

Case study

## Shine Medical Technology

Duct and area radiation monitoring project



**897A-220 GM Detectors**



**1056WM-200 Universal Digital Ratemeter**

Victoreen Products supplied Shine Medical Technologies with multiple Radiation Duct Monitoring Systems that are composed of scintillation detectors (953-25TE), wall-mounted ratemeters (1042WM-200), and our mounting kits (943-7-KIT). This specific application was safety-related & was locally mounted to reduce installation costs for our customer. We also suggested a single shielded twisted pair for each application to communicate the radiation measurement (via SR 4-20mA signal) to SHINEs Plant Process Computer.

Our Duct Monitors are single-channel Geiger-Mueller (GM) Area Radiation Monitoring Systems that are capable of operating over the range of  $10^{-2}$  to  $10^3$  mR/h. The system monitors gamma radiation over a 5-decade range and provides an indication when the radiation level decreases below a failure threshold, exceeds a warn set point, exceeds a high set point, or exceeds an over-range set point. The Duct Monitoring System can be used with any size or shaped duct.

In addition to our Duct Monitoring project with Shine Medical Technologies, we also provided them with 50+ Area Radiation Monitoring Systems for their facility. The application consisted of our

customer carrying water through their pipes at around ( $\sim 100$  °C) that needed to be monitored to see if radioactive materials were to leak in the pipes. This project consisted of:

- 897A-220 GM Detectors
- 1056WM-200 Universal Digital Ratemeter
- Cabling

Our Area Monitoring Systems are single-channel monitors capable of operating over the ranges of  $10^{-2}$  to  $10^3$  mR/h,  $10^{-1}$  to  $10^4$  mR/h or  $10^0$  to  $10^5$  mR/h, depending on the detector selected. The system also monitors gamma radiation over a 5-decade range and is mainly used for the detection of x-ray or gamma radiation in a selected area.

When working with Shine Medical Technologies, Victoreen demonstrated how we work with a variety of facilities and customer applications in different industries while consistently delivering high-quality products that meet and exceed our customers' requirements.



## **Victoreen Instruments**

*We empower our everyday heroes  
to focus only on protecting lives.*

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