



The Budget Buster Boiler

How To Make It A Thing Of The Past

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WILKINSON

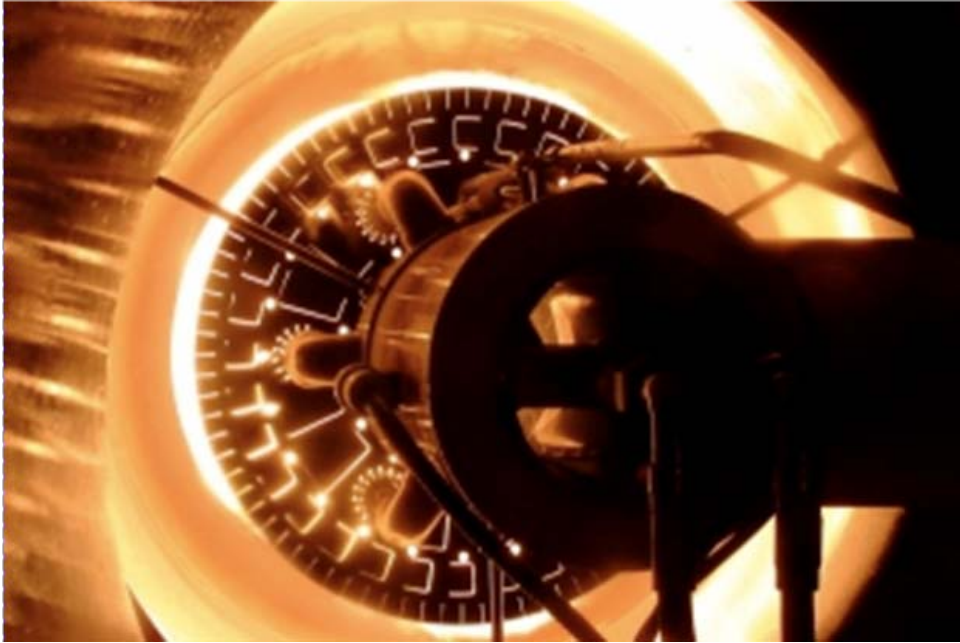
GEORGE T. WILKINSON, INC.

ENERGY EFFICIENCY ENGINEERS®



YOUR PORTAL
TO PROFITABILITY

Why am I HERE?



- Boiler Efficiency 101
- Fuel Savings
- Emissions Reductions
- High Performance Burner
- & Controls
- Rebates
- Results = Improving Profitability
- Millipore Corporation Case Study



Boiler Efficiency 101

- Energy Input vs. Energy Output
- Combustion = Ability to Burn Fuel
- - Low CO and Low O₂
- 100% Combustion Efficiency is Impossible
- Turndown Important but at a COST
- Thermal = Heat Transfer
- - Heat Transfer from Combustion Process to Medium
- Most Bang for Your Buck
- Proper Maintenance = Long Term Profits



Better Burners = Better Results

- New or Retrofit
- Fire Tube/Water Tube or Cast Iron
- Low Oxygen Content Throughout Range
- No Carbon Monoxide (CO) on Gas
- CO = Unburned Fuel

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What about Low O₂'s?

- Better Thermal Heat Transfer
- Focus on Consistent Low O₂'s Throughout Range
- Durable Burner Heads
- 12%+ Savings

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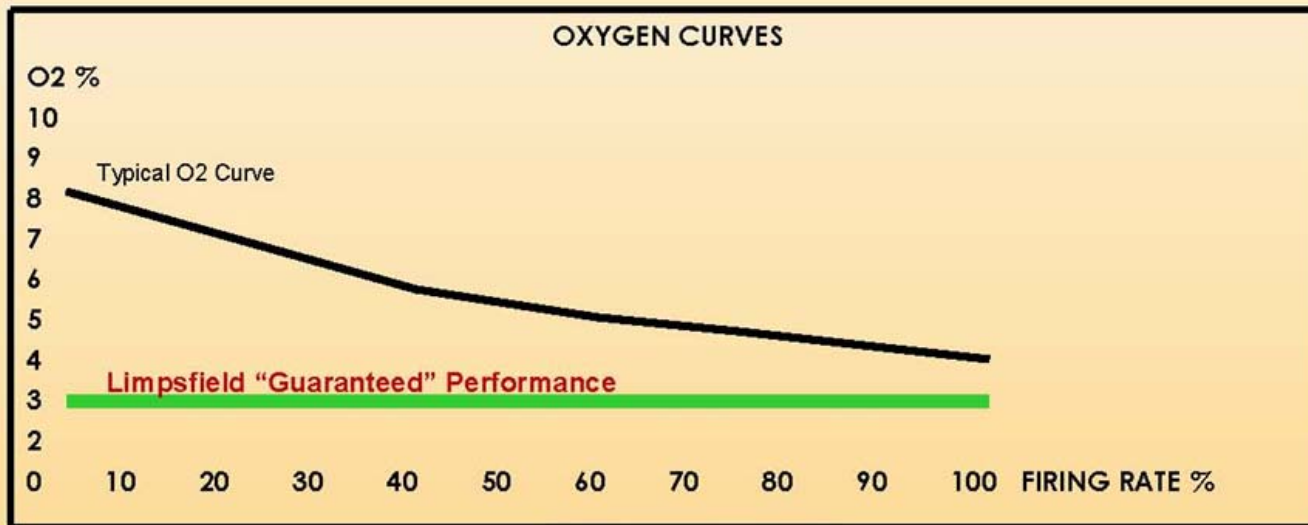
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IS YOUR BOILER/BURNER PROTECTING YOUR BOTTOM LINE?:

