

Webinar Online Dust Monitor **Air Dust Monitor**

Ambient dust or invisible flying particulate monitoring technology.



- Date & Time -
15:00-15:50
(Japan time: UTC+9)
June 25th (Fri), 2021

Thank you for joining today's webinar.

We will start at 11:00.

BGM is now running.

If you can't hear, please check sounds setting of your computer.

PRECAUTIONS for the webinar



Your microphone is muted during the webinar.



Please use the Q&A column on the right side of the screen if you have any question.



Questions are welcome at any time.
You can send a text on the Q&A column at any time.



We will have the Q&A session at the end to reply to your questions.



If we don't have enough time to reply to your question, we'll send an answer later by separate email.



Who is Matsushima Measure Tech?

Company name	Matsushima Measure Tech Co., Ltd.
Founded	1946
Products and services	<p><u>Level Sensing</u> Radar level transmitter, Various level switches, Customized level measuring systems for harsh applications.</p> <p><u>Dust Sensing</u> Various dust monitoring sensors for industrial dust collector, piping, stack, open workplace, clean room, etc.</p> <p><u>Safety Sensing</u> Safety switches for belt conveyor, conveyor belt automatic adjusting carrier, belt tear detector, belt cleaner, etc.</p> <p><u>Robot System</u> COBOT (Human Collaborative Robot) system, automation engineering, etc.</p> <p><u>Others</u> Actuators, Position sensors, etc.</p>
Network	<p>Subsidiaries in: China and South Korea</p> <p>Distributors in: Taiwan, Indonesia, India, Thailand, Malaysia, Vietnam, Philippines, Australia, Mongolia, Russia and US</p>
Reference	Steel, Cement, Power, Metal, Fertilizer, Chemical, Food, Mining, etc.

Web-seminar

Ambient dust or invisible flying
particulate monitoring technology.

Air Dust Monitor



Background to develop Air Dust Monitor

Dust sensor for dust collectors

Dust Monitor



Long selling for over 20 years

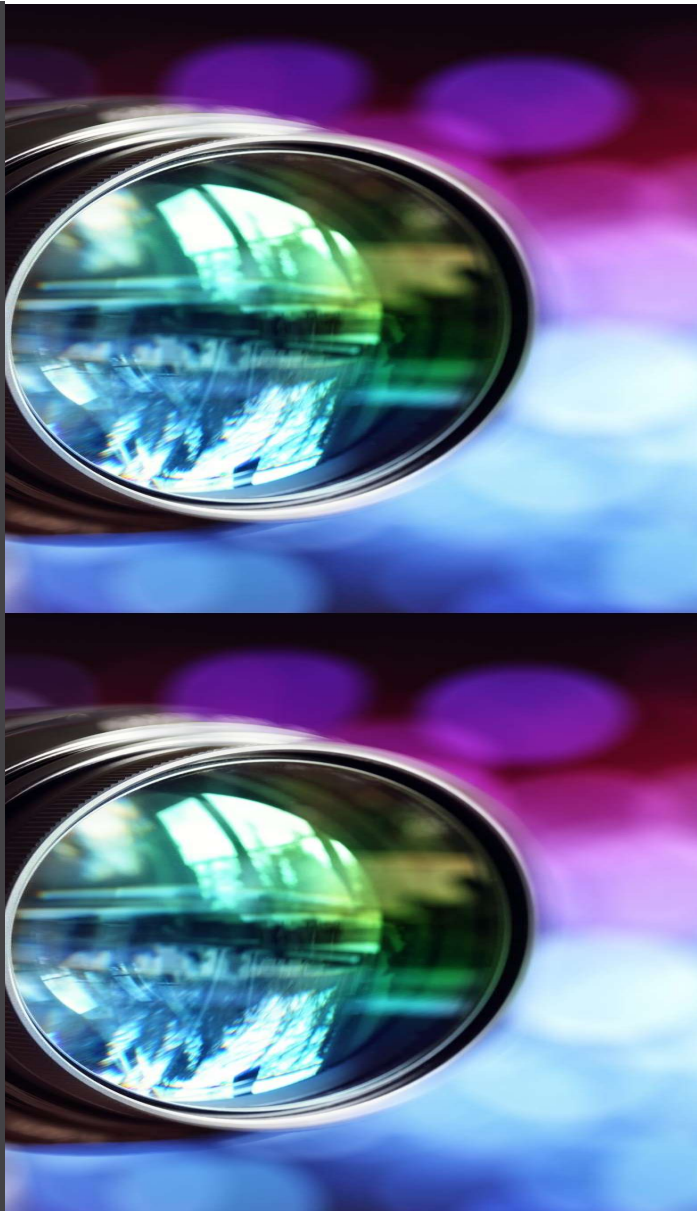
Total sales: over 5000 pcs

Customers' request about Dust Monitor

- Measuring in other applications
- Portable sensor
- Measuring at high places or narrow places
- Wireless sensor

etc....





Topics

1. Environmental issues of flying dust & solution
2. Principle and features of Air Dust Monitor
3. Applications
4. 3 models of Air Dust Monitor
5. Advantages of Air Dust Monitor
6. Optional services
7. New release: Air Particle Monitor
8. Q&A



Environmental issues of flying dust

① Demolition work

Dust control is not mandatory.

If dust leaks out, they spread out to the neighborhood, and may cause air pollution.

Old buildings sometimes contain asbestos, which is harmful for health.



② Welding fume

The fume dust is effectively collected?

The effect of dust collectors depends on the working condition.



③ Working condition

Periodic measurement of working condition is not sufficient.

Continuous monitoring can protect workers' health even from leakage in a short time.



Solution: effective monitoring of ambient dust

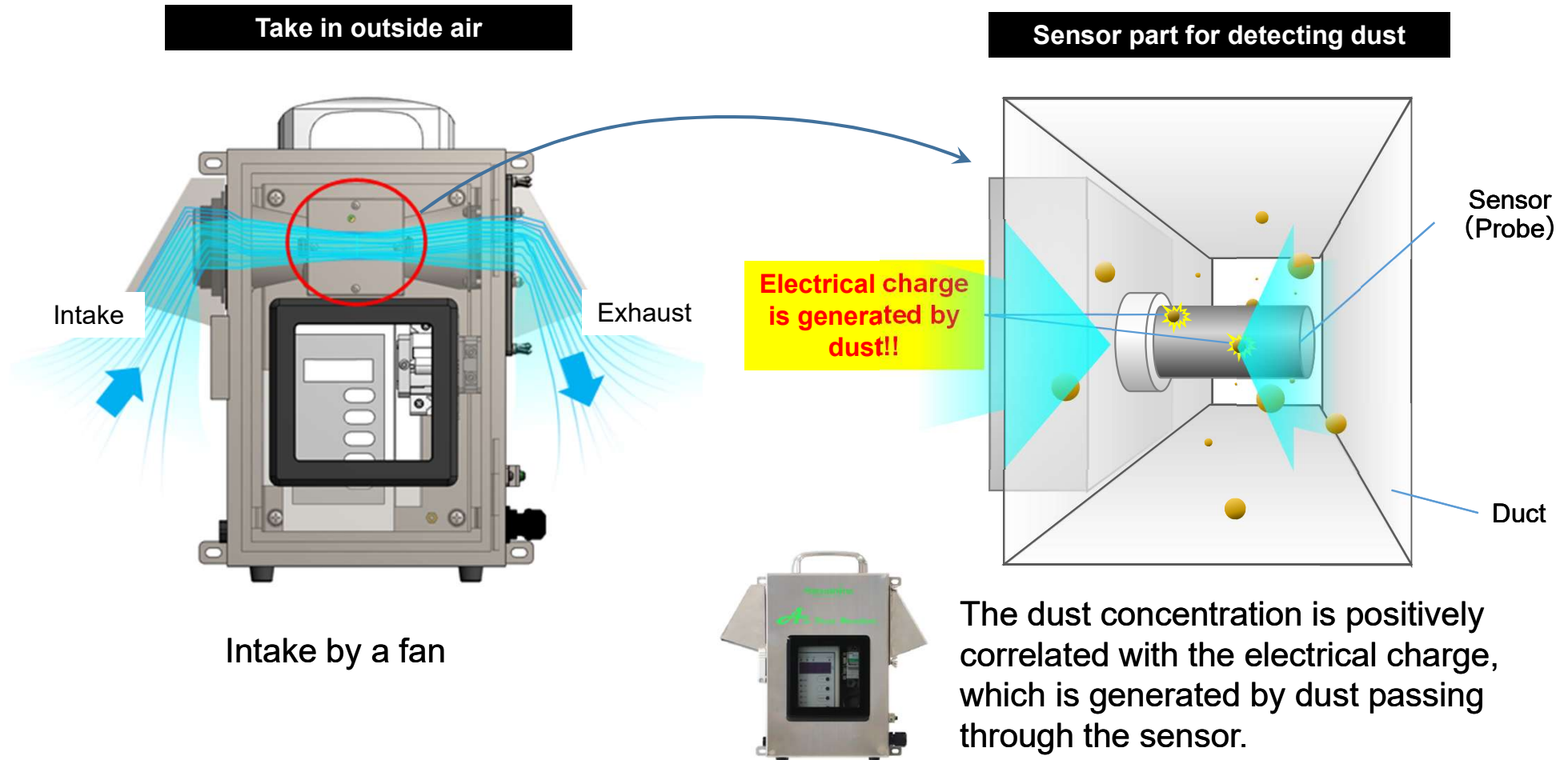
Air Dust Monitor is a solution for controlling flying dust in real time.



