

# MODEL 1221 DISTILLATION GAS SAMPLE PROBE

For Process Control and  
Difficult Sample Conditions



## MODEL 1221

# UNIQUE SELF-CLEANING AND TEMPERATURE STABILIZED PRIMARY SAMPLE CONDITIONING SYSTEM

The Universal Analyzers Model 1221 series distillation sample probes for demanding on-line gas analysis applications. Excellent for ethylene effluent and decoke analysis.

## MODEL 1221 SOLUTION

Designed to solve the key issues that compromise plant performance by improving measurement accuracy and reliability. The 316SS self-cleaning separator is designed to knock out liquids and heavy hydrocarbons, washing them back into the process along with any deposited solids. This avoids regular 'plugging' that occurs with conventional conditioning systems.

## EASY MAINTENANCE

- Less equipment and field personnel required for routine maintenance
- Simplified removal of the spine separator assembly
- Reduce production downtime

## ACCURATE MEASUREMENTS

- Adjustable outlet temperature based on desired analytical measurements

## REDUCED AIR CONSUMPTION

- Energy savings from less plant air demand
- Efficient distribution of cooling air

## MORE TIME BETWEEN DECOKING

- Avoid expensive downtime from unplanned or frequent coke buildup in the lines
- Extended uptime improves reliable data and better process control

## FEATURES

- Suitable for use in hazardous areas
- Accurate outlet temperature control  $\pm 1^{\circ}\text{C}$
- Optional local or remote electronic controllers for accurate analytical measurements
- Optional pneumatic controllers
- Remote monitoring available
- Self-cleaning separator
- Reduced maintenance
- Removable one piece 316SS separator
- Automatic sampler shut-down on high inlet temperature or high outlet temperature
- Integral high "R" factor cooling chamber
- Typical applications can handle 5 LPM sample flow (higher flow rates possible, consult factory for details)

## APPLICATIONS

- Ethane and naphtha cracking furnaces (ethylene, propylene and ratio measurement)
- Decoke Operations (CO measurement)
- Fluidized Catalytic Cracking Units (FCCU)
- Syngas

## TYPICAL INSTALLATIONS

- Ethylene effluent
- Decoke headers
- Hot, wet or dirty process gases
- Pyrolysis gases
- High particulate removal

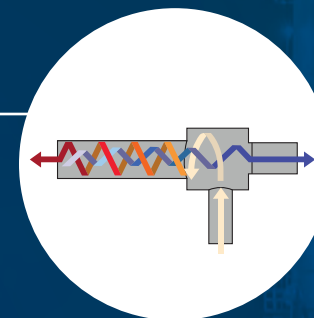
## REMOVABLE ONE PIECE 316SS SEPARATOR

- Simplified one person field maintenance



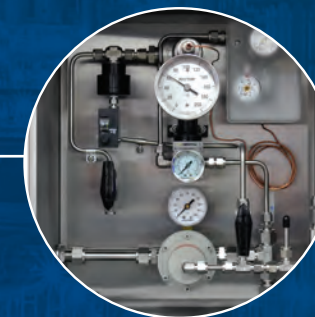
## VORTEX COOLER

- Handles harsh environments & temperatures
- Maintenance free
- Single & Dual units for heavy cooling loads



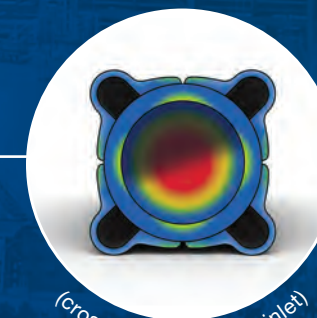
## CONTROLLER OPTIONS

- Pneumatic  
- No electrical needed
- Electronic  
- Local or Remote



## TRACEBOOST® TECHNOLOGY

- Superior cooling performance
- Reduces air consumption



(Cross section view at inlet)





UNIVERSAL  
Analyzers Inc.

[UNIVERSALANALYZERS.COM](http://UNIVERSALANALYZERS.COM)

[sales.universal@ametek.com](mailto:sales.universal@ametek.com)

**P** +1-775-883-2500

**AMETEK**<sup>®</sup>  
THERMAL PROCESS MANAGEMENT