



## CERTIFICATE

A03/Z02  
No. A/16-602339 Rev 00  
Date 2016-09-09 Page 1/2

A02/Z03

INSPECTION CERTIFICATE acc to  
EN 10204 3.1

A06

Processkontroll Items AB  
Box 2088  
444 02 STORA HÖGAINSPECTION STAMP  
QA-TUBE

<b>Customer References</b>  753574  003-00991      ITEMS		<b>Sandvik References</b>  Order No.      Subs No.      ABSMT Dispatch note 445901      612459      27883/54 ABSM T No.      C.Code 300-48747      46																																																							
<b>Material description</b> SEAMLESS STAINLESS COLD FINISHED HYDRAULIC TUBING          <b>Steel making process</b> Electric furnace		<b>Steel/material Designations</b> Sandvik      SS 3R60      2353																																																							
<b>Technical requirements</b> SS 219713 Condition No -24																																																									
<b>EXTENT OF DELIVERY</b> <table border="1"><thead><tr><th>It</th><th>Product designation</th><th>Heat</th><th>Lot</th><th>Pieces</th><th>Kg</th><th>M</th></tr></thead><tbody><tr><td>01</td><td>THT-3R60-12-1.5 12.00 X 1.50</td><td>048259</td><td>58618</td><td>2</td><td>5.0</td><td>12.00</td></tr><tr><td colspan="4">Total</td><td>2</td><td>5.0</td><td>12.00</td></tr></tbody></table>			It	Product designation	Heat	Lot	Pieces	Kg	M	01	THT-3R60-12-1.5 12.00 X 1.50	048259	58618	2	5.0	12.00	Total				2	5.0	12.00																																		
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<b>KEY TO HEAT</b> Heat Code      Heat No. 048259      544655																																																									
<b>TEST RESULTS</b> Chemical composition (weight%) <table border="1"><thead><tr><th>Heat</th><th>C</th><th>Si</th><th>Mn</th><th>P</th><th>S</th><th>Cr</th><th>Ni</th><th>Mo</th></tr></thead><tbody><tr><td>048259</td><td>0.019</td><td>0.41</td><td>1.58</td><td>0.031</td><td>0.0100</td><td>17.19</td><td>13.10</td><td>2.53</td></tr><tr><td colspan="9">N</td></tr><tr><td>048259</td><td>0.036</td><td colspan="7"></td></tr></tbody></table> <b>Tensile test at room temperature</b> <table border="1"><thead><tr><th rowspan="2">Lot</th><th colspan="2">Yield strength</th><th>Tensile strength</th><th>Elongation</th></tr><tr><th>MPa</th><th>MPa</th><th>MPa</th><th>%</th></tr></thead><tbody><tr><td>58618</td><td>Rp0.2</td><td>Rp1.0</td><td>Rm</td><td>A</td></tr><tr><td></td><td>295</td><td>333</td><td>568</td><td>53</td></tr></tbody></table>			Heat	C	Si	Mn	P	S	Cr	Ni	Mo	048259	0.019	0.41	1.58	0.031	0.0100	17.19	13.10	2.53	N									048259	0.036								Lot	Yield strength		Tensile strength	Elongation	MPa	MPa	MPa	%	58618	Rp0.2	Rp1.0	Rm	A		295	333	568	53
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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.