



VALBRUNA

SLATER STAINLESS, INC.

2400 TAYLOR STREET WEST
FORT WAYNE IN 46802 USA
PHONE 260.434.2800 - FAX 260.434.2801

Product Certification Report

Report Number: **5490582**

Certified on May 01, 2018 Page 1 of 1

| | | | | | |
|---|-----------------------|---|------------------------------------|---|--|
| Order I.D. OA18001507 0020 | | Order Date 4/02/18 | Commodity Code 316D4.0RT | | |
| Dim 1 4.0000 | Dim 2 .0000 | Heat I.D. 273577 | Customer I.D. 0008000033 | Customer Purchase Order 801006825 | |
| Product Shape Round | | Product Surface HR & Rough Turned | | Customer Grade 316/316L | |
| Length (Inches) 132.000 Min. 156.000 Max. | | Bill of Lading # PL18001762/2 | | Weight 002284 LBS | |

Ship To
VALBRUNA CANADA LTD
8724 HOLGATE CRESCENT
MILTON, ONTARIO, L9T 5Z1

Sold To
VALBRUNA CANADA LTD
8724 HOLGATE CRESCENT
MILTON, ONTARIO, NN L9T 5Z1

Lifts: 0074

| | | |
|-------------------------|------------------------------|------------------|
| Condition A | NACE MR0175/ISO 15156-3 2015 | NACE MR0103-2015 |
| QQ-S-763F | ASTMA 276-17 | ASTMA 479-18 |
| ASMESA 182 13 Chem Only | ASMESA 479-13 | AMS 5648M |
| AMS 5653H | EN 10272 Feb. 2008 | |

CHEMICAL ANALYSIS

| C | Mn | P | S | Si | Cr | Ni | Mo | Cu | Co | N |
|------|------|------|------|-----|-------|-------|------|-----|-----|------|
| .017 | 1.51 | .028 | .025 | .49 | 16.74 | 10.15 | 2.02 | .53 | .12 | .080 |

BRINELL Type A device E10-15a

HBW
159

MACRO ASTM E340-15/E381-01(12)

MACRO
OK

GRAIN SIZE ASTM E112-13

| GRAIN SIZE | Etchant | Magnification X |
|------------|---------|-----------------|
| 7 | Oxalic | 100 |

ASTM A262-15 PR E(A Utilized)

| OXALIC | Structure | Etchant | Magnification X | QUENCH | SENS (F) | SENS (HR) |
|--------|-----------|---------|-----------------|--------|----------|-----------|
| OK | Step | Oxalic | 500 | Air | 1200 | 1.50 |

ASTM A262-15 E 180deg, .25" dia

| BEND TEST | QUENCH | SENS (F) | SENS (HR) |
|-----------|--------|----------|-----------|
| OK | Air | 1250 | 1.50 |

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

*ASTM E8: TN-83500 psi; YS-37900 psi; El(4xD)-57.0; RA-72.9

*Cert revised @ VSSI by A.Asiala 05/20/2021

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

E1019-11, E1086-14.

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 9001:2015. 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

Anmarie C Asiala

email: AAsiala@valbruna.us

ANS