# TECHNOLOGIES TECHNOLOGIES TECHNOLOGIES

SCORPE

# **MANUEL: SCORP'AIR 2S**

The lifting cushion designed with a flat surface and a secure grip, stackable up to 3 cushions.

# BIENVENUE

SCOPP

Thank you for choosing our SCORP'AIR 2S lifting cushion. Please read this manual carefully before using the product. This cushion is slim and compact, ideal for effortless horizontal lifting of heavy loads.

# **U** CONTENTS

1. General Information	page 3
2. Personal Protective Equipment	page 4
3. Precautions for Use	page 5
4. Operation	pages 5 and 6
5. Accessories	pages 6 to 8
6. Technical Specifications	pages 8 & 9
7. Maintenance / Storage / Upkeep	pages 9 & 10
8. Warranty	page 10
9. Notes	page 11



# **1. GENERAL INFORMATION**



The SCORP'AIR 2S 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 2S 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**

A – Lifting cushions can only be used with compressed air, or exceptionally with water (accessories available on request), excluding any other liquids or 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. Avoid angles greater than  $30^{\circ}$  relative to the base, as the cushion could be displaced.

D - If the base is smooth, use non-cutting elements between the cushion and the floor to increase traction.

E – Connect the cushions to the control unit using the original hoses, respecting the input/output color codes.

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

6

G - Up to a maximum of 3 cushions can be stacked. For lifting, first inflate the lower cushion to its maximum, which serves as the base, and then carefully inflate the upper cushion. Never start inflating the upper cushion until the lower cushion is fully inflated. Lowering is done in reverse order: deflate the upper cushion first, then start deflating the lower cushion. Never deflate the lower cushion first or at the same time as the upper cushion.

H - Strictly adhere to the operating strokes indicated 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.



#### 7

- 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:





SCORPE

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 10 bars 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.

## 6. TECHNICAL SPECIFICATIONS

The 2s cushion range includes 5 cushions from 30 to 90 tonnes, made of SBR (styrene-bu-tadiene).

- · Manufactured by hot vulcanization in an autoclave
- New 3D material (internal fibers)
- 4 reinforced handling straps
- Safety labels

Each cushion is vulcanized in a vacuum mold in a single operation, eliminating the need for gluing or riveting.

	SIZE (mm)					ABILITY	VOLUME
MODEL	Length	Width	Thick	Race	Weight (Kg)	LIFTING MAX (Tonnes)	AIR AT 10 BAR (Litres)
33T	560	560	25	170	11	33	320
40T	620	620	25	170	12	40	420
60T	750	750	25	170	18	60	680
75T	840	840	25	170	22	75	900
90T	920	920	25	170	26	90	1120

Scorp'air 2S 100 90 80 70 Capacité de levage (t) 60 50 40 30 20 10 0 20 40 50 ഹ 70 80 90 100 110 120 130 140 150 170 30 160 Course (mm) -33t ----

# 7. CARE/STORAGE/MAINTENANCE

#### After each use:

Lifting Curves

- 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.

SCORPE

#### 10

- 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 2S 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 Email: simon.hammer@scorpe.eu Tel: +33 (0)3 24 73 00 02

SCORPE

11					
9. NOTES					
		§ C			
		& 			