Riga
Tenaris Group

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

Numero: / Number: 11082

Vendido A: / Sold to: TUCOTA

Pedido del cliente No: / Customers Order No: 6366, 7020, 7169, 7273

Lista de empaque: / Packing List: 6340

Fecha/Date: NOVIEMBRE 11 de 2003

Especificaciones y Grados / Standard or Specification and Steel Grade
Seamless Fittings according to ASTM/ASME A/SA 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

Bocas / Ends
Biselado / Bevelled ends

DESCRIPCION DE MATERIAL / MATERIAL DESCRIPTION				PRUEBAS MECANICAS / MECHANICAL TEST				PRUEBA DE IMPACTO 0ºC / IMPACT TEST 0ºC				
ART. ITEM	COLADA HEAT CODE	CANTIDAD QUANTITY	DESCRIPCION / DESCRIPTION	ESF. CEDENCIA YIELD STRENGTH (MPa)	ESF. RUPTURA TENSILE STRENGTH (MPa)	ELONG. %2"	DUREZA HARDNESS HB	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
1	TAE6	15	ELLS 6 X 90 L.R. SCH. XH	318	478	40	136	N/A	N/A	N/A	N/A	N/A
2	OU5	14	CONC. RED. 2 X 1 SCH. XH	347	501	39	123	N/A	N/A	N/A	N/A	N/A
3	RO3	28	CONC. RED. 2 X 1 1/4 SCH. XH	350	528	35	120	N/A	N/A	N/A	N/A	N/A
4	FT5	4	CONC. RED. 2 1/2 X 1 1/2 SCH STD	357	492	32	126	N/A	N/A	N/A	N/A	N/A
5	SSN5	380	ELLS 2 X 90 L.R. SCH. XH	332	483	41	130	N/A	N/A	N/A	N/A	N/A
6	TAE6	30	ELLS 6 X 45 SCH. XH	318	478	40	136	N/A	N/A	N/A	N/A	N/A
7	SA3	20	RED. TEE 2 X 1 1/2 SCH. STD	372	527	40	141	N/A	N/A	N/A	N/A	N/A
8	TZA5	22	RED. TEE 6 X 4 SCH. STD	330	496	46	135	N/A	N/A	N/A	N/A	N/A
9	SSV5	17	CONC. RED. 2 1/2 X 2 SCH. STD	339	488	29	128	N/A	N/A	N/A	N/A	N/A
10	TYC5	9	ELLS 8 X 90 L.R. SCH. XH	322	491	39	141	N/A	N/A	N/A	N/A	N/A

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	TAE6	13369	0.307	0.170	0.670	0.014	0.002	0.270	0.060	0.055	0.039	0.030	0.000	0.000
CF	OU5	23880	0.340	0.200	0.730	0.014	0.001	0.290	0.040	0.050	0.020	0.040	0.001	0.001
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
CF	FT5	95794	0.292	0.160	0.660	0.008	0.003	0.270	0.050	0.078	0.023	0.040	0.000	0.000
HF	SSN5	24683	0.344	0.190	0.790	0.007	0.001	0.280	0.050	0.040	0.040	0.020	0.001	0.001
HF	TAE6	13369	0.307	0.170	0.670	0.014	0.002	0.270	0.060	0.055	0.039	0.030	0.000	0.000
CF	SA3	M33245	0.300	0.230	0.390	0.018	0.010	0.210	0.020	0.010	0.000	0.010	0.000	0.000
CF	TZA5	12676	0.363	0.190	0.870	0.010	0.016	0.232	0.060	0.082	0.050	0.004	0.000	0.000
CF	SSV5	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	TYC5	10764	0.353	0.190	0.770	0.011	0.001	0.300	0.060	0.089	0.055	0.090	0.000	0.000

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 Nº:
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 suplier Raw material certs Nº:
03017150 158101 99013090
02006357 160515
QLC199912S0 03013754 152468 03006646

Notas:
Formado en caliente a 780ºC-940ºC, enfriado al aire;Formado en frio normalizado a 940ºC max.
Tiempo de permanencia 10'.
Inspeccion Dimensional: Satisfactoria.
HF: FORMADO EN CALIENTE/HOT FORMED CF: FORMADO EN FRIO/COLD FORMED

Notes:
Hot formed fittings in a range from 780ºC to 940ºC, Cooled in still air;
Cold formed normalized at 940ºC max.
Holding time 10'.
Visual dimensional check: Satisfactory.

Gerente de Aseguramiento de Calidad:
Quality Assurance Mannager:
ING. JOSE MARTINEZ MACIAS

CC-008