



CERTIFICATE

A03/Z02
No. A/19-834274 Rev 00
Date 2019-07-11 Page 1/3

A02/Z03
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
758152	Customer order 2019-07-08	Order No. 539136 Subs No. 672349 ABSMT No. 300-98767	ABSMT Dispatch note 49342/54 C.Code 11
003-00991	ITEMS		

Material description	B01/B04	Steel/material Designations	B02
SEAMLESS STAINLESS COLD FINISHED INSTRUMENTATION TUBING		Sandvik 3R60 EN no 1.4435	AISI TP316/TP316L
Steel making process Electric furnace	C70		

Technical requirements	B03
ASTM A-632-04 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		
01	THT-3R60-3.18-0.89 3.18 X .89	048566	95768	2	1.0	12.00		
				Total	2	1.0 12.00		
KEY TO HEAT				KEY TO LOT				
Heat Code	Heat No.			Lot Code	Lot No.			
048566	549465			95768	0002003268			
TEST RESULTS								
Chemical composition (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
048566	0.018	0.38	1.66	0.039	0.008	17.22	13.12	2.63
	N							
048566	0.043							

Quality assurance - Sofia Åkesson / Q-Manager	A05/Z02
MTC Service / Certificates	



**Chemical composition, product (weight%)**

Heat	C	Si	Mn	P	S	Cr	Ni	Mo
048566	0.017	0.38	1.67	0.038	0.006	17.18	13.10	2.62
	N							
048566	0.041							

Tensile test at room temperature

Lot	Yield strength		Tensile strength	Elongation	
	MPa	MPa	MPa	%	%
	Rp0.2	Rp1.0	Rm	A	2"
95768	245	282	541	58	48
	255	289	542	61	48

Hardness test

Lot	Min	Max
	HRB	HRB
95768	72	79

Following controls/tests have been satisfactorily performed:

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

Heat Treatment:

Solution annealed and quenched.

Marking:

SANDVIK 3R60 ASTM A632 EN10216-5 TC1 EN 1.4435 TP316/TP316L CFA SML 3.18 X 0.8
9 MM 1/8'' X 20 BWG HT 549465 SG LOT 0002003268 *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.





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The certificate is produced with EDP and valid without signature.

TEST RESULTS TRANSFERRED FROM CERTIFICATE NO 0002003268

