

# PICARRO

## Fenceline Monitoring Unit (FMU)

Picarro's Fenceline Monitoring Unit leverages 25 years of experience in continuous monitoring and emissions quantification. The unit provides accurate, reliable, and defensible data, helping you minimize emissions and meet vital compliance requirements.



### KEY FEATURES



#### Continuous PPT Detection

Industry-leading sensitivity, accuracy, precision, and interference rejection at the part per trillion (ppt) level



#### Robust Measurement Foundation

Powered by Cavity Ring-down Spectroscopy (CRDS), the unit detects a library of over 700 compounds



#### Automated Operation

Designed for hands-free operation in the field, the unit automates calibration, QA/QC, and data collection



#### Cloud Portal

Secure remote access to your facility's emissions data, enabling alert management, automated reporting, and complete operational oversight



#### Sub-unit Integration

A comprehensive package consisting of analyzers, span gases, anemometers, and control software in one unified unit



#### Expert Support

Backed by proactive service, compliance guidance, and 24/7 support



### COMPREHENSIVE SYSTEM

The Picarro Fenceline Solution combines Fenceline Monitoring Units, Picarro Link, and the AMLD Unit into one integrated system — reducing operational risk by detecting emissions in real time, attributing them to their source, and resolving issues before they become regulatory or operational problems. Fenceline Monitoring Units provide continuous, speciated concentration data at the perimeter, capturing transient events as they occur. Picarro Link converts those signals into prioritized event intelligence, correlating them with wind and operational data for source attribution while managing investigation and corrective actions in a single auditable record. When finer resolution is required, the AMLD Unit narrows attribution from a probable area to a specific process unit, closing the loop from detection to confirmed fix.

TECHNICAL DATA

| Measurement              |                                                                                                          |                   |                   |                     |                   |
|--------------------------|----------------------------------------------------------------------------------------------------------|-------------------|-------------------|---------------------|-------------------|
| Parameter                | Ethylene Oxide                                                                                           | 1,3 - Butadiene   | Vinyl Chloride    | Ethylene Dichloride | Benzene           |
| Measurement Technique    | Cavity Ring-Down Spectroscopy (CRDS)                                                                     |                   |                   |                     |                   |
| Compliance               | EPA Method 301 Validation (HON & MACT CC); Alternative Test Method § 63.184(i) pending EPA approval      |                   |                   |                     |                   |
| Limit of Detection (LOD) | Compatible with action level requirements for an Alternative Test Method §63.184(i)(3) and §63.658(k)(3) |                   |                   |                     |                   |
| Span                     | <0.037 ppb – 1 ppm                                                                                       | <0.45 ppb – 1 ppm | <0.39 ppb – 1 ppm | <0.33 ppb – 1 ppm   | <0.94 ppb – 1 ppm |
| Sample Cycle Time        | Raw measurement interval: 5 seconds; Compliance measurement interval: 15 minutes                         |                   |                   |                     |                   |
| Automated QA/QC          | Auto span, linearity, and calibration drift checks                                                       |                   |                   |                     |                   |
| Spectral Library         | 700+ compounds; Automated compound identification; Dynamic spectral fitting                              |                   |                   |                     |                   |

| Installation           |                                                                                                                                                          |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Main Power Supply      | 240 V, Single phase, 30 A                                                                                                                                |
| Power Draw             | 3600W                                                                                                                                                    |
| Material               | Stainless steel chassis                                                                                                                                  |
| Dimensions (w x d x h) | 1778 x 1118 x 3122 mm<br>(70 x 44 x 123 in)<br>with skid dimension<br><br>1778 x 1118 x 3404 mm<br>(70 x 44 x 134 in)<br>with extended air terminal post |
| Weight                 | <907 kg (2000 lbs) this weight includes 3 gas tanks weighing approximately 50lbs                                                                         |
| Operating Temperature  | 0 to 45°C                                                                                                                                                |
| Storage Temperature    | -10 to 50°C                                                                                                                                              |
| Sample Integrity       | Heated and filtered sample inlet                                                                                                                         |
| Operational Effort     | Zero; consumable free sampling design                                                                                                                    |

| Gas and Sample Supply |                                                                                            |
|-----------------------|--------------------------------------------------------------------------------------------|
| Reference Gas         | Unit accommodates up to three calibration gas cylinders. Zero air generator (ZAG catalyst) |
| Calibration Method    | Automated MFC-based dilution between 1-100% of Span                                        |

| Unit Software (Local)  |                                                                                                                                                                                                      |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Features (Single Unit) | Unit Control and Operation, Data Acquisition and Storage, QA/QC Scheduling, Role Based Authentication, On-Board Spectral Analysis Toolkit, Alerts and Notifications, Cloud Uplink and Data Buffering |

| Connectivity      |                                    |
|-------------------|------------------------------------|
| Cloud Connection  | Cellular Modem, Satellite Internet |
| Direct Connection | Ethernet TCP/IP                    |

| Cloud Software (Web-Based)   |                                                                                                                                                                                                                                                                                                       |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Features (Fenceline Network) | Real-time and Operational Dashboards, Compliance Calculations (dC), Reporting (US EPA-CEDRI), Emissions Management and Leak Detection Analytics, Facility Workflows for Root Cause and Corrective Actions (RCA/CA), Alerts and Notifications, Advanced Reporting Tools, Multiyear Secure Data Storage |

| Supporting Features |                                                                                                               |
|---------------------|---------------------------------------------------------------------------------------------------------------|
| Meteorological Data | MaxiMet GMX500 Compact Weather Station – logging temperature, barometric pressure, wind speed, wind direction |
| Onboard UPS         | Ensures uninterrupted operation during power fluctuations or short outages                                    |