

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

Número:
Number:
23181

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Vendido a:
Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.

Pedido del Cliente No:
Customers Order No: 7566 - 7659 - 7656 -

Lista de Empaque:
Packing List: 11833

Fecha/Date:
4 de Febrero 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	S31103	264	CODO 3 X 90° R.L. CED-STD	304	510	29	116	<p align="center">PLEASA ANAHUAC Y CIAS. S.A. DE C.V.</p> <p align="center">CONTROL DE CALIDAD</p> <p>FECHA: 08 Feb 2010</p> <p>FIRMA: E. RUIZ</p>				
2	S32706	20	CODO 3 X 90° R.L. CED-XS	336	480	35	109					
3	S33571	60	CODO 3 X 90° R.L. CED-XS	296	473	32	130					
4	S31052	50	CODO 2 X 45° CED-STD	321	477	30	118					
5	S31052	250	CODO 2 X 90° R.L. CED-STD	321	477	30	118					
6	S32307	68	CODO 2 1/2 X 90° R.L. CED-STD	314	486	31	122					
7	S31050	120	CODO 1 1/2 X 90° R.L. CED-STD.	367	534	32	130					
8	S45402	8	CODO 2 1/2 X 90° R.L. CED-XS	294	466	36	130					
9	S33571	13	CODO 2 1/2 X 90° R.L. CED-XS	313	487	34	120					

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	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	S32706	32706	0.320	0.180	0.770	0.010	0.001	0.300	0.040	0.045	0.010	0.026	0.001	0.000
HF	S33571	33571	0.330	0.200	0.710	0.008	0.003	0.300	0.030	0.026	0.010	0.002	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	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	S32307	32307	0.330	0.190	0.710	0.012	0.002	0.260	0.050	0.039	0.010	0.028	0.001	0.001
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
HF	S33571	33571	0.340	0.200	0.750	0.010	0.003	0.270	0.030	0.024	0.010	0.016	0.003	0.002

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°:

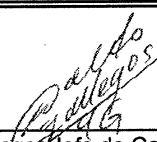
We certify that result of chemical analysis and mechanical test are true and correct copy of the test certificate issued by the manufacturer and/or supplier Raw material (Seamless Pipe) certs conform to ASTM A106 Grade B N°:

456783 470998 478915 479030 479030 468319 457348
317311 9002244

"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.