

**CERTIFICATE****No. A/10-111865 Rev 00**
Date 2010-11-10 Page 1/2INSPECTION CERTIFICATE acc to
EN 10 204 3.1Processkontroll Items AB
Box 2088
444 02 STORA HÖGA
SWEDENINSPECTION STAMP
QA-TUBE

Customer References		Sandvik References	
709378	Customer order 2010-11-10	Order No. 220103	Subs No. 191001
003-00991 ITEMS		ABSMT No. 300-32321	Dispatch note 21927/54
		C.Code 58	

Material description	Steel/material Designations
SEAMLESS STAINLESS COLD FINISHED HYDRAULIC TUBING	Sandvik W.nr 5R75 1.4571 DIN EN no X 6 CRNIMOTI 17 12 2 1.4571
Steel making process Electric furnace	

Technical requirements
PED 97/23/EC EN 10216-5 TC1 DIN 17458, TC1 HRB MAX 90

EXTENT OF DELIVERY							
It	Product designation		Heat	Lot	Pieces	Kg	M
02	THT-5R75-15-2		047502	94770	3	12.0	18.00
		15.00 X 2.00					
					Total	3	12.0
							18.00
KEY TO HEAT			KEY TO LOT				
Heat Code		Heat No.	Lot Code		Lot No.		
047502		525107	94770		4846527/1-1		
TEST RESULTS							
Chemical composition (weight%)							
Heat	C	Si	Mn	P	S	Cr	Ni
047502	0.034	0.49	1.16	0.023	0.001	16.78	12.03
	Ti	N	Mo				
047502	0.35	0.013	2.02				
Tensile test at room temperature							
		Yield strength		Tensile strength		Elongation	
		MPa	MPa	MPa		%	
Lot		Rp0.2	Rp1.0	Rm		A	
94770		287	331	581		54	
Quality assurance - Per Eriksson/ QA-manager Tube & Pipe							
MTC Service / Certificates							

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	Min	Max
Lot	HRB	HRB
94770	79	79

Following controls/tests have been satisfactorily performed:

- Flattening test.
- PMI-test.
- Intergranular corrosion test acc. to EN ISO3651-2, Method A.
- Leak test: Eddy current test acc to EN 10246-2
- Visual inspection and dimensional control.

Heat Treatment:

Solution annealed and quenched.

Marking:

SANDVIK 5R75 EN 10216-5 TC1 WNR 1.4571 EN 1.4571 M S PK1 15.00 X 2.00 MM HT 52
5107 SZ LOS 4846527/1-1 *QA-TUBE*

Approved acc. AD 2000-Merkblatt W0 and certified acc. to
Pressure Equipment Directive (97/23/EC) by
TUEV NORD GmbH; 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.

The certificate is produced with EDP and valid without signature.

TEST RESULTS TRANSFERRED FROM CERTIFICATE NO A100893