



silmax.it/silsaving

SILSAVING


















SOLID CARBIDE END MILLS

BY SILMAX



MgCo10
6527L 6528

2023 EDITION

	Codice Code	Ø (D mm)	Z	ACCIAIO STEEL	ACCIAIO STEEL	ALLUMINIO ALUMINIUM
				GHISA CAST IRON	INOX ST. STEEL	RAME COPPER
				INOX ST. STEEL	TITANIO TITANIUM	PLASTICHE PLASTICS
Alte Prestazioni High Performance / Hochleistung / Hautes performances						
	895S 895SW	3,0 ÷ 20,0	4	●	—	—
	897S 897SW	4,0 ÷ 16,0	4	●	—	—
	893S 893SW	4,0 ÷ 20,0	4	●	—	—
	892SK 892SKW	3,0 ÷ 20,0	4	●	—	—
	892S 892SW	3,0 ÷ 20,0	4	●	—	—
	892SL 892SLW	5,0 ÷ 20,0	4	●	—	—
	894S 894SW	3,0 ÷ 20,0	4	—	●	—
	894SL 894SLW	5,0 ÷ 20,0	4	—	●	—
Frese Micro Micro Tools / Mikrofräser / Micro Fraises						
	808S	1,0 ÷ 5,0	2	●	●	—
	838S	1,0 ÷ 5,0	3	●	—	—
	858S	2,0 ÷ 5,0	4	●	—	—
	816S	1,0 ÷ 4,0	2	●	●	—
	803S	1,0 ÷ 3,0	2	●	—	—
	804S	1,0 ÷ 3,0	2	●	—	—
Alluminio Aluminium / Fräser für Aluminium / Fraises pour l'aluminium						
	810 810W	2,0 ÷ 20,0	2	—	—	●
	812 812W	4,0 ÷ 20,0	3/4	—	—	●
	813 813W	3,0 ÷ 20,0	3	—	—	●

SILSAVING

SOLID CARBIDE END MILLS **BY SILMAX**

→ La famiglia Silsaving grazie al successo delle gamme di utensili ad alte prestazioni (892S, 893S, 894S, 895S ed 897S), alla linea micro (808S, 838S, 858S, 818S) alle frese per le lavorazioni in profondità (803S e 804S), alle frese multiuso di diversi diametri (871S rompitrucolo, la 836S, la 801S per chiavette) offre all'utilizzatore sempre grande qualità.

La linea Silsaving risponde ad ogni esigenza garantendo qualità elevata ad un prezzo concorrenziale.

→ Silmax after the success of the high-performance tool ranges (892S, 893S, 894S, 895S and 897S), the micro line (808S, 838S, 858S, 818S), the deep milling cutters (803S and 804S), the multi-purposes cutters in different diameters (871S chipbreaker, the 836S, the 801S for key lotting), offers the user great quality every time.









Silsaving by Silmax meets the most specific customer's needs, ensuring high quality at competitive price.




















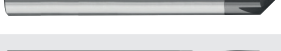
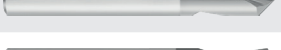

→ Die Silsaving-Familie bietet dem Anwender dank des Erfolges der Hochleistungswerkzeuge (892S, 893S, 894S, 895S und 897S), der Micro-Linie (808S, 838S, 858S, 818S), der Tiefräser (803S und 804S) und der Mehrzweckfräser in verschiedenen Durchmesser (871S Spanbrecher, 836S, 801S für Paßfedernuten) stets hohe Qualität.

Die Silsaving-Linie erfüllt alle Anforderungen und garantiert hohe Qualität zu einem wettbewerbsfähigen Preis.

→ La famille Silsaving, grâce à des outils hautes performances (892S, 893S, 894S, 895S et 897S), grâce à la famille Micro (808S, 838S, 858S, 818S), aux fraises pour usinage en profondeur (803S et 804S), et comprenant aussi les fraises multiapplications en différents diamètres (871S avec brise copeaux, la 836S, la 801S pour logements de clavettes) offre de prestations étendue et de grande qualité.

La famille Silsaving répond à tous vos besoins avec une offre de qualité à un prix très compétitif.

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	Codice Code	Ø (D mm)	Z	ACCIAIO STEEL	ACCIAIO STEEL	ALLUMINIO ALUMINIUM
Multi Applicazioni / Multi Applications / Mehrzweck Anwendung / Fraises multi-applications						
	856S 856SW	2,0 ÷ 20,0	4	●	—	—
	856CR 856CRW	2,0 ÷ 20,0	4	●	—	—
	829S	2,0 ÷ 12,0	4	●	—	—
	859S 859SW	3,0 ÷ 16,0	4	●	—	—
	861S 861SW	6,0 ÷ 20,0	6	●	—	—
	866S 866SW	2,0 ÷ 20,0	4	●	●	—
	883S 883SW	6,0 ÷ 16,0	4	●	●	—
	871S 871SW	4,0 ÷ 20,0	4	●	—	—
	806S 806SW	2,0 ÷ 20,0	2	●	●	—
	806CR 806CRW	2,0 ÷ 20,0	2	●	●	—
	821S	2,0 ÷ 12,0	2	●	—	—
	801S 801SW	2,0 ÷ 20,0	2	●	—	—
	879S 879SW	3,0 ÷ 16,0	2	●	—	—
	816S 816SW	4,0 ÷ 20,0	2	●	●	—
	881S 881SW	4,0 ÷ 16,0	2	●	●	—
	836S 836SW	2,0 ÷ 20,0	3	●	—	—
	826S	2,0 ÷ 12,0	3	●	—	—
	876S 876SW	4,0 ÷ 16,0	3	●	—	—
	841S 841SW	3,0 ÷ 20,0	4/6	●	—	—
	842S 842SW	3,0 ÷ 20,0	4/6	●	—	—
	843S	3,0 ÷ 16,0	2	●	●	●
	844S	3,0 ÷ 12,0	2	●	●	●

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–	●	–	–	–	–	–	–	22
–	–	●	–	–	–	–	–	23
–	–	●	–	–	–	–	–	23
–	●	–	–	–	–	–	–	24
●	●	–	–	●	–	–	–	25
●	●	–	–	●	–	–	–	25
●	–	–	–	●	–	–	–	26
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Alte Prestazioni / High Performance / Hochleistung / Hautes performances

- 6 **Gamma / Products / Prioduktbereich**
Produits
- 10 **Parametri di lavoro / Working parameters**
Arbeitsparameter / Paramètres d'usinage

Frese Micro / Micro Tools / Mikrofräser / Micro Fraises

- 13 **Gamma / Products / Prioduktbereich**
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Arbeitsparameter / Paramètres d'usinage

Alluminio / Aluminium / Fräser für Aluminium / Fraises pour l'aluminium

- 18 **Gamma / Products / Prioduktbereich**
Produits
- 20 **Parametri di lavoro / Working parameters**
Arbeitsparameter / Paramètres d'usinage

Multi Applicazioni / Multi Applications / Mehrzweck Anwendung / Fraises multi-applications

- 21 **Gamma / Products / Prioduktbereich**
Produits
- 31 **Parametri di lavoro / Working parameters**
Arbeitsparameter / Paramètres d'usinage

34 **Legenda / Legend / Legende / Légende**

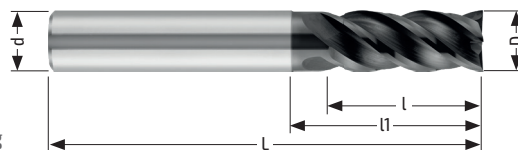
- **Acciaio**
Steel / Stahl / Acier
- **Ghisa**
Cast Iron / Gusseisen / Fonte
- **Inox**
Stainless Steel / Edelstahl / Acier inoxydable
- **Titanio**
Titanium / Titan / Titane
- **Alluminio**
Aluminium / Aluminium / Aluminium
- **Rame**
Copper / Kupfer / Cuivre
- **Resine Termoplastiche**
Thermoplastics / Thermoplaste / Thermoplastiques

Alte Prestazioni

High Performance / Hochleistung / Hautes performances

895S | 895SW

Fresa 4 taglienti serie normale con elica differenziata e divisione irregolare
 4 flute end mill regular version with variable helix and unequal flute spacing
 Schafffräser 4-Schneider normale Serie mit ungleichem Drall und unregelmäßiger Teilung
 Fraise à 4 dents, hélices variables serie normale

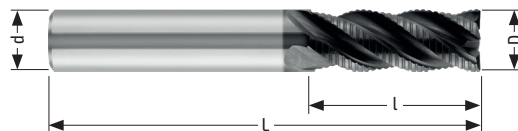


Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
MG Co10
6527 L
λ 38° λ 40°
6535 HA
6535 HB
Balinit® Alcrona

45°	D	d	L	l	l1	a	45°	Z	895S	895SW
	h10	h6		ap			+005/+0			
	3,0	6	57	8	-	-	0,05	4	895S D.3	895SW D.3
	4,0	6	57	11	16	0,10	0,05	4	895S D.4	895SW D.4
	5,0	6	57	13	18	0,10	0,05	4	895S D.5	895SW D.5
	6,0	6	57	13	20	0,15	0,05	4	895S D.6	895SW D.6
	8,0	8	63	19	25	0,15	0,05	4	895S D.8	895SW D.8
	10,0	10	72	22	30	0,15	0,05	4	895S D.10	895SW D.10
	12,0	12	83	26	36	0,20	0,05	4	895S D.12	895SW D.12
	14,0	14	83	26	36	0,20	0,05	4	895S D.14	895SW D.14
	16,0	16	92	32	42	0,20	0,05	4	895S D.16	895SW D.16
	18,0	18	92	32	42	0,20	0,05	4	895S D.18	895SW D.18
	20,0	20	104	38	52	0,20	0,05	4	895S D.20	895SW D.20

897S | 897SW

Fresa a sgrossare 4 taglienti con divisione irregolare serie normale
 4 flute roughing end mill with unequal flute spacing regular version
 Schruppfräser mit 4 Schneiden und unregelmäßiger Teilung normale Serie
 Fraise ébauche à 4 dents à pas décalé

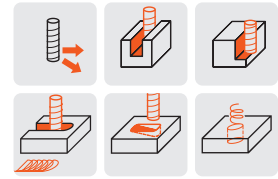
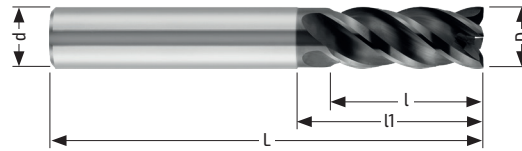


Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
MG Co10
6527 L
λ 30°
6535 HA
6535 HB
Balinit® Alcrona

45°	D	d	L	l	45°	Z	897S	897SW
	h11	h6		ap	+/-0,3			
	4,0	6	57	13	0,40	4	897S D.4	897SW D.4
	5,0	6	57	13	0,50	4	897S D.5	897SW D.5
	6,0	6	57	13	0,50	4	897S D.6	897SW D.6
	8,0	8	63	19	0,50	4	897S D.8	897SW D.8
	10,0	10	72	22	0,50	4	897S D.10	897SW D.10
	12,0	12	83	26	0,50	4	897S D.12	897SW D.12
	16,0	16	92	32	0,60	4	897S D.16	897SW D.16

893S | 893SW

Fresa universale a 4 taglienti con divisione irregolare adatta per la fresatura in rampa
4 flute multi-purpose end mill with unequal flute spacing suitable for ramp milling
Universalschneider mit 4 Schneiden mit unregelmäßiger Teilung geeignet zum Rampenfräsen
Fraise à 4 dents polyvalent à pas décalé pour ramping

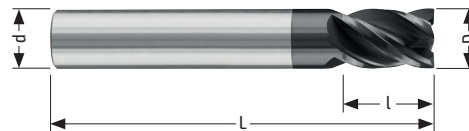


Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
MG Co10
6527
λ 35°
6535 HA
6535 HB
Balinit® Alcrona

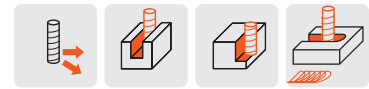
45°	D	d	L	l	l1	a	45°	Z	893S	893SW
	h10	h6		ap			+0,05/+0			
	4,0	6	57	11	15	0,15	0,20	4	893S D.4	893SW D.4
	5,0	6	57	13	18	0,15	0,20	4	893S D.5	893SW D.5
	6,0	6	57	13	20	0,15	0,25	4	893S D.6	893SW D.6
	8,0	8	63	19	25	0,15	0,30	4	893S D.8	893SW D.8
	10,0	10	72	22	30	0,15	0,35	4	893S D.10	893SW D.10
	12,0	12	83	26	36	0,20	0,40	4	893S D.12	893SW D.12
	16,0	16	92	32	42	0,20	0,45	4	893S D.16	893SW D.16
	20,0	20	104	38	52	0,20	0,50	4	893S D.20	893SW D.20

892SK | 892SKW

Fresa 4 taglienti serie corta con divisione irregolare
4 flute end mill short version with unequal flute spacing
4 Schneider Kurzserie mit unregelmäßiger Teilung
Fraise à 4 dents à pas décalé, série normale



Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
MG Co10
6527
λ 38°
6535 HA
6535 HB
Balinit® Alcrona

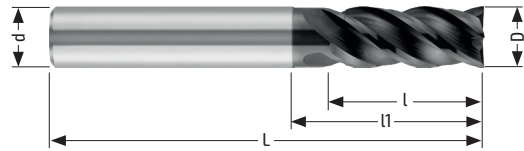


45°	D	d	L	l	45°	Z	892SK	892SKW
	h10	h6		ap	+0,05/+0			
	3,0	6	54	6	0,05	4	892SK D.3	892SKW D.3
	4,0	6	54	8	0,10	4	892SK D.4	892SKW D.4
	5,0	6	54	9	0,10	4	892SK D.5	892SKW D.5
	6,0	6	54	10	0,10	4	892SK D.6	892SKW D.6
	8,0	8	57	12	0,15	4	892SK D.8	892SKW D.8
	10,0	10	66	14	0,15	4	892SK D.10	892SKW D.10
	12,0	12	73	16	0,15	4	892SK D.12	892SKW D.12
	14,0	14	75	18	0,15	4	892SK D.14	892SKW D.14
	16,0	16	82	22	0,20	4	892SK D.16	892SKW D.16
	18,0	18	84	24	0,20	4	892SK D.18	892SKW D.18
	20,0	20	92	26	0,20	4	892SK D.20	892SKW D.20

90°	D	d	L	l	Z	892SKX	892SKXW	
	h10	h6		ap				
	3,0	6	54	6	-	4	892SKX D.3	892SKXW D.3
	4,0	6	54	8	-	4	892SKX D.4	892SKXW D.4
	5,0	6	54	9	-	4	892SKX D.5	892SKXW D.5
	6,0	6	54	10	-	4	892SKX D.6	892SKXW D.6
	8,0	8	57	12	-	4	892SKX D.8	892SKXW D.8
	10,0	10	66	14	-	4	892SKX D.10	892SKXW D.10
	12,0	12	73	16	-	4	892SKX D.12	892SKXW D.12
	14,0	14	75	18	-	4	892SKX D.14	892SKXW D.14
	16,0	16	82	22	-	4	892SKX D.16	892SKXW D.16
	18,0	18	84	24	-	4	892SKX D.18	892SKXW D.18
	20,0	20	92	26	-	4	892SKX D.20	892SKXW D.20

