TORNEAMENTO - GRANDEZAS

Formação de cavacos

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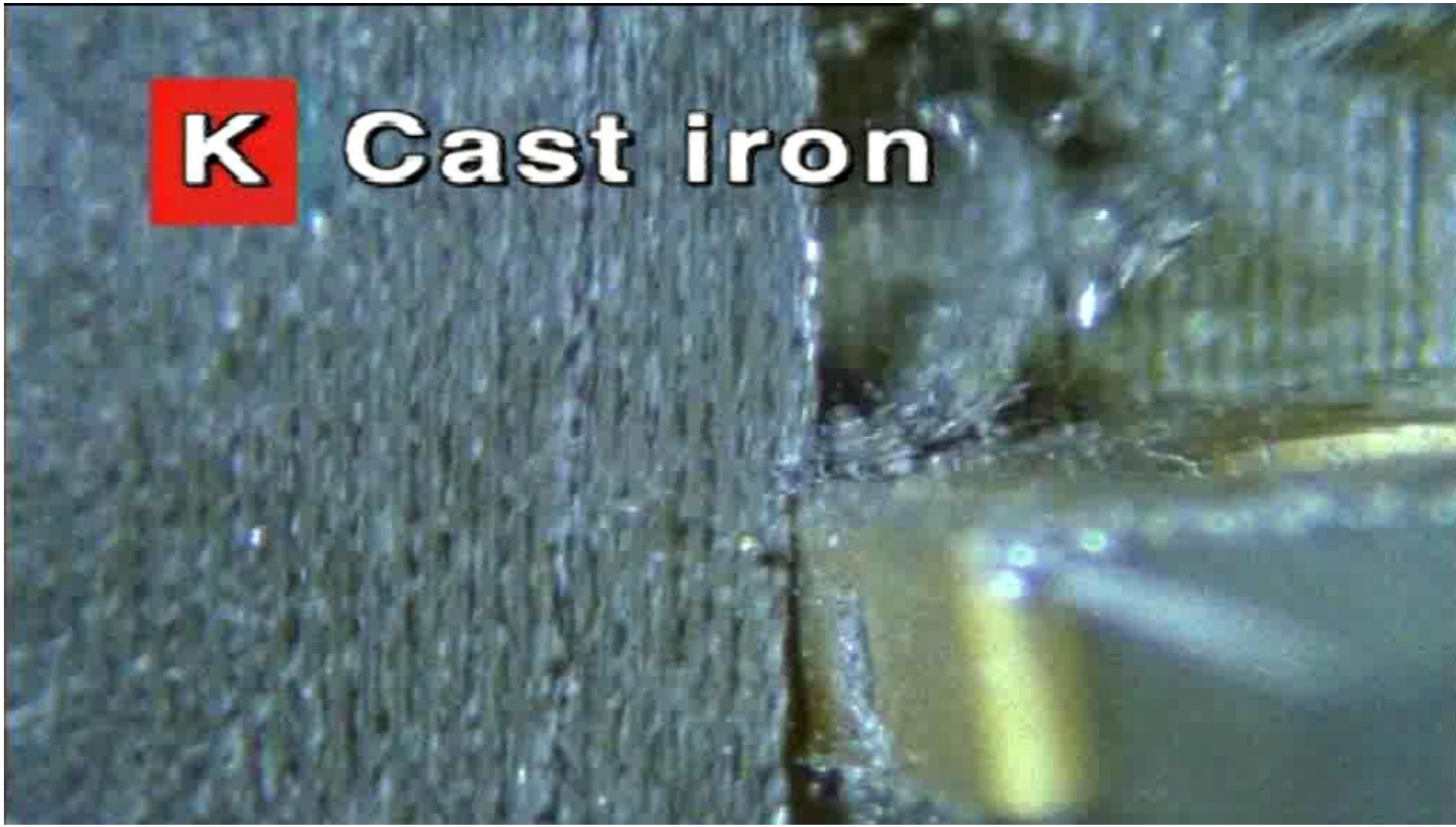
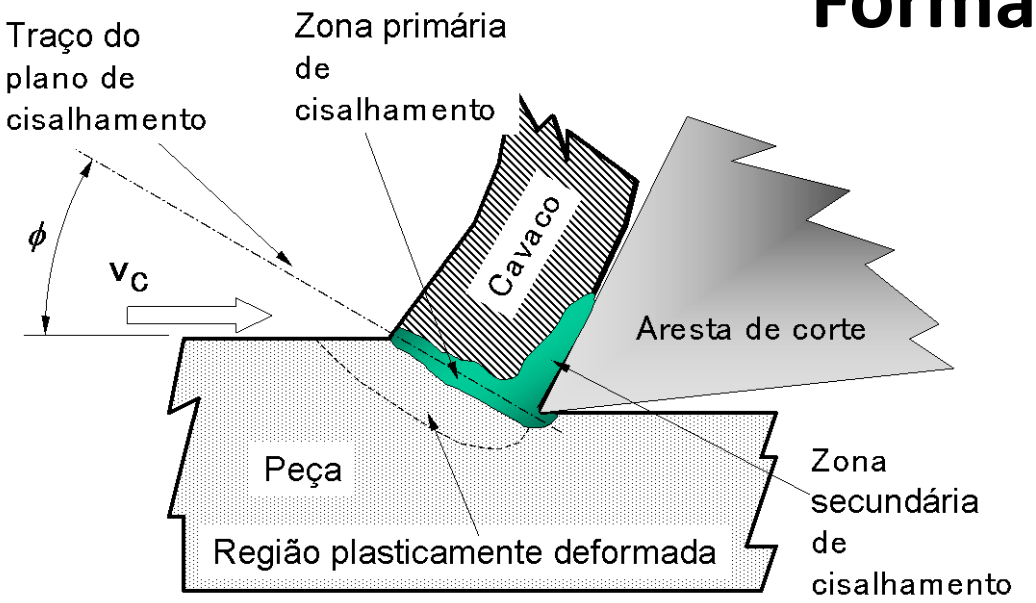


