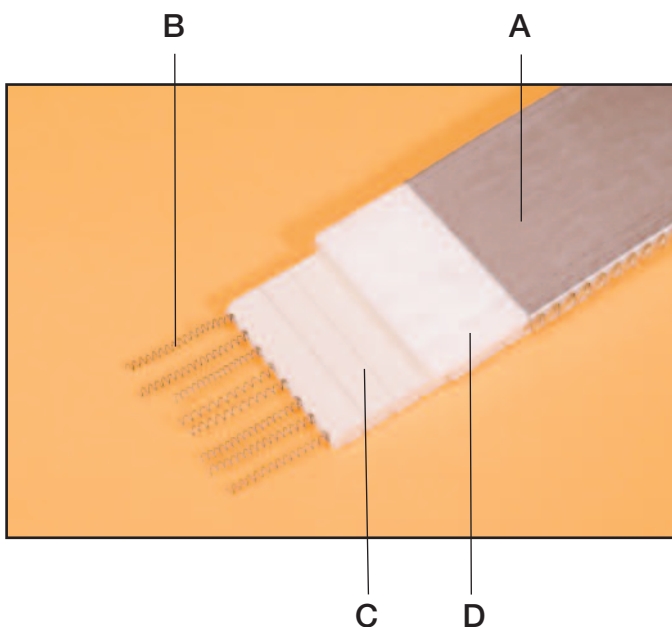


Ceramic insulated band heaters



MODEL Z.41 (CERAMIC)

Model Z.41 ceramic



- (A) External stainless steel sheet
- (B) Resistive winding
- (C) High purity ceramic insulation
- (D) Ceramic fibre insulation

Technical features

Use

- Plasticization cylinders for injection molding machines or extruders
- Mica band heaters are the ideal solution for heating cylindrical surfaces in many other applications

Advantages of the ceramic band heaters

- Excellent heat exchange to the cylinder
- Heating uniformity
- Long life of the heater (when properly used)
- Easy to install
- High mechanical resistance
- Constant quality with time
- It is very important underlining that for this heater, heat exchange takes place both for conduction and radiation.
- Energy saving is an important characteristic because the ceramic fibre layer, placed between the ceramic and the external casing, reduces of about 20% energy consumption, if compared to a normal mica band heater.

Diameters

- Starting from 70mm, for heaters whose diameter is over 500mm is recommendable to manufacture them in two or more different sector with separate feedings

Widths

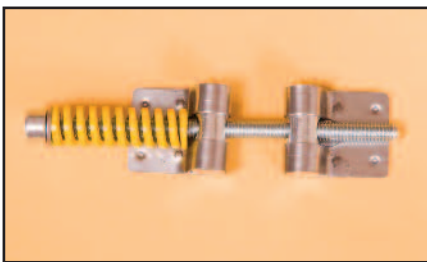
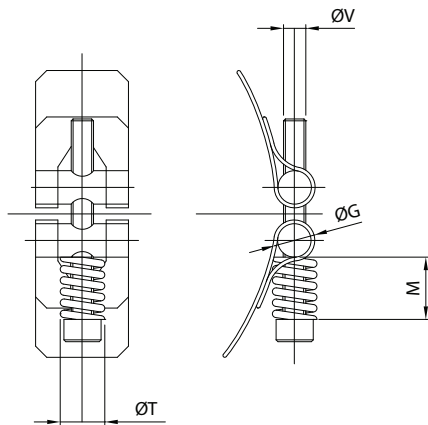
- In this case, widths are determined by the distance between the holes inside the ceramic blocks and, therefore, we have worked out the table at pag. 3 with the standard widths in mm.

Technical features

- Specific wattage up to 8 W/cm²
- Working temperature up to 420 °C
- External stainless steel sheet, resistant to high temperatures (A)
- Nickel-Chrome 80/20 resistive winding (B)
- High purity ceramic insulation (C)
- Ceramic fibre insulation (D)
- Heater's standard thickness 12 +/- 1mm
- Fibreglass insulated feeding cable with pure Ni or CuNi conductor externally protected by a metal braiding (built in earth wire) – working temperature 320°C , with peak 350°C.
- Options:
Pure Ni or CuNi conductors with silicon sleeve -max working (Temperature 180°C, peak 200°)

Over 300 mm diameter clamping screw with spring TCE M6 L100

CLAMP TYPE	Ø V	Ø G	Ø T	M	L
TCE M6 L100	M6	12	12	40	100



Technical features

Feasible electric connections

- All monophasic voltages
- From 53mm width up to 121mm , it is possible to apply a star (Y) three phase feeding
- Over 121mm width it is possible to apply a star (Y) or delta (Δ) three phase feeding

Testing

- A sophisticated testing equipment (TPC 2000) allows us to guarantee the entire product, because all heaters are hot tested , applying their actual working voltage
- TPC 2000 is complete with a printer certifying testing results
- Testing certificate for each single heater, upon request

Standard measurements

- Ohmic Value
- Dielectric strength
- Current loss
- Insulation resistance
- Earth wire efficiency

For further information please contact our technical dep.

