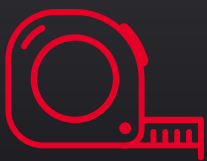


MICA HEATER BANDS

**ENGINEERED TO YOUR SPECIFICATION.
BUILT TO PERFORM.**

Mica Heater Bands are high performance electric heating elements designed to provide efficient and reliable heat transfer for a wide range of industrial applications.

- Rapid and even heat transfer
- Operating temperatures up to 300°C
- Robust aluminised steel construction
- Manufactured completely to customer specifications
- Suitable for extruders, injection moulding machines, blow moulding equipment and ancillary machinery



BESPOKE DESIGN

Every Heater Band is made to your exact requirements.



PRECISION MADE

Built in the UK using high quality materials and components.



TESTED & CHECKED

All Heater Bands are tested before dispatch for your peace of mind.



FAST & RELIABLE

Available with quick turnaround times and dependable delivery.

Our Mica Heater Bands are manufactured to your exact requirements. Every Heater Band undergoes a 4-step process in order to ensure it is the right solution for your application.

1



SURVEY/ANALYSIS

- Site visit by local sales representative
- Analysis of existing heaters
- Surveying existing machines
- Processing customer drawings/sketches



2



DESIGN & REVIEW

- Confirming heater specification
- Creating CAD drawing
- Calculating wattage
- Costing materials/labour
- Supplying price quotation

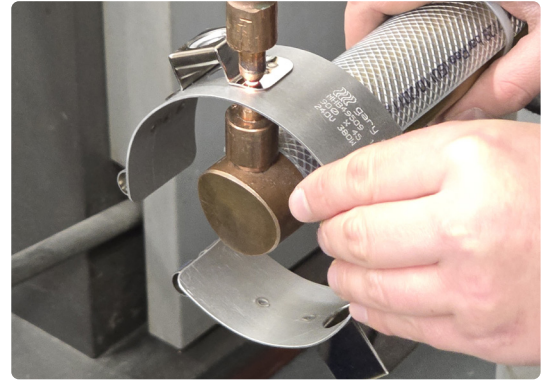


3



MANUFACTURE

- Built in our UK-based factory
- Assembled by experienced technicians
- High quality materials used
- Quality checked and electronically tested



4



DELIVERY

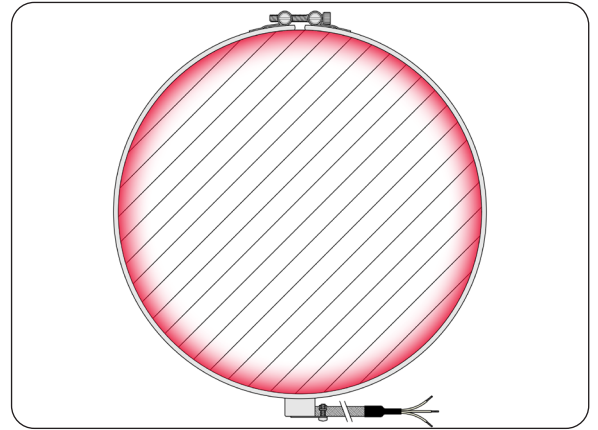
- Immediate despatch upon order fulfilment
- Faster delivery options available
- Full documentation supplied
- Repeat orders simplified through stored records



EXTERNAL BAND (STANDARD)

Designed to heat the outer surface of barrels.

- Fitted around the outside diameter of the barrel
- Heater surface located on inside of band
- Used where heating is required from outside the barrel
- Designed to maintain contact with the outer surface
- Clamping, termination, and bridges positioned on outside of band
- Manufactured to suit the required barrel specifications
- Available with various clamping methods (design dependent)



1 COMPLETE BAND (SINGLE PIECE)

Manufactured as a single continuous heater band, providing uniform heating around the complete outer circumference of the barrel. This is our most commonly manufactured external construction and is suitable for a wide range of standard barrel heating applications.

The single piece complete band is available in three different variants:

1a STANDARD



This is our most commonly manufactured external construction and is suitable for a wide range of standard barrel heating applications.

1b STANDARD + SHIELD



This external construction is manufactured for specific machine types and applications where a shielded heater band is required.

