



maringer

Spezialwerkzeuge und Schleiftechnik

SILSAVING

SOLID CARBIDE END MILLS

BY SILMAX

MgCo10
6527L 6528



2024

	Code	Ø (D mm)	Z	Stahl Guss Edelstahl	Stahl Edelstahl Titan	Aluminium Kupfer Kunststoff
Hochleistung / High Performance						
	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	—	●	—
Mikrofräser / Micro Tools						
	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	●	—	—
Fräser für Aluminium / Aluminium						
	810 810W	2,0 ÷ 20,0	2	—	—	●
	812 812W	4,0 ÷ 20,0	3/4	—	—	●
	813 813W	3,0 ÷ 20,0	3	—	—	●

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SILSAVING

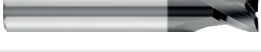
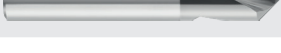
SOLID CARBIDE END MILLS **BY SILMAX**

→ 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 Tieffräser (803S und 804S) und der Mehrzweckfräser in verschiedenen Durchmessern (871S Spanbrecher, 836S, 801S für Paßfedernuten) stets hohe Qualität.

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

→ 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.

	Code	Ø (D mm)	Z	Stahl Guss Edelstahl	Stahl Edelstahl Titan	Aluminium Kupfer Kunststoff
Multi Anwendung / 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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	—	—	●	—	—	—	—	—	23
	—	—	●	—	—	—	—	—	23
	—	●	—	—	—	—	—	—	24
	●	●	—	—	●	—	—	—	25
	●	●	—	—	●	—	—	—	25
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	●	●	—	—	●	—	—	—	28
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	●	●	—	—	●	—	—	—	29
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	—	—	—	—	●	—	—	—	30

Hochleistung / High Performance

- 6 Produktbereich / Products
- 10 Arbeitsparameter / Working parameters

Mikrofräser / Micro Tools

- 13 Produktbereich / Products
- 16 Arbeitsparameter / Working parameters

Fräser für Aluminium / Aluminium

- 18 Produktbereich / Products
- 20 Arbeitsparameter / Working parameters

Mehrzweck Anwendung / Multi Applications

- 21 Produktbereich / Products
- 31 Arbeitsparameter / Working parameters

34 Legende / Legend

 Stahl / Steel

 Gusseisen / Cast Iron

 Edelstahl / Inox

 Titan / Titane

 Aluminium / Aluminium

 Kupfer / Copper

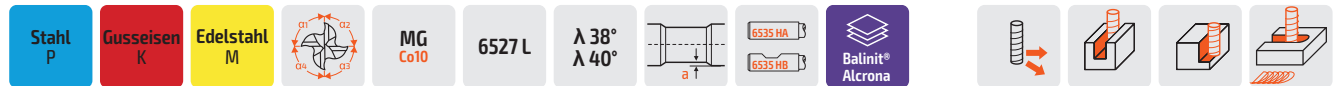
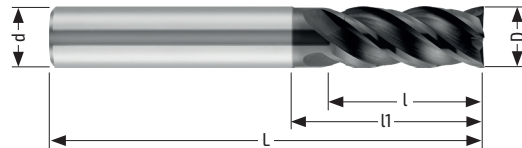
 Thermoplaste / Thermoplastics

Hochleistung / High Performance

895S | 895SW

Schaftfräser 4-Schneider normale Serie mit ungleichem Drall und unregelmäßiger Teilung

4 flute end mill regular version with variable helix and unequal flute spacing

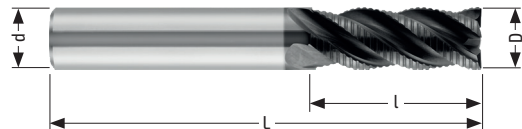


45°	D h10	d h6	L	l ap	l1	a	45° +0,05/+0	Z	895S	€/Stück	895SW	€/Stück
	3,0	6	57	8	-	-	0,05	4	140462	25,35	140469	25,35
	4,0	6	57	11	16	0,10	0,05	4	140463	25,35	140470	25,35
	5,0	6	57	13	18	0,10	0,05	4	139538	25,35	140471	25,35
	6,0	6	57	13	20	0,15	0,05	4	140464	23,66	140472	23,66
	8,0	8	63	19	25	0,15	0,05	4	139179	31,95	138559	31,95
	10,0	10	72	22	30	0,15	0,05	4	134943	45,86	138560	45,86
	12,0	12	83	26	36	0,20	0,05	4	139180	61,62	138561	61,62
	14,0	14	83	26	36	0,20	0,05	4	140465	81,08	139177	81,08
	16,0	16	92	32	42	0,20	0,05	4	140466	99,85	138562	99,85
	18,0	18	92	32	42	0,20	0,05	4	140467	130,09	140473	130,09
	20,0	20	104	38	52	0,20	0,05	4	140468	173,93	137840	173,93

897S | 897SW

Schrupfräser mit 4 Schneiden und unregelmäßiger Teilung normale Serie

4 flute roughing end mill with unequal flute spacing regular version

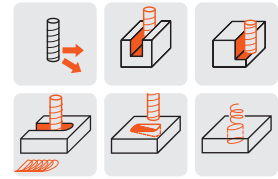
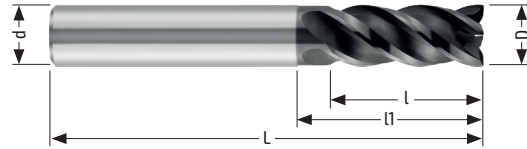


45°	D h11	d h6	L	l ap	45° +/-0,3	Z	897S	€/Stück	897SW	€/Stück
	4,0	6	57	13	0,40	4	140474	36,28	140480	36,28
	5,0	6	57	13	0,50	4	139539	36,28	140481	36,28
	6,0	6	57	13	0,50	4	140475	36,28	139667	36,28
	8,0	8	63	19	0,50	4	140476	46,25	139030	46,25
	10,0	10	72	22	0,50	4	140477	58,86	140482	58,86
	12,0	12	83	26	0,50	4	140478	74,35	139675	74,35
	16,0	16	92	32	0,60	4	140479	128,17	139061	128,17

893S | 893SW

Universalschneider mit 4 Schneiden mit unregelmäßiger Teilung geeignet zum Rampenfräsen

4 flute multi-purpose end mill with unequal flute spacing suitable for ramp milling

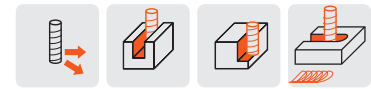
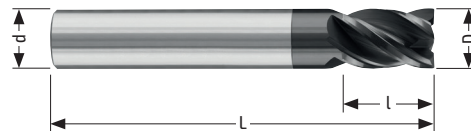


45°	D h10	d h6	L	l ap	l1	a	45° +0,05/+0	Z	893S	€/Stück	893SW	€/Stück
	4,0	6	57	11	15	0,15	0,20	4	140408	25,83	140416	25,83
	5,0	6	57	13	18	0,15	0,20	4	140409	25,83	140417	25,83
	6,0	6	57	13	20	0,15	0,25	4	140410	25,83	140418	25,83
	8,0	8	63	19	25	0,15	0,30	4	140411	34,71	140419	34,71
	10,0	10	72	22	30	0,15	0,35	4	140412	49,73	140420	49,73
	12,0	12	83	26	36	0,20	0,40	4	140413	66,79	140421	66,79
	16,0	16	92	32	42	0,20	0,45	4	140414	108,59	140422	108,59
	20,0	20	104	38	52	0,20	0,50	4	140415	188,47	140423	188,47

892SK | 892SKW

4 Schneider Kurzserie mit unregelmäßiger Teilung

4 flute end mill short version with unequal flute spacing

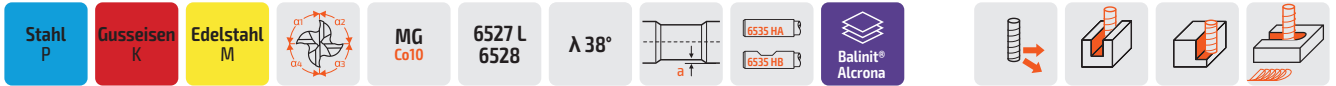
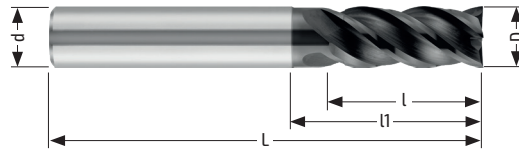


45°	D h10	d h6	L	l ap	45° +0,05/+0	Z	892SK	€/Stück	892SKW	€/Stück
	3,0	6	54	6	0,05	4	140311	27,39	140322	27,39
	4,0	6	54	8	0,10	4	140312	27,39	140323	27,39
	5,0	6	54	9	0,10	4	140313	27,39	140324	27,39
	6,0	6	54	10	0,10	4	140314	25,23	140325	25,23
	8,0	8	57	12	0,15	4	140315	31,11	140326	31,11
	10,0	10	66	14	0,15	4	140316	40,72	140327	40,72
	12,0	12	73	16	0,15	4	140317	52,73	140328	52,73
	14,0	14	75	18	0,15	4	140318	64,98	140329	64,98
	16,0	16	82	22	0,20	4	140319	86,85	140330	86,85
	18,0	18	84	24	0,20	4	140320	106,43	140331	106,43
	20,0	20	92	26	0,20	4	140321	133,21	140332	133,21

