

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

Tubos de Acero de México, S.A.
Carr. My-Laredo Km 24.2
Apartado Postal 43
65550 C. de Flores, N.L. Méx.
(52) 81 8305 9600 tel
(52) 81 8305 9620 fax

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

Pedido del Cliente No: **2504 -**
Customers Order No:

Lista de Empaque: **8880**
Packing List:

Fecha/Date: **14 de Febrero de 2007**

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

Dimensiones y tolerancias / Dimension and tolerances
ASME B 16.9 - 2003 and ASME B 16.28 - 1994

Factorial/Invoice: **Bocas / Ends**
Biselado / Bevelled ends

ART. ITEM	COLADA HEAT CODE	CANTIDAD QUANTITY	DESCRIPCION / DESCRIPTION	PRUEBAS MECANICAS / MECHANICAL TEST				PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C			
				ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPATURA TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA HARDNESS HB	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
1	T29863	30	CODO 6 X 45° CED-XS	306	468	40	86				
2	T26967	2	CODO 12 X 45° CED-XS	302	472	42	118				
3	T29076	8	CODO 12 X 45° CED-XS	335	495	34	97				
4	T29862	100	CODO 6 X 90° R.I. CED-STD.	312	475	38	86				
5	T29890	21	TEE 8 CED-XS	255	477	37	88				
6	T31916	24	CODO 8 X 90° R.I. CED-XS	318	474	34	90				
7	T31916	60	CODO 8 X 90° R.I. CED-STD.	341	470	34	88				
8	S45402	240	CODO 1 1/2 X 90° R.I. CED-STD.	400	546	46	133				
9	S45280	160	CODO 1 1/4 X 90° R.I. CED-STD.	357	511	28	122				
10	T31441	6	TEE 14 CED-STD.	334	477	35	85				

ANALISIS QUIMICO / CHEMICAL ANALYSIS

PROCESO PROCESS	COLADA HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	ANALISIS QUIMICO / CHEMICAL ANALYSIS											
			%C	%E	%Mn	%P	%S	%Si	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	T29863	29863	0.300	0.170	0.660	0.006	0.001	0.270	0.040	0.070	0.024	0.030	0.000	0.000
HF	T26967	26967	0.310	0.170	0.670	0.008	0.002	0.300	0.050	0.078	0.051	0.050	0.000	0.000
HF	T29076	29076	0.320	0.180	0.710	0.010	0.002	0.280	0.050	0.083	0.029	0.040	0.000	0.000
HF	T29862	29862	0.310	0.170	0.670	0.007	0.002	0.280	0.070	0.074	0.034	0.040	0.000	0.000
HF	T29890	29890	0.320	0.180	0.730	0.007	0.001	0.300	0.050	0.057	0.024	0.030	0.000	0.000
HF	T31916	31916	0.320	0.180	0.690	0.008	0.002	0.290	0.050	0.059	0.027	0.040	0.000	0.000
HF	T31916	31916	0.320	0.180	0.690	0.008	0.003	0.290	0.050	0.060	0.027	0.040	0.000	0.000
HF	S45402	45402	0.317	0.180	0.740	0.009	0.001	0.290	0.040	0.038	0.010	0.021	0.001	0.001
HF	S45280	45280	0.323	0.180	0.730	0.010	0.001	0.300	0.050	0.055	0.020	0.048	0.001	0.000
HF	T31441	31441	0.290	0.170	0.650	0.012	0.002	0.270	0.040	0.053	0.014	0.030	0.000	0.000

Formado en caliente a 620°C-980°C, enfriado al aire, Formado en frío normalizado a 940°C max.
Tiempo de permanencia 10'.
Holding time 10'.
Visual dimensional check: Satisfactory

Hot formed fittings in a range from 620°C to 980°C, cooled in still air.
Cold formed normalized at 940°C max.
Visual dimensional check: Satisfactory

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) cuts conform to ASTM A106 Grade B N°
6034768 6026378 6026378 6040533 6037652 7001851
7000728 329135 329135 7003917

Notes:
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.
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.
Jefe de Calidad:
Quality Manager: **ING. JOSE MARTINEZ MACIAS**
CC-008