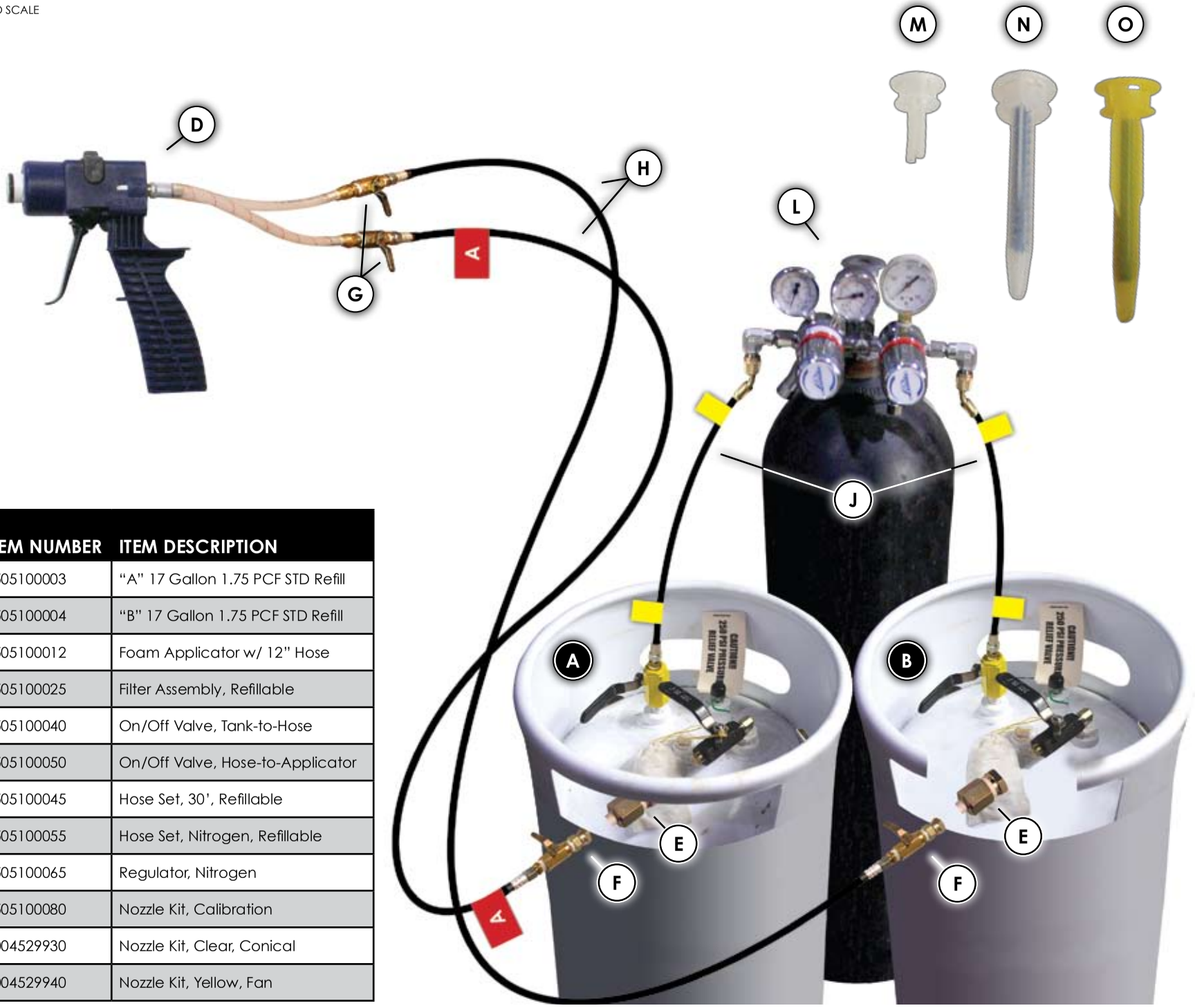
*DIAGRAM NOT TO SCALE



ALPHA ID	ITEM NUMBER	ITEM DESCRIPTION
A	4505100003	"A" 17 Gallon 1.75 PCF STD Refill
B	4505100004	"B" 17 Gallon 1.75 PCF STD Refill
D	4505100012	Foam Applicator w/ 12" Hose
E	4505100025	Filter Assembly, Refillable
F	4505100040	On/Off Valve, Tank-to-Hose
G	4505100050	On/Off Valve, Hose-to-Applicator
H	4505100045	Hose Set, 30', Refillable
J	4505100055	Hose Set, Nitrogen, Refillable
L	4505100065	Regulator, Nitrogen
M	4505100080	Nozzle Kit, Calibration
N	4004529930	Nozzle Kit, Clear, Conical
O	4004529940	Nozzle Kit, Yellow, Fan

