# SAFETY

OPERATIONS CHALLENGE™

## Situation:

While a facility crew works in an enclosed aeration tank, a coworker slips and falls into a sludge pile, twisting their ankle.

The in-plant rescue/repair team is immediately called to the scene. Team members will LOTO the blower valve, open a relief valve, properly enter the confined space, remove the downed worker, decontaminate the worker, finish the repair by replacing five (5) air diffuser membranes and two retaining rings, inspect the air pipe for debris, remove all rescue equipment, returning it to the proper location, and putting everything back into operation.

## Directions:

For this event, teams will only supply what is listed in the "Equipment Provided by Teams." Three-minute equipment check: The team will be allowed onto the platform to inspect all equipment and supplies for three minutes before the event begins.

## Three Minute Precheck:

Team members will start the three-minute precheck behind the start line just like the start of the event, and the team captain will call the "START".

The three-minute check will include adjusting entrants' harnesses; the victim's harness will be preadjusted by the judges. A team member will set the torque wrench from 0 ft/lb to 30 ft/lb. All equipment will start at a predetermined spot but may be moved within the equipment storage area, except the tripod, winch, both SRLs, blower, and 4" Victaulic Butterfly Valve, which must start in the designated spots. 4" **Victaulic Butterfly Valve** and blower cannot be switched around on the platform.

Judges will not answer team questions during the three-minute inspection time or during the event. All questions will be answered on Monday during the pre-competition meeting. This is done to ensure all teams receive the same instructions.

There are four distinct roles, as detailed below. These roles are not interchangeable during the event.

- Two team members will ***verbalize*** being a **"Qualified Entrant."** (These individuals must be the entrants performing the rescue and repair.)
- One team member will ***verbalize*** being the **"Safety Supervisor."** (This individual must make the 911 call.)

- ★ One team member will ***verbalize*** being the **"Qualified Attendant"** (This individual must perform the gas monitoring during the event.) and then demonstrate the powering on and initial testing of the **MSA** gas detector during this time, by performing and ***verbalizing*** the following steps:

a. You must HOLD the power button until the unit beeps

b. Once the gas detector is on, Verbalize "GAS DETECTOR ON."

c. Attach hose to the Gas Detector.

d. Allow unit to finish powering on self-test.

e. Use your thumb to block the end of hose and verbalize "BLOCKING PUMP".

f. Remove hose from gas detector and neatly coil hose.

g. Leave the gas detector on.

The head judge will inform the team captain when one minute remains, when thirty seconds remain, and the end of the three minutes. At the end of the three minutes, all team members must be in the starting area.

The only equipment that can be stacked together is the five diffuser membranes and four blue paper towels with the grease, wooden sticks, and screwdrivers on the blue towels. If anything has been pre-assembled, disassembled, stacked, or relocated, the head judge will instruct the team to disassemble/reassemble the equipment prior to starting. If there is still pre-time left, no penalty will be assessed; however, if the three minutes of pre-time have been used up, a penalty for excessive pre-check will be assessed. All equipment must be returned to the equipment storage area behind the line at the end of the three-minute equipment check. The blower hose strap will begin pulled tight across the blower and the blower power will remain off at this time. The ladder must hang from the hooks, not rest on them, and the safety rope must be coiled up on the hook, not touching the ground.

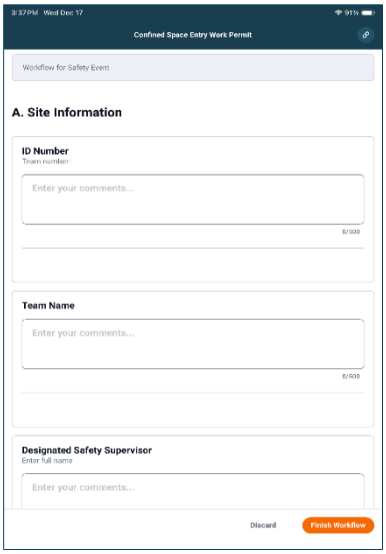
All entrants' and attendants' names may be entered into the electronic permit at this time.

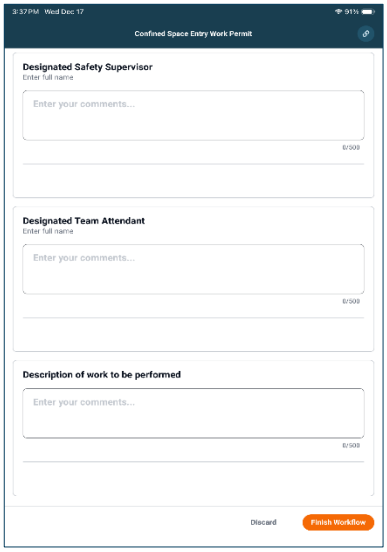
# Operations Challenge 2026
# opsCTRL Instructions for Safety Event

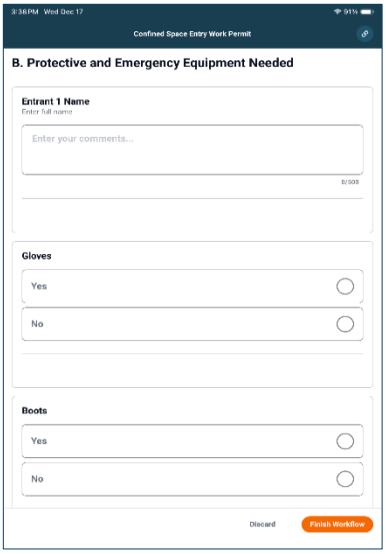
## 3-Minute Equipment Check

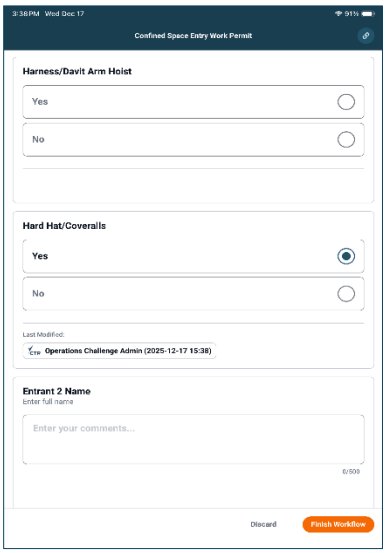
- The Confined Space Entry Work Permit will be open when the teams begin the 3-minute equipment check.
- iPad will start and finish in the Wall File for protection
- Sections A and B can be completed at this time.
- Gloves may be removed from the hands of the person completing the permit.
- The “ID Number” under Section A will be the Team number.

