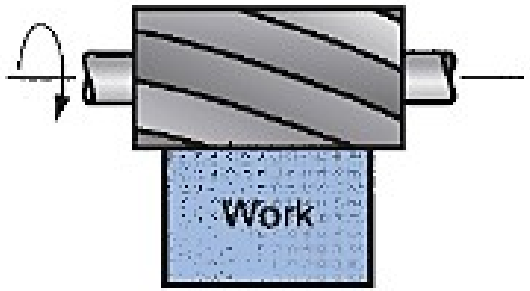
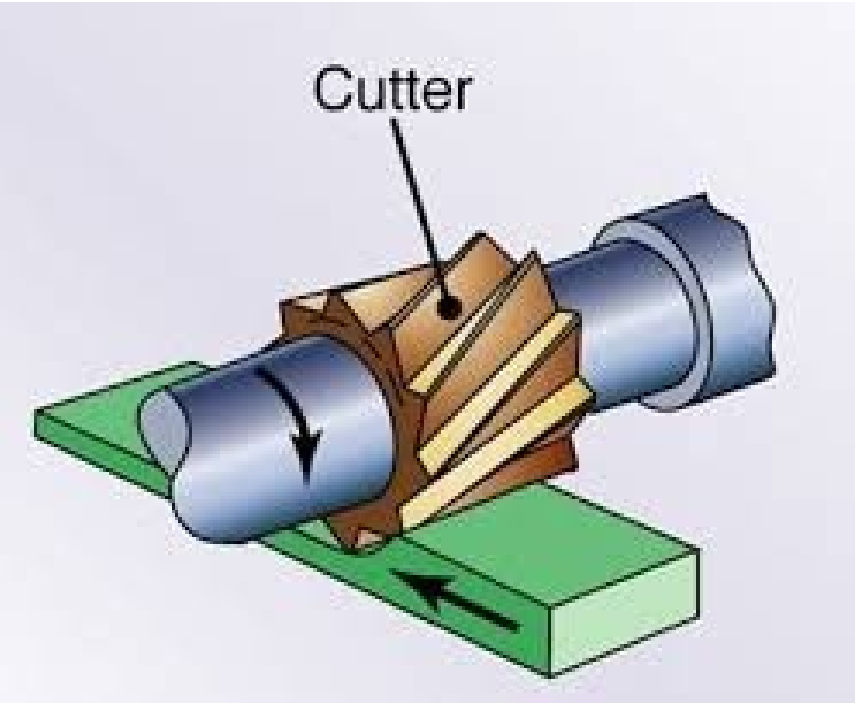
MILLING OPERATIONS

SLAB MILLING

- The basic form of peripheral milling in which the cutter width extends beyond the workpiece on both sides.

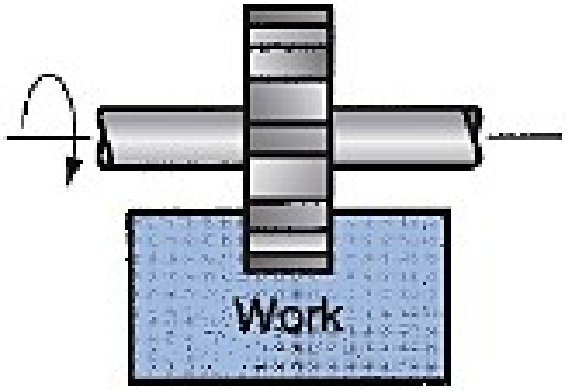




MILLING OPERATIONS

SLOTTING

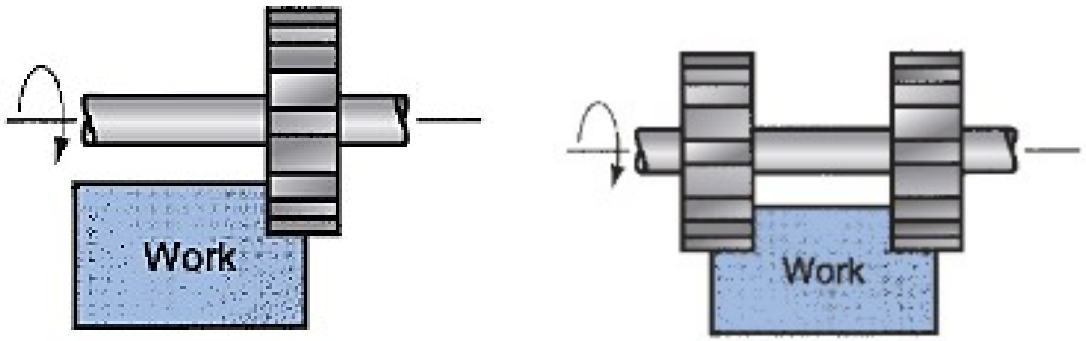
- Here the width of the cutter is less than the workpiece width, creating a slot in the work (when the cutter is very thin, this operation can be used to mill narrow slots).



