

**CERTIFICATE**

No. A/10-962141 Rev 00
Date 2010-05-06 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	
708649/Holmgren	Customer order 2010-05-06	Order No. 196279	Subs No. 172643
003-00991 ITEMS		ABSMT No. 300-21867	ABSMT Dispatch note 05197/54
		C.Code 68	

Material description	Steel/material Designations
SEAMLESS STAINLESS COLD FINISHED PIPE	Sandvik AISI 3R12 TP304/TP304L AFNOR Z2CN18-10
Steel making process Electric furnace	

Technical requirements
ASTM A-312-08, ASME SA-312-ED-07 AD-09B NACE MR0175/ISO 15156-3:2003 NFA 49-117-09/85, tolerances and leak test acc. to ASTM A312/A999

EXTENT OF DELIVERY						
It	Product designation	Heat	Lot	Pieces	Kg	M
01	TST-3R12-1/2-SCH40 21.34 X 2.77	524074	56430	1	7.0	6.14
Total				1	7.0	6.14
TEST RESULTS						
Chemical composition (weight%)						
Heat	C	Si	Mn	P	S	Cr
524074	0.008	0.40	1.03	0.028	0.006	18.28
Chemical composition, product (weight%)						
Heat	C	Si	Mn	P	S	Cr
524074	0.010	0.40	1.03	0.028	0.006	18.25
Tensile test at room temperature						
Yield strength			Tensile strength		Elongation	
MPa			MPa		%	
Rp0.2			Rm		A	
268			590		59	
Lot					2"	
56430					64	

Quality assurance - Per Eriksson/ QA-manager Tube & Pipe
MTC Service / Certificates

**CERTIFICATE****No. A/10-962141****Rev 00****Date 2010-05-06****Page 2/2****Hardness test**

	Min	Max
Lot	HRB	HRB
56430	76	80

Following controls/tests have been satisfactorily performed:

- Flattening test.
- Ring expansion test
- Flaring test
- PMI-test.
- Intergranular corrosion test acc to ASTM A-262 PR.E
- Leak test: Eddy current test acc to ASME SA-999.
- Visual inspection and dimensional control.

Heat Treatment:

Solution annealed and quenched.

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.

The certificate is produced with EDP and valid without signature.