

HIGH PERFORMANCE DOUBLE CORE END MILLS

- Special Double-core design ensure both stable edge for high efficient cutting and more space for chip quick moving smoothly.
- Better surface quality due to variable pitch edge reducing vibration.
- Made of micrograin solid carbide and with coating AlCrN.
- Primary application ISO material group P and K.
- Secondary application ISO material group M and S.
- Four flute with center cutting and size similar to DIN6527L

DIN
6527

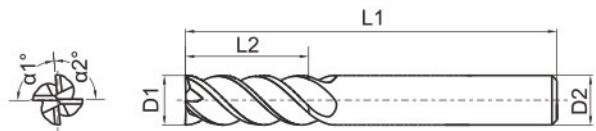
e8

h6
DIN
6535HA

4F

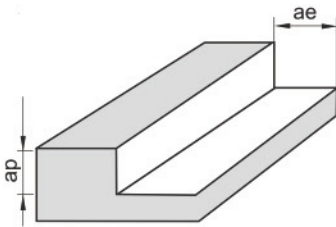
HRC
45

AlCrN



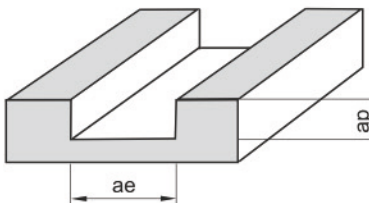
Order No.	e8 Size D1(mm)	h6 Shank Dia.D2(mm)	Length of Flute L2(mm)	Overall Length L1(mm)	Flute No.
423-03-001	4.0	4	10	50	4
423-03-002	5.0	5	11	50	4
423-03-003	6.0	6	13	57	4
423-03-004	8.0	8	19	63	4
423-03-005	10.0	10	22	72	4
423-03-006	12.0	12	26	83	4
423-03-007	16.0	16	32	92	4
423-03-008	20.0	20	38	104	4

Recommended cutting data for side milling:



Workpiece material end mill dia.	Mild steel		Alloy steel		Hardened steel (HRC30-HRC43)		Stainless steel	
	speed (r/min)	feed (mm/min)	speed (r/min)	feed (mm/min)	speed (r/min)	feed (mm/min)	speed (r/min)	feed (mm/min)
4 mm	9800	1170	7850	950	5550	550	4750	280
5 mm	7900	1100	6300	850	4450	530	3820	300
6 mm	6550	1050	5250	840	3700	520	3180	320
8 mm	4900	980	3950	790	2780	500	2390	280
10 mm	3950	950	3150	750	2230	450	1910	270
12 mm	3300	850	2620	680	1850	400	1590	250
16 mm	2450	630	1950	500	1390	330	1190	210
20 mm	2000	560	1550	430	1110	290	950	190
cutting width and depth	ap=1.5D ae=0.4D	ap=1.5D ae=0.4D	ap=1.5D ae=0.4D	ap=1.5D ae=0.4D	ap=1.5D ae=0.2D	ap=1.5D ae=0.2D	ap=1.5D ae=0.2D	ap=1.5D ae=0.2D

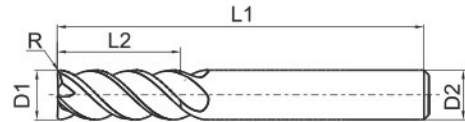
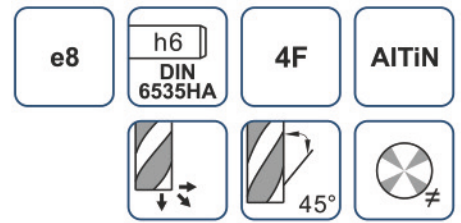
Recommended cutting data for slotting



Workpiece material end mill dia.	Mild steel		Alloy steel		Hardened steel (HRC30-HRC43)		Stainless steel	
	speed (r/min)	feed (mm/min)	speed (r/min)	feed (mm/min)	speed (r/min)	feed (mm/min)	speed (r/min)	feed (mm/min)
4 mm	9000	900	7160	710	4780	380	3980	230
5 mm	7200	860	5730	690	3820	380	3180	250
6 mm	6000	840	4780	670	3180	380	2650	260
8 mm	4500	810	3580	640	2340	380	1990	200
10 mm	3600	790	2860	630	1910	340	1590	190
12 mm	3000	720	2390	570	1590	320	1320	180
16 mm	2250	560	1790	450	1190	260	990	160
20 mm	1800	470	1430	370	960	230	790	140
cutting depth	ap=1.0D	ap=1.0D	ap=1.0D	ap=1.0D	ap=0.5D	ap=0.5D	ap=0.5D	ap=0.5D

