

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

Número:
Number: 24008
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Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No: 9257 - 8891 - 8989 -	Lista de Empaque: Packing List: 12307	Fecha/Date: 2 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	T41415	4	TEE RED. 10 X 8 CED-STD	335	487	35	98					
2	T49269	5	CODO 16 X 90° R.L. CED-XS	315	484	48	120					
3	T50825	26	RED. CONC. 8 X 6 CED-STD	317	483	43	118					
4	T51816	40	CODO 8 X 45° CED-STD	327	494	39	96					
5	T50463	9	CODO 16 X 90° R.L. CED-STD	319	494	33	96					
6	T50768	22	TEE RED. 10 X 4 CED-STD	327	492	40	124					
7	T49269	10	RED. CONC. 12 X 8 CED-STD	318	485	44	120					
8	T49702	10	RED. CONC. 12 X 8 CED-STD	312	482	44	120					
9	T49220	8	TEE RED. 6 X 4 CED-STD	282	473	44	118					
10	S29806	1	CODO 3 X 45° CED-160	314	465	41	136					

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°: 8062384 10022415 10049559 10047437 10034323 10048668 10027760 10027760 10024831 184190 *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	T41415	41415	0.310	0.170	0.780	0.009	0.001	0.270	0.030	0.046	0.004	0.020	0.000	0.000	
HF	T49269	49269	0.310	0.180	0.670	0.012	0.002	0.300	0.020	0.073	0.029	0.030	0.000	0.000	
CF	T50825	50825	0.300	0.170	0.650	0.011	0.001	0.270	0.050	0.048	0.012	0.020	0.000	0.000	
HF	T51816	51816	0.320	0.180	0.720	0.009	0.002	0.310	0.060	0.069	0.027	0.040	0.000	0.000	
HF	T50463	50463	0.330	0.190	0.700	0.011	0.003	0.270	0.060	0.054	0.022	0.030	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	
CF	T49269	49269	0.320	0.190	0.680	0.012	0.002	0.300	0.020	0.073	0.031	0.030	0.000	0.000	
CF	T49702	49702	0.310	0.180	0.680	0.011	0.001	0.280	0.030	0.052	0.022	0.030	0.000	0.000	
HF	T49220	49220	0.300	0.170	0.700	0.010	0.002	0.270	0.030	0.069	0.019	0.030	0.000	0.000	
HF	S29806	29806	0.335	0.200	0.690	0.008	0.001	0.280	0.050	0.060	0.020	0.030	0.001	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>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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 Quality Manager / Jefe de Calidad:
 ING. WALDO GALLEGOS GALVAN