



## CERTIFICATO DI COLLAUDO - ABNAHMEPRÜFZEUGNIS - INSPECTION CERTIFICATE - CERTIFICAT DE RECEPTION

In conformità a: EN 10204 (2004), 3.1

Certificato nr. MEST861555 / 2016 / 1  
 Prüfung/Test/Essai

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

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

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

Ordine nr: 604049553 Sheffield  
 Bestell  
 Your order  
 Commande

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

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

Conferma ordine nr: E16004068  
 Werks/Our Order/Ref nr.

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

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

Avviso di Spedizione: D-VI16010993  
 Lieferanzeige/Packing list/B.L.

Marca: MVAPML MAXIVAL  
 Markenbezeichnung  
 Brand / Nuance

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



MR

### 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/ Probe/Specimen/Éprouvette Larg.diam. Spess. Breite Diam. Dicke Width Diam. Thickness Larg. diam. épais mm	°C	Posiz. Saggio Probenlage Location Emplacement	Snervamento		Resistenza Zugfestigkeit Tensile strength Résistance à traction	Allungamento		Strizione		Resilienza		Durezza	
				Streckgrenze Yield Stress Limite elastique Rp 0,2%	Streckgrenze Yield Stress Limite elastique Rp 1%		A5	E 4d	Z	RA	KV	HB		
Valori richiesti		min		207	235	517	20	30	-	50	100	140		
Antorderungen/Required values Valeurs demandées		max				900						235		
A	10	20	L	428	515	636	47	49	66	66	193	178	193	221

### 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	min	max
A Grain size for ASTM E112		6

Mechanical properties according to ASTM A370.  
 Tensile testing according to EN ISO 6892-1

### Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata /Heat Schmelze/Coulée	min - max	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 %			
269210	0,019	0,58	1,49	16,97	2,04	0,49	10,20	0,030	0,025	0,057			

### 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

### 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

Reduction ratio = 36,8 : 1  
 Solution annealed 1070°C for 1 h / water

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

Vicenza, 27/05/16  
 VCQ008  
 (Mod. MCE2)

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

M. Rizzotto

Pagina - 2 di 3