

CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE (DIN EN 10204:2004E - ISO 10474 3.1.B)		Numero: Number: 30186	Pagina/Page: 1
Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No: 22993	Lista de Empaque: Packing List: 15736	Fecha/Date: 29 de Febrero de 2016
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234 WPB-13e Conform to ASME II Ed. 2013 ASME SA-234, Grade WPB	Dimensiones y tolerancias / Dimension and tolerances ASME B 16.9 - 2012	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	T79785	16	TEE 8 CED-STD	271	419	36	134					
2	T75781	15	RED. CONC. 10 X 8 CED-STD	318	496	42	141					
3	T77918	50	CODO 3 X 45° CED-STD	297	477	30	142					
4	T75113	60	CODO 8 X 90° R.L. CED-STD	252	423	32	139					
5	T72870	3	RED. CONC. 12 X 10 CED-80	276	460	31	126					
6	T79129	60	CODO 4 X 90° R.C. CED-STD	364	502	38	76					
7	T79727	9	CODO 16 X 90° R.L. CED-STD	244	449	34	140					
8	T74449	3	CODO 10 X 45° CED-XS	334	486	31	145					
9	T72971	5	CODO 10 X 45° CED-XS	319	470	32	145					
10	T77766	10	RED. CONC. 8 X 4 CED-XS	287	486	45	150					
11	T77766	25	TEE 6 CED-STD	296	448	39	140					

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	T79785	79785	0.320	0.170	0.770	0.007	0.001	0.250	0.050	0.051	0.024	0.030	0.000	0.000
CF	T75781	75781	0.320	0.180	0.680	0.006	0.001	0.260	0.060	0.064	0.020	0.050	0.000	0.000
HF	T77918	77918	0.310	0.180	0.680	0.006	0.001	0.270	0.040	0.055	0.014	0.040	0.000	0.000
HF	T75113	75113	0.320	0.180	0.680	0.007	0.002	0.280	0.070	0.073	0.035	0.060	0.000	0.000
CF	T72870	72870	0.310	0.180	0.670	0.006	0.002	0.280	0.040	0.062	0.016	0.040	0.000	0.000
HF	T79129	79129	0.310	0.180	0.670	0.007	0.001	0.280	0.030	0.058	0.030	0.030	0.000	0.000
HF	T79727	79727	0.320	0.180	0.700	0.007	0.001	0.280	0.060	0.069	0.023	0.040	0.000	0.000
HF	T74449	74449	0.310	0.170	0.670	0.006	0.002	0.270	0.050	0.077	0.030	0.040	0.000	0.000
HF	T72971	72971	0.310	0.180	0.670	0.007	0.001	0.300	0.040	0.080	0.015	0.040	0.000	0.000
CF	T77766	77766	0.320	0.190	0.680	0.005	0.003	0.260	0.040	0.058	0.015	0.030	0.000	0.000
HF	T77766	77766	0.300	0.170	0.680	0.005	0.002	0.260	0.050	0.057	0.015	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°:
16001547 15009875 15026430 15015246 14041056 16001558
16001111 15000972 15000972 15026387 15030646
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 620°C-980°C, enfriado al aire; Formado en frío 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. MATERIAL ACCORDING TO NACE MR0175 / ISO 15156-1, 2009 AND NACE MR0103, 2012 ONLY HARDNESS
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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.

CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE (DIN EN 10204:2004E - ISO 10474 3.1.B)		Numero: Number:	Pagina/Page:
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Vendido a: Sold to:	PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	22993	Lista de Empaque: Packing List:	15736	Fecha/Date:	29 de Febrero de 2016
Especificaciones y Grados / Standard or Specification and Steel Grade	Seamless Fittings according to ASTM A 234 WPB-13e Conform to ASME II Ed. 2013 ASME SA-234, Grade WPB	Dimensiones y tolerancias / Dimension and tolerances	ASME B 16.9 - 2012			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	T76221	12	CODO 14 X 90° R.I. CED-40	280	453	36	138					
13	T76387	5	CODO 12 X 45° SHC-80	330	452	35	134					
14	S36056	72	CODO 1 1/2 X 45° CED-STD	370	513	47	126					
15	T73977	7	CODO 14 X 45° CED-40	321	477	36	147					
16	T70912	1	CODO 14 X 45° CED-40	329	493	32	139					
17	T6969	35	CODO 3 X 90° R.C. CED-STD	323	500	37	157					
18	T8767	10	CODO 5 X 90° R.C. CED-XS	267	445	36	148					
19	T71768	3	TEE RED. 12 X 10 CED-STD	309	472	35	137					
20	T72649	1	TEE RED. 12 X 10 CED-STD	268	419	30	141					
21	T68667	4	RED. CONC. 8 X 5 CED-STD	260	472	36	145					
22	T72870	10	TEE RED. 10 X 6 CED-80	276	460	31	126					

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	T76221	76221	0.310	0.180	0.660	0.005	0.002	0.270	0.060	0.068	0.027	0.040	0.000	0.000
HF	T76387	76387	0.310	0.180	0.660	0.006	0.001	0.270	0.050	0.063	0.027	0.040	0.000	0.000
HF	S36056	36056	0.320	0.170	0.760	0.012	0.001	0.270	0.050	0.050	0.020	0.025	0.001	0.001
HF	T73977	73977	0.320	0.190	0.670	0.014	0.002	0.280	0.070	0.058	0.013	0.040	0.000	0.000
HF	T70912	70912	0.300	0.170	0.700	0.007	0.001	0.280	0.040	0.061	0.014	0.040	0.000	0.000
HF	T6969	6969	0.320	0.190	0.710	0.005	0.002	0.300	0.020	0.045	0.011	0.020	0.000	0.000
HF	T8767	8767	0.310	0.190	0.700	0.014	0.002	0.270	0.020	0.022	0.007	0.010	0.000	0.000
HF	T71768	71768	0.320	0.180	0.690	0.009	0.001	0.270	0.070	0.074	0.027	0.040	0.000	0.000
HF	T72649	72649	0.310	0.180	0.660	0.006	0.001	0.280	0.070	0.069	0.015	0.050	0.000	0.000
CF	T68667	68667	0.300	0.170	0.670	0.007	0.001	0.260	0.040	0.063	0.013	0.030	0.000	0.000
HF	T72870	72870	0.310	0.180	0.670	0.006	0.002	0.280	0.040	0.062	0.016	0.040	0.000	0.000

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°:
15012673 15010671 15013895 14054482 14020952 15011710 15007939 14057080 14044748 13091769 14041056
"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 620°C-980°C, enfriado al aire; Formado en frío 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. MATERIAL ACCORDING TO NACE MR0175 / ISO 15156-1, 2009 AND NACE MR0103, 2012 ONLY HARDNESS	FOR03161
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CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE (DIN EN 10204:2004E - ISO 10474 3.1.B)		Numero: Number:	Pagina/Page:
		30188	3
Vendido a: Sold to:	PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	22993 -
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234 WPB-13e Conform to ASME II Ed. 2013 ASME SA-234,Grade WPB		Lista de Empaque: Packing List:	15736 29 de Febrero de 2016
Dimensiones y tolerancias / Dimension and tolerances ASME B 16.9 - 2012		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
23	S34705	40	CODO 2 X 90° R.C. CED-STD	398	518	30	120					
24	S29337	20	CODO 1 1/4 X 45° CED-XS	318	473	38	109					

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°: 14065674 14015052 "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	S34705	34705	0.340	0.190	0.780	0.011	0.001	0.280	0.050	0.070	0.010	0.035	0.001		0.001
HF	S29337	29337	0.320	0.180	0.730	0.013	0.001	0.290	0.050	0.040	0.020	0.027	0.002	0.001	

Notas: Formado en caliente a 620°C-980°C, enfriado al aire; Formado en frío 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. MATERIAL ACCORDING TO NACE MR0175 / ISO 15156-1, 2009 AND NACE MR0103, 2012 ONLY HARDNESS
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