

Report Number: 5279170

V	PHONE 26	0.434.2800 - F	AX 260 434	2801			Certifi	ed on	Jan	17,	2017	Page	1	of	2
Order I.D.		Order	r Date	Com	modity	y Code				-					
1601746	002	10/2	0/16	41	04	.ORT									
Dim 1		Dim 2	1	Dim 3		Heat I.D.	Customer I.	D. Custo	mer Purcha	se Order					
4.0000	)	.0000		.000	00 :	26753	2 00247	5 512	85						
Product Shape				Produ	ct Surf	ace						Customer	Grade		
Rounds				HR	& 1	Rough	Turned					410			
Length (Inches)						Bi	ll of Lading #	Weight							
132.0	000	Min.	156.	000	Ma	x. 4	28482				Melt	Date:	5/	04/1	5

To

VALBRUNA STAINLESS, INC. 1000 CANNONBALL ROAD Ship POMPTON LAKES, NJ 07442 To

VALBRUNA STAINLESS, INC. 1000 CANNONBALL RUN Sold POMPTON, NJ 07442

Lifts: 0077									
Condition A	QQ-S	5-763F				AST	MA 276-16	а	
ASTMA 479-16	ASTM	IA 484-15	5			ASMI	ESA 479-1	3	
AMS 2303F	AMS	5612J				AMS	5613R		
SAE-AMS QQ-S-763D									
CHEMICAL ANALYSIS									
C Mn P	S Si	Cr	Ni	Mo	Cu	Co	N	Al S	Sn
.15 .47 .018	.001 .42	11.93	.45	.13	.07	.02	.03	.004 .00	)4
BRINELL (Type A dev	rice) (E-10	)							
HBW							9		
217									
ROCKWELL HARDNESS A	STM E18-16								
CAPABILITY									
HRC AUST(F) AU	JST(HR) QUE	NCH							
45.0 1750	.50	Air							
ROOM TEMP TENSILE A	STM E8-16a								
TS (PSI) .2%YS (1	PSI) %EL(2"	) %RA	A.						
98300 73									
Cap HRC TS (PSI)	.2%YS (PSI	) %EL(	(2")	%RA	AUST (	F)	AUST(HR)	QUENCH	
42 192300	15630	0 1	4.5	55.9	17	00	1.00	Air	
TEMP(F) TEMP(HR)	QUENCH T	'EMP(F)	TEMP	(HR)	QUENCH				
600 2.00	Air	600		2.00	Air				
MAGNETIC PARTICLE t	.o AMS2303F								
FREQ SEV		20 <b>4</b> (							
AVG .00 .00									
							eru:	The second secon	The state of the s

Results relate only to the items tested. Certification shall not be reproduced except in full, without written approval of Valbruna Stainless Inc. The recording of false, fictitious, or fraudulent statements on this document may be punished as a felony under federal statutes. Including Federal law Title 18, Chapter 47. Consult material safety data sheet (MSDS) for hazard info. I hereby certify that the reported figures are correct as contained in the records of the corporation. Manager Laboratory Services Tall Tangwehr

email TLandwehr@valbruna.us

Tad Landwehr



Report Number: 5279170

V 1	PHONE 26	0.434.2800 - FAX 260.43	4.2801		Certifie	d on	Jan	17,	2017	Page	2	of	2
Order I.D.		Order Date	Comm	nodity Code									
1601746	002	10/20/16	5 410	04.0RT									
Dim 1		Dim 2	Dim 3	Heat I.E	Customer I.D.	Custon	ner Purchas	e Order					
4.0000	)	.0000	.0000	26753	32 002475	512	85						
Product Shape			Product	Surface						Customer	Grade		
Rounds			HR 8	Rough	Turned					410			
Length (Inches)				E	Bill of Lading # W	eight							
132.0	00	Min. 156.	.000 1	Max. 4	28482				Melt	Date:	5/	04/1	5

VALBRUNA STAINLESS, INC. 1000 CANNONBALL ROAD Ship POMPTON LAKES, NJ 07442 To

VALBRUNA STAINLESS, INC. 1000 CANNONBALL RUN Sold POMPTON, NJ 07442 To

MACR	O ASTM	E340-15/E381	-01	
	MACRO			
BOT	OK			
BOT	OK			
BOT	OK			
TOP	OK			
TOP	OK			
TOP	OK			
GRAI	N SIZE	ASTM E112-13		
G	RAIN SIZ	Etchant	Magnification X	
		6 Grards mod	100	
PERC	ENT FER	RRITE (AMS 23	15)	
%	FERRITE	Etchant	Magnification X	
AVG	. 3	Grards mod	100	
D	ECARB	Etchant Ma	gnification X	
		Grards mod	100	
No we	Idino or v	veld renair done		

No welding or weld repair done.

Material when shipped is free from contamination be mercury, radium, alpha source, and low melting elements.

Reduction Ratio Exceeds 4:1

Electric Furnace melted; AOD refined.

Chemical testing to one or more of the listed ASTM methods:

E415-14, E1019-11, E1086-14.

Location of tensile fracture: inside middle of gage length. %elong after fracture.

