

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

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Vendido a: TUCOTA-PIESA
Sold to:

Pedido del Cliente No: 7663, 100000646
Customers Order No:

Lista de Empaque: 7004
Packing List:

Fecha/Date: 10 de Septiembre de 2004

Especificaciones y Grados / Standard or Specification and Steel Grade
Seamless Fittings according to ASTM/ASME ASA 234 WPB - NACE MR
01.75 ed. 02 - Conform to ASME II Ed. 2001

Dimensiones y tolerancias / Dimension and tolerances
ASME B 16.9 and ASME B 16.28 edition 2001

Factura/Invoice: Bocas / Ends
Biselado / Bevelled ends

Numero: 12732
Number: 1 DE 1
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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. RUP.TURA TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA HARDNESS HB	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
1	JES	2	ELLS 14" X 90° S.R. SCH-STD.	43927	69818	42	133					
2	TGD6	5	CONC. RED. 14" X 10" SCH-STD.	338	507	42	103					
3	TGV6	50	CONC. RED. 4" X 3" SCH-STD.	288	461	44	139					
4	TFA6	5	CONC. RED. 12" X 10" SCH-STD.	342	473	35	106					
5	RO3	7	CONC. RED. 2" X 14" SCH-XH.	350	528	35	120					
6	S31802	150	ELLS 14" X 90° L.R. SCH-XH.	369	523	50	133					
7	SKI6	243	ELLS 4" X 90° L.R. SCH-STD.	325	492	51	148					
8	SKS6	213	ELLS 4" X 90° L.R. SCH-STD.	356	516	34	135					
9	TJE6	144	ELLS 6" X 45° SCH-STD.	351	505	42	139					
10	PSS	2	ELLS 14" X 90° L.R. SCH-STD.	259	454	45	143					

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	JES	83791	0.308	0.160	0.660	0.012	0.001	0.230	0.080	0.100	0.060	0.050	0.002	0.003
CF	TGD6	14787	0.346	0.190	0.830	0.011	0.003	0.300	0.040	0.094	0.004	0.040	0.000	0.000
CF	TGV6	13612	0.296	0.170	0.660	0.009	0.002	0.270	0.030	0.052	0.023	0.030	0.000	0.000
CF	TFA6	16033	0.310	0.180	0.680	0.006	0.003	0.280	0.030	0.090	0.008	0.040	0.000	0.000
CF	RO3	30826	0.325	0.190	0.750	0.013	0.001	0.280	0.010	0.070	0.010	0.020	0.000	0.001
HF	S31802	31802	0.320	0.180	0.770	0.009	0.001	0.330	0.030	0.034	0.010	0.014	0.001	0.001
HF	SKI6	32237	0.337	0.190	0.810	0.010	0.001	0.300	0.030	0.058	0.002	0.021	0.002	0.001
HF	SKS6	31766	0.327	0.180	0.780	0.012	0.001	0.280	0.040	0.047	0.020	0.022	0.001	0.001
HF	TJE6	17649	0.342	0.180	0.830	0.015	0.003	0.280	0.040	0.078	0.042	0.030	0.000	0.000
HF	PSS	70796	0.290	0.150	0.700	0.009	0.001	0.290	0.030	0.070	0.050	0.030	0.004	0.002

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 con N°: 04009331 03016986
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 cents N°: 04006034 81524090 207944
207939 207936 04016155
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.

Notes:
Formado en caliente a 780°C-940°C, enfriado al aire.
Heat formed fittings in a range from 780°C to 940°C, cooled in still air.
Time: Formado en frío normalizado a 940°C max.
Cold formed normalized at 940°C max.
Tiempo de permanencia 10'.
Holding time 10'.
Inspección Dimensional: Satisfactoria.
Visual dimensional check: Satisfactory
HF: FORMADO EN CALIENTE/NOT FORMED
CF: FORMADO EN FRIO/COLD FORMED

Jefe de Aseguramiento de Calidad:
Quality Assurance Coordinator

ING. JOSE MARTINEZ MACIAS

CC-008