892S | 892SW

Fresa 4 taglienti serie normale con divisione irregolare
 4 flute end mill regular version with unequal flute spacing
 4 Schneider Schaftfräser Normalserie mit unregelmäßiger Teilung
 Fraise à 4 dents à pas décalé, série normale



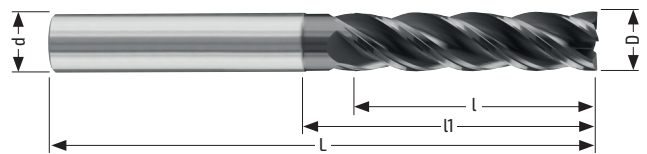
Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
MG Co10
6527 L 6528
λ 38°
6535 HA
6535 HB
Balinit® Alcrona

45°	D	d	L	l	l1	a	45°	Z	892S	892SW
	h10	h6		ap			+0,05/+0			
	3,0	3	38	8	-	-	-	4	892S D.3	-
	3,0	6	57	8	11	0,10	0,05	4	892S D.3 G6	892SW D.3 G6
	4,0	4	50	11	16	0,10	0,10	4	892S D.4	-
	4,0	6	57	11	16	0,10	0,10	4	892S D.4 G6	892SW D.4 G6
	5,0	5	50	13	18	0,10	0,10	4	892S D.5	-
	5,0	6	57	13	18	0,10	0,10	4	892S D.5 G6	892SW D.5 G6
	6,0	6	57	13	20	0,15	0,10	4	892S D.6	892SW D.6
	8,0	8	63	19	25	0,15	0,15	4	892S D.8	892SW D.8
	10,0	10	72	22	30	0,15	0,15	4	892S D.10	892SW D.10
	12,0	12	83	26	36	0,20	0,15	4	892S D.12	892SW D.12
	14,0	14	83	26	36	0,20	0,15	4	892S D.14	892SW D.14
	16,0	16	92	32	42	0,20	0,20	4	892S D.16	892SW D.16
	18,0	18	92	32	42	0,20	0,20	4	892S D.18	892SW D.18
	20,0	20	104	38	52	0,20	0,20	4	892S D.20	892SW D.20

90°	D	d	L	l	l1	a	Z	892SX	892SXW	
	h10	h6		ap						
	3,0	3	38	8	-	-	-	4	892SX D.3	-
	3,0	6	57	8	11	0,10	-	4	892SX D.3 G6	892SXW D.3 G6
	4,0	4	50	11	16	0,10	-	4	892SX D.4	-
	4,0	6	57	11	16	0,10	-	4	892SX D.4 G6	892SXW D.4 G6
	5,0	5	50	13	18	0,10	-	4	892SX D.5	-
	5,0	6	57	13	18	0,10	-	4	892SX D.5 G6	892SXW D.5 G6
	6,0	6	57	13	20	0,15	-	4	892SX D.6	892SXW D.6
	8,0	8	63	19	25	0,15	-	4	892SX D.8	892SXW D.8
	10,0	10	72	22	30	0,15	-	4	892SX D.10	892SXW D.10
	12,0	12	83	26	36	0,20	-	4	892SX D.12	892SXW D.12
	14,0	14	83	26	36	0,20	-	4	892SX D.14	892SXW D.14
	16,0	16	92	32	42	0,20	-	4	892SX D.16	892SXW D.16
	18,0	18	92	32	42	0,20	-	4	892SX D.18	892SXW D.18
	20,0	20	104	38	52	0,20	-	4	892SX D.20	892SXW D.20

892SL | 892SLW

Fresa 4 taglienti serie lunga con divisione irregolare
 4 flute end mill long version with unequal flute spacing
 4 Schneider Lange Ausführung mit unregelmäßiger Teilung
 Fraise à 4 dents à pas décalé, série longue

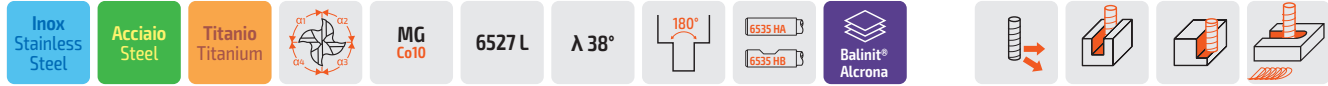
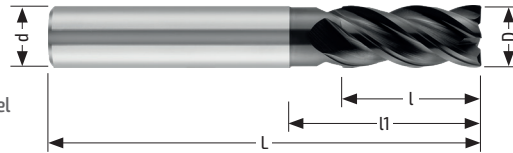


Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
MG Co10
Silmax NORM
λ 38°
6535 HA
6535 HB
Balinit® Alcrona

45°	D	d	L	l	l1	a	45°	Z	892SL	892SLW
	h10	h6		ap			+0,05/+0			
	5,0	6	74	20	25	0,10	0,10	4	892SL D.5	892SLW D.5
	6,0	6	74	24	30	0,15	0,10	4	892SL D.6	892SLW D.6
	8,0	8	80	32	40	0,15	0,15	4	892SL D.8	892SLW D.8
	10,0	10	87	40	46	0,15	0,15	4	892SL D.10	892SLW D.10
	12,0	12	105	48	58	0,20	0,15	4	892SL D.12	892SLW D.12
	14,0	14	105	48	58	0,20	0,15	4	892SL D.14	892SLW D.14
	16,0	16	125	64	68	0,20	0,20	4	892SL D.16	892SLW D.16
	20,0	20	160	70	80	0,20	0,20	4	892SL D.20	892SLW D.20

894S | 894SW

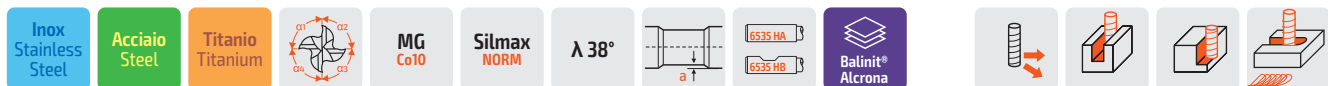
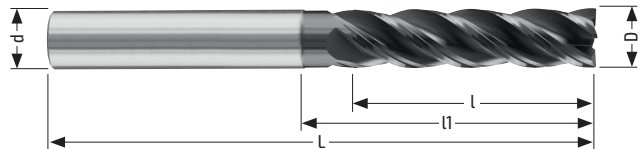
Fresa 4 taglienti serie normale con divisione irregolare per inox e acciai dolci
4 flute end mill regular version with unequal flute spacing for stainless steel and mild steel
4 Schneider Normalserie mit unregelmäßiger Teilung für Edelstahl und Weichstähle
Fraise à 4 dents à pas décalé série normale pour inox et acier doux







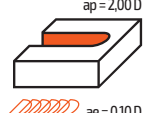
45°	D	d	L	l	l1	a	45°	Z	894S	894SW
	h10	h6		ap			+0,05/+0			
	3,0	6	57	8	11	0,10	0,10	4	894S D.3	894SW D.3
	4,0	6	57	11	16	0,10	0,10	4	894S D.4	894SW D.4
	5,0	6	57	13	18	0,10	0,10	4	894S D.5	894SW D.5
	6,0	6	57	13	20	0,15	0,10	4	894S D.6	894SW D.6
	8,0	8	63	19	25	0,15	0,15	4	894S D.8	894SW D.8
	10,0	10	72	22	30	0,15	0,15	4	894S D.10	894SW D.10
	12,0	12	83	26	36	0,20	0,15	4	894S D.12	894SW D.12
	14,0	14	83	26	36	0,20	0,15	4	894S D.14	894SW D.14
	16,0	16	92	32	42	0,20	0,20	4	894S D.16	894SW D.16
	18,0	18	92	32	42	0,20	0,20	4	894S D.18	894SW D.18
	20,0	20	104	38	52	0,20	0,20	4	894S D.20	894SW D.20



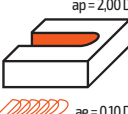
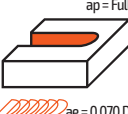
894SL | 894SLW

Fresa 4 taglienti serie lunga con divisione irregolare per inox e acciai dolci
4 flute end mill long version with unequal flute spacing for stainless steel and mild steel
4 Schneider Lange Ausführung mit unregelmäßiger Teilung für Edelstahl und Weichstähle
Fraise à 4 dents à pas décalé série longue


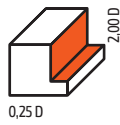
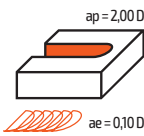
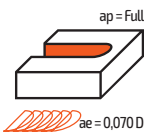


45°	D	d	L	l	l1	a	45°	Z	894SL	894SLW
	h10	h6		ap			+0,05/+0			
	5,0	6	74	20	25	0,10	0,10	4	894SL D.5	894SLW D.5
	6,0	6	74	24	30	0,15	0,10	4	894SL D.6	894SLW D.6
	8,0	8	80	32	40	0,15	0,15	4	894SL D.8	894SLW D.8
	10,0	10	87	40	46	0,15	0,15	4	894SL D.10	894SLW D.10
	12,0	12	105	48	58	0,20	0,15	4	894SL D.12	894SLW D.12
	14,0	14	105	48	58	0,20	0,15	4	894SL D.14	894SLW D.14
	16,0	16	125	64	68	0,20	0,20	4	894SL D.16	894SLW D.16
	20,0	20	160	70	80	0,20	0,20	4	894SL D.20	894SLW D.20

Materiale Material	Diametro Diameter	897S						895S									
		 1,00 D			 0,50 D			 1,00 D			 0,25 D			 ap=2,00D ae=0,10D			
Acciaio <800 N/mm² Steel <800 N/mm²	m/min	Vc = 140				Vc = 160			Vc=140			Vc=160			Vc=240		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	2,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3,0	-	-	-	-	-	-	0,010	594	14862	0,010	679	16985	0,020	2037	25465	
	4,0	0,025	1114	11141	0,025	1273	12732	0,015	669	11146	0,015	764	12739	0,050	3820	19099	
	5,0	0,030	1070	8913	0,030	1222	10186	0,020	713	8917	0,020	815	10191	0,070	4278	15279	
	6,0	0,040	1188	7427	0,040	1358	8488	0,030	892	7431	0,030	1019	8493	0,090	4584	12732	
	8,0	0,060	1337	5570	0,060	1528	6366	0,045	1003	5573	0,045	1146	6369	0,120	4584	9549	
	10,0	0,070	1248	4456	0,070	1426	5093	0,060	1070	4459	0,060	1223	5096	0,150	4583	7639	
	12,0	0,080	1188	3714	0,080	1358	4244	0,070	1040	3715	0,070	1189	4246	0,180	4584	6366	
	14,0	-	-	-	-	-	-	0,072	917	3185	0,072	1048	3640	0,200	4366	5457	
	16,0	0,085	947	2785	0,085	1082	3183	0,075	836	2787	0,075	955	3185	0,220	4202	4775	
	20,0	-	-	-	-	-	-	0,082	731	2229	0,090	917	2548	0,250	3820	3820	
Acciaio <1000 N/mm² - Ghisa Steel <1000 N/mm² - Cast iron	m/min	Vc = 115				Vc = 125			Vc=115			Vc=130			Vc=200		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	2,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3,0	-	-	-	-	-	-	0,010	488	12208	0,010	552	13800	0,020	1698	21221	
	4,0	0,025	915	9151	0,025	995	9947	0,015	549	9156	0,015	621	10350	0,050	3183	15915	
	5,0	0,030	879	7321	0,030	955	7958	0,020	586	7325	0,020	662	8280	0,070	3565	12732	
	6,0	0,040	976	6101	0,040	1061	6631	0,030	732	6104	0,030	828	6900	0,090	3820	10610	
	8,0	0,060	1098	4576	0,060	1194	4974	0,045	824	4578	0,045	932	5175	0,120	3820	7958	
	10,0	0,070	1025	3661	0,070	1114	3979	0,060	879	3662	0,060	994	4140	0,150	3820	6366	
	12,0	0,080	976	3050	0,080	1061	3316	0,070	855	3052	0,070	966	3450	0,180	3820	5305	
	14,0	-	-	-	-	-	-	0,072	753	2616	0,072	852	2957	0,200	3638	4547	
	16,0	0,085	778	2288	0,085	846	2487	0,075	687	2289	0,075	776	2588	0,220	3502	3979	
	20,0	-	-	-	-	-	-	0,082	601	1831	0,090	745	2070	0,250	3183	3183	
Acciaio <1300 N/mm² Steel <1300 N/mm²	m/min	Vc = 85				Vc = 95			Vc=85			Vc=100			160		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	2,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3,0	-	-	-	-	-	-	0,010	361	9023	0,010	425	10616	0,020	1358	16977	
	4,0	0,025	676	6764	0,025	756	7560	0,015	406	6768	0,015	478	7962	0,050	2546	12732	
	5,0	0,030	649	5411	0,030	726	6048	0,020	433	5414	0,020	510	6369	0,070	2852	10186	
	6,0	0,040	721	4509	0,040	806	5040	0,030	541	4512	0,030	637	5308	0,090	3056	8488	
	8,0	0,060	812	3382	0,060	907	3780	0,045	609	3384	0,045	717	3981	0,120	3056	6366	
	10,0	0,070	758	2706	0,070	847	3024	0,060	650	2707	0,060	764	3185	0,150	3056	5093	
	12,0	0,080	722	2255	0,080	806	2520	0,070	632	2256	0,070	743	2654	0,180	3056	4244	
	14,0	-	-	-	-	-	-	0,072	557	1934	0,072	655	2275	0,200	2910	3638	
	16,0	0,085	575	1691	0,085	643	1890	0,075	508	1692	0,075	597	1990	0,220	2801	3183	
	20,0	-	-	-	-	-	-	0,082	444	1354	0,090	573	1592	0,250	2546	2546	
Acciaio altolegati High alloyed tool steel	m/min	Vc = 45				Vc = 50			Vc=45			Vc=60			Vc=90		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	2,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3,0	-	-	-	-	-	-	0,010	191	4777	0,010	255	6369	0,020	764	9549	
	4,0	0,025	358	3581	0,025	398	3979	0,015	215	3583	0,015	287	4777	0,040	1146	7162	
	5,0	0,030	344	2865	0,030	382	3183	0,020	229	2866	0,020	306	3822	0,050	1146	5730	
	6,0	0,040	382	2387	0,040	424	2653	0,030	287	2389	0,030	382	3185	0,060	1146	4775	
	8,0	0,060	430	1790	0,060	477	1989	0,045	322	1791	0,045	430	2389	0,080	1146	3581	
	10,0	0,070	401	1432	0,070	446	1592	0,060	344	1433	0,060	459	1911	0,100	1146	2865	
	12,0	0,080	382	1194	0,080	424	1326	0,070	334	1194	0,070	446	1592	0,120	1146	2387	
	14,0	-	0	1023	-	0	1137	0,072	295	1024	0,072	393	1365	0,140	1146	2046	
	16,0	0,085	304	895	0,085	338	995	0,075	269	896	0,075	358	1194	0,160	1146	1790	
	20,0	-	-	-	-	-	-	0,082	235	717	0,090	344	955	0,180	1031	1432	
Acciaio Inox Stainless Steel	m/min	Vc = 35				Vc = 45			Vc=85			Vc=100			Vc=120		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	2,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3,0	-	-	-	-	-	-	0,010	361	9023	0,010	403	10085	0,020	1019	12732	
	4,0	0,025	279	2785	0,025	358	3581	0,015	406	6768	0,015	454	7564	0,040	1528	9549	
	5,0	0,030	267	2228	0,030	344	2865	0,020	433	5414	0,020	484	6051	0,065	1986	7639	
	6,0	0,040	297	1857	0,040	382	2387	0,030	541	4512	0,030	605	5042	0,080	2037	6366	
	8,0	0,060	334	1393	0,060	430	1790	0,045	541	3384	0,045	681	3782	0,100	1910	4775	
	10,0	0,070	312	1114	0,070	401	1432	0,050	541	2707	0,060	726	3025	0,120	1834	3820	
	12,0	0,080	297	928	0,080	382	1194	0,060	541	2256	0,070	706	2521	0,140	1782	3183	
	14,0	-	-	-	-	-	-	0,070	541	1934	0,072	655	2275	0,160	1746	2728	
	16,0	0,085	237	696	0,085	304	895	0,075	508	1692	0,075	567	1891	0,180	1719	2387	
	20,0	-	-	-	-	-	-	0,082	444	1354	0,090	545	1513	0,220	1681	1910	

