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MANUEL : SCORP'AIR 4S

Stability, high lifting capacity, low thickness for easy insertion into narrow spaces, thin and rigid for easy storage, stackable, and quick to use thanks to an ingenious connection plate.

BIENVENUE

Thank you for choosing our SCORP'AIR 4S lifting cushion. Please read this manual carefully before using the product. This cushion allows for lifting and moving very heavy loads and is suitable for all types of interventions.

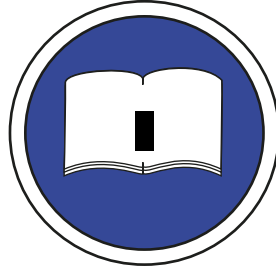
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1. GENERAL INFORMATION



The SCORP'AIR 4S tool should only be operated by individuals who have read this manual.

Thank you for purchasing this product from Scorpe Technologies. This manual is intended to explain how to use our product, how to maintain it, and ensure its longevity. This manual is an integral part of the product and must be kept in a location known to the staff and accessible at all times. To ensure your safety, the safety of others, and to guarantee the product's lifespan, we ask that you strictly follow the instructions noted herein. Every user or operator using our product must have read and understood this manual. This manual must remain available to anyone using or handling our product.

This manual provides important remarks regarding the handling of the SCORP'AIR 4S equipment. Safe operation requires compliance with all safety instructions and handling guidelines defined herein. Additionally, local accident prevention regulations in force at the equipment's location, as well as general safety provisions, must also be followed.

All elements in this manual (information, technical specifications, graphics, and illustrations) are based on the latest information available at the time of writing.

In addition to carefully reading this manual, we recommend contacting our qualified trainer who can provide training on the use of rescue equipment (usage possibilities, usage strategy, etc.).

2. PERSONAL PROTECTIVE EQUIPMENT

When handling rescue equipment, it is essential to wear personal protective equipment (PPE) to minimize the risk of injury. **Failure to wear this equipment can result in serious injuries.**



During all work activities, wearing safety clothing is mandatory. Wear close-fitting work clothes with tight sleeves and no protruding parts. These garments primarily provide protection against moving parts of the equipment.



To protect against falling heavy objects and to prevent slipping on slippery floors, always wear safety shoes with steel toe caps.



For protection against sharp edges and glass breakage, wear work gloves during the operation of the equipment.



For protection against projections, falling objects, and glass shards, it is essential to wear a helmet with a visor.



In addition to the visor, wearing safety goggles is mandatory to protect the eyes from flying debris.

During specific tasks, also wear the following items:



For protection against auditory impairment, wearing hearing protection is mandatory in addition to basic personal protective equipment.

3. PRECAUTIONS FOR USE

Temperature of use:

- -20 to +55°C.
- Avoid contact with excessively abrasive or sharp surfaces.
- Stabilize and guide the load to be lifted.
- For any contact with chemicals, please consult us.
- Do not place your hand or any part of your body between the load and the cushion in operation.
- Never stand under the lifted load.
- Keep a distance when using the cushion.
- If the supply pressure exceeds the operating pressure, use a regulator.
- Wear full safety gear when using the cushion (helmets, goggles, ear protection, shoes, clothing, and gloves).

Never exceed the maximum pressures indicated on the product.

4. OPERATION

Proceed as follows:

A – Lifting cushions should only be used with compressed air, or exceptionally with water (accessories available upon request), excluding any other liquids and gases. If the compressed air contains oil, use an oil separator.

B – If there are handles on the sides, use them to position the cushions.

C – Position the lifting cushion so that 75% of its surface is under the load. Insert the cushion on a base parallel to the surface of the load to be lifted.

D – If the base is smooth, use non-cutting materials between the cushion and the ground. These will help increase adhesion to the ground.

E – Connect the cushions to the control unit using the original hoses, observing the color coding for input/output.

F – Operate the lifting cushion while monitoring the movements of the load.

G – At most, 3 cushions can be stacked. For lifting, first fully inflate the bottom cushion, which serves as the base, and then cautiously inflate the lower Cushion.

