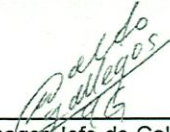


<b>CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE</b> ( DIN EN 10204:2004E - ISO 10474 3.1.B )		Numero: Number:  28948	Pagina/Page:  1
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Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No: 19145 - 18096	Lista de Empaque: Packing List: 15077	Fecha/Date: 12 de septiembre 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		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	T7193	228	CODO 4 X 90° R.L. CED-STD	278	479	36	146					
2	T71380	12	CODO 14 X 90° R.L. CED-STD	307	485	37	144					
3	T69819	5	CODO 16 X 90° R.L. CED-XS	276	472	38	141					
-4	T7533	30	CODO 8 X 90° R.L. CED-XS	288	470	40	114					
5	T7535	6	CODO 8 X 90° R.L. CED-XS	288	460	40	135					
6	T6405	40	CODO 8 X 45° CED-STD	307	463	35	147					
-7	T71380	10	TEE RED. 8 X 6 CED-STD	305	481	35	148					
8	T8106	20	CODO 5 X 90° R.C. CED-STD	337	491	43	143					
9	T65064	18	CODO 12 X 90° R.L. CED-40	288	472	69	136					
10	T71010	8	TEE RED. 10 X 6 CED-STD	325	486	32	144					
11	T66949	2	TEE RED. 10 X 6 CED-STD	326	463	38	154					

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°: 14022646 14026289 14030912 14028268 14027178 13067204 14025109 14040423 13032132 14021736 13064254 "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	
HF	T7193	7193	0.310	0.180	0.730	0.007	0.001	0.270	0.020	0.034	0.009	0.020	0.000	0.000
HF	T71380	71380	0.300	0.170	0.660	0.007	0.001	0.280	0.050	0.063	0.015	0.040	0.000	0.000
HF	T69819	69819	0.310	0.180	0.680	0.007	0.000	0.270	0.060	0.056	0.013	0.030	0.000	0.000
HF	T7533	7533	0.300	0.180	0.690	0.006	0.003	0.260	0.020	0.037	0.007	0.020	0.000	0.000
HF	T7535	7535	0.300	0.170	0.710	0.006	0.002	0.260	0.020	0.041	0.008	0.020	0.000	0.000
HF	T6405	6405	0.310	0.180	0.720	0.005	0.002	0.280	0.020	0.036	0.006	0.020	0.000	0.000
HF	T71380	71380	0.300	0.170	0.650	0.007	0.001	0.280	0.050	0.063	0.015	0.040	0.000	0.000
HF	T8106	8106	0.310	0.180	0.710	0.006	0.002	0.280	0.020	0.045	0.008	0.020	0.000	0.000
HF	T65064	65064	0.310	0.180	0.660	0.013	0.002	0.300	0.060	0.068	0.023	0.040	0.000	0.000
HF	T71010	71010	0.310	0.180	0.680	0.007	0.001	0.290	0.040	0.062	0.013	0.030	0.000	0.000
HF	T66949	66949	0.310	0.170	0.670	0.006	0.001	0.280	0.070	0.069	0.013	0.040	0.000	0.000

<b>Notas:</b> 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	<b>Notes:</b> 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	 <b>Quality Manager/Jefe de Calidad:</b> <b>ING. WALDO GALLEGOS GALVAN</b>	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	<b>FOR03161</b>
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<b>CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE</b> ( DIN EN 10204:2004E - ISO 10474 3.1.B )		Numero: Number: 28949	Pagina/Page: 2
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Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No: 19145 -	Lista de Empaque: Packing List: 15077	Fecha/Date: 12 de septiembre 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		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	T7535	25	CODO 5 X 90° R.L. CED-STD	273	439	36	145					
13	T63735	10	TEE 5 CED-STD	315	486	36	147					
14	T72421	13	CODO 12 X 90° R.L. CED-80	379	498	33	139					
-15	T72457	11	CODO 12 X 90° R.L. CED-80	389	509	31	141					

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	T7535	7535	0.320	0.190	0.710	0.006	0.002	0.270	0.020	0.038	0.008	0.020	0.000	0.000
HF	T63735	63735	0.300	0.170	0.670	0.016	0.001	0.270	0.050	0.080	0.022	0.030	0.000	0.000
HF	T72421	72421	0.330	0.190	0.680	0.004	0.001	0.270	0.060	0.069	0.014	0.050	0.000	0.000
HF	T72457	72457	0.320	0.190	0.660	0.006	0.002	0.250	0.050	0.060	0.019	0.040	0.000	0.000

Certificamos que los resultados de los Analisis Quimicos 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°: 14010189 13011645 14041148 14039982

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°: 14010189 13011645 14041148 14039982

"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, enriado 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	 <b>Quality Manager/Jefe de Calidad:</b> <b>ING. WALDO GALLEGOS GALVAN</b>	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	<b>FOR03161</b>
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