(A01) (A05)

# Salzgitter Mannesmann Stainless Tubes USA, Inc

12050 West Little York - Houston, TX 77041 - USA

www.mannesmann-stainless-tubes.com



# INSPECTION CERTIFICATE

(A02)	EN 10204: 2004 TYPE 3.1				
	(A03) No.	5-21-00694-rev.01	Pag.	1/5	
(A06) Purchaser	(A07) Customer Ord	der No			
SMST	0009101310	0009101310			
стѕ	(A08) SMST-Tubes	(A08) SMST-Tubes Order No			
CTS CTS	0009101310	0009101310			
CTS	SMST-Item	SMST-Item (A09) Part No			
стѕ	0009101310-000002	2			
(B01) (B02) (B04) Product Descri	ption				
Seamless Stainless Steel Cold Finished	d 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. 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-U A/SA-213 A-269 TP 316/TP316L 0.250 X .035AW SML CF ET HT 352150 PHU50029529000 QL50018705 USA

Country of Orig	country of Origin of the tubes				USA				
			Quantity				Dime	nsions	
(B07) Heat	Quality Lot	SMST-Item	(B08) Pieces	(B13) Weight	(B16) Length	(B09) OD	(B10) WT	· · · · ·	11) d Length
								min	max
352150	QL50018705	000002	362	586.00 lbs	7240.00 ft	0.250 "	0.035 "	20.00 ft	20.01 ft

362	586.00 lbs 7240.00 ft

## Heat Analysis

		Request	С	Si	Mn	Р	S	Cr	Ni	Мо
		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	%	%	%	%	%	%	%	%
352150	Germany	EAF + VOD	0.014	0.44	1.49	0.021	0.0080	17.0	11.3	2.1

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# **Product Analysis**

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

	Request	С	Si	Mn	Р	S	Cr	Ni	Мо
	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	%	%	%	%	%	%	%	%
QL50018705	59021244	0.014	0.44	1.49	0.021	0.0080	17.0	11.3	2.1

Sampling done on tubes in manufacturing length

## **Tensile Test at Room Temperature**

# ASTM A 370;ASTM A 632

# (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	%
QL50018705	59021244	53	89	52.6
QL30018705	59021245	53	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
01 50040705	59021246		69	82	75.5
QL50018705	59021247		69	72	70.5

Sampling done on tubes in manufacturing length

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# (C51) Flaring Test

# ASTM A 1016

(C00) Sample	Result				
59021244	ОК				
59021245	ОК				
59023799	ОК				
ASTM A 1016					
	59021244 59021245				

Quality Lot	(C00) Sample	Result
QL50018705	59021244	ОК
	59021245	ОК
	59023799	ОК

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
QL50018705	59021244	ОК
	59021245	ОК
	59023799	ОК

# ASTM A 1016

	Quality Lot	(C00) Sample	Result
	59021244	ОК	
	QL50018705	59021245	ОК
		59023799	ОК

Sampling done on tubes in manufacturing length

Test done at both ends of tubes

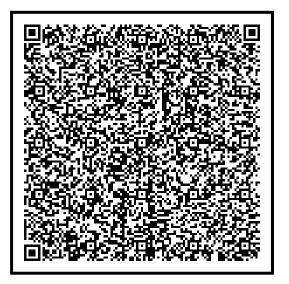
	(A01) (A05)	Salzgitter Mannesmann Stainless Tubes USA, Inc 12050 West Little York - Houston, TX 77041 - USA www.mannesmann-stainless-tubes.com		MANNI STAINL	ESS T	TUBES
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Other Tes	ts and Declaratio	ns				
	QL50018705					
	Heat Treatment Soluti	ion Annealed 1950 °F			Gas C	cooling
(D01)	Visual and dimension	al inspection (VT) on 100% of tubes according to the order			Satisf	actory
(D51)	Antimixing Check (PM	II) on 100% of tubes			Satisf	actory
(D02)	Eddy Current Testing	(ET) on 100% of tubes ASTM A 1016			Satisf	actory
	Intergranular Corrosic	on Test per ASTM A-262 PR.E			Satisf	actory
	No Weld Repair					
(Z01)		ne product was manufactured, sampled, tested, inspected and pack ted in the purchase order within the extent listed in SMST order ac				
	Tubes are free from m	nercury contamination and from radioactive contamination				
	The material is confor	ming to directive 2000/53/EC and 2011/65/EU				
	The works operates a	erence to Pressure Equipment Directive 2014/68/EU: quality management system that has undergone a specific assess ent body (ABS QE Cert. No. 42608)	sment for materials	s for pressure	equipment	and is

(Z02) Mill's Inspector ssaride Date of Edition 11/18/2021

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