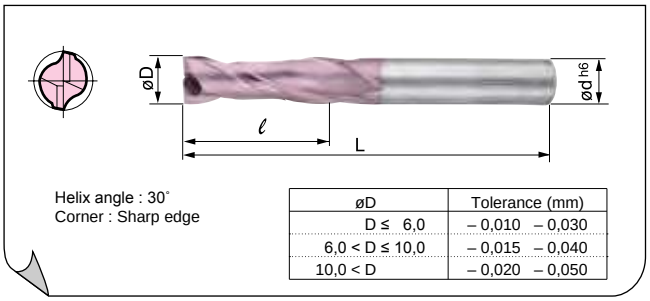
ZX Coated Long Spiral Endmills
LSM 2000ZX Type

Coated carbide grade: ACZ50



Helix angle : 30°
Corner : Sharp edge

øD	Tolerance (mm)
D ≤ 6,0	– 0,010 – 0,030
6,0 < D ≤ 10,0	– 0,015 – 0,040
10,0 < D	– 0,020 – 0,050

■ Endmills

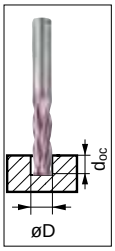
(mm)

	Cat. No.	Stock	øD	ℓ	L	ød
2	LSM 2010ZX		1,0	5,0	45	4
	LSM 2015ZX		1,5	7,0	45	4
	LSM 2020ZX		2,0	9,0	45	4
	LSM 2025ZX		2,5	12,0	45	4
	LSM 2030ZX	❑	3,0	12,0	50	6
	LSM 2035ZX	❑	3,5	12,0	50	6
	LSM 2040ZX	❑	4,0	15,0	50	6
	LSM 2045ZX		4,5	15,0	50	6
	LSM 2050ZX	❑	5,0	18,0	55	6
	LSM 2055ZX		5,5	18,0	55	6
	LSM 2060ZX	❑	6,0	18,0	55	6
	LSM 2065ZX	❑	6,5	18,0	55	8
	LSM 2070ZX	❑	7,0	25,0	65	8
	LSM2075ZX		7,5	25,0	65	8
	LSM 2080ZX	❑	8,0	25,0	65	8
	LSM 2085ZX		8,5	25,0	65	10
	LSM 2090ZX	❑	9,0	25,0	65	10
	LSM 2095ZX		9,5	25,0	65	10
	LSM 2100ZX	❑	10,0	30,0	75	10
	LSM 2105ZX		10,5	30,0	80	12
	LSM 2110ZX	❑	11,0	30,0	80	12
	LSM 2115ZX		11,5	30,0	80	12
	LSM 2120ZX	❑	12,0	30,0	80	12
	LSM 2130ZX	❑	13,0	35,0	95	16
	LSM 2140ZX		14,0	40,0	95	16
	LSM 2150ZX		15,0	40,0	95	16
	LSM 2160ZX		16,0	50,0	105	16
	LSM 2170ZX		17,0	50,0	105	20
	LSM 2180ZX		18,0	50,0	115	20
	LSM 2190ZX		19,0	55,0	120	20
	LSM 2200ZX		20,0	55,0	120	20
	LSM 2240ZX		24,0	65,0	140	25
	LSM 2250ZX		25,0	65,0	140	25

Recommended conditions

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

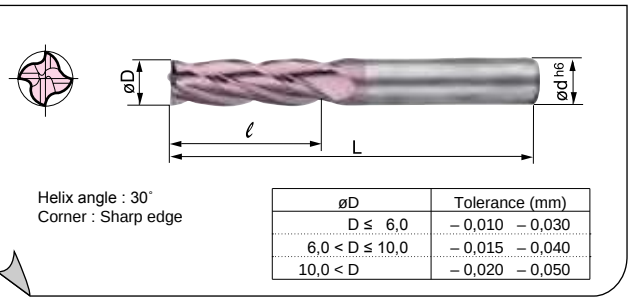
øD \ Material		Carbon steel, Alloy steel (BelowHRC25)	Carbon steel, Alloy steel (BelowHRC45)	Cast iron	Stainless steel, Ti-alloy etc,
1,0 ~ 2,9	v_c	200-**250**-300	100-**150**-200	100-**120**-150	60-**75**-90
	f_t	0,002~0,008	0,001~0,004	0,003~0,01 2	0,001~0,004
3,0 ~ 5,9	v_c	200-**250**-300	100-**150**-200	100-**120**-150	60-**75**-90
	f_t	0,009~0,018	0,004~0,008	0,014~0,030	0,004~0,008
6,0 ~ 12,9	v_c	200-**250**-300	100-**150**-200	100-**120**-150	60-**75**-90
	f_t	0,019~0,038	0,009~0,019	0,034~0,079	0,009~0,019
13,0 ~ 19,9	v_c	200-**250**-300	100-**150**-200	100-**120**-150	60-**75**-90
	f_t	0,041~0,064	0,023~0,038	0,083~0,128	0,023~0,038
20,0 ~ 25,0	v_c	200-250-300	100-**150**-200	100-**120**-150	60-**75**-90
	f_t	0,071~0,090	0,041~0,052	0,139~0,195	0,041~0,052



