

527249

R146361



INSPECTION CERTIFICATE
EN 10204:2004 / 3.1

Number: 722721 Page: 1/4	Rev: 01
Created on: Date: 16.11.2020	Modified on: 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

01470 Amurrio(Álava)

Spain

TL: +34 946719300

FAX: +34 946725062

E-MAIL: qualityaceralava@tubacex.es

CUSTOMER DESCRIPTION

CLIENT SOLD TO MAGELLAN CORPORATION SUITE 300 A 1650 LAKE COOK ROAD, DEERFIELD ILLINOIS 60015 USA	CLIENT SHIP TO 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.
Alto 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		
Heat Nr:	Supplier	Method
58041	ACERALAVA (SPAIN)	Electric furnace+AOD

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



ACERVA DE ALAVA, S.A. U.
ACERALAVA
C/Arriaga, 100 48940 Leizor (Bizkaia)
Any. Donostia Arzo

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CHEMICAL COMPOSITION (%)				*L: Ladle 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 1060 °C , 6 h , WATER

TENSILE TEST

Lot No.	Sample	T °C	Rp0.2 MPa	Rm MPa	A4 %	A5 %	Z %	Type
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 °C	Wspec mm	Ecv 1 J	Ecv 2 J	Ecv 3 J	Ecv AVG J	Type	Smm Cond
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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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-389/SA388/A-745 Q12 SATISFACTORY

STEEL GRADE ASSESSMENT BY LASER ANALYZER: 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



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ACERA DE ALAVA, S.A.U.
AGETULAVA
GARANTIA DE CALIDAD Y SEGURIDAD
S.G.
ALTA GERENCIA

ANS



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

Telephone: (847) 205-1155

MOR: 372243

SR: 20248107

Packing List / Certificate of Conformance

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
Total				1	8,792