



Tubos de Acero de Mexico, S.A.
Carr. Mty-Laredo Km. 24.2
Apartado Postal 43
(65550) C. de Flores, N. L. Méx.
(52) 81 8344 8860 tel
(52) 81 8344 8801 fax

CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE (DIN EN 10204 3.1.B - ISO 10474 3.1.B)		Numero: Number:	Pagina/Page:											
Pedido del Cliente No: 1322 1373		16031	1 DE 1											
Customers Order No: 1322 1373		Fecha/Date: 12 de Mayo de 2006												
Dimensiones y tolerancias / Dimension and tolerances		Factura/Invoice: Bocas / Ends Biselado / Bevelled ends												
ASME B 16.9-01 and ASME B 16.28 edition 1994														
DESCRIPCION DE MATERIAL / MATERIAL DESCRIPTION		PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C												
ART. ITEM	COLADA HEAT CODE	CANTIDA QUANTITY	DESCRIPCION / DESCRIPTION	ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPTURA TENSILE STRENGTH (Mpa)	ELONG. %E ²	DUREZA HARDNESS HB	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules		
1	T25337	4	RED. TEE 12 X 8 SCH-STD	364	482	40	126							
2	T17791	10	ELLS 10 X 90 L.R. SCH-20	310	482	39	123							
3	T22147	4	ELLS 10 X 90 L.R. SCH-20	333	498	42	126							
4	T12167	2	ELLS 10 X 90 L.R. SCH-20	323	491	46	144							
ANALISIS QUIMICO / CHEMICAL ANALYSIS				PRUEBAS MECANICAS / MECHANICAL TEST										
PROCESO PROCESS	COLADA HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	%C	%E	%Mn	%P	%S	%Si	%Cr	%Cu	%Mo	%Ni	%v	%Nb
CF	T25337	25337	0.320	0.190	0.670	0.011	0.003	0.270	0.040	0.073	0.013	0.040	0.000	0.000
HF	T17791	17791	0.325	0.190	0.660	0.019	0.002	0.280	0.060	0.058	0.034	0.030	0.000	0.000
HF	T22147	22147	0.340	0.180	0.780	0.016	0.001	0.270	0.070	0.062	0.050	0.030	0.000	0.000
HF	T12167	12167	0.327	0.190	0.690	0.001	0.001	0.280	0.050	0.077	0.020	0.040	0.000	0.000
<p>Notas:</p> <p>Formado en caliente a 760°C-840°C, enfriado al aire. Formado en frío normalizado a 840°C max.</p> <p>Tempo de permanencia 10'</p> <p>Inspección Dimensional Satisfactoria</p> <p>VF: FORMADO EN CALIENTE/NOT FORMED</p> <p>CF: FORMADO EN FRIO/COLD FORMED</p> <p>Visual dimensional check: Satisfactory</p> <p>Holding time 10'</p> <p>Hot formed flange in a range from 760°C to 840°C, cooled in still air.</p> <p>Cold formed normalized at 840°C max.</p> <p>Hot formed flange in a range from 760°C to 840°C, cooled in still air.</p> <p>Cold formed normalized at 840°C max.</p> <p>Holding time 10'</p> <p>Visual dimensional check: Satisfactory</p> <p>VF: FORMADO EN CALIENTE/NOT FORMED</p> <p>CF: FORMADO EN FRIO/COLD FORMED</p>														
<p>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.</p> <p>Los verdaderos o una copia fiel de los certificados enviados por el Fabricante por el proveedor de Materia Prima (Tubos) conforme ASTM A106GradeB 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 (Pipe) certs conform to ASTM A106 Grade B N°.</p> <p>06002498 04019777 05013271 3011290</p>														
<p>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.</p> <p>Jefe de Aseguramiento de Calidad: Quality Assurance Coordinator</p> <p>ING. JOSE MARTINEZ MACIAS</p> <p>CC-008</p>														