
B2T2001013: Hot water connection.

B2T2001014: Cold water connection.

B2T2001015: Reuse (third) water connection.

B2T2001016: Flushing water connection. This is the water that goes into the supply compartment or pumped chemical manifold to flush chemicals into the machine.

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.

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.

Explanation

Display or Action



B2T2003002 or 01-10710A: CAUTION: 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.Ensure the chemical system prevents dribbling, siphoning, or any other unintentional release of chemicals.Inspect regularly for proper operation and evidence of damage.Consult Milnor document BIWUUI03 "Avoiding Damage from Allied Remote Chemical Delivery Systems".

B2T2004027: Steam connection (optional)



B2T2006012: Retain the motor mount spring adjustment sleeve provided with certain machine models. This sleeve is used to increase drive belt tension as the belt wears. Instructions are provided in the maintenance guide.

- 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

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)

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 —

Section

1

Installation

HANDLING AND SETTING PROCEDURES FOR CPE, NPE, Qxx and Vxx WASHER-EXTRACTORS

Handling Precautions

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

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

- 2. Permanent lifting rings are provided on some rigid mount machines. Always use these rings for crane lifting. For machines without permanent lifting rings, consult Milnor[®] for instructions if crane lifting is required.
- 3. Use skids with the forklift. If possible, leave the machine on the shipping skids until it is about to be placed in its final position. Once the skids are removed, take care in placing forks under the machine. Do not allow the forks to come in contact with valves, piping, motors, etc., located under the machine.
- **4.** Never push, pull, or exert pressure on any components which protrude from the machine frame (shell front, door, supply injector, electric boxes, controls, belt guards, conduits, inlet piping, etc.).
- 5. Ensure that the shell door is closed and secured.
- 6. After installation and before operation, remove the tie wrap that secures the *vibration safety switch* (located in the electric control box).

Site Requirements

Space Requirements

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

Operational Requirements

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

Foundation Requirements—The machine must be anchored in accordance with the dimensional drawing. 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. See "ABOUT THE FORCES TRANSMITTED BY MILNOR[®] WASHER-EXTRACTORS" (see Table of Contents) for more information.

Anchoring Requirements

Machines must be securely anchored to an adequate foundation. Anchor bolt locations and foundation specifications are provided on the dimensional drawing (see Table of Contents). **However, never install anchor bolts firmly in the foundation using only the dimensional drawing or template.** Approximate anchor bolt locations may be determined from a foundation template (standard equipment on some machines, optional on others). Recommended anchor bolt installation (see dimensional drawing) calls for each anchor bolt to be set in a pipe sleeve. The foundation template or dimensional drawing will only locate the foundation bolts accurately enough that the play of the bolt within the pipe sleeve permits the machine to fit anchor bolts. **If another bolt installation procedure is used, do not install the anchor bolts until the machine is on site and bolt locations can be determined.** Consult Milnor[®] if any obstruction prevents the installation of any anchor bolt. **Anchor bolts cannot be indiscriminately omitted.**

A CAUTION **A**



STRIKE AND MACHINE DAMAGE HAZARDS—A machine can "rip" away from position on foundation if the machine is not anchored and grouted in strict accordance with the dimensional drawing and setting instructions provided in this manual. Damage resulting from improper installation is not covered by war

ranty.

- Strictly follow setting instructions and dimensional drawing guidelines when anchoring and setting this machine.
- Properly install anchor bolts at ALL anchor bolt holes on the machine.

Setting Procedures

See FIGURE 1 during the following procedures:

- 1. With the machine near the final location, unbolt the shipping skids. Observing all precautions, lift the machine off its skids and apply a light coat of grease to the underside of the right and left side base plates (so machine can be lifted off of the grout to remove temporary blocking). Lower machine onto temporary blocking as shown in FIGURE 1. Install anchor bolts, taking care to align the bolts with the base plates to avoid bolt thread damage.
- 2. Determine that the minimum clearance between each base plate and floor is as specified (see dimensional drawing). Use a carpenter's level to determine if the machine is level. If necessary, level the machine from right to left and front to back by shimming at temporary blocking.



