



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

Numero:
Number:
21605

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

Vendido a: Sold to: ALLIED ONTARIO	Pedido del Cliente No: Customers Order No: 43108CRM -	Lista de Empaque: Packing List: 11046	Fecha/Date: 21 de Noviembre de 2008
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234 "M" WPB-07, A234 "M" WPB-05a, NACE MR 01.75-2003 Conform to ASME II Ed. 2001 ASME SA-234 "M", Grade WPB, NACE MR0103-2003	Dimensiones y tolerancias / Dimension and tolerances ASME B 16.9 - 2007 and ASME B 16.28 - 1994		Factura/Invoice: Bocas / Ends Biselado / Bevelled ends

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
12	T42086	43	ELLS 8 X 45" SCH-STD	270	434	36	129					
13	T41467	48	ELLS 8 X 45" SCH-STD	326	503	34	118					
14	T40746	9	ELLS 8 X 45" SCH-STD	298	440	38	105					
15	T40517	64	RED. TEE 8 X 6 SCH-STD	311	481	33	107					
16	T40516	29	RED. TEE 8 X 4 SCH-STD	313	492	40	123					
17	T40156	35	RED TEE 8 X 4 SCH-STD	304	465	42	104					
18	T41032	100	RED TEE 6 X 4 SCH-STD	418	591	31	109					

Tubtrialco
www.tubtrialco.com.mx

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	T42086	42086	0.300	0.170	0.670	0.009	0.001	0.280	0.050	0.064	0.011	0.030	0.000	0.000
HF	T41467	41467	0.310	0.180	0.670	0.010	0.001	0.280	0.040	0.061	0.005	0.030	0.000	0.000
HF	T40746	40746	0.300	0.170	0.690	0.009	0.003	0.270	0.030	0.039	0.004	0.020	0.000	0.000
HF	T40517	40517	0.300	0.170	0.670	0.009	0.002	0.290	0.060	0.053	0.013	0.030	0.000	0.000
HF	T40516	40516	0.290	0.160	0.680	0.009	0.001	0.270	0.050	0.065	0.008	0.030	0.000	0.000
HF	T40156	40156	0.310	0.170	0.730	0.010	0.002	0.280	0.040	0.050	0.006	0.030	0.000	0.000
HF	T41032	41032	0.310	0.160	0.670	0.007	0.002	0.270	0.040	0.065	0.009	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 Materia Prima (Tubería Sin Costura) conforme ASTM A106 Grado 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°.

8058416 8052365 8044923 8043395 8039769 8041349 8043827

"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"

PLEASA ANAHUAC Y GAS S.A. DE C.V.

Notes:
Formado en caliente a 620°C-980°C, enfriado al ambiente.
Formado en frío normalizado a 540°C max.
Tipo de permanencia 10'.
Inspección Dimensional: Satisfactoria.

Notes:
Hot formed in air at 620°C to 980°C, cooled in air.
Cold formed normalized at 540°C max.
Holding time 10'.
Visual dimensional check: Satisfactory.

CONTROL DE CALIDAD

Quality Manager/Jefe de Calidad:
ING. WALDO GALLEGOS GALVAN

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 / The values of hardness for fittings NPS 2 1/2" and smaller ones obtain from the conversion of hardness Rockwell B to hardness Brinell HBW by means of table WILSON DESK CHART 60.

Los valores de dureza para conexiones de NPS de 2 1/2" y menores, se obtienen de la conversión de dureza Rockwell B a dureza Brinell HBW mediante la tabla WILSON DESK CHART 60.

CC-008

FECHA: 15 / Nov / 2008
FIRMA: Enrique Ruiz