



Tubos de Acero de Mexico, S.A.  
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**CERTIFICADO DE CALIDAD  
 INSPECTION CERTIFICATE**  
 (DIN EN 10204 3.1 B - ISO 10474 3.1 B)

Vendido a: **PIESA ANAHUAC** Pedido del Cliente No: **1333** Lista de Empaque: **8177** Fecha/Date: **27 de Abril de 2006**  
 Sold to: **PIESA ANAHUAC** Customers Order No: **1333** Packing List: **Bocas / Ends**  
 Especificaciones y Grados / Standard or Specification and Steel Grade: **ASME B 16.9 and ASME B 16.28 edition 2001** Dimensiones y tolerancias / Dimension and tolerances: **Biselado / Bevelled ends**  
 Seamless fittings according to ASTM A 234.97, A234.02/ASME A54.234 WPB. NACE MR 01.75-2003 - Conform to ASME II Ed. 2001

ART. ITEM	COLADA HEAT CODE	CANTIDA QUANTITY	DESCRIPCION / DESCRIPTION	PRUEBAS MECANICAS / MECHANICAL TEST	PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C
1	T27436	36	ELLS 12 X 90 L R SCH-STD	ESF. CEGENEA YIELD STRENGTH (Mpa) 473	DIMENSIONES (SAMPLE DIM mm) 1 Joulis 2 Joulis 3 Joulis PROMEDIO AVERAGE Joulis
2	T27435	6	ELLS 14 X 90 L R SCH-STD	ESF. RUPRTURA TENSILE STRENGTH (Mpa) 467	
3	T25752	108	ELLS 8 X 90 L R SCH-STD	478	
4	T27420	8	ELLS 8 X 90 L R SCH-STD	473	
5	T21932	6	CONC. RED. 10 X 8 SCH-STD	463	
6	T24002	2	CONC. RED. 10 X 8 SCH-STD	333	
7	T27406	18	RED. TEE 10 X 6 SCH-STD	484	
8	T18988	1	RED. TEE 12 X 10 SCH-STD	471	
9	T27272	3	RED. TEE 12 X 10 SCH-STD	322	
10	T27888	36	ELLS 12 X 90 L R SCH-STD	489	

PROCESO	COLADA HEAT CODE	COLADAMOTHER HEAT	%C E	%C 1	%Mn	%P	%S	%SI	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	T27436	27436	0.303	0.160	0.680	0.011	0.001	0.280	0.070	0.081	0.036	0.040	0.000	0.000
HF	T27435	27435	0.300	0.160	0.670	0.009	0.002	0.270	0.070	0.076	0.038	0.030	0.000	0.000
HF	T25752	25752	0.315	0.180	0.680	0.008	0.002	0.280	0.050	0.077	0.021	0.030	0.000	0.000
HF	T27420	27420	0.322	0.180	0.690	0.012	0.003	0.028	0.070	0.075	0.029	0.040	0.000	0.000
CF	T21932	21932	0.310	0.180	0.660	0.008	0.002	0.260	0.030	0.069	0.039	0.030	0.000	0.000
CF	T24002	24002	0.304	0.170	0.660	0.011	0.002	0.290	0.050	0.054	0.042	0.030	0.000	0.000
CF	T27406	27406	0.302	0.170	0.680	0.009	0.001	0.260	0.040	0.064	0.021	0.030	0.000	0.000
CF	T18988	18988	0.320	0.180	0.690	0.008	0.002	0.270	0.050	0.078	0.038	0.040	0.000	0.000
CF	T27272	27272	0.328	0.180	0.680	0.011	0.003	0.270	0.100	0.067	0.036	0.050	0.000	0.000
HF	T27888	27888	0.311	0.170	0.700	0.009	0.002	0.290	0.060	0.078	0.023	0.040	0.000	0.000

**ANALISIS QUIMICO / CHEMICAL ANALYSIS**  
 Certificamos que los resultados de los Analisis Quimicos y Pruebas Mecanicas son verdaderos o una copia fiel de los certificados emitidos por el Fabricante.  
 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.  
 material certs conform to ASTM A106 Grade B N°:  
 06005362 06007157 05029650  
 06006971 05008990 05020449  
 06005325 04023160 06004902  
 6009584

Formado en caliente a 780°C-840°C, enfriado al aire. Formado en frío normalizado a 840°C máx.  
 Heat formed in a range from 780°C to 840°C, cooled in still air. Cold formed normalised at 840°C max.  
 Inspección Dimensional Satisfactoria. Visual dimension checked. Satisfactory.  
 Inspección Dimensional Satisfactoria. Visual dimension checked. Satisfactory.  
 HEF FORMADO EN CALIENTE/FORMED CF FORMADO EN FRIO/NORMALIZED FORMED

Jefe de Aseguramiento de Calidad: **ING. JOSE MARIN NUNEZ MACIAS**  
 Quality Assurance Coordinator  
 CC-008