

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

 Numero:  
 Number:

14087

Pagina/Page:

1 DE 1

Vendido a: Sold to:	PROVEEDORA DE MATERIALES AN CER	Pedido del Cliente No: Customers Order No:	4583 4586 4603	Lista de Empaques: Packing List:	7511	Fecha/Date:	13 de Mayo de 2005
Especificaciones y Grados / Standard or Specification and Steel Grade		Dimensiones y tolerancias / Dimension and tolerances			Factura/Invoice:		
Seamless Fittings according to ASTM A 234-57, A234-62 / ASME AISA 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			Bocas / Ends Bevelado / Bevelled ends		

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	T17466	40	ELLS 5 X 90 L.R. SCH-STD	309	462	43	141					
2	S35369	29	ELLS 5 X 90 L.R. SCH-STD	325	484	50	119					
3	T18902	2	TEE 12 SCH-STD	356	484	47	126					
4	S25397	116	ELLS 2 X 90 S.R. SCH-STD	427	553	29	125					
5	S35369	132	CONC. RED. 4 X 3 SCH-STD	325	464	50	119					
6	Y04	1	CONC. RED. 3 X 2 SCH-STD	377	515	35	136					
7	S33640	3	CONC. RED. 3 X 2 SCH-STD	347	494	51	139					
8	S29259	2	CONC. RED. 3 X 2 SCH-STD	343	494	34	125					
9	S35830	194	CONC. RED. 3 X 2 SCH-STD	349	496	50	139					
10	T21535	71	TEE 6 SCH-STD	331	477	41	122					
11	T21101	29	TEE 6 SCH-STD	331	489	40	122					

**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	T17466	17466	0.317	0.180	0.670	0.017	0.001	0.270	0.050	0.061	0.047	0.030	0.000	0.000
HF	S35369	35369	0.294	0.160	0.750	0.011	0.001	0.310	0.020	0.033	0.010	0.015	0.001	0.001
CF	T18902	18902	0.332	0.190	0.720	0.014	0.003	0.310	0.050	0.057	0.033	0.030	0.000	0.000
HF	S25397	25397	0.328	0.190	0.740	0.009	0.002	0.310	0.030	0.060	0.010	0.040	0.001	0.001
CF	S35369	35369	0.294	0.160	0.750	0.011	0.001	0.310	0.020	0.033	0.010	0.015	0.001	0.001
CF	Y04	93945	0.312	0.180	0.660	0.008	0.002	0.270	0.040	0.050	0.014	0.040	0.000	0.000
CF	S33640	33640	0.324	0.160	0.800	0.011	0.001	0.300	0.030	0.022	0.010	0.021	0.001	0.001
CF	S29259	29259	0.331	0.190	0.760	0.008	0.002	0.320	0.030	0.040	0.020	0.020	0.001	0.001
CF	S35830	35830	0.313	0.170	0.760	0.012	0.001	0.290	0.040	0.045	0.020	0.020	0.001	0.001
CF	T21535	21535	0.318	0.180	0.670	0.008	0.002	0.280	0.060	0.069	0.040	0.030	0.000	0.000
CF	T21101	21101	0.317	0.180	0.660	0.009	0.003	0.270	0.060	0.088	0.030	0.040	0.000	0.000

Certificamos que los resultados de los Analisis Quimicos y Pruebas Mecanicas

son verdaderos o una copia fiel de los certificados enviados por el Fabricante

y/o el proveedor de Materia Prima conforme ASTM A108GradeB 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 Riga

material certs conform to ASTM A108 Grade B N°

04016251 238320 04027546

164722 238320 02001238

218577 180218 238313

05006231 95005264

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.

 Nota:  
 Formado en caliente a 780°C-840°C, enfriado al

 Nota:  
 Hot formed 780°C to 840°C, cooled in still air.

air; Formado en frío normalizado a 840°C max.

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