

### Introducing the Haskel

## **H-Drive System Module**



A flexible and compact compression system module, built to simplify the integration of compression technology and accelerate hydrogen infrastructure deployment.

#### INTRODUCTION



The H-Drive system module (HSM), provides the compression technology and equipment to support system builders and integrators to establish a fully working system. The HSM consists of two hydraulically driven Haskel H-Drive compressors, providing two stages of compression as well as an assortment of safety instruments, controls, piping and gas heat exchangers. It is designed to compress gaseous hydrogen to high pressures and is certified to operate within EX II 3G IIC environments. To establish a fully operational system, further modules of equipment are required to provide coolant to the compressors as well as electrical power and system control.



#### **HSM SK1 Model:**

The HSM SK1 model provides the hydraulic power unit connected to the compressors on a single, two-piece skid and the entire assembly is suitable for Ex II 3G IIC environments. It can be configured to supply a maximum pressure of 500 or 950 bar.

#### **HSM SK2 Model:**

The HSM SK2 model provides the hydraulic power unit separately to the main compressor assembly to allow for a more flexible installation. It can be configured to supply a maximum pressure of 500 or 950 bar.

#### **FEATURES:**

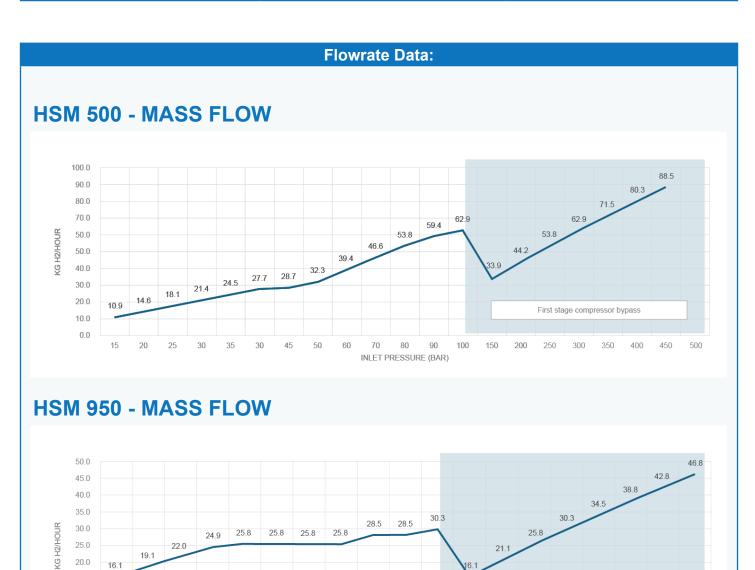
- A single first stage H-Drive compressor
- A single second stage H-Drive compressor
- A Dual 75kW motor pump set HPU with PLC control
- ATEX certified Ex II 3G IIC
- A single gas inlet connection for pressures up 100 bar (two stages of compression)

- A single gas inlet connection for pressures between 101-500 bar (single stage of compression)
- Compressor speed control for variable outlet flows
- Integrated heat exchangers, safety instruments and all tubing and piping



Parameter	HSM SK1 500 / HSM SK2 500	HSM SK1 950 / HSM SK2 950
Inlet pressure range	15–500 bar	25–500 bar
Maximum discharge pressure	500 bar	950 bar
Flowrate (with 30 bar inlet pressure)	21.4 kg H2/hr	19 kg H2/hr
Flowrate (with 100 bar inlet pressure)	60 kg H2/hr	30 kg H2/hr
Flowrate control	10-100%	
Ambient temperature range	-20°C to +40°C	
Supply voltage	400 VAC / 50Hz / 3ph+N	

	HSM SK1 Model	HSM SK2 Model
Dimensions	2170 (W) x 3800 (D) x 2400 (H)	Compressor assembly = 2170 (W) x 1510 (D) x 2400 (H) HPU = 1600 (W) x 1385 (D) x 1845 (H)



INLET PRESSURE (BAR)

First stage compressor bypass

15.0 10.0

5.0



#### **System Add ons:**

#### **Electrical Control Module (ECM):**

The ECM will provide a means of relaying operational commands to the system via an HMI and is used to provide power to the system.



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#### WHY HASKEL?

A Heritage of Trust. A Future in Hydrogen.

With over 75 years of experience in gas compression, Haskel is a name that has come to define performance and reliability. Our legacy in the industry is matched by our deep expertise in hydrogen compression, developed over decades of supporting clean energy pioneers and infrastructure builders worldwide.

Across continents and industries, Haskel systems are trusted for their safety, efficiency, and durability, delivering consistently under the most demanding conditions.

As part of Ingersoll Rand, we combine global scale with cutting-edge innovation to lead the transition to a hydrogen-powered future.

Ready to build your hydrogen system with Haskel's HSM?

Get in touch with our hydrogen experts today to configure a solution that fits your project's needs.

Email: saleseurope@haskel.com Website: www.haskel.com

