



MFCInternational

by RESPIREX

ENGINEERED INFLATABLE PRODUCT SOLUTIONS



LIFTING BAGS FOR
THE TOW INDUSTRY



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MFC International are a specialist manufacturer of inflatable rescue, recovery, survival and sewer maintenance equipment based in Tonypanyd, South Wales. Our equipment is used by fire brigades, mountain and lowland rescue, utilities, the military and humanitarian support organizations internationally and we have earned an unrivaled reputation for our product quality, durability and performance.

Founded in 1959 at the old Naval Colliery site in Tonypanyd, the company (then called MFC Survival) started by manufacturing life jackets and life rafts for the Royal Navy and South Wales commercial shipping ports. Over time the focus shifted towards the design and manufacture of specialist inflatable products for the defense and rescue industries.

MFC quickly became a respected name in the field of technical inflatable products and boasts an impressive history of innovation; we were the original inventor of airlift bags, the first to manufacture aircraft recovery bags and one of the first to introduce inflatable shelters.

In July 2013 MFC became part of the Respirex International group of companies, who enjoy a worldwide reputation for the manufacture, service and support of high performance chemical personal protective clothing and equipment.

Since becoming a part of the Respirex group there has been a renewed emphasis on product development, with a host of new product introductions including the RC4000 Rescue Craft, Recovery Board, Evacuation Raft and a range of Decontamination showers. The Rapid Response Shelters have been completely re-designed and the Stak Jak lifting mats are now being manufactured in our South Wales factory.

There has been continuous investment in new tools and machinery in our South Wales factory, including new presses to mold our own high pressure lifting mats and an autoclave for manufacturing our new range of products for sewer maintenance. This means the whole process from design to manufacture is carried out in under one roof. To reflect the expansion of our product range we changed the name of the business to MFC International in the summer of 2017.

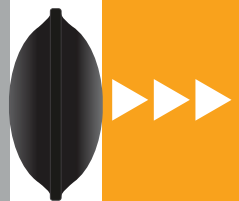


The Usage of Lifting Bags

Our Stak Jaks and Powermats are intended for lifting, lowering, positioning, spreading, pushing and moving of loads. They are mainly used in rescue operations and industrial lifting.



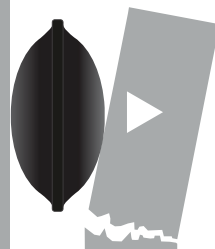
LIFTING



SPREADING



FIXING



PUSHING

IMPORTANT NOTE:

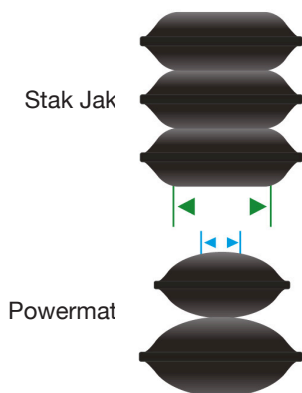
Non-compliance with the instructions for use may result in injury. Always read the instructions carefully before using lifting bags.



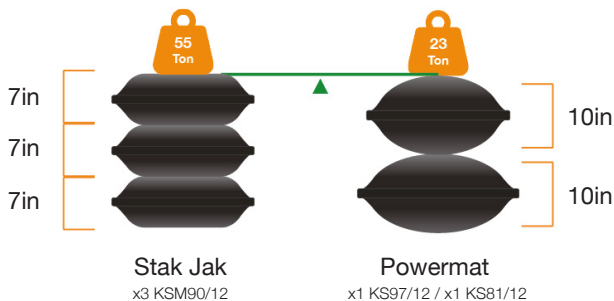
| | STAK JAK | POWERMAT |
|--|------------|------------|
| Safely stack up to | 3 Bags Max | 2 Bags Max |
| Controlled lifting | Yes | No |
| Stability | Yes | No |
| Thickness (in) | 1 | 1 |
| Flat surface when inflated | Yes | No |
| Lifting capacity remains constant through the lift even at full height | Yes | No |
| Kevlar cord | Yes | Yes |
| Minimum size of the bag (in) (width x length) | 16x16 | 6x6 |
| Maximum size of the bag (in) (width x length) | 36x36 | 36x36 |
| Retain their flat profile eliminating rolling and shifting | Yes | No |

