

<b>CERTIFICADO DE CALIDAD</b> <b>INSPECTION CERTIFICATE</b> ( DIN EN 10204:2004E - ISO 10474 3.1.B )	<b>Numero:</b> Number:	<b>Pagina/Page:</b>	
	27224	2	

<b>Vendido a:</b> Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	<b>Pedido del Cliente No:</b> Customers Order No: 14833 - 13086	<b>Lista de Empaque:</b> Packing List: 14113	<b>Fecha/Date:</b> 22 de Marzo de 2013
<b>Especificaciones y Grados / Standard or Specification and Steel Grade</b> 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	<b>Dimensiones y tolerancias / Dimension and tolerances</b> ASME B 16.9 - 2007	<b>Factura/Invoice:</b> 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	T5009	8	CODO 6 X 45° CED-STD	312	491	35	150					
13	T5006	4	CODO 6 X 45° CED-STD	320	481	31	156					
14	T5292	120	CODO 4 X 45° CED-STD	321	516	32	146					
15	S25633	91	CODO 2 X 90° R.L. CED-XS	316	491	30	184					
16	T5591	71	CODO 8 X 90° R.L. CED-XS	279	468	37	150					
17	T5461	1	CODO 8 X 90° R.L. CED-XS	329	507	35	141					
18	T5012	100	CODO 2 1/2 X 90° R.L. CED-STD	360	514	36	164					
19	T5464	40	CODO 8 X 45° CED-STD	319	501	34	140					
20	T63913	36	CODO 10 X 45° CED-STD	321	497	36	138					
21	T62432	8	CODO 14 X 90° R.L. CED-XS	290	462	37	131					
22	T61395	2	CODO 14 X 90° R.L. CED-XS	310	476	38	141					

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	T5009	5009	0.320	0.180	0.800	0.003	0.001	0.320	0.010	0.032	0.004	0.020	0.000	0.000
HF	T5006	5006	0.310	0.170	0.800	0.005	0.002	0.310	0.010	0.038	0.004	0.020	0.000	0.000
HF	T5292	5292	0.310	0.170	0.830	0.005	0.001	0.320	0.010	0.032	0.006	0.020	0.000	0.000
HF	S25633	25633	0.330	0.190	0.740	0.012	0.003	0.280	0.040	0.040	0.010	0.016	0.002	0.002
HF	T5591	5591	0.310	0.170	0.800	0.005	0.001	0.300	0.020	0.031	0.007	0.020	0.000	0.000
HF	T5461	5461	0.300	0.160	0.790	0.007	0.001	0.280	0.020	0.042	0.008	0.020	0.000	0.000
HF	T5012	5012	0.330	0.190	0.820	0.003	0.000	0.310	0.010	0.036	0.005	0.020	0.000	0.000
HF	T5464	5464	0.320	0.180	0.790	0.007	0.001	0.300	0.020	0.042	0.008	0.020	0.000	0.000
HF	T63913	63913	0.310	0.170	0.680	0.014	0.001	0.280	0.060	0.058	0.020	0.030	0.000	0.000
HF	T62432	62432	0.320	0.180	0.690	0.011	0.001	0.290	0.050	0.057	0.028	0.030	0.000	0.000
HF	T61395	61395	0.310	0.170	0.680	0.015	0.002	0.280	0.050	0.076	0.025	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 (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) certs conform to ASTM A106 Grade B N°:

12075066 12071011 12080703 12088061 13015271  
12090153 12068280 13000876 13011646 12073152  
12041137

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.

<b>Notas:</b> 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	<b>Notes:</b> 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
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*Waldo Gallegos Galvan*  
**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.