

**CERTIFICADO DE CALIDAD  
INSPECTION CERTIFICATE**  
(DIN EN 10204:2004E - ISO 10474 3.1.B)

Tubos de Acero de Mexico, S.A.  
Carr. Mty-Laredo Km 24.2  
Apartado Postal 43  
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Vendido a:	PIESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No:	3925 -	Lista de Empaque:	10074	Fecha/Date:	9 de Enero de 2008
Sold to:		Customers Order No:		Packing List:			
Especificaciones y Grados / Standard or Specification and Steel Grade		Dimensiones y tolerancias / Dimension and tolerances		Factura/Invoice:		Bocas / Ends	
Seamless Fittings according to ASTM A 234 "W" WPB-97, A234 "W" WPB-05a, NACE MR 01.75-2003		ASME B 16.9 - 2003 and ASME B 16.28 - 1994		Biselado / Bevelled ends			
Conform to ASME II Ed. 2001 ASME SA-234 "W", Grade WPB.							

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 HBW	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
23	GJ 4	5	TEE RED. 3 X 2 1/2 CED-STD	304	468	39	116					

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	GJ 4	KNOUJZ	0.287	0.150	0.730	0.007	0.005	0.230	0.050	0.010	0.010	0.020	0.007	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 Materia Prima (Tubería Sin Costura) conforme ASTM A106 Grado B con N° 0334. 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° 0334.

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.

Notes: 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.

Formado en caliente a 620°C-980°C, enfriado al aire. Formado en frio normalizado a 940°C max. Tiempo de permanencia 10'.  
Hot formed fittings in a range from 620°C to 980°C, cooled in still air. Cold formed normalized at 940°C max. Holding time 10'.  
Inspeccion Dimensional: Satisfactoria. Visual dimensional check: Satisfactory.

CF: FORMADO EN FRIO/COLD FORMED

**Jefe de Calidad:**  
  
**ING. JOSE MARTINEZ MACIAS**

CC-008