

INSPECTION CERTIFICATE

(A02) EN 10204: 2004 TYPE 3.1

(A03) No. **4-21-01465-rev.01** Pag. 1 / 6

(A06) **Purchaser**
 Salzgitter Mannesmann Stainless Tubes USA Inc.
 12050 W. LITTLE YORK
 77041 HOUSTON
 Texas
 USA

(A07) **Customer Order No**
 STOCK REPLENISHMENT
 (A08) **SMST-Tubes Order No**
 0000279722
SMST-Item (A09) **Part No**
 0000279722-000003 SS-T4-S-065-20D

(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 18 b;ASTM A 269 15 >US units;SWAGELOK SCS-00062 rev. B

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-I - ASME SA 213 / ASTM A 213 / ASTM A 269 - DMV 316L - TP 316 / TP 316L - 1/4 " X 0,065 " - 6,35 MM X 1,65 MM - AW - SML - CF - NDE - HEAT \$HEAT_NBR\$ - \$QUAL_LOT_NBR\$ - ITALY - BUNDLE \$BUNDLE_NBR\$

End Marking

Color Coding

Local Stamping

Vibro Etching

Country of Origin of the tubes

Italy

Quantity						Dimensions			
(B07) Heat	Quality Lot	SMST-Item	(B08) Pieces	(B13) Weight	(B16) Length	(B09) OD	(B10) WT	(B11) Ordered Length	
								min	max
333650	QL40068795	000003	50	58.52 kg	304.800 m	6.35 mm	1.65 mm	6096 mm	6099 mm
				129.01 lbs	1000.00 ft	0.250 "	0.065 "	20.00 ft	20.01 ft
QZ181	QL40068600	000003	223	261.02 kg	1359.408 m	6.35 mm	1.65 mm	6096 mm	6099 mm
				575.45 lbs	4460.00 ft	0.250 "	0.065 "	20.00 ft	20.01 ft
RJ722	QL40068796	000003	91	106.51 kg	554.736 m	6.35 mm	1.65 mm	6096 mm	6099 mm
				234.81 lbs	1820.00 ft	0.250 "	0.065 "	20.00 ft	20.01 ft
364				426.05 kg	2218.944 m				
364				939.27 lbs	7280.00 ft				

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Heat Analysis

		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
(B07) Heat	Heat Origin	(C70) Melting Process	%	%	%	%	%	%	%	%
333650	Germany	EAF + VOD	0.011	0.36	1.46	0.026	0.0080	17.0	11.3	2.1
QZ181	France	E + VOD	0.014	0.33	1.84	0.018	0.0070	16.7	11.0	2.1
RJ722	France	E + VOD	0.012	0.29	1.81	0.018	0.0070	16.7	11.1	2.1

Product Analysis

ASME SA 213;ASTM A 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	%	%	%	%	%	%	%	%	%
QL40068600	49037690	0.015	0.32	1.88	0.019	0.0080	16.6	11.0	2.1	
QL40068795	49041230	0.012	0.41	1.49	0.028	0.0100	17.0	11.2	2.1	
QL40068796	49041235	0.013	0.31	1.81	0.017	0.0070	16.7	11.0	2.1	

Sampling done on tubes in manufacturing length

Tensile Test at Room Temperature

ASTM A 632;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	%
QL40068600	49037690	43	91	53.5
	49037691	42	91	53.1
QL40068795	49041230	47	91	48.2
QL40068796	49041235	51	95	46.3
	49041236	50	96	45.7

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(C30) Hardness Test

ASTM A 370

Quality Lot	(C00) Sample	Request Result	(C30) HRB		(C32) Avg
			(C31) Min	(C31) Max	
QL40068600	49037690		81	82	81.5
	49037691		81	82	81.5
QL40068795	49041230		84	85	84.5
	49041231		86	88	87.0
QL40068796	49041235		86	87	86.5
	49041236		87	88	87.5

Sampling done on tubes in manufacturing length

(C51) Flaring Test

ASTM A 1016

Quality Lot	(C00) Sample	Result
QL40068600	49037684	OK
	49037685	OK
	49037686	OK
QL40068795	49041228	OK
QL40068796	49041233	OK

Sampling done on tubes in manufacturing length

Test done at both ends of tubes



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(C50) Flattening Test

ASTM A 1016

Quality Lot	(C00) Sample	Result
QL40068600	49037687	OK
	49037688	OK
	49037689	OK
QL40068795	49041229	OK
QL40068796	49041234	OK

Sampling done on tubes in manufacturing length

Test done at both ends of tubes

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Other Tests and Declarations

QL40068600; QL40068795; QL40068796

Heat Treatment Solution Annealed 1100 °C/2012 °F Holding Time 1 Min / mm WT rapid 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

"Tubing are capable of passing corrosion test in accordance with EN ISO 3651-2 method A and ASTM A 262 Practice E"

SMST USA is an authorized distributor of SMST Italy products

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 (TUV-Cert. No: 70/2002/MUC)

(Z02) Mill's Inspector **Ruggero Clementi (QC)** Date of Edition **21/07/2021**

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

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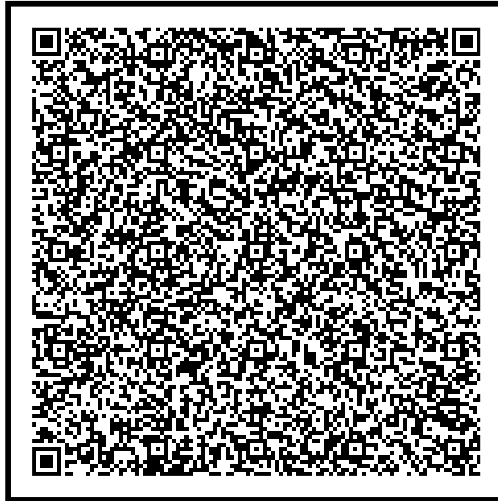
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Certificate anti counterfeiting check



**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.**