Tenaris

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

Numero: Number:	Pagina/Page:
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Vendido a: Sold to: PLESA ANAHUAC	Pedido del Cliente No: Customers Order No: 897 1019 1150	Lista de Empaque: Packing List: 8203	Fecha/Date: 11 de Mayo de 2006
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234-97, A234-02 / ASME A/SA 234 WPB - NACE MR 01.75-2003 - 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

DESCRIPCION DE MATERIAL / MATERIAL DESCRIPTION				PRUEBAS MECANICAS / MECHANICAL TEST				PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C				
ART. ITEM	COLADA HEAT CODE	CANTIDA 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	T24002	1	ELLS 12 X 90 L.R. SCH-40	333	484	39	122					
2	T26967	5	ELLS 12 X 90 L.R. SCH-40	316	477	40	112					
3	S43382	65	ELLS 6 X 90 S.R. SCH-STD	305	473	41	126					
4	T25752	3	ELLS 8 X 90 L.R. SCH-STD	306	478	42	116					
5	T27420	1	ELLS 8 X 90 L.R. SCH-STD	293	473	46	116					
6	T27435	60	TEE 8 SCH-STD	304	467	45	116					
7	T26676	9	RED. TEE 10 X 8 SCH-STD	318	473	44	122					
8	T27406	1	RED. TEE 10 X 8 SCH-STD	318	471	46	116					
9	T27073	15	RED. TEE 6 X 4 SCH-STD	331	464	35	108					
10	T27434	15	RED. TEE 8 X 4 SCH-STD	306	468	45	114					

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	T24002	24002	0.304	0.170	0.660	0.011	0.002	0.290	0.050	0.059	0.042	0.030	0.000	0.000
HF	T26967	26967	0.310	0.170	0.670	0.009	0.001	0.300	0.050	0.078	0.050	0.050	0.000	0.000
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	T25752	25752	0.315	0.180	0.680	0.008	0.002	0.280	0.050	0.077	0.021	0.030	0.000	0.000
HF	T27420	27420	0.322	0.180	0.690	0.012	0.003	0.028	0.070	0.075	0.029	0.040	0.000	0.000
CF	T27435	27435	0.300	0.160	0.670	0.009	0.002	0.270	0.070	0.076	0.038	0.030	0.000	0.000
CF	T26676	26676	0.304	0.170	0.690	0.010	0.002	0.290	0.060	0.065	0.002	0.040	0.000	0.000
CF	T27406	27406	0.302	0.170	0.680	0.009	0.001	0.260	0.040	0.064	0.021	0.030	0.000	0.000
CF	T27073	27073	0.306	0.170	0.680	0.007	0.002	0.280	0.050	0.075	0.026	0.040	0.000	0.000
CF	T27434	27434	0.297	0.160	0.670	0.009	0.002	0.270	0.060	0.075	0.033	0.030	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 conforme ASTM A106GradeB 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 conform to ASTM A106 Grade B Nº:

05020449 06003195 301928
05029650 06006671 06007157
06002709 06005325 06003965

6007155

"Este material cumple con los requerimientos especificados en la orden".
"The material of this certificate heat number mentioned above is in compilance with the requirements specified in the order".

Notas
Formado en caliente a 780°C-940°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 780°C to 940°C, cooled in still air,
Cold formed nomalized at 940°C max.
Holding time 10'.
Visual dimensionalcheck: Satisfactory
CF: FORMADO EN FRIO/COLD FORMED

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 Aseguramiento de Calidad:
Quality Assurance Coordinator

ING. JOSE MARTINEZ MACIAS

CC-008