


<b>CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE</b> ( DIN EN 10204:2004E - ISO 10474 3.1.B )		Numero: Number:	Pagina/Page:
		30660	2

Vendido a: Sold to:	PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	24475	Lista de Empaque: Packing List:	16047	Fecha/Date:	22 de diciembre de 2016
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	T77390	15	CODO 8 X 90° R.C. CED-STD	307	484	41	159					
13	T43405	18	CODO 1 1/2 X 45° CED-XS	334	482	32	140					
14	T63453	6	TEE 16 CED-STD	365	486	46	137					
15	T79926	7	RED. CONC. 14 X 12 CED-STD	321	505	44	138					
16	T65888	3	TEE 16 CED-XS	310	467	39	145					
17	S36056	5	CODO 1 1/2 X 45° CED-STD	370	513	47	126					
18	S28476	1	CODO 1 1/2 X 45° CED-STD	388	512	48	128					
19	T51191	30	CODO 1 1/2 X 45° CED-STD	349	528	48	102					
20	T6969	35	CODO 3 X 90° R.C. CED-STD	323	500	37	157					
21	T77016	50	CODO 5 X 90° R.L. CED-STD	326	484	40	115					
22	S41566	2	CODO 2 X 90° R.C. CED-STD	316	496	37	120					

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	T77390	77390	0.310	0.160	0.780	0.006	0.001	0.260	0.040	0.097	0.016	0.040	0.000	0.000
HF	T43405	43405	0.360	0.170	0.900	0.011	0.006	0.270	0.080	0.150	0.040	0.150	0.002	0.001
HF	T63453	63453	0.310	0.180	0.660	0.006	0.001	0.300	0.030	0.060	0.017	0.040	0.000	0.000
CF	T79926	79926	0.330	0.180	0.730	0.006	0.002	0.280	0.070	0.068	0.030	0.030	0.000	0.000
HF	T65888	65888	0.310	0.180	0.670	0.007	0.002	0.280	0.030	0.050	0.011	0.030	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
HF	S28476	28476	0.330	0.180	0.760	0.014	0.002	0.270	0.050	0.050	0.030	0.082	0.001	0.001
HF	T51191	51191	0.400	0.190	0.960	0.011	0.006	0.280	0.100	0.160	0.040	0.140	0.001	0.001
HF	T6969	6969	0.320	0.190	0.710	0.005	0.002	0.300	0.020	0.045	0.011	0.020	0.000	0.000
HF	T77016	77016	0.300	0.170	0.670	0.008	0.002	0.300	0.050	0.063	0.024	0.030	0.000	0.000
HF	S41566	41566	0.320	0.190	0.730	0.011	0.002	0.260	0.050	0.030	0.010	0.020	0.002	0.001

<p>Notas:</p> <p>Formado en caliente a 620°C-980°C, enfriado al aire; Formado en frío normalizado a 940°C max.</p> <p>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.</p> <p>Cold formed normalized at 940°C max.</p> <p>Holding time 10'.</p> <p>Visual dimensional check: Satisfactory</p> <p>CF: FORMADO EN FRIO/COLD FORMED</p>	 <p>Quality Manager/Jefe de Calidad: ING. ALFONSO ORTEGA GARCIA</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.</p> <p>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>
--	---	---	---