RETURN PROCEDURE

1. Follow shutdown procedures.
2. Wear personal protection equipment.
3. Remove nitrogen hose set from cylinders.
4. Disconnect chemical hoses from filter assembly on chemical tanks.
   Note: A small amount of chemical may drain from the ball valve and/or filter.
5. Unscrew the filter assembly from the ball valve and discard the filter assembly. Coat the plug threads stored in the canvas bags on top of the chemical tanks, with the lubricant provided in the bag. Reinsert the plugs into their original chemical pipe location. Reinstall the nitrogen intake caps.
6. Place empty chemical tanks onto a sturdy pallet and secure for return. See photo J for proper securing method.
7. Call (800)357-9199 for return.

Photo J

CORRECT

First, secure canisters together with banding or stretch wrap.

Then, use banding to secure the canisters to the skid.

ROUTE BANDING THRU TOP OF CANISTERS AND AROUND SKID STRINGERS.

Photo K

INCORRECT

Canisters not properly secured and top skid boards pulled loose.

DO NOT ROUTE BANDING THRU OR UNDER TOP SKID BOARDS.

Limited Warranty

Please carefully read and strictly adhere to the directions, warnings and cautions contained in or affixed to this product. The user assumes all risk as to the use of the product. Failure to follow all instructions, directions, warnings, and cautions shall release Convenience Products from any and all liability. Representatives, distributors and dealers of this product may make no claims or warranties not herein expressed.

Emergency Telephone Number

Chemtrec 1.800.424.9300.
(703) 527.3887 outside US.

Caution

The contents of tanks A and B are under pressure. The 'A' tank contains polymeric isocyanates, the 'B' tank contains polyols with amines and both tanks contain either hydrochlorofluorocarbons (HCFC) or hydrofluorocarbons (HFC).

Convenience Products
866 Horan Drive, Fenton, MO 63026-2416 USA
1-800-325-6180 • www.touch-n-seal.com

4505100023
MK-156 (05.08)

Touch 'n Seal®

polyurethane spray foam refill system

Quick Start Guide

SYSTEM DESCRIPTION

The Touch 'n Seal 17 Gallon Refill System is a Class 1, fire retardant, spray polyurethane foam dispensing system for large volume foam users. The system consists of "A" and "B" chemical tanks, chemical filters, in line on/off valves, a high pressure regulator, nitrogen hoses, chemical dispensing hoses, and a foam applicator.

The Touch 'n Seal 17 Gallon Refill System is designed for ease-of-use. The following Quick Start Manual instructions are prepared for the experienced "system" user and are not meant to cover all operational, system or trouble shooting details.

PROPERTIES

Density	1.75 pcf
Empty tank with fittings	65 lbs each
Total Filled Tank Weight	215 lbs each
Total System Weight	430 lbs
Dimensions	15" Diameter X 34" High

If you have additional questions, please contact your Convenience Products Sales Representative or Convenience Products Customer Service at (800) 325-6180.

INSTALLATION, SET UP, CALIBRATION AND OPERATION

NOTE: Dry nitrogen is used for pressurizing the refill system and is not supplied. It may be obtained for a nominal rental charge from your local welding supplier. Order standard size (industrial grade) cylinder with CGA 580 nitrogen fitting. Parts are referenced by name and alpha designation A-O on System Diagram.

Set Up *(steps 1-14)*

1. Position the "A" tank to the left and the "B" tank to the right. This is the standard in the polyurethane industry.
2. Place a nitrogen cylinder behind and between the "A" and "B" tanks. Secure the nitrogen cylinder to prevent it from falling (Photo A).
3. Install nitrogen regulator onto nitrogen tank. Hand tighten and snug firmly using an adjustable wrench. Be careful not to strip the brass fitting by over tightening (Photo B).
4. Verify that the pressure control valves are backed out, by turning counterclockwise to eliminate nitrogen flow.

