MFC International
by RESPIREX
ENGINEERED INFLATABLE PRODUCT SOLUTIONS

Mass Decontamination Unit

Product Manual

Index

WARNING: Carefully read this manual before operating the Mass Decontamination Unit.

NOTICE: The manufacturer takes no responsibility for the consequences of actions not complying with the instructions given in this manual.

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	TECH DATA
Product Code	DS0026
Length (cm)	750
Int. Length (cm)	730
Width (cm)	470
Int. Width (cm)	410
Height (cm)	290
Int. Height (cm)	260
Int. Floor Area (sq.m)	30
Air Requirements (ltr)	3800
Max. Water inlet pressure (bar)	3
Recommened pump flow-capacity (ltrs)	10/minute per nozzle
Pack size (cm)	160x80x60
Weight (kg)	90
Number of Shower Nozzles	12
Number of Shower hose connectors	4
Number of Shower Brush Connectors	2
Number of Heater sleeves	2
Number of Cable sleeves	6

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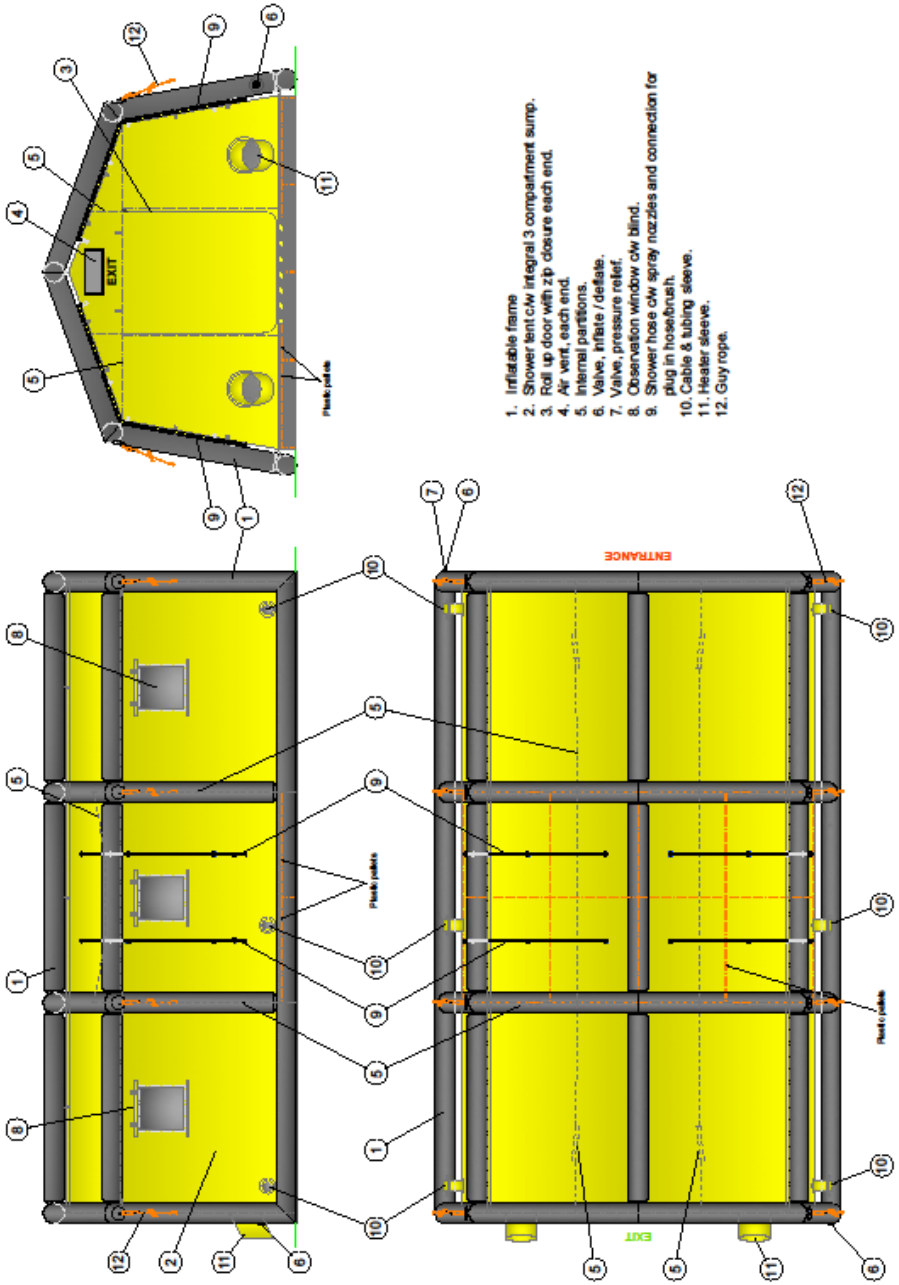
Parts List



