



***Rubena***

**RUBBER-TEXTILE  
PRODUCTS**





## About us

Rubena has been a traditional Czech manufacturer of rubber parts since 1908. We are a strong partner with the ability to deliver comprehensive solutions from development, design, to production itself across a wide product portfolio.

### Certificates ISO 9001 and 14001

Certification of the Ministry of defence of the Czech republic – fuel tank production

Civil aviation Authority of the Czech republic – authorised by the organization for production

## History



1908	Josef Kudrnáč starts manufacturing lubricants, asbestos-rubber products and sealants.
1923	Production of technical rubber.
1929	Production of bicycle tyres and inner tubes.
1931	Production of first Czech tyres and inner tubes for passenger cars.
1934	Tomáš Baťa starts V-belt production in Zlín.
1948	The company adopts the new name Rubena. The Barum brand is created.
1996	Rubena a.s., Náchod becomes a part of Česká Gumárenská Společnost with its headquarters in Prague
2000	Rubena Náchod and Gumokov Hradec Králové create the joint venture Rubena a.s., Hradec Králové.
2004	Rubena a.s., Hradec Králové buys V-belt production from the company Mitas a.s. in Zlín.
2006	Subsidiary CGS Automotive de Mexico was founded.
2016	Rubena became part of the Trelleborg Group.
2021	Rubena becomes part of the Czech investment group KAPRAIN.



## Inflatable Dams

An inflatable weir is a permanent structure consisting of a rubber-textile membrane (the body of the inflatable dam) fixed to a concrete bed using steel anchors and anchoring bolts. The inflatable weir is connected via a system of pipes to a control shaft that provides fully automatic operation of the dam structure via an electronic device.

The simple and environmentally friendly characteristics make it ideal for small hydroelectric plants, irrigation systems, ground water treatment systems, recreational purposes and for reconstructing older, fixed or mobile weirs, and flood control.

Rubena inflatable bladders, which have been manufactured since 1963, feature the unique technology for membrane production (they are 8 up to 50 mm thick) and the top technical standard based on our own know-how.



Low acquisition and operating costs



No negative environmental impact



Hundreds of successful installations



High resistance to vibrations during overflowing water, which can be increased with vulcanized baffles if required



Complete installation and service maintenance globally



Low maintenance lower structure and reconstruction of old fixed weirs or weirs with sluice or water gates



Low maintenance and operation costs



Waterfront pillars can be modified from the perpendicular to a tilt of 1:3, with the pillar axis not perpendicular to the longitudinal axis of the weir



Problem-free winter operation



Simple regulation of the upper level with an accuracy of  $\pm 2$  cm, even for flood flow rates up to the capacity of the dedicated opening



More than 30 years lifetime



Practically the only alternative for horizontally or vertically curved overflow edges





## Bladder Fuel Tanks for Aircrafts, UAVs and Land Vehicles

Rubena fuel tanks are specially designed rubber-textile bags engineered for seamless integration within aerospace structural cavities, including fuselage bays, wing spars, and other internal airframe compartments or vehicle chassis. These tanks are constructed from oil- and fuel-resistant rubber matrices reinforced with high-strength textile layers, ensuring optimal performance under variable pressure, temperature, and vibration conditions.

The tanks are designed to maintain structural integrity and fuel containment during dynamic loading and thermal cycling. The design meets the requirements for safety, reliability and maintenance of the fuel system.



Over 2.000 pcs of several types tanks manufactured. Quality products used for Czech ground attack aircrafts L-159 and other aircrafts L-39, L-410



Shape stability of the fuel filled space guaranteed, available also in self-sealing version



Maximum utilization of the aircraft interior



Excellent resistance to temperature differences



Easier assembly and servicing thanks to elasticity and good shaping



Suitable also for application in other machines (e.g. UAVs, heavy land vehicles, racing cars and other machines requiring light, variably-shaped fuel tanks)





