HOTCAST® Die-Casting Nozzle Heater
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Technical Data

- Heated machine nozzle with integrated hotspring maxi coiled heater
- Completely sealed system
- Power distribution for equal heat distribution
- Deep immersion into the cavity, extra long
- Small outer diameter
- Long lifespan
- High energy savings in comparison to gas heating

Technical Key Features

- Heating element hotspring Maxi
- Max. heating element temperature 750 °C / 1380 °F
- Max. connection area temperature 260 °C / 500 °F
- Voltage 230 V standard
- Wattage tolerance* ± 10 %
- High voltage test* 1250 V AC
- Insulation resistance* ≥ 5 MΩ at 500 V DC
- Leakage current* ≤ 0.5 mA at 253 V AC
- Standard connection lead glass silk insulated, nickel, multistranded, with ground wire and stainless steel sleeving, L = 1500 mm / 59 inch
- Thermocouple integrated, Type K (NiCr-Ni)

*tested at environmental temperature

Options

- Insulation tube for energy saving
- Surface treatment of the flow path for flow velocity > 50 m/s / 164 ft/s
- Various connection types available (moisture protection required)
- Nozzle tip heated/unheated
- Easy removal nut
<table>
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<tr>
<th>Stock ID</th>
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<th>Outer Ø [mm]</th>
<th>Length [mm]</th>
<th>Heated length [mm]</th>
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HOTCAST® Die-Casting Nozzle Heater

Technical data

- Sheathed, flat hotspring maxi coiled heater for nozzles
- Replaces traditional block or propane heat
- Power distribution for even temperature control
- Tight fit clamping band with end rings prevents penetration of material from overmoulding
- Long lifespan

Technical Key Features
- Heating element hotspring Maxi
- Max. heating element temperature 750 °C / 1380 °F
- Max. connection area temperature 260 °C / 500 °F
- Voltage 230 V standard
- Wattage Tolerance* ± 10 %
- High voltage test* 1250 V AC
- Insulation Resistance* ≥ 5 MΩ at 500 V DC
- Leakage Current* ≤ 0.5 mA at 253 V AC
- Standard connection leads PTFE insulated, CU nickel, multistranded, with ground wire and stainless steel sleeving L = 1500 mm / 59 inch
- Thermocouple integrated, Type J (Fe-CuNi)
  *tested at environmental temperature

Options
- Various connection types available
  (moisture protection required)

*tested at environmental temperature
Heated Nozzle Tip (BMV)

- Balances the temperature drop from the heater body to the nozzle tip
- Higher temperature in the flow path

Easy Removal Nuts

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Insulation Tube

- Reduces heat radiation of GMH Sealed Nozzle Heater by almost 60%
- Shorter heat up time
- Optimized flow and temperature distribution
- Outer diameter of the heater increases by about 11 mm / 0.43 inch

Application Notes:
- Insulation of the nozzle body covers the entire heated length of the GMH, not in sections.
Sprue Nozzle HOTCAST

- Improves cycle time and part quality
- Reduces porosity and eliminates costly sprue cone
- Decreases tool costs
- Traditional cold plug designs can be replaced by the hotcast sprue nozzle
- Improved mold design options
- Reduced scrap after electro-plating process
- Continuous heating from goose neck to the mold
- Integrates into 50 t, 80 t and 125 t die-casting machines

Advantages
- Up to 40% reduced cycle time
- Up to 30% less shot weight
- Up to 7% more part weight due to higher microstructure density

Profit from our long time experience to fit your needs.

Options
- Compatible hotcast Sealed Heater (GMH)
- Hotrod die-casting cartridge heaters (HHP/G)
- Temperature control unit hotcontrol C448
- Hotcast Set sprue nozzle + control unit
- Hotcast Set sprue nozzle, GMH, HHP/G, control unit

Technical key features
- Standard connection voltage 230 V
- Temperature sensor type K (NiCr-Ni), internal
- Max temp. insulation ring 800 °C / 1470 °F (short term) 500 °C / 930 °F (long term)
- Pressure resistance
- Insulation ring 330 N/mm²
- Heater hotspring classic, brass
- Insulation resistance* ≥ 5 MΩ at 500 V DC
- High voltage test* min. 800 V AC
- Leakage current* ≤ 0.5 mA at 253 V AC
- Connection lead PTFE insulated, CU nickel with stainless steel sleeving,
- Max. lead temperature 260 °C / 500 °F

*tested at environmental temperature

Performance Range

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<th>Machine pressure</th>
<th>ZD 50/80</th>
<th>ZD 125</th>
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<td>Power</td>
<td>1000 W ± 10%</td>
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<td>Connection lead length</td>
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<td>3000 mm</td>
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<td>ZD 50/80 with insulation ring and hotcontrol C448</td>
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<td>ZD 125 with insulation ring</td>
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<td>5660001R</td>
<td>ZD 125 with insulation ring and hotcontrol C448</td>
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Application examples for the use of hotspring® Coil Heaters

Remarks
- Observe minimum inner bending radius: 4 mm / 0.16 inch.
- Do not bend the unheated areas back and forth.
- Do not bend the heater within 5 mm from the connection head.
- The connection head of the hotspring must not be used as a handle / lever.