

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

Tubos de Acero de México, S.A.
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Vendido a: **PIESA ANAHUAC Y CIA. S.A. DE C.V.** Pedido del Cliente No: **3194** Lista de Empaque: **9362** Fecha/Date: **10 de Julio de 2007**
Sold to: **PIESA ANAHUAC Y CIA. S.A. DE C.V.** Customers Order No: **3194** Packing List: **9362**

Especificaciones y Grados / Standard or Specification and Steel Grade **Dimensiones y tolerancias / Dimension and tolerances**
Seamless fittings according to ASTM A 234 "W" WPB-97, A234 "W" WPB-05a, NACE MR 01.75-2003
Conform to ASME II Ed. 2001 ASME SA-234 "W", Grade WPB. **ASME B 16.9 - 2003 and ASME B 16.28 - 1994**

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. RUPURA TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA HARDNESS HB	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
23	T33395	34	TEE 6 CED-STD	327	478	33	85	1				
24	T33842	12	TEE 6 CED-STD	339	487	33	85					
25	T33052	68	RED. CONC. 6 X 3 CED-STD	371	516	35	91					
26	T33901	32	RED. CONC. 6 X 3 CED-STD	340	501	29	90					
27	T96341	10	RED. CONC. 5 X 3 CED-STD	303	459	37	111					
28	S46694	50	RED. CONC. 4 X 2 CED-STD	316	488	33	120					

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	T33395	33395	0.320	0.180	0.720	0.008	0.002	0.280	0.060	0.055	0.029	0.030	0.000	0.000
HF	T33842	33842	0.330	0.180	0.710	0.008	0.003	0.280	0.060	0.062	0.054	0.040	0.000	0.000
CF	T33052	33052	0.340	0.180	0.830	0.011	0.001	0.290	0.040	0.059	0.022	0.040	0.000	0.000
CF	T33901	33901	0.320	0.180	0.670	0.009	0.003	0.270	0.070	0.072	0.048	0.040	0.000	0.000
CF	T96341	96341	0.313	0.170	0.690	0.007	0.002	0.280	0.050	0.079	0.048	0.040	0.000	0.000
CF	S46694	46694	0.324	0.190	0.750	0.008	0.001	0.270	0.030	0.023	0.001	0.017	0.001	0.001

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 (Tuberia Sin Costura) conforme ASTM A106 Grado B con N°. 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 supplier Raw material (Seamless Pipe) cuts conform to ASTM A106 Grade B N°. 7015533 7029490 7009994 7024263 02007989 334903

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

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:

CC-008

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

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