

266563



Acciaierie Valbruna S.p.A.

38100 VICENZA (Italia) - Viale della scienza, 25 z.l.
 Telefono 0444.988211 - Fax 0444.983838
 Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 437
 Telefono 0471.924111 - Fax 0471.924497

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

In conformità a **EN 10204 (2004), 3.1**
Nachfolgendes ist/est

Certificato nr. **MEST765084 / 2015 / 1**
Prüfung/Test/Essai

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

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

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

Ordine nr: 48827 **STOCK CHINO**
Bestell
 Your order
 Commande

Tipo di Elaborazione: E+AOD
Erzeugungsart
 Milling process
 Mode d'élaboration

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



Conferma ordine nr: E15009354
Werk-/Order Confirmation

Quantità: **318/316L**
Werkstoff/Grade/Reference

Funzione del Collaudatore:
 Champ des Vérifications/Endogenous
 Inspector's stamp/Signature de l'inspecteur

MR

Avviso di Spedizione: D-V15027050
Umfeldbescheinigung
 Grand / Notice

Marca: **APML**
Markenbezeichnung
 Brand / Marque

Quantità: 318/316L
Mengenbezeichnung
 Marking
 Marquage

SPECIFICHE :	Note:
Anforderungen / Requirements / Exigences	Anforderungen / Notes / Notes
VSI 0 318/316L A AISI 318/316L AMS 5648 L S31600 A AMS 5653 H S31603 A AMS-QQ-S-763 D 318/316L A ASME SA182 2016 S31600/03 A (0) ASME SA193 2016 B8M CLASS1 (1) ASME SA276 2016 S31600/03 A (2) ASME SA320 2016 B8M CLASS1 (3) ASME SA479 2016 S31600/03 A (4) ASTM A182 2016 S31600/03 A (5) ASTM A193 2016 B8M CLASS1 ASTM A262 2016 PRACTICE E ASTM A276 2016 S31600/03 A ASTM A314 2016 S31600/03 ASTM A320 2016A B8M CLASS1 ASTM A370 2016 . ASTM A473 2001 S31600/03 (6) ASTM A479 2016 S31600/03 A MIL-S-862 B/1 318/316L NACE MR0103 2010 S31600/03 A NACE MR0175 2009 S31600/03 A (7) QQ-S-763 F 318/316L A	(0)SECTION II P.T.A 2015 EDITION For products machined directly from bar refer to ASME SA479. (1)SECTION II P.T.A 2015 EDITION (2)SECTION II P.T.A 2015 EDITION (3)SECTION II P.T.A 2015 EDITION (4)SECTION II P.T.A 2015 EDITION (5)For products machined directly from bar refer also to ASTM A479. (6)Chemical analysis only. (7)ANSURACE MR0175/ISO 15156-3, second edition 2009-10-15 Technical circular 1:2011 Published 2011-05-14

Tolleranza: ASTM A484-16 TABLE 3								
Pos. nr. <small>Pos. n. Item no. N. de grade</small>	Oggetto <small>Component Partie/Description Compos. description</small>	Tolleranza/Dimension/Tolerance		Lunghezza - ln <small>Length Longueur</small>	Colata <small>Cast Coulée</small>	Pezzi <small>Quantity Quantité</small>	Peso - LB <small>Weight Poids</small>	Lotto nr. <small>Lot no. Lot n.</small>
		Dimension - ln <small>Dimension Dimension</small>						
0050	Round	9,0000	✓	1771 177	266563		3.305	508209581

i-c
 Aug 25/16
 ok

Vicenza, 30/06/16 V00008 - MEST765084 / 2015 (Mod. MCEZ) www.valbruna.com	Il collaudatore di stabilimento / der Werksachverständige / Works Inspector / L'agent d'usine M. Rizzotto	Pagina - 1 di 3
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From: TK Materials CA, Ltd.
 Cust. NEXXA INDUSTRIES LTD.
 CstAr

Del.: 2404719371
 CstOr 80000

Thomas Sanchez

W04 6967



Acciaierie Valbruna S.p.A.

