

# Acciaierie Valbruna s.p.a.

255938-1.751



QUALITY MANAGEMENT SYSTEM  
CERTIFIED BY LLOYD'S REGISTER

CERTIFICATO DI COLLAUDO  
ABNAHMEPRUEFZEUGNIS  
INSPECTION CERTIFICATE  
CERTIFICAT DE RECEPTION  
EN 10204 (2004) , 3.1

36100 VICENZA (Italia) - Viale della scienza, 25 z.i.  
Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4

Cliente / Besteller/Kunden/Clien  
VALBRUNA STAINLESS INC.  
2400 TAYLOR STREET WEST  
46801-FORT WAYNE, IN 46801-US

Avviso di Spedizione: D-BZ13003274  
Lieferanzahl/Packing list/L

Certificato nr: MEST359237/2013/  
Prüfung/Test/Essai

Conferma ordine nr: E113003805  
Works/Our Order/Ref nr.

Produttore: **STABILIMENTO DI BOLZANO**  
Hersteller/Hersteller/Usine producer

Ordine nr: 35787 STOCK CHINO  
Bestell/Your order/Commande

Marchio di Fabbrica:  
Zeichen des Lieferwerkes  
Trade mark  
Siglo de fusine productivo



Stato di fornitura: Hot rolled Polished Annealed Peeled  
Lieferzustand/Delivery state/Etat de livraison

Tipo di Elaborazione: E+AOD  
Erweiterungserstellung/Marking process/Mode elaboration

Punzone del Collaudatore:  
Stempel des Werkssachverständigen  
Inspector's stamp/Pointon de l'essayeur

Spezifische:  
Anforderungen / Requirements / Exigences

VSI 0 316/316L A  
AMS 5653 H S31603 A  
ASME SA193 2010 B8M CLASS1 (1)  
ASME SA479 2010 S31600/03 A (4)  
ASTM A262 2010 PRACTICE E  
ASTM A320 2011A B8M CLASS1  
ASTM A479 2012 S31600/03 A  
NACE MR0175 2009 S31600/03 A (7)

AISI 316/316L  
AMS-QQ-S-763 B 316/316L A  
ASME SA276 2010 S31600/03 A (2)  
ASTM A182 2012B S31600/03 A (5)  
ASTM A276 2010 S31600/03 A  
ASTM A370 2012A .  
MIL-S-882 B/1 316/316L  
QQ-S-763 F 316/316L A

AMS 5648 L S31600 A  
ASME SA182 2010 S31600/03 A (0)  
ASME SA320 2010 B8M CLASS1 (3)  
ASTM A193 2011A B8M CLASS1  
ASTM A314 2008 S31600/03  
ASTM A473 2001 S31600/03 (6)  
NACE MR0103 2010 S31600/03 A

- (0) SEC.II PT.A 2010 EDITION ADD. 2011a
- (1) SEC.II PT.A 2010 EDITION ADD. 2011a
- (3) SEC.II PT.A 2010 EDITION ADD. 2011a
- (5) For products machined directly from bar refer to ASTM A479.
- (7) ANSI/NACE MR0175/ISO 15156-3, second edition 2009-10-15

- (0) For products machined directly from bar refer to ASME SA479.
- (2) SEC.II PT.A 2010 EDITION ADD. 2011a
- (4) SEC.II PT.A 2010 EDITION ADD. 2011a
- (6) Chemical analysis only.
- (7) Technical circular 1:2011 Published 2011-06-14

Qualität: 316/316L  
Werksstoff/Grade/Usance

Marca: **MVAPML MAXIVAL** Tolleranza: **ASTM A484-11** Punzonatura: **316/316L**  
Markenbezeichnung/Brand/Usance Toleranz/Allowance/Tolerance Kennzeichnung/Marking/Marking

| Pos. nr.<br>Pos. nr.<br>Rem nr.<br>Nr. de posta | Oggetto<br>Gegenstand<br>Product description<br>Descrip. du produit | Dimensioni - In<br>Abmessungen<br>Dimension<br>Dimension | Lunghezza - In<br>Länge<br>Length<br>Longueur | Colata<br>Schmelze<br>Heat<br>Coulée | Pezzi<br>Stückzahl<br>Pieces<br>Pièces | Peso - LB<br>Gewicht<br>Weight<br>Poids | Lotto nr.<br>Losnr.<br>Lot nr.<br>Lot nr. |
|---|---|--|---|--------------------------------------|--|---|---|
| 0060  | Round   | 1,7500   | 156 / 156                                     | 255938                               |  | 2.915                                   | 109005690                                 |

