



# Acciaierie Valbruna S.p.A.

36100 VICENZA (Italia) - Viale della scienza, 25 z.i.  
Telefono 0444.968211 - Fax 0444.963836  
Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4/37  
Telefono 0471.924111 - Fax 0471.924497

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

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

Certificato nr. MEST212106 / 2018 /  
Prüfung/Test/Essai

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

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

Produttore:  
Hersteller/Werk/Usine productrice

ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: 708006538 Stock - Canada  
Bestell  
Your order  
Commande

Tipo di Elaborazione: E+A00  
Einschmelzungsart  
Melting process  
Méthode d'élaboration

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



Conferma ordine nr: E117008875  
Werk-/Our Order/Ref. nr.

Qualità: 316/316L  
Werkstoff/Grade/Nuance

Punzone del Collaudatore:  
Stempel des Werkstoffverständigen  
Inspector's stamp/Poinçon de l'essayeur

MR

Avviso di Spedizione: D-VI18006782  
Lieferanweisung/Packing instr.L.

Marca: APML  
Markenbezeichnung  
Brand / Nuance

Punzonatura: 316/316L  
Kennzeichnung  
Marking  
Marquage

SPECIFICHE:	Note:
Anforderungen / Requirements / Exigences	Auflösungen / Notes / Notes
VSI 0 316/316L A	
AISI 316/316L	
AMS 5648 M S31600 A	
AMS 5653 H S31603 A	
AMS-QQ-S-763 D 316/316L A	
ASME SA182 2015 S31600/03 A (0)	(0)SECTION II PT.A 2015 EDITION For products machined directly from bar refer to ASME SA479.
ASME SA193 2015 B8M CLASS 1 (1)	(1)SECTION II PT.A 2015 EDITION
ASME SA275 2015 S31600/03 A (2)	(2)SECTION II PT.A 2015 EDITION
ASME SA320 2015 B8M CLASS1 (3)	(3)SECTION II PT.A 2015 EDITION
ASME SA479 2015 S31600/03 A (4)	(4)SECTION II PT.A 2015 EDITION
ASTM A182 2015 S31600/03 A (5)	(5)For products machined directly from bar refer also to ASTM A479.
ASTM A193 2015 B8M CLASS 1	
ASTM A262 2015 PRACTICE E	
ASTM A276 2017 S31600/03 A	
ASTM A314 2015 S31600/03	
ASTM A320 2017A B8M CLASS1	
ASTM A370 2017.	
ASTM A473 2001 S31600/03 (6)	(6)Chemical analysis only.
ASTM A479 2017 S31600/03 A	
MIL-S-862 B/1 316/316L	
NACE MR0103 2015 S31600/03 A (7)	(7)ANSI/NACE MR0103/ISO 17845 November 23, 2015
NACE MR0175 2015 S31600/03 A (8)	(8)ANSI/NACE MR0175/ISO 15156-3, third edition November 23,2015
QQ-S-763 F 316/316L A	

Tolleranza: ASTM A484-16 TABLE 3

Pos. nr. Pos. nr. Item No. No. de pièce	Oggetto Componente Partie description Description de produit	Dimensioni - In		Lunghezza - In Length Longueur	Colata Schmelz Melt Coulée	Pezzi Stückzahl Pieces Pièces	Peso - LB Gewicht Weight Poids	Lotte nr. Lose Lot No. Lot No.
		Abmessungen Dimensions Dimensions						
0060	Round	8,5000		236/ 240	276061	2	8,009	730309450

P.O.#: P117596  
 R#: R148332  
 ITEM#: 509378  
 HEAT#: 276061  
 BRANCH#: 875

Vicenza, 05/03/18  
VCC008 - MEST212106  
(MOD. MCEZ)

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

M.RIZZOTTI *M. Rizzotti*

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14 May 10/18

Encove Pott 80250 WOH 7307 CPA 6 POF 80-13 PCS



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 Hersteller/Hersteller producer

**ACCIAIERIE VALBRUNA S.P.A.**

Ordine nr: 708006538 Stock - Canada  
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Tipo di Elaborazione: E+AOD  
 Erzeugnisprozess  
 Making process  
 Mode d'élaboration

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



Conferma ordine nr: EI17008875  
 Vertrags-/OrderRef. nr.

Qualità: 316/316L  
 Werkstoff/Grade/Alliance

Punzione del Collaudatore:  
 Stempel des Werksachverständigen  
 Inspector's stamp/Plaque de l'essayeur

MR

Avviso di Spedizione: D-VI18006782  
 Liefermodus/Shipping Est/D.L.

Marca: APLM  
 Markenbezeichnung  
 Brand / Marque

Punzonatura: 316/316L  
 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	Provezita/ Probabilité	°F	Peril/ Style	Sneramento/ Streckgrenze	Sneramento/ Streckgrenze	Resistenza/ Zugfestigkeit	Adungamento/ Elongation	Strizione/ Reduktion of area	Resistenza/ Impact Value	Durezza/ Härte	Durezza/ HB	
	Ergebnis/ Chance		Ergebnis/ Chance	Ergebnis/ Chance	Ergebnis/ Chance	Ergebnis/ Chance	Ergebnis/ Chance	Ergebnis/ Chance				
Valori richiesti/ Anforderungen/Requested values		min		30	-	75	-	40	-	50	-	140
min						115						223
max												
A	12,5	68	L	41		82		54		77		172

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												
Colore / Aspect	min -	1,00	1,25	18,50	2,00	10,00	10,00	0,020	0,020	0,100	-	-
Schmelzfarbe/Color	max 0,033	2,00	18,50	18,50	3,00	1,00	14,00	0,040	0,020	0,100	-	-
	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %	
276061	0,015	0,40	1,73	16,58	2,00	0,39	10,06	0,161	0,030	0,029	0,076	

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 magnification 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.  
 Annealing temperature : 1840° F for 4 h/water.  
 Micro and macro etch test : OK  
 Reduction ratio = 7,6 : 1  
 Material is DFARS Compliant

Sono state soddisfatte tutte le condizioni richieste Die gestellten Anforderungen sind fr. Anlage erfüllt The material has been furnished in accordance with the requirements Le matériels a été trouvé conforme aux exigences	Controllo antimiscelanza: OK Verwechslungsfreiheit: spektrometrisch durchgeführt Antriebsvorgang performed: OK Contrôle extrinsèque hz: o.k.	Controllo visivo e dimensionale: soddisfa le esigenze Gehtprüfung und Ausmessung: ohne Beanstandung Visual inspection and dimensional checks satisfactory Contrôle visuel et dimensionnel satisfaisant
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 Making process  
 Mode d'elaboration

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



**Conferma ordine nr:** E117008875  
 Waren/Oder Datum/Ref. nr.

**Qualità:** 316/316L  
 Waren BEZUGS-Abnahme

**Punzone del Collaudatore:**  
 Stempel des Werksschwerstänigen  
 Inspector's stamp/Peignon de l'essayeur

**MR**

**Avviso di Spedizione:** D-VI18006782  
 Lieferanzug/Packing instr./L.

**Marcia:** APML  
 Markenbezeichnung  
 Brand / Marque

**Punzonatura:** 316/316L  
 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 grade/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, 05/03/18  
 VCC008 - MEST212106  
 (Mod. MCEZ)

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

**M. RIZZOTTI**

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