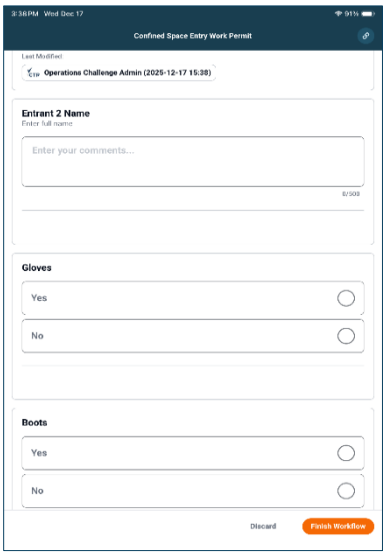
  Under Section A “Description of work to be performed”, type in “diffuser replacement”.



## Start of the event

1. Team members will start behind the designated starting line (Not within the decontamination zone)
2. The team captain will call the 'START"
3. One team member, "***Safety Supervisor"***, will immediately proceed to call 911 and verbalize "**911, WE HAVE A COWORKER DOWN**". ***This team member cannot assist in any other part of the event until 911 has been called.***
4. The locks, tags, hasp, and keys will start on the Lock Out - Tag Out (LOTO) board and **must end on the board**. A penalty will be assessed for damaging the LOTO board during the event. The tags must be completed, legibly signed, and dated by each person. The date on the tags must be the actual competition date!!! The date format will be MM/DD/YY (E.g., 09/30/26). Keys for LOTO locks must be controlled and secured by the entrants at all times. (No leaving keys lying on the platform, etc.)
5. Both entrant persons will follow LOTO procedures and LOTO the 4" **Victaulic Butterfly Valve** that's simulating supplying air to the air diffusers. After LOTO is done, the ¾" test cap ball valve must be opened and left open, verbalizing **"VALVE OPEN"** to simulate releasing any pressure.
6. The entrants will put on full-body harnesses. The harness must be adjusted to a proper fit.
7. The tools, retainer rings, grease in the small, sealed container, wooden stick, four sheets of blue towels, and diffuser membranes will be placed in the tool bag. The tube of grease isn't used in the event; only the amount of grease that is placed in the 1.3 oz container by the judge. Not all of the grease in the container will be used.
8. The **Victaulic Butterfly Valve** must be closed and locked out before gas readings are started.
9. One team member, the "**Qualified Attendant**", will turn on the gas detector (the gas detector should have been left on after the three-minute check) and then test the manhole atmosphere for 30 seconds using a gas detector and a provided stopwatch.

    a. Attach the hose to the top of the pump, making sure that the side of the hose that is shortest from the tape markings is attached to the pump. The first tape mark will be 18" from the meter, and there will be 18" between the tape marks.

    b. ***Verbalize*** **"GAS DETECTOR ON"**

c. Use your thumb to block the end of the hose and ***verbalize*** **"BLOCKING PUMP"**.

d. Release the hose and ***verbalize*** **"PUMP CLEAR."**

e. Insert the hose into the hole in the **manhole cover** test hole, making sure that the hose is inserted to a point between the two tape marks. Hose cannot be tangled or knotted.

f. The "qualified attendant" may NOT complete other tasks during the 30 seconds.

g. Begin monitoring the space for 30 seconds.

h. At the end of 30 seconds, record gas readings in the electronic permit and ***verbalize*** "**GAS READINGS GOOD."**

i. Remove the hose from the pump.

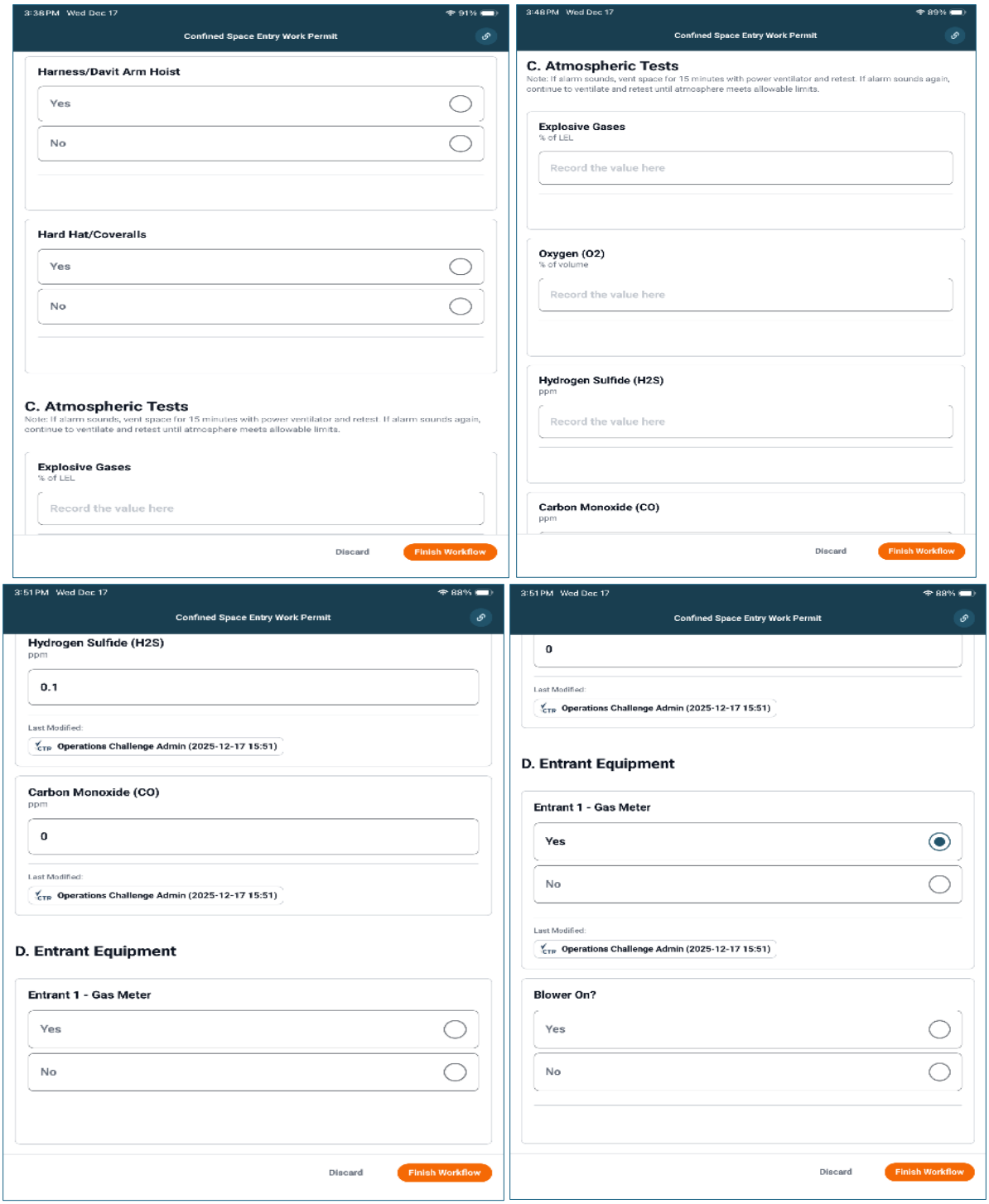
j. Remove the gas detector from the pump.

