

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

Tubos de Acero de México, S.A.
Carr. Mty-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.	Pedido del Cliente No:	2327 - 2565 - 2504 - 2574 - 2570 -	Lista de Empaque:	89 4 4	Fecha/Date:	5 de Marzo de 2007
Sold to:		Customers Order No:		Packing List:			
Dimensiones y tolerancias / Dimension and tolerances							
ASME B 16.9 - 2003 and ASME B 16.28 - 1994							
Factura/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. RUPTURA TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA HARDNESS HB	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
1	T32354	8	CODO 16 X 90° R.I. CED-XS	319	474	36	98				
2	T33052	120	CODO 8 X 90° R.I. CED-STD	283	472	35	89				
3	T43528	168	CODO 1 X 90° R.I. CED-STD	327	470	51	109				
4	T29032	1	CODO 10 X 90° R.I. CED-80	317	464	34	92				
5	S60750	10	CODO 4 X 45° CED-XS	480	503	30	126				
6	S48650	90	CODO 4 X 45° CED-XS	332	478	36	107				
7	T29613	20	TEE RED. 8 X 4 CED-STD	317	497	34	89				

PROCESO PROCESS	COLADA HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	ANALISIS QUIMICO / CHEMICAL ANALYSIS											
			%C.E.	%C	%Mn	%P	%S	%SI	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	T32354	32354	0.320	0.180	0.740	0.011	0.002	0.290	0.050	0.059	0.026	0.030	0.000	0.000
HF	T33052	33052	0.340	0.180	0.830	0.009	0.001	0.260	0.050	0.055	0.023	0.040	0.000	0.000
HF	T43528	43528	0.291	0.195	0.487	0.006	0.000	0.233	0.032	0.038	0.024	0.020	0.000	0.000
HF	T29032	29032	0.320	0.180	0.680	0.008	0.002	0.280	0.040	0.085	0.037	0.040	0.000	0.000
HF	S60750	60750	0.321	0.170	0.760	0.011	0.003	0.280	0.050	0.070	0.030	0.042	0.002	0.001
HF	S48650	48650	0.332	0.190	0.750	0.010	0.001	0.300	0.050	0.040	0.010	0.028	0.001	0.001
HF	T29613	29613	0.310	0.160	0.730	0.012	0.002	0.260	0.070	0.089	0.031	0.050	0.000	0.000

Notas:
Formado en caliente a 620°C-980°C, enfriado al aire. Formado en frío normalizado a 840°C máx.
Tiempo de permanencia 10'.
Inspección Dimensional Satisfactoria.
Visual dimensional check. Satisfactory.
Holding time 10'.
CF FORMADO EN FRIOCOLD FORMED

Notas:
Hot formed fittings in a range from 620°C to 980°C, cooled in still air.
Cold formed normalized at 840°C máx.
Visual dimensional check. Satisfactory.
Holding time 10'.
CF FORMADO EN CALIENTE/HOT FORMED

Certificamos que los resultados de los Analisis 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°.
7008374 7007608 T-5858/1 7000400 207939 346340 6042959

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

CC-008