

# INDUSTRIAL AIRFLOW SOLUTIONS

Refineries and Chemical Plants

- Clean Airflow
- Combustion Airflow
- Dirty Airflow
- Pressure Measurement

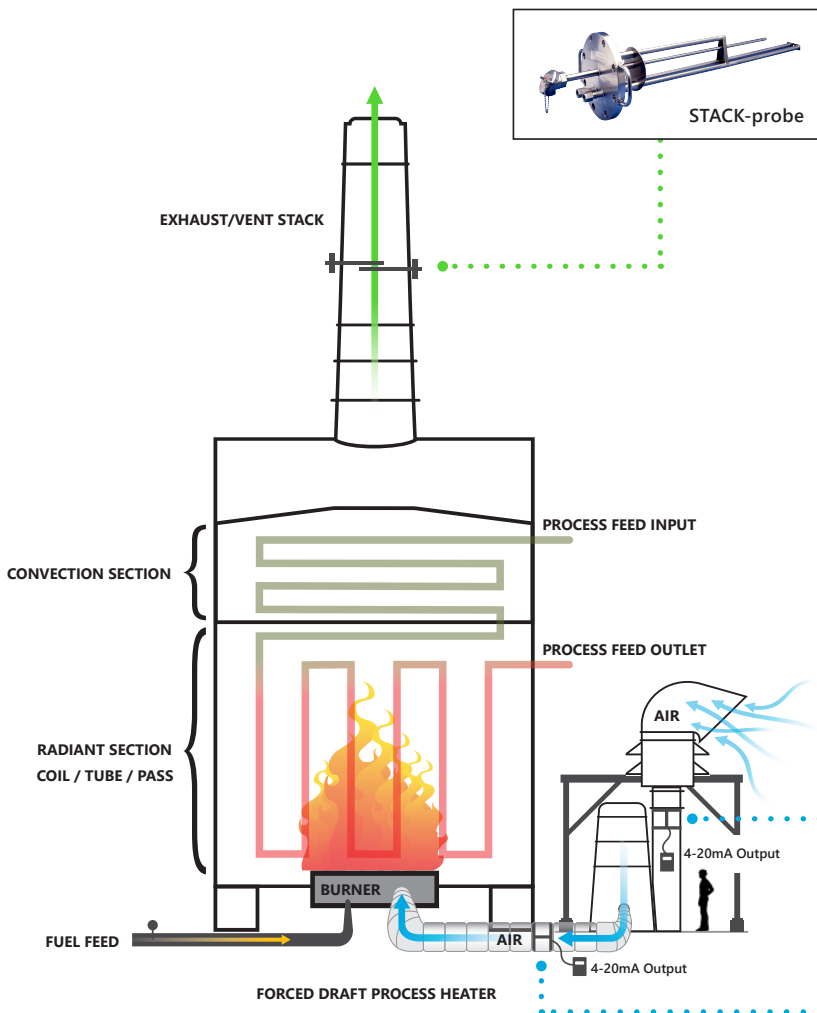


PRECISE, RELIABLE, TRUSTED  
**SOLUTIONS**  
IN AIRFLOW MEASUREMENT

The Air Monitor engineered flow measurement systems are the most accurate from very low to high velocities of airflow measurement applications in ducts of any size. Air Monitor provides industrial flow measurement solutions by customizing systems and materials for the needs of the project to optimize process control, reduce downtime, and improve efficiency.

Discover our engineered solutions for your process in the following examples for natural gas fired industrial boilers, process heaters, and thermal oxidizers.

## PROCESS HEATERS



### Exhaust to Atmosphere

*"Stay in compliance with EPA and other air quality regulations"*

#### APPLICATION CHALLENGES

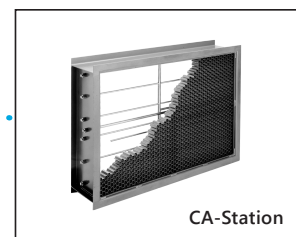
- Dirty exhaust gas potential
- Reporting typically required
- Corrosive potential
- High temperature

#### IDEAL PRODUCTS

- **STACK-probe**
  - Multipoint averaging probe
  - Matches the EPA RATA test

#### IDEAL PRODUCTS

- **MASS-tron II/CEM** (*continuous emissions monitoring*)
  - AUTO-zero, eliminate transmitter zero error
  - AUTO-cal, measure transmitter zero & span drift
  - Temperature and absolute pressure compensated mass flow output



### Air Inlet

*"Optimize combustion and eliminate false trips"*

#### APPLICATION CHALLENGES

- Limited straight run available
- High-turndown, low velocity
- Particulate-laden gas stream