Air Dust Monitor is...

a dust sensor to measure dust concentration in the atmosphere, and applied for various applications for dust monitoring.

Principle of Air Dust Monitor

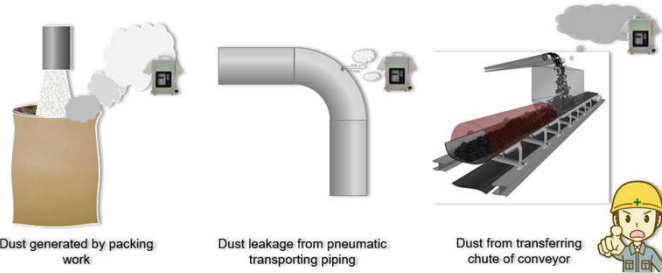


Feature of Air Dust Monitor

- 1 Detect even small amount of dust**
0.1mg/m³~
Immediately stop the operation before serious leakage.
- 2 Even no air-flow condition, the ambient air can be inhaled by a fan.**
Applicable for various places
- 3 Analog output of measuring values**
DC4~20mA
Applicable for alarm signal and control of dust collectors.
- 4 Simple adjustment & maintenance**
The adjustment can be done by measuring range and integration time. For maintenance, the probe, fan, and duct are just wiped on a regular basis.
Reducing maintenance work

Application 1: Manufacturing process

Monitoring raw materials process.



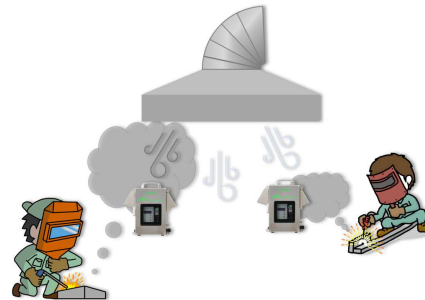
Application 4: Demolition work

Monitoring dust and asbestos from demolition



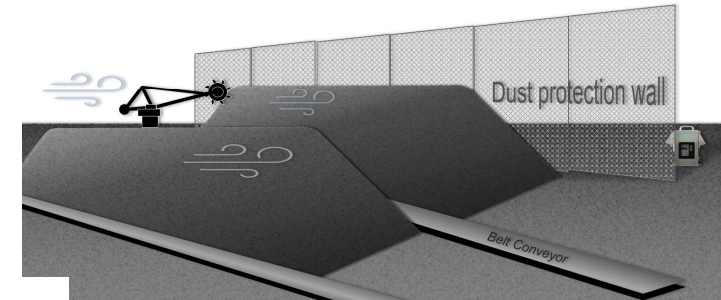
Application 3: Welding work

Monitoring welding fume



Application 2: Material yard

Monitoring dust from stacked materials on yards



Application 5: Tunnel work

Monitoring dust generated from drilling in tunnels

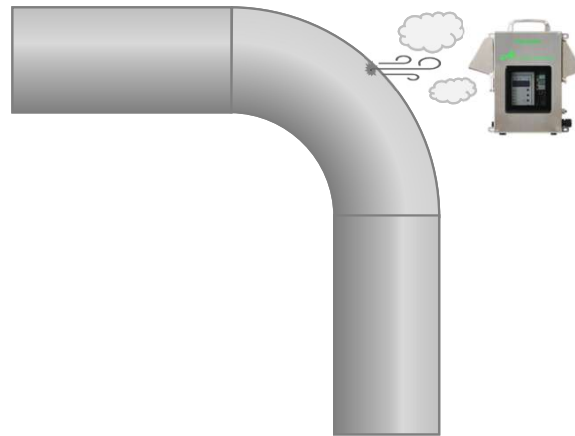


Application 1: Manufacturing process

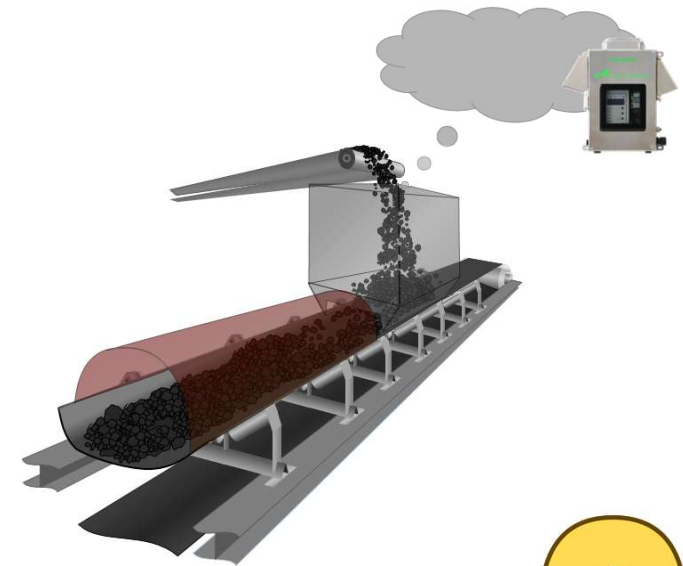
Monitoring raw materials process.