k. Attach the gas detector to the FRONT of the first entrant's harness or another area outside the entrant's uniform (a clip of some form will be provided to facilitate this). The monitor cannot be placed in a pocket or inside the shirt.

10. Items under Sections C, D, and E of the Work Permit must be completed after the 30-second test and before anyone breaks the plane of the manhole.
11. Any acceptable readings (considered safe for entry by OSHA) may be entered on the permit after the 30-second test.
12. Reading will be written to the tenth decimal point. Example: oxygen of 20 PPM will be written 20.0 PPM.

**Notes**:

- Section E will not show up until the "Blower On?" field is "Yes".
- Entrant must sign his/her own signature box.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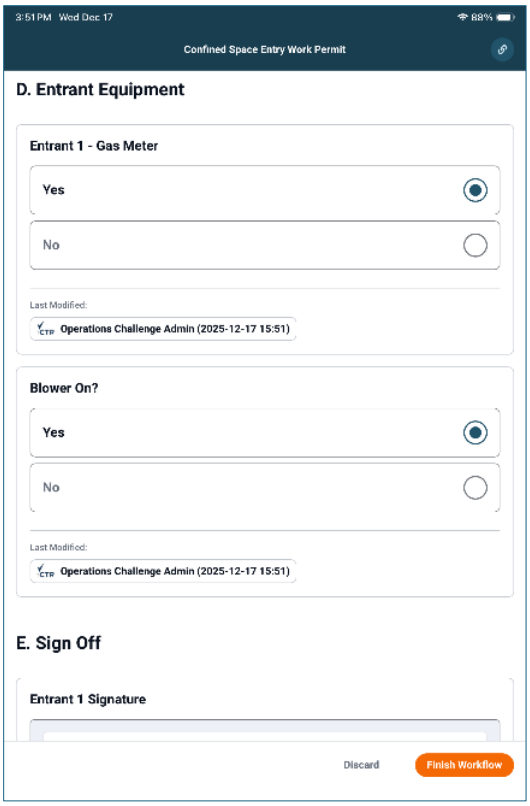
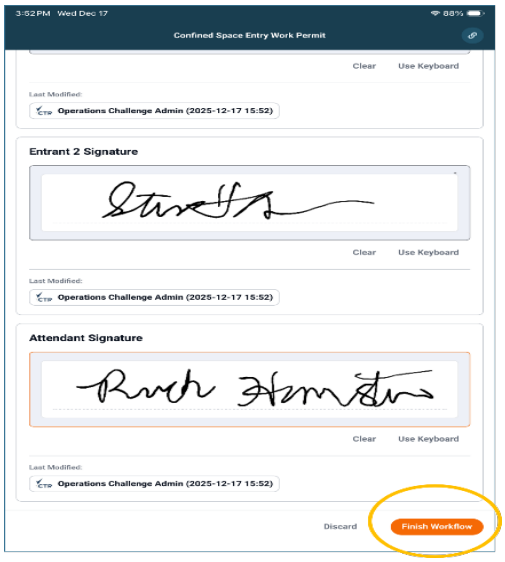
91%
Confined Space Entry Work Permit
Harness/Davit Arm Hoist
Yes
No
Hard Hat/Coveralls
Yes
No
C. Atmospheric Tests
Note: If alarm sounds, vent space for 15 minutes with power ventilator and retest. If alarm sounds again, continue to ventilate and retest until atmosphere meets allowable limits.
Explosive Gases
% of LEL
Record the value here
Discard
Finish Workflow
3:48 PM Wed Dec 17
89%
Confined Space Entry Work Permit
C. Atmospheric Tests
Note: If alarm sounds, vent space for 15 minutes with power ventilator and retest. If alarm sounds again, continue to ventilate and retest until atmosphere meets allowable limits.
Explosive Gases
% of LEL
Record the value here
Oxygen (O2)
% of volume
Record the value here
Hydrogen Sulfide (H2S)
ppm
Record the value here
Carbon Monoxide (CO)
ppm
Discard
Finish Workflow
3:51 PM Wed Dec 17
88%
Confined Space Entry Work Permit
Hydrogen Sulfide (H2S)
ppm
0.1
Last Modified:
CTP Operations Challenge Admin (2025-12-17 15:51)
Carbon Monoxide (CO)
ppm
0
Last Modified:
CTP Operations Challenge Admin (2025-12-17 15:51)
D. Entrant Equipment
Entrant 1 - Gas Meter
Yes
No
Discard
Finish Workflow
3:51 PM Wed Dec 17
88%
Confined Space Entry Work Permit
0
Last Modified:
CTP Operations Challenge Admin (2025-12-17 15:51)
D. Entrant Equipment
Entrant 1 - Gas Meter
Yes
No
Last Modified:
CTP Operations Challenge Admin (2025-12-17 15:51)
Blower On?
Yes
No
Discard
Finish Workflow

