



**Multi-drop
hot runner nozzles**



Multi-drop hot runner nozzles

GÜNTHER offer both radial and linear multi-drop hot runner nozzles. Optimum freedom for designing hot runner systems with minimal cavity spacing is made possible by using type SGF/SGT multi-drop hot runner nozzles.



TYPE SGF/SGT MULTI-DROP HOT RUNNER NOZZLE IN A COMMON HOUSING

Up to eight nozzles with a nozzle length of 20 mm or more can be implemented.

FOR VERTICAL GATING: TYPE SGF/SGT MULTI-DROP HOT RUNNER NOZZLES

With their type SGF/SGT multi-drop hot runner nozzles, GÜNTHER Hot Runner Technology has developed a series which ensures optimum freedom for designing your hot runner systems. This nozzle series is ideal for the multi-drop injection of small parts with minimal cavity spacing. Thanks to their flexibility and ability to adapt to complex requirements, type SGF/SGT series nozzles are able to fulfil the highest requirements on the gate position, vestige quality and shot weight

Another advantage for your applications is that the temperature of the nozzles can be controlled separately for each tip. The nozzles allow for a gentle flow of molten plastic and enable the use of compact moulds with a high number of drops on micro-injection moulding machines.

THE ADVANTAGES AT A GLANCE

Type SGF/SGT

- + Simple mould design
- + Small cavity spacing
- + Tips can be controlled individually
- + Also for micro-injection moulding machines

A perfect solution for side gating is the OktaFlow[®] hot runner nozzle, which enables up to eight tips to be used for each nozzle.



**FOR SIDE GATING:
TYPE OKTAFLOW[®] MULTI-DROP HOT RUNNER NOZZLE**

Guaranteed free of problematic production-related “cold slugs”, the especially cost-effective and spacesaving multi-drop nozzles of the radial and linear OktaFlow[®] series ensure direct side gating.

Both versions have the same features – they can be used in combination with a heated nozzle adapter or a manifold for injection moulding tools with a high number of drops. For the processing of filled materials, nozzle tips with wear protection can be used instead to ensure long service lives in continuous operation. The tips can be changed individually.

THE ADVANTAGES AT A GLANCE

Type OktaFlow[®]

- + Side gating under 90°
- + Small cavity spacing
- + High number of cavities
- + No complex, split insert necessary
- + Longitudinal expansion via feed nozzle, installation of the sub-manifold independent of the heat expansion
- + Optimal temperature profile
- + Exchangeable nozzle tips
- + Installation-friendly plug-in type power and thermocouple plug connections
- + Reduced controller technology requirements



For side gating under 90° without cold slugs, where up to four tips per nozzle are possible.



FOR SIDE GATING: TYPE LHF/LHT MULTI-DROP HOT RUNNER NOZZLES

They can be used in conjunction with a heated adapter or a manifold for injection moulding tools with a high number of drops. This series of nozzles is also suitable for processing filled plastics.











THE ADVANTAGES AT A GLANCE

Type LHF/LHT

- + Side gating under 90°
- + Small cavity distances
- + Optimal temperature profile
- + Installation-friendly plug-in type power and thermocouple plug connections
- + Reduced control technology requirements



4.2 Multi-drop hot runner nozzles as system nozzles

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OktaFlow[®] linear OLT45

Multi-drop hot runner nozzle
linear version for side gating

TECHNICAL DATA

80HT

Melt channel Ød 7.5 mm

Operating voltage 230 V_{AC} *

Nominal length of the nozzle (L) in mm

50	80	120
■	■	■

OLT45

Quantity of tips 4/8

Operating voltage 230 V_{AC} *

Contact us for other nozzle lengths!