Dust generated by packing work



Dust leakage from pneumatic transporting piping

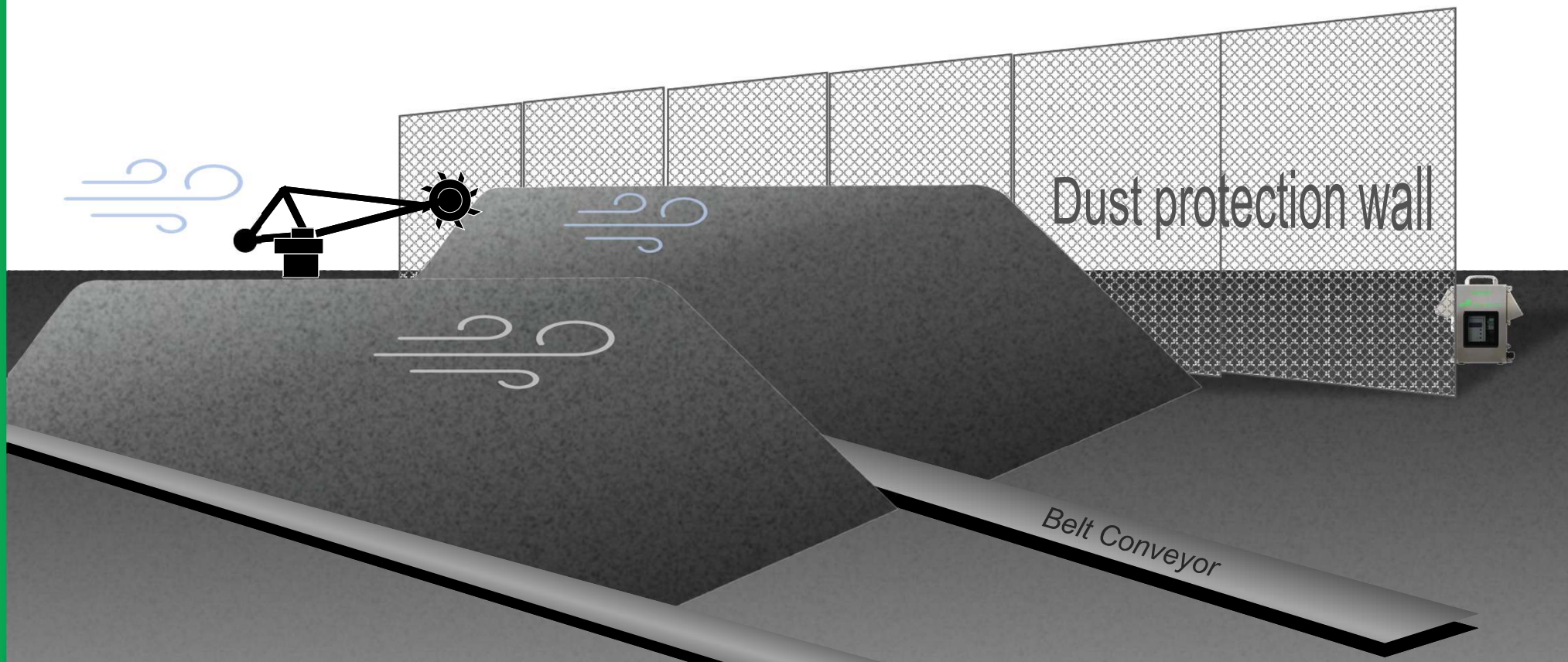


Dust from transferring chute of conveyor



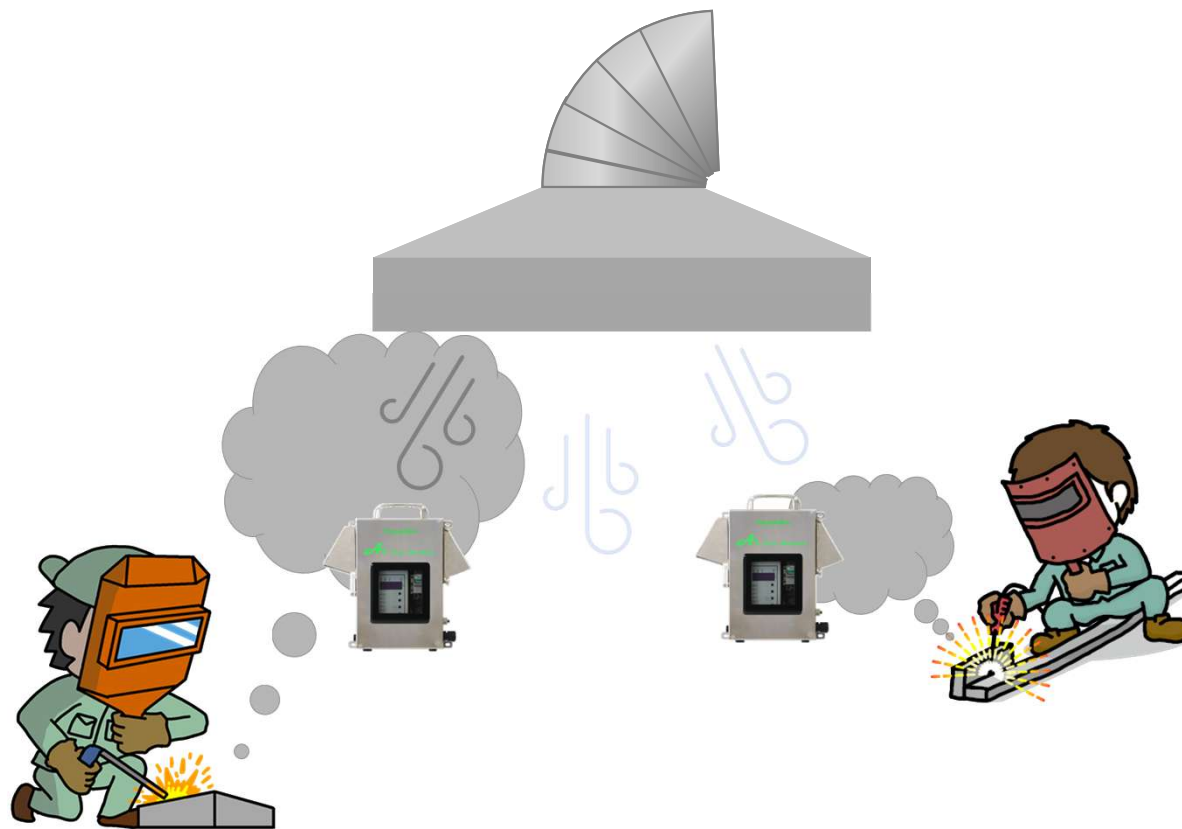
Application 2: Material yard

Monitoring dust from stacked materials on yards



Application 3: Welding work

Monitoring welding fume



Application 4: Demolition work

Monitoring dust and asbestos from demolition



Application 5: Tunnel work

Monitoring dust generated from drilling in tunnels



3 models of Air Dust Monitor

Integrated model



Separated model



**Separated model
with battery & wireless installed**



Model selection 1:

Enough space
and power supply is available

“Integrated model”

The main unit can be installed
at any place which is necessary
to be monitored.



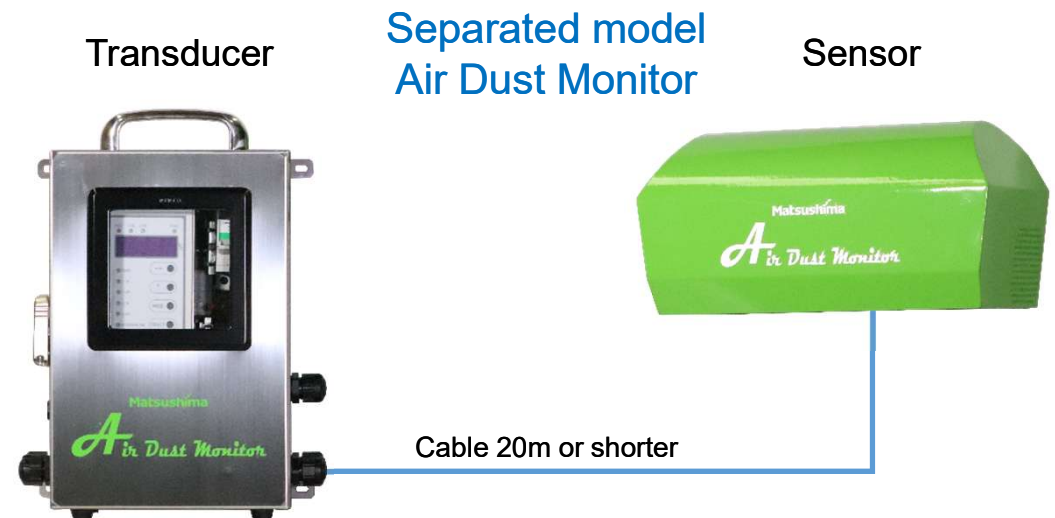
Integrated type
Air Dust Monitor

Model selection 2:

In a high place, a narrow space,
or a place where it is difficult to approach

“Separated model”

The sensor part is mounted at the site, and the transducer part is mounted at the accessible place separately.