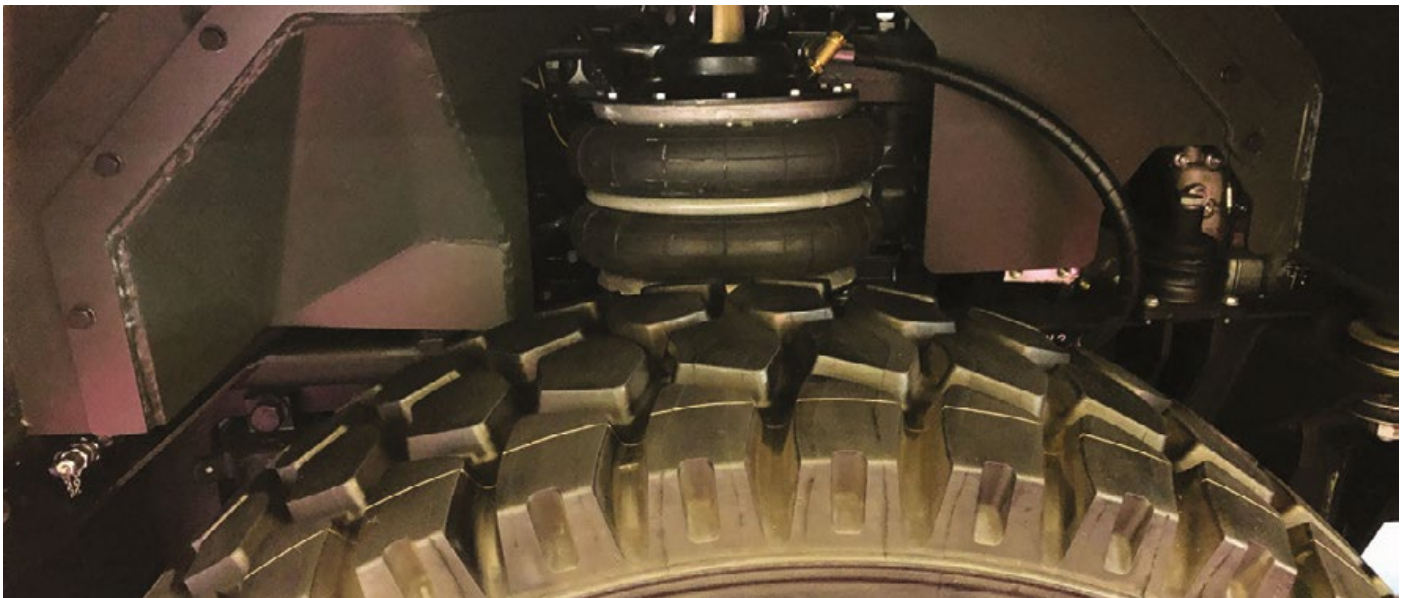


## Air Bellows

Rubena's air bellows are an integral part of Tatra Truck's unique chassis, which can rightly be considered the world's best heavy-duty off-road vehicle.

These vehicles are rapidly finding application in military systems. For example as vehicle for logistics purposes or directly in weapon systems such as Infantry Fighting Vehicles or Howitzers.

Rubena's air bellow not only give the vehicle excellent cross-country ability, but also make a significant contribution to shock absorption during firing.





## Fuel and Water Storage and Distribution

Rubena flexible fuel tanks are a standard, internationally recognised product used by both military and humanitarian organisations for the temporary storage and distribution of fuel and water.

These flexible tanks are manufactured from specially developed rubber coated textiles which are specifically designed to offer high abrasion and tear resistance. Each product will be designed for the specific duty required including all types of fuels, liquid fertiliser and water.



Durable and able to withstand harsh conditions



Manufactured from high quality materials



Flexible and easy deployable



Storage volume up to 250.000 litres / tank



Parameters tailored to customer requirements



Wide range of accessories available





## Dry Storage System

The Rubena Dry Storage System can be used to protect a multitude of high value assets including military hardware, ammunition, emergency equipment such as generators, pumps and compressors, medical equipment and just about any high value asset that maybe used occasionally. This enables assets to be decentralised and stored where they will be required resulting in rapid deployment when needed.



