



# DET NORSKE VERITAS

## TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. M-11681

This is to certify that the  
**Bending Compliant Couplings**

with type designation(s)  
**RIGIFLEX-N size 55 - 408**

Manufactured by  
**KTR Kupplungstechnik GmbH**  
**RHEINE, Germany**

is found to comply with  
Det Norske Veritas' Rules for Classification of Ships/High Speed and Light Craft

Application  
**The couplings are approved for auxiliary duty.**

Høvik, 2011-03-18  
for Det Norske Veritas AS

Tomas Heber Tronstad  
Head of Section



DNV local office:  
Essen

This Certificate is valid until  
**2015-06-30**

Hans-Kristian Eriksen  
Surveyor

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. If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Certificate No.: M-11681  
File No.: 714.100  
Job Id.: 262.1-010788-1

## Product description

RIGIFLEX-N Steel lamina coupling.

## Application/Limitation

The approval is valid for auxiliary duty.

The couplings are approved for nominal torques as given in data sheet for the RIGIFLEX-N couplings in the RIGIFLEX-N part of KTR coupling catalogue (stamped by DNV 2011-03-18)

Operating factor for auxiliary duty according to data given in above mentioned data sheets.

## Type Approval documentation

RIGIFLEX-N part of KTR coupling catalogue and the following drawings:

505121 RIGIFLEX-N 35	468040 RIGIFLEX-N 50
451284 RIGIFLEX-N 65	451225 RIGIFLEX-N 75
451065 RIGIFLEX-N 85	450637 RIGIFLEX-N 110
446558 RIGIFLEX-N 120	450143 RIGIFLEX-N 140
450583 RIGIFLEX-N 160	488628 RIGIFLEX-N 166
467327 RIGIFLEX-N 168	488742 RIGIFLEX-N 196
466869 RIGIFLEX-N 198	488891 RIGIFLEX-N 216
466754 RIGIFLEX-N 218	489773 RIGIFLEX-N 256
466753 RIGIFLEX-N 258	489884 RIGIFLEX-N 306
466742 RIGIFLEX-N 308	484997 RIGIFLEX-N 346
466548 RIGIFLEX-N 348	490313 RIGIFLEX-N 406
464456 RIGIFLEX-N 408	

## Tests carried out

Test Report No. 97306070 RIGIFLEX-N 120 Prototype testing

## Marking of product

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

## Certificate retention survey

For retention of the Type Approval, DNV shall perform a survey every second year and before expiry date of this certificate to verify that the conditions of the type approval are complied with.

## Other conditions

The connection to driving and driven component is not included in this approval.

The product certification may, for auxiliary duty, be waived for power ratings up to 500 kW and rated torque less than 5 kNm, under the condition that the product is marked with its type number identification.

END OF CERTIFICATE