

Technical Users' Manual

Installation and Operating Instructions





CAUTION

• Inspect unit and all components for any loosening that may have occurred during shipping •

ATTENTION Beview entire m

Review entire manual before starting assembly

ATTENTION

All images and Drawing in this manual may not represent your model. Refer to your particular project for exact specifications

CAUTION • DO NOT USE CLEANERS CONTAINING CHLORINE WHEN CLEANING STAINLESS STEEL•

WARNING

Biohazard Label is place on the equipment signifying the potentially infectiousness due to the samples or reagents



Mortech™ Manufacturing Inc. 411 North Aerojet Avenue, Azusa, CA 91702 (626) 334-1471 www.mortechmfg.com

JUNE 2014 ISO Doc. #OMSS110 (REV A)



It is important that the information provided in this manual is observed. These instructions should be read carefully and observed fully before installation and initial operation.

WARNING

It is crucial that any work performed on Mortech Mfg. Inc. manufactured items are carried out exclusively by skilled professionals who have the respective training. Improper use, maintenance, parts and service, or modification to the equipment may cause injury and/ or damage. Use and maintain the equipment only for the purpose described in this manual. Use only prescribed approved parts and service. Use the equipment only as designed by Mortech mfg. Inc.

BLOODBORNE DISEASE NOTICE

To reduce the risk of exposure to bloodborne diseases such as HIV-1 and hepatitis when using the equipment, follow the disinfecting and cleaning instructions in this manual.

OPERATING SKILLS AND TRAINING SKILLS

Operators using the equipment needs

□ A working knowledge of necessary procedures.

- The ability to carry out necessary service procedures.
- □ A complete understanding of the procedures described in this manual.

TRAINING

 \Box Be trained on the use of the equipment.

- Read the manual
- Practice with the equipment before using it in regular service.
- Be tested on their understanding of the equipment operation.

Record their training.

BEFORE USING THE UNIT

Personnel working with this unit needs to read this manual. Assemble of the unit following instructions, and perform any pre-service checks to confirm the units operates properly.

INSPECTING THE UNIT BEFORE USE

Please take time to inspect all shipment prior to signing delivery ticket. If concealed damage is discovered, save the carton and immediately contact carrier agent to initiate claim of damage.

BE SURE TO CHECK

- Are all components present?
- Do the moving parts operate smoothly?
- Is unit draining properly?
- Are all nuts, bolts, and pins secured in place? If unit has an issue contact customer relations.

INSTRUCTION FOR HANDLING

Adhere to state and/or local certification and regulations for operation of forklift and/or pallet jack. Cargo is extremely heavy, be sure to have the necessary manpower as well as equipment to successfully unload shipment from truck. We recommend a forklift and/or pallet jack with the capacity to lift up to 2000 lbs. to remove cargo from truck.

The forklift can be used to unload receiving products safely by placing the load on the floor, maneuvering the forklift into position, tilting the mast forward to vertical position so the load will be level, lowering the load, and smoothly backing away without dragging. Once cargo is unloaded, positioning unit for installation will once again require a forklift. Read all manual and note on installation of the unit before installing.

The pallet jack can be used (with a loading dock and maneuverability on and off the transport vehicle) to unload receiving products safely. Maneuvering the pallet jack into position (in the appropriate position within the pallet), lifting the pallet then driving the pallet jack off the truck and safely into the place of installation.

Range of Environmental Condition

Mortech Mfg. Inc. equipment shall be placed in a controlled environment (housing or housed unit) hindering the weathering effects on the installed units. The units will have minimal corrosive and eroding factors that can break down the stability and operation of Mortech's equipment. The impact on the unit by the operator utilizing water or corrosives in the medical procedures can be controlled and responsibility for the cleaning and maintenance placed upon that person. The effects of anthropogenic (man-made) gasses on the environment, such as carbon dioxide (CO2) that will be omitted from the unit should be minimal.

Due to continuous innovation and product development this installation guide is subject to change without notice.

Please save these instructions for later use.



