KILN FAN INSTALLATION AND MAINTENANCE

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Determining fan “hand”. “Right hand” fan displayed in both photos. In the left photo, the left hand will hit the face of the blade. In the right photo, the right hand is parallel to the face of the blade.

For proper installation, center the fan horizontally, vertically, and axially. Tip clearance should be 1/4” to 3/8” when the kiln is hot.
Right hand steel fan, 28° fixed pitch.

The key position does matter on pre-balanced fan.

Bushing clearance space not less than 1/4”.

Torque all bushings and u-bolts to 30# or mfg spec. Do not grease or oil the threads.

Fan blade pitch adjustment on master blade.
Inspect u-bolts, caps and nylock® nuts.

Indicate master blade and set remaining blades to indicator.

Oil/grease and check fan system frequently.

Recheck all maintenance work before restarting fan system.
Observation is the key. Establish a maintenance schedule.
Unbalanced versus balanced fan

- Fan Blades of UNIFORM DYNAMIC WEIGHT
- "Very Good" (B37) vibration rating, but no allowance for "kit variation", i.e. out-of-round shafts, round holds up wrong or no roughing rolls, etc.
- Creates uneven air flow.
- Fragmentation in motor and air distribution results to higher energy consumption.
- Unstable strips on motor mounts, kiln structures and motor bearings.

Dynamically balanced fan
- Fan Blades of UNIFORM DYNAMIC WEIGHT
- "Extremely Smooth" (B25) vibration rating improves 35 times.
- Fan blades and hub machined for uniform vibration.
- Blade weight in balanced and evenly distributed.
- Fan rotation is balanced.
- "Over-Balance" allowance made for "kit variation".
- Minimum power consumption - no elliptical surge.
- Increased motor mounts, motor bearing and kiln structure life - no elliptical surge.