1c BANK

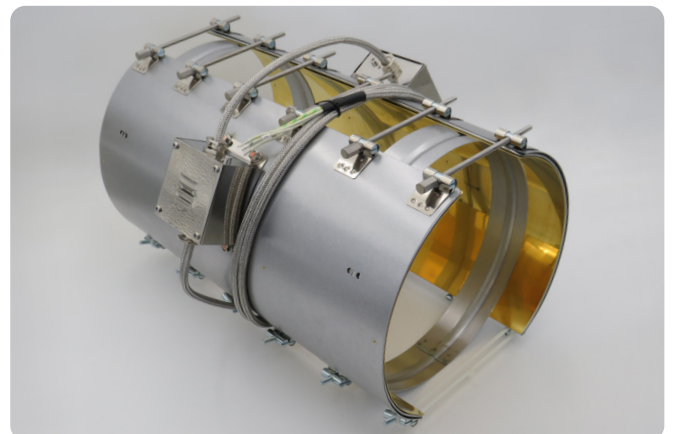


This external construction comprises of multiple narrow mica heater bands linked together using a steel linking bar to form a single heating assembly.

2 SEGMENTED BAND (SINGLE/MULTIPLE PIECE)

Segmented construction allows the heater to cover either a specific portion of the barrel or the complete circumference using multiple individual heater sections. This provides greater flexibility where a conventional single-piece band is unsuitable.

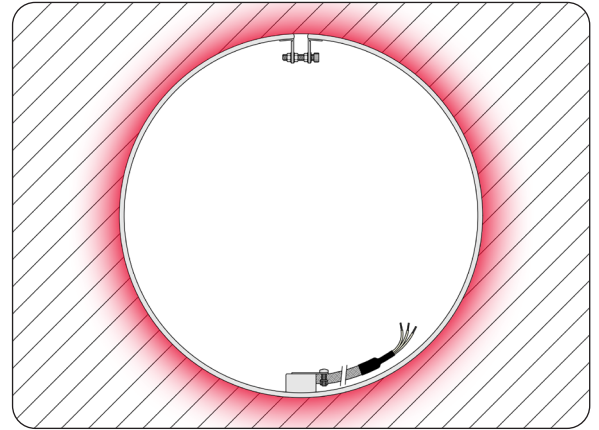
- Available as a single individual heater segment
- Single segments provide localised barrel heating
- Multiple segments can form a complete circumference
- Particularly suited to larger barrel diameters



INTERNAL BAND

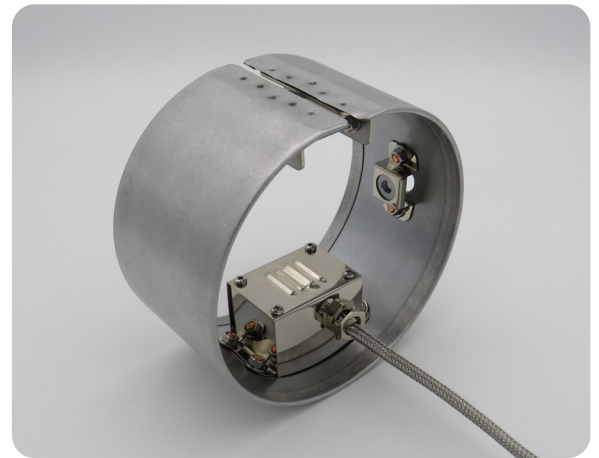
Designed to heat the inner surface of barrels.

- Fitted within the inside diameter of the barrel
- Heated surface located on outside of band
- Used where heating is required from within the barrel
- Designed to maintain contact with the internal surface
- Clamping, termination, and bridges positioned on inside of band
- Manufactured to suit the required barrel specifications
- Available with flange clamping as standard



1 COMPLETE BAND (SINGLE PIECE)

Manufactured as a single continuous heater band, providing uniform heating around the complete inner circumference of the barrel. This is our most commonly manufactured internal construction and is suitable for a wide range of standard barrel heating applications.



2 SEGMENTED BAND (MULTIPLE PIECE)

Segmented construction allows the heater to cover the complete inner barrel circumference using multiple individual heater sections. This provides greater flexibility where a conventional single-piece band is unsuitable.





Mica Heater Bands can be built with a range of terminations to suit your exact application requirements.

TERMINATION TYPES

We offer a wide range of unique termination styles, with our most popular options listed below.

2 PIN SOCKET

Standard ceramic insulated 2 pin bell casing. Available in radial, tangential, and axial configurations, depending on heater specification.



3 PIN SOCKET

Standard ceramic insulated 3 pin C22 casing. Available in radial, tangential, and axial configurations, depending on heater specification. (Retaining clip option also available).



