



Acciaierie Valbruna S.p.A.

36100 VICENZA (Italia) - Viale della scienza, 25 z.l.
 Telefono 0444.966211 - Fax 0444.963636
 Stab.: 36100 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. MEST834861 / 2021 /
 Prüfung/Prüfung

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

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

Produttore:
 Hersteller/Hersteller/Producent

ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: 110009067 Stock - Canada
 Bestell:
 Your order:
 Commande:

Tipo di Elaborazione: E+AOD
 Eschmelzverfahren:
 Making process:
 Mode d'élaboration:

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



Confirma ordine nr: EI21013696
 Waren/Oder/Refer.:

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

Partenze del Collaudatore:
 Stempel des Werkstättenverständigen
 Inspector's stamp/Portion de l'essayeur

MR

Avviso di Spedizione: D-VI21027559
 Lieferanzeige/Prüfung ISO 10474:

Marca: MVAPML (MAXIVAL)
 Markenbezeichnung:
 Brand / Nuance:

Partenza n. 316/316L
 Kennzeichnung:
 Marking:
 Marquage:

SPECIFICHE:	Note:
Anforderungen / Requirements / Exigences	Auszeichnungen / Notes / Notes
VSI 0. 316/316L A	
AISI 316/316L	
AMS 5648 M S31600 A	
AMS 5653 J S31603 A	
AMS-QQ-S-753 D 316/316L A	
ASME SA182 2019 S31600/03 A (0)	(0)Section II Part A 2019 EDITION For products machined directly from bar refer to ASME SA479.
ASME SA193 2019 B8M CLASS 1 (1)	(1)Section II Part A 2019 EDITION
ASME SA276 2019 S31600/03 A (2)	(2)Section II Part A 2019 EDITION
ASME SA320 2019 B8M CLASS 1 CLASS1 (3)	(3)Section II Part A 2019 EDITION
ASME SA479 2019 S31600/03 A (4)	(4)Section II Part A 2019 EDITION
ASTM A182 2021 S31600/03 A (5)	(5)For products machined directly from bar refer also to ASTM A479.
ASTM A193 2020 B8M CLASS 1	
ASTM A282 PR. E 2C15 316/316L (6)	(6)Reapproved 2021
ASTM A276 2017 S31600/03 A	
ASTM A314 2019 S31600/C3	
ASTM A320 2018 B8M CLASS 1 CLASS1	
ASTM A370 2020	
ASTM A473 2021 S31600/C3 (7)	(7)Chemical analysis only.
ASTM A479 2020 S31600/C3 A	
MIL-S-862 B/1 316/316L	
NACE MR0103 2015 S31600/03 A (8)	(8)ANSI/NACE MRC0103/ISO 17945 November 23, 2015
NACE MR0175 2015 S31600/03 A (9)	(9)ANSI/NACE MRC0175/ISO 15156-3, third edition November 20,2015
QQ-S-753 F 316/316L A	

Tolleranza: ASTM A484-20B TABLE 3

Pos. nr.	Oggetto	Tolleranza/Allowance/Tolerance		Lunghezza - In	Coata	Pezzi	Peso - LB	Lotto nr.
		Dimensioni - In	Dimensioni					
0010	Round	5,0000		157/ 158	435056	4	3.556	124310810

P.O.#: PI23985
 R#: R171255
 ITEM#: 509364
 HEAT#: 435056
 BRANCH#: 875

QUALITY MANAGEMENT SYSTEM CERTIFIED BY LLOYD'S REGISTER ACCORDING TO ISO 9001 : 2015, IATF 16949 : 2016, AS 9100D			
Vicenza, 10/11/2021 VCC052 - MEST834861	Direzione Qualità Qualitätsmanagement/Quality Management/Qualité R.BERTELLI	Direzione Prodotto Produktmanagement/Product Management/Produkt P.MESSORI	Pagina 1 di 3

1/19/2022



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

Certificato nr. MEST834861 / 2021

Nach/According to/Donc

Prüfung/Text/Essai

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

Stato di fornitura: Hot rolled - Annealed Peeled
 Lieferzustand: Y and Z state
 Etat de livraison

Produttore:
 Hersteller/Em/Usine productrice

ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: 110009087 Stock - Canada
 Bestell-/Your order/Commande

Tipo di Elaborazione: E+AOD
 Erhitzungsart:
 Rolling process:
 Mode d'elaboration:

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



Conferma ordine nr: E121013696
 Werkst./Our Order/Ref. nr.