Materiale Material	Diametro Diameter	892S / 893S									892SL			
						Vedi nota See note 								
Acciaio <800 N/mm ² Steel <800 N/mm ²	m/min	Vc = 140				Vc = 160			Vc = 180			Vc = 160		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	3,0	0,010	594	14854	0,010	679	16977	0,020	1528	19099	-	-	-	
	4,0	0,015	668	11141	0,015	764	12732	0,050	2865	14324	-	-	-	
	5,0	0,020	713	8913	0,020	815	10186	0,070	3209	11459	0,060	2445	10186	
	6,0	0,030	891	7427	0,030	1019	8488	0,090	3438	9549	0,070	2377	8488	
	8,0	0,045	1003	5570	0,045	1146	6366	0,120	3438	7162	0,090	2292	6366	
	10,0	0,060	1069	4456	0,060	1222	5093	0,150	3438	5730	0,110	2241	5093	
	12,0	0,070	1040	3714	0,070	1188	4244	0,180	3438	4775	0,130	2207	4244	
	14,0	0,072	917	3183	0,072	1048	3638	0,200	3274	4093	0,150	2183	3638	
16,0	0,075	836	2785	0,075	955	3183	0,220	3151	3581	0,170	2164	3183		
20,0	0,082	731	2228	0,090	917	2546	0,250	2865	2865	0,200	2037	2546		
Acciaio <1000 N/mm ² - Ghisa Steel <1000 N/mm ² - Cast iron	m/min	Vc = 115				Vc = 125			Vc = 150			Vc = 140		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	3,0	0,010	488	12202	0,010	531	13263	0,020	1273	15915	-	-	-	
	4,0	0,015	549	9151	0,015	597	9947	0,050	2387	11937	-	-	-	
	5,0	0,020	586	7321	0,020	637	7958	0,070	2674	9549	0,060	2139	8913	
	6,0	0,030	732	6101	0,030	796	6631	0,090	2865	7958	0,070	2080	7427	
	8,0	0,045	824	4576	0,045	895	4974	0,120	2865	5968	0,090	2005	5570	
	10,0	0,060	879	3661	0,060	955	3979	0,150	2865	4775	0,110	1961	4456	
	12,0	0,070	854	3050	0,070	928	3316	0,180	2865	3979	0,130	1931	3714	
	14,0	0,072	753	2615	0,072	819	2842	0,200	2728	3410	0,150	1910	3183	
16,0	0,075	686	2288	0,075	746	2487	0,220	2626	2984	0,170	1894	2785		
20,0	0,082	600	1830	0,090	716	1989	0,250	2387	2387	0,200	1782	2228		
Acciaio <1300 N/mm ² Steel <1300 N/mm ²	m/min	Vc = 85				Vc = 95			Vc = 130			Vc = 110		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	3,0	0,010	361	9019	0,010	403	10080	0,020	1103	13793	-	-	-	
	4,0	0,015	406	6764	0,015	454	7560	0,050	2069	10345	-	-	-	
	5,0	0,020	433	5411	0,020	484	6048	0,070	2317	8276	0,060	1681	7003	
	6,0	0,030	541	4509	0,030	605	5040	0,090	2483	6897	0,070	1634	5836	
	8,0	0,045	609	3382	0,045	680	3780	0,120	2483	5173	0,090	1576	4377	
	10,0	0,060	649	2706	0,060	726	3024	0,150	2483	4138	0,110	1540	3501	
	12,0	0,070	631	2255	0,070	706	2520	0,180	2483	3448	0,130	1517	2918	
	14,0	0,072	557	1933	0,072	622	2160	0,200	2365	2956	0,150	1501	2501	
16,0	0,075	507	1691	0,075	567	1890	0,220	2276	2586	0,170	1488	2188		
20,0	0,082	444	1353	0,090	544	1512	0,250	2069	2069	0,200	1401	1751		
Acciai altolegati High alloyed tool steel	m/min	Vc = 45				Vc = 50			Vc = 80			Vc = 65		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	3,0	0,010	191	4775	0,010	212	5305	0,020	679	8488	-	-	-	
	4,0	0,015	215	3581	0,015	239	3979	0,040	1019	6366	-	-	-	
	5,0	0,020	229	2865	0,020	255	3183	0,050	1019	5093	0,050	828	4138	
	6,0	0,030	286	2387	0,030	318	2653	0,060	1019	4244	0,060	828	3448	
	8,0	0,045	322	1790	0,045	358	1989	0,080	1019	3183	0,080	828	2586	
	10,0	0,060	344	1432	0,060	382	1592	0,100	1018	2546	0,100	828	2069	
	12,0	0,070	334	1194	0,070	371	1326	0,120	1019	2122	0,120	828	1724	
	14,0	0,072	295	1023	0,072	327	1137	0,140	1019	1819	0,140	828	1478	
16,0	0,075	269	895	0,075	298	995	0,160	1019	1592	0,160	828	1293		
20,0	0,082	235	716	0,090	286	796	0,180	917	1273	0,180	745	1035		
Acciaio Inox Stainless Steel	m/min	Vc = 35				Vc = 45			Vc = 100			Vc = 90		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	3,0	0,010	149	3714	0,010	191	4775	0,020	849	10610	-	-	-	
	4,0	0,015	167	2785	0,015	215	3581	0,040	1273	7958	-	-	-	
	5,0	0,020	178	2228	0,020	229	2865	0,065	1655	6366	0,050	1146	5730	
	6,0	0,030	223	1857	0,030	286	2387	0,080	1698	5305	0,060	1146	4775	
	8,0	0,045	251	1393	0,045	322	1790	0,100	1592	3979	0,080	1146	3581	
	10,0	0,060	267	1114	0,060	344	1432	0,120	1528	3183	0,100	1146	2865	
	12,0	0,070	260	928	0,070	334	1194	0,140	1486	2653	0,120	1146	2387	
	14,0	0,072	229	796	0,072	295	1023	0,160	1455	2274	0,140	1146	2046	
16,0	0,075	209	696	0,075	269	895	0,180	1432	1989	0,160	1146	1790		
20,0	0,082	183	557	0,090	258	716	0,220	1401	1592	0,180	1031	1432		

Serie lunga: parametri di lavoro di riferimento da adattare in base all'impegno utensile. / Long series: reference parameters to be adjusted based on tool engagement.
Lange Serien: Je nach Werkzeugengeiffri anzupassende Referenzarbeitsparameter. / Série longue : paramètres de travail de référence à adapter en fonction de l'engagement de l'outil.

Materiale Material	Diametro Diameter	894S									894SL				
		 1,00 D			Vedi nota See note  0,25 D			 ap = 2,00 D ae = 0,10 D			 ap = Full ae = 0,070 D				
Inox ferritico Ferritic stainless steel	m/min	Vc=130				Vc=140				Vc=160			Vc=140		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm		
	3,0	0,013	718	13800	0,013	773	14862	0,025	1698	16977	-	-	-		
	4,0	0,020	828	10350	0,020	892	11146	0,040	2037	12732	-	-	-		
	5,0	0,025	828	8280	0,025	892	8917	0,050	2037	10186	0,060	2139	8913		
	6,0	0,030	828	6900	0,030	892	7431	0,060	2037	8488	0,070	2080	7427		
	8,0	0,040	828	5175	0,040	892	5573	0,080	2037	6366	0,090	2005	5570		
	10,0	0,050	828	4140	0,050	892	4459	0,100	2037	5093	0,110	1961	4456		
	12,0	0,060	828	3450	0,060	892	3715	0,120	2037	4244	0,130	1931	3714		
	14,0	0,065	759	2956	0,065	828	3183	0,130	1892	3638	-	-	-		
	16,0	0,070	725	2588	0,070	780	2787	0,140	1782	3183	0,150	1671	2785		
18,0	0,075	690	2299	0,075	743	2476	0,150	1697	2829	-	-	-			
20,0	0,080	662	2070	0,080	713	2229	0,160	1629	2546	0,200	1782	2228			
Inox austenitico Austenitic stainless steel	m/min	Vc=110				Vc=120				Vc=150			Vc=130		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm		
	3,0	0,013	607	11677	0,013	662	12739	0,025	1592	15915	-	-	-		
	4,0	0,020	701	8758	0,020	764	9554	0,040	1910	11937	-	-	-		
	5,0	0,025	701	7006	0,025	764	7643	0,050	1910	9549	0,060	2292	9549		
	6,0	0,030	701	5839	0,030	764	6369	0,060	1910	7958	0,070	2228	7958		
	8,0	0,040	701	4379	0,040	764	4777	0,080	1910	5968	0,090	2148	5968		
	10,0	0,050	701	3503	0,050	764	3822	0,100	1910	4775	0,110	2101	4775		
	12,0	0,060	701	2919	0,060	764	3185	0,120	1910	3979	0,130	2069	3979		
	14,0	0,065	650	2501	0,065	709	2728	0,130	1773	3410	-	-	-		
	16,0	0,070	613	2189	0,070	669	2389	0,140	1671	2984	0,150	1790	2984		
18,0	0,075	584	1945	0,075	637	2122	0,150	1592	2653	-	-	-			
20,0	0,080	561	1752	0,080	611	1911	0,160	1528	2387	0,200	1910	2387			
Titanio Titanium	m/min	Vc=60				Vc=70				Vc=90			Vc=90		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm		
	3,0	0,005	127	6369	0,010	297	7431	0,020	764	9549	-	-	-		
	4,0	0,007	124	4777	0,016	357	5573	0,032	917	7162	-	-	-		
	5,0	0,009	130	3822	0,020	357	4459	0,040	917	5730	0,030	688	5730		
	6,0	0,010	127	3185	0,030	446	3715	0,060	1146	4775	0,040	764	4775		
	8,0	0,013	124	2389	0,040	446	2787	0,080	1146	3581	0,060	859	3581		
	10,0	0,018	138	1911	0,050	446	2229	0,100	1146	2865	0,080	917	2865		
	12,0	0,022	140	1592	0,060	446	1858	0,120	1146	2387	0,100	955	2387		
	14,0	0,027	147	1364	0,070	446	1592	0,140	1146	2046	-	-	-		
	16,0	0,032	153	1194	0,080	446	1393	0,160	1146	1790	0,140	1002	1790		
18,0	0,036	153	1061	0,090	446	1238	0,180	1146	1592	-	-	-			
20,0	0,040	153	955	0,100	446	1115	0,200	1146	1432	0,180	1031	1432			
Acciaio <800 N/mm² Steel < 800N/mm²	m/min	Vc=130				Vc=140				Vc=170			Vc=150		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm		
	3,0	0,013	718	13800	0,013	773	14862	0,025	1804	18038	-	-	-		
	4,0	0,020	828	10350	0,020	892	11146	0,040	2164	13528	-	-	-		
	5,0	0,025	828	8280	0,025	892	8917	0,050	2165	10823	0,060	2598	10823		
	6,0	0,030	828	6900	0,030	892	7431	0,060	2165	9019	0,070	2525	9019		
	8,0	0,040	828	5175	0,040	892	5573	0,080	2164	6764	0,090	2435	6764		
	10,0	0,050	828	4140	0,050	892	4459	0,100	2164	5411	0,110	2381	5411		
	12,0	0,060	828	3450	0,060	892	3715	0,120	2164	4509	0,130	2345	4509		
	14,0	0,065	769	2956	0,065	828	3183	0,130	2010	3865	-	-	-		
	16,0	0,070	725	2588	0,070	780	2787	0,140	1894	3382	0,150	2029	3382		
18,0	0,075	690	2299	0,075	743	2476	0,150	1804	3006	-	-	-			
20,0	0,080	662	2070	0,080	713	2229	0,160	1732	2706	0,200	2165	2706			

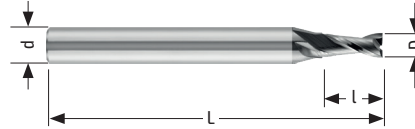
Serie Lunga: parametri di lavoro di riferimento da adattare in base all'impegno utensile. / Long series: reference parameters to be adjusted based on tool engagement.
 Lange Serien: Je nach Werkzeugeingriff anzupassende Referenzarbeitsparameter. / Série longue : paramètres de travail de référence à adapter en fonction de l'engagement de l'outil.