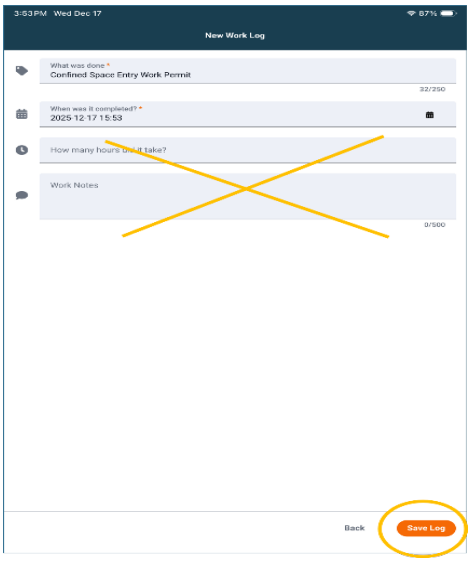



13. Once items under Sections C, D, and E are completed, be sure the Team saves the Work Permit/Workflow.

**Note**:

- After clicking “Finish Workflow”, a “New Work Log” prompt will pop up. You do not need to enter information on this prompt. (See image below.) You only need to click “Save Log,” as this will allow the judges to review your work permit entry.



14. The **3M Tripod (3M DBI/ Sala 3-way combo unit)** unit will be assembled and placed over the manhole. The chains must be adjusted to the tenth link; the ninth and eleventh links will be taped. The tripod must be fully assembled over the manhole with all retrieval equipment on it before the entrant can be connected to the SRL or winch combo unit. The entrant that is connected to the SRL, which doesn't allow the attendant to crank you back to the manhole opening, must be connected via a lifeline. Lifeline must be tied off to the railing before the entrant breaks the plane. The entrant connected to the lifeline rope must disconnect from the SRL immediately after entry (both feet on the floor). The entrant on the SRL/winch combo must remain connected to their SRL while in the manhole.
15. Remove the **manhole cover**. The person who removes the cover must be an entrant and be connected to the SRL or winch combo. Once half the cover is off the hole, the second entrant may assist in the removal, but may not reach over the open hole. **The cover cannot be dragged across the platform; a penalty will be assessed.**
16. Install the blower saddle vent into the manhole; attach the 90-degree fitting to the saddle and attach to the foot plate. Place the blower approximately 5 ft from the manhole and attach the blower hose to the 90-degree fitting. **Electrical Power will be supplied to the blower unit.** Turn the blower on. The blower must be fully in service before any body part breaks the plane.
17. Place the manhole ladder in the manhole. Entrants will enter and exit the manhole via the portable manhole ladder. The ladder must be installed carefully and correctly, without hitting the victim. The ladder must remain in the manhole while any member is in the confined space. A team member must stabilize the ladder by holding onto the top black handholds with both hands whenever team members are on the ladder. At no time should both entrants be on the ladder. The tripod cannot be used as a handhold to assist with entering or exiting the manhole.
18. The first entrant must have the gas detector attached to the front of their harness, and the meter must be on the last entrant to exit the confined space.
19. The first entry person will put a full-body harness on the victim. The entry team will have to carry the victim face-up to the hole for rescue (no part of the victim should touch the floor during the team carry). The arm, leg, and chest straps of the harness must be on the victim, and all buckles must be latched before lifting the victim with the winch. Another team member will lift the victim from the space using the winch. A penalty will be assessed for bending the victim backwards to attach the cable to the harness or any unnatural movement that would cause further injury at any time while handling the victim.

20. One entrant must maintain control of the victim until the victim's head breaks the plane of the manhole. The victim is the primary concern. The first entrant must begin victim aid/rescue. The entry person cannot lift the victim to assist with the winching. At no time should the full weight of the victim be supported by any one team member.

21. The victim will be lifted out of the hole and then lowered back to sit on the edge of the platform to be disconnected from the winch. The victim must rest on the platform, and no weight should be held by a team member when disconnecting from the winch. Two team members will carry the victim to the chair in the designated area. Do not drag the victim; all body parts must be off the ground (floor of the platform) while moving the victim to the chair, and the shower must be turned on. The team member acting as the attendant must remain at the manhole at all times, facing the hole within arm's length of the tripod, except when assisting in carrying the victim.

22. Teams will attach a rope to a spring link and attach it to the tool bag. Tie the tool bag rope to a rail on the platform, lower the bag to the entrants through the manhole opening (at no time may tools or the bag be lowered down if an entrant is on the ladder or hand-passed through the opening). The tool bag may be disconnected from the rope to carry to the diffuser location. The end of the "tool rope" must be tied off to a railing at all times when the bag is in the confined space. The tool bag, equipment, rope, and link can remain together at the end of the event, but the rope must be untied from the rail.

23. Team entrant will unscrew the diffuser rings, remove old rubber membranes, and replace five new **Xylem** rubber membranes, wiping each membrane before installation with a rag and using a small amount of grease for lubrication. Two broken rings will be replaced with a new ring. (Broken ring will be marked). Each ring must be torqued to 30 ft lbs. using **Xylem's** specific tool and a 3/8 torque wrench. The torque wrench is to be left at 30 ft/lb. at the end of the event. Each entrant must remove and replace at least two rings and two rubber membranes. One entrant must remove the end cap on the diffuser pipe, inspect the air diffuser pipe, and verbalize "pipe is clean," then replace the end cap and tighten it by hand. All tools and parts must be placed in the bag and returned to the top of the platform with the rope. The area must be clean of grease and debris. Used wooden grease sticks must be wrapped in a blue towel before being placed into a tool bag.