TERMINAL BOX

Re-wirable terminals enclosed in a protective metal casing. Available in radial, tangential, and axial configurations, depending on heater specification. (Re-wirable leads also available).



INTEGRAL LEADS

High temperature insulated leads cut to any length. Available in radial, tangential, and axial configurations, depending on heater specification. (Pre-wired plugs also available).



POST TERMINALS

Exposed ceramic insulated M5 studs for securing ring terminals.



For detailed specification of all our integral leads, please see our [\[CABLES DATASHEET\]](#).
For detailed specification of all our plugs/sockets, please see our [\[PLUGS & SOCKETS DATASHEET\]](#).

Please note, termination type availability is dependant on the specification of the heater band. For detailed specification of all our terminations, please see our [\[TERMINATIONS DATASHEET\]](#).

TERMINATION ORIENTATIONS

Sockets, Terminal Boxes and Integral Leads can be supplied in Tangential, Radial or Axial configurations.

TANGENTIAL



Termination exits parallel to the circumference of the heater band.

RADIAL



Termination exits away from the centre of the heater band.

AXIAL



Termination exits perpendicular to the width of the heater band.



Mica Heater Bands can be built with a range of construction options to suit your exact application requirements.

CLAMPING OPTIONS

Options for securing the Mica Heater Band to the barrel.

STANDARD ROLLERBOLT

Our standard M6 Scroll Pin clamping configuration, ideal for complete single piece Mica Bands.



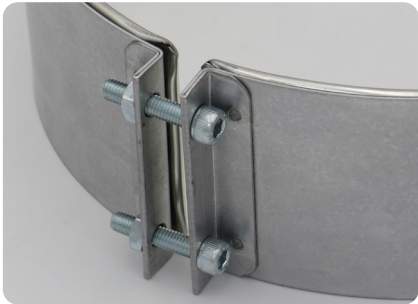
EXPANSION SPRING ROLLERBOLT

M6 Scroll Pins with expansion spring bolts, for greater fastening on larger barrels and segmented heaters.



FLANGE CLAMP

M5 bolts through a steel flanged plate, for barrels with low profile and restricted clearance access.



QUICK RELEASE CLAMP

Spring locking latch clamps, for Mica Bands that are frequently removed from their respective barrels.

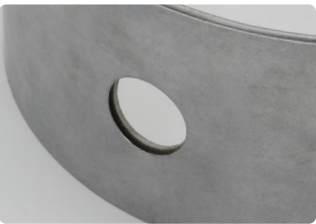


Please note, clamping type availability is dependant on the specification of the heater band.

MECHANICAL FEATURES

Additional features can be incorporated into the heater band to meet your specific requirements.

HOLES



Clearance holes for fixing bolts or machine fasteners.

CUT-OUTS



Cut-outs to clear machine features and accessories.

THREADED HOLES



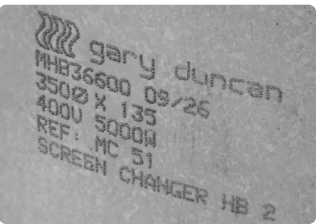
Mounting points for pressure sensors and thermocouples.

HOT WARNING SIGN



Ensures site personnel are not subject to burns/injury.

BESPOKE STAMPING



Add a unique part number onto the outer casing.

BRASS LINER



Inner brass lining for greater heat distribution.



Outer Shroud Material		Aluminised Steel
Inner Mica Material		Muscovite
Max. Operating Temperature		300°C (Standard Mica)
Voltage		[Customer Specified]
Wattage		[Customer specified]
Max. Watt Density		25W/in ²
Flash Test		1000V
Clamp Gap		8mm (approx.)
Clamp Type		[Customer Specified]
Rollerbolt/Flange Clamp Torque Limit		8.5Nm*
Overall Thickness		3.5mm – 4.0mm
Minimum Diameter*	Complete Band	40mm Ø
	Segmented Band	70mm Ø
Maximum Diameter*	Complete Band	550mm Ø
	Segmented Band	1200mm Ø
Minimum Length*		25mm
Maximum Length*		500mm
Termination		[Customer Specified]

*Sizes are dependant on other measurements.

**Please ensure clamp is re-tightened after initial energisation.

BUILT TO YOUR REQUIREMENTS

Every Mica Heater Band is manufactured to customer requirements. Dimensions, wattage, voltage, terminations, sensor locations and mechanical features can all be tailored to suit the application.