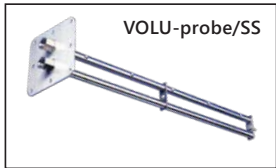
#### IDEAL PRODUCTS

- **CA Station Combustion Airflow Measurement System**
  - Best for limited straight runs
- **VOLU-probe/SS Airflow Traverse Probe**
  - Best for moderate straight runs

#### WITH MULTIVARIABLE TRANSMITTER

- **MASS-tron II Transmitter**
  - best for standard applications
- **VELTRON DPT-Plus**
  - best for Class 1 Div 1
- **AUTO-purge III**
  - best for dirty service
- **Custom material selections:**
  - Hastelloy, corrosion-resistant
  - Inconel, high temperatures
- **Multipoint temp probe**

## REGENERATIVE THERMAL OXIDIZER (RTO)



### Waste Gas to RTO

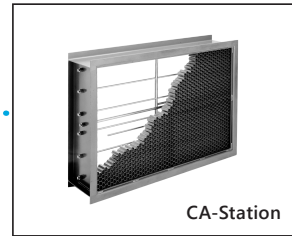
*"Ensure complete destruction of HAP's and VOC's to meet regulations"*

#### APPLICATION CHALLENGES

- Limited straight run available
- High-turndown, low velocity
- Particulate-laden gas stream
- Corrosive

#### IDEAL PRODUCTS

- VOLU-probe/SS Airflow Traverse Probe
  - Best for moderate straight runs
- CA Station Combustion Airflow Measurement System
  - Best for limited straight runs



### Air Inlet

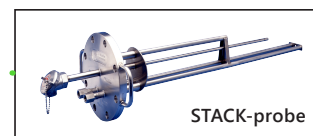
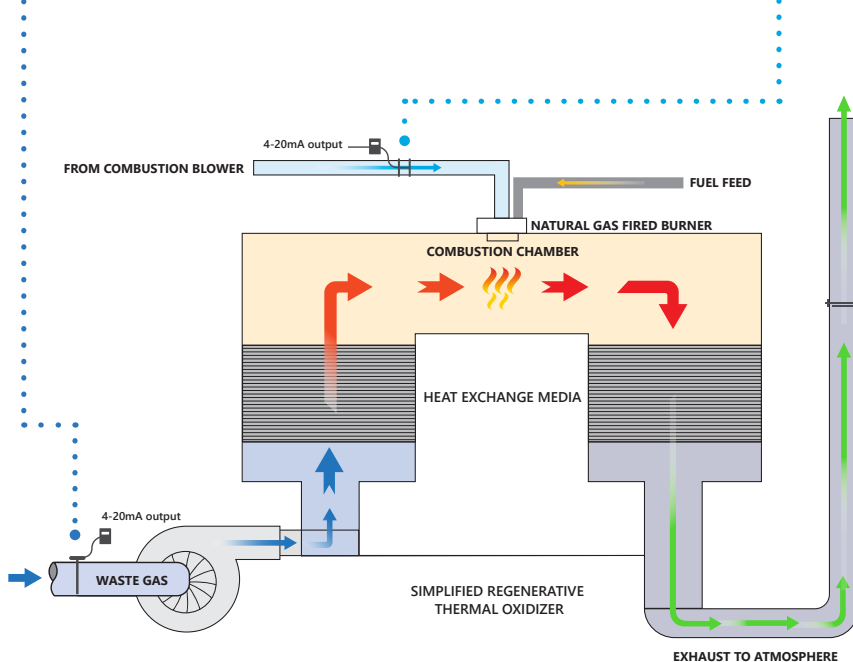
*"Optimize combustion and eliminate false trips"*

#### APPLICATION CHALLENGES

- Limited straight run available
- High-turndown, low velocity
- Particulate-laden gas stream

#### IDEAL PRODUCTS

- VOLU-probe/SS Airflow Traverse Probe
  - Best for limited straight runs
- CA Station Combustion Airflow Measurement System
  - Best for limited straight runs



### Exhaust to Atmosphere

*"Stay in compliance with EPA and other air quality regulations"*

#### APPLICATION CHALLENGES

- Dirty exhaust gas potential
- Reporting typically required
- Corrosive potential
- Extreme operating temperatures

#### IDEAL PRODUCTS

- STACK-probe
  - Multipoint averaging probe
  - Matches the EPA RATA test

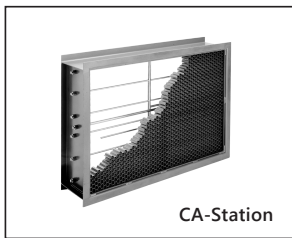
#### IDEAL PRODUCTS

- MASS-tron II/CEM (*continuous emissions monitoring*)
  - AUTO-zero, eliminate transmitter zero error
  - AUTO-cal, measure transmitter zero & span drift
  - Temperature and absolute pressure compensated mass flow output

