

### The AMP-Cherokee Advantage

AMP-Cherokee provides the most comprehensive range of CEMS resources for today's emissions monitoring customer. From system design and integration to turnkey installation, commissioning, maintenance, testing and warranty support, AMP-Cherokee is a single resource for all your CEMS requirements.

### System Design, Integration & Installation

AMP-Cherokee provides CEMS/PEMS solutions that are ideally suited for utilities, boilers, FGD performance, SCR-NOx control, furnaces, gas turbines, process heaters, incinerators, and process controls. In addition to traditional CEMS designed for maximum reliability and minimal maintenance, AMP-Cherokee can also accurately quantify exotic compounds through in-situ or extractive FTIR systems. AMP-Cherokee's compact Mini-CEMS® is designed for emissions monitoring and process measurement applications at MACT sources.

### CEMS Field Services

Our Field Services Group provides on-site preventative maintenance and repairs for AMP-Cherokee and other vendors' installed CEMS. An AMP-Cherokee field service contract is a cost-effective solution to help ensure that process operations do not have to be suspended or operated in violation of emissions monitoring requirements due to a malfunctioning CEMS.

AMP-Cherokee is a single source for our customers' CEMS and stack testing needs. We can coordinate all aspects of your emissions compliance program for uninterrupted service and performance.

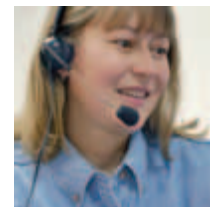
### Air Quality Consulting

As your full service air quality consultant, AMP-Cherokee can handle your regulatory requirements from start to finish. We provide:

- QA/QC Plans
- Preventative Maintenance
- CEMS Consulting
- Operator Training

### CEMS Rental Test Equipment

AMP-Cherokee maintains an inventory of over \$2 million in CEMS rental test equipment. Our QuickShip rental fleet is managed by a veteran staff that fully understands your equipment needs and will help you assemble the materials and instrumentation to ensure the successful completion of each project.



### AMP-Cherokee: The Company You Can Trust

Since 1995, AMP-Cherokee provides high performance, cost effective solutions for your emissions monitoring compliance and process performance requirements.

Over 20 years of experience and customer satisfaction is our guarantee for all your CEM/PEM/DAS systems and field service needs.

Call us at **800.399.4236** from 8am - 5pm (Eastern) to discuss your compliance objectives and discover the advantages of AMP-Cherokee's emissions monitoring products and services.

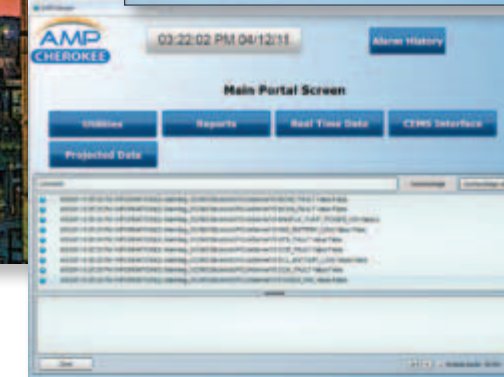
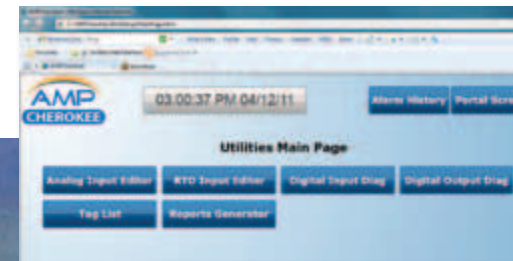
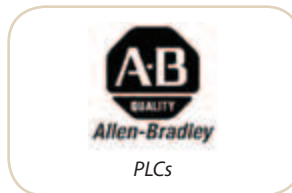


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FIELD SERVICES: 8703 Unicorn Drive, Suite 302 | Knoxville, TN 37923

**800.399.4236**  
[www.ampcherokee.com](http://www.ampcherokee.com)

Raleigh | Knoxville | Fort Smith

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# CEMS/COMS & MiniCEMS™

CONTINUOUS EMISSIONS MONITORING SYSTEMS  
COMPLIANCE AND PROCESS MEASUREMENT



## WALK-IN SYSTEMS

# CEMS / COMS

Continuous Emissions Monitoring for Compliance & Process Measurements

### Integrated CEMS/PEMS/DAS Solutions

From application-specific monitoring system design and integration to installation and commissioning, AMP-Cherokee provides direct-extractive and dilution-extractive CEM systems, and predictive emissions monitoring systems (PEMS), with our integrated DAS.

Built for maximum reliability and minimal maintenance, AMP-Cherokee can accurately quantify exotic compounds through in-situ or extractive FTIR systems.

AMP-Cherokee CEM systems can be configured to monitor for one or all of the following:

- NOx • SO2 • CO2 • O2 • CO • THC • TRS • Mercury
- H2S • HCl / HF Acid • NH3 • Particulate • Opacity
- Volumetric Flow / Moisture • Custom CEM Applications

### Accurate. Redundant. Reliable.

AMP-Cherokee is the only CEMS integrator to offer redundant sampling system components as standard equipment. Redundant features include integral Teflon lines for sample, calibration and blowback, backup sample pump/gas conditioner, as well as the necessary connections for up to ten gas components (5 dual detector analyzers).

AMP-Cherokee CEM systems are built to your specifications and optimized for accurate measurements and reliable performance to keep the cost of your system operation to a minimum.

