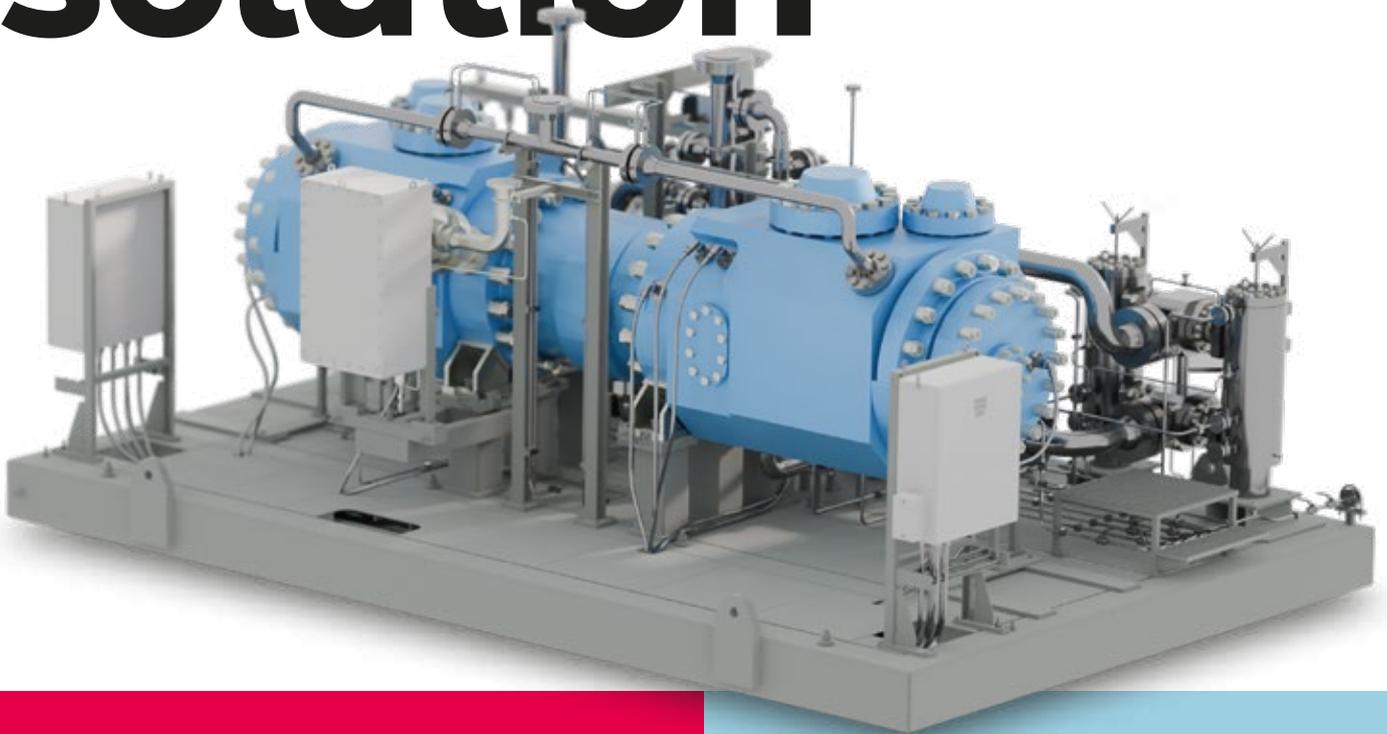


HOFIM[®] compression solution



Benefits at a glance

- Up to 20 % higher gas recovery through subsea compression
- Up to 60 % smaller footprint than conventional systems
- Fully electric and hermetically sealed for zero emissions
- Compact, ultra-reliable compression solution for offshore and onshore use
- Low-maintenance design with magnetic bearings
- Suitable for wet and sour gas
- Fully remote and unmanned ready

Highest reliability for exploration and production

The HOFIM® compression solution transforms oil & gas operations with its unmatched system reliability. It features a wide operating range and exceptional efficiency, with low life-cycle costs and no impact on the environment. The HOFIM® technology enables subsea gas compression that increases gas field recovery rate while substantially reducing CO₂ emissions at the lowest investment and operational costs.



Subsea

Subsea compression requires an extremely reliable remotely operated compressor on the seafloor. The modular HOFIM® compressor significantly reduces system complexity and only requires electrical and process interfaces.

20%

additional recovery rate

Thanks to the robustness and proven longevity of its components, the compressor features greatly extended maintenance intervals. As demonstrated in the Åsgard subsea gas field, the subsea compression design and unmatched efficiency of the HOFIM® can deliver up to 20 % higher recovery rates.

Platform, FPSO and onshore

Especially in space-constrained brownfield applications, space and weight factors impact your options. The ultra-compact HOFIM® units typically weigh 40 % less than conventional compressor packages.

