DNV·GL

Certificate No:
TAP00001CJ

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Gaskets and Sealings

with type designation(s)
Size 27 KaMos® Test Seal Ring

Issued to
Karmsund Maritime Offshore Supply AS
Kopervik, Norway

is found to comply with
ASME B31.3, Chemical Plant and Petroleum Refinery Piping, 1999

Application :

The certificate is valid for products not subject to DNV GL classification requirements.

Temperature range:	**50 ºC**
Max. working press.:	**400 bar**
Design:	**ASME B31.3**
Sizes:	**27 according to 3GR27 Galperti Specification**

Issued at **Høvik** on **2018-05-31**

This Certificate is valid until **2023-05-30**.

DNV GL local station: **Haugesund**

Approval Engineer: **Mehdi Rowshan**

for **DNV GL**

Marianne Spæren Marveng
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.

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Job Id: **262.1-028682-1**
Certificate No: **TAP00001CJ**

Product description

- KaMOS® patented test seal ring
- Size 27 according to the Galperti clamp connector 3GR27

Dimensions according to Galperti standard specification:

Size	Inside Diameter		Outside Diameter		Overal Thickness		Rib Thickness		LIP Depth		Sealring Weight	
	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)
27	78.71	3.099	108.00	4.252	19.05	0.750	6.35	0.250	6.35	0.250	0.30	0.661

Seal Ring Material: A564 GR 630

Materials for other components to be used in 3GR27 assembly:

- Hub: A182 F316
- Clamp: AISI 4140/A487 GR 10A - 4D - A320L7

Application/Limitation

The approval is based on the hydrostatic and leakage test performed according to ASME B31.3

Mechanical properties, the suitability of the material against specific media has not been examined in this certificate.

The shape and sizes of the sealring to be approved by DNV GL surveyor during surveys.

The certificate only covers the sealring performance and the other parts of the clamp connector assembly including hub, clamp and bolts are not reviewed.

Type Approval documentation

Drawing No: 208120030027, rev.0, Dim Test Seal Ring, Size 27
Drawing NO: 208120030027-09, rev.0, 3 Clamp for size 27 sealring
Galperti Hub connectors - Clamps Technical Information
Inspection report no. Ir- pp204323 -pap-01 rev. 0
Report no: BP-SOP-QCD-010-P1-F3, rev.0, Witness Hydrostatic test for Kamos® Test Seal Ring Size 27

Marking of product

For traceability to this Type approval, the products are at least to be marked with:

- Manufacturer's name / label
- Product number

Certificate Retention Survey

For retention of the Type Examination, a DNV GL Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNVGL-CP-0338.