

<b>CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE</b> ( DIN EN 10204:2004E - ISO 10474 3.1.B )		Numero: Number:	Pagina/Page:
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Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No: 13996 - 13591 - 13506	Lista de Empaque: Packing List: 13925	Fecha/Date: 12 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 <b>ASME B 16.9 - 2007</b>		Factura/Invoice: <b>Bocas / Ends</b> 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	T4465	57	CODO 3 X 90° R.L. CED-STD	380	504	30	148					
2	T55441	133	CODO 3 X 90° R.L. CED-STD	349	491	40	124					
3	T59835	1	CODO 8 X 45° CED-XS	311	472	37	151					
4	T59443	9	CODO 8 X 45° CED-XS	313	479	37	141					
5	T5006	200	CODO 6 X 90° R.L. CED-STD.	320	481	31	156					
6	T5294	100	CODO 6 X 90° R.L. CED-STD.	311	474	34	139					
7	T4888	100	CODO 6 X 90° R.L. CED-XS	318	492	37	139					
8	T5012	20	CODO 8 X 45° CED-STD	339	492	35	143					
9	T62941	6	CODO 12 X 90° R.L. CED-STD	329	485	35	132					
10	T62942	30	CODO 12 X 90° R.L. CED-STD	327	487	36	133					
11	T62025	7	CODO 10 X 45° CED-STD	334	492	36	138					

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	T4465	4465	0.340	0.190	0.830	0.006	0.001	0.340	0.010	0.038	0.006	0.020	0.000	0.000
HF	T55441	55441	0.330	0.190	0.700	0.011	0.002	0.300	0.070	0.059	0.018	0.030	0.000	0.000
HF	T59835	59835	0.300	0.170	0.670	0.011	0.001	0.300	0.050	0.076	0.016	0.040	0.000	0.000
HF	T59443	59443	0.330	0.180	0.760	0.014	0.001	0.280	0.060	0.055	0.017	0.030	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	T5294	5294	0.310	0.170	0.770	0.006	0.001	0.310	0.020	0.024	0.007	0.020	0.000	0.000
HF	T4888	4888	0.330	0.190	0.800	0.006	0.001	0.330	0.010	0.033	0.004	0.020	0.000	0.000
HF	T5012	5012	0.310	0.170	0.800	0.003	0.000	0.320	0.020	0.034	0.005	0.020	0.000	0.000
HF	T62941	62941	0.310	0.170	0.690	0.011	0.001	0.280	0.050	0.057	0.022	0.030	0.000	0.000
HF	T62942	62942	0.300	0.160	0.690	0.011	0.002	0.290	0.050	0.052	0.024	0.030	0.000	0.000
HF	T62025	62025	0.320	0.170	0.740	0.012	0.000	0.290	0.070	0.064	0.028	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°: 12052103 12052102 12020685 12017293 12071011 12085500 12072364 12068145 12084527 12083926 12075061

"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".

Notú: 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	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
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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.