

# Acciaierie Valbruna S.p.A.

256943



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 / Customer/Purchaser/Client  
VALBRUNA STAINLESS INC.  
2400 TAYLOR STREET WEST  
48801-FORT WAYNE, IN 46801-US

Produttore: ACCIAIERIE VALBRUNA S.P.A.  
Hersteller/Manufacturer

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

Avviso di Spedizione: D-VI12005417  
Lieferungsbeleg/Facking list/B.L.

Ordine nr: 32146 STOCK HOUSTON  
Bestell./Your order/Commande

Tipo di Elaborazione: E+AOD  
Erneuerungsverfahren/Manufacturing process/Mode d'elaboration

Certificato nr: MEST183613/2012/  
Prüfung/Test/Essai

Confirma ordine nr: E112000089  
Werk-/Our Order/Ref nr.

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

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



Specifiche:  
Anforderungen / Requirements / Esigences

VSI 0 316/316L A  
AMS-QQ-S-763 B 316/316L A  
ASME SA278 2010 S31600/03 A (2)  
ASTM A182 2011 S31600/03 A (5)  
ASTM A276 2010 S31600/03 A  
ASTM A370 2011  
MIL-S-882 B/1 316/316L

AMS 5648 K S31600 A  
ASME SA182 2010 S31600/03 A (0)  
ASME SA320 2010 B8M CLASS1 (3)  
ASTM A183 2011 B8M CLASS1  
ASTM A314 2008 S31600/03  
ASTM A473 2001 S31600/03 (8)  
NACE MR0175 2009 S31600/03 A (7)

AMS 5653 F S31603 A  
ASME SA193 2010 B8M CLASS1 (1)  
ASME SA479 2010 S31600/03 A (4)  
ASTM A282 2010 PRACTICE E  
ASTM A320 2011 B8M CLASS1  
ASTM A479 2011 S31600/03 A  
QQ-S-763 F 316/316L A

- (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) For products machined directly from bar refer to ASTM A479.
- (6) Chemical analysis only.
- (7) ANS/NACE MR0175/ISO 15156-3, second edition 2009-10-15

- (0) For products machined directly from bar refer to ASME SA479.
- (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 2011-06-14

Qualità: 316/316L  
Werkstoff/Grade/Qualität

Marca: APML  
Werkbezeichnung/Brand/Qualität

Punzonatura: 316/316L  
Werkbezeichnung/Marking/Markierung

Pos. nr. Pos. nr. Item nr. Nr. de pozitie	Objetto Gegenstand Product description Descrip. de produs	Dimensioni - in Abmessungen Dimension Dimension	Tolleranza Toleranz Allowance Tolerance	Lunghezza - in Länge Length Längeur	Colata Schmelze Heat Coulée	Pezzi Stücke Pieces Pièces	Peso - LB Gewicht Weight Poids	Lotto nr. Losn. Lot nr. Lot nr.				
0040	Round	13,1563	ASREQ	172 / 172	256943	1	6.742	123301040				
<b>TEST ALLO STATO DI FORNITURA</b>												
TEST ON DELIVERY CONDITION    Prüfung auf Lieferzustand    Prüfung auf Lieferzustand    Prüfung auf Lieferzustand    Prüfung auf Lieferzustand    Prüfung auf Lieferzustand    Prüfung auf Lieferzustand    Prüfung auf Lieferzustand    Prüfung auf Lieferzustand												
TEST	Prova/Prüfung Länge, Essai Länge, Essai Länge, Essai Länge, Essai mm	° F	Snervamento Bruchdehnung Yield Point Umformgrad Rp 0,2% k.s.l.	Snervamento Bruchdehnung Yield Point Umformgrad k.s.l.	Resistenza Zugfestigkeit Tensile strength Resistance à traction Rm k.s.l.	Allungamento Bruchdehnung Elongation Allongement E 4d %	Strizione Bruchdehnung Reduction of area Brüche RA %	Resilienza Kerbschlagenergie Impact Value Resilience	Durezza Kerbschlagenergie Dureté HB			
Valori richiesti / Anforderungen/required values Valeurs demandées		min	30	-	75 115	-	40	-	50	-	140 223	
A	12,5	68   L	37	-	81	-	62	-	74	-	167	
TEST	min		max		min		max		min		max	
A	Grain size for ASTM E112						4					

Mechanical properties according to ASTM A370.

1) L=longitudinale/Länge, T=transversale/quer, Q=Temperatur/temperature

## Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata Heat Schmelze/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	-	-	-	-
	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %	-	-	-	-
256943	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 8,5 h/water.  
Micro and macro etch test: OK  
Reduction ratio > 4 : 1  
Intergranular corrosion test per ASTM A262 pract. E: ok.

Vicenza, 20/02/12 VCO001 (Mod. A062)	Il collaudatore di stabilimento / der Werkssachverständige / 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:  
Part:  
Wgt: 1,440.000 LB

Del: 2401803054  
PO:  
Date: 04/13/2012

*James K Baber*

# 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

36100 VICENZA (Italia) - Viale della scienza, 25 z.i.  
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Clients / Buyers/Purchaser/Chef  
VALBRUNA STAINLESS INC.  
2400 TAYLOR STREET WEST  
46801-FORT WAYNE, IN 46801-US

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

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

Avviso di Spedizione: D-VI12005417  
Lieferanweisung/Lieferungsauftrag

Ordine nr: 32146 STOCK HOUSTON  
Bestell./Your order/Commande

Tipo di Elaborazione: E+AOD  
Erzeugnisbezeichnung/Working process/Mode of elaboration

Certificato nr: MEST163613/2012/  
Prüfung/Teil/Essai

Conforma ordine nr: E112000089  
Werke/Our Order/Nr.

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



Funzione del Collaudatore:  
Stempel des Werkstättensachverständigen  
Inspector's stamp/Position de l'inspecteur



### Material is DFARS Compliant

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

Controllo antimiscelazione: OK  
Verwechslungsprüfung: sprechensystem durchgehende  
Anti-diluting testing performed: OK  
Contrôle antimélange fait: r.s.s.

Controllo visivo e dimensionale: soddisfa le esigenze  
Beachtung 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, §. 4.3 by TÜV 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, 20/02/12 VC0004 (Mod. MCE3)	il collaudatore di stabilimento / der Werkstättensachverständige / Works Inspector / L' agent d' ushe M. Rizzotto	Pagina - 2 di 2
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From: Copper and Brass Sales CA

Cust:

Del: 2401803054

Part:

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James K. Baber