24. The team member tending the fall protection system may assist with the manhole exit of the entrants. A team member must stabilize the ladder by holding onto the top black handholds with both hands whenever another team member is on the ladder. This will be applicable to entry and exit. The **3M**

**Tripod** cannot be used as a handhold to assist with entering or exiting the manhole.

25. The entrant attached to the retrieval rope must reconnect to the SRL before stepping onto the ladder.

26. Team members will replace the **manhole cover**. During cover replacement, the entrant who is still connected to the SRL or winch combo unit must be the one closest to the open hole. The cover must be replaced before the **3M Tripod** is moved from over the hole. The **3M Tripod** unit must be fully disassembled to its original condition, with all pins in their respective holes, the chain extended back to its full length and returned to its original storage area. The winch cable must be within the length of the weight and hook.

27. The ¾" test cap ball valve will be closed, and LOTO equipment will be removed from the 4" **Victaulic Butterfly Valve** and opened. LOTO locks, keys, and tags must be returned to the LOTO board in their proper locations.

28. All other equipment must be disassembled and stored behind the line in the equipment storage area. The retrieval rope and ladder must be returned to their respective hangers. The rope should be rolled up so it does not touch the floor or hang outside the railings. No items may be stacked, overlapping, or hanging over the rails at the end of the event, including the toe kick rail. Touching the inside of the toe rail is ok.

29. The blower turned off, the hose reinstalled in the blower, and the strap tightened. The full body harnesses may remain on the entry persons. Time will end when all team members cross the finish line, and the team captain calls "Stop."

30. All team members will stay in the finish area until released by the judges. Judges will collect the electronic entry permit, gas detector, stopwatch, and harnesses. Two team members will bring Randy to the lower floor level. Once the team has been released, they will leave the competition area. The captain will be escorted to a waiting area for review of the event with the head judge.

## Safety

Teams must take extra caution while assembling the **3M Tripod** and when placing it over the manhole. The entrant must be completely and correctly in the harness and attached to the SRL/combo unit that is fully attached to the **3M Tripod** unit before entering the manhole. At no time should the foot of any of the legs on the **3M Tripod** come off the floor while positioned over the manhole. A penalty will be assessed if this occurs. A more significant penalty will be assessed if the **3M**

**Tripod** tips over or if the weight is supported by a team member. A judge will stop the event but not the stopwatch if the legs are not properly extended and locked in place, with all foot pads flat to the floor before entry. The team will need to address the problem.

The team members making entry and exit must be attached to an SRL combo unit or to the SRL and rope for fall protection and retrieval. Three points of contact will be required. Ladder rungs must be used; no sliding down the sides. Ladder rungs may not be skipped. Ladder safety during usage will be required.

At the beginning of the event, no team member shall be on the ladder when the tool bag is lowered into the hole. At the end of the event, no team member shall be on the ladder when the tool bag is raised out of the hole. The bag must clear the plane before team members step onto the ladder. The bag can be lowered at any time if no one is on the ladder.

No one team member may lift/hold a victim off the ground by themselves.

The **Manhole Cover Direct** cover must be reinstalled on the manhole opening as soon as the last entrant has exited and the equipment has been removed from the manhole opening.

Team members may not run!!! No member should have both feet off the ground at the same time.

## Atmosphere Test

Turn the **MSA** meter on first; follow the procedures outlined in Step 9 (a-k). With one end of the hose attached to the meter, place the other end of the hose into the **manhole**. There will be two marks on the hose 18" apart. One should be through the test hole (under the platform floor), with the other mark above the test hole cover (above the platform floor). Once in this position, the 30-second test will begin. A stopwatch will be provided to each team; this is for the team to time the 30-second atmosphere test. The team member using the meter must remain with the meter and keep track of their time. Once the initial test is completed, remove the hose from the manhole and from the meter. The **MSA** gas detector must enter the manhole with the first entrant. It must remain in the confined space until the last entrant has vacated the manhole.

## Blower

The blower power cord will be plugged in. The blower must be turned on once inserted into the hole and shut off before being removed from the hole. The blower saddle must remain in the hole until both entrants have completely vacated the space.

## 3M Tripod Unit

The **3M Tripod Unit** must be set up with the legs extended so that the pins are placed in the 6th hole up. All three devices must be attached to the tripod before any entrant enters. All pins must be reinstalled in their proper locations at the end of the event, and the tripod legs must be returned to the 1st hole location. A penalty will be assessed for slamming the tripod on the deck to assist in disengaging and closing the legs during disassembly. The tripod feet must not leave the floor once placed over the manhole until the last entrant has exited the manhole.

## Permit

All lines on the permit must be completed. Entries for Sections A & B must be completed during the three-minute check. Entries for Sections C, D, & E must be completed during the timed event. These must be made after the 30-second test. Both entrants must sign the permit before anyone enters the manhole.

Any acceptable reading (considered safe for entry by OSHA) may be entered on the permit after the 30-second test. Readings will be written to the tenth. An example of oxygen at 20 PPM will be written as 20.0 PPM.

Gloves may only be removed from the hands of the person completing the permit while entering information on the permit. The Confined Space ID number will be the Team number.

## Decontamination Procedures

Place the victim in the armchair below the emergency shower. Activate the shower by pulling the handle to its furthest downward position.

## Personal Hygiene

Do not place anything in your mouth, including gas detectors, pencils, pens, or straps. This will result in a penalty.

## Tools

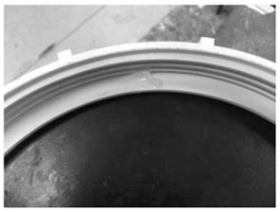
The torque wrench will be set to 0 ft/lb and then to 30 ft/lb during the three-minute precheck, and will remain at that setting after the event. If, at the end of the event, the reading differs from 30 ft/lb, a penalty will apply.

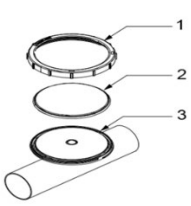
## Sanitaire Silver Series II Diffuser Replacement

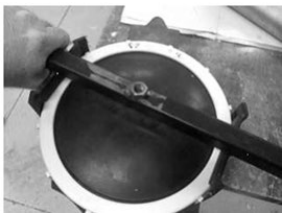
All diffuser membranes and two rings will be replaced in this part of the event.