v_c =m/min f_t =mm/tooth

ZX Coated Long Spiral Endmills
LSM 4000ZX Type

Coated carbide grade: ACZ50



Helix angle : 30°
Corner : Sharp edge

øD	Tolerance (mm)
D ≤ 6,0	– 0,010 – 0,030
6,0 < D ≤ 10,0	– 0,015 – 0,040
10,0 < D	– 0,020 – 0,050

■ Endmills

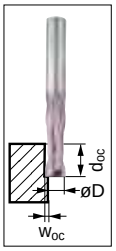
(mm)

	Cat. No.	Stock	øD	ℓ	L	ød
4	LSM 4030ZX	❑	3,0	12,0	50	6
	LSM 4035ZX	❑	3,5	12,0	50	6
	LSM 4040ZX	❑	4,0	15,0	50	6
	LSM 4045ZX	❑	4,5	15,0	50	6
	LSM 4050ZX	❑	5,0	18,0	55	6
	LSM 4055ZX		5,5	18,0	55	6
	LSM 4060ZX	❑	6,0	18,0	55	6
	LSM 4065ZX		6,5	18,0	55	8
	LSM 4070ZX	❑	7,0	25,0	65	8
	LSM 4075ZX	❑	7,5	25,0	65	8
	LSM 4080ZX	❑	8,0	25,0	65	8
	LSM 4085ZX		8,5	25,0	65	10
	LSM 4090ZX	❑	9,0	25,0	65	10
	LSM 4095ZX		9,5	25,0	65	10
	LSM 4100ZX	❑	10,0	30,0	75	10
	LSM 4110ZX	❑	11,0	30,0	80	12
	LSM 4115ZX		11,5	30,0	80	12
	LSM 4120ZX	❑	12,0	30,0	80	12
	LSM 4130ZX	❑	13,0	35,0	95	16
	LSM4140ZX	❑	14,0	40,0	95	16
	LSM 4150ZX	❑	15,0	40,0	95	16
	LSM 4160ZX	❑	16,0	50,0	105	16
	LSM 4170ZX		17,0	50,0	105	20
	LSM 4180ZX		18,0	50,0	115	20
	LSM 4190ZX		19,0	55,0	120	20
	LSM 4200ZX	❑	20,0	55,0	120	20
	LSM 4220ZX		22,0	60,0	135	25
	LSM 4250ZX	❑	25,0	65,0	140	25

Recommended conditions

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

øD \ Material		Carbon steel, Alloy steel (BelowHRC25)	Carbon steel, Alloy steel (BelowHRC45)	Cast iron	Stainless steel, Ti-alloy etc,
3,0 ~ 5,9	v_c	200-**250**-300	100-**150**-200	100-**120**-150	60-**75**-90
	f_t	0,013~0,027	0,007~0,01 3	0,020~0,045	0,007~0,013
6,0 ~ 12,9	v_c	200-**250**-300	100-**150**-200	100-**120**-150	60-**75**-90
	f_t	0,028~0,052	0,014~0,026	0,049~0,118	0,014~0,026
13,0 ~ 19,9	v_c	200-**250**-300	100-**150**-200	100-**120**-150	60-**75**-90
	f_t	0,056~0,094	0,030~0,056	0,120~0,187	0,030~0,056
20,0 ~ 25,0	v_c	200-**250**-300	100-**150**-200	100-**120**-150	60-**75**-90
	f_t	0,101~0,127	0,064~0,082	0,193~0,292	0,064~0,082



v_c =m/min f_t =mm/tooth