



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. E-6721
This Certificate consists of 5 pages

This is to certify that the
Clip, Saddle, Band
with type designation(s)
**Ball-Lok, Tie-Lok, Multi-Lok, BAND-IT Ties, All Purpose and
Cable Fixing Band**

Manufactured by
BAND-IT Company Limited
Nr. Chesterfield Derbyshire S43 3PF, United Kingdom

is found to comply with
Det Norske Veritas' Rules for Classification of Ships and Mobile Offshore Units

Application
For fixing of cables, outdoor and indoor, onboard ships and mobile offshore units.

Place and date

Høvik, 2003-11-10

for DET NORSKE VERITAS AS


Gro Elisabeth Paulsrud
Head of Section



Local Office
DNV Sheffield

This Certificate is valid until
2007-12-31


Per Ivar Halleland
Surveyor

Notice: 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, veritas, all its subsidiaries, divisions, offices, employees, agents and any other acting on behalf of Det Norske Veritas.



DNV

Cert. No.: E-6721
File No.: 828.50

Product description

Type name: Ball-Lok Ties
Material: Stainless Steel 304 or 316, 316 with or without Nylon 11 or Epoxy coating
Thickness: 0.265 mm

Models / sizes:

| Width | | | | Length | | Ref. no. SS 304 | | Ref.no. SS 316 | | Ref.no. SS 316 | |
|--------|------|-----|-----|--------|------|-----------------|--------|----------------|--------|----------------|--------|
| Inches | | mm | | Inches | mm | Uncoated | | Uncoated | | Epoxy coated | |
| 0.18 | 0.31 | 4.6 | 7.9 | 7.9 | 201 | KE1128 | KE1328 | KE0128 | KE0318 | KE0228 | KE0428 |
| 0.18 | 0.31 | 4.6 | 7.9 | 10.2 | 259 | KE1138 | KE1338 | KE0138 | KE0338 | KE0238 | KE0438 |
| 0.18 | 0.31 | 4.6 | 7.9 | 14.2 | 360 | KE1148 | KE1348 | KE0148 | KE0348 | KE0248 | KE0448 |
| 0.18 | 0.31 | 4.6 | 7.9 | 20.4 | 520 | KE1158 | KE1358 | KE0158 | KE0358 | KE0258 | KE0458 |
| 0.18 | 0.31 | 4.6 | 7.9 | 26.8 | 679 | KE1168 | KE1368 | KE0168 | KE0368 | KE0268 | KE0468 |
| 0.18 | 0.31 | 4.6 | 7.9 | 33.0 | 838 | KE1178 | KE1378 | KE0178 | KE0378 | KE0278 | KE0478 |
| 0.18 | 0.31 | 4.6 | 7.9 | 42.0 | 1067 | KE1188 | KE1388 | KE0188 | KE0388 | KE0288 | KE0488 |

Type name: Tie-Lok Ties
Material: Stainless Steel, 304 (AS200 series) & 316 (AS400 series)
Thickness: 0.4 mm

Models / sizes:

| Width | | Length | | Ref. no. | Ref.no. |
|--------|------|--------|-----|----------|---------|
| Inches | mm | Inches | mm | SS 304 | SS 316 |
| 0.25 | 6.35 | 10.0 | 254 | AS211 | AS411 |
| 0.25 | 6.35 | 15.5 | 419 | AS212 | AS412 |
| 0.25 | 6.35 | 22.5 | 572 | AS213 | AS413 |
| 0.25 | 6.35 | 29.0 | 737 | AS214 | AS414 |
| 0.25 | 6.35 | 35.0 | 889 | AS215 | AS415 |

Type name: Mini Tie-Lok Ties
Material: Stainless Steel, 304 (AS200 series) & 316 (AS400 series)
Thickness: 0.4 mm

Models / sizes:

| Width | | Length | | Ref. no. | Ref.no. |
|--------|-----|--------|-----|----------|---------|
| Inches | mm | Inches | mm | SS 304 | SS 316 |
| 0.177 | 4.5 | 6.6 | 165 | AS221 | AS421 |
| 0.177 | 4.5 | 10.0 | 254 | AS222 | AS422 |
| 0.177 | 4.5 | 16.0 | 406 | AS223 | AS423 |
| 0.177 | 4.5 | 22.5 | 572 | AS224 | AS424 |
| 0.177 | 4.5 | 29.0 | 737 | AS225 | AS425 |