Model selection 3:

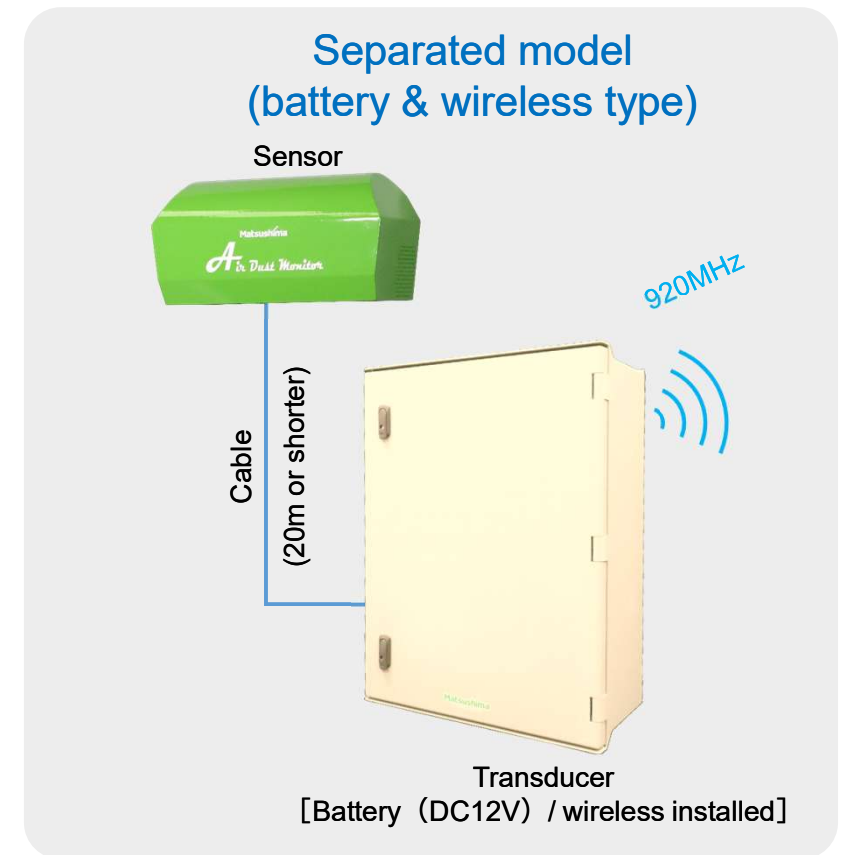
The wiring cannot be connected.

“Battery and wireless separated model”

The wiring is not required, and

The measuring data can be monitored by PC or mobiles in real time.

The upper alarm can be notified by e-mail.

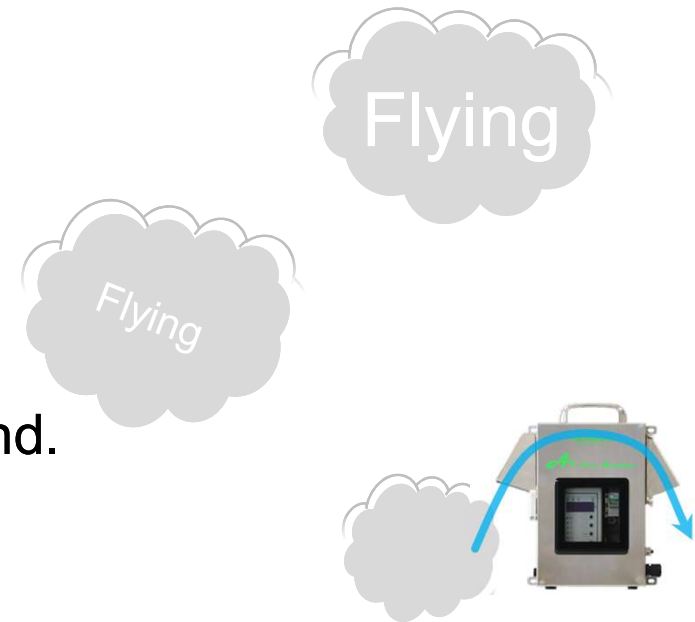


Installation advice 1:

For measurement of flying dust

In the condition without wind, the original intake direction can work well.

On the other hand, in the windy condition, the intake direction should be turned upwind.



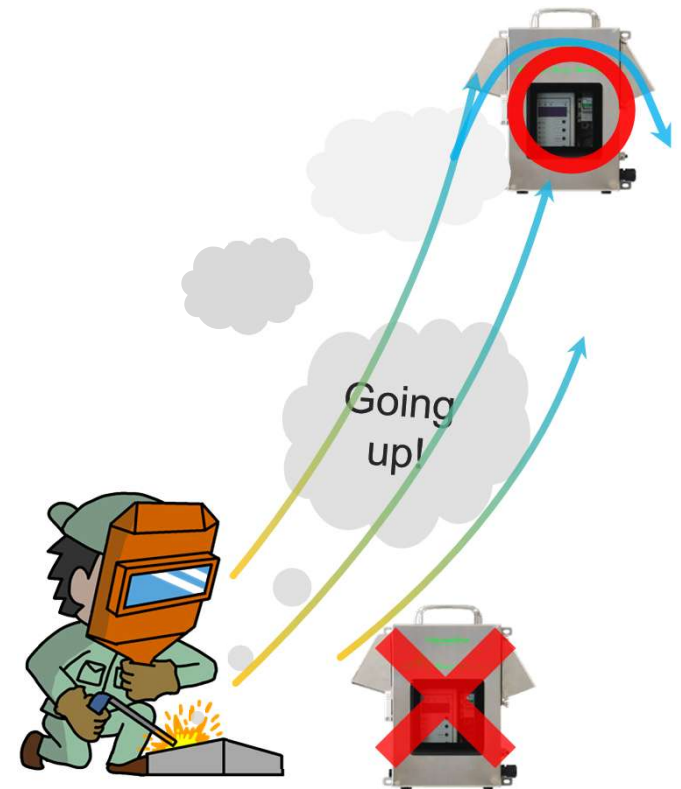
Installation advice 2:

For measurement of rising dust

The air intake should be facing down.

In the fume application, because the fume goes up by welding heat, Air Dust Monitor should be mounted above the welding site and the air intake should be facing down.

If Air Dust Monitor is installed next to the welding site, it may not be able to intake the fume and measuring the lower value.

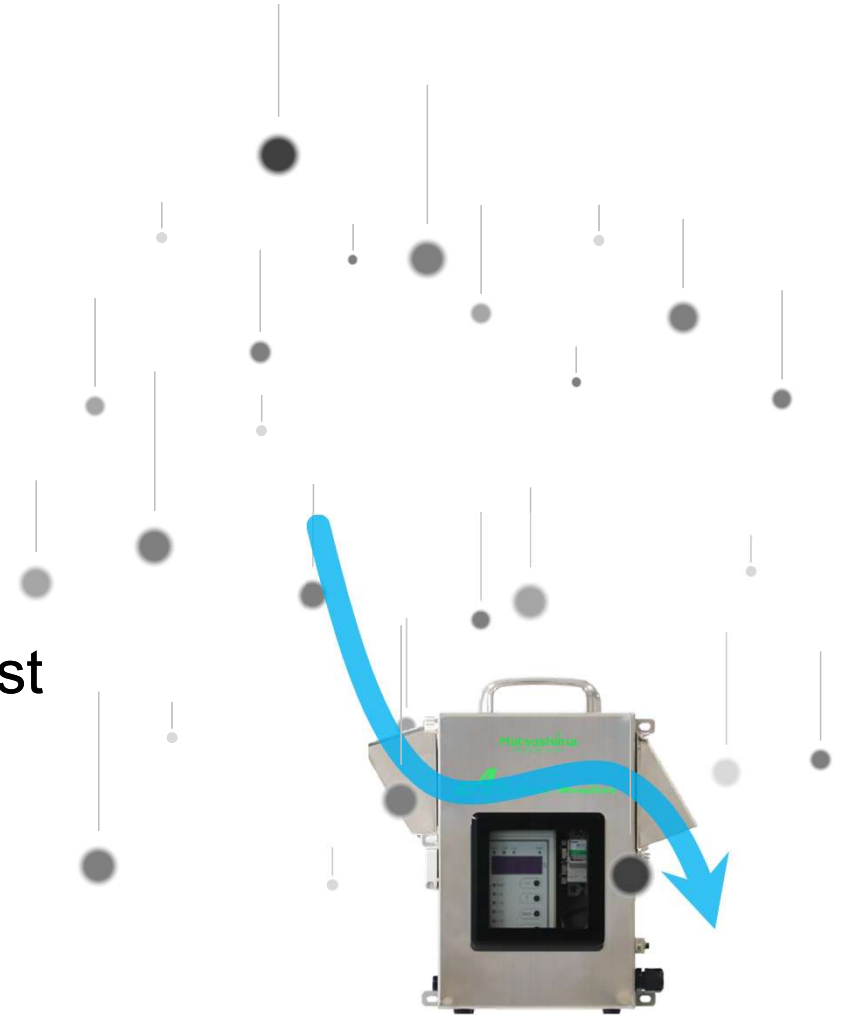


Installation advice 3:

For measurement of falling dust

The air intake should be facing up.

