

Air Gas Ratio Control (AGRC)

The Dürr Megtec Air Gas Ratio Control (AGRC) system measures and controls gas and air flows continuously through the programmable logic controller (PLC). This system uses less energy and delivers lower emission rates than a comparable non-AGRC equipped regenerable thermal oxidizer (RTO), two important factors when operating gas-fired equipment.

Dürr Megtec has developed a new, patented system to accomplish these goals in an economical manner, allowing fast return on your investment.

Most process burners are firing in an off-ratio condition, using more energy than necessary. With typical burner systems, the air-to-fuel ratio is set at the maximum firing rate of the burner, and minimum air flow is set at low fire position.

Between these settings, the air and gas valves are usually controlled by the ratio of valve position between these limits. This is done either mechanically with a linkage or electronically through PLC or relay logic.

While this method works, if the burner operates at less than its maximum firing rate, a significant amount of excess air is typically used and the burner operates outside of the stoichiometric ratio. This results in higher fuel usage.

In areas where low NO_x is a requirement, this system can also maintain a burner in a low NO_x state when it is combined with a low NO_x burner.



The AGRC system will use the minimum amount of combustion air necessary (and the corresponding fuel required to heat this air to combustion chamber temperature) to maintain a stable flame and minimize production of combustion by-products including CO.

Our technical staff will review your process conditions to determine if the AGRC system will provide a significant return on investment. Benefits could include:

- Reduce fuel usage by up to 18%
- Reduce CO emissions
- Minimal installation time required
- Low investment cost and rapid ROI
- Monitor fuel usage





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