

Product catalog

➔ PNEUMATIC LIFTING BAGS

A **flexible** solution for a variety of **mechanical functions** in **numerous applications**



LIFTING BAGS

The Pronal lifting bags offer a solution for all applications that require :

➔ **SHORT**
stroke

➔ **MINIMAL**
thickness

➔ **HIGH**
lift capacity

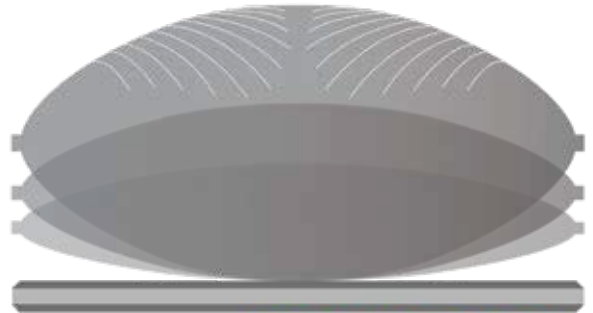


PRONAL LIFTING BAGS

GENERAL

Each year, hundreds of customers choose the Pronal lifting bags to optimize the operation in their plants.

- High quality
- Excellent customer service
- Technical know-how



Thousands
of the Pronal lifting bags are in
service worldwide



More than 90
specialized partners (OEM's, users,
installers,...)



4 groups
of air lifting bags



Design Solutions
for special industrial applications

MANUFACTURING OF LIFTING BAGS



DESIGN STAGE

- Conceptualize new products
- Research and test new materials
- Optimize manufacturing



MANUFACTURING

- From cutting the material to final assembly
- Attention to highest quality demands
- Meet customers' requirements



WELDING / VULCANIZING

- High frequency welding
- Vulcanizing in autoclave
- Achieve perfect homogeneity of the assembly



TESTING

- Assembly of accessories
- Individual testing of lifting bags
- Compliance with ISO 9001-14001 and OHSAS 18001



