



CERTIFICATE

No. A/16-612723

Rev 00

Date 2016-10-26

Page 1/2

INSPECTION CERTIFICATE acc to
EN 10204 3.1

Processkontroll Items AB
Box 2088
444 02 STORA HÖGA
SWEDEN

INSPECTION STAMP
QA-TUBE

Customer References		Sandvik References	
753842	Customer order 2016-09-13	Order No. 453591	Subs No. 616344
003-00991	ITEMS	ABSMT No. 300-52015	ABSMT Dispatch note 31522/54 C.Code 46

Material description SEAMLESS STAINLESS COLD FINISHED HYDRAULIC TUBING	Steel/material Designations Sandvik SS 3R60 2353
Steel making process Electric furnace	

Technical requirements SS 219713 Condition No -24
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EXTENT OF DELIVERY						
It	Product designation	Heat	Lot	Pieces	Kg	M
01	THT-3R60-16-2 16.00 X 2.00	048288	94575	43	180.0	258.00
				Total	43	180.0 258.00
KEY TO HEAT			KEY TO LOT			
Heat Code	Heat No.	Lot Code		Lot No.		
048288	545349	94575		183047		
TEST RESULTS						
Chemical composition (weight%)						
Heat	C	Si	Mn	P	S	Cr
048288	0.022	0.39	1.67	0.033	0.011	17.29
	N					Ni
048288	0.034					13.15
						Mo
						2.62
Tensile test at room temperature						
	Yield strength		Tensile strength		Elongation	
	MPa	MPa	MPa		%	
Lot	Rp0.2	Rp1.0	Rm	A		
94575	275	313	557	47		
	281	316	560	47		
	286	321	565	47		

Quality assurance - Lars-Åke Bergqvist / QA-manager
MTC Service / Certificates

**Following controls/tests have been satisfactorily performed:**

- Flattening test acc to EN ISO 8492
- PMI-test.
- Intergranular corrosion test acc. to EN ISO3651-2, Method A.
- Leak test: Eddy current test acc to SS 114301/114305 E1
- Visual inspection and dimensional control.

Heat Treatment:

Solution annealed and quenched.

The raw material is free from radioactive contamination.

Material free from mercury contamination.

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 9001:2008.

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The certificate is produced with EDP and valid without signature.

TEST RESULTS TRANSFERRED FROM CERTIFICATE NO 183047 REV 01