

CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE (DIN EN 10204:2004E - ISO 10474 3.1.B)	Numero: Number:	Pagina/Page:
	30973	1

Vendido a: Sold to:	PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	25370	Lista de Empaque: Packing List:	17134	Fecha/Date:	19 de junio de 2017
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	T86015	456	CODO 4 X 90° R.L. CED-STD	325	484	37	120					
2	T80753	264	CODO 3 X 90° R.L. CED-STD	335	478	40	118					
3	T86015	40	CODO 6 X 90° R.C. CED-STD	309	491	41	118					
4	T80821	5	CODO 16 X 90° R.L. CED-XS	328	505	44	126					
5	T80869	60	CODO 6 X 45° CED-STD	323	496	40	124					
6	T80490	15	RED. CONC. 10 X 8 CED-STD	325	494	39	124					
7	T86015	40	CODO 4 X 45° CED-STD	325	484	37	120					
8	T80753	45	CODO 3 X 45° CED-STD	335	478	40	118					
9	T80563	5	CODO 3 X 45° CED-STD	349	502	40	124					
10	T86015	60	CODO 6 X 90° R.L. CED-XS	304	481	43	116					
11	T86658	120	CODO 8 X 90° R.L. CED-STD	295	469	38	118					

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	T86015	86015	0.330	0.180	0.750	0.014	0.001	0.270	0.050	0.060	0.027	0.020	0.000	0.000
HF	T80753	80753	0.320	0.180	0.710	0.007	0.001	0.280	0.040	0.079	0.020	0.040	0.000	0.000
HF	T86015	86015	0.310	0.180	0.680	0.014	0.001	0.280	0.040	0.049	0.022	0.020	0.000	0.000
HF	T80821	80821	0.350	0.190	0.820	0.005	0.001	0.290	0.050	0.062	0.026	0.040	0.000	0.000
HF	T80869	80869	0.320	0.180	0.700	0.006	0.002	0.280	0.060	0.060	0.025	0.030	0.000	0.000
CF	T80490	80490	0.320	0.180	0.740	0.008	0.002	0.280	0.030	0.057	0.016	0.030	0.000	0.000
HF	T86015	86015	0.330	0.180	0.750	0.014	0.001	0.270	0.050	0.060	0.027	0.020	0.000	0.000
HF	T80753	80753	0.320	0.180	0.710	0.007	0.001	0.280	0.040	0.079	0.020	0.040	0.000	0.000
HF	T80563	80563	0.330	0.190	0.680	0.008	0.001	0.280	0.060	0.057	0.020	0.030	0.000	0.000
HF	T86015	86015	0.310	0.180	0.680	0.013	0.001	0.280	0.040	0.048	0.022	0.020	0.000	0.000
HF	T86658	86658	0.310	0.180	0.680	0.008	0.001	0.260	0.040	0.068	0.029	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°: 17013390 16011766 17023167 16011815 16011736 17018092 17013390 16011766 16006591 17014025 17022801

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°: 17013390 16011766 17023167 16011815 16011736 17018092 17013390 16011766 16006591 17014025 17022801

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	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 MR0103,2012 ONLY HARDNESS
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CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE (DIN EN 10204:2004E - ISO 10474 3.1.B)		Numero: Number: 30974	Pagina/Page: 2
Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No: 25370	Lista de Empaque: Packing List: 17134	Fecha/Date: 19 de junio de 2017
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	T7534	24	CODO 2 1/2 X 45° CED-STD	343	490	37	120					
13	T80490	15	RED. CONC. 10 X 6 CED-STD	325	494	39	124					
14	T6966	40	CODO 6 X 90° R.C. CED-XS	310	479	42	118					
15	T80639	50	TEE 6 CED-STD	297	483	45	120					
16	T86019	7	RED. CONC. 14 X 12 CED-STD	297	479	39	122					
17	S74455	60	CODO 1 1/4 X 45° CED-STD	372	535	47	116					
18	T8432	50	CODO 3 X 45° CED-XS	268	447	35	161					
19	T6971	40	CODO 5 X 45° CED-XS	288	479	42	120					
20	S74455	42	CODO 1 1/2 X 90° R.C. CED-STD	372	535	47	116					
21	T80613	6	TEE 14 CED-STD	345	487	44	126					
22	T83533	4	RED. CONC. 12 X 10 CED-40	307	493	44	124					

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	T7534	7534	0.300	0.170	0.720	0.006	0.001	0.260	0.020	0.041	0.008	0.020	0.000	0.000
CF	T80490	80490	0.320	0.180	0.740	0.008	0.002	0.280	0.030	0.057	0.016	0.030	0.000	0.000
HF	T6966	6966	0.320	0.190	0.710	0.008	0.001	0.280	0.020	0.024	0.007	0.020	0.000	0.000
HF	T80639	80639	0.310	0.180	0.660	0.005	0.002	0.260	0.040	0.066	0.018	0.030	0.000	0.000
CF	T86019	86019	0.300	0.170	0.680	0.011	0.001	0.270	0.030	0.057	0.014	0.020	0.000	0.000
HF	S74455	74455	0.320	0.180	0.750	0.017	0.001	0.280	0.050	0.050	0.020	0.024	0.001	0.001
HF	T8432	8432	0.300	0.180	0.700	0.006	0.002	0.290	0.020	0.025	0.008	0.010	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	S74455	74455	0.320	0.180	0.750	0.017	0.001	0.280	0.050	0.050	0.020	0.024	0.001	0.001
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
CF	T83533	83533	0.320	0.180	0.700	0.010	0.002	0.300	0.050	0.071	0.033	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°: 14041057 17018092 14020893 16006590 17009530 16011034 14041863 14044789 16011034 17010373 16031793

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 frio 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 MR0103,2012 ONLY HARDNESS
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CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE (DIN EN 10204:2004E - ISO 10474 3.1.B)	Numero: Number: 30975	Pagina/Page: 3
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Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No: 25370 -	Lista de Empaque: Packing List: 17134	Fecha/Date: 19 de junio de 2017
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
23	T63897	5	RED. CONC. 10 X 4 CED-80	273	452	37	139					
24	T83533	5	RED. CONC. 12 X 6 CED-XS	322	488	35	124					

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	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
CF	T83533	83533	0.320	0.180	0.700	0.009	0.001	0.300	0.050	0.072	0.034	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°: 13009958 17016656

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°: 13009958 17016656

"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 FRIJO/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 MR0103.2012 ONLY HARDNESS
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