Please use the attached 'Design Enquiry Form' or contact our team today to discuss your requirements.



 01202 894814

 sales@garyduncan.co.uk

 www.garyduncan.co.uk

DESIGN REQUEST FORM (External Construction)

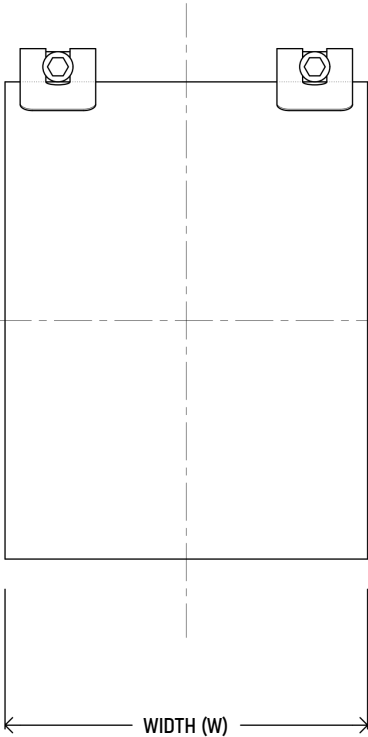
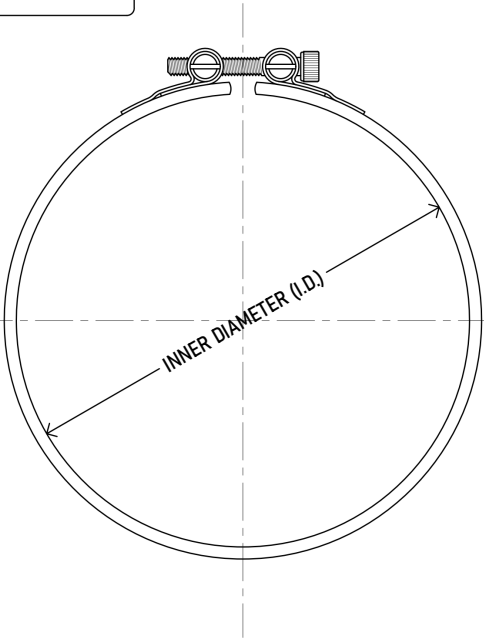
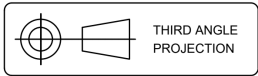


Use this guide to help us build your mica heater band. Please provide as much information as possible, in order to ensure we manufacture a heater band that fits your application perfectly.



MARK ALL REQUIRED POSITIONS

Use this drawing to indicate the location of terminations, cut-outs, holes and other features.



If possible, please send clear photos of your existing heater band, along with any nameplates or labels.

1 DIMENSIONS

- Inner Diameter (I.D.): _____ mm
- Width (W): _____ mm

2 ELECTRICAL PARAMETERS

- Voltage: _____ V
- Wattage: _____ W
- ☐ Single Phase
- ☐ Two Phase:
- ☐ Three Phase:
 - ☐ Star (λ)
 - ☐ Delta (Δ)

3 CONSTRUCTION OPTIONS

- ☐ Complete:
 - ☐ Standard
 - ☐ Standard + Shield
 - ☐ Bank
- ☐ Segment:
 - ☐ Single
 - ☐ Multiple

4 TERMINATION OPTIONS

(Select one)

- ☐ 2 Pin Socket:
 - ☐ Tangential
 - ☐ Radial
 - ☐ Axial
- ☐ 3 Pin Socket:
 - ☐ Tangential
 - ☐ Radial
 - ☐ Axial
- ☐ Terminal Box:
 - ☐ Tangential
 - ☐ Radial
 - ☐ Axial
- ☐ Integral Cable:
 - ☐ Tangential
 - ☐ Radial
 - ☐ Axial
- ☐ Other
(Please Specify): _____

5 CABLE CONFIGURATION

- Cable Length: _____ mm
- ☐ Glass Fibre Sleeved Cable
- ☐ Metal Braided Sleeved Cable
- ☐ Silicone Sleeved Cable

6 MECHANICAL FEATURES

(Select all that apply)

- ☐ Brass Liner
- ☐ Hole(s)
- ☐ Cut-Out(s)
- ☐ Threaded Holes(s) [Bridge]
- ☐ Hot Warning Sign
- ☐ Personalised Stamping
(Please Specify): _____