### TEST ALLO STATO DI FORNITURA

Test on delivery condition Prüfung auf Lieferbereitem produkt test a l'état de fourniture Prueba sobre el material así como entregado

| TEST   | Provette/<br>Specimen/<br>Long diam. Round<br>Round diam. Slice<br>Max. diam. Thickness<br>Lug, dia., spots<br>mm | ° F        | Posiz.<br>Strigolo<br>Position<br>Lander<br>Emplyment<br>i) | Snervamento<br>Bruchgrenze<br>Yield Stress<br>Ductile strength<br>Rp 0,2%<br>k.s.l. | Snervamento<br>Bruchgrenze<br>Yield Stress<br>Ductile strength<br>k.s.l. | Resistenza<br>Zugfestigkeit<br>Tensile strength<br>Resistance à traction<br>Rm<br>k.s.l. | Allungamento<br>Bruchdehnung<br>Elongation<br>Allongement<br>E 4d<br>% |     | Strizione<br>Einziehung<br>Reduction of area<br>Striction<br>RA<br>% |     | Resilienza<br>Verformbarkeit<br>Impact Value<br>Resilience | Durezza<br>Härte<br>Hardness<br>Dureté<br>HB |
|--|---|------------|---|---|--|--|--|-----|--|-----|--|--|
|  |   |            |   |   |  |  | min  | max | min  | max |  |  |
| Valori richiesti /<br>Anforderungen/Required values<br>Valeurs demandées |   | min<br>max |   | 30  | -  | 75<br>115  | -  | 40  | -  | 50  | -  | 140<br>223                                   |
| A  | 12.50   | 68         | L   | 46  |  | 97   |  | 53  |  | 62  |  | 174  |

| TEST                       | min | max |
|----------------------------|-----|-----|
| A Grain size for ASTM E112 |     | 5   |

1) L=longitudinale/Achs, T=transversale/quer, Q=Tangentiale/tangentiel

Mechanical properties according to ASTM A370.

### Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

| Colata Heat<br>Schmelze/Coulée | min -<br>max 0,030 | 1,00 | 1,25<br>2,00 | 16,50<br>18,00 | 2,00<br>3,00 | 1,00 | 10,00<br>14,00 | -     | -     | 0,020<br>0,030 | 0,100 | - | - | - | - |
|--------------------------------|--------------------|------|--------------|----------------|--------------|------|----------------|-------|-------|----------------|-------|---|---|---|---|
|                                | C %                | Si % | Mn %         | Cr %           | Mo %         | Cu % | Ni %           | Co %  | P %   | S %            | N %   |   |   |   |   |
| 255938                         | 0,022              | 0,48 | 1,48         | 16,84          | 2,00         | 0,61 | 10,00          | 0,101 | 0,030 | 0,030          | 0,055 |   |   |   |   |

Produced without class I-II Ozone depleting substances.  
Solution heat treated free from continuous carbide network.  
Annealing temperature: 1940° F for 1.50h/water.  
Micro and macro etch test: OK  
Intergranular corrosion test per ASTM A262 pract. E: ok.  
Material is DFARS Compliant

|  |   |                 |
|--|---|-----------------|
| Bolzano, 12/06/13<br>09L008<br>(Mod. MCE2) | Il collaudatore di stabilimento / der Werkssachverständiger / Works Inspector / L'agent d'usine<br><i>M. Rizzotto</i> | Pagina - 1 di 2 |
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Lieferzeit/Packing list/B.L.

Ordine nr: 35787 STOCK CHINO  
Bestel/Your order/Commande

Tipo di Elaborazione: E+AOD  
Erschmelzungsart/Melting process/Mode of elaboration

Certificato nr: MEST359237/2013/  
Prüfung/Teil/Essai

Conferma ordine nr: EI13003805  
Werks/Our Order/Ref. nr.

Marchio di Fabbrica:  
Zeichen des Lieferwerkes  
Trade mark  
Sigle de l'usine production



Funzione del Collaudatore:  
Stempel des Werksachverständigen  
Inspector's stamp/Pointon de l'essayeur



Stato di fornitura: Hot rolled Polished Annealed Peeled  
Lieferzustand/Delivery state/Etat de livraison

Sono state soddisfatte tutte le condizioni richieste  
Die gestellten Anforderungen sind in Anlage erfüllt  
The material has been furnished in accordance with the requirements  
Le matériel a été trouvé conforme aux exigences

Controllo antimiscelazione: OK  
Verwechslungsprüfung: Spektroskopisch durchgeführt  
Antimixing testing performed: OK  
Contrôle antimélange fait: r.e.s.

Controllo visivo e dimensionale: soddisfa le esigenze  
Beachtung und Ausmessung: ohne Beanstandung  
Visual inspection and dimensional checks: satisfactory  
Contrôle visuel et dimension: satisfaisant

Melted and manufactured in Italy No welding or weld repair Material free from Mercury contamination  
We declare that the finished product is checked for radioactive contamination through Portal System when it leaves the production plant.  
The Quality Management System is Certified acc. Pressure Equipment Directive [97/23/EC] Annex 1, s., 4.3 by TUEV and LLOYD'S  
Any act of tampering, modification, alteration, counterfeiting and/or falsification and/or any other action which modifies the contents of this test certificate shall constitute a violation of applicable civil and criminal laws. Acciaierie Valbruna shall protect its rights and interests before any competent court, authority and jurisdiction.  
Maximal and/or Valplus grades/products are manufactured with ladle techniques to control composition, distribution, size and shape of non-metallic inclusions for improved machinability.  
The supplied product conforms to requirements expressly requested by the purchaser and conforms to requirements specified by certified norms and standards. Should the product be used for more severe, critical and/ or in any case different applications than those the material is generally intended for, any different and/or supplementary requirements shall be specifically demanded, at least, upon order of the Product by the Purchaser. Acciaierie Valbruna SpA shall not be responsible for any improper use of the Products.

Bolzano, 12/06/13  
BGL006  
(Mod. MCE2)

Il collaudatore di stabilimento / der Werksachverständige / Works Inspector / L' agent d' usine  
M. Rizzotto

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