

W. Maass (U.K.) Ltd.	QTR Qualification Test Record NORSOK M-650 Rev 3	QTR No. WM09513/01 Revision 1
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W. Maass (UK) Ltd
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NORSOK STANDARD
M-650, rev 3.

Qualification Test Record

Scope of work

The Manufacture and Qualification Testing according to Norsok Standard M650, Rev 3 of Duplex Stainless Steel flange forgings in material ASTM A182 F51.

Open Die Forged Bossed Blanks
ASTM A182, F51 Material
To MDS D44
GE Sensing Doc No. H-A3-2713 Rev 01 B

Sandvik, Accralava, (or other NORSOK approved) Steelmaker
Forged by Forge UK Ltd
Heat Treated by Quality Heat Treatment Ltd.
Test House Bodycote Testing, IPB Mechanical Testing (or UKAS approved equivalent)
Finished Machine & N.D.T By W. Maass (UK) Ltd

1	09.04.09	P. Clare	F.R. Taylor	D. Toone
0	10.02.09	F.R. Taylor	P. Clare	D. Toone
Revision:	Date:	Made by:	Checked by:	Approved by:

Directors: Mr D. Toone
Registered Office: Bedford Street, Parr Industrial Estate, St. Helens, Merseyside WA9 1PN
Registration No.: 1416453 V.A.T. No. 306 0920 92



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<i>Manufacturer name/address/ Web page:</i>	W.Maass UK Ltd,Unit 2, Bedford Street, Parr Industrial Estate, St Helens,WA9 1PN	
<i>Reference standard</i>	Norsok M-650 Rev 3	
<i>Material designation and MDS No.:</i>	ASTM A182 F51 MDS D44 & GE Sensing Doc No. H-A3-2713 Rev 01 B	
<i>Manufacturing summary doc. No.:</i>	QTR No.WM09513/01 ASTM A182 Grade F51 Forged API Flanges	Rev. No.: 1
<i>Products and manufacturing process(es):</i>	Open die bossed forgings, solution heat treated, tested, machined and NDT tested (optional). Maximum size 120 mm equivalent ruling section.	
<i>Mandatory-conditions and sub-contractors:</i>	Steel from Sandvik, Aceralava or other Norsok qualified manufacturer. Hammer forged by Forge UK Ltd – Procedure 9513/FP Rev 01 Heat treated by Quality Heat Treatment Ltd. Procedure 9513/HT Rev 01 Tested by UKAS approved Test House. Test Plan 09513/TP001	
<i>Other information:</i>	NDT by W. Maass (UK) Ltd - Optional	


Tested and Qualified Thickness and Weight

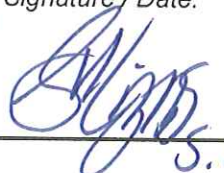
<i>Products and manufacturing process(es):</i>	<i>Test record No.</i>	<i>Tested thickness (mm)</i>	<i>Qualified thickness (mm)</i>	<i>Test piece weight (kg)</i>	<i>Qualified weight (kg)</i>
Bossed Forgings	Various	120 mm	To 120 mm ERS	25 kg	50 kg

Qualification/Acceptance signatures

Manufacturer: W.Maass (UK) Ltd	Prepared by/Date: 20/4/09 P. Clare 	Checked by/Date: 20.4.09 F.R. Taylor 
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The manufacturer and this QTR are evaluated and found to be in compliance with the requirements of NORSOK M-650 for supply of the above listed products and materials.
This acceptance does not exempt any purchaser from his responsibility to ensure that this qualification is valid for his products within the essential variables of NORSOK M-650.

Qualified/Accepted by (Purchaser Name/Address): G.E. Sensing, FULFORD LANE, CROBY, LEICESTER	Signature / Date:  20.4.09
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Qualified/Accepted by (Company Name/Address): Aker Solutions HOWE MOSS AVENUE KIRKHILL, DYCE, ABERDEEN, UK, AB21 0NA	Signature / Date:  23.04.2009 S. KIZIS
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