REQUST FOR PROPOSALS

AIR MONITORING TRAILER AND COMPACT MULTI-POLLUTANT SYSTEM
SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

#P2022-1-20

The San Joaquin Valley Air Pollution Control District (District) requests proposals for the following purpose according to terms and conditions attached. In the preparation of this Request for Proposals (RFP) the words "Proposer," "Contractor," and "Respondent," are used interchangeably.

PURPOSE

The purpose of this Request for Proposals (RFP) is to obtain bids from potential contractors who can design, build, deliver, and provide ongoing support for a full-sized air monitoring trailer and a compact multi-pollutant system. The successful bidder will be required to enter into a formal agreement with the District for the purpose of completing the specified work and providing the products according to this RFP.

BACKGROUND

The San Joaquin Valley Air Pollution Control District is a special district operating under the provisions of Sections 40150 through 40162 of the California Health and Safety Code. The District exists to develop and implement programs on a local level to meet the requirements of state and federal air pollution control laws.

In response to Arvin/Lamont now being a selected as an Assembly Bill 617 community, the District must plan, deploy and maintain a new air monitoring network within the community boundary. As a part of this implementation, the District is requesting bids from qualified contractors to design, build, deliver, and provide ongoing support for a full-sized air monitoring trailer and a compact multi-pollutant system. In order to ensure operational efficiency, consistency with the air monitoring equipment already deployed at the Fresno and Shafter communities is highly desirable. Please refer to Attachments A and B for specifications of currently deployed equipment.

CONTACTS

Questions regarding the content or intent of this RFP or on procedural matters should be addressed to:

Brad Dawson
Supervising Air Quality Instrument Specialist
San Joaquin Valley APCD
1990 E. Gettysburg Avenue
Fresno, CA 93726
559-230-6100
brad.dawson@valleyair.org

Chay Thao
Program Manager
San Joaquin Valley APCD
1990 E. Gettysburg Avenue
Fresno, CA 93726
559-230-6100
chay.thao@valleyair.org

SCHEDULE OF EVENTS

January 20, 2022	RFP Released
February 4, 2022	Proposals Due – 5:00 PM (Pacific Standard Time)
February 17, 2022	Board Approval (estimated)

STATEMENT OF WORK

The District is requesting bids from qualified contractors to design, build, deliver, and provide ongoing support for a full-sized air monitoring trailer and a compact multi-pollutant system as further described below. Respondent may bid for the air monitoring trailer, compact multi-pollutant system, or both. Information provided should be specific enough for evaluation and for inclusion into a binding contract. In order to ensure operational efficiency, consistency with the air monitoring equipment already deployed at the Fresno and Shafter communities is highly desirable.

Air Monitoring Trailer:

The air monitoring trailer should:

- Be a fully assembled, environmentally controlled enclosure designed to house air monitoring equipment in a secure and controlled environment.
- Comply with applicable transportation, construction and electrical codes.
- Meet or exceed specifications and features of air monitoring trailers currently deployed in AB 617 communities in the San Joaquin Valley. Please refer to Attachment A.

Compact Multi-Pollutant System:

The multi-pollutant system should:

- Be a compact, highly mobile and versatile air monitoring station.
- Be capable of housing air monitoring equipment with protection against inclement weather conditions, solar radiation, and corrosion.
- Include a trailer to provide mobility.
- Meet or exceed specifications and features of compact multi-pollutant systems currently deployed in AB 617 communities in the San Joaquin Valley. Please refer to Attachment B.

The District may require specific insurance coverage be established and maintained during the course of the work and as a condition of award or continuation of contract.

REQUIRED QUALIFICATIONS

Contractor must be qualified, willing, and able with proven track record to design, build, deliver, and support the air monitoring equipment identified in this RFP.

PROPOSAL SUBMITTAL REQUIREMENTS

Submitted proposals must follow the format outlined below and all requested information must be supplied. Failure to submit proposals in the required format will result in elimination from proposal evaluation.

A separate cover letter including the name, address, telephone number, and e-mail address of the contractor, and signed by the person or persons authorized to represent the firm should accompany the proposal submission. Firm contact information as follows should also be included in the cover letter:

1. Address and telephone number of office in, or nearest to, Fresno, California.
2. Name and title of firm's representative designated as contact.

Proposals must include the following information.

- Summary – Overall approach to meeting the objectives and satisfying the scope of work to be performed and the sequence of activities.

- Program Schedule – Provide projected milestones or benchmarks for installation and completion.

- Qualifications – Describe the technical capabilities of the firm. Provide references of other similar projects performed during the last five years demonstrating ability to successfully complete the project. Include contact name, title, and telephone number for any references listed. Provide a statement of your firm's background and experience in performing similar projects for other governmental organizations.

