

# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM0000YZ**  
Revision No:  
**1**

**This is to certify:**

**That**

**Wolfensberger AG**

**Bäretswilerstrasse 45, 8494 Bauma, Switzerland**

is an approved manufacturer of  
**Steel Castings**

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

and the following particulars:

<b>Steel type(s)</b>	<b>Carbon and carbon-manganese, Alloy, Austenitic stainless, Duplex stainless, Ni-base</b>
<b>Max. weight</b>	<b>1500 kg</b>
<b>Delivery Condition</b>	<b>See particulars of the approval</b>
<b>Remarks</b>	<b>See particulars of the approval</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 **2016-11-30**

This Certificate is valid until **2019-02-28**.

DNV GL local station: **Augsburg**

Approval Engineer: **Christian Wildhagen**



for **DNV GL**

Digitally Signed By: Hachmoeller, Ludger  
Location: DNV GL Hamburg, Germany  
Signing Date: 2016-12-01 , on behalf of

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

Job Id: **263.11-006041-1**  
 Certificate No: **AMMM00000YZ**  
 Revision No: **1**

## Particulars of the approval

### Steel castings:

Standard/Grade	Product	Supply Condition	Casting Method	Thickness [mm], max.	Weight [kg], max.
Unalloyed and low-alloyed steels up to G26CrMo4 acc. to EN 10293	SA	N	*)	200	1500
GS17CrMoV5-10 acc. to EN 10213	WF	Q+T	*)	200	1500
GX5CrNiMoNb19-11-2 acc. to EN 10213	NR-A	S+Q	*)	200	1500
GX2CrNiMoN25-6-3 acc. to EN 10283	NR-AF	S+Q	*)	200	1500
Gx4CrNi13-4 acc. to EN 10283 <sup>1)</sup>	NR-M	Q+T	*)	200	1500
GX40CrNiSi 22-10 acc. to EN 10295 <sup>1)</sup>	SA	AC	*)	200	1500
GNiCr22Mo9Nb acc. to manufacturer's spec. <sup>1)</sup>	SA	S+Q	*)	200	400

SA: cast steel for common use  
 -A: austenitic stainless  
 N: normalized  
 AC: as cast

WF: cast steel for elevated temperatures  
 -AF: ferritic-austenitic stainless  
 Q+T: quenched + tempered  
 \*): sand casting or Exacast® process

NR: stainless steel alloy  
 -M: martensitic stainless  
 S+Q: solution annealed and quenched

### Remarks:

<sup>1)</sup> For applications to be subject to special approval