



MFCInternational

by RESPIREX

ENGINEERED INFLATABLE PRODUCT SOLUTIONS

2 & 3 Tier Bag

2.0 Bar

User Manual



Technical Data / Capacity Parts	3
Parts List	4
Materials List	5
Operational Instructions	6
Packing	9
Storage	9
Maintenance & Test Procedures	10
Repairs	11

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.

	2 TIER	3 TIER
Product Code	LB0067	LB0068
Materials	Hypalon Coated Nylon	
Length (cm)	55	55
Width (cm)	45	45
Inflated Height (cm)	40	60
Deflated Height (cm)	5	5
Lift at Max Pressure (kg)	1780	1780
Air Requirements (ltr)	110	150
Packed Weight (kg)	10	14.5
Max Pressure (bar)	2	2

MATERIALS

Working Surfaces	Grip top belting. 5mm normal thickness.
Inflation Port	Moulded neoprene flange fitted with quick release safety lock coupling.
Side Wall	Heavy duty hypalon fabric (coated both sides)

MFC SERIES A-D DELIVERY HOSE

10mm I/D (16mm O/D), Reinforced PVC Hose. (Alt. Rubber covered hose can be supplied if specified).

Max Working Pressure: 16 Bar

Standard length supplied: 5 or 10 metres

Standard issue supplied as separate item with couplings each end

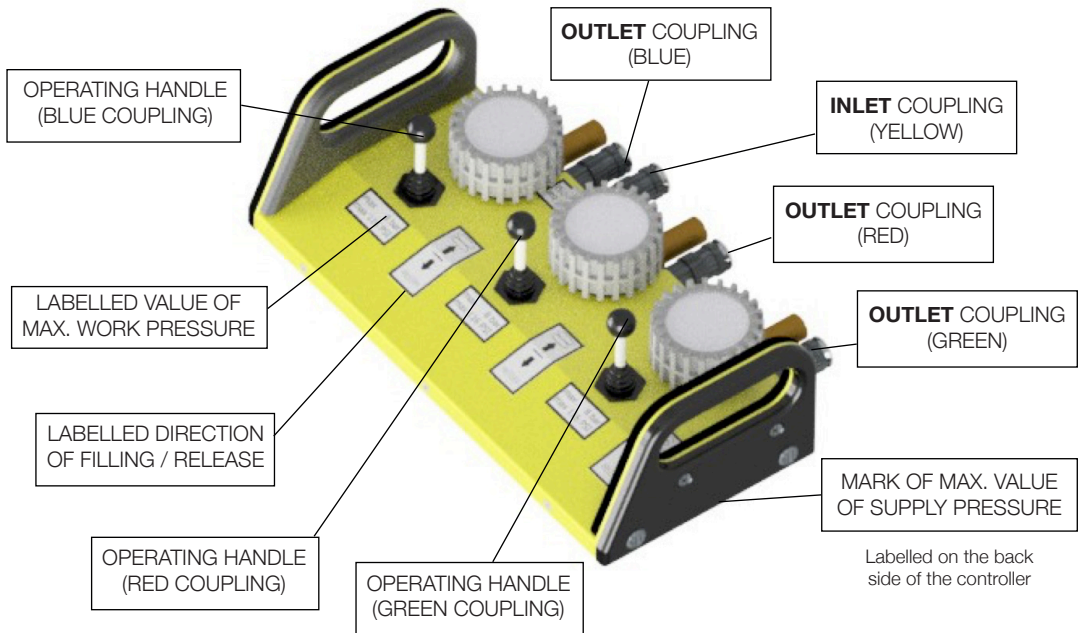
Extension hose lengths can be supplied to customers requirements complete with couplings

DKE3 CONTROLLER

DKE3 controller is a device used only for filling high pressure lifting bags and pneumatic plugs.

FILLING

If you move the handle forward (labelled direction of filling/release), you fill the bag to desirous pressure (height) or to maximum working pressure of controller (it depends on the type of controller; 8bar or 1 bar) When you drop the handle, supply pressure is interrupted and the bag remains filled up under pressure you can read on the pressure gauge.



RELEASE

If you move the handle backwards, (labelled direction of filling/release), you release the bag to desirous pressure (height) or to value 0 bar. When you drop the handle, release is interrupted and the bag remains filled up under pressure you can read on the pressure gauge.

CAUTION: Take all the normal precautions against the danger of outbreak of fire, such as laying out a charged line of hose or foam branch as appropriate.

1. Make a careful assessment of the operational scenario to determine different hazards and risks and select the best position for inserting airlift cushions.
2. Unpack Airlift Cushion(s) from the valise and ensure the side walls are folded inwards in regular fashion and that the upper working surface is “square” with the lower working surface.

