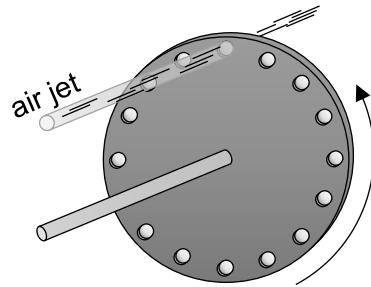


- 8 The figure below shows a siren disk that has 16 holes near the edge which are equally spaced apart. When the disk is spun in front of a fast-moving jet of air, the holes modulate the air-jet to produce a sound of a particular frequency.



The time it takes for successive holes to move past the air jet is the period of the sound wave.

What is the angular speed of rotation if the frequency of the sound produced is 2200 Hz?

- A 430 rad s^{-1} B 860 rad s^{-1} C 1730 rad s^{-1} D 3650 rad s^{-1}