Tenaris

Tubos de Acero de México, S.A.
Carr. Mty-Laredo Km 24.2
Apartado Postal 43
(65550) C. de Flores, N.L. Méx.
(52) 81 8305 9600 tel
(52) 81 8305 9620 fax

CERTIFICADO DE CALIDAD
INSPECTION CERTIFICATE
(DIN EN 10204:2004E - ISO 10474 3.1.B)

Numero: Number: 17864

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Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.

Pedido del Cliente No: Customers Order No: 2787 - 2830

Lista de Empaque: Packing List: 9149

Fecha/Date: 4 de Mayo de 2007

Especificaciones y Grados / Standard or Specification and Steel Grade
Seamless Fittings according to ASTM A 234"M" WPB-97, A234"M" WPB-05a, NACE MR 01.75-2003
Conform to ASME II Ed. 2001 ASME SA-234"M", Grade WPB.

Dimensiones y tolerancias / Dimension and tolerances
ASME B 16.9 - 2003 and ASME B 16.28 - 1994

Factura/Invoice:
Bocas / Ends
Biselado / Bevelled ends

DESCRIPCION DE MATERIAL / MATERIAL DESCRIPTION				PRUEBAS MECANICAS / MECHANICAL TEST				PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C				
ART. ITEM	COLADA HEAT CODE	CANTIDAD QUANTITY	DESCRIPCION / DESCRIPTION	ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPTURA TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA HARDNESS HB	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
1	T33357	55	TEE 4 CED-STD	305	475	36	104					
2	T31916	30	CODO 8 X 90° R.L. CED-XS	318	474	34	90					
3	T29389	1	CODO 6 X 90° R.L. CED-XS	297	473	42	126					
4	T29390	5	CODO 6 X 90° R.L. CED-XS	271	433	40	101					
5	S49803	94	CODO 6 X 90° R.L. CED-XS	246	446	40	87					
6	T26967	7	CODO 12 X 90° R.L. CED-40	323	484	44	106					
7	T27741	5	TEE 12 CED-80	261	483	35	91					
8	T28420	2	CODO 12 X 90° R.L. CED-80	298	476	44	117					
9	T32654	13	CODO 12 X 90° R.L. CED-80	268	472	34	89					
10	T33433	5	CODO 14 X 90° R.L. CED-40	304	489	34	118					
11	T31643	3	CODO 14 X 45° CED-40	367	502	33	84					

ANALISIS QUIMICO / CHEMICAL ANALYSIS

PROCESO PROCESS	COLADA HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	%C.E.	%C	%Mn	%P	%S	%Si	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	T33357	33357	0.310	0.180	0.660	0.010	0.001	0.270	0.050	0.061	0.019	0.030	0.000	0.000
HF	T31916	31916	0.320	0.180	0.680	0.008	0.003	0.290	0.050	0.058	0.027	0.040	0.000	0.000
HF	T29389	29389	0.290	0.160	0.690	0.008	0.002	0.280	0.030	0.057	0.023	0.030	0.000	0.000
HF	T29390	29390	0.300	0.170	0.690	0.006	0.002	0.290	0.030	0.054	0.034	0.030	0.000	0.000
HF	S49803	49803	0.298	0.170	0.700	0.011	0.003	0.280	0.030	0.027	0.010	0.016	0.001	0.000
HF	T26967	26967	0.320	0.180	0.670	0.008	0.002	0.300	0.050	0.077	0.050	0.050	0.000	0.000
HF	T27741	27741	0.320	0.180	0.670	0.010	0.002	0.260	0.070	0.080	0.036	0.040	0.000	0.000
HF	T28420	28420	0.310	0.170	0.680	0.009	0.002	0.300	0.060	0.078	0.043	0.050	0.000	0.000
HF	T32654	32654	0.340	0.190	0.700	0.008	0.002	0.270	0.060	0.064	0.049	0.040	0.000	0.000
HF	T33433	33433	0.310	0.170	0.690	0.011	0.004	0.280	0.050	0.053	0.026	0.030	0.000	0.000
HF	T31643	31643	0.330	0.180	0.740	0.009	0.002	0.280	0.070	0.087	0.040	0.040	0.000	0.000

Certificamos que los resultados de los Analisis Quimicos y Pruebas Mecanicas son verdaderos o una copia fiel de los certificados enviados por el Fabricante y/o el proveedor de Materia Prima (Tubería Sin Costura) conforme ASTM A106 Grado B con Nº:

We certify that result of chemical analysis and mechanical test are true and correct copy of the test certificate issued by the manufacturer and/or suplier Raw material (Seamless Pipe) certs conform to ASTM A106 Grade B Nº:

7014189 7001851 6018468 6018468 355737 6004853 6009794 6017950 7011263 7015962 7000239

"Este material cumple con los requerimientos especificados en la orden".
"The material of this certificate heat number mentioned above is in compilance with the requirements specified in the order".

Notas:
Formado en caliente a 620°C-980°C, enfriado al aire; Formado en frio normalizado a 940°C max.
Tiempo de permanencia 10'.
Inspección Dimensional: Satisfactoria.
HF: FORMADO EN CALIENTE/HOT FORMED

Notes:
Hot formed fittings in a range from 620°C to 980°C, cooled in still air.
Cold formed nomalized at 940°C max.
Holding time 10'.
Visual dimensional check: Satisfactory
CF: FORMADO EN FRIO/COLD FORMED

The Products described herein were produced in accordance with the above referenced specification and are identified with the "R" which is permanently marked on each fitting.

Jefe de Calidad:
Quality Manager:

ING. JOSE MARTINEZ MACIAS

CC-008