ADVANTAGES OF STAK JAKS COMPARED TO POWERMATS

GREATER CONTACT SURFACE AND STABILITY



INCREASED LIFT CAPACITY





The Stak Jak is a revolutionary flat-profile lifting bag for vehicle and heavy duty lifting requirements. The flat profile of the Stak Jak has several distinct advantages over traditional ovoid lifting bags of which the most significant is the ability to safely stack up to three bags together. This enables a greater lift height without the risk of sudden ejection or instability that is possible when stacking ovoid bags.

Stak Jaks are slimline for tight space scenarios and compact storage. They are constructed from exceptionally tough Kevlar cord, yet are light enough to be carried by just one person. Stak Jaks can be inflated quickly to provide an instant lift, making them ideal for use in rapid response emergency situations. They also have a controlled deflation facility if required, and can be supplied with an optional bleed valve on request.

- The flat profile allows three bags to safely stack on top of one another
- Provide a strong and steady lift to stabilize a vehicle and improve access to casualties
- Lifting capacity remains constant throughout the lift, even at full height - unlike ovoid bags
- Connecting straps used between each bag provide additional stability and prevent bags from slipping when in use.
- Slimline for tight space scenarios and compact storage
- Constructed from exceptionally tough Kevlar cord, but are light enough to be carried by one person
- Manufactured from Neoprene (Polychloroprene) rubber for greater oil, fuel and chemical resistance
- Rapid inflation capability provides 'instant lift'
- Large lift capacity and height
- Controlled deflation/lowering capability



TECHNICAL DATA - 8 BAR

| | KSM17 | KSM25 | KSM49 | KSM60 |
|--|--------------------|--------------------|--------------------|--------------------|
| Length (in) | 20 | 24 | 33 | 36 |
| Width (in) | 20 | 24 | 33 | 36 |
| Inflated Height (in) | 7 | 7 | 7 | 7 |
| Deflated Height (in) | 1 | 1 | 1 | 1 |
| Pack Size (in) | 22x22x2 | 26x26x2 | 35x35x2 | 38x38x2 |
| Max. Lifting Capacity at Min. Lifting Height (ton) | 19 | 28 | 54 | 66 |
| Max. Lifting Capacity at Max. Lifting Height (ton) | 4 | 9 | 20 | 27 |
| Max. Flat Area (in) | 9x9 | 13x13 | 22x22 | 25x25 |
| Air Requirements (ft ³) | 11 | 16 | 31 | 38 |
| Weight (lb) | 18 | 26 | 44 | 51 |
| Max. Pressure (bar/psi) | 8 bar / 116 psi | 8 bar / 116 psi | 8 bar / 116 psi | 8 bar / 116 psi |

TECHNICAL DATA - 12 BAR

| | KSM26 | KSM38 | KSM74 | KSM90 |
|--|---------------------|---------------------|---------------------|---------------------|
| Length (in) | 20 | 24 | 33 | 36 |
| Width (in) | 20 | 24 | 33 | 36 |
| Inflated Height (in) | 7 | 7 | 7 | 7 |
| Deflated Height (in) | 1 | 1 | 1 | 1 |
| Pack Size (in) | 22x22x2 | 26x26x2 | 35x35x2 | 38x38x2 |
| Max. Lifting Capacity at Min. Lifting Height (ton) | 34 | 50 | 95 | 113 |
| Max. Lifting Capacity at Max. Lifting Height (ton) | 10 | 20 | 48 | 63 |
| Max. Flat Area (in) | 9x9 | 13x13 | 22x22 | 25x25 |
| Air Requirements (ft ³) | 17 | 26 | 49 | 60 |
| Weight (lb) | 18 | 26 | 44 | 51 |
| Max. Pressure (bar/psi) | 12 bar / 174 psi | 12 bar / 174 psi | 12 bar / 174 psi | 12 bar / 174 psi |



The Powermat is a heavy duty, high pressure lifting bag designed primarily for lifting vehicles and objects in emergency situations. Deflated, the Powermat has a very slim profile making it suitable for use in restricted or awkward spaces and compact to store. Available in 12 standard sizes with maximum lifting capacities from 1 ton right up to 76 ton.

