

**CERTIFICATE**

A03/Z02

**No. A/20-905158****Rev****00****Date**

2020-08-13

**Page**

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A02/Z03

INSPECTION CERTIFICATE acc to  
EN 10204 3.1

A06

PROCESSKONTROLL ITEMS AB  
BOX 2088  
444 02 STORA HÖGA  
SWEDEN

INSPECTION STAMP

QA-TUBE

<b>Customer References</b> <span style="float:right">A07</span> 759847/ JOSEFIN <span style="float:right">Customer order</span> <span style="float:right">2020-08-12</span>  003-00991 ITEMS	<b>Sandvik References</b> <span style="float:right">A08</span> <b>Order No.</b> <b>Subs No.</b> <b>ABSMT</b> <b>Dispatch note</b> 557928 687571 22943/54 <b>ABSMT No.</b> <b>C.Code</b> 300-22892 05																																																																																													
<b>Material description</b> <span style="float:right">B01/B04</span> SEAMLESS STAINLESS COLD FINISHED INSTRUMENTATION TUBING   <b>Metallurgical process</b> <span style="float:right">C70</span> Electric furnace	<b>Steel/material Designations</b> <span style="float:right">B02</span> <b>Sandvik</b> <b>UNS</b> 2RK65 N08904 <b>EN no</b> 1.4539																																																																																													
<b>Technical requirements</b> <span style="float:right">B03</span> ASTM A-269-15A, ASTM A-213-18 PED 2014/68/EU EN 10216-5 TC1 NACE MR0175/ISO 15156-3:-2015																																																																																														
<b>EXTENT OF DELIVERY</b> <span style="float:right">B07-B13</span> <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-2RK65-6.35-0.89 6.35 X .89</td> <td>548896</td> <td>47572</td> <td>10</td> <td>7.0</td> <td>60.00</td> </tr> <tr> <td colspan="4"></td> <td>Total</td> <td>10</td> <td>7.0 60.00</td> </tr> </tbody> </table> <b>TEST RESULTS</b> <b>Chemical composition (weight%)</b> <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>548896</td> <td>0.015</td> <td>0.38</td> <td>1.58</td> <td>0.023</td> <td>0.0008</td> <td>20.25</td> <td>24.84</td> <td>4.20</td> </tr> <tr> <td></td> <th>Cu</th> <th>N</th> <td colspan="6"></td> </tr> <tr> <td>548896</td> <td>1.62</td> <td>0.057</td> <td colspan="6"></td> </tr> </tbody> </table> <b>Chemical composition, product (weight%)</b> <table border="1"> <thead> <tr> <th>Lot</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>47572</td> <td>0.014</td> <td>0.38</td> <td>1.60</td> <td>0.023</td> <td>0.0008</td> <td>20.22</td> <td>24.93</td> <td>4.20</td> </tr> <tr> <td></td> <th>Cu</th> <th>N</th> <td colspan="6"></td> </tr> <tr> <td>47572</td> <td>1.61</td> <td>0.059</td> <td colspan="6"></td> </tr> </tbody> </table>		It	Product designation	Heat	Lot	Pieces	Kg	M	01	THT-2RK65-6.35-0.89 6.35 X .89	548896	47572	10	7.0	60.00					Total	10	7.0 60.00	Heat	C	Si	Mn	P	S	Cr	Ni	Mo	548896	0.015	0.38	1.58	0.023	0.0008	20.25	24.84	4.20		Cu	N							548896	1.62	0.057							Lot	C	Si	Mn	P	S	Cr	Ni	Mo	47572	0.014	0.38	1.60	0.023	0.0008	20.22	24.93	4.20		Cu	N							47572	1.61	0.059						
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<p style="text-align:center"><b>Quality assurance - Sofia Åkesson / Q-Manager</b></p> <p style="text-align:center">MTC Service / Certificates</p> <span style="float:right">A05/Z02</span>																																																																																														

A01

 AB SANDVIK MATERIALS TECHNOLOGY Reg No. 556234-6832 VAT No. SE556234683201  
 SE-81181 SANDVIKEN SWEDEN www.materials.sandvik mtc\_service.smt@sandvik.com


**Tensile test at room temperature**

Lot	Yield strength		Tensile strength	Elongation	
	MPa	MPa	MPa	%	%
	Rp0.2	Rp1.0	Rm	A	4D
47572	350	383	635	48	44
	348	379	631	45	44

**Hardness test**

Lot	Min	Max
	HRB	HRB
47572	72	72
	72	73

**Following controls/tests have been satisfactorily performed:**

- Flattening test.
- Flaring test
- 100% PMI-test.
- Intergranular corrosion test acc to ASTM A-262 PR.E
- Leak test: Eddy current test acc to ASTM A-1016.
- Visual inspection and dimensional control.

**Heat Treatment:**

Solution annealed and quenched.

**Marking:**

SANDVIK 2RK65 ASTM A213/A269 COLD EN10216-5 TC1 AW UNS N08904 EN 1.4539 CFA SM  
L NDE 6.35 X 0.89 MM 1/4'' X 20 BWG/SWG HT 548896 SS LOT 47572 MADE IN SWEDEN  
\*QA-TUBE\*

The raw material is free from radioactive contamination.

Material free from mercury contamination.

No welding or weld repair.

Approved acc. AD 2000-Merkblatt W0 and certified acc. to  
Pressure Equipment Directive (2014/68/EU, Annex 1 para 4.3) by  
TUEV NORD; notified body, reg.no. 0045.

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 9001:2015.

No unauthorized alterations. The contents of this Inspection  
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The certificate is produced with EDP and valid without signature.