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Never start by inflating the upper cushion until the lower cushion is fully inflated. Lowering should be done in the reverse order: first deflate the upper cushion and then begin deflating the lower cushion. Never deflate the lower cushion first or at the same time as the upper cushion.

Never place a smaller cushion under a larger one. Lifting with a stack of different-sized cushions is possible but not recommended. It is more complicated and less stable than stacking cushions of the same size.

Follow the same procedure as with cushions of the same size. Stabilize and support the object before proceeding with lifting. The lifting force is limited to the lifting capacity of the smallest cushion. Using 3 identical-sized lifting cushions is always preferable.

This stacking method is safer and should be preferred over any stacking involving 3 cushions of different sizes. Stacking a Scorp'Air 4S 60T cushion on top of two Scorp'Air 4S 132T cushions is safer than stacking three different-sized lifting cushions and should be prioritized. Ensure that the Scorp'Air 4S 60T cushion (the top cushion) has a force of 8,800 lbs / 4,000 kg at the maximum lifting height. Stacking two 60T cushions on top of a 132T cushion should never be done.

The lifting column of a stack is limited by the smallest cushion. Therefore, it is recommended to use 3 identical lifting cushions to provide more stability than using uneven cushions. Two identical stacking columns provide greater stability and double the lifting force. If space permits, always use two stacks as this will provide more stability, safety, and control.

H - Strictly adhere to the usage limits specified on the product. For technical data, please consult us.

5. ACCESSORIES

The following accessories are necessary for inflating the cushions:

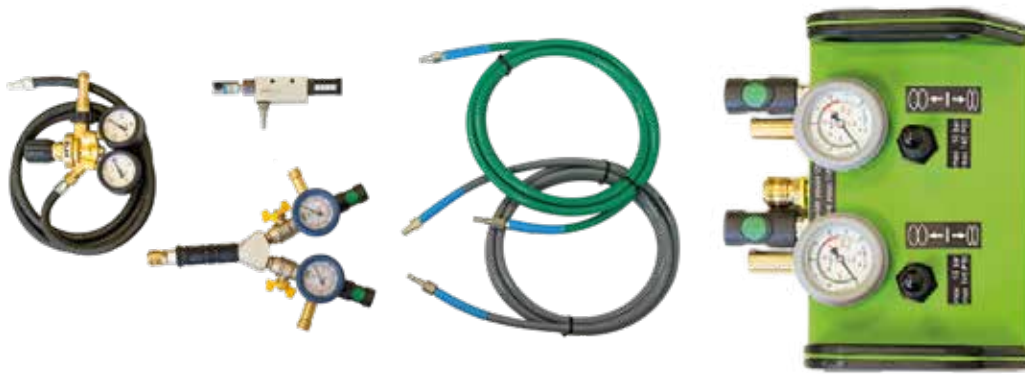
- Compressed air cylinder or other air supply
- Pressure regulator if using an air cylinder
- Manual controller
- Air hose
- Safety valves

The configuration of the handheld controller prevents inflating the cushions to an operating pressure exceeding 10 bars.

It is strictly forbidden to bypass the control device by connecting the relief valve directly to the cushion.

The control system includes safety valves and pressure gauges calibrated to the maximum allowable pressure, preventing any over-inflation of the cushions.

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- Air hoses are available in two lengths: 5 and 10 meters. They are color-coded for easy identification of the connection between the cushion and the handheld control device.
- The air hoses are equipped with double-locking safety connectors.
- To connect the flexible hose, insert the hose fitting into the cushion connector until you feel it firmly engage. You should hear an audible "click."
- To disconnect, release both ends simultaneously by pressing one end and pulling the other. This breaks the connection and prevents accidental uncoupling.