**Note: Discard the rubber O-ring that is in the end cap; it's not used in the event.**

1. Each Team member must remove, replace, and tighten a minimum of two diffuser assemblies
2. Remove the existing retainer ring (diagram labeled 1) with supplied tool. Set aside three rings for re-use
3. Two retainer rings with markings must be replaced
4. Remove the diffuser membrane (diagram labeled 2) from all five diffuser assemblies. The two supplied Craftsmen screwdrivers can be used to assist with the removal.
5. Use the blue towels to wipe off any debris on five new replacement membranes – **must verbalize "cleaning membrane."**
6. Use the blue towels to wipe off any debris on holders (diagram labeled 3) with a paper towel – **must verbalize "cleaning holder."**
7. Place five new membranes on holders
8. Two new retaining rings will be used, and three old retaining rings will be reused
9. Wipe off all five retaining rings with a paper towel – **must verbalize "cleaning retainer ring."**
10. Using a wooden stick and grease supplied, apply a **SMALL** dab of grease (¼ the size of a pea) in 3 places on the underside of each retaining ring (**not the threads**)
11. Manually screw on the diffuser ring to the holder until it makes contact with the diffuser
12. Using the supplied wrench and a 3/8" torque wrench, tighten all rings to 30 ft-lbs.
13. Remove the end cap and visually look into the pipe to see if it is clean – **must verbalize "Pipe is Clean."**
14. Replace the end cap hand-tight.
15. All tools and spare parts will be placed into the tool bag and removed from the work site.
16. The work site must be free of debris and grease.





## Equipment Provided for Competition:

- 16ft X 16ft platform (6ft height) with a 36-inch circular opening in the center of the floor.
- Tripod (3M DBI/ Sala 3-way combo unit, refer to flyer)
- Blower and Vent Tube Assembly
- 1- Rope for emergency retrieval (refer to 3M flyer)
- 8-foot manhole ladder (Werner Model M7108-1)
- Tool Bag (Home Depot 18" bag )
- Tool Bag Rope & Clip (30 Feet of 1/8" paracord - 160lb working load limit & 7/16" Spring Link – 340lb working load limit- Available at Home Depot)
- Phone to call emergency services
- Shower assembly and one armchair (Decontamination area)
- One stopwatch, a stylus, and two Sharpies
- One Lockout station, Grainger 61UJ05, with two locks, keys, and tags
- Manhole Cover Direct frame and cover
- Victaulic Butterfly Valve with two shut-off valves
- Xylem diffuser removal tool
- Xylem Sanitaire Silver Diffuser Membranes - Five
- Xylem Sanitaire Silver Diffuser Retainer Rings - Two
- Xylem tube of grease – One, Containers with Lids, 1.3 oz. Salad Dressing Container, Amazon
- Wooden popsicle sticks - 2
- 3/8" Craftsman Torque wrench - CRAFTSMAN 3/8-in Drive Click Torque Wrench 20-ft/lb. to 100-ft/lb. Item #1049188, Model #CMMT99433
- Exofit 3 D-Ring, USABB part numbers for the small is 65113, medium is 65114, and large is 65115
- Kimberly Clark 75130 SCOTT Blue Shop Towel Roll – Amazon (four towels used per team)
- Rescue Randy – 110 lb.
- MSA Gas Detector
- 2 CRAFTSMAN Screwdriver, 1/8-in x 2-1/2 in Slotted, Acetate Handle (CMHT65017)
- Wall File for iPad: Steel, Black, Item 45NG59, from Grainger, Mounted next to LOTO Board

## Equipment Provided by Teams

Teams will be required to supply and wear, as appropriate, only the following:

- Safety Shoes ANSI rating Z41-PT99
- Hard hats meeting ANSI standard ANSI Z89.1-2003 Type I or II (bump hats are not acceptable)
- Safety glasses/goggles ANSI rating Z87.1-2003
- Leather gloves and Mechanix style gloves allowed. (Baseball gloves, Golf gloves. Neoprene gloves, Gloves with fingertips removed, or holes in the glove are not acceptable.)


## Look for these confined space solutions from 3M at the upcoming WEFTEC Operations Challenge!

Tripod Full Kit does not include 3504430, 2000113, 1202754. Additional products must be purchased separately.


| Model # | Description |
|---|---|
| 8000000 | 7 ft. aluminum tripod w/adjustable locking legs, safety chains, rubber safety shoes containing spiked edges, top pulley assembly & mounting bracket base (8005048) |
| 3501102 | 50 ft. Ultra-Lok 3-way w/ Retrieval & Integrated Mounting Bracket - Galvanized steel wire rope |
| 3504430 | 30 ft. of 3/16" galvanized steel wire rope, thermoplastic housing, swivel hook |
| 8102001 | 60 ft. of 1/4" galvanized cable, mounting bracket & winch bag |
| 1402022 | 3M™ DBI-SALA® ExoFit™ X200 Comfort Vest Harness (Size Large) Additional sizes: 1402020 (Small), 1402021 (Medium), 1402023 (XL), 1402024 (XXL) |
| 2000113 | Steel carabiner, 3600 lb. self closing/locking gate (1-3/16" opening) |
| 1202754 | 5/8" polyester/polypropylene, snap hook one end, taped other x 30 ft. |
| 8005048 | Tripod mounting base: attaches to tripod leg, mates w/8100070 winch base |
| 8003238 | Leg mount pulley: attaches to tripod leg for routing of winch or SRL cable |
| 9503094 | Carrying bag for 7 ft. tripod (8000000) |
| **Tripod Kit (does not include hanging SRL, rope lifeline or carabiner)** | |
| 8301066 | 7 ft. (2.1 m) aluminum tripod, 60 ft. (18 m) Salalift™ II winch and 50 ft. (15m) Ultra-Lok™ 3-way SRL with galvanized cable, mounting brackets, carrying bags and leg mount pulley |

