

ENTREGA DE DOCUMENTACIÓN / DOCUMENTATION DELIVERY

Tipo de Requisito Documental: <i>Type of Document Requirement:</i>	MC
Proveedor: <i>Supplier:</i>	MICROLAN AEROSPACE, S.L.
Nº Pedido: <i>Order Number:</i>	C-PE23/02552
Fecha: <i>Date:</i>	05/07/2024
Nº Pieza: <i>Part Number:</i>	T000982574-11304P01
Cantidad: <i>Quantity:</i>	434

**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. **MEST049495 / 2022 /**

Prüfung/Test/Essai

Cliente / Besteller/Purchaser/Client
VALBRUNA IBERICA S.L.
TXORIERRI ETORBIDEA N.14
48180 - LOIU BIZKAIA - ESStato di fornitura: **Laminado en caliente -**
Hipertemplado Descortezado
Lieferzustand
Delivery state
Etat de livraisonProduttore:
Hersteller/Item/Usine productrice**ACCIAIERIE VALBRUNA S.P.A.**Ordine nr: **205040191 STOCK LOIU**
Bestell
Your order
CommandeTipo di Elaborazione: **E+AOD**
Erschmelzungsart
Melting process
Mode d'elaborationMarchi di Fabbrica:
Zeichen des Lieferwerkes
Trade marks
Sigles de l'usine productriceConferma ordine nr: **EI22005841**
Werks/Our Order/Ref nr.Qualità: **1.4301/1.4307/304/304L**
Werkstoff/Grade/NuancePunzone del Collaudatore:
Stempel des Werkssachverständigen
Inspector's stamp/Poligon de l'assesseur**MR**Avviso di Spedizione: **D-VI22015092**
Lieferanzeige/Packing list/B.L.Marca: **MVAISL (MAXIVAL)**
Markenbezeichnung
Brand / NuancePunzonatura: **1.4301/7/304/L**
Kennzeichnung
Marking
Marquage**SPECIFICHE:**

Anforderungen / Requirements / Exigences

Note:

Aufzeichnungen / Notes / Notes

VAL STOCK W2 A 1.4307/304L A
AD 2000-M. W 2 01/20 1.4301 A (2)
AD 2000-M. W 2 01/20 1.4307 A (1)(0)AD 2000-MERKBLATT W 2 edition 01.2020 AD 2000-MERKBLATT W 10 edition 01.2020
(1)AD 2000-MERKBLATT W 2 edition 01.2020 AD 2000-MERKBLATT W 10 edition 01.2020

AISI . 304/304L

AMS-QQ-S-763 D 304/304L A
ASME SA182 2021 S30400/03 A (2)

(2)Section II Part A 2021 EDITION For products machined directly from bar refer to ASME SA479.

ASME SA193 2021 B8 CLASS 1 (3)

(3)Section II Part A 2021 EDITION

ASME SA276 2021 S30400/03 A (4)

(4)Section II Part A 2021 EDITION

ASME SA320 2021 B8 CLASS 1 CLASS1 (5)

(5)Section II Part A 2021 EDITION

ASME SA479 2021 S30400/03 A (6)

(6)Section II Part A 2021 EDITION

ASTM A182 2021 S30400/03 A (7)

(7)For products machined directly from bar refer also to ASTM A479.

ASTM A193 2020 B8 CLASS 1

ASTM A262 PR. E 2015 304/304L (8)

(8)Reapproved 2021

ASTM A276 2017 S30400/03 A

ASTM A320 2018 B8 CLASS 1

ASTM A370 2021 .

ASTM A479 2021 S30400/03 A

ASTM E10 2018 .

ASTM E8 2021 .

EN 10088 PART 3 2014 1.4301 A

EN 10088 PART 3 2014 1.4307 A

EN 10272 2016. 1.4301 A

EN 10272 2016. 1.4307 A

ISO 148-1 2016 .

ISO 3651-2 98 METHOD A T1

ISO 6506-1 2014 .

ISO 6892-1 2019 .

NACE MR0103 2015 S30400/03 A (9)

(9)ANSI/NACE MR0103/ISO 17945 November 23, 2015

NACE MR0175 2015 S30400/03 A (A)

(A)ANSI/NACE MR0175/ISO 15156-3, third edition November 23,2015

QQ-S-763 F 304/304L A

ACH CO . .