STANDARD FEATURES

- Sink deck and backsplash to be constructed of 14 gauge stainless steel
- Leg Assemblies and Crossbar Supports constructed of 16 gauge 1.625 round tubing
- All welded construction of Type 304 Stainless Steel polished to a No. 4 finish
- Gooseneck Faucet with Built-in Vacuum Breaker and Wrist Blade Handles
- Heavy-duty Commercial Disposal, 1/2 hp, with switch
- Spray Hose Assembly with spray nozzle on/off thumb control and 4 feet of flexible tubing
- Pressure Vacuum Breaker for Backflow Protection for the Spray Hose Assembly and Disposal
- Legs have stainless steel adjustable bullet feet





INSPECTING THE UNIT BEFORE USE

- Are all components present?
- Do the moving parts operate smoothly?
- Is unit draining properly?
- Are plumbing features operating properly?
- Are all nuts, bolts, and pins secured in place?
- If unit has an issue contact customer relations.

GENERAL GUIDELINE

Follow standard service procedures when working with the unit.

BEFORE USING THE UNIT

Personnel working with this unit needs to read this manual. Assemble of the unit following instructions, and perform any pre-service checks to confirm the units operates properly.

UTILITY CONNECTION INSTRUCTIONS

STEP 1. Flush out all water lines prior to connection. Debris may be in the lines from construction process. Install shut off valves on each water line. Lines are clearly marked RED for hot and BLUE for cold. The station is provided with a single point connection for hot and cold water. A typical flex line can be used for connection.

Step 2. Connect drain line to sink basin.





JUNE 2014 MFGISO DOC. #OMSS110 (REV. A)



Component Data



(626) 334-1471 www.mortechmfg.com



Component Data



T&S HAND SPRAY ASSEMBLY T & S BRASS AND BRONZE WORKS, INC. MODEL # 013E 72" hose

T & S BRASS AND BRONZE WORKS, INC. MODEL # 002858-40 Spray valve assembly





VACUUM BREAKER ANTI-SPILL SATIN CHROME

Model #14443

Feature:

ASSE 1056 Approved

System Limits

- Temp: 33°F Min. to 180°F Max.
- Pressure 8 psi (min) 150 psi (max)

Shipping weight

• 2.0 lbs.

Function: To protect the potable water supply against backflow from a non-potable source due to negative supply pressure

Protection: Against back-siphonage backflow

Installation Requirements:

 Install a minimum of 1" above flood level of fixture if factory deck mounted or not less than 6" if general plumbing

field application.

- 2. Install bonnet side up and allow for accessibility for testing/service. Do not install in concealed locations or areas where water leakage due to normal wear of the internal parts can cause damage.
- 3. Do not undersize supply or oversize the valve in relation to demand.
- 4. Do not install where back-pressure can occur.
- 5. Protect from freezing.

Note: Use "L" suffix for left-hand outlet.

6. The installation of a strainer ahead of the backflow preventer is recommended to prevent fouling of the check assembly and resultant spillage from the valve during repressurizing.

Recommended Service:

Test periodically as required by local jurisdictional authorities. Replace internal components every five years.



VACUUM BREAKER MODEL #14443

Fisher Manufacturing Co.

1900 South "0" Street Tulare, California 93274 800-421-6162 800-832-8236 FAX

Mailing Address: P.O.Box 60 Tulare, California 93275

Mortech™ Manufacturing Inc. 411 North Aerojet Avenue, Azusa, CA 91702 (626) 334-1471 www.mortechmfg.com

Component Data





TEST PROCEDURE FOR SPILL-RESISTANT VACUUM BREAKER

Note: For both of the following tests the test kit must be held at the same level as assembly being tested.

A. Before starting test, all needle values and bleed values on test kit must be closed. B. Flush test cocks before test.

TEST No. 1 DIFFERENTIAL TEST

REQUIREMENT: DIFFERENTIAL PRESSURE ACROSS CHECK MUST BE 1.0 PSI OR ABOVE

STEP 1. REMOVE TWO SCREWS ON TOP OF HOOD THEN REMOVE HOOD.

STEP 2. INSTALL HOSE BETWEEN TEST COCK AND CONNECTION "A" HIGH SIDE (RED) OF TEST KIT.

STEP 3. OPEN TEST COCK THEN OPEN BLEED VALVE "A" ON TOP OF TEST KIT. BLEED AIR FROM HOSE THEN CLOSE BLEED VALVE "A" ON TOP OF TEST KIT.

STEP 4. OPEN NEEDLE VALVE "A" ON HIGH SIDE (RED) OF TEST KIT. **STEP 5.** CLOSE SHUTOFF VALVE NO. 2 THEN SHUT OFF VALVE NO. 1 ON TEST ASSEMBLY.

