

[Home](#) > What is centrifugal tension ? State its formula. Explain its effect on power transmitted by a belt drive

What is centrifugal tension ? State its formula. Explain its effect on power transmitted by a belt drive

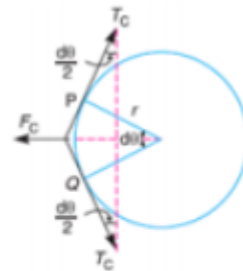
Question:

What is centrifugal tension ? State its formula. Explain its effect on power transmitted by a belt drive.

Answer:

Since the belt continuously runs over the pulleys, therefore, some centrifugal force is caused, whose effect is to increase the tension on both, tight as well as the slack sides. The tension caused by centrifugal force is called *centrifugal tension*.

$$\text{Centrifugal Tension } T_c = m.v^2$$



Power, $P = (T_1 - T_2) \times v$ Hence there is no any effect on power transmitted by a belt drive.
