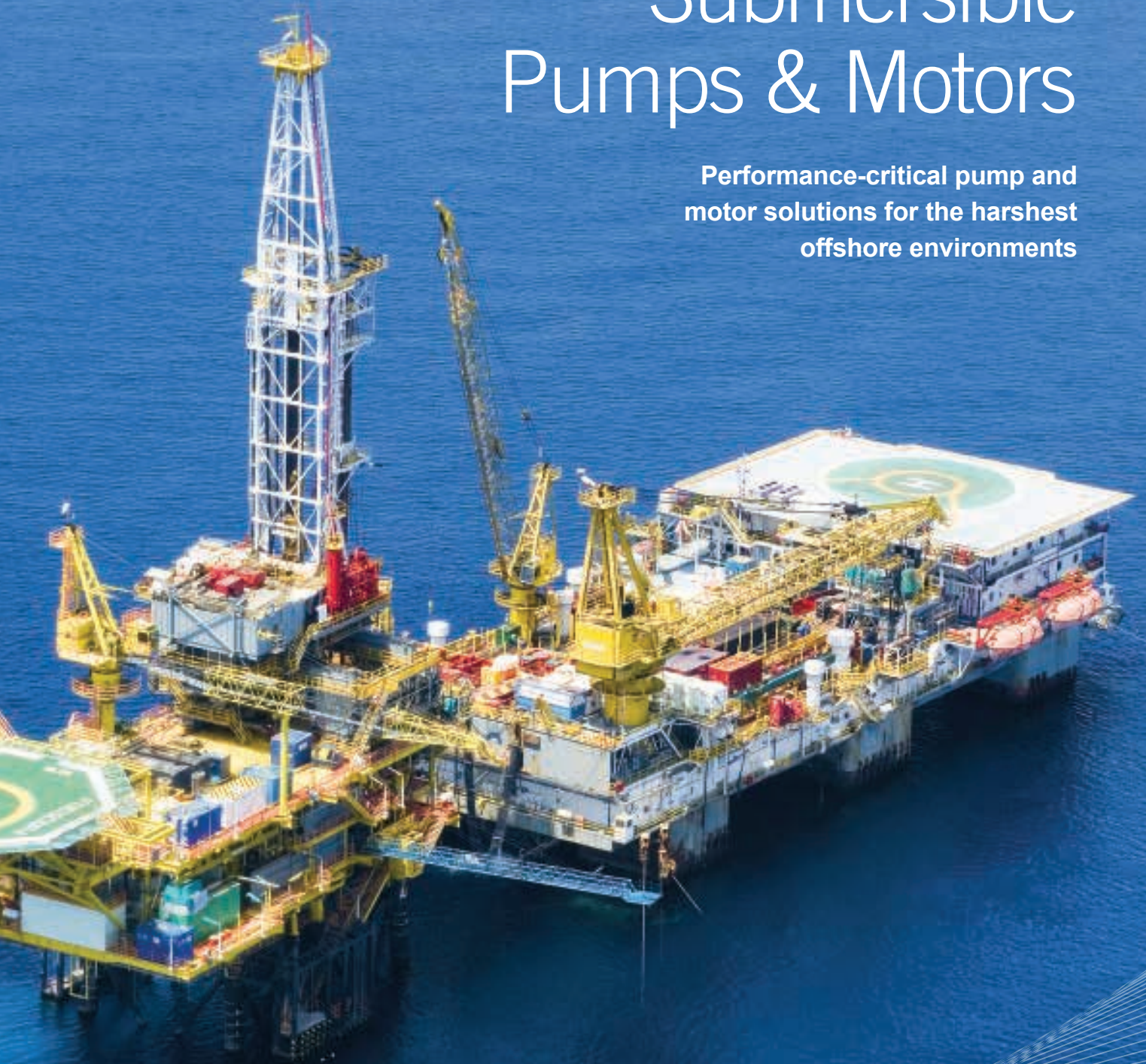




# Submersible Pumps & Motors

Performance-critical pump and  
motor solutions for the harshest  
offshore environments



ENGINEERING  
EXCELLENCE  
SINCE 1815







**We design, manufacture and  
service submersible pumps and  
motors for performance-critical  
applications across the globe.**



# 50 years

**offshore experience**

250 units installed worldwide

# 3,000 kW

**submerged motor qualification**

6 MW design capability

# 13.8 kV

**high voltage design**

# 40,000 hrs

**between maintenance**

# 25 years

**design lifetime**

# 24 / 7 / 365

**customer service**





# Save Critical Topside Footprint with a Submersible Pump and Motor

Hayward Tyler's electrical submersible pumps and motors are installed inside the caisson to minimize the topside footprint. Our pumps and motors are used in the most demanding offshore applications, offering high reliability while saving both critical space and money.

