



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	
750700	Customer order 2014-07-14	Order No.	Subs No. ABSMT Dispatch note
003-00991 ITEMS		376092	575062 27572/54
		ABSMT No.	C.Code
		300-16588	11

Material description	Steel/material Designations
SEAMLESS STAINLESS COLD FINISHED HYDRAULIC TUBING	Sandvik AISI 3R60 TP316/TP316L
Steel making process Electric furnace	

Technical requirements
ASTM A-632-04 NACE MR0175/ISO 15156-3:2009 PED 97/23/EC EN 10216-5 TC1 HRB MAX 80

EXTENT OF DELIVERY						
It	Product designation	Heat	Lot	Pieces	Kg	M
01	THT-3R60-3-0.7 3.00 X .70	047992	98956	4	1.0	24.00
				Total	4	1.0 24.00
KEY TO HEAT		KEY TO LOT				
Heat Code	Heat No.	Lot Code	Lot No.			
047992	536843	98956	176791			
TEST RESULTS						
Chemical composition (weight%)						
Heat	C	Si	Mn	P	S	Cr Ni Mo
047992	0.019	0.38	1.63	0.026	0.008	17.31 13.13 2.52
N						
047992	0.041					
Chemical composition, product (weight%)						
Heat	C	Si	Mn	P	S	Cr Ni Mo
047992	0.018	0.37	1.62	0.027	0.007	17.30 13.12 2.51
N						
047992	0.038					
Quality assurance - Lars-Åke Bergqvist / QA-manager						
MTC Service / Certificates						



Hardness test

	Min	Max
Lot	HRB	HRB
30011	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, 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/ASME A/SA-213 A-269 EN 10216-5 TC1 EN 10305-1 COLD EN 1.4435
TP316/316L CFA SMLS NDE 6.00 X 1.50 MM HT 536139 SS LOT 30011 MADE BY SANDVIK
IN SWEDEN *QA-TUBE*

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.

No unauthorized alterations. The contents of this Inspection
Certificate may not be modified or revised in any way without the
prior written approval of AB Sandvik Materials Technology.
Unauthorized alterations to the Inspection Certificate, including
introduction of false, fictitious or fraudulent statements or entries,
may be punishable by fines, imprisonment, or both. This Inspection
Certificate may be copied only in the manner and for the purposes
specified in Section 6 of EN 10204:2004. Contravention of this notice
will be prosecuted to the fullest extent of applicable law.

The certificate is produced with EDP and valid without signature.