

Application story

# Druck provides pressure monitoring solution for high-purity special gas cabinets



**Druck business**  
Configurable Modular Pressure Sensors



**Application**  
Monitoring pressure in high-purity special gas cabinets



**Customer type**  
Manufacturer of high-purity special gas cabinets for semiconductor plants



**Product/service**  
UNIK 1000 Configurable Modular Pressure Sensor



**Benefits**  
Excellent customisation capability

High accuracy, long-term stability and low cost.

Short lead-time

## Druck's Customer

Based in China, Druck's customer is a leading high-tech innovation company that specialises in the development and manufacture of high-purity special gas cabinets.

## Druck's Customer's Challenge

High-purity special gas cabinets are widely used in semiconductor production lines to provide precise pressure and flow control for high-purity protective gases. The pressure control accuracy required needs to be greater than 0.25% FS and the gas pressure range can vary from low levels-between 14.696psiG and ~ 1000psiG to high levels between 1000psiG and ~ 3000psiG.

The number of sensors installed in high-purity special gas cabinets can vary from 5 to 10 depending on the design of its gas control path. Due to the particularity of semiconductor processing technology, the sensor required needs to meet the high-purity specifications of the system with a purity better than 99.999% as well as being anti-corrosive and leak-proof with an integrated design.

To improve the sealing effect of the installation system, Druck's customer required the sensor to be completely de-greased, oil-free and equipped with a special VCR pressure connector which is commonly used in the semiconductor industry.



Picture 1: High-purity special gas cabinet

## Druck's Solution

The Druck team established a close partnership with the customer and introduced the UNIK 1000 Pressure Sensor. After extensive qualification and acceptance testing, the customer was very satisfied with the UNIK 1000 pressure sensor's high accuracy, long-term stability and low cost.

Druck developed special VCR pressure fittings that could withstand pressure of up to 6,000 psi in accordance with industry specifications. A cleaning regime was also developed for the manufacturing process of the sensors to ensure the oil-free requirements of the customer were met.



Picture 2: Druck's UNIK 1000 Configurable Modular Pressure Sensor

## Druck's Added Value

Druck's UNIK 1000 Pressure Transmitters are a derivative of the successful UNIK 5000 Configurable Modular Pressure Sensors. In this case a customised VCR pressure connector enabled the customer to accurately and conveniently monitor pressure in the gas pipeline, located in the high-purity special gas cabinet.

Additionally, Druck's UNIK 1000 Pressure Sensor could be used according to the customer's requirements for high purity conditions given that the degreasing and oil-free treatment had been applied during the manufacture of the sensors.

Localised production, short product lead-times, excellent customisation capability, together with strong in-country technical support helped the customer reduce their operating costs which allowed them to grow their business.

## For more information

To learn more about this product and Druck, please visit:

Online: <https://bit.ly/3dUCY84>

Linkedin: [linkedin.com/company/druckcompany](https://www.linkedin.com/company/druckcompany)