In a case of higher specific density materials including iron powder, Air Dust Monitor may not intake the dust by the original intake direction (face down).



Advantages of Air Dust Monitor

1. Applied model of original Dust Monitor

Dust Monitor

Dust sensor for dust collectors



Long-selling product

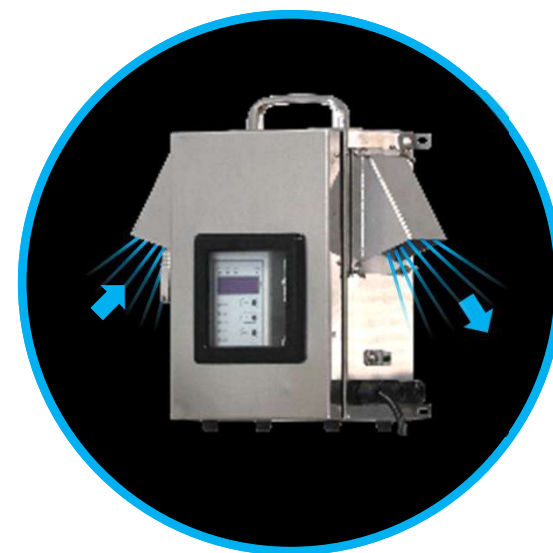
How do we
monitor dust in
ambient
environment?



Additional sucking
function

Air Dust Monitor

Portable dust sensor



It is designed to monitor for
various spaces.

Advantages of Air Dust Monitor

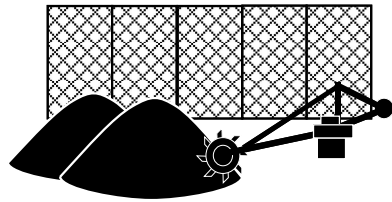
2. Monitoring 24 hours a day!
It does not miss even a little leak.



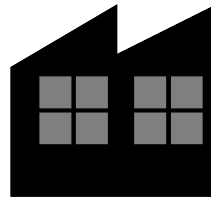
**It can monitor even small
leakage like 0.1mg/m³.**

Advantages of Air Dust Monitor

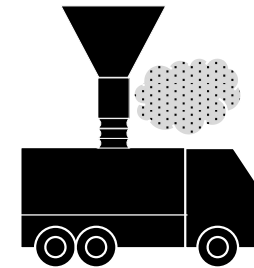
3. It can be installed anywhere because it is portable.



