



Empresar: S.A. S.A. S.A. S.A.
 Calle: ...
 Oficina de: ...
 Tel: (811) 83-44-88-60
 Fax: (81) 83-44-88-01

**CERTIFICADO DE CALIDAD
 INSPECTION CERTIFICATE**

(DIN EN 10204 3.1.B - ISO 10474 3.1.B)

Vendido a: Sold to:	Pedido del Cliente No: Customers Order No:	1737 1738 1739	Numero: Number:	14613	Pagina/Page:	1 DE 1
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234-97, A234 02 / ASME A5A 234 WPB - NACE MR 01.75 ed. 02 - Conform to ASME II Ed. 2001	Dimensiones y tolerancias / Dimension and tolerances	ASME B 16.9 and ASME B 16.28 edition 2001	Lista de Empaque: Packing List:	7656	Fecha/Date:	12 de Agosto de 2005
Factura/Invoice:	Bocas / Ends	Biselado / Bevelled ends	Numero: Number:	14613	Pagina/Page:	1 DE 1

ART. ITEM	COLADA HEAT CODE	CANTIDAD QUANTITY	DESCRIPCION / DESCRIPTION	ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPATURA TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA HARDNESS HB	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
1	T22408	7	ELLS 8 X 90 L.R. SCH-STD	308	478	40	124					
2	T22633	46	ELLS 8 X 90 L.R. SCH-STD	310	478	40	106					
3	T21587	100	ELLS 8 X 90 L.R. SCH-STD	326	480	40	124					
4	T22409	50	ELLS 8 X 90 L.R. SCH-XH	256	462	44	120					
5	T21350	5	CONC. RED. 12 X 6 SCH-XH	303	454	35	88					
6	T21350	3	CONC. RED. 12 X 8 SCH-XH	303	454	35	88					
7	T19196	5	CONC. RED. 6 X 5 SCH-XH	298	468	40	106					

ANALISIS QUIMICO / CHEMICAL ANALYSIS														
PROCESO	COLADA HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	%C	%E	%Mn	%P	%S	%SI	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	T22408	22408	0.303	0.170	0.680	0.009	0.001	0.280	0.050	0.053	0.023	0.030	0.000	0.000
HF	T22633	22633	0.292	0.160	0.670	0.009	0.001	0.270	0.050	0.052	0.026	0.030	0.000	0.000
HF	T21587	21587	0.314	0.180	0.660	0.010	0.002	0.280	0.050	0.071	0.037	0.030	0.000	0.000
HF	T22409	22409	0.299	0.170	0.670	0.007	0.000	0.270	0.040	0.054	0.018	0.030	0.000	0.000
CF	T21350	21350	0.328	0.180	0.740	0.010	0.003	0.270	0.040	0.086	0.041	0.040	0.000	0.000
CF	T21350	21350	0.328	0.180	0.740	0.010	0.003	0.270	0.040	0.086	0.041	0.040	0.000	0.000
CF	T19196	19196	0.317	0.180	0.680	0.009	0.002	0.270	0.050	0.059	0.036	0.040	0.000	0.000

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 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 certs conform to ASTM A106 Grade B N°.

05011035 05013225 05006308
 05010781 05005704 05005704

Formado en caliente a 780°C-940°C, enfriado al aire.
 Hot formed in air range from 780°C to 940°C, cooled in air air.
 Formado en frio normalizado a 940°C max.
 Cold formed normalized at 940°C max.
 Tiempo de permanencia 10'.
 Holding time 10'.
 Inspeccion Dimensional Satisfactoria.
 Visual dimensional check satisfactory.
 HE FORMADO EN CALIENTE/HOT FORMED
 CF FORMADO EN FRIJO/COLD FORMED

Notes:
 Hot formed in air range from 780°C to 940°C, cooled in air air.
 Cold formed normalized at 940°C max.
 Holding time 10'.
 Visual dimensional check satisfactory.
 CF FORMADO EN FRIJO/COLD FORMED

Jefe de Aseguramiento de Calidad:
 Quality Assurance Coordinator
 ING. JOSE MARTINEZ MACIAS
 CC-008