Hiperbaric
HIGH PRESSURE TECHNOLOGIES

HIGH PRESSURE HYDROGEN COMPRESSION TECHNOLOGY

Complete and advanced Hydrogen **Compression Solutions of up to 1,000 bar**

HIGH PRESSURE H_2 COMPRESSOR GROUPS **FOR SUSTAINABLE AND DECARBONIZED MOBILITY & INDUSTRY STORAGE**

Hiperbaric, the global leader in high pressure technology, is focused on the development and manufacture of hydrogen compressor units generating pressures of up to 500 or 1,000 bar.

Hydrogen must be compressed to high pressures by using innovative technologies, to make its use extensible to different areas.

Applications of Hydrogen Compression

Hydrogen **Refuelling stations**

High Pressure **Storage Solutions**

Tube Trailer **Filling**

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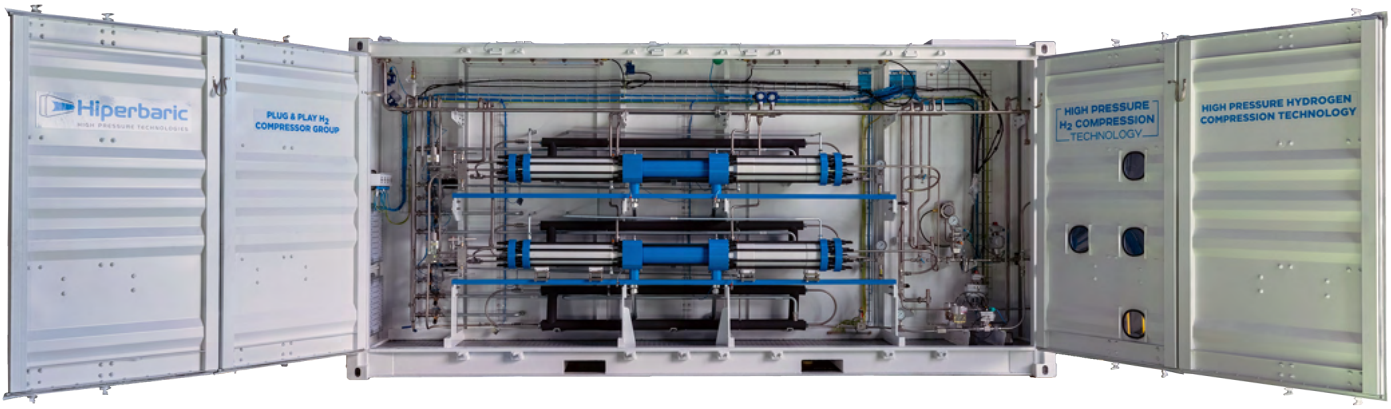
Plug-and-Play Compressor Groups:
Safe, Efficient and Reliable

Range of compressor groups adaptable to:

- Any level of production and demand
- Different suction and discharge pressures: **from 20 bar to 500 or 950 bar**

Compressor Group components



- **Intensifier Cylinder**
- **Hydraulic System**
- **Refrigeration System**
- **Vent Circuit**
- **Instrumentation and Control Panel**
- **Pneumatic circuit**

Two-stage Intensifier Cylinder

The most important component of this unit is **the high pressure piston intensifier cylinder.** It has different sections to carry out the compression.

Number of stages	*2*
Stroke	*Single*
Turndown of the compressor	*0 to 100% of flow rate **
Outlet temperature	*<40°C*
Footprint	*One Plug & Play 20' container ***
Option	*Configurable to include one or two intensifier cylinders* *(that duplicates the flow rate)*

** Thanks to the hydraulic unit of the axial pump used · ** Includes cooling, control, safety and ventilation systems*

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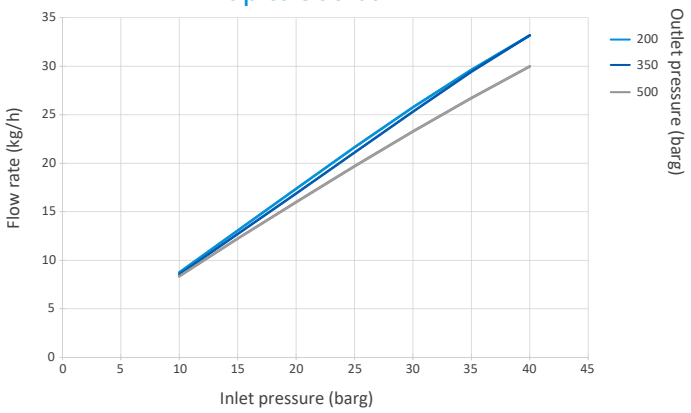
Technical specifications of Compressor Groups