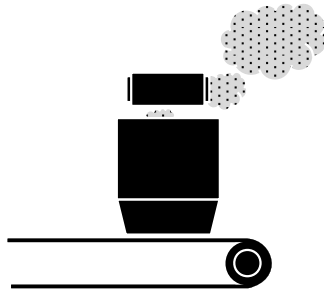
Dust from raw material yard



Working environment



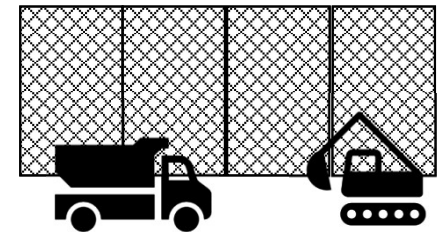
Transportation by trucks



Dust from conveyor transfer



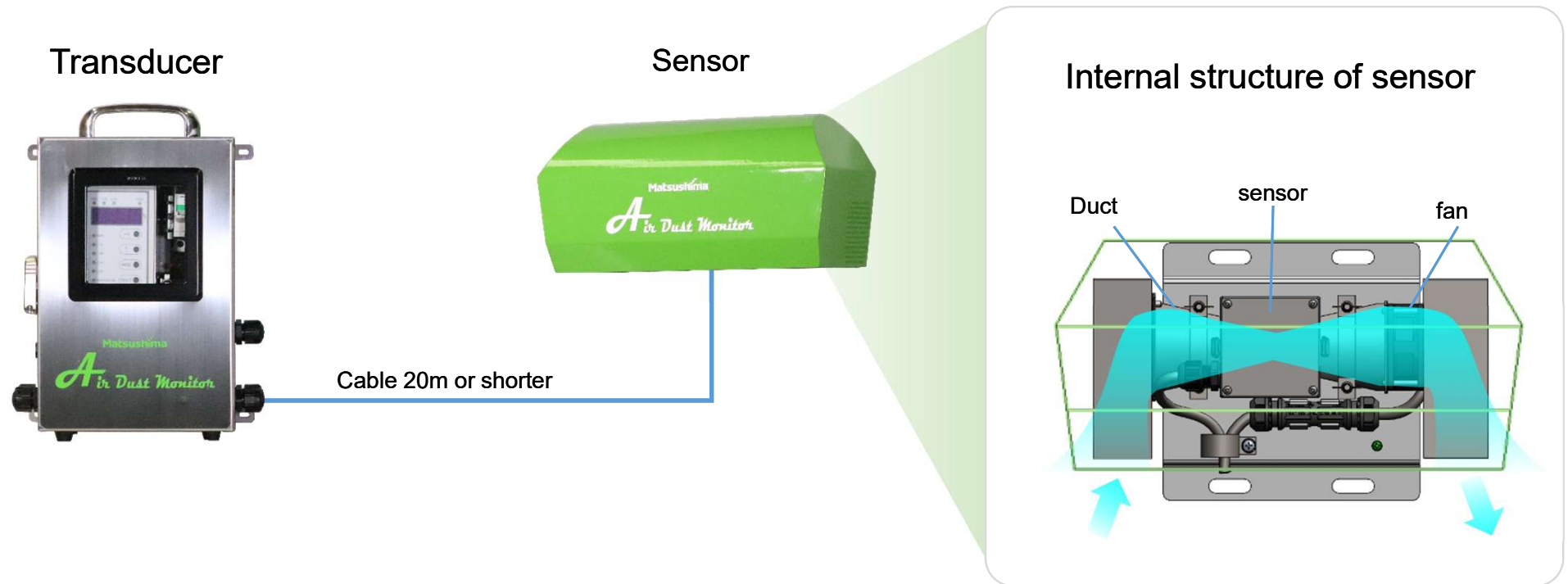
Dust from packing work



Dust from construction or disassembling site

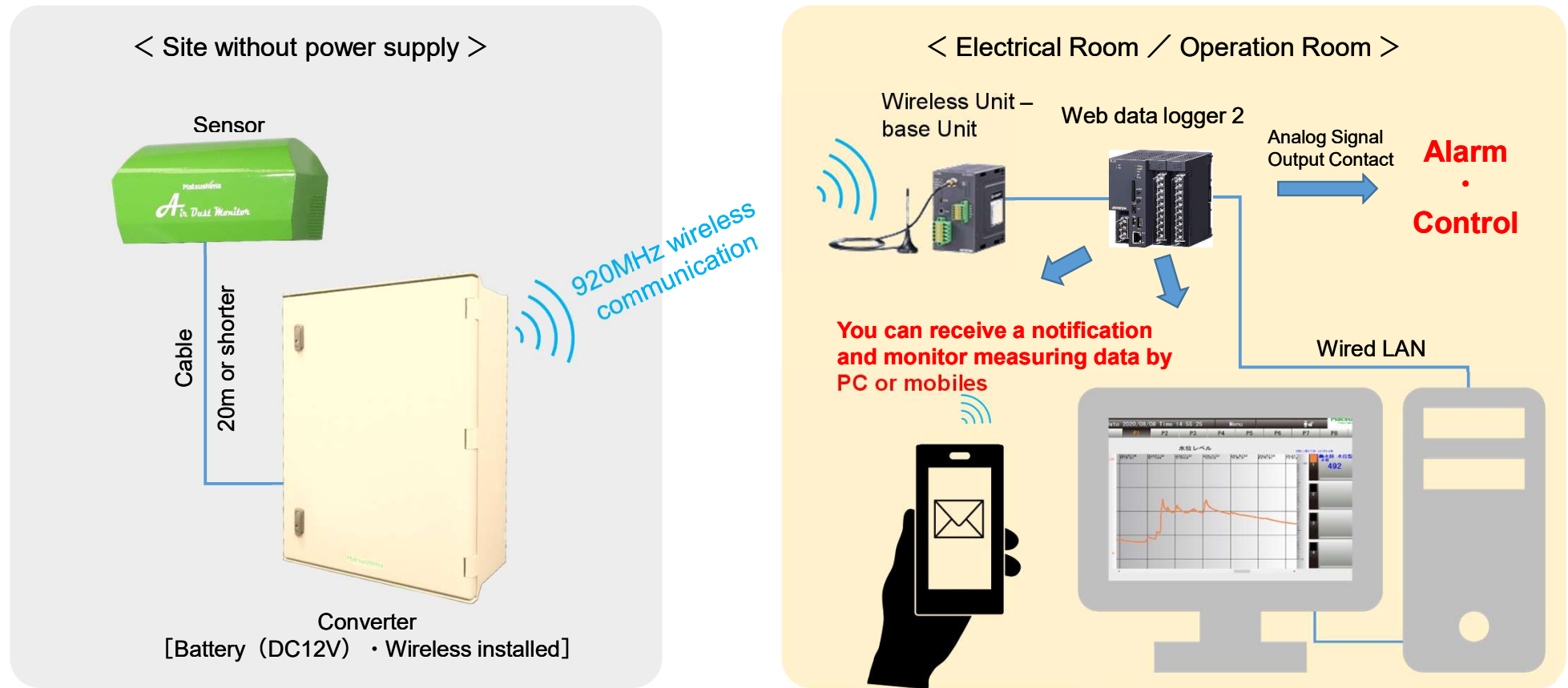
Advantages of Air Dust Monitor

4. Separated model for a high place, a narrow space, or a place where it is difficult to approach.



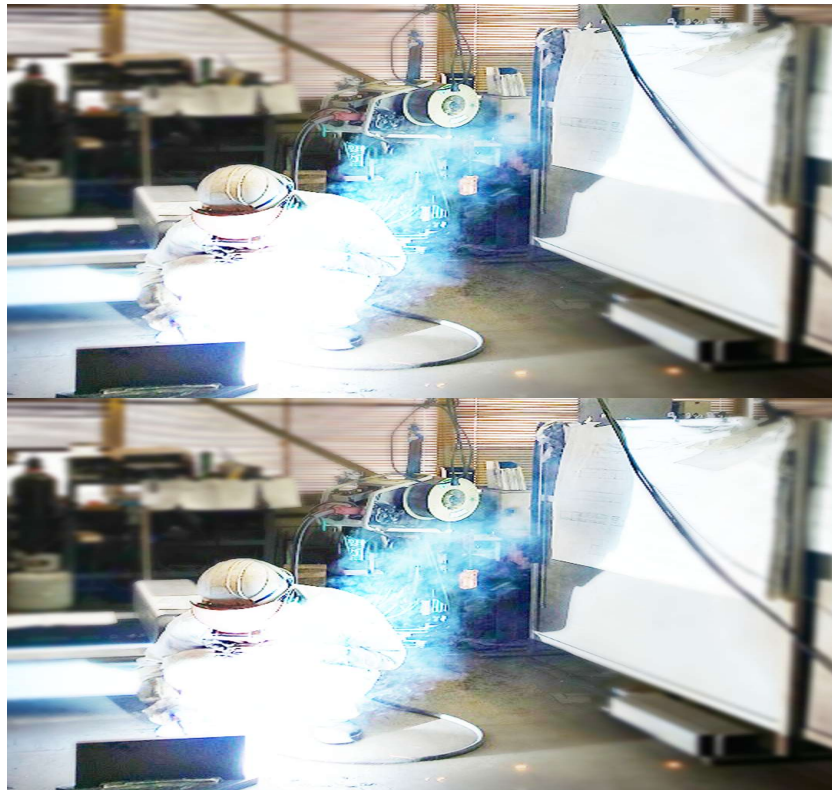
Advantage of the Air Dust Monitor

5. Battery & wireless separated model when the power supply is not available.

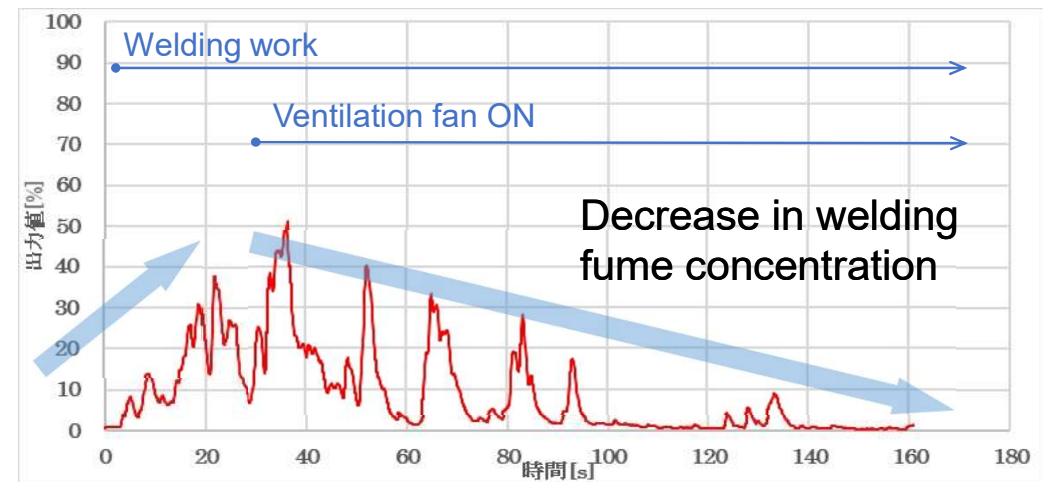


Advantage of the Air Dust Monitor

6. Energy saving effect by controlling a dust collector through the analog signal of Air Dust Monitor.



According to measuring fume concentration, Air Dust Monitor controls the operation of the dust collector automatically.



Optional Services

Demo trial unit

A demo trial unit is available to assess the performance of Air Dust Monitor at the actual site.



Maintenance service

The regular maintenance of the sensor results in safety and stable operation.



Monitoring ambient environment
at any place at any time.