- Subcontractors – This project may require expertise in multiple technical areas. List any subcontractors that may be used and the work to be performed by them.

- Additional Data – Provide other essential data that may assist in the evaluation of this proposal.

- Cost – Provide a detailed cost breakdown of the project including equipment, shipping, and labor.

- Warranty – Provide details of provided warranties for equipment and labor associated with the project.

A contractor who submits a proposal in response to this RFP is encouraged to demonstrate support for the District's *Green Procurement and Sustainable Practices Policy* through the following:

- Provide verification of environmentally friendly business practices through green certification programs or equivalent means.

- Participate in eco-friendly programs such as HAL Partners. More information can be found here: http://healthyairliving.com/.

PROPOSAL SUBMISSION

All proposals must be submitted according to specifications set forth in the sections above. Failure to adhere to these specifications may be cause for rejection of proposal.

All proposals are due no later than 5:00 PM (Pacific Standard Time), February 4, 2022 and must be signed by an authorized representative and e-mailed to brad.dawson@valleyair.org and chay.thao@valleyair.org.

Depending on proposal, the email subject line should be "RFP: Air Monitoring Trailer", "RFP: Compact Multi-Pollutant System", or "RFP: Air Monitoring Trailer and Compact Multi-Pollutant System".

Late bids/proposals will not be accepted under any circumstances.

Grounds for Rejection – A proposal may be immediately rejected if:

- It is not prepared in the format described, or
- It is signed by an individual not authorized to represent the firm.

Modification or Withdrawal – Once submitted, proposals cannot be altered without the prior written consent of the District. All proposals shall constitute firm offers and may not be withdrawn for a period of ninety (90) days following the last day to accept proposals.

PROPOSAL EVALUATION/CONTRACTOR SELECTION CRITERIA

A. Proposals will be evaluated by District staff members familiar with the subject matter of the project. The panel will make a recommendation to the Executive Officer and/or the District Governing Board for final selection of a contractor and presentation of a contract.

B. During the selection process the District may wish to interview some proposers for clarification purposes only. No new material will be permitted at this time. Additional information provided during the bid review process is limited to clarification by the Proposer of information presented in his/her proposal, upon request by the District.

C. The Executive Officer or Governing Board may award the contract to a Proposer other than the Proposer receiving the highest rating in the event the Governing Board determines that another Proposer from among those technically qualified would provide the best value to the District considering cost and technical factors. The determination shall be based solely on the Evaluation Criteria contained in the

RFP, on evidence provided in the proposal and on any other evidence provided during the bid review process.

D. The selection will be made by and is subject to Executive Officer or Governing Board approval. Proposers may be notified of the results by letter.

E. Disposition of Proposals – Pursuant to the District's Procurement Policy and Procedure, the District reserves the right to reject any or all proposals. All proposals become the property of the District, and are subject to the California Public Records Act. One copy of the proposal shall be retained for District files. Additional copies and materials will be returned only if requested and at the proposer's expense.

Attachment A

Air Monitoring Trailer Specifications

Trailer Information

All of Ambilabs® Air Quality Monitoring (AQM) trailers, shelters, and enclosures are purpose built for the needs of air quality monitoring systems. Our model AQMT structures are uni-body or welded all aluminum construction from the structure framing to the interior and exterior envelopes. The aluminum structure is light weight, corrosion resistant, and custom configurable to provide robust enclosure with an extended operational lifespan.

We only build air quality monitoring systems. Our design team understands the requirements of the construction of an enclosure around the needs of the monitoring instrumentation. Our designs are based on experience in the long-term operational requirements of an air monitoring system including the security and stability of the internal environment, the unique inlet needs for instrumentation and analysis equipment, and the need for workable and accessible interior and exterior space for technicians to perform day to day operational activities and instrument maintenance.

The Ambilabs® AQMT-12 trailer is a fully assembled, environmentally controlled enclosure designed to house air monitoring equipment in a secure and controlled environment. It is thermally efficient and features designs and materials that control climate penetration through the walls, floor and ceiling. The trailers will comply with applicable transportation, construction and electrical codes.

Trailer/Enclosure Build Description

Trailer and enclosure are all-aluminum construction so rot or corrosion is not a factor in standard environments, and has a significant overall weight reduction in the completed product for towing and transport. The exterior painted surfaces are finished with at least 2 coats of epoxy paint, or is powder coated to maintain a long lifespan finish.

