

Give gas with SERTO

(Aadorf) SERTO has received ECE R110 approval for the use of its stainless steel check valves in natural gas applications. This is especially important in the rapidly growing market for natural gas and hydrogen-operated automobiles and fuelling stations. We are now able to offer a wider range of our compact products to our customers in this segment.

"All automobile manufacturers are currently involved in developing alternative drive systems", explains René Glaus, Product Manager at SERTO. "Because our components are very compact and take less space, they are naturally in high demand. This new gas approval means that our customers now have access to tested and certified components." The stainless steel check valves in our product offering are ECE R110 approved up to 400 bar. Test reports are available for the SOL stainless steel tube unions, which were also included in the testing. These products are not certifiable as such.

Sector is delighted to have compact solutions

The rapidly growing market for natural gas and hydrogen-operated automobiles and fuelling stations is more than happy about the availability of SERTO products for their applications. At the present time, natural gas is the only viable alternative to the well-known fossil fuels. It is not only cheaper than petrol or diesel, but also friendlier to the environment. The convincing arguments of vehicles powered by natural gas are mainly the lower fuel costs and the lower emission levels. CO2 emissions are 20 to 25 percent lower than comparable petrol engines in normal operational cycles. The majority of natural gas vehicles can, however, not compare to petrol-driven cars as far as highway performance is concerned. Albeit a better performance for the same or smaller cubic capacity is possible. Natural gas vehicles can profit from this so-called downsizing in future because alternative drive systems can convincingly play out their strengths with turbocharging. Natural gas can be compressed

Contact and information:

SERTO AG
Schützenstraße 25
CH – 8355 Aadorf
Tel +41 (0)52 368 11 11
Fax +41 (0)52 368 11 12
www.serto.com

Technical informations:
rene.glaus@serto.com

Publications:
kathrin.hellwig@serto.com

to greater degrees due to its anti-knock properties. One problem at the moment is, however, the restricted range of only approx. 300 kilometres and the smaller tank capacity. "Every millimetre counts here," says Glaus. When looking to save space and weight, designers are very interested in small and compact components.

Similar to other SERTO tube unions, the check valves are a wrench size smaller than competitive products. Assembly and disassembly, as well as repeated assembly, is possible – according to our patented technology - radially. The double-ferrule mechanism works with a compression ferrule rather than a cutting ring. The tube is therefore not damaged, but only slightly deformed. Moreover, this protects against incorrect installation. The check valves are made of stainless steel 1.4571 and have been tested in the dimension range of 6–18 millimetres outer diameter. The components are approved for diverse groups within the pressure ratings (PN) 200, 330 and 400 bar.

Brutal testing passed without objections

With ECE R110 approval, products and components for fuel systems with compressed natural gas can be built into motor vehicles and fuelling stations. Testing was conducted according to ISO 15500 Part 2, 3 and 19. The components are subjected to a pressure test for three minutes at a pressure of 1000 bar. To test the gas tightness, they are subjected to temperatures ranging from -40 to 120°C. Additionally, they are tested for bending resistance, corrosion behaviour, vibration resistance and many other properties in this brutal test procedure. "Our check valves passed all the tests without any objections," emphasizes Glaus. "And because they were assembled for testing with our stainless steel tube unions on both sides, these are virtually certified as well."

Products in all high-tech areas

The SERTO Group with nearly 220 employees world-wide realises sales in the order of 70 million Swiss francs (approx. 42 mill euros). Their customers include renowned firms in the chemical and pharmaceuticals industries, as well as manufacturers of coffee machines, ozone generators, medical equipment, vehicles

SERTO AG
Rohrleitungstechnik
Schützenstrasse 25
Postfach
CH-8355 Aadorf

Tel: +41 (0)52 368 11 11
Tel: +41 (0)52 368 11 12
info@serto.com
www.serto.com

or wafer steppers. The stainless steel tube unions and hoses are particularly valued in new technologies and applications, such as hydrogen technology, natural gas vehicles or in fuel cell technology.

103 lines, 673 words, 4.338 characters
Please send two copies of the print version to SERTO Ltd.

In North America SERTO Products are available from:
MARYLAND METRICS P.O. Box 261 Owings Mills, MD 21117 USA
ph: (410)358-3130 (800)638-1830 fx: (410)358-3142 (800)872-9329
web: serto.net email: sales@serto.net