

CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE (DIN EN 10204:2004E - ISO 10474 3.1.B)		Numero: Number: 29791	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: 20800	Lista de Empaque: Packing List: 15522	Fecha/Date: 16 de julio 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	T8434	5	CODO 8 X 45° CED-STD	274	458	36	143					
2	T75113	7	CODO 8 X 45° CED-STD	252	423	32	139					
3	T8433	1	CODO 8 X 45° CED-STD	254	431	35	147					
4	T6406	1	CODO 8 X 45° CED-STD	294	490	36	148					
5	T8112	11	CODO 8 X 45° CED-STD	273	455	33	152					
6	T8113	15	CODO 8 X 45° CED-STD	308	477	43	116					
7	T77766	12	CODO 10 X 45° CED-STD	271	435	31	140					
8	T72619	10	CODO 10 X 90° R.L. CED-XS	290	451	34	136					
9	T7534	30	CODO 4 X 90° R.C. CED-STD	302	472	34	145					
10	T71768	12	TEE 10 CED-STD	284	474	35	143					
11	T73886	12	TEE 10 CED-STD	322	487	37	135					

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	T8434	8434	0.320	0.190	0.700	0.007	0.002	0.290	0.040	0.030	0.010	0.020	0.000	0.000
HF	T75113	75113	0.320	0.180	0.680	0.007	0.002	0.280	0.070	0.073	0.035	0.060	0.000	0.000
HF	T8433	8433	0.310	0.180	0.700	0.007	0.002	0.290	0.020	0.025	0.008	0.020	0.000	0.000
HF	T6406	6406	0.310	0.180	0.700	0.005	0.002	0.280	0.020	0.032	0.006	0.020	0.000	0.000
HF	T8112	8112	0.310	0.180	0.720	0.007	0.002	0.280	0.020	0.046	0.008	0.020	0.000	0.000
HF	T8113	8113	0.310	0.180	0.710	0.006	0.002	0.280	0.020	0.046	0.007	0.020	0.000	0.000
HF	T77766	77766	0.310	0.190	0.680	0.005	0.002	0.260	0.050	0.059	0.015	0.030	0.000	0.000
HF	T72619	72619	0.310	0.180	0.660	0.007	0.001	0.270	0.050	0.064	0.025	0.040	0.000	0.000
HF	T7534	7534	0.300	0.170	0.710	0.006	0.002	0.260	0.020	0.038	0.008	0.020	0.000	0.000
HF	T71768	71768	0.320	0.180	0.700	0.009	0.001	0.280	0.070	0.073	0.027	0.040	0.000	0.000
HF	T73886	73886	0.320	0.190	0.660	0.005	0.001	0.270	0.050	0.074	0.018	0.040	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°:
14038259 15015246 14038174 14002611 14030841 14031466 15025882 14043533 14045013 14052272 14052272
"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 CF: FORMADO EN FRIO/COLD 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

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

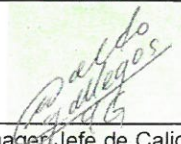
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DESCRIPCION DE MATERIAL / MATERIAL DESCRIPTION				PRUEBAS MECANICAS / MECHANICAL TEST				PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C				
ART. ITEM	COLADA HEAT CODE	CANTIDAD QUANTITY	DESCRIPCION / DESCRIPTION	ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPTURA TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA HARDNESS HBW	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
12	T8112	10	CODO 5 X 90° R.C. CED-XS	317	480	42	143					

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°: 14030914 "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	T8112	8112	0.310	0.180	0.710	0.007	0.002	0.280	0.020	0.045	0.008	0.020	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 FRIO/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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