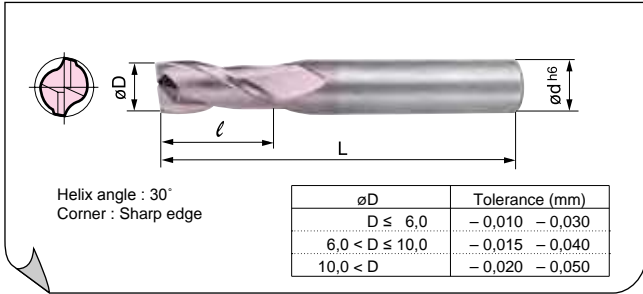


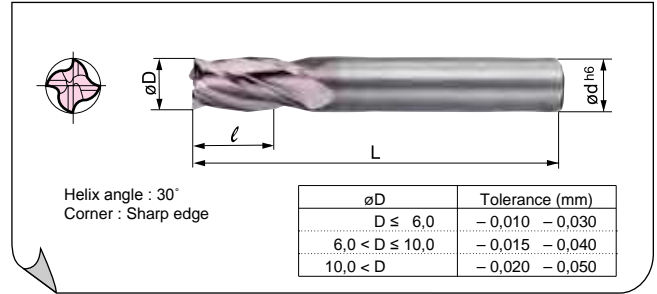
ZX Coated Spiral Endmills SSM 2000ZX Type

Coated carbide grade: ACZ50



ZX Coated Spiral Endmills SSM 4000ZX Type

Coated carbide grade: ACZ50



Endmills (mm)

	Cat. No.	Stock	øD	l	L	ød
	SSM 2010ZX	▲	1,0	3	40	4
	SSM 2015ZX	▲	1,5	5	40	4
	SSM 2020ZX	▲	2,0	6	40	4
	SSM 2021ZX		2,1	6	40	4
	SSM 2022ZX		2,2	6	40	4
	SSM 2023ZX		2,3	6	40	4
	SSM 2024ZX		2,4	6	40	4
	SSM 2025ZX	▲	2,5	8	40	4
	SSM 2026ZX		2,6	8	40	4
	SSM 2027ZX		2,7	8	40	4
	SSM 2028ZX		2,8	8	40	4
	SSM 2029ZX		2,9	8	40	4
	SSM 2030ZX	▲	3,0	8	45	6
	SSM 2035ZX	▲	3,5	8	45	6
	SSM 2040ZX	▲	4,0	10	45	6
	SSM 2045ZX	▲	4,5	10	45	6
	SSM 2050ZX	▲	5,0	12	50	6
	SSM 2055ZX	▲	5,5	12	50	6
	SSM 2060ZX	▲	6,0	12	50	6
	SSM 2065ZX	□	6,5	12	50	8
	SSM 2070ZX	▲	7,0	15	55	8
	SSM 2075ZX	▲	7,5	15	55	8
	SSM 2080ZX	▲	8,0	15	55	8
	SSM 2085ZX	▲	8,5	15	55	10
	SSM 2090ZX	▲	9,0	15	55	10
	SSM 2095ZX	▲	9,5	15	55	10
	SSM 2100ZX	▲	10,0	18	65	10
	SSM 2105ZX		10,5	18	70	12
	SSM 2110ZX	▲	11,0	18	70	12
	SSM 2115ZX		11,5	18	70	12
	SSM 2120ZX	▲	12,0	18	70	12
	SSM 2130ZX		13,0	20	80	16
	SSM 2140ZX	▲	14,0	20	80	16
	SSM 2150ZX	▲	15,0	25	80	16
	SSM 2160ZX	▲	16,0	35	90	16
	SSM 2180ZX	▲	18,0	40	105	20
	SSM 2200ZX	▲	20,0	40	105	20

Endmills (mm)

