

INSPECTION CERTIFICATE

(A02) EN 10204: 2004 TYPE 3.1

(A03) No. **4-21-02049-rev.01** Pag. 1 / 5

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

(A07) **Customer Order No**
 HOUSTON STOCK REPLENISHMENT
 (A08) **SMST-Tubes Order No**
 0000284623
SMST-Item (A09) **Part No**
 0000284623-000009 SS-T8-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 19 a;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 - 1/2 " X 0,065 " - 12,70 MM X 1,65 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
352140	QL40071207	000009	288	792.57 kg	1755.648 m	12.70 mm	1.65 mm	6096 mm	6099 mm
				1747.32 lbs	5760.00 ft	0.500 "	0.065 "	20.00 ft	20.01 ft
	QL40071551	000009	248	682.49 kg	1511.808 m	12.70 mm	1.65 mm	6096 mm	6099 mm
				1504.63 lbs	4960.00 ft	0.500 "	0.065 "	20.00 ft	20.01 ft
			536	1475.06 kg	3267.456 m				
			536	3251.95 lbs	10720.00 ft				

Heat Analysis

(B07) Heat	Heat Origin	(C70) Melting Process	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
352140	Germany	EAF + VOD	0.015	0.44	1.53	0.023	0.0080	17.0	11.3	2.2	

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Product Analysis

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

	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	%	%	%	%	%	%	%	%
QL40071207	49132849	0.013	0.44	1.56	0.020	0.0080	17.0	11.2	2.1
QL40071551	49135681	0.013	0.44	1.56	0.020	0.0080	17.0	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	%
QL40071207	49132849	45	86	52.2
	49132850	44	87	53.1
QL40071551	49135681	43	87	55.7
	49135682	44	89	52.6

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
QL40071207	49132849		81	82	81.5
	49132850		80	81	80.5
QL40071551	49135681		80	81	80.5
	49135682		80	81	80.5

Sampling done on tubes in manufacturing length

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(C51) Flaring Test

ASTM A 1016

Quality Lot	(C00) Sample	Result
QL40071207	49132843	OK
	49132844	OK
	49132845	OK
	49133851	OK
	49133852	OK
QL40071551	49135677	OK
	49135678	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
QL40071207	49132846	OK
	49132847	OK
	49132848	OK
	49133853	OK
	49133854	OK
QL40071551	49135679	OK
	49135680	OK

Sampling done on tubes in manufacturing length

Test done at both ends of tubes

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Other Tests and Declarations

QL40071207; QL40071551

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 **03/11/2021**

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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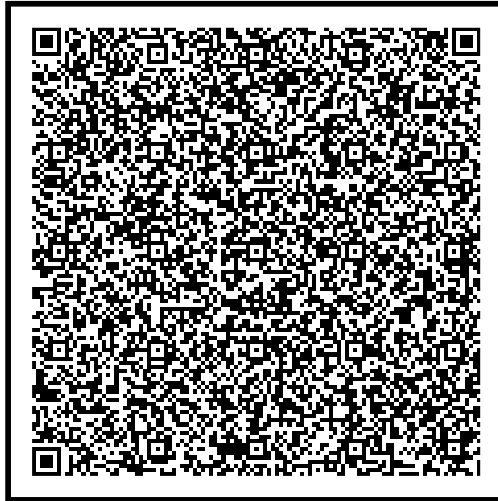
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Certificate anti counterfeiting check



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