FORMAÇÃO DE CAVACOS

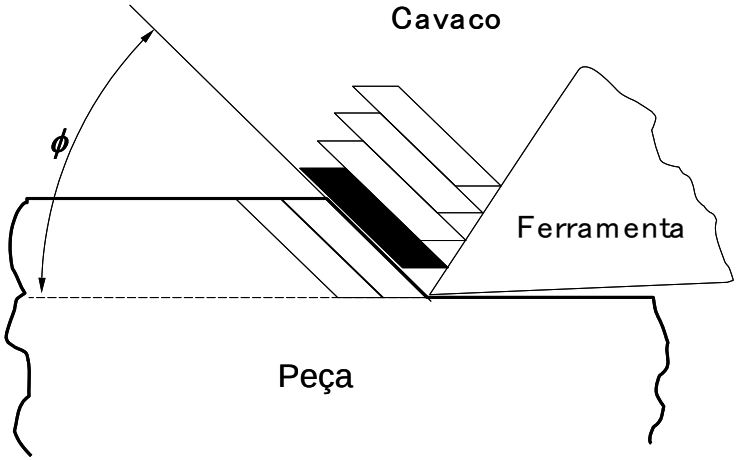
Formação do cavaco

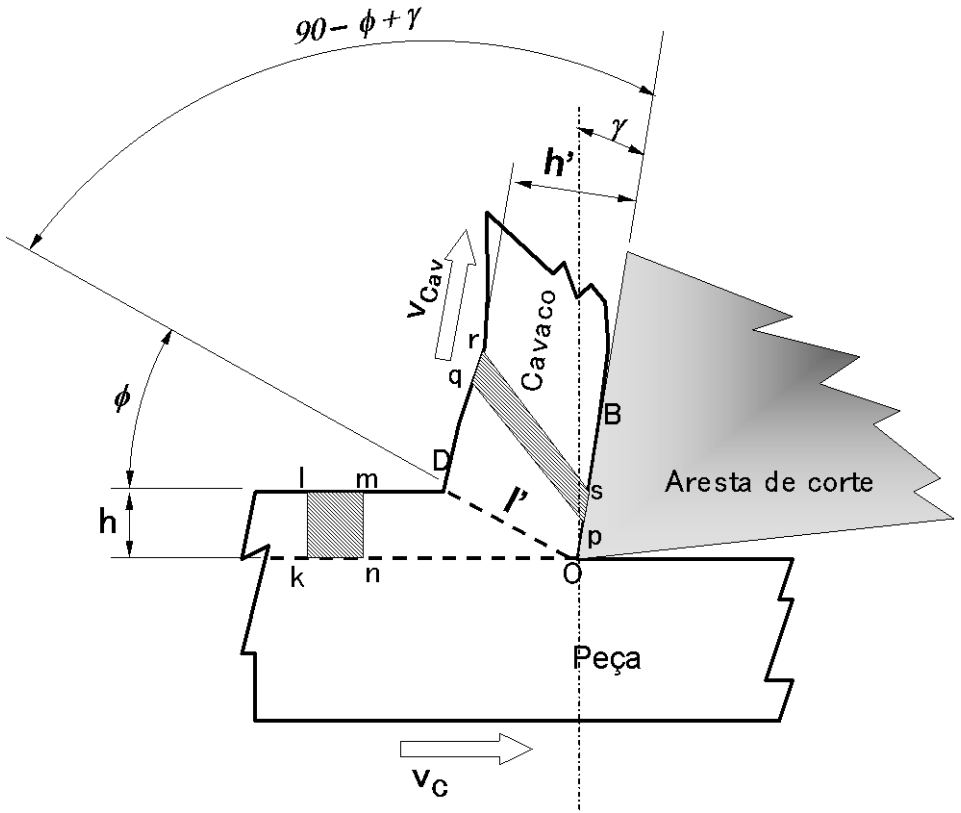


1) Recalque inicial.
2) Deformação e ruptura
3) Deslizamento das lamelas
4) Saída do cavaco

