

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

Número:  
Number: 23363  
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Vendido a: PLESA ANAHUAC Y CIA. S.A. DE C.V.  
Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.  
Pedido del Cliente No: 7908 - 7818 -  
Customers Order No: 7908 - 7818 -  
Lista de Empaque: 11929  
Packing List: 11929  
Fecha/Date: 20 de Abril 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	S33021	35	CODO 3 X 90° R.L. CED-STD	317	483	31	135					
2	T48724	50	CODO 6 X 90° R.L. CED-STD.	325	490	39	120					
3	S33738	3	CODO 6 X 45° CED-STD	315	469	36	107					
4	T48724	42	CODO 6 X 45° CED-STD	325	490	39	120					
5	S33739	34	CODO 2 1/2 X 90° R.L. CED-STD	322	491	31	120					
6	T48082	10	CODO 8 X 45° CED-STD	310	478	38	120					
7	S31158	70	CODO 4 X 90° R.L. CED-XS	284	461	33	128					

**PLEASA ANAHUAC Y CIAS. S.A. DE C.V.**

**CONTROL DE CALIDAD**

FECHA: 22 Abr 2010

FIRMA: E. RUIZ

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	S33021	33021	0.310	0.180	0.720	0.014	0.001	0.290	0.030	0.044	0.010	0.024	0.001	0.000
HF	T48724	48724	0.310	0.180	0.650	0.013	0.002	0.280	0.040	0.068	0.017	0.030	0.000	0.000
HF	S33738	33738	0.310	0.180	0.730	0.011	0.002	0.270	0.030	0.031	0.010	0.017	0.001	0.001
HF	T48724	48724	0.310	0.180	0.650	0.013	0.002	0.280	0.040	0.068	0.017	0.030	0.000	0.000
HF	S33739	33739	0.340	0.200	0.740	0.008	0.001	0.280	0.040	0.032	0.010	0.017	0.001	0.002
HF	T48082	48082	0.310	0.180	0.650	0.008	0.002	0.280	0.040	0.068	0.020	0.030	0.000	0.000
HF	S31158	31158	0.330	0.200	0.740	0.011	0.001	0.280	0.030	0.037	0.010	0.012	0.001	0.001

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°: 473305 10017107 479800 10017107 480022 10007842 457253

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°: 473305 10017107 479800 10017107 480022 10007842 457253

"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.