



**CERTIFICADO DE CALIDAD
INSPECTION CERTIFICATE**
(DIN EN 10204:2004E - ISO 10474.3.1.B)

Tubos de Acero de México, S.A.
Carr. Mty-Laredo Km 24.2
Apartado Postal 43
(65550) C. de Flores, N.L. Mex.
(52) 81 8305 9600 tel
(52) 81 8305 9620 fax

Vendido a:	PROVEEDORA DE MATERIALES ANGER, S. A.	Pedido del Cliente No:	5153.	Lista de Empaque:	10219	Fecha/Date:	19 de Febrero de 2008
Sold to:	DE C.V.	Customers Order No:		Packing List:		Factura/Invoice:	Bocas / Ends Biselado / Bevelled ends
Especificaciones y Grados / Standard or Specification and Steel Grade		Dimensiones y tolerancias / Dimension and tolerances		ASME B 16.9 - 2003 and ASME B 16.28 - 1994			
Seamless Fittings according to ASTM A 234 "W" WPB-87, A234 "W" WPB-46, NACE MR 0175-2003							
Conform to ASME II Ed. 2001 ASME SA-234 "W" Grade WPB.							

ART. ITEM	COLADA HEAT CODE	CANTIDAD QUANTITY	DESCRIPCION / DESCRIPTION	PRUEBAS MECANICAS / MECHANICAL TEST			PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C				
				ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPURA TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA HARDNESS HBW	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
1	T36927	18	CODO 12 X 90° R.L. CED-STD	316	494	40	89				
2	T37919	180	CODO 8 X 90° R.L. CED-STD	320	500	39	98				

PROCESO PROCESS	COLADA HEAT CODE	COLADAMOTHER PIPE	ANALISIS QUIMICO / CHEMICAL ANALYSIS											
			%C.E.	%C	%Mn	%P	%S	%SI	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	T36927	36927	0.300	0.170	0.660	0.010	0.001	0.270	0.040	0.051	0.033	0.030	0.000	0.000
HF	T37919	37919	0.320	0.180	0.700	0.010	0.001	0.280	0.050	0.063	0.017	0.040	0.000	0.000

Notes:
Hot formed fittings in a range from 820°C to 860°C, cooled in air.
Cold formed normalized at 840°C max.
Holding time 10'.
Visual dimensional check: Satisfactory

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CF: FORMADO EN FRIOCOLD FORMED

The Products described herein were produced in accordance with the above referenced specification and are identified with the "R" which is a trademark of Tenaris.

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.

Verificamos que los resultados de los Analisis Quimicos y Pruebas Mecanicas son veridicos o una copia fiel de los certificados enviados por el fabricante y/o el proveedor de Materia Prima (Tubería Sin Costura) conforme ASTM A106 Grade B 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 Raw material (Seamless Pipe) certs conform to ASTM A106 Grade B N°. 7056961 8007476

Jefe de Calidad:
Quality Manager:
ING. WILDO GALLEGOS GALVAN

CC-008