

OPTION CHECKLIST NO. 2: FANS & BLOWERS

<ul style="list-style-type: none">• Use smooth, well-rounded air inlet cones for fan air intake.
<ul style="list-style-type: none">• Avoid poor flow distribution at the fan inlet.
<ul style="list-style-type: none">• Minimize fan inlet & outlet obstructions.
<ul style="list-style-type: none">• Clean screens, filters and fan blades regularly.
<ul style="list-style-type: none">• Minimize fan speed.
<ul style="list-style-type: none">• Use low slip or flat belts for power transmission.
<ul style="list-style-type: none">• Check belt tension regularly.
<ul style="list-style-type: none">• Eliminate variable pitch pulleys.
<ul style="list-style-type: none">• Use variable speed drives for large variable fan loads.
<ul style="list-style-type: none">• Use energy-efficient motors for continuous or near continuous operation.
<ul style="list-style-type: none">• Eliminate leaks in duct works.
<ul style="list-style-type: none">• Minimize bends in duct works.
<ul style="list-style-type: none">• Turn fans & blowers off when not needed.
<ul style="list-style-type: none">• Reduce the fan speed by pulley dia modifications incase of oversized motors.
<ul style="list-style-type: none">• Adopt inlet guide vanes in place of discharge damper control.
<ul style="list-style-type: none">• Change metallic / Glass reinforced plastic (GRP) impeller by more energy efficient hollow FRP impeller with aerofoil design.
<ul style="list-style-type: none">• Try to operate the fan near its best operating point.
<ul style="list-style-type: none">• Try to adopt Option of energy efficient flat belts, or, cogged raw edged V belts, in place of conventional V belt systems, for reducing transmission losses.
<ul style="list-style-type: none">• Minimizing system resistance and pressure drops by improvements in duct system.
<ul style="list-style-type: none">• Ensure proper alignment between drive & driven system.
<ul style="list-style-type: none">• Ensure proper power supply quality to the motor drive.
<ul style="list-style-type: none">• Regularly check for vibration trend to predict any incipient failures like bearing damage, misalignments, unbalance, foundation looseness etc.

方案列表2：风机和鼓风机

• 采用光滑、流线形的空气进气筒。
• 避免风机入口处气流分配不均。
• 最大限度地减少风机出入口出的障碍物。
• 定期清理过滤网和风机叶片。
• 将风机速度降到最低。
• 用low slip或平带做动力传输。
• 定期检查皮袋松紧。
• 消除皮带轮不规则振动。
• 给负荷变化较大的风机安装变速驱动装置。
• 连续运转或接近连续运转的电动机应采用节能型电动机。
• 消除空气管道漏气现象。
• 尽量减少管道弯曲。
• 在不需要工作时，关闭风机。
• 调整型号过大的电动机的皮带轮直径，以降低风机速度。
• 用进气导叶代替挡板控制。
• 用能源效率更高、符合空气动力学的空心玻璃钢叶轮代替金属或玻璃钢叶轮。
• 尽量使风机在最佳状态下工作。
• 尽量用节能型平带或带齿的毛边V型带代替传统的V型皮带，以降低传输损失。
• 改进导气系统，最大限度地降低系统阻力和压降。
• 确保驱动和被驱动系统的准确对接。
• 确保电机驱动系统的供电质量。
• 定期检查电动机的振动趋势，预测轴承损坏、对接不准、失衡、基础松动等早期故障。