

252304

Rolled Alloys PO 76790 Wt 5581 CPA # FOE 40



VALBRUNA
SLATER STAINLESS, INC.
2400 Taylor Street West, P.O. Box 630
Fort Wayne, Indiana USA 46801
Phone: 260-434-2882 Fax: 260-434-2806

Product Certification Report

Report Number: 4600880

Certified on Nov 09, 2010 Page 1 of 2

Order I.D. 1002974 006		Order Date 11/08/10		Commodity Code	
Dim 1 6.2500	Dim 2 .0000	Dim 3 .0000	Heat I.D. 252304	Customer I.D. 002473	Customer Purchase Order 28668
Product Shape Rounds			Product Surface HR & Rough Turned		Customer Grade 316/316L
Length (Inches) 120.000 Min. 168.000 Max.			Bill of Lading # 413207	Weight	

Ship To
VALBRUNA STAINLESS, INC
4995 S. ROYAL ATLANTA DRIVE
TUCKER, GA 30084

*OK
11/3/10*

Sold To
VALBRUNA STAINLESS, INC.
4995 S. ROYAL ATLANTA DRIVE
TUCKER, GA 30084

Lifts: 0011

MIL-S-7720A AMEND 1 XCEPT Cu	MIL-S-862B	NACE MRO 175-05	ISO 15156
UNS S31600/S31603		ASTMA 182-09a Chem Only	
ASTMA 193-09	ASTMA 276-08a	ASTMA 320-08	
ASTMA 479-08	ASTMA 484-08	ASMESA 182 07 ED Chem Only	
ASMESA 193 07 ED	ASMESA 479-07	ASMESA 484 07 ED	
AMS 5648K	AMS 5653E	SAE-AMS QQ-S-762E	

CHEMICAL ANALYSIS

C	Mn	P	S	Si	Cr	Ni	Mo	Cu	Co	N
.019	1.73	.029	.027	.43	16.84	10.15	2.03	.66	.10	.07

BRINELL HARDNESS ASTM E10-08
HBW
184

TENSILE PROPERTIES ASTM E8-08

TS (PSI)	2%YS (PSI)	%EL(2")	%RA
81700	36900	62.5	50.8

MACRO ASTM E340-00/E381-01
MACRO
OK
OK

GRAIN SIZE ASTM E112-96
GRAIN SIZE Etchant Magnification X
8 Oxalic 100

ASTMA 262-10 PR E (A Utilized)
OXALIC Etchant Magnification X
OK Oxalic 500

Free of mercury and low melting alloy contamination.
 Heated to 1900F min. and water quenched (heating time & temp appropriate for optimum quality).
 No welding or weld repair done.
 Electric Furnace melted; AOD refined.
 Chemical testing performed to one or more of the following ASTM methods: E415-08, E572-02a, E1019-08, E1085-95.
 Location of tensile fracture: inside middle of gage length.
 Chemical Analysis performed at Acciaierie Valbruna, Italy
 No mercury or low melting alloy contamination. No weld repair.

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

 Dennis Hackett

*SV
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Product Certification Report
Report Number: 4600880

Certified on Nov 09, 2010 Page 2 of 2

VALBRUNA
SLATER STAINLESS, INC.
 2400 Taylor Street West, P.O. Box 830
 Fort Wayne, Indiana USA 46801
 Phone: 260-434-2892 Fax: 260-434-2805



Order ID	1002974 006	Order Date	11/08/10	Commodity Code	
Dim 1	6.2500	Dim 2	.0000	Dim 3	.0000
Product Sample	HR & Rough Turned				
Product Surfaces	Product Surfaces				
Length (Inches)	120.000 Min. 168.000 Max. 413207				
Weight	316/316L				

Ship To
 VALBRUNA STAINLESS, INC.
 4995 S. ROYAL ATLANTA DRIVE
 TUCKER, GA 30084

Sold To
 VALBRUNA STAINLESS, INC.
 4995 S. ROYAL ATLANTA DRIVE
 TUCKER, GA 30084

Material melted in Italy, manufactured in the United States.
 Material conforms to listed specifications and is DPAAS compliant.
 Quality system is compliant with ISO 9001:2000. Produced in accordance with EN 10204 3.1.



ROLLED AERO QUALITY ASSURANCE
 APPROVED *[Signature]*
 DATE 05/19/2011

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[Signature]
 Manager Laboratory Services
 Dennis Hadden



CERTIFICATE OF PERFORMANCE

Customer: ROLLED ALLOYS-CANADA, INC Date: 01/09/2012 PAGE 1 of 1

Customer PO# 76790

RA #: L49694

We certify that the material supplied by Rolled Alloys on the above referenced purchase order was processed in accordance with the quality assurance program and procedures approved under our ISO 9001:2008/AS9100 Rev B Certificate. Our records indicate that the material(s) and test report(s) meet the requirements of the purchase order and applicable specifications. The material test reports comply with the requirements of EN 10204 paragraph 4.1, for a Type 3.1 inspection certificate. The materials supplied with this order were produced without known contact to mercury.

Heat - Tracer# 252304 - 242994

Description 6-1/4" DIA RT PRODEC 316L

RA Quality Assurance
Bob K. King

High quality standards are supported by our ISO 9001:2008/AS9100 Rev B Certification