

Speed formula, Drilling of stacked plate, Chip formation

Major Cutting speed formula

Cutting Speed

$$V = \frac{\pi \times D \times N}{1000} \text{ (m/min)}$$

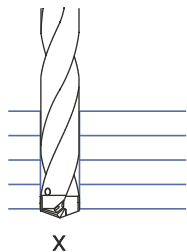
- V : Cutting speed (m/min)
- D : Drill diameter (mm)
- N : Revolution per minute (rpm)
- π : Circular constant (3.14)

Feed

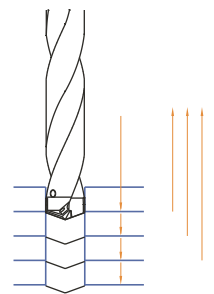
$$f = \frac{F}{N} \text{ (mm/rev)}$$

- f : Feed rate (mm/rev)
- F : Depth of cut per minute (mm/min)
- N : Revolution per minute (rpm)

Recommended application for stacked plate by Yes Carbide Drills

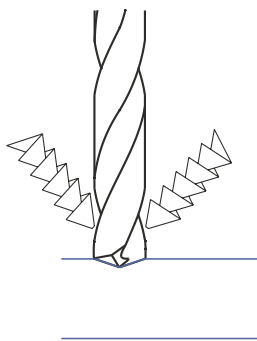


One operation is possible subject to closely tightend stacked plate without any room.

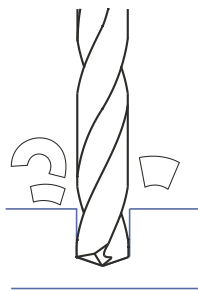


"Woodpecker" method recommended in case of certain aperture in the stacked plate.

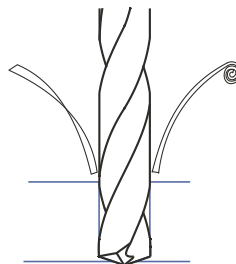
Good chip formation



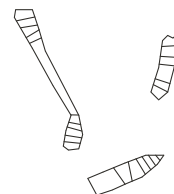
(initial drilling)



(drilling through)



(bottoming)



(long Stringy chip)