

Acciaierie Valbruna s.p.a.



QUALITY MANAGEMENT SYSTEM
CERTIFIED BY LLOYD'S REGISTER

260342

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

C104183

1 of 2

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

Cliento / Demander/Kunden/Kunde:
VALBRUNA CANADA LTD
8724 HOLTGATE CRESCENT
LST 5Z1-MILTON, ONT LST 5Z1-CA

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

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

Avviso di Specificazione: D-VI13021027
Lieferanzzeit/Packng lead/LL

Ordina nr: 306004250 Stock - Canada
Bestell/Your order/Commande

Tipo di Elaborazione: E+AOD
Erschneidungsart/Netting process/Mode d'elaboration

Certificato nr: MCST373963/2013/ 1
Prüfung/Test/Essai

Conferma ordine nr: E113005166
Works/Our Order/Ref. nr.

Marchio di Fabbrica:
Zeichen des Lieferwerkes
Trade mark
Siglo de l'usine producer



Punzone col Collaudatore:
Stempel des Werkssachverständigen
Inspector's stamp/Pointon de l'assayeur



Specifiche:
Anforderungen / Requirements / Edigences

VS10 316/316L A
AMS 5653 H S31603 A
ASME SA193 2010 B8M CLASS1 (1)
ASME SA479 2010 S31600/03 A (4)
ASTM A282 2010 PRACTICE E
ASTM A320 2011A B8M CLASS1
ASTM A479 2012 S31600/03 A
NACE MR0175 2009 S31600/03 A (7)

AISI 316/316L
AMS-QQ-S-783 B 316/316L A
ASME SA276 2010 S31600/03 A (2)
ASTM A182 2012B S31600/03 A (5)
ASTM A276 2010 S31600/03 A
ASTM A370 2012A
MIL-S-862 3/1 316/316L
QQ-S-763 F 316/316L A

AMS 5643 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 MR0103 2010 S31600/03 A

- (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) For products machined directly from bar refer to ASTM A479.
- (7) 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) 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/Marque

Marca: APM L
Markenbezeichnung
Brand/Marque

Tolleranza: ASTM A484-11 TABLE 3
Toleranz/Allowance/Tolerance

Punzonatura: 316/316L
Kenzeichnung/Markirg/Marque

Pos. nr. Pos. nr. Item nr. Nr. de poste	Oggetto Gegenstand Product description Descrip. de produit	Dimensioni - in Abmessungen Dimension Dimension	Lunghezza - in Länge Length Longueurs	Colata Schmelze Melt Couleé	Pezzi Stückzahl Pieces Piéces	Peso - LB Gewicht Weight Poids	Lotto nr. Lotnr. Lot nr. Lot nr.
0020	Round	11,0000	126 / 126	260342		7.095	301404930

TEST ALLO STATO DI FORNITURA

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

TEST	Provetta/versetto Specimen/Éprouvette Long. diam. Opaz. Bauteil Dim. Dicke Waite Dim. Thickness Long. diam. épais mm	° F	Posiz. Saggio Position Lieu Position	Snervamento Spandigkeit 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		Strizione Einschnürung Reduction of area Striction RA %	Resilienza Festigkeit Impact Value Resilience	Durezza Härte Hardness Dureté HB	
							E 4d %	%				
	Valori richiesti 1 Anfordernungen/Required values Valeurs demandées	min max		30	-	75 115	-	40	-	50	-	140 223
A	12,5	68	L	40		83		58		70		168

TEST	min	max
A	Grain size for ASTM E11?	4

1) = longitudine di lega, Testversuchsgröße, Co-Tungentaktungentail

Mechanical properties according to ASTM A370.

Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata /test Schmelze/Coude	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 %			
260342	0,024	0,33	1,70	16,71	2,00	0,53	10,00	0,123	0,030	0,025	0,085			

Produced without class I-II Ozone depleting substances.
Solution heat treated free from continuous carbide network.
Annealing temperature: 1940°F for 7 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, 20/08/13 VCC009 (Mod. NCE2)	Il collaudatore di stabilimento / der Werkssachverständige / 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

C104183
20/2

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

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

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

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

Controllo antimiscelazione: OK
Vermischungsprüfung: spektroskopisch durchgeführt
Antimixing testing performed: OK
Contrôle antimélange fait: r.a.s.

Avviso di Spedizione: D-V113021027
Lieferanfrage/Packing list/S.L.

Ordine nr: 306004250 Stock - Canada
Bestell-/Your order/Commande

Tipo di Elaborazione: E+AOD
Erzeugnisart/Manufacturing process/Mode of elaboration

Certificato nr: MEST373963/2013/ 1
Prüfung/Test/Essai

Conforma ordine nr: EI13005166
Werk-/Our Order/Ref. nr.

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



Punzone del Collaudatore:
Stempel des Werkssachverständigen
Inspector's stamp/Person de l'essayeur



Controllo visivo e dimensionale: soddisfa le esigenze
Besichtigung 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, 20/08/13

VCC008
(Mod. NCE2)

Il collaudatore di stabilimento / der Werkssachverständige / Work Inspector / L'agent d'usine

M. Rizzotto *[Signature]*

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