

# Clamp-on Power Meter CW120 Application Notes



YOKOGAWA

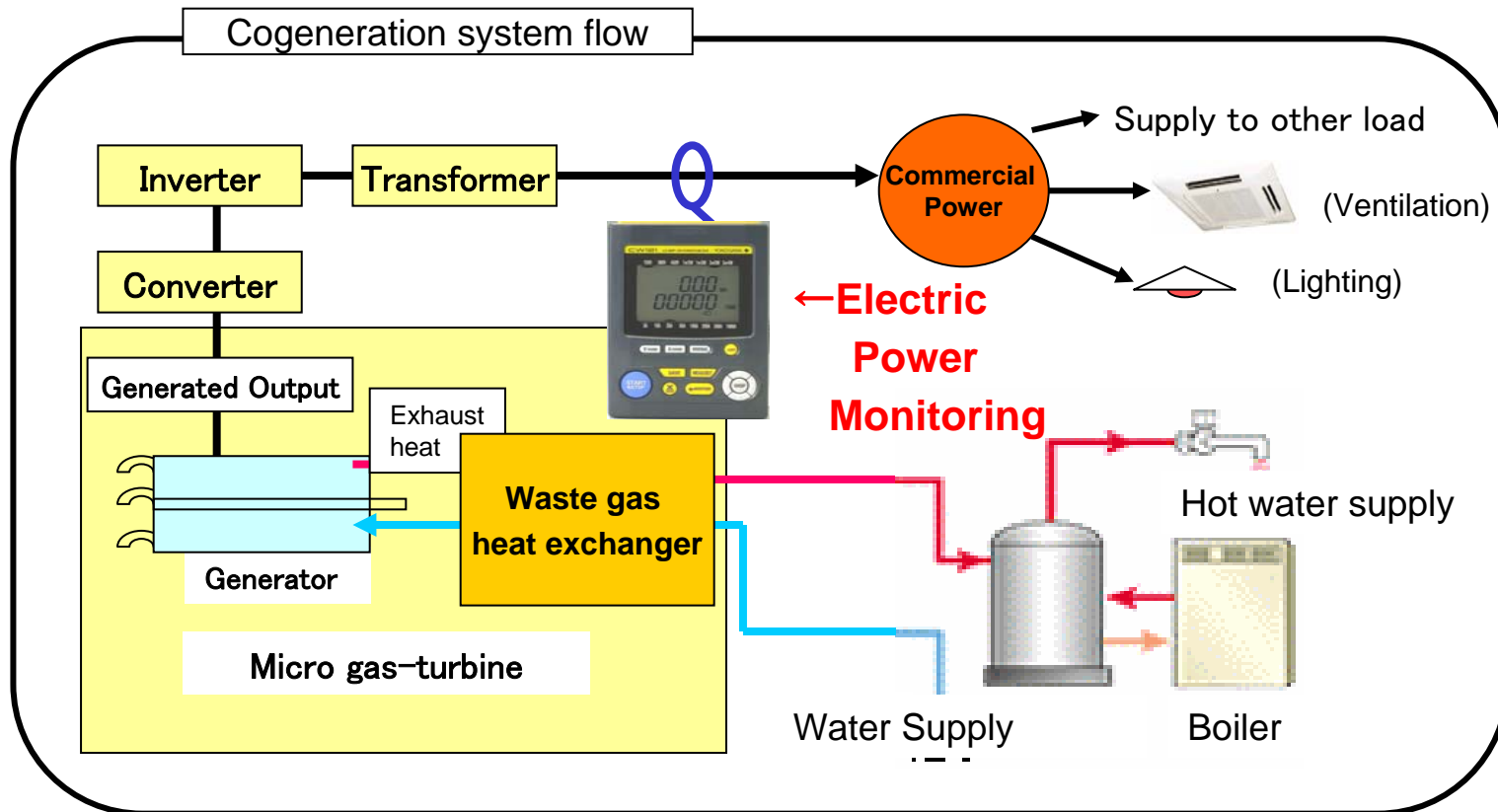
Yokogawa Meters & Instruments

# Measurement of Cogeneration

Received  
Actual Order!

