

**CERTIFICADO DE CALIDAD
INSPECTION CERTIFICATE**

Numero:
Number:
11277

Página/Page:
1 DE 1

Fecha/Date: **12 de 2003**

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

Pedido del cliente No: **6700**

Customers Order No:

Lista de empaque:
Packing List: **6413**

Bocas / Ends
Biselado / Bevelled ends

Vendido A: **Arucora**
Sold to:
Especificaciones y Grados / Standard or Specification and Steel Grade
Seamless Fittings according to ASTM/ASME A/SA 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

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	EST. CEDENCIA YIELD STRENGTH (MPa)	EST. RUPATURA TENSILE STRENGTH (MPa)	ELONG. %"	DUREZA HARDNESS HB	DIMENSIONES SAMPLE DIM (mm)	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
1	MC5	200	CODO R.L. 1 X 90 CED STD	254	432	60	124	N/A	N/A	N/A	N/A	N/A
2	SZY5	100	CODO 2 1/2 X 45 CED STD	331	492	35	129	N/A	N/A	N/A	N/A	N/A
3	SZY5	300	CODO R.L. 2 1/2 X 90 CED STD	331	492	35	129	N/A	N/A	N/A	N/A	N/A
4	ONS	10	CODO R.C. 2 X 90 CED STD	343	493	36	126	N/A	N/A	N/A	N/A	N/A
5	SUUS	1000	CODO R.L. 2 X 90 CED STD	353	491	33	125	N/A	N/A	N/A	N/A	N/A
6	SIDS	200	CODO 3 X 45 CED STD	320	488	34	133	N/A	N/A	N/A	N/A	N/A
7	SIDS	528	CODO R.L. 3 X 90 CED STD	320	488	34	133	N/A	N/A	N/A	N/A	N/A
8	TAY6	100	CODO 4 X 45 CED STD	350	484	40	137	N/A	N/A	N/A	N/A	N/A
9	TAV6	96	CODO R.L. 4 X 90 CED STD	362	490	41	138	N/A	N/A	N/A	N/A	N/A

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	MC5	21646	0.257	0.150	0.540	0.008	0.001	0.209	0.039	0.057	0.019	0.028	0.001	0.000
HF	SZY5	26122	0.307	0.180	0.720	0.009	0.001	0.030	0.010	0.030	0.010	0.010	0.001	0.001
HF	SZY5	26122	0.307	0.180	0.720	0.009	0.001	0.030	0.010	0.030	0.010	0.010	0.001	0.001
HF	ONS	24041	0.319	0.180	0.750	0.009	0.002	0.310	0.020	0.050	0.020	0.040	0.001	0.001
HF	SUUS	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
HF	SIDS	22022	0.339	0.190	0.810	0.012	0.001	0.310	0.030	0.030	0.020	0.020	0.001	0.001
HF	SIDS	22022	0.339	0.190	0.810	0.012	0.001	0.310	0.030	0.030	0.020	0.020	0.001	0.001
HF	TAY6	13613	0.307	0.180	0.660	0.008	0.003	0.270	0.030	0.051	0.027	0.030	0.000	0.000
HF	TAV6	13612	0.307	0.180	0.660	0.009	0.003	0.270	0.030	0.053	0.026	0.030	0.000	0.000

Notas: Formado en caliente a 780°C-940°C, enfriado al aire; Formado en frío normalizado a 940°C max. Tiempo de permanencia 10'.
Inspeccion Dimensional: Satisfactoria. Visual dimensional check: Satisfactory.
CF: FORMADO EN FRIO/COLD FORMED

Notas: Hot formed fittings in a range from 780°C to 940°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

Gerente de Aseguramiento de Calidad:
Quality Assurance Manager: **ING. JOSE MARRINEZ MACIAS**

CC-008