HIGH PERFORMANCE END MILLS FOR STAINLESS STEEL

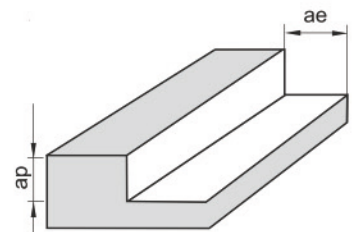
- Special geometry design for stainless steel.
- With mini corner radius ($R=0.3-1.0\text{mm}$)
- Better surface quality due to variable pitch edge reducing vibration.
- Made of micrograin solid carbide and with coating AlTiN.
- Primary application ISO material group M.
- Secondary application ISO material group S.
- Four flute with center cutting and shank according to DIN6535A



Order No.	e8 Size D1(mm)	h6 Shank Dia.D2(mm)	Length of Flute L2(mm)	Overall Length L1(mm)	Corner radius R(mm)	Flute No.
423-22-001	4.0	6	8	50	0.3	4
423-22-002	5.0	6	10	50	0.3	4
423-22-003	6.0	6	12	50	0.3	4
423-22-004	8.0	8	16	60	0.3	4
423-22-005	10.0	10	20	75	0.4	4
423-22-006	12.0	12	25	75	0.5	4
423-22-007	16.0	16	40	100	0.7	4
423-22-008	20.0	20	40	100	1	4

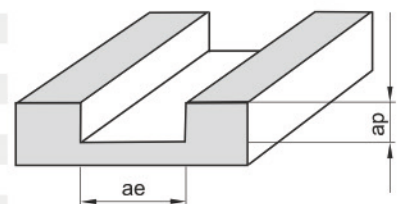
Recommended cutting data for side milling:

Workpiece material end mill dia.	Mild steel		Alloy steel		Hardened steel (HRC30-HRC43)		Stainless steel	
	speed (r/min)	feed (mm/min)	speed (r/min)	feed (mm/min)	speed (r/min)	feed (mm/min)	speed (r/min)	feed (mm/min)
4 mm	9200	600	8700	1390	5025	300	5400	400
5 mm	7500	610	6960	1390	100	300	4400	400
6 mm	6250	620	5800	1400	3350	300	3680	400
8 mm	4680	630	4400	1300	2550	285	2760	360
10 mm	3715	650	3500	1200	2150	285	2200	320
12 mm	3150	570	3000	1100	1750	265	1850	280
16 mm	2350	430	2250	810	1300	190	1380	230
20 mm	1900	350	1750	630	1050	170	1050	190
cutting width and depth	ap=1.0D ae=0.45D	ap=1.0D ae=0.45D	ap=1.0D ae=0.2D	ap=1.0D ae=0.2D	ap=0.5D ae=0.2D	ap=0.5D ae=0.2D	ap=0.5D ae=0.2D	ap=0.5D ae=0.2D



Recommended cutting data for slotting

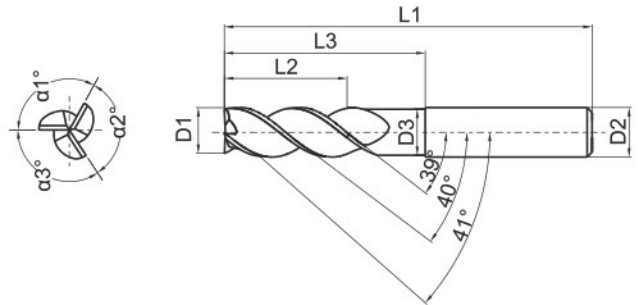
Workpiece material end mill dia.	Mild steel		Alloy steel		Hardened steel (HRC30-HRC43)		Stainless steel	
	speed (r/min)	feed (mm/min)	speed (r/min)	feed (mm/min)	speed (r/min)	feed (mm/min)	speed (r/min)	feed (mm/min)
4 mm	9000	1000	6000	560	3900	400	4000	450
5 mm	7200	1000	4800	620	3120	380	3250	420
6 mm	6000	1000	4000	640	2600	370	2700	400
8 mm	4600	1000	3000	580	1900	360	2030	330
10 mm	3600	1000	2400	550	1400	300	1600	300
12 mm	2860	830	2000	450	1150	270	1300	280
16 mm	2100	530	1500	360	880	180	1000	210
20 mm	1680	450	1200	310	715	160	800	160
cutting depth	ap=1.0D	ap=1.0D	ap=1.0D	ap=1.0D	ap=0.5D	ap=0.5D	ap=0.5D	ap=0.5D