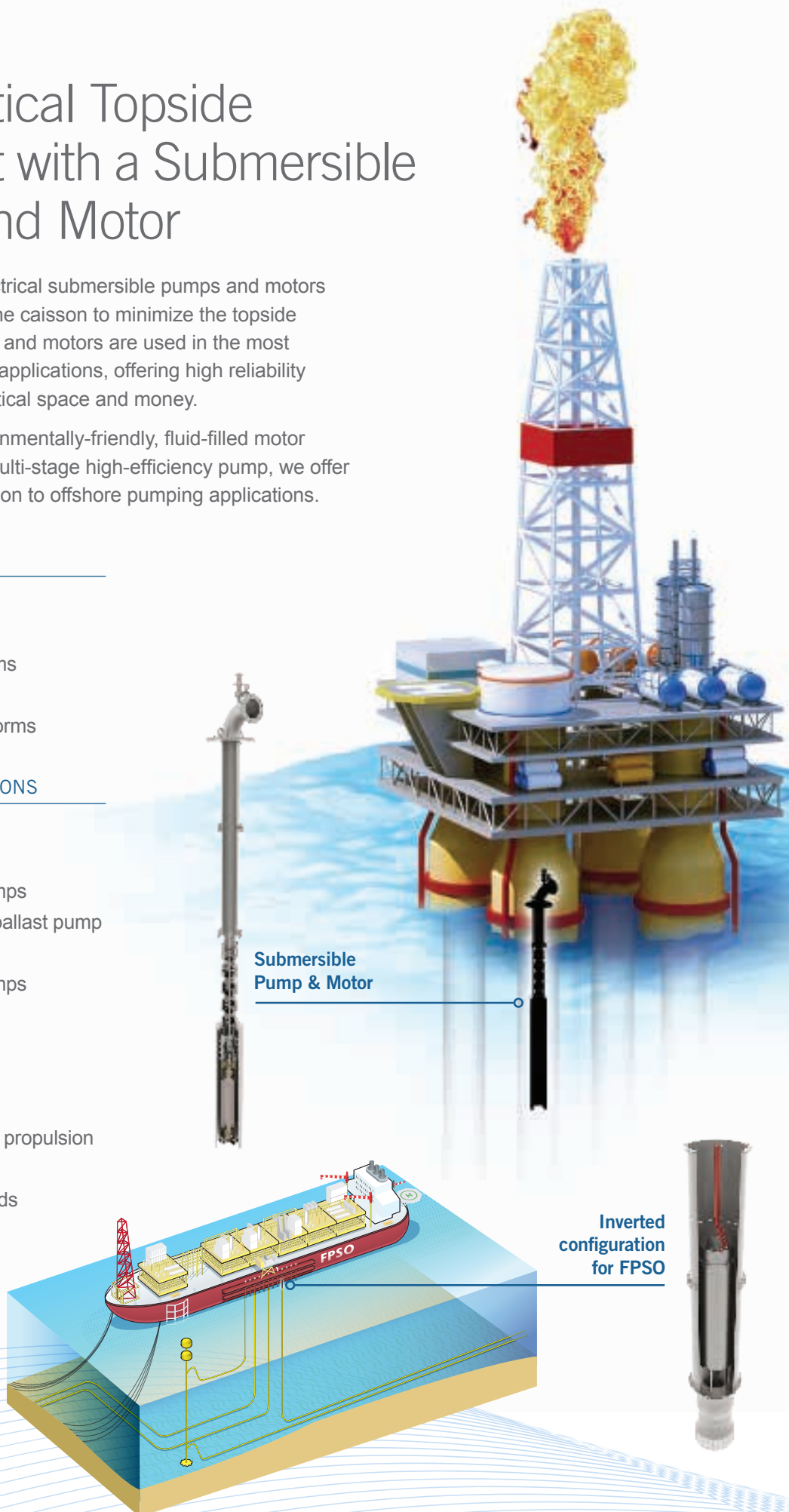
By utilizing an environmentally-friendly, fluid-filled motor close coupled to a multi-stage high-efficiency pump, we offer a more reliable solution to offshore pumping applications.

