

**VALBRUNA**

SLATER STAINLESS, INC.

2400 TAYLOR STREET WEST - PO BOX 630  
FORT WAYNE IN 46802 USA  
PHONE 260.434.2800 - FAX 260.434.2801**258101****Product Certification Report**Report Number: **4892471**

Certified on Jun 07, 2013 Page 1 of 1

Order I.D. <b>1300681 006</b>		Order Date <b>3/21/13</b>		Commodity Code <b>SSRD00417</b>			
Dim 1 <b>6.7500</b>	Dim 2 <b>.0000</b>	Dim 3 <b>.0000</b>	Heat I.D. <b>258101</b>	Customer I.D. <b>002573</b>	Customer Purchase Order <b>5400177439-R04</b>		
Product Shape <b>Rounds</b>			Product Surface <b>HR &amp; Rough Turned</b>			Customer Grade <b>316/316L</b>	
Length (Inches) <b>120.000 Min. 168.000 Max.</b>			Bill of Lading # <b>419605</b>	Weight			

**Ship To**
**Attention: TKX LOGISTICS  
COPPER AND BRASS SALES  
8001 THYSSENKRUPP PARKWAY  
NORTHWOOD, OH 43619**
**Sold To**
**VALBRUNA STAINLESS, INC.  
2400 TAYLOR STREET WEST  
FORT WAYNE, IN 46802**
**Lifts: 0062**

*NACE MR0175-10 ISO 15156-3	ASTMA 276-10	ASTMA 479-12
AMS 5648L	AMS 5653H	

**CHEMICAL ANALYSIS**

C	Mn	P	S	Si	Cr	Ni	Mo	Cu	Co	N
.023	1.56	.030	.028	.51	17.03	10.28	2.02	.57	.23	.06

**BRINELL HARDNESS ASTM E10-12**

HBW

157

**TENSILE PROPERTIES ASTM E8-11**

TS (PSI)	.2%YS (PSI)	%EL(2")	%RA
78600	33400	66.6	76.7

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

MACRO

OK

**GRAIN SIZE ASTM E112-10**

GRAIN SIZE	Etchant	Magnification X
6	Oxalic	100

**ASTM A262-10 PR E(A Utilized)**

OXALIC	Etchant	Magnification X
OK	Oxalic	500

No mercury or low melting alloy contamination. Continuous carbide and intergranular corrosion test OK.  
Material is RoHS compliant.

Solution annealed at 1900F min. and water quenched (heating time & temp appropriate for optimum quality).

\*Certification revised at Valbruna by D. Hackett (8/21/13).

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

E415-08, E572-02a, E1019-11, E1085-95, E1086-08.

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.

Material melted in Italy, manufactured in the United States.

Material conforms to listed specifications and is DFARS compliant.

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

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

email: DHackett@valbruna.us

Dennis Hackett