

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

Numero: 24445
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Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No: 10081 - 10225 - 9913	Lista de Empaque: Packing List: 12588	Fecha/Date: 24 de Marzo de 2011
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 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	T33446	1	CODO 16 X 45° CED-STD	343	489	36	90					
2	T40846	1	CODO 16 X 45° CED-STD	334	491	36	112					
3	T50768	1	CODO 16 X 45° CED-STD	336	499	41	122					
4	T51525	1	CODO 16 X 45° CED-STD	327	489	43	124					
5	T50463	2	CODO 16 X 45° CED-STD	319	494	33	96					
6	T50825	10	TEE 6 CED-XS	288	477	33	102					
7	S42235	40	CODO 4 X 45° CED-STD	331	508	32	137					
8	S43735	50	CODO 2 X 45° CED-STD	351	504	30	126					
9	T51887	12	CODO 10 X 45° CED-STD	332	502	38	102					
10	T50206	4	CODO 6 X 90° R.C. CED-XS	327	487	44	118					
11	T50768	18	TEE RED. 10 X 6 CED-STD	306	481	32	104					

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°: 7013866 8062712 10059870 10049515 10053787 10047125 10053811 11004275 10055457 10040733 10053790 "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".
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	T33446	33446	0.310	0.170	0.670	0.009	0.001	0.280	0.060	0.060	0.038	0.050	0.000	0.000	
HF	T40846	40846	0.320	0.190	0.700	0.010	0.004	0.290	0.040	0.049	0.013	0.020	0.006	0.000	
HF	T50768	50768	0.320	0.190	0.680	0.013	0.001	0.290	0.050	0.046	0.018	0.030	0.000	0.000	
HF	T51525	51525	0.320	0.190	0.680	0.014	0.002	0.280	0.040	0.063	0.016	0.030	0.000	0.000	
HF	T50463	50463	0.320	0.180	0.700	0.010	0.002	0.280	0.060	0.054	0.022	0.030	0.000	0.000	
HF	T50825	50825	0.290	0.170	0.650	0.011	0.001	0.270	0.040	0.048	0.011	0.020	0.000	0.000	
HF	S42235	42235	0.330	0.190	0.770	0.012	0.001	0.330	0.030	0.036	0.010	0.028	0.003	0.002	
HF	S43735	43735	0.310	0.180	0.720	0.011	0.001	0.270	0.020	0.020	0.010	0.019	0.002	0.002	
HF	T51887	51887	0.340	0.180	0.820	0.009	0.001	0.260	0.050	0.062	0.023	0.040	0.000	0.000	
HF	T50206	50206	0.310	0.170	0.690	0.013	0.001	0.280	0.050	0.070	0.025	0.040	0.000	0.000	
HF	T50768	50768	0.310	0.180	0.660	0.013	0.001	0.280	0.050	0.044	0.018	0.030	0.000	0.000	

<p>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</p>	<p>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</p>	<p><i>Waldo Gallegos</i> 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. 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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