## TYPICALLY USED ON

- FPSO
- FLNG
- Offshore Windfarms
- Fixed Platforms
- Tension Leg Platforms

## COMMON APPLICATIONS

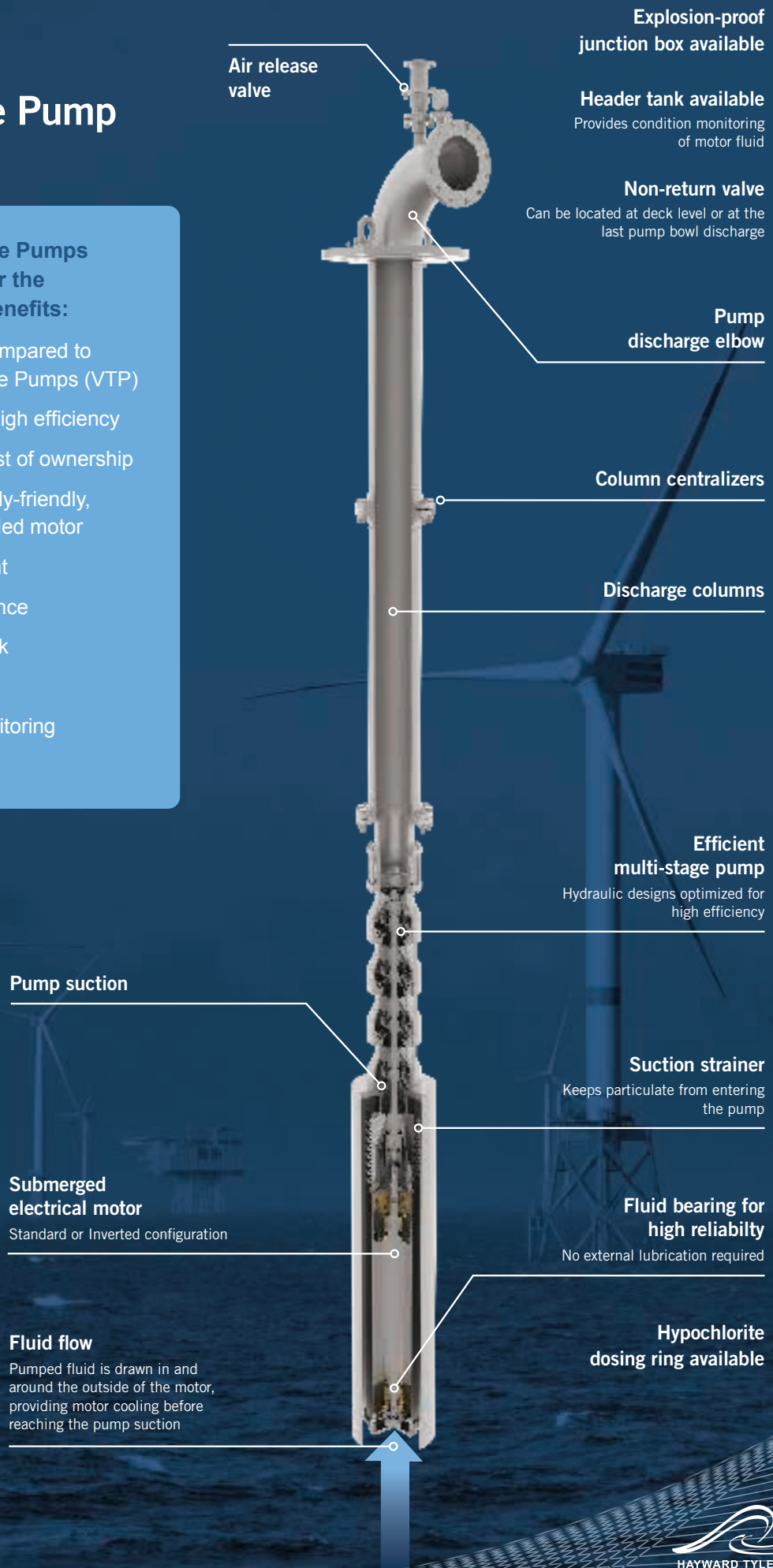
- Seawater lift
- Firewater lift
- Caisson drain pumps
- Hull-ballast & de-ballast pump
- Water injection
- Cooling water pumps
- Booster pumps
- Jockey pumps
- Process pumps
- Marine thrusters
- Marine secondary propulsion
- Mud rise pump
- Petrochemical fluids
- Cavern pumps



# Submersible Pump Technology

## Our Submersible Pumps and Motors offer the following key benefits:

- Less space compared to Vertical Turbine Pumps (VTP)
- Designed for high efficiency
- Lower total cost of ownership
- Environmentally-friendly, water/glycol-filled motor
- Easy alignment
- Low maintenance
- No flooding risk
- Low noise
- Condition monitoring available