Cert. No.: E-6721

File No.: 828.50

Type name: Multi-Lok Ties
 Material: Stainless Steel, 316 covered with RILSAN ESY (NYLON 11)
 Thickness: 0.265 mm
 Model/sizes:

| With | | Length | | Ref. no. | Ref. no. |
|--------|----|--------|-----|----------|----------|
| Inches | mm | Inches | mm | Coated | Uncoated |
| 0.28 | 7 | 6 | 150 | AE611 | AE601 |
| 0.28 | 7 | 9 | 225 | AE612 | AE602 |
| 0.28 | 7 | 12 | 300 | AE613 | AE603 |
| 0.28 | 7 | 18 | 450 | AE614 | AE604 |
| 0.28 | 7 | 24 | 610 | AE615 | AE605 |
| 0.47 | 12 | 6 | 150 | AE711 | AE701 |
| 0.47 | 12 | 9 | 225 | AE712 | AE702 |
| 0.47 | 12 | 12 | 300 | AE713 | AE703 |
| 0.47 | 12 | 18 | 450 | AE714 | AE704 |
| 0.47 | 12 | 24 | 610 | AE715 | AE705 |

Type name: Band-It Ties
 Material: Stainless Steel, 316 coated with Plascoat PPA 571 or NYLON 11
 Thickness: 0.4 mm
 Model/sizes:

| Length | | Ref. no. | |
|--------|-----|--------------|--------------|
| Inches | mm | 6.3 mm width | 9.5 mm width |
| 6 | 150 | AE 111 | AE 311 |
| 9 | 225 | AE 112 | AE 312 |
| 12 | 300 | AE 113 | AE 313 |
| 18 | 450 | AE 114 | AE 314 |
| 24 | 610 | AE 115 | AE 315 |
| 30 | 762 | AE 116 | AE 316 |
| 36 | 914 | AE 117 | AE 317 |

Type name: Cable fixing band and clips
 Material: Stainless Steel, 316 coated with Plascoat PPA 571
 Thickness: 0.4 mm
 Model/sizes:

| Width | | Ref.no. | Ref.no. |
|--------|-------|---------|----------------|
| Inches | mm | SS316 | Uncoated clips |
| 0.25 | 9.5 | AE 4339 | AE 4539 |
| 0.50 | 12.7 | AE 4349 | AE 4549 |
| 0.63 | 15.9 | AE 4359 | AE 4559 |
| 0.75 | 19.05 | AE 4369 | AE 4569 |



Cert. No.: E-6721
File No.: 828.50

Type name: BAND-IT Ties All purpose Band
Material: Galvanised Carbon Steel, 316 coated with Plascoat PPA 571
Thickness: 0.726 mm
Model/sizes:

| Width | | Hole Diameter | | Ref. no. | Ref. no. |
|--------|----|---------------|----|----------|----------|
| Inches | mm | Inches | mm | Coated | Uncoated |
| 0.47 | 12 | 0.20 | 5 | AE565 | AE505 |
| 0.67 | 17 | 0.28 | 7 | AE566 | AE506 |
| 1.02 | 26 | 0.31 | 8 | AE567 | AE507 |

Type name: BAND-IT Ties All purpose Band
Material: Stainless Steel, 316 coated with Plascoat PPA 571
Thickness: 0.726 mm
Model/sizes:

| Width | | Hole Diameter | | Ref. no. | Ref. no. |
|--------|----|---------------|----|----------|----------|
| Inches | mm | Inches | mm | Coated | Uncoated |
| 0.47 | 12 | 0.20 | 5 | AE465 | AE405 |
| 0.67 | 17 | 0.28 | 7 | AE466 | AE406 |
| 1.02 | 26 | 0.31 | 8 | AE467 | AE407 |

Type name: BAND-IT Ties All purpose Band
Material: Copper
Thickness: 0.726 mm
Model/sizes:

| Width | | Hole Diameter | | Ref. no. |
|--------|----|---------------|----|----------|
| Inches | mm | Inches | mm | Uncoated |
| 0.47 | 12 | 0.20 | 5 | AE805 |
| 0.67 | 17 | 0.28 | 7 | AE806 |

Application/Limitation

For fixing of cables, outdoor and indoor, onboard ships and mobile offshore units.



Cert. No.: E-6721
File No.: 828.50

Type Approval documentation

Specifications, Band-It, Bayer and Plascoat
Drawings: PA221 dated 92-03-18, PA29089 dated 92-03-16,
Drawings: AE601 dated 91-08-22 and AE701 dated 91-08-22.
Test reports: BAM 1.3/7787, TNO B-83-14, C.W. no. 1003
Test reports: 8457 dated 91-12-03 and 8463 dated 92-01-06
Test reports: 8485 dated 92-03-16, 8489 dated 92-03-23
Test reports: 8977 dated 91-01-23 (Mini Tie-Lok)
Test reports: 9174 dated 99-05-26
Test report: HAD 136 dated 03-06-18

Tests carried out

Vibration, Flammability and Corrosion protection.
Holding power.

Marking of product

Product marking: According to product description

Certificate retention survey

The scope of the retention/renewal survey is to verify that the conditions stipulated for the Type approval is complied with and that no alterations are made to the product design or choice of materials.

The main elements of the survey are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Survey to be performed at renewal only.

END OF CERTIFICATE