Frese micro

Micro Tools / Mikrofräser / Micro Fraises

808S

Fresa 2 taglienti serie normale con gambo rinforzato
2 flute end mill regular version with reinforced shank
Fräser 2 Schneiden normale Serie mit verstärktem Schaft
Fraise à 2 dents avec queue renforcée sèrie normale



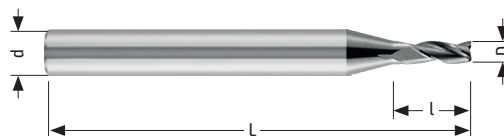
Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
6527 L
 λ 30°
6535 HA
Balinit® Alcrona



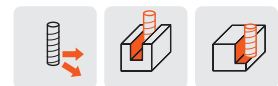
90°	D	d	L	l	Z	808S
	h10	h6		ap		
	1,0	6	53	3,0	2	808S D.1
	1,0	6	53	4,0	2	808SL D.1
	1,0	6	53	6,0	2	808SXL D.1
	1,5	6	53	4,0	2	808S D.1,5
	1,5	6	53	6,0	2	808SL D.1,5
	1,5	6	53	7,5	2	808SXL D.1,5
	2,0	6	53	6,0	2	808S D.2
	2,0	6	53	8,0	2	808SL D.2
	2,0	6	53	10,0	2	808SXL D.2
	2,5	6	53	7,0	2	808S D.2,5
	2,5	6	53	9,0	2	808SL D.2,5
	3,0	6	53	7,0	2	808S D.3
	3,0	6	53	12,0	2	808SL D.3
	3,5	6	53	7,0	2	808S D.3,5
	4,0	6	53	8,0	2	808S D.4
	4,0	6	53	12,0	2	808SL D.4
	4,0	6	57	16,0	2	808SXL D.4
	5,0	6	57	10,0	2	808S D.5

838S

Fresa 3 taglienti serie normale con gambo rinforzato
3 flute end mill with reinforced shank regular version
Fräser 3 Schneiden normale Serie mit verstärktem Schaft
Fraise à 3 dents avec queue renforcée sèrie normale



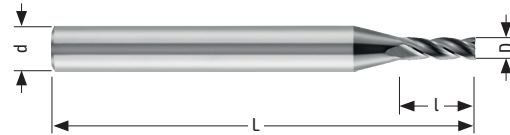
Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
6527 L
 λ 30°
6535 HA
Balinit® Alcrona



90°	D	d	L	l	Z	838S
	h10	h6		ap		
	1,0	6	53	3	3	838S D.1
	1,5	6	53	4	3	838S D.1,5
	1,5	6	53	6	3	838SL D.1,5
	2,0	6	53	6	3	838S D.2
	2,0	6	53	8	3	838SL D.2
	2,5	6	53	7	3	838S D.2,5
	2,5	6	53	10	3	838SL D.2,5
	3,0	6	53	7	3	838S D.3
	3,0	6	53	12	3	838SL D.3
	3,5	6	53	7	3	838S D.3,5
	4,0	6	53	8	3	838S D.4
	4,0	6	53	12	3	838SL D.4
	5,0	6	57	10	3	838S D.5

858S

Fresa 4 taglienti serie normale con gambo rinforzato
 4 flute end mill with reinforced shank
 Fräser 4 Schneiden normale Serie mit verstärktem Schaft
 Fraise à 4 dents avec queue renforcée sèrie normale

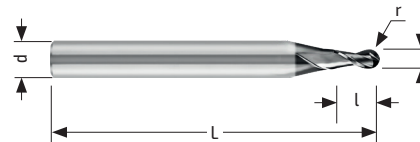


Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
6527 L
 λ 30°
6535 HA
Balinit® Alcrona

90°	D h10	d h6	L	l ap	Z	858S
		2,0	6	53	7	4
	2,5	6	53	8	4	858S D.2,5
	3,0	6	53	8	4	858S D.3
	3,5	6	53	10	4	858S D.3,5
	4,0	6	53	11	4	858S D.4
	5,0	6	57	13	4	858S D.5

816S

Fresa 2 taglienti serie normale semisferica con gambo rinforzato
 2 flute ball nose end mill regular version with reinforced shank
 Halbkugelförmiger Schaftfräser 2 Schneiden normale Serie
 Fraise hémisphérique à 2 dents avec queue renforcée, sèrie normale

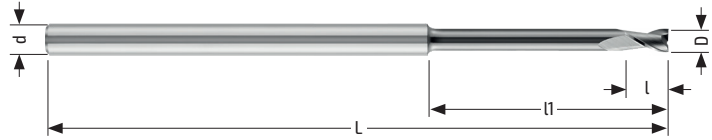


Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
Silmax NORM
 λ 30°
6535 HA
Balinit® Alcrona

	D h10	d h6	L	l ap	r	Z	816S
		1,0	3	38	3	0,50	2
	1,0	6	53	3	0,50	2	816S D.1 G6
	1,5	3	38	4	0,75	2	816S D.1,5
	1,5	6	53	4	0,75	2	816S D.1,5 G6
	2,0	3	38	5	1,00	2	816S D.2
	2,0	6	53	5	1,00	2	816S D.2 G6
	2,5	3	38	7	1,25	2	816S D.2,5
	2,5	6	53	7	1,25	2	816S D.2,5 G6
	3,0	3	38	7	1,50	2	816S D.3
	3,0	6	53	7	1,50	2	816S D.3 G6
	4,0	6	57	8	2,00	2	816S D.4

803S

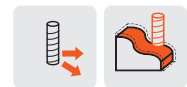
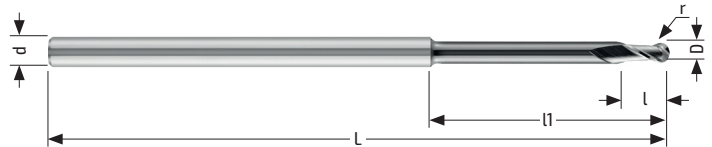
Fresa 2 taglienti per lavorazioni in profondità
2 flute end mill for deep milling
Fräser 2 Schneiden für Tiefenbearbeitung
Fraise à 2 dents pour usinages en profondeur




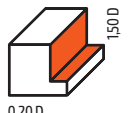

90°	D 0/-0,02	d h6	L	l ap	l1	a	Z	803S
	1,0	3	39	1,50	6	0,03	2	803S D.1×6
	1,0	3	39	1,50	9	0,03	2	803S D.1×9
	1,0	3	60	1,50	12	0,03	2	803S D.1×12
	1,5	3	39	2,25	6	0,03	2	803S D.1,5×6
	1,5	3	39	2,25	9	0,03	2	803S D.1,5×9
	1,5	3	60	2,25	12	0,03	2	803S D.1,5×12
	2,0	3	39	3,00	9	0,05	2	803S D.2×9
	2,0	3	39	3,00	12	0,05	2	803S D.2×12
	2,0	3	60	3,00	15	0,05	2	803S D.2×15
	2,5	4	50	3,70	12	0,05	2	803S D.2,5×12
	2,5	4	80	3,70	25	0,05	2	803S D.2,5×25
	3,0	4	50	4,50	15	0,05	2	803S D.3×15
	3,0	4	80	4,50	30	0,05	2	803S D.3×30

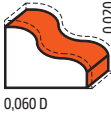
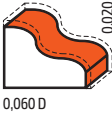
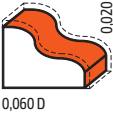
804S

Fresa 2 taglienti semisferica per lavorazioni in profondità
2 flute ball nose end mill for deep milling
Halbkugelförmiger Schaftfräser 2 Schneiden für Tiefenbearbeitung
Fraise hémisphérique à 2 dents pour usinage en profondeur



	D	d h6	L	l ap	l1	a	r ±0,01	Z	804S
	1,0	3	39	1,50	6	0,03	0,50	2	804S D.1×6
	1,0	3	39	1,50	9	0,03	0,50	2	804S D.1×9
	1,0	3	60	1,50	12	0,03	0,50	2	804S D.1×12
	1,5	3	39	2,25	6	0,03	0,75	2	804S D.1,5×6
	1,5	3	39	2,25	9	0,03	0,75	2	804S D.1,5×9
	1,5	3	60	2,25	12	0,03	0,75	2	804S D.1,5×12
	2,0	3	39	3,00	9	0,05	1,00	2	804S D.2×9
	2,0	3	39	3,00	12	0,05	1,00	2	804S D.2×12
	2,0	3	60	3,00	15	0,05	1,00	2	804S D.2×15
	2,5	4	50	3,70	12	0,05	1,25	2	804S D.2,5×12
	2,5	4	80	3,70	25	0,05	1,25	2	804S D.2,5×25
	3,0	4	50	4,50	15	0,05	1,50	2	804S D.3×15
	3,0	4	80	4,50	30	0,05	1,50	2	804S D.3×30

Materiale Material	Diametro Diameter	808S				838S				858S											
																					
Acciaio <800 N/mm ² Steel <800 N/mm ²	m/min	Vc = 120				Vc = 130				Vc = 110				Vc = 120				Vc = 175			
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm		
	1,0	0,001	76	38217	0,002	166	41401	0,001	105	35032	0,002	229	38217	-	-	-	-	-	-		
	2,0	0,002	76	19108	0,004	166	20701	0,002	105	17516	0,004	229	19108	0,004	446	27866	0,004	446	27866		
	3,0	0,004	102	12739	0,008	207	13800	0,004	140	11677	0,008	287	12739	0,009	669	18577	0,009	669	18577		
	4,0	0,006	115	9554	0,011	278	10350	0,006	158	8758	0,011	315	9554	0,014	780	13933	0,014	780	13933		
5,0	0,008	122	7643	0,013	215	8280	0,008	168	7006	0,013	298	7643	0,019	847	11146	0,019	847	11146			
Acciaio <1000 N/mm ² -Grisa Steel <1000 N/mm ² -Castiron	m/min	Vc = 100				Vc = 105				Vc = 90				Vc = 100				Vc = 145			
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm		
	1,0	0,001	64	31847	0,002	134	33439	0,001	86	28662	0,002	191	31847	-	-	-	-	-	-		
	2,0	0,002	64	15924	0,004	134	16720	0,002	86	14331	0,004	191	15924	0,004	369	23089	0,004	369	23089		
	3,0	0,004	85	10616	0,008	167	11146	0,004	115	9554	0,008	239	10616	0,009	554	15393	0,009	554	15393		
	4,0	0,006	96	7962	0,011	184	8360	0,006	129	7166	0,011	263	7962	0,014	646	11545	0,014	646	11545		
5,0	0,008	102	6369	0,013	174	6688	0,008	138	5732	0,013	248	6369	0,019	702	9236	0,019	702	9236			
Acciaio <1300 N/mm ² Steel <1300 N/mm ²	m/min	Vc = 75				Vc = 80				Vc = 70				Vc = 75				Vc = 110			
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm		
	1,0	0,001	48	23885	0,060	3057	25478	0,001	67	22293	0,002	143	23885	-	-	-	-	-	-		
	2,0	0,002	48	11943	0,088	2242	12739	0,002	67	11146	0,004	143	11943	0,004	280	17516	0,004	280	17516		
	3,0	0,004	64	7962	0,110	1868	8493	0,004	89	7431	0,008	179	7962	0,009	420	11677	0,009	420	11677		
	4,0	0,006	72	5971	0,130	1656	6369	0,006	100	5573	0,011	197	5971	0,014	490	8758	0,014	490	8758		
5,0	0,008	76	4777	0,160	1631	5096	0,008	107	4459	0,013	186	4777	0,019	532	7006	0,019	532	7006			
Acciaio da stampi Mold Steel	m/min	Vc = 35				Vc = 40				Vc = 35				Vc = 40				Vc = 55			
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm		
	1,0	0,001	22	11146	0,002	51	12739	0,001	33	11146	0,002	76	12739	-	-	-	-	-	-		
	2,0	0,002	22	5573	0,004	51	6369	0,002	33	5573	0,004	76	6369	0,004	140	8758	0,004	140	8758		
	3,0	0,004	30	3715	0,008	64	4246	0,004	45	3715	0,008	96	4246	0,009	210	5839	0,009	210	5839		
	4,0	0,006	33	2787	0,011	70	3185	0,006	50	2787	0,011	105	3185	0,014	245	4379	0,014	245	4379		
5,0	0,008	36	2229	0,013	66	2548	0,008	54	2229	0,013	99	2548	0,019	266	3503	0,019	266	3503			
Acciaio Inox Stainless Steel	m/min	Vc = 30				Vc = 35				Vc = 30				Vc = 35				Vc = 50			
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm		
	1,0	0,001	19	9549	0,002	45	11141	0,001	29	9549	0,002	67	11141	-	-	-	-	-	-		
	2,0	0,002	19	4775	0,004	45	5570	0,002	29	4775	0,004	67	5570	0,004	127	7958	0,004	127	7958		
	3,0	0,004	26	3183	0,008	56	3714	0,004	38	3183	0,008	84	3714	0,009	191	5305	0,009	191	5305		
	4,0	0,006	29	2387	0,011	61	2785	0,006	43	2387	0,011	92	2785	0,014	223	3979	0,014	223	3979		
5,0	0,008	31	1910	0,013	58	2228	0,008	46	1910	0,013	87	2228	0,019	242	3183	0,019	242	3183			

Materiale Material	Diametro Diameter	818S				Materiale Material	Diametro Diameter	818S				Materiale Material	Diametro Diameter	818S			
																	
Acciaio <800 N/mm ² Steel <800 N/mm ²	m/min	Vc = 120				Acciaio <1300 N/mm ² Steel <1300 N/mm ²	m/min	Vc = 120				Acciaio Inox Stainless Steel	m/min	Vc = 70			
	D mm	fz mm/z	F mm/min	n rpm	D mm		fz mm/z	F mm/min	n rpm	D mm	fz mm/z		F mm/min	n rpm			
	1,0	0,011	841	38217	1,0		0,011	841	38217	1,0	0,011		490	22282			
	2,0	0,032	1223	19108	2,0		0,032	1223	19108	2,0	0,032		713	11141			
3,0	0,105	2675	12739	3,0	0,105	2675	12739	3,0	0,105	1560	7427						
Acciaio <1000 N/mm ² Steel <1000 N/mm ²	m/min	Vc = 120				Acciaio da stampi Mold Steel	m/min	Vc = 100									
	D mm	fz mm/z	F mm/min	n rpm	D mm		fz mm/z	F mm/min	n rpm								
	1,0	0,011	841	38217	1,0		0,011	701	31847								
	2,0	0,032	1223	19108	2,0		0,032	1019	15924								
3,0	0,105	2675	12739	3,0	0,105	2229	10616										

803S / 804S

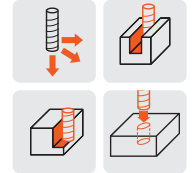
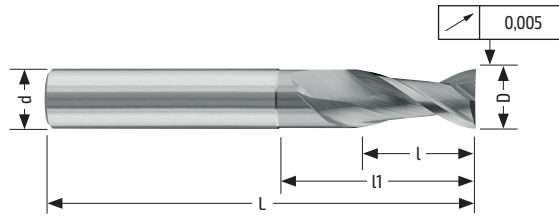
Materiale Material	Diámetro Diameter	803S / 804S															
		0,25 D			0,12 D			0,25 D			0,10 D						
Acciaio <800 N/mm ² Steel <800 N/mm ²	m/min	Vc = 130				Vc = 110				Vc = 130				Vc = 110			
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	0,5	0,022	3643	82803	0,019	2662	70064	0,023	5713	82803	0,020	4204	70064	0,020	4204	70064	
	1,0	0,029	2401	41401	0,025	1752	35032	0,030	3726	41401	0,026	2732	35032	0,026	2732	35032	
	1,5	0,033	1822	27601	0,028	1308	23355	0,035	2898	27601	0,030	2102	23355	0,030	2102	23355	
	2,0	0,055	2277	20701	0,047	1646	17516	0,058	3602	20701	0,049	2575	17516	0,049	2575	17516	
3,0	0,060	1656	13800	0,051	1191	11677	0,060	2484	13800	0,051	1787	11677	0,051	1787	11677		
Acciaio <1000 N/mm ² Steel <1000 N/mm ²	m/min	Vc = 105				Vc = 90				Vc = 105				Vc = 90			
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	0,5	0,022	2943	66879	0,019	2178	57325	0,023	4615	66879	0,020	3439	57325	0,020	3439	57325	
	1,0	0,029	1939	33439	0,025	1433	28662	0,030	3010	33439	0,026	2236	28662	0,026	2236	28662	
	1,5	0,033	1471	22293	0,028	1070	19108	0,035	2341	22293	0,030	1720	19108	0,030	1720	19108	
	2,0	0,055	1839	16720	0,047	1347	14331	0,058	2909	16720	0,049	2107	14331	0,049	2107	14331	
3,0	0,060	1338	11146	0,051	975	9554	0,060	2006	11146	0,051	1462	9554	0,051	1462	9554		
Acciaio <1300 N/mm ² Steel <1300 N/mm ²	m/min	Vc = 80				Vc = 70				Vc = 80				Vc = 70			
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	0,5	0,020	2038	50955	0,017	1516	44586	0,021	3210	50955	0,018	2408	44586	0,018	2408	44586	
	1,0	0,026	1325	25478	0,022	981	22293	0,027	2064	25478	0,023	1538	22293	0,023	1538	22293	
	1,5	0,030	1019	16985	0,026	773	14862	0,032	1631	16985	0,027	1204	14862	0,027	1204	14862	
	2,0	0,050	1274	12739	0,043	959	11146	0,053	2025	12739	0,045	1505	11146	0,045	1505	11146	
3,0	0,055	934	8493	0,047	699	7431	0,058	1478	8493	0,049	1092	7431	0,049	1092	7431		
Acciaio da stampi Mold Steel	m/min	Vc = 40				Vc = 35				Vc = 40				Vc = 35			
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	0,5	0,020	1019	25478	0,017	758	22293	0,021	1605	25478	0,018	1204	22293	0,018	1204	22293	
	1,0	0,026	662	12739	0,022	490	11146	0,027	1032	12739	0,023	769	11146	0,023	769	11146	
	1,5	0,030	510	8493	0,026	386	7431	0,032	815	8493	0,027	602	7431	0,027	602	7431	
	2,0	0,050	637	6369	0,043	479	5573	0,053	1013	6369	0,045	752	5573	0,045	752	5573	
3,0	0,055	467	4246	0,047	349	3715	0,058	739	4246	0,049	546	3715	0,049	546	3715		
Acciaio Inox Stainless Steel	m/min	Vc = 40				Vc = 35				Vc = 40				Vc = 35			
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	0,5	0,020	891	22282	0,017	649	19099	0,021	936	22282	0,018	688	19099	0,018	688	19099	
	1,0	0,026	579	11141	0,022	420	9549	0,027	602	11141	0,023	439	9549	0,023	439	9549	
	1,5	0,030	446	7427	0,026	331	6366	0,032	475	7427	0,027	344	6366	0,027	344	6366	
	2,0	0,050	557	5570	0,043	411	4775	0,053	591	5570	0,045	430	4775	0,045	430	4775	
3,0	0,055	409	3714	0,047	299	3183	0,058	431	3714	0,049	312	3183	0,049	312	3183		

