Straight Bits

Upcut Bits

Downcut Bits

Material	Straight Cut	Single Flute	Three Flute	Four Flute	Fishtail		Fishtail	
								
	1/8 in	1/8 in	1/8 in	1/8 in	1/32 in	1/16 in	1/8 in	1/32 in	1/16 in	1/8 in
Wood Hardwood Softwood Plywood MDF	✓	—	UNAVAILABLE	UNAVAILABLE	UNAVAILABLE	—	—	UNAVAILABLE	✓	✓
Plastic Acrylic HDPE ABS	✓	✓				✓	✓		—	—
Expanded PVC	✓	✓				✓	✓		—	—
Linoleum	✓	✓	✓	✓	✓	✓	✓	✓	—	—
Corian	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Aluminum	✗	✓	—	✗	✗	—	✓	✗	✗	✗

Straight Bits

This end mill has a 2 straight flutes. It works well for materials where the lifting affect of a spiral flute might cause unwanted results, like wood or things with thin laminates or veneers.

Single Flute Bits

The spiral upcut bits pull chips from the cutting surface upwards, leaving a flat bottomed pocket. This provides accurate cuts without chatter in the plastic because the chips are being evacuated away from the cutting edges. This bit is not recommended for wood because it pulls the wood fibers causing tear out.

Three - Four Flute Bits

Great for applications with high feedrate or slow spindle speed.

Slow feedrates or high speed spindles will cause excess heating in bits with high flute counts. Excess heating can cause chips to weld to the bit when cutting plastics and metals, premature tool wear, and poor cut quality.

Fishtail - Upcut Bits

These fishtail bits are great for fine detail and inlays. The upcut tip design creates a cleaner edge on the backside of the sheet when cutting through materials. The flute design works well with high speed spindles and high feedrates.

Fishtail - Downcut Bits

These fishtail bits are great for fine detail and inlays. The downcut tip design creates a cleaner edge on the topside of the sheet when cutting through materials. The flute design works well with high speed spindles and high feedrates. They are also good for cutting thin materials since the downward force tends to keep the material flat.

- ✓ Best, requires minimal sanding/finishing
- — Ok, but rough finish. Requires significant sanding/finishing
- ✗ Bad, not recommended