

H₂ Hydraulic Compressors

Our Product portfolio



SINGLE STAGE COMPRESSOR

Are the simplest type; with only one compression stage, they are used for compression ratio typically below 5:1.

Operating at relatively low pressures, they are ideal for feeding industrial processes or turbines and for grid injection.

The high-pressure version is used as a booster in the design of filling stations.



TWO STAGE COMPRESSOR

Symmetrical as single-stage, series-connected combustion chambers make this family suitable to operate at higher pressure peaks as well as at low pressures in industrial processes or turbines feeding applications up to grid injection.



THREE STAGE COMPRESSOR

Asymmetrical, with two first-stage compression chambers and a single one for the second and third stage respectively, they are ideal for applications where very high pressures are required

1996 ...

First H₂ compression plant

2022 ...

More than 160 H₂ compressors installed worldwide

Key Features and experience

Availability & reliability

Low speed results in a high service life of **more than 2 years.**

Wear parts, such as gas seals, are self-lubricating PTFE-based and have an average **life of 5,000 operating hours.**

Green

The new generation features a «**Long Distance Piece**» (LDP) that **prevents any contamination.**

Flexibility

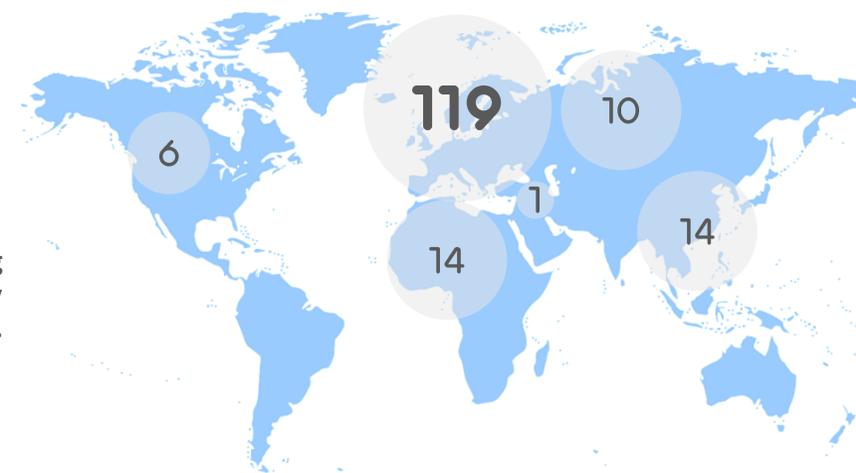
Hydraulic compressors are relatively **simple** with only one moving part: the piston rod to which the oil and gas pistons are attached

Key market served

Applications	Bar (psi)
INDUSTRIAL	Up to 160 and 200 bar (2,320 and 2,900 psi)
POWER TO GAS (grid injection and cylinder trailers refill)	75 to 350 bar (1,087 to 5,075 psi)
H₂ INDUSTRIAL PRODUCTION	250 – 350 bar (3,625 – 5,075 psi)
35 Mpa H₂ Refueling stations (HRS)	Up to 450 and 500 bar (6,525 and 7,250 psi)
70 Mpa H₂ Refueling stations (HRS)	Up to 1,000 bar (14,500 psi)

Our references

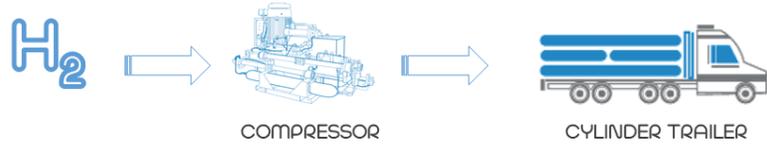
More than 160 H₂ compression systems installed worldwide



Compression plant configurations

Some examples

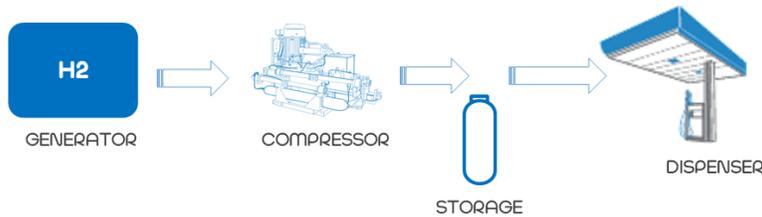
Mother station (250-350 bar)



Daughter station (350 bar)



On-site generation station (350 bar)



Grid injection (75 bar)



H₂ PATH

2023

Development and launch of:

- the second line of mechanical **hydrogen compressors (ST series)**
- Launch of **1MW hydrogen horizontal compressor**

2022

Development and launch of:

- the first line of **mechanical hydrogen compressors (SV/SW series)**
- the first line of **hydrogen dispensers**
- the first line of **hydrogen dryers**



WORLD LEADER IN

H₂

INFRASTRUCTURE TECHNOLOGY

2022