



QUALITY MANAGEMENT SYSTEM
CERTIFIED BY LLOYD'S REGISTER

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

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

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

Avviso di Spedizione: D-VI13026980
Lieferanzeige/Packing list/B.L.

Ordine nr: 302041558 west bromwich
Bestell/Your order/Commande

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

Certificato nr: MEST398654/2013/
Prüfung/Test/Essai

Conferma ordine nr: EI13001411
Werks/Our Order/Ref nr.

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



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



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 2010 S31603 A (1)
ASME SA479 2010 S31600 A (2)
ASTM A182 2012B S31603 (7)
ASTM A276 2010 S31603 A,CF
ASTM A370 2012A .
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 2010 S31600 A,CF (2)
ASME SA479 2010 S31603 A (5)
ASTM A262 2010. PRACTICE E
ASTM A314 2008 S31600
ASTM A479 2012 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 2010 S31600 A (0)
ASME SA276 2010 S31603 A,CF (3)
ASTM A182 2012B S31600 A (6)
ASTM A276 2010 S31600 A,CF
ASTM A314 2008 S31603
ASTM A479 2012 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 2010 EDITION ADD. 2011a
(1) SEC.II PT.A 2010 EDITION ADD. 2011a
(2) SEC.II PT.A 2010 EDITION ADD. 2011a
(3) SEC.II PT.A 2010 EDITION ADD. 2011a
(4) SEC.II PT.A 2010 EDITION ADD. 2011a
(5) SEC.II PT.A 2010 EDITION ADD. 2011a
(6) For products machined directly from bar refer to ASTM A479.
(7) For products machined directly from bar refer to ASTM A479.
(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.
(2) SEC.II PT.A 2010 EDITION ADD. 2011a
(3) SEC.II PT.A 2010 EDITION ADD. 2011a
(4) SEC.II PT.A 2010 EDITION ADD. 2011a
(5) SEC.II PT.A 2010 EDITION ADD. 2011a
(6) For products machined directly from bar refer to ASTM A479.
(7) For products machined directly from bar refer 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
Tolleranz./Allowance/Tolerance

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

Pos. nr. Pos. nr. Item nr. Nr. de poste	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.
0060	Hexagon	20,620	3120 / 3140	261633		1242,0	305103100

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	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 Rp 1% N/mm2	Resistenza Zugfestigkeit Tensile strength Resistance 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 Haerte Hardness Durete HB	
							min	max	min	max	min	max	min	max	min
Valori richiesti 1 Anforderungen/Required values Valeurs demandées				207	235	517 900	20	30	-	50	100			140 235	
A	10	20	L	527	594	696	40	42	67	67	197	194	178	232	

TEST	min	max
A	Grain size for ASTM E112	5

Mechanical properties according to ASTM A370.

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

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 %					
261633	0,021	0,58	1,47	16,62	2,00	0,48	10,00	0,030	0,030	0,058					

Intergranular corrosion test per ASTM A262 pract. E: ok.

Absence of cracks at 20 x magnification after bend test.

I.Korrosion nach EN ISO 3651-2A Sensibilisierung : T1 : OK

Vicenza, 18/09/13 VCC008 (Mod. MCE2)	Il collaudatore di stabilimento / der Werkssachverständige Works inspector / L'agent d'usine M. Rizzotto	Pagina - 1 di 2
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Acciaierie Valbruna S.p.A.



QUALITY MANAGEMENT SYSTEM
CERTIFIED BY LLOYD'S REGISTER

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

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Corrosion test per EN ISO 3651-2A sensitized T1 : OK

Sono state soddisfatte tutte le condizioni richieste
Die gestellten Anforderungen sind erfüllt
The material has been furnished in accordance with the requirements
Le matériel à été trouvé conforme aux exigences

Controllo antimiscelanza: OK
Verwechslungsprüfung: spectralanalytisch durchgeführt
Antimixing testing performed: OK
Contrôle antimélange fait: r.a.s.

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Zeichen des Lieferwerkes
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Stempel des Werkssachverständigen
Inspector's stamp/Poinçon de l'assesseur



Controllo visivo e dimensionale: soddisfa le esigenze
Besichtigung und Ausmessung: ohne Beanstandung
Visual inspection and dimensional checks: satisfactory
Contrôle visuel et dimensions: satisfaisant

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.

The Quality Management System is Certified acc. Pressure Equipment Directive [97/23/EC] Annex 1, s., 4.3 by TUEV 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.

F9441

3/8" Medium Pressure x 3/8" NPT Male x Male Adaptor 15K

Vicenza, 18/09/13

VCQ008

(Mod. MCE2)

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

M. Rizzotto

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