

**CERTIFICATE****No. A/14-417623****Rev 00****Date 2014-05-06****Page 1/2**INSPECTION CERTIFICATE acc to
EN 10 204 3.1Processkontroll Items AB
Box 2088
444 02 STORA HÖGA
SWEDENINSPECTION STAMP
QA-TUBE

Customer References		Sandvik References	
750434	Customer order 2014-05-06	Order No. 368813	Subs No. 571121
003-00991	ITEMS	ABSMT No. 300-13291	Dispatch note 23004/54
		C.Code 68	

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

Technical requirements
ASTM A-312-12A, 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			536231	17805	1	7.0	6.08
	21.34 X 2.77							
Total						1	7.0	6.08
TEST RESULTS								
Chemical composition (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
536231	0.006	0.40	1.29	0.027	0.008	18.32	10.16	0.34
	Co	Cu	N					
536231	0.097	0.29	0.052					
Chemical composition, product (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
536231	0.007	0.40	1.28	0.029	0.008	18.35	10.19	0.34
	Co	Cu	N					
536231	0.093	0.29	0.055					
Tensile test at room temperature								
	Yield strength		Tensile strength		Elongation			
	MPa	MPa	MPa		%	%		
Lot	Rp0.2	Rp1.0	Rm		A	2"		
17805	227	270	597		60	64		

Quality assurance - Lars-Åke Bergqvist / QA-manager
MTC Service / Certificates

**Hardness test**

	Min	Max
Lot	HRB	HRB
17805	76	77

Following controls/tests have been satisfactorily performed:

- Flattening test.
- Flaring 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.

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The certificate is produced with EDP and valid without signature.