CAUTIONS:

- When placing airlift cushions in position, avoid contact with sharp or jagged surfaces, particularly on side walls as they may puncture the surface causing the cushion to fail.
- Hot exhausts should be covered with a folded fire and heat resistant blanket. Failure to do so may damage the surface of the cushion.

3. Position Airlift Cushions as far as possible under load.
4. Connect delivery hoses between the Airlift Cushions and controller. Ensure delivery hoses are well laid out and not ‘Kinked’, maintaining a clear line to respective Airlift Cushions.
5. Connect high-pressure hose from cylinder to centre port on rear of controller (Max. controller inlet pressure is 300 bar.)

CAUTION: Ensure controller levers are in ‘off’ position before opening air supply.

WARNING: Before inflations the Airlift Cushions, consider the effect of the lift stability. Remember a three point lift is the safest i.e. one side or end of a vehicle in contact with the ground and two Airlifts is the safest. MFC Acknowledge that almost every operational rescue/recovery will have a different scenario with differing risks and hazards.

6. When inflating two Airlift Cushions, commence inflation by operating both control levers. The operator should deliver the air flow to both cushions at approximately the same rate (adjust to suit), this will ensure a stable lift.
7. Pack and block the load as the lift proceeds, taking care to position blocks so that if necessary, they can support the load.
8. Should a change of cylinder be required, close the cylinder valve. Disconnect by means of cylinder adaptor hand wheel and reconnect to charged cylinder.
9. After use, deflate by selecting relevant position of control lever. Deflation is the reverse of the inflate procedure.

1. GENERAL

It should be noted that, due to the type of fabrics used in its construction, when the Airlift cushions are wet, there may sometimes be visual evidence of minuscules white bubbles which form a line of froth at the seams of the units. 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 the 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.

2. LABEL

Each cushion will have a label placed prominently on the cushion giving the following information:

1. Maximum Working Pressure
2. Maximum Lifting Height
3. Maximum Load
4. Air Requirements
5. Series Identification
6. Serial Number

The following Maintenance and Test Procedures should only be carried out by properly qualified personnel.

3. AFTER OPERATIONAL USE:

1. Following operational use and drills, Airlift Cushions should be inflated to Approximately 0.5 bar and thoroughly washed down with the warm soapy water and allowed to dry.
2. Check side walls thoroughly for evidence of scuffing by abrasion.
3. Wash down the valise, ensuring no grit or gravel adheres to inner surfaces.
4. Deflate Airlift Cushions and pack in a flat state with side walls folded in place and back into valise. Secure the closure points on valise.

4. **DELIVERY HOSES**

Periodically or after operational use, check for abrasion marks. Change hose to working pressure with hose disconnected from Airlift Cushions, use soapy water to check air holding integrity or connections. Tighten loose fittings where necessary.

1. Visually inspect controller for damage.
2. Check mechanical operation of control levers.
3. Connect controller to air source by means of high-pressure hose from cylinder, or directly from compressor (maximum inlet pressure 300 bar).
4. With control levers in the 'OFF' position, turn on air supply. Check integrity of inlet supply connections.

Connect delivery hoses to controller **but not to air bags**.

1. After every use, the Airbag should be hosed down in its inflated state, to remove as much debris as possible.
2. Allow the Airbag to become as dry as possible before packing.
3. Lay the Airbag on a clean, debris free area.
4. Deflate the Airbag.
5. Lay the valise on the ground as an 'open box' and place the Airbag into the valise. Close valise and secure straps.

1. On return to base the Airbag should be unpacked, inflated and left to dry.
2. When it 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 Airbag should be stored on the floor or suitable shelving, ensuring no damage can be caused by it's proximity to other items of equipment.

1. **GENERAL**

It should be noted that, due to the type of fabrics used in its construction, when the Airbag is wet, there may sometimes be visual evidence of minuscule 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.

2. **QUARTERLY**

- 2.1. Check control equipment as per relevant manual.
- 2.2. Inflate Airbag to 0.5 bar.
- 2.3. Whilst inflation system is charged, check connections and valves using brush and soapy water.
- 2.4. Leave Airbag for 2 hours.
- 2.5. After this time, the Airbag should still be firm.
- 2.6. If the Airbag 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.

RECOMMENDATIONS

1. Airbags should undergo an annual test carried out by the manufacturer, or people certified by MFC International. If in doubt contact the service department.

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.

- a) Repairs that are manageable at the base workshops will be minor punctures to any area of the Rescue craft. 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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