

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

Customer References A07 763149 Customer order 2022-10-17 003-00991 ITEMS -W	Alleima References A08 Order No. Subs No. Dispatch note 591268 714958 28337/54 Suppl. No C.Code 300-47667 29																																																																																	
Material description B01/B04 SEAMLESS STAINLESS COLD FINISHED INSTRUMENTATION TUBING Metallurgical process C70 Electric furnace	Steel/material Designations B02 Alleima AISI 3R60 TP316/TP316L EN no 1.4435																																																																																	
Technical requirements B03 ASTM A-213-21B AW, ASME SA-213-ED-21 AW, ASTM A-269-22 NACE MR0175/ISO 15156-3:-2015, NACE MR0103/ISO 17945-1:-2015 PED 2014/68/EU EN 10216-5 TC1 HRB MAX 80																																																																																		
EXTENT OF DELIVERY B07-B13 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">It</th> <th style="text-align: left;">Product designation</th> <th style="text-align: left;">Heat</th> <th style="text-align: left;">Lot</th> <th style="text-align: left;">Pieces</th> <th style="text-align: left;">Kg</th> <th style="text-align: left;">M</th> </tr> </thead> <tbody> <tr> <td>03</td> <td>THT-3R60-12.7-1.24</td> <td>044458</td> <td>96682</td> <td>131</td> <td>280.0</td> <td>786.00</td> </tr> <tr> <td></td> <td>12.70 X 1.24</td> <td>044458</td> <td>96686</td> <td>36</td> <td>76.0</td> <td>216.00</td> </tr> <tr> <td></td> <td>10787</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="4"></td> <td style="text-align: right;">Total</td> <td>167</td> <td>356.0 1002.00</td> </tr> </tbody> </table> KEY TO HEAT <table style="width: 100%;"> <tr> <td style="width: 50%;">Heat Code</td> <td style="width: 50%;">Heat No.</td> </tr> <tr> <td>044458</td> <td>567046</td> </tr> </table> KEY TO LOT <table style="width: 100%;"> <tr> <td style="width: 50%;">Lot Code</td> <td style="width: 50%;">Lot No.</td> </tr> <tr> <td>96682</td> <td>2084835-11</td> </tr> <tr> <td>96686</td> <td>2084839-11</td> </tr> </table> TEST RESULTS Chemical composition (weight%) <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Heat</th> <th style="text-align: left;">C</th> <th style="text-align: left;">Si</th> <th style="text-align: left;">Mn</th> <th style="text-align: left;">P</th> <th style="text-align: left;">S</th> <th style="text-align: left;">Cr</th> <th style="text-align: left;">Ni</th> <th style="text-align: left;">Mo</th> </tr> </thead> <tbody> <tr> <td>044458</td> <td>0.021</td> <td>0.38</td> <td>1.54</td> <td>0.031</td> <td>0.009</td> <td>17.23</td> <td>13.12</td> <td>2.64</td> </tr> <tr> <td></td> <td>Co</td> <td>Ti</td> <td>Al</td> <td>N</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>044458</td> <td>0.13</td> <td><0.003</td> <td>0.003</td> <td>0.036</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		It	Product designation	Heat	Lot	Pieces	Kg	M	03	THT-3R60-12.7-1.24	044458	96682	131	280.0	786.00		12.70 X 1.24	044458	96686	36	76.0	216.00		10787										Total	167	356.0 1002.00	Heat Code	Heat No.	044458	567046	Lot Code	Lot No.	96682	2084835-11	96686	2084839-11	Heat	C	Si	Mn	P	S	Cr	Ni	Mo	044458	0.021	0.38	1.54	0.031	0.009	17.23	13.12	2.64		Co	Ti	Al	N					044458	0.13	<0.003	0.003	0.036				
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Quality assurance - Sofia Åkesson / Q-Manager A05/Z02 MTC Service / Certificates																																																																																		



Chemical composition, product (weight%)

Heat	C	Si	Mn	P	S	Cr	Ni	Mo
044458	0.019	0.37	1.57	0.029	0.009	17.27	13.00	2.60
	N							
044458	0.032							

Tensile test at room temperature

Lot	Yield strength		Tensile strength	Elongation	
	MPa	MPa	MPa	%	%
	Rp0.2	Rp1.0	Rm	A	2"
96682	291	320	554	68	64
96686	293	325	566	61	58
	299	328	566	66	62

Hardness test

Lot	Min	Max
	HRB	HRB
96682	77	77
96686	77	78

Following controls/tests have been satisfactorily performed:

- Flattening test.
- Flaring test
- 100% PMI-test.
- Intergranular corrosion test acc to ASTM A-262 PR.E and EN ISO 3651-2A
- Leak test: Eddy current test acc to EN ISO 10893-1, ASME SA-1016.
- Visual inspection and dimensional control.

Heat Treatment:

Solution annealed at a temperature of Min 1040° C and quenched.

Marking:

3R60 ASTM/ASME A/SA213 A269 COLD EN 10216-5 TC1 AW TP 316/TP 316L EN 1.4435 CF A SML NDE 12.70 X 1.24 MM 1/2'' X 18 BWG/SWG HT 567046 SZ LOT 2084835-11 MADE BY ALLEIMA IN CZECHIA *QA-TUBE*

3R60 ASTM/ASME A/SA213 A269 COLD EN 10216-5 TC1 AW TP 316/TP 316L EN 1.4435 CF A SML NDE 12.70 X 1.24 MM 1/2'' X 18 BWG/SWG HT 567046 SZ LOT 2084839-11 MADE BY ALLEIMA IN CZECHIA *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 Certificate may not be modified or revised in any way without the prior written approval of Alleima.

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 C-8358/10
C-8358/10

