

Pulley Adjustments to Increase / Decrease Airflow

If you need to increase or decrease airflow on a belt drive blower system, you will need to adjust the pulley that is on the fan motor. To increase the airflow you will need to make the motor pulley larger and to decrease the airflow you will need to make the motor pulley smaller.

- ❖ *Keep in mind that when you adjust the pulley size you are also affecting the motor fan amp draw. You need to make sure that you do not go over 10% the motor's RLA after making any adjustment*

Step by Step Instructions:

1. The first thing you need to do is lockout / tag out the power to the unit.
 - ❖ *Follow ALL safety regulations and procedures.*
2. After the power is shut down you need to go to the fan section and you loosen the motor plate bolts so that the motor slides enough to take the belt off.
 - ❖ *Do not use a screwdriver or pry bar to remove the belt, this causes damage to the belt.*

Note to review before proceeding:

- On the next page is a drawing of a motor with an adjustable pulley to use as a visual aid.
 - The screw we are concerned about is the one in the front of the pulley near the shaft end, this is the set screw that locks the pulley half from moving after adjustment are made.
 - As you can see there are threads on the inside of the back half of the pulley, these are the threads that the front half screws on to in order for it to be adjustable.
3. Loosen up the front set screw and turn the pulley inward to increase you fan speed or turn pulley outward to decrease the fan speed. .
 - You do not want to make the pulley too large, if the belt is outside the top of the pulley it may come off. Also if you make it too small, the pulley can actually “grab” the belt and it can cause damage
 - There are charts in the IOM that tell you what the airflow will be depending on how many turns in or out; if that info is unavailable, make small adjustments measuring the airflow after each adjustment.

- After any adjustment, measure amp draw and make sure to stay within 10% of the motor's RLA. If you cannot obtain the needed CFM and keep within 10% of motor RLA, a pulley change may be needed.
4. Adjust belt tension and tighten all mounting/adjustment plate bolts.
 5. When final adjustments are complete, make sure all setscrews are tight and re-check amp draw.

