



Marine & Offshore
Division

Certificate number: 08549/D0 BV

File number: ACM 135/0616/001

Product code: 2265H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

FKB GmbH (Feinwerktechnik, Kunststoffverarbeitung, Beleuchtungstechnik)
Oberndorf am Neckar - GERMANY

for the type of product

PIPE CLAMPS

Series A, B and C

Requirements:

- BUREAU VERITAS Rules for the Classification of Steel Ships
- BUREAU VERITAS Rules for the Classification of Offshore Units

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 08 Sep 2019

For BUREAU VERITAS,

At BV HAMBURG, on 08 Sep 2014,

Adama Diene



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine & Offshore Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 May 2009

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

Tube clamps Series A, B and C according to DIN 3015

1.1 Rating

Tube clamps Series A	Light construction series according to DIN 3015, part 1
- Clamp size	0, 1,2 ,3 ,4 ,5 ,6 ,7 and 8
- Outside diameter for tube (mm)	6 to 101,8

Tube clamps Series B	Twin-tube clamps series according to DIN 3015, part 3
- Clamp size	1, 2, 3, 4 and 5
- Outside diameter for tube (mm)	6 to 42

Tube clamps Series C	Heavy series according to DIN 3015, part 2
- Clamp size	1,2 ,3 ,4 ,5 ,6 ,7 and 8
- Outside diameter for tube (mm)	6 to 220

U-bolt clamps	U-bolt clamps according to DIN 3570
2 nuts:	
- Nominal size	15 to 500
- Outside diameter for tube (mm)	17.2 to 521
4 nuts:	
- Nominal size	15 to 750
- Outside diameter for tube (mm)	17.2 to 762

Pipe saddle (short or long)

- Nominal size	15 to 750
- Outside diameter for tube (mm)	17.2 to 762

Flat steel tube clamps	Flat steel tube clamps according to DIN 3567
Series A:	
- Nominal size	20 to 521
Light construction:	
- Nominal size	18 to 288

Hydraulic steel clamps

- Nominal size	25 to 42
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Temperature ranges:

- Polypropylene (PP)	-30 °C to +90 °C	- Rubber	-50 °C to +120 °C
- Polyamide 6 (PA 6)	-40 °C to +120 °C	- Aluminium	up to +300 °C

1.2 Materials and/or components :

Tube clamps

- Series A and C	Polypropylene, polyamide 6, rubber, aluminium
Components	Steel
- Series B	Polypropylene, polyamide 6, rubber
Components	Steel

U-bolt clamps

- 2 nuts/4 nuts	Steel, galvanized steel, stainless steel
- Pipe saddle (short/long)	Polypropylene, polyamide 6

Flat steel tube clamps

- Series A	Steel, galvanized steel
- Light construction	Steel, galvanized steel, stainless steel

Hydraulic steel clamps

Galvanized steel

When other choices of materials are used per manufacturer's recommendations, the BV agreement is to be obtained.

2. DOCUMENTS AND DRAWINGS

According to manufacturer's catalogue RSB dated 03/2003:

- Tube clamps: Series A (pages 8 to 19); Series B (pages 20 to 25); Series C (pages 26 to 32)
- U-bolt clamps: 2 nuts (page 50); 4 nuts (page 51); Pipe saddle (short/long) (pages 52 and 53)
- Flat steel tube clamps: Series A (page 54); Light construction (pages 55 and 56)
- Hydraulic steel clamps (page 46)

No departure from the above documents shall be made without the prior consent of the Society. The manufacturer must inform the Society of any modification or changes to these documents and drawings.

3. TEST REPORTS

Not applicable.

4. APPLICATION / LIMITATION

4.1 The clamps made of aluminium are not to be used in dangerous areas.

4.2 For essential services in machinery spaces, only the series with a steel cover and at least two screws may be used.

5. PRODUCTION SURVEY REQUIREMENTS

5.1 The products are to be supplied by **FKB GmbH** in compliance with the type described in this certificate and in compliance with the requirements stated on the front page of this certificate. This type of product is within the category HBV of BUREAU VERITAS Rule Note NR 320.

5.2 **FKB GmbH** has to make the necessary arrangements to have its works recognized by BUREAU VERITAS in compliance with the requirements of NR 320 for HBV products.

5.3 No BUREAU VERITAS Certificate is required.

Place of production

FKB GmbH

Wehrstr. 15 + 27

D-78727 Oberndorf am Neckar

GERMANY

6. MARKING OF PRODUCT

Tube clamps shall be marked with at least:

- Manufacturer's name or logo
- Type designation

7. OTHERS

This approval is given on the understanding that the manufacturer will accept full responsibility for informing shipbuilders or their sub-contractors of the proper methods of fitting and general maintenance of the products and of the conditions of this approval.

This certificate supersedes Type Approval Certificate N° 08549/C0 BV issued on 04/09/2009 by the Society.

***** END OF CERTIFICATE *****