

# Acciaierie Valbruna S.p.A.



QUALITY MANAGEMENT SYSTEM  
CERTIFIED BY LLOYD'S REGISTER

258463

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

071696

80 pcs

36100 VICENZA (Italia) - Viale della scienza, 25 z.l.  
Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4  
Cliente / Besteller/Purchaser/Cliant  
VALBRUNA CANADA LTD  
8724 HOLTGATE CRESCENT  
L5T 5Z1-MILTON, ONT L5T 5Z1-CA

ASA PO 77605 WO 5829 CMA 6FOE 80

Produttore: ACCIAIERIE VALBRUNA S.P.A.  
Hersteller/Werks/Usine productrice

Avviso di Spedizione: D-VI12031251  
Lieferanzeige/Packing list/BL

Certificato nr: MEST263117/2012/  
Prüfung/Test/Essai

Conferma ordine nr: EI12003108  
Werkz./Our Order/Ref. nr.

Marchio di Fabbrica:  
Zeichen des Lieferwerkes  
Trade mark  
Sigle ce Usine productrice



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

Tipo di Elaborazione: E+AOB  
Erschneidungsart/Meiting process/Mode d'elaboration

Punzione del Collaudatore:  
Stempel des Werksachverständigen  
Inspector's stamp/Pointon de l'assesseur

Specifiche:  
Anforderungen / Requirements / Exigences

VAL CANADA 2 316/316L A  
ASME SA182 2010 S31600/03 (0)  
ASME SA479 2010 S31600/03 (3)  
ASTM A262 2010 PRACTICE E  
ASTM A320 2011A B8M  
NACE MR0175 2009 S31600/03 A (5)

AMS 5648 L S31600 A  
ASME SA193 2010 B8M (1)  
ASTM A182 2011A S31600/03 (4)  
ASTM A276 2010 S31600/03  
ASTM A479 2011 S31600/03  
CQ-S-763 F 316/316L

AMS 5653 F S31603  
ASME SA320 2010 B8M (2)  
ASTM A193 2011A B8M  
ASTM A314 2008 S31600/03  
MIL-S-862 B/1 316/316L

- (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) 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) For products machined directly from bar refer to ASTM A479.
- (5) Technical circular 1.2011 Published 2011-06-14

Qualità: 316/316L

Werkstoff/Grade/Usine

Marca: MVAPML  
Markenbezeichnung  
Brand/Usine  
MAXIVAL

Tolleranza: ASTM A484-11  
Toleranz./Allowance/Tolerance

Punzonatura: 316/316L  
Kennzeichnung/Marking/Marquage

Pos. nr. Pos. nr. Item nr. Nr. de poste	Oggetto Gegenstand Product description Descript. du produit	Dimensioni - In Abmessungen Dimension Dimension	Lunghezza - In Länge Length Longueur	Colata Schmelze Heat Coulée	Pezzi Stückzahl Pieces Pièces	Peso - LB Gewicht Weight Poids	Lotto nr. Lstnr. Lot nr. Lot nr.
0020	Round	9,0000	179 / 183	258463		6.799	209600620

TEST ALLO STATO DI FORNITURA  
Test on delivery condition Prüfe/ung auf Lieferbereitem produkt; test a l'etat de fourniture Prueba sobre el material así como entregado

TEST	Provetta/Probestab Sondermessen/Epröbestab Läng./diam./Spesse/ width/Diam./Thickness Läng./diam./épaisseur mm	°F	Posiz. Saggio Probestab Lage/Position Essai/Position mm	Snervamento Streckgrenze Yield Stress Limite élastique Rp 0,2% k.s.i.	Snervamento Zugfestigkeit Yield Stress Limite élastique Rp 0,2% k.s.i.	Resistenza Zugfestigkeit Tensile strength Résistance à traction Rm k.s.i.	Allungamento Bruchdehnung Elongation Allongement E 4d %	Strizione Einschränkung Reduction of area Striction RA %	Resilienza Härte/Härtigkeit Impact Value Resilience	Durezza Härte Hardness Dureté HB
Valori richiesti 1 Anforderungen/Requisit values Valeurs recommandées		min		30	-	75	40	50	-	140
		max				115				223
A	12,5	68	L	36		82	58	69		168

TEST	min	max
A	Grain size for ASTM E112	4

1=L-longitudinale/längs, T=trasversale/quer, Q=Tangenziale/tangentiel

Heat#

## Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata/Heat Schmelze/Coulée	min - max 0,03%	1,00	1,25 2,00	16,00 18,00	2,00 3,00	1,00	10,00 14,00	0,040	0,030	0,100	-	-	-
258463	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %	-	-
	0,021	0,53	1,69	16,56	2,02	0,57	10,12	0,095	0,031	0,028	0,081		

Produced without class I-II Ozone depleting substances.  
Solution heat treated free from continuous carbide network.  
Annealing temperature: 1940 °F for 6h/water.  
Micro and macro etch test: OK  
Intergranular corrosion test per ASTM A262 pract. E: ok.  
Material is DFARS Compliant

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

Controllo antimescolanza: OK  
Verwechslungsprüfung: spezialanalytisch durchgeführt  
Anti-mixing testing performed: OK  
Contrôle anti-échange fait: r.a.s.

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

SW  
VLC

Vicenza, 26/10/12  
VCC008  
(Mod. MCE2)

Il collaudatore di stabilimento / der Werkssachverständige / Works inspector / L'agent d'usine

M. Rizzotto

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L5T 5Z1-MILTON, ONT L5T 5Z1-CA

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

Avviso di Spedizione: D-V112031251  
Lieferanzeige/Packing list/B.L.

Ordine nr: 204003620 Stock - Canada  
Bestell/Year order/Commande

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

Certificato nr: MEST263117/2012/  
Prüfung/Test/Essai

Conferma ordine nr: E112003108  
Werkz/Our Order/Ref nr

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



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



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

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.

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.

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Vicenza, 26/10/12

V00008  
(Mod. WCF2)

Il collaudatore di stabilimento / der Werkssachverständige / Works inspector / L'agent d'usine

M. Rizzotto

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