90°	D	d	L	l	Z	892SKX 		892SKXW 		
	h10	h6		ap			€/Stück		€/Stück	
	3,0	6	54	6	-	4	140333	27,39	140344	27,39
	4,0	6	54	8	-	4	140334	27,39	140345	27,39
	5,0	6	54	9	-	4	140335	27,39	140346	27,39
	6,0	6	54	10	-	4	140336	25,23	140347	25,23
	8,0	8	57	12	-	4	140337	31,11	140348	31,11
	10,0	10	66	14	-	4	140338	40,72	140349	40,72
	12,0	12	73	16	-	4	140339	52,73	140350	52,73
	14,0	14	75	18	-	4	140340	64,98	140351	64,98
	16,0	16	82	22	-	4	140341	86,85	140352	86,85
	18,0	18	84	24	-	4	140342	106,43	140353	106,43
20,0	20	92	26	-	4	140343	133,21	140354	133,21	

892S | 892SW

4 Schneider Schafffräser Normalserie mit unregelmäßiger Teilung
4 flute end mill regular version with unequal flute spacing

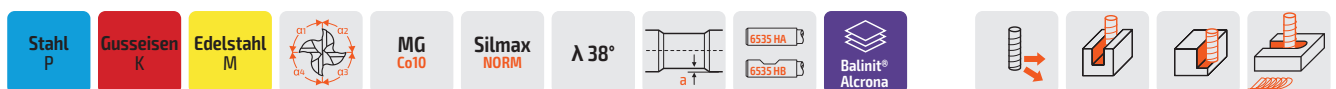
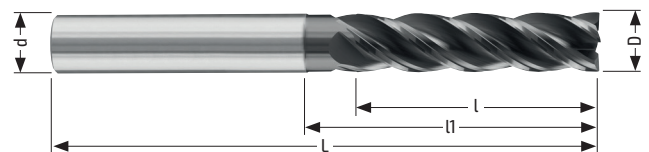


45°	D h10	d h6	L	l ap	l1	a	45° +0,05/+0	Z	892S	€/Stück	892SW	€/Stück
	3,0	3	38	8	-	-	-	4	140297	20,78	140369	20,78
	3,0	6	57	8	11	0,10	0,05	4	140298	25,35	140370	25,35
	4,0	4	50	11	16	0,10	0,10	4	140299	20,78	140371	20,78
	4,0	6	57	11	16	0,10	0,10	4	140300	25,35	140372	25,35
	5,0	5	50	13	18	0,10	0,10	4	140301	20,78	140373	20,78
	5,0	6	57	13	18	0,10	0,10	4	140302	25,35	140374	25,35
	6,0	6	57	13	20	0,15	0,10	4	140303	22,34	140375	22,34
	8,0	8	63	19	25	0,15	0,15	4	140304	30,15	140376	30,15
	10,0	10	72	22	30	0,15	0,15	4	140305	43,36	140377	43,36
	12,0	12	83	26	36	0,20	0,15	4	140306	58,02	140378	58,02
	14,0	14	83	26	36	0,20	0,15	4	140307	76,64	140379	76,64
	16,0	16	92	32	42	0,20	0,20	4	140308	94,29	140380	94,29
	18,0	18	92	32	42	0,20	0,20	4	140309	122,52	140381	122,52
	20,0	20	104	38	52	0,20	0,20	4	140310	163,84	140382	163,84

90°	D h10	d h6	L	l ap	l1	a		Z	892SX	€/Stück	892SXW	€/Stück
	3,0	3	38	8	-	-	-	4	140383	20,78	-	-
	3,0	6	57	8	11	0,10	-	4	140394	25,35	140405	25,35
	4,0	4	50	11	16	0,10	-	4	140384	20,78	-	-
	4,0	6	57	11	16	0,10	-	4	140395	25,35	140406	25,35
	5,0	5	50	13	18	0,10	-	4	140385	20,78	-	-
	5,0	6	57	13	18	0,10	-	4	140396	25,35	140407	25,35
	6,0	6	57	13	20	0,15	-	4	140386	22,34	140397	22,34
	8,0	8	63	19	25	0,15	-	4	140387	30,15	140398	30,15
	10,0	10	72	22	30	0,15	-	4	140388	43,36	140399	43,36
	12,0	12	83	26	36	0,20	-	4	140389	58,02	140400	58,02
	14,0	14	83	26	36	0,20	-	4	140390	76,64	140401	76,64
	16,0	16	92	32	42	0,20	-	4	140391	94,29	140402	94,29
	18,0	18	92	32	42	0,20	-	4	140392	122,52	140403	122,52
	20,0	20	104	38	52	0,20	-	4	140393	163,84	140404	163,84

892SL | 892SLW

4 Schneider Lange Ausführung mit unregelmäßiger Teilung
4 flute end mill long version with unequal flute spacing

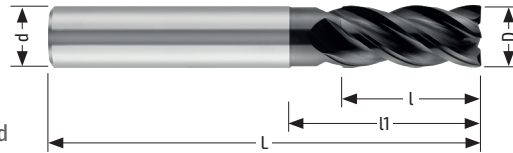


45°	D h10	d h6	L	l ap	l1	a	45° +0,05/+0	Z	892SL	€/Stück	892SLW	€/Stück
	5,0	6	74	20	25	0,10	0,10	4	140355	43,48	140362	43,48
	6,0	6	74	24	30	0,15	0,10	4	140356	38,92	140363	38,92
	8,0	8	80	32	40	0,15	0,15	4	140357	47,33	140364	47,33
	10,0	10	87	40	46	0,15	0,15	4	140358	63,42	140365	63,42
	12,0	12	105	48	58	0,20	0,15	4	140359	89,25	140366	89,25
	14,0	14	105	48	58	0,20	0,15	4	140360	109,19	140367	109,19
	16,0	16	125	64	68	0,20	0,20	4	140361	144,38	140368	144,38
	20,0	20	160	70	80	0,20	0,20	4	138730	244,92	138563	244,92

894S | 894SW

4 Schneider Normalserie mit unregelmäßiger Teilung für Edelstahl und Weichstähle

4 flute end mill regular version with unequal flute spacing for stainless steel and mild steel

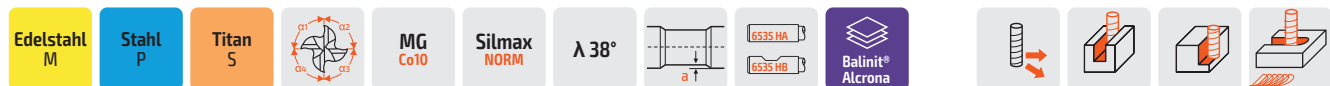
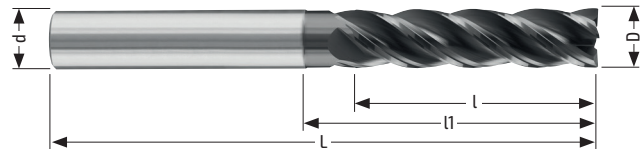


45°	D h10	d h6	L	l ap	l1	a	45° +0,05/+0	Z	894S	€/Stück	894SW	€/Stück
	3,0	6	57	8	11	0,10	0,10	4	140424	30,27	140451	30,27
	4,0	6	57	11	16	0,10	0,10	4	140425	30,27	140452	30,27
	5,0	6	57	13	18	0,10	0,10	4	140426	30,27	140453	30,27
	6,0	6	57	13	20	0,15	0,10	4	140427	28,35	140454	28,35
	8,0	8	63	19	25	0,15	0,15	4	140428	36,04	140455	36,04
	10,0	10	72	22	30	0,15	0,15	4	140429	47,45	140456	47,45
	12,0	12	83	26	36	0,20	0,15	4	140430	65,71	140457	65,71
	14,0	14	83	26	36	0,20	0,15	4	140431	82,52	140458	82,52
	16,0	16	92	32	42	0,20	0,20	4	140432	107,15	140459	107,15
	18,0	18	92	32	42	0,20	0,20	4	140433	132,61	140460	132,61
	20,0	20	104	38	52	0,20	0,20	4	140434	152,31	140461	152,31

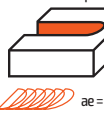
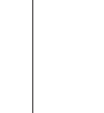
894SL | 894SLW

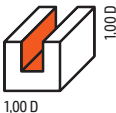
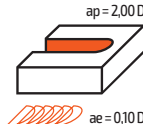
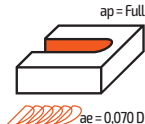
4 Schneider Lange Ausführung mit unregelmäßiger Teilung für Edelstahl und Weichstähle

4 flute end mill long version with unequal flute spacing for stainless steel and mild steel

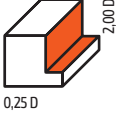
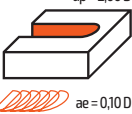
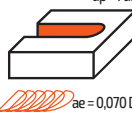


45°	D h10	d h6	L	l ap	l1	a	45° +0,05/+0	Z	894SL	€/Stück	894SLW	€/Stück
	5,0	6	74	20	25	0,10	0,10	4	140435	43,48	140443	43,48
	6,0	6	74	24	30	0,15	0,10	4	140436	38,92	140444	38,92
	8,0	8	80	32	40	0,15	0,15	4	140437	47,33	140445	47,33
	10,0	10	87	40	46	0,15	0,15	4	140438	63,42	140446	63,42
	12,0	12	105	48	58	0,20	0,15	4	140439	89,25	140447	89,25
	14,0	14	105	48	58	0,20	0,15	4	140440	109,19	140448	109,19
	16,0	16	125	64	68	0,20	0,20	4	140441	144,38	140449	144,38
	20,0	20	160	70	80	0,20	0,20	4	140442	244,92	140450	244,92

Material	Diameter	897S						895S								
																
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	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
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
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
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	0,080	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
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	0,040	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

Material	Diameter	892S / 893S									892SL		
			See note										
Steel <800 N/mm²	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
Steel <1000 N/mm² - 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
Steel <1300 N/mm²	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
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
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

Lange Serien: Je nach Werkzeugeingriff anzupassende Referenzarbeitsparameter. / Long series: reference parameters to be adjusted based on tool engagement.

