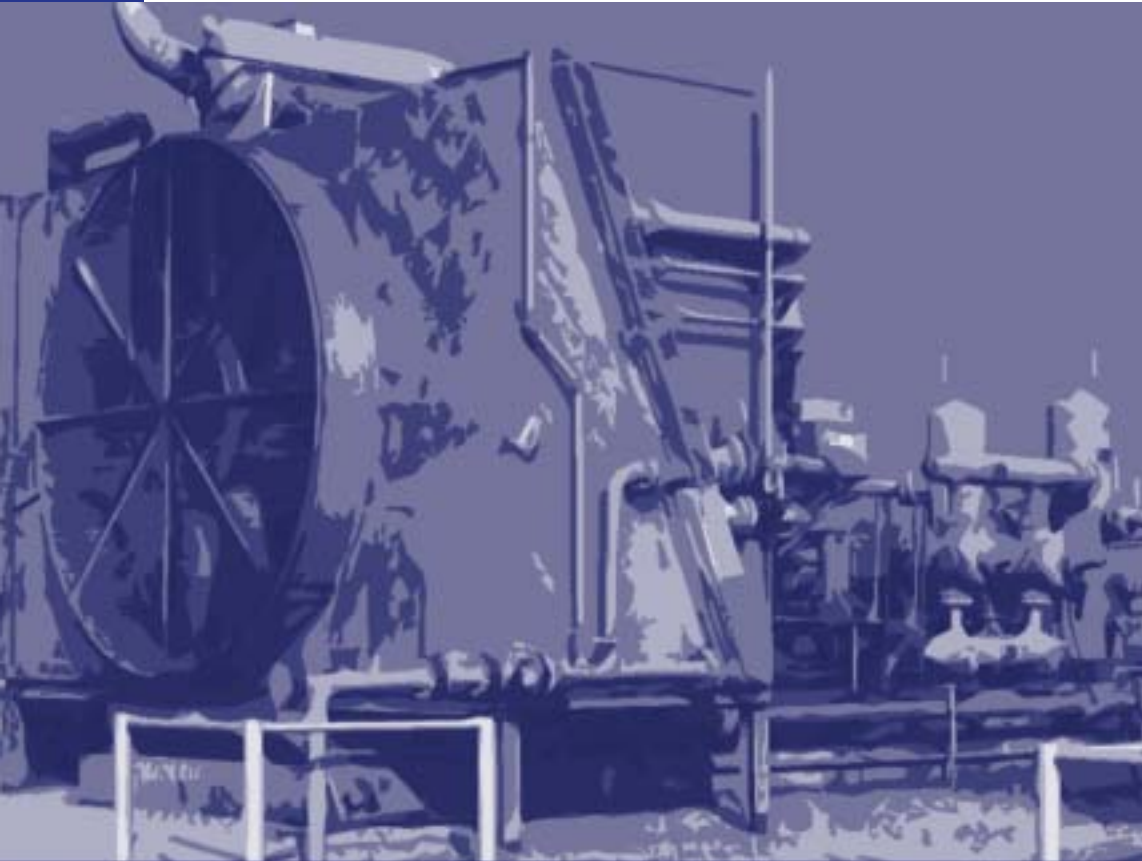


Compliance Controls **MEC-R** RICH-BURN AIR-FUEL CONTROL SYSTEM

If your business banks on revenues from rich-burn, spark-ignited, natural gas-fueled engines with catalytic converters, you face tough challenges **EVERY DAY:**



- **EMISSIONS CONTROL COMPLIANCE.**

Variance by as little as *one percent* from the stoichiometric air-fuel ratio – the ratio at which all fuel is oxidized in engine combustion – will keep your catalytic converter from doing its job.

- **OPERATIONAL ISSUES.**

In any competitive arena, your business suffers when you're not getting the benefits of today's most advanced technologies, and tomorrow's. But keeping up with technology can be costly – in dollars, time, headaches and hassles. And who can afford to keep *rocket scientists* on board to run engines day-to-day?

- **TROUBLESHOOTING & MAINTENANCE.**

Engine misfires, ashed catalysts, overheating: these and other glitches not only impair engine performance and shorten your equipment's life span. They can also cost you plenty. Take one example. In mere seconds, the unburned fuel coughed into your exhaust stream by a misfiring cylinder can cause a hot catalyst to *burst into flame*.

Compliance Controls has the ideal solution:
**THE MEC-R RICH-BURN
AIR-FUEL CONTROL
SYSTEM™**



Compliance 
CONTROLS™

The best. Bar none.

