Tenaris

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

Numero: Number: 12017

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Vendido a: Sold to: TUCOTA

Pedido del Cliente No: Customers Order No: 7731,7905

Lista de Empaque: Packing List: 6709

Fecha/Date: 30 de Abril de 2004

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

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	TFL6	20	CODO 6 X 45 CED XS	311	491	44	111					
2	SYZ5	20	CODO 5 X 45 CED STD	323	485	39	132					
3	SDX6	50	CODO 3 X 90 R.L. CED XS	320	485	372	114					
4	SON5	180	CODO 2 X 90 R.L. CED STD	343	493	36	126					
5	JN5	20	CODO 2 X 90 R.L. CED STD	348	505	35	128					
6	SBH6	50	CODO 5 X 90 R.L.CED STD	315	467	39	141					
7	SSE5	25	CODO 5 X 90 R.L. CED XS	316	499	139	139					
8	TDO6	20	TEE RED 6 X 3 CED STD	313	481	40	126					
9	SCR6	528	CODO 3 X 90 R.L. CED STD	299	471	32	133					
10	SCV6	138	CODO 4 X 90 R.L. CED STD	343	487	36	136					

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	TFL6	15572	0.312	0.170	0.730	0.007	0.002	0.270	0.050	0.087	0.003	0.060	0.000	0.000
HF	SYZ5	25845	0.318	0.180	0.760	0.009	0.002	0.290	0.030	0.030	0.010	0.020	0.001	0.001
HF	SDX6	29808	0.312	0.190	0.720	0.008	0.001	0.290	0.005	0.006	0.002	0.006	0.001	0.001
HF	SON5	24041	0.319	0.180	0.750	0.009	0.002	0.310	0.020	0.050	0.020	0.040	0.001	0.001
HF	JN5	21962	0.334	0.180	0.810	0.010	0.001	0.290	0.040	0.040	0.030	0.030	0.001	0.001
HF	SBH6	25899	0.324	0.180	0.740	0.011	0.001	0.270	0.050	0.030	0.030	0.030	0.001	0.001
HF	SSE5	21484	0.324	0.190	0.720	0.011	0.001	0.300	0.030	0.060	0.010	0.020	0.001	0.001
CF	TDO6	15280	0.305	0.170	0.670	0.010	0.003	0.270	0.040	0.092	0.030	0.050	0.000	0.000
CF	SCR6	29381	0.317	0.170	0.800	0.009	0.001	0.290	0.030	0.060	0.010	0.020	0.000	0.000
CF	SCV6	29383	0.332	0.190	0.800	0.009	0.001	0.300	0.020	0.030	0.010	0.010	0.001	0.001

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 Matena 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

04006733 165685 180199
158105 152466 165685
150430 04003195 0197

180213

"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

Gerente de Aseguramiento de Calidad:
Quality Assurance Mannager:

ING. JOSE MARTINEZ MACIAS

CC-008