



Acciaierie Valbruna S.p.A.

C299537

36100 VICENZA (Italia) - Viale della scienza, 25 Z.I.
 Telefono 0444.968211 - Fax 0444.968836
 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. MEST754323 / 2021 /
 Prüfung/Test/Essa:

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

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

Produttore:
 Hersteller/Item/Usine productrice

ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: 106008774 Stock - Canada
 Bestell: Your order
 Commande:

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

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



Conferma ordine nr: EI21006911
 Werks/Our Order/Ref. nr.

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

Punzone del Collaudatore:
 Stempel des Werks/Inspektionen/
 Inspector's stamp/Pointon de l'essayeur

MR

Avviso di Spedizione: D-BZ21005287
 Lieferanzeige/Packing list/B...

Marca: M VAPML (MAXIVAL)
 Markenbezeichnung:
 Brand / Nuance:

Punzonatura: 3*6/316L
 Kennzeichnung:
 Marking:
 Marquage:

SPECIFICHE :

Anforderungen / Requirements / Exigences

Note:

Aufzeichnungen / Notes / Notes

VSI 0. 316/316L A

AISI 316/316L

AMS 5648 M S31600 A

AMS 5653 J S31603 A

AMS-QQ-S-763 D 316/316L A

ASME SA182 2019 S31600/03 A (0)

ASME SA193 2019 B8M CLASS 1 (1)

ASME SA276 2019 S31600/03 A (2)

ASME SA320 2019 B8M CLASS 1 CLASS1 (3)

ASME SA479 2019 S31600/03 A (4)

ASTM A182 2020 S31600/03 A (5)

ASTM A193 2020 B8M CLASS 1

ASTM A262 PR. E 2015 316/316L

ASTM A276 2017 S31600/03 A

ASTM A314 2019 S31600/03

ASTM A320 2018 B8M CLASS 1 CLASS1

ASTM A370 2020

ASTM A473 2019 S31600/03 (6)

ASTM A479 2020 S31600/03 A

MIL-S-862 B/1 316/316L

NACE MR0103 2015 S31600/03 A (7)

NACE MR0175 2015 S31600/03 A (8)

QQ-S-763 F 316/316L A

(0)Section II Part A 2019 EDITION For products machined directly from bar refer to ASME SA479.

(1)Section II Part A 2019 EDITION

(2)Section II Part A 2019 EDITION

(3)Section II Part A 2019 EDITION

(4)Section II Part A 2019 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 A484-20B TABLE 7

Tolleranza/Allowance/Tolerance

Pos. nr. Pos. nr. Item nr. Nr. de poste	Oggetto Gegenstand Product description Description du produit	Dimensioni - In Abmessungen Dimensions Dimension	Lunghezza - In Länge Length Langueur	Colata Schmelze metal Coulée	Pezzi Stückzahl Pieces Pièces	Peso - LB Gewicht Weight Poids	Lotto nr. Lose Lot no. Lot no.
0090	Round	2,2500	153/ 156	285501		4.564	106411940

QUALITY MANAGEMENT SYSTEM CERTIFIED BY LLOYD'S REGISTER ACCORDING TO ISO 9001 : 2015, IATF 16949 : 2016, AS 9100D

Vicenza, 08/06/2021

Direzione Qualità
 Qualitätsmanagement/Quality Management/Gestion Qualité

R. BERTELLI

Direzione Prodotto
 Produktmanagement/Product Management/Directon Product

P. MESSORI

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 8724 HOLTGATE CRESCENT
 L5T 5Z1 - MILTON, ONT L5T 5Z1 - CA

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 Lieferzustand: Peeled
 Delivery state:
 Etat de livraison:

Produttore
 Hersteller/Item/Vusine productice

ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: 106008774 Stock - Canada

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

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



Conferma ordine nr: EI21006911

Qualità: 316/316L
 Werkstoff/Grade/Nuance

Punzone del Collaudatore:
 Stempel des Werkssachverständiger
 Inspector's stamp/Plaqueon de l'assesseur

MR

Avviso di Spedizione: D-BZ21005287

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 a l'etat de fourniture / Prueba sobre el material así como entregado										
TEST	Provetta/ Probe/Specimen/Éprouvette Larg. diam. Spec. / Breite Diam. / Okais / Width Diam. / Thickness / Larg. diam. épais / mm	°F	Posz. Saggio / Probenort / Location / Eprouvettes	1) L: Longitudinale/Längs, T: trasversale/Quer, Q: Tangenziale/Tangentiale		Resistenza / Zugfestigkeit / Tensile strength / Resistencia a tracción	Allungamento / Bruchdehnung / Elongation / Allongement	Strizione / Einziehung / Reduction of area / Striction	Resilienza / Karbschlagarbeit / Impact Value / Resilience	Durezza / Härte / Hardness / Dureté / HB
				Snervamento / Streckgrenze / Yield Stress / Limite élastique	Snervamento / Streckgrenze / Yield Stress / Limite élastique					
Valori richiesti		min		30	-	75	40	-	50	140
Anforderungen/Requisito values / Valeurs d'imansibles		max		40		115				223
A	12,5	68	L	40		87	53	73		183

TEST ALLO STATO DI FORNITURA			
Test on delivery condition / Prüfung auf lieferbarem produkt / Test a l'etat de fourniture / Prueba sobre el material así 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/Coulée	min	-	1,25	16,50	2,00	10,00	-	0,020	-	-	-	-
	max	0,030	1,00	2,00	18,00	3,00	1,00	14,00	0,040	0,030	0,100	-
	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %	
285501	0,018	0,50	1,53	16,64	2,01	0,44	10,02	0,171	0,032	0,028	0,061	

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 spindie (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 = 11,9 : 1
 Material annealed 1940°F for 1.5h/water cooled.
 Material is DFARS Compliant

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

Controllo antimiscelanza con tecnica XRF/OES portatile : OK
 Verwechslungsprüfung durch XRF/OES Gerät geführt.
 Anmixing testing performed with XRF/OES portable : OK
 Contrôle antimélange svl technique XRF/OES portable : OK

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

QUALITY MANAGEMENT SYSTEM CERTIFIED BY LLOYD'S REGISTER ACCORDING TO ISO 9001 : 2015, IATF 16949 : 2016, AS 9100D			
Vicenza, 08/06/2021 VCC082 - MEST754323	Direzione Qualità Qualitätsmanagement/Quality Management/Gestion Qualité R.BERTELLI	Direzione Prodotto Produktmanagement/Product Management/Direction Produit P. MESSORI	Pagina 2 di 3



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Lieferzustand
Delivery state
Etat de livraison

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Bestell
Your order
Commande

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

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



Confirma ordine nr: **EI21006911**
Werks/Our Order/Ref. nr.

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

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

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Avviso di Spedizione: **D-BZ21005287**
Lieferanzeige/Packing list/B.L.

Marca: **MVAPML (MAXIVAL)**
Markenbezeichnung
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Punzonatura: **316/316L**
Kennzeichnung
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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, chapt.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.

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QUALITY MANAGEMENT SYSTEM CERTIFIED BY LLOYD'S REGISTER ACCORDING TO ISO 9001 : 2015, IATF 16949 : 2016, AS 9100D

Vicenza, **08/06/2021**

Direzione Qualità
Qualitätsmanagement/Quality Management/Gestion Qualité

Direzione Prodotto
Produktmanagement/Product Management/Direction Produit

VQQ052 - MEST754323

R.BERTELLI

P.MESSORI

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