

Tubería y Válvulas
 Remisión 26622
 No Piezas 30
 Fecha
 Placa
 T51542

Calle de Acero de México S.A.
 Carr. Mex-Americana Km 74.2
 Apartado Postal 43
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CERTIFICADO DE CALIDAD
INSPECTION CERTIFICATE
 (DIN EN 10204:2004E - ISO 10474 3.1.B)

Numero: 24593
 Pagina/Page: 1 DE 1

Vendido a: Sold to:	TUVANSA MONTERREY	Pedido del Cliente No: Customers Order No:	10118 - 10085 -	Lista de Empaque: Packing List:	12667	Fecha/Date:	17 de Mayo de 2011
Especificaciones y Grados / Standard or Specification and Steel Grade	Seamless Fittings according to ASTM A 234 WPB-07, NACE MR 0175-2003 Conform to ASME II Ed. 2001 ASME SA-234, 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
1	T51305	36	CODO 14 X 90° R L. CED-STD	322	486	42	120					
2	T52829	192	TEE 8 CED-STD	305	468	31	126					
3	T51542	67	RED. CONC. 10 X 8 CED-STD	331	501	30	105					
4	S43735	1000	CODO 2 X 90° R L. CED-YS	327	496	30	120					
5	S43735	3576	CODO 2 X 90° R L. CED-STD	351	504	30	126					

ANALISIS QUIMICO / CHEMICAL ANALYSIS														Certificamos que los resultados de los Analisis Químicos y Pruebas Mecánicas 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°: 110041495 110092648 11011329 11015195 11004276 *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*
PROCESO PROCESS	COLADA HEAT CODE	COLADA HEAT M.P./MOTHER PIPE	%C.E.	%C	%Mn	%P	%S	%SI	%Cr	%Cu	%Mo	%Ni	%V	
HF	T51305	51305	0.300	0.170	0.660	0.011	0.001	0.260	0.050	0.050	0.028	0.030	0.000	0.000
HF	T52829	52829	0.310	0.180	0.670	0.012	0.001	0.260	0.040	0.056	0.022	0.030	0.000	0.000
CF	T51542	51542	0.320	0.180	0.740	0.011	0.003	0.290	0.040	0.066	0.019	0.030	0.000	0.000
HF	S43735	43735	0.330	0.200	0.730	0.013	0.002	0.270	0.030	0.020	0.010	0.016	0.005	0.002
HF	S43735	43735	0.310	0.180	0.720	0.011	0.001	0.270	0.020	0.020	0.010	0.019	0.002	0.002

Notes: Formed en caliente a 620°C-540°C, enfriado al aire. Formed in the normalizing at 540°C max. Holding time 10'. Inspección Dimensional: Satisfactoria. NF FORMADO EN CALIENTE/HOT FORMED	Notes: Hot formed fittings in a range from 620°C to 580°C, cooled in still air. Cold formed normalized at 540°C max. Holding time 10'. Visual dimensional check: Satisfactory. CF FORMADO EN FRIO/COLD FORMED	 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.
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