

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

Numero: 26901
Pagina/Page: 1

Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No: 13506 - 13086 - 14336 - 13591	Lista de Empaque: Packing List: 13955	Fecha/Date: 23 de Enero de 2013
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
1	T5011	12	CODO 4 X 45° CED-STD	342	491	33	157					
2	T61223	13	CODO 4 X 45° CED-STD	302	509	30	152					
3	T61225	2	CODO 4 X 45° CED-STD	339	502	32	146					
4	T60763	3	CODO 4 X 45° CED-STD	308	476	33	155					
5	S49296	9	CODO 2 X 90° R.L. CED-XS	350	530	31	126					
6	T5297	100	CODO 6 X 90° R.L. CED-XS	274	470	38	139					
7	T62941	14	CODO 14 X 90° R.L. CED-40	311	487	43	75					
8	T62433	2	TEE RED. 8 X 4 CED-STD	363	490	32	137					
9	T62941	2	CODO 14 X 45° CED-40	311	487	43	75					
10	S21359	60	CODO 2 X 45° CED-XS	331	498	30	126					
11	T61433	6	TEE 14 CED-STD	317	484	37	132					

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	T5011	5011	0.320	0.180	0.800	0.003	0.001	0.310	0.020	0.036	0.005	0.020	0.000	0.000
HF	T61223	61223	0.310	0.180	0.680	0.016	0.002	0.280	0.040	0.080	0.028	0.040	0.000	0.000
HF	T61225	61225	0.320	0.180	0.690	0.012	0.002	0.310	0.050	0.069	0.045	0.040	0.000	0.000
HF	T60763	60763	0.300	0.160	0.680	0.014	0.002	0.290	0.060	0.070	0.028	0.040	0.000	0.000
HF	S49296	49296	0.320	0.180	0.730	0.010	0.001	0.280	0.040	0.040	0.020	0.053	0.001	0.002
HF	T5297	5297	0.310	0.170	0.780	0.005	0.002	0.310	0.020	0.033	0.006	0.020	0.000	0.000
HF	T62941	62941	0.310	0.170	0.690	0.011	0.001	0.280	0.050	0.058	0.023	0.030	0.000	0.000
HF	T62433	62433	0.320	0.180	0.690	0.015	0.001	0.300	0.050	0.054	0.024	0.030	0.000	0.000
HF	T62941	62941	0.310	0.170	0.690	0.011	0.001	0.280	0.050	0.058	0.023	0.030	0.000	0.000
HF	S21359	21359	0.300	0.170	0.710	0.007	0.001	0.270	0.030	0.080	0.010	0.027	0.001	0.002
HF	T61433	61433	0.320	0.190	0.670	0.013	0.003	0.280	0.040	0.075	0.036	0.040	0.000	0.000

Certificamos que los resultados de los Analisis 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°:

12068153 12046999 12045985 12033866 12058173
12084645 12085292 12076693 12085292 12058172
12084642

"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>Notas:</p> <p>Formado en caliente a 620°C-980°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>HF: FORMADO EN CALIENTE/HOT FORMED</p>	<p>Notes:</p> <p>Hot formed fittings in a range from 620°C to 980°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>
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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.