

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

Vendido A: **TUBOS CONEXIONES Y TANQUES, S. A. DE C.V.**
 Sold to: **Customers Order No: 3867, 4361, 5400, 5427**
 Especificaciones y Grados / Standard or Specification and Steel Grade: **Dimensiones y tolerancias / Dimension and tolerances**
 Seamless Fittings according to ASTM/ASME AISA 234 WPB - NACE MR 01.75 ed. 02 - **ASME B 16.9 and ASME B 16.28 edition 2001**
 Conform to ASME II Ed. 2001

Numero: 9772
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 Fecha/Date: **28 de 2003**
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Lista de empaque: 5745
 Packing List: Bocas / Ends
Biselado / Bevelled ends

ART. ITEM	COLADA HEAT CODE	CANTIDAD QUANTITY	DESCRIPCION / DESCRIPTION	PRUEBAS MECANICAS / MECHANICAL TEST			PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C					
				EST. CEDENCIA YIELD STRENGTH (MPa)	EST. RUPTURA TENSILE STRENGTH (MPa)	ELONG. % ^{2"}	DUREZA HARDNESS HB	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
1	SV4	1	RED. CONC. 6 X 4 CED XS	346	519	31	133	N/A	N/A	N/A	N/A	N/A
2	PW5	250	TEE 1 CED STD	317	474	48	132	N/A	N/A	N/A	N/A	N/A
3	NB5	24	TEE 10 CED STD	326	481	46	142	N/A	N/A	N/A	N/A	N/A
4	EAS	29	TEE 8 CED XS	309	477	30	146	N/A	N/A	N/A	N/A	N/A
5	MV5	1	TEE 8 CED XS	315	496	30	144	N/A	N/A	N/A	N/A	N/A

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
CF	SV4	92659	0.330	0.196	0.644	0.006	0.006	0.325	0.033	0.098	0.016	0.150	0.002	0.000
CF	PW5	45799	0.300	0.160	0.660	0.010	0.001	0.270	0.050	0.130	0.040	0.050	0.001	0.001
CF	NB5	98378	0.326	0.190	0.650	0.010	0.003	0.260	0.070	0.074	0.031	0.040	0.000	0.000
CF	EAS	95768	0.323	0.180	0.660	0.008	0.004	0.270	0.070	0.060	0.057	0.050	0.000	0.000
CF	MV5	98362	0.329	0.190	0.680	0.009	0.004	0.280	0.060	0.070	0.034	0.040	0.000	0.000

Notes: Hot formed fittings in a range from 780°C to 940°C. Cooled in still air.
 Formado en caliente a 780°C-940°C. enfriado al aire.
 Formado en frío normalizado a 940°C max. Cold formed normalized at 940°C max.
 Tiempo de permanencia 10'. Holding time 10'.
 Inspeccion Dimensional: Satisfactoria. Visual dimensional check: Satisfactory.
 HE: FORMADO EN CALIENTE/HOT FORMED CF: FORMADO EN FRIOCOLD FORMED

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

CC-008