

PRODUCT : EFFICIENCY MONITORING SYSTEM

Document No : SE/SOP/EFFIMONITOR Rev 00

Product

Effimonitor is online boiler efficiency monitoring system. It continuously monitors 15+ parameters in accordance to BS 845. It generates MIS in the form of historical data & trends.

EFFIMONITORING SYSTEM

PLC panel with SCADA software

Oxygen anlyzer

RTD with TT

Boiler auto blow down system

Flow meters

Pressure transmitter

System Requirement

1

Single phase 230 Volts, UPS power supply.

Necessary IBR approvals should be obtained from local authorities.

Separate PC for installing SCADA devlopment software.

PC Requirement for SCADA Installation		
System size	Compact (<1, 20-0 pts)	
CPU pass mark	1400	
Cores	1	
RAM	8 GB	
HDD	10 GB	
Graphics	DirectX 9 or later with WDDM 1.0 driver 64MB of dedicated VRAM	
Screen resolution	1920 x 1080	
Operating system	Windows 10, 8.1, 8 & 7 versions	
Microsoft Excel	2007 or later, MS Excel 2013 (32 bit)	

Ethernet communication cable from PC to Effimonitor panel.

Installation

SFM

Straight length of 18D at inlet & 8D at outlet

Condensate pots should be at same elevation in case of orifice type

OFM

Straight length of 10D at inlet & 5D at outlet

Provide suction side strainer with isolation valves

Auto Blowdown

Install the distance piece before the boiler gauge glass assembly

Provide air supply for actuator valve in case of timer based blow down

Install NRV in drain line

Oxygen Analyser

Analyser should be inserted upto half portion inside the duct

Air supply to be given to sensor

RTD

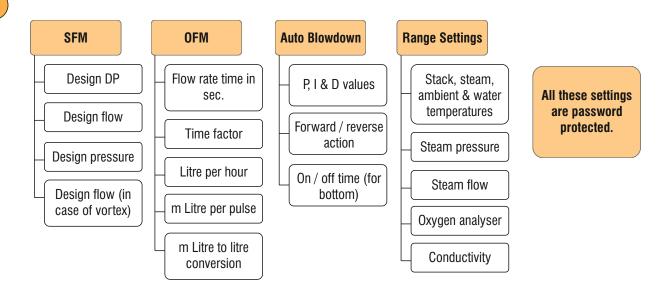
All RTDs should be installed with thermowell



PRODUCT : EFFICIENCY MONITORING SYSTEM

Document No : SE/SOP/EFFIMONITOR Rev 00

Settings in PLC



Displayed Values

Steam to fuel ratio	Steam flow	Oil/gas flow
Indirect efficiency	Water flow (optional)	Steam pressure
Stack, steam, water & ambient temp	02 %	Boiler water TDS

Troubleshooting

Symptoms	Possible Causes	
No display of values in HMI	Parameter settings distrubed	
	Loose cable connections	
	Fuse blown off	
	Analog input card fault	
HMI not turning ON	No supply to HMI	
	Cable loose connection	
	MCB tripped	
	Range setting disturbed	
Values not matching with another instrument	Calibration disturbed	
	Design parameters	
No values in SCADA screen	Communication cable disturbed	
	License key removed	