

CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE

(DIN EN 10204:2004E - ISO 10474 3.1.B)

Tabubs de Acero de México, S.A.
Carr. Mty-Laredo Km 24.2
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Numero:
Number:
1 86 07
1 DE 1

Pagina/Page:
9 5 4 9

Fecha/Date:
27 de Agosto de 2007

Vendido a:
Sold to:
PLESA ANAHUAC Y CIA. S.A. DE C.V.

Pedido del Cliente No:
Customers Order No:
3333 - 3385 -
Especificaciones y Grados / Standard or Specification and Steel Grade
Seamless Fittings according to ASTM A 234" M" WPB-87, A234" M" WPB-06s, NACE MR 01.76-2003
Conform to ASME II Ed. 2001 ASME SA-234" M", Grade WPB.

Lista de Empaque:
Packing List:
9 5 4 9

Factura/Invoice:
Bocas / Ends
Biselado / 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	CANTIDAD QUANTITY	DESCRIPCION / DESCRIPTION	ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPTURA TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA HARDNESS HB	DIMENSIONES SAMPLE DIM mm	Joules	Joules	PROMEDIO AVERAGE Joules
1	T33433	2	CODO 14 X 90° R.I. CED-STD	379	502	32	84				
2	T33784	10	CODO 14 X 90° R.I. CED-STD	305	491	40	85				
3	T34322	60	RED. CONC. 10 X 8 CED-STD	307	475	34	99				
4	T22635	2	CODO 8 X 45° CED-STD	299	486	40	126				
5	T33052	8	CODO 8 X 45° CED-STD	283	472	35	89				
6	T35302	50	CODO 8 X 45° CED-STD	328	504	37	89				
7	T33435	36	CODO 12 X 45° CED-STD	351	508	35	120				
8	T33854	20	TEE RED. 10 X 4 CED-STD	341	476	34	90				
9	T31217	10	CODO 8 X 90° R.C. CED-XS	300	479	37	89				

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	T33433	33433	0.320	0.180	0.680	0.012	0.004	0.280	0.060	0.053	0.027	0.030	0.000	0.000
HF	T33784	33784	0.336	0.180	0.730	0.009	0.002	0.270	0.060	0.060	0.042	0.030	0.000	0.000
CF	T34322	34322	0.300	0.170	0.660	0.009	0.002	0.290	0.050	0.070	0.029	0.040	0.000	0.000
HF	T22635	22635	0.310	0.170	0.680	0.009	0.001	0.270	0.050	0.069	0.045	0.030	0.000	0.000
HF	T33052	33052	0.340	0.180	0.830	0.009	0.001	0.260	0.050	0.055	0.023	0.040	0.000	0.000
HF	T35302	35302	0.350	0.180	0.850	0.012	0.002	0.310	0.060	0.067	0.036	0.040	0.000	0.000
HF	T33435	33435	0.310	0.180	0.670	0.010	0.002	0.270	0.050	0.057	0.035	0.030	0.000	0.000
HF	T33854	33854	0.310	0.180	0.670	0.008	0.001	0.300	0.040	0.052	0.030	0.030	0.000	0.000
HF	T31217	31217	0.320	0.180	0.700	0.014	0.003	0.270	0.070	0.053	0.027	0.040	0.000	0.000

Notas:
Formado en caliente a 820°C-860°C, enfriado al aire; Formado en frio normalizado a 940°C max.
Tiempo de permanencia 10'.
Inspección Dimensional: Satisfactoria.
HF: FORMADO EN CALIENTE/HOT FORMED

Notas:
Hot formed fittings in a range from 820°C to 860°C, cooled in still air.
Cold formed normalized at 940°C max.
Holding time 10'.
Visual dimensional check: Satisfactory
CF: FORMADO EN FRIO/COLD FORMED

The Products described herein were produced in accordance with the above referenced specification and are identified with the "R" which is permanently marked on each fitting.

Jefe de Calidad:
Quality Manager:
ING. JOSE MARTINEZ MACIAS

CC-008