

# Acciaierie Valbruna s.p.a.



**CERTIFICATO DI COLLAUDO**  
**ABNAHMEPRUEFZEUGNIS**  
**INSPECTION CERTIFICATE**  
**CERTIFICAT DE RECEPTION**  
**EN 10204 (2004) , 3.1**

36100 VICENZA (Italia) - Viale della scienza, 25 z.i.  
 Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4  
 Telephone number : 0039 (0) 444968211

QUALITY MANAGEMENT SYSTEM CERTIFIED BY LLOYD'S REGISTER

Cliente / Besteller/Purchaser/Cient  
**VALBRUNA U.K. LTD.**  
 OLDBURY ROAD  
 B70 9BH-WEST BROMWICH B70 9BH GB-GB

Avviso di Spedizione: D-VI15006477  
 Lieferanzeige/Packing list/B.L.

Certificato nr: MEST653131/2015/  
 Prüfung/Test/Essai

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

Ordine nr: 407045266 STOCK  
 Bestell/Your order/Commande

Conferma ordine nr: EI14007265  
 Werks/Our Order/Ref nr.

Marchio di Fabbrica:  
 Zeichen des Lieferwerkes  
 Trade mark  
 Sigle de l'usine productrice



Stato di fornitura: Hot rolled - Annealed Cold Drawn  
 Lieferzustand/Delivery state/Etat de livraison

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

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

Specifiche:  
 Anforderungen / Requirements / Exigences

VAL STOCK 2010 1.4404/316L A,CF  
 AMS 5648 L S31600 A  
 ASME SA182 2013 S31603 A (1)  
 ASME SA479 2013 S31600 A (4)  
 ASTM A182 2014A S31603 (7)  
 ASTM A276 2013A S31603 A,CF  
 ASTM A370 2014 .  
 EN 10088-3 2005 1.4401 A,CF  
 EN 10272 2007 1.4404 A,CF  
 NACE MR0175 2009 S31600 A (8)  
 QQ-S-763 F 316L A,CF

AISI 316  
 AMS 5653 H S31603 A,CF  
 ASME SA276 2013 S31600 A,CF (2)  
 ASME SA479 2013 S31603 A (5)  
 ASTM A262 2013 PRACTICE E  
 ASTM A314 2008 S31600  
 ASTM A479 2014 S31600 A  
 EN 10088-3 2005 1.4404 A,CF  
 NACE MR0103 2010 S31600 A  
 NACE MR0175 2009 S31603 A (9)

AISI 316L  
 ASME SA182 2013 S31600 A (0)  
 ASME SA276 2013 S31603 A,CF (3)  
 ASTM A182 2014A S31600 A (6)  
 ASTM A276 2013A S31600 A,CF  
 ASTM A314 2008 S31603  
 ASTM A479 2014 S31603 A  
 EN 10272 2007 1.4401 A,CF  
 NACE MR0103 2010 S31603 A  
 QQ-S-763 F 316 A,CF

- (0) SEC.II PT.A 2013 EDITION
- (1) SECTION II PT.A 2013 EDITION
- (2) SEC.II PT.A 2013 EDITION
- (4) SECTION II PT.A 2013 EDITION
- (6) For products machined directly from bar refer also
- (7) For products machined directly from bar refer also
- (8) ANSI/NACE MR0175/ISO 15156-3, second edition 2009-10-15
- (9) ANSI/NACE MR0175/ISO 15156-3, second edition 2009-10-15

- (0) For products machined directly from bar refer to ASME SA479.
- (1) For products machined directly from bar refer to ASME SA479.
- (3) SECTION II PT.A 2013 EDITION
- (5) SECTION II PT.A 2013 EDITION
- (6) to ASTM A479.
- (7) to ASTM A479.
- (8) Technical circular 1:2011 Published 2011-06-14
- (9) Technical circular 1:2011 Published 2011-06-14

Qualità: 1.4401/1.4404/316/316L  
 Werkstoff/Grade/Nuance

Marca: **MVAPML**  
 Markenbezeichnung Brand Nuance **MAXIVAL**

Tolleranza: **h11**  
 Toleranz./Allowance/Tolerance

Punzonatura: 1.4401/4/316/L  
 Kennzeichnung/Marking/Marquage

Pos. nr. Pos. nr. Item nr. Nr. de poste	Oggetto Gegenstand Product description Descr. 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. Losn. Lot nr. Lot nr.
0030	Hexagon	32,000	3180 / 3180	265286		1182,0	418903530

### 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	Provetta/Probestab Specimen/Eprouvette Larg diam Spess. Breite/Diam. Dikke Width/Diam. Thickness Larg diam epais mm	°C	Posiz. Saggio Probenrzt Locacion Erforschung	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		Strizione Einschnürung Reduction of area Striction		Resilienza Kerbschlagarbeit Impact Value Resilience KV J			Durezza Härte Hardness Durete HB	
							A5 %	E 4d %	Z %	RA %	180	180	191	219	140
	Valori richiesti 1 Anforderungen/Required values Valeurs demandées	min max		207	235	517 900	20	30	-	50	100			140	235
A	10	20	L	428	517	626	47	49	65	65	186	180	191	219	

TEST	min	max
A	Grain size for ASTM E112	5

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

Mechanical properties according to ASTM A370.

### Analisi chimica

Chemische Zusammensetzung Chemical Analysis/Analyse chimique

Colata/Heat Schmelze/Coulée	min - max 0,030	1,00	1,25 2,00	16,50 18,00	2,00 2,50	1,00	10,00 13,00	0,040	0,030	0,100				
	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	P %	S %	N %				
265286	0,010	0,47	1,55	16,80	2,00	0,55	10,02	0,030	0,028	0,066				

Intergranular corrosion test per ASTM A262 pract. E: ok.  
 Absence of cracks at 20 x magnification after bend test.

Vicenza, 04/03/15 VCC008 (Mod MCE2)	Il collaudatore di stabilimento / der Werksachverständiger/ Works inspector / L'agent d'usine <i>M. Rizzotto</i>	Pagina - 1 di 2
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 7/8" JIC SWIV CAP 15K 316L (NUT) PAGE 1 OF 2  
 JSCA-10-10

**FLOW TECHNOLOGY LTD**  
**TEST CERTIFICATE**  
**VERIFIED TRUE**  
**COPY OF ORIGINAL**