INSPECTION CERTIFICATE acc to
EN 10 204 3.1.B

SANDVIK DE MEXICO S.A. DE C.V.
VIA GUSTAVO BAZ 352
COL.LA LOMA
TLALNEPANTLA EDO.DE MEXICO
CP 54060 MEXICO

INSPECTION STAMP
QA-TUBE

Customer References

	Customer order
	2003-11-13
560-00991	

Sandvik References

Order No.	Subs No.	ABSMT Dispatch note
	80335	05041/54
ABSMT No.	C.Code	
300-37092	68	

Material description
SEAMLESS STAINLESS COLD FINISHED
PIPE

Steel/material Designations

Sandvik	AISI
3R65	TP316/TP316L

Steel making process
Electric furnace

Technical requirements
ASTM A-312-01A, ASME SA-312-ED-01 AD-02
NACE MR 01-75

EXTENT OF DELIVERY

It	Product designation	Heat	Lot	Pieces	Kg	M
08	TST-316L-1/2-SCH40 21.34 X 2.77	500762	46382	31	245.0	200.32
	Total			31	245.0	200.32

TEST RESULTS
Chemical composition (weight%)

Heat	C	Si	Mn	P	S	Cr	Ni	Mo
500762	0.013	0.39	1.63	0.029	0.008	16.75	11.29	2.03

Heat	N
500762	0.063

Tensile test at room temperature

Lot	Yield strength N/mm2 Rp0.2	Tensile strength N/mm2 Rm	Elongation % 2"
46382	343	638	50
	332	639	49
	333	629	49

Leak test: Eddy current test acc to Practice E426 with drilled hole as
reference standard on all tubes, with the exception of those lots
which have been hydrostatically tested.

Quality assurance - Carl-Filip Lindahl/ QA-manager Tube & Pipe

Hardness test

Lot	Min HRB	Max HRB
46382	77.0	83.0

Following controls/tests have been satisfactorily performed:
- Flattening test
- Intergranular corrosion test acc to ASTM A-262 PR.E
- Material Identification.
- 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