STEP 6. SLOWLY UNSCREW BLEED SCREW ON SPILL PROOF VACUUM BREAKER BODY TO RELIEVE PRESSURE DOWN STREAM OF CHECK (ABOUT 3 TUNES).

STEP 7. WHEN DRIPPING FROM BLEED SCREW STOPS AND PSI NEEDLE ON GAUGE STABILIZES, RECORD THE DIFFERENTIAL PRESSURE.

TEST NO. 2 - AIR INLET - VENT OPENING

Requirement: Air inlet must start to open when supply pressure is 1.0 psi or above. Air inlet must be fully open when supply pressure is atmospheric.

STEP 8. SLOWLY OPEN NEEDLE VALVE "C" BYPASS (YELLOW) UNTIL PSI GAUGE READS 1.0 PSI THEN CLOSE NEEDLE VALVE "C" BYPASS (YELLOW) HOLDING PRESSURE AT 1.0 PSI.

STEP 9. VISUALLY INSPECT THAT THE VENT ON TOP IS SLIGHTLY OPEN, ABOUT 1/32" TO PASS TEST.

STEP 10. OPEN NEEDLE VALVE "C" BYPASS (YELLOW) FULLY UNTIL DRIPPING FROM CONNECTION "C" STOPS.

STEP 11. VISUALLY INSPECT THAT THE VENT IS FULLY OPEN TO PASS TEST.

STEP 12. REPLACE HOOD AND TWO SCREWS ON TOP OF ASSEMBLY.

STEP 13. RESTORE VALVE TO ORIGINAL WORKING CONDITION. **NOTE:** AFTER TEST, ALL VALVES ON TEST KIT MUST BE FULLY OPEN AND HOSE REMOVED TO PREVENT DAMAGE TO TEST KIT.

SERVICE AND REPLACEMENT PARTS

INTERNAL PARTS CAN BE REMOVED, REPAIRED OR INSPECTED WITHOUT REMOVING THE VALVE FROM THE PIPING.

DISASSEMBLY:

- 1. SHUT OFF SUPPLY PRESSURE AND DRAIN VALVE.
- 2. REMOVE THE TWO HOOD SCREWS, REMOVE HOOD.

3. UNSCREW THE BONNET BY TURNING COUNTERCLOCKWISE.

4. LIFT RETAINER AND CHECK ASSEMBLY FROM VALVE BODY. TO ASSIST WITH REMOVAL A SMALL FLOW CAN BE APPLIED BY "CRACKING" THE INLET VALVE SLIGHTLY. ALTERNATELY THE TEST COCK MAY BE OPENED TO BREAK ANY SUCTION CAUSED BY LIFTING INTERNAL ASSEMBLY. BE SURE TO CLOSE TEST COCK BEFORE PRESSURIZING VALVE.

REASSEMBLY:

INSTALL NEW RETAINER MODULE ASSEMBLY INTO VALVE BODY BY ALIGNING "U" SHAPED CUTOUT IN RETAINER WITH THE VALVE OUTLET. THE TOP OF RETAINER MUST DROP JUST BELOW THREADS IN THE VALVE BODY. REASSEMBLE REMAINING PARTS IN REVERSE ORDER.

CAUTION:

SPILLAGE MAY OCCUR IF DIAPHRAGM IS RUPTURED. CARE MUST BE TAKEN NOT TO DAMAGE PARTS DURING ASSEMBLY.



MARCH 2008 MFGFISCHER VACUUM BREAKER



Component Data

G1101 FAUCET MOUNTED UNIT EyeSafe-XTM Faucet-Mounted Eye Wash, Adjustable Aerated Outlet Heads

Application: EyeSafeTM faucet-mounted eye washes convert any faucet into an emergency eye wash station without interfering with normal faucet operation. An EyeSafeTM unit can be installed at any sink, close to where accidents might occur. In an emergency, unit is quickly located and activated, and provides an unlimited supply of potable water for rinsing the user's eyes.

Outlet Heads: Outlet heads are mounted 5" apart and deliver a soft, aerated flow of water. Heads angle forward and inward toward user. Angle of heads is adjustable to permit full coverage and avoid splashing. Furnished with float-off dust covers to protect outlet heads.

Valve: Forged brass diverter valve. Pull knob to activate eye wash; water pressure holds eye wash in operation, leaving user's hands free. Push knob or turn off faucet to return to normal faucet operation.

Inlet: Body has 55/64"-27 female thread. Furnished with three adapters (15/16"-27, 13/16"-27 and 3/8" IPS) for installing on most commonly used faucets, including laboratory-type faucets.