The Powermat inflates rapidly offering an instant lift. The most convenient source of air supply for inflation is a BA cylinder or scuba bottle, alternatively a compressor, factory airline supply or a truck air brake supply.

Due to its rapid response capability the Powermat is ideally suited to emergency rescue situations, however it is an exceptionally versatile piece of equipment that also has applications in USAR, industry, mining, railroad construction/maintenance and the armed forces.

- Slimline profile when deflated making it suitable for use in restricted or awkward places
- Rapid inflation capability provides 'instant lift'
- Constructed from exceptionally tough Kevlar cord, but are light enough to be carried by one person
- Manufactured from Neoprene (Polychloroprene) rubber for greater oil, fuel and chemical resistance
- Large lift capacity and height
- Controlled deflation/lowering capability



TECHNICAL DATA - 8 BAR

| | KS1 | KS3 | KS5 | KS10 | KS12 | KS16 | KS21 | KS29 | KS33 | KS46 | KS54 | KS67 |
|-----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Length (in) | 6 | 9 | 11 | 15 | 16 | 18 | 21 | 24 | 26 | 31 | 33 | 36 |
| Width (in) | 6 | 9 | 11 | 15 | 16 | 18 | 21 | 24 | 26 | 31 | 33 | 36 |
| Inflated Height (in) | 3 | 5 | 6 | 8 | 9 | 10 | 11 | 13 | 14 | 17 | 18 | 20 |
| Deflated Height (in) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Maximum Lift (ton) | 1 | 3 | 5 | 10 | 12 | 16 | 21 | 32 | 36 | 51 | 62 | 76 |
| Air Capacity at 8 bar (ft³) | 0.1 | 0.4 | 0.8 | 2 | 3 | 4 | 7 | 11 | 14 | 22 | 28 | 37 |
| Weight (lb) | 1 | 3 | 4 | 8 | 9 | 11 | 18 | 26 | 30 | 32 | 44 | 51 |
| Maximum Pressure (bar/psi) | 8 bar / 116 psi | 8 bar / 116 psi | 8 bar / 116 psi | 8 bar / 116 psi | 8 bar / 116 psi | 8 bar / 116 psi | 8 bar / 116 psi | 8 bar / 116 psi | 8 bar / 116 psi | 8 bar / 116 psi | 8 bar / 116 psi | 8 bar / 116 psi |

TECHNICAL DATA - 12 BAR

| | KS2 | KS5 | KS8 | KS16 | KS18 | KS23 | KS30 | KS43 | KS49 | KS68 | KS81 | KS97 |
|-----------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Length (in) | 6 | 9 | 11 | 15 | 16 | 18 | 21 | 24 | 26 | 31 | 33 | 36 |
| Width (in) | 6 | 9 | 11 | 15 | 16 | 18 | 21 | 24 | 26 | 31 | 33 | 36 |
| Inflated Height (in) | 3 | 5 | 6 | 9 | 10 | 11 | 13 | 15 | 16 | 19 | 21 | 22 |
| Deflated Height (in) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Maximum Lift (ton) | 2 | 6 | 8 | 17 | 20 | 26 | 33 | 48 | 54 | 75 | 89 | 107 |
| Air Capacity at 8 bar (ft³) | 0.1 | 0.6 | 1 | 4 | 5 | 6 | 10 | 16 | 20 | 32 | 41 | 54 |
| Weight (lb) | 1 | 3 | 4 | 8 | 9 | 11 | 18 | 26 | 30 | 32 | 44 | 51 |
| Maximum Pressure (bar/psi) | 12 bar / 174 psi | 12 bar / 174 psi | 12 bar / 174 psi | 12 bar / 174 psi | 12 bar / 174 psi | 12 bar / 174 psi | 12 bar / 174 psi | 12 bar / 174 psi | 12 bar / 174 psi | 12 bar / 174 psi | 12 bar / 174 psi | 12 bar / 174 psi |



3 Tier Bag



Three-tier low pressure airlift bags are designed primarily for the recovery of smaller vehicles. They have a large contact area and uniformly distribute pressure across the lift surface making them suitable for lifting at weak points of a vehicle such as the roof, sides, wings, bonnet and boot.

