

HYDROGEN READY VALVES



Hydrogen is one of the most abundant chemical elements and it is a **clean alternative to natural gas**. It can be produced from a variety of resources including renewable sources, such as solar and wind energy as well as natural gas, biogas, even if up to now it is still principally produced from fossil fuels.

With energy transition, the hydrogen management will be our next challenge in the transport throughout existing natural gas grids or new hydrogen pipelines.

For this reason, it is establishing itself as a pillar of **global environmental** and **energy strategies**.

In several industrial purposes, such as **oil refining**, **ammonia**, **methanol** and **steel production**, HIT VALVE has developed and marked its valves for hydrogen application in several industries and projects, since **2008**.



Construction:

- Forged body
- Anti-blow-out stem design
- Multiple stem seal arrangement
- Sizes: from NPS 1 1/2 to 48
from NPS 1 13/16 to 9
- Pressure ratings: Class 150 to 2500
API 3000 to 10000
- Double block and bleed
- Fire safe design

Design options:

- Trunnion mounted ball
- Soft or metal seated
- Ambient, LT, HT services
- DIB-1 and DIB-2

METALLIC MATERIALS FOR H₂ SERVICE

- Material Selection according to ASME B31.12, EIGA DOC 121, API RP941, ISO 11114-1
- Limited tensile strength
- Absence of inclusions and surface defects
- Minimization of residual stresses

NON-METALLIC MATERIALS FOR H₂ SERVICES

- AED
- Retain mechanical properties and stability in comparison to operating conditions, as per Norsok TM-710, ISO 11114-2

TEST FOR HYDROGEN LEAK-TIGHTNESS

- Fluid test: 100% Helium
- FET according to ISO 15848 (with suitable leakage rate)



CONTACT AND INFORMATION

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