



Acciaierie Valbruna S.p.A.

36100 VICENZA (Italia) - Viale della scienza, 25 z.1.
 Telefono 0444.888211 - Fax 0444.963836
 Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4/37
 Telefono 0471.924111 - Fax 0471.924497

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

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

Certificato nr. **MEST920884 / 2016 /**

Cliente / Besteller/Purchaser/Clien
VALBRUNA STAINLESS INC.
 2400 TAYLOR STREET WEST
 46801 - FORT WAYNE, IN 46801 - US

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

Produttore:
 Hersteller/Hersteller/Usine producteur
ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: **50279 STOCK HOUSTON**
 Bestell / Your order / Commande

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

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



Conferma ordine nr: **EI16007918**
 Werkz./Our Order/Rat. nr.

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

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

MR

Avviso di Spedizione: **D-V116021690**
 Lieferanweisung/Packing List

Marca: **APML**
 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 L S31600 A AMS 5653 H S31603 A AMS-QQ-S-763 D 316/316L A ASME SA182 2015 S31600/03 A (0) ASME SA193 2015 B8M CLASS1 (1) ASME SA276 2015 S31600/03 A (2) ASME SA320 2015 B8M CLASS1 (3) ASME SA479 2015 S31600/03 A (4) ASTM A182 2015 S31600/03 A (5) ASTM A193 2015 B8M CLASS1 ASTM A262 2015 PRACTICE E ASTM A276 2015 S31600/03 A ASTM A314 2015 S31600/03 ASTM A320 2015A B8M CLASS1 ASTM A370 2015 ASTM A473 2001 S31600/03 (6) ASTM A479 2015 S31600/03 A MIL-S-862 B/1 316/316L NACE MR0103 2010 S31600/03 A NACE MR0175 2009 S31600/03 A (7) QQ-S-763 F 316/316L A	(0)SECTION II PT.A 2015 EDITION For products machined directly from bar refer to ASME SA479. (1)SECTION II PT.A 2015 EDITION (2)SECTION II PT.A 2015 EDITION (3)SECTION II PT.A 2015 EDITION (4)SECTION II PT.A 2015 EDITION (5)For products machined directly from bar refer also to ASTM A479. (6)Chemical analysis only. (7)ANSI/NACE MR0175/ISO 15156-3, second edition 2009-10-16 Technical circular 1:2011 Published 2011-06-14

Tolleranza: ASTM A484-16 TABLE 3

Pos. nr. Item no. Nr. de pièce	Oggetto Object Product description Description de l'objet	Tolleranza/Allowance/Tolerance		Lunghezza - ln Length Länge Länge	Colata Spindle Heat Gießte	Pezzi Quantity Pieces	Peso - LB Weight Poids	Lotto nr. Lot no. Lot no.
		Dimensioni - ln Dimensions Dimensionen						
0120	Round	8,5000		214/ 227	271002		7.353	613908510

Vicenza, 07/09/16

VCQ008 - MEST920884

(Mod. MLC2) www.valbruna.com

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

M. Rizzotto

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Acciaierie Valbruna s.p.a.

38100 VICENZA (Italia) - Viale della scienza, 25 s.l.
 Telefono 0444.968211 - Fax 0444.963838
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CERTIFICATO DI GOLLAUDO - ABNAHMEPRUEFZEUGNIS - INSPECTION CERTIFICATE - CERTIFICAT DE RECEPTION

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

Certificato nr. **MEST920884 / 2016 /**

Cliente / Besteller/Purchaser/Client
VALBRUNA STAINLESS INC.
 2400 TAYLOR STREET WEST
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Stato di fornitura: **Forged - Annealed FORGED**
 Lieferzustand/
 Delivery state
 Etat de livraison

Produttore:
 Hersteller/Hersteller/Hersteller
ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: **50279 STOCK HOUSTON**
 Bestell
 Yo. # order
 Commande

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

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



Conferma ordine nr: **EI16007918**
 Works/Our Order/Ref. nr.

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

Punzone del Collaudatore:
 Stempel des Werkstoffprüfenden
 Inspektor's stamp/Pointeur de l'assesseur

MR

Avviso di Spedizione: **D-VI16021690**
 Lieferanweisung/Shipping Instruct.

Marca: **APML**
 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	Proveita/ Probe Specimen/Probe Long. diam. Spcs. Diam. Diam. Dia. Wall Thickn. Long. diam. Spcs. mm	°F	Posti Daggio Poursage in Emplacement	Sneramento Magnesian Yield Stress Limit elastic Rp 0,2% ksi	Sneramento Magnesian Yield Stress Limit elastic Rp 0,2% ksi	Resistenza Superior Tensile strength Resistance Atraction Rm ksi	Allungamento Elongation Elongation Allongement E 4d %		Strizione Wear Reduction of area Reduction RA %		Durezza Hardness Durete HB
	Valori richiesti A. Kundenanforderung/Required values Valeurs demandées	min		30	-	75	-	40	-	50	140
		max				115					223
A	12,5	68	L	37		81		61		73	168

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												
Colata Schmelze/Couée	Moist max	0,030	1,00	1,25 2,00	15,50 18,00	2,00 3,00	1,00	10,00 14,00	0,040 0,030	0,020 0,030	0,100	-
271002	C %	SI %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %	-
	0,014	0,42	1,73	16,54	2,00	0,44	10,00	0,160	0,029	0,025	0,087	-

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 = 7,6 : 1
 Annealing temperature: 1940°F for 4 h/water.
 Material is DFARS Compliant

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

Controllo antimiscelazione: OK
 Vermischungsprüfung: spektrometrischen durchgeführt
 Antimixing testing performed: OK
 Contrôle antimélange fait: r.a.m.

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

Vicenza, 07/09/16
 VCO08 - MEST920884
 (Mod. MCE2)

Il collaudatore di stabilimento / der Werkstoffprüfende / Works Inspector / L'agent d'usine
M. Rizzotti

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

Certificato nr. **MEST920884 / 2016 /**

Nach/According to/Selon

Führung/Test/Essai

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 Your order
 Commande

Tipo di Elaborazione: **E+AOD**
 Erzeugungsmethode
 Melting process
 Mode d'obtention

Merchi di Fabbrica:
 Zeichen des Lieferwerkes
 Trade marks
 Signes de l'usine productrice



Conferma ordine nr: **EI16007918**
 Werks/Dur Order/Ref. nr.

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

Punzone del Collaudatore:
 Stempel des Werkstoffüberprüfenden
 Inspector's stamp/Plaqueon du Testeur

MR

Avviso di Spedizione: **D-VI16021690**
 Lieferanzeige/Packing INW/L

Marca: **APML**
 Markenbezeichnung
 Brand / Marquage

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, 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 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 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.