



# SUDZ-IT MINI & SUDZ-IT XL UTILITY RINSE SYSTEM

## Operator's Manual



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# SYSTEM OVERVIEW

Both SUDZ-IT models share the same operational concept: water flows through a cannister containing a solid wetting agent (either a block or donut). As water passes over the solid, suds are generated and delivered through a hose and brush or nozzle. This produces high-quality suds with a neutral pH suitable for turnout gear and SCBAs compliant with NFPA 1850.

For overhaul, the system injects wetting agent that reduces water's surface tension, enabling penetration up to seven times deeper than plain water to cool hot spots and extinguish smouldering materials.



## WET MITIGATION

Wet mitigation refers to the on-scene decontamination of gear immediately after an incident. Firefighters remain on SCBA air and use low-pressure water and suds to wash off debris. The SUDZ-IT brush produces a controlled stream of suds to help remove contaminants before the gear is doffed. After rinsing, gear is bagged and sent for thorough cleaning.

## OVERHAUL/MOP-UP

During overhaul, hotspots must be cooled and deep-seated fires extinguished. The SUDZ-IT systems inject a wetting agent (block or donut) into the water flow. Reduced surface tension allows water to penetrate deeply, ensuring that hot surfaces cool quickly and smouldering materials are extinguished.



# KIT CONTENTS

Kit	Components	Wetting Agent Type/Capacity
SUDZ-IT Mini Utility Rinse Kit	Cannister, 10 ft (3 m) quick-connect hose with SUDZ-IT soft-bristle brush, inline T-adaptor to ¾ in garden hose, 10 ft garden hose with spray nozzle, case of 5 SUDZ-IT Donuts, user manual and spanner.	Uses SUDZ-IT Donut wetting agents (5 donuts per case). Each donut weighs about .55 lb and is formulated with a neutral pH. The Mini kit weighs approximately 15 lb (6.8 kg). Not compatible with Blocks.
SUDZ-IT XL Utility Rinse Kit	Cannister, 10 ft (3 m) quick-connect hose with SUDZ-IT soft-bristle brush, inline T-adaptor to ¾ in garden hose, 10 ft garden hose with spray nozzle, case of 5 SUDZ-IT Blocks, Locking Rubber Base, user manual and spanner.	Uses SUDZ-IT Block wetting agents (5 blocks per case). Each block (≈2.2 lb) is dissolved at a ratio of 1 block per 1315 gal (≈5000 L) of water (0.5 % solution) for overhaul. Total kit weight is approximately 35 lb (15.9 kg).



# SAFETY AND HAZARD INFORMATION

The solid wetting agents used in SUDZ-IT systems are formulated with biodegradable surfactants and contain no fluorinated substances. According to the manufacturer, the wetting agents are classified as skin irritants (Category 2) and serious eye irritants (Category 1) under the globally harmonised system (GHS). Key safety precautions include:

- Avoid direct contact: Wear gloves and eye/face protection when handling Blocks or Donuts. Avoid skin contact and inhalation of dust or vapour. Wash hands thoroughly after handling.
- First aid measures: If the agent contacts eyes, flush with running water for at least 15 minutes and seek medical attention. If on skin, remove contaminated clothing and wash with soap and water. If inhaled, move to fresh air; for ingestion seek medical advice immediately.
- Environmental precautions: Prevent run-off from entering drains or waterways. Dispose of spent wetting agent and contaminated rinse water in accordance with local regulations.
- The cannister is a high-pressure device. Never open the lid while the system is pressurised. Before servicing, release pressure through the drain valve. Secure hoses to prevent whipping.



# ASSEMBLY AND SETUP

## PREPARING THE SYSTEM

1. Select an appropriate location. Perform decontamination outdoors or in a designated decon area with good drainage. Keep contaminated run-off away from storm drains.
2. Remain on SCBA air. When performing wet mitigation, firefighters should remain on SCBA until decon is complete to avoid inhaling contaminants.
3. Gather equipment. Ensure the cannister, brush, hoses, lever spanner and wetting agent (Donut or Block) are available. Inspect hoses and fittings for damage.

## LOADING THE WETTING AGENT

1. Depressurise the cannister. Open the small drain valve at the bottom of the cannister to relieve pressure. Verify that the system is not connected to a pressurised water source.
2. Remove the lid. Use the supplied lever-type spanner if the lid is tight. Lift the lid and remove the inner basket.
3. Insert the wetting agent. Unwrap a Donut (Mini) or Block (XL) and place it in the basket. For Donuts, ensure it sits level; for Blocks, align with the guide rods. Do not add additional soaps or detergents.
4. Reassemble. Slide the basket back into the cannister, close the lid and hand-tighten until secure. Reattach the locking base if fitted.

