SpringTech
H2 Tank Fastening Systems
286

Reliable Connections

Recommended for the secure fastening of hydrogen tanks

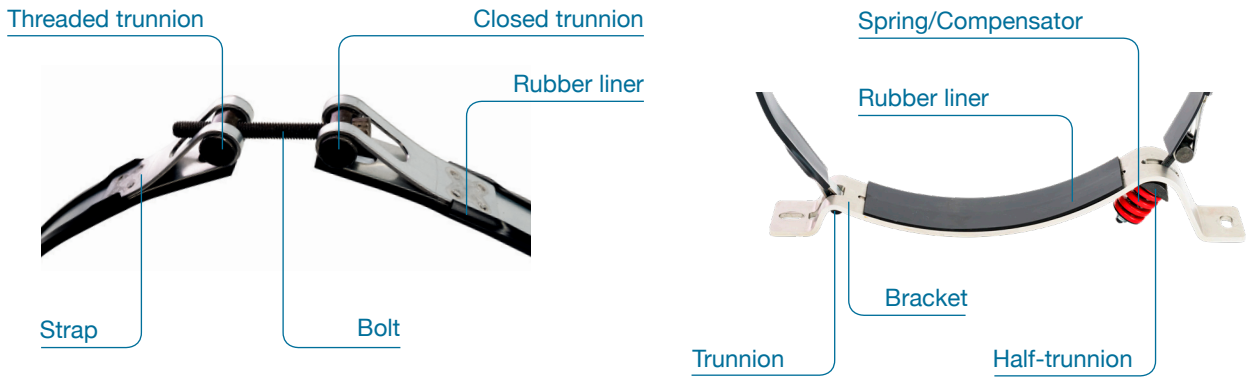
Benefits

- Reliable and safe fastening of cylindrical high-pressure tanks that expand and contract during operation
- Compliant with H2 safety regulation
- Designed for minimal space usage

Minimum space consumption: supports maximum utilization of available space
SpringTech design: to compensate tank expansion and contraction
Torque controlled assembly: monitored assembly with repeatable holding parameters
Engineered solution: to suit customer requirements
Assembly-friendly: ergonomically optimized designs with pre-shaped layouts

SpringTech

FEATURES



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TECHNICAL DATA OVERVIEW

Materials

Component name	Material	Standard/Grade
Strap	Coated steel	EN 10346-1.0935
Bolt	Coated steel	Class 8.8
Trunnions	Coated steel	SAE1215
In-liner	Nitrile rubber (NBR)	70° Shore A
Spring	Coated steel	ISO_10243_2019
Bracket	Stainless steel	EN 10346-1.4301

Series

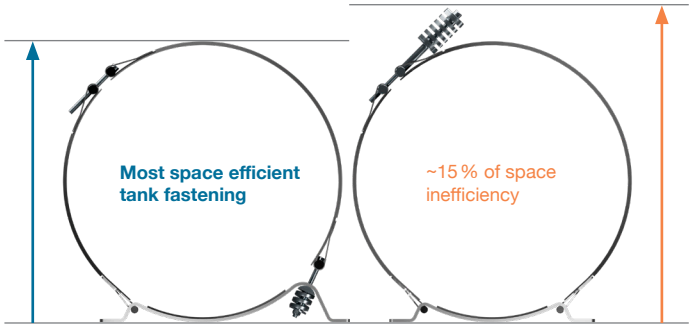
Size range (mm)	Width of strap (mm)	Width of strap including liner (mm)	Width of bracket (mm)
340-450	30	35	56
other sizes on request			

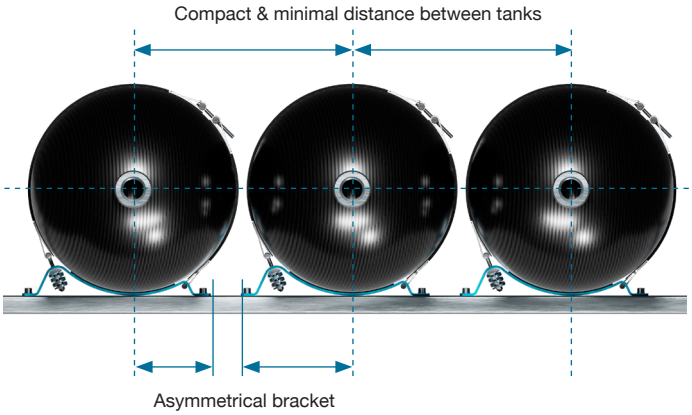
PRODUCT DESCRIPTION

Oetiker's SpringTech H2 Tank Fastening Systems are a unique fastening solution to secure cylindrical high-pressure hydrogen tanks that expand and contract during operation.

Space optimized system design
The fastening system is designed to require minimum space while providing H2 safety regulation compliant holding of the tank on all road conditions.

Not only the location of the spring element but also the unique asymmetric shape of the bracket ensures the maximum utilization of the available space.

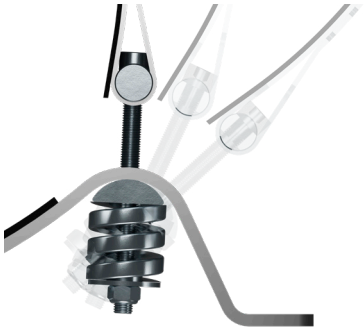




H2 safety regulation compliance
To ensure compliance with H2 safety regulations, such as ECE R134, push-out tests have been performed, verifying post-crash fuel system integrity.

Durability test
The durability of the features that compensate for tank expansion and contraction has been verified using a specialized Oetiker Fatigue Test Device.

Self-angular adjustment to tank diameter
Oetiker's half-trunnion design, combined with the shape of the bracket, allows for self-angular adjustment to the tank diameter ensuring maximum grip during tank expansion and contraction, but also flexibility in the tank diameter to assemble.



ASSEMBLY

The H2 Tank Fastening System is delivered as one set ready for installation. Any torque-controlled wrench can be used for the final assembly. The recommended torque and speed values are provided by Oetiker to ensure the most efficient and safe closure and will be outlined on the customer drawing.

To allow the connection to be adjusted during assembly to the frame the bracket is equipped with a unique alignment of oblong holes.

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