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CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE (DIN EN 10204:2004E - ISO 10474 3.1.B)		Numero: Number: 29946	Pagina/Page: 1
Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No: 21325	Lista de Empaque: Packing List: 15595	Fecha/Date: 14 de octubre de 2015
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	T76095	30	CODO 6 X 45° CED-XS	278	478	36	136					
2	T77918	264	CODO 3 X 90° R.L. CED-STD	297	477	30	142					
3	T7535	7	CODO 8 X 45° CED-XS	288	460	40	135					
4	T8768	3	CODO 8 X 45° CED-XS	298	454	38	136					
5	T79129	110	TEE 4 CED-STD	313	481	41	147					
6	T72523	12	CODO 12 X 90° R.L. CED-STD	336	501	33	149					
7	T72421	6	CODO 12 X 90° R.L. CED-STD	282	455	30	142					
8	T8433	200	CODO 4 X 90° R.L. CED-XS	276	460	36	150					
9	T75113	10	CODO 5 X 90° R.C. CED-STD	247	434	33	121					
10	T77075	5	RED. CONC. 16 X 12 CED-STD	318	480	31	136					
11	S36056	72	CODO 1 1/2 X 45° CED-STD	370	513	47	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	T76095	76095	0.310	0.180	0.670	0.007	0.001	0.280	0.040	0.069	0.031	0.030	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	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	T8768	8768	0.300	0.180	0.690	0.006	0.001	0.280	0.010	0.014	0.004	0.010	0.000	0.000
HF	T79129	79129	0.300	0.170	0.680	0.006	0.001	0.270	0.040	0.058	0.030	0.030	0.000	0.000
HF	T72523	72523	0.310	0.180	0.660	0.009	0.001	0.270	0.060	0.057	0.012	0.040	0.000	0.000
HF	T72421	72421	0.320	0.180	0.680	0.004	0.000	0.280	0.060	0.071	0.014	0.050	0.000	0.000
HF	T8433	8433	0.310	0.180	0.700	0.007	0.002	0.290	0.020	0.026	0.008	0.020	0.000	0.000
HF	T75113	75113	0.320	0.180	0.690	0.008	0.003	0.270	0.070	0.075	0.035	0.060	0.000	0.000
CF	T77075	77075	0.320	0.170	0.670	0.006	0.001	0.280	0.050	0.074	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

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°: 15007348 15026430 14026921 14066927 15036321 14050899 14048819 14042898 14067523 15019045 15013895

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°: 15007348 15026430 14026921 14066927 15036321 14050899 14048819 14042898 14067523 15019045 15013895

"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. 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. Holding time 10'.</p> <p>Visual dimensional check: Satisfactory</p> <p>CF: FORMADO EN FRIO/COLD FORMED</p>	<p style="text-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> <p>MATERIAL ACCORDING TO NACE MR0175 / ISO 15156-1, 2009 AND NACE MR0103, 2012 ONLY HARDNESS</p>
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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	S34704	60	CODO 2 X 45° CED-XS	322	491	31	87					
13	T8433	80	CODO 4 X 45° CED-XS	276	460	36	150					
14	T6971	20	CODO 5 X 45° CED-XS	288	479	42	120					
15	T72971	10	TEE 5 CED-XS	319	470	32	145					
16	T63897	5	RED. CONC. 10 X 4 CED-80	273	452	37	139					

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	S34704	34704	0.330	0.190	0.750	0.010	0.001	0.300	0.040	0.080	0.010	0.020	0.002	0.001
HF	T8433	8433	0.310	0.180	0.700	0.007	0.002	0.290	0.020	0.026	0.008	0.020	0.000	0.000
HF	T6971	6971	0.310	0.180	0.700	0.005	0.002	0.300	0.020	0.041	0.010	0.020	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	T63897	63897	0.320	0.180	0.750	0.011	0.002	0.260	0.040	0.060	0.018	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°: 14055779 14042898 14044789 15000972 13009958

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°: 14055779 14042898 14044789 15000972 13009958

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<p><i>Waldo Gallegos</i></p> <p>Quality Manager / Jefe de Calidad: ING. WALDO GALLEGOS GALVAN</p>		<p>FOR03161</p>