

22 / Kiln Online Gas Analysis System
(Closed Calcium Carbide Furnace)

【PRODUCT DESCRIPTION】

TK-3000 Calcium Carbide Furnace Tail Gas Analysis System is a safety interlock monitoring device dedicated to calcium carbide furnace operation. It consists of sampling probe, pretreatment, analysis, control and calibration units. Optimized for high dust and high temperature working conditions.

Widely used in closed submerged arc furnace, calcium carbide furnace, annealing furnace, lime kiln, rotary kiln, carburizing furnace, ferroalloy furnace and electric arc furnace.



【PRODUCT FEATURES】

- The system adopts cabinet or room-style layout for turnkey project delivery, simplifying on-site installation and commissioning while boosting overall reliability. Combining domestic and overseas technologies, it reaches advanced standards in performance, applicability, reliability and safety.
- It uses specially made sintered stainless steel fiber filters derived from aerospace technology, replacing traditional ceramic and silicon carbide filters. Featuring high strength, 2mm thin filter layer, good air permeability, excellent regeneration and high filtration efficiency, it requires less frequent on-site maintenance.
- Equipped with PLC as the control core, the system realizes automatic pipeline and probe purging, timed sampling and fault self-diagnosis. It delivers strong anti-interference, high reliability, flexible programming and easy operation.
- Fitted with imported high-performance diaphragm gas pump with anti-corrosion wetted parts, it offers large flow rate, long service life and low maintenance needs.

【TECHNICAL PARAMETERS】

Measurement Range	0–15% O2; 0–20% H2; 0.00–100% (user-customizable)
Repeatability	±1%F.S.
System Response Time	T90 < 40 s (sampling line outside analyzer cabinet < 3 m)
Filtration Precision	< 0.1μm
Output Signal	4-20mA (Optional)
Alarm Setting	Alarm set point: adjustable within range (based on operating conditions)
Normal Maintenance Cycle	Generally no less than 90 days