

INSPECTION CERTIFICATE

(A02) EN 10204: 2004 TYPE 3.1

(A03) No. **5-22-00013-rev.01** Pag. 1 / 5

(A06) Purchaser
 SMST
 CTS
 CTS CTS
 CTS
 CTS

(A07) Customer Order No
 Houston Stock Replenishment
(A08) SMST-Tubes Order No
 0009101317
SMST-Item (A09) **Part No**
 0009101317-000002

(B01) (B02) (B04) Product Description

Seamless Stainless Steel Cold Finished Tubes Solution Annealed In Bright Condition Plain Ends Square Cut Deburred

Specifications

ASME SA 213 19;ASTM A 213 19 a;ASTM A 269 15 >US units;SWAGELOK SMS-00333 REV. D

Grade

TP 316;TP 316L;DMV 316L

Tolerances

A 213 / A 1016 AW;ASTM A 269

(B03) Supplementary Requirements

None

(B06 - D01) Marking of the Product

Technical marking

MANNESMANN MST-U A/SA-213 A-269 TP316/TP316L .500 X .049AW SML CF ET HT 352140 PHU50029556000 QL50018787 USA

Country of Origin of the tubes

USA

Quantity						Dimensions			
(B07) Heat	Quality Lot	SMST-Item	(B08) Pieces	(B13) Weight	(B16) Length	(B09) OD	(B10) WT	(B11) Ordered Length	
								min	max
352140	QL50018787	000002	376	1775.00 lbs	7520.00 ft	0.500 "	0.049 "	20.00 ft	20.01 ft

376 1775.00 lbs 7520.00 ft

Heat Analysis

(B07) Heat	Request	C	Si	Mn	P	S	Cr	Ni	Mo								
										Min	0.00	0.00	0.00	0.0050	16.0	10.0	2.0
										Max	0.035	1.0	2.0	0.045	0.0150	18.0	14.0
(B07) Heat	Heat Origin	(C70) Melting Process	%	%	%	%	%	%	%								
352140	Germany	EAF + VOD	0.015	0.44	1.53	0.023	0.0080	17.0	11.3	2.2							

INSPECTION CERTIFICATE

(A02) EN 10204: 2004 TYPE 3.1

(A03) No. **5-22-00013-rev.01** Pag. 2 / 5

Product Analysis

ASTM A 213;ASME SA 213;ASTM A 480;ASTM A 269

	Request	C	Si	Mn	P	S	Cr	Ni	Mo
	Min	0.00	0.00	0.00	0.00	0.0050	16.0	10.0	2.0
	Max	0.035	1.0	2.0	0.045	0.0150	18.0	14.0	3.0
Quality Lot	(C00) Sample	%	%	%	%	%	%	%	%
QL50018787	59022082	0.015	0.44	1.53	0.023	0.0080	17.0	11.3	2.2

Sampling done on tubes in manufacturing length

Tensile Test at Room Temperature

ASTM A 370

(C02) Direction: LONGITUDINAL

(C10) Description: FULL SIZE TEST SPECIMEN

		(C11)	(C12)	(C13)
		YS 0.2%	U.T.S.	EL
		Rp 0,2%	Rm	2"
Request	Min	30	75	35.0
	Max			
Quality Lot	(C00) Sample	ksi	ksi	%
QL50018787	59022082	59	117	57.5
	59022083	59	117	57.5

Sampling done on tubes in manufacturing length

(C30) Hardness HRB

ASTM E 18

		(C30) HRB			
		Request			90.0 max
Quality Lot	(C00) Sample	Result	(C31) Min	(C31) Max	(C32) Avg
QL50018787	59022084		74	80	77.0
	59022085		74	77	75.5

Sampling done on tubes in manufacturing length



INSPECTION CERTIFICATE

(A02) EN 10204: 2004 TYPE 3.1

(A03) No. **5-22-00013-rev.01** Pag. 3 / 5

(C51) Flaring Test

ASTM A 1016

Quality Lot	(C00) Sample	Result
QL50018787	59022082	OK
	59022083	OK
	59025132	OK
	59025133	OK

