

INSPECTION CERTIFICATE acc to
EN 10 204 3.1

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
2009-12-23

560-00991

Sandvik References

Order No.	Subs No.	ABSMT Dispatch note
3R12	81138	41774/54
ABSMT No.	C.Code	
300-14109	68	

Material description
SEAMLESS STAINLESS COLD FINISHED
PIPE

Steel/material Designations

Sandvik	AISI
3R12	TP 304/TP 304L

Steel making process
Electric furnace

Technical requirements
ASTM A-312-08, ASME SA-312-ED-07 AD-08
NACE MR0175/ISO 15156-3:2003
NEA 49-117-09/85, tolerances and leak test acc. to ASTM A312/A999

PLASA ANAHUAC Y CIA. S.A. DE C.V.

CONTROL DE CALIDAD

FECHA 18 Mar 2010

ESZ

FIRMA E. RUIZ

acc. to ASTM A312/A999

EXTENT OF DELIVERY

It	Product designation	Heat	Lot	Pieces	Kg	M
01	TST-3R12-1/4-SCH40 13.72 X 2.24	047273	99924	10	38.0	60.00
				Total	10	38.0 60.00

KEY TO HEAT

Heat Code	Heat No.
047273	521608

KEY TO LOT

Lot Code	Lot No.
99924	4842872/1-1

TEST RESULTS

Chemical composition (weight%)

Heat	C	Si	Mn	P	S	Cr	Ni	N
047273	0.008	0.33	1.14	0.026	0.007	18.57	10.19	0.051

Chemical composition, product (weight%)

Heat	C	Si	Mn	P	S	Cr	Ni	N
047273	0.010	0.34	1.15	0.027	0.007	18.66	10.13	0.053

Tensile test at room temperature

Lot	Yield strength	Tensile strength	Elongation
	MPa	MPa	%
99924	Rp0.2	Rm	2"
	245	602	52



CERTIFICATE

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Hydrostatic test

Lot	Sec	MPa
99924	6	17.0

Hardness test

Lot	Min HRB	Max HRB
99924	70	71

Following controls/tests have been satisfactorily performed:

- Flattening test.
- Flaring test
- PMI-test.
- Intergranular corrosion test acc to ASTM A-262 PR.E
- 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.

TEST RESULTS TRANSFERRED FROM CERTIFICATE NO A090922