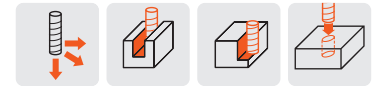
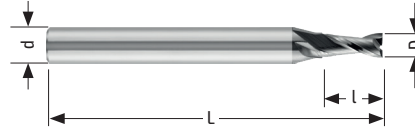
Material	Diameter	894S									894SL		
			See note										
Ferritic stainless steel	m/min	Vc=130			Vc=140			Vc=160			Vc=140		
	D mm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm	fz mm/z	F mm/min	n rpm
	3,0	0,013	718	13800	0,013	773	14862	0,025	1698	16977	-	-	-
	4,0	0,020	828	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
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
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
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

Lange Serien: Je nach Werkzeugeingriff anzupassende Referenzarbeitsparameter. / Long series: reference parameters to be adjusted based on tool engagement.

Mikrofräser / Micro Tools

808S

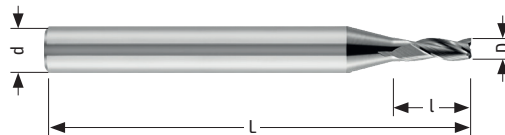
Fräser 2 Schneiden normale Serie mit verstärktem Schaft
2 flute end mill regular version with reinforced shank



90°	D h10	d h6	L	l ap	Z	808S	808SL	€/Stück
	1,0	6	53	3,0	2	139919	-	24,86
	1,0	6	53	4,0	2	-	139927	24,86
	1,5	6	53	4,0	2	139920	-	24,86
	1,5	6	53	6,0	2	-	139928	24,86
	2,0	6	53	6,0	2	139921	-	24,86
	2,0	6	53	8,0	2	-	139929	24,86
	2,5	6	53	7,0	2	139922	-	28,59
	2,5	6	53	9,0	2	-	139930	28,59
	3,0	6	53	7,0	2	139923	-	28,59
	3,0	6	53	12,0	2	-	139931	28,59
	3,5	6	53	7,0	2	139924	-	28,59
	4,0	6	53	8,0	2	139925	-	28,59
	4,0	6	53	12,0	2	-	139932	28,59
	5,0	6	57	10,0	2	139926	-	28,59

838S

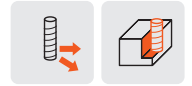
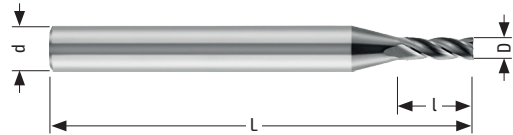
Fräser 3 Schneiden normale Serie mit verstärktem Schaft
3 flute end mill with reinforced shank regular version



90°	D h10	d h6	L	l ap	Z	838S	838SL	€/Stück
	1,0	6	53	3	3	139640	-	24,86
	1,5	6	53	4	3	139639	-	24,86
	1,5	6	53	6	3	-	140071	24,86
	2,0	6	53	6	3	140065	-	24,86
	2,0	6	53	8	3	-	140072	24,86
	2,5	6	53	7	3	140066	-	24,86
	2,5	6	53	10	3	-	140073	24,86
	3,0	6	53	7	3	140067	-	24,86
	3,0	6	53	12	3	-	140074	24,86
	3,5	6	53	7	3	140068	-	28,59
	4,0	6	53	8	3	140069	-	28,59
	4,0	6	53	12	3	-	140075	28,59
	5,0	6	57	10	3	140070	-	28,59

858S

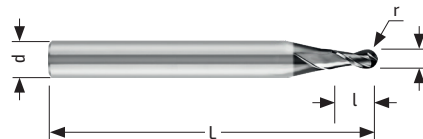
Fräser 4 Schneiden normale Serie mit verstärktem Schaft
4 flute end mill with reinforced shank



90°	D h10	d h6	L	l ap	Z	858S	€/Stück
	2,0	6	53	7	4	140169	24,86
	2,5	6	53	8	4	140170	24,86
	3,0	6	53	8	4	140171	24,86
	3,5	6	53	10	4	140172	24,86
	4,0	6	53	11	4	140173	24,86
	5,0	6	57	13	4	140174	24,86

816S

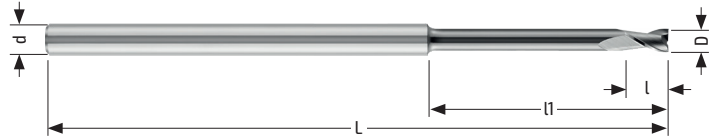
Halbkugelförmiger Schaftfräser 2 Schneiden normale Serie
2 flute ball nose end mill regular version with reinforced shank



	D h10	d h6	L	l ap	r	Z	816S	€/Stück
	1,0	3	38	3	0,50	2	139181	24,86
	1,0	6	53	3	0,50	2	139989	29,79
	1,5	3	38	4	0,75	2	139990	24,86
	1,5	6	53	4	0,75	2	139991	29,79
	2,0	3	38	5	1,00	2	139996	24,86
	2,0	6	53	5	1,00	2	139997	29,79
	2,5	3	38	7	1,25	2	139998	24,86
	2,5	6	53	7	1,25	2	139999	29,79
	3,0	3	38	7	1,50	2	140001	24,86
	3,0	6	53	7	1,50	2	140002	29,79
	4,0	6	57	8	2,00	2	139985	15,02

803S

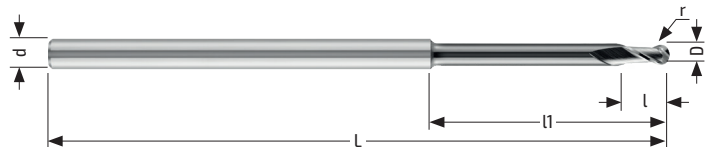
Fräser 2 Schneiden für Tiefenbearbeitung
2 flute end mill for deep milling



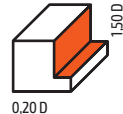
90°	D 0/-0,02	d h6	L	l ap	l1	a	Z	803S	€/Stück
	1,0	3	39	1,50	6	0,03	2	139835	21,98
	1,0	3	39	1,50	9	0,03	2	139836	21,98
	1,0	3	60	1,50	12	0,03	2	139834	21,98
	1,5	3	39	2,25	6	0,03	2	139832	21,98
	1,5	3	39	2,25	9	0,03	2	139833	21,98
	1,5	3	60	2,25	12	0,03	2	139831	21,98
	2,0	3	39	3,00	9	0,05	2	139841	21,98
	2,0	3	39	3,00	12	0,05	2	139839	21,98
	2,0	3	60	3,00	15	0,05	2	139840	21,98
	2,5	4	50	3,70	12	0,05	2	139837	27,27
	2,5	4	80	3,70	25	0,05	2	139838	27,27
	3,0	4	50	4,50	15	0,05	2	139842	27,27
	3,0	4	80	4,50	30	0,05	2	139843	27,27

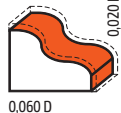
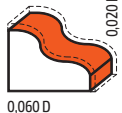
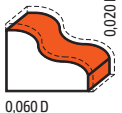
804S

Halbkugelförmiger Schaftfräser 2 Schneiden für
Tiefenbearbeitung
2 flute ball nose end mill for deep milling



U	D	d h6	L	l ap	l1	a	r ±0,01	Z	804S	€/Stück
	1,0	3	39	1,50	6	0,03	0,50	2	139848	24,14
	1,0	3	39	1,50	9	0,03	0,50	2	139849	24,14
	1,0	3	60	1,50	12	0,03	0,50	2	139847	24,14
	1,5	3	39	2,25	6	0,03	0,75	2	139845	24,14
	1,5	3	39	2,25	9	0,03	0,75	2	139846	24,14
	1,5	3	60	2,25	12	0,03	0,75	2	139844	24,14
	2,0	3	39	3,00	9	0,05	1,00	2	139854	24,14
	2,0	3	39	3,00	12	0,05	1,00	2	139852	24,14
	2,0	3	60	3,00	15	0,05	1,00	2	139853	24,14
	2,5	4	50	3,70	12	0,05	1,25	2	139850	30,03
	2,5	4	80	3,70	25	0,05	1,25	2	139851	30,03
	3,0	4	50	4,50	15	0,05	1,50	2	139855	30,03
	3,0	4	80	4,50	30	0,05	1,50	2	139856	30,03

		808S						838S						858S			
Material	Diameter																
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	
	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	
	3,0	0,004	102	12739	0,008	207	13800	0,004	140	11677	0,008	287	12739	0,009	669	18577	
	4,0	0,006	115	9554	0,011	228	10350	0,006	158	8758	0,011	315	9554	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		
Steel<1000N/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	
	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	
	3,0	0,004	85	10616	0,008	167	11146	0,004	115	9554	0,008	239	10616	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	
5,0	0,008	102	6369	0,013	174	6688	0,008	138	5732	0,013	248	6369	0,019	702	9236		
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	
	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	
	3,0	0,004	64	7962	0,110	1868	8493	0,004	89	7431	0,008	179	7962	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	
5,0	0,008	76	4777	0,160	1631	5096	0,008	107	4459	0,013	186	4777	0,019	532	7006		
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	
	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	
	3,0	0,004	30	3715	0,008	64	4246	0,004	45	3715	0,008	96	4246	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	
5,0	0,008	36	2229	0,013	66	2548	0,008	54	2229	0,013	99	2548	0,019	266	3503		
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	
	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	
	3,0	0,004	26	3183	0,008	56	3714	0,004	38	3183	0,008	84	3714	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	
5,0	0,008	31	1910	0,013	58	2228	0,008	46	1910	0,013	87	2228	0,019	242	3183		

