



CERTIFICATO DI COLLAUDO - ABNAHMEPRUEFZEUGNIS - INSPECTION CERTIFICATE - CERTIFICAT DE RECEPTION

In conformità a: **EN 10204 (2004) , 3.1 / ISO 10474 (2013) , 3.1**

Certificato nr. **MEST171933 / 2017 /**

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

Stato di fornitura: **Forged - Annealed Peeled**

Produttore:
 Hersteller/Hersteller/producer

ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: 706006403 Stock - Canada
 Bestell:
 Your order:
 Commande

Tipo di Elaborazione: **E+AOD**
 Erhitzungsprozess
 Heating process
 Mode d'élaboration

Marchi di Fabbrica:
 Zeichen des Lieferanten
 Trade marks
 Signes de l'usine productrice



Conferma ordine nr: **EI17006377**
 Werks/Our Order/Refer

Qualità: **304/304L**
 Werkstoff/Grade/Noiance

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

MR

Avviso di Spedizione: **D-VI17034572**
 Lieferungs/Packing list/B...

Marca: **AISL**
 Markenbezeichnung
 Brand / Nuance

Punzonatura: **304/304L**
 Kennzeichnung
 Marking
 Marquage

SPECIFICHE :

Anforderungen / Requirements / Exigences

Note:

Aufzeichnungen / Notes / Notes

VSI 0 304/304L A
 AISI 304/304L
 AMS 5639 J S30400 A
 AMS 5647 K S30403 A
 AMS-QQ-S-763 D 304/304L A
 ASME SA192 2015 S30400/03 A (0)
 ASME SA193 2015 B8 CLASS1 (1)
 ASME SA276 2015 S30400/03 A (2)
 ASME SA320 2015 B8 CLASS1 (3)
 ASME SA479 2015 S30400/03 A (4)
 ASTM A182 2016 S30400/03 A (5)
 ASTM A192 2016 B8 CLASS1
 ASTM A262 2015 PRACTICE E
 ASTM A276 2017 S30400/03 A
 ASTM A314 2015 S30400/03
 ASTM A320 2017A B8 CLASS1
 ASTM A370 2017
 ASTM A473 2001 S30400/03 (6)
 ASTM A479 2017 S30400/03 A
 MIL-S-862 B/1 304/304L
 NACE MR0103 2015 S30400/03 A (7)
 NACE MR0175 2015 S30400/03 A (8)
 QQ-S-763 F 304/304L A

(0)SECTION II PT.A 2015 EDITION For products machined directly from bar refer to ASME SA-479

(1)SECTION II PT.A 2015 EDITION

(2)SECTION II PT.A 2015 EDITION

(3)SECTION II PT.A 2015 EDITION

(4)SECTION II PT.A 2015 EDITION

(5)For products machined directly from bar refer also to ASTM A479

(6)Chemical analysis only

(7)ANSI/NACE MR0103/ISO 17945 November 23, 2015

(8)ANSI/NACE MR0175/ISO 15156-3, third edition November 23, 2015

Tolleranza ASTM A484-16 TABLE 3

Tolerance/A. tolerance/Tolerance

Pos. nr. Pos. nr. Item nr. N° de pièce	Oggetto Gegenstand Product description Designation du produit	Dimensioni - In Abmessungen Dimension Dimension	Lunghezza - In Länge Length Longueur	Colata Schmelze Heat Casting	Pezzi Stücke Pieces Pieces	Peso - LB Gewicht Weight Poids	Lotto nr. Losn. Lot nr. Lot nr.
0030	Round	8,5000	212/ 231	274836		7.317	716006900

Vicenza, 06/12/17

VQ0008 - MEST171933

(Mod. MCE2) 2017-12-06 10:00:00

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

M. RIZZOTTO

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In conformità a: **EN 10204 (2004) , 3.1 / ISO 10474 (2013) , 3.1**

Certificato nr: **MEST171933 / 2017 /**
 Prüfung/Tests/Essai

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

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

Produttore:
 Hersteller/Werk/Usine producteur

ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: **706006403 Stock - Canada**
 Bestell- / Your order / Commande

Tipo di Elaborazione: **E+AOD**
 Erhitzungsart
 Melting process
 Mode d'élaboration

Marchi di Fabbrica:
 Zeichen des Werksachwerkes
 Trade marks
 Signes de l'usine productrice