Alluminio

Aluminium / Fräser für Aluminium / Fraises pour l'aluminium

810 | 810W

Fresa 2 taglienti serie normale per alluminio
 2 flute end mill for aluminium, regular version
 Fräser 2 Schneiden normale Serie für Aluminium
 Fraise à 2 dents pour alu, série normale



Alluminio Aluminium
Rame Copper
Plastiche Plastics

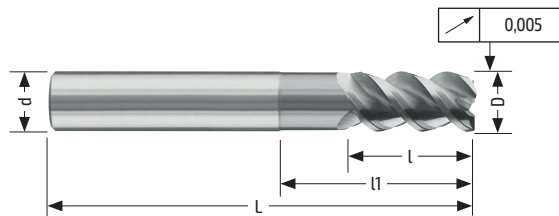
MG Co10
6527 L 6528
 λ 35°

6535 HA
6535 HB
Uncoated

90°	D	d	L	l	l1	a	Z	810	810W
	h6	h6		ap					
	2,0	3	50	6	-	-	2	810 D.2	-
	3,0	3	50	7	18	0,10	2	810 D.3	-
	4,0	4	50	8	19	0,10	2	810 D.4	-
	5,0	5	50	10	21	0,10	2	810 D.5	-
	6,0	6	57	10	21	0,15	2	810 D.6	810W D.6
	8,0	8	63	16	27	0,15	2	810 D.8	810W D.8
	10,0	10	72	19	30	0,15	2	810 D.10	810W D.10
	12,0	12	83	22	38	0,20	2	810 D.12	810W D.12
	14,0	14	83	22	38	0,20	2	810 D.14	810W D.14
	16,0	16	92	26	42	0,20	2	810 D.16	810W D.16
	20,0	20	104	32	54	0,20	2	810 D.20	810W D.20

812 | 812W

Fresa 3 taglienti serie normale per finitura di alluminio
 3 flute end mill for aluminium finishing, regular version
 Schafffräser 3 Schneiden normale Serie für die Aluminiumveredelung
 Fraise à 3 dents pour finition aluminium, série normale



Alluminio Aluminium
Rame Copper
Plastiche Plastics

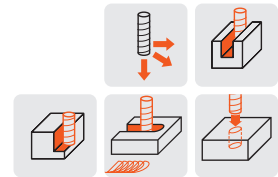
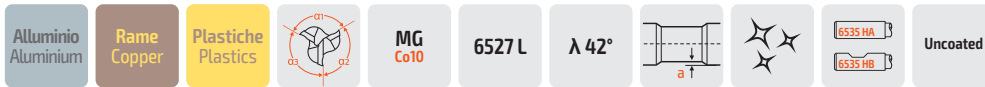
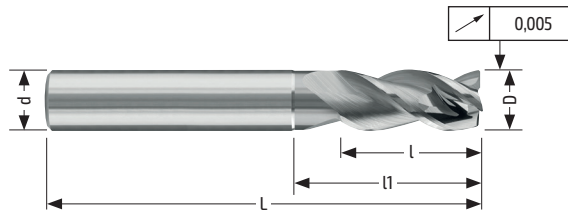
MG Co10
6527 L 6528
 λ 55°

6535 HA
6535 HB
Uncoated




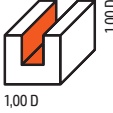
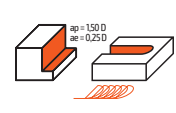
90°	D	d	L	l	l1	a	Z	812	812W
	h6	h6		ap					
	4,0	4	50	8	19	0,10	3	812 D.4	-
	5,0	5	50	10	21	0,10	3	812 D.5	-
	6,0	6	57	10	21	0,15	3	812 D.6	812W D.6
	7,0	7	60	13	24	0,15	3	812 D.7	-
	8,0	8	63	16	27	0,15	3	812 D.8	812W D.8
	9,0	9	67	16	27	0,15	3	812 D.9	-
	10,0	10	72	19	30	0,15	3	812 D.10	812W D.10
	12,0	12	83	22	38	0,20	3	812 D.12	812W D.12
	14,0	14	83	22	38	0,20	3	812 D.14	812W D.14
	16,0	16	92	26	42	0,20	3	812 D.16	812W D.16
	20,0	20	104	32	54	0,20	4	812 D.20	812W D.20

813 | 813W

Fresa a 3 taglienti serie normale
per alluminio con divisione irregolare
3 flute end mill with unequal flute spacing regular version
Schafftfräser 3 Schneiden normale Serie
für Aluminium mit unregelmäßiger Teilung
Fraise à 3 dents à pas décalé pour usinage aluminium, série normale



D h6	d h6	L	l ap	l1	a	45° +0,05/+0	Z	813	813W
3,0	6	57	8	-	-	0,05	3	813 D.3	813SW D.3
4,0	6	57	11	-	-	0,05	3	813 D.4	813SW D.4
5,0	6	57	13	-	-	0,10	3	813 D.5	813SW D.5
6,0	6	57	13	20	0,15	0,10	3	813 D.6	813SW D.6
8,0	8	63	19	25	0,15	0,15	3	813 D.8	813SW D.8
10,0	10	72	22	30	0,15	0,20	3	813 D.10	813SW D.10
12,0	12	83	26	36	0,20	0,25	3	813 D.12	813SW D.12
16,0	16	92	32	42	0,20	0,30	3	813 D.16	813SW D.16
20,0	20	104	38	52	0,20	0,35	3	813 D.20	813SW D.20

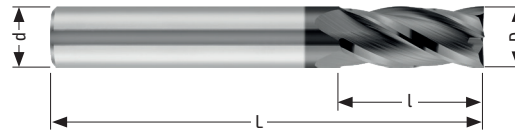
Materiale Material	Diametro Diameter	810						812			813					
																
Alluminio e Leghe < 6% Si Aluminium and alloys < 6% Si	m/min	Vc = 600				Vc = 795		Vc = 795			Vc=600			Vc=800		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm
	2,0	0,010	1910	95493	0,010	2531	126528	-	-	-	-	-	-	-	-	-
	3,0	0,014	1783	63662	0,014	2362	84352	-	-	-	0,012	2292	63662	0,012	3056	84883
	4,0	0,024	2292	47746	0,024	3037	63264	0,021	3986	63264	0,020	2865	47746	0,020	3820	63662
	5,0	0,044	3361	38197	0,044	4454	50611	0,035	5314	50611	0,035	4011	38197	0,035	5348	50930
	6,0	0,060	3820	31831	0,060	5061	42176	0,050	6326	42176	0,050	4775	31831	0,050	6366	42441
	8,0	0,086	4106	23873	0,086	5441	31632	0,073	6927	31632	0,070	5013	23873	0,070	6685	31831
	10,0	0,106	4049	16099	0,106	5365	25306	0,091	6908	25306	0,090	5157	19099	0,090	6875	25465
	12,0	0,122	3883	15915	0,122	5145	21088	0,105	6643	21088	0,105	5013	15915	0,105	6685	21221
	14,0	0,136	3711	13642	0,136	4917	18075	0,118	6399	18075	0,110	4502	13642	0,110	6002	18189
	16,0	0,148	3533	11937	0,148	4682	15816	0,128	6073	15816	0,130	4655	11937	0,130	6207	15915
	20,0	0,160	3056	9549	0,160	4049	12653	0,140	5314	12653	0,160	4584	9549	0,160	6112	12732
Alluminio e Leghe > 6% Si Aluminium and alloys > 6% Si	m/min	Vc = 225				Vc = 300		Vc = 300			Vc=600			Vc=800		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm
	2,0	0,010	716	35810	0,010	955	47746	-	-	-	-	-	-	-	-	-
	3,0	0,014	668	23873	0,014	891	31831	-	-	-	0,012	2292	63662	0,012	3056	84883
	4,0	0,024	859	17905	0,024	1146	23873	0,021	1504	23873	0,020	2865	47746	0,020	3820	63662
	5,0	0,044	1261	14324	0,044	1681	19099	0,035	2005	19099	0,035	4011	38197	0,035	5348	50930
	6,0	0,060	1432	11937	0,060	1910	15915	0,050	2387	15915	0,050	4775	31831	0,050	6366	42441
	8,0	0,086	1540	8952	0,086	2053	11937	0,073	2614	11937	0,070	5013	23873	0,070	6685	31831
	10,0	0,106	1518	7162	0,106	2024	9549	0,091	2607	9549	0,090	5157	19099	0,090	6875	25465
	12,0	0,122	1456	5968	0,122	1942	7958	0,105	2057	7958	0,105	5013	15915	0,105	6685	21221
	14,0	0,136	1391	5116	0,136	1855	6821	0,118	2415	6821	0,110	4502	13642	0,110	6002	18189
	16,0	0,148	1325	4476	0,148	1767	5968	0,128	2292	5968	0,130	4655	11937	0,130	6207	15915
	20,0	0,160	1146	3581	0,160	1528	4775	0,140	2005	4775	0,160	4584	9549	0,160	6112	12732
Rame e Leghe Copper and alloys	m/min	Vc = 375				Vc = 495		Vc = 495			Vc=350			Vc=500		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm
	2,0	0,010	1194	59683	0,010	1576	78782	-	-	-	-	-	-	-	-	-
	3,0	0,014	1114	39789	0,014	1471	52521	-	-	-	0,012	1337	37136	0,012	1910	53052
	4,0	0,024	1432	29842	0,024	1891	39391	0,021	2482	39391	0,020	1671	27852	0,020	2387	39789
	5,0	0,044	2101	23873	0,044	2773	31513	0,035	3309	31513	0,035	2340	22282	0,035	3342	31831
	6,0	0,060	2387	19894	0,060	3151	26261	0,050	3939	26261	0,050	2785	18568	0,050	3979	26526
	8,0	0,086	2566	14921	0,086	3388	19695	0,073	4313	19695	0,070	2924	13926	0,070	4178	19894
	10,0	0,106	2531	11937	0,106	3340	15756	0,091	4301	15756	0,090	3008	11141	0,090	4297	15915
	12,0	0,122	2427	9947	0,122	3204	13130	0,105	4136	13130	0,105	2924	9284	0,105	4178	13263
	14,0	0,136	2319	8526	0,136	3061	11255	0,118	3984	11255	0,110	2626	7958	0,110	3752	11368
	16,0	0,148	2208	7460	0,148	2915	9848	0,128	3782	9848	0,130	2716	6963	0,130	3879	9947
	20,0	0,160	1910	5968	0,160	2521	7878	0,140	3309	7878	0,160	2674	5570	0,160	3820	7958
Resina termoplastica Thermoplastics	m/min	Vc = 450				Vc = 595		Vc = 595			Vc=450			Vc=600		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm
	2,0	0,010	1432	71620	0,010	1894	94697	-	-	-	-	-	-	-	-	-
	3,0	0,014	1337	47746	0,014	1768	63131	-	-	-	0,012	1719	47746	0,012	2292	63662
	4,0	0,024	1719	35810	0,024	2273	47349	0,021	2983	47349	0,020	2149	35810	0,020	2865	47746
	5,0	0,044	2521	28648	0,044	3333	37879	0,035	3977	37879	0,035	3008	28648	0,035	4011	38197
	6,0	0,060	2865	23873	0,060	3788	31566	0,050	4735	31566	0,050	3581	23873	0,050	4775	31831
	8,0	0,086	3080	17905	0,086	4072	23674	0,073	5185	23674	0,070	3760	17905	0,070	5013	23873
	10,0	0,106	3037	14324	0,106	4015	18939	0,091	5170	18939	0,090	3867	14324	0,090	5157	19099
	12,0	0,122	2913	11937	0,122	3851	15783	0,105	4972	15783	0,105	3760	11937	0,105	5013	15915
	14,0	0,136	2783	10231	0,136	3680	13528	0,118	4789	13528	0,110	3376	10231	0,110	4502	13642
	16,0	0,148	2650	8952	0,148	3504	11837	0,128	4545	11837	0,130	3491	8952	0,130	4655	11937
	20,0	0,160	2292	7162	0,160	3030	9470	0,140	3977	9470	0,160	3438	7162	0,160	4584	9549

Multi Applicazioni

Multi Applications / Mehrzweck Anwendung / Fraises multi-applications

856S | 856SW

Fresa 4 taglienti serie normale
4 flute end mill regular version
Schaftfräser 4 Schneiden normale Serie
Fraise à 4 dents, série normale



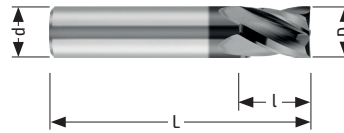
Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
MG Co10
6527 L 6528
λ 30°
Balinit® Alcrona

90°	D	d	L	l	Z	856S	856SW
	h10	h6		ap			
	2,0	4	50	7	4	856S D.2	-
	2,5	4	50	8	4	856S D.2,5	-
	3,0	4	50	8	4	856S D.3	-
	3,5	4	50	10	4	856S D.3,5	-
	4,0	4	50	11	4	856S D.4	-
	4,5	5	50	11	4	856S D.4,5	-
	5,0	5	50	13	4	856S D.5	-
	5,5	6	57	13	4	856S D.5,5	856SW D.5,5
	6,0	6	57	13	4	856S D.6	856SW D.6
	6,5	7	60	16	4	856S D.6,5	-
	7,0	7	60	16	4	856S D.7	-
	7,5	8	63	19	4	856S D.7,5	856SW D.7,5
	8,0	8	63	19	4	856S D.8	856SW D.8
	8,5	9	67	19	4	856S D.8,5	-
	9,0	9	67	19	4	856S D.9	-
	9,5	10	72	22	4	856S D.9,5	856SW D.9,5
	10,0	10	72	22	4	856S D.10	856SW D.10
	11,0	11	83	26	4	856S D.11	-
	12,0	12	83	26	4	856S D.12	856SW D.12
	13,0	13	83	26	4	856S D.13	-
	14,0	14	83	26	4	856S D.14	856SW D.14
	15,0	15	92	32	4	856S D.15	-
	16,0	16	92	32	4	856S D.16	856SW D.16
	18,0	18	92	32	4	856S D.18	856SW D.18
	20,0	20	104	38	4	856S D.20	856SW D.20

