

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

Vendido a: **PIESA ANAHUAC Y CIA. S.A. DE C.V.**
 Sold to: **PIESA ANAHUAC Y CIA. S.A. DE C.V.**
 Especificaciones y Grados / Standard or Specification and Steel Grade
 Seamless Fittings according to ASTM A 234-97, A 234-05a, NACE MR 01-75-2003
 Conform to ASME II Ed. 2001 ASME SA-234, Grade WPB

Pedido del Cliente No: **1883 - 1718 - 1917**
 Customers Order No: **1883 - 1718 - 1917**
 Dimensiones y tolerancias / Dimension and tolerances

Lista de Empaque: **8528** Fecha/Date: **26 de Septiembre de 2006**
 Packing List: **8528** Factural/Invoice: **Bocas / Ends**
 Biselado / Bevelled ends

DESCRIPCION DE MATERIAL / MATERIAL DESCRIPTION

ART. ITEM	COLADA HEAT CODE	CANTIDAD QUANTITY	DESCRIPCION / DESCRIPTION	ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPTURA TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA HARDNESS HB	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
12	T29032	40	CODO 10 X 90° R.I. CED-STD	321	485	42	117					
13	T27926	20	CODO 10 X 90° R.I. CED-XS	319	485	42	116					
14	SA3766	30	CODO 5 X 45° CED-STD	320	503	33	142					
15	T37674	24	CODO 2 1/2 X 45° CED-STD	354	497	32	123					
16	S24684	15	CODO 1 1/2 X 45° CED-XS	337	493	39	112					
17	S38031	20	CODO 5 X 90° R.I. CED-XS	334	492	35	113					
18	T29417	4	TEE RED. 10 X 4 CED-STD	277	465	33	124					
19	T24802	16	CODO 8 X 90° R.C. CED-XS	304	469	42	103					
20	SA3	10	TEE RED. 2 X 1 1/2 CED-STD	372	527	40	141					
21	S24684	50	CODO 1 1/2 X 90° R.I. CED-XS	337	493	39	112					
22	SA3427	20	CODO 2 X 90° R.C. CED-STD	317	484	36	112					

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	T29032	29032	0.300	0.160	0.680	0.009	0.002	0.280	0.050	0.078	0.038	0.040	0.000	0.000
HF	T27926	27926	0.300	0.160	0.670	0.010	0.002	0.270	0.070	0.073	0.024	0.040	0.000	0.000
HF	SA3766	43766	0.351	0.200	0.810	0.012	0.001	0.280	0.030	0.058	0.020	0.022	0.001	0.001
HF	T37674	37674	0.309	0.170	0.750	0.012	0.001	0.300	0.030	0.035	0.020	0.027	0.001	0.001
HF	S24684	24684	0.333	0.190	0.740	0.007	0.001	0.290	0.040	0.030	0.040	0.020	0.001	0.001
HF	S38031	38031	0.322	0.190	0.730	0.011	0.001	0.280	0.020	0.037	0.010	0.018	0.001	0.001
HF	T29417	29417	0.300	0.170	0.670	0.008	0.000	0.260	0.040	0.072	0.030	0.030	0.000	0.000
HF	T24802	24802	0.310	0.180	0.660	0.011	0.002	0.270	0.050	0.070	0.041	0.030	0.000	0.000
HF	SA3	M33245	0.300	0.230	0.390	0.018	0.010	0.210	0.020	0.010	0.000	0.010	0.000	0.000
HF	S24684	24684	0.333	0.190	0.740	0.007	0.001	0.290	0.040	0.030	0.040	0.020	0.001	0.001
HF	SA3427	43427	0.328	0.160	0.840	0.012	0.001	0.250	0.080	0.054	0.030	0.026	0.001	0.001

Certificamos que los resultados de los Analisis Quimicos y Pruebas Mecanicas 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°.

6015390 6027135 313950 05012923 161655 257247
 6021045 5023993 QLCI9991250 161655 3072296

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.

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.

Jefe de Calidad:
 Quality Manager:

ING. JOSE MARTINEZ MACIAS

Nota:
 Formado en caliente a 620°C-890°C, enfriado al aire.
 Formado en frío normalizado a 840°C máx.
 Tiempo de permanencia 10'
 Inspección Dimensional Satisfactoria
 HF: FORMADO EN CALIENTE/HOT FORMED
 CF: FORMADO EN FRIOCALDO FORMED

Notes:
 Hot formed fittings in a range from 620°C to 890°C, cooled in still air.
 Cold formed normalized at 840°C max.
 Holding time 10'
 Visual dimensional check Satisfactory
 HF: FORMADO EN CALIENTE/HOT FORMED
 CF: FORMADO EN FRIOCALDO FORMED