

# TYPE APPROVAL CERTIFICATE

**This is to certify:****That the Elastic Couplings**with type designation(s)  
**ROTEX**

Issued to

**KTR Systems GmbH**  
**Rheine Nordrhein-Westfalen, Germany**

is found to comply with

**DNV GL rules for classification – Ships****DNV GL rules for classification – High speed and light craft****DNVGL-OS-D101 – Marine and machinery systems and equipment, Edition July 2015****Application :****Products approved by this certificate are accepted for installation on all vessels classed by DNV GL. The couplings are approved for auxiliary purpose not including reciprocating machinery as diesel engine or piston compressor, and with rating/technical data according to ROTEX company catalogue edition 04/2017 chapter ROTEX.**Issued at **Hamburg** on **2017-06-12**for **DNV GL**This Certificate is valid until **2022-06-11**.DNV GL local station: **Essen**Approval Engineer: **Erich Rüde**.....  
**Burkhard Lilienthal**  
**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.



## Product description

Flexible rubber coupling.

## Application/Limitation

The couplings are approved for auxiliary purpose not including reciprocating machinery as diesel engine or piston compressor, and with rating/technical data according to ROTEX company catalogue edition 04/2017 chapter ROTEX.

Production tolerance on torsional stiffness:  $\pm 20\%$ .

Technical data according to Technical Data, page 29 of catalogue edition 04/2017.

Permissible power loss  $P_{KW}$  given in the catalogue is valid for ambient temperature  $30^{\circ}\text{C}$ .

At higher ambient temperature a linear decrease to 0 at  $100^{\circ}\text{C}$  should be used.

Coupling hub material to be either nodular cast iron or steel.

## Type Approval documentation

### Tests carried out

Tests for coupling size 125:

Versuch Nr. 90200017-027, -024, -004, -005, -011, and -014

Tests for coupling size 160:

Versuch Nr. 90200017-051, -061 and -062

## Marking of product

The product to be marked with manufacturer's name or trademark and type number identification.

## Periodical assessment

For retention of the Type Approval, a DNV GL surveyor shall perform an assessment after 2 years and after 3.5 years to verify that the conditions of the type approval are complied with. A renewal assessment will be performed at renewal of the certificate.

In cases where the Type Approved product is manufactured at other companies, the Periodical Assessment shall verify that the Type Approval applicant has a quality control system for consistent production at their licensees/subcontractors. Furthermore Periodical Assessment shall be carried out randomly at these companies.

## Other conditions

DNV GL product certificate is not required for auxiliary machinery installation with power ratings up to 500 kW and rated torque less than 5 kNm.

The type approval does not cover connection to external shaft.

This Type Approval Certificate TAM00000J0 is replacing following DNV Certificate:

- DNV Type Approval Certificate No. M-12342

END OF CERTIFICATE