HIGH PERFORMANCE END MILLS FOR ALUMINIUM

Features:

- Special geometry design for aluminium or Alu. alloy.
- Variable pitch edge and different helix flute prevent vibration for long tool life time and better surface.
- Made of micrograin solid carbide and without coating.
- Three flute with center cutting and shank according to DIN6535A
- Neck reduced.



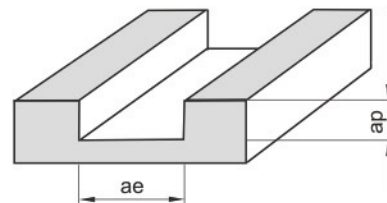
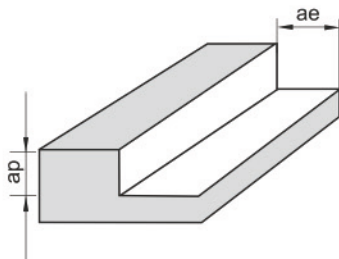
Order No.	e8 Size D1(mm)	Flute Helix	h6 Shank Dia .D2(mm)	Length of Flute L2(mm)	Overall Length L1(mm)	Neck dia. D3(mm)	Neck length L3(mm)	Flute No.
422-00-001	4.0	39° /40° /41°	6	8	50	3.5	14	3
422-00-002	5.0	39° /40° /41°	6	10	50	4.5	16	3
422-00-003	6.0	39° /40° /41°	6	13	50	5.5	20	3
422-00-004	8.0	39° /40° /41°	8	18	60	7.5	25	3
422-00-005	10.0	39° /40° /41°	10	22	75	9.3	32	3
422-00-006	12.0	39° /40° /41°	12	25	75	11	35	3
422-00-007	16.0	39° /40° /41°	16	35	100	15	50	3
422-00-008	20.0	39° /40° /41°	20	40	100	19	50	3

Recommended cutting data for side milling:

Workpiece material	Aluminium alloy	
end mill dia.	speed (r/min)	feed (mm/min)
4 mm	21450	3200
5 mm	17160	3000
6 mm	14300	3000
8 mm	10700	3000
10 mm	8600	3000
12 mm	7200	3000
16 mm	5380	2500
20 mm	4300	2200
cutting width and depth	ap=1.5D ae=0.4D	ap=1.5D ae=0.4D

Recommended cutting data for slotting

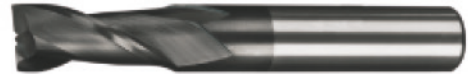
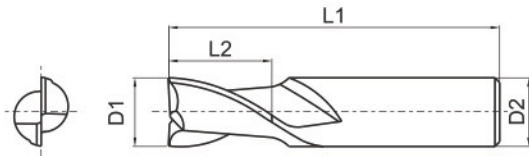
Workpiece material	Aluminium alloy	
end mill dia.	speed (r/min)	feed (mm/min)
4 mm	25000	5800
5 mm	20000	5600
6 mm	14300	5500
8 mm	10700	4800
10 mm	8600	4800
12 mm	7200	5000
16 mm	5380	4000
20 mm	4300	3500
cutting depth	ap=0.6D	ap=0.6D



