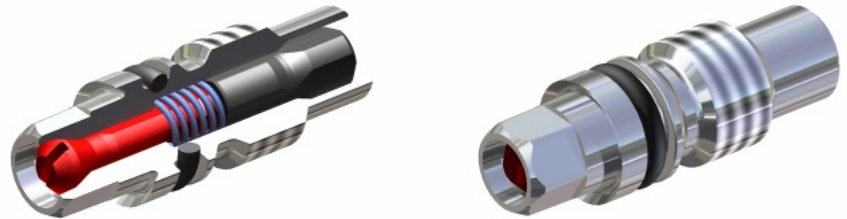


## Mold-Injectors for Gas Assisted Injection Molding (GAIM)

Type GKR for back-gassing through the injector

Type GK without back-gassing



### Applications:

In the mold, directly at the cavity

### Characteristics:

- Conical sealing injector based on the non-return / check valve principle
- With or without back-gassing
- Gassing with maximum flow rate

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**Process:**

- Short shot
- Full shot
- Gas cooling / Gas rinsing

**Advantages:**

- Cycle time reduction
- Contact force reduction
- Flexible installation
- Rigidity
- Light weight
- Low distortion
- Good surface quality
- No sunken areas



### Technical description

**Gas injection technology**

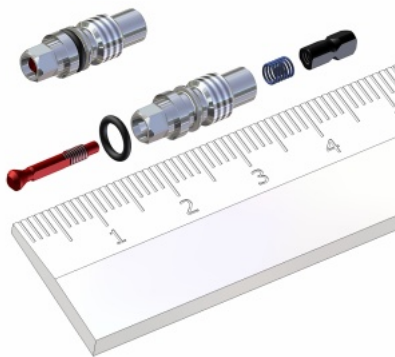
With gas injection technology, gas is injected into the plastic melt at the end of the injecting process. The injected gas displaces the melt on the inside thus resulting in a cavity being formed.

- **Short shot**, cavity is partially filled with plastic melt. The plastic melt is pressed against the mold wall with the injected fluid.
- **Full shot**, entire cavity is filled with plastic melt. The injected fluid forces the melt into an adjoining cavity.
- **Full shot back pressure procedure**, entire cavity is filled with plastic melt. The injected fluid forces the melt through the sprue bushing back into cylinder vestibule.

### The GIT mold injector

Gas injectors are installed directly into the mold. One or more injectors are assembled into the mold, depending of the size and geometry of the molded part as well as the fluidity of the melt.

With an installation either parallel or diagonal to the form direction, the mold injector must be used with an extraction mechanism.



### Arguments for Herzog injectors

- Small dimensions
- Back-gassing (gas pressure release) with type GKR
- Ensures high process stability
- Self cleaning function
- Low maintenance
- Assembly / disassembly at the mold interface level

### Design and function of the injector

The regulated gas, usually nitrogen, is fed through drillings in the mold to the injector and through this into the molded part. The back-gassing or gas pressure release goes through the same injector (type GKR) back into the supply.

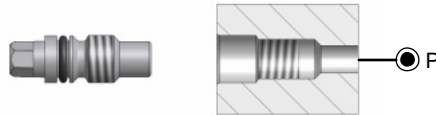
The gassing of the cavity is only possible when the gas injection pressure is higher than the opposing pressure in the cavity. The gas injection pressure moves the pin which opens the injector completely, allowing for high volumes to be achieved. The back-gassing goes through cross-shaped surfaces on the sealing area of the pin. The gap is large enough to allow the gas to flow through, but small enough to prevent the melt from seeping in.

Maintenance of the injector can be carried out simply and quickly when the mold is open.

## Installation variation

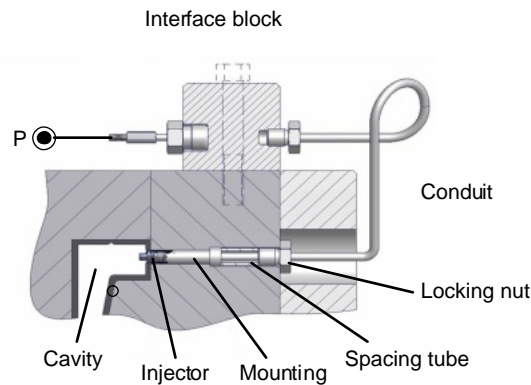
### Installed directly in the mold

The injector opening is directly in the mold.  
Gassing occurs by means of drill holes in the mold plate.

