

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.
Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4

Clienti / Besteller/Purchaser/Client
VALBRUNA CANADA LTD
8724 HOLTGATE CRESCENT
L5T 5Z1-MILTON, ONT L5T 5Z1-CA

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

Avviso di Spedizione: D-VI13021021
Lieferanzsign/Packing list/BL

Ordine nr: 302004038 Stock - Canada
Bestell/Your order/Commande

Certificato nr: MEST373956/2013/
Prüfung/Test/Essai

Conferma ordine nr: EI13001028
Werkz/Our Order/Ref nr.

Marchio di Fabbrica:
Zeichen des Lieferwerkes
Trade mark
Sigle de fusine productrice



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

Tipo di Elaborazione: E+AOD
Ercheinigungsart/Melting process/Mode d'elaboration

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

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 2012B S31600/03 (4)
ASTM A276 2010 S31600/03
ASTM A479 2012 S31600/03
QQ-S-763 F 316/316L

AMS 5653 H S31603 A
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/Qualite

Marca: MVAPML
Markenbezeichnung/Brand/Qualite
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. Lotnr. Lot nr. Lot nr.
0030	Round	9,0000	177 / 177	260439		3.280	303902030

TEST ALLO STATO DI FORNITURA

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

TEST	Provetta/Prober Spezimen/Specimen Long diam. Ø/mm Bore diam. Ø/mm Wall diam. Thickness Larg. diam. epaule mm	° F	Posti. Staggio Messung Lecture Exposition 1)	Snervamento Streckgrenze Yield Stress Limite élastique Rp 0,2% k.s.i.	Snervamento Streckgrenze Yield Stress Limite élastique	Resistenza Zugfestigkeit Tensile strength Résistance à traction Rm k.s.i.	Allungamento Bruchdehnung 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	58	69		168

TEST	min	max
A Grain size for ASTM E112		4

1) L-Longitudinale/längs, T-Transversale/quers, Q-Tangenziale/tangentiel

Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata /Heat Schmelze/Coulée	min - max	1,00	1,25 2,00	15,00 18,00	2,00 3,00	1,00	10,00 14,00	0,040	0,030	0,100	-	-	-	-
260439	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %			
	0,022	0,52	1,65	16,76	2,00	0,55	10,15	0,184	0,032	0,024	0,079			

Produced without class I-II Ozone depleting substances.

Solution heat treated free from continuous carbide network.

Annealing temperature: 1940°F for 6 h/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 lt. Anlage erfüllt
The material has been furnished in accordance with the requirements
Le matériel a été trouvé conforme aux exigences

Controllo antimiscelazione: OK
Verwechslungsprüfung: spezialanalytisch durchgeführt
Anti-kling testing performed: OK
Contrôle antimélange fait: r.a.s.

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

Vicenza, 10/07/13 VCC008 (Mod. MCEZ)	Il collaudatore di stabilimento / der Werkssachverständige / Works inspector / L'agent d'usine M. Rizzotto	Pagina - 1 di 2
--	---	-----------------

Acciaierie Valbruna S.p.A.



QUALITY MANAGEMENT SYSTEM
CERTIFIED BY LLOYD'S REGISTER

C104184

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/Purchaser/Client
VALBRUNA CANADA LTD
8724 HOLLGATE CRESCENT
L5T 5Z1-MILTON, ONT L5T 5Z1-CA

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

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

Avviso di Spedizione: D-VI13021021
Lieferanfrage/Packing Instr.L.

Ordine nr: 302004038 Stock - Canada
Bestell/Your order/Commande

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

Certificato nr: MEST373956/2013/
Prüfung/Test/Essai

Conferma ordine nr: EI13001028
Werk/Our Order/Ref. nr.

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

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



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.

Vicenza, 10/07/13

VCC008
(Mod. NCE2)

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

M. Rizzotto *[Signature]*

Pagina - 2 di 2