We reserve the right to change technical details.

Standard width

Width (mm)										
20	65	112	157	202	247	292	337	382	427	472
28	73	120	165	210	255	300	345	390	435	480
35	80	127	172	217	262	307	352	397	442	487
43	88	135	180	225	270	315	360	405	450	495
50	95	142	187	232	277	322	367	412	457	502
58	105	150	195	240	285	330	375	420	465	510

How to order

Model Z.41

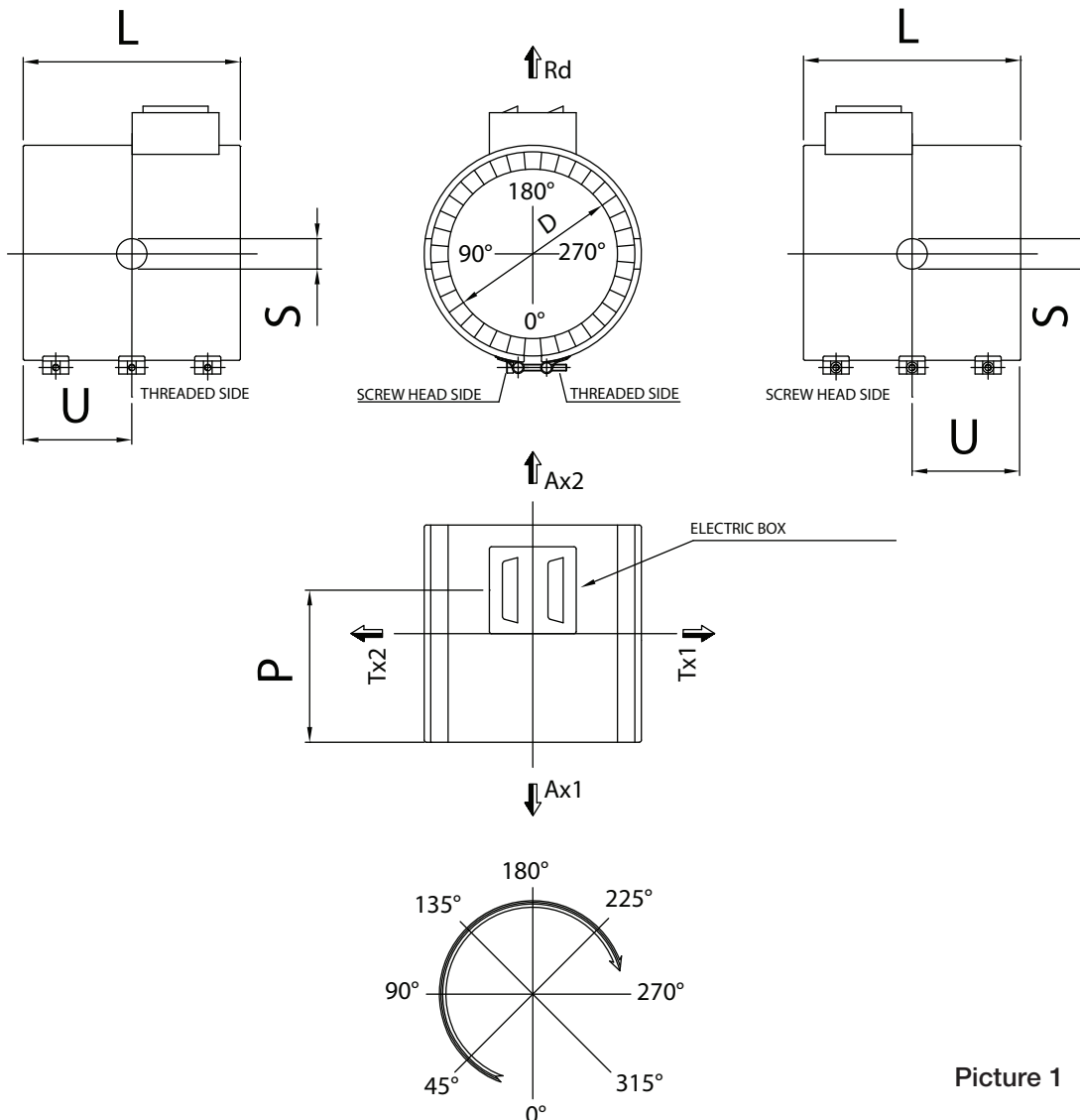
- Application:
- + Diameter D (mm):
- + Width L (mm):
- + Feeding voltage (V):
- + Wattage (W):

Exit Box:

