

CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE (DIN EN 10204:2004E - ISO 10474: 2013 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:	27241 - 27931	Lista de Empaque: Packing List:	18018	Fecha/Date:	26 de febrero de 2019
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234 WPB-18e Conform to ASME II Ed. 2017, ASME SA-234 Grade WPB		Dimensiones y tolerancias / Dimension and tolerances ASME B 16.9 - 2018			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	T96573	26	CODO 6 X 45° CED-XS	405	509	30	147					
2	T92982	4	CODO 6 X 45° CED-XS	445	482	30	141					
3	T96023	456	CODO 4 X 90° R.L. CED-STD	334	456	33	143					
4	T96575	198	CODO 6 X 90° R.L. CED-STD.	287	425	31	138					
5	T96574	102	CODO 6 X 90° R.L. CED-STD.	327	460	31	137					
6	T95587	40	CODO 10 X 90° R.L. CED-STD	278	435	32	134					
7	T96380	36	CODO 12 X 90° R.L. CED-40	275	415	38	134					
8	S43944	144	CODO 1 1/2 X 45° CED-STD	340	517	39	114					
9	T96571	80	CODO 4 X 45° CED-XS	284	452	35	144					
10	T96668	21	CODO 12 X 90° R.L. CED-80	319	456	38	133					
11	T96379	3	CODO 12 X 90° R.L. CED-80	335	469	39	129					

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	T96573	96573	0.310	0.180	0.660	0.011	0.002	0.260	0.060	0.053	0.029	0.030	0.002	0.000
HF	T92982	92982	0.320	0.180	0.750	0.006	0.001	0.270	0.040	0.073	0.018	0.040	0.002	0.000
HF	T96023	96023	0.310	0.170	0.690	0.009	0.001	0.270	0.050	0.059	0.029	0.030	0.003	0.000
HF	T96575	96575	0.300	0.170	0.660	0.011	0.002	0.270	0.060	0.056	0.032	0.030	0.002	0.000
HF	T96574	96574	0.300	0.170	0.670	0.012	0.003	0.260	0.050	0.054	0.034	0.030	0.002	0.000
HF	T95587	95587	0.310	0.170	0.690	0.008	0.003	0.260	0.050	0.074	0.024	0.030	0.001	0.000
HF	T96380	96380	0.300	0.170	0.680	0.011	0.002	0.280	0.050	0.067	0.025	0.030	0.001	0.000
HF	S43944	43944	0.320	0.180	0.750	0.007	0.000	0.320	0.050	0.050	0.010	0.021	0.002	0.004
HF	T96571	96571	0.300	0.170	0.660	0.009	0.002	0.270	0.050	0.057	0.025	0.030	0.002	0.000
HF	T96668	96668	0.300	0.170	0.680	0.010	0.002	0.280	0.040	0.070	0.017	0.030	0.002	0.000
HF	T96379	96379	0.310	0.170	0.690	0.016	0.002	0.270	0.070	0.063	0.029	0.030	0.001	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°:
18064077 18031915 18062837 18062842 18062842 18062842 18069235
18064078 17050166 18068868 18069527 18069527
"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. ALFONSO ORTEGA GARCIA
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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, 2015 AND NACE MR0103.2015 ONLY HARDNESS

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(DIN EN 10204:2004E - ISO 10474: 2013 3.1.B)		32305	2

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Especificaciones y Grados / Standard or Specification and Steel Grade		Dimensiones y tolerancias / Dimension and tolerances			Factura/Invoice:		
Seamless Fittings according to ASTM A 234 WPB-18e		ASME B 16.9 - 2018			Bocas / Ends		
Conform to ASME II Ed. 2017, ASME SA-234 Grade WPB					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	T80613	6	TEE 14 CED-STD	268	429	38	144					
13	T96571	637	CODO 3 X 90° R.L. CED-STD.	360	502	36	142					
14	T96572	82	CODO 3 X 90° R.L. CED-STD.	345	491	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	T80613	80613	0.310	0.180	0.680	0.006	0.001	0.280	0.050	0.058	0.019	0.030	0.000	0.000
HF	T96571	96571	0.310	0.180	0.670	0.009	0.002	0.270	0.040	0.057	0.025	0.030	0.002	0.000
HF	T96572	96572	0.300	0.170	0.660	0.010	0.002	0.270	0.060	0.055	0.028	0.030	0.002	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°: 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°: 17010373 19002625 19002625

Este material cumple con los requerimientos especificados en la orden".
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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. ALFONSO ORTEGA GARCIA	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, 2015 AND NACE MR0103,2015 ONLY HARDNESS
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