Trailer will be a 10,000lb GVWR, tandem 5,000lb torsion axle with 10-ply radial tires (including spare) with electric trailer brakes and LED lighting. Trailer will have 5 Heavy duty crank jacks (1 tongue jack and 4 removable corner jacks) for stabilization or shelter body separation. Final trailer weight as constructed will be approximately 6500lbs.

Trailer will be Uni-body design built to size specification of 8’ wide by 12’ long (finished overall trailer length with will be approx. 22’). The finished height of the trailer itself will be 10’6”, with the nested tower installed the transportation height of the trailer will be 13’4”. The complete internal dimension of the shelter component will be nominally 11’3” long, 7’6” wide, and 7’6” tall.

Shelters are constant with NEMA 3R standards to protect personnel and equipment from foreign objects and the ingress of water. They are built to withstand long-term exposure to a broad spectrum of environmental conditions. The roof is constructed of 0.187” single sheet, or formed, epoxied and welded, aluminum sheeting with 0.125”x3”x1.5” formed “C” aluminum trusses on 12” centers. Floor is constructed of 0.125”x1.5”x10” custom extrusion deck boarding, supported by 0.25”x6” Aluminum Channel, interior flooring is 0.185”

commercial vinyl. Exterior walls are constructed of 0.125”x3”x16” formed aluminum wall panels, epoxied and huck-bolted together in a unibody design. Interior walls are 0.100” aluminum panels, riveted to the exterior structures (FRP paneling can be installed if required, Ambilabs has found that aluminum interior provides a cleaner, more robust interior structure and does not require a wood undersurface maintaining an all-aluminum build and reducing construction weight). Wall Headers are 0.125”x1”x3” square aluminum tubing welded to wall structure. Roof, walls and floor are insulated with 3” or greater, single application, low VOC, fire-retardant spray-foam insulation to provide a nominal R-21 insulation value.

Interior Wall and ceiling sheeting

Aluminum trailer Frame

Unibody Framing

Spray foam Insulation

Roof access pass-through points are welded and supported into the structure of the enclosure frame. 2” Female NPT exterior thread and male interior thread are standard. Alternate sizes are available, as well as box type entry points (Suggested for above rack installations) Placement and size of the entry points are only limited by the roof framing of the structure. Wall pass-through points are typically drilled conduit enclosed, yet can be welded similar to roof point should structure require.

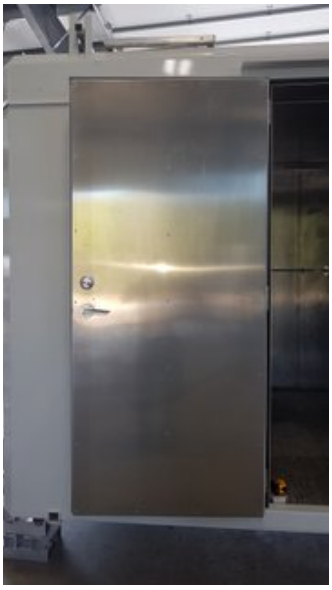
Weld integrated NPT Roof entry Points

Box type Roof Entry Points

Weld-on uni-strut for roof mounting

Doors and door framing are constructed in a similar fashion to the rest of the shelter. They use a weather seal type mating system for maximum security and environmental integrity. All door hinging hardware is stainless steel. Standard closing hardware on single doors is a lever- handle opener with a long shafted locking deadbolt. Cam-over locking mechanisms can be supplied as required (and are standard on double door systems).

Weather seal exterior Door



Access stairways will be provided for the side ***entry*** of the enclosure. They will be of aluminum construction and hinge mechanisms will be integrated into the enclosure framing to allow for tilt up storage or removal.

Example Doorway entrance stairway

Integrated into the trailer build are gas cylinder mounting systems and thermostatically controlled pump cabinets.

Example Wall- Mount Cylinder Brackets

Example Pump mounting cabinet with exhaust fan

Roof Deck

The Roof of the enclosure is constructed for heavy snow loads, equipment mounting and regular person access. The roof is arched 1 degree from centre point for positive drainage, the top surface is covered with 4" anti-slip tape with 4" spacing, perpendicular to the normal walking path. Secondary 3/8" rubberized matting can be added to the roof surface. Roof is accessed via a covered ladder. The ladder is mounted onto the enclosure and can be

removed and stowed as required. Uni-strut can be welded into the roof surface for roof top mounting of samplers.

Roof with Railings and Anti-Slip

Folded Railing system for Transport

OSHA railing with Toe Board

Ladder access with cover

Electrical

A robust, stability and versatile electrical system is required for any air quality monitoring system. All of the electrical components used are of premium quality, as every Ambilabs AQMT system is SPE-1000 certified for multi-jurisdictional use**.** Power distribution is contained in surface mounted ¾" EMT conduit, run to minimize wall interference and enable it to be used as a secondary tubing, or external wiring pathway. Conduit fill is minimized as much as possible during construction to enable additional wiring installations in the future. All primary wiring completed with 12 gauge or larger stranded copper wiring and a limit of 2 receptacles per panel circuit. All lighting completed with 14 gauge stranded wire. LED lighting is used on both interior and exterior fixtures.

