

# CX200 3枚刃スクエアエンドミル ピンカド

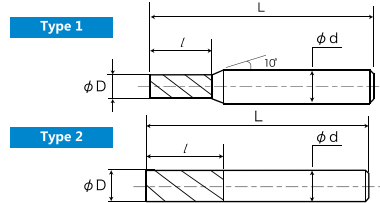
CX200 Series 3-Flute Square End Mill Sharp Edge

## CX200-PHEM3



CX200-PHEM3010

Model Flute D



### 特性 Features

- CX200-Coating have high oxidation resistance and hardening which exceeds the existing coating and provides long tool life, and suitable for high speed processing and dry milling.
- Combination of Negative radius blade and 45 degree helix blades enables high rigidity and sharpness by high feed speed, with high efficiency
- 3Flute eliminates chattering and suitable for drilling processing
- CKK Original design Chip pocket enables similar or same cutting depth which 3-flutes could realize

MG  
超微粒

45°  
Sharp Edge

CX200  
Coat

外径公差 Tolerance	
0	-0.02

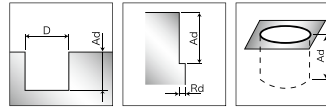
炭素鋼 Carbon Steel	合金鋼 Alloy Steel	調質鋼 Prehardened Steel	焼き入れ鋼 Hardened Steel			鋳鉄 Cast Iron	ステンレス鋼 Stainless Steels	アルミ合金 Aluminum Alloys	銅合金 Copper Alloys	チタン合金 Ti/Ni Alloy	グラファイト Graphite	樹脂 Resin
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

◎=Best ○=Good

MODEL 型番	D 外径	l 刃長	L 全長	d シャンク径	Type
CX200-PHEM3010	1	4	60	6	1
CX200-PHEM3015	1.5	6	60	6	1
CX200-PHEM3020	2	8	60	6	1
CX200-PHEM3025	2.5	10	60	6	1
CX200-PHEM3030	3	16	60	6	1
CX200-PHEM3040	4	18	60	6	1
CX200-PHEM3050	5	21	60	6	1
CX200-PHEM3060	6	21	60	6	2
CX200-PHEM3070	7	24	70	8	1
CX200-PHEM3075	7.5	24	70	8	1
CX200-PHEM3080	8	26	75	8	2
CX200-PHEM3090	9	26	80	10	1
CX200-PHEM3100	10	34	90	10	2
CX200-PHEM3110	11	34	100	12	1
CX200-PHEM3120	12	38	100	12	2
CX200-PHEM3160	16	48	110	16	2
CX200-PHEM3200	20	56	130	20	2

# CX200-PHEM3

### 推奨切削条件 Standard Milling Condition



- The table shows standard milling guidance of perforating process as written picture.
- Use a rigid and precise machine and tool holder.
- Select a cutting fluid appropriate to the particular usage.
- In case the Revolution could not be increased by the machine used, please reduce feed speed and Revolution at same ratio.
- When mounting End Mills, the run out of the lip will have to be set within 0.01mm.
- In case of milling for stainless steel, please take wet cut milling.

### 溝切削 Slotting

切削材 Work Material	炭素鋼 Carbon Steel S 45-S55 C			合金鋼 工具鋼 Alloy Steel Tool Steel SKD5CM			調質鋼 プリハードン鋼 Prehardened Steel 35-40HRC/HPM/NAK		
	送り速度 (mm/min) Feed rate	回転数 (min <sup>-1</sup> ) Revolution	送り速度 (mm/min) Feed rate	回転数 (min <sup>-1</sup> ) Revolution	送り速度 (mm/min) Feed rate	回転数 (min <sup>-1</sup> ) Revolution	送り速度 (mm/min) Feed rate	回転数 (min <sup>-1</sup> ) Revolution	
外径 Diameter									
1 ~ 1.5	277	25000	150	22300	150	127	202	10700	
2 ~ 2.5	457	14700	232	12300	202	10700	232	8000	
3	502	10600	255	9000	240	6000	270	4800	
4	525	8000	270	6800	270	4800	270	4000	
5	592	6400	300	5400	270	4000	262	3400	
6	585	5300	300	4500	270	3000	262	3000	
7 ~ 7.5	577	4500	307	3900	262	2700	262	2700	
8	585	4000	300	3400	262	2400	262	2400	
9	592	3500	307	3000	262	2100	262	2100	
10	570	3200	292	2700	262	2000	262	2000	
11	570	2900	300	2500	262	2000	262	2000	
12	577	2700	300	2300	262	2000	262	2000	
16	472	2000	240	1700	210	1500	210	1500	
20	345	1600	180	1400	157	1200	157	1200	

