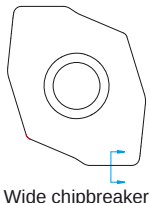
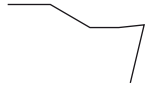
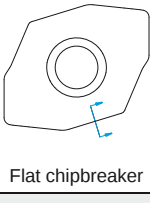


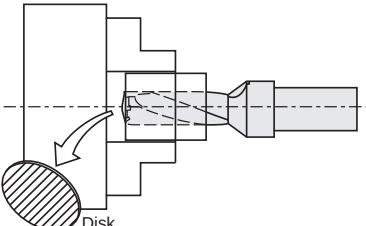
Advantages of the Chipbreaker

Chipbreaker			GM	GH	SM
Insert					
Advantages			1st. recommendation for carbon steel and alloy steel,1st. recommendation for cast iron.	1st. recommendation for interrupted machining and hard materials. Cutting edge strength oriented design.	Suitable for sticky materials such as stainless steel and low carbon steel
			Good balance of sharp cutting and cutting edge strength	Middle to high feed rates of steel machining, GM Chipbreaker alternative	Sharp cutting, prevents chattering. For low to medium feed rates of steel.
Outer edge	 Wide chipbreaker	Cross-section			
		Chips from Outer edge			
Inner edge	 Flat chipbreaker	Cross-section			
		Chips from Inner edge			
Workpiece Materials			C50 (S50C)	C50 (S50C)	X5CrNi18 10 (SUS304)

Indication of tool life of MagicDrill

How to judge tool life	Indication of judging tool life
Generation status of tool mark involving with insert weariness	- When an insert is new, A holder is slightly bend external side during cutting. (It is designed that cutting diameter is slightly bigger during cutting.) Once cutting is finished, a holder will be back to normal size and smaller than cutting diameter. Tool mark will not be appeared on the finishing surface. (Although depends on workpiece and cutting condition, cutting power which generates external direction, slightly tool mark might be appeared.) - When an insert is at the end of tool life, Gradually external corner part is getting wear, cutting resistance which is generated in inside, a holder will be not bend, on the contrary it will be bend inside. Once cutting is finished, a holder will be back to normal. Pulling off a holder under this condition, external edge touches on finishing surface and tool mark will be on its finishing surface.
Tracing cutting diameter	When cutting diameter is measured, suddenly it shows small diameter. In this case, an insert can be judged the end of tool life.
Generating status of at the exit side	If insert wear progress. Burrs of penetrated hole entrance (Pulling out burrs) will be bigger and identified as the insert has reached at the end of tool life.
Variation of cutting noise	Light cutting noise at the beginning turns to brady noise which contains vibration noise.
Variation of vibration	As the end of tool life is getting closer, vibration is getting larger and cutting noise is getting change. However, same as vibration and cutting noise, it is difficult to identify for small cutting diameter type.

Caution



When drilling through the workpiece, a disk may be ejected. Proper machine guarding is necessary to prevent injury.

The safety cover is necessary for the conventional lathe machines to prevent any accidents.