

Tunnel Tip #9

Start with accuracy, finish with quality

REVERSED BLOWERS

Sometimes, the simplest things are missed when tunnel finishers do not function as they are supposed to. Overlooking the obvious is easy to do when panic and/or frustration sets in during troubleshooting.

One of the all-too-often problems is inadequate air velocity. This means the tunnel finisher does not finish the garments properly nor will it dry at the rated capacity. Over the years, in handling questions and helping customers resolve this problem, one single item stands out as the most common cause. It begins with start-up of the machine when it is first installed and remains uncorrected anywhere from two weeks, two years, or even longer. The cause? Blowers running backwards.

The problem may happen on start-up after replacing a motor or other components within the blower electrical system. The large motors used in tunnel finishers are 3-phase so they are reversible simply by changing any two wires in the circuit supplying electricity to the motor.

Since the blower is still turning and moving air, everything is assumed to be okay.

The problem is a blower running in reverse is moving air but only at about 25% of its normal capacity. If it was set up to move air at 1400 cfm, then in a reversed situation, it is only operating at 350 cfm. This will not do much in the way of finishing garments.

In a tunnel finisher with two blowers, the problem may be even more difficult to detect. This is because one of the blowers may be running in the proper direction giving full airflow while the other is running in reverse at reduced velocity.

Check the blowers for proper operating direction. There should be an arrow on the blower housing indicating the correct direction. If there is no arrow, the drawing below shows the proper directions on the caged wheel blowers used on most tunnel finishers. 