**Introduction Example:** Monitor generating efficiency & electric energy of cogeneration for 6 months to one year

- Points :**
- Compact & easy to carry around
  - Possible to measure more than 1 year with use of large volume memory



**Example:** Super Markets/Hotels/Hospitals/Buildings/First Food Restaurants

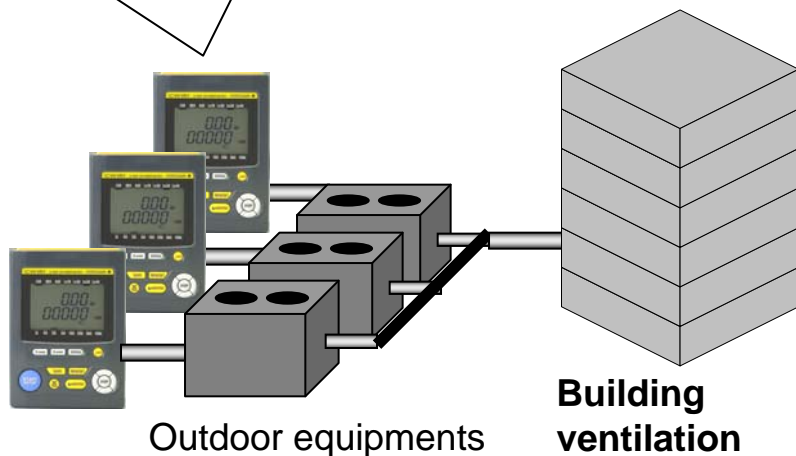
# Energy Saving for Air-conditioning & Freezing machine

**Introduction Example:** Measure electric energy of Air-conditioning and compressor of Freezing machine to check energy-saving effect

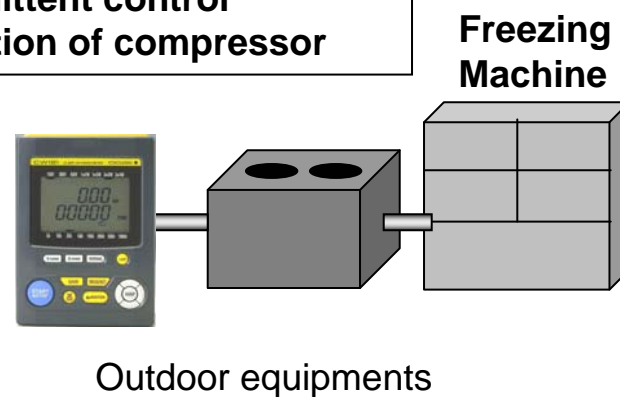
**Point: Min data saving interval is 1 second**

Can be measure electric energy for stand up characteristics & Intermittent control operation

Convenient to use external I/O terminal when you use multiple units

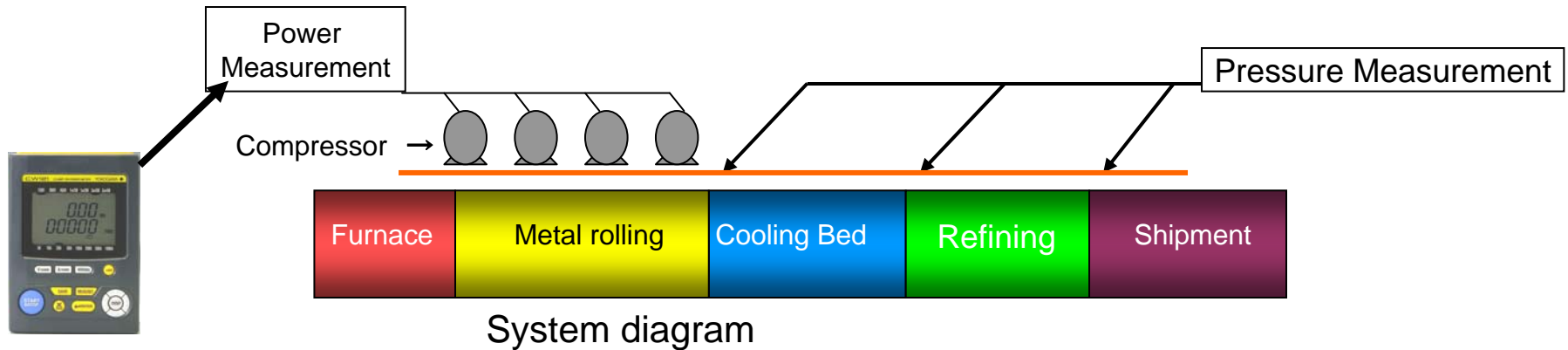


Intermittent control operation of compressor



Application # CW120-002

# Energy saving for steel products metal rolling



## **Purpose: Energy saving & Diagnosis on Pressure/air supply facility**

- 1. Check operating condition for metal rolling system's compressor**
- 2. Measurement of Pressure/Air facility**  
**Measure electric power & Pressure of compressor for 24 hours**
- 3. Energy saving for compressor**

