



**CERTIFICADO DE CALIDAD  
INSPECTION CERTIFICATE**

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

Numero:  
Number: 13624

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Vendido a: PLESA ANAHUAC

Pedido del Cliente No: 100000789, VAR

Customers Order No: Dimensiones y tolerancias / Dimension and tolerances

Lista de Empaque: 7359

Fecha/Date: 25 de Febrero de 2005

Especificaciones y Grados / Standard or Specification and Steel Grade  
Seamless Fittings according to ASTM A 234-97, A234-02 / ASME BSA 234 WPB.  
NACE MR 01 75 ed. 02 - Conform to ASME II ED. 2001

ASME B 16.9 and ASME B 16.28 edition 2001

Factura/Invoice: Bocas / Ends  
Biselado / Bevelled ends

Empresas Rigas, S.A. De C.V.  
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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	T19909	9	CODO 12 X 90 FL XS	331	483	44	137					
2	S33638	100	CODO 4 X 45 STD	360	501	51	130					
3	T18325	10	RED CONC 10 X 8 STD	307	478	44	139					
4	T17005	3	RED CONC 12 X 8 STD	322	482	46	141					
5	T18066	27	RED CONC 12 X 8 STD	346	490	45	139					
6	T13591	6	RED 14 X 8 STD	322	474	43	141					
7	T13719	6	RED CONC 16 X 12 STD	388	505	45	112					
8	T13719	6	RED CONC 16 X 9 STD	388	505	45	112					
9	S33415	15	RED CONC 2 X 1 1/4 XS	347	500	51	126					
10	T32872	209	CODO 1 X 90 R L STD	281	440	53	70					

ANALISIS QUIMICO / CHEMICAL ANALYSIS														
PROCESO PROCESS	COLADA HEAT CODE	COLADA/HEAT M.P/MOTHER PIPE	%C.E.	%C	%Mn	%P	%S	%SI	%CR	%Cu	%Mo	%Ni	%V	%Nb
HF	T19909	19909	0.313	0.180	0.680	0.007	0.001	0.280	0.046	0.069	0.035	0.030	0.000	0.000
HF	S33638	33638	0.319	0.180	0.760	0.010	0.001	0.270	0.030	0.034	0.018	0.021	0.001	0.001
CF	T18325	18325	0.318	0.180	0.670	0.009	0.001	0.280	0.060	0.056	0.042	0.030	0.000	0.000
CF	T17005	17005	0.315	0.180	0.680	0.014	0.002	0.250	0.050	0.082	0.026	0.030	0.000	0.000
CF	T18066	18066	0.332	0.180	0.780	0.008	0.003	0.290	0.050	0.066	0.030	0.030	0.000	0.000
CF	T13591	13591	0.339	0.180	0.740	0.008	0.001	0.260	0.050	0.062	0.050	0.030	0.000	0.000
CF	T13719	13719	0.315	0.190	0.650	0.014	0.003	0.280	0.050	0.062	0.003	0.030	0.000	0.000
CF	T17719	15719	0.315	0.190	0.650	0.014	0.003	0.280	0.050	0.062	0.003	0.030	0.000	0.000
CF	S33415	33415	0.339	0.180	0.830	0.014	0.001	0.360	0.050	0.065	0.020	0.033	0.001	0.001
HF	T32872	32872	0.272	0.154	0.579	0.000	0.001	0.186	0.053	0.043	0.030	0.024	0.000	0.000

Notes: Formed in solution at 780°C/940°C, annealed at 840°C. Formed in hot normalized at 840°C max.  
Holding time 10'

Visual dimensional check, satisfactory

CF 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