Significantly prolongs the life of the stored asset



Easily rigged and derigged, can be reused many times



Resistance to temperature  $-40^{\circ}\text{C}$  to  $120^{\circ}\text{C}$ , high UV and ozone protection

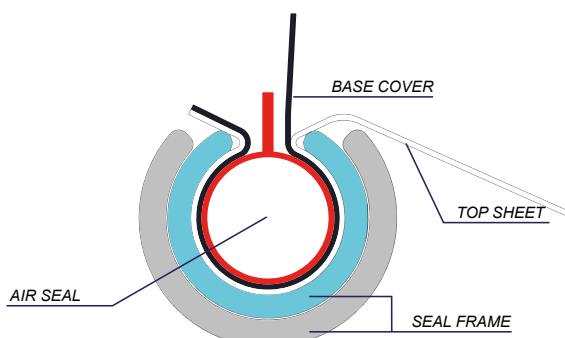


Stored asset available for almost immediate use after DSS removed



Suitable for almost any location, decentralised storage

*Sectional view of seal and sealing frame with base sheet and cover in position*

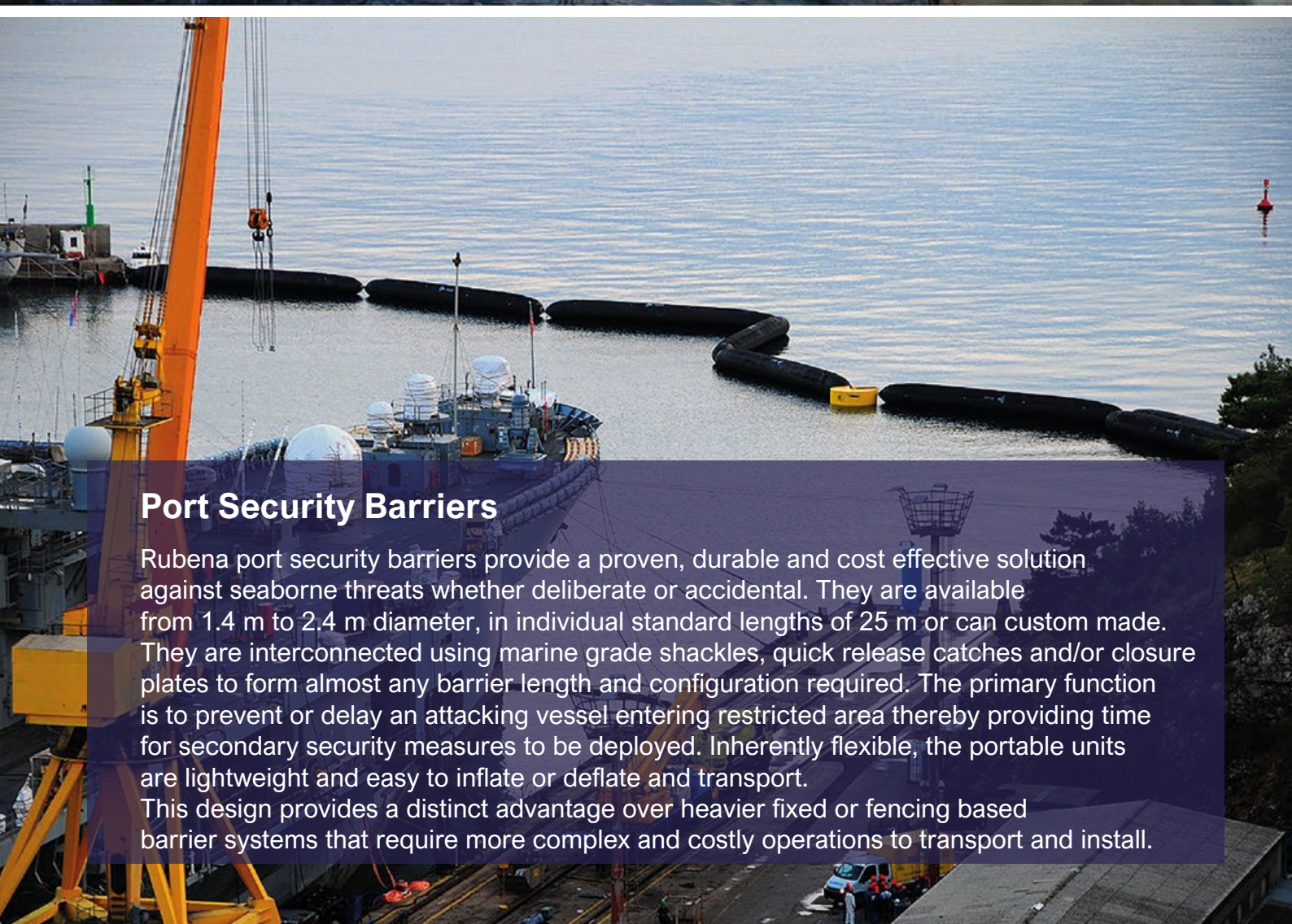






