

## Industrial Temperature Control for Tyres

### Background



ICS was asked by a large high performance tyre manufacturer in the UK to provide a solution for their complex extrusion processes, where different - yet highly accurate - temperatures were needed throughout their varied tyre production activities.

### The Need

The organisation has many extruders on site which require separate temperature controlled zones for the barrel, screw, hopper and head sections.

Their extruding processes have been evolving over the years and with the type of rubber compounds they now use, the heat generated within some of the extruder zones can be very high and on occasions fluctuate extensively. They needed a unit with the muscle to control these more extreme conditions.

In addition to this need for precise temperature control they were also after a solution that was highly reliable with some redundancy built in, so production lines would not be impacted should a fault arise. Another key requirement was a system that was easy to use and consistent for their operators to manage.

### The Solution

On working with the customer and understanding both their current processes and how things are looking to evolve, Tricool Thermal provided a number of **P140 6kW** heating units (previously called Viceroy units). These units give them a wide range of temperature control for their extrusion processes - from **30°C** up to a maximum of **140°C**. They were also fitted with a slightly larger heat exchanger, specifically to address the needs for temperature control with the customers' newer rubber compounds.



*"Tricool Thermal pride ourselves on really working in long-term partnership with our customers, we offer a complete range of industry leading Thermoregulators as standard and can then, where needed, use our in-house capability to adapt these for more specific customer requirements".* Dave Palmer, Manufacturing Director, Tricool Thermal.

### Flexibility for the Customer

Depending on the particular rubber compound they are extruding, the temperatures can be adjusted locally, easily and quickly by the machine operators.

The units are very easy to set up and adjust and, due to their small size and consistent controls, the units are easily transferrable if a fault occurs on one of them.



Tricools New Range

As an example, if the water circulating pump or heating element fails, they have spare units available which only take about 30 minutes to install - thus limiting machine downtime and maintaining productivity within their manufacturing processes.

### Precise Temperature Control

Having the Tricool Thermal heaters has vastly improved the temperature control on the extruding processes they operate.

This enables them to have different, yet precise temperature zones through their process and produce consistent end products with minimal waste or defective parts.

## A Very Happy Customer

The customer use on site almost 50 of the P140 6kW heating units and have been using Tricool Thermal products for over 20 years at this site.

Ordering and delivery of the equipment over the years has been very easy and whenever they have had any queries or requested modifications to the heating units Tricool Thermal has ensured they have been carried out, and that any drawings or relevant information issued with the units is always up to date with any amendments.

*“Tricool have always assisted positively whenever I have asked for modifications or upgrades to equipment.”* Senior Maintenance Engineer, UK Tyre manufacturer.

## About Tricool Thermal

Tricool Thermal are proud to have been manufacturing precision process temperature control equipment in the UK for over 30 years - and we have built our reputation on this.

We are supported and controlled by our **ISO 9001** accreditation within our UK based design, engineering and production facility - to exacting CE standards.

We remain at the forefront of the industry in developing scalable, cost effective 'off the shelf' and bespoke cooling and heating solutions with an operating temperature range of **-80°C to 350°C**.

These industry leading solutions are pushing the boundaries of energy efficiency, flexibility, uptime and process productivity improvements – all contributing to enhanced ongoing operation and cost control for our customers.