***For pricing information, on-site demonstrations, or additional technical information please reach out to your local 3M DBI-SALA Fall Protection Specialist or the 3M Inside Sales team at insidesales-fp@mmm.com .***

# Victaulic Safety OPS Kit Order Form

Kits can be purchased through any authorized

Victaulic

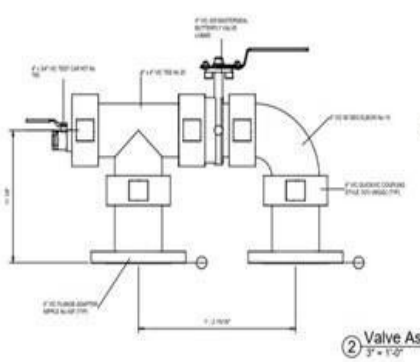
WEAO has sourced these from Noble:

mrae@noble.ca

Please provide the information requested below at the time of order:

Victaulic Safety Ops Kit Bill of Material:

| Item # | Description | Quantity |
|---|---|---|
| K040T60PYV | 4 T-60 TEST CAP W/VLV ASY PNT~ | 1 |
| F040020P00 | 4 TEE 20 ORG | 1 |
| FD87045PF0 | 4x6 150# FLT FCD FLG ADP NPL ~ | 2 |
| C040107PE0 | 4 107V QUICKVIC RIGID CPL EHP~ | 5 |
| F040010P00 | 4 90 ELL 10 ORG | 1 |
| V040761SE2 | 4 BFV VIC 300MS E HDL MEM STP~ | 1 |



② Valve Assembly with Test Cap

| Mark | Qty | Size | Description | Weight (each) |
|---|---|---|---|---|
| 01 | 1 | 4"x3/4" | VIC TEST CAP KIT No T60 | 3.10 lbs |
| 02 | 1 | 4" | VIC TEE No 20 | 11.25 lbs |
| 03 | 2 | 4" | VIC FLANGE ADAPTER NIPPLE No 45F | 18.50 lbs |
| 04 | 5 | 4" | VIC QUICKVIC COUPLING STYLE 107V (RIGID) | 5.00 lbs |
| 05 | 1 | 4" | VIC 90 DEG ELBOW No 10 | 7.01 lbs |
| 06 | 1 | 4" | VIC-300 MASTERSEAL BUTTERFLY VALVE LH&MS | 11.90 lbs |

TOTAL WEIGHT= 95.26 lbs

1. *Two team members will close the 4" valve, LOTO the valve, open the end cap test valve, before removing the manhole cover*
2. *Two team members will close the end cap, undo the LOTO, and open the valve after the manhole cover is replaced*

The Sanitaire OPS Kit can be sourced in Ontario through Pro Aqua. Contact Scott Dunlop @ SDunlop@proaquasales.com


# Operations challenge kit

## Sanitaire part number 1400000624018

Xylem's Sanitaire diffused aeration assembly is configured to be used for the WEFTEC Operations Challenge Safety Event. It includes an aeration distributor with (5) membrane diffuser holders and end couplings all glued to the pipe. It is supplied with (12) Sanitaire Silver Series II diffuser membranes, (12) diffuser hold down rings, (2) ½" fixed support assemblies (including one bent rod, two clamp halves, one retaining plate and four ½" nuts), one end cap with attachment nut, a diffuser wrench, and a tube of grease for diffuser assembly.

Price for this kit is $750.00 including shipping

*Not included, but required, are two lag bolts or other type bolts for attaching to suitable board, floor or supporting frame.

