#### Salzgitter Mannesmann Stainless Tubes USA, Inc

(A05)

12050 West Little York - Houston, TX 77041 - USA

www.mannesmann-stainless-tubes.com



# **INSPECTION CERTIFICATE**

(A02)

EN 10204: 2004 TYPE 3.1

(A03) No.

5-22-00070-rev.01

1/5 Pag.

(A06) Purchaser

GRANDE PRAIRIE FLUID SYSTEM TECHNOLOGIES INC

118 COMMERCE DRIVE

R3P 0Z6 WINNIPEG

Manitoba

Canada

(A07) Customer Order No

8005276

(A08) SMST-Tubes Order No

0000288201

0000288201-000015

SMST-Item

(A09) Part No

SS-T32-S-188-20

(B01) (B02) (B04) Product Description

Seamless Stainless Steel Cold Finished Tubes Solution Annealed Free From Scale Plain Ends Square Cut Deburred

ASME SA 213 21; ASTM A 213 21 a; ASTM A 269 15 > US units; SWAGELOK SCS-00062 REV. B **Specifications** 

03.2020 Solution annealed

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 TP 316L 2.000 X .188AW SML CF ET HT RK703

QL50019210 PHU50029742000 288201-15 PN#SS-T32-S-188-20 USA

**Country of Origin of the tubes** 

USA

	Quantity						Dime	nsions	
(B07) Heat	Quality Lot	OT SMST-ITEM ' '		(B16) Length	(B09) OD	(B10) WT	(B11) Ordered Length		
								min	max
RK703	QL50019210	000015	15	1091.00 lbs	300.00 ft	2.000 "	0.188 "	20.00 ft	20.02 ft

15 1091.00 lbs 300.00 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	%	%	%	%	%	%	%	%
RK703	France	E + VOD	0.017	0.32	1.73	0.017	0.0070	16.7	11.0	2.1

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# **Product Analysis**

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

	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	%	%	%	%	%	%	%	%
QL50019210	59025265	0.017	0.32	1.72	0.016	0.0080	17.0	11.6	2.0

Sampling done on tubes in manufacturing length

# **Tensile Test at Room Temperature**

#### **ASTM A 370**

(C02) Direction: LONGITUDINAL

(C10) Description: STRIP 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	%
QL50019210	59025265	31	87	64.3

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		
OI 50010310	59025266		73	78	75.5		
QL50019210	59025267		73	78	75.5		

Sampling done on tubes in manufacturing length

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# (C51) Flaring Test

# **ASTM A 1016**

Quality Lot	(C00) Sample	Result		
QL50019210	59025265	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	
QL50019210	59025265	OK	

Sampling done on tubes in manufacturing length

Test done at both ends of tubes

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		(A03) No.	5-22-00070-rev.01	Pag.	4/5
ther Tes	sts and Declarations				
	QL50019210				
	Heat Treatment Open Annealed 1950 °F			Water C	Quenched
(D01)	Visual and dimensional inspection (VT) on	100% of tubes according to the order		Satisf	factory
(D51)	Antimixing Check (PMI) on 100% of tubes			Satisf	factory
(D02)	Eddy Current Testing (ET) on 100% of tube	es ASTM A 1016		Satisf	factory
	Tubes in compliance with customer specific - SCS-00062 rev. B - SQS-00012 rev. Y - SQS-00020 rev. K - SGS- 00008  No Weld Repair	cation nr.			
(Z01)	SMST declares that the product was manu requirements designated in the purchase o requirements				
	Tubes are free from mercury contamination	n and from radioactive contamination			
	The material is conforming to directive 200	0/53/EC and 2011/65/EU			
	Confirmation with reference to Pressure Ed The works operates a quality management certified by a competent body (ABS QE Ce	t system that has undergone a specific as	ssessment for materials for pressu	re equipment	and is
(Z02)	Mill's Inspector	Noel Villatoro	Date of Edition	02/08/2022	

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 authentification is needed, please contact info@mst.mannesmann.com

(A01) Salzgitter Mannesmann Stainless Tubes USA, Inc

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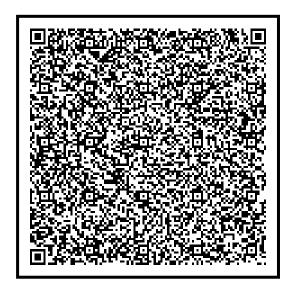
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