



For Woody Biomass and Coal Co-combustion Power Generation
Safety Management with Riken Keiki Gas Detectors

Application Introduction






Total Support for Power Plant Safety Management with Riken Keiki

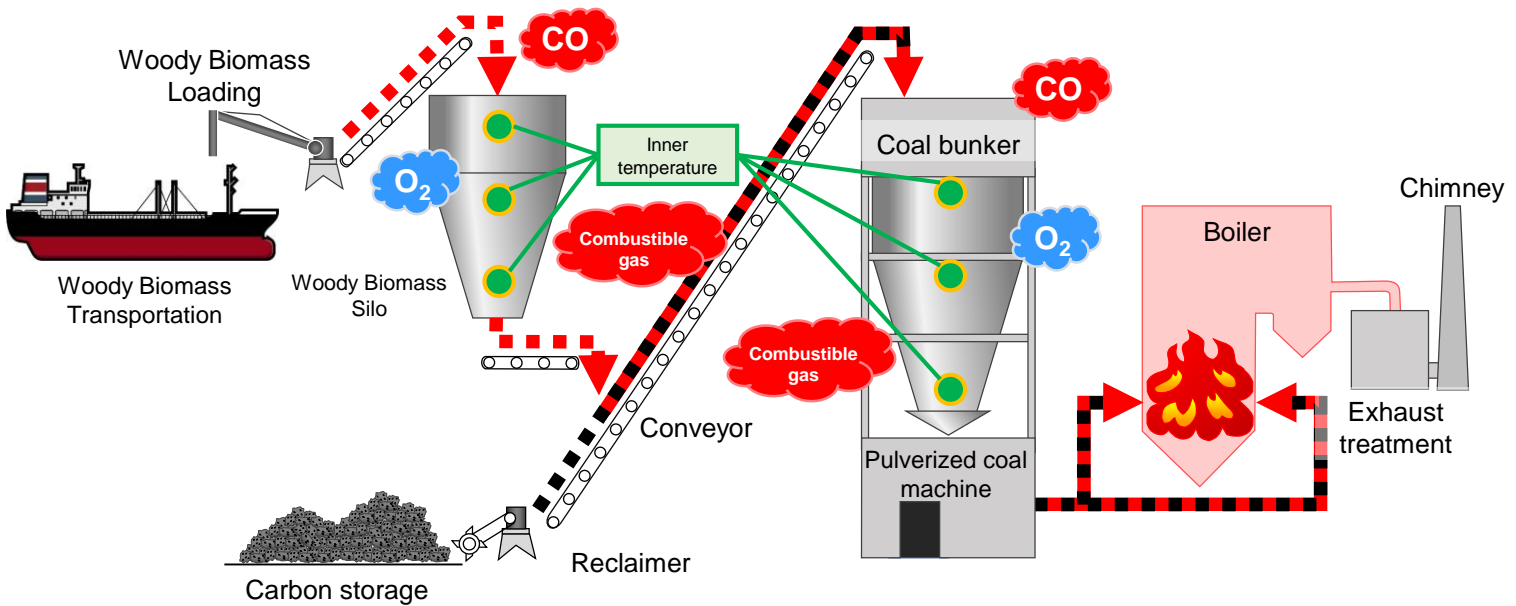


We provide safety management solutions for woody biomass and coal co-combustion power generation plant

Woody biomass and coal co-combustion power generation

There is coal bunker or silo which is usually used for woody biomass storage in the woody biomass and coal co-combustion power plant. And CO is easily formed by the smoke which is caused by woody biomass and coal co-combustion.

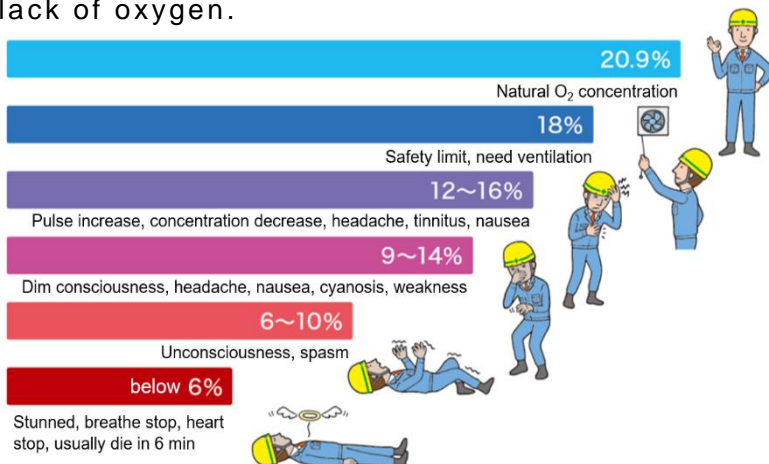
Ex proof gas detector Smart transmitter Gas detector 【Model : SD-1 series】				 Model : SD-1, SD-1RI (combustible gas)	 Model : SD-1GH (combustible / toxic gas)	 Model : SD-1EC (CO/H ₂ S)	 Model : SD-10X (oxygen)	Non-ex proof Gas detector Intelligent gas detector 【Model : GD-70D】	
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Woody biomass and coal co-combustion power generation plant

