



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

Numero:
Number:

26129

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Tubos de Acero de México
Carr. Mty-Laredo Km 24.2
Apartado Postal 43
(65550) C. de Flores, N.L.
(52) 81 8305 9600 tel.
(52) 81 8305 9630 fax.

Vendido a: Sold to:	PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	13086 - 13213 - 13409	Lista de Empaque: Packing List:	13558	Fecha/Date:	14 de Agosto de 2012
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234 WPB-07, NACE MR 01.75-2003 Conform to ASME II Ed. 2001 ASME SA-234, Grade WPB, NACE MR0103-2003		Dimensiones y tolerancias / Dimension and tolerances ASME B 16.9 - 2007			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	T50526	1	CODO 14 X 90° R.L. CED-XS	318	487	43	120					
13	T54971	1	CODO 14 X 90° R.L. CED-XS	309	464	38	93					
14	T56641	15	RED. CONC. 6 X 5 CED-STD	362	481	47	107					
15	T60438	4	CODO 16 X 45° CED-XS	260	469	36	143					
16	T58016	3	RED. CONC. 14 X 12 CED-STD	313	470	34	100					
17	T60505	5	RED. CONC. 8 X 6 CED-XS	247	450	39	141					
18	T51982	1	RED. CONC. 8 X 6 CED-XS	278	463	40	96					
19	T51308	3	CODO 12 X 45° SHC-80	323	490	38	103					
20	T51311	6	CODO 12 X 45° SHC-80	303	477	35	111					
21	T48110	6	CODO 12 X 45° CED-40	324	468	37	143					
22	T50961	4	CODO 14 X 45° CED-40	282	463	37	105					

ANALISIS QUIMICO / CHEMICAL ANALYSIS														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°:					
PROCESO PROCESS	COLADA HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	%C.E.	%C	%Mn	%P	%S	%Si	%Cr	%Cu	%Mo	%Ni	%V	%Nb	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°:				
HF	T50526	50526	0.310	0.180	0.670	0.013	0.002	0.280	0.050	0.059	0.019	0.030	0.000	0.000	10047127	11030432	11044294	12026663	12016804
HF	T54971	54971	0.310	0.180	0.670	0.008	0.003	0.270	0.060	0.048	0.023	0.030	0.000	0.000	12029336	11044090	10041657	10040934	11052253
CF	T56641	56641	0.300	0.170	0.670	0.011	0.000	0.270	0.040	0.053	0.014	0.030	0.000	0.000	10042750				
HF	T60438	60438	0.320	0.180	0.720	0.016	0.000	0.260	0.060	0.057	0.026	0.030	0.000	0.000					
CF	T58016	58016	0.000	0.180	0.680	0.013	0.001	0.290	0.040	0.058	0.021	0.030	0.000	0.000					
CF	T60505	60505	0.310	0.170	0.660	0.014	0.001	0.280	0.060	0.080	0.026	0.040	0.000	0.000					
CF	T51982	51982	0.340	0.180	0.840	0.011	0.001	0.260	0.040	0.078	0.042	0.040	0.000	0.000					
HF	T51308	51308	0.320	0.190	0.650	0.014	0.001	0.280	0.040	0.052	0.023	0.030	0.000	0.000					
HF	T51311	51311	0.310	0.180	0.660	0.011	0.001	0.270	0.040	0.062	0.027	0.040	0.000	0.000					
HF	T48110	48110	0.310	0.180	0.670	0.010	0.003	0.290	0.030	0.077	0.023	0.030	0.000	0.000					
HF	T50961	50961	0.310	0.180	0.670	0.012	0.003	0.270	0.030	0.056	0.027	0.040	0.000	0.000					

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	 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.
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