

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

Numero:
Number: 26851
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Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No: 13506 - 13591 - 13086 - 13996	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 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
12	T61866	29	CODO 10 X 45° CED-STD	326	496	34	144					
13	T5012	24	CODO 2 1/2 X 45° CED-STD	360	514	36	164					
14	T60717	18	CODO 12 X 90° R.L. CED-40	312	480	33	144					
15	T62075	2	TEE RED. 10 X 6 CED-STD	321	483	36	140					
16	T61276	3	TEE RED. 10 X 6 CED-STD	291	482	38	142					
17	T60717	7	CODO 12 X 45° CED-40	312	480	33	144					
18	T48110	3	CODO 12 X 45° CED-40	324	468	37	143					
19	T56126	2	CODO 12 X 45° CED-40	321	476	35	118					
20	T61395	6	TEE RED. 8 X 4 CED-STD	331	484	32	140					
21	T61865	30	TEE RED. 6 X 4 CED-STD	324	490	41	155					
22	T61866	10	TEE 5 CED-STD	326	496	34	144					

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	T61866	61866	0.310	0.170	0.740	0.014	0.001	0.280	0.030	0.049	0.015	0.030	0.000	0.000
HF	T5012	5012	0.330	0.190	0.820	0.003	0.000	0.310	0.010	0.036	0.005	0.020	0.000	0.000
HF	T60717	60717	0.300	0.170	0.680	0.012	0.004	0.280	0.040	0.067	0.021	0.030	0.000	0.000
HF	T62075	62075	0.340	0.190	0.770	0.008	0.000	0.280	0.040	0.075	0.034	0.040	0.000	0.000
HF	T61276	61276	0.330	0.180	0.760	0.017	0.002	0.310	0.040	0.065	0.027	0.030	0.000	0.000
HF	T60717	60717	0.300	0.170	0.680	0.012	0.004	0.280	0.040	0.067	0.021	0.030	0.000	0.000
HF	T48110	48110	0.310	0.180	0.670	0.010	0.003	0.290	0.030	0.077	0.023	0.030	0.000	0.000
HF	T56126	56126	0.300	0.170	0.680	0.010	0.002	0.270	0.050	0.059	0.017	0.030	0.000	0.000
HF	T61395	61395	0.320	0.180	0.690	0.014	0.003	0.280	0.060	0.077	0.025	0.040	0.000	0.000
HF	T61865	61865	0.300	0.170	0.670	0.016	0.001	0.280	0.040	0.053	0.018	0.030	0.000	0.000
HF	T61866	61866	0.310	0.170	0.740	0.014	0.001	0.280	0.030	0.049	0.015	0.030	0.000	0.000

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°: 12066085 12068280 12030247 12068578 12076976 12030247 11052253 11039710 12054500 12066076 12066085

"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".

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

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

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.