



INSPECTION CERTIFICATE acc to EN 10204 3.1

Processkontroll Items AB
Box 2088
444 02 STORA HÖGA
SWEDEN

INSPECTION STAMP
QA-TUBE

Table with 2 columns: Customer References and Sandvik References. Includes order numbers, dates, and material codes.

Table with 2 columns: Material description and Steel/material Designations. Includes material type (SEAMLESS STAINLESS COLD FINISHED INSTRUMENTATION TUBING) and designations (Sandvik 3R60, EN no 1.4435).

Technical requirements
ASTM A-213-18 AW, ASME SA-213-ED-17 AW, ASTM A-269-15A
NACE MR0175/ISO 15156-3:2015, NACE MR0103/ISO 17945:2015
PED 2014/68/EU EN 10216-5 TC1
HRB MAX 80

Table titled 'EXTENT OF DELIVERY' showing columns for It, Product designation, Heat, Lot, Pieces, Kg, and M. Includes data for two heat treatments and a total row.

Table titled 'TEST RESULTS' showing chemical composition (weight%) for Heat 553587 and 553892. Columns include C, Si, Mn, P, S, Cr, Ni, and Mo.

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



Lot	C	Si	Mn	P	S	Cr	Ni	Mo
47784	0.018	0.41	1.71	0.030	0.005	17.28	13.31	2.62
	N							
47784	0.038							

**Tensile test at room temperature**

Lot	Yield strength		Tensile strength	Elongation	
	MPa	MPa	MPa	%	%
	Rp0.2	Rp1.0	Rm	A	2"
47784	264	297	564	54	52
48992	381	419	676	52	52

**Hardness test**

Lot	Min	Max
	HRB	HRB
47784	74	76
48992	77	78

**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:**

SANDVIK 3R60 ASTM A213/A269 ASME SA213 COLD EN10216-5 TC1 AW EN 1.4435 TP316/3 16L CFA SML NDE 12.70 X 1.65 MM 1/2'' X 16 BWG/SWG HT 553587 SS LOT 47784 MADE IN SWEDEN \*QA-TUBE\*

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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.