Chemical Analysis performed at Acciaierie Valbruna, Italy.

No mercury or low melting alloy contamination. No weld repair.

Material melted in Italy, manufactured in the United States.

Material conforms to listed specifications. DFARS compliant. Our heat treat furnaces use air atmosphere.

Quality system is compliant with ISO 9001;2008. Produced in accordance with EN 10204 3.1.

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Manager Laboratory Services Tall Tanquehe

email: TLandwehr@valbruna.us







Report Number: 5352330

Melt Date:

5/27/15

Certified on Jul 12, 2017 Page 1 of 2 Order Date Commodity Code 1701400 001 6/21/17 Dim 1 Dim 2 Heat I.D. Customer I.D. Customer Purchase Order 4.7500 .0000 .0000 A13151 001581 M21003425 Product Shape Customer Grade HR & Rough Turned 410 Rounds Bill of Lading # Length (Inches) Weight

430101

VALBRUNA STAINLESS INC.

1000 CANNONBALL Rd.
POMPTON LAKES, NJ 07442

156.000 Max

132.000 Min.

VALBRUNA STAINLESS, INC.

Sold 2400 TAYLOR STREET WEST
FORT WAYNE, IN 46802

Lifts: 0020				
Condition A	QQ-S-763F	The second secon	UNS S41000	
ASTMA 276-17	ASTMA 479-17		ASMESA 479-13	3
AMS 2303F	AMS 5612J		AMS 5613R	
ROHS COMPLIANT	1110 30100			
CHEMICAL ANALYSIS				
C Mn P S	Si Cr N	i Mo Cu	Co N	Al Sn
.13 .47 .020 .002	.41 11.86 .3	.05 .09	.02 .03 .	.002 .004
BRINELL Type A device E10				
HBW				
203				
ROCKWELL HARDNESS ASTM E1	8-16			
CAPABILITY				
HRC AUST(F) AUST(HR)	QUENCH			
43.4 1750 .50	Air			
ROOM TEMP TENSILE ASTM E8	-16a			
TS (PSI) .2%YS (PSI) %	EL(2") %RA			
95400 72000				
Cap HRC TS (PSI) .2%YS				
42 197000				Air
TEMP(F) TEMP(HR) QUENC	H TEMP(F) TEM	(P(HR) QUENCH		
600 2.00 Ai	r 600	2.00 Air		
MAGNETIC PARTICLE to AMS2	303F			
FREQ SEV				
AVG .00 .00				



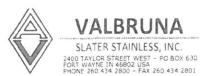
Results relate only to the items tested. Certification shall not be reproduced except in full, without written approval of Valbruna Stainless Inc. The recording of false, fictitious, or fraudulent statements on this document may be punished as a felony under federal statutes. Including Federal law Title 18, Chapter 47. Consult material safety data sheet (MSDS) for hazard info. I hereby certify that the reported figures are correct as contained in the records of the corporation.

Manager Laboratory Services Za

email. TLandwehr@valbruna.us

Tad Landwehr

E Tandwepe



Report Number: 5352330

Certified on Jul 12, 2017 Page 2 of 2

				er ctrte	d OH OUT IZ,	2011	90 2	<u> </u>
Order I.D.	Order Date	Commo	dity Code					
1701400 003	1 6/21/1	7						
Dim 1	Dim 2	Dim 3	Heat I.D.	Customer I.D.	Customer Purchase Order			
4.7500	.0000	.0000	A13151	001581	M21003425			
Product Shape		Product S	urface			Cust	tomer Grade	
Rounds		HR &	Rough	Turned		41	0	
Length (Inches)			Bill	of Lading # W	eight			
132.000	Min. 156	.000 N	1ax. 43	0101		Melt Dat	e: 5	/27/15

VALBRUNA STAINLESS INC.

1000 CANNONBALL Rd.
POMPTON LAKES, NJ 07442

VALBRUNA STAINLESS, INC.

Sold 2400 TAYLOR STREET WEST
FORT WAYNE, IN 46802
To

MACRO ASTM E340-15/E381-01(12)	
MACRO	
BOT OK	
BOT OK	
BOT OK	
TOP OK	
TOP OK	
TOP OK	
GRAIN SIZE ASTM E112-13	
GRAIN SIZE Etchant Magnification X	
5 Grards mod 100	
PERCENT FERRITE (AMS 2315G)	
% FERRITE Etchant Magnification X	
AVG 1.0 Grards mod 100	
DECARB Etchant Magnification X	
OK Grards mod 100	
NI Iding on world rangin dana	

No welding or weld repair done.

Material when shipped is free from contamination be mercury, radium, alpha source, and low melting elements.

Reduction Ratio Exceeds 4:1

Electric Furnace melted; AOD refined.

Chemical testing to one or more of the listed ASTM methods:

E1019-11, E1086-14.

Location of tensile fracture: inside middle of gage length. %elong after fracture.

No mercury or low melting alloy contamination. No weld repair.

Material melted and manufactured in the United States.

Material conforms to listed specifications. DFARS compliant. Our heat treat furnaces use air atmosphere.