MILLING OPERATIONS

SIDE AND STRADDLE MILLING

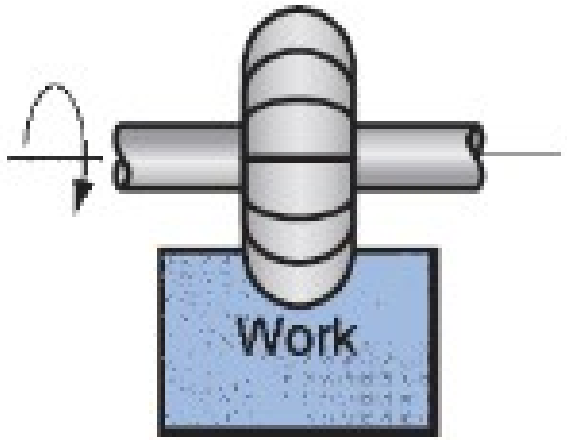
- **Side milling** – Cutter machines the side of the workpiece.
- **Straddle milling** – It is same as side milling, but cutting takes place on both sides of the work.



MILLING OPERATIONS

FORM MILLING

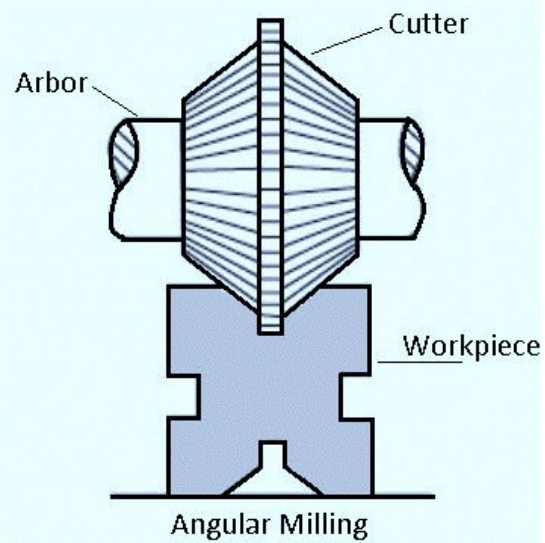
- The milling teeth have a special profile that determines the shape of the slot that is cut in the work.



MILLING OPERATIONS

ANGULAR MILLING

- Its operation of producing angular surface on the workpiece. A single or double cutter can be used to produce shapes like V grooves in the V- blocks