Outlet: Furnished with removable aerator on bottom. Quality Assurance: Each unit is completely assembled and water tested prior to shipment.

Important: Faucet-mounted eye washes, whether manufactured by Guardian Equipment or other companies, require two motions to operate (turn on water, pull knob to activate eye wash flow). Therefore, Guardian does not believe that these units meet the provisions of ANSI Z358.1-2004 as eye wash units. These units are intended solely as supplemental units in addition to dedicated, plumbed eye wash equipment installed in the workplace.

Faucet-mounted eye washes should be used with cold or warm water only. Use of hot water might cause scalding.

Available Options

AP400-012 Inlet adapter with 13/16"-24 female thread. 250-046R Replacement float-off dust covers (package of 2).

GUARDIAN EQUIPMENT

660 North Union Street Chicago, IL 60610 Phone 312 733 2626 Fax 312 733 4684 info@gesafety.com www.gesafety.com



MAINTENANCE INSTRUCTIONS

The unit requires regular maintenance and follow the manufactures directions.

DISINFECTING AND CLEANING

Clean all surfaces of the stainless steel with a hard surface disinfectant/cleaner such as Sheila Shine® or SaniZene®. Follow instructions on container.

DISINFECTING, CLEANING COMPONENTS & ACCESSORIES

Hand wash with disinfecting soap and warm water. Rinse well with clear water and dry with a towel. (Clean on a regular basis to prolong work life).

WARNING

Improper maintenance can cause injury. Maintain only as prescribed in this manual. Overall, it is very simple to maintain. If you use for its intended purpose, it will provide many years of reliable service.

CARE OF STAINLESS STEEL

Stainless steel products have a directional #4 brushed finish. This finish is produced using a very fine abrasive cloth. Dragging heavy equipment across the stainless steel surfaces will cause noticeable scratching. Pitting/corrosion can occur when carbon steel products are allowed to remain in contact with the stainless steel in the presence of moisture. (Examples- Steel Wool pads left in the bottom of the sink). Stainless steel can be damaged by exposure to acids.

TYPES OF SURFACE CONTAMINANTS

• **Dirt** - Consist of accumulated dust and a variety of contaminates. Warm water with or without a gentle detergent is sufficient. Next in order are mild non-abrasive powders such as typical household cleaners. These can be used with warm water, bristle brushes, sponges, or cleaning cloths. (Do not use carbon steel brushes or steel wool they may leave particles embedded on the surface which can lead to RUSTING.) For more aggressive cleaning, a small amount of vinegar can be added to the scouring powder. When water contains mineral solids, which leave water spots, it is advisable to wipe the surface completely with dry towels.

Fingerprints and Stains - Fingerprints and mild stains resulting from normal use are the most common surface contaminates. This affect the appearance and seldom have an effect on corrosion resistance. They can be removed with a glass cleaner or by gentle rubbing with a paste of soda ash (sodium carbonate) and water applied with a soft rag. Followed by a thorough warm water rinse and towel dry.
Shop Oil and Grease - These soils may be corrosive and may not allow the surface to maintain passivity, and so removal is a necessity. Soap or detergent and water may be used or a combination of detergent and water plus a solvent.

TYPES OF CLEANERS AND METHODS • General Precautions

Avoid using abrasive cleaners unless absolutely necessary. A "soft abrasive," such as pumice, should be used. Many cleaners contain corrosive ingredients, rinse with clean water. • **Clean Water and Wipe -** A soft cloth and clean warm water should always be the first choice for mild stains, loose dirt and soils. A final rinse with clean water and a dry wipe will eliminate the possibility of water stains.

• **Solvent Cleaning** - Organic solvents can be used to remove fresh fingerprints, oils and greases that have not had time to oxidize or decompose. The preferred solvent is

one that does not contain chlorine, such as acetone, methyl alcohol, and mineral spirits.

EFFECTIVE CLEANING METHODS

Commercial Cleaners - Many commercial cleaners compounded from phosphates, synthetic detergents, and alkalis are available for the cleaning of severely soiled or stained stainless surfaces. When used with a variety of cleaning methods, these cleaners can safely provide effective cleaning.

SCRATCH REPAIR

Surface scratches can be repaired using the following technique. Depending on the severity of the scratch, it may be possible to completely remove it. Sand the scratch using 120 grit emery cloth or paper and firm pressure. Always sand in the direction of the grain. Avoid the natural tendency to sand in an arc, instead sand in a perfectly straight line. Sand until the scratch is gone.