Air Dust Monitor



END

New model of dust sensor

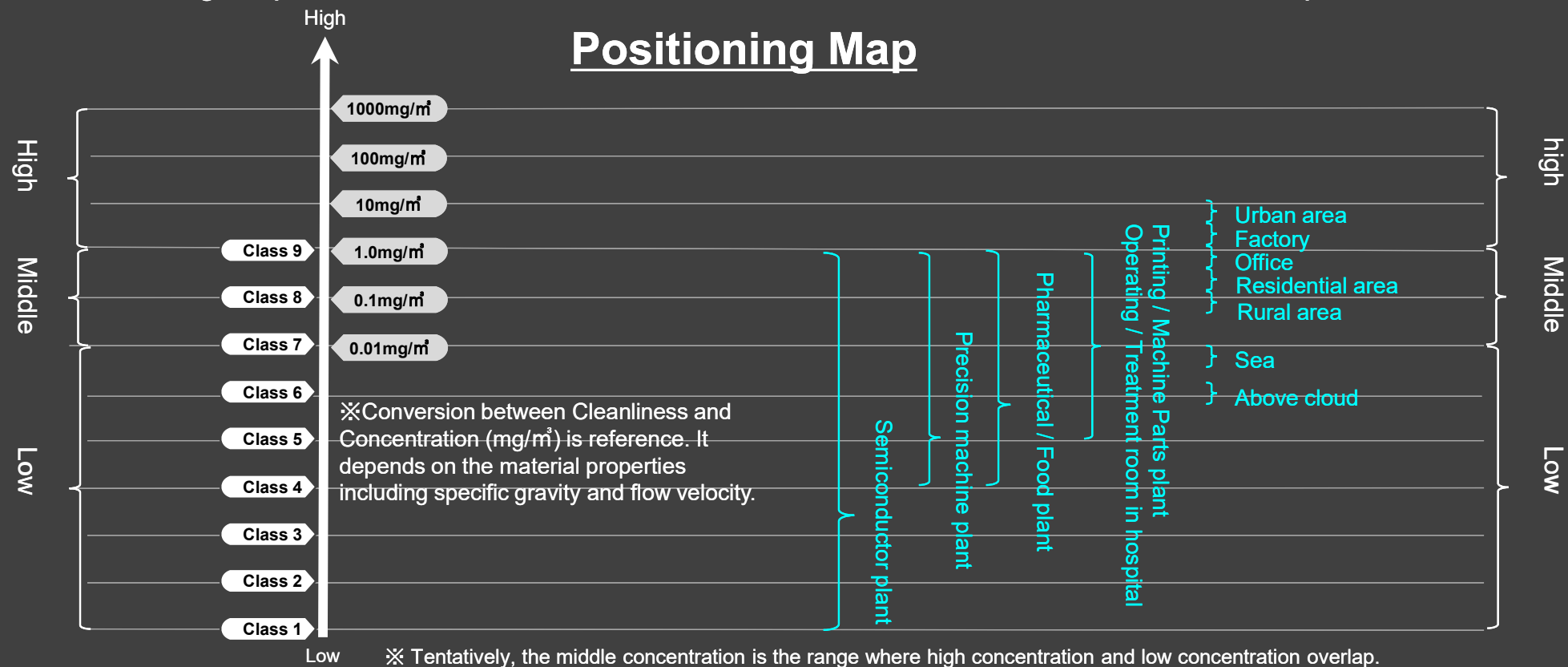
Coming up soon



New model announcement

Dust concentration in various spaces

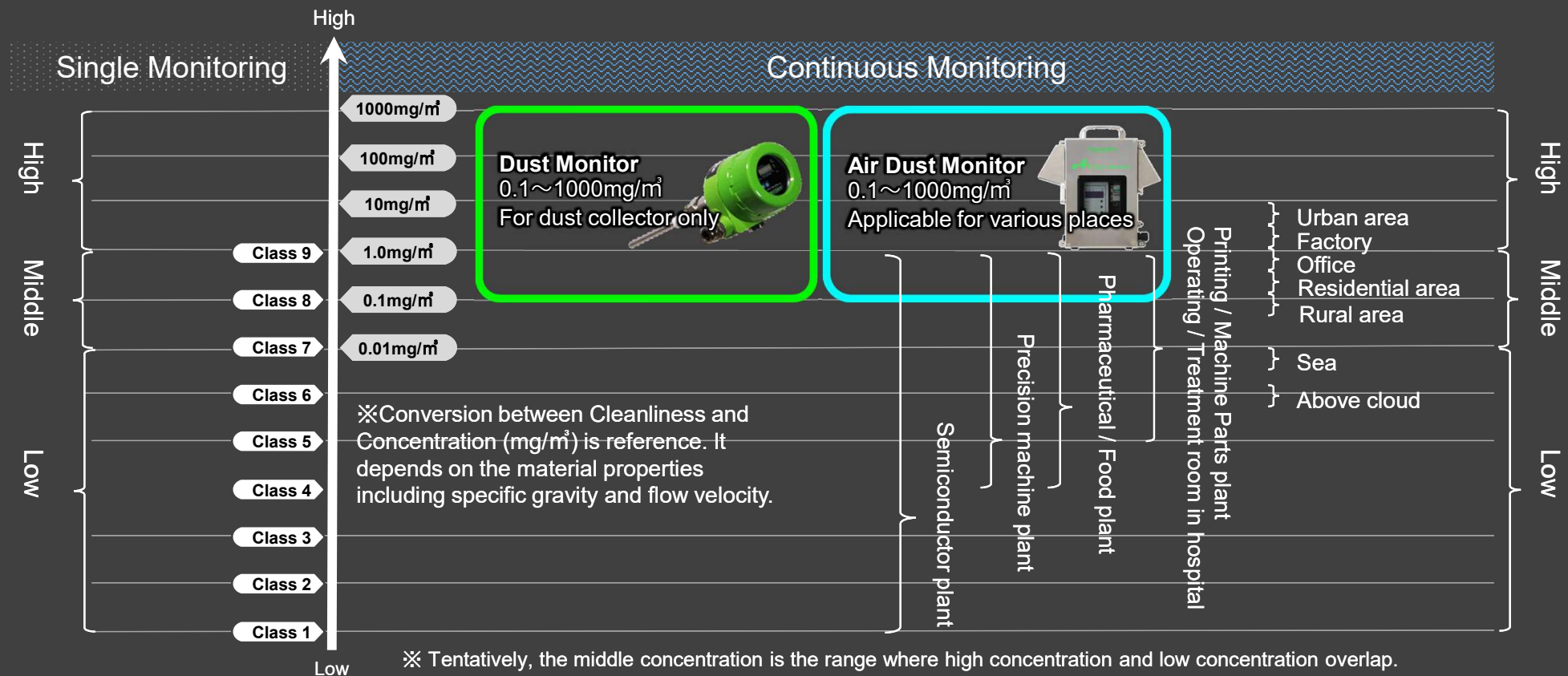
◎Positioning Map shows cleanliness classification and dust concentration in various spaces



New model announcement

Blind concentration level for the conventional models

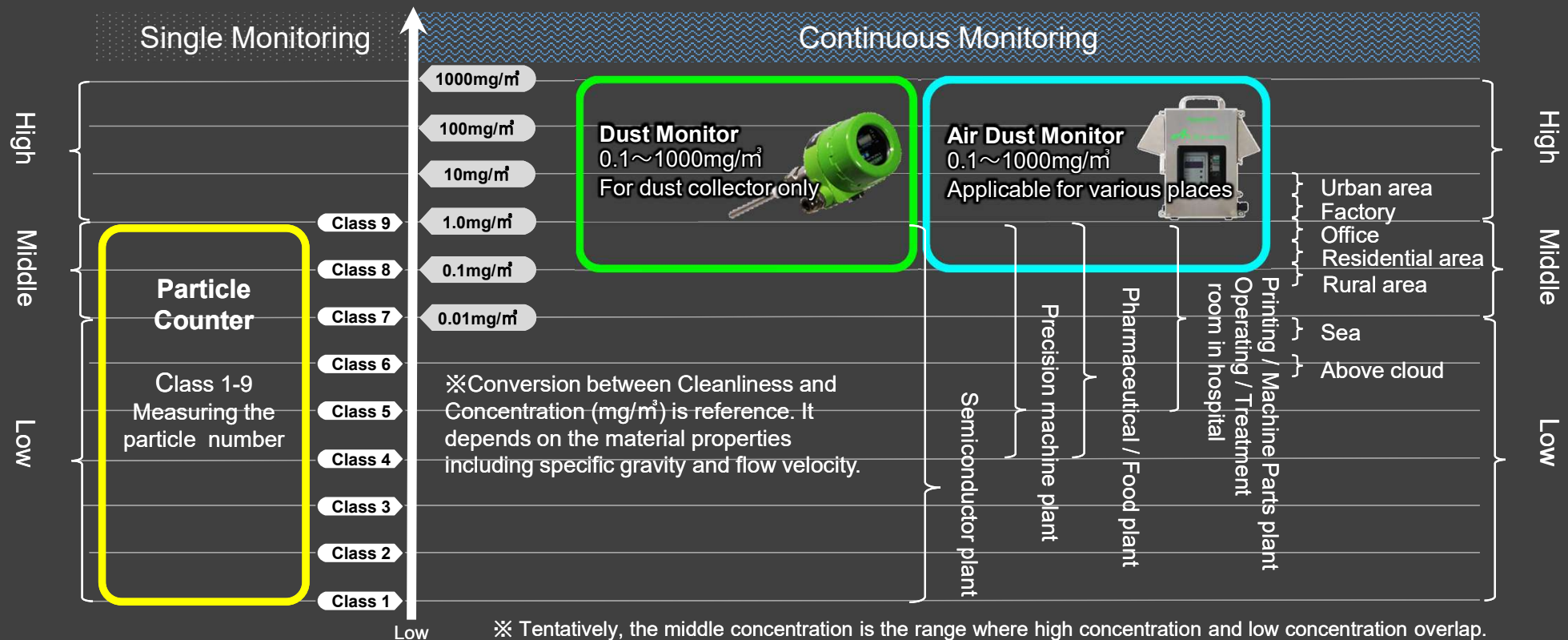
◎Dust Monitor and Air Dust Monitor are not suitable for the middle and low concentration level.



