

**CERTIFICATE****No. A/16-619188 Rev 00**
Date 2016-11-23 Page 1/2INSPECTION CERTIFICATE acc to
EN 10204 3.1Processkontroll Items AB
Box 2088
444 02 STORA H@GA
SWEDENINSPECTION STAMP
QA-TUBE

Customer References		Sandvik References						
754104	Customer order 2016-11-15	Order No. 460121	Subs No. 619680 ABSMT No. 300-54883 C.Code 46					
003-00991 ITEMS		ABSMT Dispatch note 33189/54						
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								
EXTENT OF DELIVERY								
It	Product designation	Heat	Lot	Pieces	Kg	M		
01	THT-3R60-8-1.5 8.00 X 1.50	048260	59865	20	28.0	120.00		
				Total	20	28.0 120.00		
KEY TO HEAT								
Heat Code		Heat No.						
048260		544607						
TEST RESULTS								
Chemical composition (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
048260	0.015	0.38	1.55	0.031	0.0110	17.25	13.11	2.53
N								
048260	0.038							
Tensile test at room temperature								
		Yield strength		Tensile strength		Elongation		
		MPa	MPa	MPa		%		
Lot	Rp0.2	Rp1.0	Rm	A				
59865	306	356	572	50				
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.