

6033



Acciaierie Valbruna S.p.A.

36100 VICENZA (Italia) - Viale della scienza, 25 z.l.
 Telefono 0444.968211 - Fax 0444.963836
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 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. **MEST774666 / 2021 /**
 Prüfung/Test/Essai

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

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

Produttore:
 Hersteller/fabrik/Usine productrice

ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: **107008845 RELIANCE PROGRA**
 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



Conferma ordine nr: **EI21008690**
 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-VI21017724**
 Lieferanzelger/Packing list/B.L.

Marca: **APML**
 Markenbezeichnung
 Brand / Nuance

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

SPECIFICHE :	Note:
Anforderungen / Requirements / Exigences	Auzeichnungen / 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)	(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 2020 S31600/03 A (5)	(5)For products machined directly from bar refer also to ASTM A479.
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)	(6)Chemical analysis only.
ASTM A479 2020 S31600/03 A	
MIL-S-862 B/1 316/316L	
NACE MR0103 2015 S31600/03 A (7)	(7)ANSI/NACE MR0103/ISO 17945 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 A484-20B TABLE 3

Pos. nr.	Oggetto	Dimensioni - In	Lunghezza - In	Colata	Pezzi	Peso - LB	Lotto nr.
Pos. nr. Item no. Nr. de partie	Geometrie Product description Descrip. du produit	Abmessungen Dimension Dimension	Length Length Longueur	Schmelze Type Coulée	Stückzahl Pieces Pieces	Gewicht Weight Poids	Lot no. Lot no. Lot no.
0050	Round	13,0000	144/ 144	434112		5.564	102720240

P.O.#: **P123851**
 R#: **R170462**
 ITEM#: **521534**
 HEAT#: **434112**
 BRANCH#: **875**

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

Vicenza, 09/07/2021 VCQ052 - MEST774666	Direzione Qualità Qualitätsmanagement/Quality Management/Gestion Qualité R.BERTELLI	Direzione Prodotto Produktmanagement/Product Management/Direction Produit P.MESSORI	Pagina 1 di 3
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MS



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Prüfung/Tast/Essai

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: ACCIAIERIE VALBRUNA S.P.A.
Hersteller/Fabrik/Usine productrice

Ordine nr: 107008845 RELIANCE PROGRA
Bestell
 Your order
 Commande

Tipologia di Elaborazione: E+AOD
Erzeugnisart
 Making process
 Mode d'elaboration

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

Conferma ordine nr: EI21008890
Werk-/Our Order/Ref. nr.

Qualità: 316/316L
Werkstoff/Grade/Nuance

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

Avviso di Spedizione: D-VI21017724
Lieferanzeige/Packing list/B.L.

Marca: APML
Markenbezeichnung
 Brand / Nuance

Punzonatura: 316/316L
Kenzeichnung
 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	Proveita/ Probe/ab Especimen/Éprouvette Lengditi Spess, Breite/Clam. Dicke Höhe/Clam. Thickness Läng. diam. épais mm	°F	Posiz. Staggio Position Lorsion Emplacement H	Snervamento Streckgrenze Yield Stress Limite élastique Rp 0,2% N.A.	Snervamento Streckgrenze Yield Stress Limite élastique	Resistenza Zugfestigkeit Tensile strength Résistance à traction Rm K.s.L.	Allungamento Bruchdehnung Elongation Allongement E 4d %	Strizione Encoche/Notch Reduction of area Striction RA %		Resilienza Kerbschlagwert Impact Value Résilience	Durezza Härte Hardness Dureté HB.
								min	max		
Valori richiesti <small>Anforderungen/Requisit values Valeurs demandées</small>				30	-	75 115	40	-	50	-	140 223
A	12,5	68	L	38		81	57		72		168

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			2

Mechanical properties according to ASTM A370.

Analisi chimica												
Chemische Zusammensetzung/Chemical Analysis/Analyse chimique												
Colata / Heat Schmelze/Cast/le	min - max	-	1,25 2,00	16,60 18,00	2,00 3,00	- 1,00	10,00 14,00	-	-	0,040 0,030	0,020 0,100	-
	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %	
434112	0,015	0,43	1,79	16,72	2,10	0,50	10,30	0,129	0,032	0,027	0,085	

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 = 4,7 : 1
 Material annealed 1940°F for 5,5h/water cooled.
 Material is DFARS Compliant

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

Controllo antimiscelanza con tecnica XRF/OES portatile : OK
 Verwechslungsprüfung durch XRF/OES Gerät geföhrt
 Antimixing testing performed with XRF/OES portable : OK
 Contrôle antimélange svt technique XRF/OES portable : OK

Controllo visivo a dimensionale: soddisfa le esigenze
 Baulichufig- und Ausmessung: ohne Beanstandung
 Visual inspection and dimensional check: satisfactory
 Contrôle visuel et dimensionnel: satisfaisant

QUALITY MANAGEMENT SYSTEM CERTIFIED BY LLOYD'S REGISTER ACCORDING TO ISO 9001 : 2015, IATF 16949 : 2016, AS 9100D.			
Vicenza, 09/07/2021 VCQ052 - MEST774666	Direzione Qualità Quality Management/Qualität R. BERTELLI	Direzione Prodotto Product Management/Produktion P. MESSORI	Pagina 2 di 3



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 Your order
 Commande

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

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



Conferma ordine nr: EI21008690
 Werk/Our Order/Ref. nr.

Qualità: 316/316L
 Werkstoff/Grade/Numéro

Punzone del Collaudatore:
 Stampel des Werkstoffsprüfenden
 Inspector's stamp/Pointon de l'essayeur

MR

Avviso di Spedizione: D-VI21017724
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Marca: APML
 Markenbezeichnung
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Punzonatura: 316/316L
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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.
 Maximal 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, 09/07/2021
 VCC052 - MEST774666

Direzione Qualità
 Qualitätsmanagement/Quality Management/Qualität
 R.BERTELLI

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

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