## Low Pressure Fenders

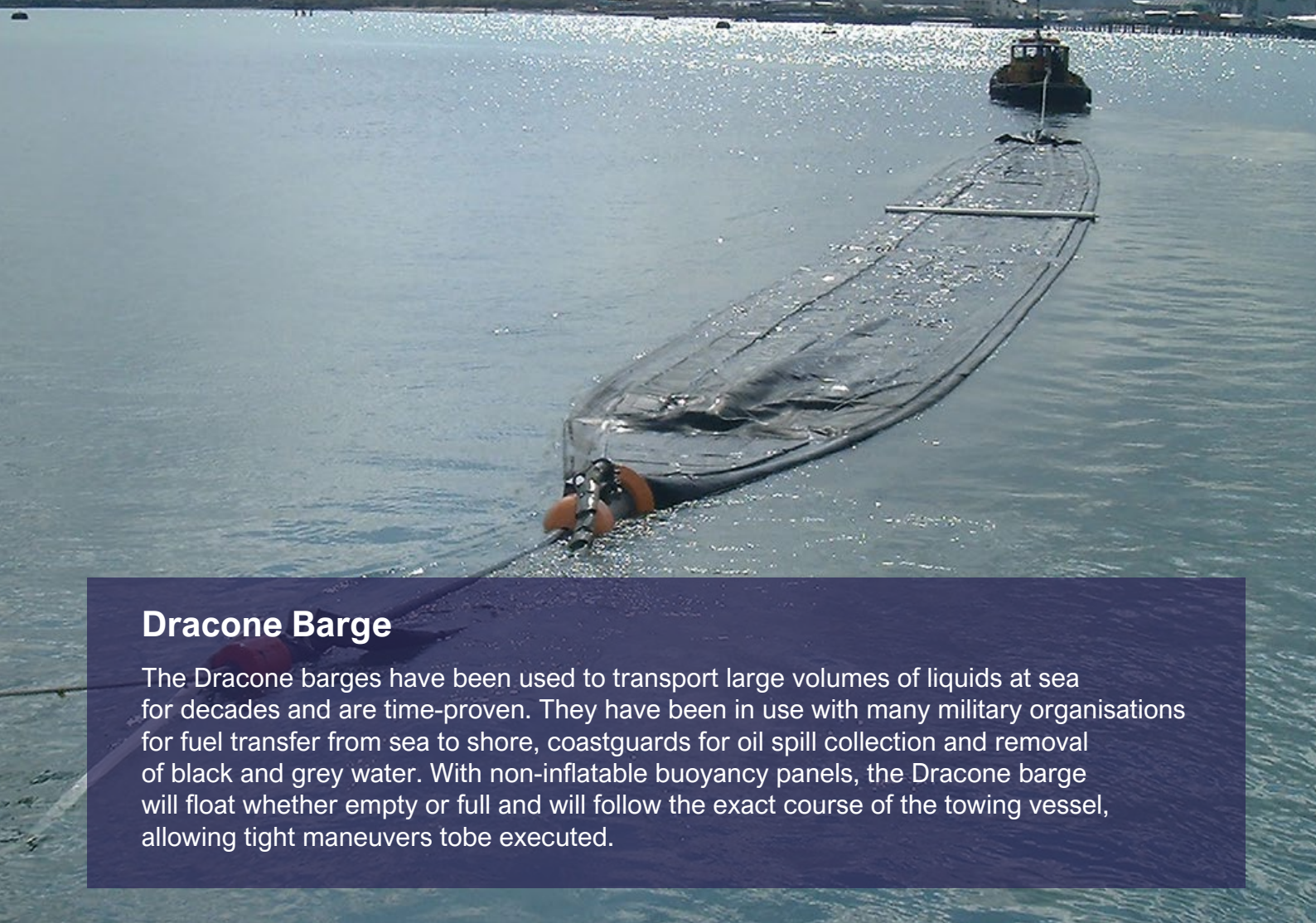
Rubena low-pressure (LP) pneumatic fenders play an essential role in the safe berthing of ships at sea in emergency or other operations such as refuelling. Unlike other fenders, Rubena LP fenders are designed to spread berthing forces over a large area, achieving a far lower load reaction and hull pressure than any other fender system. Light weight and low package size make the Rubena fenders particularly suitable for coast guard and rescue vessels where fender requirements may not be known in advance.



