

	Qualification Test Record NORSOK M-650 Edition 4			QTR. No.: WS-QTR-003	
				Rev. No.: 07	
Manufacturer name/address/ Web page:	Wilhelm Schulz GmbH, Kuhleshütte 111, 47809 Krefeld, Germany www.wschulz.com				
Reference standard	Norsok M-650 Edition 4				
Material designation and MDS No.:	ASTM A815/ UNS S31803 acc. to MDS D43 Rev. 6				
Manufacturing summary doc. No.:	MSWPS31803-W/WX, MSWPS31803-S P, MSWPS31803-S			Rev. No.: 12	
Products and manufacturing process(es):	Cold formed seamless and welded fittings, WPS31803-S/ -W/ -WX, manufactured from pipes and plates, by Hydro Forming and Dye Forming				
Mandatory conditions and sub-contractors:	Heat treatment by Furnace No. 600 and Furnace No. 570 in house Heat treatment procedure verifications satisfactory carried out under witness of qualifying company				
Other information:	Mechanical and Metallurgical Testing by DEKRA Incos GmbH, D-47228 Duisburg TÜV Rheinland Werkstoffprüfung GmbH, D-13158 Berlin and D-44649 Herne Element Materials Technology Hamburg GmbH, D-21079 Hamburg TPW Prüfzentrum GmbH, D-41460 Neuss MT Laboratories GmbH, D-40667 Meerbusch and D-47229 Duisburg Technotest – TÜV Austria, D-51371 Leverkusen				
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)
Elbow 90 DEG LR WP-S	B2	168,3 x 4,5	60,0		
MSWPS31803-S Rev. 8	B4	457,2 x 54,99	60,0		
Tee WP-S	T2	168,3 x 4,5	60,0		
MSWPS31803-S Rev. 8	T4	457,2 x 54,99	60,0		
Conc. Red WP-S	R2	168,3 x 141,3 x 5,0	60,0		
MSWPS31803-S Rev. 8	R4	457,2 x 406,4 x 54,99	60,0		
Cap WP-S	K2	457,2 x 50,0	60,0		
MSWPS31803-S P Rev. 8					
Elbow 90 DEG LR WP-WX	BG4	323,9 x 5,0	60,0		
MSWPS31803-W/WX Rev. 8	BG6	457,2 x 50,0	60,0		
Tee WP-WX	TG4	323,9 x 5,0	60,0		
MSWPS31803-W/WX Rev. 8	TG6	457,2 x 50,0	60,0		
Conc. Red. WP-WX	RG4	323,9 x 273 x 5,0	60,0		
MSWPS31803-W/WX Rev. 8	RG7	457,2 x 406,4 x 50,0	60,0		
Tee Red. WP-WX	TG7	355,60 x 15,09/ 219,07 x 12,70	18,86		
MSWPS31803-W/WX Rev. 12					
For additional test reports see annexure 1					
Qualification/acceptance signatures					
Manufacturer:	Prepared by/Date: Heike Ballik, 13.03.2024		Checked by/Date: Haydn Hilling, 13.03.2024		

Heike Ballik

MRC Global Norway AS
 Gamle Forusveien 53
 4033 STAVANGER

MRC Global

Remarks/Special remarks:

Note: WSchulz and MRC agreed to performed new qualification tests within M630 Ed.7 in the range thickness that can be available in the most representative piece, a tee.

The rest of the QTR.s thickness range will be updated in the future and be presented to Equinor to update the test refence and thickness if necessary.

1. 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.
2. 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.
3. This qualification is executed and accepted by MRC Global as "Qualifying Company" solely for the supply of the above listed products to MRC Global as "Purchaser", and MRC Global assumes no liability for the use of or reliance on this qualification/ acceptance by other purchasers.
4. In accordance with MRC Global internal routines and procedures, the validity of the qualification/acceptance is 1 year from the initial signing of the QTR front sheet, after which the qualification/acceptance is subject to annual verification and renewal.

Qualified/Accepted by (company name/address):

MRC Global Norway AS
Gamle Forusveien 53
4033 STAVANGER

Initial approval date: 21.03.2023

Expiry date (annual renewal): 21.03.2025

Signature: *Miles Rysleku*

See back of QTR

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>
Elbow 90 DEG LR WP-S	B2 B3	168,3 x 4,5 219,1 x 4,5	31,75		
Tee WP-S	T2 T3	168,3 x 4,5 219,1 x 25,4	31,75		
Conc. Red. WP-S	R2 R3	168,3 x 141,3 x 5,0 219,1 x 168,3 x 25,4	31,75		
Cap WP-S	K1	406,4 x 30	37,5		
Elbow 90 DEG LR WP-WX	BG4 BG5	323,9 x 5,0 406,4 x 30	37,5		
Tee WP-WX	TG4 TG5	323,9 x 5,0 406,4 x 355,6 x 30	37,5		
Conc. Red. WP-WX	RG4 RG6	323,9 x 273 x 5,0 355,6x 323,9 x 30,0	37,5		