# Evaluation for electric water heater (Heat pump)

Water Heater Manufacturer A  
Evaluation group



Inspection of efficiency  
• Measure short interval of power consumption, power factor and current

Set up

CW120

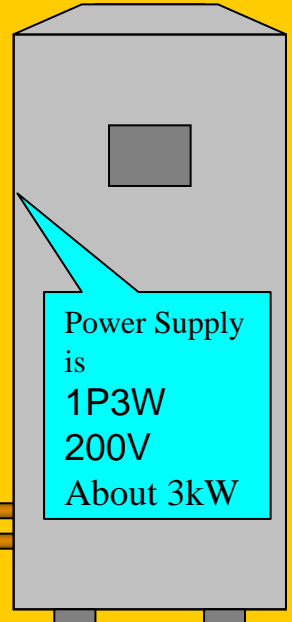


Data analysis by AP240E



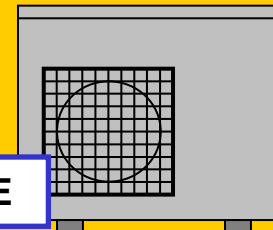
Performance evaluation

Hot water tank unit



Power Supply is  
1P3W  
200V  
About 3kW

Heat pump unit



Application # CW120-004

# Evaluation of electric home cooking equipment

Water Heater Manufacturer A  
Evaluation group



Set up

CW120



Field performance  
evaluation

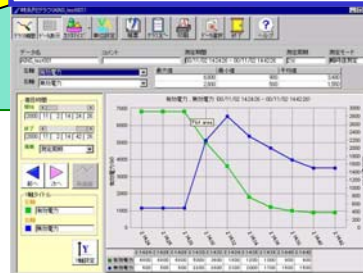
Very efficient  
compare to use of  
city gas