Photo A

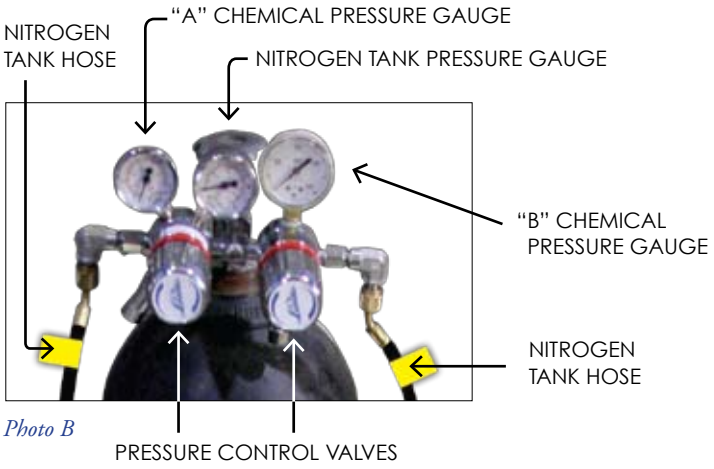


Photo B

5. Remove the thread protectors on the bottom of the nitrogen regulator and connect the first of two yellow-tagged nitrogen hoses to the left fitting on the nitrogen regulator assembly. Snug firmly with an adjustable wrench.
6. Locate the yellow-coded nitrogen intake valve of the "A" tank (photo C). Verify that the valve is closed. The handle should be perpendicular to the valve. Loosen and remove the nitrogen intake cap on the "A" tank (Photo C) and store in the canvas bag on top of the tank.
7. Connect the other end of the yellow-tagged nitrogen hose to the nitrogen intake valve of the "A" tank (photo D). Snug firmly with an adjustable wrench.
8. Connect the second yellow-tagged nitrogen hose to the right fitting of the nitrogen regulator (photo B). Snug firmly with an adjustable wrench. Follow steps 6 – 7 to attach the remaining yellow-tagged nitrogen hose to the intake valve of the "B" tank.
9. Verify that the chemical tank valves are closed (photo C). The handle should be perpendicular to the valve. Remove the chemical valve plug (photo C) from each of the "A" and "B" tanks and place one plug in each of the canvas bags provided (photo C). Each plug must be lubricated and reinstalled prior to empty tank return.
10. Remove filter assembly from the canvas bag (photo E) attached to the tank. Connect a filter assembly to each chemical tank valve with the filter assembly arrows pointing away from the tanks (photo D). The arrows represent the direction of the chemical flow. Tighten the filter assemblies with the adjustable wrench.