HIGH OXYGEN LEVELS PRODUCED BY MOST BURNERS ACTUALLY COOL THE FLAME AND CARRY THE HEAT RIGHT OUT OF YOUR BOILER

IF YOUR BURNER CANNOT FOLLOW THE "GREEN" LINE THEN YOU MAY BE SPENDING 10% MORE ON YOUR NATURAL GAS BILL THEN YOU NEED TO.





	Exhaust Gas Analyser						
	Commissioned Vals						
	Amb	Exhaust	Delta	Eff %	O2 %	CO2 %	CO ppm
High	95 °F	270 °F	207 °F	86.4	2.3	10.5	0.0
Inter 1	95 °F	264 °F	201 °F	86.5	2.5	10.4	0.0
Inter 2	95 °F	262 °F	199 °F	86.5	2.6	10.3	0.0
Inter 3	95 °F	252 °F	189 °F	86.8	2.5	10.4	0.0
Inter 4	95 °F	252 °F	189 °F	86.8	2.5	10.3	0.0
Inter 5	95 °F	248 °F	185 °F	86.9	2.5	10.4	0.0
Inter 6	95 °F	244 °F	181 °F	86.9	2.6	10.3	0.0
Inter 7	95 °F	241 °F	178 °F	87.0	2.6	10.3	0.0
Inter 8	95 °F	235 °F	172 °F	87.2	2.6	10.3	0.0
Inter 9	95 °F	228 °F	165 °F	87.3	2.7	10.2	0.0
Inter 10	-	-	-	-	-	-	-
Inter 11	-	-	-	-	-	-	-
Inter 12	-	-	-	-	-	-	-
Inter 13	-	-	-	-	-	-	-
Inter 14	-	-	-	-	-	-	-
Inter 15	-	-	-	-	-	-	-
Start	95 °F	221 °F	158 °F	87.1	4.7	8.9	0.0

Low O2 RETRO-FIT CBW 700 Hp / Natural Gas

“SIMPLY EFFICIENT”

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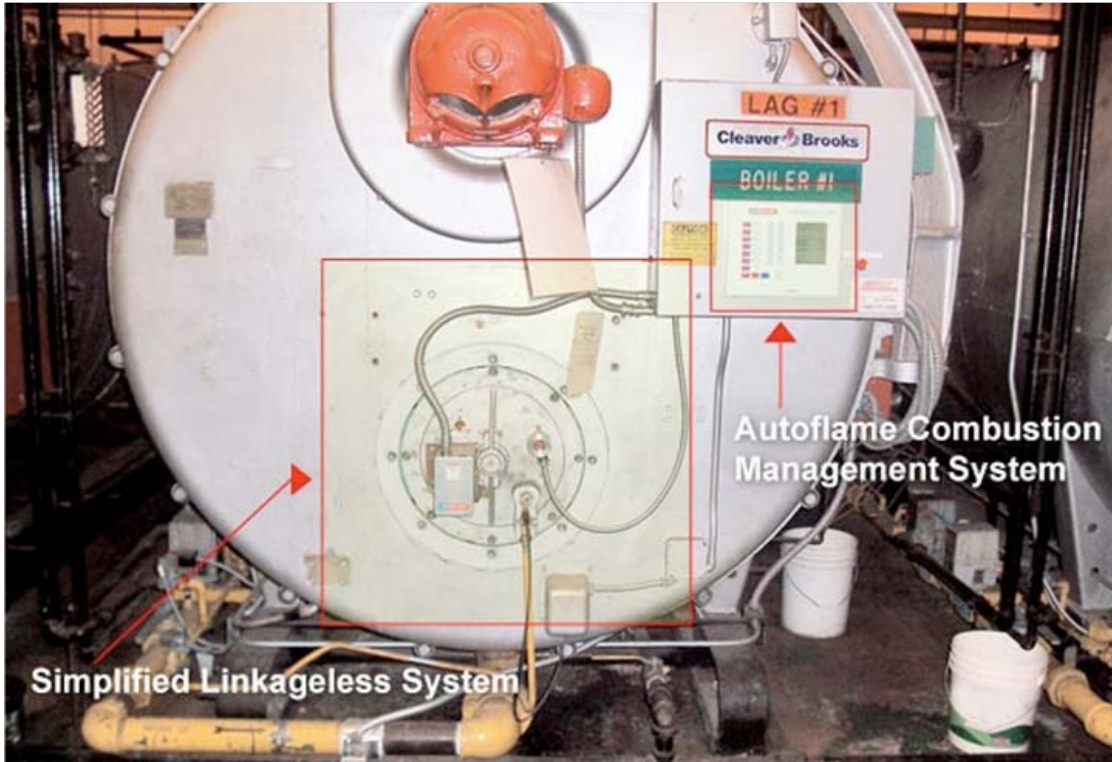


