

Technical Project Note

LMK custom-make Heating Jackets for Concrete Shrinkage Tests

LMK Thermosafe Ltd manufacture a wide range of drum and container heating products used in process industries worldwide, including flexible heating jackets in a variety of sizes, materials, power levels and voltages.



Custom "Hi-Heat" LMK Flexible Heating Jacket on site at Durham

Durham University approached LMK Thermosafe Ltd regarding the possibility of manufacturing custom sized heating jackets to fit around concrete beam test samples. The full research project would be running for a number of years, so long term reliability, control, and repeatability were important for the success of the tests.

Dimensional information and associated power ratings were calculated for each proposed beam size, so that the materials used for insulation and construction matched the desired temperatures and operating conditions.

The project proved so successful that a UK University collaborating with Durham on another aspect of the program also purchased custom jackets for different tests on slabs of other sizes and shapes. Our flexible heating jackets are so versatile that they can be specifically tailored to fit virtually any container or area, with surface temperatures up to around 140°C. This bespoke service offers ideal solutions for customers requiring non-standard cylinders or cubes to be heated as rapidly as possible and efficiently insulated.

Outer surfaces of each jacket utilize tough, water resistant nylon materials, inner layers are manufactured using unique coated glass cloths for protection from chemicals and long term temperature durability. All heating jackets utilize high efficiency insulation to reduce heat-loss to a minimum, so we can also provide flexible unheated insulation covers where electrical power is not available.

However big or small the application, the development team based at our UK headquarters can adapt tried and tested designs to produce the best results. A standard range is available from stock to fit 25, 50, 100 or 200 litre drums as well as 1000 litre IBC containers and totes and most gas cylinder sizes.



For heating solutions in Zone 1 and 2 hazardous areas or "hose-down" applications requiring IP66 protection, we also make a number of ATEX/IECEx certified products.