

3 PHASE MOTOR TESTING PROCEDURE

The Patriot ,Mill Turn and Turnado machines are equipped with 3 phase motors. Each motor has 3 separate windings. The windings are marked with tags U-1 and U-2, V-1 and V-2, W-1 and W-2.

In the running configuration, the windings are joined with metal jumpers. In order to properly test the motor you must remove the cable connections coming from your inverter and the metal jumpers. Before doing this, make yourself a chart of how all the wires and jumpers are connected.

Once the cable and jumpers are removed, use your OHM Meter to test the windings.

1. Check the resistance between each of the windings to the ground lug on the motor. There should be zero continuity on all 6 points. If the OHM Meter shows anything less, or goes to zero, that means the winding is shorted to the motor body.

2. Check for resistance between each side of the windings-

EX- U-1 to U-2

Between the 2 sides of the winding you should read about 4 OHMs + or - 10%. A reading below this range indicates the motor has been hot and the lacquer wire coating may have melted allowing the wires to touch in the winding. If the OHM reading zero continuity, that indicates the wires in the winding have broken and there is no longer continuity.

3. Check for resistance between the various windings.

EX- U-1 to V-1

There should be no continuity between the 3 different windings. A low or Zero reading indicates that the windings are shorting against each other internally.

Write down your findings and contact us.