FORMAÇÃO DE CAVACOS

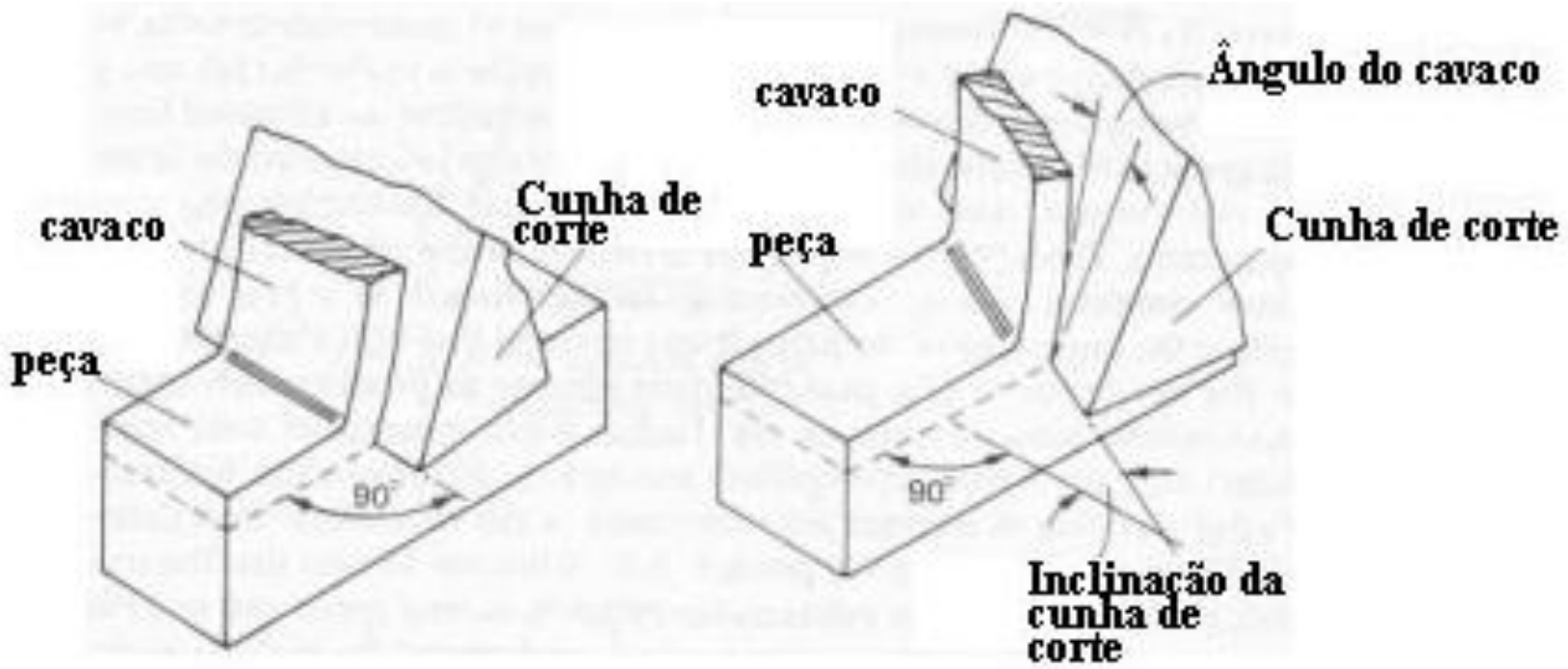
Modelo teórico de formação do cavaco





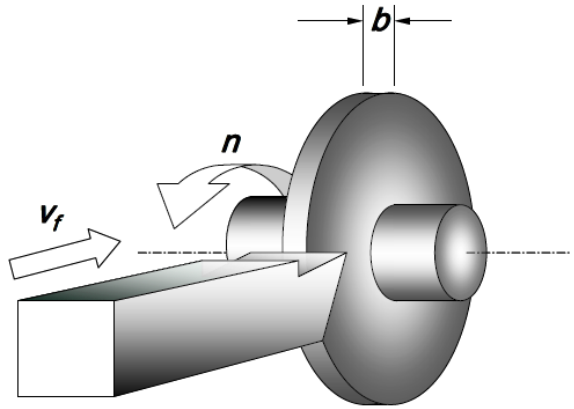
FORMAÇÃO DE CAVACOS

