

# MAP™

## Multiple Automated Probe (MAP) System

### BENEFITS

- Repeatable stack flow measurement
- Automated system allows faster testing
- Keyed for yaw angle reference
- Windows® graphical interface with optional touchscreen
- Automatically generated EDR report for EPA Methods 2, 2F, 2G, 2H (XML or JSON)

### VERSATILE

- Test up to 4 ports simultaneously
- Horizontal or vertical traverses
- Rectangular or round ducts
- Single piece or segmented probe measures up to 40' diameter stack



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Available Probe Sensing Heads:

- S-type Probe (above)
- 3D Probe (inset)



# Automated System – Reliable, Efficient, Accurate

The Multiple Automated Probe (MAP) System measures the flow rate of a gas (air or flue gas) in transport ducts or stacks. Probe positioning units (PPUs) control up to 4 probes simultaneously. The system brings a state-of-the-art solution to the problem of performing flow measurements according to EPA Method 1, 2, 2F, 2G, 2H.

## The MAP System Measures

Mass Flow Rate	Static Pressure
Velocity Profile	Total Pressure
Temperature	Atmospheric Pressure
Moisture Content (optional)	

## PPU Features

Automated purge system  
 Movement:  
 8 in/sec transversely  
 90 deg/sec rotationally  
 Pressurized to avoid stack gas infiltration



PPU standard configuration for stack flow test

## PC-Based Software

- Windows® graphical interface with optional touchscreen
- Step-by-step test procedure
- Easy setup of test site variables
- Control test sequence for multiple runs
- Automatic data acquisition and reporting

## Hardware Includes

- Laptop computer
- Probe positioning units (PPUs)
- Pitot probes with thermocouple
- Communication junction box
- Leak and calibration check system

"Run Test" Screen

Multiple ports

	Port 1	Port 2	Port 3	Port 4
P1 P2 [WC]	0.581	0.599	0.602	0.586
P2 P3 [WC]	-0.035	-0.029	-0.038	-0.031
P4 P5 [WC]	-0.026	-0.020	-0.023	-0.029
P1-Pbar [WC]	0.13	0.11	0.18	0.15
Temperature [F]	121.0	123.5	124.6	122.2
Yaw Angle [deg]	-14.3	-12.8	-13.3	15.1
Pitch Angle [deg]	0.3	0.5	0.2	0.3
Total Velocity [ft/s]	71.7	70.3	72.6	71.2
Insertion Depth [ft]	3.38	3.38	3.38	3.38
Current Position [ft]	1.92	1.92	1.92	1.92
Current Angle [deg]	75.7	77.2	76.7	74.9



MAP System can withstand extreme conditions

Run and point feedback

Probe angle, velocity, position