

**CERTIFICATE****No. A/14-445493****Rev 00****Date 2014-09-22****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	
750858	Customer order 2014-09-11	Order No. 381402	Subs No. 577926
003-00991 ITEMS		ABSMT No. 300-19012	Dispatch note 31300/54
		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	
01	THT-3R60-8-1		048039	32249	10	10.0	60.00	
	8.00 X 1.00							
					Total	10	10.0	
							60.00	
KEY TO HEAT								
Heat Code		Heat No.						
048039		538505						
TEST RESULTS								
Chemical composition (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
048039	0.020	0.41	1.71	0.031	0.0080	17.20	13.14	2.54
	N							
048039	0.039							
Tensile test at room temperature								
	Yield strength		Tensile strength		Elongation			
	MPa	MPa	MPa		%			
Lot	Rp0.2	Rp1.0	Rm		A			
32249	319	353	571		54			
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.

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 2014/821