

Acciaierie Valbruna S.p.A.



258620
-9in

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

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

Clienti / Destinatari/Purchaser/Clienti
VALBRUNA STAINLESS INC.
2400 TAYLOR STREET WEST
46801-FORT WAYNE, IN 46801-US

Produttore: **ACCIAIERIE VALBRUNA S.P.A.**
Hersteller/Hersteller/Usine producer

Avviso di Spedizione: D-VII2030274
Lieferungsge/Packing list/B.L.

Ordine nr: 34108 STOCK HOUSTON
Bestell/Your order/Commande

Tipo di Elaborazione: E-AOD
Erneuerungsart/Manufact process/Mode elaboration

Certificato nr: MEST259325/2012/
Prüfung/Test/Essai

Conferma ordine nr: EI12007645
Werkz/Our Order/Ref nr.

Marchio di Fabbrica:
Zeichen des Lieferwerkes
Trade mark
Büge de l'usine productrice



Funzione del Collaudatore:
Stempel des Werkstoffverständigen
Inspector's stamp/Poligon de l'inspecteur

Stato di fornitura: - Annealed FORGED
Lieferzustand/Delivery state/Etat de livraison

Specifiche:
Anforderungen / Requirements / Edigence

VSI D 316/316L A
AMS 6653 F 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 2011 S31600/03 A
QQ-S-763 F 316/316L A

AISI 316/316L
AMS-QQ-S-763 B 316/316L A
ASME SA278 2010 S31600/03 A (2)
ASTM A182 2011A S31600/03 A (5)
ASTM A276 2010 S31600/03 A
ASTM A370 2011A
MIL-S-882 B/1 316/316L

AMS 5848 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 MR0175 2009 S31600/03 A (7)

- (0) SEC.II PT.A 2010 EDITION ADD. 2011a
- (1) SEC.II PT.A 2010 EDITION ADD. 2011a
- (2) SEC.II PT.A 2010 EDITION ADD. 2011a
- (3) SEC.II PT.A 2010 EDITION ADD. 2011a
- (4) SEC.II PT.A 2010 EDITION ADD. 2011a
- (5) For products machined directly from bar refer to ASTM A479.
- (6) Chemical analysis only.
- (7) Technical circular 1:2011 Published 2011-08-14

- (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
- (5) Chemical analysis only.
- (7) Technical circular 1:2011 Published 2011-08-14

Qualità: 316/316L
Werkstoff/Grade/Qualite

Marca: APML

Tolleranza: ASTM A484-11 TABLE 3
Toleranz./Abweichung/Tolerance

Funzionatura: 316/316L
Kennzeichnung/Marking/Atterquage

Pos. nr. Pos. nr. Item nr. Nr. de poste	Oggetto Objekt Product description Description du produit	Dimensioni - in Abmessungen Dimension Dimension	Lunghezza - in Länge Length Longueur	Colata Bühnlage Heat Coulée	Pezzi Stückzahl Pieces Pièces	Peso - LB Gewicht Weight Poids	Lotto nr. Losnr. Lot nr.
0050	Round	9,0000	178 / 186	258620		13.750	213003840

TEST ALLO STATO DI FORNITURA

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

TEST	Prova/Probe Bühnlage/Prova Liquid Spec. Bühnlage, Dicke Werkst. Chem. Thickness Liq. Spec. mm	°F	Poste. Stagge Postings Lignes	Sneramento Bruchgrenze Yield Stress Unité de cisailage Rp 0,2% k.s.l.	Sneramento Bruchgrenze Tens. Stress Unité de cisailage	Resistenza Zugfestigkeit Tensile strength Résistance à traction Rm k.s.l.	Allungamento Bruchdehnung Elongation Allongement E 4d %	Strizione Zugverschiebung Elongation of wire Striction RA %	Resilienza Kerbschlagenergie Impact Value Resilience	Durezza Härte Hardness Dureté HB
Valori richiesti 1 Anforderungen/Required values Valeurs demandées		min max		30	-	75 115	- 40	- 50	-	140 223
A	12,5	68 L		38		83	61	70		167

TEST	min	max
A Grain size for ASTM E112		4

Mechanical properties according to ASTM A370.

1) L=longitudinale/long, T=transversale/quer, O=Transversale/tangential

Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata Heat Bühnlage/Heat	min - max 0,030	1,00	1,25 2,00	16,50 18,00	2,00 3,00	1,00	10,00 14,00	-	0,040	0,020 0,030	0,100	-	-	-	-
Heat#	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %				
258620	0,019	0,23	1,72	16,72	2,01	0,45	10,00	0,163	0,030	0,027	0,082				

Produced without class I-II Ozone depleting substances.
Solution heat treated free from continuous carbide network.
Annealing temperature: 1940°F for 8 h/water.
Micro and macro etch test: OK
Reduction ratio > 4 : 1
Intergranular corrosion test per ASTM A262 pract. E: ok.
Material is DFARS Compliant

Vicenza, 18/10/12 VCC000 (Mod. MCE2)	Il collaudatore di stabilimento / der Werkstoffverständiger / Works inspector / L'agent d'usine <i>M. Rizzotto</i>	Pagina - 1 di 2
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From: Copper and Brass Sales CA

Cust. NEXXA INDUSTRIES LTD.

Del.: 2403353801

CstAr

CstOr 78803

Valbruna



Section 1: Introduction and Overview

Section 2: Detailed Analysis of the Data

Section 3: Discussion and Conclusions

Section 4: Appendix A - Supporting Information

Section 5: Appendix B - Additional Data

Section 6: Final Remarks and Acknowledgments

MIT

Acciaierie Valbruna S.p.A.



QUALITY MANAGEMENT SYSTEM
CERTIFIED BY LLOYD'S REGISTER

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

38100 VICENZA (Italia) - Viale della scienza, 25 z.l.
Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4

Clients / Dealer/Purchaser/Clients
VALBRUNA STAINLESS INC.
2400 TAYLOR STREET WEST
46801-FORT WAYNE, IN 46801-US

Produttore: **ACCIAIERIE VALBRUNA S.P.A.**
Hersteller/Werk/Usine production

Stato di fornitura: - Annealed FORGED
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
Verunreinigungsprüfung: spezialanalytisch durchgeführt
Antimixing testing performed: OK
Contrôle antimélange IUI: r.s.s.

Avviso di Spedizione: D-VI12030274
Lieferanweisung/Packing list/LL

Ordine nr: 34108 STOCK HOUSTON
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Erzeugnisart/Manufacturing process/Mode d' élaboration

Certificato nr: MEST259325/2012/
Prüfung/Test/Essai

Confirma ordine nr: EI12007645
Werk/Our Order/Plaf nr.

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



Funzione del Collaudatore:
Stempel des Werkstatthauptinspektors
Inspector's stamp/Pointon de l' usinyeur



Controllo visivo e dimensionale: soddisfa le esigenze
Besichtigungs und Ausmessung: ohne Beanstandung
Visual inspection and dimensional check/satisfactory
Contrôle visuel et dimensionnel: 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 TÜEV 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.
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.

Vicenza, 18/10/12 VCC0008 (Mod. MCE2)	Il collaudatore di stabilimento / der Werkstatthauptinspektor / Works Inspector / L' agent d' usine M. Rizzotto <i>[Signature]</i>	Pagina - 2 di 2
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From: Copper and Brass Sales CA

Cust. NEXXA INDUSTRIES LTD.

Del.: 2403353801

CstAr

CstOr 78803

Mod. 547 ID

Date: 08/08/2012

[Signature]