

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

Vendido a:	PLESA ANAHUAC	Pedido del Cliente No:	100001278	Lista de Empaque:	7544	Fecha/Date:	30 de Mayo de 2005
Sold to:		Customers Order No:		Packing List:		Factura/Invoice:	Bocas / Ends
Especificaciones y Grados / Standard or Specification and Steel Grade		Dimensiones y tolerancias / Dimension and tolerances					Beveled ends
Seamless Fittings according to ASTM A 234-97, A234-02 / ASME BSA 234 WPB -							
MACE MR 0175 ed. 02 - Conform to ASME II Ed. 2001							

ART. ITEM	COLADA HEAT CODE	CANTIDAD QUANTITY	DESCRIPCION / DESCRIPTION	PRUEBAS MECANICAS / MECHANICAL TEST			PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C				
				ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPURA TENSILE STRENGTH (Mpa)	ELONG %2"	DUREZA HARDNESS HB	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules
1	TEF6	1	ELLS 10 X 45 SCH-XH	311	482	43	128				
2	TYV5	5	ELLS 10 X 45 SCH-XH	311	499	42	140				
3	T21682	25	ELLS 12 X 45 SCH-XH	325	488	42	120				
4	T21932	18	ELLS 12 X 90 L.R. SCH-STD	312	463	37	104				
5	T19909	7	ELLS 12 X 90 L.R. SCH-XH	331	483	44	137				
6	T21933	2	ELLS 12 X 90 L.R. SCH-XH	262	482	43	124				
7	T21932	12	ELLS 14 X 90 L.R. SCH-STD	312	463	37	104				
8	S33411	28	ELLS 3 X 90 L.R. SCH-STD	354	495	50	135				
9	S33675	264	ELLS 3 X 90 L.R. SCH-STD	341	496	51	101				
10	S33676	236	ELLS 3 X 90 L.R. SCH-STD	341	496	51	113				
11	S33639	31	ELLS 4 X 45 SCH-STD	349	498	50	120				

PROCESO PROCESS	COLADA HEAT CODE	COLADA/MOTHER PIPE	ANALISIS QUIMICO / CHEMICAL ANALYSIS												
			%C	%Mn	%P	%S	%Si	%Cr	%Cu	%Mo	%Ni	%V	%Nb		
HF	TEF6	15279	0.305	0.170	0.660	0.012	0.003	0.270	0.050	0.092	0.030	0.040	0.000	0.000	0.000
HF	TYV5	12676	0.353	0.190	0.840	0.010	0.001	0.300	0.060	0.008	0.004	0.000	0.000	0.000	0.000
HF	T21682	21682	0.306	0.180	0.660	0.008	0.001	0.270	0.050	0.056	0.003	0.030	0.000	0.000	0.000
HF	T21932	21932	0.310	0.180	0.660	0.008	0.002	0.260	0.050	0.069	0.039	0.030	0.000	0.000	0.000
HF	T19909	19909	0.313	0.180	0.680	0.007	0.001	0.280	0.040	0.069	0.025	0.030	0.000	0.000	0.000
HF	T21933	21933	0.328	0.190	0.710	0.010	0.001	0.260	0.040	0.072	0.032	0.010	0.000	0.000	0.000
HF	T21932	21932	0.310	0.180	0.660	0.008	0.002	0.260	0.050	0.069	0.039	0.030	0.000	0.000	0.000
HF	S33411	33411	0.324	0.180	0.730	0.011	0.002	0.300	0.080	0.034	0.010	0.024	0.001	0.001	0.001
HF	S33675	33675	0.319	0.180	0.720	0.007	0.001	0.280	0.040	0.070	0.020	0.027	0.002	0.001	0.001
HF	S33676	33676	0.344	0.190	0.800	0.007	0.002	0.320	0.040	0.042	0.040	0.020	0.002	0.001	0.001
HF	S33639	33639	0.317	0.180	0.750	0.011	0.001	0.330	0.030	0.031	0.010	0.019	0.001	0.001	0.001

Notes: Formado en caliente a 780°C-840°C, enfriado al aire / Formed in hot normalized at 840°C max. Cold formed normalized at 840°C max. Heatmg time: 10'

Inspección Dimensional Selectiva / Visual dimensional check: Selectivity

CF FORMADO EN CALIENTE HOT FORMED

CF FORMADO EN FRIED/COLD FORMED

Notes: Hot formed temper n a range from 780°C to 840°C, cooled in still air. Cold formed normalized at 840°C max. Heatmg time: 10'

Jefe de Aseguramiento de Calidad: Quality Assurance Coordinator

ING. JOSE MARTINEZ MACIAS

CC-008