Cr	D	d	L	l	Cr	Z	856CR	856CRW
	h10	h6		ap				
	2,0	4	50	7	0,50	4	856S D.2 CR05	-
	3,0	4	50	8	0,50	4	856S D.3 CR05	-
	4,0	4	50	11	0,50	4	856S D.4 CR05	-
	5,0	5	50	13	1,00	4	856S D.5 CR10	-
	6,0	6	57	13	0,50	4	856S D.6 CR05	856SW D.6 CR05
	6,0	6	57	13	1,00	4	856S D.6 CR10	856SW D.6 CR10
	8,0	8	63	19	0,50	4	856S D.8 CR05	856SW D.8 CR05
	8,0	8	63	19	1,00	4	856S D.8 CR10	856SW D.8 CR10
	10,0	10	72	22	0,50	4	856S D.10 CR05	856SW D.10 CR05
	10,0	10	72	22	1,00	4	856S D.10 CR10	856SW D.10 CR10
	10,0	10	72	22	2,00	4	856S D.10 CR20	856SW D.10 CR20
	12,0	12	83	26	0,50	4	856S D.12 CR05	856SW D.12 CR05
	12,0	12	83	26	1,00	4	856S D.12 CR10	856SW D.12 CR10
	12,0	12	83	26	2,00	4	856S D.12 CR20	856SW D.12 CR20
	14,0	14	83	26	1,50	4	856S D.14 CR15	856SW D.14 CR15
	16,0	16	92	32	1,50	4	856S D.16 CR15	856SW D.16 CR15
	18,0	18	92	32	1,50	4	856S D.18 CR15	856SW D.18 CR15
	20,0	20	104	38	2,00	4	856S D.20 CR20	856SW D.20 CR20

829S

Fresa 4 taglienti serie extra corta
4 flute end mill extra short version
Schafffräser 4 Schneiden extra kurz
Fraise à 4 dents, série extra courte

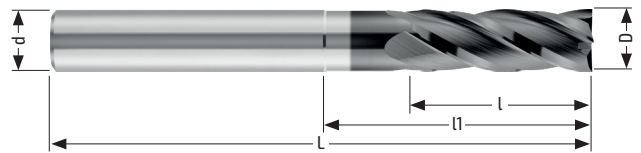


Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
MG Co10
Silmax NORM
λ 30°
6S35 HA
Balinit® Alcrona

90°	D	d	L	l	Z	829S
	h10	h6		ap		
	2,0	6	38	4	4	829S D.2
	3,0	6	38	5	4	829S D.3
	4,0	6	38	7	4	829S D.4
	5,0	6	38	8	4	829S D.5
	6,0	6	38	8	4	829S D.6
	8,0	8	43	11	4	829S D.8
	10,0	10	50	13	4	829S D.10
	12,0	12	63	14	4	829S D.12

859S | 859SW

Fresa 4 taglienti serie lunga
4 flute end mill long version
Schafffräser 4 Schneiden lange Ausführung
Fraise à 4 dents, série longue

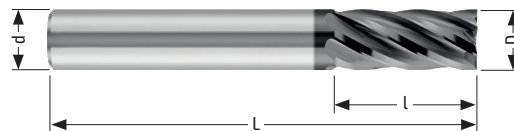


Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
MG Co10
Silmax NORM
λ 30°
6S35 HA
6S35 HB
Balinit® Alcrona

90°	D	d	L	l	l1	a	Z	859S	859SW
	h10	h6		ap					
	3,0	3	62	14	-	-	4	859S D.3	-
	4,0	4	62	16	-	-	4	859S D.4	-
	5,0	5	62	20	-	-	4	859S D.5	-
	6,0	6	78	20	30	0,15	4	859S D.6	859SW D.6
	8,0	8	78	25	35	0,15	4	859S D.8	859SW D.8
	10,0	10	105	28	48	0,15	4	859S D.10	859SW D.10
	12,0	12	105	32	52	0,20	4	859S D.12	859SW D.12
	16,0	16	130	40	60	0,20	4	859S D.16	859SW D.16

861S | 861SW

Fresa 6 taglienti serie normale
6 flute end mill regular version
Schafffräser 6 Schneiden normale Serie
Fraise à 6 dents, série normale

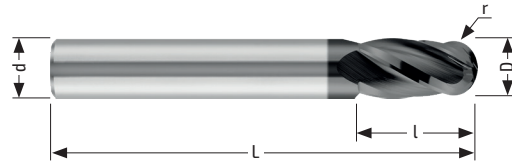


Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
MG Co10
6527 L
λ 30°
6S35 HA
6S35 HB
Balinit® Alcrona

90°	D	d	L	l	Z	861S	861SW
	h10	h6		ap			
	6,0	6	57	13	6	861S D.6	861SW D.6
	8,0	8	63	19	6	861S D.8	861SW D.8
	10,0	10	72	22	6	861S D.10	861SW D.10
	12,0	12	83	26	6	861S D.12	861SW D.12
	14,0	14	83	26	6	861S D.14	861SW D.14
	16,0	16	92	32	6	861S D.16	861SW D.16
	20,0	20	104	38	8	861S D.20	861SW D.20

866S | 866SW

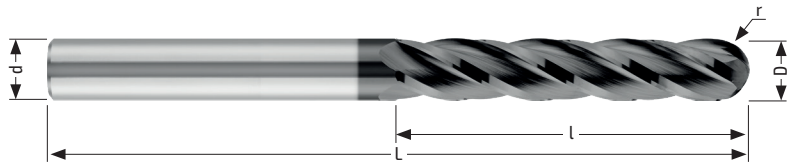
Fresa 4 taglienti semisferica serie normale
4 flute ball nose end mill regular version
Halbkugelförmiger Schaftfräser 4 Schneiden normale Serie
Fraise hémisphérique à 4 dents, série normale



D h10	d h6	L	l ap	r	Z	866S	866SW
2,0	3	38	5	1,00	4	866S D.2	-
3,0	3	38	7	1,50	4	866S D.3	-
4,0	4	50	8	2,00	4	866S D.4	-
5,0	5	50	10	2,50	4	866S D.5	-
6,0	6	57	10	3,00	4	866S D.6	866SW D.6
7,0	7	60	13	3,50	4	866S D.7	-
8,0	8	63	16	4,00	4	866S D.8	866SW D.8
9,0	9	67	16	4,50	4	866S D.9	-
10,0	10	72	19	5,00	4	866S D.10	866SW D.10
12,0	12	83	22	6,00	4	866S D.12	866SW D.12
13,0	13	83	22	6,50	4	866S D.13	-
14,0	14	83	22	7,00	4	866S D.14	866SW D.14
16,0	16	92	26	8,00	4	866S D.16	866SW D.16
18,0	18	92	26	9,00	4	866S D.18	866SW D.18
20,0	20	104	32	10,00	4	866S D.20	866SW D.20

883S | 883SW

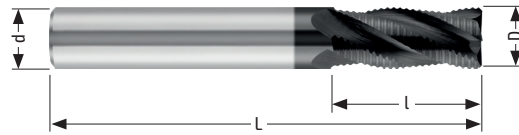
Fresa 4 taglienti semisferica serie lunga
4 flute ball nose end mill long version
Halbkugelförmiger Schaftfräser 4 Schneiden lange Ausführung
Fraise hémisphérique à 4 dents, série longue



D h10	d h6	L	l ap	r	Z	883S	883SW
6,0	6	105	42	3,00	4	883S D.6	883SW D.6
8,0	8	105	50	4,00	4	883S D.8	883SW D.8
10,0	10	120	50	5,00	4	883S D.10	883SW D.10
12,0	12	160	65	6,00	4	883S D.12	883SW D.12
16,0	16	160	70	8,00	4	883S D.16	883SW D.16

871S | 871SW

Fresa a sgrossare 4 taglienti serie normale con rompitruciolo
 4 flute roughing end mill with chip breaker regular version
 SchruffFräser mit 4 Schneiden normale Serie und Spanbrcher
 Fraise ébauche à 4 dents avec brise copeaux série normale



Acciaio
Steel

Ghisa
Cast iron

Inox
Stainless
Steel



MG
Co10

6527 L

λ 30°



Balinit®
Alcrona

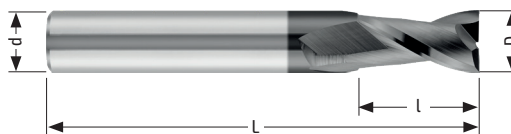


45°

D h11	d h6	L	l ap	45° +/-0,3	Z	871S	871SW
4,0	6	57	13	0,40	4	871S D.4	871SW D.4
4,5	6	57	13	0,40	4	871S D.4,5	871SW D.4,5
5,0	6	57	13	0,50	4	871S D.5	871SW D.5
5,5	6	57	13	0,50	4	871S D.5,5	871SW D.5,5
6,0	6	57	13	0,50	4	871S D.6	871SW D.6
7,0	7	60	16	0,50	4	871S D.7	-
8,0	8	63	19	0,50	4	871S D.8	871SW D.8
9,0	9	67	19	0,50	4	871S D.9	-
10,0	10	72	22	0,50	4	871S D.10	871SW D.10
11,0	11	83	26	0,50	4	871S D.11	-
12,0	12	83	26	0,50	4	871S D.12	871SW D.12
13,0	13	83	26	0,60	4	871S D.13	-
14,0	14	83	26	0,60	4	871S D.14	871SW D.14
15,0	15	92	32	0,60	4	871S D.15	-
16,0	16	92	32	0,60	4	871S D.16	871SW D.16
18,0	18	92	32	0,60	4	871S D.18	871SW D.18
20,0	20	104	38	0,60	4	871S D.20	871SW D.20

806S | 806SW

Fresa 2 taglienti serie normale
2 flute end mill regular version
Schaftfräser 2 Schneiden normale Serie
Fraise à 2 dents, série normale



90°	D	d	L	l	Z	806S	806SW
	h10	h6		ap			
	2,0	4	50	5	2	806S D.2	-
	2,5	4	50	7	2	806S D.2,5	-
	3,0	4	50	7	2	806S D.3	-
	3,5	4	50	7	2	806S D.3,5	-
	4,0	4	50	8	2	806S D.4	-
	4,5	5	50	8	2	806S D.4,5	-
	5,0	5	50	10	2	806S D.5	-
	5,5	6	57	10	2	806S D.5,5	806SW D.5,5
	6,0	6	57	10	2	806S D.6	806SW D.6
	7,0	7	60	13	2	806S D.7	-
	8,0	8	63	16	2	806S D.8	806SW D.8
	9,0	9	67	16	2	806S D.9	-
	10,0	10	72	19	2	806S D.10	806SW D.10
	11,0	11	83	22	2	806S D.11	-
	12,0	12	83	22	2	806S D.12	806SW D.12
	13,0	13	83	22	2	806S D.13	-
	14,0	14	83	22	2	806S D.14	806SW D.14
	15,0	15	92	26	2	806S D.15	-
	16,0	16	92	26	2	806S D.16	806SW D.16
	17,0	17	92	26	2	806S D.17	-
	18,0	18	92	26	2	806S D.18	806SW D.18
	19,0	19	92	26	2	806S D.19	-
	20,0	20	104	32	2	806S D.20	806SW D.20

Cr	D	d	L	l	Cr	Z	806CR	806CRW
	h10	h6		ap				
	2,0	4	50	5	0,50	2	806S D.2 CR05	-
	3,0	4	50	7	0,50	2	806S D.3 CR05	-
	4,0	4	50	8	0,50	2	806S D.4 CR05	-
	5,0	5	50	10	1,00	2	806S D.5 CR10	-
	6,0	6	57	10	0,50	2	806S D.6 CR05	806SW D.6 CR05
	6,0	6	57	10	1,00	2	806S D.6 CR10	806SW D.6 CR10
	8,0	8	63	16	0,50	2	806S D.8 CR05	806SW D.8 CR05
	8,0	8	63	16	1,00	2	806S D.8 CR10	806SW D.8 CR10
	10,0	10	72	19	0,50	2	806S D.10 CR05	806SW D.10 CR05
	10,0	10	72	19	1,00	2	806S D.10 CR10	806SW D.10 CR10
	10,0	10	72	19	2,00	2	806S D.10 CR20	806SW D.10 CR20
	12,0	12	83	22	0,50	2	806S D.12 CR05	806SW D.12 CR05
	12,0	12	83	22	1,00	2	806S D.12 CR10	806SW D.12 CR10
	12,0	12	83	22	2,00	2	806S D.12 CR20	806SW D.12 CR20
	14,0	14	83	22	1,50	2	806S D.14 CR15	806SW D.14 CR15
	16,0	16	92	26	1,50	2	806S D.16 CR15	806SW D.16 CR15
	18,0	18	92	26	1,50	2	806S D.18 CR15	806SW D.18 CR15
	20,0	20	104	32	2,00	2	806S D.20 CR20	806SW D.20 CR20

821S

Fresa 2 taglienti serie extra corta
 2 flute end mill, extra short version
 Schafffräser 2 Schneiden extra kurz
 Fraise à 2 dents, série extra courte

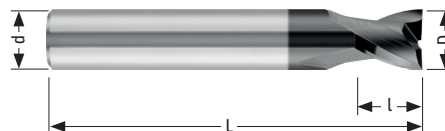


Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
MG Co10
Silmax NORM
λ 30°
6535 HA
Balinit® Alcrona

90°	D	d	L	l	Z	821S
	h10	h6		ap		
	2,0	6	38	3	2	821S D.2
	3,0	6	38	4	2	821S D.3
	4,0	6	38	5	2	821S D.4
	5,0	6	38	6	2	821S D.5
	6,0	6	38	7	2	821S D.6
	7,0	8	43	9	2	821S D.7
	8,0	8	43	9	2	821S D.8
	9,0	10	50	11	2	821S D.9
	10,0	10	50	11	2	821S D.10
	12,0	12	63	12	2	821S D.12

801S | 801SW

Fresa 2 taglienti serie corta per sedi di chiave
 2 flute key slot end mill, short version
 Schafffräser 2 Schneiden extra kurz für Passfedernuten
 Fraise à 2 dents, série courte, pour logement de clavettes

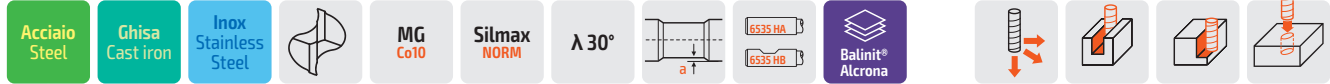
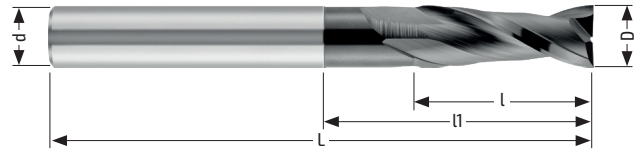


Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
MG Co10
6527 K 6528
λ 30°
6535 HA
6535 HB
Balinit® Alcrona

