

HCP 500

Hydrogen Compressor Package

Achieve high mass flow hydrogen compression





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Hydrogen is a key element in the green energy transition by significantly contributing to the decarbonization of the industry. To allow wide use of hydrogen the equipment must evolve into industrialized and efficient solutions, enabling you to meet your total cost of ownership expectations for hydrogen compression. Our technology provides you with the most cost-effective and reliable high-pressure hydrogen compression solution on the market. One standardized compressor package that can operate with different kinds of hydrogen supplies.

Transport and Storage

The transport and storage of the molecule will be a central issue of the future hydrogen economy, regardless of the type of transport and subsequent storage. The HCP 500 is a compressor solution that enables flexible filling and withdrawal of hydrogen from a wide variety of sources, enabling efficient transportation and storage solutions for hydrogen applications. The standardized but application-tailored compressor package from HOERBIGER allows the extraction of hydrogen for:

- Pipelines
- Trailers
- Storage cylinders
- Cascade storage tanks
- Electrolysers

Refueling

Solutions for hydrogen refueling stations will play an important role in the energy transition of heavy-duty vehicles. With the HCP 500 we are providing a cost-efficient compression package that is purposely designed to meet technical requirements of applications in hydrogen refueling stations for:

- Trucks
- Busses
- Trains
- Ferries

| Use Case | Pressure Suction | Mass flow | Pressure Discharge |
|----------|---------------------|---------------|--------------------|
| Minimum | 至 15 bar | 187 kg/h | 500 bar |
| | 位址 217.5 psi | 76,177 scf/h | 7,250 psi |
| Design | ဂ် [†] ြဲ- | 250 kg/h | 500 bar |
| | ⁰ ၘ | 105,802 scf/h | 7,250 psi |
| Maximum | 275 bar | 300 kg/h | 500 bar |
| | 3,988.5 psi | 126,962 scf/h | 7,250 psi |

Your benefits at a glance

| Features | Advantages | Benefits |
|--|--|---|
| Maintains high mass flow rates | Continuously high mass flow | Less compressors |
| even with low suction pressure, | | Fast fill / short refill time |
| starting at 15 bar / 217.5 psi | | Less buffer storage / high pressure |
| a Hudra COM included | Stepless compressor capacity control (0 – 100%) | Precise and flexible process control |
| eHydroCOM included | Competitive CAPEX compared to frequency converter | Energy efficiency and saving costs especially at part load operations |
| Packaged turnkey solution with high standardization degree, supported by global service organization | "One stop shop" that covers installation to spare parts to maintenance — whole "scope" is covered | Increased compressor availability and efficiency |
| Compact design due to vertical recip | Small Footprint | Reduced costs |
| Incorporates a flexible and efficient digital twin software system with high security standards | Maximize compressor operating window with real time limit adjustement, based on current operating conditions | Increased uptime & optimized OPEX |
| Utilizes industry-leading HOERBIGER components for superior performance and reliability | High development and product industrialization standards from 100+ years experience | Minimized downtime and enhanced operational efficiency |





Learn more by visiting www.hoerbiger.com/hcp today!



Contact us via email c-globalmarketing@hoerbiger.com

Locally close to the customers – globally successful: HOERBIGER is active worldwide in 43 countries on all continents. 6,174 employees at 133 locations – including 30 production plants – deliver reliable solutions for better performance, increased safety, and fewer emissions. In 2023, they generated sales of 1.416 billion euros. For renowned customers from the energy sector, the process industry, the automotive industry, the mechanical engineering industry, safety technology, and the electronics industry, performance-determining products and services from HOERBIGER make the difference. With innovations for decarbonization and energy transition, HOERBIGER is already enabling change today for a better tomorrow. As majority shareholder, the HOERBIGER Foundation preserves the 129-year-old entrepreneurial heritage and guarantees stability, independence, and a future-oriented strategy.