## Port Security Barriers

Rubena port security barriers provide a proven, durable and cost effective solution against seaborne threats whether deliberate or accidental. They are available from 1.4 m to 2.4 m diameter, in individual standard lengths of 25 m or can custom made. They are interconnected using marine grade shackles, quick release catches and/or closure plates to form almost any barrier length and configuration required. The primary function is to prevent or delay an attacking vessel entering restricted area thereby providing time for secondary security measures to be deployed. Inherently flexible, the portable units are lightweight and easy to inflate or deflate and transport. This design provides a distinct advantage over heavier fixed or fencing based barrier systems that require more complex and costly operations to transport and install.





## Dracone Barge

The Dracone barges have been used to transport large volumes of liquids at sea for decades and are time-proven. They have been in use with many military organisations for fuel transfer from sea to shore, coastguards for oil spill collection and removal of black and grey water. With non-inflatable buoyancy panels, the Dracone barge will float whether empty or full and will follow the exact course of the towing vessel, allowing tight maneuvers to be executed.



Versatile large capacity  
for transportation (5.000–400.000 l)



Quickly deployable and air transportable



Durable and able to withstand harsh  
conditions



Very long life expectancy - over 20 years





# Non-Standard Small Series Products

## Membranes for Heating Systems

Standard membranes are rubber bags designed to equalize pressure during the dilatation of heating media in closed heating systems or waterworks. Flat bag membranes are used in heating pressure expansion vessels designed for use in drinking and service water systems (separating gas and water from each other) and are fitted with a necessary suspension fixing system.



Custom development of a blocking system shape, position and structure



Wide range (ca 700 types of 100 up to 25 000-litre volume)



Special compound for drinking water membranes

## Pressing Bags

Pressing bags are rubber or rubber-textile cushion or flat-form, products. Pressing bag filling media are compressed air or a liquid, most often treated water. They are used to seal moulds during the product shaping process, for example for the automotive or ceramic industries, etc. The principle consists in inducing compression force in the bag using compressed air or a liquid, which produces the desired product shape. The bags are made from several types of rubber compounds according to their intended use and can be reinforced with textile fibres. The produced bags are up to 2.5 m wide and 13 m long. Short delivery time.

## Other Pressing Rubber and Rubber-textile Products

**Rubber-textile inflatable bags (of smaller dimensions)** - suitable for repairs of car body dents.

**Rubber-textile inflatable sleeves** - designed to shape winding in the production of electric motors.

**Silicon-textile flat pressing membranes** - used in the production of carpets.

**Pressing bags** - used in the food processing industry to press fruit, grapes, cheese, etc.



We can make a shape and dimension in compliance with customer's needs with respect to the operation of a given particular bag.



## Insulating Bags

Insulating bags for oil transformers are used to equalize pressure in transformer oil tanks and protect the used oil from atmospheric humidity.



We can make various shapes and sizes of insulating bags in compliance with customer's needs.

## Connectors, Sleeves and Hoppers

We offer rubber or rubber-textile products mostly hand built and freely vulcanized in the autoclave of maximum diameter 2.8 m and 13 m long. These are for example silicon connectors and dust covers for nuclear power stations.



We produce products of atypical dimensions and shape in compliance with customer's needs for various fields of human activities.



# ***Rubena***

**www.rubena.eu**

**ISO-14001**

**ISO-9001**

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