THE MEC-R RICH-BURN AIR-FUEL CONTROL SYSTEM maximizes the efficiency of a three-way catalyst by maintaining a constant air-fuel ratio over varying engine loads, operating speeds, fuel quality, ambient temperatures and barometric pressures.

And the MEC-R works *without operator intervention*.

Easy to install, even easier to use, and equipped with a comprehensive on-board diagnostics and troubleshooting system, the Windows®-based MEC-R simply redefines the state-of-the-art: in hardware, microprocessor power, control system software, operator interface options, adaptability to variable engine conditions and control requirements, software upgradeability, you name it.

DOLLARS & SENSE. Continuous emission control. Improved engine performance. Longer, more trouble-free equipment service-life. Fail-safe troubleshooting. Fast, easy installation. Easy, user-friendly operation, with minimal training. Network compatibility, with high-speed data transfer. Powerful smart-system features and benefits you won't find anywhere else. All with the flexibility to tailor solutions to your specific current and future wants and needs.

Business owners, financial officers, engineers, IT and operations managers alike can all agree: the Compliance Controls MEC-R Rich-Burn Air-Fuel Control System is simply the best value on the market, bar none.

ABOUT COMPLIANCE CONTROLS.

Compliance Controls was formed by two of the best-known, most trusted leaders in industrial engine emissions control and equipment management solutions: MIRATECH Corporation and F.W. Murphy. Backed by our parent companies' distribution networks, Compliance Controls focuses exclusively on delivering and supporting MEC Air-Fuel Control System solutions tailored to our customers' specific requirements.



MIRATECH Corporation and

F.W. Murphy. Backed by our parent companies' distribution

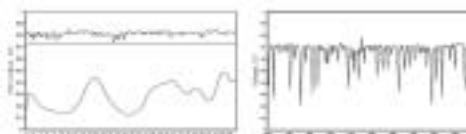


FEATURES

- >> Fast, easy, low-cost installation
- >> Fits virtually any gas-fueled, carbureted, rich-burn industrial engine – with any catalytic converter
- >> Windows®-based platform compatible with all computers
Software can be installed on laptop, PC, Palm®-type handheld or network
- >> Adaptive valve-learn software
Continually updates look-up tables for rapid transient response and continuous control in Open Loop mode
- >> At-a-glance on-screen dashboard graphics
LED Driver (COMM Modules) for Power, Alarm & Shutdown, Controller Communication and more
- >> Comprehensive failsafe diagnostics
Continuous oxygen sensor health monitoring; detection of ashed catalysts, misfiring, overheating, valve sticking and more
- >> Data plotting for easy, accurate troubleshooting
- >> Alarm and shut down dry contacts
- >> Pre-catalyst closed loop, exhaust oxygen feedback control
- >> Post-catalyst exhaust oxygen feedback; cascade control for fast, real-time adaptation to changing catalyst performance
- >> Variable set-point for pre-catalyst and post-catalyst exhaust oxygen control – for real-time response to varying engine loads
- >> Catalyst temperature monitoring to protect the catalyst from engine fueling malfunctions
- >> Two-dimensional open-loop valve positioning, based on engine speed and load
Maintains compliance even with critical oxygen sensor malfunction
- >> Drives up to two fuel-metering valves for “V” engine configurations
- >> Multiple valve control options:
 - **Smart Valve Electronic Pressure Regulator**
Controls all engine fuel with full authority, with differential fuel pressure control in case of control system failure
 - **Full Authority Valve**
Controls all engine fuel via butterfly valve
 - **Trim Fuel Valve**
Adds supplemental fuel to the air intake system via system-controlled proportional fuel valve
- >> RS-485/ModBus® and CAN link communications support for high-speed data transmission

COMPREHENSIVE FAILSAFE DIAGNOSTICS

- >> Covering 44 critical parameters



STICKING VALVE

CONTINUOUS MISFIRE

BENEFITS

- >> Continuous, precise emissions control compliance
- >> Improved engine & emissions control performance
- >> Longer, more trouble-free equipment life
- >> Fail-safe troubleshooting & diagnostics, with automatic shutdowns
 - *Eliminates operator guesswork and look-see troubleshooting*
 - *Prevents costly equipment damage and failures*
 - *Better-managed maintenance costs; lower replacement costs*
- >> Fully automatic; no operator required in normal operation
- >> Minimal operator training
- >> Flexible network compatibility – with high-speed data transfer
- >> Responsive, full-service support: 24-7-365
- >> Software, upgrades and documentation available on disk or online

Visit Our Website. Or Give Us A Call.

To find out more about the MEC-R Rich-Burn Air-Fuel Control System, please visit our website: www.compliancecontrols.com.

Or simply give us a call:

918-627-5050



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