ADVANTAGES OF LIFTING BAGS



LOW THICKNESS



MAINTENANCE FREE



CUSTOM DESIGN



EVEN DISTRIBUTION OF LIFTING FORCE

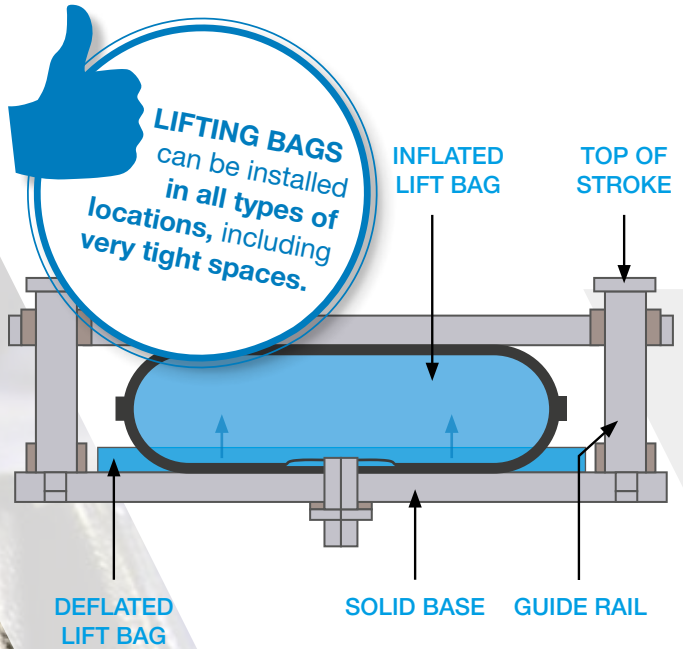


HIGH LIFTING CAPACITY

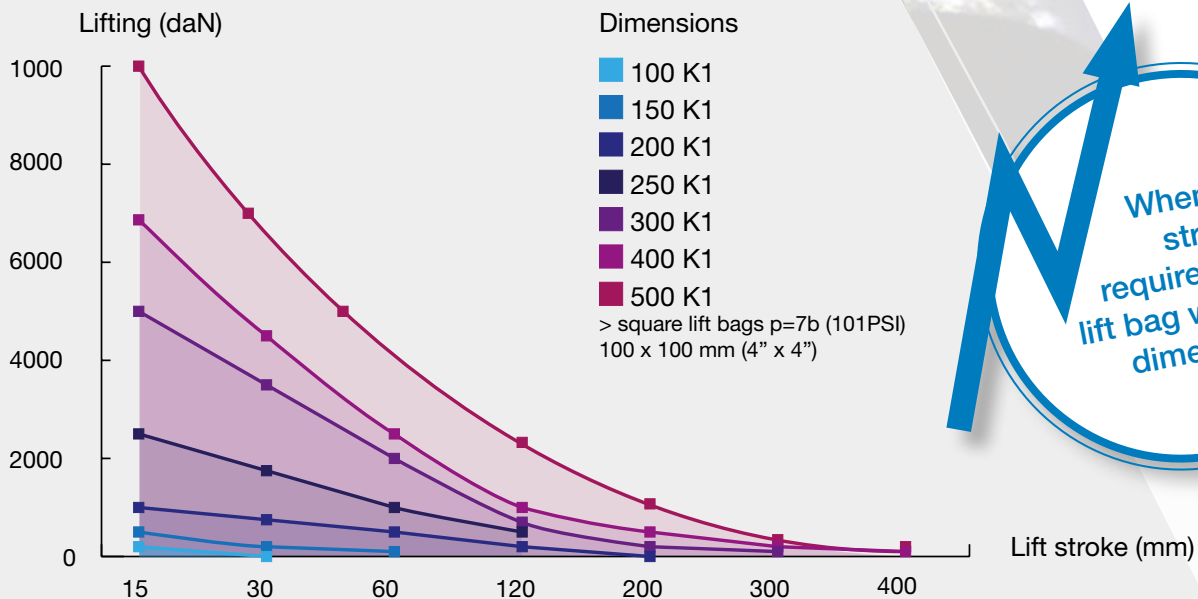


INFLATION WITH AIR, WATER, OIL...

THE PRODUCT



HIGH RESISTANCE AND EVEN DISTRIBUTION



When higher stroke is required, select a lift bag with greater dimensions



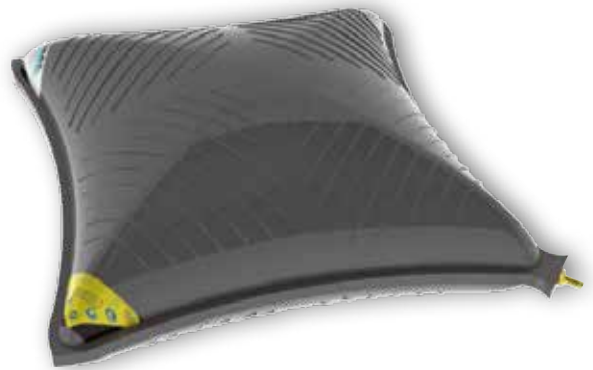
OUR RANGE OF LIFTING BAGS

+ 7 bar

Very high pressure (high resistance)

For applications requiring **high lifting force**

- Working pressure : > 7 bar (min)
- Deflated thickness : > 20 mm
- Assembly method : Hot vulcanization in an autoclave



7 bar



High pressure

For applications requiring **high lifting force**

- Working pressure : 7 bar (max)
- Deflated thickness : \simeq 18 mm
- Assembly method : Hot vulcanization in an autoclave

3 bar

Medium pressure

Moderate lifting force to lift or move (for moderate loads)

- Working pressure : 3 bar (max)
- Deflated thickness : \simeq 12 mm
- Assembly method : Hot vulcanization in an autoclave



0.5 bar



Low pressure

To **hold or to move at low pressure**

- Working pressure : 0.5 bar (max)
- Deflated thickness : \simeq 2 mm
- Assembly method : HF welding

FROM STANDARD SIZES TO CUSTOM SIZES



STANDARD RANGE

PRONAL developed a standard range of lifting bags based on different properties :



Inflation with **AIR, WATER OR OIL**



Working pressure of **7 BAR** (depending on the application)



Different shapes and dimensions : **SQUARE - ROUND, FROM 100X100 MM TO 500X500 MM**



Temperature range from **-20°C TO +70°C**



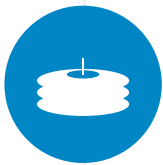
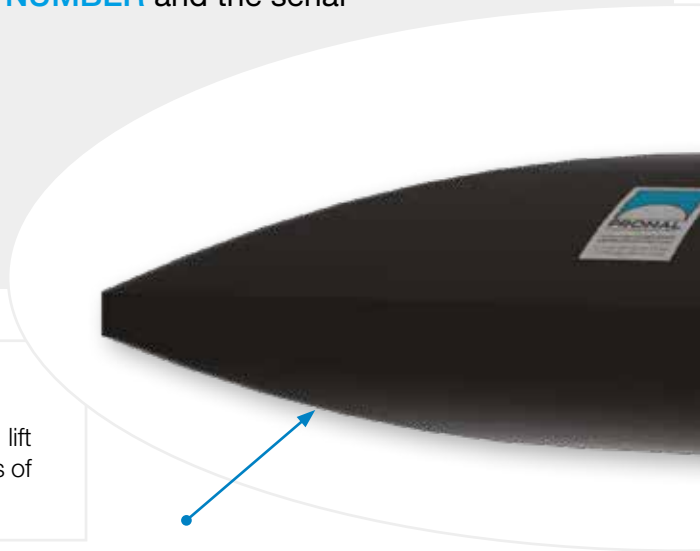
Standard inflation **PORT STEM 1/4" OR 3/4"** in the center of the lifting bag surface



