

# APPROVAL OF MANUFACTURER CERTIFICATE

**This is to certify:**

**That**

**Outokumpu Stainless Long Products SMACC  
Europa Link, S9 1TZ, Sheffield,  
United Kingdom**

is an approved manufacturer of  
**Steelmaking**

in accordance with  
**DNV GL rules for classification – Ships**

and the following particulars:

<b>Application area</b>	<b>Steelmaking</b>
<b>Product</b>	<b>Semi-finished products for rolling or forging stock (ingots, slabs, blooms and billets)</b>
<b>Steel type</b>	<b>Austenitic stainless, Austenitic-ferritic (Duplex) stainless, see page 2</b>
<b>Manufacturing method</b>	<b>Electric Arc Furnace, Argon-Oxygen Decarburising, Ladle Arc Furnace</b>
<b>Delivery conditions</b>	<b>As cast</b>
<b>Additional approval conditions</b>	<b>See page 2</b>

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 **2018-01-16**

This Certificate is valid until **2020-06-30**.  
DNV GL local station: **Sheffield**

Approval Engineer: **Christian Wildhagen**



for **DNV GL**

Digitally Signed By: Roehr, Stefan  
Location: DNV GL Hamburg, Germany  
Signing Date: 2018-01-16 , on behalf of

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



Job Id: **263.11-003793-2**  
Certificate No: **AMMM00001XF**

## Particulars of the approval

### Semi-finished products

Steel type	Grade <sup>3)</sup>	Product	Casting method <sup>1)</sup>	Delivery condition <sup>2)</sup>
Austenitic	VL 304 L, VL 316 L, VL 316 L N, VL 317 L, VL 317 L N, VL 321, VL 347	Ingot, Slab, Bloom, Billet	CC or IC	AC, AR
Duplex	UNS 31803, UNS 32750	Ingot, Slab, Bloom, Billet	CC or IC	AC, AR

#### Remarks:

- 1) CC: Continuous casting  
IC: Ingot casting
- 2) AR: as rolled  
AC: as cast
- 3) Certification of any material applied to classed object shall fulfill the applicable material requirements in the DNV GL class rules