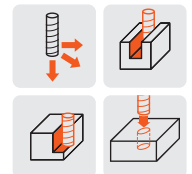
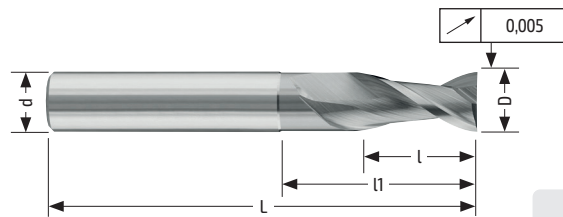
		816S						816S						816S			
Material	Diameter					Material	Diameter					Material	Diameter				
Steel <800 N/mm ²	m/min	Vc = 120				Steel <1300 N/mm ²	m/min	Vc = 120				Stainless Steel	m/min	Vc = 70			
	D mm	fz mm/z	F mm/min	n rpm	D mm		fz mm/z	F mm/min	n rpm	D mm	fz mm/z		F mm/min	n rpm			
	1,0	0,011	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			
Steel <1000 N/mm ²	m/min	Vc = 120				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																	
Material	Diameter	 0,25 D				 0,12 D				 0,25 D				 0,10 D			
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				
	0,5	0,022	3643	82803	0,019	2662	70064	0,023	5713	82803	0,020	4204	70064				
	1,0	0,029	2401	41401	0,025	1752	35032	0,030	3726	41401	0,026	2732	35032				
	1,5	0,033	1822	27601	0,028	1308	23355	0,035	2898	27601	0,030	2102	23355				
	2,0	0,055	2277	20701	0,047	1646	17516	0,058	3602	20701	0,049	2575	17516				
3,0	0,060	1656	13800	0,051	1191	11677	0,060	2484	13800	0,051	1787	11677					
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				
	0,5	0,022	2943	66879	0,019	2178	57325	0,023	4615	66879	0,020	3439	57325				
	1,0	0,029	1939	33439	0,025	1433	28662	0,030	3010	33439	0,026	2236	28662				
	1,5	0,033	1471	22293	0,028	1070	19108	0,035	2341	22293	0,030	1720	19108				
	2,0	0,055	1839	16720	0,047	1347	14331	0,058	2909	16720	0,049	2107	14331				
3,0	0,060	1338	11146	0,051	975	9554	0,060	2006	11146	0,051	1462	9554					
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				
	0,5	0,020	2038	50955	0,017	1516	44586	0,021	3210	50955	0,018	2408	44586				
	1,0	0,026	1325	25478	0,022	981	22293	0,027	2064	25478	0,023	1538	22293				
	1,5	0,030	1019	16985	0,026	773	14862	0,032	1631	16985	0,027	1204	14862				
	2,0	0,050	1274	12739	0,043	959	11146	0,053	2025	12739	0,045	1505	11146				
3,0	0,055	934	8493	0,047	699	7431	0,058	1478	8493	0,049	1092	7431					
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				
	0,5	0,020	1019	25478	0,017	758	22293	0,021	1605	25478	0,018	1204	22293				
	1,0	0,026	662	12739	0,022	490	11146	0,027	1032	12739	0,023	769	11146				
	1,5	0,030	510	8493	0,026	386	7431	0,032	815	8493	0,027	602	7431				
	2,0	0,050	637	6369	0,043	479	5573	0,053	1013	6369	0,045	752	5573				
3,0	0,055	467	4246	0,047	349	3715	0,058	739	4246	0,049	546	3715					
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				
	0,5	0,020	891	22282	0,017	649	19099	0,021	936	22282	0,018	688	19099				
	1,0	0,026	579	11141	0,022	420	9549	0,027	602	11141	0,023	439	9549				
	1,5	0,030	446	7427	0,026	331	6366	0,032	475	7427	0,027	344	6366				
	2,0	0,050	557	5570	0,043	411	4775	0,053	591	5570	0,045	430	4775				
3,0	0,055	409	3714	0,047	299	3183	0,058	431	3714	0,049	312	3183					

Fräser für Aluminium / Aluminium

810 | 810W

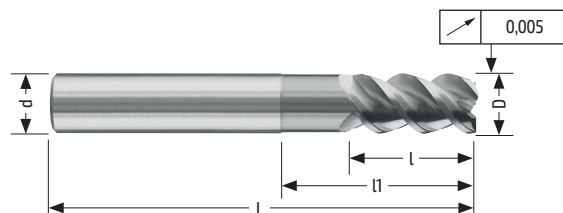
Fräser 2 Schneiden normale Serie für Aluminium
2 flute end mill for aluminium, regular version



90°	D h6	d h6	L	l ap	l1	a	Z	810 	€/Stück	810W 	€/Stück
	2,0	3	50	6	-	-	2	139933	14,17	-	-
	3,0	3	50	7	18	0,10	2	139934	14,17	-	-
	4,0	4	50	8	19	0,10	2	139935	14,17	-	-
	5,0	5	50	10	21	0,10	2	139936	14,17	-	-
	6,0	6	57	10	21	0,15	2	139937	15,50	139943	15,50
	8,0	8	63	16	27	0,15	2	139938	21,74	139944	21,74
	10,0	10	72	19	30	0,15	2	138722	32,19	139945	32,19
	12,0	12	83	22	38	0,20	2	139939	42,76	139946	42,76
	14,0	14	83	22	38	0,20	2	139940	61,26	139947	61,26
	16,0	16	92	26	42	0,20	2	139941	72,79	139948	72,79
	20,0	20	104	32	54	0,20	2	139942	120,6	139949	120,60

812 | 812W

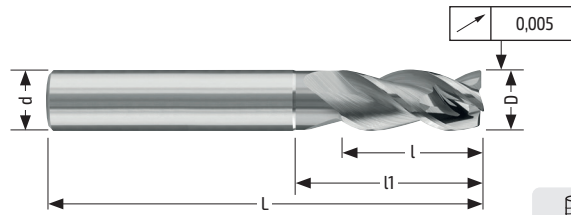
Schaftfräser 3 Schneiden normale Serie für die Aluminiumveredelung
3 flute end mill for aluminium finishing, regular version



90°	D h6	d h6	L	l ap	l1	a	Z	812 	€/Stück	812W 	€/Stück
	4,0	4	50	8	19	0,10	3	139950	15,50	-	-
	5,0	5	50	10	21	0,10	3	139951	15,50	-	-
	6,0	6	57	10	21	0,15	3	139952	17,06	139961	17,06
	7,0	7	60	13	24	0,15	3	139953	23,90	-	-
	8,0	8	63	16	27	0,15	3	139954	23,90	139962	23,90
	9,0	9	67	16	27	0,15	3	139955	35,56	-	-
	10,0	10	72	19	30	0,15	3	139956	35,56	139963	35,56
	12,0	12	83	22	38	0,20	3	139957	47,21	139964	47,21
	14,0	14	83	22	38	0,20	3	139958	67,39	139965	67,39
	16,0	16	92	26	42	0,20	3	139959	80,48	139966	80,48
	20,0	20	104	32	54	0,20	4	139960	132,49	139967	132,49

813 | 813W

Schaftfräser 3 Schneiden normale Serie
für Aluminium mit unregelmäßiger Teilung
3 flute end mill with unequal flute spacing regular version



Aluminium
N

Kupfer
N

Kunststoff
N



MG
Co10

6527 L

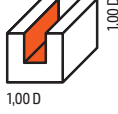
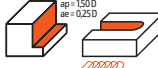
λ 42°



Uncoated



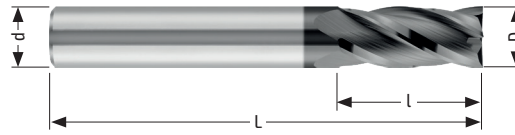
D h6	d h6	L	l ap	l1	a	45° +0,05/+0	Z	813 	€/Stück	813W 	€/Stück
3,0	6	57	8	-	-	0,05	3	139968	18,26	139976	18,26
4,0	6	57	11	-	-	0,05	3	139969	18,26	139977	18,26
5,0	6	57	13	-	-	0,10	3	139970	18,26	139978	18,26
6,0	6	57	13	20	0,15	0,10	3	139971	20,06	139979	20,06
8,0	8	63	19	25	0,15	0,15	3	139972	28,11	139980	28,11
10,0	10	72	22	30	0,15	0,20	3	138742	41,68	139981	41,68
12,0	12	83	26	36	0,20	0,25	3	139973	55,14	139982	55,14
16,0	16	92	32	42	0,20	0,30	3	139974	94,05	139983	94,05
20,0	20	104	38	52	0,20	0,35	3	139975	155,32	139984	155,32

		810						812			813						
Material	Diameter																
		1,00 D				0,50 D		0,10 D			1,00 D						
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		
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		
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		
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 Anwendung / Multi Applications