Polish using 3M Scotch Brite pads - Very Fine Grade. Use the same motions as with sanding. Polish until the original finish is restored. Wash and wipe the surface completely with dry towels.

RUST REMOVAL

Rust can be repaired using the following technique. Sand the scratch using 120 grit emery cloth or paper and firm pressure. Always sand in the direction of the grain. Avoid the natural tendency to sand in an arc, instead sand in a perfectly straight line. Sand until the rust is gone.

Polish using 3M Scotch Brite pads - Very Fine Grade. Use the same motions as with sanding. Polish until the original finish is restored. Wash and wipe the surface completely with dry towels.

5 Stainless Steel Mistakes NOT to Make When Cleaning 1.Do not use abrasive cleaners that will scratch the surface. Depending on the surface finish of your stainless steel, abrasive cleaners can cause scratching. A dull finish, probably will not show scratching as much as mirror or highly polished finishes. Test the cleaner in a hidden spot. It's also a good idea to work from the least risky type (water) of cleaning to the heavy duty stuff.

2. Do not forget to rinse. Gritty or dirty water can leave a residue on your finish. It can also stain or pit the surface of your stainless steel. Rinse completely. Residue from cleaning solutions left on a stainless steel surface can stain or damage finish.

3. DO NOT USE CLEANERS CONTAINING CHLORINE. While it may be second nature to bleach everything, stainless steel and chlorine do not mix. Stay away from the bleach when you clean stainless steel. Be aware that bleach can be included in different types of cleaners. If you accidentally get a cleaner on your stainless steel you'll need to rinse it off and quickly.

4. DO NOT USE STEEL WOOL OR STAINLESS BRUSH These products leave little particles in the surface of the steel and inevitably these particles begin rusting and staining the surface of the steel. They also can excessively scratch the surface of your stainless steel. *Stay completely away from steel wool and steel brushes.*

5. Do not assume it's the cleaner. If you do have some spotting or staining, and you've followed all of the rules, it may not be the stainless steel cleaner. Water, especially hard water, can leave spotting and staining on stainless steel surfaces. Towel dry after rinsing can end the problem. Sometimes, even water is an enemy to stainless steel.



Maintenance record

MAINTENANCE RECORD			
Date		By	
L			



TRAINING RECORD			
Date		Ву	



WARRANTY

Mortech Manufacturing. Inc. warrants all fabrications to be free of defects due to its own workmanship and materials.

CONTINENTAL UNITED STATES:

Repair and/or replacement of parts furnished that may develop such defects, will be warranted for a period of one year parts replacement and 90 days labor from the date of shipment. Items not manufactured by Mortech Manufacturing will receive the manufacturer's warranty.

INTERNATIONAL:

(For validation of warranty, installation location (physical address) required) Replacement of parts furnished that may develop such defects, will be warranted for a period of (18) months from the date of shipment. Shipping and Labor is not warranted. Items not manufactured by Mortech Manufacturing. Inc. will receive the manufacturer's warranty.

PARTS AND SERVICE

Customer relations and product support are important aspects of Mortech Manufacturing. Inc. For assistance with this or any of our fine products please contact us below: Mortech Manufacturing. Inc. 411 North Aerojet Avenue Azusa, CA 91702 TEL (626) 334-1471 FAX (626) 334-1704 www.mortechmfg.com info@mortechmfg.com

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CAUTION

 Inspect unit and all components for any loosening that may have occurred during shipping

ATTENTION

All images and Drawing in this manual may not represent your model. Refer to your particular project for exact specifications

DISCLAIMER

This manual contains general instructions for the use, operation, and care of this product. The instructions are not all inclusive. Safe and proper use of this product is solely at the discretion of the user. Safety information is included as a service to the user. All other safety measures taken by the user should be within and under consideration of applicable regulations. It is recommended that training on the proper use of this product be provided before using this product in and actual situation.

Retain this manual for future reference. Include it with the product in the event of transfer to new users. Additional free copies are available upon request from Customer Relations.

Mortech Manufacturing. Inc. has made every effort to ensure that this Manual is accurate; Mortech Manufacturing. Inc. abdicate liability for any inaccuracies or omissions that may have occurred.

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If you find information in this manual that is incorrect, misleading, or incomplete, we would appreciate your comments and suggestions.

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