

527249

R146361



INSPECTION CERTIFICATE  
EN 10204:2004 / 3.1

Number: 722721 Rev: 01  
Page: 1 / 4

Created on: Modified on:  
Date: 16.11.2020 28.01.2021

**ACERÍA DE ALAVA S.A.U.**

Registro Mercantil de Álava Tomo 414, Folio 131, Hoja VI-325. NIF A-01.010.958

Poligono Industrial Saracho

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01470 Amurrio(Álava)

FAX: +34 946725062

Spain

E-MAIL: qualityaceralava@tubacex.es

**CUSTOMER DESCRIPTION**

<b>CLIENT SOLD TO</b> MAGELLAN CORPORATION SUITE 300 A 1650 LAKE COOK ROAD, DEERFIELD ILLINOIS 60015 USA	<b>CLIENT SHIP TO</b> International Transload Logistics 2800 W Columbus Ave, CHICAGO 60652 USA
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CLIENT ORDER: 213442

SALES ORDER: 347763



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ACERÍA DE ALAVA S.A.U.  
ACERALAVA  
Quality & Environmental Director

J.G.  
Alfonso González Arco

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STAINLESS STEEL ROUND BAR  
 RANDOM LENGTHS: 3.050/4.270 MM ,  
 GRADE: F316, F316L, 316, 316L, AISI 316, AISI 316L.  
 STANDARD: ASME SECT. II PART. A SA182/SA182M-2017 ED.  
 ASME SECT. II PART. A SA276/SA276M-2017 ED.  
 ASME SECT. II PART. A SA479/SA479M-2017 ED.  
 ASTM A182/A182M-19  
 ASTM A276/A276M-17  
 ASTM A479/A479M 18  
 ASTM A314-15  
 ASTM A473-18  
 ASTM A484/A484M-18  
 ASTM A582-05 Condition A.  
 AMS 5648-M  
 AMS 5653-J  
 ASTM A751-14a  
 ROHS COMPLIANT  
 ULTRASONIC API 6A  
 AMS-QQ-S-763B  
 Ingot Cast  
 ASTM A370-18, TESTING AT MID-RADIUS#  
 Macrostructure:# Satisfactory#, To be included.  
 Ultrasonic Inspection: Satisfactory.  
 ASME SA193 section 2 Part a grade B8 # Chemistry only  
 ASTM A193 Grade B8 - Chemistry only  
 ASME SA320 Class 1 B8 - Chemistry only  
 ASTM A320 Class 1 B8 - Chemistry only  
 AMS-QQS-763D  
 Specification MIC 1771  
 ANSI/NACE MR0103/ISO 17945:2015  
 ANSI/NACE MR0175/ISO15156-3:2015  
 TOLERANCES: ASTM A182/A182M-19  
 DIMENSIONS: 15.00" RD  
 PRODUCTION TYPE: FORGING

Sales Item	Client Item	Delivery No	Lot No.	Heat No	Pieces	Weight	Un Lgth
40		8120056857	200256022	58041	1	3.988 KG	3050-4270 MM

LOT No	BAR No
200256022	23

RAW MATERIAL		Method
Heat Nr: 58041	Supplier ACERALAVA (SPAIN)	Electric furnace+AOD

CHEMICAL COMPOSITION (%)		*L: Ladle C:Products									
* Heat	Seq	C	Mn	Si	P	S	Ni	Cr	Mo	Al	Cu



ACERVA DE ALAVA, S.A. I.  
ACERALAVA  
Quality & Environmental Director  
*J.G.*  
Alav. Control Area

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CHEMICAL COMPOSITION (%)				*L: Ladie C:Products									
	Heat	Seq	C	Mn	Si	P	S	Ni	Cr	Mo	Al	Cu	
L	58041	1	0,004	1,35	0,490	0,033	0,0240	10,21	16,90	2,13	0,005	0,41	
C	58041	1	0,004	1,36	0,500	0,033	0,0240	10,30	16,85	2,15	0,005	0,37	
	Heat	Seq	V	Ti	Nb	W	Co	N					
L	58041	1	0,045	0,003	0,019	0,040	0,083	0,0645					
C	58041	1	0,047	0,003	0,014	0,040	0,080	0,0645					

**SURFACE FINISH**  
ROUND MACHINED BARS

**INGOT REDUCTION**

Item	Reduction
40	2,90

**HEAT TREATMENT**

ASTM A582-05 Condition A

SOLUTION ANNEALED AT 1050 °C , 6 h , WATER

**TENSILE TEST**

Lot No.	Sample	T	Rp0.2	Rm	A4	A5	Z	Type
		°C	MPa	MPa	%	%	%	
200256022	1	20	322	556	56	55	77	L
	2	20	318	556	56	54	79	L

**HARDNESS TEST**

Lot No.	Sample	HBW1	HBW2
200256022	1	144	147

**IMPACT TEST**

Lot No.	Sample	T	Wspec	Ecv 1	Ecv 2	Ecv 3	Ecv AVG	Type	Sam Cond
		°C	mm	J	J	J	J		
200256022	1	20	10,0	334	340	380	351	L	S
	1	20	10,0	147	146	131	141	T	S

**Hardness near to the surface**

Lot No.	Sample	HBW1	HBW2
200256022	1	156	159

**Roughness**

Lot No.	Sample	Value	Type
200256022	1	1,250	RA



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Quality & Environmental Director

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GRAIN SIZE ASTM E112

Lot No.	Sample	G1	G2	MAGN
200256022	1	3	3	100

MICROINCLUSIONS ACCORDING TO ASTM E45

Lot No.	Sample	A Thin	A Heavy	B Thin	B Heavy	C Thin	C Heavy	D Thin	D Heavy	MAGN
200256022	1	0,5	1,0	0,0	0,0	0,5	0,0	0,5	0,0	100

**METALURGICAL TESTS**

INTERGRANULAR CORROSION TEST ACC. TO ASTM A262 PRACT."E": SATISFACTORY

**NON-DESTRUCTIVE TESTS**

ULTRASONIC TESTED ACCORDING TO: CLASS FBH=6; STANDARD ASTM A-388/SA388/A-745 QJ2 SATISFACTORY

STEEL GRADE ASSESMENT BY LASER ANALIZER: WITHOUT OBJECTIONS

**REMARKS**

STAMP OF THE INSPECTION REPRESENTATIVE: AC1

THIS MATERIAL AND THE ELEMENTS USED ALONG MANUFACTURING ARE MERCURY FREE

NO WELDING WAS PERFORMED ON THE MATERIAL

RADIATION CONTAMINATION TEST: OK

COUNTRY OF MELT AND MANUFACTURE: SPAIN



ACERALAVA S.A.U.  
ACERALAVA  
Quality & Environmental Director  
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Alfonso González Ariza

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1650 Lake Cook Road Suite 300A Deerfield, IL 60015 USA

Telephone: (847) 205-1155

MOR: 372243

SR: 20248107

### Packing List / Certificate of Conformance

Sold To: EMJ-Schaumburg

Producing Mill: Aceralava (Tubacex Group)

Customer PO / Item	Bundle #	Description	Heat # / Lot #	Pieces	Weight Pounds
P149006-423 / 527249	872029	316-RTANN-BRRD-15.0000	58041 / 200256022	1	8,792
<b>Total</b>				1	8,792