856S | 856SW

Schaftfräser 4 Schneiden normale Serie
4 flute end mill regular version

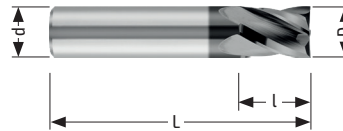


90°	D h10	d h6	L	l ap	Z	856S	€/Stück	856SW	€/Stück
	2,0	4	50	7	4	140107	12,25	-	
	2,5	4	50	8	4	140135	12,25	-	
	3,0	4	50	8	4	140109	12,25	-	
	3,5	4	50	10	4	140138	12,25	-	
	4,0	4	50	11	4	139638	15,14	-	
	4,5	5	50	11	4	140139	15,14	-	
	5,0	5	50	13	4	139641	15,14	-	
	5,5	6	57	13	4	140140	15,14	140166	15,14
	6,0	6	57	13	4	139642	15,14	140146	15,14
	6,5	7	60	16	4	138337	25,11	-	
	7,0	7	60	16	4	140115	25,11	-	
	7,5	8	63	19	4	140141	25,11	140167	25,11
	8,0	8	63	19	4	139643	25,11	140149	25,11
	8,5	9	67	19	4	140142	35,68	-	
	9,0	9	67	19	4	140118	35,68	-	
	9,5	10	72	22	4	140143	35,68	140168	35,68
	10,0	10	72	22	4	140119	35,68	140150	35,68
	11,0	11	83	26	4	140123	49,25	-	
	12,0	12	83	26	4	139644	49,25	140154	49,25
	13,0	13	83	26	4	140127	66,67	-	
	14,0	14	83	26	4	140128	66,67	140158	66,67
	15,0	15	92	32	4	140130	78,68	-	
	16,0	16	92	32	4	140131	78,68	140160	78,68
	18,0	18	92	32	4	140133	105,71	140162	105,71
	20,0	20	104	38	4	140136	124,08	140164	124,08

Cr	D h10	d h6	L	l ap	Cr	Z	856CR	€/Stück	856CRW	€/Stück
	2,0	4	50	7	0,50	4	140108	19,34	-	
	3,0	4	50	8	0,50	4	140110	19,34	-	
	4,0	4	50	11	0,50	4	140111	19,34	-	
	5,0	5	50	13	1,00	4	140112	22,46	-	
	6,0	6	57	13	0,50	4	140113	22,46	140144	22,46
	6,0	6	57	13	1,00	4	140114	22,46	140145	22,46
	8,0	8	63	19	0,50	4	140116	32,19	140147	32,19
	8,0	8	63	19	1,00	4	140117	32,19	140148	32,19
	10,0	10	72	22	0,50	4	140120	43,00	140151	43,00
	10,0	10	72	22	1,00	4	140121	43,00	140152	43,00
	10,0	10	72	22	2,00	4	140122	43,00	140153	43,00
	12,0	12	83	26	0,50	4	140124	56,46	140155	56,46
	12,0	12	83	26	1,00	4	140125	56,46	140156	56,46
	12,0	12	83	26	2,00	4	140126	56,46	140157	56,46
	14,0	14	83	26	1,50	4	140129	69,19	140159	69,19
	16,0	16	92	32	1,50	4	140132	80,96	140161	80,96
	18,0	18	92	32	1,50	4	140134	107,51	140163	107,51
	20,0	20	104	38	2,00	4	140137	126,37	140165	126,37

829S

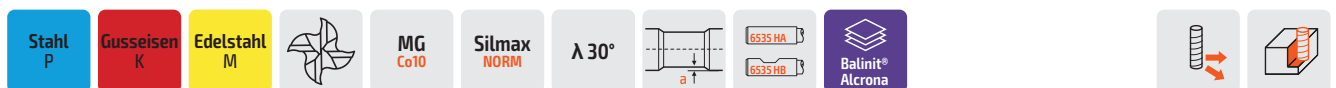
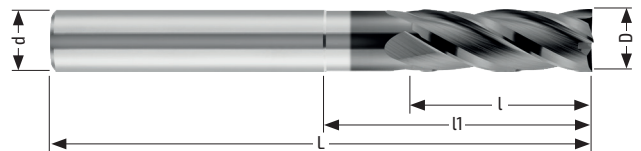
Schaftfräser 4 Schneiden extra kurz
4 flute end mill extra short version



90°	D h10	d h6	L	l ap	Z	829S	€/Stück
	2,0	6	38	4	4	140032	15,98
	3,0	6	38	5	4	140033	15,98
	4,0	6	38	7	4	140034	15,98
	5,0	6	38	8	4	140035	15,98
	6,0	6	38	8	4	140036	15,98
	8,0	8	43	11	4	140037	21,50
	10,0	10	50	13	4	140038	29,91
	12,0	12	63	14	4	140039	33,39

859S | 859SW

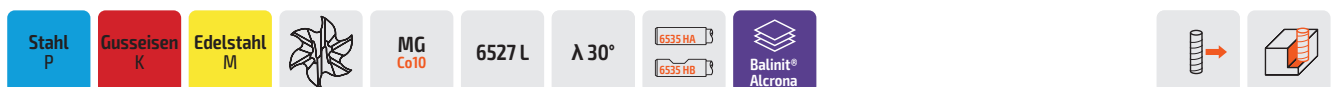
Schaftfräser 4 Schneiden lange Ausführung
4 flute end mill long version



90°	D h10	d h6	L	l ap	l1	a	Z	859S	€/Stück	859SW	€/Stück
	3,0	3	62	14	-	-	4	140175	22,34	-	-
	4,0	4	62	16	-	-	4	140176	22,34	-	-
	5,0	5	62	20	-	-	4	140177	25,83	-	-
	6,0	6	78	20	30	0,15	4	140178	25,83	140183	25,83
	8,0	8	78	25	35	0,15	4	140179	37,72	140184	37,72
	10,0	10	105	28	48	0,15	4	140180	58,98	140185	58,98
	12,0	12	105	32	52	0,20	4	140181	71,83	140186	71,83
	16,0	16	130	40	60	0,20	4	140182	125,53	140187	125,53

861S | 861SW

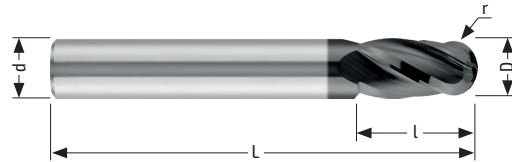
Schaftfräser 6 Schneiden normale Serie
6 flute end mill regular version



90°	D h10	d h6	L	l ap	Z	861S	€/Stück	861SW	€/Stück
	6,0	6	57	13	6	140188	24,14	140195	24,14
	8,0	8	63	19	6	140189	32,91	140196	32,91
	10,0	10	72	22	6	140190	45,65	140197	45,65
	12,0	12	83	26	6	140191	62,22	140198	62,22
	14,0	14	83	26	6	140192	95,14	140199	95,14
	16,0	16	92	32	6	140193	119,52	140200	119,52
	20,0	20	104	38	8	140194	169,37	140201	169,37

866S | 866SW

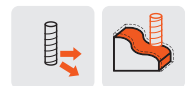
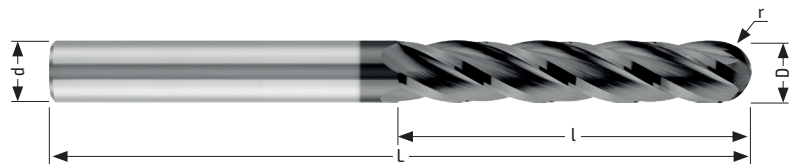
Halbkugelförmiger Schaftfräser 4 Schneiden normale Serie
4 flute ball nose end mill regular version



	D h10	d h6	L	l ap	r	Z	866S	€/Stück	866SW	€/Stück
	2,0	3	38	5	1,00	4	139645	22,34	-	
	3,0	3	38	7	1,50	4	139646	22,34	-	
	4,0	4	50	8	2,00	4	139647	22,34	-	
	5,0	5	50	10	2,50	4	139617	22,34	-	
	6,0	6	57	10	3,00	4	140209	24,02	140219	24,02
	7,0	7	60	13	3,50	4	140210	31,23	-	
	8,0	8	63	16	4,00	4	140211	31,23	140220	31,23
	9,0	9	67	16	4,50	4	140212	42,76	-	
	10,0	10	72	19	5,00	4	140202	42,76	140213	42,76
	12,0	12	83	22	6,00	4	140203	61,14	140214	61,14
	13,0	13	83	22	6,50	4	140204	87,21	-	
	14,0	14	83	22	7,00	4	140205	87,21	140215	87,21
	16,0	16	92	26	8,00	4	140206	114,95	140216	114,95
	18,0	18	92	26	9,00	4	140207	155,07	140217	155,07
	20,0	20	104	32	10,00	4	140208	187,75	140218	187,75

883S | 883SW

Halbkugelförmiger Schaftfräser 4 Schneiden lange Ausführung
4 flute ball nose end mill long version



	D h10	d h6	L	l ap	r	Z	883S	€/Stück	883SW	€/Stück
	6,0	6	105	42	3,00	4	140290	43,96	140295	43,96
	8,0	8	105	50	4,00	4	140291	56,94	140296	56,94
	10,0	10	120	50	5,00	4	140287	77,72	140292	77,72
	12,0	12	160	65	6,00	4	140288	111,11	140293	111,11
	16,0	16	160	70	8,00	4	140289	209,13	140294	209,13

871S | 871SW

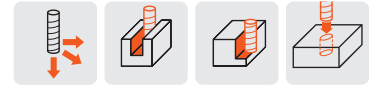
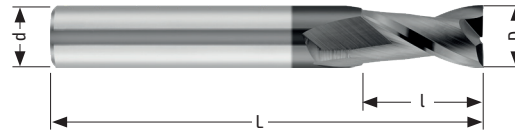
Schrupp Fräser mit 4 Schneiden normale Serie
4 flute roughing end mill regular version