≤60%

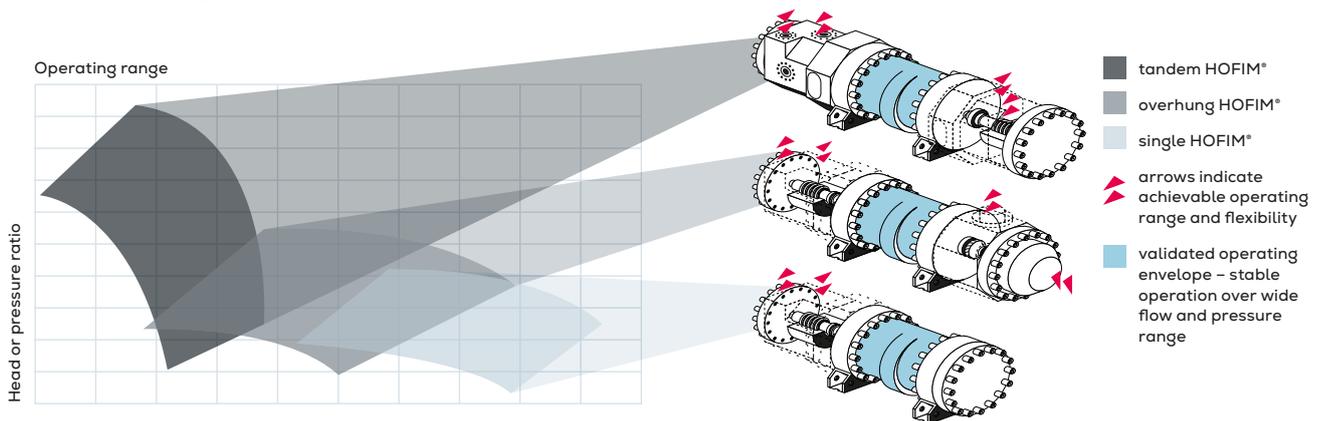
smaller footprint

The compression unit is qualified for wet gas operation and significantly reduces the process complexity by eliminating liquid separation. The technology allows for fully remote and unmanned operation.



Modular concept for maximum process design flexibility

Wide operating envelope across HOFIM® configurations



Design reflects three decades of operating experience

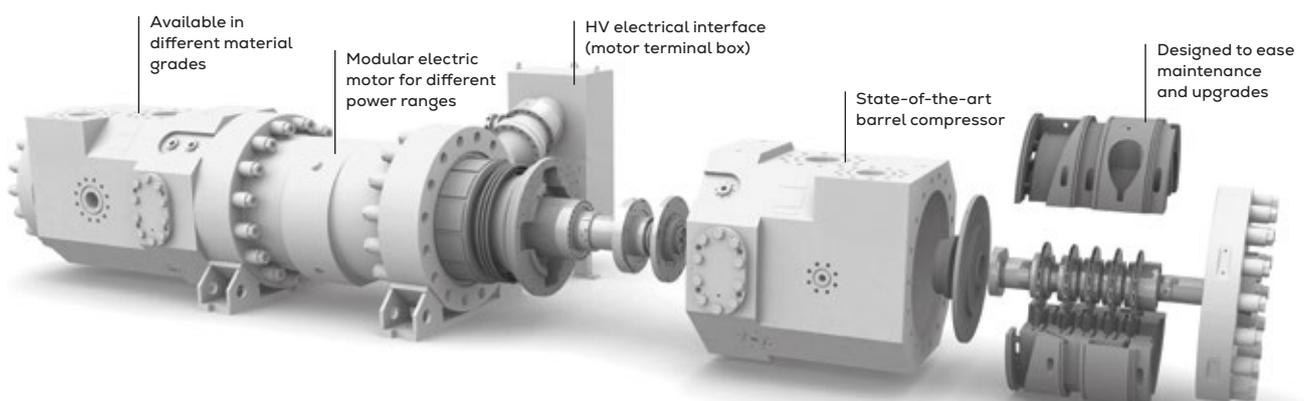
The modular concept of the HOFIM® compression systems provides the highest flexibility in component and process configuration and facilitates extremely simple system integration. The fully electrical HOFIM® system consists of a high-speed motor driving a multi-stage centrifugal compressor, levitated by active magnetic bearings. The unit is hermetically sealed and fully encapsulated, providing the highest possible level of safety.

≤30%

liquid mass fraction (LMF)

Design aspects and features

- The magnetically levitated system ensures exceptional reliability and availability.
- Qualified for wellstream compression (up to 30 % LMF) and suitable for wet and sour gas
- Motor and bearings cooled by process gas extracted from compressor
- No external cooling medium, no lube oil or sealing gas
- Proven magnetic bearing technology
- Solid core, non-laminated electric motor rotor
- Highly effective symmetrical internal motor cooling system
- Simple integration due to reduced number of interfaces
- Suitable for use with most high-speed VFDs
- Minimized utilities



Everllence

Innovation becomes proven technology

Everllence is the pioneer in the development and application of high-speed, integrated motor-compressor systems. Originating in the midstream industry for gas storage and gas transport applications, the wealth of experience gained over 30 years of development, deployment and operation of high-speed motor compression units has culminated in the construction and delivery of topside and subsea HOFIM® compression systems. Two subsea HOFIM® units were successfully put into commercial operation at Åsgard in 2015. Since then, they have performed with an availability of well above 99 %.

1st

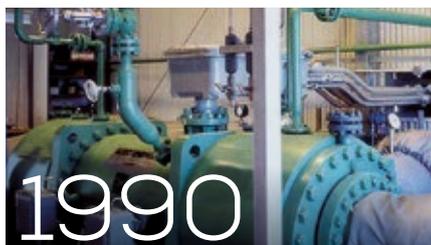
centrifugal compressor for subsea worldwide

>100

units in operation with exceptionally high availability

Everllence – the undisputed leader in high-speed technology

1990	Hermetically sealed motor-compressor unit with magnetic bearings
1991	First HOFIM®
1997	First tandem HOFIM®
2000	First HOFIM® offshore
2000	First integrated single HOFIM®
2002	First integrated tandem HOFIM®
2007	Successful testing of new motor generation for wet and sour gas
2009	Upstream qualification program completed
2015	Subsea compression station in production
2017	First topside HOFIM® in production
2017	Subsea HOFIM® TRL 7 achieved
2018	Wellstream qualification completed
2020	World's first subsea compression system passes five years in operation
2022	World's first subsea compressor units reach 100,000 operational hours



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