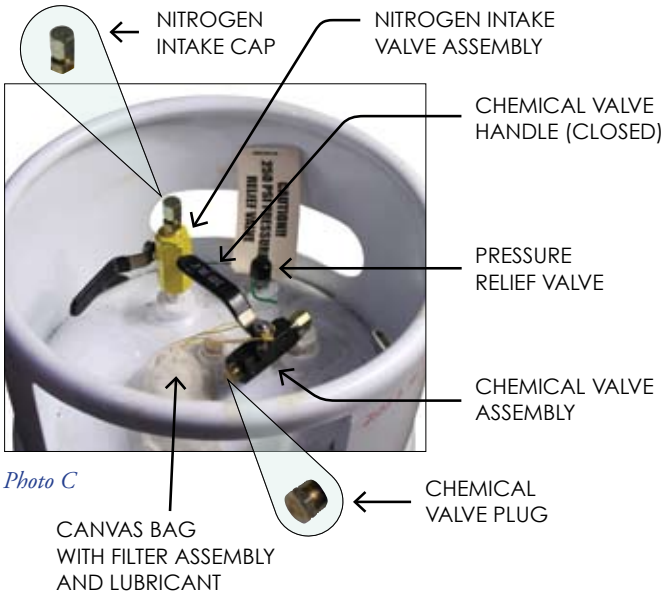


Photo C

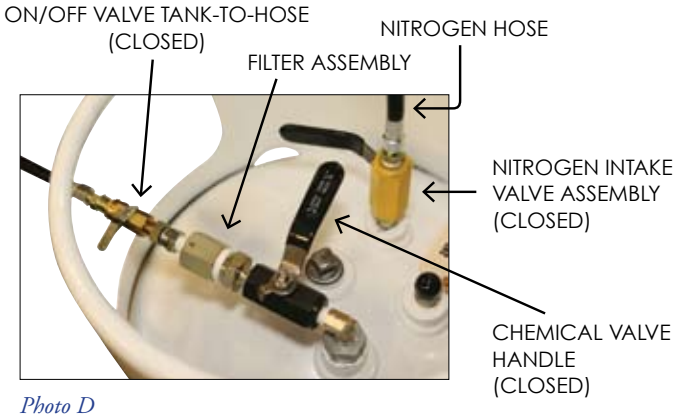


Photo D

11. Connect the on/off valves tank-to-hose (with the swivel ends) to the filter assemblies of each tank. Tighten the connections with an adjustable wrench (photo D).

12. Uncoil the hose sets. (If desired, you may connect two 30' hose sets together, using the provided connectors, to make a 60' hose set by connecting the "A" hose of one set to the "A" hose of the second set. Follow the same procedure for the connecting the two "B" hoses together.) Connect the "A" labeled chemical hose to the on/off valve tank-to-hose on tank "A" and the other chemical hose to the on/off valve tank-to-hose on tank "B" (photo D). Tighten both connections with an adjustable wrench.

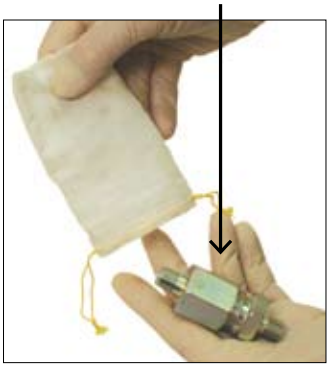


Photo E

13. Connect an on/off valve hose-to-applicator to the other end of each chemical hose. Verify that the arrows on each on/off valve hose-to-applicator point away from the "A" and "B" chemical tanks. (Arrow indicates chemical flow.) Tighten each connection with two adjustable wrenches (Photo F).

14. Connect the foam applicator hose to the on/off valve hose-to-applicator of each chemical hose; "A" labeled chemical hose to "A" labeled (red striped) foam applicator hose, the unlabeled hose to the unlabeled (unstriped) foam applicator hose. Tighten each connection using two adjustable wrenches (photo F).

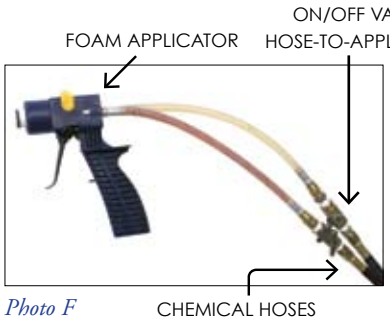


Photo F

Pressurization *(steps 15-26)*

15. Engage the safety on the foam applicator (photo G).

16. Verify that the pressure control valves on the regulator are backed out to eliminate nitrogen flow.

17. Open the nitrogen bottle valve by turning the knob on top of the cylinder counter-clockwise. If a hissing sound occurs, further tighten the nitrogen regulator assembly pressure control valve with an adjustable wrench.

18. Verify the nitrogen cylinder pressure using the center gauge of the nitrogen regulator assembly. **Replace nitrogen tank when pressure falls below 500 psi.**

19. Slowly turn the left regulator pressure control valve clockwise until the proper pressure setting of 150 PSI is obtained. If a hissing sound occurs, further tighten the yellow-tagged nitrogen hose set connection to the nitrogen regulator assembly and/or the nitrogen intake valve connection on the "A" tank using an adjustable wrench. If the left gauge fails to indicate a pressure setting, contact your Convenience Products Sales Representative.

20. Slowly turn the right regulator pressure control valve clockwise until the proper pressure setting of 150 PSI is obtained. If a hissing sound occurs, further tighten the yellow-tagged nitrogen hose set connection to the nitrogen regulator assembly and/or the nitrogen intake valve connection on the "B" tank using an adjustable wrench. If the right gauge fails to indicate a pressure setting, contact your Convenience Products Sales Representative.

