McMASTER-CARR®

Certificate

330-995-5500
330-995-9600 (fax)
cle.sales@mcmaster.com

Purchase Order	Order Date	Placed By	McMaster-Carr Number	Number of Certificates
P1462591	9/23/2022	Jane Beattey	7490537-01	1

Line		Product	Ordered	Status	Certificate
1	8992K167	Multipurpose 304 Stainless Steel Bar, 1" Thick, 1-1/4" Wide, Hot Rolled, 2 Feet Long	1 each	1 each delivers September 26	180–1799

Your order is subject only to our terms and conditions, available at www.mcmaster.com or from our Sales Department.

From: Valbruna Stainless Inc Date: 8/25/2021 To: T W METALS, INC SO#: B194638 Ln#: 2 PO#: M49450260 Part: 07522 Qty: 3000 Heat#: 284678
Tag: V6996123A Page: 1 of 3

Acciaierie Valbruna S.p.A.

36100 VICENZA (Italia) - Viale della scienza, 25 z.i.
Telefono 0444.968211 - Fax 0444.963836
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
Nach/According to/Selon

Certificato nr. MEST674755 / 2021 /
Prüfung/Test/Essai

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

Ordine nr: 69961 STOCK POMPTON
Bestell
Your order
Commande

Conferma ordine nr: EI21000645
Werks/Our Order/Ref nr.

Avviso di Spedizione: D-VI21001991
Lieferanzeige/Packing list/B.L.

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

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

Qualità: 304/304L
Werkstoff/Grade/Nuance

Marca: AISL
Markenbezeichnung
Brand / Nuance

Produttore :
Hersteller/Item/Usine productrice

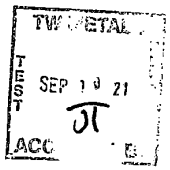
ACCIAIERIE VALBRUNA S.P.A.

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

Punzone del Collaudatore: MR
Stempel des Werkssachverständigen
Inspector's stamp/Poinçon de l'assayeur

Punzonatura: 304/304L
Kennzeichnung
Marking
Marquage

SPECIFICHE : Anforderungen / Requirements / Exigences	Note: Aufzeichnungen / Notes / Notes
VSI 0 304/304L A	
AISI 304/304L	
AMS 5639 J S30400 A	
AMS 5647 K S30403 A	
AMS-QQ-S-763 D 304/304L A	
ASME SA182 2019 S30400/03 A (0)	(0)Section II Part A 2019 EDITION For products machined directly from bar refer to ASME SA479.
ASME SA193 2019 B8 CLASS 1 (1)	(1)Section II Part A 2019 EDITION
ASME SA276 2019 S30400/03 A (2)	(2)Section II Part A 2019 EDITION
ASME SA320 2019 B8 CLASS 1 CLASS1 (3)	(3)Section II Part A 2019 EDITION
ASME SA479 2019 S30400/03 A (4)	(4)Section II Part A 2019 EDITION
ASTM A182 2020 S30400/03 A (5)	(5)For products machined directly from bar refer also to ASTM A479.
ASTM A193 2019 B8 CLASS 1	
ASTM A262 2015 PRACTICE E	
ASTM A276 2017 S30400/03 A	
ASTM A314 2019 S30400/03	
ASTM A320 2018 B8 CLASS 1	
ASTM A370 2020 . (6)	(6)2019E1
ASTM A473 2019 S30400/03 (7)	(7)Chemical analysis only.
ASTM A479 2020 S30400/03 A	
MIL-S-862 B/1 304/304L	
NACE MR0103 2015 S30400/03 A (8)	(8)ANSI/NACE MR0103/ISO 17945 November 23, 2015
NACE MR0175 2015 S30400/03 A (9)	(9)ANSI/NACE MR0175/ISO 15156-3, third edition November 23,2015
QQ-S-763 F 304/304L A	



Tolleranza: ASTM A484-20B TABLE 5
Tolleranza/Allowance/Tolerance

Pos. nr.	Oggetto	Dimensioni - In	Lunghezza - In	Colata	Pezzi	Peso - LB	Lotto nr.
Pos. nr. Item nr. Nr. de poste	Gegenstand Product description Descrip. du produit	Abmessungen Dimension Dimension	Lange Length Longueur	Schmelze Heat Coulée	Stückzahl Pieces Pieces	Gewicht Weight Poids	Losnr. Lot nr. Lot nr.
0230	Flat	1,2500 x 1,0000	144/ 155	284678		3.128	131510610

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

Vicenza, 01/02/2021	Direzione Qualità	Direzione Prodotto	Pagina
VCQ052 - MEST674755	Qualitätsmanagement/Quality Management/Gestion Qualité	Produktmanagement/Product Management/Direction Produit	1 di 3
	R.BERTELLI	P.MESSORI	

From: Valbruna Stainless Inc Date: 8/25/2021 To: T W METALS, INC SO#: B194638 Ln#: 2 PO#: M49450260 Part: 07522 Qty: 3000 Heat#: 284678
Tag: V6996123A Page: 2 of 3

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Conferma ordine nr: EI21000645
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Avviso di Spedizione: D-VI21001991
Lieferanzeige/Packing list/B.L.

