



**CERTIFICADO DE CALIDAD
INSPECTION CERTIFICATE**
(DIN EN 10204:2004E - ISO 10474.3.1.B)

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

Vendido a:	PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No:	5344	Lista de Empaque:	11002	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	ASTM A 234 "W" WPB-97, A234 "W" WPB-05a, NACE MR 01.75-2003	Dimensiones y tolerancias / Dimension and tolerances	ASME B 16.9 - 2003 and ASME B 16.28 - 1994				
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	T41272	7	TEE 8 CED-STD	322	509	42	122				
2	T39854	1	TEE 8 CED-STD	262	480	37	107				
3	S28276	25	CODO 6 X 90° R. I. CED-XS	326	482	33	89				
4	T41351	20	CODO 10 X 90° R. I. CED-STD	322	490	42	118				
5	T41272	2	TEE RED. 8 X 6 CED-STD	322	509	42	122				
6	23229	25	RED. CONC. 4 X 3 CED-STD	309	486	34	112				
7	S69900	10	CODO 2 1/2 X 90° R. C. CED-STD	318	485	33	142				

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	T41272	41272	0.340	0.190	0.830	0.018	0.002	0.310	0.050	0.041	0.010	0.030	0.000	0.000
HF	T39854	39854	0.300	0.170	0.680	0.011	0.002	0.270	0.030	0.052	0.005	0.020	0.000	0.000
HF	S28276	28276	0.330	0.190	0.720	0.008	0.001	0.270	0.040	0.029	0.020	0.029	0.001	0.001
HF	T41351	41351	0.300	0.180	0.670	0.010	0.003	0.320	0.030	0.054	0.008	0.030	0.000	0.000
HF	T41272	41272	0.340	0.190	0.830	0.018	0.002	0.310	0.050	0.041	0.010	0.030	0.000	0.000
CF	23229	23229	0.320	0.180	0.720	0.012	0.001	0.290	0.040	0.058	0.010	0.024	0.001	0.001
HF	S69900	69900	0.329	0.180	0.770	0.014	0.002	0.290	0.050	0.062	0.020	0.029	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) certis conform to ASTM A106 Grade B N°
8055234 8022770 433163 8048839 8055234 388700 257125

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:
Formado en caliente a 620°C-980°C, enfriado al aire. Formado en frío normalizado a 940°C max.
Tempo de permanencia 10'.
Inspección Dimensional Satisfactoria.
CF FORMADO EN CALIENTE/HOT 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

Quality Manager/Jefe de Calidad:
ING. WALDO GALLEGOS GALVAN

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. The values of hardness for fittings NPS 2 1/2" and smaller ones obtain from the conversion of hardness Rockwell B to hardness Brinell HBW by means of table WILSON DESK CHART 60.
Los valores de dureza para conexiones de NPS de 2 1/2" y menores, se obtienen de la conversión de dureza Rockwell B a dureza Brinell HBW mediante la tabla WILSON DESK CHART 60.

CC-008