

TTI TUBACEX <small>GROUP</small>	QTR Qualification Test Record NORSOK M-650 ED. 4	QTR. No.: 4
		Rev. No.: 7

Manufacturer name/address/ Web page:	TTI Tubacex Tubos Inoxidables, S.A.U. Tres Cruces, 8 01400 Llodio (Alava) Spain www.tubacex.com
--------------------------------------	---

Reference standards	NORSOK M-650 EDITION 4 ASTM A790 ASTM A789
---------------------	---

Material designation and MDS No.:	SEAMLESS PIPES MDS D51 REV. 5 TUBES UNS S32750 MDS D58 REV. 4
-----------------------------------	--

Manufacturing summary doc. No.:	1. MS 32750 HF1 2. MS 32750 HF2 3. MS 32750 CF3 4. MS 32750 HF3-1 5. MS 32750 HF3-2 6. MS 32750 HF3-3	Rev. No.: 6 6 5 3 2 2
---------------------------------	--	---

Products and manufacturing process (es):	1. SEAMLESS PIPES AND TUBES HOT FINISHED DIRECT WATER QUENCHING 2. SEAMLESS PIPES AND TUBES HOT FINISHED, HEAT TREATMENT IN CONTINUOUS FURNACE. 3. SEAMLESS PIPES AND TUBES COLD FINISHED, HEAT TREATMENT IN CONTINUOUS FURNACE. 4. SEAMLESS PIPES AND TUBES HOT FINISHED, HEAT TREATMENT IN BATCH FURNACE IN ACERALAVA. 5. SEAMLESS PIPES AND TUBES HOT FINISHED, HEAT TREATMENT IN BATCH FURNACE IN TRATAMIENTOS TERMICOS YURRE, S. L. (TTYSA), FURNACE #3 AT IDIAZABAL PLANT. 6. SEAMLESS PIPES AND TUBES HOT FINISHED, HEAT TREATMENT IN BATCH FURNACE IN TRATAMIENTOS TERMICOS YURRE, S. L. (TTYSA), FURNACE #1 & #2 AT ZALDIBIA PLANT.
--	---

Mandatory conditions and sub-contractors:	Acería de Alava, S.A.U. (Sister Company to Tubacex Tubos Inoxidables, S.A.U.) is the main supplier of start material. Extruded hollows from Schoeller Bleckmann or trepanned hollows from IBF can also be used as raw material for cold rolling. Materials manufactured with processes HF2 and CF3 are to be mandatorily heat treated in Guinea furnace #3. TTI-ACERALAVA do have in house testing facilities to cover all the testing required by 22% and 25% Cr reference standards. These laboratories are included in the ISO 9001 QA system and work to procedures in compliance with international testing reference standards and following principles of ISO 17025 using qualified personnel, approved procedures and calibrated equipment. Manufacturing route HF3-1, heat treatment carried out in Acerálava in solution annealing furnace Guinea. Manufacturing route HF3-2 heat treatment carried out in TTYSA in solution annealing furnace #3 in Idiazabal plant. Manufacturing route HF3-3 heat treatment carried out in TTYSA in solution annealing furnace #1 & #2 in Zaldibia plant
---	--

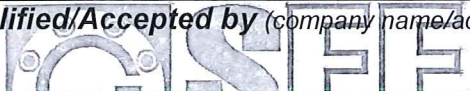

Other information:	Issued for approval renewal. Verification of heat treatment as per instruction TX-INOX-42 and TX-INOX-51. Verification of heat treatment witnessed by Qualifying Company SFF: <ul style="list-style-type: none"> • TTI Amurrio Guinea continuous Furnace #3 (report VHT-001) • TTI Llodio Direct water quenching (report VHT-003) • Heat treatment at Acerálava batch furnace (reports VHT-004 and VHTA-01) Verification of heat treatment witnessed by Lloyd's Register: <ul style="list-style-type: none"> • Heat treatment at TTYSA batch furnace #3 at Idiazabal plant (report VHT-005) • Heat treatment at TTYSA batch furnace #1 at Zaldibia plant (report VHT-006) (Furnace #2 at Zaldibia plant is twin to furnace #1) Verification of heat treatment for Umbilical tubing witnessed by Qualifying Company Nexans: <ul style="list-style-type: none"> • TTI Amurrio Guinea continuous Furnace #3 (report VHT-007)
--------------------	---

Expiry date:	NOVEMBER 2021
--------------	---------------

Tested and Qualified Thickness and Weight						
Products & manuf. process(es)	Test record No.	Test date	Tested Thickness (mm)	Qualified thickness (mm)	Test piece weight (kg)	Qualified weight (kg)
1	413920	5/3/2010	21,95	27,44	NA	NA
2	1513832207	5/8/2015	7,11	8,89	NA	NA
2	1500952207	5/8/2015	20,00	25,00	NA	NA
3	606149	19/5/2014	12,70	15,88	NA	NA
3	641822 (UMBILICAL)	15/02/2016	4,91	6,14	NA	NA
3	614737 (UMBILICAL)	15/02/2016	4,91	6,14	NA	NA
3	641823 (UMBILICAL)	15/02/2016	7,01	8,76	NA	NA
3	21603-1 (LONG PIPE)	18/03/2016	15,88	19,85	NA	NA
4	580854	3/5/2013	33	36,3	NA	NA
5	585442	23/7/2013	31,00	34,1	NA	NA
6	585446	23/7/2013	30,99	34,1	NA	NA

Qualification/Acceptance signatures		
Manufacturer:  Carlos Arrieta December 2016	Prepared by/Date: Carlos Arrieta December 2016	Checked by/Date:  Aitor González December 2016

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): 	Signature/Date:  19.12.2016
---	--