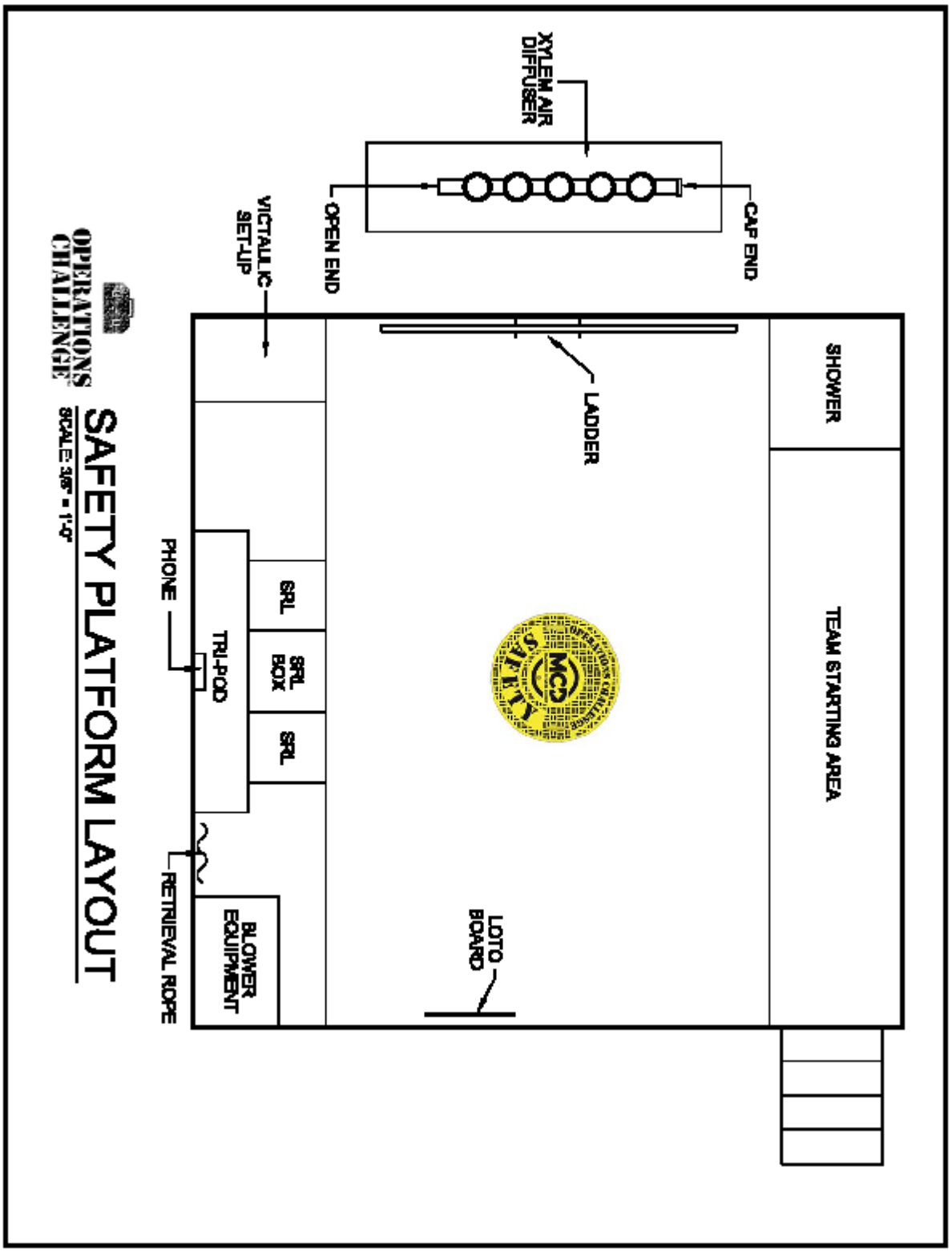
**To order**

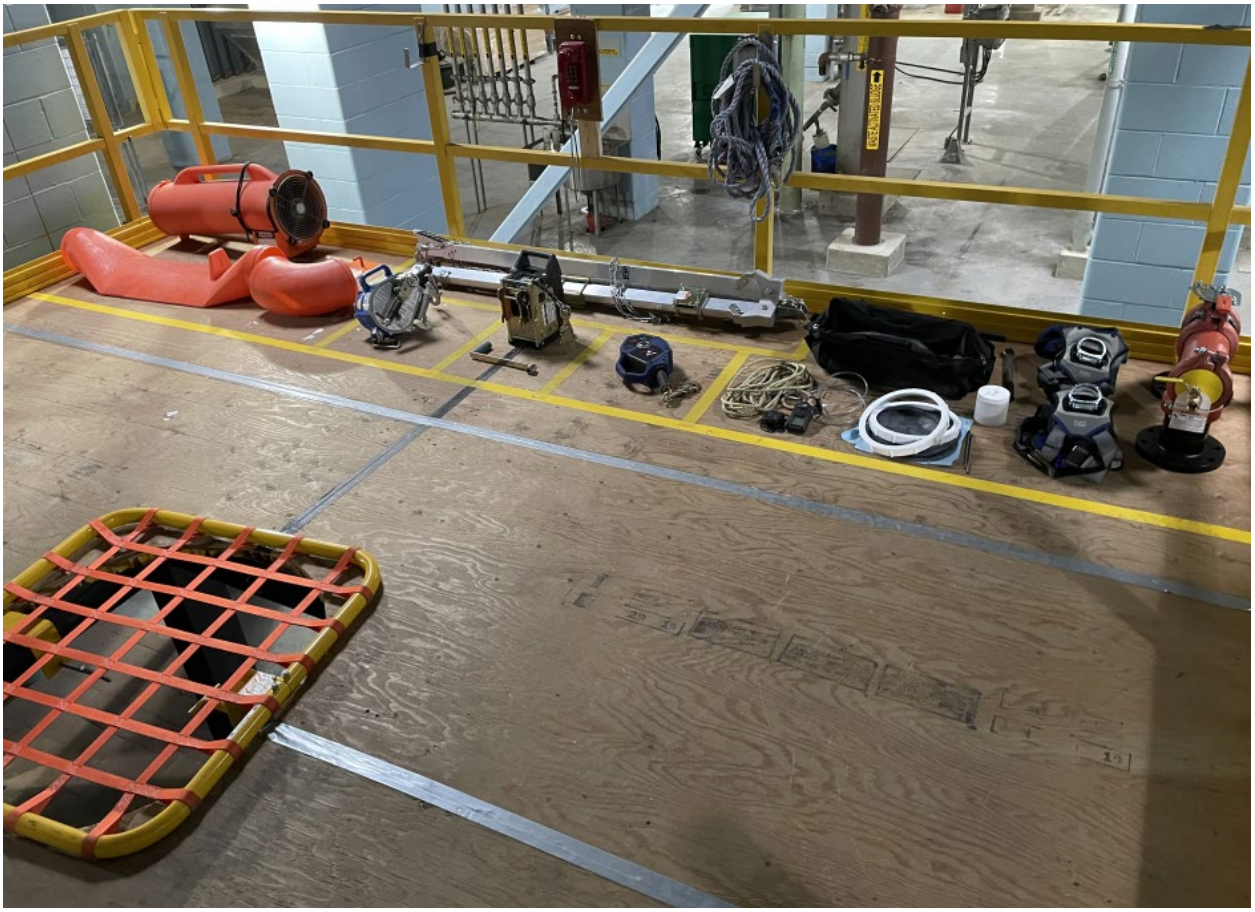
Please contact your Xylem Sanitaire manufacturers' representative.

SANITAIRE xylem


THIS SIDE

MSA Altair 4X Gas Detector


SHOWER
TEAM STARTING AREA
LADDER
XYLEM AIR DIFFUSER
CAP END
OPEN END
VICTAULIC SET-UP
PHONE
TRI-POD
SRL
SRL BOX
SRL
RETRIEVAL ROPE
BLOWER EQUIPMENT
LOTO BOARD
OPERATIONS CHALLENGE
SAFETY PLATFORM LAYOUT
SCALE: 3/8" = 1'-0"



| | | |
|---|---|---|
| 1. | SRL | 1’-7” x 1’-9” |
| 2. | SRL Box | 1’-10” x 1’-9” |
| 3. | SRL | 1’-7” x 1’-9” |
| 4. | Tri-pod | 6’-4” x 1’-3” |
| 5. | Shower | 3’ x 3’ |
| 6. | Team Starting Area | 13’ x 3’ |

Gas Meter Equipment, Tool Bag, Diffusers, and the tool area use the remaining area.