90°	D	d	L	l	Z	801S	801SW
	e8	h6		ap			
	2,0	6	50	3	2	801S D.2	801SW D.2
	2,5	6	50	3	2	801S D.2,5	801SW D.2,5
	3,0	6	50	4	2	801S D.3	801SW D.3
	3,5	6	50	4	2	801S D.3,5	801SW D.3,5
	4,0	6	54	5	2	801S D.4	801SW D.4
	4,5	6	54	5	2	801S D.4,5	801SW D.4,5
	5,0	6	54	6	2	801S D.5	801SW D.5
	5,5	6	54	6	2	801S D.5,5	801SW D.5,5
	6,0	6	54	7	2	801S D.6	801SW D.6
	7,0	8	58	9	2	801S D.7	801SW D.7
	8,0	8	58	9	2	801S D.8	801SW D.8
	9,0	10	66	11	2	801S D.9	801SW D.9
	10,0	10	66	11	2	801S D.10	801SW D.10
	11,0	12	73	12	2	801S D.11	801SW D.11
	12,0	12	73	12	2	801S D.12	801SW D.12
	13,0	14	75	14	2	801S D.13	801SW D.13
	14,0	14	75	14	2	801S D.14	801SW D.14
	15,0	16	82	16	2	801S D.15	801SW D.15
	16,0	16	82	16	2	801S D.16	801SW D.16
	20,0	20	92	20	2	801S D.20	801SW D.20

879S | 879SW

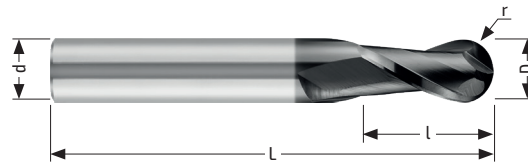
Fresa 2 taglienti serie media
2 flute end mill medium version
Schaftfräser 2 Schneiden mittlere Serie
Fraise à 2 dents, série moyenne



90°	D	d	L	l	l1	a	Z	879S	879SW
	h10	h6		ap					
	3,0	3	62	14	-	-	2	879S D.3	-
	4,0	4	62	16	-	-	2	879S D.4	-
	5,0	5	62	20	-	-	2	879S D.5	-
	6,0	6	78	20	30	0,15	2	879S D.6	879SW D.6
	8,0	8	78	25	35	0,15	2	879S D.8	879SW D.8
	10,0	10	105	28	48	0,15	2	879S D.10	879SW D.10
	12,0	12	105	32	52	0,20	2	879S D.12	879SW D.12
	16,0	16	130	40	60	0,20	2	879S D.16	879SW D.16

816S | 816SW

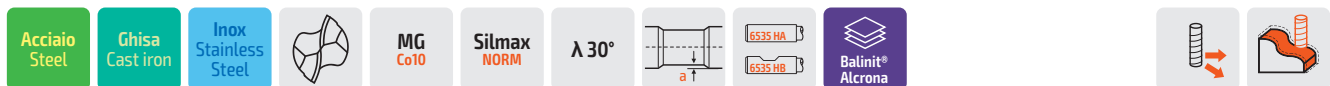
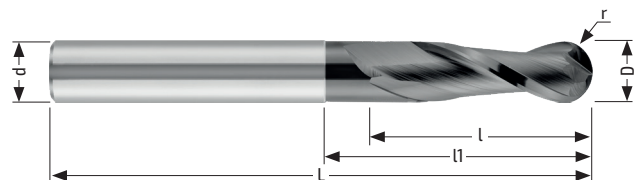
Fresa 2 taglienti semisferica serie normale
2 flute ball nose end mill, regular version
Halbkugelförmiger Schaftfräser 2 Schneiden normale Serie
Fraise hémisphérique à 2 dents, série normale



90°	D	d	L	l	r	Z	816S	816SW
	h10	h6		ap				
	4,0	4	50	8	2,0	2	816S D.4	-
	5,0	5	50	10	2,5	2	816S D.5	-
	6,0	6	57	10	3,0	2	816S D.6	816SW D.6
	8,0	8	63	16	4,0	2	816S D.8	816SW D.8
	10,0	10	72	19	5,0	2	816S D.10	816SW D.10
	12,0	12	83	22	6,0	2	816S D.12	816SW D.12
	14,0	14	83	22	7,0	2	816S D.14	816SW D.14
	16,0	16	92	26	8,0	2	816S D.16	816SW D.16
	20,0	20	104	32	10,0	2	816S D.20	816SW D.20

881S | 881SW

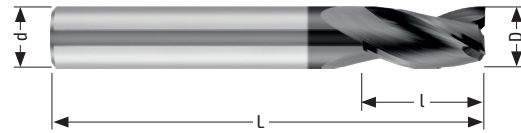
Fresa 2 taglienti serie media semisferica
2 flute ball nose end mill medium version
Halbkugelförmiger Schaftfräser 2 Schneiden mittlere Serie
Fraise hémisphérique à 2 dents, série moyenne



90°	D	d	L	l	l1	a	r	Z	881S	881SW
	h10	h6		ap						
	4,0	4	62	16	-	-	2,0	2	881S D.4	-
	5,0	5	62	20	-	-	2,5	2	881S D.5	-
	6,0	6	78	20	30	0,15	3,0	2	881S D.6	881SW D.6
	8,0	8	78	25	35	0,15	4,0	2	881S D.8	881SW D.8
	10,0	10	105	28	48	0,15	5,0	2	881S D.10	881SW D.10
	12,0	12	105	32	52	0,20	6,0	2	881S D.12	881SW D.12
	16,0	16	130	40	60	0,20	8,0	2	881S D.16	881SW D.16

836S | 836SW

Fresa 3 taglienti serie normale
 3 flute end mill regular version
 Schafffräser 3 Schneiden normale Serie
 Fraise à 3 dents, série normale

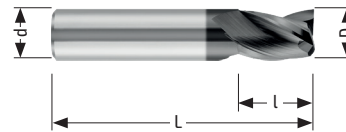


Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
MG Co10
6527 L 6528
λ 30°
6535 HA
6535 HB
Balinit® Alcrona

90°	D	d	L	l	Z	836S	836SW
	h10	h6		ap			
	2,0	4	50	5	3	836S D.2	-
	3,0	4	50	7	3	836S D.3	-
	4,0	4	50	8	3	836S D.4	-
	5,0	5	50	10	3	836S D.5	-
	6,0	6	57	10	3	836S D.6	836SW D.6
	7,0	7	60	13	3	836S D.7	-
	8,0	8	63	16	3	836S D.8	836SW D.8
	9,0	9	67	16	3	836S D.9	-
	10,0	10	72	19	3	836S D.10	836SW D.10
	11,0	11	83	22	3	836S D.11	-
	12,0	12	83	22	3	836S D.12	836SW D.12
	13,0	13	83	22	3	836S D.13	-
	14,0	14	83	22	3	836S D.14	836SW D.14
	15,0	15	92	26	3	836S D.15	-
	16,0	16	92	26	3	836S D.16	836SW D.16
	18,0	18	92	26	3	836S D.18	836SW D.18
	20,0	20	104	32	3	836S D.20	836SW D.20

826S

Fresa 3 taglienti serie extra corta
 3 flute end mill extra short version
 Schafffräser 3 Schneiden extra kurz
 Fraise à 3 dents, série extra courte

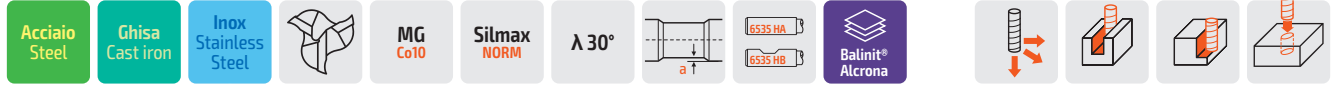
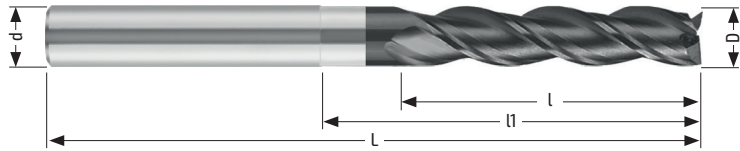


Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
MG Co10
Silmax NORM
λ 30°
6535 HA
Balinit® Alcrona

90°	D	d	L	l	Z	826S
	h10	h6		ap		
	2,0	6	38	4	3	826S D.2
	2,5	6	38	4	3	826S D.2,5
	3,0	6	38	5	3	826S D.3
	3,5	6	38	6	3	826S D.3,5
	4,0	6	38	7	3	826S D.4
	4,5	6	38	8	3	826S D.4,5
	5,0	6	38	8	3	826S D.5
	6,0	6	38	8	3	826S D.6
	7,0	8	43	11	3	826S D.7
	8,0	8	43	11	3	826S D.8
	9,0	10	50	13	3	826S D.9
	10,0	10	50	13	3	826S D.10
	12,0	12	63	14	3	826S D.12

876S | 876SW

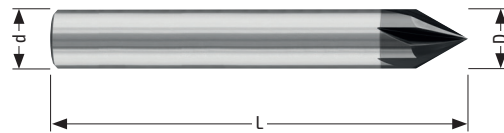
Fresa 3 taglienti serie lunga
3 flute end mill long version
Schaffträser 3 Schneiden lange Ausführung
Fraise à 3 dents, série longue



90°	D	d	L	l	l1	a	Z	876S	876SW
	h10	h6		ap					
	4,0	4	62	16	-	-	3	876S D.4	-
	5,0	5	62	20	-	-	3	876S D.5	-
	6,0	6	78	20	30	0,15	3	876S D.6	876SW D. 6
	8,0	8	78	25	35	0,15	3	876S D.8	876SW D. 8
	10,0	10	105	28	48	0,15	3	876S D.10	876SW D. 10
	12,0	12	105	32	52	0,20	3	876S D.12	876SW D. 12
	16,0	16	130	40	60	0,20	3	876S D.16	876SW D. 16

841S | 841SW

Fresa per smussi 60°
End mill for chamfer 60°
60° Fasenschneider
Fraise à chanfrein 60°

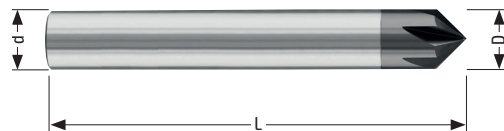


60°	D	d	L	Z	841S	841SW
	h6	h6				
	3,0	4	50	4	841S D.3	-
	4,0	4	50	4	841S D.4	-
	6,0	6	57	6	-	841SW D.6
	8,0	8	63	6	-	841SW D.8
	10,0	10	72	6	-	841SW D.10
	12,0	12	83	6	-	841SW D.12
	16,0*	16	92	6	-	841SW D.16
	20,0*	20	104	6	-	841SW D.20

(* Diametri mm 16,00 e 20,00 solo a richiesta / Diameters mm 16,00 and 20,00 only upon request
Durchmesser 16mm und 20mm nur auf Anfrage / Diamètres mm 16.00 et 20.00 uniquement sur demande.

842S | 842SW

Fresa per smussi 90°
End mill for chamfer 90°
90° Fasenschneider
Fraise à chanfrein 90°

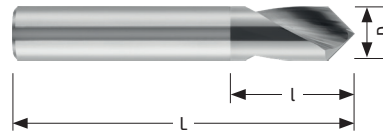


90°	D	d	L	Z	842S	842SW
	h6	h6				
	3,0	4	50	4	842S D.3	-
	4,0	4	50	4	842S D.4	-
	6,0	6	57	6	-	842SW D.6
	8,0	8	63	6	-	842SW D.8
	10,0	10	72	6	-	842SW D.10
	12,0	12	83	6	-	842SW D.12
	16,0*	16	92	6	-	842SW D.16
	20,0*	20	104	6	-	842SW D.20

(* Diametri mm 16,00 e 20,00 solo a richiesta / Diameters mm 16,00 and 20,00 only upon request
Durchmesser 16mm und 20mm nur auf Anfrage / Diamètres mm 16.00 et 20.00 uniquement sur demande.

843S

Punta a centrare
Center drill
Zentrierbohrer
Foret à centrer



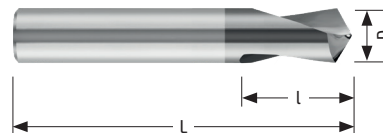
Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
MG Co10
ISO 10898
 λ 20°
Balinit® Alcrona



90°	D h6	L	l ap	Z	843S
	3,0	45	10	2	843S D.3
	4,0	50	12	2	843S D.4
	5,0	50	15	2	843S D.5
	6,0	50	18	2	843S D.6
	8,0	64	23	2	843S D.8
	10,0	67	24	2	843S D.10
	12,0	74	24	2	843S D.12
	16,0	92	32	2	843S D.16

844S

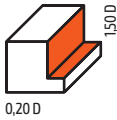
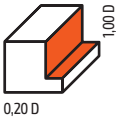

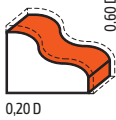
Punta a centrare
Center drill
Zentrierbohrer
Foret à centrer







Acciaio Steel
Ghisa Cast iron
Inox Stainless Steel
MG Co10
ISO 10898
 λ 20°
Balinit® Alcrona



120°	D h6	L	l ap	Z	844S
	3,0	45	10	2	844S D.3
	4,0	50	12	2	844S D.4
	5,0	50	15	2	844S D.5
	6,0	50	18	2	844S D.6
	8,0	64	23	2	844S D.8
	10,0	67	24	2	844S D.10
	12,0	74	24	2	844S D.12