Inspection of cooking heater

- Measure short interval of power consumption, power factor and current

Data analysis by AP240E

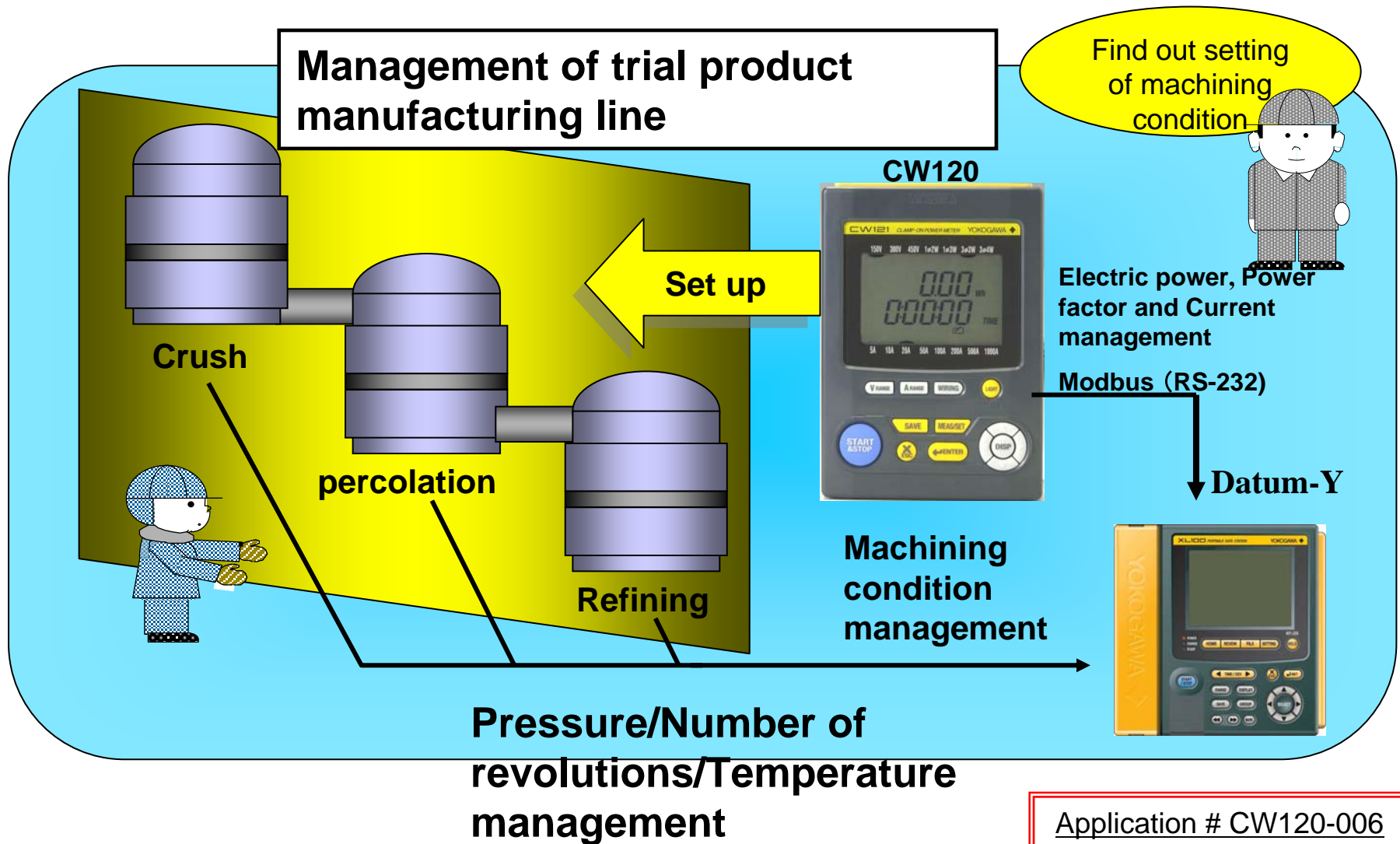


Power supply is 1P3W,  
200V and about 2kW

Application # CW120-005

# Food company - Sesame oil production plant

Customer's Benefit : No need to use PC. Datum-Y to save all valuable data!



# Field observation for Power Company

**Problem:** Orchid producers complain about consumption of electric power

**Benefit for Customer:**

- Remote monitoring of electric power at plastic greenhouse.
- Send measured data by FTP to reduce man power & number of patrol

Using CW120 for field observation

## Benefit of using CW120+Datum-Y

- No need to have PC at field
- Check display through web
- Remote monitoring
- Data transfer by FTP function

Electric Power

CW120



(Lighting)



(Ventilation)



MV100

Transfer measured result by FTP

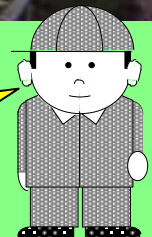


Mobile Phone



Datum-Y

Electricity expense is very high

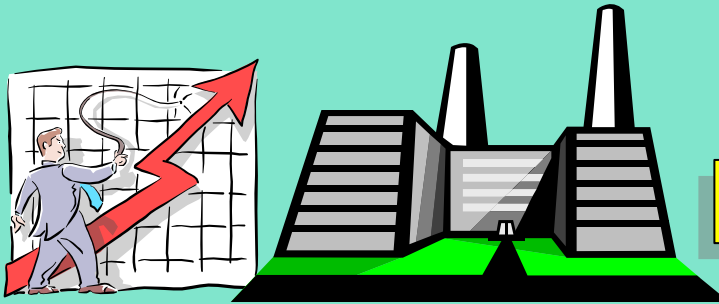


Application # CW120-007



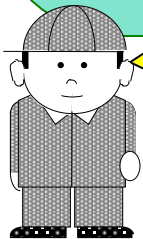
# Electric power investigation & management for Vinyl manufacturing line

Vinyl manufacturing Plant



Temporarily set up CW120 for electric energy measurement for energy saving.

To check the efficiency, need to measure plant & equipment.



Set up CW120



CW120

Manage electric energy consumption at vinyl manufacturing line

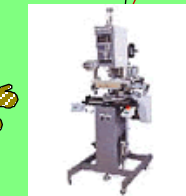


sequencer

\* : NC210 is RS-485/CC-LINK Converter

RS-485 : PC-LINK Communication

NC210



Facility No.1



No. 2



No. 6

Manage Production Cost  
• Calculate product basic unit

