Aker Solutions has developed a continuous hydraulic jacking system customized for High Performance Turbine Installation Vessel (HPTIV).

The system is unique with its combined use of a hydraulic pin and hole system combined with truss leg structure. The purpose of the system is to autonomously raise a sea-going vessel out of the water using four hydraulically actuated legs.

The vessel has been specially designed for the transport and installation of offshore wind turbines and related structures.

The complex logistics involved, necessitate a stable working platform both in port and on site so that the subsequent heavy-lift operations may be performed efficiently and safely.

A total package includes:
- Jacking system
  - Locking bolt units
  - Lock pin system
  - Cylinders
- Hydraulic system
- Control system
- Truss legs
- Jack house structure
- Hydro jetting system
- Third party classification
- Lifecycle services

**Features and benefits**
- Continuous
- High performance
- Hydraulic pin and hole system
- Reliable and fast acting system
- Truss leg
- Light weight, high stability
Truss leg jack up system  Offshore jack up systems

Technical specifications

Dimensions and weight

- Minimum average elevating speed above water: 1m/min
- Total length of legs: 98m (4 off)
- Number of jacking cylinders: 12 per leg (48 in total)
- Number of jacking units: 2 per leg (8 in total)
- Number of jacking cylinders: 6 per jacking unit (48 in total)

Operational conditions

- Water depth: 4.5m to 50m
- Significant wave height: 2.5m
- Max current (abeam, legs extended): 3.50 knots
- Wind: 15.3 m/s (~ Beaufort 6)