



Lloyd's
Register

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

(This certificate supersedes certificate number 11/20029 (E1) issued on 30.12.2011 which is hereby cancelled.)

This certificate is issued to:

PRODUCER

Eifeler Maschinenbau GmbH
Kolumbusstraße 54
53881 Euskirchen
Germany

**PLACE OF
PRODUCTION**

Eifeler Maschinenbau GmbH
Escher Heide 4
53902 Bad Münstereifel
Germany

DESCRIPTION

General purpose pipe fittings with a vulcanised soft seal form ring.
Tube reshaping machine FS92
Pipe material:
Carbon steel E235N according to DIN EN 10305-4
Stainless steel 1.4571 according to DIN EN 10216-5
Nuts, fitting, function ring FSR and FSSR according to
DIN 2353 / ISO 8434-1/-4 made of carbon steel according to
DIN 3859 or made of stainless steel 1.4571 according to DIN 17440

TYPE

EMB FS®-System, Series L and S

APPLICATION

General use in marine, offshore and industrial piping systems classed or intended for Classification with Lloyd's Register

Certificate No.

11/20029 (E2)

Issue Date

18 July 2016

Expiry Date

29 June 2021

Sheet

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Johannes Wiegel
Hamburg Technical Support Office
Lloyd's Register EMEA

LR031.1.2015.12

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STANDARD

Lloyd's Register Rules and Regulations for the Classification of Ships, January 2016 and IACS P2.11 including wet fire endurance test for couplings with seals sensitive to heat.

RATINGS

	Pipe O.D. (mm)	Nom. press. (bar)
L (light)	6 - 10	500
	12 - 18	400
	22 - 42	250
S (heavy)	6 - 10	800
	12 - 16	630
	20 - 38	400

Temperature range for:

Steel fittings:	-40°C to +120°C
Sealing material: NBR	-35°C to +100°C
Stainless Steel fittings	-55°C to +200°C*
Sealing material: FPM	-25°C to +200°C

*for temperatures above 50°C pressure deductions apply as per producer's instructions and recommendations


LIMITATIONS

FS®-System, Series L and S couplings are not acceptable in the following locations :-

1. Starting and control air systems.
2. Inside machinery spaces of category A or accommodation spaces for main lines of inert gas systems.
3. Fire main, water spray and sprinkler systems or similar which are not always filled with water.

The Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

Certificate No.	11/20029 (E2)
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If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.

The Design Appraisal Document No. ENS 26801-11 issue 2 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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