	Cat. No.	Stock	øD	l	L	ød
	SSM 4015ZX	▲	1,5	5,0	40	4
	SSM 4020ZX	▲	2,0	6,0	40	4
	SSM 4025ZX	▲	2,5	8,0	40	4
	SSM 4030ZX	▲	3,0	8,0	45	6
	SSM 4035ZX	▲	3,5	8,0	45	6
	SSM 4040ZX	▲	4,0	10,0	45	6
	SSM 4045ZX	▲	4,5	10,0	45	6
	SSM 4050ZX	▲	5,0	12,0	50	6
	SSM 4055ZX	▲	5,5	12,0	50	6
	SSM 4060ZX	▲	6,0	12,0	50	6
	SSM 4065ZX	▲	6,5	12,0	50	8
	SSM 4070ZX	▲	7,0	15,0	55	8
	SSM 4075ZX	▲	7,5	15,0	55	8
	SSM 4080ZX	▲	8,0	15,0	55	8
	SSM 4085ZX	▲	8,5	15,0	55	10
	SSM 4090ZX	▲	9,0	15,0	55	10
	SSM 4095ZX	▲	9,5	15,0	55	10
	SSM 4100ZX	▲	10,0	18,0	65	10
	SSM 4105ZX		10,5	18,0	65	12
	SSM 4110ZX	▲	11,0	18,0	70	12
	SSM 4115ZX		11,5	18,0	70	12
	SSM 4120ZX	▲	12,0	18,0	70	12
	SSM 4130ZX	▲	13,0	20,0	80	16
	SSM 4135ZX		13,5	20,0	80	16
	SSM 4140ZX	▲	14,0	20,0	80	16
	SSM 4150ZX	▲	15,0	25,0	80	16
	SSM 4160ZX	▲	16,0	35,0	90	16
	SSM 4170ZX		17,0	35,0	90	20
	SSM 4180ZX		18,0	40,0	105	20
	SSM 4190ZX		19,0	40,0	105	20
	SSM 4200ZX	▲	20,0	40,0	105	20
	SSM 4220ZX		22,0	40,0	105	25
	SSM 4240ZX	▲	24,0	45,0	115	25
	SSM 4250ZX		24,0	50,0	120	25
	SSM 4300ZX		30,0	55,0	130	32
	SSM 4320ZX		32,0	55,0	130	32

Recommended conditions (Slotting) øD < ø3 ; d_{oc} = 0,5 x øD
øD ≥ ø3 ; d_{oc} = 1,0 x øD

øD	Material	Carbon steel, Alloy steel		Cast iron	Stainless steel, Ti-alloy etc.
		(BelowHRC25)	(BelowHRC45)		
1,0 ~ 2,9	v _c	200-250-300	100-150-200	100-120-150	60-75-90
	f _t	0,003-0,010	0,002-0,005	0,005-0,016	0,002-0,005
3,0 ~ 5,9	v _c	200-250-300	100-150-200	100-120-150	60-75-90
	f _t	0,012-0,024	0,006-0,011	0,018-0,040	0,006-0,011
6,0 ~ 12,9	v _c	200-250-300	100-150-200	100-120-150	60-75-90
	f _t	0,025-0,050	0,013-0,025	0,045-0,105	0,013-0,025
13,0 ~ 20,0	v _c	200-250-300	100-150-200	100-120-150	60-75-90
	f _t	0,055-0,085	0,030-0,050	0,110-0,170	0,030-0,050

v_c = m/min f_t = mm/tooth

Recommended conditions (Shoulder processing) d_{oc} = 1,5 x øD
w_{oc} = 0,1 x øD

øD	Material	Carbon steel, Alloy steel		Cast iron	Stainless steel, Ti-alloy etc.
		(BelowHRC25)	(BelowHRC45)		
1,0 ~ 2,9	v _c	200-250-300	100-150-200	100-120-150	60-75-90
	f _t	0,004-0,017	0,002-0,008	0,008-0,020	0,002-0,008
3,0 ~ 5,9	v _c	200-250-300	100-150-200	100-120-150	60-75-90
	f _t	0,018-0,036	0,009-0,018	0,027-0,060	0,009-0,018
6,0 ~ 12,9	v _c	200-250-300	100-150-200	100-120-150	60-75-90
	f _t	0,038-0,070	0,019-0,035	0,065-0,157	0,019-0,035
13,0 ~ 19,9	v _c	200-250-300	100-150-200	100-120-150	60-75-90
	f _t	0,075-0,125	0,040-0,075	0,160-0,250	0,040-0,075
20,0 ~ 32,0	v _c	200-250-300	100-150-200	100-120-150	60-75-90
	f _t	0,135-0,170	0,085-0,110	0,257-0,390	0,085-0,110

v_c = m/min f_t = mm/tooth