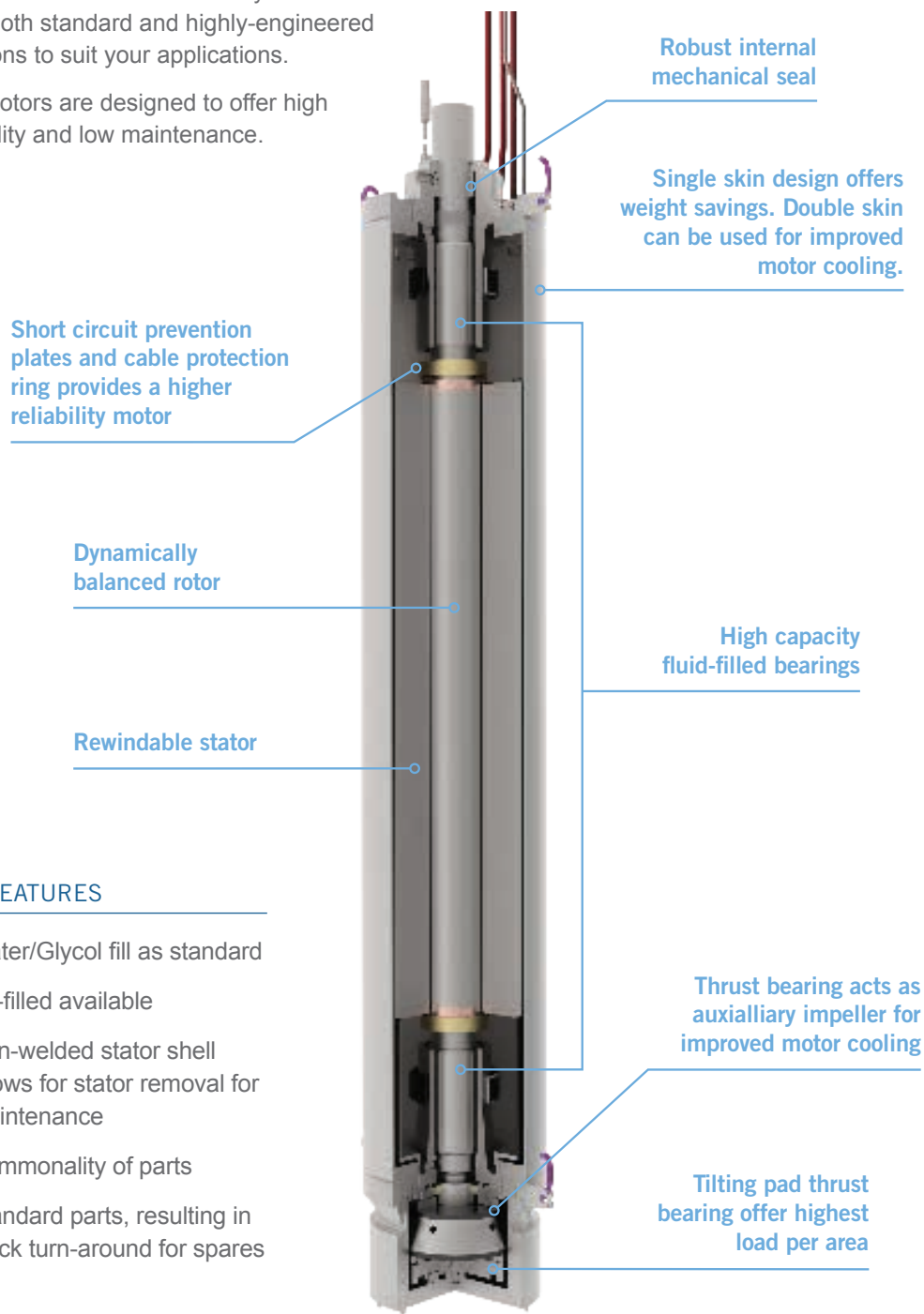


# Submersible Motor Design as a Core Competency

*Standard and Inverted  
configuration available*

At Hayward Tyler, we have been designing fluid-filled motors for over 100 years and offer both standard and highly-engineered solutions to suit your applications.

Our motors are designed to offer high reliability and low maintenance.



