

## Advantages of MOTORTECH Electronic Ignition Systems Compared to ALTRONIC® Magnetos

**In general, the MOTORTECH electronic ignition systems are maintenance free!**

### They do not have:

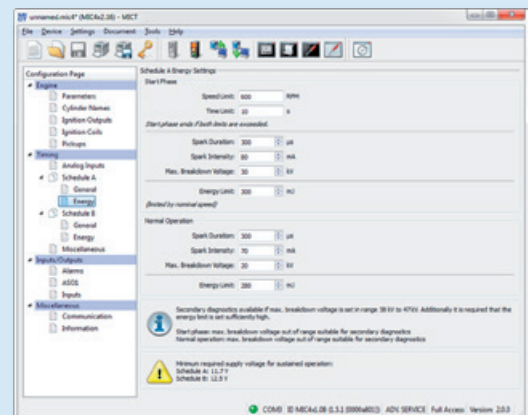
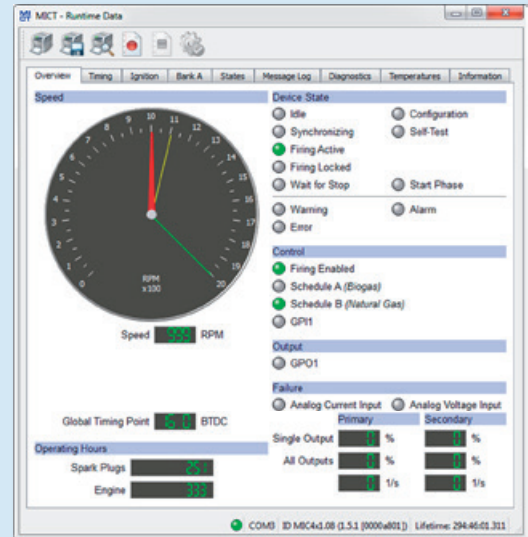
- X A mechanical drive
  - ▶ *This means less maintenance*
- X A plastic coupling that wears out due to temperature, oil and vibration
- X Moving parts in the ignition controller
- X They are not affected from heat produced by the engine
- X The output voltage to the coils corresponds to the speed of the engine.
  - ▶ *At cranking speeds the ignition magneto cannot deliver as much ignition energy*

### Electronic Ignition Systems offer the following features:

- ✓ They are powered by batteries or a power supply and make available full ignition energy from cranking to full speed
- ✓ They are less in cost
- ✓ Very accurate as they do not rely on a mechanical drive to trigger
- ✓ They use pickups (1 to 3) to sense the position of the crankshaft and camshaft and the speed.

### Additional features offered by Microprocessor Controlled Ignition Systems:

- ✓ They can be programmed by the operator
- ✓ They calculate crankshaft/camshaft positions in real time depending on the power of the microcontroller
- ✓ They offer very accurate ignition timing (0.1° crankshaft)
- ✓ They offer features like
  - ▶ Programmable timing curves based on
    - Speed
    - Analog inputs
    - Potentiometers
    - Etc.
  - ▶ Programmable energy
    - Spark duration
    - Spark intensity
    - Spark energy
  - ▶ Programmable safety features
    - Over speed shutdown
    - Alarms
    - Temperature alarms and shutdowns
    - Etc.
  - ▶ Can be integrated into SCADA system
  - ▶ Designed to work with other components (DetCon detonation controller, etc.)
  - ▶ All data can be read via PowerView3 HMI module



*MICT – MOTORTECH Integrated Configuration Tool  
Sample Screens*

### Conclusion:

- ✓ **MOTORTECH Electronic Ignition Systems offer the tools that are required to achieve:**
  - ▶ Higher loads
  - ▶ Optimized combustion
  - ▶ Fine tuning of the engine
  - ▶ Higher efficiency of the engine
  - ▶ Higher availability of the equipment
  - ▶ Cost reduction on maintenance
  - ▶ Less components to stock in inventory