

**CERTIFICATE**

A03/Z02

No. A/21-932045**Date**

2021-01-04

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INSPECTION CERTIFICATE acc to
EN 10204 3.1

A06

PROCESSKONTROLL ITEMS AB
BOX 2088
444 02 STORA HÖGA
SWEDEN

INSPECTION STAMP

QA-TUBE

Customer References		A07	Sandvik References		A08
760408	Customer order		Order No.	Subs No.	ABSMT Dispatch note
	2020-12-07		563261	692005	30822/54
			ABSMT No.	C.Code	
003-00991 ITEMS -W			300-26657	29	
Material description		B01/B04	Steel/material Designations		B02
SEAMLESS STAINLESS COLD FINISHED INSTRUMENTATION TUBING			Sandvik	AISI	
			3R60	TP316/TP316L	
			EN no		
			1.4435		
Metallurgical process		C70			
Electric furnace					

Technical requirements		B03
ASTM A-213-19 AW, ASME SA-213-ED-19 AW, ASTM A-269-15A NACE MR0175/ISO 15156-3:-2015, NACE MR0103/ISO 17945-1:-2015 PED 2014/68/EU EN 10216-5 TC1 HRB MAX 80		

EXTENT OF DELIVERY								B07-B13
It	Product designation			Heat	Lot	Pieces	Kg	M
02	THT-3R60-6.35-1.24 6.35 X 1.24			559803	30123	10	10.0	60.00
Total						10	10.0	60.00
TEST RESULTS								
Chemical composition (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
559803	0.022	0.37	1.67	0.034	0.009	17.16	13.07	2.65
	Co	Ti	Al	N				
559803	0.11	<0.003	0.003	0.037				
Chemical composition, product (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
559803	0.018	0.39	1.65	0.034	0.008	17.15	13.03	2.62
	N							
559803	0.041							

Quality assurance - Sofia Åkesson / Q-Manager
MTC Service / Certificates

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A01

AB SANDVIK MATERIALS TECHNOLOGY Reg No. 556234-6832 VAT No. SE556234683201
SE-81181 SANDVIKEN SWEDEN www.materials.sandvik mtc_service.smt@sandvik.com

**Tensile test at room temperature**

Lot	Yield strength		Tensile strength	Elongation	
	MPa	MPa	MPa	%	%
	Rp0.2	Rp1.0	Rm	A	4D
30123	259	296	562	58	58

Hardness test

Lot	Min	Max
	HRB	HRB
30123	68	71

Following controls/tests have been satisfactorily performed:

- Flattening test.
- Flaring test
- 100% PMI-test.
- Intergranular corrosion test acc to ASTM A-262 PR.E and EN ISO 3651-2A
- Leak test: Eddy current test acc to EN ISO 10893-1, ASME SA-1016.
- Visual inspection and dimensional control.

Heat Treatment:

Solution annealed at a temperature of Min 1040° C and quenched.

Marking:

SANDVIK 3R60 ASTM A213/A269 ASME SA213 COLD EN10216-5 TC1 AW EN 1.4436 EN 1.4435 TP316/316L CFA SML NDE 6.35 X 1.24 MM 1/4'' X 18 BWG/SWG HT 559803 SS LOT 3 0123 MADE IN SWEDEN *QA-TUBE*

The raw material is free from radioactive contamination.

Material free from mercury contamination.

No welding or weld repair.

Approved acc. AD 2000-Merkblatt W0 and certified acc. to Pressure Equipment Directive (2014/68/EU, Annex 1 para 4.3) by TUEV NORD; notified body, reg.no. 0045.

The number of tests are based on the size of the manufacturing lot before cutting to finished lengths.

The delivered products comply with the specifications and requirements of the order.

The material is manufactured according to a Quality system, approved and registered to ISO 9001:2015.

No unauthorized alterations. The contents of this Inspection Certificate may not be modified or revised in any way without the prior written approval of AB Sandvik Materials Technology. Unauthorized alterations to the Inspection Certificate, including introduction of false, fictitious or fraudulent statements or entries, may be punishable by fines, imprisonment, or both. This Inspection Certificate may be copied only in the manner and for the purposes specified in Section 6 of EN 10204:2004. Contravention of this notice will be prosecuted to the fullest extent of applicable law.





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The certificate is produced with EDP and valid without signature.