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Materials List

	Item	Description
1	Inflatable Frame	Neoprene-coated polyester - Black
2	Shower tent	PU coated polyester - Yellow. Sump - Black Butyl
3	Roll up Door	PU coated polyester - Yellow. Spiral zip – Nylon, slider- metal
4	Air Vent	Polyester Mesh
5	Internal Partitions	Polyester
6	Valve Inflate/Deflate	C7 Black Acetal
7	Valve Relief	A6 Black Acetal 0.2 bar
8	Window	Glass clear PVC sheet
9	Shower hose assy	PVC hose c/w plastic fittings, Brass nozzles.
10	Cable & hose sleeve.	PU coated polyester- Yellow.
11	Heater sleeve.	PU coated polyester- Yellow.
12	Guy rope.	Polypropylene cord 7mm.dia. - Orange
13	Valise (not shown).	PVC coated nylon - Orange
14	Repair kit (not shown)	Tube of Neoprene adhesive and repair patches.

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Operational Instructions

1. **DEPLOYMENT AND USE**

1.1. At deployment point, select best site, particularly if a long term use is anticipated. The surface should be reasonably flat and level, free from stones, sharp objects or holes in the ground. The surface must be free from oil or chemical spills.
If required, position a groundsheet under the decon unit before inflation to prevent damage to the sump.

1.2. Unpack the decon unit from its valise, and unroll it.

1.3. PREPARE FOR INFLATION:-

1.3.1 Remove dust cap from inflate/deflate valve at 'entrance' end, ensure the central valve diaphragm is closed; i.e. the internal spindle is raised. (push and turn to release). The other valve positioned next to it is the "Pressure relief valve"
Check that the inflate /deflate valve at the 'exit' end is closed.

1.4. CYLINDER INFLATION

1.4.1 Fix Regulator to cylinder and connect delivery hose to Regulator.

1.4.2 Connect delivery hose to inflate/deflate valve, Hold delivery hose tight into inflation valve and inflate until relief valve activates. Close cylinder valve. Do not release hose during inflation.

WARNING: Failure to do this may result in personal injury.

1.4.3 Ensure dust cap is replaced to prevent ingress of dirt and water into the valve.

1.5. BELLOWS/PUMP INFLATION

1.5.1 Remove dust cap from inflate/deflate valve, ensure the central valve diaphragm is closed, i.e. the internal spindle is raised. (push and turn to release)

1.5.2 Attach bellows/pump hose to inflate/deflate valve.

1.5.3 Operate bellows/pump until relief valve activates.

1.5.4 Remove hose and replace dust cap on inflate/deflate valve.

1.6. Guy ropes are attached to each frame upright so that it can be firmly anchored to the ground using spikes. The guy ropes can alternatively be secured to strong points such as trees or vehicles.

2. **SHOWER TENT**

The shower tent is fitted with a zip closure door at both ends. If required the doors can be kept open by rolling them up and securing them in place using the tie tapes. The bottom lip of the door is clearly marked with black / yellow hazard warning tape.

WARNING: To prevent possible injury from tripping, care should be taken when stepping into and out of each section of the shower tent.

Observation windows are fitted into both sides of the tent.

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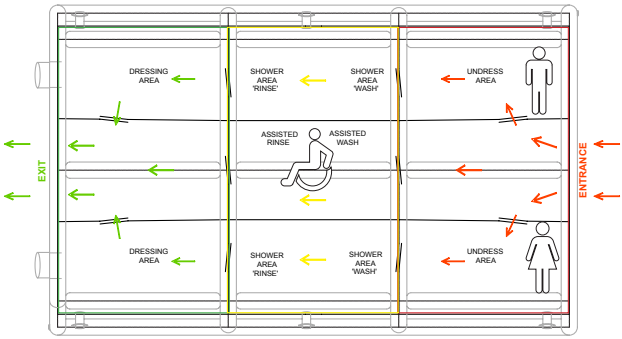
The inside of the shower tent is divided up into nine compartments consisting of a left and right shower area linked by two transverse partitions creating a third central area for assisted washing of casualties. The shower compartments are linked to the ends of the tent by four more partitions creating two undress areas inside the entrance and two areas for drying/dressing after the showers. (see below)



The internal partitions can be removed individually to change the layout of the interior space if required or for cleaning/decontamination.
The shower tent and/or the partitions may be removed from the inflatable frame and replaced if required.

2.1. Plastic pallets (1.2m x 1.0m) may be placed in shower sump to raise the user above the level of the waste water.

2.2. SHOWER HOSE

Four shower hoses (2x wash & 2x rinse) run up the sides of the tent and onto the top, and are each fitted with 3 shower nozzles (two on the side and one in the top) and a push fitting for a brush/hose extension if required for assisted washing of casualties. The hose fittings are clamped through the tent and each hose assembly is secured to the outside of the tent with Velcro loop patches (see item 9, pg.4).
Water supply hoses are connected to the shower hoses using the Geeka connector fitted in the bottom end of each hose.