Exterior power connection will be of Hubble-type and 50' of 6 gauge SJOOW (Cab-tire) type ***extension*** cable with appropriate connection ends will be provided, additional power entry housings ***types*** can be provided**.**

Example interior Electrical Panel and Distribution

Above Rack Twist Lock Plug

Mast Entry

Hubble-Type Main Power Entry

Trailer Box Entry

Heating & Cooling

HVAC system to be provided will be BARD W12 wall mount unit with Economizer to maintain interior conditions. Economizer option will be factory installed in the unit for best system energy efficiency. Auto-changeover digital thermostat to be mounted at furthest point. Directional ducting to be provided for temperature distribution.

Additional Equipment

Ancillary equipment (wheel chocks, fire extinguishers) will be provided as required. Counter tops will be constructed of aluminum framing with ¾" plywood underneath. Suggested surface is 1/8" rubber material for electrical isolation and no slip work surface. Under counter tool boxes will be Rousseau type 4 drawer cabinets located as required. Wall cabinets as specified will be of similar construction as the tool boxes and mounted as per specifications.

Example Counter tops and Toolboxes

2x 31" shock mounted Hammond C-2 type instrument racks with tapped rails, integrated power strip and cable management tray, will be provided with the trailer. The shock mounting system utilizes both a top and bottom of rack dual stage variable mounting system for maximum isolation and stability.

Rack Shock Mounting

Sample Inlet and exhaust manifolds will be provided. Inlet manifold components will utilize borosilicate glass or PTFE components. All applicable connection fittings will utilize Swagelok. Exhaust manifold will be constructed of 2" SCH40 PVC with threaded inlet connections for quick release couplers. Exhaust manifold will pass through the floor or the enclosure to a 2" threaded pipe connection to allow for closure during transport to enable connection of an exhaust extension pipe.

Example Inlet Manifold

Example Exhaust Manifold

For meteorological and at height sensor measurements Ambilabs is proposes to use a customized nesting type tower as they have proven to have long trouble-free operational life cycles. The nesting tower system is custom designed to be fixed mounted to the trailer during transport and be under normal roadway height limits, while still having a 10m measurement height.

Example Trailer Mounted Nesting Towers

Attachment B

Compact Multi-Pollutant System Specifications

Airpointer Information

The Airpointer® HC cabinet is a compact, highly mobile and versatile air monitoring station. The HC base cabinet is constructed of double walled aluminum, with 1 3/8" foam insulation between aluminum sheets. A combination of welding, and riveting secure the entire body of the 47.2" x 30.8" x 24.2" base cabinet. The powder coated aluminum exterior provides ample protection against inclement weather conditions, solar radiation, and corrosion.

Exterior Front View

Doors, door framing, and service accesses are constructed in a similar fashion to the rest of the base unit. Weather seals surround the doors maintain environmental integrity. Overlapping type mating system on the main doors edges offer further environment protection while also serving as anti-tampering for locking mechanisms. All door hinging hardware is weather proof plastic with stainless steel hardware. Standard closing hardware on doors is key driven locking mechanism. The main door also has 2 locking deadbolts in addition to the key driven lock. The main door comes standard with 2 high pressure gas pistons for ease in opening and remaining open while working inside of the unit. All cable, inlet/outlet, and HVAC passthroughs are designed for ease of access, and also maintain the weather proof design of the rest of the base unit.

Gas shock and door seal

Locking Mechanisms

Access Door locking mechanism and weather stripping

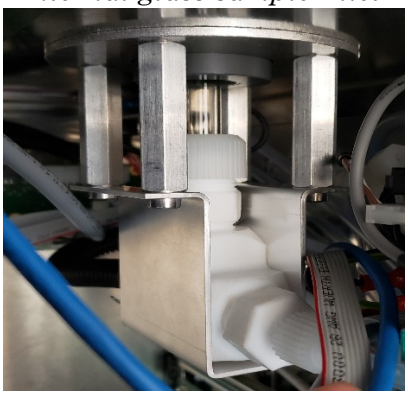
The back of the base unit has reinforced brackets built in featuring tapped hardware sockets capable of carrying the entire weight of the Airpointer®. The sockets are designed to attach multiple mounting brackets including wall mounting, pole/mast mounting, and rolling rack mounting. The HC unit also comes with adjustable height feet allowing it to operate while standing upright.

