

# ROLDAN, S.A. - Stainless Steels

## FACTORY

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## HEAD OFFICE

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## INSPECTION CERTIFICATE

3.1  
EN 10204



CERTIFICATE N°	2010/000347	DATE	2/02/2010	SHEET	1	DELIVERY NOTE N°	2010/074205
GRADE	RDN-273 EN10.088:3 ( 1.4404. )						
CUSTOMER	DAMSTAHL AB						
DIMENSIONS	30,00 x 30,00 x 4,00 mm.						
LENGTH	6.000 mm.	TOLERANCE	DIN 1020				
PRODUCT	Equal angles, hot rolled, annealed, pickled						
REQUIREMENTS	EN10.088:3	CUSTOMER ORDER	628059				
TENSILE TEST	EN 10002-1						
ACCORDING TO	EN 10.272	EDITION	AD-2000 W2	AD-2000 W10			
INTERGRANULAR CORROSION	EN ISO 1651-2 SATISFACTORY	WITHOUT OBJECTIONS					
SURFACE AND DIMENSIONS CONTROL	WITHOUT OBJECTIONS	Spektrometrical Identity Test: O.K.					
IMPACT TEST, SAMPLE DIMENSIONS	EN 10.045-1						

ORDER N°	WORKS N°	MARKS / BOX	HEAT NUMBER	SAMPLE	WEIGHT
SN11890 1		1 / VE75832	M4N7	M4N7	569

PRODUCTION PROCESS  
**EAF + AOD + CC**

TRADE MARK

MARKING  
HEAT NUMBER  
GRADE ( RDN-273 )

INSPECTOR STAMP  
**R3**

QUALITY INSPECTOR  
JOAQUIN DIEGUEZ GONZALEZ

QUALITY CONTROL REPRESENTATIVE  
signature is not necessary according to EN 10.204

CAST	SAMPLE	SAMPLE DIMENSIONS	Observ. T°	Rm	Rp 0,2%	Rp 1%	Z %	A %	Agt %	IMPACT STRENGTH ISO-V (J)		HARDNESS HB	FATIGUE TEST	BEND TEST	CROSS SECTIONAL AREA mm <sup>2</sup>	Kg / m
				N/mm2	N/mm2	N/mm2	%L	%d		20°C	-196°C					
M4N7	M4N7		20°C	694	445	492	51	43				213				
REQUIREMENTS	EN ISO 377			500 700	200	235		40		100	40	215				

CAST	CHEMICAL COMPOSITION %											
	C	P	S	Si	Mn	Cr	Ni	Mo	Ti	N	Cu	Co
M4N7	0,0200	0,0200	0,0040	0,4190	1,6210	16,9730	10,1610	2,1160	0,0040	0,0450	0,0820	0,0250
REQUIREMENTS						16,5000	10,0000	2,0000				
	0,0300	0,0450	0,0300	1,0000	2,0000	18,5000	13,0000	2,5000		0,1100		



OBSERVATIONS	EN 10.088:3 - 1.4401/1.4404 AISI-316/316L ASTM-A-276 CONDITION-A ASTM-A-479 CONDITION ANNEALED ASM-SA-479
OTHER TEST RESULTS	REQUIREMENTS TRD100 TRB100,AD-2000-W2-W10,DGRL97/23/BC (PED)
HEAT TREATMENT	1.050 °C AND WATERCOOLED