### 側面切削 Side Milling

切削材 Work Material	炭素鋼 Carbon Steel S 45-S55 C				合金鋼 工具鋼 Alloy Steel Tool Steel SKD5CM				調質鋼 プリハードン鋼 Prehardened Steel 35-40HRC/HPM/NAK			
	送り速度 (mm/min) Feed rate		回転数 (min <sup>-1</sup> ) Revolution		送り速度 (mm/min) Feed rate		回転数 (min <sup>-1</sup> ) Revolution		送り速度 (mm/min) Feed rate		回転数 (min <sup>-1</sup> ) Revolution	
外径 Diameter												
1 ~ 1.5	412	637	25000	50000	277	427	22300	44600	232	367	19100	38200
2 ~ 2.5	682	1050	14700	29400	435	667	12300	24700	375	577	10700	21500
3	750	1147	10600	21200	480	735	9000	18000	427	652	8000	15900
4	787	1200	8000	15900	502	772	6800	13500	442	682	6000	11900
5	877	1342	6400	12700	562	862	5400	10800	495	757	4800	9500
6	877	1350	5300	10600	562	862	4500	9000	502	765	4000	8000
7 ~ 7.5	862	1342	4500	9100	570	862	3900	7700	495	757	3400	6800
8	870	1342	4000	8000	562	862	3400	6800	495	757	3000	6000
9	885	1380	3500	7100	570	877	3000	6000	517	780	2700	5300
10	855	1312	3200	6400	547	840	2700	5400	487	742	2400	4800
11	855	1312	2900	5800	555	832	2500	4900	487	735	2200	4300
12	862	1305	2700	5300	555	840	2300	4500	480	742	2000	4000
16	697	1072	2000	4000	450	690	1700	3400	397	607	1500	3000
20	510	787	1600	3200	337	502	1400	2700	292	450	1200	2400

### 突込み切削 Perforating

切削材 Work Material	炭素鋼 Carbon Steel S 45-S55 C			合金鋼 工具鋼 Alloy Steel Tool Steel SKD5CM			調質鋼 プリハードン鋼 Prehardened Steel 35-40HRC/HPM/NAK		
	送り速度 (mm/min) Feed rate	回転数 (min <sup>-1</sup> ) Revolution	送り速度 (mm/min) Feed rate	回転数 (min <sup>-1</sup> ) Revolution	送り速度 (mm/min) Feed rate	回転数 (min <sup>-1</sup> ) Revolution	送り速度 (mm/min) Feed rate	回転数 (min <sup>-1</sup> ) Revolution	
外径 Diameter									
1 ~ 1.5	70	15000	40	15000	50	15000	60	15000	
2 ~ 2.5	100	11000	60	9100	80	9100	100	9100	
3	200	9500	90	6000	110	6000	140	6000	
4	210	7200	110	4500	110	4500	140	4500	
5	260	5700	110	3600	110	3600	140	3600	
6	300	4800	140	3000	130	3000	160	3000	
7 ~ 7.5	300	4100	140	2600	110	2600	140	2600	
8	300	3600	120	2300	100	2300	130	2300	
9	300	3200	90	2000	90	2000	110	2000	
10	290	2900	90	1800	80	1800	100	1800	
11	280	2600	90	1600	80	1600	100	1600	
12	260	2400	80	1500	70	1500	90	1500	
16	210	1800	60	1100	60	1100	80	1100	
20	160	1400	50	900	50	900	60	900	

スクエア Square

スクエア Square

半径 Radius

ボール Ball

ロングネック Long Neck

ラフヘンテツ Roughing

面取り/面取り Chamfering

ドリル Drill

スクエア Square

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ドリル Drill