Oxygen deficiency

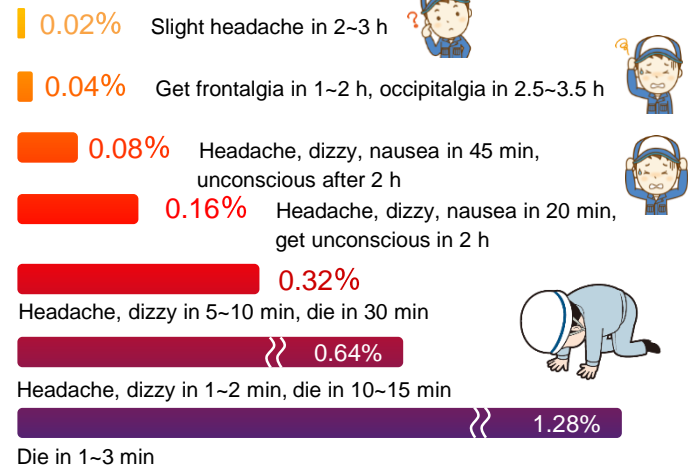
Oxygen deficiency: O₂ concentration below 18 %. O₂ is usually contained of 20.9 % in air. Which below 18 % (safety limit) may cause serious problems to our health. Additionally, those who go to help the workers that faint due to the oxygen deficiency might also fall because of the lack of oxygen.



Danger of CO toxicity

Carbon monoxide (CO) is usually formed by the combustion of fuel with insufficient oxygen. CO is a colorless, odorless, and tasteless gas that is slightly less dense than air. It is toxic to animals that use hemoglobin as an oxygen carrier (both invertebrate and vertebrate).

Influence to health



Continuous monitoring solutions compatible for various facility safety management

Continuous monitoring in the coal bunker (Ex proof)

※ Request product catalogs for more detailed information

Smart transmitter
Gas detector

Diffusion

Ex proof

Model :

SD-1 series



- **Hydrogen • acetylene explosion proof**
Ex proof structure (Exd II CT6X and Exd II CT5X) approval, can be used under hydrogen • acetylene atmosphere.
- **HART® communication compatible!**
Can send digital signals with general analog 4-20 mA output, **more communication available.**
- **Self-diagnosis equipped**
Self-diagnosis starts during the warm-up. If there was any trouble, the **error code** would be displayed instead of gas concentration value.
- **Dimension:**
approx. 148(W) × 208(H) × 88(D) mm
Weight: approx. 2.5 kg (Depend on the model.)

※ Can be attached to the alarm indicating unit RM-5000 series and RM-6000 series.

Continuous monitoring in the woody biomass storage silo (non-ex proof)

Intelligent
gas monitor

Pumped

Model :