Conferma ordine nr: **EI17006377**
 Werks-/Our Order/Ref nr

Qualità: **304/304L**
 Werkstoff/Grade/Qualité

Punzone del Collaudatore:
 Stempel des Werksachverständigen
 Inspector's stamp/Fonction de l'inspecteur

MR

Avviso di Spedizione: **D-VI17034572**
 Lieferfrist/Facking note/L

Marca: **AISL**
 Markenbezeichnung
 Brand / Nuance

Punzonatura: **304/304L**
 Kennzeichnung
 Marking
 Marquage

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/ Probestab Substrate/Éprouvette Larg diam/Ømm Bride diam/Ømm Width/Clam Thickness Larg diam/Ømm	°F		Snervamento Stress/force 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 Einknickung Reduction of area Striction RA %	Resistenza Kerbschlagarbeit Impact Value Resilience	Durezza Härte Hardness Dureté HB
		min	max				E 4d %				
Valori richiesti Anforderungen/Required values Valeurs demandées				30	-	75 115	- 40		- 50	-	140 223
A	12,5	68	L	37		83	62		74		162

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 E 112		4

Mechanical properties according to ASTM A370.

Analisi chimica											
Chemische Zusammensetzung/Chemical Analysis/Analyse chimique											
Colata / Heat	min	1.00	2.00	18.00	1.00	1.00	8.00	-	-	0.020	-
Schmelze/Grade	max	0.030	10.00	20.00	1.00	1.00	10.00	-	0.040	0.030	0.100
	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %
274839	0.018	0.43	1.65	18.26	0.39	0.40	8.04	0.121	0.031	0.025	0.092

Corrosion test in 16% sulfuric acid and copper sulfate solutions

Test standard: **ASTM A262-Practice E**

Test	Heat treatment before test	Length of Period (h)	Test temp (°C)	Bend Angle (°)	Ø spindle (mm)	Result of visual inspection at 20 x magnificat on after bend test	Result
Intergranular corrosion	Sensitization	15	boil	180	5	Absence of cracks	SATISFACTORY

Produced without class I-II Ozone depleting substances.
 Solution heat treated free from continuous carbide network.
 Micro and macro etch test : OK
 Reduction ratio = 7,6 : 1
 Annealing temperature : 1940° F for 4 h/water.
 Material is DFARS Compliant

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

Controllo antimescolanza: OK
 Verwechslungsprüfung: spektroskopisch durchgeführt
 Antimixing testing performed: OK
 Contrôle antimélange: satisfaisant

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

Vicenza, **06/12/17**

VCD008 - MEST171933

(Mod MCE2) - 001 - 001/001/001/001/001/001

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

M. RIZZOTTO

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Acciaierie Valbruna S.p.A.

36100 VICENZA (Italia) - Viale della scienza, 25 z.1.
Telefono 0444.962111 - Fax 0444.963836
Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4/37
Telefono 0471.924111 - Fax 0471.924497

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VALBRUNA CANADA LTD
8724 HOLGATE CRESCENT
L5T 5Z1 - MILTON, ONT L5T 5Z1 - CA

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

Produttore:
Hersteller/Hersteller/Manufacturer:

ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: **7060C6403 Stock - Canada**
Bestell:
Your order:
Commande:

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

Marchi di Fabbrica:
Zichen des Lieferwerkes:
Trade marks:
Sigles de l'usine productrice:



Confirma ordine nr: **EI17006377**
Werkz./Cur Order/Ref. nr:

Qualità: **304/304L**
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Inspector's stamp/Ponçon de l'assesseur:

MR

Avviso di Spedizione: **D-VI17034572**
Lieferanzeige/Packing: s/b3:

Marca: **AISL**
Markenzeichnung:
Brand / Nuance:

Punzonatura: **304/304L**
Kennzeichnung:
Marking:
Marquage:

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.

QUALITY MANAGEMENT SYSTEM CERTIFIED BY LLOYD'S REGISTER ACCORDING TO ISO 9001 : 2008, IATF 16949 : 2016, AS 9100C

The Quality Management System is Certified acc. Pressure Equipment Directive ["97/23/EC"] Annex 1, s. 4.3 and 2014/68/EU 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

Vicenza, 06/12/17
VCQ008 - MEST171933

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

M. RIZZOTTO *[Signature]*

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(Mod. MCE2) 2017/12/06 15:00:00 - MEST171933