

<b>CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE</b> (DIN EN 10204:2004E - ISO 10474 3.1.B)		Numero: Number:  27100	Pagina/Page:  2
Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No: 14833 - 14336 - 13506	Lista de Empaque: Packing List: 14056	Fecha/Date: 28 de Febrero 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	S46244	16	CODO 2 X 45° CED-STD	280	475	30	135					
13	S25806	36	CODO 2 X 90° R.L. CED-STD	365	522	30	139					
14	T63084	10	CODO 10 X 90° R.L. CED-STD	314	483	36	137					
15	T63084	10	CODO 10 X 90° R.L. CED-XS	306	475	35	134					
16	T61223	20	CODO 5 X 45° CED-STD	293	489	32	143					
17	T5012	24	CODO 2 1/2 X 45° CED-STD	360	514	36	164					
18	T5007	35	CODO 3 X 90° R.C. CED-XS	249	507	33	163					
19	T62075	10	RED. CONC. 12 X 10 CED-STD	321	483	36	140					
20	T59915	25	TEE 10 CED-STD	320	501	42	122					
21	T60521	1	TEE 10 CED-STD	270	462	38	142					
22	T63348	10	TEE 10 CED-STD	264	480	38	129					

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	S46244	46244	0.330	0.190	0.740	0.012	0.000	0.290	0.050	0.035	0.020	0.020	0.002	0.002
HF	S25806	25806	0.310	0.180	0.730	0.013	0.001	0.280	0.050	0.070	0.040	0.034	0.002	0.003
HF	T63084	63084	0.310	0.180	0.680	0.012	0.001	0.270	0.050	0.050	0.024	0.030	0.000	0.000
HF	T63084	63084	0.310	0.180	0.680	0.012	0.001	0.270	0.050	0.050	0.023	0.030	0.000	0.000
HF	T61223	61223	0.310	0.170	0.700	0.016	0.001	0.280	0.040	0.078	0.027	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	T5007	5007	0.320	0.180	0.780	0.005	0.002	0.310	0.020	0.041	0.004	0.020	0.000	0.000
CF	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	T59915	59915	0.330	0.180	0.780	0.015	0.001	0.300	0.040	0.077	0.032	0.040	0.000	0.000
HF	T60521	60521	0.300	0.170	0.660	0.016	0.002	0.280	0.040	0.074	0.025	0.030	0.000	0.000
HF	T63348	63348	0.330	0.180	0.770	0.007	0.001	0.280	0.050	0.060	0.027	0.040	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°:  
598998 12088189 12086371 12088238 12042268 12068280 12067628 12076976 12085287 12029338 13004142  
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.