



**CERTIFICATE OF APPROVAL OF MANUFACTURERS OF  
MATERIALS  
No. FAB025318XG**

**This is to certify that the manufacture of the product identified below is in compliance with the applicable requirements of the RINA Rules for the Approval of Manufacturers of Materials.**

<i>Description</i>	<b>Pipes and fittings</b>
<i>Type</i>	<b>Metallic Expansion Joints</b>
<i>Applicant</i>	<b>BELMAN PRODUCTION A/S ODDESUNDVEJ 18 6715 Esbjerg DENMARK</b>
<i>Reference standards</i>	<b>RINA Rules for the approval of manufacturers of materials</b>

*Issued in* **HAMBURG** on **February 22, 2018**. *This Certificate is valid until* **February 21, 2023**



Dr. H. Brunk

RINA Services S.p.A.  
**Henning Brunk**

This certificate consists of this page and 1 enclosure



**FAB025318XG**  
**Metallic Expansion Joints**

Construction, production and final inspection and controls of steel expansion joints for the absorption of axial , angular, lateral and universal movements for the installation on all vessels classed by RINA .

**Ratings:**

Design temperatur: -165°C to +125°C

Pressure Rating: up to PN10 bar

Design cycle: Minimum 8000

Nominal Diameter: DN 40 to DN 3000

Materials: 1.4301/304, 1.4306/304L, 1.4401/316, 1.4404/316L, 1.4541/321, 1.4550/34

Expansion joints produced for RINA Class must have a RINA individuell plan approval or Type test approval issued by RINA.

Material of bellow shall have material certificates in accordance with RINA rules for classification of ships .

All materials delivered with RINA or works certificate shall be made at works approved by RINA manufacturers .

For traceability the plan approval, the final products are to be marked with:

Manufacturer's name

Design pressure & temperature

Type designation & size

Arrow pointing to the direction of flow