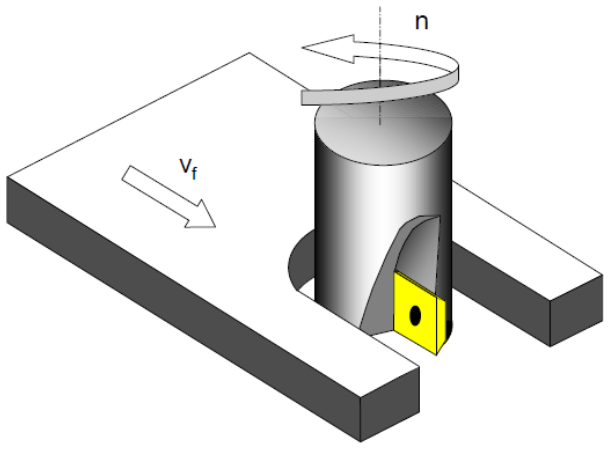
CORTE ORTOGONAL E OBLÍQUO



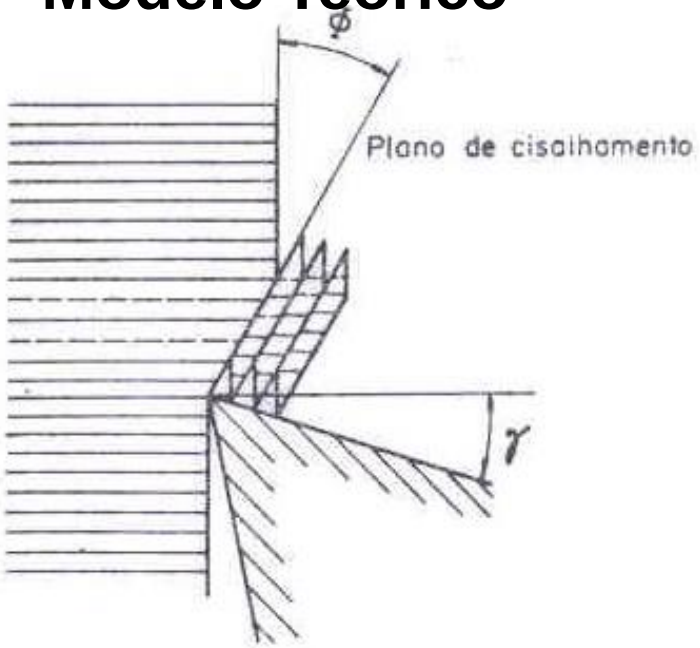
FORMAÇÃO DE CAVACOS

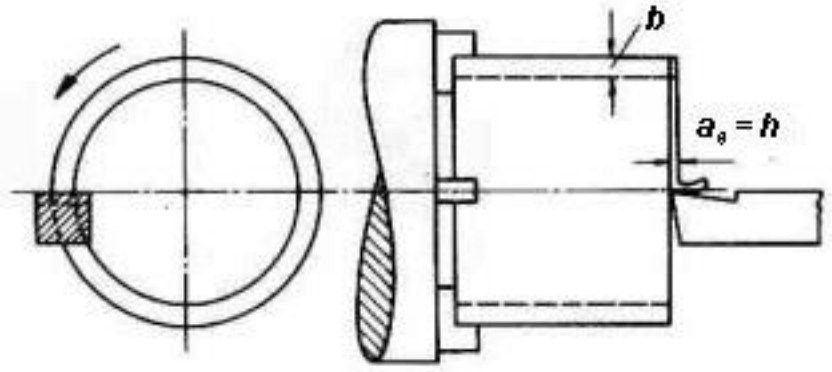
Corte ortogonal