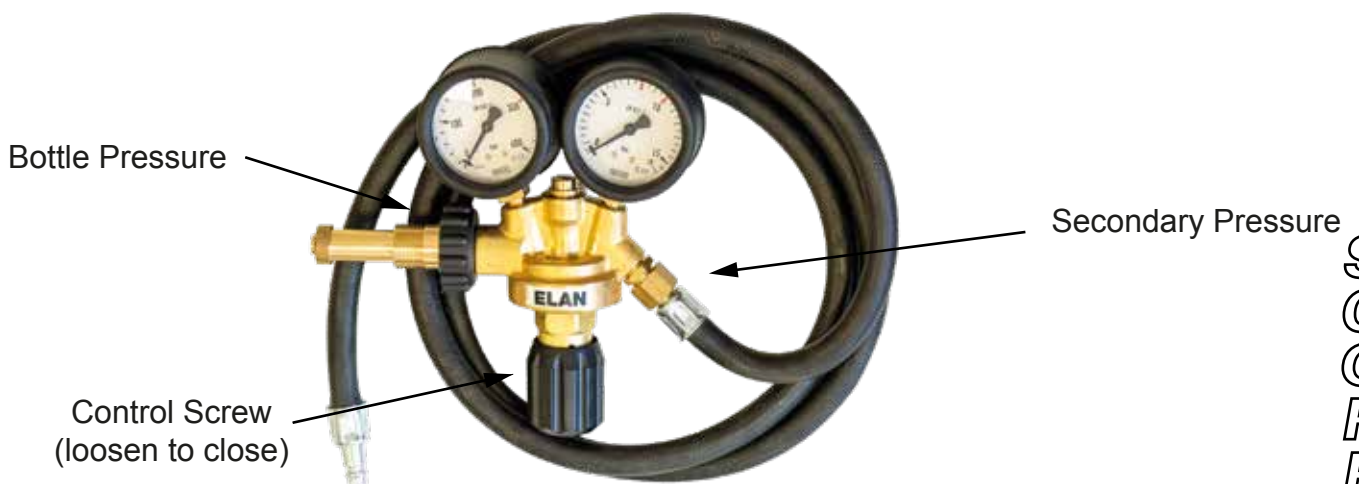
Air Supply with an External Source:

If the supply pressure exceeds 10 bars, a relief valve must be used.

If the compressed air contains oil, use an oil separator.

Air Supply with a 200 or 300 Bar Cylinder:

- Connect the pressure regulator to the compressed air cylinder, ensuring the O-ring is properly seated on the regulator.
- Close the pressure-reducing valve by unscrewing the control knob.
- Turn on the valve on the bottle while holding the end of the hose: the pressure gauge indicates the pressure in the air bottle.
- Connect the air supply hose to the control unit by pushing the fitting into the connector.
- Adjust the control knob to achieve a secondary pressure of 10 bars.



Using the Lifting Cushions with a Manual Controller:



There are several models of control boxes, with two or three outlets, allowing the operator to independently control different cushions. The operation is performed using a "dead man's" lever, and pressure is controlled by a pressure regulator for each outlet.

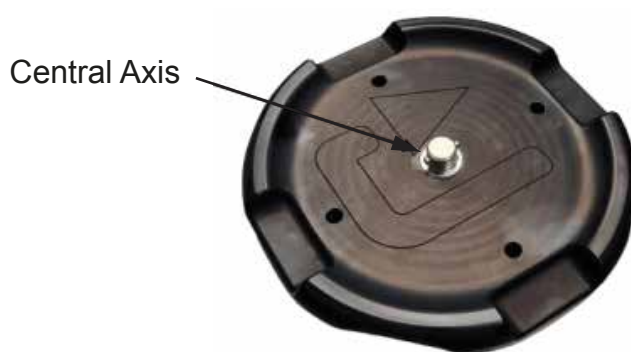
- To inflate to the desired lifting height, follow the pictograms displayed on the control box.
- If the maximum operating pressure of 1 bar is reached, the inflation process must be stopped by releasing the control lever, which automatically returns to the central position.
- To deflate, follow the pictograms on the control box.
- When the lifting process is complete, disconnect the inflated cushions and the corresponding air hoses. Close the air inlet. To empty the relief valve or the air hose connected to the external air supply, pull the control lever, then briefly press it to release the air from the integrated check valves.

