TYPE APPROVAL CERTIFICATE
No. **MAC003119XG**

This is to certify that the product identified below is in compliance with the regulations herewith specified.

Description	**Clamps for pipes**
Type	**STAUFF Clamps**
Applicant	**WALTER STAUFFENBERG GMBH & CO. KG** **IM EHRENFELD 4 D** **58791 WERDOHL** **GERMANY**
Manufacturer *Place of manufacture*	**WALTER STAUFFENBERG GMBH & CO. KG** **IM EHRENFELD 4 D** **58791 WERDOHL** **GERMANY**
Reference standards	**RINA RULES FOR THE CLASSIFICATION OF SHIPS**

Issued in **Hamburg** on **June 4, 2019**. *This Certificate is valid until* **June 3, 2024**

RINA Services S.p.A.
Giuseppe Russo

This certificate consists of this page and 2 enclosures.

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STAUFF Clamps

Reference documents:

The following Catalogues filed for information under RINA dwg no. HMMC-13014:
STAUFF Clamps Catalogue 1 Edition 01/2017
STAUFF Noise Reduction Clamps (NRC) Catalogue
STAUFF ACT Clamps Catalogue Edition 03/2015

Materials/Components:

Clamp, Bodies and Inserts:

Polypropylene, Polyamide, Thermoplastic Elastomer (Santoprene),
ACE (Anti Corrosion Elastomer), Aluminium.

Maximum allowable temperature range of clamps bodies and inserts:

Polypropylene [PP] -30℃ to +90℃
Polypropylene [PPDA] -25℃ to +90℃
Polypropylene [PP6853] -25℃ to +90℃
Polypropylene [PP-V0] -25℃ to +90℃
Polypropylene [PP-AC] -30℃ to +90℃
Polyamide [PA] -40℃ to +120℃
Polyamide [PAV0] -30℃ to +120℃
Polyamide [PA-FF] -30℃ to +120℃
Aluminium [AlSi12] -40℃ to 300℃
Thermoplastic Elastomer [SA] -40℃ to +125℃
Thermoplastic Elastomer [SA-V0] -55℃ to +125℃
ACT/ACE (Anti Corrosion Technology) -25℃ to +90℃

Metal Parts

Carbon Steel
Stainless Steel Class A2-1.4301/1.4305 (AISI 304/AISI 303)
Stainless Steel Class A4-1.4401/1.4571 (AISI 316/AISI 316Ti)

Fields of application:

The arrangement on board has to comply with Paragraph 5, Part C, Chapter 1, Section 10 of RINA Rules with the following limits:

1. Aluminium STAUFF pipe clamps are not to be used on:
   - 1.1 cargo system of oil, chemical and gas tankers
   - 1.2 piping within ballast and fuel oil tanks
   - 1.3 piping systems conveying flammable gases and liquids.
   - 1.4 steam piping having working temperature above 300 ℃

2. Polypropylene STAUFF pipe clamps are not be used on:
   - 2.1 piping systems in general having working temperature above 90℃
   - 2.2 cargo system of oil, chemical and gas tankers

3. Polyamide STAUFF pipe clamps are not be used on:
   - 3.1 piping systems in general having working temperature above 120℃
   - 3.2 cargo systems of oil, chemical and gas tankers

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4. Thermoplastic Elastomer STAUFF pipe clamps are not be used on:

   4.1 piping systems in general having working temperature above 120℃
   4.2 cargo systems of oil, chemical and gas tankers

5. Plastic materials used in clamps applied for fire fighting piping systems are to be of an approved fire resistant type or are to be adequately protected by means of shields resistant to flame.

6. Steel STAUFF clamps with plastic pipe saddle, either type RUL or RUK, are not to be used in the same piping systems mentioned in item 2.

7. Steel STAUFF clamps without plastic accessories are admitted without any limitations.

8. Clamps used inside machinery spaces are to be provided with upper and lower steel cover plates.

Acceptance conditions:

The selection of the clamps and their installation is to be in accordance with the manufacturer's instructions.

Remarks:

1. Each tube clamp is to be marked with STAUFF logo, size and type designation.
2. This Certificate has replaced the previous Type Approval Certificate No. MAC112816XG/002.

Hamburg June 04, 2019

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