

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

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Vendido a: Sold to:	PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	8945 - 8701 - 8891 -	Lista de Empaque: Packing List:	12318	Fecha/Date:	8 de Noviembre 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
1	T50824	188	CODO 4 X 90° R.L. CED-STD	377	507	36	126					
2	T51653	352	CODO 4 X 90° R.L. CED-STD	354	502	34	116					
3	T51887	144	CODO 4 X 90° R.L. CED-STD	375	521	35	106					
4	S48307	1	CODO 3 X 90° R.L. CED-STD	313	487	34	122					
5	S33021	33	CODO 3 X 90° R.L. CED-STD	317	483	31	118					
6	T50962	15	TEE RED. 8 X 6 CED-STD	288	477	31	103					
7	T50768	4	TEE RED. 10 X 4 CED-STD	327	492	40	124					

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°. 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°. 10049731 10048783 10048799 344862 473305 10047126 10047276
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	T50824	50824	0.320	0.190	0.680	0.012	0.002	0.300	0.040	0.053	0.014	0.030	0.000	0.000	
HF	T51653	51653	0.320	0.180	0.750	0.008	0.002	0.280	0.050	0.052	0.017	0.030	0.000	0.000	
HF	T51887	51887	0.330	0.180	0.800	0.010	0.002	0.250	0.050	0.065	0.022	0.040	0.000	0.000	
HF	S48307	48307	0.320	0.180	0.720	0.010	0.001	0.290	0.040	0.029	0.020	0.036	0.001	0.001	
HF	S33021	33021	0.310	0.180	0.720	0.014	0.001	0.290	0.030	0.044	0.010	0.024	0.001	0.000	
HF	T50962	50962	0.310	0.180	0.670	0.012	0.001	0.270	0.020	0.047	0.028	0.040	0.000	0.000	
HF	T50768	50768	0.310	0.180	0.670	0.015	0.001	0.290	0.050	0.047	0.018	0.030	0.000	0.000	

<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>	<p><i>Waldo Gallegos</i></p> <p>Quality Manager/Jefe de Calidad: ING. WALDO GALLEGOS GALVAN</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>
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