

## CERTIFICATE

No. A/16-557832 Rev 00

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INSPECTION CERTIFICATE acc to EN 10204 3.1

Processkontroll Items AB Box 2088

444 02 STORA HÖGA

SWEDEN

INSPECTION STAMP QA-TUBE

Customer References

Customer

753044/Holmgren order

2016-02-17

003-00991 ITEMS

Sandvik References

Order No. Subs No. ABSMT Dispatch note

432046 605068 14994/54

ABSMT No. C.Code 300-42361 13

Material description

SEAMLESS STAINLESS COLD FINISHED

INSTRUMENTATION TUBING

Steel/material Designations

Sandvik UNS

2RK65 N08904

Steel making process

Electric furnace

Technical requirements

ASTM A-269-14

EXTENT OF	DELIVERY					
It I	Product designation	Heat	Lot	Pieces	Kg	M

01 THT-2RK65-12.7-1.24 544014 50058 8 12.70 X 1.24

> Total 8 17.0

17.0

48.00

TEST RESULTS

Chemical composition (weight%)

C Si Ρ S CrΝi Mo 544014 0.008 0.38 1.60 0.024 <0.0005 20.43 24.90 4.14

 $\mathtt{Cu}$ N

544014 1.36 0.053

Chemical composition, product (weight%)

Mn Heat C Si P S  $\mathtt{Cr}$ Νi Mo <0.001 0.008 0.024 544014 0.38 1.60 20.39 24.93 4.09

> Cu N

0.056 544014 1.35

> 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"
50058	328	617	37
	328	620	39

#### Hardness test

	Min	Max
Lot	HRB	HRB
50058	77	79

# 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.

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The certificate is produced with EDP and valid without signature.