

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 763064/Holmgren Customer order 2022-09-22 003-00991 ITEMS -W	Alleima References A08 Order No. Subs No. Dispatch note 590413 714279 28649/54 Suppl. No C.Code 300-47073 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						
It	Product designation	Heat	Lot	Pieces	Kg	M
01	THT-3R60-12.7-1.24 12.70 X 1.24	044458	96687	15	31.0	90.00
				Total	15	31.0 90.00
KEY TO HEAT Heat Code Heat No. 044458 567046			KEY TO LOT Lot Code Lot No. 96687 2084840-11			
TEST RESULTS Chemical composition (weight%)						
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		

Quality assurance - Sofia Åkesson / Q-Manager MTC Service / Certificates	A05/Z02
--	---------



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"
96687	298	331	575	60	56

Hardness test

Lot	Min	Max
	HRB	HRB
96687	77	79

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 2084840-11 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

