

## Case Study

### Formosa Chemicals & Fibre Selects OneWireless to Reduce Costs and Improve Measurement



“Honeywell gave us insight into the energy savings applications that were possible with wireless technology for more accurate and reliable temperature measurement which in turn helped us save money, improve processes and increase safety.”

C.M. Jeng, Section Chief, Rayon Division, Formosa Chemicals & Fibre Corporation

#### Benefits

Formosa Chemicals and Fiber Corporation (FCFC) is one of Taiwan's major manufacturers of chemicals, fibers, petrochemicals and plastic materials. At one of its rayon plants in Yilan, Taiwan, the company wanted to overcome having to take manual temperature measurements on three of its rotary machines and fix the deviation in infrared sensors it was experiencing due to weather changes.

FCFC implemented Honeywell's OneWireless™ Starter Kit and XYR 6000 wireless temperature transmitters to help alleviate these issues and improve the collection of reliable data. FCFC also experienced several other benefits working with Honeywell including:

- More accurate and reliable temperature measurement after replacing infrared sensors
- Save time and money over costly hardwired cable and manual labor
- Improved process measurement with increased reliable data gathering
- Quick-start implementation provided fast return on investment

#### Background

Formosa Chemicals & Fiber Corporation (FCFC) was founded in 1965. At the time of its inception, Taiwan was in great shortage of natural fibers due to the lack of resources. In support of a rapidly developing textile industry, the company built an integrated fiber plant that made wood pulp for the production of rayon and engaged in textile processing.

After years of rapid expansion, the company now has several business divisions, including chemicals, petrochemicals, plastics, textiles, nylon, and engineering and construction.



Formosa implemented Honeywell's One Wireless solution for improved process measurement.

In recent years, FCFC has diversified into petrochemical and power generation businesses with plants in Changhua, Ilan, Dongshan, Chiayi Hsin Kang and Yunlin Mailiao, turning the company into a major manufacturer of chemicals, fibers, petrochemical and plastic materials in Taiwan.

#### Challenge

At the Formosa rayon plant in Taiwan, the company had to routinely dispatch its technicians to the field to manually record inner temperatures on three rotary machines which stored spinning solution inside. In addition, the plant also had installed additional infrared-ray sensors beside rotary machines to measure surface temperatures of these machines.

“Unfortunately we faced several obstacles that we needed to overcome at our plant and decided to investigate several options,” said C.M. Jeng, Section Chief, Rayon Division, Formosa Chemicals & Fibre Corporation. “Our plant data wasn’t reliable yet was still very costly due to the manual labor of collecting critical data and traditional hardwired transmitters.”

### Solution

At its rayon plant in Taiwan, FCFC decided to install Honeywell’s OneWireless Starter Kit along with an additional wireless transmitter to help alleviate challenges in obtaining reliable data in a safe, cost-effective manner. Honeywell’s OneWireless Starter Kit provided the company with an introduction to Honeywell’s industrial wireless solutions and opened the door for future plant and company adoption.

Honeywell’s OneWireless Starter Kit includes two of Honeywell’s XYR 6000 wireless transmitters, enabling automated monitoring in areas where hardwired transmitters are too costly, difficult or time consuming to implement. Additional sensors can be added to the transmitters in the kit, which includes devices for accurately monitoring gauge pressure, absolute pressure, differential pressure, temperature and corrosion. The XYR 6000 wireless transmitter line also includes an analog input interface for adding wireless capabilities to 4-20ma devices. The devices wirelessly transmit measurements to a gateway or to multiple communications nodes called multinodes.

“Honeywell’s OneWireless solution provided us with the success we needed to perhaps look at implementing a wireless solution at our other plants,” continued Jeng. “Our employees recognize the proven solution and the extreme talent provided by the local Honeywell engineers that helped us through this project.”

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### For More Information

To learn more about how Honeywell’s OneWireless solutions, visit our website [www.honeywellprocess.com](http://www.honeywellprocess.com) or contact your Honeywell account manager.

### Honeywell Process Solutions

Honeywell  
1250 West Sam Houston Parkway South  
Houston, TX 77042

Honeywell House, Arlington Business Park  
Bracknell, Berkshire, England RG12 1EB

Shanghai City Centre, 100 Junyi Road  
Shanghai, China 20051

[www.honeywellprocess.com](http://www.honeywellprocess.com)