Rear mounting on rack

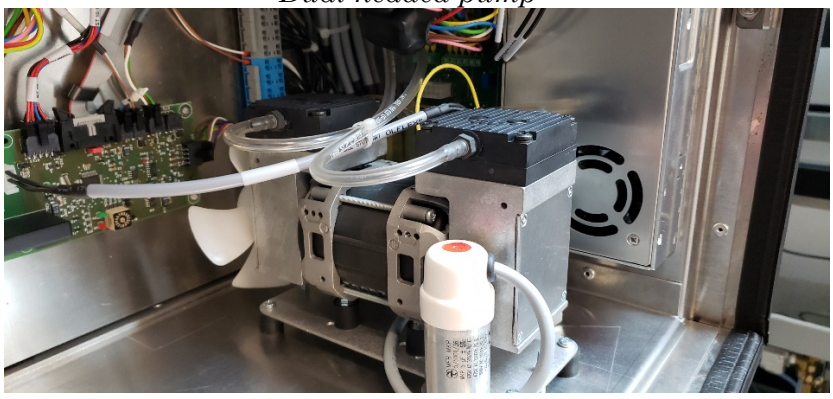
Example of Pole Mounting

The interior of the base unit comes with a powerful and complete support system for internally configured monitoring equipment. The system is comprised of fuse protected electrical distribution, fully integrated pneumatics (sample, zero, pump), glass or stainless steel sample inlet, sample filter assembly (optional heated inlet with RH control), dual headed diaphragm pump, zero air scrubber, internally mounted HVAC system, fully integrated linux based software/logging computer. A service door on the side of the base unit allows users to connect to the computer, change sample filter, and run external calibration gas without having to open the main door.

Internal glass sample Inlet



Dual headed pump



Logger, PC, and Watchdog Board

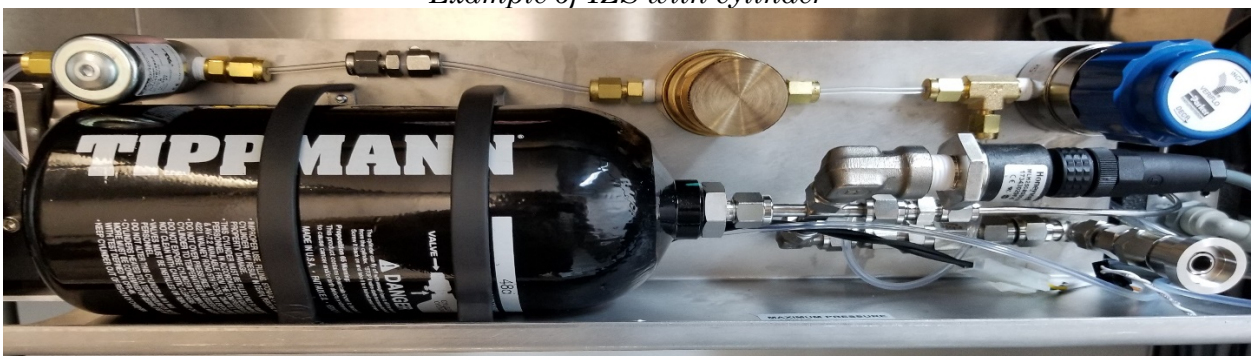
HVAC Internal

HVAC External

Power Distribution

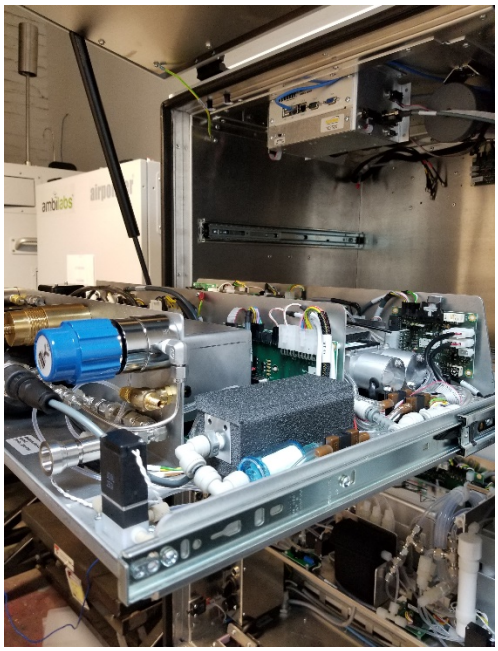
The internally configured modules are mounted on drawer slides, paired with management harnesses for all pneumatics, and wiring. This allows easy and efficient access for serviceability of individual modules. Module connection panels along the front inside of the cabinet allow user to install or remove module drawers quickly. The IZS option for capable modules, can be added to perform user definable span checks.

