ISTEC® Deco-Mobile Portable Decontamination Unit with Pool

Article Number: 15053000 - 15053000 (O) - 15053000 (E)



Applications

The Portable Decontamination Unit with Bund/Pool is a mobile emergency response system designed for the decontamination of personnel, equipment, or protective clothing exposed to chemical, biological, radiological, and industrial hazardous materials. Its highly portable design ensures rapid deployment at the hot zone, serving as an efficient emergency response system.

It is ideal for deployment in chemical plants, petrochemical facilities, refineries, laboratories, power plants, hazardous material storage areas, fire departments, civil defense/AFAD teams, and military units handling Chemical, Biological, Radiological, and Nuclear (CBRN) incidents. The system ensures rapid removal of contaminants from personnel during emergencies, drastically reducing exposure risks and preventing the spread of secondary contamination.

- **Corrosion Resistance:** Premium PVC-U piping network ensures maximum resistance against corrosion and harsh field conditions.
- **Quick and Practical Assembly:** Provides rapid, tool-free assembly and disassembly via coupling-type push-fit connections.
- **Environmental Friendly and Safe:** Features an integrated ~1,000-liter capacity containment pool, GRP floor gratings, and a drainage valve to safely contain hazardous runoff and eliminate environmental cross-contamination, offering a secure disposal method.
- **Ergonomic and Flexible Design:** Eliminates orientation misalignment or calibration issues common in traditional setups thanks to its fully adjustable directional nozzle system, complete with an auxiliary trigger-activated spray gun (hand shower) for detailed spot-cleaning.

Standards



EN 15154-6

TECHNICAL DETAILS

Operating Principle

The system operates on the principle of ensuring rapid and effective decontamination of personnel exposed to hazardous materials. Featuring 6 directional spray nozzles operating at a working pressure of 2–5 bar, the system delivers a total water flow rate of 60 L/min to ensure simultaneous and comprehensive washing of all body surfaces of the personnel inside the cabin. During the decontamination process, the individual is guided into the cabin, and hazardous runoff is washed off from top and sides via the spray nozzles. All contaminated water is collected in the approximately 1,000-liter capacity containment pool beneath the unit, completely preventing wastewater from spreading into the environment, and allows safe transfer and disposal of the collected water via an integrated drainage valve.

Assembly Steps

1. **Ground Preparation:** Place the unit on a flat, stable, and secure surface. Position the containment pool flat on the ground first.
2. **Frame and Tarpaulin Assembly:** Securely fit and mount the PVC tarpaulin cover onto the DKP painted steel support frame structure.
3. **Piping System:** Connect the decontamination pipes inside the pool by securing the coupling joints, ensuring the marked numbers on the components match perfectly. Check all spray nozzle connections.
4. **Water Connection:** Connect the system to a clean water source capable of supplying a working pressure of 2–5 bar; perform a leak test on hoses, valves, and couplings.
5. **Floor Gratings:** Place the high-strength GRP floor gratings inside the pool. Ensure the rubber feet are fitted beneath the gratings to prevent structural damage to the underlying PVC tarpaulin.
6. **Test and Operation:** Supply water to the system to verify that the 6-nozzle spray network functions correctly. The unit is ready for deployment once it is confirmed that wastewater is safely contained within the pool.

Technical Parameter	Description
Standard / Certificate	15154-6
Capacity	1 Person
Dimensions / Weight	90 x 120 x 100 cm / 80 kg

Technical Parameter	Description
Water Flow Rate	60 liters / minute
Operating Pressure	2 – 5 bar
Number of Nozzles	6 units spray nozzles
Containment Pool Capacity	~1,000 Liters
Material Construction	**Support Frame:** DKP Painted Steel **Piping System:** PVC-U Pipe **Tarpaulin Material:** PVC

Product codes according to features:

Product Code (P/N)	Description
P/N 15053000	ISTEC DECO-MOBILE DECONTAMINATION UNIT WITH GRP GRATINGS, BUND AND TARPAULIN (PVC PIPED)
P/N 15053000 (O)	ISTEC DECO-MOBILE DECONTAMINATION UNIT WITH GRP GRATINGS AND TARPAULIN (PVC PIPED)
P/N 15053000 (E)	ISTEC DECO-MOBILE DECONTAMINATION UNIT WITH GRP GRATINGS, WITHOUT TARPAULIN (PVC PIPED)