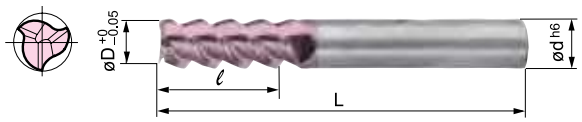
ZX Coated Fast Helix Endmills

HSM 2000/3000/4000 ZX Type

Coated carbide grade: ACZ50



Helix angle : 60°
Corner : Edge with honing

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

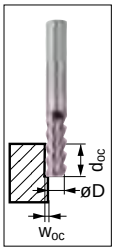
(mm)

	Cat. No.	Stock	øD	ℓ	L	ød
2	**HSM 2020ZX**	❑	2,0	6	40	4
	HSM 2030ZX	❑	3,0	8	45	6
	HSM 2040ZX	❑	4,0	10	45	6
3	**HSM 3030ZX**	▲	3,0	12	45	6
	HSM 3040ZX	▲	4,0	15	45	6
	HSM 3050ZX	▲	5,0	12	50	6
	HSM 3060ZX	▲	6,0	15	50	6
	HSM 3070ZX	❑	7,0	18	60	8
	HSM 3080ZX	▲	8,0	18	60	8
	HSM 3090ZX	❑	9,0	20	65	10
	HSM 3100ZX	▲	10,0	25	70	10
	HSM 3110ZX		11,0	25	75	12
	HSM 3120ZX	▲	12,0	30	75	12
	HSM 3130ZX		13,0	30	80	16
	HSM 3140ZX	❑	14,0	30	90	16
	HSM 3150ZX	▲	15,0	30	95	16
	HSM 3160ZX	▲	16,0	35	95	16
	HSM 3180ZX		18,0	40	110	20
	HSM 3200ZX	❑	20,0	40	110	20
4	**HSM 4200ZX**	❑	20,0	40	110	20
	HSM 4250ZX		25,0	50	120	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,
1,0 ~ 2,9	v_c	200-**250**-300	100-**150**-200	100-**120**-150	60-**75**-90
	f_t	0,010~0,035	0,005~0,017	0,015~0,055	0,005~0,017
3,0 ~ 5,9	v_c	200-**250**-300	100-**150**-200	100-**120**-150	60-**75**-90
	f_t	0,040~0050	0,020~0,025	0,060~0,070	0,020~0,025
6,0 ~ 12,9	v_c	200-**250**-300	100-**150**-200	100-**120**-150	60-**75**-90
	f_t	0,055~0,110	0,028~0,055	0,080~0,220	0,028~0,055
13,0 ~ 19,9	v_c	200-**250**-300	100-**150**-200	100-**120**-150	60-**75**-90
	f_t	0,120~0,180	0,060~0,090	0,250~0,350	0,060~0,090
20,0 ~ 25,0	v_c	200-**250**-300	100-**150**-200	100-**120**-150	60-**75**-90
	f_t	0,190~0,245	0,095~0,125	0,380~0,490	0,095~0,125



v_c =m/min f_t =mm/tooth