## KEY FEATURES

- Water/Glycol fill as standard
- Oil-filled available
- Non-welded stator shell allows for stator removal for maintenance
- Commonality of parts
- Standard parts, resulting in quick turn-around for spares



HIGH  
RELIABILITY



LONGER SERVICE  
INTERVALS



LOWER TOTAL COST  
OF OWNERSHIP

## Technical Data

### PUMP SIZE

<b>Flow</b>	up to 13,000 m <sup>3</sup> /hr (60,000 USgpm)
<b>Head</b>	up to 400 m (1500 ft)

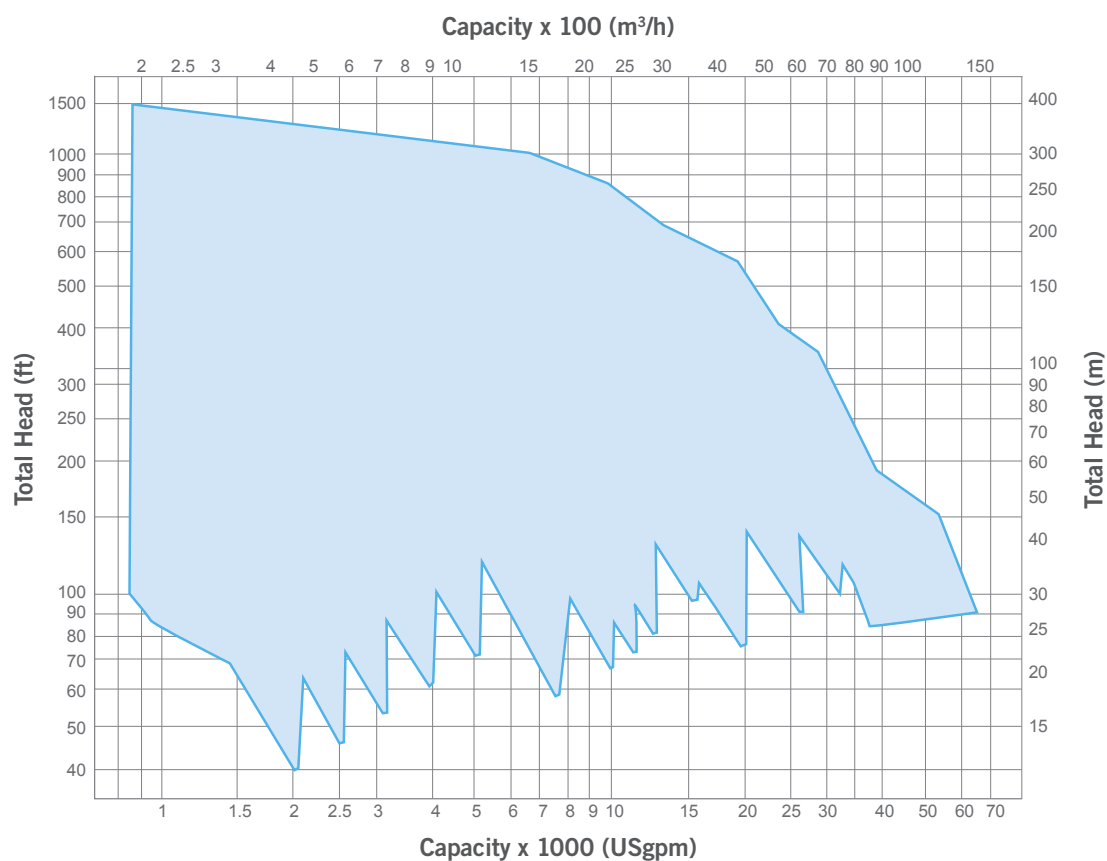
### MOTOR SIZE

<b>Power</b>	3,000 kW (4,000 HP)
<b>Poles</b>	2/4/6/8 pole
<b>Frequency</b>	50/60 Hz
<b>Voltage</b>	380-13,800V

### STANDARDS

<b>Design Standards</b>	ANSI / HI / EN / ASTM / DIN / ISO / CE / API 610
<b>Hydraulic Standards</b>	ANSI / HI / ISO / API 610 / NFPA 20
<b>Electrical Standards</b>	NEMA / IEC / IEEE
<b>Certifications</b>	DNV GL / ABS / CSA / ATEX / BV
<b>Quality</b>	ISO 9001 / NORSOK

### PERFORMANCE CURVES





Hayward Tyler's Datahawk uses Motor Current Signature Analysis (MCSA) to monitor the health of your submersible motor. The system can diagnose the following common problems:

- Rotor bar damage
- Misalignment
- Eccentricity
- Mechanical looseness
- Bearing problems

#### KEY FEATURES

- Logs and trends motor key parameters
- Processes raw data and interprets for you
- Full integration with your existing system (DCS / Plant Historian / OSI PI / etc.)
- Data can be stored locally or in the cloud



For further information on Hayward Tyler's performance-critical motors for submersible applications, please contact us or visit [www.haywardtyler.com](http://www.haywardtyler.com)



Engineered solutions for the global energy sector

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