

## CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE

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

Vendido a:	PIESA ANAHUAC		
Sold to:	Customers Order No: 451		
Specificaciones y Grados / Standard or Specification and Steel Grade	Dimensiones y tolerancias / Dimension and tolerances		
Sanimas Fittings according to ASTM A 234-97, A234-02 / ASME A54 234 WPB.	ASME B 16.9 and ASME B 16.28 edition 2001		
NACE MR 01.75-2003 - Conform to ASME II Ed. 2001	ASME B 16.9 and ASME B 16.28 edition 2001		
Lista de Empaque:	7783	Fecha/Date:	12 de Octubre de 2005
Packing List:		Factoral/Invoice:	Bocas / Ends Biselado / Bevelled ends
Numero: Number:	14924	Página/Page:	1 DE 1

DESCRIPCION DE MATERIAL / MATERIAL DESCRIPTION				PRUEBAS MECANICAS / MECHANICAL TEST				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. %2"	DUREZA HARDNESS HB	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
1	S31802	20	ELLS 3 X 45 SCH-XH	359	523	50	133					
2	S32536	10	ELLS 3 X 90 S.R. SCH-STD	327	488	50	102					
3	T22635	5	ELLS 5 X 90 L.R. SCH-XH	308	492	44	119					
4	S37673	25	CONC. RED. 4 X 2 SCH-STD	335	497	29	106					
5	T19982	10	CONC. RED. 6 X 3 1/2 SCH-STD	312	473	42	98					
6	S32202	50	CONC. RED. 2 1/2 X 2 SCH-STD	344	497	50	150					
7	T22407	25	CONC. RED. 6 X 4 SCH-STD	302	476	42	124					
8	T21272	20	ELLS 8 X 45 SCH-STD	328	479	39	124					
9	T19066	10	ELLS 10 X 45 SCH-STD	328	489	43	112					

ANALISIS QUIMICO / CHEMICAL ANALYSIS													
PROCESO PROCESS	COLADA HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	%C	%Mn	%P	%S	%Si	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	S31802	31802	0.320	0.180	0.770	0.009	0.002	0.330	0.030	0.034	0.010	0.014	0.001
HF	S32536	32536	0.338	0.190	0.820	0.009	0.001	0.300	0.020	0.031	0.020	0.018	0.001
HF	T22635	22635	0.309	0.170	0.680	0.009	0.000	0.270	0.050	0.069	0.044	0.030	0.000
CF	S37673	37673	0.323	0.180	0.770	0.010	0.001	0.300	0.030	0.039	0.020	0.020	0.002
CF	T19982	19982	0.337	0.190	0.670	0.007	0.003	0.280	0.070	0.074	0.068	0.040	0.000
CF	S32202	32202	0.329	0.190	0.300	0.010	0.001	0.300	0.400	0.044	0.020	0.021	0.001
CF	T22407	22407	0.306	0.170	0.690	0.010	0.002	0.270	0.050	0.055	0.025	0.030	0.000
HF	T21272	21272	0.312	0.170	0.680	0.005	0.003	0.270	0.040	0.089	0.061	0.040	0.000
HF	T19066	19066	0.347	0.190	0.800	0.009	0.001	0.330	0.050	0.065	0.037	0.030	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 Materias Primas conforme ASTM A106/Grades 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 certs conform to ASTM A106 Grade B N°.

207944	207922	05012740
05012940	04028896	207960
05010778	05005328	05001557

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.

Notas:  
Formado en caliente a 760°C-840°C, enfriado al aire.  
Formado en frío normalizado a 840°C max.  
Tiempo de permanencia 10'.  
Holding time 10'.  
Inspeccion Dimensional Satisfactoria.  
Visual dimensional check: satisfactory.  
HF: FORMADO EN CALIENTE/NOT FORMED  
CF: FORMADO EN FRIOCALDO FORMED

Jefe de Aseguramiento de Calidad:  
Quality Assurance Coordinator

ING. JOSE MARTINEZ MACIAS

CC-008