FIGURE 1 (MSIN0206AE) Blocking Up Rigid Mount Washer-Extractors

A CAUTION A

MACHINE DAMAGE AND MALFUNCTION HAZARDS—Never tighten anchor bolt fasteners before grouting.

- Place temporary blocking at the three locations shown in FIGURE 1, not at four locations to avoid a "teeter-totter" condition.
- Tightening anchor bolt fasteners onto spacers (without grout) twists the machine frame and causes cylinder misalignment.

Preparing to Grout

All machines are designed to be grouted under the full length of the right and left side base plates (except the portion that falls over the drain sump). Grout prevents the anchor bolts from distorting the frame when the fasteners are tightened. Total area under each base plate must be completely filled with grout. Voids under base plates can magnify vibration, causing unsatisfactory operation. Use only industrial strength non-shrinking grout. Permanently install the foundation template (if supplied) under the machine as a vapor barrier if the machine is installed over a drain trough (see the dimensional drawing for additional information). After determining the final position of the machine, apply grout between the existing foundation floor and base plates, (if utilizing template, see dimensional drawing for details) while observing the following considerations:

A CAUTION A

Grout must displace total clearance between base plates and existing foundation floor.

- Voids must not exist!
- If the grout (after mixing) is too thin (causing it to flow from under the base plates) install temporary cardboard framing around the plates to retain the grout until it cures.
- If the grout (after mixing) is of proper consistency, pack or trowel it in by hand.
- 1. After the grout has cured completely, raise the machine sufficiently to remove all temporary blocking and shims. Be careful to avoid disturbing or damaging grout.
- 2. Tighten all fasteners until they contact the top of the base plate.
- **3.** Tighten all fasteners evenly, using only one-quarter turn on each fastener 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 fasteners, check each fastener at least twice.

BIRQVI01 (Published) Book specs- Dates: 20050228 / 20050228 / 20050228 Lang: ENG01 Applic: RQV

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, third water, direct steam, compressed air, 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—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. Thoroughly flush all water lines before making connections.
- 3. We recommend installing 40 mesh strainers or filters in front of the cold, hot and third water valves.
- 4. 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.



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.

3. Piped Inlet Specifications

Table 1: Piped Inlets

Connection Description	Source Requirements	Piping Specifications, Comments
Water valves	36026VxJ - 3/4" NPT @ 10 - 75 psi	Pipe material per plumbing code
	42026V6J - 1-1/4" NPT @ 10 - 75 psi	
Compressed air (optional)	42026V6J only - 1/4" NPT @ 80 - 110 psi	Pipe material per plumbing code
Steam inlet	36026V6J - 3/4" NPT @ 30 -115 psi	Pipe material per plumbing code
Steam inlet	1/4" NPT (optional) @ 30 - 115 psi	Pipe material per plumbing code
Liquid supply inlets	3/8" - 1/2" @ 10 - 75 psi	Flexible tubing as specified by the chemical supplier

4. Piped Outlet Specifications

Piped outlet requirements are as follows (see dimensional drawing for connection sizes and locations):

Table 2: Outlets

Connection Description	Destination	Piping Specifications
36026VxJ and 42026V6J Drain	3" pipe socket joint, drain to sewer	Rubber hose, PVC or other approved material per plumbing code

5. 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**—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 External Fuse and Wire Size 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 External Fuse and Wire Size 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 1). 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. Machine is shipped set for 240 volt operation from the factory (Figure 2). If the supply voltage is 208 volts, then open the electrical enclosure, and place the line voltage switch in the 208 volt position.

Figure 1: Correct Rotation During Drain and Extract (when viewing front of machine)



Figure 2: Line Voltage Switch Set for 240 Volt Operation



6. Remove Shipping Restraints

Remove all shipping restraints (usually marked in red). Restraints may be located behind access panels. Restraints may include vibration switch and motor restraints.