Example of IZS with cylinder

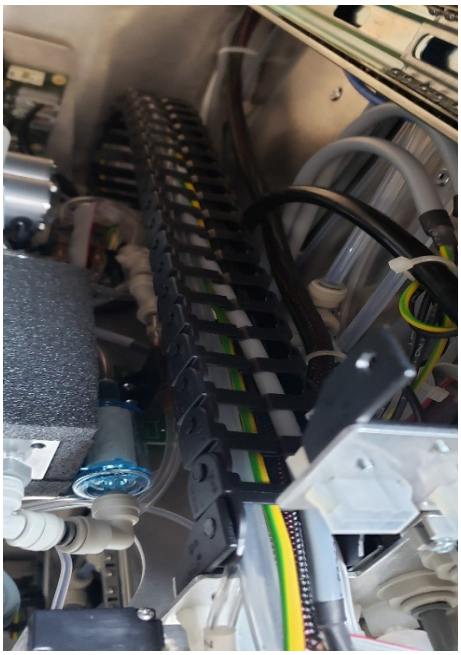


Example of IZS permeation oven

Module drawer on slides



Pneumatic & Wire Harness



The linux based computer integrated into the base unit comes with a raid array hard drive system, an internal ups battery, and a watchdog board allow maximum protection for valuable data. The computer allows logging up to 5 years of continuous data, paired with the 1 min and 2 user definable averaging periods. The operational software allows connection via hardwire through service door, or full remote access to the unit via laptop, tablet, or mobile device when a mobile router is installed. The powerful software of the Airpointer® allows for full manipulation of all internally integrated devices. Calibrations, span checks, configurations, system sensors, parameter adjustments, graphing, along with the downloading of data are just some of the options accessible through a connection to the device, without the need for specialty software. With 6 RS232's, and 2 USB's the computer is also capable of polling data easily from externally configured devices into the software. Interactive schematic and parameter views of equipment allow simple yet effective tracking of instrument health. With external pole mounting and internal connections MET gear can physically be attached and polled easily through the software. Compatibility with DR. DAS and Agilaire data collecting software allows users to integrate into preexisting data collection systems currently being utilized.