GD-70D

Combustible

Toxic

O₂

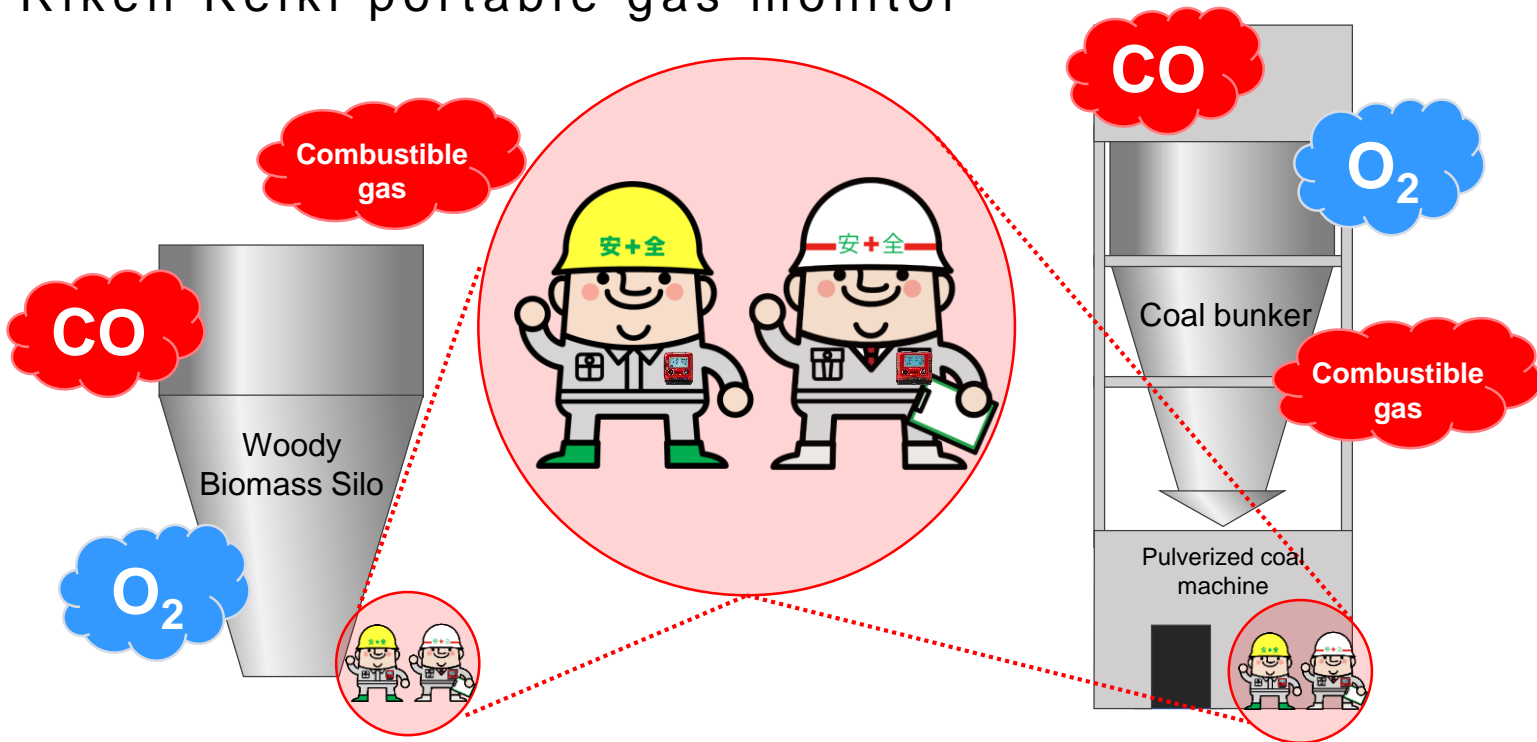


- **Universal designed!**
With compatible sensor unit, whatever detection method you use, **you can change your detection gas easily by only replacing the sensor unit.**
- **Various communication compatible!**
Besides standard analog 4-20 mA method, DC power line communication and Ethernet method are also available. **Choose your best communication method!**
- **Easy to read large LCD display!**
Gas species, concentration, bar graph, alarm point displayed. **All information with one sight.**
- **Dimension:**
70(W) × 120(H) × 145(D)mm
Weight: approx. 0.9kg

Change the target gas easily only by replacing sensor unit



For worker and working site safety management Riken Keiki portable gas monitor



Gas detection for surrounding of the workers

Working site multi gas detection

※ Request product catalogs for more detailed information

Portable Gas Monitor

Model :

Diffusion

Ex proof

GX-3R

O₂ H₂S CO HC or CH₄



- **GX-3R**, portable gas monitor which can detect 4 species of gas, combustible gas, O₂, H₂S and CO. **The tiniest and lightest 4 gases monitor in the world!**

(According to our investigation up to Nov 2018.)

Size: approx. 58(W)×65(H)×26(D)mm

Weight: approx. 100g

- **GX-3R Pro**, 1 additional gas detectable!

+1 gas species: SO₂, CO₂

More gas detection coming soon!

Portable Gas Monitor

Model :

Diffusion

Ex proof

GX-3R Pro

O₂ H₂S CO HC or CH₄

SO₂ CO₂



- **GX-3R Pro**, 11 languages display available!
日本語, English, русский, Español, le français, Italiano, Português, Deutsch, 简体中文, 繁体中文, 조선말
For worldwide use!

- By equipped with protect cover(optional), a tough design even falling from a height of 7m!

Protect cover



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※ The information in this catalog may be changed without notification.