

# ROLDAN, S.A. - Stainless Steels

**FACTORY**

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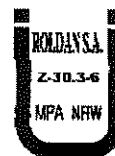


**HEAD OFFICE**

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## INSPECTION CERTIFICATE

3.1  
 EN 10204



CERTIFICATE N°	2010/001467	DATE	12/07/2010	SHEET	1	DELIVERY NOTE N°	2010/076000
GRADE	ACX-332	EN10.088:3 ( 1.4404. )					
CUSTOMER	DANSTAHL AB						
DIMENSIONS	60,00 x 60,00 x 6,00 mm.						
LENGTH	6.000 mm.			TOLERANCE	DIN 1028		
PRODUCT	Equal angles, hot rolled, annealed, pickled						
REQUIREMENTS	EN10.088:3			CUSTOMER ORDER			
TENSILE TEST	EN 10002-1			640 735 (HJ)			
ACCORDING TO	EN 10.272		EDITION	AD-2000 W2 AD-2000 W10			
INTERGRANULAR CORROSION	EN ISO 3651-2 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
EN12611 1		1 / VF10659	R7V2	R7V2	611
		2 / VF10663	R7V2		578
		3 / VF10664	R7V2		576

**PRODUCTION PROCESS**  
 EAF + AOD + CC

**TRADE MARK**

**MARKING**  
 HEAT NUMBER  
 GRADE ( ACX-332 )

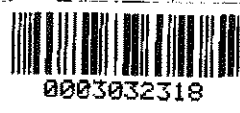
**INSPECTOR STAMP**  
**R3**

**QUALITY INSPECTOR**  
 JOAQUIN DIEGUEZ GONZALEZ

**QUALITY CONTROL REPRESENTATIVE**  
Signature is not necessary according to EN 10.204

CAST	SAMPLE	SAMPLE DIMENSIONS	Observ. T °	Rm N/mm2	Rp 0,2% N/mm2	Rp 1% N/mm2	Z %	A %	Agt %	IMPACT STRENGTH ISO-V (J)		HARDNESS HB	FATIGUE TEST	BEND TEST	CROSS SECTIONAL AREA mm²	Eg / m
										20 °C	-196 °C					
R7V2	R7V2		20 °C	687	389	433	50	42		280		210				
REQUIREMENTS	EN ISO 377			500 700	200	235		40		160 40		215				

CAST	CHEMICAL COMPOSITION %											
	C	P	S	Si	Mn	Cr	Ni	Mo	Ti	N	Cu	Co
R7V2	0,0190	0,0310	0,0020	0,3620	1,5980	17,0100	10,0030	2,0060	0,0080	0,0390	0,3840	0,1310
REQUIREMENTS	0,0300	0,0450	0,0300	1,0000	2,0000	16,5000 18,5000	10,0000 13,0000	2,0000 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

<b>OTHER TEST RESULTS</b>	<b>REQUIREMENTS</b>
HEAT TREATMENT 1.050 °C AND WATERCOOLED	TRD100 TRB100, AD-2000-W2-W10, DGRL97/23/EC (PED)