

INSPECTION CERTIFICATE acc to EN 10204 3.1

Processkontroll Items AB Box 2088 444 02 STORA HÖGA SWEDEN

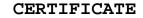
INSPECTION STAMP QA-TUBE

Customer References	Sandvik References				
754029 003-00991 ITEMS	Customer order 2016-10-26		Subs No. 618631 C.Code	ABSMT Dispatch note 31744/54	
Material description SEAMLESS STAINLESS COLD HYDRAULIC TUBING	FINISHED	Steel/mate Sandvik 3R60 EN no	rial Desi	<b>gnations</b> AISI TP316/TP316L	
		1.4435			
<b>Steel making process</b> Electric furnace					
Technical requirements					

ASTM A-213-15C AW, ASME SA-213-ED-15 AW, ASTM A-269-15A NACE MR0175/ISO 15156-3:2015, NACE MR0103/ISO 17495:2015 PED 2014/68/EU EN 10216-5 TC1 HRB MAX 80

EXTENT O	EXTENT OF DELIVERY								
It		ct designat	ion	Heat	Lot	Pieces	Kg	М	
02 THT-3R60-16-1		048230	93676	10	23.0	60.0	0		
-	16.00 X 1.00								
					Total	10	23.0	60.0	0
KEY TO HI	EAT						KEY TO LO	T	
Heat Code	e	Heat No.					Lot Code		
048230		544178					93676	182496	
TEST RESU									
	_	sition (weig	-						
Heat	C	Si	Mn	Р		S	Cr	Ni	Mo
048230		0.40	1.63	0.03	31 (	0.009	17.34	13.17	2.54
	N								
048230	0.044								
Chemical composition, product (weight%)									
Heat	C	Si	Mn	P		S	Cr	Ni	Mo
048230	0.019	0.40	1.63	0.0	31 (	0.009	17.34	13.17	2.54
	N								
048230	0.044								
Qual	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





r					
Tensile test	at room temperatu	re			
	Yield strength	Tensile strength	Elongation		
	MPA MPa	MPa	8 8 - 0 -		
<b>Lot</b> 93676	<b>Rp0.2 Rp1.0</b> 282 325	<b>Rm</b> 563	<b>A 2"</b> 46 47		
55070	278 321	565	47 48		
			-		
Hardness test					
Tab	Min Max				
<b>Lot</b> 93676	HRB HRB   72 73				
~		been satisfactorily per	rformed:		
- Flattening   - Flaring tes					
- Flaring les - PMI-test.					
	ar corrosion test	acc to ASTM A-262 PR.1	E		
	-	acc to EN ISO 10893-1	, ASME SA-1016.		
- Visual insp	ection and dimens	ional control.			
Heat Treatmen	·+ •				
		ture of Min 1040° C and	d guenched.		
			1		
Marking:					
			5 TC1 EN10305-1 TP 316/TP		
DVIK *QA-TUBE		00 X 1.00 MM HT 544178	SG LOT 182496 MADE BY SAN		
DVIK ^QA-TUBE^					
The raw material is free from radioactive contamination.					
Material free from mercury contamination.					
No welding or weld repair.					
		t WO and certified acc	. to		
_	pment Directive (	=			
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,				
		prisonment, or both. Th			
Certificate m	ay be copied only	in the manner and for	the purposes		
_		10204:2004. Contravent:			
will be prose	cuted to the full	est extent of applicabl	Le Law.		



The certificate is produced with EDP and valid without signature.

TEST RESULTS TRANSFERRED FROM CERTIFICATE NO 182496