
	Qualification Test Record (QTR) NORSOK M-650				QTR. No.: F51-Flange
					Rev. No.:00
Manufacturer name/address/ Web page:	Brück GmbH, Brückstr. 16, 66131 Ensheim - Germany www.bruck-forgings.com				
Reference standard	NORSOK M-650, Edition 4				
Material designation and MDS No.:	ASTM A182 Gr. F51; MDS D44, Revision 4.				
Manufacturing Summary doc. No.:	MS-F51-Flange				Rev. No.:00
Products and manufacturing process(es):	Flange, produced by upsetting in a tool and subsequent profile ring rolling				
Mandatory conditions and sub-contractors:	Heat treatment furnaces No. 5 and 6 Quench basin No. 4 In deviation to heat treatment procedure VA-WV-7103 Rev.01 the set point temperature was 1080°C instead of 1070 -10 +30°C (i.e. 1070°C should have been used for qualification).				
Other information:	Present qualification is based on VA-QS-5130 Rev.01 i.e. Murakami etchant (No. 98, ASTM E 407). For all future orders VA-QS-5130 Rev. 02 i.e. 20% NaON (No.220) will be used, unless otherwise agreed with the customer.				
Qualification expires:	15.02.2018				
Tested and qualified thickness and weight					
Products and manufacturing process(es):	Test record No.	Tested thickness mm	Qualified thickness mm	Test piece weight kg	Qualified weight kg
Flange	E 3409	85	85	367	All
Qualification/acceptance signatures					
Manufacturer:	Prepared by/Date: U. Mohr 17.01.2013	Checked by/Date: J. Bruck 17.01.2013			
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 (company name /address):  Aker Engineering & Technology AS Reg.nr. 879 817 552			Signature/Date: 15/02/2013 