



Valve gate nozzle type 12NEST

Single nozzle with conventional heating element

TECHNICAL DATA

12NEST

Needle Ød	5 mm					
Melt channel Ød	12 mm					
Gate point Ød	3.0, 3.5 or 4.0 mm					
Operating pressure	10 bar					
Operating voltage	230 V _{AC} *					
Nominal length of the nozzle (L) in mm						
60	80	100	120	150	200	250
■	■	■	□	□	□	□

*Volts alternating current

■ available □ on request

NOTE

Power connector CMT and thermocouple connector CMLK are to be ordered separately.

Feed and discharge lines for operating the needle

Preferably, channels with a minimum dia. of 6 mm and a minimum length of 200 mm are to be used. Feed/discharge lines are to be placed in the heated mould plate to prevent overheating of the compressed air. The temperature should lie between 40 °C and 70 °C.

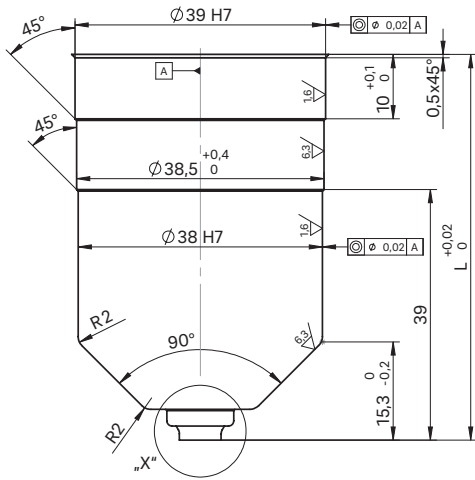
In the case of mould temperatures exceeding the thermal stress limit of the pneumatic valves, a separate air cooler is to be installed. Pneumatic hose inner dia. of 8 mm. Pneumatic valve size of 2000 l/min to 3000 l/min.



WEBCODE
31030

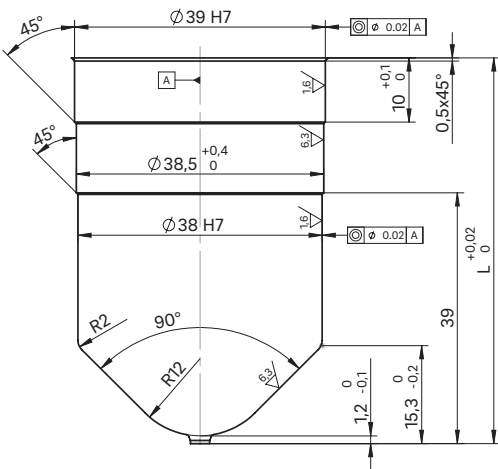


Nozzle with needle guide
antechamber design LA

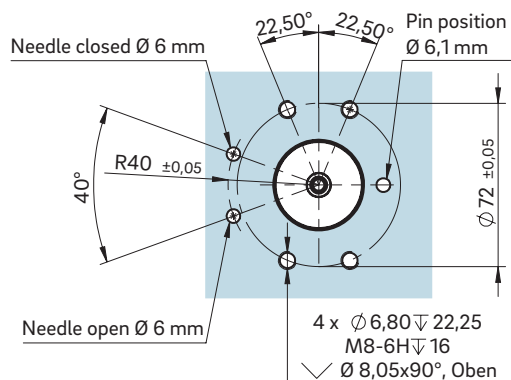


For "X" version of the needle guide
see following page

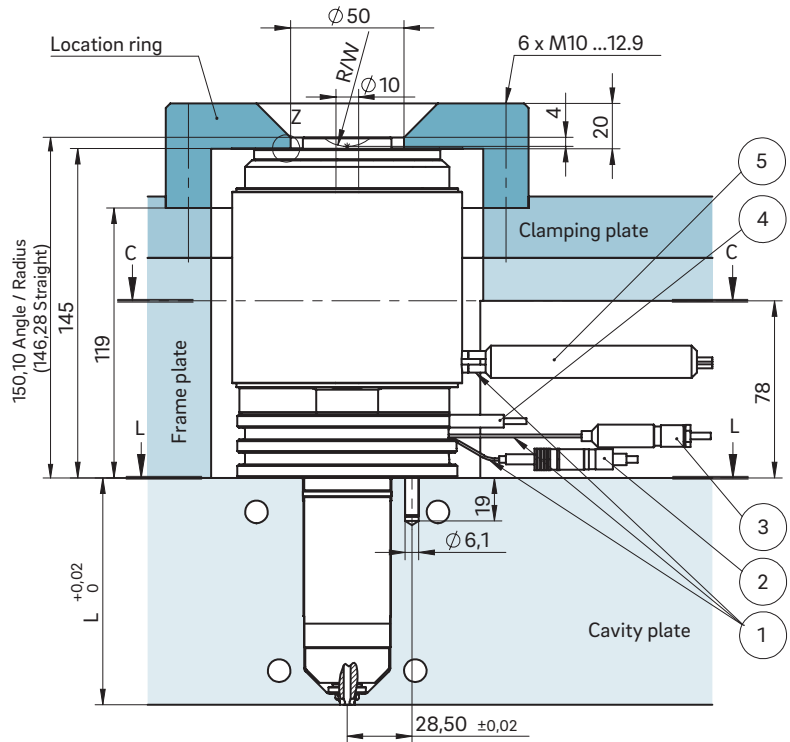
Nozzle with needle guide
antechamber design KA



