



HT# 268170

Acciaierie Valbruna S.p.A.

C193200

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

In conformità a: **EN 10204 (2004), 3.1**

Certificato nr. **MEST028912 / 2017 /**

Nach/According to/Selon

Prüfung/Test/Essai

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

Stato di fornitura: **Hot rolled Polished Annealed**
 Lieferzustand: **Peeled**
 Delivery state
 Etat de livraison

Produttore:
 Hersteller/Item/Usine productrice

ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: 702006232 Stock - Canada
 Bestell:
 Your order
 Commande

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

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



Conferma ordine nr: **EI17002328**
 Werks/Our Order/Ref nr.

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

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

MR

Avviso di Spedizione: **D-VI17005744**
 Lieferanzeige/Packing list/B.L.

Marca: **MVAPML MAXIVAL**
 Markenbezeichnung
 Brand / Nuance

Punzonatura: **316/316L**
 Kennzeichnung
 Marking
 Marquage

SPECIFICHE :	Note:
Anforderungen / Requirements / Exigences	Aufzeichnungen / 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 CLASS1 (1)	(1)SECTION II PT.A 2015 EDITION
ASME SA276 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 2016 S31600/03 A (5)	(5)For products machined directly from bar refer also to ASTM A479.
ASTM A193 2016 B8M CLASS1	
ASTM A262 2015 PRACTICE E	
ASTM A276 2016 S31600/03 A	
ASTM A314 2015 S31600/03	
ASTM A320 2015A B8M CLASS1	
ASTM A370 2015	
ASTM A473 2001 S31600/03 (6)	(6)Chemical analysis only.
ASTM A479 2016 S31600/03 A	
MIL-S-862 B/1 316/316L	
NACE MR0103 2010 S31600/03 A	
NACE MR0175 2009 S31600/03 A (7)	(7)ANSI/NACE MR0175/ISO 15156-3, second edition 2009-10-15 Technical circular 1:2011 Published 2011-06-14
QQ-S-763 F 316/316L A	

Tolleranza: ASTM A484-16 TABLE 7

Pos. nr. Pos. nr. Item no. N. de poste	Oggetto Object/Item Product description Description du produit	Tolleranza/Allowance/Tolerance		Lunghezza - In Länge Length Längeur	Colata Schmelze Heat Coulée	Pezzi Stückzahl Pieces Pièces	Peso - LB Gewicht Weight Poids	Lotto nr. Loseil. Lot no. Lot nr.
		Dimensioni - In Abmessungen Dimensions Dimension						
0010	Round	2,1250		144/ 156	268170	32	5.066	632303570

HT#

Nov 10/17

Vicenza, 24/02/17

VCC008 - MEST028912

(Mod. MCE2)

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

M. RIZZOTTO

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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/ Probe Speckel/Eprovetta Lapdiam Spez. Brads Diam. Dicks With Diam. Thickness Lap. diam. epais mm	°F	Posit. Saggio Position Location Empplacement	Snervamento Streckgrenze Yield Stress Limite elastique Rp 0,2% k.s.l.	Snervamento Streckgrenze Yield Stress Limite elastique	Resistenza Zugfestigkeit Tensile strength Resistance à traction Rm k.s.l.	Allungamento Streckdehnung Elongation Allongement E 4d %	Strizione Einweichung Reduction of area Striction RA %	Resilienza Kerbschlagarbeit Impact Value Resilience	Durezza Härte Hardness Dureté HB
Valori richiesti		min max		30	-	75 115	- 40	- 50	-	140 223
A	12,5	68	L	40		84	53	71		170

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	min	max	
A	Grain size for ASTM E112		6

Mechanical properties according to ASTM A370.

Analisi chimica												
Chemische Zusammensetzung/Chemical Analysis/Analyse chimique												
Colata / Heat Schmelze/Coulee	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	0,030	0,100	0,020
	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %	
268170	0,018	0,60	1,54	16,79	2,02	0,55	10,05	0,150	0,031	0,027	0,070	

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.
 Micro and macro etch test: OK
 Reduction ratio = 19,0 : 1
 Annealing temperature: 1940°F for 1 h/water.
 Material is DFARS Compliant

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

Controllo antimiscelanza: OK
 Verwechslungsprüfung: spektralanalytisch durchgeführt
 Antimizing testing performed: OK
 Contrôle antimélange fait: r.a.s.

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

Vicenza, 24/02/17

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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, ISO/TS16949 : 2009, 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 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.

Maxival 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, 24/02/17

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