Hikvision’s innovative new thermal-imaging based skin surface temperature scanning system offers rapid reassurance for staff at this major Scottish manufacturing site.

In order to provide reassurance to its staff, SGL Carbon Fibers Ltd has become the first business in Scotland to take advantage of new skin surface temperature screening equipment from Hikvision, provided by Inverness-based IRN Security.

SGL Carbon is a global manufacturer of graphite and composite materials, with 29 production sites around the world. SGL’s Scottish site is at Muir of Ord, a village in the Scottish Highlands, not far from Inverness. Here the company produces carbon fibre components for a wide variety of industries, including wind power, medical technology, aerospace and more, and has a workforce in excess of 230.

Like businesses around the UK, SGL Carbon took steps to safeguard its staff when the UK Government announced its social distancing and lockdown measures in March 2020. It was just after these measures were implemented that Kenny Smith of IRN Security presented SGL with the opportunity to utilise a new, unobtrusive thermal imaging-based temperature screening solution from Hikvision.

Giving staff confidence

IRN Security specialises in delivering state of the art, cutting-edge technology and bespoke solutions to its clients, ranging from stand-alone systems to site wide, multi-site, and worldwide networks. IRN already had a relationship with SGL Carbon, having provided them with a CCTV-monitoring system based around Hikvision Darkfighter PTZ cameras in the past year.

“The system we installed for SGL uses the people tracking capability of Hikvision’s low-light Darkfighter cameras,” Smith explains. “They use in-built tracking software in the cameras to
identify if a person enters a defined area, and automatically zooms and follows them. It’s really beneficial because it allows the client to scale down their manned security requirements. Hikvision’s been critical in SGL’s CCTV and staff management over the past few years now.”

Hikvision’s Intelligent Auto tracking allows its pan, tilt, zoom cameras to track only necessary, targeted people or vehicles within a scene, ignoring other movements such as animals or general environmental causes such as wind gusts, rain or snow. At the outset of the lockdown order period, Smith was contacted by Hikvision’s David McCandlish, who wanted to demonstrate the company’s new temperature screening thermal camera products. These products are designed for the rapid preliminary screening of elevated skin-surface temperatures and allow for the non-invasive scanning of multiple people simultaneously.

“In practice this means the system can be set up to allow staff to walk past the cameras, and in less than a second the thermal lens, in conjunction with a conventional imaging lens, can measure skin temperature and create an alert if it detects anything outside of a pre-configured optimal range,” Smith says. “No one needs to stop, and an alert is created automatically if a high skin temperature is detected. I was impressed and passed the details on to some of my existing customers, including SGL. They placed an order immediately, and the system was installed and working by the lunchtime of the day the kit arrived in Inverness.”

Stephen Easton, Site Director for SGL Carbon Fibers Ltd told STV News: “We wanted to install it to give our staff a level of confidence that we are doing everything we possibly can, and it’s probably one of the few pro-active measures that a company can take to screen people before they even set foot on site.”

Instant readings

At the Muir of Ord site, the system uses a tripod-mounted bullet camera situated in the company’s reception area. Staff and visitors simply walk past the camera, and if it detects that someone has a fever or elevated temperature, they are asked to leave the site, where they can then have that temperature reading confirmed using clinical measurement devices.

“It’s a good clean set-up,” Smith says. “Temperatures are read instantly, so anyone who has a fever or a high temperature is turned away from site. It’s really useful for protecting on-site members of staff from any virus or condition which creates a fever and would have an impact on them. It’s about both protecting staff and reassuring them that the site is safe to work on.”

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System temperature measurement is accurate to ±0.5°C, and a further variation on the set-up can provide accuracy to within ±0.3°C. There is no need for any physical contact at any point, and because of the cameras’ advanced AI software engines, false alarms caused by heat from other sources are minimised.

Further utilisation

The Hikvision system is also available in a handheld version, which Smith says IRN Security has provided to SGL’s site in Halifax, West Yorkshire. SGL Carbon has shared this technology internally and is considering suitability of application in some of its other sites.

Smith says IRN Security has had a lot of additional interest in the temperature screening solution. “We’ve been having conversations with people from the NHS, and from other manufacturers, distillers and those in the travel industry, like airports and taxi firms,” he says. “Anywhere that there’s a high volume of people coming through, all of whom would like to be reassured of their safety in a given area.”