Figure 3: Motor Restraint



Figure 4: Typical Vibration Switch showing restraint in place



7. 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 BIRQVI01 -

Section

2

Dimensional Drawings





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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 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.
Z NUMBERS IN BRACKETS [] DENUTE DIMENSIONS IN MILLIMETERS.
I ALL DIMENSIONS SHOWN ARE APPROXIMATE, SUBJECT TO NURMAL MANUFACTURING TOLERANCES, AND TO OCCASIONAL CHANGES WITHOUT NOTCE THROUGH REDUESIGN AND/OR RELOCATION OF COMPONENTS, ETC. DO NOT USE FOR CONSTRUCTION UNLESS CERTIFED, 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 RECOONLZE ALL FORSERABLE SAFETY HAZARDS, FURNISH SAFETY INSTRUCTIONS AND QUIDANCE TO ALL PERSONNEL WHO MAY COME IN CONTACT WITH THE INSTALLATION, AND PROVIDE ALL NECESSARY ADDITIONAL SAFETY GUARDS, FRUCES, RESTRAINTS, DEVICES, ETC., NOT FURNISHED BY THE EQUIPMENT MANUFACTURER OR VENDOR.
ATTENTION THE FLOOR AND/OR OTHER SUPPORT COMPONENTS MUST HAVE SUFFICIENT STEENCTH (AND RIGDITY WITH DUE CONSIDERATION FOR NATURAL OR RESONANT FREQUENCY THEREOF) TO WITHSTAND THE FULLY LOADED WEIGHT OF THE MACHINE INCLUDING THE GOODS, THE WATER, AND ANY REPEATED SINUSDIDAL (ROTATING) FORCES GENERATED DURING ITS OPERATION. WRITE THE FACTORY FOR ADDITIONAL MACHINE DATA FOR USE BY A COMPETENT SOL AND/OR STRUCTURAL ENGINEER.
OPTIONS 36021V5J
DM 0 0.5M 1M DWG BD3621V5BB NOHES 0 12 24 36 2012342D
PELLERIN MILNOR CORPORATION P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467-9591, FAX 504/469-1849, Email: mktg@milnor.com

W3 REUSE INLET (AIR OPERATED), 1-1/4" NPT CONNECTION S1 STEAM, 3/4" NPT (ELECTRIC)

5 COMPARTMENT SUPPLY DUAL DRAIN, DRAIN TO SEWER, 3" PIPE SOCKET JOINT. DUAL DRAIN, DRAIN TO REUSE, 3" PIPE SOCKET JOINT.

/4" AIR CONNECTION, WITH AIR OPERATED REUSE ONLY

LEGEND

NOTES

– Z





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		3 USE REFERENCE LINES "X", "Y", AND "Z" TO LOCATE ALL SERVICE CONNECTIONS.
		2 NUMBERS IN BRACKETS [] DENOTE DIMENSIONS IN MILLIMETERS.
	Z	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 CYENT PRE-PIPE CLOSER THAN FIVE FEET FROM MACHINE, FACTORY MUST BE CONSULTED FOR DIMENSIONS IF MACHINE IS TO BE MOVED THROUGH NARROW OR LOW CORRIDORS OR OPENINGS.
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		THE FLOOR AND/OR OTHER SUPPORT COMPONENTS MUST HAVE SUFFICIENT STRENGTH (AND RIGIDITY WITH DUE CONSIDERATION FOR NATURAL OR RESONANT FREQUENCY THEFEOF) TO WITHSTAND THE FULLY LOADED WEIGHT OF THE MACHINE INCLUDING THE GOODS, THE WATER, AND ANY REPEATED SINUSOIDAL (ROTATING) FORCE GENERATED DURING ITS OPERATION, WRITE THE FACTORY FOR ADDITIONAL MACHINE DATA FOR USE BY A COMPETENT SOIL AND/OR STRUCTURAL ENGINEER.
		OPTIONS 36026V5J
		DWGBD3626V5DB
		PELLERIN MILNOR CORPORATION P. Box 400 Kenner, LA 70063, USA, Phone S04/467-9591, P. 504 /467-9591,

