

# 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

Cliente / Besteller/Purchaser/Client  
**VALBRUNA U.K. LTD.**

**OLDBURY ROAD**  
**B70 9BH-WEST BROMWICH B70 9BH GB-GB**

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

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

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 2012B S31603 (7)  
 ASTM A276 2013A S31603 A,CF  
 ASTM A370 2013  
 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 2013A 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 2012B S31600 A (6)  
 ASTM A276 2013A S31600 A,CF  
 ASTM A314 2008 S31600  
 ASTM A479 2013A 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/Marqueage

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

Pos. nr. Pos. nr. Item nr. Nr. de poste	Oggetto Gegenstand Product description Descrip. du produit	Dimensioni - mm Abmessungen Dimension Dimension	Lunghezza - mm Large Length Longueur	Colata Schmelze Heat Coulée	Pezzi Stückzahl Pieces Pieces	Peso - KG Gewicht Weight Poids	Lotto nr. Losnr. Lot nr. Lot nr.
0010	Hexagon	25,400	3100 / 3150	265009		1166,0	426605840

### TEST ALLO STATO DI FORNITURA

Test on delivery condition Prüfung auf lieferbarem produkt test a l'etat de fourniture Prueba sobre el material asi como entregado

TEST	Provetta/probestab Specimen/Eprovette Larg diam Spess. Breite Diam Dicke Width Diam Thickness Larg. diam. épais mm	°C	Posiz. Saggio Probenlage Location Emploiment 1)	Snervamento Streckgrenze Yield Stress Limite élastique Rp 0,2% N/mm2		Snervamento Streckgrenze Yield Stress Limite élastique Rp 1% N/mm2		Resistenza Zugfestigkeit Tensile strength Résistance à traction Rm N/mm2		Allungamento Bruchdehnung Elongation Allongement A5 % E 4d %		Strizione Einschnürung Reduction of area Striction Z % RA %		Resilienza Kerbschlagarbeit Impact Value Resilience KV J			Durezza Härte Hardness Dureté HB	
				min	max	207	235	517	900	20	30	-	50	100	185	188	191	229
A	10	20	L	502	538	705	39	42	67	67	185	188	191	229				

TEST	min	max
A Grain size for ASTM E112		5

1 L-Longitudinale/längs, T=Transversale/quer, Q=Tangenziale/tangentiel.

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
265009	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	P %	S %	N %	
	0,019	0,51	1,60	16,65	2,00	0,59	10,00	0,032	0,028	0,051	

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

Vicenza, 18/11/14  
 VCC008  
 (Mod. MCE2)

Il collaudatore di stabilimento / der Werkssachverständige / Works inspector L. ager...

M. Rizzotto

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