

FLNG Case Studies

Golar Hilli



Golar Hilli FLNG – Black & Veatch

Product	Oil Injected Screw Package
Model	WCVTAS510/19358
Quantity	2
Size	12m x 4.6m x 4.7m
Weight	42,000 kg
Design Pressures	P_{IN} 1.023bara, P_{OUT} 11.66bara
Design Temperature	T_{IN} -28.9°C, T_{OUT} 36°C
Application	Boil off Gas
Customers	B&V / Golar
Country	USA/Cameroon
Year	2014
Medium	Water / Oil / Gas
Design Standards	API/DNV
Codes	ASME



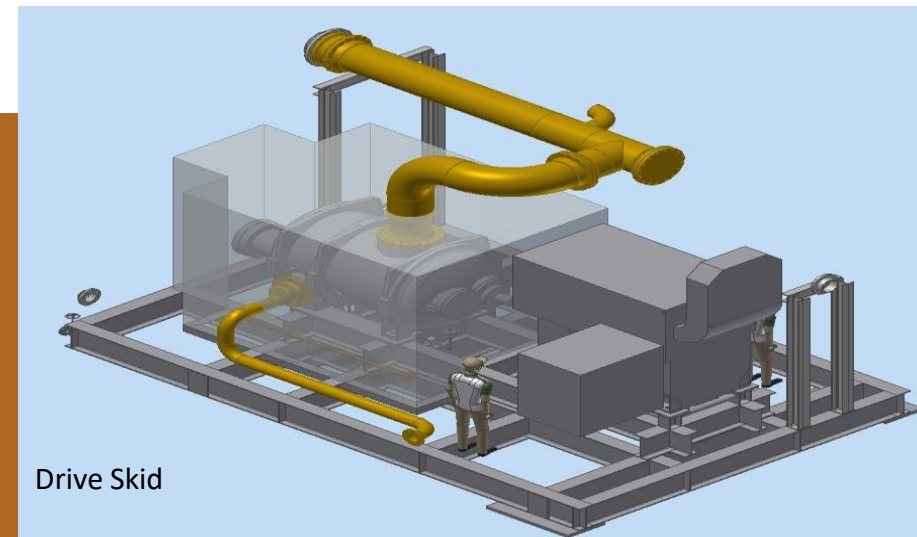
The challenge

- Footprint on FLNG
- High Pressure Ratio
- Harsh Operating Environment

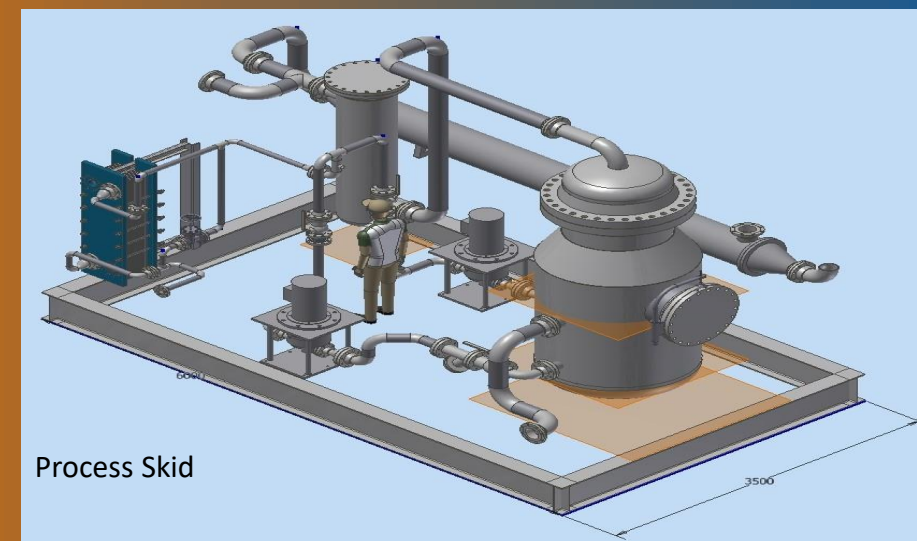


Howden Solution

- Compact Design to meet space constraints. Drive train skid situated 8m above lube oil skid to minimize footprint



Drive Skid



Process Skid

FLNG Case Studies

Golar Gimi



Golar Gimi FLNG – Black & Veatch

Product Oil Injected Screw Package

Model WCVAS510/19358

Quantity 2

Size 11.7m x 4.5m

Design Flow 10,000 kg/hr

Design Pressures P_{IN} 1.023bara, P_{OUT} 11.66bara

Design Temperature T_{IN} -28.9°C, T_{OUT} 36°C

Application Flash Gas

Customers B&V / Golar

Country USA/Equatorial Guinea

Year 2019

Medium Water / Oil / Gas

Design Standards API/DNV

Codes ASME



The challenge

- Footprint on FLNG
- High Pressure Ratio
- Harsh Operating Environment
- Single skid required



Howden Solution

- Compact Design to meet space constraints and combine all components on a single skid





BP Tortue FLNG – Technip FMC

Product	Oil Free Screw Package
Model	HPS408 11050/HP204 11036
Quantity	1 X 2 Stage
Size	12m x 4.5m X 6m
Design Flow	16,260 kg/hr
Design Pressures	P _{IN} 1.5bara, P _{OUT} 12.9bara
Design Temperature	T _{IN} 35°C, T _{OUT} 173°C
Application	LP Gas
Customers	TechnipFMC / BP
Country	France/Senegal
Year	2019
Medium	Water / Oil / Gas
Design Standards	API/DNV
Codes	ASME



The challenge

- Footprint on FLNG
- High Pressure Ratio
- Harsh Operating Environment
- Single stage compression not possible
- High discharge temperature



Howden Solution

- 2 stage solution
- Wing pinion gear box
- Interstage cooling
- Dry Gas Seals