Modelo Teórico





FORMAÇÃO DE CAVACOS

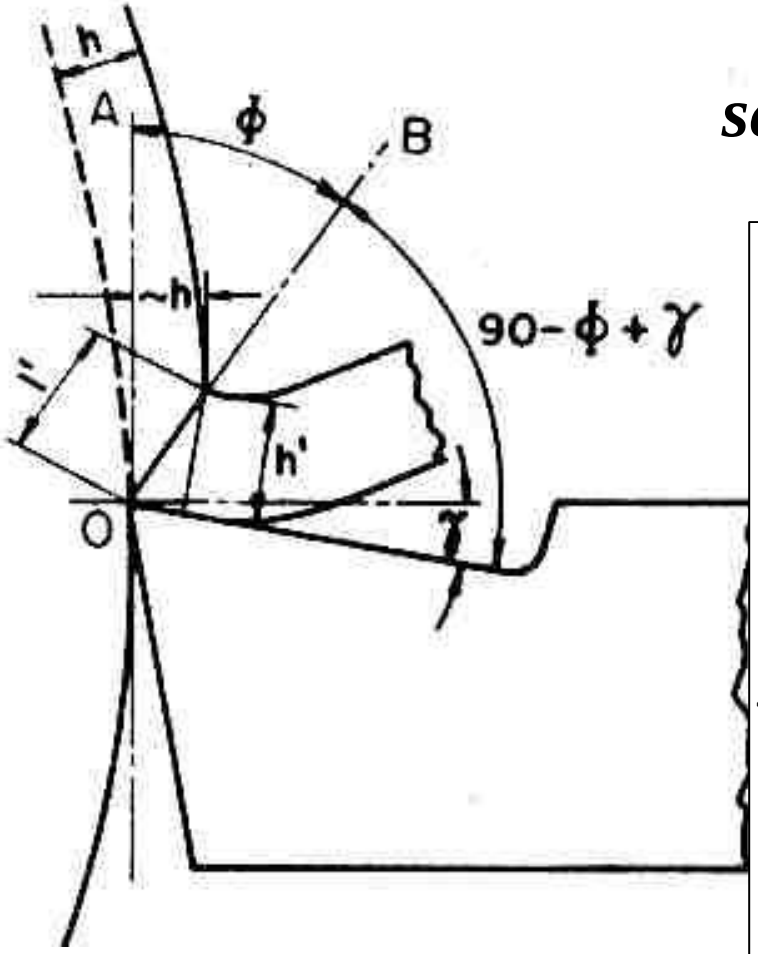
Modelo Teórico

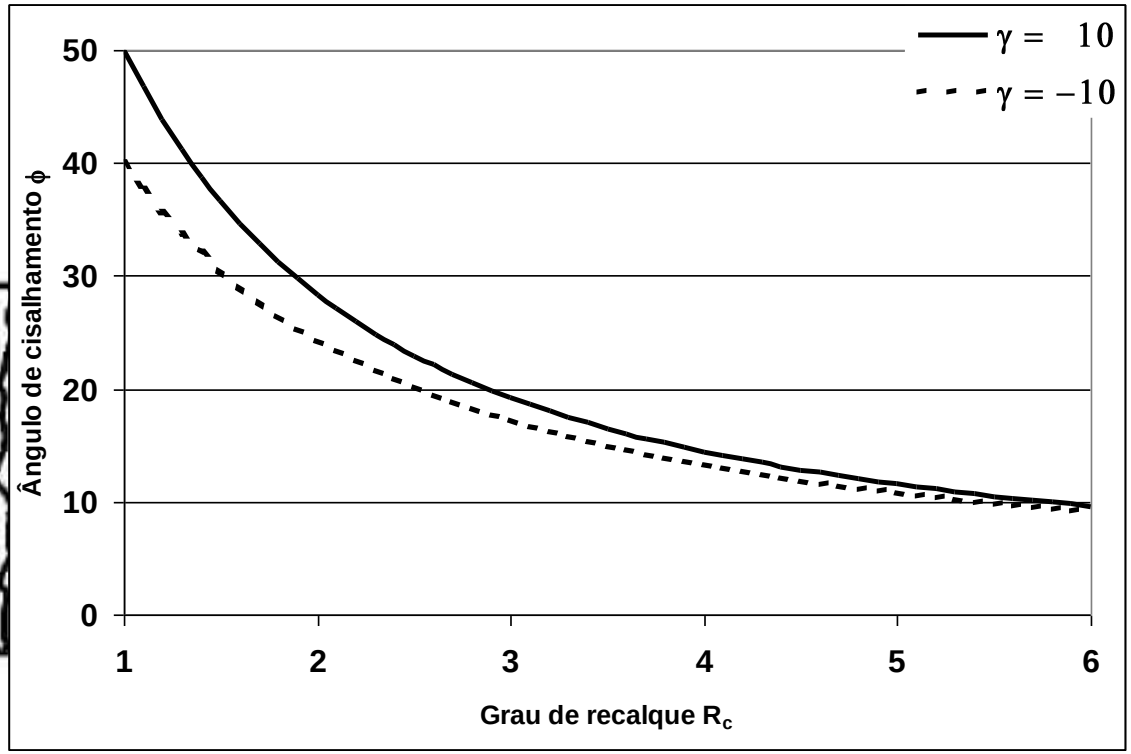
$$tg\phi = \frac{\cos\gamma}{R_c - sen\gamma}$$