W3	REUSE INLET (AIR OPERATED), 1–1/4" NPT CONNECTION
S1	STEAM, 3/4" NPT (ELECTRIC)
L1	5 COMPARTMENT SUPPLY
D2	DUAL DRAIN, DRAIN TO SEWER, 3" PIPE SOCKET JOINT.
D1	DUAL DRAIN, DRAIN TO REUSE, 3" PIPE SOCKET JOINT.
A1	1/4" AIR CONNECTION, WITH AIR OPERATED REUSE ONLY
ITEM	LEGEND
	NOTES



NOTES
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.
ALTERNATLY, THE MACHINE MAY BE WELDED TO THE BASE, PROVIDED IT IS
SHIMMED AS REQUIRED TO INSURE THERE IS NO DISTORTION OF THE MACHINE
BASE PLATES OR FRAME.
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 WARRANT WITH REGARD TO THE CONSTRUCTION AND/OR
SUITABILITY OF THIS ASSEMBLY.
NUMBERS IN BRACKETS [] DENOTE DIMENSIONS IN MILLIMETERS.
ATTENTION MOST RECULATORY AUTHORITIES (INCLUMENSIONS IN MILLIMETERS. ATTENTION OWNER/USER ULTIMATELY RESPONSIBLE TO MAINTAIN A SAFE WORKING ENVIRONMENT. ACCORDINCIT, THE OWNER/USER MUST RECOGNIZE ALL PORESERABLE 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, FRUCES, RESTRAINS, DEVICES, ETC., NOT FURNISHED BY THE EQUIPMENT MANUFACTURER OR VENDOR. MANUACTURER OR VENDOR. ATTENTION THE FLOOR AND/OR OTHER SUPPORT COMPONENTS MUST HAVE SUFFICIENT STRENGTH (AND RIGIDITY WITH DUE CONSIDERATION FOR NATURAL OR RESONANT FREQUENCY INTEREOF) 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 DATA FOR USE BY A COMPETENT SOIL AND/OR STRUCTURAL ENGINEER. PEDESTAL BASE 36021/36026V5J BD36V5BSBE 2010163D SCALE: 1" = 1'0"PELLERIN MILNOR P.O. Box 400 Kener, LA 70063, USA, Phone 504/467-9591, FAX 504/499-1849, Email: miktg@milnor.com







Χ















S1	STEAM, 3/4" NPT (ELECTRIC)
ITEM	LEGEND
6 AS EL	NOTES OF THIS WRITING, THE MINIMUM CLEARANCE REQUIRED BY U.S. NATIONAL ECTRIC 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. IECK LOCAL ELECTRIC CODES FOR FURTHER RESTRICTIONS.
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	OPTIONS 36021V7J.V7W
\vdash	DM .0 0.5M 1M DWG#
	INCHES 0 12 24 36 2012342D
M	PELLERIN MILNOR CORPORATION P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467-9591, XX 504/469-1849, Emoil: mkt@milnor.com















NOTES

- 11 SHIM TO LEVEL THE MACHINE AND ALLOW FOR 1" [25] MINIMUM GROUT. ANCHOR ALL (18) ANCHOR BOLT HOLES (SEE NOTE 9.) OR THE WARRANTY WILL BE DECLARED INVALID. USE 5/8" X 6" BOLTS, MINIMUM. SEE INSTALLATION MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS.
- MUNITERVARUE MANUAL FOR FURTHER INSTRUCTIONS. 19 WATER INLET PIPING AND BRACKETRY CAN BE EASILY REMOVED TO TEMPORARILY REDUCE OVERALL MACHINE WIDTH FOR PASSAGE THROUGH DOOR WAYS. 9 IF ABSOLUTELY INCECTSARY, THE MACHINE MAY SPAN A DRAIN TROUGH UP TO 15" (381) WIDE (THUS ELMINATING UP TO 2 ANCHOR BOLTS PER SIDE, BUT ONLY THOSE IDENTIFIED (N1).
- ENTRE BASE OF MACHINE MUST BE CONTINUOUSLY SUPPORTED. IF MACHINE IS BE INSTALLED OVER A DRAIN TROUGH, THE MACHINE MUST BE MOUNTED TO A PEDESTAL BASE, NOT SUPPLIED BY P.M.C. NEVER REDUCE DRAIN PIPING BELOW NPT SIZE OF CONNECTIONS.

