

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

Número:  
Number:

23331

Página/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: 7908 - 7907 - 7684 -

Lista de Empaque:  
Packing List: 11913

Fecha/Date:  
9 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**

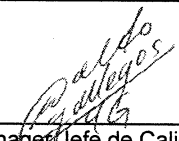
Factura/Invoice:  
Bocas / Ends  
Biselado / Bevelled ends

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	94	CODO 3 X 90° R.L. CED-STD	317	483	31	135	<p align="center">PLESA ANAHUAC Y CIAS. S.A. DE C.V.</p> <p align="center"><b>CONTROL DE CALIDAD</b></p> <p align="center">12 Ab 2010</p> <p align="center">E. RUIZ</p>				
2	S31103	3	CODO 3 X 90° R.L. CED-STD	304	510	29	116					
3	T47231	55	TEE 4 CED-STD	322	493	39	122					
4	S33021	20	CODO 4 X 45° CED-STD	325	501	35	142					
5	S33021	25	CODO 3 X 45° CED-STD	317	483	31	135					
6	S31052	100	CODO 2 X 90° R.L. CED-STD	321	477	30	118					
7	T48082	30	CODO 8 X 90° R.L. CED-STD	310	478	38	120					
8	S31050	80	CODO 1 1/4 X 90° R.L. CED-STD	367	534	32	130					
9	S45402	50	CODO 2 1/2 X 90° R.L. CED-XS	294	466	36	130					

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°: 473305 456783 10007063 473674 473305 479030 10007842 479680 317311 "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	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	S31103	31103	0.330	0.180	0.760	0.010	0.001	0.290	0.050	0.066	0.010	0.026	0.001	0.000	
HF	T47231	47231	0.300	0.170	0.660	0.013	0.001	0.280	0.040	0.055	0.024	0.030	0.000	0.000	
HF	S33021	33021	0.320	0.180	0.740	0.013	0.001	0.300	0.030	0.045	0.010	0.025	0.001	0.000	
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	S31052	31052	0.320	0.180	0.730	0.010	0.001	0.250	0.040	0.051	0.010	0.020	0.001	0.001	
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	S31050	31050	0.330	0.190	0.760	0.007	0.002	0.270	0.030	0.023	0.010	0.013	0.001	0.000	
HF	S45402	45402	0.320	0.180	0.740	0.010	0.001	0.290	0.040	0.045	0.020	0.022	0.001	0.001	

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.