

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

Vendido a:	PLESA AMAHUAC	Pedido del Cliente No:	693 668	Numero:	15329	Fecha/Page:	1 DE 1
Sold to:		Customers Order No:		Lista de Empaque:	7926	Factura/Invoice:	Bocas / Ends
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 01.75-2003 - Conform to ASME II Ed. 2001	Dimensiones y tolerancias / Dimension and tolerances		Packing List:		Fecha/Date: 22 de Diciembre de 2005	
		ASME B 16.9 and ASME B 16.28 edition 2001				Biselado / Bevelled ends	

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)	ELONG. %2"	DUREZA HARDNESS HB	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules
1	T16835	1	ELLS 10 X 45 SCH-STD	264	471	34	141				
2	T23622	1	ELLS 10 X 45 SCH-STD	373	477	30	116				
3	T25509	5	ELLS 10 X 45 SCH-STD	330	473	42	106				
4	T22034	1	ELLS 10 X 45 SCH-STD	312	487	32	128				
5	S38031	100	ELLS 3 X 45 SCH-STD	334	492	35	113				
6	T25751	120	ELLS 6 X 45 SCH-STD	304	473	38	124				
7	T25751	200	ELLS 6 X 90 L.R. SCH-STD	304	473	38	124				
8	T24927	3	CONC. RED. 14 X 8 SCH-STD	339	498	42	124				
9	T21683	3	CONC. RED. 16 X 10 SCH-STD	364	483	43	106				
10	T21683	6	CONC. RED. 16 X 12 SCH-STD	364	483	43	106				
11	T25669	12	ELLS 14 X 90 L.R. SCH-STD	336	494	47	109				

ANALISIS QUIMICO / CHEMICAL ANALYSIS

PROCESO PROCESS	COLADA HEAT CODE	COLAD/MHEAT M.P.MOTHER PIPE	%C E.	%C	%Mn	%P	%S	%SI	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	T16835	16835	0.316	0.190	0.660	0.010	0.000	0.250	0.040	0.062	0.010	0.030	0.000	0.000
HF	T23622	23622	0.296	0.160	0.670	0.009	0.002	0.280	0.050	0.073	0.039	0.030	0.000	0.000
HF	T25509	25509	0.316	0.180	0.670	0.010	0.002	0.280	0.040	0.088	0.038	0.040	0.000	0.000
HF	T22034	22034	0.313	0.180	0.670	0.012	0.002	0.290	0.040	0.060	0.039	0.030	0.000	0.000
HF	S38031	38031	0.322	0.190	0.730	0.011	0.001	0.280	0.020	0.037	0.010	0.018	0.001	0.001
HF	T25751	25751	0.303	0.170	0.680	0.008	0.002	0.280	0.040	0.078	0.020	0.030	0.000	0.000
HF	T25751	25751	0.303	0.170	0.680	0.008	0.002	0.280	0.040	0.078	0.020	0.030	0.000	0.000
HF	T24927	24927	0.341	0.190	0.750	0.010	0.004	0.280	0.040	0.128	0.036	0.040	0.000	0.000
CF	T21683	21683	0.328	0.190	0.690	0.008	0.001	0.260	0.050	0.056	0.034	0.030	0.000	0.000
CF	T21683	21683	0.328	0.190	0.690	0.008	0.001	0.260	0.050	0.056	0.034	0.030	0.000	0.000
HF	T25669	25669	0.312	0.170	0.680	0.008	0.001	0.270	0.060	0.073	0.044	0.040	0.000	0.000

Notes:

Hot formed fittings in a range from 760°C to 940°C, cooled in still air.
Cold formed normalized at 940°C max.
Holding time 10'.
Visual dimensional check: satisfactory

Formado en caliente a 760°C-940°C, enfriado al aire. Formado en frío normalizado a 940°C max. Tiempo de permanencia 10'. Inspección Dimensional: Satisfactoria. VISUAL DIMENSIONAL CHECK: SATISFACTORY

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Material certs conform to ASTM A106 Grade B N°:
04014041 05017092 05026637
05013409 257247 05027681
05027681 05024766 05008490
05008490 05028329

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.

Jefe de Aseguramiento de Calidad:
Quality Assurance Coordinator

ING. JOSE MARTINEZ MACIAS