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Linkageless Controls



- Maximize Efficiency of any Firetube/Watertube/Cast Boiler
- Near Perfect Combustion
- Precise Target Set point: PID Control
- Reduce fuel usage
- Limit Harmful Emissions: **GREEN TECHNOLOGY**
- VFD's to limit O2's
-

**SAVE CUSTOMERS \$\$\$
& REDUCE EMISSIONS**

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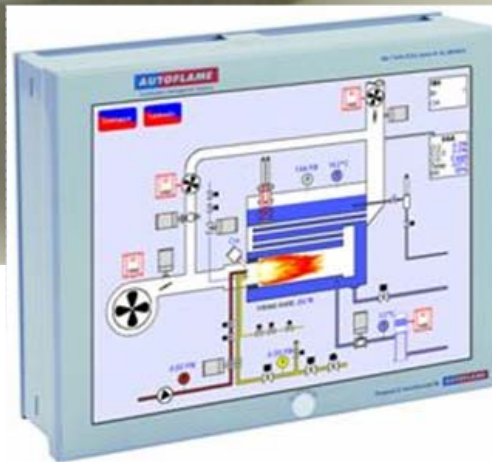
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Linkageless Controls

- **Cruise Control & Fuel Injection for your Boiler!!**
- Micro processing Control
- Linkageless Servo Motors with an Internal Flame Safeguard Controller
- Retrofittable or New Construction



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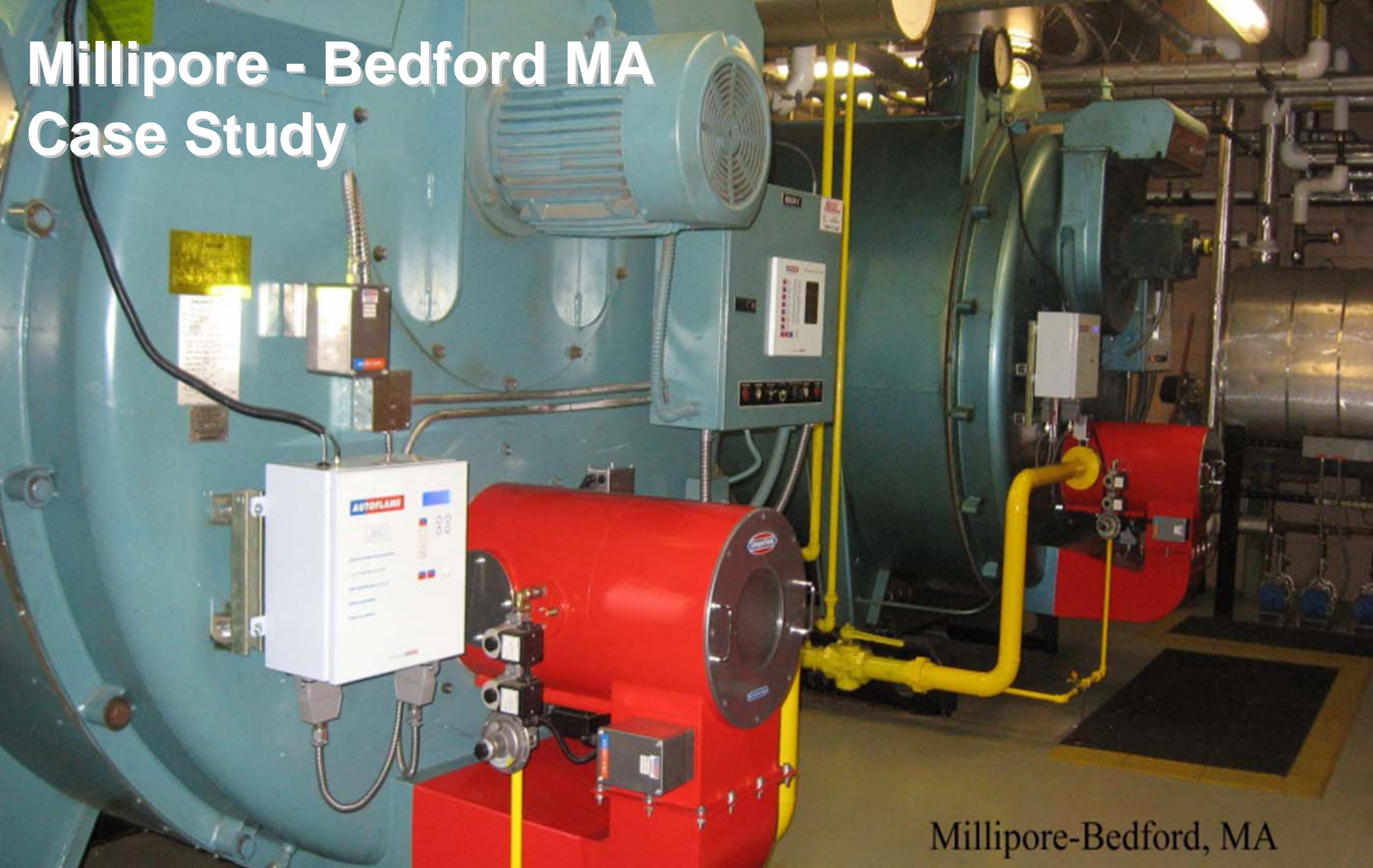
What is an **EGA**?



