AUTOMATION APPARATUS for OCTANE CFR TEST ENGINE

- **FULLY Conform to ASTM D2699, D2700, D2885**
- **NO Modification to the Engines**
- **Quickly Switchable Between Automated and Manual Operation**
- **Models from Data Capture Only to Total Automation**
- **Reduced Operator Training Time**
- **Significant Operator Time Saving**
- **Investment Payback in One Year or Less**
- **Improved Data Precision**
- **Full Documentation for ISO Traceability**
- **Windows XP Based Operating Software**

Also for Methods:	
ASTM	D2699, D2700, D2885
ISO	5164
IP	237
FTM	791-6002, 6005

▲ Installed Model AO-871

Upgrading of Waukesha CFR laboratory and on-line octane test engines is now available that fully and in all details conform to ASTM D2699, D2700 and D2885 octane number test methods. The same system is able to perform Bracketing, Falling Level, and Compression Ratio procedures (Procedures A, B, & C) on MON and RON engines.

Unlike other systems, there is NO modification to the CFR engine, and on-the-fly switching from automated to manual operation is done by a simple turn of the fuel selector valve and an electrical switch.

Available are products ranging from economical data capture only, to full hands off automation. Each product is simply upgradable at a later date to the product with a higher degree of automation.

Depending on the degree of automation selected, data is trapped from the knock meter, cylinder height position, and detonation meter. Detailed reports are printed out at end of each test or on command. Historic data is easily retrievable. This data is available for transfer to a LIMS for storage or to a spread sheet for further analysis.

Windows XP based proprietary software does the data capture and data management including all calculations and data storage. This data capture offers full, simplified ISO traceability with full documentation.

All ASTM method tables are automatically corrected for barometric pressure with internal certified instruments. Automated intake air humidity instrument is available as an option.

The software provides step by step check list and instructions that aid even a low skill operator to follow the correct procedure. Operator errors are reduced and data precision is improved.

The system (depending on the degree of automation chosen) provides significant savings of operator's time. In fact, one operator can run 4 CFR engines when each is equipped with the full automation Octatest system. Operator reduction alone can payback the cost of automation in about one year.

Maximum fuel level is automatically determined as per ASTM procedure. This automation improves repeatability and precision of "maximum fuel level" determination.

The software facilitates PRF and TSF blending by doing all the needed calculations. Octane Number is rapidly estimated for bracketing. Integral data base is available for detonation meter calibration for all TSF temperatures. Installation is simple and a minimum of maintenance is required once installed.

Automated engine standardization routine (fit for use) is also part of the package. Automated procedure determines detonation meter settings.