45°	D h11	d h6	L	l ap	45° +/-0,3	Z	871S 	€/Stück	871SW 	€/Stück
	4,0	6	57	13	0,40	4	140221	30,15	140238	30,15
	4,5	6	57	13	0,40	4	140222	30,15	140239	30,15
	5,0	6	57	13	0,50	4	140223	30,15	140240	30,15
	5,5	6	57	13	0,50	4	140224	30,15	140241	30,15
	6,0	6	57	13	0,50	4	140225	30,15	140242	30,15
	7,0	7	60	16	0,50	4	140226	32,91	-	-
	8,0	8	63	19	0,50	4	140227	32,91	140243	32,91
	9,0	9	67	19	0,50	4	140228	52,37	-	-
	10,0	10	72	22	0,50	4	140229	52,37	140244	52,37
	11,0	11	83	26	0,50	4	140230	70,99	-	-
	12,0	12	83	26	0,50	4	140231	70,99	140245	70,99
	13,0	13	83	26	0,60	4	140232	98,62	-	-
	14,0	14	83	26	0,60	4	140233	98,62	140246	98,62
	15,0	15	92	32	0,60	4	140234	111,59	-	-
	16,0	16	92	32	0,60	4	140235	111,59	140247	111,59
	18,0	18	92	32	0,60	4	140236	137,54	140248	137,54
	20,0	20	104	38	0,60	4	140237	168,41	140249	168,41

806S | 806SW

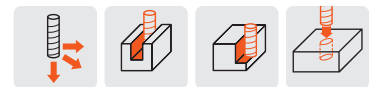
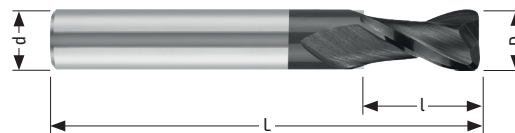
Schaftfräser 2 Schneiden normale Serie
2 flute end mill regular version



90°	D h10	d h6	L	l ap	Z	806S	€/Stück	806SW	€/Stück
	2,0	4	50	5	2	139857	12,25	-	
	2,5	4	50	7	2	139858	12,25	-	
	3,0	4	50	7	2	139859	12,25	-	
	3,5	4	50	7	2	139860	12,25	-	
	4,0	4	50	8	2	139861	12,25	-	
	4,5	5	50	8	2	139862	15,14	-	
	5,0	5	50	10	2	139863	15,14	-	
	5,5	6	57	10	2	139864	15,14	139898	15,14
	6,0	6	57	10	2	139865	15,14	139899	15,14
	7,0	7	60	13	2	139866	25,11	-	
	8,0	8	63	16	2	139867	25,11	139900	25,11
	9,0	9	67	16	2	139868	35,68	-	
	10,0	10	72	19	2	139877	35,68	139905	35,68
	11,0	11	83	22	2	139881	49,25	-	
	12,0	12	83	22	2	139882	49,25	139909	49,25
	13,0	13	83	22	2	139886	66,67	-	
	14,0	14	83	22	2	139887	66,67	139911	66,67
	15,0	15	92	26	2	139889	78,68	-	
	16,0	16	92	26	2	139890	78,68	139913	78,68
	17,0	17	92	26	2	139892	105,71	-	
	18,0	18	92	26	2	139893	105,71	139915	105,71
	19,0	19	92	26	2	139895	124,08	-	
	20,0	20	104	32	2	139896	124,08	139917	124,08

806CR | 806CRW

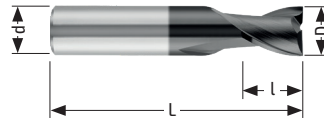
Schaftfräser 2 Schneiden normale Serie
2 flute end mill regular version



Cr	D h10	d h6	L	l ap	Cr	Z	806CR	€/Stück	806CRW	€/Stück
	2,0	4	50	5	0,50	2	139869	17,06	-	
	3,0	4	50	7	0,50	2	139870	17,06	-	
	4,0	4	50	8	0,50	2	139871	17,06	-	
	5,0	5	50	10	1,00	2	139872	20,18	-	
	6,0	6	57	10	0,50	2	139873	20,18	139901	20,18
	6,0	6	57	10	1,00	2	139874	20,18	139902	20,18
	8,0	8	63	16	0,50	2	139875	30,03	139903	30,03
	8,0	8	63	16	1,00	2	139876	30,03	139904	30,03
	10,0	10	72	19	0,50	2	139878	40,72	139906	40,72
	10,0	10	72	19	1,00	2	139879	40,72	139907	40,72
	10,0	10	72	19	2,00	2	139880	40,72	139908	40,72
	12,0	12	83	22	0,50	2	139883	54,17	-	
	12,0	12	83	22	1,00	2	139884	54,17	139910	54,17
	12,0	12	83	22	2,00	2	139885	54,17	-	
	14,0	14	83	22	1,50	2	139888	69,19	139912	69,19
	16,0	16	92	26	1,50	2	139891	80,96	139914	80,96
	18,0	18	92	26	1,50	2	139894	107,51	139916	107,51
	20,0	20	104	32	2,00	2	139897	126,37	139918	126,37

821S

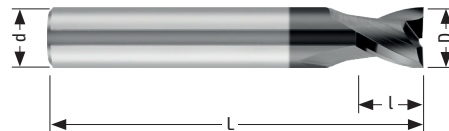
Schaftfräser 2 Schneiden extra kurz
2 flute end mill, extra short version



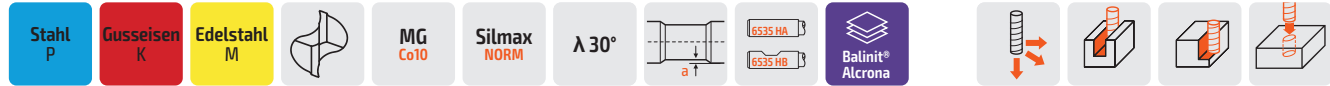
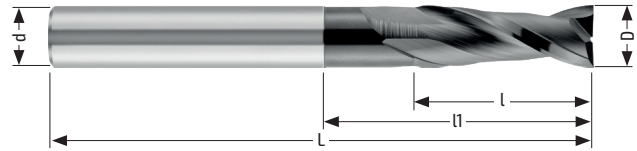
90°	D h10	d h6	L	l ap	Z	821S	€/Stück
	2,0	6	38	3	2	140010	15,98
	3,0	6	38	4	2	140011	15,98
	4,0	6	38	5	2	140012	15,98
	5,0	6	38	6	2	140013	15,98
	6,0	6	38	7	2	140014	15,98
	7,0	8	43	9	2	140015	21,50
	8,0	8	43	9	2	140016	21,50
	9,0	10	50	11	2	140017	29,91
	10,0	10	50	11	2	140018	29,91
	12,0	12	63	12	2	139009	33,39

801S | 801SW

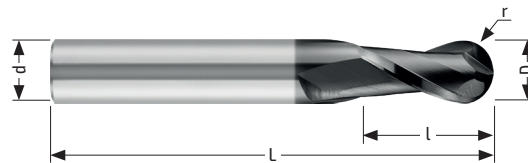
Schaftfräser 2 Schneiden extra kurz für Passfedernuten
2 flute key slot end mill, short version



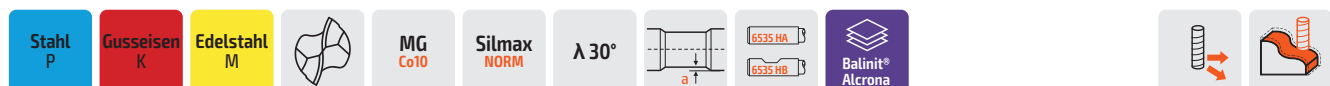
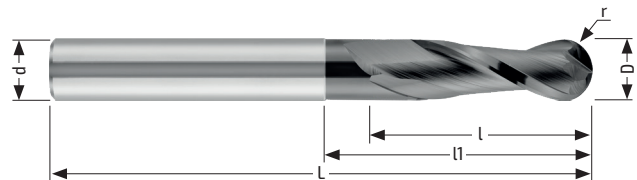
90°	D e8	d h6	L	l ap	Z	801S	€/Stück	801SW	€/Stück
	2,0	6	50	3	2	139791	18,26	139811	18,26
	2,5	6	50	3	2	139792	18,26	139827	18,26
	3,0	6	50	4	2	139793	18,26	139812	18,26
	3,5	6	50	4	2	139794	18,26	139829	18,26
	4,0	6	54	5	2	139795	18,26	139813	18,26
	4,5	6	54	5	2	139796	18,26	139830	18,26
	5,0	6	54	6	2	139797	18,26	139814	18,26
	5,5	6	54	6	2	139798	18,26	139815	18,26
	6,0	6	54	7	2	139799	17,66	139816	17,66
	7,0	8	58	9	2	139800	24,02	139817	24,02
	8,0	8	58	9	2	139801	24,02	139818	24,02
	9,0	10	66	11	2	139802	34,23	139819	34,23
	10,0	10	66	11	2	139803	34,23	139820	34,23
	11,0	12	73	12	2	139804	43,96	139821	43,96
	12,0	12	73	12	2	139805	43,96	139822	43,96
	13,0	14	75	14	2	139806	57,90	139823	57,90
	14,0	14	75	14	2	139807	57,90	139824	57,90
	15,0	16	82	16	2	139808	72,79	139825	72,79
	16,0	16	82	16	2	139809	75,08	139826	75,08
	20,0	20	92	20	2	139810	128,77	139828	128,77

879S | 879SWSchaffraser 2 Schneiden mittlere Serie
2 flute end mill medium version

90°	D h10	d h6	L	l ap	l1	a	Z	879S	€/Stück	879SW	€/Stück
	3,0	3	62	14	-	-	2	140262	22,34	-	-
	4,0	4	62	16	-	-	2	140263	22,34	-	-
	5,0	5	62	20	-	-	2	140264	25,83	-	-
	6,0	6	78	20	30	0,15	2	140265	25,83	140270	25,83
	8,0	8	78	25	35	0,15	2	140266	37,72	140271	37,72
	10,0	10	105	28	48	0,15	2	140267	58,98	140272	58,98
	12,0	12	105	32	52	0,20	2	140268	71,83	140273	71,83
	16,0	16	130	40	60	0,20	2	140269	125,53	140274	125,53