- PEDESTAL BASE, NOT SUPPLIED BY P.M.C. 7 NEVER REDUCE DRAIN PIPING BELOW NPT SIZE OF CONNECTIONS. 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 A GROUNDED WALL (ie. BARE CONCRETE, BRICK, ETC.) 48 [1219] IF OBJECT IS A GROUNDED WALL (ie. BARE CONCRETE, BRICK, ETC.) 49 [1219] IF OBJECT IS A GROUNDED WALL (ie. BARE CONCRETE, BRICK, ETC.) 40 [1219] IF OBJECT IS A GROUNDED WALL (ie. BARE CONCRETE, BRICK, ETC.) 41 [1219] IF OBJECT IS A GROUNDED WALL (ie. BARE CONCRETE, BRICK, ETC.) 42 [1219] IF OBJECT IS A GROUNDE WALL (ie. BARE CONCRETE, BRICK, ETC.) 5 CUSTOMER TO SUPPLY CIRCUIT BREAKER OR FUSED BRANCH CIRCUIT 19 DISCONNECT (SAFETY) SWITCHES WITH LAC 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 MILINOR 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 INSUKE THAT BASELINE "Z" IS HORIZONTAL AND 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 1 TOLERANCES, AND TO COCASIONAL CHANGES WITH INDU TO NORMAL MANUFACTURING 1 ALL DIMENSIONS SHOWN ARE APPROXIMATE, SUBJECT TO NORMAL MANUFACTURING 1 ALL DIMENSIONS SHOWN ARE APPROXIMATE, SUBJECT TO NORMAL MANUFACTURING 1 ALL DIMENSIONS SHOWN ARE APPROXIMATE, SUBJECT TO NORMAL MANUFACTURING 1 ALL DIMENSIONS SHOWN ARE CONSULTED FOR DIMENSIONS IF MACHINE IS TO BE MOVED THROUGH NARROW OR LOW CORDIONS OR OPENINGS. 1 AND/OR RELOCATION OF COMPONENTS, ETC. DO NOT USE FOR CONSTRUCTION 1 MACHINE, FACTORY MUST BE CONSULTED FOR DIMENSIONS IF MACHINE IS TO BE MOVED THROUGH NARROW OR LOW CORRIDORS OR OPENINGS. 1 MACHINE, FACTORY MUST BE CONSULTED FOR DIMENSIONS IF MACHINE IS TO BE 1 MOVED THROUGH NARROW OR LOW CORDING TON THE LIEN) HON

MOST REGULATORY AUTHORITIES (INCLUME CORREDUCES OR OPENINGS. ATTENTION MOST REGULATORY AUTHORITIES (INCLUMES OF AUTHORITIES (INCLUMES OF AUTHORITIES) OWNER/USER ULTIMATELY RESPONSIBLE TO MAINTAIN A SAFE WORKING ENVIRONMENT. ACCORDINGLY, THE OWNER/USER MUST RECORNIZE ALL FORESERABLE SAFETY HAZARDS, FURNISH SAFETY INSTRUCTIONS AND GUIDANCE TO ALL PRESSAREL SAFETY HAZARDS, FURNISH SAFETY INSTRUCTIONS AND GUIDANCE TO ALL PRESSAREL SAFETY HAZARDS, FURNISH SAFETY INSTRUCTIONS AND GUIDANCE TO ALL PRESSAREL SAFETY HAZARDS, FURNISH SAFETY INSTRUCTIONS, AND PROVIDE ALL NECESSARY ADDITIONAL SAFETY GUARDS, FENCES, RESTRAINTS, DEVICES, ETC., NOT FURNISHED BY THE EQUIPMENT MANUFACTURER OR VENDOR.

