hotcast Sprue Nozzle

ZD 50/80 and ZD 125 for zinc die-casting application

- 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
- Continous 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

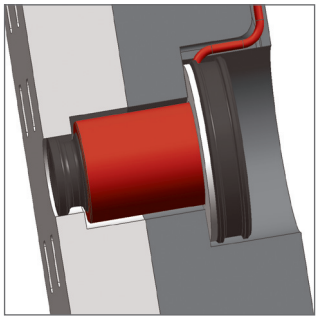
Nozzle with insulation ring

Classic and optimized sprue

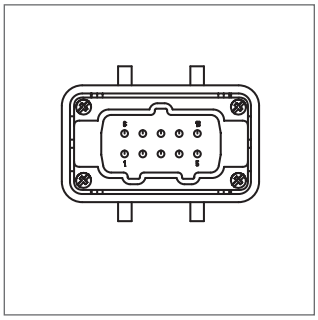
Technical key features

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 MOhm 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



Mounted nozzle



Pin configuration

1: Sensor - 2: Sensor +
3: Heater L 4: Heater N

Performance Range

	ZD 50/80	ZD 125
Machine pressure	50 / 80 t	125 t
Power	1000 W ±10%	1250 W ± 10%
Connection lead length	1500 mm	3000 mm

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

Stock Range

Stock-ID	Description
5660000	ZD 50/80 with insulation ring
5660000R	ZD 50/80 with insulation ring and hotcontrol c448*
5660001	ZD 125 with insulation ring
5660001R	ZD 125 with insulation ring and hotcontrol c448*

* Thermocouple input suitable for type K

hotset

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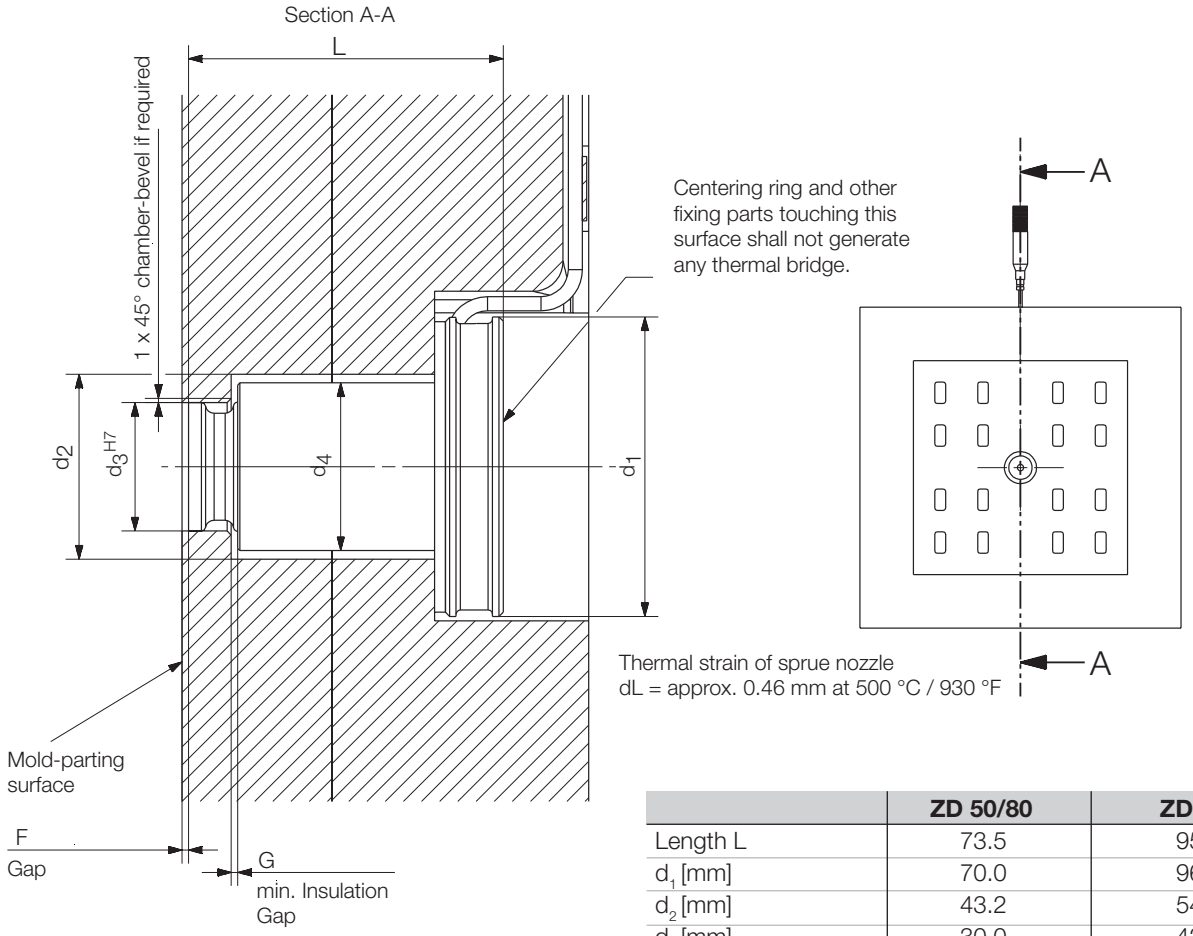
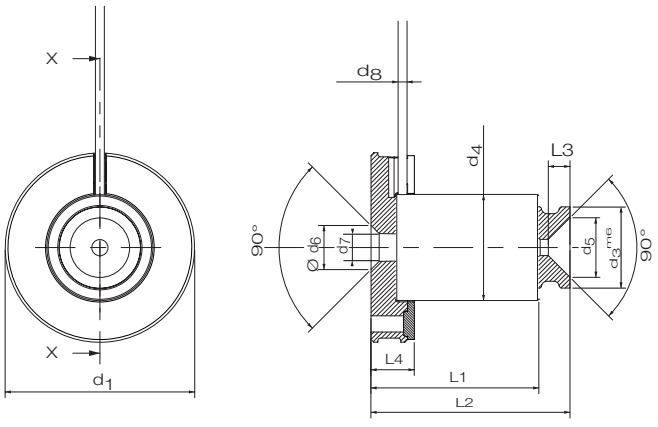


Remarks

- 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

	ZD 50/80	ZD 125
Length L	73.5	95.0
d_1 [mm]	70.0	96.0
d_2 [mm]	43.2	54.0
d_3 [mm]	30.0	42.0
d_4 [mm]	39.2	52.0
F	0.7 to 1.5	1.5 to 2.0
G	0.7 to 1.5	1.5 to 2.0

Installation instruction



	ZD 50/80	ZD 125
L1	62.0	78.5
L2	73.5	95.0
L3	8.0	12.5
L4	16.0	18.0
d_1	70.0	96.0
d_3	30.0	42.0
d_4	39.2	52.0
d_5	22.0	34.4
d_6	16.3	24.4
d_7	10.3	15.4
d_8	3.3	3.3

General tolerance due to ISO 2768-m

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