Mk8 EGA

Touchscreen

TOTALISED Values 1-April-2015 to 30-April 2015 (30 days)
EGA 6

	Weights	Volumes (Net)	Average Volume Readings
Oxygen (O2)	67.59 short tons (0.00 TPLY)	1705870.88 ft3 (0.00 TPLY)	3.83 %
Carbon Dioxide (CO2)	3074.87 lb (0.00 TPLY)	28108.56 ft3 (0.00 TPLY)	9.84 %
Carbon Monoxide (CO)	0.18 lb (0.00 TPLY)	2.58 ft3 (0.00 TPLY)	0 ppm
Nitric Oxide (NO)	1.60 lb (0.00 TPLY)	21.40 ft3 (0.00 TPLY)	38 ppm
Nitrogen Dioxide (NO2)	-	-	-
Sulphur Dioxide (SO2)	-	-	-
Water (H2O)	2854.89 lb (0.00 TPLY)	63795.02 ft3 (0.00 TPLY)	8.44 %
Nitrogen (N2)	231.38 short tons (0.00 TPLY)	6670084.50 ft3 (0.00 TPLY)	78.09 %
Total Emissions (Dry)	301.94 short tons (0.00 TPLY)	8467883.00 ft3 (0.00 TPLY)	100.00 %

TOTALISED Values 1-April-2015 to 30-April 2015 (30 days)
EGA 6

	Weights	Volumes	Unit Cost	Total Cost
1 - Natural Gas (North Sea)	7491.423 lb (0.000 TPLY)	10399.441 m3 (0.000 TPLY)	USD 3.5000 / MMBtu	USD 1263.97
2 - Light Fuel Oil #2	0.000 lb (0.000 TPLY)	0.000 m3 (0.000 TPLY)	USD 3.0800 / US gal.	USD 0.00
Total	7491.423 lb (0.000 TPLY)	10399.441 m3 (0.000 TPLY)	-	USD 1263.97

Total Calorific Value Heat Input	105.84 Btu
Total Useful Heat Into System	93.03 Btu
Average Combustion Efficiency	87.90 %

Monitor & Reduce Boiler Emissions

Enables patented 3 parameter trim • Monitor up to 6 gases

Overview

For decades, boilerhouses have used our EGA's to monitor flue emissions to comply with environmental regulations & to reduce fuel usage & emissions. The EGA's readings feed back to the MM Controller, signalling it to adjust the fuel/air ratio (trim) of the burner for optimised performance.

Features

- Continuous Emissions Monitoring System (CEMS) for display & data trending
- Specifically designed for current regulations on emissions monitoring
- Simultaneous & continuous sampling of up to 6 exhaust gases: O2, CO2, CO, NO, NO2, SO2
- 10.4" Full colour touch screen
- Stored information is updated every minute
- Online monitoring of cell status to identify cell replacement requirement
- MM Controller or Standalone Operation modes
- Complete diagnostic information
- Quick & easy installation using plug-in connectors

- Designed to minimize maintenance
- Six 4-20mA analogue outputs of all combustion data for remote logging, printing or chart recording
- Standard alarm conditions for cell failure, probe blockage & analyser failure
- Via the Autoflame Mk7 Data Transfer Interface (DTI), all CEMS data from EGA can be communicated & transferred to a Building Management System (BMS) via Ethernet connection/RS422
- Online manual & user guide
- Cells contain calibration data and serial number for easy cell replacement
- Automated cell calibrations on bottled calibration gas (EPA version of EGA)

Maintenance

It is recommended that the EGA is sent back to an Autoflame service centre for full service & recalibration every 12-18 months. System includes reusable packaging to simplify shipping.

EGA Mk8: Exhaust Gas Analyser

AUTOFLAME®

Online Data Logging & Historical Trending

- All of the data that is recorded in the Mk8 EGA can be displayed on the touch screen & through the Mk7 DTI. The resulting data & screens can be outputted for printing/hardcopy records. This data can be exported in real-time for further management, manipulation & adjustment to suit the user's requirements.