Photo G

21. Slowly open the nitrogen intake valve of each tank until the handles are parallel with the nitrogen hoses.

22. Slowly turn on the chemical tank valve of each tank until the handles are parallel to the chemical hoses.

23. Slowly turn on the on/off valves tank-to-hose until the handles are parallel to the chemical hoses.

24. Slowly turn on the on/off valves hose-to-applicator until the handles are parallel to the chemical hoses.

Verify that ALL valve connections are tight and that no chemical leaks are present.

25. Verify that the foam applicator safety is engaged.

26. IMPORTANT Refer to Safety Precautions for proper personal protection equipment prior to use.

SEE "CALIBRATION INSTRUCTIONS" before continuing to step 27.

Calibration Instructions

Equipment needed: Scale capable of weighing in grams, paper lunch bags, calibration nozzles, calculator.

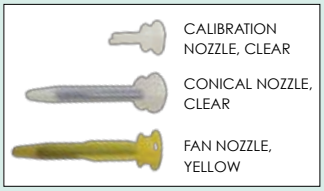


Photo H

i. Ensure chemical temperature in tanks and hoses are 70°F (21°C) or higher.

ii. Set nitrogen regulator pressures at 150 PSI.

iii. Remove nozzle (Photo H) from foam applicator, disengage the foam applicator safety and dispense chemicals in an appropriate waste container to verify proper chemical flow while purging air from the hoses.

iv. Weigh and record the weight of each empty bag so that its weight may be deducted from the total weight of the filled paper bags.

v. Engage safety and place calibration nozzle on the foam applicator.

vi. Hold the two bags together, disengage safety, place one tube in each bag and squeeze trigger for six to eight seconds.

vii. Engage foam applicator safety.

viii. Weigh bags separately. Always divide the weight of bag B into the weight of bag A. Acceptable ratios are 1.08 to 1.16.

Example
A: 208g (weight) – 8g (bag weight) = 200g

B: 190g (weight) – 8g (bag weight) = 182g
Ratio: 200 ÷ 182 = 1.10

ix. After successful calibration, continue to step 27.

NOTE: If verification of regulator reading is necessary, install pressure gauges in line with the regulator. Verify both sides. To verify corresponding pressures of tanks, install pressure gauges in line with each tank. Perform this task on the nitrogen inlet valve. Should pressure need to be reduced in a tank, slowly bleed off pressure from the nitrogen intake valve. Never bleed any tank below 120 psi.

x. If the ratio is too high increase the pressure of the B tank, and if the ratio is too low increase the pressure of the A tank. *For best results, perform pressure adjustments in 10 psi increments.*

27. Clean any chemical from the front of the foam applicator barrel by wiping with a clean rag (photo I).
28. Place an unused conical or fan nozzle on the barrel of the foam applicator.
29. Disengage the safety on the foam applicator. The Touch 'N Seal Refill System is now ready for operation.
30. If at anytime during dispensing foam quality is suspect, first replace the nozzle. If nozzle replacement does not solve the problem, repeat the calibration process.

NOTE: If spraying has stopped more than 30 seconds, foam in the nozzle will begin to cure and clog. System performance will be compromised. Replace the used nozzle with an unused nozzle. Higher temperatures speed curing, while lower temperatures slow curing.

Photo I

Nozzle Replacement

1. To replace the used nozzle, engage the safety on the foam applicator.
2. Grasp the foam applicator in one hand and the used nozzle in the other. Twist the nozzle and pull it off the barrel.
3. Place an unused nozzle on the barrel of the foam applicator by pushing and twisting the nozzle until firmly locked into place. The Touch 'N Seal Refill System is ready for operation.

Foam Applicator Operation

The foam applicator provides greater flow control and minimizes waste when used properly. The following operating instructions ensure maximum efficiency and performance of the foam applicator.

1. IMPORTANT Refer to Safety Precautions for proper personal protection equipment prior to use.
2. VERIFY THAT THE SAFETY IS ENGAGED WHEN THE FOAM APPLICATOR IS NOT IN USE.
3. Attach an unused nozzle and disengage the safety on the foam applicator.
4. To meter the foam applicator , engage the trigger one-third to one-half.
5. After spraying, engage the safety on the foam applicator.