816S | 816SWHalbkugelförmiger Schaffraser 2 Schneiden normale Serie
2 flute ball nose end mill, regular version

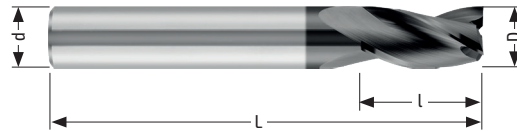
	D h10	d h6	L	l ap	r	Z	816S	€/Stück	816SW	€/Stück
	4,0	4	50	8	2,0	2	139985	15,02	-	-
	5,0	5	50	10	2,5	2	139986	17,78	-	-
	6,0	6	57	10	3,0	2	139987	17,78	140003	17,78
	8,0	8	63	16	4,0	2	139988	30,15	140004	30,15
	10,0	10	72	19	5,0	2	139992	42,64	140005	42,64
	12,0	12	83	22	6,0	2	139993	57,66	140006	57,66
	14,0	14	83	22	7,0	2	139994	87,09	140007	87,09
	16,0	16	92	26	8,0	2	139995	109,91	140008	109,91
	20,0	20	104	32	10,0	2	140000	175,01	140009	175,01

881S | 881SWHalbkugelförmiger Schaffraser 2 Schneiden mittlere Serie
2 flute ball nose end mill medium version

	D h10	d h6	L	l ap	l1	a	r	Z	881S	€/Stück	881SW	€/Stück
	4,0	4	62	16	-	-	2,0	2	140275	20,18	-	-
	5,0	5	62	20	-	-	2,5	2	140276	23,90	-	-
	6,0	6	78	20	30	0,15	3,0	2	140277	27,27	140282	27,27
	8,0	8	78	25	35	0,15	4,0	2	140278	49,61	140283	49,61
	10,0	10	105	28	48	0,15	5,0	2	140279	62,34	140284	62,34
	12,0	12	105	32	52	0,20	6,0	2	140280	84,44	140285	84,44
	16,0	16	130	40	60	0,20	8,0	2	140281	167,93	140286	167,93

836S | 836SW

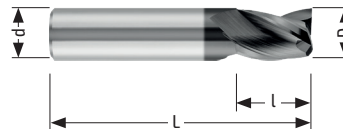
Schaftfräser 3 Schneiden normale Serie
3 flute end mill regular version



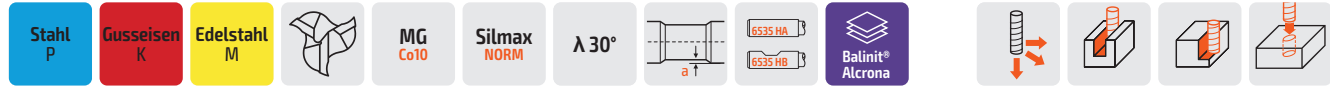
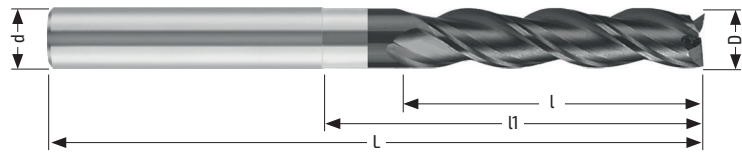
90°	D h10	d h6	L	l ap	Z	836S	€/Stück	836SW	€/Stück
	2,0	4	50	5	3	140040	12,25	-	
	3,0	4	50	7	3	140041	12,25	-	
	4,0	4	50	8	3	140042	12,25	-	
	5,0	5	50	10	3	140043	15,14	-	
	6,0	6	57	10	3	140044	15,14	140057	15,14
	7,0	7	60	13	3	140045	25,11	-	
	8,0	8	63	16	3	140046	25,11	140058	25,11
	9,0	9	67	16	3	140047	35,68	-	
	10,0	10	72	19	3	140048	35,68	140059	35,68
	11,0	11	83	22	3	140049	49,25	-	
	12,0	12	83	22	3	140050	49,25	140060	49,25
	13,0	13	83	22	3	140051	64,74	-	
	14,0	14	83	22	3	140052	64,74	140061	64,74
	15,0	15	92	26	3	140053	76,40	-	
	16,0	16	92	26	3	140054	78,68	140062	78,68
	18,0	18	92	26	3	140055	102,58	140063	102,58
	20,0	20	104	32	3	140056	124,08	140064	124,08

826S

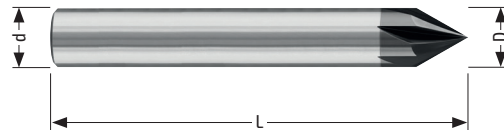
Schaftfräser 3 Schneiden extra kurz
3 flute end mill extra short version



90°	D h10	d h6	L	l ap	Z	826S	€/Stück
	2,0	6	38	4	3	140019	15,98
	2,5	6	38	4	3	140029	15,98
	3,0	6	38	5	3	140020	15,98
	3,5	6	38	6	3	140030	15,98
	4,0	6	38	7	3	140021	15,98
	4,5	6	38	8	3	140031	15,98
	5,0	6	38	8	3	140022	15,98
	6,0	6	38	8	3	140023	15,98
	7,0	8	43	11	3	140024	21,50
	8,0	8	43	11	3	140025	21,50
	9,0	10	50	13	3	140026	29,91
	10,0	10	50	13	3	140027	29,91
	12,0	12	63	14	3	140028	33,39

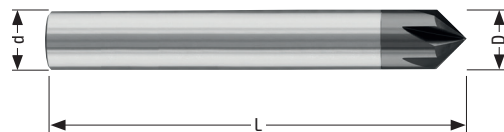
876S | 876SWSchaftfräser 3 Schneiden lange Ausführung
3 flute end mill long version

90°	D h10	d h6	L	l ap	l1	a	Z	876S	€/Stück	876SW	€/Stück
	4,0	4	62	16	-	-	3	140250	22,34	-	-
	5,0	5	62	20	-	-	3	140251	25,83	-	-
	6,0	6	78	20	30	0,15	3	140252	25,83	140257	25,83
	8,0	8	78	25	35	0,15	3	140253	37,72	140258	37,72
	10,0	10	105	28	48	0,15	3	140254	58,98	140259	58,98
	12,0	12	105	32	52	0,20	3	140255	71,83	140260	71,83
	16,0	16	130	40	60	0,20	3	140256	125,53	140261	125,53

841S | 841SW60° Fasenscheider
End mill for chamfer 60°

60°	D h6	d h6	L	Z	841S	€/Stück	841SW	€/Stück
	3,0	4	50	4	140076	33,75	-	-
	4,0	4	50	4	140077	30,99	-	-
	6,0	6	57	6	-	-	140078	32,31
	8,0	8	63	6	-	-	140079	47,33
	10,0	10	72	6	-	-	140080	65,95
	12,0	12	83	6	-	-	140081	96,94
	16,0*	16	92	6	-	-	140082	143,30
	20,0*	20	104	6	-	-	140083	210,33

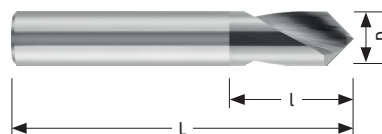
(*) Durchmesser 16mm und 20mm nur auf Anfrage

842S | 842SW90° Fasenscheider
End mill for chamfer 90°

90°	D h6	d h6	L	Z	842S	€/Stück	842SW	€/Stück
	3,0	4	50	4	140084	33,75	-	-
	4,0	4	50	4	140085	30,99	-	-
	6,0	6	57	6	-	-	140086	32,31
	8,0	8	63	6	-	-	140087	47,33
	10,0	10	72	6	-	-	140088	65,95
	12,0	12	83	6	-	-	140089	96,94
	16,0*	16	92	6	-	-	140090	143,30
	20,0*	20	104	6	-	-	140091	210,33

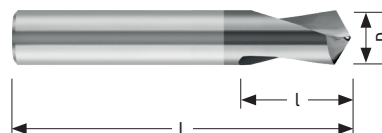
(*) Durchmesser 16mm und 20mm nur auf Anfrage

843S

Zentrierbohrer
Center drill

90°	D h6	L	l ap	Z	843S	€/Stück
	3,0	45	10	2	140095	18,62
	4,0	50	12	2	140096	19,82
	5,0	50	15	2	140097	21,26
	6,0	50	18	2	140098	22,46
	8,0	64	23	2	140099	29,55
	10,0	67	24	2	140092	42,64
	12,0	74	24	2	140093	58,98
	16,0	92	32	2	140094	99,58

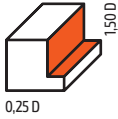
844S

Zentrierbohrer
Center drill

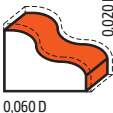
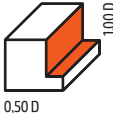
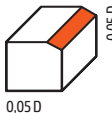
120°	D h6	L	l ap	Z	844S	€/Stück
	3,0	45	10	2	140102	18,62
	4,0	50	12	2	140103	19,82
	5,0	50	15	2	140104	21,26
	6,0	50	18	2	140105	22,46
	8,0	64	23	2	140106	29,55
	10,0	67	24	2	140100	42,64
	12,0	74	24	2	140101	58,98

		856S				829S				861S				866S			
Material	Diameter	See note 												See note 			
		0,20 D				0,20 D				0,20 D				0,20 D			
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					
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					
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					
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					
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					

Large Serie: -15 % gegenüber den Arbeitsparametern des entsprechenden normalen Serienwerkzeugs. / Long series: 15% less than the working parameters of the corresponding tool standard series.