- Lightweight and easily portable
- Provide a strong and steady lift to stabilize a vehicle and improve access to casualties
- Large contact area which means they uniformly distribute lift pressure across a large surface area, making them suitable for lifting at weak points of a vehicle such as the roof, sides, wings, bonnet and boot
- Strong and durable
- Slip-resistant top surface
- Low maintenance costs
- Large lift capacity and height
- Controlled deflation capability

TECHNICAL DATA

3 Tier Bag

| Materials | Hypalon Coated Nylon |
|-------------------------------------|----------------------|
| Length (in) | 22 |
| Width (in) | 18 |
| Inflated Height (in) | 24 |
| Deflated Height (in) | 2 |
| Lift at Max. Pressure (lb) | 3,924 |
| Air Requirements (ft ³) | 5 |
| Packed Weight (lb) | 32 |
| Max. Pressure (bar/psi) | 2 bar / 29 psi |



Our comprehensive range of 0.5 bar pressure airlift bags are designed primarily for the recovery of vehicles. Invaluable at the scene of a road traffic incident or light aircraft crash, the airlift bags provide an exceptionally strong and steady lift to stabilize a vehicle and improve access to casualties. Depending on the circumstances these lifting bags may also be used in the rescue of animals or to raise submerged vehicles and small craft as well as many other heavy objects.

- Lightweight and easily portable
- Provide a strong and steady lift to stabilize a vehicle and improve access to casualties
- Strong and durable
- Slip-resistant top surface
- Exceptionally stable
- Low maintenance costs
- Large lift capacity and height
- Controlled deflation capability

TECHNICAL DATA

| | A | B | C | D |
|--------------------------------|----------------------|-------------------|-------------------|-------------------|
| Materials | Hypalon Coated Nylon | | | |
| Diameter (in) | Ø24 | Ø30 | Ø36 | Ø48 |
| Inflated Height (in) | 17 | 23 | 24 | 39 |
| Deflated Height (in) | 2 | 2 | 2 | 4 |
| Packed Size (in) | Ø26 x 8 | Ø38 x 8 | Ø38 x 8 | Ø48 x 9 |
| Max. Pressure (bar/psi) | 0.5 bar / 7.2 psi | 0.5 bar / 7.2 psi | 0.5 bar / 7.2 psi | 0.5 bar / 7.2 psi |
| Lift at Max. Pressure (lb) | 3,281 | 5,126 | 7,379 | 13,120 |
| Air Requirements (ft³) | 8 | 16 | 24 | 67 |
| Packed Weight of Two Bags (lb) | 66 | 75 | 99 | 110 |



1 Bar Lifting Bags



Our comprehensive range of 1 bar pressure airlift bags are designed primarily for the recovery of vehicles. Invaluable at the scene of a road traffic incident or light aircraft crash, the airlift bags provide an exceptionally strong and steady lift to stabilize a vehicle and improve access to casualties. Depending on the circumstances these lifting bags may also be used in the rescue of animals or to raise submerged vehicles and small craft as well as many other heavy objects.

- Lightweight and easily portable
- Provide a strong and steady lift to stabilize a vehicle and improve access to casualties
- Strong and durable
- Slip-resistant top surface
- Exceptionally stable
- Low maintenance costs
- Large lift capacity and height
- Controlled deflation capability

TECHNICAL DATA

| | AK | BK | CK | DK |
|--------------------------------|------------------------|-------------------|-------------------|-------------------|
| Materials | Neoprene Coated Kevlar | | | |
| Diameter (in) | Ø24 | Ø30 | Ø36 | Ø48 |
| Inflated Height (in) | 17 | 23 | 24 | 39 |
| Deflated Height (in) | 2 | 2 | 2 | 4 |
| Packed Size (in) | Ø26 x 8 | Ø30 x 8 | Ø38 x 8 | Ø48 x 9 |
| Max. Pressure (bar/psi) | 1 bar / 14 psi | 1 bar / 14 psi | 1 bar / 14 psi | 1 bar / 14 psi |
| Lift at Max. Pressure (lb) | 6,561 | 10,252 | 14,758 | 26,239 |
| Air Requirements (ft³) | 10 | 22 | 32 | 106 |
| Packed Weight of Two Bags (lb) | 66 | 75 | 99 | 110 |