New model announcement

Blind concentration level for the conventional models

- Particle Counter is applied for the middle and low concentration level, but it cannot be applied for continuous monitoring.

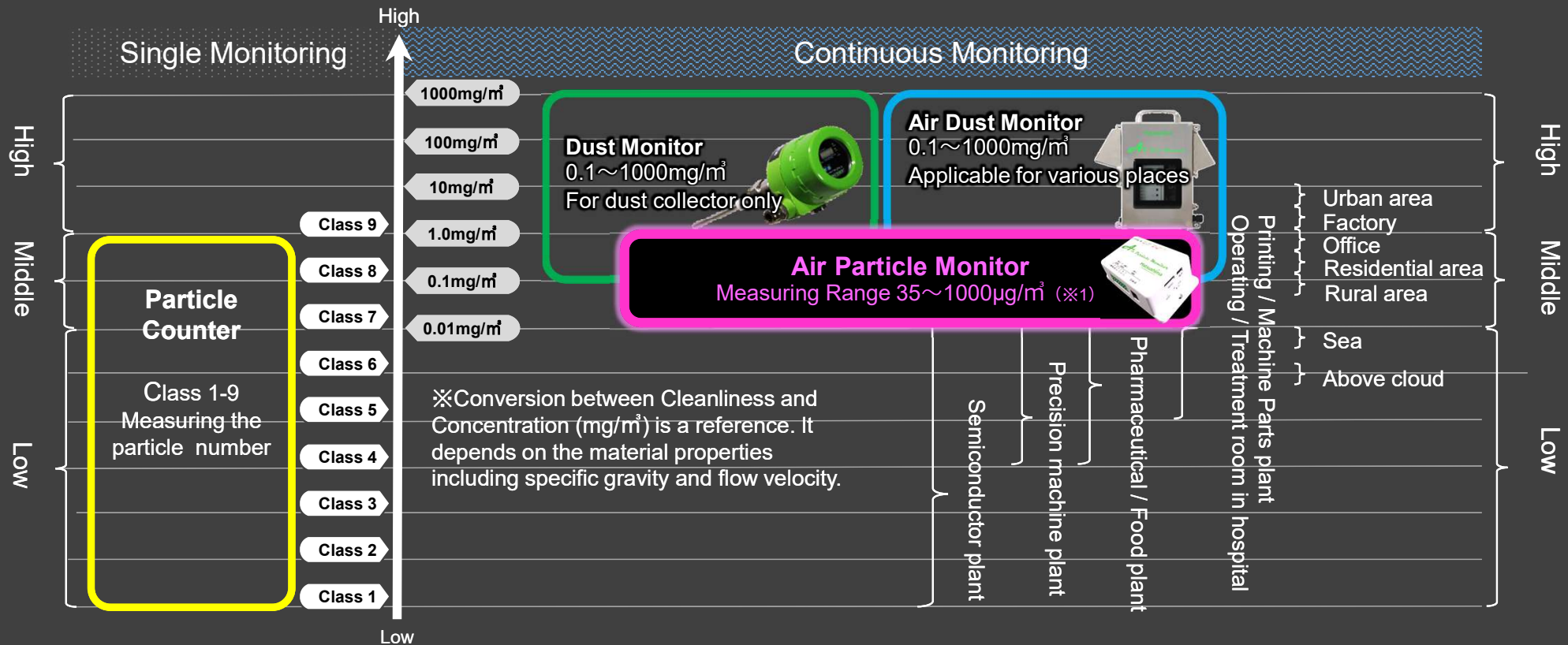


New model announcement

Air Particle Monitor

◎Air Particle Monitor can monitor the ambient spaces in the middle concentration level.

It is online fine particle sensor with the analog signal to control the dust collecting system.
(Measuring range : approx. $35\mu\text{m}/\text{m}^3 \sim$)



New model announcement

**Continuously monitoring of fine particle
in clean space**

Online Dust Monitor

Air Particle Monitor

Launch in fall 2021

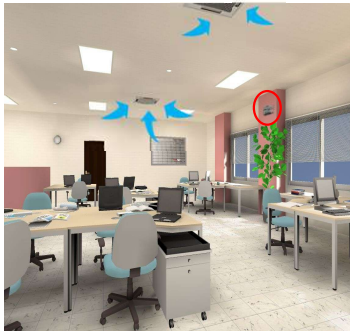


Matsushima
Matsushima Measure Tech

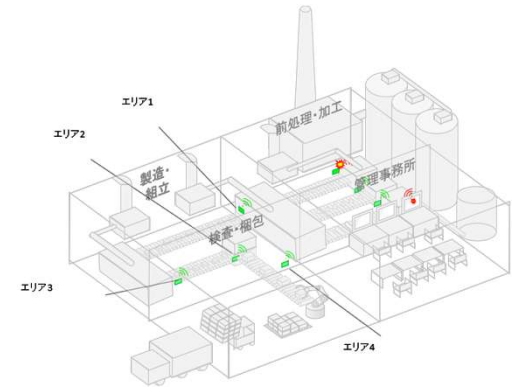
Air Particle Monitor

Applications

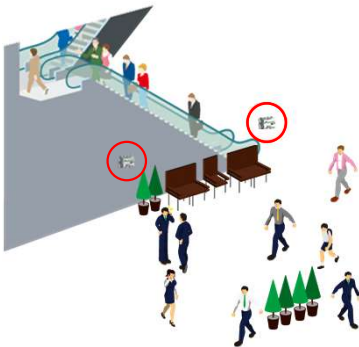
Coming up in fall 2021



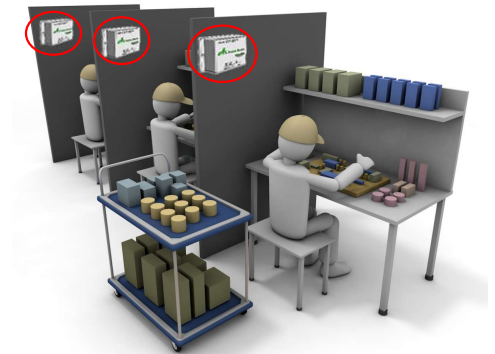
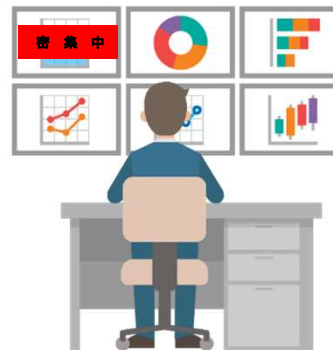
Building / Office



Plant / manufacturing process



Commercial facility



Plant / precision parts



Q & A

Request for questionnaire

We will send the URL for a questionnaire after this session.

It is a simple questionnaire, which takes about 3 minutes to complete.

We highly appreciate your cooperation.

【Privacy Policy】

Matsushima Measure Tech co. Ltd applies the information you provide on the survey including personal information to improve our service.

We never apply it for the other purpose and never provide it to the third party without your consent.

Thank you for joining our webinar.

The Actual is Limited The Possible is Immense



【Head Office ・ Factory】

Matsushima Measure Tech Co., Ltd

1-8-18 Norimatsu-higashi, Yahatanishi-ku,

Kitakyushu 807-0837 JAPAN

TEL : 093-691-3731 FAX : 093-691-3735

URL:matsushima-m-tech.com/

【Domestic Office】

Kyushu sales office

Tokyo sales office

Nagoya sales office

Osaka sales office

【International Office】

Seoul liaison office (Korea)

【Affiliated company】

SHANGHAI DAHONG MATSUSHIMA
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