

SS-T16-S-083-20

(A01) Salzgitter Mannesmann Stainless Tubes Italia Srl  
 (A05) Via Piò 30 - 24062 Costa Volpino (BG) - ITALY  
[www.mannesmann-stainless-tubes.com](http://www.mannesmann-stainless-tubes.com)



INSPECTION CERTIFICATE

(A02) EN 10204: 2004 TYPE 3.1

(A03) No. 4-22-01796-rev.01 Pag. 1 / 5

**(A06) Purchaser**  
 Swagelok Calgary Valve and Fitting  
 3202 - 12th Avenue NE  
 T2A 6N8 Calgary  
 Alberta  
 Canada

**(A07) Customer Order No**  
 775535  
**(A08) SMST-Tubes Order No**  
 0000287718  
**SMST-Item** (A09) **Part No**  
 0000287718-000007 SS-T16-S-083-20

**(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 21 a;ASTM A 269 15 >US units;SWAGELOK SCS-00062 REV. B 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-I - ASME SA 213 / ASTM A 213 / ASTM A 269 - DMV 316L - TP 316 / TP 316L - 1" x 0,083" - 25,40 MM x 2,11 MM - AW - SML - CF - NDE - HEAT \$HEAT\_NBR\$ - \$QUAL\_LOT\_NBR\$ - ITALY - BUNDLE \$BUNDLE\_NBR\$

Country of Origin of the tubes

Italy

(B07) Heat	Quality Lot	SMST-Item	Quantity			Dimensions			
			(B08) Pieces	(B13) Weight	(B16) Length	(B09) OD	(B10) WT	(B11) Ordered Length	
								min	max
378160	QL40073068	000007	338	2514.01 kg	2060.448 m	25.40 mm	2.11 mm	6096 mm	6099 mm
				5542.45 lbs	6760.00 ft				
			338	2514.01 kg	2060.448 m				
			338	5542.45 lbs	6760.00 ft				

**Heat Analysis**

(B07) Heat	Request	C	Si	Mn	P	S	Cr	Ni	Mo	
										Min
										Max
		0.00	0.00	0.00	0.00	0.0050	16.0	10.0	2.0	
		0.035	1.0	2.0	0.045	0.0150	18.0	14.0	3.0	
(B07) Heat	Heat Origin	(C70) Melting Process	%	%	%	%	%	%	%	
378160	Germany	EAF + VOD	0.027	0.44	1.61	0.029	0.0100	16.7	11.3	2.1

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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	%	%	%	%	%	%	%	%
QL40073068	49150985	0.028	0.48	1.66	0.028	0.0100	16.6	11.3	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	%
QL40073068	49150985	43	87	57.5
	49151123	43	87	57.1

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
QL40073068	49150985		79	80	79.5
	49150986		79	80	79.5

Sampling done on tubes in manufacturing length

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**(C51) Flaring Test**

ASTM A 1016

Quality Lot	(C00) Sample	Result
QL40073068	49150983	OK
	49151133	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
QL40073068	49150984	OK
	49151134	OK

Sampling done on tubes in manufacturing length

Test done at both ends of tubes

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**Other Tests and Declarations**

QL40073068

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"

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 **15/07/2022**

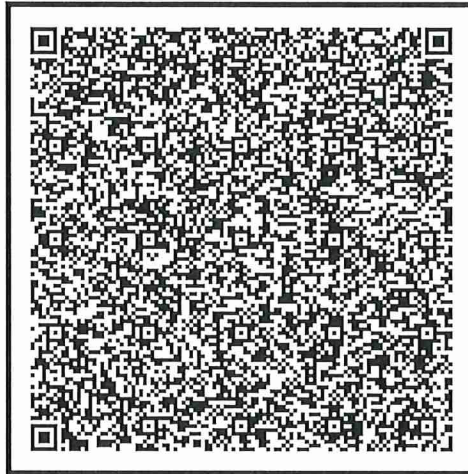
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