

Acciaierie Valbruna S.p.A.



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

C177241

36100 VICENZA (Italia) - Viale della scienza, 25 z.l.
 Telefono 0444.968211 - Fax 0444.968336
 Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4/37
 Telefono 0471.924111 - Fax 0471.924497

QUALITY MANAGEMENT SYSTEM CERTIFIED BY LLOYD'S REGISTER

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

Avviso di Spedizione:
 Lieferanzeige/Packing list/B.L. **D-V16007394**

Certificato nr. **MEST841688/2016/**
 Prüfung/Test/Essai

Confirma ordine nr. **EI16002748**
 Werks/Our Order/Ref nr.

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

Ordine nr. 603005687 Stock - Canada
 Bestell Your order Commande

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



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

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

Punzone del Collaudatore:
 Stempel des Werksachverständigen
 Inspector's stamp/Plombon de l'essayeur

MR

Specifiche:
 Anforderungen / Requirements / Edgences

- VSI 0 316/316L A
- AMS 5653 H S31603 A
- ASME SA193 2013 B8M CLASS1 (1)
- ASME SA479 2013 S31600/03 A (4)
- ASTM A262 2013 PRACTICE E
- ASTM A320 2015A B8M CLASS1
- ASTM A479 2015 S31600/03 A
- NACE MR0175 2009 S31600/03 A (7)

- AISI 316/316L
- AMS-QQ-S-763 D 316/316L A
- ASME SA276 2013 S31600/03 A (2)
- ASTM A182 2015 S31600/03 A (5)
- ASTM A276 2015 S31600/03 A
- ASTM A370 2014 .
- MIL-S-862 B/1 316/316L
- QQ-S-763 F 316/316L A

- AMS 5648 L S31600 A
- ASME SA182 2013 S31600/03 A (0)
- ASME SA320 2013 B8M CLASS1 (3)
- ASTM A193 2015 B8M CLASS1
- ASTM A314 2008 S31600/03
- ASTM A473 2001 S31600/03 (6)
- NACE MR0103 2010 S31600/03 A

- (0)SECTION II P.T.A 2013 EDITION
- (1)SECTION II P.T.A 2013 EDITION
- (3)SECTION II P.T.A 2013 EDITION
- (5)For products machined directly from bar refer also
- (6)Chemical analysis only.
- (7)Technical circular 1:2011 Published 2011-06-14

- (0)For products machined directly from bar refer to ASME SA479.
- (2)SECTION II P.T.A 2013 EDITION
- (4)SECTION II P.T.A 2013 EDITION
- (5)to ASTM A479.
- (7)ANSI/NACE MR0175/ISO 15156-3, second edition 2009-10-15

Qualità: **316/316L**
 Werkstoff/Grade/Matériau

Marca:

Markenbezeichnung
 Brand/Marque

APML

Tolleranza: **ASTM A484-15 TABLE 3**

Tolerance/Absenace/Tolerance

Punzonatura: **316/316L**

Kenzeichnung/Marking/Marque

Pos. nr. Pos. nr. N. de pièce	Oggetto Gegenstand Product description Descr. de 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. Losn. Lot nr. Lot nr.
0010	Round	11,0000	136/ 137	266484		7.650	435305171

TEST ALLO STATO DI FORNITURA

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

TEST	Provetta/ Specimen/Eprova Long./Diam./Spes. Diam. Dia. Width/Dia. Thickness Larg. épais. épais mm	Soglia Limit Schwelle	Snervamento Streckgrenze Yield Stress Limite élastique Rp 0,2% k.s.l.	Snervamento Streckgrenze Yield Stress Limite élastique	Resistenza Zugfestigkeit Tensile strength Résistance à traction Rm k.s.l.	Allungamento Bruchdehnung Elongation Allongement		Strizione Eindringung Reduction of area striction RA %	Resilienza Kerbschlagwert Impact Value Resilience	Durezza Härte Hardness Dureté HB
						E 4d %	RA %			
Valori richiesti Anforderungen/Required values Valeurs demandées		min max	30	-	75 115	-	40	-	50	- 140 223
A	12,5	68	L	40	84		61		75	

TEST ALLO STATO DI FORNITURA

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

TEST	min	max
A Grain size for ASTM E112		4

Mechanical properties according to ASTM A370.

Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata /Heat Schmelze/Coulée	min - max	1,25 2,00	16,50 18,00	2,00 3,00	10,00 14,00	0,020 0,030	0,020 0,030	0,100				
C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %		
266484	0,024	0,39	1,77	16,85	2,06	0,43	10,12	0,095	0,030	0,027	0,083	

Produced without class I-II Ozone depleting substances.

Solution heat treated free from continuous carbide network.

Micro and macro etch test: OK

Vicenza, 23/03/16 VCC008 (Mod. MCE2)	Il collaudatore di stabilimento / der Werksachverständige / Works Inspector / L'agent d'usine M. Rizzotto	Pagina - 1 di 2
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Acciaierie Valbruna S.p.A.



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8724 HOLGATE CRESCENT
L5T 5Z1 - MILTON, ONT L5T 5Z1 - CA

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

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

Avviso di Spedizione:
Lieferanzzeige/Packing list/B.L. D-V116007394

Ordine nr: 603005687 Stock - Canada
Bestell
Your order
Commande

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

Certificato nr: MEST841688/2016/
Prüfung/Test/Exam

Conferma ordine nr: E116002748
Werk/Our Order/Ref. nr.

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



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

MR

Intergranular corrosion test per ASTM A262 pract. E: ok
Absence of cracks at 20 x magnification after bend test
Reduction ratio = 4,6 : 1
Annealing temperature: 1940°F for 7 h/water.
Ultrasonic volumetric test according to ASTM A388 : pass
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 antimiscelanza: OK
Verwechslungsprüfung: spektrenanalytisch durchgeführt
Anmixing testing performed: OK
Contrôle antimélange 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 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 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.

Metals 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, 23/03/16

VCC008

(Mod. MCE2)

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

M. Rizzotto

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