

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

Tubos de Acero de México, S.A.
Carr. Mty-Laredo Km 24.2
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Vendido a:	PIESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No:	5280 - 5201 -	Lista de Empaque:	1 09 99	Fecha/Date:	6 de Noviembre de 2008
Sold to:		Customers Order No:		Packing List:		Factura/Invoice:	Bocas / Ends Biselado / Bevelled ends
Especificaciones y Grados / Standard or Specification and Steel Grade	ASME B 16.9 - 2003 and ASME B 16.28 - 1994	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, NACE MR0103-2003							

ART. ITEM	COLADA HEAT CODE	CANTIDAD QUANTITY	DESCRIPCION / DESCRIPTION	PRUEBAS MECANICAS / MECHANICAL TEST				PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C			
				ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPTURA TENSILE STRENGTH (Mpa)	ELONG %2"	DUREZA HARDNESS HBW	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
1	S30232	228	CODO 4 X 90° R.I. CED-STD	307	491	32	137				
2	T41224	55	TEE 4 CED-STD	297	481	39	124				
3	S29506	106	CODO 3 X 90° R.I. CED-XS	313	484	32	127				
4	S31051	23	CODO 2 X 45° CED-STD	333	501	30	114				
5	T39177	1	TEE RED. 10 X 6 CED-STD	306	468	36	93				
6	T40042	9	TEE RED. 10 X 6 CED-STD	254	467	35	109				
7	T41272	20	TEE RED. 8 X 4 CED-STD	338	509	42	105				

PROCESO PROCESS	COLADA HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	ANALISIS QUIMICO / CHEMICAL ANALYSIS											
			%C.E.	%C	%Mn	%P	%S	%SI	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	S30232	30232	0.350	0.200	0.780	0.014	0.001	0.270	0.050	0.049	0.010	0.010	0.001	0.000
HF	T41224	41224	0.300	0.170	0.660	0.013	0.002	0.280	0.050	0.057	0.016	0.030	0.000	0.000
HF	S29506	29506	0.340	0.200	0.720	0.007	0.001	0.300	0.040	0.049	0.020	0.022	0.001	0.000
HF	S31051	31051	0.320	0.190	0.730	0.009	0.001	0.260	0.030	0.025	0.010	0.012	0.001	0.001
HF	T39177	39177	0.320	0.180	0.700	0.008	0.001	0.290	0.060	0.077	0.008	0.040	0.000	0.000
HF	T40042	40042	0.310	0.180	0.670	0.012	0.001	0.270	0.040	0.052	0.006	0.020	0.000	0.000
HF	T41272	41272	0.340	0.190	0.820	0.017	0.002	0.310	0.050	0.040	0.010	0.030	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 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) certs conform to ASTM A106 Grade B N°
457227 8049036 457078 458002 8025877 8035497 8054914

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.

Notes:	Hot formed fittings in a range from 620°C to 990°C, cooled in still air.
Formado en caliente a 620°C-990°C, enfriado al aire.	Hot formed fittings in a range from 620°C to 990°C, cooled in still air.
Time: Formado en frío normalizado a 940°C max.	Cold formed normalized at 940°C max.
Tempo de permanencia 10'.	Holding time 10'.
Inspección Dimensional: Satisfactoria.	Visual dimensional check: Satisfactory
CF: FORMADO EN CALIENTE/HOT FORMED	CF: FORMADO EN FRIJO/COLD FORMED

Quality Manager/ Jefe de Calidad:

ING. WALDO GALLEGOS GALVAN