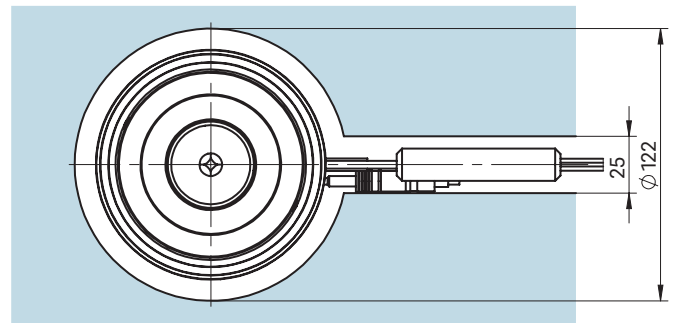
Cross-section L-L: Hole for feed/discharge air,
fastening thread and centring/positioning pin



INSTALLATION

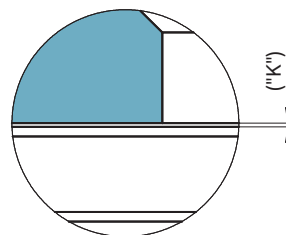


View C-C: Cutout for nozzle head, power and thermocouple plug connections



- ① Power and thermocouple plug connections in this area can be bent once; minimum radius: R8
- ② Thermocouple connector CMLK
- ③ Power connector CMT
- ④ Permanent thermocouple plug connection
- ⑤ Permanent power connection

Detail "Z"



Dimension "K" required for heat expansion is to be ensured by grinding the location ring! Determine the difference between the height of the nozzle (with mount) and the height of the structure when installed! ΔT specifies the temperature differential between the processing temperature and the mould temperature! A pretension of 0.03 mm is taken into account for the K dimensions.

ΔT (°C)	100	150	200	250	300	350
K (mm)	0.11	0.19	0.26	0.33	0.41	0.48



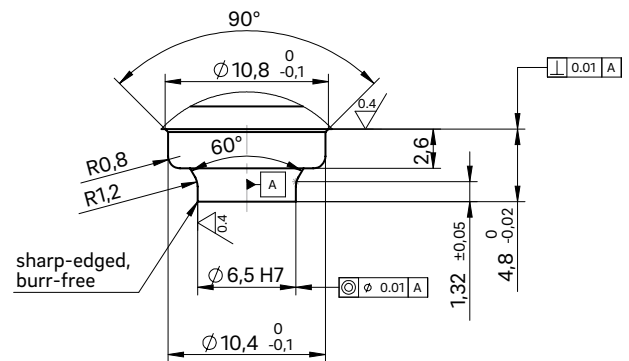
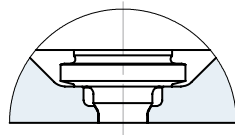
Valve gate nozzle type 12NEST

Needle guide versions LA, LA with titanium ring and KA

NEEDLE GUIDE VERSIONS



Needle guide version
Antechamber version LA



Needle guide LA

Made of powder-metallurgical steel

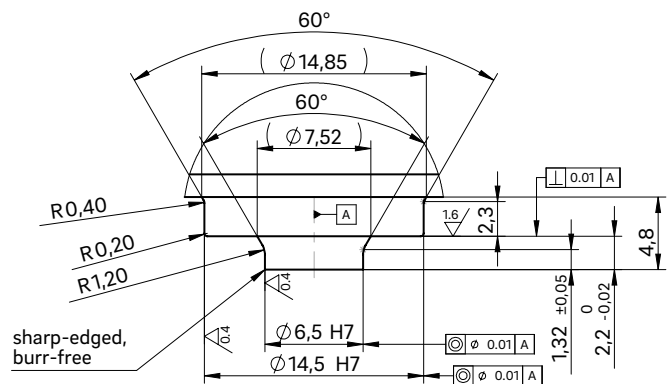
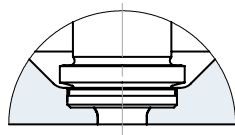
If necessary, the needle guide can be changed without great effort. By replacing the needle guide and needle, the gate point diameter can be made larger or smaller without subsequent reworking of the mould cavity. Thanks to a precise needle guide, the clean gate point can be closed with nearly no wear or burring.

Advantages:

- Long service life and wear-resistance
- Wear parts are easy to replace
- Outstanding and flash-free gate point quality
- Very good visual surface quality
- No replacement or subsequent reworking of the mould inserts required
- Minimal shear stress



Needle guide version
Antechamber version LA
with titanium ring



Needle guide LA

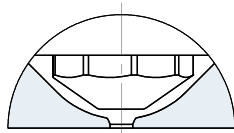
Special version with titanium ring

Thermal insulation of the needle guide using a titanium ring expands the area of use of the valve gate nozzle to include the following plastics:

- Polyamides (PA4.6, PA6.6 and HTN)
- Thermoplastic polyesters (PBT and PET)
- Liquid crystalline polymers (LCP)
- Polyether ether ketones (PEEK)



Needle guide version
Antechamber version KA



Needle guide KA

This is used when a second marking on the part is not permissible.

When selecting the material to be used, the needle hardness of 64 ± 2 HRC is to be taken into account!