2.3. WASTE WATER

Waste water can be pumped from the shower sump by passing the pump hose/s through the sleeves on either side of the tent. Additional cable/hose sleeves are fitted in the undressing and dressing areas (see item 10, pg.4).

2.4. HEATER SLEEVE

Heater sleeve x2 are fitted into the exit end of the tent to allow heated air from a suitable heater/s to be pumped into the dressing areas. The heated air is able to circulate into other areas of the tent (see item 11, pg.4).

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Packing

1. After every use, disconnect water supply hoses, drain water from base of shower tent and allow to dry out.

2. Reef the guy ropes neatly to prevent tangling.

3. Deflate the Shower unit. This is achieved by depressing the central spindle in the inflate/deflate valve at each end of the frame, (push and turn to lock open).

4. Before commencement of the folding operation, ensure that as much air as possible has been evacuated from the frame.

> **NOTE:** To prevent possible damage, do not walk on the deflating shower unit to expel the air.

5. Lay the deflated Shower unit so the shower roof is positioned directly over the floor, and the sides of the shower are tucked in between.

6. From left side, fold approx one third over, on top of the main frame.

7. Fold the other side over on top of the first. (Use carrying valise for guide to pack width).

8. Fold in half so that entrance and exit ends are together.

9. Roll from the fold towards the ends expelling the air through the inflate/deflate valves.

10. Lay the valise on the ground as an ‘open box’ and place shower unit into valise.

11. Fold up the ends of the valise and secure the webbing straps. Complete the packing procedure by folding up the two remaining sides of the valise and secure the webbing straps.

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Storage

1. On return to base the Shower unit should be unpacked, inflated and left to dry.

2. When the Shower unit is completely dry it should be checked for wear or damage. If none is found it should be repacked in the valise.

3. If any damage is found it should be repaired immediately in accordance with the Repair instructions.

4. The Shower unit should be stored off the ground in a cool, dry location away from direct sunlight and heat sources such as hot pipes or stoves.

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Maintenance & Test Procedures

1. GENERAL

It should be noted that, due to the type of fabrics used in its construction, when the Shower unit is wet, there may sometimes be visual evidence of miniscule white bubbles, which form a line of froth at the seams and joints of the unit. This is recognised within the industry as 'lateral leakage', and is simply air that is trapped in the layer of nylon between the rubber coatings, forcing its way to the nearest available edge of the fabric. This type of leakage will not affect the performance of any inflatable product over the course of an operational procedure, and can be safely ignored.
However, if there is evidence of large, transparent bubbles, this is clearly evidence of a leak that must be repaired at the earliest convenience.

The following is a recommended regime for maintenance & test.

1.1. CLEANING

This should be carried out using soap and water.

WARNING: To prevent possible damage. Do not use strong detergents, bleach or any type of hydrocarbons.

If the shower tent or partitions become excessively contaminated, and cannot easily be decontaminated, they should be removed and incinerated. A replacement shower tent or partition can be sourced from the manufacturer.

1.2. SHOWER FITTINGS AND HOSES

The holes in the shower heads may become partially blocked with sediment over a period of time. This may be rectified by cleaning the parts with soap and water, thoroughly dry the parts before reassembly. Ensure any sealing washers are refitted. Check hoses and fittings for leaks and repair / replace as necessary.

WARNING: To prevent possible damage. Do not use strong detergents, bleach or any type of hydrocarbons.

2. QUARTERLY

2.1. Check control equipment as per relevant manual.

2.2. Inflate Shower unit to working pressure.

2.3. Check audible relief valve operation.

2.4. Whilst inflation system is charged, check connections and valves using brush and soapy water.

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2.5. When relief valve has operated, and the unit is at working pressure; it can be left to stand for a length of time that would be comparable to an operational situation (e.g. 6 to 8 hours).

2.6. After this time, the Shower unit should still be firm.

2.7. If the Shower unit has become soft, the air-loss should be located by applying a soapy-water solution.

2.8. Any significant leaks (See 1 above) should be marked and repaired using the repair kit provided.

2.9. Check shower hoses and fittings for leaks and repair / replace as necessary.

RECOMMENDATIONS

1. Shower units should undergo an annual test carried out by the manufacturer, or persons certified by the manufacturer. If in doubt contact the service department.

Repairs

As a general rule, punctures and other damage will need to be assessed in two categories:

a) that which is repairable at the base, or b) serious damage that will need to be repaired by MFC International Ltd.

a) Repairs that are manageable at the base workshops will be minor punctures to any area of the Rescue sled. These can normally be repaired by the application of a small repair patch.

b) Repairs that should be carried out by MFC will be the more serious kind, such as damaged valves, badly torn fabric (either on the sidewalls or the flat surfaces) and the replacement of damaged fittings.

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