

CERTIFICATE

No. A/16-572528

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Rev 00

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

SWEDEN

Customer 753304 order

SEAMLESS STAINLESS COLD FINISHED

Order No. Subs No. ABSMT Dispatch note 438620 608665 19419/54

2016-04-19

ABSMT No. C.Code 300-45490 13

003-00991 ITEMS

Material description

INSTRUMENTATION TUBING

Steel/material Designations

Sandvik UNS

2RK65 N08904

Steel making process

Electric furnace

Technical requirements

ASTM A-269-15A

EXTENT OF DELIVERY It Product designation Heat Pieces Lot Kg M 02 THT-2RK65-12.7-1.24 544245 54390 6 13.0 36.00 12.70 X 1.24

> Total 6 13.0

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 544245 1.52 0.057

Chemical composition, product (weight%)

N

Heat C Si $\mathbf{M}\mathbf{n}$ 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"

 54390
 300
 608
 42

 285
 593
 43

Hardness test

	Min	Max
Lot	HRB	HRB
54390	74	76

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.