STANDARD SOLID CARBID SLOT DRILL

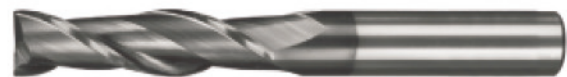
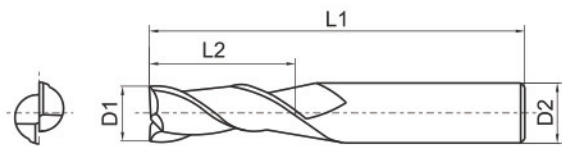
- Made of micrograin solid carbide and with coating TiAIN
- Improved coating for general-purpose applications in steel and case iron.
- Two flute with center cutting and size similar to DIN6527

DIN 6527	h6 DIN 6535HA	2F	Type N
		HRC 45	TiAIN



Standard Length

Order No.	e8 Size D1(mm)	h6 Shank Dia .D2(mm)	Length of Flute L2(mm)	Overall Length L1(mm)	Flute No.
421-01-001	1.0	3	3	38	2
421-01-002	1.5	3	5	38	2
421-01-003	2.0	3	6	38	2
421-01-004	2.5	3	7	38	2
421-01-005	3.0	3	7	38	2
421-01-006	3.5	4	10	50	2
421-01-007	4.0	4	10	50	2
421-01-008	4.5	5	11	50	2
421-01-009	5.0	5	11	50	2
421-01-010	5.5	6	13	57	2
421-01-011	6.0	6	13	57	2
421-01-012	7.0	8	16	63	2
421-01-013	8.0	8	19	63	2
421-01-014	9.0	10	16	72	2
421-01-015	10.0	10	22	72	2
421-01-016	12.0	12	26	83	2
421-01-017	14.0	14	26	83	2
421-01-018	16.0	16	32	92	2
421-01-019	18.0	18	32	92	2
421-01-020	20.0	20	38	104	2
421-01-021	25.0	25	38	104	2



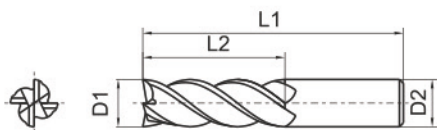
Long Length

Order No.	e8 Size D1(mm)	h6 Shank Dia .D2(mm)	Length of Flute L2(mm)	Overall Length L1(mm)	Flute No.
421-01-022	3.0	3	15	57	2
421-01-023	3.5	4	19	57	2
421-01-024	4.0	4	19	57	2
421-01-025	4.5	5	25	63	2
421-01-026	5.0	5	25	63	2
421-01-027	5.5	6	25	75	2
421-01-028	6.0	6	25	75	2
421-01-029	8.0	8	30	75	2
421-01-030	10.0	10	35	90	2
421-01-031	12.0	12	45	100	2
421-01-032	14.0	14	45	100	2
421-01-033	16.0	16	50	100	2
421-01-034	18.0	18	50	100	2
421-01-035	20.0	20	60	120	2
421-01-036	25.0	25	60	120	2

STANDARD SOLID CARBIDE END MILL

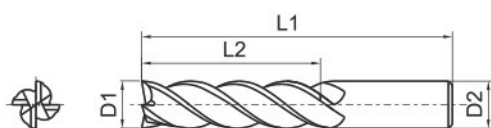
- Made of micrograin solid carbide and with coating TiAIN
- Improved coating for general-purpose applications in steel and case iron.
- Four flute with center cutting and size similar to DIN6527

DIN 6527	h6 DIN 6535HA	4F	Type N
		HRC 45	TiAIN



Standard Length

Order No.	e8 Size D1(mm)	h6 Shank Dia .D2(mm)	Length of Flute L2(mm)	Overall Length L1(mm)	Flute No.
423-01-001	1.0	3	3	38	4
423-01-002	1.5	3	5	38	4
423-01-003	2.0	3	6	38	4
423-01-004	2.5	3	7	38	4
423-01-005	3.0	3	7	38	4
423-01-006	3.5	4	10	50	4
423-01-007	4.0	4	10	50	4
423-01-008	4.5	5	11	50	4
423-01-009	5.0	5	11	50	4
423-01-010	5.5	6	13	57	4
423-01-011	6.0	6	13	57	4
423-01-012	7.0	8	16	63	4
423-01-013	8.0	8	19	63	4
423-01-014	9.0	10	16	72	4
423-01-015	10.0	10	22	72	4
423-01-016	12.0	12	26	83	4
423-01-017	14.0	14	26	83	4
423-01-018	16.0	16	32	92	4
423-01-019	18.0	18	32	92	4
423-01-020	20.0	20	38	104	4
423-01-021	25.0	25	38	104	4



