



CERTIFICATE

No. A/13-319958

Rev 00

Date 2013-03-12

Page 1/2

INSPECTION CERTIFICATE acc to
EN 10 204 3.1

Processkontroll Items AB
Box 2088
444 02 STORA HÖGA
SWEDEN

INSPECTION STAMP
QA-TUBE

Customer References		Sandvik References	
712575	Customer order 2013-03-12	Order No. 324734	Subs No. 546204
003-00991	ITEMS	ABSMT No. 300-82444	ABSMT Dispatch note 43957/54
		C.Code 68	

Material description SEAMLESS STAINLESS COLD FINISHED PIPE	Steel/material Designations Sandvik AISI 3R12 TP304/TP304L EN no 1.4306
Steel making process Electric furnace	

Technical requirements
 ASTM A-312-09, ASME SA-312-ED-10 AD-11A
 NACE MR0175/ISO 15156-3:2009
 PED 97/23/EC EN 10216-5 TC1
 TOLERANCES ACC. ASTM A312

EXTENT OF DELIVERY

It	Product designation	Heat	Lot	Pieces	Kg	M
01	TST-3R12-1/2-SCH40 21.34 X 2.77	533554	49828	1	7.0	6.00
				Total	1	7.0
					7.0	6.00

TEST RESULTS

Chemical composition (weight%)

Heat	C	Si	Mn	P	S	Cr	Ni	N
533554	0.010	0.35	1.19	0.028	0.007	18.35	10.10	0.049

Chemical composition, product (weight%)

Heat	C	Si	Mn	P	S	Cr	Ni	N
533554	0.010	0.35	1.19	0.027	0.005	18.46	10.10	0.045

Tensile test at room temperature

Lot	Yield strength		Tensile strength		Elongation	
	MPa	MPa	MPa		%	%
	Rp0.2	Rp1.0	Rm		A	2"
49828	323	366	624		52	56

Quality assurance - Per Eriksson / QA-manager
MTC Service / Certificates

**Hardness test**

	Min	Max
Lot	HRB	HRB
49828	78	80

Following controls/tests have been satisfactorily performed:

- Flattening test.
- Ring expansion test
- PMI-test.
- Intergranular corrosion test acc to ASTM A-262 PR.E
- Leak test: Eddy current test acc to EN 10246-2 and ASTM Pr.E426 with drilled hole as reference standard in lieu of hydrostatic test.
- Visual inspection and dimensional control.

Heat Treatment:

Solution annealed and quenched.

The raw material is free from radioactive contamination.

Material free from mercury contamination.

Approved acc. AD 2000-Merkblatt W0 and certified acc. to Pressure Equipment Directive (97/23/EC) 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 9001:2008.

The certificate is produced with EDP and valid without signature.