

CERTIFICADO DE CALIDAD
INSPECTION CERTIFICATE
 (DIN EN 10204:2004E - ISO 10474 3.1.B)

Vendido a:	PIESA ANAHUAC Y CIA. S. A. DE C. V.	Pedido del Cliente No:	2327 - 2390	Fecha/Date:	4 de Enero de 2007
Sold to:		Customers Order No:		Factorial/invoice:	Bocas / Ends
Especificaciones y Grados / Standard or Specification and Steel Grade	Seamless Fittings according to ASTM A 234-97, A 234-08a, NACE MR 01-75-2003	Dimensiones y tolerancias / Dimension and tolerances		Biselado / Bevelled ends	
Conform to ASME II Ed. 2001 ASME SA-234, Grade WPB		ASME B 16.9 - 2003 and ASME B 16.28 - 1994			

Numero:	17172	Pagina/Page:	1 DE 1
Lista de Empaque:	8774	Fecha/Date:	4 de Enero de 2007
Packing List:			

ART. ITEM	COLADA HEAT CODE	CANTIDAD QUANTITY	DESCRIPCION / DESCRIPTION	PRUEBAS MECANICAS / MECHANICAL TEST				PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C			
				ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPTURA TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA HARDNESS HB	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
1	S80268	228	CODO 4 X 90° R. I. CED-STD	313	475	36	114				
2	S47235	264	CODO 3 X 90° R. I. CED-STD	316	492	30	132				
3	S43382	22	CODO 6 X 90° R. C. CED-STD	305	473	41	126				
4	S45459	30	CODO 6 X 90° R. C. CED-STD	337	484	37	109				
5	S22039	1	CODO 6 X 90° R. C. CED-STD	339	488	31	139				
6	S44855	7	CODO 6 X 90° R. I. CED-STD	277	470	37	108				
7	S45279	105	CODO 3 X 90° R. I. CED-XS	264	462	36	105				
8	S45663	48	CODO 2 X 45° CED-STD	309	496	34	114				
9	S42716	40	CODO 2 X 90° R. I. CED-XS	315	495	34	112				
10	S45663	200	CODO 2 X 90° R. I. CED-STD	309	496	34	114				
11	S46693	136	CODO 2 1/2 X 90° R. I. CED-STD	308	495	32	133				

ANALISIS QUIMICO / CHEMICAL ANALYSIS

PROCESO PROCESS	COLADA HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	%C	%E	%Mn	%P	%S	%Si	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	S80268	80268	0.330	0.170	0.750	0.011	0.003	0.290	0.040	0.037	0.030	0.270	0.001	0.001
HF	S47235	47235	0.321	0.180	0.760	0.011	0.001	0.280	0.040	0.032	0.010	0.030	0.001	0.001
HF	S43382	43382	0.327	0.190	0.710	0.012	0.002	0.290	0.040	0.045	0.030	0.021	0.001	0.001
HF	S45459	45459	0.326	0.180	0.760	0.010	0.001	0.340	0.050	0.032	0.030	0.022	0.001	0.001
HF	S22039	22039	0.334	0.190	0.760	0.012	0.001	0.310	0.030	0.050	0.020	0.050	0.001	0.001
HF	S44855	44855	0.335	0.200	0.730	0.009	0.001	0.280	0.030	0.037	0.020	0.016	0.001	0.001
HF	S45279	45279	0.323	0.180	0.730	0.010	0.001	0.300	0.050	0.022	0.020	0.048	0.001	0.000
HF	S45663	45663	0.314	0.180	0.730	0.009	0.001	0.300	0.030	0.055	0.020	0.017	0.001	0.002
HF	S42716	42716	0.308	0.170	0.730	0.008	0.001	0.310	0.030	0.040	0.030	0.016	0.002	0.002
HF	S45663	45663	0.314	0.180	0.730	0.009	0.001	0.300	0.030	0.022	0.020	0.017	0.001	0.002
HF	S46693	46693	0.313	0.180	0.700	0.012	0.001	0.270	0.050	0.034	0.010	0.021	0.001	0.002

Notes:
 Hot formed fittings in a range from 620°C to 980°C, cooled in still air.
 Cold formed normalized at 840°C max.

Notes:
 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.

Jefe de Calidad:
 Quality Manager:

ING. JOSE MARTINEZ MACIAS

CC-008