

Tenaris Group

CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE

Numero:
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Fecha/Date:
AGOSTO 18 de 2003

(DIN EN 10204 3.1.B - ISO 10474 3.1.B)

Vendido A: **TUBOS CONEXIONES Y TANQUES, S.A. DE C.V.**
 Sold to:

Pedido del cliente No: **6604, 6653**
 Customers Order No:

Lista de empaque:
 Packing List: **6167**

Bocas / Ends
Biselado / Bevelled ends

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

DESCRIPCION DE MATERIAL / MATERIAL DESCRIPTION			PRUEBAS MECANICAS / MECHANICAL TEST				PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C					
ART. ITEM	COLADA HEAT CODE	CANTIDAD QUANTITY	DESCRIPCION / DESCRIPTION	ESF. CEDENCIA YIELD STRENGTH (MPa)	ESF. RUPTURA TENSILE STRENGTH (MPa)	ELONG. %2"	DUREZA HARDNESS HR	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
1	H15	3	CAPS 16 CED STD	300	439	34	156	N/A	N/A	N/A	N/A	N/A
2	WJ5	168	CODO R.L. 1 X 90 CED STD	346	508	33	131	N/A	N/A	N/A	N/A	N/A
3	BNS	300	CODO R.L. 1 1/2 X 90 CED STD	334	514	50	124	N/A	N/A	N/A	N/A	N/A
4	JX5	243	CODO R.L. 1 1/4 X 90 CED STD	390	536	54	128	N/A	N/A	N/A	N/A	N/A
5	JH5	20	CODO 2 X 45 CED XS	329	486	36	128	N/A	N/A	N/A	N/A	N/A
6	JN5	40	CODO R.L. 2 X 90 CED STD	348	505	35	128	N/A	N/A	N/A	N/A	N/A
7	ON5	360	CODO R.L. 2 X 90 CED STD	343	493	36	126	N/A	N/A	N/A	N/A	N/A
8	RS5	103	CODO R.L. 2 X 90 CED XS	337	493	39	128	N/A	N/A	N/A	N/A	N/A
9	SNS	17	CODO R.L. 2 X 90 CED XS	332	483	41	130	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
CF	H15	466118	0.2860	1.50	0.780	0.012	0.012	0.210	0.020	0.010	0.001	0.020	0.001	0.001
HF	WJ5	KFO1NB	0.3370	1.90	0.820	0.015	0.007	0.240	0.030	0.010	0.010	0.020	0.002	0.000
HF	BNS	43300	0.3250	1.80	0.770	0.010	0.000	0.300	0.040	0.040	0.020	0.020	0.001	0.001
HF	JX5	21962	0.3340	1.80	0.810	0.010	0.001	0.290	0.040	0.040	0.030	0.030	0.001	0.001
HF	JH5	22069	0.3160	1.80	0.700	0.010	0.001	0.280	0.050	0.040	0.020	0.030	0.001	0.001
HF	JN5	21962	0.3340	1.80	0.810	0.010	0.001	0.290	0.040	0.040	0.030	0.030	0.001	0.001
HF	ON5	24041	0.3190	1.80	0.750	0.009	0.002	0.310	0.020	0.050	0.020	0.040	0.001	0.001
HF	RS5	24684	0.3330	1.90	0.740	0.007	0.001	0.290	0.040	0.030	0.040	0.020	0.001	0.001
HF	SNS	24683	0.3440	1.90	0.790	0.007	0.001	0.280	0.050	0.040	0.040	0.020	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 Materia Prima con N°:
 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 certs N°:
 41650 0468 2005327
 152467 152462 152466
 158105 161655 160515