

INSPECTION CERTIFICATE

(A02) EN 10204: 2004 TYPE 3.1

(A03) No. **4-22-00889-rev.01** Pag. 1 / 5

<p>(A06) Purchaser Salzgitter Mannesmann Stainless Tubes USA Inc. 12050 W. LITTLE YORK 77041 HOUSTON Texas USA</p>	<p>(A07) Customer Order No 5210000468 000008</p> <p>(A08) SMST-Tubes Order No 0000288361</p> <p>SMST-Item (A09) Part No 0000288361-000008 SS-T8-S-049-20D</p>
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(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 21;ASTM A 213 21 a;ASTM A 269 15 >US units;SWAGELOK SCS-00062 REV. C

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 - 1/2 " X 0,049 " - 12,70 MM X 1,24 MM - AW - SML - CF - NDE - HEAT \$HEAT_NBR\$ - \$QUAL_LOT_NBR\$ - ITALY - BUNDLE \$BUNDLE_NBR\$

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
RL392	QL40073556	000008	2125	4557.20 kg	12954.069 m	12.70 mm	1.24 mm	6096 mm	6099 mm
				10046.91 lbs	42500.23 ft	0.500 "	0.049 "	20.00 ft	20.01 ft
	QL40073747	000008	408	875.12 kg	2487.168 m	12.70 mm	1.24 mm	6096 mm	6099 mm
				1929.31 lbs	8160.00 ft	0.500 "	0.049 "	20.00 ft	20.01 ft
			2533	5432.32 kg	15441.237 m				
			2533	11976.22 lbs	50660.23 ft				

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	%	%	%	%	%	%	%	%
RL392	France	E + VOD	0.019	0.36	1.75	0.024	0.0070	16.7	11.2	2.1

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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	%	%	%	%	%	%	%	%
QL40073556	49155727	0.020	0.38	1.80	0.028	0.0080	16.6	11.2	2.1
QL40073747	49157186	0.020	0.38	1.80	0.028	0.0080	16.6	11.2	2.1

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	%
QL40073556	49155727	50	90	48.2
	49155728	46	89	51.2
QL40073747	49157186	46	89	49.2
	49157187	47	89	49.2

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(C30) Hardness HRB

ASTM E 18

Quality Lot	(C00) Sample	Request	(C30) HRB		90.0 max
			(C31) Min	(C31) Max	
QL40073556	49155727		84	85	84.5
	49155728		82	83	82.5
QL40073747	49157186		82	83	82.5
	49157187		82	83	82.5

Sampling done on tubes in manufacturing length

(C51) Flaring Test

ASTM A 1016

Quality Lot	(C00) Sample	(C00) Sample	(C00) Sample	(C00) Sample	(C00) Sample	(C00) Sample	Result
QL40073556	49155723	49155724	49156028	49156029	49156035	49156036	OK
	49156161	49156162	49156185				OK
QL40073747	49157182	49157183					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	(C00) Sample	(C00) Sample	(C00) Sample	(C00) Sample	(C00) Sample	Result
QL40073556	49155725	49155726	49156030	49156031	49156037	49156038	OK
	49156163	49156164	49156186				OK
QL40073747	49157184	49157185					OK

Sampling done on tubes in manufacturing length

Test done at both ends of tubes

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Other Tests and Declarations

QL40073556; QL40073747

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"

SMTS 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)

Materials are in compliance with ANSI/NACE MR 0175/ISO 15156-3 Ed. 2015

(Z02) Mill's Inspector **Ruggero Clementi (QC)** Date of Edition **20/04/2022**

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

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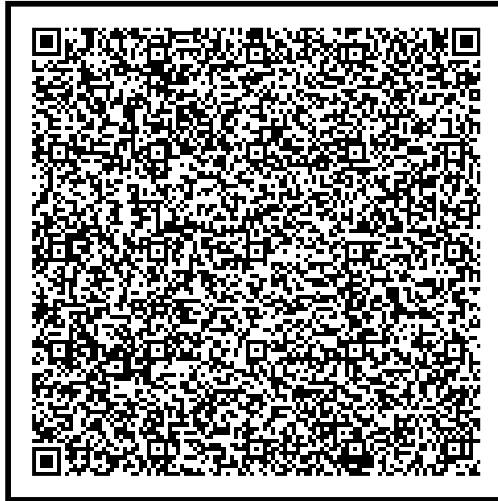
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Certificate anti counterfeiting check



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