

# TYPE APPROVAL CERTIFICATE

**This is to certify:****That the Portable Offshore Units**with type designation(s)  
**Choke Manifold Skid**

Issued to

**Magnum Technology Center Ltd.**  
**Dubai, United Arab Emirates**

is found to comply with

**DNV GL standard DNVGL-ST-E273 – 2.7-3 Portable offshore units, December 2016****Application :****DNVGL 2.7-3 Type B R30****Max. significant wave height during offshore lift 3.0 m****Only certified lifting equipment shall be used****Max. gross mass (kg) 5500****Max. payload (kg) 500****Max. sling leg angle 24**Issued at **Høvik** on **2017-11-17**This Certificate is valid until **2021-11-16**.for **DNV GL**DNV GL local station: **Abu Dhabi**Approval Engineer: **Erik Aronsson**

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**Stig Johannes Johannesen**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Job Id: **262.1-015219-2**  
Certificate No: **TAS000019R**

### Holder of Certificate

Magnum Technology Center Ltd.  
P.O. Box: 32478  
Dubai (UAE)

### Manufactured by

Magnum Technology Center Ltd.  
P.O. Box: 32478  
Dubai (UAE)

### Responsibility

The Holder of the Certificate takes responsibility that both design and production are in compliance with the Rules, Standards and/or Regulations listed on page 1 of this Type Approval Certificate.

### Product description

Choke Manifold Skid  
Type of unit : 2.7-3 TYPE B R30  
External dimensions : 2440 x 1962 x 1035 [mm]  
Tare mass : 5 500 [kg]

### Application/Limitation

Lifting of this unit should be carried out as a planned operation. Specific lifting procedures should be prepared in order to ensure safe and proper handling of the unit.

Following operational restrictions apply:

|                                         |       |    |                               |
|-----------------------------------------|-------|----|-------------------------------|
| Maximum Gross Weight (MGW)              | 5.5   | T  | no additional weight allowed  |
| Max H <sub>5</sub> during offshore lift | 3.0   | m  | Not intended for subsea lifts |
| Min. temperature                        | -20.0 | °C |                               |
| Sling angle                             | 24    | °  | with the vertical             |
| Shackles (WLL)                          | 4.75  | T  | bow shackle with safety bolt  |

DNV GL surveyor to witness important production and test events and issue Form no.: MOP201 " Certificate for Portable Offshore Unit " for each unit.

Production strength tests to be carried out according to DNVGL-ST-E273 and as agreed with the DNV GL surveyor.

### Type Approval documentation

#### Tests carried out

Prototype testing according to Standard for Certification No. 2.7-3, May 2011.  
4-point lifting acc. to 5.2.3, total load: 13 800 kg  
2-point lifting acc. to 5.2.4, total load: 8 300 kg

#### Production testing

Production testing according to DNVGL-ST-E273, sec. 5.4.1, table 5-3.  
4-point lifting acc. to 5.2.3, total load: 13 800 kg

#### Marking of product

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Each unit to be marked with:

- Safety marking according to DNVGL-ST-E273, sec. 6 including
- Operational Class Identification
- MGW
- Data plates according to DNVGL-ST-E273, sec. 6
- Reference to operational procedure, if applicable, shall be clearly stated on information plate
- The general DNV GL hard stamp "VL" to be hard stamped on frame
- Manufacturer's Serial Number to be welded on frame
- DNV GL emblem for Portable Offshore Unit

#### **Periodical assessment**

Periodical assessment to be carried out according to DNVGL-ST-E273, sec. 8, at intervals not exceeding 12 months and after substantial repair or alteration.

END OF CERTIFICATE