



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 /**
 Prüfung/Taxi/Essa:

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

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

Produttore:
 Hersteller/Hersteller/producer:

ACCIAIERIE VALBRUNA S.P.A.

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

Tipo di Elaborazione: **E+AOD**
 Erzeugnisverfahren:
 Making 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**
 Lieferanweisung/Packing instr.:

Marca: **AISI**
 Markenbezeichnung:
 Brand / Nuance:

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

SPECIFICHE :	Note:
Anforderungen / Requirements / Exigences	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 SA479 (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 A484-18 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

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

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

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

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 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+A0D**
 Erschmelzungsart
 Melting process
 Mode d'élaboration

Marchi di Fabbrica:
 Zeichen des Werks/Markenwert
 Trade marks
 Signes de l'usine producteur



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
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 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 Axe diam/Thickness Larg diam/Ømm	°F	Posiz Saggio Orientation Orientation	Snervamento Stress/Strain Yield Stress Limite élastique Rp 0.2%		Snervamento Streckgrenze Yield Stress Limite élastique		Resistenza Zugfestigkeit Tensile strength Résistance à traction		Allungamento Bruchdehnung Elongation Allongement		Strizione Zugringung Reduction of area Striction		Resistenza Kerbschlagenergie Impact Value Résistance		Durezza Härte Hardness Dureté	
				min	max	min	max	min	max	min	max	min	max	min	max	min	max
Valori richiesti Anforderungen/Required values Valeurs demandées				30	-	75	-	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 Schmelze/Coûlée	min	max	18.00	20.00	1.00	1.00	8.00	10.00	0.040	0.020	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 à été traité conforme aux exigences

Controllo antimescolanza: OK
 Vermischungsprüfung: spektroskopisch durchgeführt
 At mixing 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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