KV L -196C . ISO 148-1

KV T -196C . ISO 148-1

GOERNA S.L.Pol. Industrial El Romeral
31500 TUDELA (Navarra)
Tel.: 948 82 17 33
C.I.F.: B 71155998

		Tolleranza: k12					
		Toleranz/Allowance/Tolerance					
Pos. nr. Pos. nr. Item nr. Nr. de posta	Oggetto Gegenstand Product description Descrip. du produit	Dimensioni - mm Abmessungen Dimension Dimension	Lunghezza - mm Länge Length Longueur	Colata Schmelze Heat Coulée	Pezzi Stückzahl Pieces Pieces	Peso - KG Gewicht Weight Poids	Lotto nr. Losnr. Lot nr. Lot nr.
0010	Redondo	125,000	4645/ 4710	287498	2	913,0	135207860

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

Vicenza, 01/06/2022 VCQ008 - MEST049495		Direzione Qualità Qualitätsmanagement/Quality Management/Gestion Qualité R.BERTELLI	Direzione Prodotto Produktmanagement/Product Management/Direction Produit P.MESSORI	Pagina 1 di 4
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In conformità a: **EN 10204 (2004), 3.1 / ISO 10474 (2013), 3.1**

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VALBRUNA IBERICA S.L.
TXORIERRI ETORBIDEA N.14
48180 - LOIU BIZKAIA - ES

Stato di fornitura: **Laminado en caliente -**
Hipertemplado Descortezado
Lieferzustand
Delivery state
Etat de livraison

Produttore:
Hersteller/Item/Usine productrice

ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: **205040191 STOCK LOIU**
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: **EI22005841**
Werks/Our Order/Ref nr.

Qualità: **1.4301/1.4307/304/304L**
Werkstoff/Grade/Nuance

Punzone del Collaudatore:
Stempel des Werkstoffverständigen
Inspector's stamp/Pointon de l'assesseur

MR

Avviso di Spedizione: **D-VI22015092**
Lieferanzeige/Packing list/B.L.

Marca: **MVAISL (MAXIVAL)**
Markenbezeichnung
Brand / Nuance

Punzonatura: **1.4301/7/304/L**
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

1) L=longitudinale/längs, T=transversale/quer, Q=Tangenziale/tangential											
TEST	Provetta/ Probestab Specimen/Eprouvelle Larg.diam Spess. Breite Diam. Dicke Width Diam. Thickness Larg. diam. epais mm	°C	Posiz. Saggio Probenlage Location Emplacement 1)	Snervamento Streckgrenze Yield Stress Limite elastique Rp 0,2% N/mm2	Snervamento Streckgrenze Yield Stress Limite elastique Rp 1% N/mm2	Resistenza Zugfestigkeit Tensile strength Resistance à traction Rm N/mm2	Allungamento Bruchdehnung Elongation Allongement A5 %		Strizione Einschnürung Reduction of area Striction Z %	Resilienza Kerbschlagarbeit Impact Value Resilience	Durezza Haerte Hardness Durete HB
Valori richiesti		min max		190	225	500 700	45	-	-	-	- 215
A	10	20	L	270	319	577	58		68		166
H	10	20	L	268	315	567	59		70		164

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 Dimension del grano segun ASTM E112		4

Charpy per ISO 148-1

1) L=longitudinale/längs, T=trasversale/quer, Q=Tangenziale/tangential												
TEST	Provetta/ Probestab	°C	Posiz. Saggio	Resilienza			Espansione laterale			Shear		
	Specimen/Eprouvette		Probenlage Location Emplacement 1)	Kerbschlagarbeit	Lateral Expansion	Lateral ex	Shear					
	Larg.diam Spess.			Impact Value								
	Breite Diam. Dicke			Resilience								
Width Diam. Thickness			KV2		mm	% Shear						
Larg. diam. epais			J									
mm												
Valori richiesti		min		-	-	-	-	-	-	-	-	
Anforderungen/Required values		max										
Valeurs demandées												
B	10X10	-196	L	175	182	189	1,585	1,810	1,849	65	65	70

Test on delivery condition per ASTM A370

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	°C	Posiz. Saggio Probenlage Location Emplacement 1)	Snervamento Streckgrenze Yield Stress Limite elastique Rp 0,2% N/mm2	Snervamento Streckgrenze Yield Stress Limite elastique	Resistenza Zugfestigkeit Tensile strength Resistance à traction Rm N/mm2	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			min	210	-	520	-	40	-	50	-			-	
Anforderungen/Required values Valeurs demandées			max			793								223	
C	12,5	20	L	266		572		60		71				164	

GOERNA S.L.

Pol. Industrial El Romeral
31500 TUDELA (Navarra)
Tel.: 948 82 17 33
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Vicenza, 01/06/2022 VCQ008 - MEST049495	Direzione Qualità Qualitätsmanagement/Quality Management/Gestion Qualité R.BERTELLI	Direzione Prodotto Produktmanagement/Product Management/Direction Produit P.MESSORI	Pagina 2 di 4
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CERTIFICATO DI COLLAUDO - ABNAHMEPRUEFZEUGNIS - INSPECTION CERTIFICATE - CERTIFICAT DE RECEPTION

In conformità a: EN 10204 (2004), 3.1 / ISO 10474 (2013), 3.1

Certificato nr. MEST049495 / 2022 /
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Cliente / Besteller/Purchaser/Client
VALBRUNA IBERICA S.L.
TXORIERRI ETORBIDEA N.14
48180 - LOIU BIZKAIA - ES

Stato di fornitura: Laminado en caliente -
Lieferzustand: Hipertemplado Descortezado
Delivery state:
Etat de livraison:

Produttore:
Hersteller/Item/Usine productrice

ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: 205040191 STOCK LOIU
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: EI22005841
Works/Our Order/Ref nr.

