# Proof Test Bags

**With over 30 years of manufacturing experience in the design, production and development of a wide range of testing equipment, Structure-flex has achieved an unrivalled reputation for quality and reliability and can provide products for various load test situations ranging from load testing cranes, winches and davits, platform and structure testing as well as lifeboat testing.**

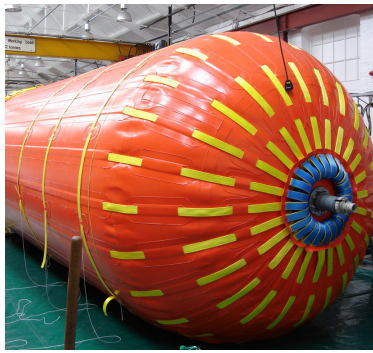
Structure-flex proof test bags are manufactured in sizes ranging from 1 tonne to 100 tonnes.

We also have a range of low-head test bags for use in limited height situations, ranging from 1 tonne to 15 tonnes.

All of our test bags are designed with a safe working load ratio of 6:1 and are manufactured from high-strength PVC-coated polyester cloth.

## FEATURES

- Safety factor of up to 6:1 (based on NEL test rigs capability)
- Single point attachment for ease-of-use
- Trunk and pulley assembly for safe emptying of bag
- All seams are high-frequency welded for superior strength
- Robust, flexible and simple to use
- Easily folded for compact storage
- Low-head versions for limited height testing



# Proof Test Bags

## CRANE TESTING BAGS

Our test bags are designed to periodically test and validate the Safe Working Load (SWL) of cranes, beams, davits and other lifting equipment.

Our standard 'tear drop' bags are available up to 110 tonnes. We also provide low head test bags up to 15 tonnes for use in restricted height areas.

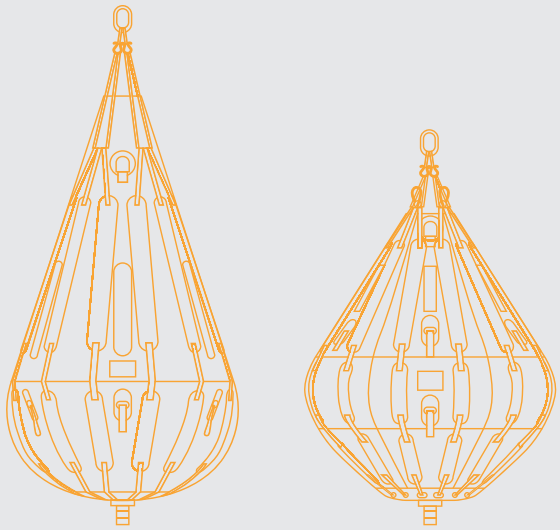
Our entire test bag range has been designed to achieve a minimum 6:1 safety factor for the SWL capacity, where possible.

- 1 to 110 tonnes capacity standard bags
- 1 to 15 tonnes capacity low head bags
- High strength 1680g/m2 total weight PVC/PES - 2200 dtex polyester 3x3 weave
- High frequency welded for exceptional strength
- Single point attachment for ease of use
- Easy to fold and compact to store
- Full harness assembly and rigging hardware included
- 2.5" fill/empty elbow port with with camlock and lay flat hose
- 4" empty flange with PVC hose, featuring rope and pulley to secure
- TUV-NEL Dynamic Drop tested to 6:1 (where possible)

## STANDARD OR LOW HEAD?

Once filled, our standard bags are a near perfect 'tear-drop' shape for even load distribution.

Our unique low head bag design features a wider circumference which reduces the overall length for use in areas with restricted headroom.



**STANDARD BAG**

**LOW HEAD BAG**

## QUALITY THROUGHOUT

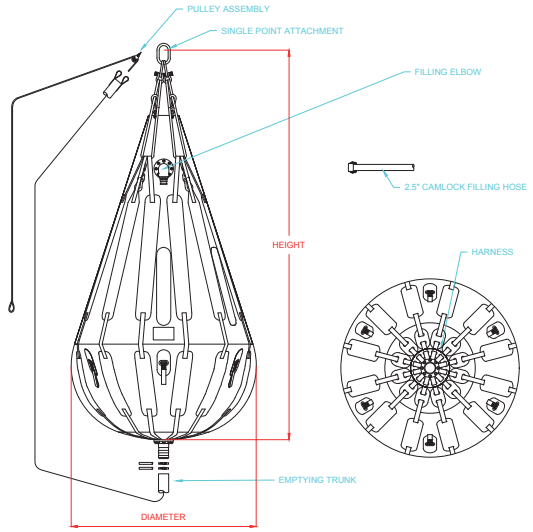
Manufactured here in the UK, we use only the best materials and methods to ensure strength and durability.

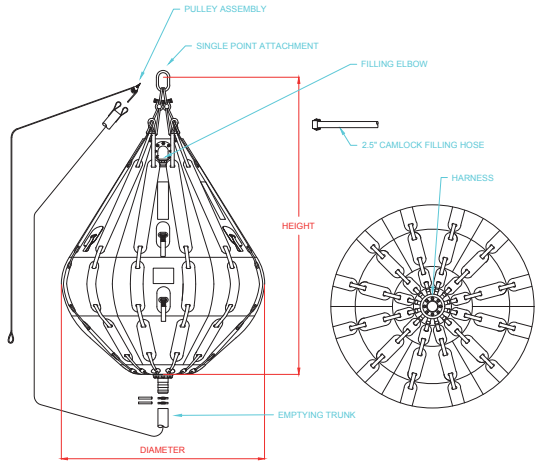
Our harness assembly flat sling legs are manufactured to BS EN1492-1:2000. An anti-wear sleeve is added where the leg attaches to the base and each leg is individually labelled for inspection and traceability.

