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## **Intelligent boiler controller M2G now available in New England distributed by The Blake Group**

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Commercial Energy Solutions has added The Blake Group to provide sales and installation of the M2G Intelligent Boiler Controller. Blake located in South Windsor, Conn. has locations throughout the northeast.

"The M2G is compatible with virtually any existing building management system and installs quickly, beginning the savings process immediately," said Mike Sak, vice president commercial sales, The Blake Group.

Designed by boiler experts in Europe, the M2G is a boiler control microprocessor that determines if a real request for heat on the boiler exists, or if the boiler is dry-cycling. If it is determined that a real call exists, the boiler is immediately released to fire. If it is determined that there is a false call for heat, the dead-band is automatically increased from 2.5 degrees to 14.5 degrees or 15 minutes (whichever occurs first) before allowing the boiler to fire. The microprocessor checks for real calls every 10 seconds and dynamically responds to boiler requests. If at any time during the increased dead band cycle, or 15 minute cycle, the boiler receives a real call for heat, the boiler will be allowed to fire. Finally, because real calls for heat from the boiler are not interrupted, the comfort levels of the building occupants are not adversely affected. The interior temperatures remain consistent with those temperatures achieved before M2G installation.

This unique device applies proven algorithms to allow the temperature to drop below typical set points only at times when this can be done without impacting the system's ability to deliver necessary heat inside the building. The M2G essentially acts as a cruise control, replacing the stops and starts that plague most hot water boilers with more efficient cycling that is analogous to steady highway driving.

"Basically, the M2G is a microprocessor that uses algorithms developed by engineers in Europe," said John Mitchell owner of Commercial Energy Solutions. "It reduces the number of times that a boiler cycles by learning its thermodynamics, so it can differentiate between real and false calls."

Boiler control mechanisms that only monitor temperatures inside the boiler create a very limited picture of what may be causing temperature changes. The M2G measures water temperatures at the inlet and outlet of the boiler. It also tracks another vital variable that aids in its understanding of the building's thermodynamics. "The two sensors don't only measure temperature, they measure temperature over time," said Mitchell. "Instead of providing a photograph to work with, they give the M2G a movie."

**Real Results:** The return on investment is between 6-24 months on average. Last fall, Dr. Michael Pate, the director of the Riverside Energy Efficiency Laboratory located at The University of Texas A&M, had the following comments about the M2G.

"On November 17, 2010 I was present for the M2G installations in Houston. At the conclusion of the

30 day test period, I received the test data from the pilot locations and have verified the energy savings of the M2G. The M2G boiler sequencing controller produced an average savings in natural gas of approximately 21% over the pilot period. The return on investment for the M2G was approximately 11 months. In summary, the 21% natural gas savings determined during the pilot testing demonstrates that the M2G can be a cost effective tool for reducing the consumption of natural gas. In this regard, the M2G should be considered as a viable energy saving technology by agencies operating closed loop hot water boilers in the state of Texas."

Once the M2G is installed, it needs no maintenance to operate; it simply learns when it can let the boiler cool down without sacrificing performance.

"You install it, walk away, check your bills and save money," said Mitchell.

For more information contact visit [www.saveenergynow.net](http://www.saveenergynow.net).

David Richman is a partner at Commercial Energy Solutions, So. Windsor, Conn.

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