

# 제 10 장

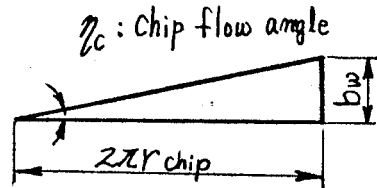
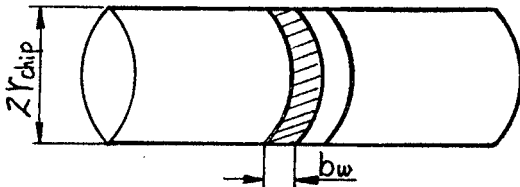
문제 / 풀이

$$\text{식 (10.1)} \quad r_{\text{chip}} = \frac{(l_n - t_c)^2}{2h} + \frac{h}{2}$$

$$\text{절삭비} \quad r_c = \frac{t \leftarrow \text{uncut chip 두께}}{t_c \leftarrow \text{chip 두께}}$$

$$t_c = \frac{t}{r_c} = \frac{0.05}{0.2} = 0.25 \text{ mm}$$

$$\therefore r_{\text{chip}} = \frac{(1.5 - 0.25)^2}{2 \times 0.5} + \frac{0.5}{2} = 1.82 \text{ mm}$$



Chip 流動角  $\gamma_c$  :

$$\gamma_c = \tan^{-1} \times \frac{b_w}{2\pi \cdot r_{\text{chip}}} = \frac{2}{2\pi \times 1.82} = 10^\circ$$

切刃傾斜角  $i$  :

$$i \doteq \gamma_c = 10^\circ$$

[답] 流動角  $\gamma_c = 10^\circ$ , 切刃傾斜角  $i = 10^\circ$

문제 2 풀이

$$r_{\text{chip}} = \frac{(l_m - t_c)^2}{2h} + \frac{h}{2} = \frac{(4 - 0.8)^2}{2 \times 1} + \frac{1}{2} = 5.65 \text{ mm}$$

$$r_{\text{chip}} = (l_m - t_c - h \cdot \cot \alpha) \cdot \cot \frac{\alpha}{2} \text{ 에서}$$

$$5.65 = (l_m - 0.8 - 2 \cdot \cot 45^\circ) \cdot \cot \frac{45^\circ}{2}$$

$$\therefore l_m = \frac{5.65}{2.2414} + 2 \times 1 + 0.8 = 5.32 \text{ mm}$$

[답] chip breaker 의 거리  $l_m = 5.32 \text{ mm}$