

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

E. P. GALLEGOS

Número:
 --- Number:
 24238

Página/Page:
 1 DE 1

Vendido a: Sold to:	PROVEEDORA DE MATERIALES ANCR. S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	5855 - 5823	Lista de Empaque: Packing List:	1 2 4 4 5	Fecha/Date:	5 de Enero de 2011
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234 WPB-07, NACE MR 01.75-2003 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	T50962	60	TEE 8 CED-XS	292	476	46	122					
2	T49259	3	TEE 8 CED-XS	339	476	38	140					
3	S45279	1	CODO 3 X 90° R.L. CED-XS	264	462	36	105					
4	S45280	5	CODO 3 X 90° R.L. CED-XS	304	484	34	121					
5	S42183	121	CODO 3 X 90° R.L. CED-XS	312	477	35	135					
6	S32706	3	CODO 3 X 90° R.L. CED-XS	336	480	35	109					
7	S42183	687	CODO 2 X 90° R.L. CED-XS	311	482	30	83					
8	S32307	518	CODO 2 1/2 X 90° R.L. CED-STD	314	485	31	122					
9	T41415	4	RED. CONC 12 X 10 CED-XS	335	487	35	98					
10	S45402	190	CODO 2 1/2 X 90° R.L. CED-XS	294	466	36	130					
11	T41415	4	RED. CONC. 12 X 8 CED-XS	335	487	35	98					

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	T50962	50962	0.300	0.180	0.650	0.012	0.001	0.280	0.020	0.046	0.028	0.040	0.000	0.000
HF	T49259	49259	0.320	0.180	0.760	0.012	0.002	0.270	0.040	0.075	0.022	0.030	0.000	0.000
HF	S45279	45279	0.320	0.180	0.740	0.010	0.001	0.300	0.050	0.055	0.020	0.048	0.001	0.002
HF	S45280	45280	0.320	0.180	0.750	0.012	0.003	0.270	0.040	0.045	0.030	0.038	0.001	0.001
HF	S42183	42183	0.330	0.190	0.760	0.010	0.001	0.280	0.030	0.022	0.010	0.014	0.003	0.002
HF	S32706	32706	0.320	0.180	0.770	0.010	0.001	0.300	0.040	0.045	0.010	0.026	0.001	0.000
HF	S42183	42183	0.330	0.190	0.760	0.010	0.002	0.290	0.030	0.022	0.010	0.013	0.001	0.002
HF	S32307	32307	0.330	0.190	0.710	0.012	0.002	0.260	0.050	0.039	0.010	0.028	0.001	0.001
CF	T41415	41415	0.310	0.170	0.780	0.009	0.001	0.270	0.030	0.046	0.004	0.020	0.000	0.000
HF	S45402	45402	0.320	0.180	0.740	0.010	0.001	0.290	0.040	0.045	0.020	0.022	0.001	0.001
CF	T41415	41415	0.310	0.170	0.780	0.009	0.001	0.270	0.030	0.046	0.004	0.020	0.000	0.000

Certificamos que los resultados de los Análisis 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°: 10055456 10032878 7011277 347507 10058191 470998 10058588 468319 8070076 317311 8070076

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°: 10055456 10032878 7011277 347507 10058191 470998 10058588 468319 8070076 317311 8070076

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.

Notas:
 Formado en caliente a 920°C-980°C, enfriado al aire. Formado en frío normalizado a 940°C max.
 Tiempo de permanencia 10'.
 Inspección Dimensional: Satisfactoria.

Notas:
 Hot formed fittings in a range from 920°C to 980°C, cooled in still air.
 Cold formed normalized at 940°C max.
 Holding time 10'.
 Visual dimensional check: Satisfactory

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.