A **LABEL CONTAINING** the **PART NUMBER** and the serial number

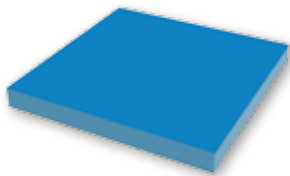


Due to many different applications, we offer custom designs to meet specific requirements : **implantation, resistance, temperature...**

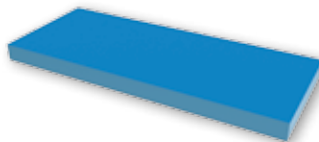


THE SHAPES

You have a project, we have the solution. We produce lift bags of different shapes depending on the requirements of the application (See page 10).



SQUARE



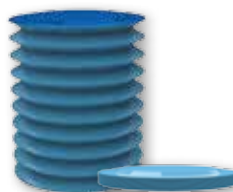
RECTANGULAR



ROUND



DONUT SHAPE



MULTI STAGE



CUSTOM SHAPE



MATERIALS

Each product design must meet the operational requirements for each application. PRONAL offers different materials in order to optimize the strength and the capacity of the lift bags.



FOOD GRADE
MATERIALS ARE
AVAILABLE



TEMPERATURE
RESISTANCE
UP TO **150°C**



LONG
PRODUCT LIFE



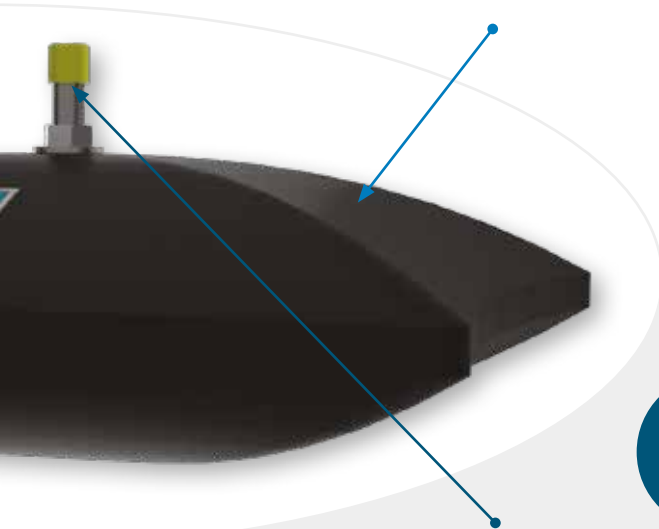
MATERIAL
TO SUIT THE
APPLICATION



RESISTANT
(TO OIL, UV RAYS,
ABRASION...)



COATING
OF THE SURFACE



ACCESSORIES

The lifting bags can be equipped with different accessories depending on the application.



1 - Inflation valve 1/8", 1/4", 1/2" and 3/4"

Can be placed on the top, side or corner of the lifting bag.



2 - Threaded insert M05, M06, M08

Vulcanized into the top or side of the lifting bag.



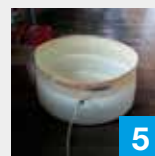
3 - Inflation tube made of PU

It can be placed on the side, corner or the bottom of the lifting bag.



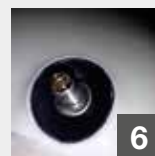
4 - Velcro strap holder

Used to hold the bag under certain conditions.



5 - Holding skirt

It can be used to hold a lift bag around a pipe.



6 - Schrader Valve

It can be placed on the surface of the bag.

APPLICATIONS



Heat press

PRESSING



- Press
- Bond fabric to roof of car
- Mould closure
- Bonding of mirrors

LIFTING

- Lifting a container
- Lifting of loads
- Lift table
- Maintenance work
- Vehicle lifting



Platform lifting



Guiding and blocking in sorting machines

GUIDING

- Web guide
- Felt guide
- Guiding of grinding arm
- Leveling of stone blocks

APPLICATIONS



Blocking a wheel

SQUEEZE / MANIPULATE

- Gripping of bottles
- Handling of fragile parts
- Robots
- Squeezing of complex forms
- Braking of rollers

SEALING / DAMPENING

- Vacuum sealing
- Sealing of underwater locks
- Inflatable seals
- Sealing of a trough during emptying



Pipe Sealing

THE USE OF OUR LIFTING BAGS is already found in many fields...



Automotive



Industrial



Food



Textile



Energy



Civil Defense



Pharmaceutical



Public places



Water
treatment



Wood industry



Logistics



Glass

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