

**CERTIFICATE****No. A/15-508803****Rev 00****Date 2015-06-23****Page 1/2**INSPECTION CERTIFICATE acc to  
EN 10 204 3.1Processkontroll Items AB  
Box 2088  
444 02 STORA HÖGA  
SWEDENINSPECTION STAMP  
QA-TUBE

Customer References		Sandvik References	
751962	Customer order 2015-06-02	Order No. 407097	Subs No. 591800
003-00991 ITEMS		ABSMT No. 300-30753	Dispatch note 48249/54
		C.Code 46	

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

Technical requirements
SS 219713 Condition No -24

EXTENT OF DELIVERY								
It	Product designation		Heat	Lot	Pieces	Kg	M	
02	THT-3R60-16-2		048153	93476	20	84.0	120.00	
	16.00 X 2.00							
					Total	20	84.0 120.00	
KEY TO HEAT				KEY TO LOT				
Heat Code		Heat No.		Lot Code		Lot No.		
048153		541662		93476		180222		
TEST RESULTS								
Chemical composition (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
048153	0.020	0.39	1.79	0.028	0.009	17.31	13.14	2.53
	N							
048153	0.035							
Tensile test at room temperature								
	Yield strength		Tensile strength		Elongation			
	MPa	MPa	MPa		%			
Lot	Rp0.2	Rp1.0	Rm		A			
93476	271	313	563		44			
	287	331	565		41			
	266	308	561		43			
Quality assurance - Lars-Åke Bergqvist / QA-manager								
MTC Service / Certificates								

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

- Flattening test.
- 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 46940