

**CERTIFICATE****No. A/11-164845****Rev 00****Date 2011-05-20****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		
710009	Customer order 2011-04-20	Order No.	Subs No.	ABSMT Dispatch note
		241895	502375	37404/54
003-00991	ITEMS	ABSMT No.	C.Code	
		300-42590	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-3R60-8-1.5 8.00 X 1.50	527820	27585	41	60.0	246.00
				Total	41	60.0 246.00

TEST RESULTS								
Chemical composition (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
527820	0.018	0.39	1.64	0.029	0.008	17.28	13.12	2.53
	N							
527820	0.040							

Tensile test at room temperature					
Lot	Yield strength		Tensile strength		Elongation
	MPa	MPa	MPa		%
	Rp0.2	Rp1.0	Rm	A	
27585	263	308	560	55	
	258	301	562	55	
	261	306	559	55	

Following controls/tests have been satisfactorily performed:
- Flattening test.

Quality assurance - Ulrik Rodling / QA-manager Tube & Pipe
MTC Service / Certificates



- 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 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.

The certificate is produced with EDP and valid without signature.