Using Connector Plates

To stack two cushions, it is necessary to use a connector plate attached to the cushion via a quarter-turn connection system.

To connect the plate to the cushion, insert the central axis of the plate into the corresponding insert on the cushion and perform a quarter turn with the plate to lock it in place.

The base plate ensures optimal support and can be used on complex surfaces. It is fixed to the cushion in the same manner as the connector plates.



Base Plate



6. TECHNICAL SPECIFICATIONS

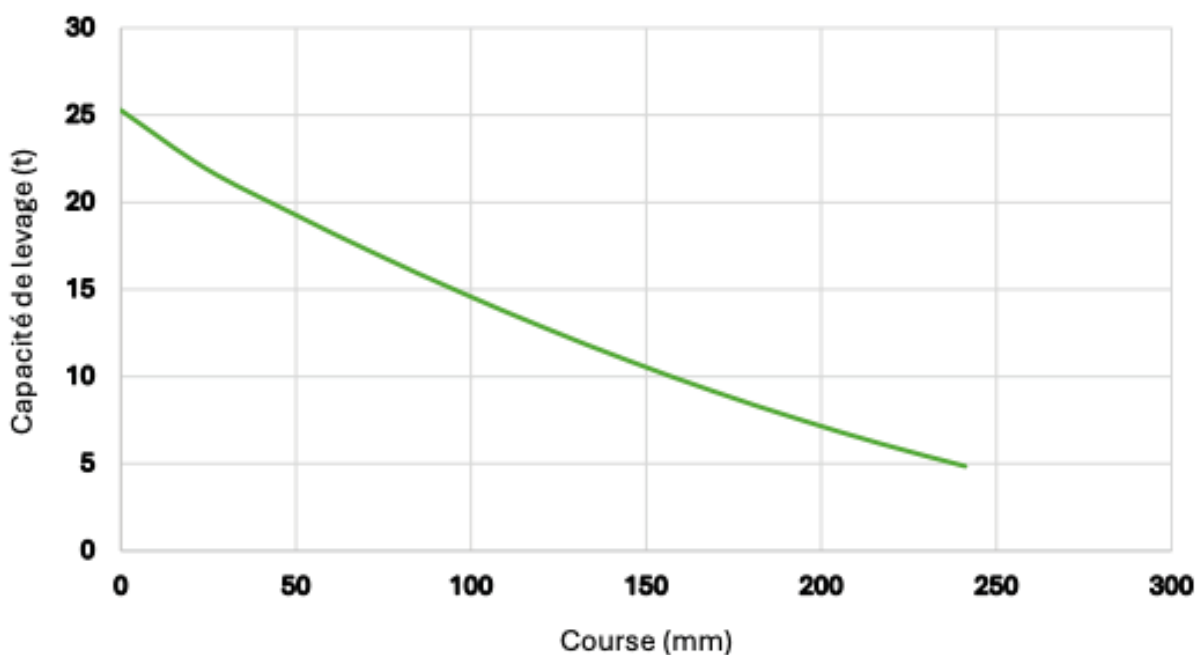
Three lifting cushions are available:

- SCORP'AIR 4S 25T: Maximum lifting force of 25,000 kg
- SCORP'AIR 4S 60T: Maximum lifting force of 60,000 kg
- SCORP'AIR 4S 132T: Maximum lifting force of 132,000 kg

