



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

Empresas Unia, S.A. De C.V.  
Carretera Laredo Km 24.2  
Ciudad de Laredo, N.L. 65550  
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Vendido a: VALVULAS Y TUBOS DE MEXICO, S.A. DE C.V.

Pedido del Cliente No: 3938, 3985, 3992  
Customers Order No:

Lista de Empaque: 6280  
Packing List:

Fecha/Diary: 31 de agosto de 2004

Specificaciones y Grados / Standard or Specification and Steel Grade  
Seamless Fittings according to ASTM/ASME A53A 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/nvoco: Bocas / Ends  
Biselado / Bevelled ends

T. / DIM	COLADA / HEAT CODE	CANTIDAD / QUANTITY	DESCRIPCION / DESCRIPTION	PRUEBAS MECANICAS / MECHANICAL TEST			PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C			
				ESF. CEBDENCA / YIELD STRENGTH (Mpa)	ESF. RUPATURA / TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA / HARDNESS HB	1 Joules	2 Joules	3 Joules
1	SSVS	80	CONC. RED. 24" X 2" SCH-STD.	339	488	29	128			
2	SZLS	1200	ELIS 14" X 90° L.R. SCH-STD.	367	521	51	133			
3	TCC6	6	TEE 14" SCH-STD.	366	505	48	143			
4	TGN6	40	CONC. RED. 6" X 4" SCH-STD.	309	462	45	126			
5	THH6	12	ELIS 14" X 90° L.R. SCH-STD.	315	472	45	139			
6	THR6	35	TEE 6" SCH-STD.	313	481	44	141			
7	THO6	9	ELIS 12" X 45° SCH-STD.	324	493	43	139			
8	THS6	24	TEE 10" SCH-STD.	277	483	31	139			
9	THV6	320	TEE 4" SCH-STD.	310	473	42	141			
10	TI66	20	ELIS 6" X 90° L.R. SCH-XH.	308	466	43	139			
11	TIH6	6	ELIS 16" X 45° SCH-STD.	322	482	46	141			

**ANALISIS QUIMICO / CHEMICAL ANALYSIS**

PROCESO / PROCESS	COLADA / HEAT CODE	COLADAMENT / M.P./MOTHER PIPE	%C	%E	%Mn	%P	%S	%Si	%Cr	%Cu	%Mo	%Ni	%V	%Nb
CF	SSVS	22039	0.334	0.190	0.760	0.012	0.001	0.310	0.030	0.050	0.020	0.050	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	TCC6	13590	0.332	0.190	0.660	0.011	0.003	0.260	0.070	0.072	0.056	0.030	0.000	0.000
CF	TGN6	15926	0.295	0.170	0.680	0.005	0.004	0.290	0.005	0.008	0.038	0.040	0.000	0.000
HF	THH6	16532	0.198	0.060	0.660	0.007	0.004	0.270	0.060	0.088	0.037	0.040	0.000	0.000
CF	THR6	16432	0.323	0.180	0.700	0.013	0.001	0.260	0.070	0.069	0.030	0.030	0.000	0.000
HF	THO6	16323	0.325	0.190	0.670	0.012	0.003	0.280	0.050	0.078	0.030	0.030	0.000	0.000
CF	THS6	15511	0.347	0.190	0.790	0.008	0.003	0.100	0.050	0.087	0.032	0.050	0.000	0.000
CF	THV6	16600	0.310	0.180	0.660	0.010	0.002	0.273	0.040	0.072	0.027	0.030	0.000	0.000
HF	TI66	17195	0.304	0.170	0.670	0.011	0.002	0.280	0.040	0.083	0.034	0.030	0.000	0.000
HF	TIH6	17005	0.315	0.180	0.680	0.014	0.002	0.250	0.050	0.062	0.026	0.030	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 Material Prima 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.  
Material cert. N°: 152468 164723 03018838  
04008482 04010017 04009336  
4009271 04009399 04012893  
04014025 04015130

Este material cumple con los requerimientos especificados en la orden.  
This material of this certificate heat number mentioned above is in compliance with the requirements specified in the order.

Notes: Formado en caliente a 780°C-840°C, enfriado al aire. Formado en frío normalizado a 840°C máx.  
Forme - a penetrancia 10'  
Inspección Dimensional: Satisfactoria. Visual dimensioncheck: Satisfactory.  
CF: FORMADO EN FRIOCALDO FORMED  
HF: FORMADO EN CALIENTE HOT FORMED  
Held formed fittings in a range from 780°C to 840°C, cooled in still air.  
Cold formed normalized at 840°C máx.  
Holding time 10'  
Gerente de Aseguramiento de Calidad: Quality Assurance Manager: ING. JOSE MARTINEZ MACIAS  
CC-008