

EVERYTHING. FOR THE BEST SOLUTION.



H₂-READY
MATERIAL RESISTANCE TO
PRESSURIZED HYDROGEN

WELCOME TO SCHOELLER

Since 1827, Schoeller stands for premium quality and the highest standards. As one of Europe's leading manufacturers of welded and redrawn stainless steel tubes, we know what matters: precisely tailored products and services for our customers.

1827

H2-READY: MATERIAL RESISTANCE TO PRESSURIZED HYDROGENE

Green hydrogen is becoming the energy source of the future. As base material for power-to-X processes, it will be used in fuel cells or hydrogen combustion engines, but also in industrial applications ranging from electrolyzers and heat exchangers to large-scale production plants. Upon receiving the TÜV certification "Material resistance to pressurized hydrogen", Schoeller has positioned itself as a competent partner for the application of the future energy source.

H2-READY: STAINLESS STEEL TUBES

All systems and components used in the application of (green) hydrogen require hydrogen-resistant properties. Therefore stainless steel tubes in application-specific grades play a key role, as they are used along the entire process and energy chain. Relevant material properties are:

- Resistance to hydrogen embrittlement
- Resistance to temperature fluctuations
- Resistance to fatigue under dynamic load at increased operating pressures

SCHOELLER BENEFITS & SERVICES



INDUSTRY EXPERTISE

Know-how from a wide range of industries with complex project requirements creates synergy effects.



MATERIALS & CONSULTING EXPERTISE

Decades of expertise in materials and consulting build the foundation for highly complex hydrogen solutions.



HIGH DEVELOPMENT STANDARD

Approvals, a high development standard and sophisticated test methods for quality and safety.

CERTIFICATION TÜV SÜD

The certification "Material resistance to pressurized hydrogen" was issued for both longitudinally welded and redrawn stainless steel tubes. Both tube versions are therefore approved for low-pressure applications as well as for high-pressure applications up to 875 bar.

MATERIALS & TECHNICAL DETAILS

Please see the following specs as reference for hydrogen applications.

GRADES

- 1.4401
- 1.4404
- 1.4435

DIMENSIONS

- OD 3.0 – 114.5 mm
- WT 0.3 – 3.0 mm

STANDARDS / SPECIFICATIONS

- DIN EN 10217-7
- Certification for "material resistance to pressurized hydrogen"

INFO

Customized solutions and special requirements upon request. Everything. For the best solution.