Qualità: 316/316L
 Werkstoff/Grade/Usance

Punzone del Collaudo:
 Stempel des Werkstoffverständ. ger.
 Inspector's stamp/Pointon de l'usance

MR

Avviso di Spedizione: D-VI21027559
 Lieferanfrage/Packing invoice L.

Marca: MVAPML (MAXIVAL)
 Markenbezeichnung:
 Brand / Nuance

Punzonatura: 316/316L
 Kennzeichnung:
 Marking:
 Marquage

TEST ALLO STATO DI FORNITURA										
Test on delivery condition / Prüfung auf lieferbarem Produkt / Test à l'état de fourniture / Prueba sobre el material así como entregado										
TEST	Provetta/ State of Lap and Spall State of Welds, etc. Welds, etc. Lap, etc. Spall, etc.	F	Pozz Saggio havage Lap Lap Lap	Snervamento Streckgrenze Yield Stress Tensile strength Rp 0,2%	Snervamento Streckgrenze Yield Stress Tensile strength Rp 0,2%	Resistenza Zugfestigkeit Tensile strength Resistencia a tracción Rm	Allungamento Bruchdehnung Elongation Allongement E 4d	Strizione Einknickung Reduction of area Striction RA	Resilienza Kerbschlagarbeit Impact Value Resilience	Durezza Brinell Hardness Dureté HB
A	12,5	68	L	38	-	82	63	76	-	165

TEST ALLO STATO DI FORNITURA		
Test on delivery condition / Prüfung auf lieferbarem Produkt / Test à 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 Schmelze/Güsse	Heat min - max	0,030	1,00	1,25	16,00	2,00	10,00	10,00	0,040	0,023	0,100
	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %
435056	0,011	0,52	1,66	16,92	2,04	0,59	10,30	0,137	0,029	0,026	0,072

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 = 19,3 : 1
 Material annealed 1976°F for 180'(total time)/water cooled.
 Material is DFARS Compliant

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

Controllo antimiscelazione con tecnica XRF/OES portatile : OK
 Verwechslungsprüfung durch XRF/OES Gerät geführt
 Antimixing testing performed with XRF/OES portable : OK
 Contrôle anti-mélange svr techn. ou XRF/OES portable : OK

Controllo visivo e dimensionale soddisfa le esigenze
 Besichtigung und Ausmessung ohne Beanstandung
 Visual inspection and dimensional checks satisfactory
 Contrôle visual et dimensionnel satisfaisant

QUALITY MANAGEMENT SYSTEM CERTIFIED BY LLOYD'S REGISTER ACCORDING TO ISO 9001 : 2015, IATF 16949 : 2016, AS 9100D			
Vicenza, 10/11/2021 VCO052 - MEST834861	Direzione Qualità Quality Management/Quality Management/Direction Qualité R.BERTELLI	Direzione Prodotto Product Management/Product Management/Direction Produit P.MESSORI	Pagina 2 di 3



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

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

Produttore:
Hersteller/Hersteller/Usine productrice

ACCIAIERIE VALBRUNA S.P.A.

Ordine nr. 110009087 Stock - Canada
Bestell
Your order
Commande

Tipo di Elaborazione: E+AOD
Eis-/Stahlherstellung
Melting process
Mode d'elaboration

Marchi di Fabbrica:
Zähler des Liefnerwerkes
Trade marks
Sigles de l'usine productrice



Conferma ordine nr. EI21013696
Werkst/Ou Order/Ref. nr.

Qualità: 316/316L
Werkstoff/Grade/Usance

Punzone del Collaudo:
Stempel des Werkstoffprüfstandes
Inspector's stamp/Prinçon de l'essai

MR

Avviso di Spedizione: D-VI21027559
Lieferanzeige/Packing list/B.L.

Marca: MVA PML (MAXIVAL)
Markenbezeichnung
Brand / Nuance

Punzonatura: 315/316L
Kennzeichnung
Marking
Marquage

Melted, poured 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 by the portal system when it leaves the production plant.

The Quality Management System is also Certified according Pressure Equipment Directive 2014/68/EU Annex 1, chap.4.3 by TÜV 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.

WATERMARK: MEST834861/2021

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

Vicenza, 10/11/2021
VCC052 - MEST834861

Direzione Qualità
Quality Management/Quality Management/Gestion Qualité
R. BERTELLI

Direzione Prodotto
Product Management/Product Management/Direction Produit
P. MESSORI

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