

CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE		Numero: Number:	Pagina/Page:
(DIN EN 10204:2004E - ISO 10474 3.1.B)		28618	1

Vendido a: Sold to:	PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	18096	Lista de Empaque: Packing List:	14912	Fecha/Date:	18 de junio de 2014
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234 WPB-13e Conform to ASME II Ed. 2001 ASME SA-234, Grade WPB		Dimensiones y tolerancias / Dimension and tolerances ASME B 16.9 - 2007			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	T64572	57	CODO 4 X 90° R.L. CED-STD	350	492	36	155					
2	T6082	60	CODO 4 X 90° R.L. CED-STD	330	468	32	158					
3	T6404	100	CODO 4 X 90° R.L. CED-STD	336	485	39	153					
4	T5292	3	CODO 4 X 90° R.L. CED-STD	321	516	32	146					
5	T5872	8	CODO 4 X 90° R.L. CED-STD	352	513	33	152					
6	T66949	30	TEE RED. 10 X 8 CED-STD	328	471	33	154					
7	T69401	6	TEE 8 CED-XS	278	471	40	152					
8	T62942	17	CODO 12 X 90° R.L. CED-STD	327	487	36	133					
9	T63897	1	CODO 12 X 90° R.L. CED-STD	349	516	35	142					
10	T64678	18	CODO 12 X 90° R.L. CED-STD	328	485	34	149					
11	T70154	40	CODO 10 X 90° R.L. CED-STD	250	452	38	142					

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°: 13023841 13029442 13051098 12080703 13018720 13065243 14002618 12084797 13009864 13020706 14020090 "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	T64572	64572	0.300	0.170	0.660	0.014	0.001	0.290	0.040	0.063	0.015	0.030	0.000	0.000	
HF	T6082	6082	0.320	0.190	0.730	0.007	0.002	0.290	0.020	0.032	0.005	0.020	0.000	0.000	
HF	T6404	6404	0.310	0.180	0.740	0.005	0.001	0.270	0.020	0.047	0.009	0.030	0.000	0.000	
HF	T5292	5292	0.310	0.170	0.830	0.005	0.001	0.320	0.010	0.032	0.006	0.020	0.000	0.000	
HF	T5872	5872	0.290	0.160	0.760	0.005	0.000	0.300	0.010	0.045	0.007	0.020	0.000	0.000	
HF	T66949	66949	0.310	0.170	0.670	0.006	0.001	0.280	0.070	0.066	0.013	0.040	0.000	0.000	
HF	T69401	69401	0.320	0.170	0.740	0.009	0.001	0.260	0.060	0.066	0.025	0.040	0.000	0.000	
HF	T62942	62942	0.300	0.170	0.680	0.010	0.001	0.290	0.040	0.050	0.024	0.030	0.000	0.000	
HF	T63897	63897	0.330	0.180	0.760	0.011	0.003	0.260	0.050	0.063	0.018	0.030	0.000	0.000	
HF	T64678	64678	0.300	0.170	0.660	0.016	0.002	0.270	0.060	0.059	0.030	0.040	0.000	0.000	
HF	T70154	70154	0.310	0.170	0.670	0.011	0.001	0.310	0.060	0.061	0.029	0.040	0.000	0.000	

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 FRIJO/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:

28622

2

Vendido a: Sold to:	PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	18308 - 17081 -	Lista de Empaque: Packing List:	14912	Fecha/Date:	18 de junio de 2014
Especificaciones y Grados / Standard or Specification and Steel Grade	Seamless Fittings according to ASTM A 234 WPB-13e Conform to ASME II Ed. 2001 ASME SA-234, Grade WPB			Dimensiones y tolerancias / Dimension and tolerances		Bocas / Ends Biselado / Bevelled ends	
				ASME B 16.9 - 2007			

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	T59684	10	RED. CONC. 10 X 4 CED-XS	296	462	39	148					
13	T70009	10	TEE 10 CED-80	323	471	39	143					

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
CF	T59684	59684	0.310	0.180	0.660	0.015	0.000	0.280	0.060	0.073	0.023	0.040	0.000	0.000
HF	T70009	70009	0.310	0.180	0.670	0.010	0.001	0.260	0.070	0.057	0.014	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°: 12018753 14026493

"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:	Notes:	<p align="center"> 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. 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>
Formado en caliente a 620°C-980°C, enfriado al aire; Formado en frío normalizado a 940°C max.	Hot formed fittings in a range from 620°C to 980°C, cooled in still air, Cold formed normalized at 940°C max.		
Tiempo de permanencia 10'.	Holding time 10'.		
Inspección Dimensional: Satisfactoria.	Visual dimensional check: Satisfactory		
HF: FORMADO EN CALIENTE/HOT FORMED	CF: FORMADO EN FRIO/COLD FORMED		FOR03161