



CERTIFICATE

A03/Z02

No. A/20-888326

Rev 00

Date

2020-04-23

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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

<b>Customer References</b> 759501  003-00991 ITEMS	<b>A07</b>	<b>Sandvik References</b> Order No. 553200 Subs No. 683858 ABSMT No. 300-19472 ABSMT Dispatch note 17593/54 C.Code 11	<b>A08</b>
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<b>Material description</b> SEAMLESS STAINLESS COLD FINISHED HYDRAULIC TUBING	<b>B01/B04</b>	<b>Steel/material Designations</b> Sandvik 3R60 AISI TP316/TP316L EN no 1.4435	<b>B02</b>
<b>Metallurgical process</b> Electric furnace	<b>C70</b>		

<b>Technical requirements</b> 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	<b>B03</b>
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<b>EXTENT OF DELIVERY</b>							<b>B07-B13</b>	
<b>It</b>	<b>Product designation</b>	<b>Heat</b>	<b>Lot</b>	<b>Pieces</b>	<b>Kg</b>	<b>M</b>		
01	THT-3R60-3-0.7 3.00 X .70	048843	96402	3	1.0	18.00		
				Total	3	1.0 18.00		
<b>KEY TO HEAT</b>			<b>KEY TO LOT</b>					
<b>Heat Code</b>	<b>Heat No.</b>			<b>Lot Code</b>	<b>Lot No.</b>			
048843	556541			96402	0002006908			
<b>TEST RESULTS</b>								
<b>Chemical composition (weight%)</b>								
<b>Heat</b>	<b>C</b>	<b>Si</b>	<b>Mn</b>	<b>P</b>	<b>S</b>	<b>Cr</b>	<b>Ni</b>	<b>Mo</b>
048843	0.020	0.39	1.64	0.033	0.008	17.29	13.13	2.63
	<b>N</b>							
048843	0.039							

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



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

Heat	C	Si	Mn	P	S	Cr	Ni	Mo
048843	0.019	0.40	1.63	0.032	0.009	17.32	13.12	2.61
	N							
048843	0.046							

**Tensile test at room temperature**

Lot	Yield strength		Tensile strength	Elongation	
	MPa	MPa	MPa	%	%
	Rp0.2	Rp1.0	Rm	A	2"
96402	274	310	549	60	49
	252	319	551	60	51

**Hardness test**

Lot	Min	Max
	HRB	HRB
96402	69	70

**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 3.00 X 0.7  
0 MM \*\*SAKNAS\*\* HT 556541 SG LOT 0002006908 \*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.

The certificate is produced with EDP and valid without signature.

TEST RESULTS TRANSFERRED FROM CERTIFICATE NO 0002006908