$$sen(90 - \phi + \gamma) = \frac{h'}{l'}$$

$$sen\phi = \frac{h}{l'}$$

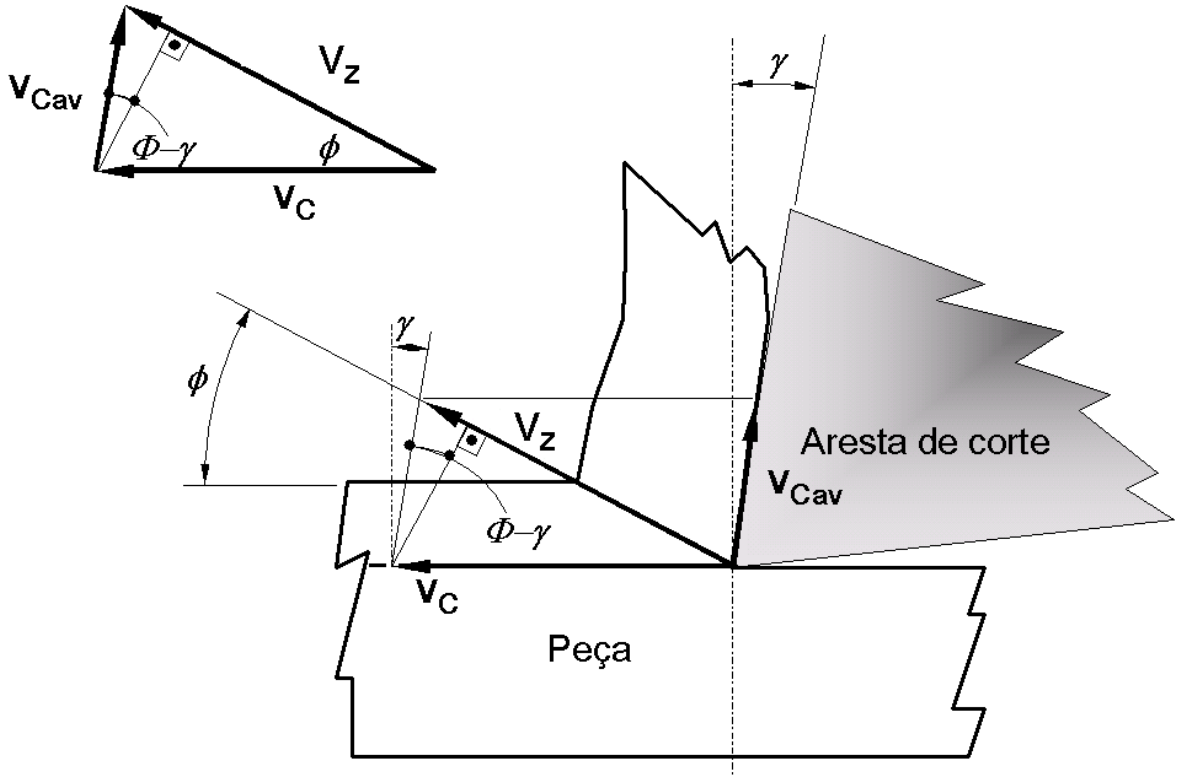
$$R_c = \frac{h'}{h}$$





FORMAÇÃO DE CAVACOS

Modelo Teórico



$$v_{Cav} = v_c . \frac{sen\emptyset}{\cos(\theta - \gamma)}$$

$$v_z = v_c . \frac{\cos\gamma}{\cos(\theta - \gamma)}$$

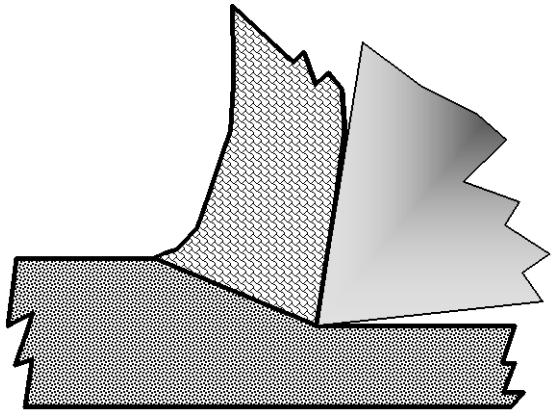
$$v_{Cav} = \frac{v_c}{R_c}$$

$\boldsymbol{v_{cav}}$ = Velocidade de saída do cavaco

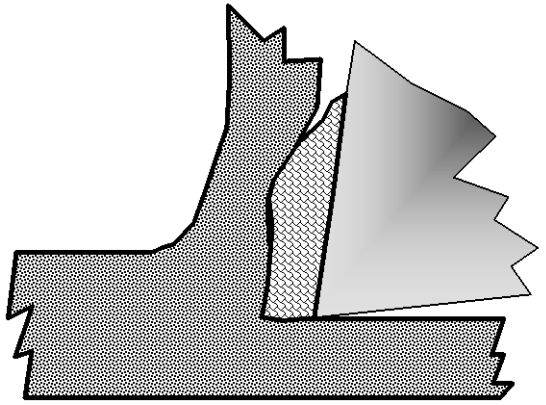
$\boldsymbol{v_{cs}}$ = Velocidade de cisalhamento

