

SAFETY VALVE FOR INFLATABLE ENVELOPE

Invention allowing innovative uses of inflatable structures

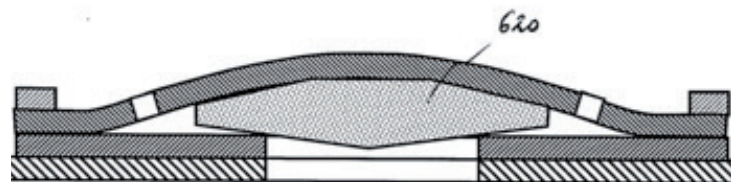
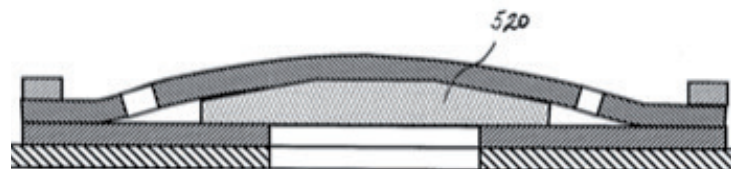
Technological benefits

Envelope Improvements

- Ultrafine envelope (from 1 μm to 250 μm).
- Lightness.
- Easy to deploy.
- Fine and more efficient valve.
- Reliable and resistant.
- Protects the envelope from bursting.

Compatibility

- Can be used with ultra-thin films.
- Implantation of the valve without risk of film breakage.



check valve.

b. A cross-section of a safety valve with a router-shaped check valve.

Invention overview

The invention relates to a safety valve for an inflatable envelope made of a thin synthetic film (1 μm to 250 μm thick) of very low mass.

The valve allows the control of the overpressure without external intervention, the system is completely autonomous.

These valves can be used to create a clean space or a temporary controlled atmosphere.

Commercial benefits

Lightness & robustness.

Inflatable structures of reduced mass.

Use of inflatable structures for new applications (e.g. clean room or medical enclosure).

Autonomous systems.

Potential applications

Ionospheric balloons.

Inflatable structures.

Pressurized packaging for sensitive equipment. Clean and controlled atmosphere. Isolated spaces from the outside atmosphere. Emergency Medical Block, etc.

TRL : 3/4

Invention available under license.