

APPROVAL OF MANUFACTURER CERTIFICATE

This is to certify:

That

**IRC Spa - Industria Raccorderie Cortemaggiore -
Via E. Fermi n. 7, 29016 Cortemaggiore (PC),
Italy**is an approved manufacturer of
Steel Pipes and Fittingsin accordance with
DNV GL rules for classification – Ships

and the following particulars:

Product	Fittings
Application area	Piping fittings
Steel type	Carbon and carbon-manganese, Alloy
Manufacturing method	Seamless, hot formed
Max. outer diameter	610 mm
Max. wall thickness	30 mm
Heat treatment condition	See page 2

Manufacturer(s) approved by this certificate is/are accepted to deliver according to DNV GL, DNV and GL rules. Materials to be applied to DNV GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Hamburg** on **2019-07-16**for **DNV GL**This Certificate is valid until **2022-07-15**.DNV GL local station: **Milan**Approval Engineer: **Christian Wildhagen**

Thorsten Lohmann
Head of Section

Job Id: **263.11-009819-1**
Certificate No: **AMMM00002JJ**

Particulars of the approval

Piping fittings (elbows, tees, reducers and caps)

Steel type ³⁾	Manufacturing method ¹⁾	Max. outer diameter [mm]	Max. wall thickness [mm]	Delivery condition ²⁾
C and C-Mn	HFS	600	30	N, NT, QT
Alloy	HFS	600	30	N, NT, QT

Remarks:

- 1) HFS: hot finished seamless
- 2) N: Normalised
NT: Normalised and tempered
QT: Quenched and tempered
- 3) Piping fitting
Suitable pipe grades shall be selected from the following recognized standards:
EN 10253, ASTM A234, ASTM A403, ASTM A420, ASTM A744, ASTM A815, ASTM A860, ASTM A960, ASTM A961, JIS B2312, JIS B2313 or JIS B2316.