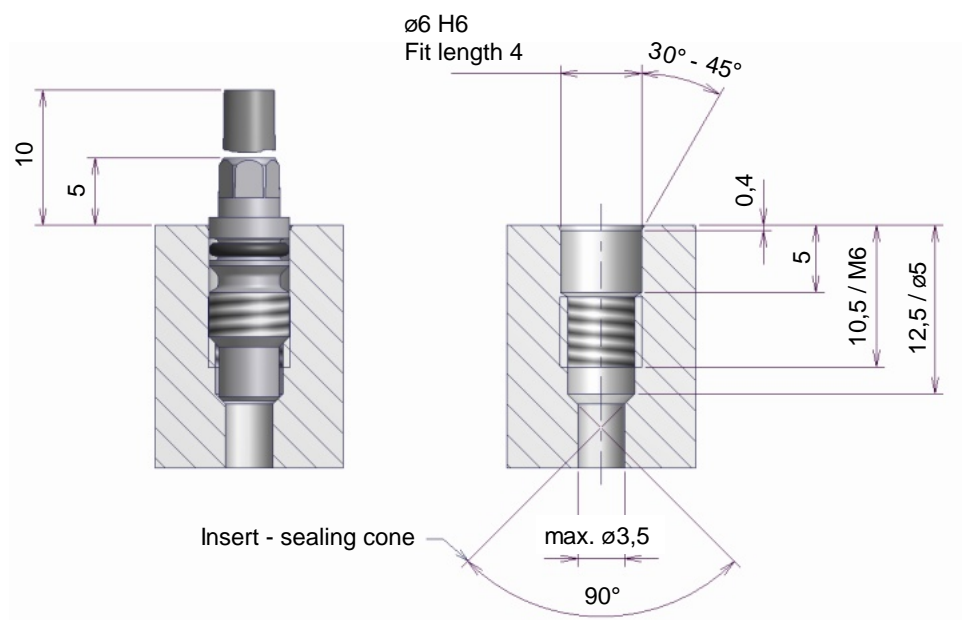


### Using a mounting and conduiting

The injector opening is in a mounting which is allowed into the mold.  
A conduit runs from the injector mounting through the mold to the interface block.



## Injector drilling dimensions



## GK &amp; GKR service set user instructions

## Torque wrench adjusting

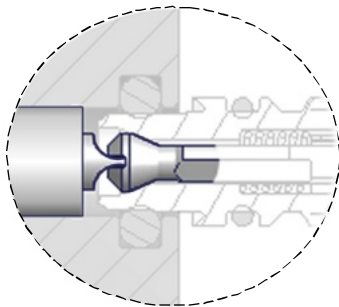


## Install / uninstall injector in the cavity

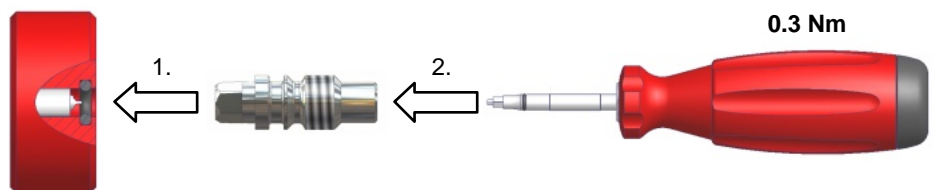
Clockwise = tighten  
Anticlockwise = loosen



## Assembly / disassembly



**Attention!**  
Counter tool must be fully inserted into the pin slit.  
Heat the injector to approx. 80°C to make loosening easier.



## Screw retention (glueing)



Apply only little glue to thread!

1. Clean and degrease pin and thread
2. Apply only little glue (using a toothpick) to insert thread
3. Assembly injector. Excess glue collects inside the insert. **Attention!** Glue must not run into the injector
4. Drying time: 6 hours
5. When disassembling: Heat the injector to approx. 80°C to make loosening easier

## Cleaning the injector casing



Dimension sheet for enquiry	or order	GIT mold injector GK & GKR
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Company:
Street:
City / Zip:
Land:

Contact person:
Tel.:
Fax:
E-Mail:

### Standard dimensions

Installation thread	<b>M6</b>
Injector opening in molded part	Ø 4.6mm
Injector length from cavity	5mm or 10mm
Back-gassing through the injector (GKR)	Standard

### Please mark

Injector length from cavity in mm	<input type="checkbox"/> 5	<input type="checkbox"/> 10
<b>Without</b> back-gassing through the injector (GK)	<input type="checkbox"/>	
*Service set GK & GKR	<input type="checkbox"/>	

\* We recommend using our specially designed tool for installation and cleaning.



Service set



Injector M6, 5mm

Injector M6, 10mm

### Note:

- Technical modifications reserved.
- We need additional information for requirements, which vary from our standard range e.g. drawing sample. Our customer services will be pleased to help you.