MFC International
by RESPIREX
ENGINEERED INFLATABLE PRODUCT SOLUTIONS

Water Reservoir

Product Manual

Index

WARNING: Carefully read this manual before operating

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

	500	1000	1500	2000	2500	3000	3500	4500	6000	7000	8000	9500	10000	12000	18000
Product Code	WS0075	WS0076	WS0077	WS0078	WS0079	WS0080	WS0081	WS0082	WS0083	WS0084	WS0085	WS0086	WS0087	WS0089	WS0090
Sides	4	4	4	6	6	6	6	6	8	8	8	8	8	8	8
Base Size (cm)	150x 150	150x 150	150x 150	194x 217	215x 243	233x 263	249x 282	281x 319	304x 304	324x 324	344x 344	372x 372	382x 382	402x 402	462x 462
Height (cm)	37.5	60	80	103	103	103	103	103	120	120	120	120	120	120	146
Capacity (kg)	500	1000	1500	2000	2500	3000	3500	4500	6000	7000	8000	9500	10000	12000	18000
Air Requirements (ltr)	120	120	120	90	100	110	125	160	200	220	240	265	285	300	560
Tube Pressure (bar)	0.2														
Recommended regulator	2 bar														

Note: Other Reservoir sizes may be produced to order.

Operational Instructions

DEPLOYMENT & USE

The following points are operational recommendations established by deploying the Reservoirs at many different training and demonstration events. MFC acknowledge that almost every operational scenario will have different hazards and risks, which can only be properly assessed at, and during, an operational deployment.

1. SITING

It is essential that the Storage Reservoir be filled on firm, level ground, and that the base of the reservoir be positioned on ground free of any sharp protrusions, such as glass, sharp stones, nails etc.
It is recommended that a ground sheet is used to protect the underside of the Storage Reservoir.

1.1. Unpack the Storage Reservoir from its valise and unroll. Use the crease-removing straps to ensure that the floor is free from creases. Pull the floor outwards evenly to ensure that there are no creases. These cannot be removed when the reservoir is full.

CAUTION: Do not drag the Storage Reservoir as contact with sharp or abrasive objects may puncture the fabric causing the reservoir to leak water.

CAUTION: Do not drop the heavy metal swivel couplings (if fitted) as the impact may puncture the Storage Reservoir fabric causing the reservoir to leak.

2. INFLATION

2.1. Prepare for Inflation:-

a) Fix Regulator to cylinder and connect delivery hose to Regulator.
b) Remove dust cap from inflation valve in buoyancy tube, ensure the central valve diaphragm is closed; i.e. the internal spindle is raised. (push and turn to release).

2.2. Hold delivery hose tight into inflation valve. Open cylinder 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.

2.3. Ensure dust cap is replaced to prevent ingress of dirt and water.

2.4. A bellows may also be used to inflate the buoyancy tube to relief valve pressure.

3. FILLING

The filling method is optional, and is either by securing the water delivery hose to the webbing retaining patch fitted to the top of the buoyancy tube, or by connecting to the 2 ½" dia. instantaneous coupling item 8 (if fitted).

Repeated use of the crease removing straps at initial fill will smooth out the floor of the tank, before the weight of water makes this operation impossible.

When deployed and filled, the reservoir takes the shape of the frustum of a cone.

The inflatable buoyancy tube forms the upper lip of the tank which, when inflated rises as water is pumped into the tank to the limit of the height of the reservoir wall. This gives the tank stability.

4. DRAINING

Unscrew closure cap on the 4" round coupling/s (if fitted).

Packing

1. Allow the Storage Reservoir to become as dry as possible before packing.

2. Deflate the Storage Reservoir. This is achieved by depressing the central spindle in the inflate/deflate valve, (push and turn to lock open).

3. Check that the inflate/deflate valve is clean, close the valve (push and turn the spindle clockwise) and replace the dust cap.

4. Refit closure caps on swivel couplings and secure cover flaps.

5. Using the carrying valise as a guide to the width, carefully fold the Storage Reservoir. Take care to maintain the width of the roll.

6. Lay the valise on the ground as an 'open box' and place the rolled up Storage Reservoir into the valise. Close valise and secure straps.

Storage

1. On return to base the Storage Reservoir should be unpacked, inflated and thoroughly dried out prior to repacking, either by use of a sponge or by inverting the tank, and suspending it by using the lifting patch.

2. When the Storage Reservoir 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. Where possible the packed Storage Reservoir should be stored on the floor of the locker/appliance, ensuring no damage can be caused by it's proximity to other items of equipment.

5. Do not stow for a prolonged period unless thoroughly dry.

1. GENERAL

It should be noted that, due to the type of fabrics used in its construction, when the Storage Reservoir 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 buoyancy tube.

This is recognised within the industry as 'lateral leakage', and is simply air that is trapped in the layer of fabric between the 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.

2. QUARTERLY

2.1. Inflate buoyancy tube to working pressure.

2.2. Check for audible relief valve operation.

2.3. Check connections and valves using brush and soapy water.

2.4. 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. 2 to 3 hours.)

2.5. After this time, the buoyancy tube should still be firm.

2.6. If the buoyancy tube has become soft, the air-loss should be located by applying a soapy-water solution.

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

2.8. Leakage or damage to the reservoir side wall is best located when it is filled. The Inspection of the floor is essentially visual when the reservoir is empty.

RECOMMENDATIONS

1. Storage Reservoirs should undergo an annual test carried out by the manufacturer, or people certified by MFC International Ltd. 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 Stak Jak. 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 side-walls or the flat surfaces) and the replacement of damaged fittings.

If in doubt as to the extent of the damage and the level of repairs necessary, please contact:-

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