#### WITH MULTIVARIABLE TRANSMITTER

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• MASS-tron II Transmitter                             <ul style="list-style-type: none"> <li>- best for standard applications</li> </ul> </li> <li>• VELTRON DPT-Plus                             <ul style="list-style-type: none"> <li>- best for Class 1 Div 1</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• AUTO-purge III                             <ul style="list-style-type: none"> <li>- best for dirty service</li> </ul> </li> <li>• Custom material selections:                             <ul style="list-style-type: none"> <li>- Hastelloy, corrosion-resistant</li> <li>- Inconel, high temperatures</li> </ul> </li> </ul> |
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## NATURAL GAS FIRED INDUSTRIAL BOILERS



### Air Inlet

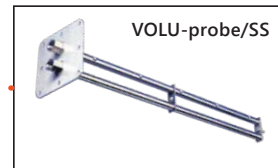
*"Optimize combustion with minimal emissions"*

#### APPLICATION CHALLENGES

- Limited straight run available
- High-turndown, low velocity
- Particulate-laden gas stream

#### IDEAL PRODUCTS

- VOLU-probe/SS Airflow Traverse Probe
  - Best for moderate straight runs
- CA Station Combustion Airflow Measurement System
  - Best for limited straight runs



### Waste Gas to RTO

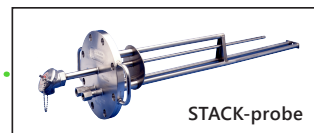
*"Ensure complete destruction of HAP's and VOC's to meet regulations"*

#### APPLICATION CHALLENGES

- Limited straight run available
- High-turndown, low velocity
- Particulate-laden gas stream for fuel oil
- High temperature

#### IDEAL PRODUCTS

- VOLU-probe/SS Airflow Traverse Probe
  - Best for moderate straight runs
- CA Station Combustion Airflow Measurement System
  - Best for limited straight runs



### Exhaust to Atmosphere

*"Stay in compliance with EPA and other air quality regulations"*

#### APPLICATION CHALLENGES

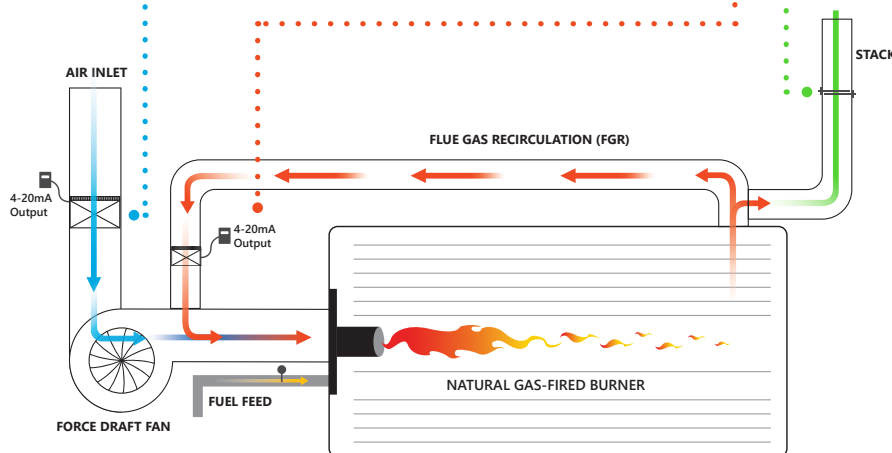
- Dirty exhaust gas potential
- Reporting typically required
- Corrosive potential
- High temperature

#### IDEAL PRODUCTS

- STACK-probe
  - Multipoint averaging probe
  - Matches the EPA RATA test

#### IDEAL PRODUCTS

- MASS-tron II/CEM (*continuous emissions monitoring*)
  - AUTO-zero, eliminate transmitter zero error
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  - Temperature and absolute pressure compensated mass flow output



#### WITH MULTIVARIABLE TRANSMITTER

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|--|---|

## MODULAR FLEXIBILITY FOR CUSTOM SYSTEMS



### PRIMARY ELEMENTS

Probes and Stations for Ducts and Pipes

- **VOLU-probe/SS** Insertion Probe for Heavy Duty Applications
- **CA** Inline Station for Heavy Duty Applications
- **LO-flo/SS** Inline Station for Small Diameters
- **ACCU-flo** Inline Station for High Accuracy
- **FAN-Evaluator** Inline Station for Light Duty Applications
- **SAP & SOAP** Static Air Pressure Sensors

### TRANSMITTERS

Full-featured Electronics

- **VELTRON II** Transmitter
- **VELTRON DPT-Plus** Differential & Multivariable Transmitter
- **MASS-tron II** Multi-variable Flow Computer



### SYSTEMS

Integrated Systems

- **CAMS™** Automatic purging / cleaning with fully density compensated flow output
- **AUTO-purge III & VELTRON II** Automatic purge / cleaning with differential pressure output