- Online trending & logging of all combustion parameters, including totalised values

- Online data is updated every second

- Historical data is updated every minute & hourly averages are taken

- User-selectable time function to view historical data, e.g., monthly, weekly, daily, hourly

- Two years of data stored within the EGA including gases, pressures, atmospheric pressure, temperatures, efficiency, fuel usage

CEMS Auditing

- Ability to input accurate fuel composition data to improve CEMS analysis

- 4-20mA input from a fuel flow meter for accurate fuel usage in CEMS calculation
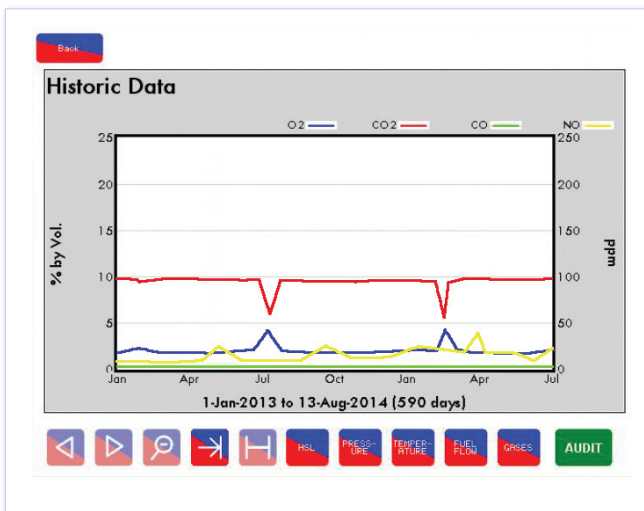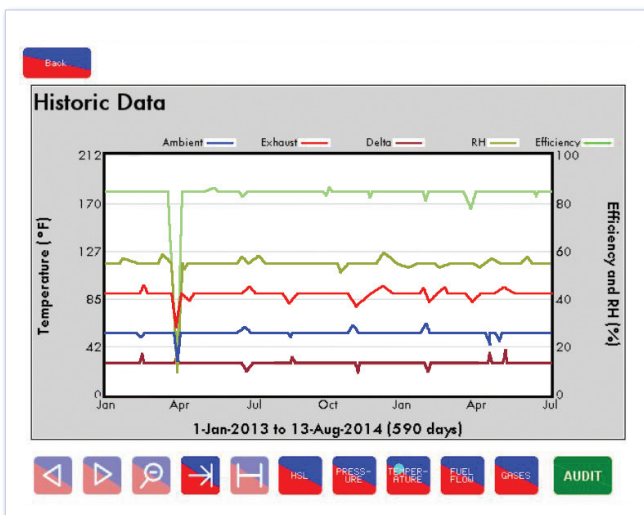
- View reports by user-definable time periods (6 hours, 8 days, 500 days, etc) based on:

  - Total weight & volumetric emissions

  - Total cost of fuel (calculated by current cost per tonne of fuel)

  - Weight & volumetric emissions per exhaust gas (O_2, CO_2, CO, NO, NO_2, SO_2) & per fuel

Operation with Autoflame MM Controller

By connecting the Mk8 EGA to an MM Controller, all of the following functionality is available for improving combustion performance, reducing energy costs & improving safety:

- The EGA enables Autoflame's unique 3 parameter trim. The system sends output signals based on three exhaust gases (O_2, CO_2, & CO) to enable the MM Controller to perform trim. Controller will impose small corrections to the air damper or Variable Speed Drive in order to maintain optimum combustion performance for the system. These minute changes ensure that the original commissioned combustion data is maintained irrespective of changes to stack pressure, barometric pressure & temperature.

- The MM Controller may be set with upper & lower limits on O_2, CO_2, CO, NO & exhaust gas temperature. The system can be optioned so that a lockout occurs when limits are exceeded.

Additional Components

- Includes exhaust gas sampling probe complete with internal filter, thermocouple and sampling tube

- Optional environmental enclosure available for non-standard conditions, harsh environments

- Optional external filter available for high condensate fuels or humid environments

Technical Specification

- Power Supply: 110 - 240V, 50 - 60Hz

- Ambient Temperature Limits: 5°C (41°F) to 40°C (104°F)

- Environmental Rating: IP20 (NEMA1)

- Gas available: O_2, CO_2, CO, NO, NO_2, SO_2

EGA Mk8: Exhaust Gas Analyser

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