



CERTIFICATE

A03/Z02
No. A/19-851672 Rev 00
Date 2019-10-21 Page 1/3

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 | Sandvik References A08 |
| Customer order 2019-10-21 | Order No. Subs No. ABSMT Dispatch note |
| 758614 | 544149 676367 06166/54 |
| 003-00991 ITEMS | ABSMT No. C.Code |
| | 300-12719 05 |

| | |
|---|--|
| Material description B01/B04 | Steel/material Designations B02 |
| SEAMLESS STAINLESS COLD FINISHED INSTRUMENTATION TUBING | Sandvik UNS 2RK65 N08904 |
| Steel making process Electric furnace | EN no 1.4539 |
| C70 | |

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| Technical requirements B03 |
| ASTM A-269-15A, ASTM A-213-18 PED 2014/68/EU EN 10216-5 TC1 NACE MR0175/ISO 15156-3:-2015 |

| EXTENT OF DELIVERY | | | | | | | B07-B13 | |
|--|-----------------------------------|--------|-------|--------|--------|-----------|---------|------|
| It | Product designation | Heat | Lot | Pieces | Kg | M | | |
| 01 | THT-2RK65-6.35-0.89 6.35 X .89 | 548896 | 47572 | 10 | 7.0 | 60.00 | | |
| | | | | Total | 10 | 7.0 60.00 | | |
| TEST RESULTS | | | | | | | | |
| Chemical composition (weight%) | | | | | | | | |
| Heat | C | Si | Mn | P | S | Cr | Ni | Mo |
| 548896 | 0.015 | 0.38 | 1.58 | 0.023 | 0.0008 | 20.25 | 24.84 | 4.20 |
| | Cu | N | | | | | | |
| 548896 | 1.62 | 0.057 | | | | | | |
| Chemical composition, product (weight%) | | | | | | | | |
| Lot | C | Si | Mn | P | S | Cr | Ni | Mo |
| 47572 | 0.014 | 0.38 | 1.60 | 0.023 | 0.0008 | 20.22 | 24.93 | 4.20 |
| | Cu | N | | | | | | |
| 47572 | 1.61 | 0.059 | | | | | | |

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



Tensile test at room temperature

| Lot | Yield strength | | Tensile strength | Elongation | |
|-------|----------------|-------|------------------|------------|----|
| | MPa | MPa | MPa | % | % |
| | Rp0.2 | Rp1.0 | Rm | A | 4D |
| 47572 | 350 | 383 | 635 | 48 | 44 |
| | 348 | 379 | 631 | 45 | 44 |

Hardness test

| Lot | Min | Max |
|-------|-----|-----|
| | HRB | HRB |
| 47572 | 72 | 72 |
| | 72 | 73 |

Following controls/tests have been satisfactorily performed:

- Flattening test.
- Flaring test
- 100% PMI-test.
- Intergranular corrosion test acc to ASTM A-262 PR.E
- Leak test: Eddy current test acc to ASTM A-1016.
- Visual inspection and dimensional control.

Heat Treatment:

Solution annealed and quenched.

Marking:

SANDVIK 2RK65 ASTM A213/A269 COLD EN10216-5 TC1 AW UNS N08904 EN 1.4539 CFA SM
L NDE 6.35 X 0.89 MM 1/4'' X 20 BWG/SWG HT 548896 SS LOT 47572 MADE IN SWEDEN
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.

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The certificate is produced with EDP and valid without signature.