Stato di fornitura : Hot rolled Descaled Annealed Hot rolled
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Delivery state
Etat de livraison

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

Qualità: 304/304L
Werkstoff/Grade/Nuance

Marca: AISL
Markenbezeichnung
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TW METALS RECEIVED TEST REPORTS SEP 10 21 ACCEPTED BY

Produttore :
Hersteller/Item/Usine productrice

ACCIAIERIE VALBRUNA S.P.A.

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

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

Punzonatura: 304/304L
Kennzeichnung
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TEST ALLO STATO DI FORNITURA
Test on delivery condition Prüefung auf lieferbereitem produkt test a l'etat de fourniture Prueba sobre el material así come entregado

1) L=longitudinale/längs, T=trasversale/quer, Q=Tangenziale/tangential

TEST	Provetta/ Probestab Specimen/Eprouvette Larg.diam Spess. Breite Diam. Dicke Width Diam. Thickness Larg. diam. epais mm	°F	Posiz. Saggio Probenlage Location Emplacement 1)	Snervamento Stockgrenze Yield Stress Limite elastique Rp 0,2% k.s.i.	Snervamento Stockgrenze Yield Stress Limite elastique	Resistenza Zugfestigkeit Tensile strength Resistance à traction Rm k.s.i.	Allungamento Bruchdehnung Elongation Allongement E 4d %		Strizione Einschnürung Reduction of area Striction %	RA %	Resilienza Kerbschlagarbeit Impact Value Resilience	Durezza Haerte Hardness Durete HB
Valori richiesti Anforderungen/Required values Valeurs démandées		min		30	-	75	-	40	-	50	-	140
		max				115						223
A	12,5	68	L	40		84		55		68		172

TEST ALLO STATO DI FORNITURA
Test on delivery condition / Prüefung auf lieferbereitem produkt / Test a l'etat de fourniture / Prueba sobre el material así come entregado

TEST		min	max	
A	Grain size for ASTM E112			5

Mechanical properties according to ASTM A370.

Analisi chimica
Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata - Heat Schmelze/Coulée	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %
min - max	- 0,030	- 1,00	- 2,00	18,00 - 20,00	- 1,00	- 1,00	8,00 - 10,50	- -	- 0,040	0,020 - 0,030	- 0,100
284678	0,024	0,39	1,73	18,44	0,44	0,49	8,04	0,145	0,030	0,030	0,092

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 = 40,1 : 1
Material annealed 1940°F for 1.5h/water cooled.
Material is DFARS Compliant

Sono state soddisfatte tutte le condizioni richieste
Die gestellen Anforderungen sind it. Anlage erfüllt
The material has been furnished in accordance with the requirements
Le materiel á eté trouvé conforme aux exigences

Controllo antimescolanza con tecnica XRF/OES portatile : OK
Verwechslungprüfung: durch XRF/QES Gerät geführt.
Antimixing testing performed with XRF/OES portable : OK
Contrôle antimélange svt technique XRF/QES 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

From: Valbruna Stainless Inc Date: 8/25/2021 To: T W METALS, INC SO#: B194638 Ln#: 2 PO#: M49450260 Part: 07522 Qty: 3000 Heat#: 284678
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TW METALS TEST REPORTS SEP 10 21 ACCEPTED BY

Produttore :
Hersteller/Item/Usine productrice

ACCIAIERIE VALBRUNA S.P.A.

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Zeichen des Lieferwerkes / Trade marks / Sigles de l'usine productrice

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Punzonatura: 304/304L
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,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.

WSP277BC95AE150C04719F366037AF2561D15

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

Vicenza, 01/02/2021 VCQ052 - MEST674755	**Direzione Qualità** Qualitätsmanagement/Quality Management/Gestion Qualité **R.BERTELLI**	**Direzione Prodotto** Produktmanagement/Product Management/Direction Produit **P.MESSORI**	Pagina 3 di 3