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 conformity a : EN 10204 (2004) , 3.1 / ISO 10474 (2013) , 3.1
Nach/According to/Selon

Certificate nr. MEST019188 / 2022 /
Prufung/Test/Essai

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

Produttore :
Hersteller/Item/Usine productrice
ACCIAIERIE VALBRUNA S.P.A.

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

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

Ordine nr: 74504 STOCK CAROL STR
Bestell
Your order
Commande

Quality: 321/321H
Werkstoff/Grade/Nuance

Punzone del Collaudatore:
Stempel des Werkssachverstandigen
Inspector's stamp/Poingon de l'assayeur
IVR

Conferma ordine nr: EI21012851
Werks/Our Order/Ref nr.

Avviso di Spedizione: D-VI22009124
Lieferanzeige/Packing list/B.L.

Marca: AISTH
Markenbezeichnung
Brand / Nuance

Punzonatura: 321/321H
Kennzeichnung
Marking
Marquage

SPECIFICHE :
Anforderungen / Requirements / Exigences

Note:
Aufzeichnungen / Notes / Notes

VSI 0 321/321HA	
AISI . 321	
AMS 5645 S S32100 A	
AMS-QQ-S-763 D 321 A	
ASME SA182 2021 S32100 A (0)	(0)Section II Part A 2021 EDITION For products machined directly from bar refer to ASME SA479.
ASME SA182 2021 S32109 A (1)	(1)Section II Part A 2021 EDITION For products machined directly from bar refer to ASME SA479.
ASME SA193 2021 B8T CLASS 1 (2)	(2)Section II Part A 2021 EDITION
ASME SA276 2021 S32100 A (3)	(3)Section II Part A 2021 EDITION
ASME SA320 2021 B8T CLASS 1 (4)	(4)Section II Part A 2021 EDITION
ASME SA479 2021 S32100 A (5)	(5)Section II Part A 2021 EDITION
ASME SA479 2021 S32109 A (6)	(6)Section II Part A 2021 EDITION
ASTM A182 2021 S32100 A (7)	(7)For products machined directly from bar refer also to ASTM A479.
ASTM A182 2021 S32109 A (8)	(8)For products machined directly from bar refer also to ASTM A479.
ASTM A193 2020 B8T CLASS 1	
ASTM A262 2015 PRACTICE E (9)	(9)Reapproved 2021
ASTM A276 2017 S32100 A	
ASTM A320 2018 B8T CLASS 1	
ASTM A370 2021 .	
ASTM A479 2021 S32100 A	
ASTM A479 2021 S32109 A	
NACE MR0175 2015 S32100 A (A)	(A)ANSI/NACE MR0175/ISO 15156-3, third edition November 23,2015

Tolleranza: ASTM A484-20B TABLE 7
Toleranz/Allowance/Tolerance

Pos. nr.	Oggetto	Dimensioni - In	Lunghezza - In	Colata	Pezzi	Peso - LB	Lotto nr.
Pos. nr. Item nr. Nr. de poste	Gcgcnstand Product description Descrip. du produit	Abmcssungen Dimension Dimension	Lange Length Longueur	Schmclzc Heat Coul6c	Sttickzahi Pieces Pieces	Gcwicht We Po	Losnr. Lot nr. Lot nr.
0010	Round	1,3750	144/ 155	286125	26	1.687	127919130

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. MEST019188 / 2022 /
Prüfung/Test/Essai

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

Ordine nr: 74504 STOCK CAROL STR
Bestell
Your order
Commande

Conferma ordine nr: EI21012851
Werks/Our Order/Ref nr.

Avviso di Spedizione: D-VI22009124
Lieferanzeige/Packing list/B.L.

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

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

Qualità: 321/321H
Werkstoff/Grade/Nuance

Marca: AISTH
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: 321/321H
Kennzeichnung
Marking
Marquage

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 Probentage Location Emplacement 1)	Snervamento Streckgrenze Yield Stress Limite elastique Rp 0,2% k.s.i.	Snervamento Streckgrenze 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 max		30	-	75 115	- 40	- 50	-	140 235
A	12,5	68	L	33		81	57	76		169

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		7	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 %	Ti %	P %	S %	N %
min 0,040	-	-	17,00	-	-	9,00	-	-	-	-	-	-
max 0,080	1,00	2,00	19,00	0,75	0,75	12,00	-	0,700	0,040	0,030	0,100	-
286125	0,045	0,58	1,67	17,52	0,33	0,36	9,05	0,118	0,335	0,029	0,001	0,022

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 = 255,7 : 1
Solution annealed 2030°F for 1,5 h /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 â 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

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. MEST019188 / 2022 /
Prüfung/Test/Essai

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

Ordine nr: 74504 STOCK CAROL STR
Bestell
Your order
Commande

Conferma ordine nr: EI21012851
Werks/Our Order/Ref nr.

Avviso di Spedizione: D-VI22009124
Lieferanzeige/Packing list/B.L.

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

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

Qualità: 321/321H
Werkstoff/Grade/Nuance

Marca: AISTH
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: 321/321H
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.

WSPBD37ACE0011345789E34679BDE023689