



INSPECTION CERTIFICATE EN 10204 3.1	Number: 420656	Rev: 0
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Date: 05.03.2009		05.03.2009

CUSTOMER : COTUBES, S.A. PO : C02621 OUR REFERENCE: J9337
 STANDARD : ASTM A269-04
 ADDIT. SPECS : NACE MR01.75-03 / ISO 15156-3
 GRADE : TP316L
 DIMENSIONS : 30 X 2
 MATERIAL : SEAMLESS STAINLESS STEEL TUBE
 COLD ROLLED; PICKLED-PASSIVATED;
 FLAIN ENDS SQUARE CUT;

COTUBES CERTIFIES
THE AUTHENTICITY
OF THIS COPY WITH
THE ORIGINAL WHICH
IS INScribed BY DMT

ITEM YOUR	TTI.	HEAT NR.	NO. OF PIECES	WEIGHT KG	TOTAL LENGTH
	2	40796	20	182	127,55

RAW MATERIAL

MELTING PROCESS: ELECTRIC FURNACE + A.O.D FROM: ACERALAVA
 PEELED BARS; MACROETCH TESTING: GOOD;

CHEMICAL COMPOSITION (*1 L: LADLE; C: PRODUCT)

*1 HEAT	C	Mn	Si	P	S	Ni	Cr	Mo
L 40796	0,016	1,40	0,480	0,028	0,0010	11,40	16,85	2,14
C 40796	0,021	1,40	0,490	0,029	0,0020	11,30	16,85	2,12

HEAT TREATMENT

SOLUTION ANNEALED 1100 °C HOLDING TIME >=1.5 MIN/MM WATER QUENCHED

HEAT NR.	TEST NR.	T (°C)	TENSION			IMPACT TESTS		HARDNESS HRB
			RM	RP 0,2	RP 1,0	A	Z	
40796	900843	20	633,0	342,0	386,0	47,1		86 87

TECHNOLOGICALS

FLARING TEST: GOOD

NON DESTRUCTIVE TEST

100 % EDDY CURRENT TEST AT E.426 , GOOD
 STEEL GRADE CHECKING ON EACH TUBE BY SPECTROMETRY (PMI): SATISFACTORY
 DIMENSIONAL CHECKING ON EACH TUBE, SATISFACTORY
 VISUAL INSPECTION ON EACH TUBE, SATISFACTORY

CIAL DE TUBOS Y A. ESPECIALES, S.A.
 «COTUBES»
 Satisfactory Ind. Saratx
 (Complejo Industrial Tubacex)
 Teléf. 945 / 39 88 00 (4 líneas)
 Fax: 945 / 89 34 22
 01470-AMURRIO (ALAVA)

MARKS

TUBACEX ASTM-A 269 TP316L 30 X 2 CD SMLS HEAT/.....

REMARKS

MATERIAL MANUFACTURER APPROVED WITH CERTIFICATE NR. 07/2001/MQC BY TÜV SÜDDEUTSCHLAND (NOTIFIED BODY 0036) TO ISSUE CERTIFICATES OF SPECIFIC PRODUCT CONTROL IN ACCORDANCE WITH PRESSURE EQUIPMENT DIRECTIVE 97/23/EC ANNEX 1 POINT 4.3. MATERIAL CHARACTERISTICS COMPLY WITH POINT 7.5 OF ANNEX I TO PED BY HAVING AN ELONGATION AFTER RUPTURE AT TENSILE TEST NO LESS THAN 14 % AND A BENDING RUPTURE ENERGY AT IMPACT TEST NO LESS THAN 27 J AT 20°C.



We hereby certify that the material herein described has been manufactured, sampled, tested and inspected in accordance with above standards and specifications and satisfies the order's requirements.
 This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release a copy of it, he must agree its conformity to the issued, assuming the responsibility for any omissions or I.T.I.S.A. not allowed.
 Any forgery or falsification of this certificate shall equally prosecuted.

T.T.I.
Tubacex Tubos Inoxidables, S.A.
INGENIERIA DE CALIDAD

Jon Alvaro Zubizarreta