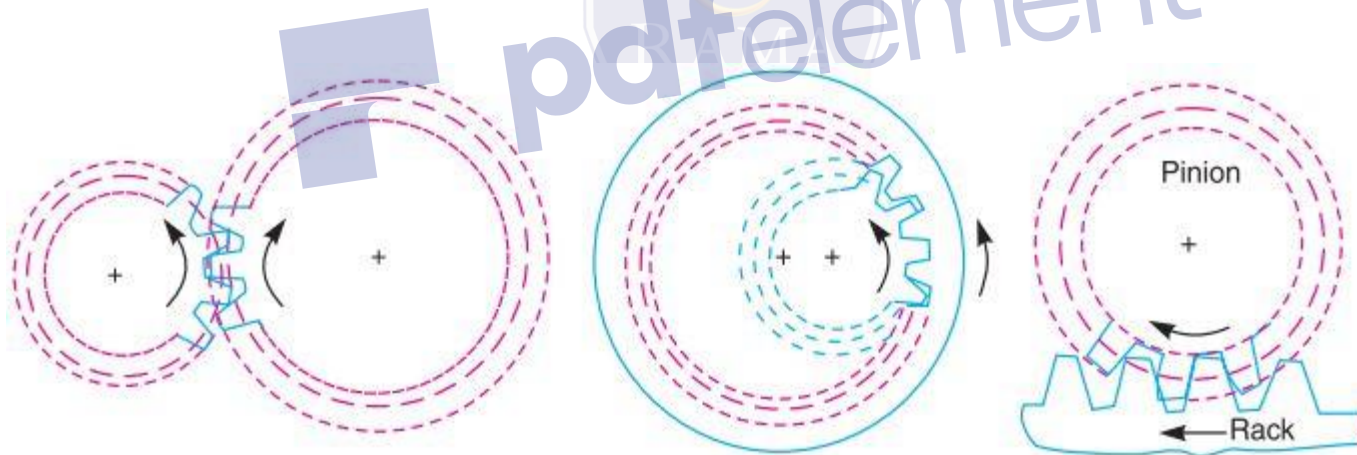


3. According to the type of gearing.

- (a) External gearing,
- (b) (b) Internal gearing, and
- (c) (c) Rack and pinion.

In external gearing, the gears of the two shafts mesh externally with each other as shown in Fig.

(a). The larger of these two wheels is called spur wheel and the smaller wheel is called pinion. In an external gearing, the motion of the two wheels is always unlike, as shown in Fig.



(a) External gearing.

(b) Internal gearing.

In internal gearing, the gears of the two shafts mesh internally with each other as shown in Fig. (b). The larger of these two wheels is called annular wheel and the smaller wheel is called pinion.

In an internal gearing, the motion of the two wheels is always like

Terms Used in Gears

1. Pitch circle.

It is an imaginary circle which by pure rolling action, would give the same motion as the actual gear.

Internal gears

2. Pitch circle diameter.

It is the diameter of the pitch circle. The size of the gear is usually specified by the pitch circle diameter. It is also known as pitch diameter.

3. Pitch point.

It is a common point of contact between two pitch circles.

4. Pitch surface.

It is the surface of the rolling discs which the meshing gears have replaced at the pitch circle.

5. Pressure angle or angle of obliquity.

It is the angle between the common normal to two gear teeth at the point of contact and the common tangent at the pitch point.

6. Addendum.

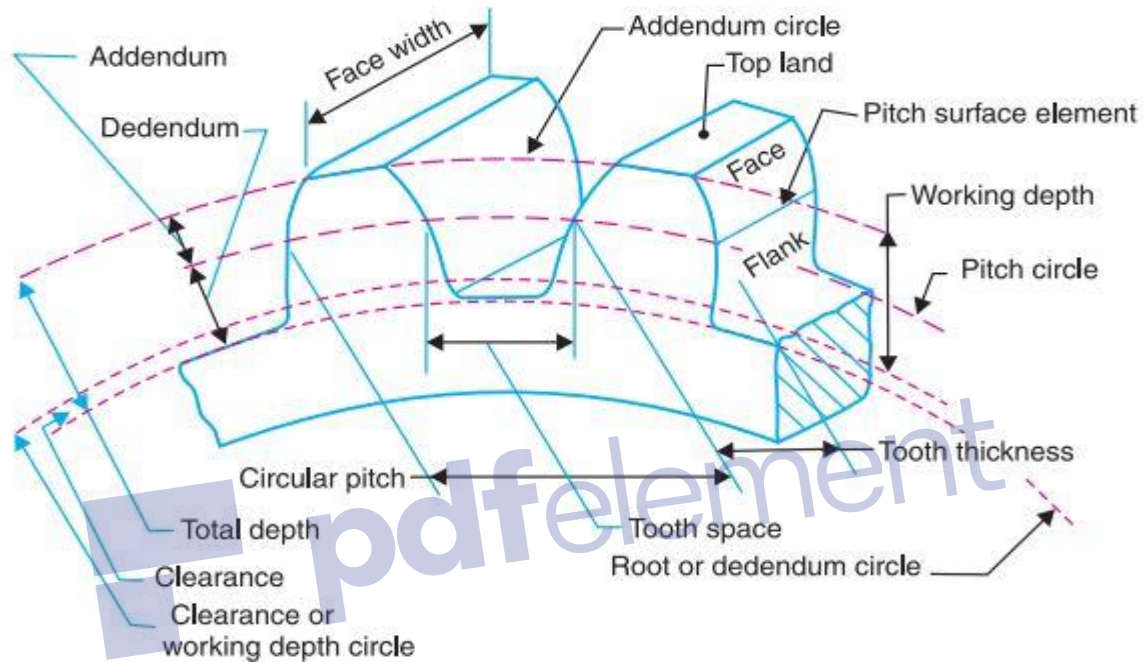
It is the radial distance of a tooth from the pitch circle to the top of the tooth.

7. Dedendum.

It is the radial distance of a tooth from the pitch circle to the bottom of the tooth.

8. Addendum circle.

It is the circle drawn through the top of the teeth and is concentric with the pitch circle.



9. Dedendum circle.

It is the circle drawn through the bottom of the teeth. It is also called root circle.

10. Circular pitch.

It is the distance measured on the circumference of the pitch circle from a point of one tooth to the corresponding point on the next tooth. Face of tooth. It is the surface of the gear tooth above the pitch surface.



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