

**CERTIFICATE****No. A/13-345496****Rev 00****Date 2013-06-27****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	
712803	Customer order 2013-05-13	Order No. 331555	Subs No. 549910
003-00991	ITEMS	ABSMT No. 300-85677	Dispatch note 02346/54
		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 16.00 X 2.00	535740	15599	15	62.0	90.00
Total				15	62.0	90.00

TEST RESULTS								
Chemical composition (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
535740	0.023	0.40	1.61	0.028	0.009	17.41	13.19	2.53
	N							
535740	0.035							

Tensile test at room temperature				
Yield strength		Tensile strength		Elongation
Lot	MPa	MPa	MPa	%
	Rp0.2	Rp1.0	Rm	A
15599	309	350	580	54

Following controls/tests have been satisfactorily performed:

- Flattening test.
- PMI-test.
- Intergranular corrosion test acc. to EN ISO3651-2, Method A.

Quality assurance - Ulrik Rodling / QA-manager
MTC Service / Certificates



- 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.

The certificate is produced with EDP and valid without signature.