Example of Graphing and Table Capabilities

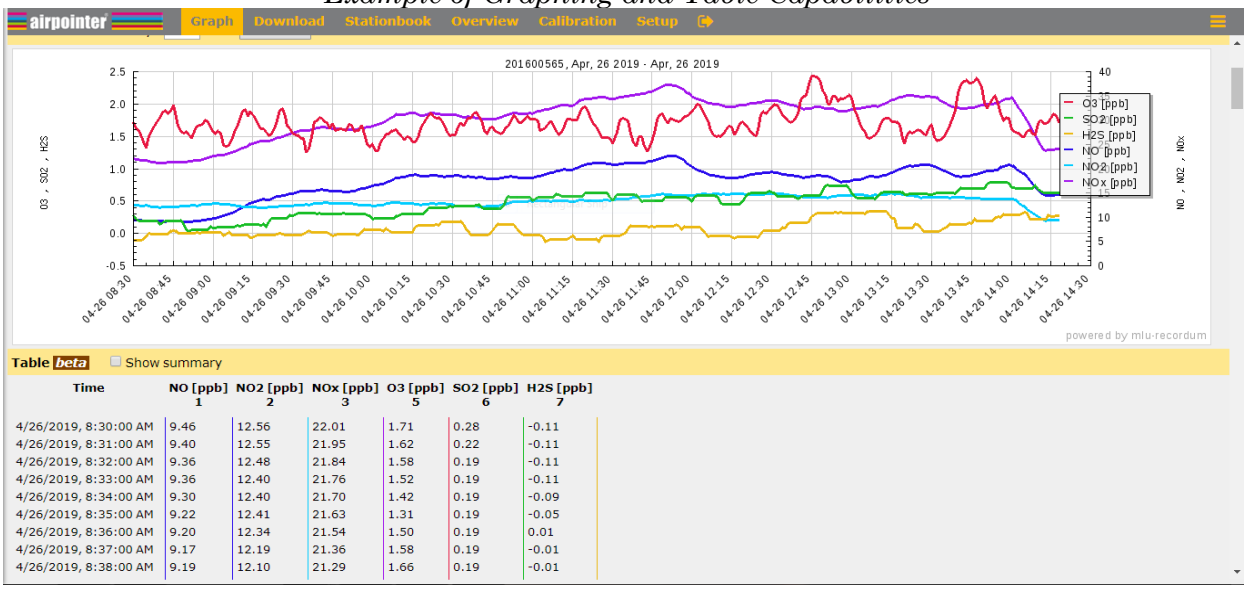


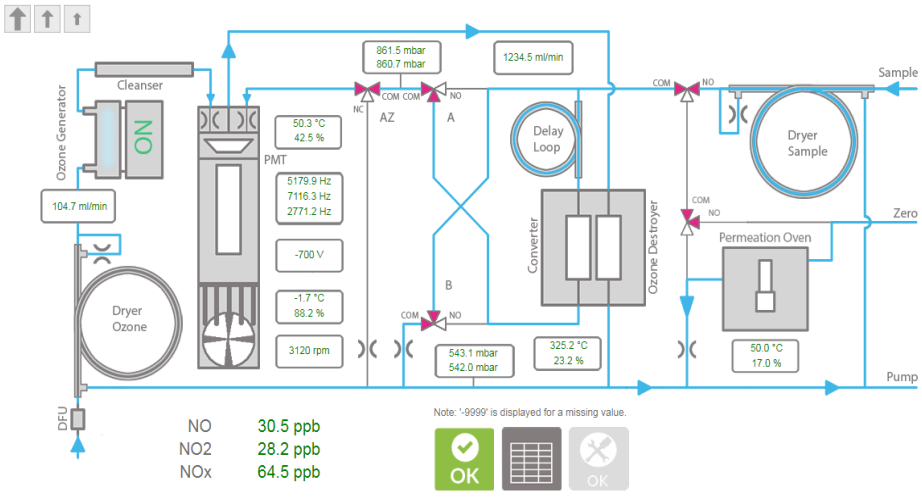
Table *beta* ☐ Show summary

Time	NO [ppb] 1	NO2 [ppb] 2	NOx [ppb] 3	O3 [ppb] 5	SO2 [ppb] 6	H2S [ppb] 7
4/26/2019, 8:30:00 AM	9.46	12.56	22.01	1.71	0.28	-0.11
4/26/2019, 8:31:00 AM	9.40	12.55	21.95	1.62	0.22	-0.11
4/26/2019, 8:32:00 AM	9.36	12.48	21.84	1.58	0.19	-0.11
4/26/2019, 8:33:00 AM	9.36	12.40	21.76	1.52	0.19	-0.11
4/26/2019, 8:34:00 AM	9.30	12.40	21.70	1.42	0.19	-0.09
4/26/2019, 8:35:00 AM	9.22	12.41	21.63	1.31	0.19	-0.05
4/26/2019, 8:36:00 AM	9.20	12.34	21.54	1.50	0.19	0.01
4/26/2019, 8:37:00 AM	9.17	12.19	21.36	1.58	0.19	-0.01
4/26/2019, 8:38:00 AM	9.19	12.10	21.29	1.66	0.19	-0.01

Example of Interactive Module View

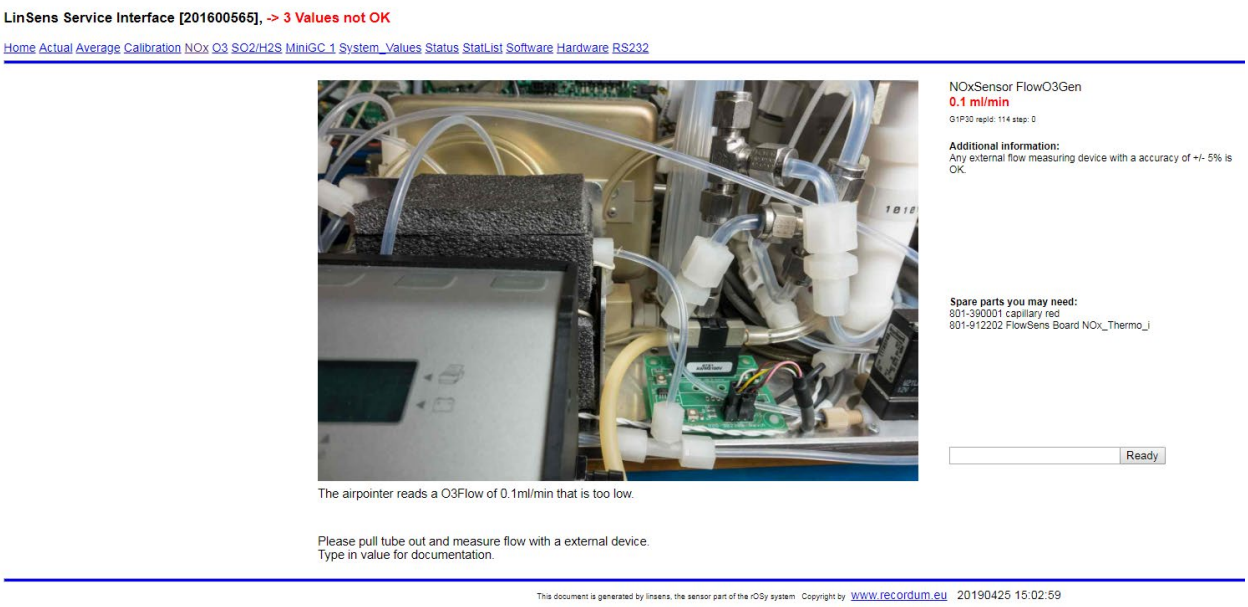
LinSens Service Interface [201600565], normal Operation