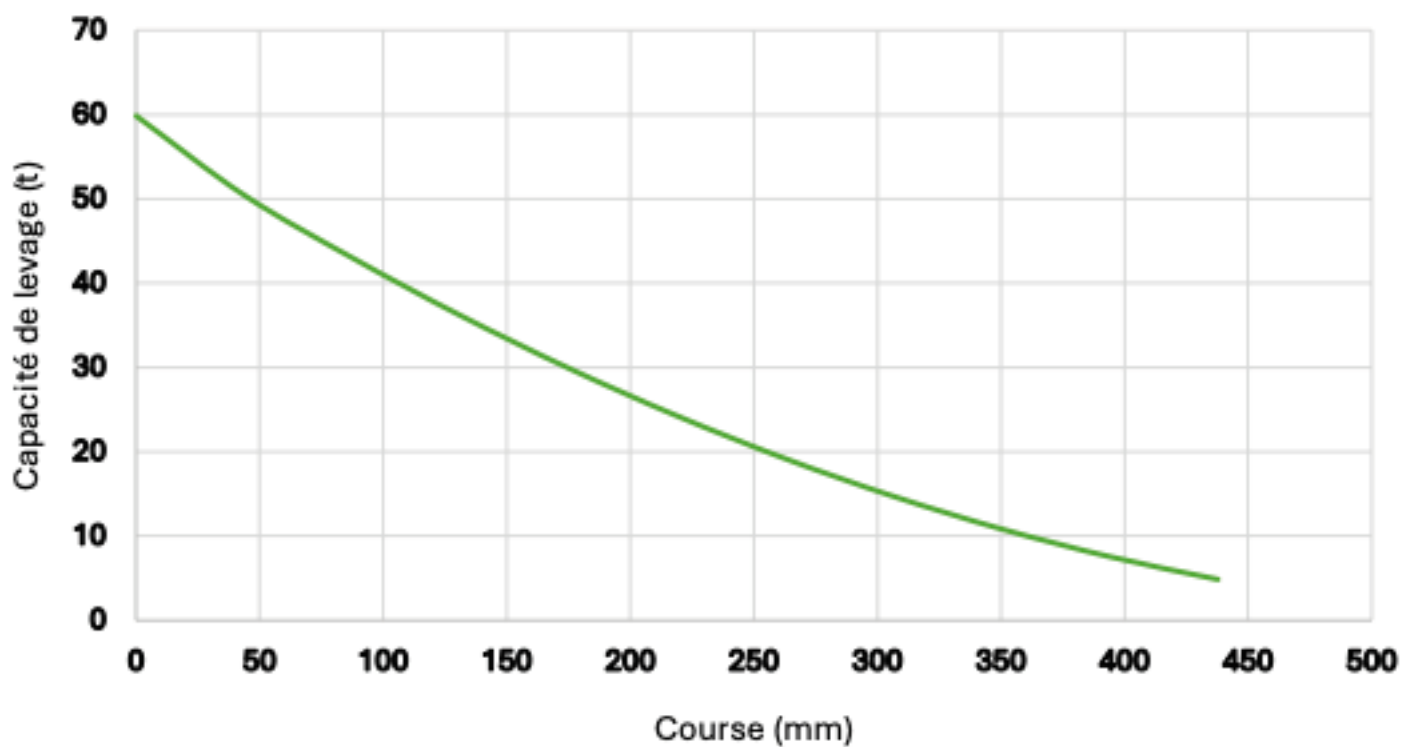
MODEL	SIZE (mm)					WEIGHT (Kg)	MAXIMUM LIFTING CAPACITY (Tons)	VOLUME AIR (Liters)
	Length (mm)	Width (mm)	Thickness when deflated (mm)	Stroke (mm)	Diameter when deflated (mm)			
25T	560	560	50	295	792	8	25	260
60T	860	860	55	490	1216	18	60	900
132T	1300	1300	51	670	1838	37	132	3500

