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CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE (DIN EN 10204:2004E - ISO 10474 3.1.B)		Numero: Number: 24698	Pagina/Page: 1
Vendido a: Sold to: PROVEEDORA DE MATERIALES AN CER. S. A. DE C. V.	Pedido del Cliente No: Customers Order No: 5960 - 5996 - 6000	Lista de Empaque: Packing List: 12737	Fecha/Date: 29 de Junio de 2011
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234 WPB-07, 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 ASME B 16.9 - 2007 and ASME B 16.28 - 1994	
		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	T52308	148	TEE 4 CED-STD	311	486	42	120					
2	T54400	350	CODO 8 X 90° R.L. CED-XS	293	467	43	114					
3	S20808	74	RED. CONC. 3 X 2 CED-STD	279	425	30	120					
4	S42235	1	CODO 4 X 90° R.L. CED-XS	299	472	36	105					
5	S22620	109	RED. CONC. 2 X 1 CED-STD	348	508	30	102					
6	T52357	10	RED. CONC. 14 X 10 CED-STD	320	480	42	122					
7	T51542	40	TEE RED. 8 X 6 CED-STD	322	491	43	120					
8	S38130	264	CODO 1 1/4 X 90° R.L. CED-STD	347	489	39	118					
9	S22920	76	RED. CONC. 4 X 3 CED-STD	292	467	35	125					
10	T46079	6	RED. CONC. 16 X 8 CED-STD	371	492	41	122					
11	T46079	3	RED. CONC. 16 X 12 CED-STD	371	492	41	122					

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		
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	T52308	52308	0.310	0.180	0.690	0.012	0.001	0.280	0.040	0.063	0.023	0.030	0.000	0.000	de Materia Prima (Tubería Sin Costura) conforme ASTM A106 Grado B con N°:	
HF	T54400	54400	0.000	0.180	0.660	0.008	0.003	0.270	0.030	0.046	0.015	0.030	0.000	0.000	We certify that result of chemical analysis and mechanical test are true and correct	
CF	S20808	20808	0.330	0.190	0.820	0.014	0.001	0.280	0.010	0.024	0.010	0.015	0.001	0.001	copy of the test certificate issued by the manufacturer and/or supplier Raw	
HF	S42235	42235	0.330	0.190	0.770	0.013	0.001	0.310	0.030	0.033	0.010	0.027	0.002	0.002	material (Seamless Pipe) certs conform to ASTM A106 Grade B N°:	
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	11006317 11016572 367345 10053807 412884 11013651	
CF	T52357	52357	0.310	0.180	0.690	0.014	0.003	0.300	0.040	0.075	0.020	0.040	0.000	0.000	11011330 258860 386722 11015868 11015868	
HF	T51542	51542	0.330	0.190	0.720	0.010	0.002	0.290	0.040	0.061	0.019	0.030	0.000	0.000		
HF	S38130	38130	0.313	0.180	0.710	0.009	0.001	0.280	0.030	0.043	0.020	0.022	0.001	0.001		
CF	S22920	22920	0.310	0.180	0.730	0.011	0.002	0.290	0.030	0.033	0.010	0.001	0.001	0.002	Este material cumple con los requerimientos especificados en la orden.	
CF	T46079	46079	0.320	0.180	0.680	0.018	0.004	0.260	0.060	0.072	0.030	0.040	0.000	0.000	The material of this certificate heat number mentioned above is in compliance	
CF	T46079	46079	0.320	0.180	0.680	0.018	0.004	0.260	0.060	0.072	0.030	0.040	0.000	0.000	with the requirements specified in the order.	

<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><i>Waldo Gallegos Galvan</i></p> <p>Quality Manager / Jefe de Calidad: ING. WALDO GALLEGOS GALVAN</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>
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