ADDITIONAL REQUIREMENTS

DESIGN REQUEST FORM (Internal Construction)

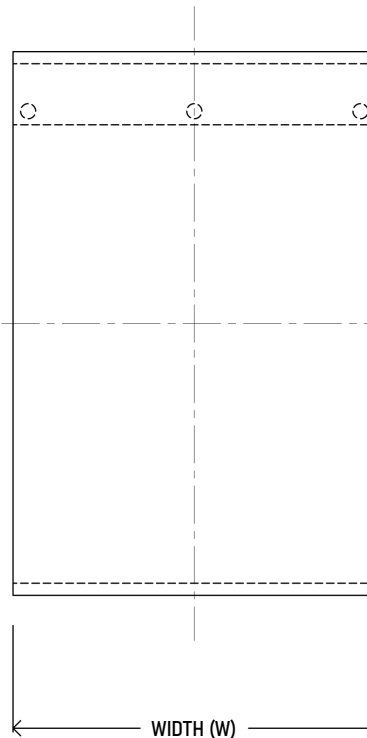
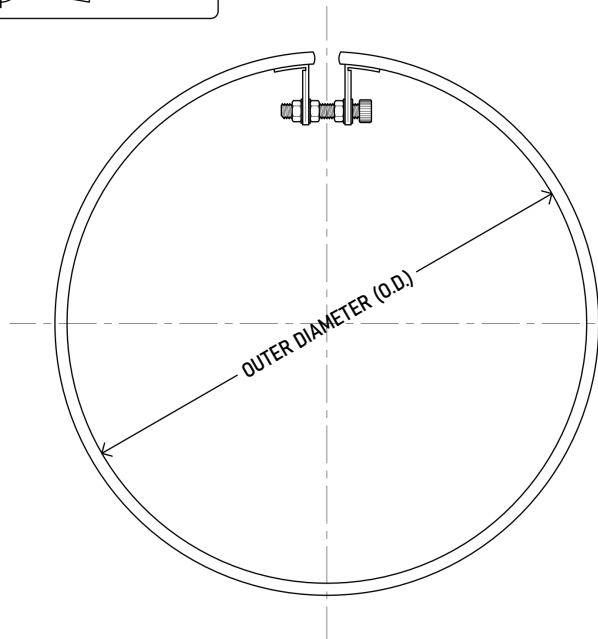
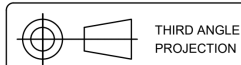


Use this guide to help us build your mica heater band. Please provide as much information as possible, in order to ensure we manufacture a heater band that fits your application perfectly.



MARK ALL REQUIRED POSITIONS

Use this drawing to indicate the location of terminations, cut-outs, holes and other features.



If possible, please send clear photos of your existing heater band, along with any nameplates or labels.

1 DIMENSIONS

- Outer Diameter (O.D.): _____ mm
- Width (W): _____ mm

2 ELECTRICAL PARAMETERS

- Voltage: _____ V
- Wattage: _____ W
- ☐ Single Phase
- ☐ Two Phase:
- ☐ Three Phase:
 - ☐ Star (λ)
 - ☐ Delta (Δ)

3 CONSTRUCTION OPTIONS

- ☐ Complete:
 - ☐ Standard
- ☐ Segment:
 - ☐ Multiple

4 TERMINATION OPTIONS

(Select one)

- | | |
|---|---|
| ☐ 2 Pin Socket: <ul style="list-style-type: none">☐ Tangential☐ Radial☐ Axial | ☐ 3 Pin Socket: <ul style="list-style-type: none">☐ Tangential☐ Radial☐ Axial |
| ☐ Terminal Box: <ul style="list-style-type: none">☐ Tangential☐ Radial☐ Axial | ☐ Integral Cable: <ul style="list-style-type: none">☐ Tangential☐ Radial☐ Axial |
| ☐ Other
(Please Specify): _____ | |

5 CABLE CONFIGURATION

- Cable Length: _____ mm
- ☐ Glass Fibre Sleeved Cable
- ☐ Metal Braided Sleeved Cable
- ☐ Silicone Sleeved Cable

6 MECHANICAL FEATURES

(Select all that apply)

- ☐ Brass Liner
- ☐ Hole(s)
- ☐ Cut-Out(s)
- ☐ Threaded Holes(s) [Bridge]
- ☐ Hot Warning Sign
- ☐ Personalised Stamping
(Please Specify): _____

ADDITIONAL REQUIREMENTS
