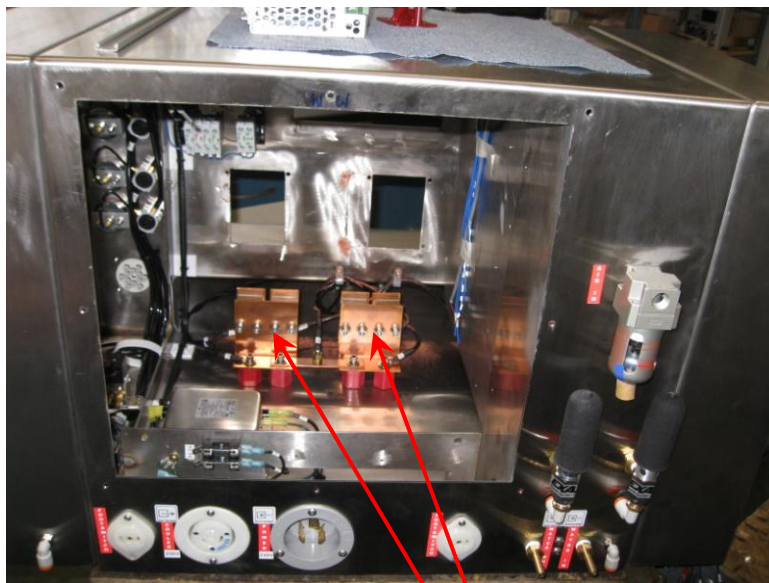


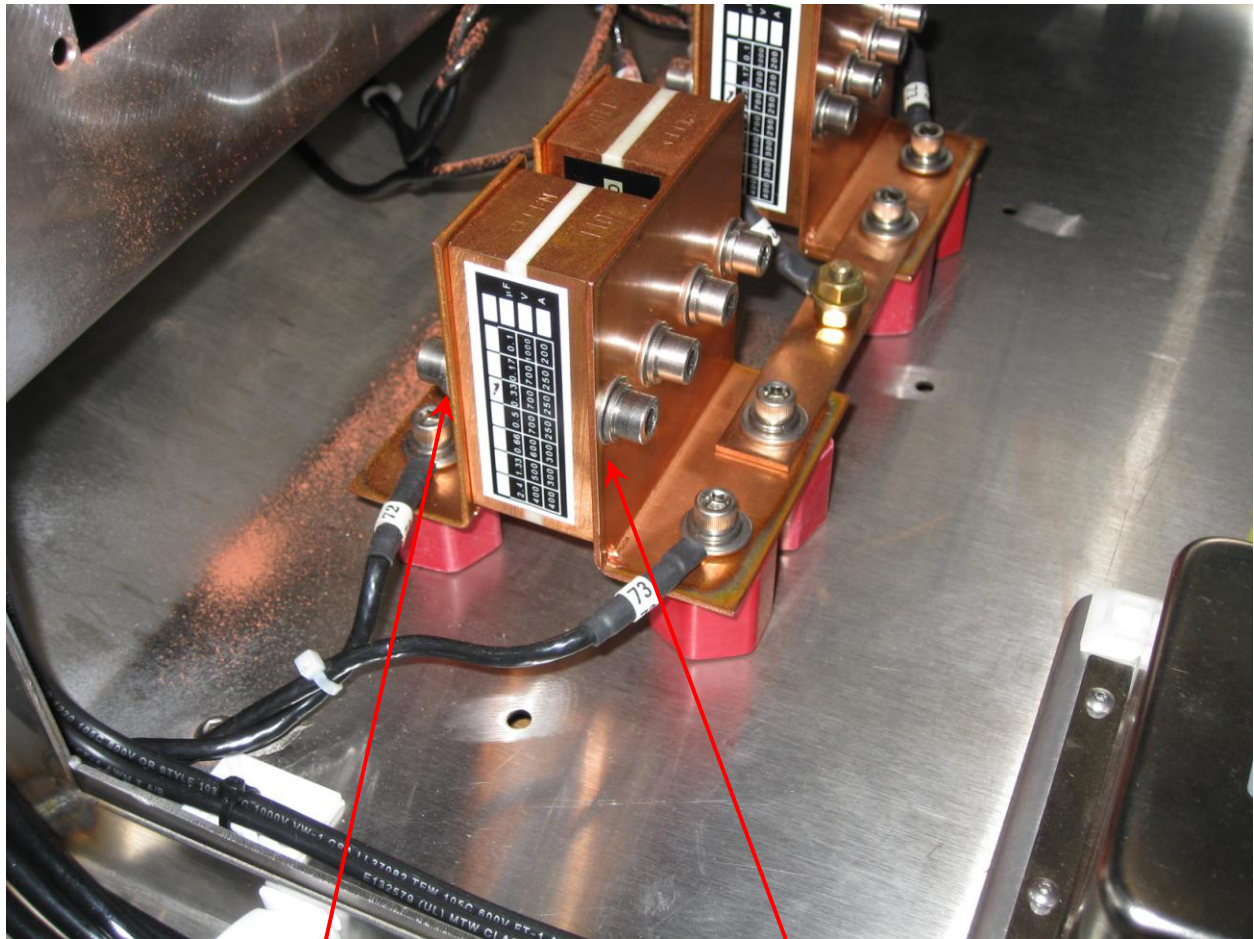
## Measuring Voltage Output to the Induction Coils and System Frequency – Alternating Style Machine

- All pictures are shown with most of the internal circuitry of the machine removed.
- Caution is required. All capacitors must be fully discharged and the machine must be unplugged before making the connections shown below.

[View of the inside of the machine from the back access panel](#)



Two capacitors.



Connect one lead from the oscilloscope on the right plate and the other lead to the left plate.

This will test only one side of the machine. To test the other side, connect the leads to the second capacitor block.

Test only one capacitor block at a time.

The connection points for measuring frequency are the same as the points for measuring voltage. The meter (oscilloscope) has to be changed from reading voltage to reading frequency.

Two important points:

- When measuring both voltage and frequency, cycle the machine with NO dies mounted in the machine. If you do use dies, then you must use the same dies every time you measure. Different dies will result in different voltage readings.
- Likewise, you must use the same coil. If you use measure voltage or frequency with different coils, you will get different readings.

Note: the percentage (%) power programmed into the PLC will not match the actual voltage output. The power output curve is not linear. For example, if you set the power for 50%, you probably will not register 110 V (on a 220 V system). The actual output is completely repeatable with every cycle of the machine.