KKontrol™

The Temperature Control Monitoring System

Rock 'n' Roll

- **Reduce rejected parts**
- **Optimise heating & cooling cycles**
- **Check mould temperatures in real time**
- **Affordable temperature measurement**
- **Identify faults**
- **Control & automate process**

K-Kontrol™ Rock 'n' Roll can continuously and simultaneously measure the real temperatures of a number of moulds on a number of machines in your factory, giving a map of production for the purposes of scheduling, diagnostics or R&D.

493K Ltd. has launched **K-Kontrol™ Rock 'n' Roll** bringing its dedication to improving mould temperature process control to Rock 'n' Roll machines. Easy to install with its wireless data link, it can be easily used to fully automated your machine. **K-Kontrol™ Rock 'n' Roll** allows the moulder to obtain consistent heating and cooling trends of the polymer and reduce the guess work; and it does this is real time, offering the moulder the opportunity to react immediately to faults or to observe the response of the mould to changes in processing variables.

Features	*K-Kontrol ™ Rock n' Roll*
Installation	*Self*
Temperature channels	*Four*
Warranty	*12 months*
K-Kord™ Software	*Records and monitors data*

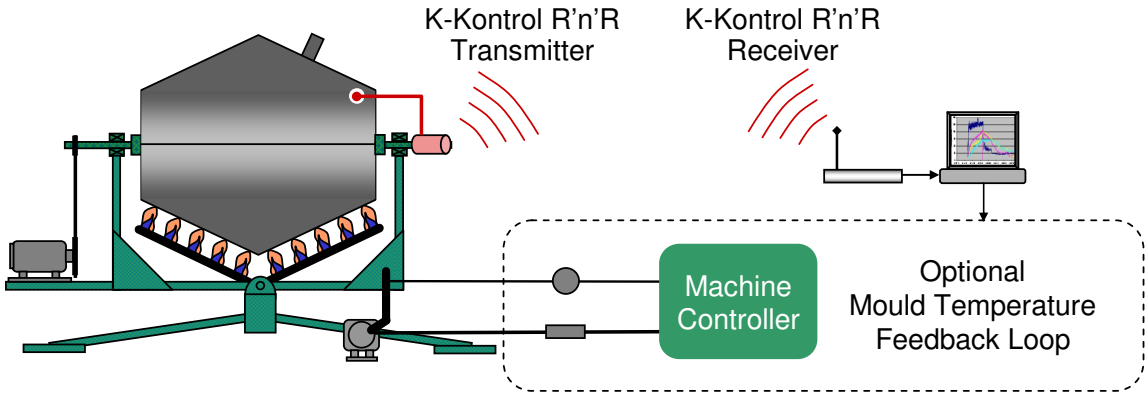
493K

Taking Control of Rotational Moulding

What is K-Kontrol?
K-Kontrol *Rock 'n' Roll* is a radio based system that continuously measures mould temperature, 24/7, on a rock 'n' roll machine. It is permanently fixed to the end of rolling shaft away form the heat of the oven and thus does not require cyclic maintenance. **K-Kontrol *Rock 'n' Roll*** measures the exact temperatures of up to 4 points on a mould; temperatures of up to four machines can be measured and recorded on one computer, giving an overview of the process for the purposes of production scheduling, diagnostics or R&D.

How is it installed?
K-Kontrol *Rock 'n' Roll* is easily self installed. Installation times vary and depending on the configuration and access to the end of the shaft can take as little as 4 hours. Once installed the radios are generally not moved from machine to machine as this can cause wear on the thermocouple cables that plug into them, especially if they are exposed to some of the oven's heat.

The radios are attached to the end of the shaft as shown in the diagram below. Thermocouple wire runs from the mould down through the centre of the shaft and exits at the end of the shaft where the radios are positioned. Radio telemetry is used to avoid wiring in and around the rotomoulding machine and to keep on-site installation time to a minimum. The telemetry is powered by batteries, which have a life of up to 4 months when operating under correct conditions.



Can K-Kontrol *Rock 'n' Roll* control our machine?
Yes, **K-Kontrol *Rock 'n' Roll*** can provide temperature information for the machine controls, via an RS232 Serial link. The machine will require programming to fully integrate **K-Kontrol *Rock 'n' Roll*** into the controls and this can be done in collaboration with the machine manufacturer or in-house engineers. If a full data integrated control system is not required then **K-Kontrol *Rock 'n' Roll*** temperatures can be viewed and recorded as normal via the supplied PC software. In this case process control can be achieved through manual interruption of the cycle based on the **K-Kontrol *Rock 'n' Roll*** temperatures.

Temperature Measurement.
K-Kontrol™ uses K-type thermocouples to measure the temperature. These types of thermocouples are robust and stable at typical rotomoulding temperatures. Their flexibility means that they can measure the mould temperature or the polymer temperature or indeed any point in and around the mould which is accessible to a wire. The thermocouples can be hardwired directly to the mould wall using stainless steel sheathed arrangements that have proven to be the most reliable under industrial conditions.

K-Kontrol™ Rock 'n' Roll – Radio Modules			
Mechanical Specification		**Technical Specification**	
Enclosure Nominal Dimensions:	160mm x 120mm x 90mm	**Measurement Temperature Range**	0C (32°F) to +350C (+572°F)
Enclosure Material	ABS plastic	**Accuracy:**	+/- 4.0C (7.20°F)
Protection Rating	IP65(protection against dust ingress and water jets)	**Resolution:**	0.5C (0.90°F)
Weight	1kg	**Operating Temperature Range**	0C (32°F) to +65C (+572°F)
		No. of Channels	4 Thermocouples

Distributor:

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