


<b>CERTIFICADO DE CALIDAD</b> <b>INSPECTION CERTIFICATE</b> (DIN EN 10204:2004E - ISO 10474 3.1.B)	Numero: Number:  27749	Pagina/Page:  2
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Vendido a: <b>PROVEEDORA DE MATERIALES ANGER, S.A.</b> Sold to: <b>DE C.V.</b>	Pedido del Cliente No: <b>6492 -</b> Customers Order No:	Lista de Empaque: <b>14406</b> Packing List:	Fecha/Date: <b>4 de Julio de 2013</b>
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234 WPB-10, NACE MR 01.75-2003 Conform to ASME II Ed. 2001 ASME SA-234, Grade WPB, NACE MR0103-2003	Dimensiones y tolerancias / Dimension and tolerances <b>ASME B 16.9 - 2007</b>	Factura/Invoice: <b>Bocas / Ends</b> 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	S22620	22	RED. CONC. 2 X 1 1/2 CED-STD	348	508	30	102					
13	T61866	68	RED. CONC. 8 X 4 CED-XS	311	482	42	147					
14	T60505	1	RED. CONC. 8 X 4 CED-XS	247	450	39	141					
15	T51982	1	RED. CONC. 8 X 4 CED-XS	278	463	40	96					
16	T6078	200	RED. CONC. 6 X 4 CED-STD	322	490	37	156					
17	T5588	6	RED. CONC. 3 X 2 CED-XS	278	505	33	151					
18	T6079	50	RED. CONC. 3 X 2 CED-XS	281	472	34	156					
19	T5925	44	RED. CONC. 3 X 2 CED-XS	352	512	38	159					

ANALISIS QUIMICO / CHEMICAL ANALYSIS															Certificamos que los resultados de los Analisis Quimicos y Pruebas Mecanicas son verdaderos o una copia fiel de los certificados enviados por el Fabricante y/o el proveedor de Materia Prima (Tuberia 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°: 412884 12060971 12029336 11042280 13039681 13018724 13030289 13023840
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	S22620	22620	0.320	0.170	0.780	0.012	0.001	0.250	0.050	0.023	0.010	0.021	0.001	0.001	
CF	T61866	61866	0.310	0.170	0.730	0.015	0.001	0.270	0.030	0.049	0.015	0.030	0.000	0.000	
CF	T60505	60505	0.310	0.170	0.660	0.014	0.001	0.280	0.060	0.080	0.026	0.040	0.000	0.000	
CF	T51982	51982	0.340	0.180	0.840	0.011	0.001	0.260	0.040	0.078	0.042	0.040	0.000	0.000	
CF	T6078	6078	0.320	0.190	0.710	0.005	0.001	0.280	0.020	0.044	0.007	0.020	0.000	0.000	
CF	T5588	5588	0.310	0.170	0.810	0.004	0.001	0.310	0.020	0.029	0.008	0.020	0.000	0.000	
CF	T6079	6079	0.300	0.170	0.710	0.005	0.002	0.270	0.020	0.039	0.007	0.020	0.000	0.000	
CF	T5925	5925	0.310	0.170	0.760	0.004	0.001	0.290	0.050	0.032	0.006	0.020	0.000	0.000	

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	 <b>Quality Manager/Jefe de Calidad:</b> <b>ING. WALDO GALLEGOS GALVAN</b>
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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.