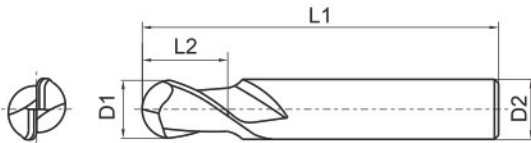
Long Length

Order No.	e8 Size D1(mm)	h6 Shank Dia .D2(mm)	Length of Flute L2(mm)	Overall Length L1(mm)	Flute No.
423-01-022	3.0	3	15	57	4
423-01-023	3.5	4	19	57	4
423-01-024	4.0	4	19	57	4
423-01-025	4.5	5	25	63	4
423-01-026	5.0	5	25	63	4
423-01-027	5.5	6	25	75	4
423-01-028	6.0	6	25	75	4
423-01-029	8.0	8	30	75	4
423-01-030	10.0	10	35	90	4
423-01-031	12.0	12	45	100	4
423-01-032	14.0	14	45	100	4
423-01-033	16.0	16	50	100	4
423-01-034	18.0	18	50	100	4
423-01-035	20.0	20	60	120	4
423-01-036	25.0	25	60	120	4

SOLID CARBIDE BALL NOSE SLOT DRILL

- Made of micrograin solid carbide and with coating TiAlN
- Improved coating for general-purpose applications in steel and case iron.
- Two flute with center cutting and size similar to DIN6527

DIN 6527	h6 DIN 6535HA	4F	Type N
		HRC 45	TiAlN

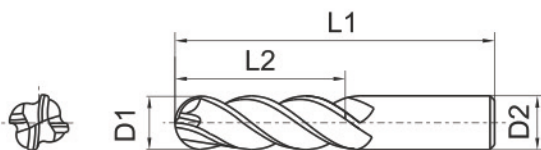


Order No.	e8 Size D1(mm)	h6 Shank Dia .D2(mm)	Length of Flute L2(mm)	Overall Length L1(mm)	Flute No.
421-11-001	1.0	3	3	38	2
421-11-002	1.5	3	5	38	2
421-11-003	2.0	3	6	38	2
421-11-004	2.5	3	7	38	2
421-11-005	3.0	3	7	38	2
421-11-006	3.5	4	10	50	2
421-11-007	4.0	4	10	50	2
421-11-008	5.0	5	11	50	2
421-11-009	6.0	6	13	57	2
421-11-010	7.0	8	13	63	2
421-11-011	8.0	8	16	63	2
421-11-012	9.0	10	16	72	2
421-11-013	10.0	10	19	72	2
421-11-014	12.0	12	22	83	2
421-11-015	14.0	14	22	83	2
421-11-016	16.0	16	26	92	2
421-11-017	18.0	18	26	92	2
421-11-018	20.0	20	32	104	2

SOLID CARBIDE BALL NOSE END MILL

- Made of micrograin solid carbide and with coating TiAlN
- Improved coating for general-purpose applications in steel and case iron.
- Two flute with center cutting and size similar to DIN6527

DIN 6527	e8	h6 DIN 6535HA	4F	Type N
		HRC 45	TiAlN	



Order No.	e8 Size D1(mm)	h6 Shank Dia .D2(mm)	Length of Flute L2(mm)	Overall Length L1(mm)	Flute No.
423-11-001	3.0	3	7	38	4
423-11-002	3.5	4	10	50	4
423-11-003	4.0	4	10	50	4
423-11-004	5.0	5	11	50	4
423-11-005	6.0	6	13	57	4
423-11-006	7.0	8	13	63	4
423-11-007	8.0	8	16	63	4
423-11-008	9.0	10	16	72	4
423-11-009	10.0	10	19	72	4
423-11-010	12.0	12	22	83	4
423-11-011	14.0	14	22	83	4
423-11-012	16.0	16	26	92	4
423-11-013	18.0	18	26	92	4
423-11-014	20.0	20	32	104	4