TCF
TWIN CITY FAN

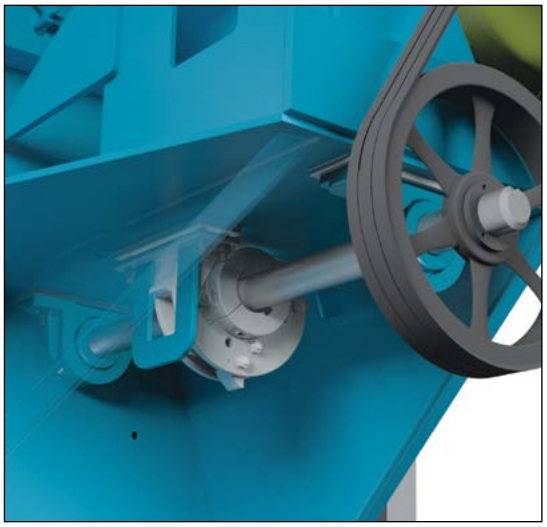
ANTI-BACKSPIN DEVICES

THE PROBLEM

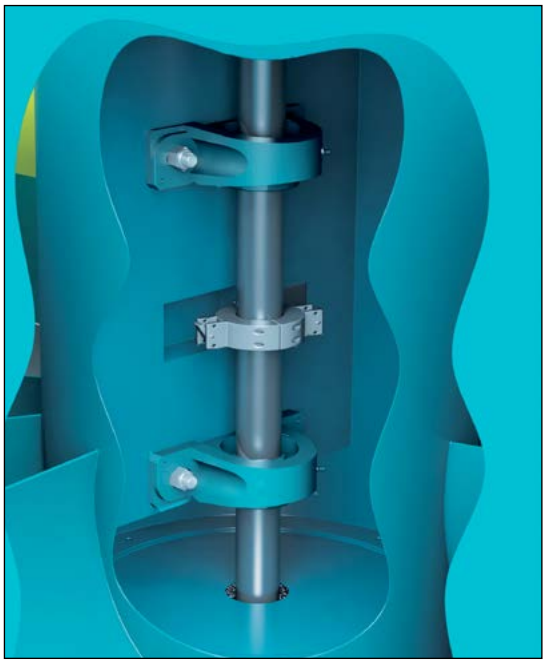
When a fan is not in operation (or in stand-by mode), the rotor has the potential to free-wheel spin in the reverse direction. This is often caused by other fans operating within the same system – a common occurrence in systems with a primary and stand-by fan. The major concern of a fan rotating in the reverse direction is when power is applied to the motor. Higher torque (equivalent to a higher current draw) is required from the motor to stop and change the direction of the rotor to the correct operating direction. Since the motor must overcome the additional inertia, this occurrence increases the current draw from the motor beyond the motor's amperage rating and opens the circuit, thus stopping current flow. Over time, starting the fan in this way will damage the motor and drastically shorten the life of the motor.

THE SOLUTION

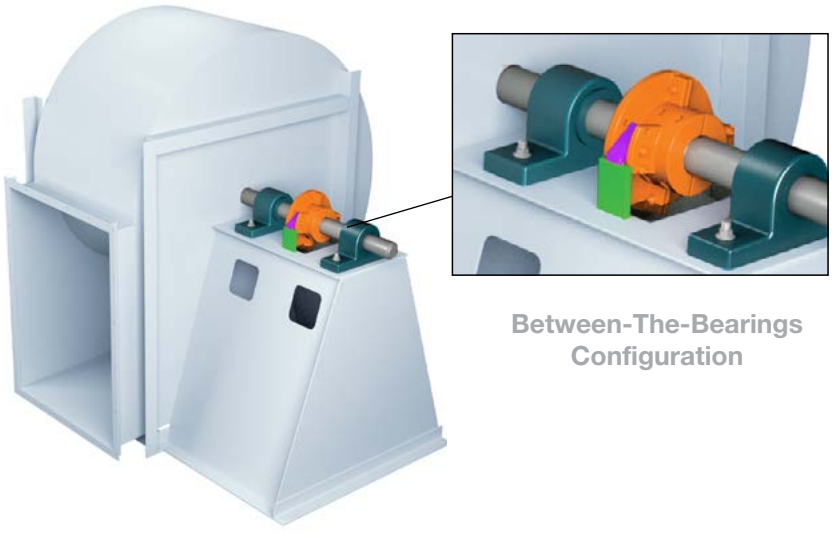
The most practical way to avoid this issue is to use an Anti-Backspin Device. These are mechanical devices installed on the fan shaft. While the fan is in operation the forward rotating energy forces the hinged pawls to stay tucked within the device, allowing for smooth operation. When the fan slows to stop, the pawls are released. A bracket is positioned to catch the pawls preventing the fan from spinning in the reverse direction. This will ensure the fan will not be spinning in reverse rotation upon startup. The device requires little-to-no maintenance with no additional noise or vibration, making the Anti-Backspin Device a practical solution to a potentially costly problem.



Bottom Mount
(Plug & Swingout Fans)



Vertical Shaft Mount
Inline Centrifugal & Axial Fans



Between-The-Bearings
Configuration