Material	Diameter	871S			806S			821S			801S		
					See note 								
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	11141	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
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
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
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
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

Lange Serie: -15 % gegenüber den Arbeitsparametern des entsprechenden normalen Serienwerkzeugs. / Long series: 15% less than the working parameters of the corresponding tool standard series.

Material	Diameter	816S				836S				826S				841W 842W			
		See note 				See note 				See note 							
Steel <800 N/mm ²	m/min	Vc = 360				Vc = 130				Vc = 120				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	fz mm/z	F mm/min	n rpm	fz mm/z
	2,0	0,022	2521	57296	0,002	124	20701	0,002	115	19108	0,002	124	20701	0,002	115	19108	-
	3,0	0,081	6188	38197	0,004	166	13800	0,004	153	12739	0,004	166	13800	0,004	153	12739	0,020
	4,0	0,139	7964	28648	0,009	279	10350	0,009	258	9554	0,009	279	10350	0,009	258	9554	0,030
	5,0	0,184	8434	22918	0,014	348	8280	0,014	321	7643	0,014	348	8280	0,014	321	7643	-
	6,0	0,220	8403	19099	0,018	373	6900	0,018	344	6369	0,018	373	6900	0,018	344	6369	0,040
	8,0	0,278	7964	14324	0,023	357	5175	0,023	330	4777	0,023	357	5175	0,023	330	4777	0,050
	10,0	0,322	7380	11459	0,028	348	4140	0,028	321	3822	0,028	348	4140	0,028	321	3822	0,060
	12,0	0,359	6856	9549	0,032	331	3450	0,032	306	3185	-	-	-	-	-	-	0,070
	14,0	0,389	6368	8185	-	-	-	-	-	-	-	-	-	-	-	-	-
Steel <1000 N/mm ² - Cast iron	m/min	Vc = 295				Vc = 110				Vc = 100				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
	2,0	0,022	2066	46951	0,002	105	17516	0,002	96	15924	0,002	105	17516	0,002	96	15924	-
	3,0	0,081	5071	31300	0,004	140	11677	0,004	127	10616	0,004	140	11677	0,004	127	10616	0,020
	4,0	0,139	6526	23475	0,009	236	8758	0,009	215	7962	0,009	236	8758	0,009	215	7962	0,030
	5,0	0,184	6911	18780	0,014	294	7006	0,014	268	6369	0,014	294	7006	0,014	268	6369	-
	6,0	0,22	6886	15650	0,018	315	5839	0,018	287	5308	0,018	315	5839	0,018	287	5308	0,040
	8,0	0,278	6526	11738	0,023	302	4379	0,023	275	3981	0,023	302	4379	0,023	275	3981	0,050
	10,0	0,322	6047	9390	0,028	294	3503	0,028	268	3185	0,028	294	3503	0,028	268	3185	0,060
	12,0	0,359	5618	7825	0,032	280	2919	0,032	255	2654	-	-	-	-	-	-	0,070
	14,0	0,389	5218	6707	-	-	-	-	-	-	-	-	-	-	-	-	-
Steel <1300 N/mm ²	m/min	Vc = 225				Vc = 80				Vc = 75				Vc = 80			
	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
	2,0	0,022	1576	35810	0,002	76	12739	0,002	72	11943	0,002	76	12739	0,002	72	11943	-
	3,0	0,081	3867	23873	0,004	102	8493	0,004	96	7962	0,004	102	8493	0,004	96	7962	0,020
	4,0	0,139	4978	17905	0,009	172	6369	0,009	161	5971	0,009	172	6369	0,009	161	5971	0,030
	5,0	0,184	5271	14324	0,014	214	5096	0,014	201	4777	0,014	214	5096	0,014	201	4777	-
	6,0	0,220	5252	11937	0,018	229	4246	0,018	215	3981	0,018	229	4246	0,018	215	3981	0,040
	8,0	0,278	4978	8952	0,023	220	3185	0,023	206	2986	0,023	220	3185	0,023	206	2986	0,050
	10,0	0,322	4612	7162	0,028	214	2548	0,028	201	2389	0,028	214	2548	0,028	201	2389	0,060
	12,0	0,359	4285	5968	0,032	204	2123	0,032	191	1990	-	-	-	-	-	-	0,070
	14,0	0,389	3980	5116	-	-	-	-	-	-	-	-	-	-	-	-	-
High alloyed tool steel	m/min	Vc = 115				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	fz mm/z	F mm/min	n rpm	fz mm/z
	2,0	0,022	805	18303	0,002	38	6369	0,002	38	6369	0,002	38	6369	0,002	38	6369	-
	3,0	0,081	1977	12202	0,004	51	4246	0,004	51	4246	0,004	51	4246	0,004	51	4246	0,020
	4,0	0,139	2544	9151	0,009	86	3185	0,009	86	3185	0,009	86	3185	0,009	86	3185	0,030
	5,0	0,184	2694	7321	0,014	107	2548	0,014	107	2548	0,014	107	2548	0,014	107	2548	-
	6,0	0,220	2684	6101	0,018	115	2123	0,018	115	2123	0,018	115	2123	0,018	115	2123	0,040
	8,0	0,278	2544	4576	0,023	110	1592	0,023	110	1592	0,023	110	1592	0,023	110	1592	0,050
	10,0	0,322	2357	3661	0,028	107	1274	0,028	107	1274	0,028	107	1274	0,028	107	1274	0,060
	12,0	0,359	2190	3050	0,032	102	1062	0,032	102	1062	-	-	-	-	-	-	0,070
	14,0	0,389	2034	2615	-	-	-	-	-	-	-	-	-	-	-	-	-
Stainless Steel	m/min	Vc = 75				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	fz mm/z	F mm/min	n rpm	fz mm/z
	2,0	0,022	525	11937	0,002	38	6369	0,002	38	6369	0,002	38	6369	0,002	38	6369	-
	3,0	0,081	1289	7958	0,004	51	4246	0,004	51	4246	0,004	51	4246	0,004	51	4246	0,020
	4,0	0,139	1659	5968	0,009	86	3185	0,009	86	3185	0,009	86	3185	0,009	86	3185	0,030
	5,0	0,184	1757	4775	0,014	107	2548	0,014	107	2548	0,014	107	2548	0,014	107	2548	-
	6,0	0,220	1751	3979	0,018	115	2123	0,018	115	2123	0,018	115	2123	0,018	115	2123	0,040
	8,0	0,278	1659	2984	0,023	110	1592	0,023	110	1592	0,023	110	1592	0,023	110	1592	0,050
	10,0	0,322	1537	2387	0,028	107	1274	0,028	107	1274	0,028	107	1274	0,028	107	1274	0,060
	12,0	0,359	1428	1989	0,032	102	1062	0,032	102	1062	-	-	-	-	-	-	0,070
	14,0	0,389	1327	1705	-	-	-	-	-	-	-	-	-	-	-	-	-
	16,0	0,416	1241	1492	0,038	91	796	0,038	91	796	-	-	-	-	-	-	0,070
	20,0	-	-	-	0,042	80	637	0,042	80	637	-	-	-	-	-	-	0,080

Lange Serie: -15 % gegenüber den Arbeitsparametern des entsprechenden normalen Serienwerkzeugs. / Long series: 15% less than the working parameters of the corresponding tool standard series.

Legende / Legend

Anzahl Schneidkanten

Number of flutes

	2 Schneiden 2 Flutes		4 Schneiden 4 Flutes
	3 Schneiden 3 Flutes		4 Schneiden 4 Flutes
	3 Schneiden mit differenziertem Drallwinkel 3 Flutes with unequal helix		4 Schneiden mit differenziertem Drallwinkel 4 Flutes with unequal helix
	4 Schneiden 4 Flutes		6 Schneiden 6 Flutes

Art der Verarbeitung und Vorschubrichtung

Type of machining and feed direction

	Vorschubrichtung Feed direction		Rampenfräsen Ramp milling
	Nutenfräsen Slotting		3D-Kopieren 3D Copy milling
	Seiten- und Stirnfräsen Side and face milling		Fasen Chamfering
	Trochoidales Fräsen Trochoidal milling		Helikale Interpolation Helical interpolation

Aufnahme

Holders

	Aufnahme 6535 HA + 6535 HB 6535 HA + 6535 HB holders		Aufnahme 6535 HB 6535 HB holder
	Aufnahme 6535 HA 6535 HA holder		



QR code zur PDF Version
vom Katalog:



oder zur SILMAX Katalog-
übersicht:



Normen

Norms

6527 L 6528	Norm 6527 L 6528 6527 L 6528 Norm	6527 K 6528	Norm 6527 K 6528 6527 K 6528 Norm
6527 L	Norm 6527 L 6527 L Norm	Silmax NORM	Norm Silmax Silmax Norm

Frontgeometrie

Profile geometry

45°	45° Frontgeometrie 45° Profile geometry	60°	60° Frontgeometrie 60° Profile geometry
90°	90° Frontgeometrie 90° Profile geometry	90°	90° Frontgeometrie 90° Profile geometry
Cr	Geom. Vorderseite. Eckenradius Corner radius prof. geom.		Halbkugelförmige Frontgeometrie Ball nose profile geometry
λ 38° λ 40°	Helixwinkel Helix angle		Freischliff nach der Schneide Neck relief

Materialien, Beschichtungen und Behandlungen

Materials, coatings and treatments

MG Co10	Hartmetallqualität Hard metal quality	Balinit® Alcrona	Balinit® Alcrona-Beschichtung Balinit® Alcrona coating
Super- Finish	Super- Finish Superfinishing	Uncoated	Nicht beschichtet Uncoated



SILSAVING 2024

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