38100 VICENZA (Italia) - Via della scienza, 25 z.l.
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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**

Certificato nr. **MEST765084 / 2015 / 1**

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

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

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

Ordine nr: 46827 **STOCK CHINO**
 Bestellnr
 Order
 Commande

Tipo di Elaborazione: E-AOD
 Erzeugnisart
 Making process
 Mode d'élaboration

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



Conferma ordine nr: EI15009354
 Werk-/Order Confirmation

Qualità: 316/316L
 Werkstoff/Grade/Qualité

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

MR

Avviso di Spedizione: D-VI15027050
 Lieferanweisung/Shipping instr.

Marca: APML
 Markenbezeichnung
 Brand / Marque

Punzonatura: 316/316L
 Kennzeichnung
 Marking
 Marque

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	Provece/ Pieces Spindles/Spindles Legs/legs Balls/Balls, Balls Wash. Disc. Wash. Disc. Log. disc. Log. disc. etc.	Ø	Posiz. Spindle Position mm	Snervamento Checkmark Tensile Stress Unit: Newton Rp 0,2% kN	Snervamento Checkmark Tensile Stress Unit: Newton Rp 0,2% kN	Resistenza Checkmark Tensile strength Reference: tensile Rm kN	Allungamento Checkmark Elongation E 4d %	Stirazione Checkmark Reduction of area Calcite RA %	Resistenza Checkmark Impact Value Reference J	Durezza Checkmark Hardness Dinile Dinile HB
Valori richiesti		min		30	-	75	-	40	-	140
Adesione/Indicatore valore Yield strength		max				115				223
A	12,5	68	L	40		84	60		73	169

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			4

Mechanical properties according to ASTM A370.

Analisi chimica												
Chemische Zusammensetzung/Chemical Analysis/Analyse chimique												
Carbon	Mn	Si	P	S	Cr	Mo	Cu	Ni	Co	N		
max	max	max	max	max	max	max	max	max	max	max	max	max
0,020	0,030	0,030	0,005	0,005	16,00	2,00	0,050	10,00	0,100	0,030	0,005	0,005
0,020	0,33	1,70	16,79	2,17	0,47	10,05	0,104	0,031	0,030	0,081		

Corrosion test in 16% sulfuric acid and copper sulfate solutions							
Test standard: ASTM A282-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	160	5	Absence of cracks	SATISFACTORY

Produced without class II Ozone depleting substances.
 Solution heat treated free from continuous carbide network.
 Micro and macro etch test: OK
 Reduction ratio = 5,5 : 1
 Annealing temperature: 1940°F for 8 h/water.
 Material is DFARS Compliant

Sono state soddisfatte tutte le condizioni richieste
 Die gestellten Anforderungen sind in. Erfüllung erzieht
 The material has been finished in accordance with the requirements
 Le matériel a été traité en conformité avec les exigences

Controllo antisensibilizzazione: OK
 Vermeidung von Sensibilisierung durchgeföhrt
 Anodizing testing performed: OK
 Contrôle antisensibilisation fait. i.a.s.

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

Vicenza, 30/06/16 VCC006 - MEST765084 / 2015 (Mod. MCEZ)	Il collaudatore di stabilimento / der Werkstoffprüfingenieur / Works Inspector / L'agent d'usine M. Rizzotto	Pagina - 2 di 3
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From: TK Materials CA, Ltd.
 Cust. NEXXA INDUSTRIES LTD.
 CstAr

Del.: 2404719371
 CstOr 80000

Thomas Sanchez

W# 6867



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

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

Certificato nr. **MEST765084 / 2015 / 1**

Cliente / Bestellen/Purchaser/Client
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 productrice
ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: **46827 STOCK CHINO**
Bestell
Your order
Commande

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

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



Conferma ordine nr: **EI15009354**
Werkst/Our Order/Ref nr.

Qualità: **316/316L**
Werkstoff/Qualitätsklasse

Prunzone del Collaudatore:
Stempel des Werkstoffprüfingen
Inspector's stamp/Prunzone de l'essayeur

MR

Avviso di Spedizione: **D-V115027050**
Lieferanweisung/Packing list/B.L.

Marca: **APML**
Markenbezeichnung
Brand / Marque

Prunzone: **316/316L**
Markenbezeichnung
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, 2, 4.3 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.

Vicenza, 30/08/16
VC0006 - MEST765084 / 2015
(Mod. MCE2)

Il collaudatore di stabilimento / der Werkstoffprüfer/die / Works inspector / L'agent d'usine

M. Rizzotti

Pagina - 3 di 3

From: TK Materials CA, Ltd.
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