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) FORCE GENERATED DURING ITS OPERATION. WRITE THE FACTORY FOR ADDITIONAL MACHINE DATA FOR USE BY A COMPETENT SOIL AND/OR STRUCTURAL ENGINEER.









RIGHT VIEW





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STEAM 3/4"NPT, OPTIONAL

IVE COMPARTMENT SUPPLY INJECTOR, OPTIONAL

SINGLE DRAIN DOWN, DRAIN TO SEWER, 3" PIPE SOCKET

DUAL DRAIN, DRAIN TO SEWER, 3" PIPE SOCKET JOINT. DUAL DRAIN, DRAIN TO REUSE, 3" PIPE SOCKET JOINT.

LEGEND

NOTES

S1

11

D3

D2

OINT









W3 REUSE WATER INLET 1-1/4"NPT (AIROP), PART OF DUAL

D2 DUAL DRAIN(ELE), DRAIN TO SEWER, 3" PIPE SOCKET JOINT. D1 DUAL DRAIN(ELE), DRAIN TO REUSE, 3" PIPE SOCKET JOINT. A1 AIR CONNECTION 1/4" NPT, ONLY FOR REUSE WATER

OPTIONA

W2 COLD WATER INLET 1-1/4"NPT, V6W ONLY

W1 HOT WATER INLET 1-1/4"NPT, V6W ONLY S1 STEAM 3/4"NPT, OPTIONAL V6J,V6W L1 FIVE COMPARTMENT SUPPLY INJECTOR,

DRAIN OPTION

NOTES !! THIS DRAWING UTILIZES "THIRD ANGLE PROJECTION" RULES AS SHOWN. TOP TOP RIGH - FRONT \bigcirc LEFT RIGHT









W3	REUSE WATER INLET 1-1/4"NPT (AIROP), PART OF DUAL
	DRAIN OPTION
W2	COLD WATER INLET 1-1/4"NPT, V6W ONLY
W1	HOT WATER INLET 1-1/4"NPT , V6W ONLY
S1	STEAM 3/4"NPT, OPTIONAL V6J,V6W
L1	FIVE COMPARTMENT SUPPLY INJECTOR, OPTIONAL
D2	DUAL DRAIN(ELE), DRAIN TO SEWER, 3" PIPE SOCKET JOINT.
D1	DUAL DRAIN(ELE), DRAIN TO REUSE, 3" PIPE SOCKET JOINT.
A1	AIR CONNECTION 1/4" NPT, ONLY FOR REUSE WATER
	VALVE(AIR OP), PART OF DUAL DRAIN OPTION
ITEM	LEGEND

NOTES !!
THIS DRAWING TOP 1 TOP >
UTILIZES
"THIRD ANGLE RIGHT
RULES AS
SHOWN. FRONT



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	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 RECURRED TO INSURE THERE IS NO DISTORTION 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.
	MOST REGULATORY AUTHORITIES (INCLUME GSAA IN THE USA) HOLD THE OWNER/USER ULTIMATELY RESPONSIBLE TO MAINTAIN A SAFE WORKING ENVIRONMENT. ACCORDINGLY, THE OWNER/USER MUST RECOGNIZE ALL FORESEARLE SAFETY HAZAROS, FURNISH SAFETY INSTRUCTIONS AND GUIDANCE TO ALL PERSONNEL WHO MAY COME IN CONTACT WITH THE INSTALLATION, AND PROVIDE ALL NECESSARY ADDITIONAL SAFETY GUAROS, FLORES, RESTRAINTS, DEVICES, ETC., NOT FURNISHED BY THE EQUIPMENT MANUFACTURER OR VENDOR.
	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 SINUSODAL (ROTATING) FORCES GENERATED DURING ITS OPERATION, WEITE THE FACTORY FOR ADDITIONAL MACHINE DATA FOR USE BY A COMPETENT SOIL AND/OR STRUCTURAL ENGINEER.
	PEDESTAL BASE 3621/26V7J,4226/30V6J
	SCALE: 1" = 1' 0" BD42V6BSAE 2007463D
	PELLERIN MILNOR CORPORATION