

## HEAT PRODUCTION

System Application Components for heat production plants and boiler rooms

Products for economical  
& safe heat production

**Oxygen (O<sub>2</sub>)-control**  
optimized combustion

**Sequence Boiler control**  
multiple boiler control

**Electrical Boiler control**  
temperature efficiency control

**Temperature monitor**  
water temperature monitor

**Pressure switch**  
furnace pressure monitor

**Flue gas monitor**  
temperature monitor

**Speed monitor**  
flue gas exhaust fan monitor

**2-stage thermostat**  
temperature control for burners

**Combustion air measuring**  
for bio-mass fired boilers

# - Control systems -



Industrial O<sub>2</sub>-analyzer & controller for supervision and control of O<sub>2</sub>-content in flue gas.

## O<sub>2</sub>-measurement/control



Sequence boiler selector for two or three connected boilers. Bio-mass fired, oil fired, gas fired or electrical.

## MVP-300, Boiler Control



Controller for electrically powered boilers. Programme each power stage for a selected load.

## MEL-1000, El-boiler control



# - Monitoring & Safety -

Max. temperature switch for monitoring of water temperature. Certified acc. to EG-type approval modul B and F.

## **MMT-1000, Temp.monitor**



Pressure switch for monitoring of furnace pressure in combustion plants. Measures high, low or differential pressure.

## **MTV-2000, Pressure switch**



Flue gas temperature switch, type HL for bio-mass fired boilers, type HH for oil- and gas fired boilers.

## **MI-4000, Temp. switch**



Speed monitoring of flue gas exhaust fans, monitors rotation between 0,1 and 9999 rpm.

## **MN-1000, Speed monitor**



Digital thermostat for control of stage burners.

## **MDT-2000, Thermostat**



# - Air volume control -

## Action

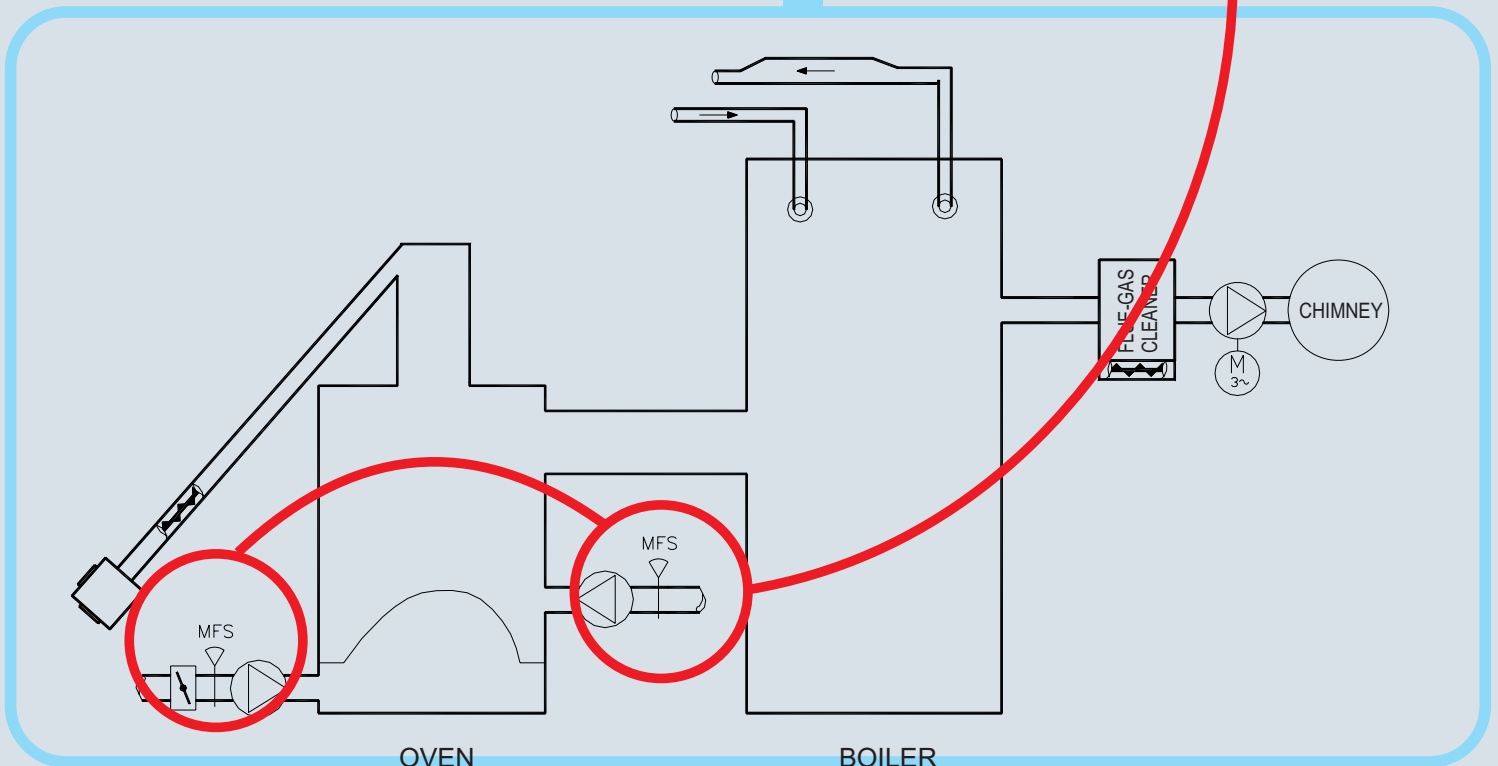
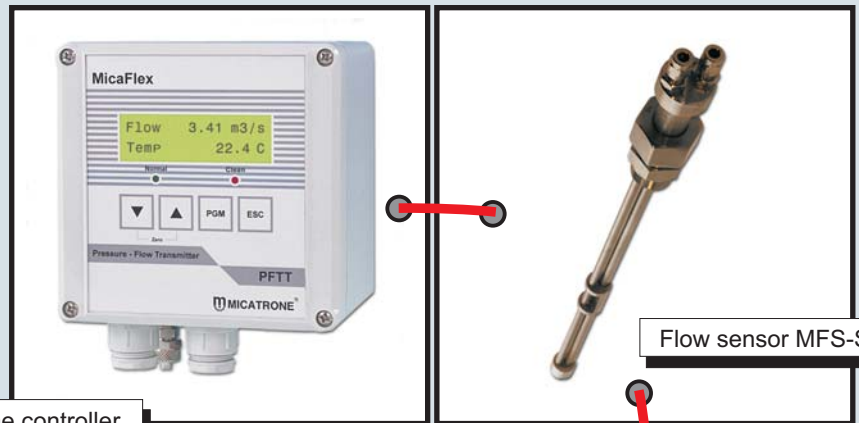
The ducts are fitted with flow measuring sensors type MFS which create a flow dependent differential pressure. The measured differential pressure is converted with a suitable flow transmitter to a flow linear output signal. The control of the fans against a desired air flow can either be done with a local installed controller or through a PLC-system.

## Flow monitoring

To secure the function of fans and peripherals, the difference between the measured flow and the set flow (capacity signal) are continuously monitored. At a set deviation an alarm signal can be obtained. This function could be monitored and controlled in a local device or by the PLC system.

## Advantages:

1. Always the same air-volume regardless of load (fuel injection)
2. Counteract poor efficiency (high O<sub>2</sub>-content in flue gases) by blowing air through the oven.
3. Alarm if the difference between the measured flow and the set flow deviate



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