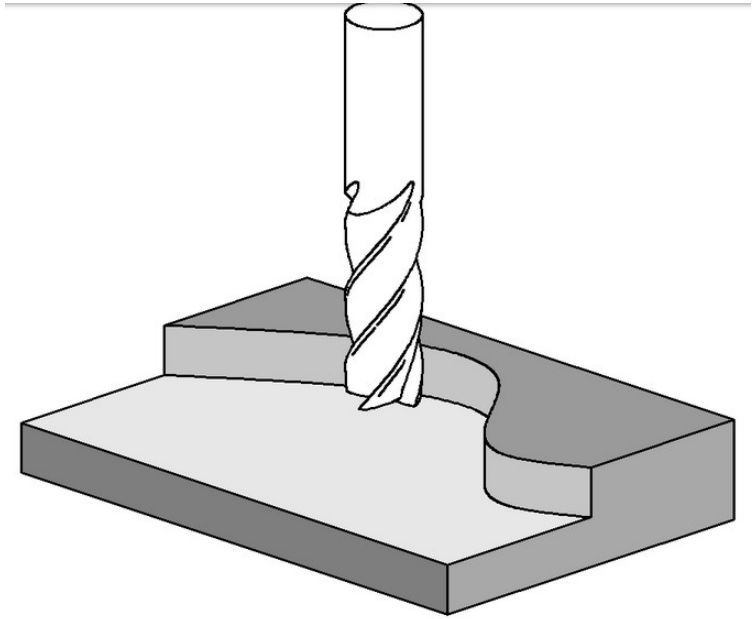
MILLING OPERATIONS

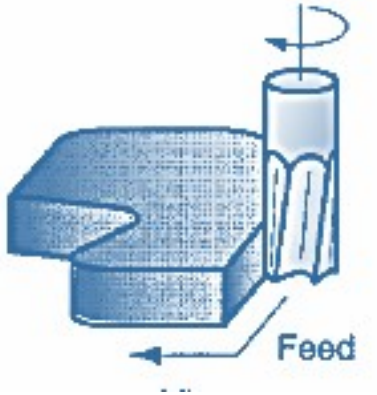
END MILLING

- End milling is the operation performed for producing flat surfaces, slots, grooves or finishing the edges of the workpiece by means of a tool called ***end mill*** or ***end milling cutter***.

- The cutter has teeth on the end as well as the periphery (sides) and hence can be configured to cut with both its end and the sides.

- **Profile milling** – It is a form of end milling done on the perimeter of a workpiece and can produce nearly any shape that has interior radii at least as large as that of the cutter.

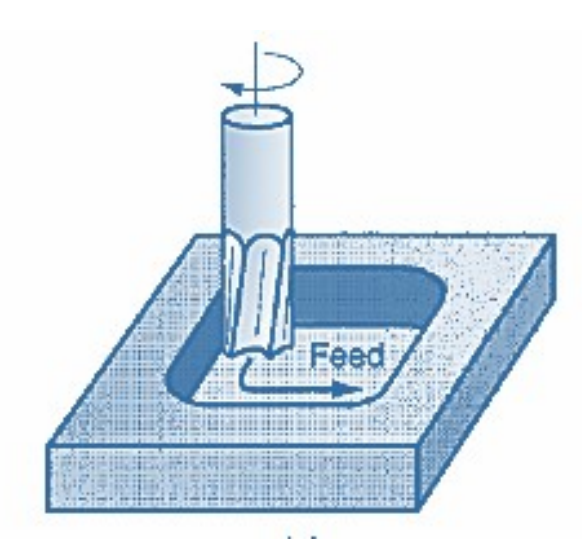


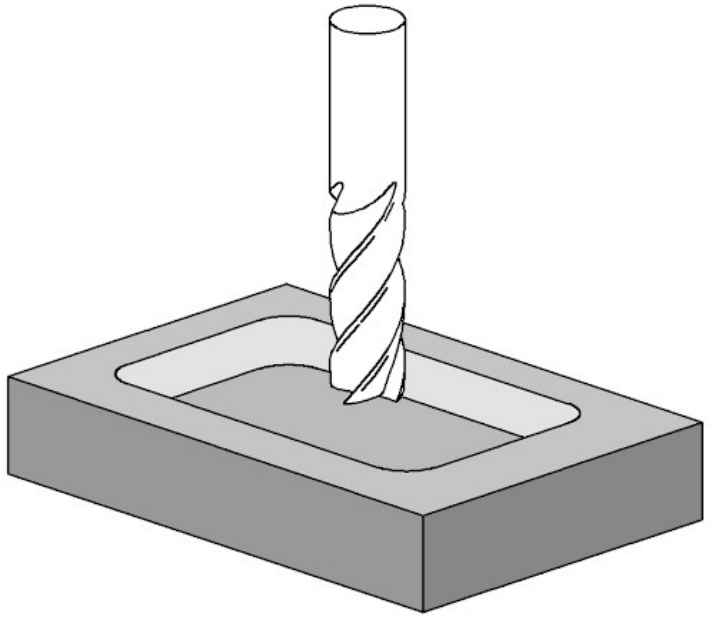


MILLING OPERATIONS

END MILLING

- **Pocket Milling** - Another form of end milling used to mill shallow pockets into flat parts.





MILLING OPERATIONS

END MILLING

- **Surface Contouring** - A ball-nose cutter (rather than square-end cutter) is fed back and forth across the work along a curvilinear path at close intervals to create a three-dimensional surface form.

- Contouring can be used to produce tooling such as injection molds and forming dies.