Home Actual Average Calibration NOx O3 SO2/H2S MiniGC 1 System_Values Status StatList Software Hardware RS232



This document is generated by linsens, the sensor part of the rOSy system Copyright by www.recordum.eu 20190425 14:58:21

Example of Internal Troubleshooting Support



Airpointer® Lab Rack

The custom built Ambilabs® racks design is intended to provide users an easy method of moving around the Airpointer®. Comprised of a combination of ¼" thick structural steel square stock tubing, Albion 16 series kingpin casters, and grade 8 hardware, and welded mounting brackets specific to fit Airpointers®, these racks provide a safe, sturdy, reliable construction, with smooth movement. Professionally powder coated, the rack has a clean looking finish for use indoors, as well as ample protection from elements when used outdoors. The dimensions, hardware, and structural design enable the rack to be paired quickly, with the custom Ambilabs® Airpointer® mobile trailer for efficient deployment when and where you need it.

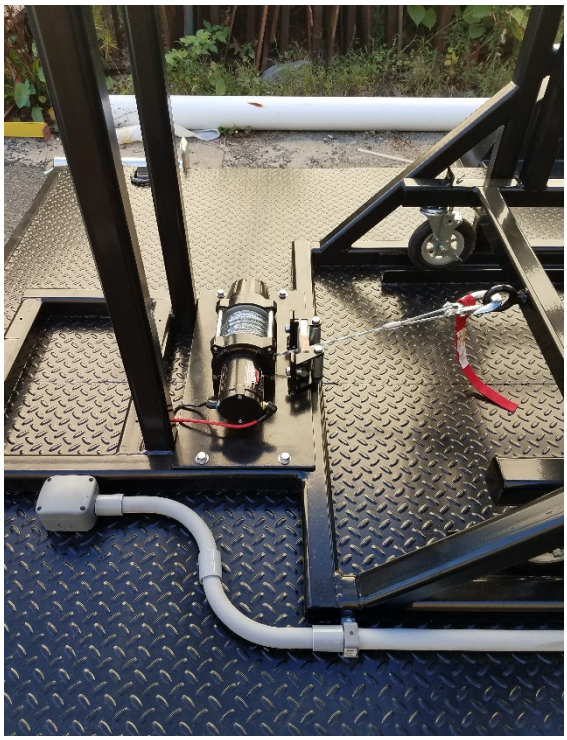
Example of rack on trailer

Rack mounted Airpointer®

Airpointer® Trailer Information

The Ambilabs® Airpointer® trailer (GVW 2990 lbs) provides a custom solution for the needs of a monitoring group to be mobile. Designed specifically around the use of the Airpointer®, this trailer combines efficiency, with practicality to ensure users have the capability to safely load, unload, move, and utilize the system with ease. The 10' x 6 1/2" trailer is constructed of 3" channel iron welded frame, using 1/8" diamond plate surface. The positioning of the adjustable Torflex single axle, paired with 205/75R 15 radial tires (plus spare) offer a great balance of weight distribution, and ample suspension for smooth ride.

Iron u-channel ramps stowed under the deck can quickly be clipped into the rear, lining up perfectly with the iron u-channel rails welded to the deck. A Warn 2500 lb winch with wired remote, powered by a 12 volt deep cycle battery mounted in the diamond plate aluminum tongue box, can then safely pull a rack mounted Airpointer® up onto the deck. Guiding the rack into the 2" iron square stock frame welded to the deck. The Airpointer rack can be secured to the framing using a series of grade 8 bolts, securely fastening the entire Airpointer rack into place for transport.



With a 2” adjustable coupler, standard trailer running light connector, 1/4” safety chains attached to the vehicle, your mobile Airpointer® monitoring system is on the road. Wheel chocks, removable coupler, and 5 x 2000 lbs stabilizer jacks on corners and tongue, allow you to easily park the entire trailer on site and run the Airpointer® system remaining mounted on the trailer.