FORMAÇÃO DE CAVACOS

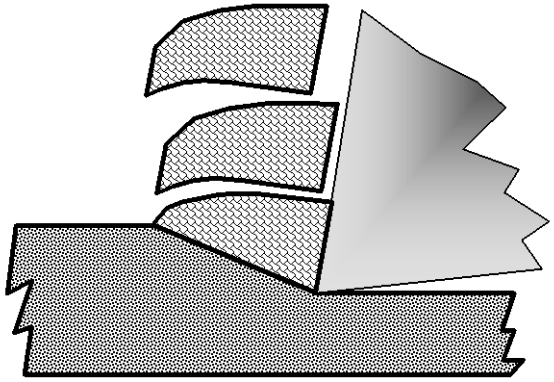
Tipos de cavacos e sua formação



(a) Cavaco Contínuo



(b) Cavaco Contínuo com APC



(c) Cavaco Descontínuo

FORMAÇÃO DE CAVACOS

Tipos de cavaco

(a) Cavaco em fita

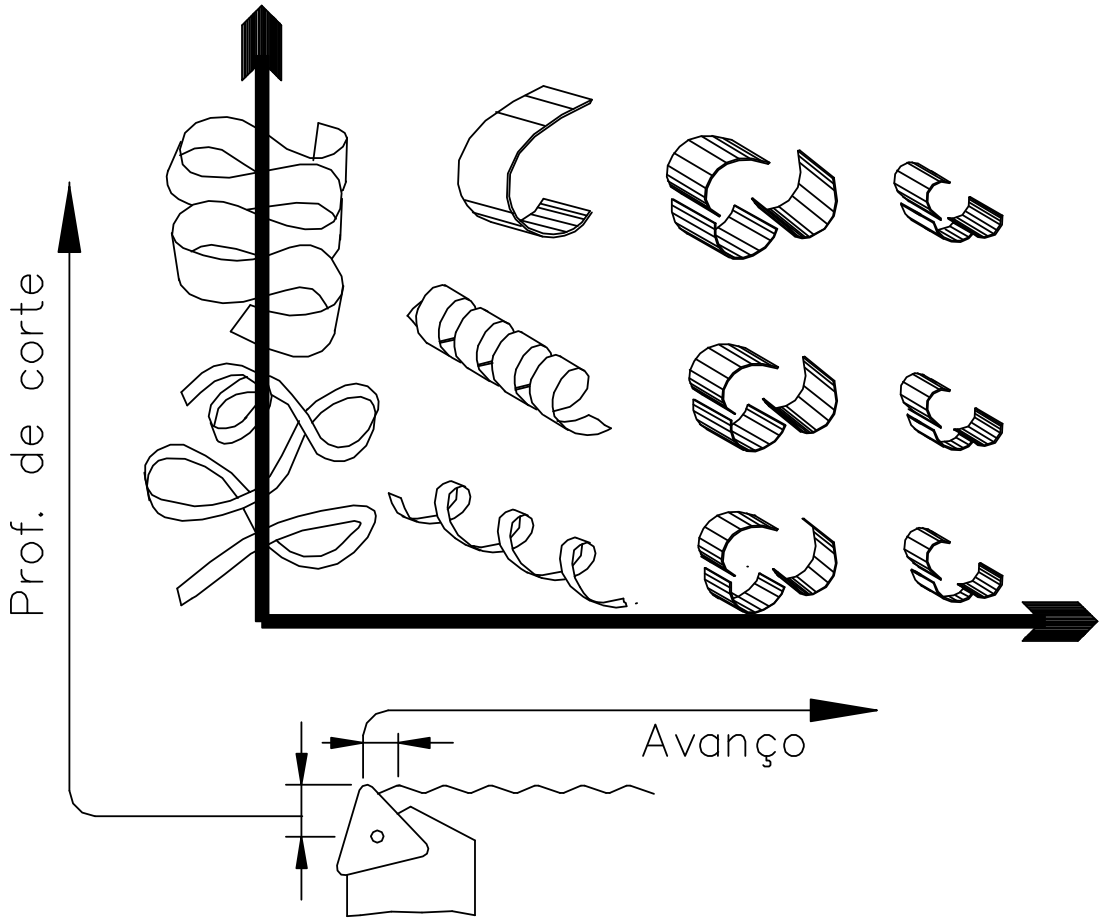
(b) Cavaco helicoidal

