

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

Vendido a:	PIESA ANAHUAC	Pedido del Cliente No:	476 514	Lista de Empaque:	7820	Fecha/Date:	27 de Octubre de 2005
Sold to:		Customers Order No:		Packing List:		Factorial/Invoice:	Bocas / Ends Biselado / Bevelled ends
Especificaciones y Grados / Standard or Specification and Steel Grade		Dimensiones y tolerancias / Dimension and tolerances					
Seamless Fittings according to ASTM A 234-97, A234-92 / ASME ASA 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				
				ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPTURA TENSILE STRENGTH (Mpa)	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
1	S37674	84	ELLS 2 1/2 X 90 L.R. SCH-STD	354	497	32	126			
2	S26121	60	ELLS 2 1/2 X 90 L.R. SCH-STD	365	499	28	131			
3	S23880	56	ELLS 2 1/2 X 90 L.R. SCH-STD	343	504	40	141			
4	T24631	10	ELLS 12 X 45 SCH-STD	308	477	46	124			
5	T22548	4	ELLS 12 X 45 SCH-STD	309	470	42	122			
6	T24002	1	ELLS 12 X 45 SCH-STD	325	480	47	116			
7	T24631	3	ELLS 14 X 45 SCH-STD	308	477	46	124			
8	S32031	150	CONC. RED. 2 X 1 SCH-STD	385	521	50	130			

PROCESO PROCESS	COLADA HEAT CODE	COLADAM/HEAT M.P/MOTHER PIPE	ANALISIS QUIMICO / CHEMICAL ANALYSIS											
			%C	%E	%Mn	%P	%S	%Si	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	S37674	37674	0.309	0.170	0.750	0.012	0.001	0.030	0.030	0.035	0.020	0.027	0.001	0.001
HF	S26121	26121	0.329	0.190	0.781	0.009	0.001	0.310	0.020	0.030	0.010	0.010	0.001	0.001
HF	S23880	23880	0.340	0.200	0.730	0.014	0.001	0.290	0.040	0.050	0.020	0.040	0.001	0.001
HF	T24631	24631	0.318	0.180	0.680	0.008	0.001	0.280	0.050	0.088	0.033	0.040	0.000	0.000
HF	T22548	22548	0.317	0.180	0.660	0.009	0.001	0.270	0.050	0.077	0.034	0.080	0.000	0.000
HF	T24002	24002	0.306	0.170	0.660	0.010	0.002	0.290	0.060	0.058	0.042	0.030	0.000	0.000
HF	T24631	24631	0.318	0.180	0.680	0.008	0.001	0.280	0.050	0.088	0.033	0.040	0.000	0.000
CF	S32031	32031	0.338	0.190	0.820	0.009	0.001	0.300	0.020	0.031	0.020	0.018	0.001	0.001

Notes: Formado en caliente a 780°C-840°C, enfriado al aire. Formado en frío normalizado a 840°C max. Hot formed fittings in a range from 780°C to 840°C, cooled in still air. Cold formed normalized at 840°C max. Tiempo de permanencia 10'. Holding time 10'. Inspeccion Dimensional: Satisfactoria. Visual dimensional check: Satisfactory. **HF FORMADO EN CALIENTE/HOT FORMED CF FORMADO EN FRIJO/COLD FORMED**

Jefe de Aseguramiento de Calidad:  
 Quality Assurance Coordinator

ING. JOSE MARTINEZ MACIAS

CC-008