DNV·GL

# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
**AMMM00000VJ**
Revision No:
**2**

## This is to certify:

**That**

**Wilhelm Schulz GmbH, a PCC Company**
**Kuhleshütte 111, D-47809 Krefeld,**
**Germany**

is an approved manufacturer of
**Steel Pipes and Fittings**

in accordance with
**DNV GL rules for classification – Ships**
**DNVGL-OS-B101 – Metallic materials**

and the following particulars:

| | |
|---|---|
| **Product** | **Fittings** |
| **Application area** | **Piping fittings** |
| **Steel type** | **Carbon and carbon-manganese,**<br>**Austenitic stainless,**<br>**Ferritic-austenitic (Duplex) stainless,**<br>**See page 2** |
| **Manufacturing method** | **Cold formed, seamless or welded** |
| **Max. outer diameter** | **See page 2** |
| **Max. wall thickness** | **See page 2** |
| **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 **2020-02-12**

This Certificate is valid until **2022-07-31**.
DNV GL local station: **Essen**

Approval Engineer: **Christian Wildhagen**

for **DNV GL**
Digitally Signed By: Roehr, Stefan
Location: DNV GL Hamburg, Germany
Signing Date: 12.02.2020 , on behalf of

**Thorsten Lohmann**
**Head of Section**

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## Particulars of the approval

**Piping fittings**

| Steel type [2)] | Manufacturing method[1)] | Max. outer diameter [mm] | Max. wall thickness [mm] | Heat treatment condition |
|---|---|---|---|---|
| C and C-Mn | CFS / EFW | 1067 | 75 | Acc. standard |
| Austenitic stainless | CFS / EFW | 1067 | 75 | Acc. standard |
| Ferritic-austenitic (Duplex) stainless | CFS / EFW | 1067 | 75 | Acc. standard |

Remarks:

1) CFS: cold finished seamless
   EFW: electric fusion welded
2) Suitable pipe fittings shall be selected from the following recognized standards:
   EN 10253, ASTM A234, ASTM A403, ASTM A420, ASTM A744, ASTM A815, ASTM A960, ASTM A961, JIS B2312, JIS B2313 or JIS B2316.

Special conditions:
Non-destructive and destructive testing outsourced to approved companies/laboratories.