Never spray foam more than one inch thick in a single application. Allow foam to cool between applications to avoid spontaneous combustion.

SYSTEM SHUTDOWN PROCEDURE

(For end of day, replacing nitrogen tank or returning to Convenience Products)

1. Engage the safety on the foam applicator.
2. Clean any chemical from the front of the foam applicator barrel by wiping with a clean rag (Photo I).
3. Reattach the used nozzle. This provides an airtight seal during storage.
4. Turn off all valves.
   - 2 chemical tank valves
   - 2 on/off valves hose-to-applicator
   - 2 on/off valves tank-to-hose
   - 2 nitrogen intake valves
5. Turn off the nitrogen cylinder by turning the valve in a clockwise direction.
6. Rewind foam applicator and chemical hose assembly without draining. Store off ground.

STORAGE

Store in a dry area between 60°-80°F (16°-27°C). Short term storage between 40°-60°F (4°-16°C) is permitted. DO NOT store at temperatures above 120°F (49°C), near steam, open flames, sparks, hot water pipes, chimneys or heat vents.

If a partially used system remains inactive for a period of time, the system should be pressurized and purged every two weeks by dispensing product until chemicals flow forcefully. This will prevent crystallization of the chemical and clear "old" product from the hoses.

Follow instructions in SYSTEM SHUT-DOWN PROCEDURES and STORAGE.

Unopened chemical tanks have a shelf life of approximately one year.

CAUTION

Building Codes

In many areas, building codes may restrict the use of cellular plastics or polyurethane foam as exposed, finished material applications. Under certain application codes, the use of these materials may be prohibited. The foam produced by this product is organic and may constitute a fire hazard if improperly applied. Consult local building codes.

Surface Temperatures

Polyurethane foam should not be used in direct contact with chimneys, heat vents, steam pipes, or other surface areas that exceed 240°F (116°C). The cured foam should not be left exposed or inadequately protected when used as an interior and exterior finishing material. In all applications, it is strongly recommended that the foam be protected by approved facings and coatings.

Open Flame

Do not operate the system or smoke in close proximity to an open flame. Welding on or near cured polyurethane foam requires special precautions.

Excessive Foam

Do not apply in layers exceeding one inch at a time, as this may result in spontaneous combustion. For a cured foam thickness greater than one inch, dispense foam in multiple layers allowing each foam layer to dissipate the heat between sprayings.

SAFETY PRECAUTIONS

WARNING: These instructions are designed to protect users who follow the safety precautions and wear recommended protective equipment. However, accidents may result from misuse, carelessness, or disregard of cautions and warnings contained within this manual.

Use only in a well ventilated area or with proper respiratory protection.

DO NOT breath vapor or spray. In unventilated areas, it is recommended that respirators not be removed for at least 15 minutes after use.

Inhalation of vapors or mist at concentrations in excess of permissible limits may result in the development of respiratory sensitization. Skin contact with diisocyanates may play a role in respiratory sensitization. Once sensitized, a person may experience a hypersensitive reaction when exposed to very low concentrations of diisocyanate.

Anyone who has been sensitized in the past should not operate nor be in close proximity to the operation of these systems. Depending on the potential for exposure some or all of the following personal protective equipment may be required: Safety glasses, chemical goggles or face shields, gloves, aprons or coveralls, footwear, chemical protective jackets and or pants. Avoid contact with skin. May cause irritation or sensitization. If skin contact occurs: Remove contaminated clothing; wash skin with soap and water. If irritation occurs or persists, seek medical attention. Avoid contact with eyes. If contact with eyes occur, flush with clean, low pressure water for 15 minutes while holding eyelids open. Seek medical attention. Avoid skin contact. Cured foam is difficult to remove but is not a health hazard. To remove foam from the skin, wash with soap and water and rub carefully. Avoid overfilling restricted spaces. The reaction of these chemicals causes expansion and may exert enough force to cause an uncontrolled stream of foam, spraying the work area and possibly the operator.

Always engage FOAM APPLICATOR safety when not in use. For more specific information about the chemical components "A" and "B", refer to the appropriate Material Safety Data Sheet (MSDS). KEEP OUT OF REACH OF CHILDREN.