- Exhaust Gas Analysis
- Measures O₂%, CO₂%, CO ppm, NO_x ppm
- Exhaust Gas Temp, Amb. Temp & Combustion Efficiency!
- MM Inflicts Minute Changes to Variations b/c of Stack Pressure, Barometric Conditions, etc.
- Contributes Average 2% Annual Savings



Millipore - Bedford MA Case Study



Millipore-Bedford, MA

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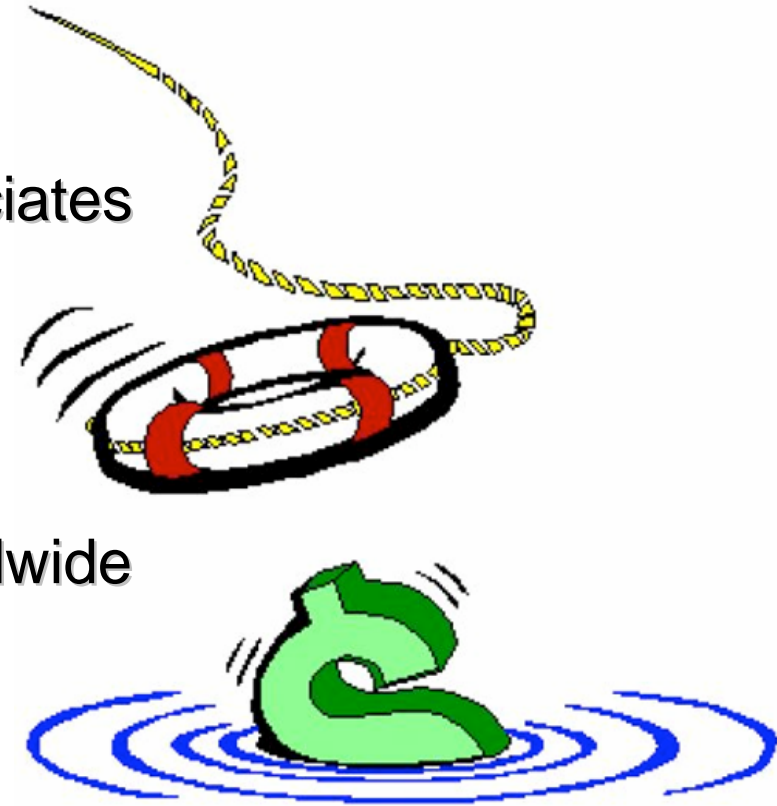
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Millipore Retrofit Results

- Study Performed Independently GDS Associates
- Large Incentive from NGrid
- Pre and Post Testing
- 12 Month Study Yields 30% Savings
- Standardized At All Millipore Facilities Worldwide



For More Information



- www.gtwilkinson.com
- www.boilerroominsider.com
- 800-777-1629
- Application Engineering Department
- Service Technicians

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