Materiale Material	Diámetro Diameter	856S				829S			861S			866S		
		Vedi nota See note 										Vedi nota See note 		
Acciaio <800 N/mm² Steel <800 N/mm²	m/min	Vc = 175				Vc = 150			Vc = 175			Vc = 360		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	2,0	0,002	223	27852	0,002	191	23885	-	-	-	0,035	8021	57296	
	3,0	0,007	520	18568	0,004	255	15924	-	-	-	0,059	9015	38197	
	4,0	0,012	668	13926	0,007	334	11943	-	-	-	0,117	13407	28648	
	5,0	0,017	758	11141	0,012	459	9554	-	-	-	0,162	14851	22918	
	6,0	0,022	817	9284	0,016	510	7962	0,022	1225	9284	0,198	15126	19099	
	8,0	0,029	808	6963	0,020	478	5971	0,029	1212	6963	0,256	14668	14324	
	10,0	0,035	780	5570	0,025	478	4777	0,035	1170	5570	0,300	13751	11459	
	12,0	0,039	724	4642	-	-	-	0,039	1086	4642	0,337	12872	9549	
	14,0	0,043	684	3979	-	-	-	0,043	1027	3979	0,367	12016	8185	
	16,0	0,047	655	3482	-	-	-	0,047	1309	3482	0,394	11287	7162	
20,0	0,052	579	2785	-	-	-	0,052	1159	2785	0,420	9626	5730		
Acciaio <1000 N/mm² - Ghisa Steel <1000 N/mm² - Cast iron	m/min	Vc = 145				Vc = 125			Vc = 145			Vc = 295		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	2,0	0,002	185	23077	0,002	159	19904	-	-	-	0,035	6573	46951	
	3,0	0,007	431	15385	0,004	212	13270	-	-	-	0,059	7387	31300	
	4,0	0,012	554	11539	0,007	279	9952	-	-	-	0,117	10986	23475	
	5,0	0,017	628	9231	0,012	382	7962	-	-	-	0,162	12170	18780	
	6,0	0,022	677	7692	0,016	425	6635	0,022	1015	7692	0,198	12395	15650	
	8,0	0,029	669	5769	0,02	398	4976	0,029	1004	5769	0,256	12019	11738	
	10,0	0,035	646	4615	0,025	398	3981	0,035	969	4615	0,300	11268	9390	
	12,0	0,039	600	3846	-	-	-	0,039	900	3846	0,337	10548	7825	
	14,0	0,043	567	3297	-	-	-	0,043	851	3297	0,367	9846	6707	
	16,0	0,047	542	2885	-	-	-	0,047	1085	2885	0,394	9249	5869	
20,0	0,052	480	2308	-	-	-	0,052	960	2308	0,420	7888	4695		
Acciaio <1300 N/mm² Steel <1300 N/mm²	m/min	Vc = 110				Vc = 90			Vc = 110			Vc = 225		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	2,0	0,002	140	17507	0,002	115	14331	-	-	-	0,035	5013	35810	
	3,0	0,007	327	11671	0,004	153	9554	-	-	-	0,059	5634	23873	
	4,0	0,012	420	8754	0,007	201	7166	-	-	-	0,117	8380	17905	
	5,0	0,017	476	7003	0,012	275	5732	-	-	-	0,162	9282	14324	
	6,0	0,022	514	5836	0,016	306	4777	0,022	770	5836	0,198	9454	11937	
	8,0	0,029	508	4377	0,02	287	3583	0,029	762	4377	0,256	9167	8952	
	10,0	0,035	490	3501	0,025	287	2866	0,035	735	3501	0,300	8594	7162	
	12,0	0,039	455	2918	-	-	-	0,039	683	2918	0,337	8045	5968	
	14,0	0,043	430	2501	-	-	-	0,043	645	2501	0,367	7510	5116	
	16,0	0,047	411	2188	-	-	-	0,047	823	2188	0,394	7055	4476	
20,0	0,052	364	1751	-	-	-	0,052	728	1751	0,420	6016	3581		
Acciai altolegati High alloyed tool steel	m/min	Vc = 55				Vc = 40			Vc = 55			Vc = 115		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	2,0	0,002	70	8754	0,002	51	6369	-	-	-	0,035	2562	18303	
	3,0	0,007	163	5836	0,004	68	4246	-	-	-	0,059	2880	12202	
	4,0	0,012	210	4377	0,007	89	3185	-	-	-	0,117	4283	9151	
	5,0	0,017	238	3501	0,012	122	2548	-	-	-	0,162	4744	7321	
	6,0	0,022	257	2918	0,016	136	2123	0,022	385	2918	0,198	4832	6101	
	8,0	0,029	254	2188	0,02	127	1592	0,029	381	2188	0,256	4686	4576	
	10,0	0,035	245	1751	0,025	127	1274	0,035	368	1751	0,300	4393	3661	
	12,0	0,039	228	1459	-	-	-	0,039	341	1459	0,337	4112	3050	
	14,0	0,043	215	1251	-	-	-	0,043	323	1251	0,367	3838	2615	
	16,0	0,047	206	1094	-	-	-	0,047	411	1094	0,394	3606	2288	
20,0	0,052	182	875	-	-	-	0,052	364	875	0,420	3075	1830		
Acciaio Inox Stainless Steel	m/min	Vc = 45				Vc = 45			Vc = 45			Vc = 75		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	2,0	0,002	57	7162	0,002	57	7166	-	-	-	0,035	1671	11937	
	3,0	0,007	134	4775	0,004	76	4777	-	-	-	0,059	1878	7958	
	4,0	0,012	172	3581	0,007	100	3583	-	-	-	0,117	2793	5968	
	5,0	0,017	195	2865	0,012	138	2866	-	-	-	0,162	3094	4775	
	6,0	0,022	210	2387	0,016	153	2389	0,022	315	2387	0,198	3151	3979	
	8,0	0,029	208	1790	0,02	143	1791	0,029	312	1790	0,256	3056	2984	
	10,0	0,035	201	1432	0,025	143	1433	0,035	301	1432	0,300	2865	2387	
	12,0	0,039	186	1194	-	-	-	0,039	279	1194	0,337	2682	1989	
	14,0	0,043	176	1023	-	-	-	0,043	264	1023	0,367	3503	1705	
	16,0	0,047	168	895	-	-	-	0,047	337	895	0,394	2352	1492	
20,0	0,052	149	716	-	-	-	0,052	298	716	0,420	2005	1194		

Serie lunga: -15% rispetto ai parametri di lavoro del corrispettivo utensile serie normale. / Long series: 15% less than the working parameters of the corresponding tool standard series.
Lange Serie: -15% gegenüber den Arbeitsparametern des entsprechenden normalen Serienwerkzeugs. / Série longue: -15% par rapport aux paramètres de travail de l'outil correspondant de la série normale.

Materiale Material	Diametro Diameter	871S				806S			821S			801S		
						Vedi nota See note 								
Acciaio <800 N/mm ² Steel <800 N/mm ²	m/min	Vc = 140				Vc = 120			Vc = 120			Vc = 120		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	2,0	-	-	-	0,002	76	19099	0,002	76	19108	0,002	76	19108	
	3,0	-	-	-	0,003	76	12732	0,004	102	12739	0,004	102	12739	
	4,0	0,018	802	11414	0,004	76	9549	0,009	172	9554	0,009	172	9554	
	5,0	0,020	713	8913	0,007	107	7639	0,014	214	7643	0,014	214	7643	
	6,0	0,028	832	7427	0,009	115	6366	0,018	229	6369	0,018	229	6369	
	8,0	0,039	869	5570	0,016	153	4775	0,023	220	4777	0,023	220	4777	
	10,0	0,048	856	4456	0,022	168	3820	0,028	214	3822	0,028	214	3822	
	12,0	0,055	817	3714	0,026	166	3183	-	-	-	0,032	204	3185	
	14,0	0,061	777	3183	0,030	164	2728	-	-	-	0,034	186	2730	
16,0	0,067	746	2785	0,033	158	2387	-	-	-	0,038	182	2389		
20,0	0,076	677	2228	0,039	149	1910	-	-	-	0,042	161	1911		
Acciaio <1000 N/mm ² - Ghisa Steel <1000 N/mm ² - Cast iron	m/min	Vc = 115				Vc = 100			Vc = 100			Vc = 100		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	2,0	-	-	-	0,002	64	15915	0,002	64	15924	0,002	64	15924	
	3,0	-	-	-	0,003	64	10610	0,004	85	10616	0,004	85	10616	
	4,0	0,018	659	9151	0,004	64	7958	0,009	143	7962	0,009	143	7962	
	5,0	0,02	586	7321	0,007	89	6366	0,014	178	6369	0,014	178	6369	
	6,0	0,028	683	6101	0,009	95	5305	0,018	191	5308	0,018	191	5308	
	8,0	0,039	714	4576	0,016	127	3979	0,023	183	3981	0,023	183	3981	
	10,0	0,048	703	3661	0,022	140	3183	0,028	178	3185	0,028	178	3185	
	12,0	0,055	671	3050	0,026	138	2653	-	-	-	0,032	170	2654	
	14,0	0,061	638	2615	0,030	136	2274	-	-	-	0,034	155	2275	
16,0	0,067	613	2288	0,033	131	1989	-	-	-	0,038	151	1990		
20,0	0,076	556	1830	0,039	124	1592	-	-	-	0,042	134	1592		
Acciaio <1300 N/mm ² Steel <1300 N/mm ²	m/min	Vc = 90				Vc = 75			Vc = 75			Vc = 75		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	2,0	-	-	-	0,002	48	11937	0,002	48	11943	0,002	48	11943	
	3,0	-	-	-	0,003	48	7958	0,004	64	7962	0,004	64	7962	
	4,0	0,018	516	7162	0,004	48	5968	0,009	107	5971	0,009	107	5971	
	5,0	0,02	458	5730	0,007	67	4775	0,014	134	4777	0,014	134	4777	
	6,0	0,028	535	4775	0,009	72	3979	0,018	143	3981	0,018	143	3981	
	8,0	0,039	559	3581	0,016	95	2984	0,023	137	2986	0,023	137	2986	
	10,0	0,048	550	2865	0,022	105	2387	0,028	134	2389	0,028	134	2389	
	12,0	0,055	525	2387	0,026	103	1989	-	-	-	0,032	127	1990	
	14,0	0,061	499	2046	0,030	102	1705	-	-	-	0,034	116	1706	
16,0	0,067	480	1790	0,033	98	1492	-	-	-	0,038	113	1493		
20,0	0,076	435	1432	0,039	93	1194	-	-	-	0,042	100	1194		
Acciai alloyati High alloyed tool steel	m/min	Vc = 45				Vc = 40			Vc = 40			Vc = 40		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	2,0	-	-	-	0,002	25	6366	0,002	25	6369	0,002	25	6369	
	3,0	-	-	-	0,003	25	4244	0,004	34	4246	0,004	34	4246	
	4,0	0,018	258	3581	0,004	25	3183	0,009	57	3185	0,009	57	3185	
	5,0	0,02	229	2865	0,007	36	2546	0,014	71	2548	0,014	71	2548	
	6,0	0,028	267	2387	0,009	38	2122	0,018	76	2123	0,018	76	2123	
	8,0	0,039	279	1790	0,016	51	1592	0,023	73	1592	0,023	73	1592	
	10,0	0,048	275	1432	0,022	56	1273	0,028	71	1274	0,028	71	1274	
	12,0	0,055	263	1194	0,026	55	1061	-	-	-	0,032	68	1062	
	14,0	0,061	250	1023	0,030	55	909	-	-	-	0,034	62	910	
16,0	0,067	240	895	0,033	53	796	-	-	-	0,038	61	796		
20,0	0,076	218	716	0,039	50	637	-	-	-	0,042	54	637		
Acciaio Inox Stainless Steel	m/min	Vc = 40				Vc = 40			Vc = 40			Vc = 40		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	
	2,0	-	-	-	0,002	22	5570	0,002	25	6369	0,002	25	6369	
	3,0	-	-	-	0,003	22	3714	0,004	34	4246	0,004	34	4246	
	4,0	0,018	229	3183	0,004	22	2785	0,009	57	3185	0,009	57	3185	
	5,0	0,02	204	2546	0,007	31	2228	0,014	71	2548	0,014	71	2548	
	6,0	0,028	238	2122	0,009	33	1857	0,018	76	2123	0,018	76	2123	
	8,0	0,039	248	1592	0,016	45	1393	0,023	73	1592	0,023	73	1592	
	10,0	0,048	244	1273	0,022	49	1114	0,028	71	1274	0,028	71	1274	
	12,0	0,055	233	1061	0,026	48	928	-	-	-	0,032	68	1062	
	14,0	0,061	222	909	0,030	48	796	-	-	-	0,034	62	910	
16,0	0,067	213	796	0,033	46	696	-	-	-	0,038	61	796		
20,0	0,076	194	637	0,039	43	557	-	-	-	0,042	54	637		









Serie lunga: -15% rispetto ai parametri di lavoro del corrispettivo utensile serie normale. / Long series: 15% less than the working parameters of the corresponding tool standard series.
 Lange Serie: -15% gegenüber den Arbeitsparametern des entsprechenden normalen Serienwerkzeugs. / Série longue: -15% par rapport aux paramètres de travail de l'outil correspondant de la série normale.

Legenda

Legend / Legende / Légende









Numero di taglienti

Number of flutes / Anzahl Schneidkanten / Nombre des dents

	2 Taglienti 2 Flutes / 2 Schneiden / 2 Dents		4 Taglienti 4 Flutes / 4 Schneiden / 4 Dents
	3 Taglienti 3 Flutes / 3 Schneiden / 3 Dents		4 Taglienti 4 Flutes / 4 Schneiden / 4 Dents
	3 Taglienti con elica differenziata 3 Flutes with unequal helix / 3 Schneiden mit differenziertem Drallwinkel / 3 dents avec hélice variable		4 Taglienti con elica differenziata 4 Flutes with unequal helix / 4 Schneiden mit differenziertem Drallwinkel / 4 dents avec hélice variable
	4 Taglienti 4 Flutes / 4 Schneiden / 4 Dents		6 Taglienti 6 Flutes / 6 Schneiden / 6 Dents




Tipologia di lavorazione e direzione di avanzamento

Type of machining and feed direction / Art der Verarbeitung und Vorschubrichtung
Type d'usinage et sens de l'avance

	Direzione di avanzamento Feed direction / Vorschubrichtung / Sens de l'avance		Fresatura in rampa Ramp milling / Rampenfräsen / Ramping
	Fresatura di cava Slotting / Nutenfräsen / Rainurage		Copiatura 3D 3D Copy milling / 3D-Kopieren / Copiage 3D
	Fresatura laterale e frontale Side and face milling / Seiten- und Stirnfräsen Contournage		Smussatura Chamfering / Fasen / Chanfreinage
	Fresatura trocoidale Trochoidal milling / Trochoidales Fräsen / Fraisage Trochoidal		Interpolazione elicoidale Helical interpolation / Helikale Interpolation Interpolation hélicoïdale

Attacchi

Holder / Aufnahme / Raccords

	Attacchi 6535 HA + 6535 HB 6535 HA + 6535 HB holders / Aufnahme 6535 HA + 6535 HB Raccords 6535 HA + 6535 HB		Attacco 6535 HB 6535 HB holder / Aufnahme 6535 HB / Raccord 6535 HB
	Attacco 6535 HA 6535 HA holder / Aufnahme 6535 HA / Raccord 6535 HA		



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
Norme

Norms / Normen / Normes

6527 L 6528	Norma 6527 L 6528 6527 L 6528 Norm / Norm 6527 L 6528 / Norme 6527 L 6528	6527 K 6528	Norma 6527 K 6528 6527 K 6528 Norm / Norma 6527 K 6528 / Norme 6527 K 6528
6527 L	Norma 6527 L 6527 L Norm / Norm 6527 L / Norme 6527 L	Silmax NORM	Norma Silmax Silmax Norm / Silmax Norm / Silmax norme



Geometria frontale

Profile geometry / Frontgeometrie / Affûtage en bout

45°	Geometria frontale 45° 45° Profile geometry / 45° Frontgeometrie Affûtage en bout 45°	60°	Geometria frontale 60° 60° Profile geometry / 60° Frontgeometrie Affûtage en bout 60°
90°	Geometria frontale 90° 90° Profile geometry / 90° Frontgeometrie Affûtage en bout 90°	90°	Geometria frontale 90° 90° Profile geometry / 90° Frontgeometrie Affûtage en bout 90°
Cr	Geom. front. corner radius Corner radius prof. geom. / Geom. Vorderseite. Eckenradius Affûtage en bout avec rayon		Geometria frontale semisferica Ball nose profile geometry / Halbkugelförmige Frontgeometrie / Affûtage en bout hémisphérique
λ 38° λ 40°	Angolo elica Helix angle / Helixwinkel / Angle de l'hélice		Ribassamento dopo il tagliente Neck relief / Freischliff nach der Schneide Dégagement

Materiali, rivestimenti e trattamenti

Materials, coatings and treatments / Materialien, Beschichtungen und Behandlungen Matériaux, revêtements et traitements

MG Co10	Qualità metallo duro Hard metal quality / Hartmetallqualität / Qualité du carbure		Rivestimento Balinit® Alcrona Balinit® Alcrona coating / Balinit® Alcrona-Beschichtung Revêtements Balinit® Alcrona
	Superfinitura Superfinishing / Super-Finish / Superfinition	Uncoated	Non rivestito Uncoated / Nicht beschichtet / Sans revêtement

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