Each bag is supplied with a FRAM Grade 8 Quad Link assembly made to BS EN 1677-4 and we use Green Pin shackles to BS EN 13889.

Each bag is supplied with a 2:1 Proof Test Certificate of Conformity.

# Proof Test Bags




## STANDARD PROOF TEST BAGS

| Model | Capacity / SWL | Height | Diameter |
|---|---|---|---|
| SFWB-1T-S | 1,000 kg | 2.4m (7.8ft) | 1.2m (4ft) |
| SFWB-2T-S | 2,000 kg | 3.7m (12 ft) | 1.7m (5.5ft) |
| SFWB-3T-S | 3,000 kg | 4.1m (13.5ft) | 2.0m (6.5ft) |
| SFWB-5T-S | 5,000 kg | 4.6m (15ft) | 2.1m (7ft) |
| SFWB-10-S | 10,000 kg | 5.8m (19ft) | 2.4m (8ft) |
| SFWB-20T-S | 20,000 kg | 5.8m (19ft) | 3.7m (12ft) |
| SFWB-25T-S | 25,000 kg | 6.1m (20ft) | 3.8m (12.5ft) |
| SFWB-35T-S | 35,000 kg | 7.0m (23ft) | 4.2m (13.8ft) |
| SFWB-50T-S | 50,000 kg | 8.5m (27.9ft) | 4.6m (15.1ft) |
| SFWB-55T-S | 55,000 kg | 8.9m (29ft) | 4.8m (15.6ft) |
| SFWB-100T-S | 100,000 kg | 10.7m (35.1ft) | 5.9m (19.3ft) |
| SFWB-110T-S | 110,000 kg | 12.0m (39.4ft) | 5.9m (19.3ft) |

*Approximate sizes when filled*

## LOW HEADROOM PROOF TEST BAGS

| Model | Capacity / SWL | Height | Diameter |
|---|---|---|---|
| SFWB1T-LH | 1,000 kg | 1.5m (4.9ft) | 1.5m (5ft) |
| SFW-2T-LH | 2,000 kg | 1.8m (6ft) | 1.8m (5.8ft) |
| SFWB-3T-LH | 3,000 kg | 2.3m (7.6ft) | 2.1m (6.9ft) |
| SFWB-5T-LH | 5,000 kg | 3.4m (11ft) | 2.3m (7.5ft) |
| SFWB-6.5T-LH | 6,500 kg | 3.7m (12.2ft) | 2.3m (7.5ft) |
| SFWB12.5T-LH | 12,500 kg | 4.7m (15.4ft) | 2.8m (9.2ft) |
| SFWB15T-LH | 15,000 kg | 5.1m (16.7ft) | 2.8m (9.2ft) |

*Approximate sizes when filled*

# Proof Test Bags

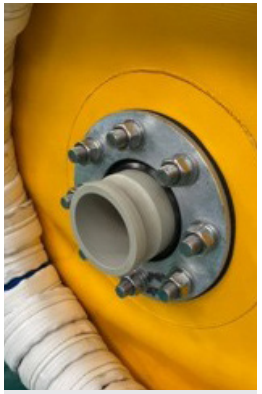
## FEATURES & ACCESSORIES

Empty flange with fitted dump trunk

Empty flange with 4 inch BSP female connection

1 inch brass flange with ball valve

Bolted flange with 3 inch guillemin coupling



Bolted flange with 2 inch camlock coupling

Bolted filling elbow connection with 2.5 inch camlock

(2 fitted to all bags over 50 tonnes)

Nova layflat Type 3 - 2.5 inch camlock with filling hose

Guillemin fill and empty reducers

**All bags feature our strong & dependable harness assembly, master link & shackle rigging**

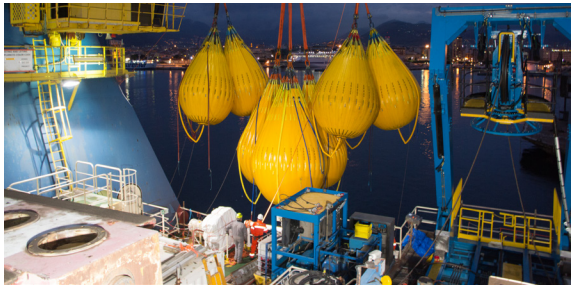
# Proof Test Bags

## DEVELOPING THE WORLD'S FIRST 110 TONNE TEST BAG FOR WATER WEIGHTS

When Water Weights needed a 110T proof test bag to keep up with the ever increasing weight requirements for individual load tests – Structure-flex delivered the solution.

The resulting 110T bag is now used around the world in many sectors. It follows in the footsteps of the 100T bag we previously developed with Proofload Services – the company who pioneered the way large capacity bag load tests are conducted today.

*Prototype 110T bag undergoing initial trials in Great Yarmouth, UK*



*First large scale test completed by Water Weights using three 110T and four 55T bags manufactured by Structure-flex*


*110T capacity easily and safely achieved on first prototype bag*

## FINITE ELEMENT ANALYSIS (FEA)

Finite element analysis (FEA) uses computer modelling to predict how a product will react to forces, vibration, heat, fluid flow and other real-world factors.

Conducted by a leading professor who specialises in the analysis of flexible structures, our design was extensively modelled and proved our choice of materials and construction would provide a strong, safe, reliable and durable product.