



**CERTIFICATE**

**No. A/16-578043**

**Rev 00**

**Date 2016-05-13**

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INSPECTION CERTIFICATE acc to  
EN 10204 3.1

Processkontroll Items AB  
Box 2088  
444 02 STORA HÖGA  
SWEDEN

INSPECTION STAMP  
QA-TUBE

Customer References		Sandvik References		
753317	Customer order 2016-04-20	Order No. 438876	Subs No. 608784	ABSMT Dispatch note 20737/54
003-00991	ITEMS	ABSMT No. 300-45599	C.Code 46	

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

Technical requirements
SS 219713 Condition No -24

EXTENT OF DELIVERY								
It	Product designation	Heat	Lot	Pieces	Kg	M		
01	THT-3R60-16-2 16.00 X 2.00	048224	93605	50	219.0	300.00		
				Total	50	219.0 300.00		
KEY TO HEAT			KEY TO LOT					
Heat Code	Heat No.		Lot Code	Lot No.				
048224	543653		93605	182224				
TEST RESULTS								
Chemical composition (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
048224	0.019	0.42	1.59	0.032	0.007	17.27	13.19	2.62
	N							
048224	0.037							
Tensile test at room temperature								
Lot	Yield strength		Tensile strength		Elongation			
	MPa	MPa	MPa		%			
	Rp0.2	Rp1.0	Rm		A			
93605	266	316	578		41			
	263	309	577		43			
	266	316	576		42			

**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 182224