



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

Número:  
Number:  
22637

Página/Page:  
1 DE 1

Tabos 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

Vendido a: Sold to:	PROVEEDORA DE MATERIALES ANCEP S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	5443	Lista de Empaque: Packing List:	11534	Fecha/Date:	20 de Julio de 2009
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 / Beveled 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	S33368	40	CODO 2 X 90° R.L. CED-XS	330	499	32	126					
13	T42416	40	CODO 6 X 90° R.L. CED-XS	306	470	38	116					
14	T41352	6	CODO 10 X 45° CED-STD	307	489	37	116					
15	T42633	1	CODO 10 X 90° R.L. CED-STD	329	498	31	100					
16	T42161	11	CODO 10 X 90° R.L. CED-STD	332	495	33	94					
17	T41827	15	CODO 10 X 90° R.L. CED-STD	358	502	33	103					
18	T41487	1	CODO 10 X 90° R.L. CED-STD	259	478	34	101					
19	S33942	35	RED. CONC. 3 X 2 CED-STD	315	484	31	128					
20	S20539	1	CODO 4 X 90° R.L. CED-XS	272	459	39	102					
21	S33739	58	CODO 4 X 90° R.L. CED-XS	299	465	35	111					
22	S31158	31	CODO 4 X 90° R.L. CED-XS	284	461	33	128					

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	S33368	33368	0.340	0.190	0.800	0.013	0.002	0.270	0.030	0.044	0.010	0.023	0.001	0.000
HF	T42416	42416	0.310	0.170	0.700	0.012	0.001	0.280	0.040	0.060	0.023	0.040	0.000	0.000
HF	T41352	41352	0.300	0.170	0.680	0.010	0.002	0.290	0.030	0.054	0.008	0.030	0.000	0.000
HF	T42633	42633	0.310	0.180	0.680	0.011	0.003	0.280	0.060	0.054	0.019	0.030	0.000	0.000
HF	T42161	42161	0.310	0.180	0.680	0.015	0.001	0.280	0.040	0.051	0.009	0.020	0.000	0.000
HF	T41827	41827	0.300	0.160	0.670	0.011	0.001	0.270	0.060	0.063	0.031	0.040	0.000	0.000
HF	T41487	41487	0.300	0.170	0.670	0.011	0.000	0.270	0.040	0.057	0.007	0.030	0.000	0.000
CF	S33942	33942	0.310	0.180	0.710	0.014	0.001	0.290	0.030	0.060	0.010	0.030	0.001	0.000
HF	S20539	20539	0.330	0.190	0.750	0.013	0.001	0.300	0.050	0.032	0.020	0.022	0.001	0.001
HF	S33739	33739	0.340	0.200	0.740	0.010	0.001	0.290	0.040	0.038	0.010	0.017	0.001	0.000
HF	S31158	31158	0.330	0.200	0.740	0.011	0.001	0.280	0.030	0.037	0.010	0.012	0.001	0.000

Certificamos que los resultados de los Analisis Quimicos 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°.

479661 8068557 8049716 9002052 8068052 8065052 8065052 480592 365215 482835 462048

"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."

<p>Notes:</p> <p>Formado en caliente a 820°C-850°C, enfriado al aire. Formado en frío normalizado a 940°C max.</p> <p>Tiempo de permanencia 10'.</p> <p>Inspección Dimensional: Satisfactoria.</p> <p>MF: FORMADO EN CALIENTE/HOT FORMED</p>	<p>Notes:</p> <p>Hot formed fittings in a range from 820°C to 850°C, cooled in still air.</p> <p>Cold formed normalized at 940°C max.</p> <p>Holding time 10'.</p> <p>Visual dimensional check: Satisfactory</p> <p>CF: FORMADO EN FRIO/COLD FORMED</p>	<p>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.</p> <p>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.</p>
<p>Quality Manager / Jefe de Calidad:</p> <p>ING. WALDO GALLEGOS GALVAN</p>		<p>CC-008</p>