Quality system is compliant with ISO 9001:2008. Produced in accordance with EN 10204 3.1.

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Manager Laboratory Services Tall Landwehr

Tad Landweh

email: TLandwehr@valbruna.us



Report Number: 5279170

V	PHONE 26	0.434.2800 - FAX 260	434.2801			Certifie	don	Jan	17,	2017	Page	1	of	2
Order I.D.		Order Date	Co	mmodit	ty Code					-				
1601746	002	10/20/	16 4	104	.ORT									
Dim 1		Dim 2	Dim 3		Heat I.D.	Customer I.D.	Custon	ner Purcha	se Order					
4.0000	1	.0000	.00	00	26753	2 002475	512	85						
Product Shape			Prod	uct Suri	face						Customer	Grade		
Rounds			HR	&	Rough	Turned					410			
Length (Inches)					В	ill of Lading # W	eight							
132.0	00	Min. 150	5.000	Ma	ix. 4	28482				Melt	Date:	5/	04/1	5

Ship To VALBRUNA STAINLESS, INC.
1000 CANNONBALL ROAD
POMPTON LAKES, NJ 07442

VALBRUNA STAINLESS, INC.

Sold 1000 CANNONBALL RUN
POMPTON, NJ 07442
To



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Manager Laboratory Services Z

email: TLandwehr@valbruna.us

E Landwehr
Tad Landwehr



Report Number: 5279170

V	PHONE 26	0.434.2800 - FAX 260.43	4 2801		Certifie	d on	Jan 1	7, 2017	Page	2	of	2
Order I.D.		Order Date	Com	nodity Code								
1601746	002	10/20/16	5 41	04.ORT								
Dim 1		Dim 2	Dim 3	Heat I.	D. Customer I.E	. Custor	mer Purchase Or	der				
4.0000	)	.0000	.000	0 2675	32 002475	512	85					
Product Shape			Product	Surface					Customer	Grade		
Rounds			HR	& Roug	h Turned				410			
Length (Inches)					Bill of Lading #	Neight						
132.0	00	Min. 156.	.000	Max.	428482			Melt	Date:	5/	04/1	.5

Sold

To

VALBRUNA STAINLESS, INC. 1000 CANNONBALL ROAD Ship POMPTON LAKES, NJ 07442 To

VALBRUNA STAINLESS, INC. 1000 CANNONBALL RUN POMPTON, NJ 07442

MACRO BOT OK BOT OK BOT OK TOP OK TOP OK TOP OK GRAIN SIZE ASTM E112-13 GRAIN SIZE Etchant Magnification X 6 Grards mod 100 PERCENT FERRITE (AMS 2315)	MACRO	ASTM	E340-15/E381	-01	
BOT OK BOT OK TOP OK TOP OK TOP OK GRAIN SIZE ASTM E112-13 GRAIN SIZE Etchant Magnification X 6 Grards mod 100 PERCENT FERRITE (AMS 2315)	MA	ACRO			
BOT OK TOP OK TOP OK TOP OK GRAIN SIZE ASTM E112-13 GRAIN SIZE Etchant Magnification X 6 Grards mod 100 PERCENT FERRITE (AMS 2315)	BOT	OK			
TOP OK TOP OK TOP OK TOP OK GRAIN SIZE ASTM E112-13 GRAIN SIZE Etchant Magnification X 6 Grards mod 100 PERCENT FERRITE (AMS 2315)	BOT	OK			
TOP OK TOP OK GRAIN SIZE ASTM E112-13 GRAIN SIZE Etchant Magnification X 6 Grards mod 100 PERCENT FERRITE (AMS 2315)	BOT	OK			
TOP OK  GRAIN SIZE ASTM E112-13  GRAIN SIZE Etchant Magnification X  6 Grards mod 100  PERCENT FERRITE (AMS 2315)	TOP	OK			
GRAIN SIZE ASTM E112-13  GRAIN SIZE Etchant Magnification X  6 Grards mod 100  PERCENT FERRITE (AMS 2315)	TOP	OK			
GRAIN SIZE Etchant Magnification X  6 Grards mod 100  PERCENT FERRITE (AMS 2315)	TOP	OK			
6 Grards mod 100 PERCENT FERRITE (AMS 2315)	GRAIN	SIZE	ASTM E112-13		
PERCENT FERRITE (AMS 2315)	GRA	AIN SIZ	E Etchant	Magnification X	
			6 Grards mod	100	
% PPDDTTP Ptohont Magnification V	PERCEN	NT FER	RRITE (AMS 23:	.5)	
% FERRITE Etchant Magnification X	% F	FERRITE	Etchant	Magnification X	
AVG .3 Grards mod 100	AVG	. 3	Grards mod	100	
DECARB Etchant Magnification X	DEC	CARB	Etchant Ma	gnification X	
OK Grards mod 100		OK	Grards mod	100	

No welding or weld repair done.

Material when shipped is free from contamination be mercury, radium, alpha source, and low melting elements.

Reduction Ratio Exceeds 4:1

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Chemical testing to one or more of the listed ASTM methods:

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