



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

Número:
Number:
23127

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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: 7558 - 7433 - 7413 - 7468 -	Lista de Empaque: Packing List: 11806	Fecha/Date: 20 de Enero 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	S32858	228	CODO 4 X 90° R.L. CED-STD	319	491	32	135	<p align="center">PLEASA ANAHUAC Y CIA. S.A. DE C.V.</p> <p align="center">CONTROL DE CALIDAD</p> <p>FECHA <u>25 Ene 2010</u></p> <p>FIRMA <u>E. GALVAN</u></p>				
2	T46005	9	TEE RED. 6 X 3 CED-XS	306	473	44	118					
3	T41032	9	TEE RED. 6 X 3 CED-XS	281	472	40	104					
4	S33738	15	CODO 6 X 45° CED-STD	315	469	36	107					
5	T46926	12	CODO 8 X 90° R.L. CED-XS	312	488	42	118					
6	T32355	1	TEE RED. 10 X 6 CED-STD	337	489	33	88					
7	T40042	1	TEE RED. 10 X 6 CED-STD	254	467	35	112					
8	T43468	25	TEE RED. 6 X 4 CED-STD	323	493	36	116					
9	T39319	1	CODO 12 X 90° R.L. CED-80	260	468	34	92					
10	T41314	2	CODO 12 X 90° R.L. CED-80	291	485	46	118					

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	S32858	32858	0.310	0.170	0.730	0.012	0.001	0.280	0.040	0.060	0.010	0.028	0.001	0.000
HF	T46005	46005	0.300	0.170	0.660	0.016	0.002	0.290	0.040	0.053	0.018	0.030	0.002	0.000
HF	T41032	41032	0.310	0.180	0.680	0.007	0.002	0.270	0.040	0.065	0.009	0.030	0.000	0.000
HF	S33738	33738	0.320	0.180	0.750	0.011	0.001	0.280	0.020	0.049	0.010	0.014	0.001	0.001
HF	T46926	46926	0.310	0.170	0.690	0.010	0.002	0.290	0.040	0.062	0.038	0.030	0.000	0.000
HF	T32355	32355	0.330	0.180	0.740	0.013	0.003	0.310	0.050	0.068	0.031	0.030	0.000	0.000
HF	T40042	40042	0.320	0.190	0.680	0.012	0.001	0.270	0.050	0.053	0.007	0.020	0.000	0.000
HF	T43468	43468	0.300	0.170	0.680	0.017	0.003	0.290	0.050	0.049	0.012	0.030	0.000	0.000
HF	T39319	39319	0.290	0.170	0.670	0.008	0.001	0.270	0.030	0.047	0.008	0.020	0.000	0.000
HF	T41314	41314	0.320	0.190	0.680	0.011	0.003	0.280	0.060	0.060	0.010	0.030	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°:

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°:

472674 9052832 8063997 479795 9065524 7029464 9044409 9012764 8040932 8054890

"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".

<p>Notas:</p> <p>Formado en caliente a 620°C-980°C, enfriado al aire; Formado en frío normalizado a 940°C max.</p> <p>Tiempo de permanencia 10'.</p> <p>Inspección Dimensional: Satisfactoria.</p> <p>HF: FORMADO EN CALIENTE/HOT FORMED</p>	<p>Notes:</p> <p>Hot formed fittings in a range from 620°C to 980°C, cooled in still air, Cold formed normalized at 940°C max.</p> <p>Holding time 10'.</p> <p>Visual dimensional check: Satisfactory</p> <p>CF: FORMADO EN FRIO/COLD FORMED</p>	<p><i>Waldo Gallegos</i></p> <p>Quality Manager / Jefe de Calidad: ING. WALDO GALLEGOS GALVAN</p>	<p>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.</p> <p>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.</p>
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