

256943 (6")

# 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

Cliente / Basat/Purchaser/Cliant  
VALBRUNA STAINLESS INC.  
2400 TAYLOR STREET WEST  
46801-FORT WAYNE, IN 46801-US

Avviso di Spedizione: D-VI12014253  
Lieferungsbeleg/Expédition n°B.L.

Certificato nr: MEST197238/2012/  
Prüfung/Proof/Essai

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

Ordine nr: 33120 STOCK CHINO  
Bestel/Your order/Commande

Conferma ordine nr: E112003810  
Works/Our Order/Ref. nr.

Marchio di Fabbrica:  
Zeichen des Lieferanten/  
Trade mark/  
Sigle de l'usine productrice



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

Tipo di Elaborazione: E+AOD  
Erhebungsart/Manufact process/Mode d'elaboration

Funzione del Collaudatore:  
Stempel des Werkstoffverständigen/  
Inspector's stamp/Policeur de l'essayeur

Specifiche:  
Anforderungen / Requirements / Exigences

VSI 0 316/316L A  
AMS 5653 F S31603 A  
ASME SA193 2010 B8M CLASS1 (1)  
ASME SA479 2010 S31600/03 A (4)  
ASTM A262 2010 PRACTICE E  
ASTM A320 2011 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 A278 2010 S31600/03 A  
ASTM A370 2011A  
MIL-S-862 B/1 316/316L

AMS 5648 K 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 (8)  
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) For products machined directly from bar refer to ASTM A479.
- (5) ANS/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

Qualità: 316/316L  
Werkstoff/Grade/Qualité

Marca: APML

Tolleranza: ASTM A484-10 TABLE 3

Funzionatura: 316/316L  
Kennzeichnung/Marking/Ataque

Pos. nr. Pos. nr. Item nr. Nr. de pièce	Oggetto Gegenstand Product description Design. du produit	Dimensioni - in Abmessungen Dimension Dimension	Lunghezza - in Länge Length Longueur	Colata Schmelze Heat Coulée	Pezzi Stücke Pieces Pièces	Peso - LB Gewicht Weight Poids	Lotto nr. Losnr. Lot nr. Lot nr.
0020	Round	8,5000	166 / 183	256943		8.946	126904420

### TEST ALLO STATO DI FORNITURA

Test on delivery condition Prüfung auf lieferbarem Produkt test à l'état de livraison Prueba sobre el material así como entregado

TEST	Prova/Prüfung Beschreibung Long. diam. Dia. With Diam. Thickness Larg. dia. épais mm	°F	Post. Seggio Position Support 1)	Snervamento Deformation Yield Stress Rp 0,2% k.s.l.	Snervamento Deformation Yield Stress Unter der Last k.s.l.	Resistenza Zugfestigkeit Tensile strength Resistance à traction Rm k.s.l.	Allungamento Deformation Elongation Allongement E 4d %	Strizione Einschnürung Reduction of area Striction RA %	Resilienza Kerbschlagarbeit 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		82	61	73		167
TEST				min	max					
A	Grain size for ASTM E112					4				

Mechanical properties according to ASTM A370.

1) - Longitudinal; 2) - Transverse; 3) - Tangential

### Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata Heat Schmelze/Heat	min - max 0,050	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	-	-	-	-
256943	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %				
	0,022	0,39	1,69	16,59	2,04	0,50	10,08	0,094	0,030	0,028	0,075				

Produced without class I-II Ozone depleting substances.  
Solution heat treated free from continuous carbide network.  
Annealing temperature: 1940°F for 5,5 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

TEST  
10-10-12

Vicenza, 10/05/12 VCC005 (Mod. MCE2)	Il collaudatore di stabilimento / der Werkstoffverständige / Works Inspector / L'agent d'usine M. Rizzotto	Pagina - 1 di 2
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# Acciaierie Valbruna S.p.A.



QUALITY MANAGEMENT SYSTEM  
CERTIFIED BY LLOYD'S REGISTER

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

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

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

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

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

Controllo antimiscelazione: OK  
Verwechslungsfreiheit: spezifikationsmäßig durchgeführt  
Antimixing testing performed: OK  
Controle antimeselange fait: r.a.a.

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.

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.

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

Certificato nr: MEST197238/2012/  
Prüfung/Test/Essai

Conferma ordine nr: EI12003810  
Weder/Our Order/Ref nr.

Marchio di Fabbrica:  
Zeichen des Werks/Marken  
Trade mark  
Sigle de l'usine producer



Purzone del Collaudatore:  
Stempel des Werks/schwerstündigen  
Inspector's stamp/Plaqueon de l'essayeur



Controllo visivo e dimensionale; soddisfa le esigenze  
Beachtigung und Ausmessung; ohne Beanstandung  
Visual inspection and dimensional check/satisfactory  
Contrôle visuel et dimensionnel satisfaisant

Vicenza, 10/05/12  
VCC008  
(Mod. MCE2)

Il collaudatore di stabilimento / der Werksachverständiger / Works Inspector / L' agent d' usine

M. Rizzotto

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