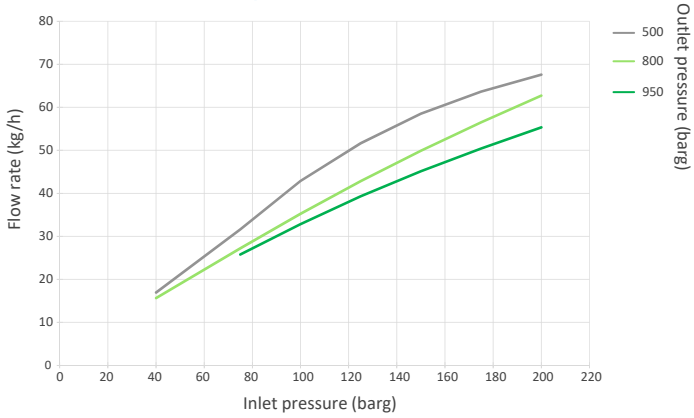
Hiperbaric KS 50					
Model	Outlet max. pressure (barg)	Hydrogen flow (kg / h)	Hydrogen flow (kg / day)	Energy consumption (kWh / kg of H_2)	Total installed power (up to...kW)
1KS50	*500*	*24*	*565*	*1.3*	*75*
1KS50 Pro		*32*	*772*	*1.3*	*105*
2KS50		*47*	*1130*	*1.4*	*120*
2KS50 Pro		*64*	*1544*	*1.4*	*180*

Hiperbaric KS 95					
Model	Outlet max. pressure (barg)	Hydrogen flow (kg / h)	Hydrogen flow (kg / day)	Energy consumption (kWh / kg of H_2)	Total installed power (up to...kW)
1KS95	*950*	*10*	*236*	*4.6*	*75*
2KS95		*20*	*471*	*4.6*	*120*
1KS50 Pro - 1KS95		*32*	*756*	*2.4*	*110*

Hiperbaric 1KS 50
up to 500 bar



Hiperbaric 1KS 95
up to 950 bar



Advantages and benefits

- "Oil Free" concept guarantees a high purity of hydrogen.
- Efficient cooling thanks to the innovative design of the intensifier cylinder design.
- Advanced reciprocating piston technology
- Greater efficiency in compression requiring less energy.
- Modular and scalable design that can include one or two compressors, depending on the desired hydrogen flow rate.
- Safe and reliable solution, thanks to the venting system that monitors, evacuates and stops the compressor in the event of any possible gas detection.

HIPERBARIC'S HYDROGEN COMPRESSORS ARE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH THE MOST RIGOROUS INTERNATIONAL DIRECTIVES AND STANDARDS AND CAN BE INSTALLED IN ANY COUNTRY IN THE WORLD.

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Hydrogen for the **mobility of the future**

At refueling stations, H_2 in the form of high-pressure compressed gas is supplied to vehicles quickly, cleanly and safely.

Renewable, safe **compact and efficient H_2**

H_2 storage is postulated as one of the main key factors driving the Hydrogen Economy.

Quality standards **and certifications**

The Integrated Management System for design and production of high pressure equipment of Hiperbaric is certified by AENOR in accordance with requirements ISO 9001, ISO 14001 and ISO 45001. It guarantees the sustainability and quality assuranceof our products and services.

CERTIFIED COMPANY

ISO 9001 ISO 14001 ISO 45001

EXPERIENCE OF THE WORLD LEADER IN HIGH PRESSURE TECHNOLOGIES

Hiperbaric is the global leader company in the development of High Pressure Processing (HPP) and Hot Isostatic Pressing (HIP) technologies for different sectors and applications.

It has more than 1,000 water compressors up to 6,000 bar for the HPP application installed in more than 50 countries. Now, it is a key player in the Hydrogen Economy with H_2 compression solutions.

AFTERSALES SERVICE & SUPPORT

- Complete service from installation and start-up, to the supply of spare parts, going through maintenance "on-site".
- Highly qualified field technicians to offer reliable assistance where and when it is needed.
- Remote diagnostic and monitoring service to predict potential failures before damages occurs.

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