### Ease of Operation & Maintenance

CEM systems from AMP-Cherokee are the easiest to operate and maintain. The HMI interface and plug-and-play design sets a new standard in reliability and ease of operation. With built-in redundant sampling, system uptime is protected.



MaxRack CEMS  
Eases CEMS  
maintenance and  
servicing intervals.



Dilution & Direct  
Extractive CEMS



ABB H<sub>2</sub>S CEMS  
Hazardous plant site  
pollutant environments



- Volumetric Flow Systems**
- Cross stack/duct/pipe line measurement
  - Easy installation and optical alignment.
  - Long-term reliability & low maintenance
  - Rugged - designed for harsh environments.
  - Built-in continuous self-test diagnostics.
  - Unaffected by path length & media pressure, moisture & opacity
  - Compliant with EPA 40CFR Parts 60 & 75



- Opacity Systems**
- Digital Display & Bar Graphs for: Instant Opacity % and Average Opacity %
  - Insensitive to ambient light
  - Thru the lens (TTL) alignment
  - Electronic modulated light source rated for 6+ years. Replaceable without removing the transceiver from the stack.
  - Calibration Control: Remote, Manual & Timed



- FTIR-based CEMS**
- Simultaneously monitors multiple compounds on a real-time basis at ppm or ppb concentration levels.



- Intrinsically Safe & Explosion-Proof Shelters**
- Stock & Custom Sizes
  - Climate Controls
  - Bulkheads & Other Access Points
  - Electric Service (120 VAC to 480 3-Phase)
  - Aluminum or Steel Construction
  - Site Installation & Commissioning
  - Calibration Gas Bottle Station (Exterior)

## WALK-UP SYSTEMS

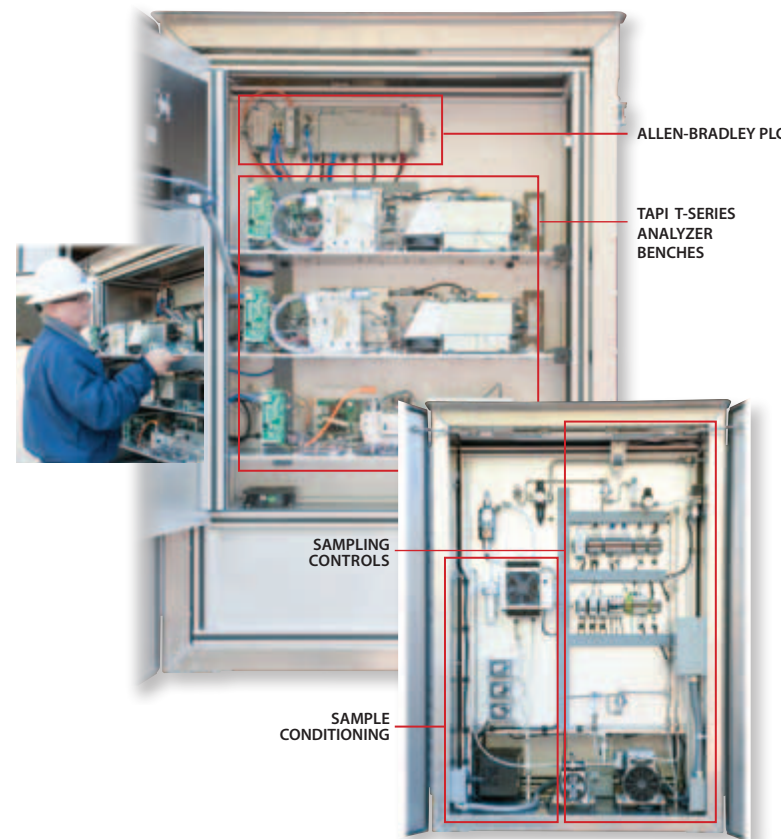
# MiniCEMS®

Walk-up Emissions Monitoring for Compliance & Process Measurement

AMP-Cherokee's MiniCEMS® is a climate controlled, full-featured walk-up CEMS for monitoring nitrogen oxides, sulfur dioxide, carbon monoxide, carbon dioxide, oxygen and opacity -- critical for emissions compliance and process measurement of gas, oil and biomass-fired sources.

The MiniCEMS® combines field-proven Teledyne-API® T-Series analyzer benches with our open architecture DAS ProLogix data acquisition and reporting software. Our HMI>Network Interface™ and Allen-Bradley® PLC control all facets of the CEMS and provide network connectivity and remote operation.

For applications that do not require a walk-in shelter, the climate-controlled MiniCEMS® enclosure can serve as a permanent or temporary emissions monitoring solution.



### Teledyne-API T-Series Gas Analyzers. APIcom™ Analyzer Interface.

The MiniCEMS® is built around specially designed Teledyne-API® T-series analyzer benches using APIcom™ software controls. These intelligent analyzers are integrated into our HMI>Network Interface™ for remote operation by plant operators and administrators.

### Easy Access. Simple Maintenance.

Our exclusive analyzer benches utilize simple power and sampling disconnects for easy maintenance and field servicing. MiniCEMS® sample handling components are easily accessible.

### Data Redundancy. Notifications. Alarms.

Two levels of data redundancy are provided. Data is continuously stored to both the onboard PLC and panel PC before it is sent to the client network. In the event of a loss of communication with the client network, data continues to be stored at the MiniCEMS®. When communications are reestablished, any data gaps are automatically updated on the client network.

Addressable locations on your network can be assigned to receive current status, scheduled reports and system alarms.

Alarm utilities can be set to alert plant personnel via email and mobile devices -- on or off the network.