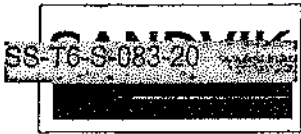


SS-T6-S-083-20

**Sandvik Materials Technology Canada
Tube Production Unit**

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425 McCartney Street
Aurora, Ontario, Canada K7S 3P3
(613) 623-6501 Fax:(613) 623-7243

Certified Material Test Report

<u>Customer</u>	<u>Ship To</u>	<u>Sales Order</u>	<u>Item Number</u>
SANDVIK MATERIALS TECH. NAFTA 982 GRIFFIN POND ROAD CLARKS SUMMIT, PA 18411 US	EDMONTON VALVE FITTINGS 4503 93RD STREET NW EDMONTON, AL T6E 5S9 CANADA	22253	22088
		<u>Mkt Order</u>	
		00055884	

<u>Customer Order and Item</u>	<u>Specifications</u>
00059124 1	ASTM A213-15c/A269-15/A511-15a ASME SA213-15 ED EAW SWINST316-R28 NACE MR0175

Tag
EDMONTON VALVE & FITTING INC Y25736
EDMONTON ABT6E 5S9
PRODUCT ID : D2QCS0012
Location N

Material
TP316/TP316L MT316/MT316L
Seamless Stainless Steel Tubing
3/8" Avg OD X .083" Avg Wall
9.53 mm Avg OD X 2.11 mm Avg Wall

<u>Work Order/ Heat No</u>	<u>No Of Pieces</u>	<u>Total Length</u>	<u>UOM</u>	<u>Net Total Weight</u>	<u>UOM</u>
388553 544066	137	2,740.00	FT	326.10	KG

Heat Analysis

Heat No	C	Si	Mn	P	S	Cr	Ni	Mo	Co	Cu	N	Ti	Al
544066	.020	.40	1.52	.031	.009	17.28	13.05	2.54	.110	.31	.043	.014	.009
Melt Source: Sandvik, Sweden						Melt Method: Electric Furnace			Melt Process: AOD				

Product Analysis

544066	.019	.41	1.60	.030	.008	17.28	13.05	2.52	.100	.30	.045	.016	.003
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Mechanical Tests

Work Order	ASTM E8 0.2%YS(205MI 30 ksi min. KSI	ASTM E8 ULT. (515 MI 75 ksi min. KSI	ASTM E8 %EL 2" (35MI test	HARDNESS RB 80MAX HRBW
388553	40	85	52	78 80

Additional Tests
ASTM A1016 FLARE - Acceptable
ASTM A1016 FLATTENING - Acceptable

Positive Material Identification (PMI) - Acceptable.
Eddy Current Examination - Acceptable
Visual Surface Condition - Acceptable
Capability of Passing ASTM A262E
Seamless, Cold Finished, Bright (Solution) Annealed & Atmospheric Quenched



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Certified Material Test Report

SO: 22253
MO: 00055884

No weld repair has been performed on this material

Material is free from radioactive contamination

Traceability is through Work Order number linemarked on tubes

Country of origin: Canada

This material has not come in contact with mercury or mercury-containing compounds

This certification affirms that the contents of the report are correct and accurate and that all test results and operations performed by Sandvik Materials Technology Canada or our subcontractors are in compliance with the material specification

The material is manufactured according to a quality system, approved and registered to ISO 9001:2008 certificate number GBG0000511 which expires November 30, 2016

Certified Material Test Report acceptable to EN 10204 3.1

No unauthorized alterations. The contents of this Certified Material Test Report may not be modified or revised in any way without the prior written approval of Sandvik Materials Technology Canada. Unauthorized alterations to the Certified Material Test Report, including introduction of false, fictitious or fraudulent statements or entries, may be punishable by fines, imprisonment, or both. This Certified Material Test Report may be copied only in the manner and for the purposes specified in Section 6 of EN 10204. Contravention of this notice will be prosecuted to the fullest extent of applicable law.

This certificate is produced electronically and is valid without signature

Quality Assurance: Bonnie Hamilton, Quality Assurance Group Leader
Clare Kavanagh, Certificate

Revisions 22/04/16