(c) Cavaco espiral

(d) Cavaco em lascas

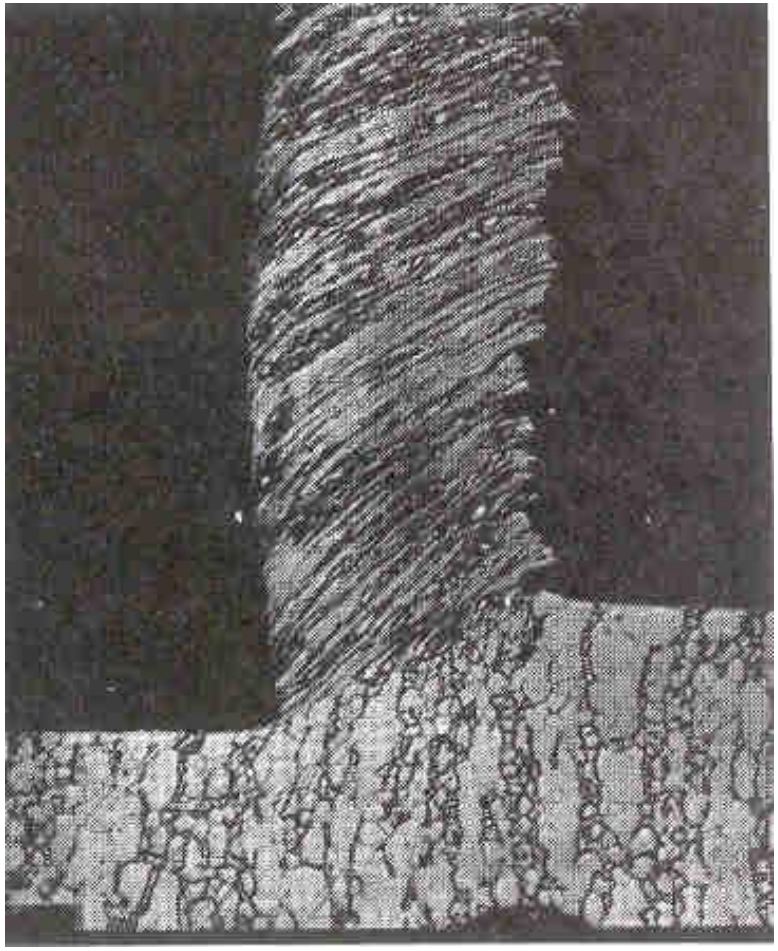
FORMAÇÃO DE CAVACOS

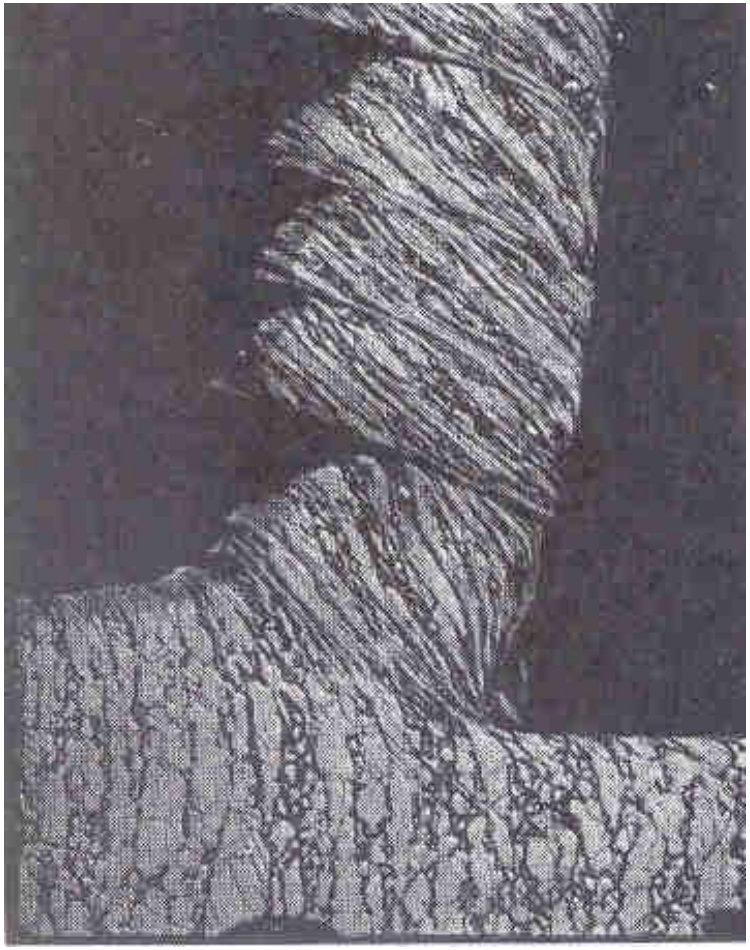
Tipos de cavaco em função das condições de corte



FORMAÇÃO DE CAVACOS

Estudo da formação de cavacos





FORMAÇÃO DE CAVACOS

Interface Cavaco-Ferramenta