## CONNECTING THE WATER SUPPLY

1. Supply source (Mini & XL): Connect the cannister inlet to a fire apparatus discharge or a hydrant using 1.5 in NH (NST) couplings. Idle pump pressure is acceptable for initial charging.
2. Discharge assembly (Mini & XL): Attach the 10 ft quick-connect discharge hose to the cannister outlet. Install either the SUDZ-IT soft-bristle brush or the spray nozzle on the discharge hose.
3. Pressurization checks: Charge the line at idle pump pressure and verify all couplings are tight and leak-free.



# OPERATION

## PRELIMINARY EXPOSURE REDUCTION - WET MITIGATION PER NFPA 1850 FOR PPE AND SCBA

1. Start water flow. Slowly turn on the water supply through the pre-connected fresh water line to the cannister. Maintain low pressure and low volume to prevent forcing contaminants into the gear.

2. Generate suds.

MINI: As water passes over the Donut wetting agent inside the cannister, neutral-pH suds are delivered to the brush and hose.

XL: Move the BYPASS/INJECT valve to the INJECT position. Water will pass through the wetting agent basket containing SUDZ-IT Block, producing neutral-pH suds at the brush.

3. Wash gear and SCBA.

- Use the soft-bristle brush with shut-off handle to gently scrub helmets, coats, trousers, gloves, and boots.
- Focus on high-contamination points such as closures, cuffs, collars, and interfaces.
- SCBA Washing: Gently scrub the harness, straps, backplate, and exterior facepiece. Firefighters must remain on air until PER is complete.

4. Switch to rinse.

MINI: Use the low-pressure spray nozzle to deliver clear fresh water for rinsing.

XL: Return the valve to BYPASS and use the low-pressure spray nozzle to deliver clear fresh water for rinsing.

5. Complete PER. Continue rinsing until contaminants are removed.

6. Open Drain Valve to drain water from cannister to avoid dissolving soap in remaining water



# FLUSHING AND MAINTENANCE

1. XL ONLY: Return the valve to BYPASS. Lower the BYPASS/INJECT handle until it aligns with the BYPASS marking. This stops injection of wetting agent.
2. Flush the system. Operate the water supply and discharge clear water through the hose until suds disappear. This purges residual wetting agent.
3. Drain the cannister. Open the dump/drain valve at the base of the cannister to remove water from the foam basket. Failure to drain the cannister will cause the solid wetting agent to dissolve completely, reducing shelf life.
4. Clean the brush and hoses. Rinse the brush bristles and hoses with clear water to remove residues. Inspect for wear or damage.
5. Dry and store. Allow components to air-dry. Store the cannister with the lid loosely fitted to allow ventilation.
6. Keep wetting agents in their original packaging in a cool, dry location away from incompatible chemicals (oxidising agents and acids).

# TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	REMEDY
No suds produced	Wetting agent not installed or fully dissolved; BYPASS/INJECT valve left in BYPASS position; water flow too low.	Check that a new Block/Donut is installed, raise the valve handle to INJECT, and gradually increase water flow.
Excessive suds / foaming	Valve fully open or high water pressure.	Partially close the BYPASS/INJECT valve to reduce induction and lower water pressure.
Water leaks at couplings	Couplings not tightened or damaged gaskets.	Turn off water, depressurize system and inspect couplings. Replace gaskets or tighten connections.
Valve difficult to move	Debris or scale buildup.	Flush the system thoroughly; remove and clean the valve if necessary. Lubricate moving parts with food-grade lubricant.
Block/Donut dissolves between uses	Cannister not drained after use.	Always open the dump valve to drain water and extend wetting-agent life.



# STORAGE AND TRANSPORTATION

**WETTING AGENTS:** Keep SUDZ-IT Blocks and Donuts sealed in the supplied packaging in a cool, dry place away from direct sunlight. Avoid storing near oxidising agents or strong acids.

**EQUIPMENT:** After cleaning and drying, store the cannister, hoses and brush in a designated locker or compartment. Ensure valves are in the closed position and hoses are coiled neatly to prevent kinks.

**TRANSPORTATION:** When transporting the system in apparatus or support vehicles, secure it to prevent movement. Do not place contaminated gear or equipment in passenger areas to avoid cross-contamination.

# MANUFACTURER SUPPORT

For additional information, replacement parts or training, contact:

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