- + Type: (see brochure connections link):.....
- + Position from the edge (P):
- + Position as per pic. 1 (degrees):
- + Cable direction: axial (AX 1-2) - tangential (TX 1-2) - radial:
- + Cable length (mm):

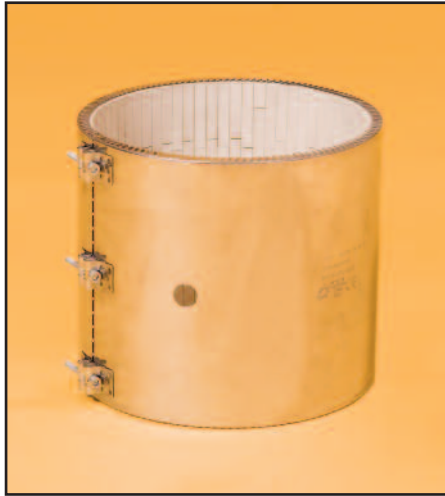
Thermocouple Holes and slot:

- + N° holes and slot:
- + Position as per pic. 1 (degrees):
- + Holes/slot Axis from the edge (U):
- + Holes' diameter (mm):
- + Any threaded connector (see pag 6):
- + Slot diameter (mm):
- + Any insulation covering:.....



Picture 1

Holes or slots



From width 30mm is possible to supply heaters with external thermocouple holes or slots.
It's also possible to provide a threaded connector as showed in the picture

Standard threaded connector



M8 x 1,25 (8MA)	M10 x 1,5 (10MA)	M10 x 1 (10MB)	M12 x 1,75 (12MA)	M12 x 1,5 (12MB)	M12 x 1 (12MC)
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1/8" GAS	1/4" GAS	3/8" GAS
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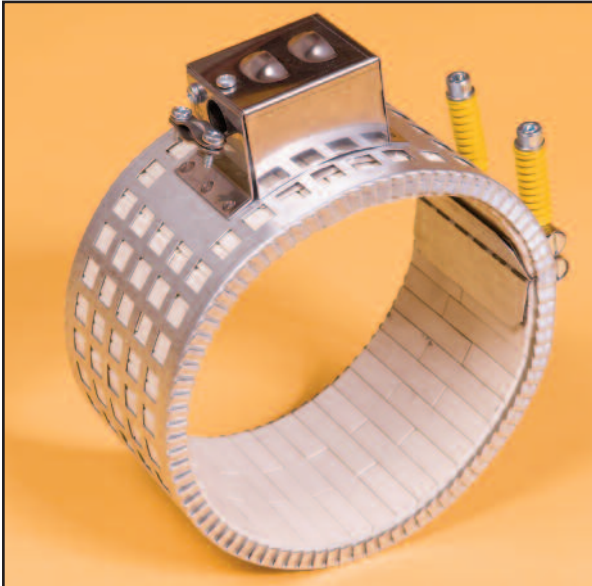
Special execution



Modello Z.42
execution with single insulation covering

Modello Z.43
execution with double insulation covering, inside insulated and outside with perforated sheet

Special execution



Heater bands model Z.41 with external perforated sheet for heat dispersion by forced ventilation



Heater bands model Z.41 with ceramic insulation with external perforated sheet. Finned dissipators (made of Al 20/10) and covering with coupling flange for blowers



Connections

Please check all our connection option at the following link

Installation and storage instruction

Installation

- The particular flexible structure of this heater facilitates remarkably its application on the cylinder.

As a matter of fact, it is possible to enlarge the band far beyond its internal diameter, in order to tighten it on the cylinder with the suitable hexagonal cylindrical head screws. When installing the ceramic band heater, please make sure to hold it tightly screwing up the apposite bolts (with exagonal head). When reached the working temperature or after 30 min. heating screw it up still further. Do the same after few hours in order to compensate the thermal linear expansion of the heater.

Not doing the operation described above may cause the over heating of the parts of the heater that are not perfectly in contact with the nozzle pointed out by a colour change purple - black and consequently the resistive filament may burn.

It is very important to follow these advices in order to have a longer lifetime of the heater



Connections

- Protect connections against the ingress of liquids and gases to avoid short circuits
- Install the connections away from sharp edges or parts since this may also cause short circuits
- Protect connection leads against the effects of temperature and lay them in a proper way
- Pay attention to the connection voltage

Storage

- Store at room temperature in a dry place.

Operation

- Security procedures for the handling of electrical items and applications must be followed
- Do not touch ceramic heater bands while in use because they can get very hot
- Please make sure that the heating elements can not touch flammable material while in use

General information

- If our ceramic bands heater are delivered with feeding cables without insulation (naked connection) or with removable insulation (covered with gls-sleeving) the customer himself has to take care about the protection against electricity.

Temperature controllers

- Temperature controllers have to match the power consumption and the used temperature sensor.
- Only install temperature controllers with automatic soft start function so that any moisture which may have entered the heating element will escape slowly