Qualità: 1.4301/1.4307/304/304L
Werkstoff/Grade/Nuance

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

MR

Avviso di Spedizione: D-VI22015092
Lieferanzelge/Packing list/B.L.

Marca: MVAISL (MAXIVAL)
Markenbezeichnung:
Brand / Nuance:

Punzonatura: 1.4301/7/304/L
Kennzeichnung:
Marking:
Marquage:

Charpy per ISO 148-1

1) L=longitudinale/längs, T=transversale/quer, Q=Tangenziale/tangential											
TEST	Provetta/ Probestab Specimen/Eprouvette Larg.diam Spess. Breite Diam. Dicke Width Diam. Thickness Larg. diam. epais mm	°C	Posiz. Saggio Probenlage Location Emplacement 1)	Resilienza Kerbschlagarbeit Impact Value Resilience KV2			Espansione laterale Lateral Expansion Lateral ex mm			Shear Shear % Shear %	
Valori richiesti Anforderungen/Required values Valeurs demandées	min max			-	-	-	-	-	-	-	-
D	10X10	-196	T	97	88	89	0,755	0,812	0,842	35	40

Charpy per ISO 148-1

1) L=longitudinale/längs, T=transversale/quer, Q=Tangenziale/tangential											
TEST	Provetta/ Probestab Specimen/Eprouvette Larg.diam Spess. Breite Diam. Dicke Width Diam. Thickness Larg. diam. epais mm	°C	Posiz. Saggio Probenlage Location Emplacement 1)	Resilienza Kerbschlagarbeit Impact Value Resilience KV2			Espansione laterale Lateral Expansion Lateral ex mm			Shear Shear % Shear %	
Valori richiesti Anforderungen/Required values Valeurs demandées	min max			100	100	100	-	-	-	-	-
G	10X10	20	L	272	268	260					
I	10X10	20	L	275	270	281					

Tensile testing according to ISO 6892-1

Impact testing according to ISO 148-1

Mechanical properties according to ASTM A370.

Brinell hardness according to ASTM E10

Tensile testing according to ASTM E8

Brinell hardness according to ISO 6506-1

Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique													
Colata /Heat Schmelze/Coulée	min - max	0,030	1,00	2,00	18,00 19,50	1,00	1,00	8,00 10,50	0,045	0,030	0,100	-	-
	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %		
287498	0,019	0,62	1,80	18,04	0,59	0,40	8,05	0,154	0,028	0,027	0,083		

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

Vicenza, 01/06/2022 VCQ008 - MEST049495	Direzione Qualità Qualitätsmanagement/Quality Management/Gestion Qualité R.BERTELLI	Direzione Prodotto Produktmanagement/Product Management/Direction Produit P.MESSORI	Pagina 3 di 4
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CERTIFICATO DI COLLAUDO - ABNAHMEPRUEFZEUGNIS - INSPECTION CERTIFICATE - CERTIFICAT DE RECEPTION

In conformità a: EN 10204 (2004), 3.1 / ISO 10474 (2013), 3.1

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VALBRUNA IBERICA S.L.
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48180 - LOIU BIZKAIA - ES

Stato di fornitura: Laminado en caliente -
Hipertemplado Descortezado
Lieferzustand
Delivery state
Etat de livraison

Produttore:
Hersteller/Item/Usine productrice

ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: 205040191 STOCK LOIU

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: EI22005841

Werks/Our Order/Ref nr.

Qualità: 1.4301/1.4307/304/304L
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Punzone del Collaudatore:
Stempel des Werksachverständigen
Inspector's stamp/Poinçon de l'essayeur

MR

Avviso di Spedizione: D-VI22015092
Lieferanzeige/Packing list/B.L.

Marca: MVAISL (MAXIVAL)
Markenbezeichnung
Brand / Nuance

Punzonatura: 1.4301/7/304/L
Kennzeichnung
Marking
Marquage

Corrosion test in 16% sulfuric acid and copper sulfate solutions

Test standard: UNI EN ISO 3651-2 Method A

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	Sensitized T1	20	boil	90	5	Absence of cracks	SATISFACTORY

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

Reduction ratio = 3,8 : 1

Material annealed 1080°C for 170'(total time)/water cooled.

"Issued in agreement with TÜV SÜD Industrie Service GMBH (07/1972)"

"Qs approved according to PED, Annex I, Para. 4.3 by

Notified Body 0036"

"(Certification no. DGR-0036-QS-W 12/2002/MUC)"

Sono state soddisfatte tutte le condizioni richieste
Die gestellten Anforderungen sind i. t. 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/QES Gerät geführt: OK
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

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.

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31500 TUDELA (Navarra)
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C.I.F.: B 71155998

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.

WSP06C03D65935C1563ABCDP9234072C11

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

Vicenza, 01/06/2022

VCQ008 - MEST049495

Direzione Qualità
Qualitätsmanagement/Quality Management/Gestion Qualité

R.BERTELLI

Direzione Prodotto
Produktmanagement/Product Management/Direction Produit

P.MESSORI

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