

CERTIFICATE

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INSPECTION CERTIFICATE acc to EN 10204 3.1

Processkontroll Items AB Box 2088 444 02 STORA HÖGA

INSPECTION STAMP QA-TUBE

Customer References

Sandvik References Customer Order No. Subs No. ABSMT Dispatch note

SWEDEN

753195 order

SEAMLESS STAINLESS COLD FINISHED

435705 607070 19262/54

2016-03-22

ABSMT No. C.Code 300-44049 13

003-00991 ITEMS

Material description

INSTRUMENTATION TUBING

Steel/material Designations

Sandvik UNS N08904

2RK65

Steel making process

Electric furnace

Technical requirements

ASTM A-269-15A

EXTENT OF DELIVERY It Product designation Heat Lot Pieces Kg M 02 THT-2RK65-12.7-1.24 15.0 544245 54103 42.00

12.70 X 1.24

Total 7 15.0

TEST RESULTS

Chemical composition (weight%)

Heat C Si Mn P S CrΝi Mo 544245 0.009 0.42 1.77 0.022 0.0005 20.19 24.96 4.22

Cu N 544245 1.52 0.057

Chemical composition, product (weight%)

Heat C Si Mn P S \mathtt{Cr} Νi Mo <0.001 1.76 0.022 544245 0.011 0.42 20.14 24.79 4.20

> Cu N

0.064 544245 1.51

> Quality assurance - Lars-Ake Bergqvist / QA-manager MTC Service / Certificates



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Tensile test at room temperature

	Yield strength	Tensile strength	Elongation
	MPa	MPa	%
Lot	Rp0.2	Rm	2"
54103	282	596	45
	295	599	43

Hardness test

	Min	Max
Lot	HRB	HRB
54103	75	77

Following controls/tests have been satisfactorily performed:

- Flaring test
- PMI-test.
- Leak test: Eddy current test acc to ASTM A-1016.
- 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.