



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

Número:
Number:

23675

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Tabbs de Acero de México, S.A.
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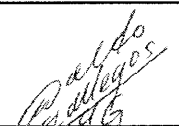
Vendido a: Sold to:	PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	7969 - 8417 - 8527 - 8299	Lista de Empaque: Packing List:	12120	Fecha/Date:	4 de Agosto de 2010
Especificaciones y Grados / Standard or Specification and Steel Grade	Seamless Fittings according to ASTM A 234M WPB-07, NACE MR 01.75-2003 Conform to ASME II Ed. 2001 ASME SA-234M 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	S32803	40	CODO 6 X 90° R.C. CED-STD	308	501	30	130					
2	T49582	6	CODO 14 X 90° R.L. CED-STD	306	494	42	124					
3	T49259	6	CODO 14 X 90° R.L. CED-STD	327	491	42	122					
4	T49309	6	TEE 12 CED-STD	295	470	31	110					
5	T40822	3	TEE 12 CED-STD	284	460	40	100					
6	T49654	50	RED. CONC. 8 X 6 CED-STD	312	492	44	122					
7	T49582	6	CODO 14 X 45° CED-STD	306	494	42	124					
8	T49948	18	CODO 12 X 90° R.L. CED-STD	318	488	42	122					
9	T42699	6	TEE RED. 8 X 6 CED-STD	331	522	32	123					
10	T41645	4	TEE RED. 8 X 6 CED-STD	241	456	37	95					
11	T43329	12	RED. CONC. 8 X 4 CED-XS	332	481	35	96					

ANALISIS QUIMICO / CHEMICAL ANALYSIS															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°. 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°. 471435 10025049 10021602 10022393 8062670 10028873 10025049 10030176 9007734 8059551 9033575 "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	%Nb	
HF	S32803	32803	0.340	0.200	0.740	0.014	0.000	0.280	0.040	0.044	0.010	0.032	0.001	0.000	
HF	T49582	49582	0.310	0.180	0.670	0.011	0.001	0.290	0.010	0.059	0.030	0.030	0.000	0.000	
HF	T49259	49259	0.300	0.170	0.690	0.011	0.002	0.270	0.040	0.073	0.023	0.030	0.000	0.000	
HF	T49309	49309	0.320	0.190	0.680	0.013	0.003	0.290	0.020	0.046	0.018	0.020	0.000	0.000	
HF	T40822	40822	0.280	0.160	0.650	0.008	0.001	0.260	0.040	0.049	0.006	0.030	0.000	0.000	
CF	T49654	49654	0.310	0.180	0.660	0.014	0.002	0.280	0.030	0.064	0.025	0.030	0.000	0.000	
HF	T49582	49582	0.310	0.180	0.670	0.011	0.001	0.290	0.010	0.059	0.030	0.030	0.000	0.000	
HF	T49948	49948	0.290	0.170	0.660	0.009	0.002	0.270	0.030	0.059	0.015	0.030	0.000	0.000	
HF	T42699	42699	0.350	0.190	0.840	0.018	0.001	0.320	0.040	0.062	0.023	0.020	0.000	0.000	
HF	T41645	41645	0.310	0.180	0.660	0.013	0.002	0.280	0.050	0.051	0.009	0.030	0.000	0.000	
CF	T43329	43329	0.310	0.180	0.670	0.012	0.001	0.290	0.040	0.043	0.017	0.020	0.000	0.000	

Notas: Formado en caliente a 620°C-980°C, enfriado al aire; Formado en frio normalizado a 940°C max. Tiempo de permanencia 10'. Inspección Dimensional: Satisfactoria. HF: FORMADO EN CALIENTE/HOT FORMED

Notes: 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'. 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.