

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			Sa	Sandvik References						
		Custome					r Dispatch	. note		
751952		order				76 4785	7/54			
		2015-05			. C.Co	de				
			30	0-3067	2 15					
003-0099	91 ITEMS									
Matorial	doggrintio	2			Forial	Dogignati	229			
Material description SEAMLESS STAINLESS COLD FINISHED				Steel/material Designations						
HYDRAULIC TUBING			11	3R60 TP316/TP316L						
				l no		11.0	10,110101			
				4435						
Steel ma	aking proces									
	c furnace									
	al requireme									
ASTM A-213-13 AW, ASME SA-213-ED-10 AD-11A AW, ASTM A-269-13										
NACE MR0175/ISO 15156-3:2009										
PED 97/23/EC EN 10216-5 TC1										
HRB MAX 80										
	OF DELIVERY									
		signation	Heat	Lot	Pieces	Kg	м			
	THT-3R60-28				2	-		0		
	28.00 X 1.5			20210	-			-		
		-								
				Total	2	12.0	12.0	0		
TEST RES	SULTS									
Chemical	L composition	n (weight%)								
Heat	-	Si Mn	Р		S	Cr	Ni	Мо		
541208	0.020 0	.43 1.64	0.0	29	0.009	17.29	13.08	2.53		
	N									

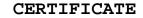
541208 0.035

Chemical composition, product (weight%) Heat Si Mn S Cr C Р Ni Mo
 P
 S
 Cr

 0.031
 0.008
 17.30
 0.44 13.05 541208 0.024 1.63 2.54 Ν 541208 0.038

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

AB SANDVIK MATERIALS TECHNOLOGY Reg No. 556234-6832 VAT No. SE663000-060901 SE-81181 SANDVIKEN SWEDEN www.smt.sandvik.com mtc_service.smt@sandvik.com





Tensile test		_								
	Yield & MPA	strength MPa	Tensile strength MPa	Elongation %%						
Lot	Rp0.2		Rm	A 2"						
38240	280	322	570	51 55						
	276	318	571	54 57						
Hardness test										
	Min	Max								
Lot	HRB	HRB								
38240	73	74								
<pre>Following controls/tests have been satisfactorily performed: Flattening test. Flaring test PMI-test. Intergranular corrosion test acc to ASTM A-262 PR.E</pre>										
5										
- 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 AW EN 1.4 435 TP316/316L CFD SMLS NDE 28.00 X 1.50 MM HT 541208 SS LOT 38240 MADE BY SAN DVIK 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.										