

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

Empresas Rigsa, S.A.
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Vendido a: PIESA ANAHUAC Y CIA. S. A. Sold to:	Pedido del Cliente No: 100000438.641. Customers Order No:	Lista de Empaque: 7283 Packing List:	Fecha/Date: 20 de Enero de 2005
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234-97, A234-92 / ASME NSA 234 WPB - NACE MR 01.75 ed. 02 - Conform to ASME II Ed. 2001	Dimensiones y tolerancias / Dimension and tolerances ASME B 16.9 and ASME B 16.28 edition 2001	Factura/Invoice: Bocas / Ends 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. RUPATURA TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA HARDNESS HB	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules
1	S33676	50	ELLS 3" X 45° SCH-STD.	341	496	51	113				
2	S33683	100	ELLS 2½" X 90° L.R. SCH-STD.	322	483	50	123				
3	S33990	500	ELLS 3" X 90° L.R. SCH-STD.	344	487	51	126				
4	SAQ6	24	ELLS 3" X 90° S.R. SCH-STD.	352	473	36	114				
5	SEB6	1	ELLS 3" X 90° S.R. SCH-STD.	350	516	37	104				
6	SZLS	74	ELLS 1½" X 90° L.R. SCH-STD.	367	521	51	133				
7	T13591	2	CONC. RED. 14" X 8" SCH-STD.	322	474	43	141				
8	T14787	2	CONC. RED. 14" X 8" SCH-STD.	338	507	42	103				
9	T15572	10	CONC. RED. 5" X 4" SCH-STD.	330	486	40	137				
10	T16834	37	TEE 6" SCH-STD.	310	476	44	141				
11	T17196	641	ELLS 3" X 90° L.R. SCH-STD.	304	472	42	116				

PROCESO PROCESS	COLADA HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	ANALISIS QUIMICO / CHEMICAL ANALYSIS											
			%C.E.	%C	%Mn	%P	%S	%SI	%Cr	%Cu	%Mo	%Ni	%V	%Nb
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
HF	S33683	33683	0.316	0.170	0.790	0.015	0.001	0.310	0.040	0.040	0.010	0.018	0.001	0.001
HF	S33990	33990	0.314	0.180	0.720	0.012	0.001	0.300	0.030	0.037	0.020	0.019	0.001	0.001
HF	SAQ6	95796	0.301	0.170	0.650	0.008	0.003	0.270	0.050	0.077	0.023	0.040	0.000	0.000
HF	SEB6	21248	0.317	0.170	0.840	0.006	0.002	0.270	0.030	0.004	0.002	0.002	0.001	0.001
HF	SZLS	25296	0.324	0.180	0.790	0.010	0.002	0.290	0.030	0.040	0.010	0.020	0.001	0.001
CF	T13591	13591	0.329	0.180	0.740	0.008	0.001	0.260	0.050	0.052	0.050	0.030	0.000	0.000
CF	T14787	14787	0.346	0.190	0.830	0.011	0.003	0.300	0.040	0.094	0.004	0.040	0.000	0.000
CF	T15572	15572	0.310	0.170	0.690	0.009	0.003	0.280	0.050	0.094	0.028	0.050	0.000	0.000
CF	T16834	16834	0.318	0.180	0.690	0.013	0.001	0.260	0.040	0.062	0.044	0.030	0.000	0.000
HF	T17196	17196	0.327	0.190	0.670	0.016	0.004	0.280	0.050	0.077	0.041	0.030	0.000	0.000

Notes:
 Formado en caliente a 780°C-940°C, enfriado al aire.
 Hot formed fittings in a range from 780°C to 940°C, cooled in still air.
 Formado en frío normalizado a 940°C max.
 Cold formed normalized at 940°C max.
 Tiempo de permanencia 10'.
 Holding time 10'.
 Inspección Dimensional: Satisfactoria.
 Visual dimensioncheck: Satisfactory
CF: FORMADO EN FRIO/COLD FORMED


Analisis Quimico / Chemical Analysis

Certificamos que los resultados de los Analisis Quimicos y Pruebas Mecanicas son verdaderos o una copia fiel de los certificados enviados por el Fabricante o el proveedor de Materia Prima conforme ASTM A106GradeB 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°.

218557	218585	218549
02006922	149628	164723
04014199	04009331	04004236
04015943	04014012	

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

CC-008