

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

Número: Number:	Página/Page:	Tubbs 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
23440	1 DE 1	

Vendido a: Sold to:	PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	7969 - 7907 - 8141 - 8034	Lista de Empaque: Packing List:	11967	Fecha/Date:	17 de Mayo de 2010
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234M WPB-07, NACE MR 01.75-2003 Conform to ASME II Ed. 2001 ASME SA-234M Grade WPB, NACE MR0103-2003		Dimensiones y tolerancias / Dimension and tolerances ASME B 16.9 - 2007 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 HBW	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
12	R71005	100	CODO 1 X 90° R.L. CED-STD	329	462	46	163					
13	T42339	3	TEE RED. 8 X 6 CED-STD	308	480	34	98					
14	T41644	1	TEE RED. 8 X 6 CED-STD	283	461	37	98					
15	S31050	120	CODO 1 1/4 X 90° R.L. CED-STD	367	534	32	130					
16	S31681	42	CODO 3 X 90° R.C. CED-XS	301	465	34	115					
17	T42080	15	CODO 8 X 90° R.C. CED-STD	333	495	38	124					
18	S24683	90	CODO 1 1/2 X 90° R.L. CED-XS	331	482	42	133					
19	T41415	4	TEE RED. 10 X 6 CED-STD	318	495	33	92					
20	S31050	18	CODO 1 1/4 X 45° CED-STD	367	534	32	130					
21	S31050	42	CODO 1 1/2 X 90° R.C. CED-STD	367	534	32	130					
22	T47708	20	TEE RED. 6 X 4 CED-STD	322	488	44	120					

**PLEASA ANAHUAC Y CIA. S.A. DE C.V.**  
**CONTROL DE CALIDAD**  
 FECHA: 19 May 2010  
 FIRMA: E. RUIZ

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	R71005	71005	0.310	0.170	0.720	0.009	0.002	0.210	0.050	0.018	0.018	0.080	0.001	0.001
HF	T42339	42339	0.310	0.180	0.650	0.011	0.003	0.260	0.040	0.078	0.013	0.030	0.000	0.000
HF	T41644	41644	0.300	0.170	0.680	0.010	0.002	0.280	0.050	0.055	0.005	0.030	0.000	0.000
HF	S31050	31050	0.330	0.190	0.760	0.007	0.002	0.270	0.030	0.023	0.010	0.013	0.001	0.000
HF	S31681	31681	0.320	0.190	0.720	0.010	0.001	0.250	0.030	0.015	0.010	0.016	0.001	0.000
HF	T42080	42080	0.330	0.180	0.710	0.009	0.001	0.260	0.060	0.067	0.030	0.050	0.009	0.004
HF	S24683	24683	0.344	0.190	0.790	0.007	0.001	0.280	0.050	0.040	0.040	0.020	0.001	0.001
HF	T41415	41415	0.320	0.190	0.740	0.009	0.002	0.300	0.020	0.047	0.010	0.020	0.000	0.000
HF	S31050	31050	0.330	0.190	0.760	0.007	0.002	0.270	0.030	0.023	0.010	0.013	0.001	0.000
HF	S31050	31050	0.330	0.190	0.760	0.007	0.002	0.270	0.030	0.023	0.010	0.013	0.001	0.000
HF	T47708	47708	0.300	0.170	0.680	0.012	0.002	0.300	0.040	0.072	0.015	0.030	0.000	0.000

Certificamos que los resultados de los Análisis Químicos y Pruebas Mecánicas 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°:  
 2270324 9007744 8059551 479680 461075 8062388 160515 8068973 479680 479680 10018311  
 "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".

Notas: Formado en caliente a 620°C-980°C, enfriado al aire; Formado en frío 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 normalized 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.
Quality Manager/Jefe de Calidad: ING. WALDO GALLEGOS GALVAN		