## PRODUCTS IN ACTION

### COMBUSTION AIRFLOW

	VOLU-probe/SS	CA Station	LO-flo/SS	ACCU-flo	FAN-Evaluator	SAP / SOAP
Power Boilers	●	●				
Combination / Biomass Boilers	●	●				
Recovery Boilers	●	●				
CFBs	●	●	●			
Fired Heaters	●	●				
Kilns (Lime, Ceramic, Cement)	●	●		●		
Digester Gas	●	●		●		
Thermal Oxidizers	●	●		●		

### DIRTY PROCESS

	VOLU-probe/SS	CA Station	LO-flo/SS	ACCU-flo	FAN-Evaluator	SAP / SOAP
Pneumatic Conveyors	●	●	●	●		
Primary Air for Pulverized Coal	●	●				
Material Drying	●	●	●	●		
CNCG & HVLC	●	●		●		
Dust Collection Systems	●		●	●	●	●
Stack Flow Measurement	●					
Cement	●	●				
Quench Exhaust	●	●	●			

	VOLU-probe/SS	CA Station	LO-flo/SS	ACCU-flo	FAN-Evaluator	SAP / SOAP
↑ Paint Spray Booths	●				●	●
+ Fluidized Bed Dryers / Coaters	●		●	●	●	
↓ Rotary Drum Dryers/ Coaters	●		●	●	●	

### CLEAN PROCESS

	VOLU-probe/SS	CA Station	LO-flo/SS	ACCU-flo	FAN-Evaluator	SAP / SOAP
Clean Room Pressurization	●		●		●	●
Quench Airflow	●			●		
Semiconductor	●				●	●
LCD Glass	●				●	●
Engine Test Stands / Dynamometer				●		
Product Testing				●		
Process Development / Pilot Plant				●		
Aeration to Digesters	●	●	●	●		

## INDUSTRIES SERVED

- Refineries
- Food & Beverage
- Semiconductor Mfg
- RTOs
- Foundries
- Power
- Pharma/Biopharma
- Automotive
- Aerospace
- Electronics Mfg
- Carbon Capture
- Pulp & Paper

## PRODUCTS IN ACTION

### COMBUSTION AIRFLOW

	VELTRON II	VELTRON DPT+	MASS-tron II	CAMS	AUTO-purge
Power Boilers		•	•	•	•
Combination / Biomass Boilers		•	•	•	•
Recovery Boilers		•	•	•	•
CFBs		•	•	•	•
Fired Heaters		•	•	•	•
Kilns (Lime, Ceramic, Cement)		•	•	•	•
Digester Gas		•	•	•	•
Thermal Oxidizers		•	•	•	•

### DIRTY PROCESS

	VELTRON II	VELTRON DPT+	MASS-tron II	CAMS	AUTO-purge
Pneumatic Conveyors	•	•	•	•	•
Primary Air for Pulverized Coal		•	•	•	•
Material Drying	•		•	•	
CNCG & HVLC		•	•	•	
Dust Collection Systems	•		•	•	•
Stack Flow Measurement			•		•
Cement	•	•	•	•	•
Quench Exhaust	•		•	•	•

	VELTRON II	VELTRON DPT+	MASS-tron II	CAMS	AUTO-purge
↑ Paint Spray Booths	•		•	•	
+ Fluidized Bed Dryers / Coaters	•		•	•	
↓ Rotary Drum Dryers/ Coaters	•		•	•	

### CLEAN PROCESS

	VELTRON II	VELTRON DPT+	MASS-tron II	CAMS	AUTO-purge
Clean Room Pressurization	•				
Quench Airflow	•		•		
Semiconductor					
LCD Glass	•		•		
Engine Test Stands / Dynamometer	•		•		
Product Testing	•		•		
Process Development / Pilot Plant	•		•		
Aeration to Digesters	•	•	•	•	

## INDUSTRIES SERVED

- Environmental
- Cement Mfg
- Nuclear
- Plastics Mfg
- Chemical
- Fiber Mfg
- Biomass
- Emissions Monitoring
- Wastewater
- Paint/Powder Coating
- Data Centers
- Ceramics

# The Air Monitor Difference



## Best in Class Value Proposition:

- Industry leading transmitter measurement accuracy for low DP ranges typical of air and gas flow applications.
- Shortest straight run requirements in the industry
- Inaccurate measurement due to non-uniform flow profiles resolved by leveraging the highest sensing point density and patented measurement technology to deliver the best airflow measurement accuracy.
- Dirty applications are no problem with AUTO-purge III feature.
- Excellent long-term stability, repeatability, and unmatched accuracy when used with Air Monitor's family of flow computers featuring AUTO-zero functionality.
- Available field start up services.
- For over 50 years, Air Monitor has delivered trusted and field-verified engineered airflow solutions recognized for their outstanding performance.

### **AIR MONITOR**

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