Air Force X1 lifting bags have been designed to military specifications. The Air Force X1 lifting bag is capable of lifting up to 5 tons on its own or 10 tons when used as a pair. The Air Force X1 lifting bag is relatively low pressure which means its soft footprint enables you to lift objects on soft ground such as snow, sand or ice. It exerts a soft force against the load, preventing damage to vulnerable structures. The lifting surfaces are extremely strong and durable and it can be inflated over broken glass or other sharp hazards.

- Lightweight and easily portable
- Strong and durable
- Exceptionally stable
- Low maintenance costs
- Large lift capacity and height
- Controlled deflation capability
- Side wall constructed from heavy duty neoprene fabric

TECHNICAL DATA

Air Force X1 Bag

| Materials | Neoprene Coated Polyamide |
|-----------------------------|---------------------------|
| Diameter (in) | Ø31 |
| Inflated Height (in) | 24 |
| Deflated Height (in) | 2 |
| Lift at Max. Pressure (ton) | 5.6 |
| Max. Pressure (bar/psi) | 1 bar / 14 psi |
| Air Requirements (ft³) | 11 |
| Packed Size (in) | Ø31 x 8 |
| Packed Weight (lb) | 75 |



0.5 Bar High Lifting Bags



Our range of 0.5 bar pressure high lifting bags are designed primarily for the recovery of larger vehicles.

- Lightweight and easily portable
- Provide a strong and steady lift to stabilize a vehicle and improve access to casualties
- These bags have a large contact area which means they uniformly distribute lift pressure across a large surface area, making them suitable for lifting at weak points of a vehicle such as the roof, sides, wings, bonnet and boot
- Exceptionally stable
- Strong and durable
- Slip-resistant top surface
- Webbing loops assist with lifting and positioning the cushions, and can be used as anchorage points
- Low maintenance costs
- Large lift capacity and height
- Controlled deflation capability

TECHNICAL DATA




| | 120 | 210 |
|----------------------------|-----------------------|-------------------|
| Materials | Neoprene Coated Nylon | |
| Diameter (in) | Ø53 | Ø57 |
| Inflated Height (in) | 47 | 83 |
| Deflated Height (in) | 4 | 4 |
| Max. Pressure (bar/psi) | 0.5 bar / 7.2 psi | 0.5 bar / 7.2 psi |
| Lift at Max. Pressure (lb) | 15,800 | 19,800 |
| Air Requirements (ft³) | 88 | 184 |
| Weight (lb) | 85 | 107 |



Catch Bags are designed to be used in conjunction with our High Lifting Bags during the uprighting of vehicles or objects. The Catch Bags prevent a rapid and dangerous decent which prevents further damage to the vehicle or object being lifted and allows for a safer environment for the recovery team.

- Quick setup, inflation and deflation
- Webbing loops assist with lifting and positioning the bags
- Strong and durable
- Replaceable protective cover
- Universal inflation sock
- Multiple Catch Bags may be used for larger vehicles or objects

TECHNICAL DATA

| | | Catch Bag |
|-----------------------------------|--|-----------------------|
| Materials | | TPU / Polyester / TPU |
| Dimensions (in) | Top  | 39.4 x 31.5 inch |
| | Bottom  | 55 x 47 inch |
| | Height  | 63 inch |
| Max. Operating Pressure (bar/psi) | | 0.2 bar / 2.9 psi |
| Packed Weight (lb) | | 31 |
| Packed Size (in) | | 28 x 27 x 11 |

Note: Car Catch Bags also available. Contact us for more information.



MFC International

by RESPIREX

ENGINEERED INFLATABLE PRODUCT SOLUTIONS

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