ASTM A 1016

Quality Lot	(C00) Sample	Result
QL50018787	59022082	OK
	59022083	OK
	59025132	OK
	59025133	OK

Sampling done on tubes in manufacturing length

Test done at both ends of tubes

(C50) Flattening Test

ASTM A 1016

Quality Lot	(C00) Sample	Result
QL50018787	59022082	OK
	59022083	OK
	59025132	OK
	59025133	OK

ASTM A 1016

Quality Lot	(C00) Sample	Result
QL50018787	59022082	OK
	59022083	OK
	59025132	OK
	59025133	OK

Sampling done on tubes in manufacturing length

Test done at both ends of tubes

INSPECTION CERTIFICATE

(A02) EN 10204: 2004 TYPE 3.1

(A03) No. **5-22-00013-rev.01** Pag. 4 / 5

Other Tests and Declarations

QL50018787

Heat Treatment Bright Annealed 1950 °F Rapid Cooling Gas Cooling

(D01) Visual and dimensional inspection (VT) on 100% of tubes according to the order Satisfactory

(D51) Antimixing Check (PMI) on 100% of tubes Satisfactory

(D02) Eddy Current Testing (ET) on 100% of tubes ASTM A 1016 Satisfactory

Intergranular Corrosion Test per ASTM A-262 Pr.E Satisfactory

No Weld Repair

(Z01) SMST declares that the product was manufactured, sampled, tested, inspected and packed in accordance with the specifications and any other requirements designated in the purchase order within the extent listed in SMST order acknowledgment, and has been found to meet such requirements

Tubes are free from mercury contamination and from radioactive contamination

The material is conforming to directive 2000/53/EC and 2011/65/EU

Confirmation with reference to Pressure Equipment Directive 2014/68/EU:
 The works operates a quality management system that has undergone a specific assessment for materials for pressure equipment and is certified by a competent body (ABS QE Cert. No. 42608)

(Z02) Mill's Inspector **Noel Villatoro** Date of Edition **01/15/2022**

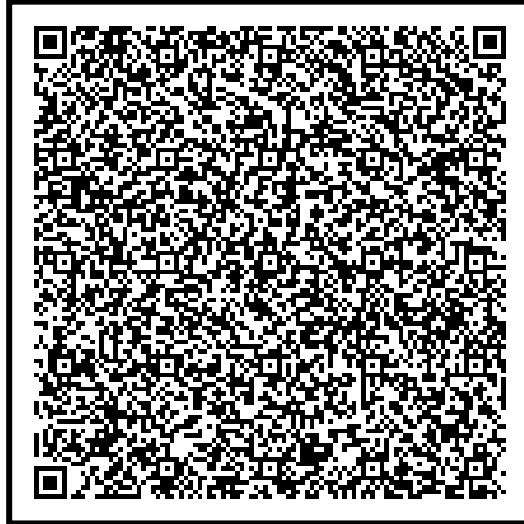
This certificate is issued by SALZGITTER MANNESMANN STAINLESS TUBES via a computerized system bearing a traceable unique number. It is valid without signature. An intermediary may only pass on the original certificate without any alterations. Providing a copy of the original is only permitted subject to strict compliance with the prerequisites set out in § 6 of EN 10204:2004 i.e. traceability and availability of the original upon request. Any modification or alteration of the certificate or any copies are strictly prohibited. Any contravention of this notice or § 6 of EN 10204:2004 is illegal and will be prosecuted. Any falsification of a certificate e.g. by introducing false or fraudulent data for the purpose of promoting the sales of goods is a criminal offence under German law (and many other jurisdictions) punishable with fines and imprisonment. If an authentication is needed, please contact info@mst.mannesmann.com

INSPECTION CERTIFICATE

(A02) EN 10204: 2004 TYPE 3.1

(A03) No. **5-22-00013-rev.01** Pag. 5 / 5

Certificate anti counterfeiting check



A set of information from the Inspection Certificate cover page are included in encrypted form in the above QR code. By scanning it with your mobile device you can check if the Inspection Certificate is genuine.