Lifting Curves

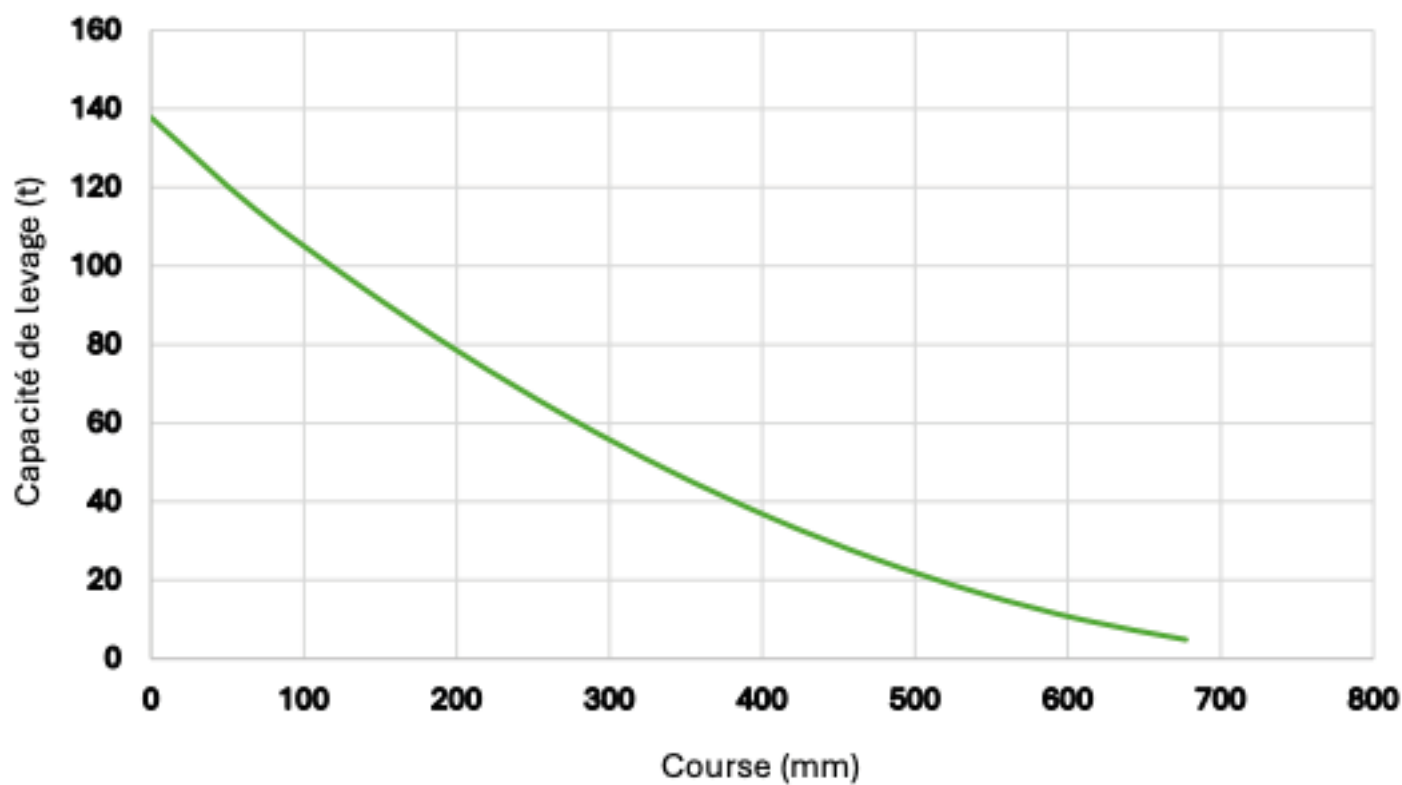
Scorp'air 4S 25t



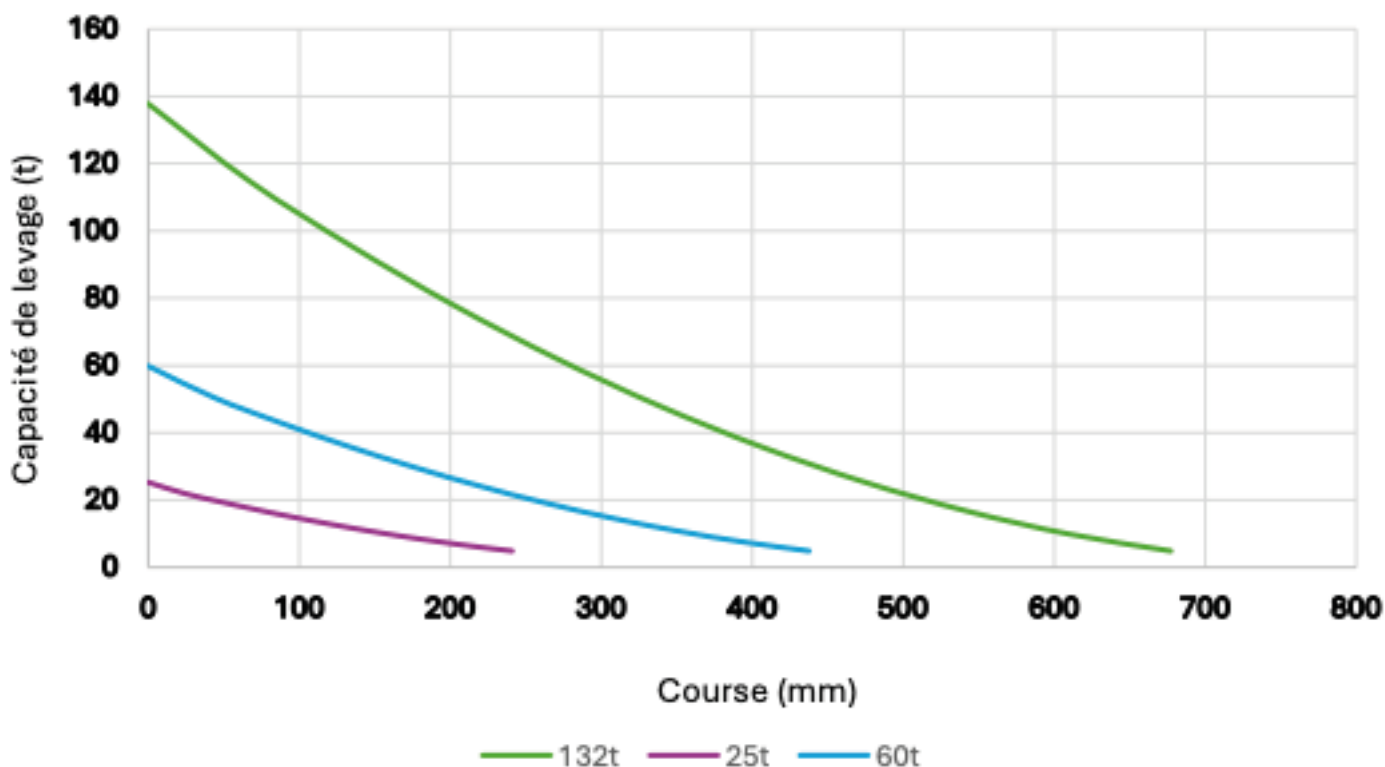
Scorp'air 4S 60t



Scorp'air 4S 132t



Scorp'air 4S



5. CARE/STORAGE/MAINTENANCE

After each use:

- Check the integrity of the outer surface and ensure there is no excessive deformation (folds, bubbles, or cuts). In case of any doubts or anomalies, consult the manufacturer before further use.
- Clean with lightly soapy water (without detergent), rinse, and completely dry the product.

At least once a year:

- Inflate the lifting cushion cautiously to a pressure of 0.5 bar. Check for any defects (cracks, cuts, etc.). If no damage is found, increase the pressure to 4 bars and check again.
- If there are safety concerns (defect detection, etc.), discontinue use and contact the manufacturer. Repairs are not possible for safety reasons.

Storage guidelines for this product:

- Deflate after each use.
- Store flat in its packaging.
- Keep away from light.

- Store at room temperature and maintain humidity between 40% and 70%.
- Protect from aggressive substances (corrosive products, solvents, marine environment, rodents, etc.).

During disassembly, inspect the integrity of the outer surfaces, the tubing/bladder connection, and the flatness of the joint surface at the tubing level.

Lifting cushions can be cleaned with warm water or soap. They should then be dried at room temperature. **The use of hydrocarbons or chemicals for cleaning is prohibited.**

8. WARRANTY

The SCORP'AIR 4S is covered by a full one-year warranty (1). (Does not include transport and customs fees, if applicable.)

If you encounter any issues, please contact:

SCORPE TECHNOLOGIES
After-Sales Service
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