

Knuckle Heaters

Technical Information



Introduction

Flexible knuckle heaters, often supplied as standard on European and American machinery, are the ideal solution for applications which call for high watt density, easy fitting and handling.

LPC engineers pride themselves on their ability to provide solutions for the most complex shaped dies and heating applications.

Ordering Procedure

Specify: Type, Width, Length, Diameter (if applicable), Watts, Volts, Holes & Cut-outs, Termination, Clamping & Mounting. Ideally please provide a sketch or photo with your enquiry.

Construction

The Miflex steel casing is formed with special overlapping serrations around circumferential edges to provide a ½ inch (12mm) flexible wall. A ceramic block element unit within the case is designed to accommodate the element spiral(s) in a series of parallel holes.

The blocks are arranged in an overlapping pattern, in a similar way to house bricks, and when threaded with the element(s) the arrangement forms a single flexible unit. A back insulation of calcium silicate, between the element assembly and the case, reduces the heat loss.

Watts densities of up to 45 watts per square inch are provided in both single and multi phase arrangements.

The standard clamping on Miflex heaters is a "quick release" roller bolt system, developed by LPC to provide substantial strength and easy fitting. Other types can be fitted on request. It is important that knuckle heaters are clamped tight and retightening of clamps is recommended after warm up.

Standard terminations are M6 stainless studs within the terminal box, but cables, plug fittings or ceramic block terminals can be fitted as required.

Product Details

Manufacturing Tolerances:

Resistance:	±7%
Wattage:	±7%
Voltage:	24V to 580V max
Inside Diameter:	N/A
Widths:	±0.025" (0.635mm) due to hole spacing

Loadings:

Bands/Plates:	45w/sq in 700°C
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Sizes:

Thickness:	Round heaters 12mm min
Diameter (ID):	100mm min 127cm max
Width:	20mm min 610mm max

Material:

Case:	Coated Mild/Stainless Steel (on request)
Insulation:	High Density Alumina Compound
Elements:	80/20 Nichrome