*Volts alternating current

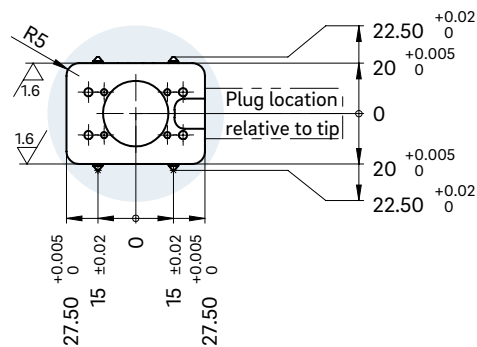
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NOTE

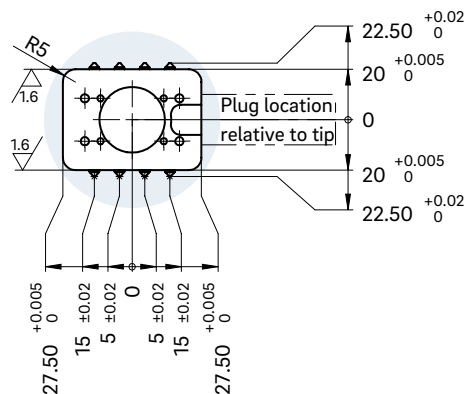
Power connector CMT and thermocouple connector CMLK are to be ordered separately.



Tip distance for four tips



Tip distance for eight tips





OktaFlow[®] linear OLT45

Multi-drop hot runner nozzle
linear version for side gating

TECHNICAL DATA

80HT

Melt channel Ød 7.5 mm

Operating voltage 230 V_{AC} *

Nominal length of the nozzle (L) in mm

60	90	130
■	■	■

OLT45

Quantity of tips 1/2

Operating voltage 230 V_{AC} *

Contact us for other nozzle lengths!

*Volts alternating current

■ available

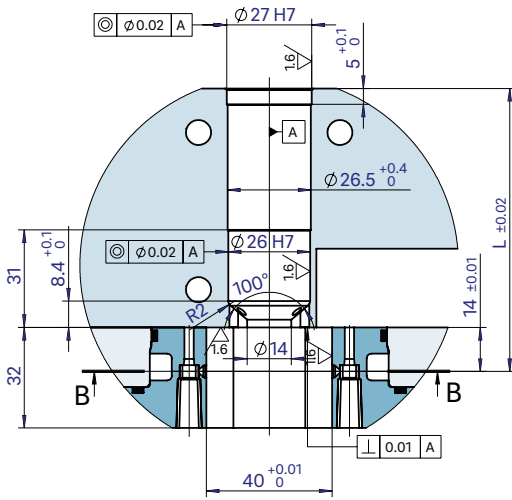
NOTE

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

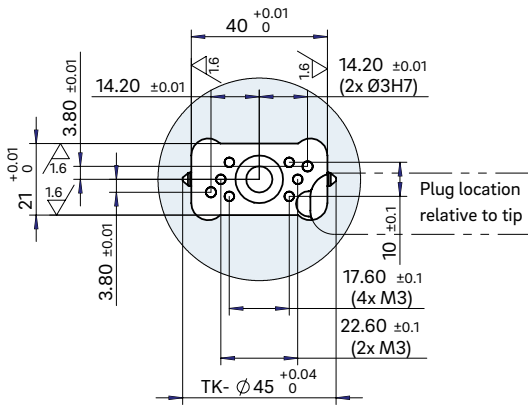




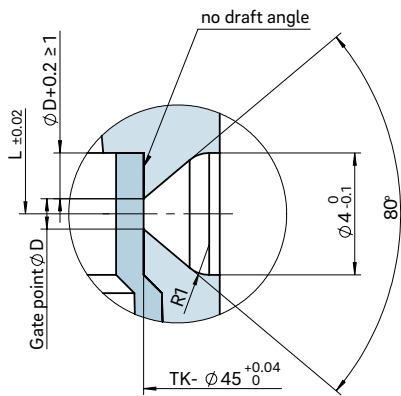
INSTALLATION



View B-B for fastening screw thread and tip distances

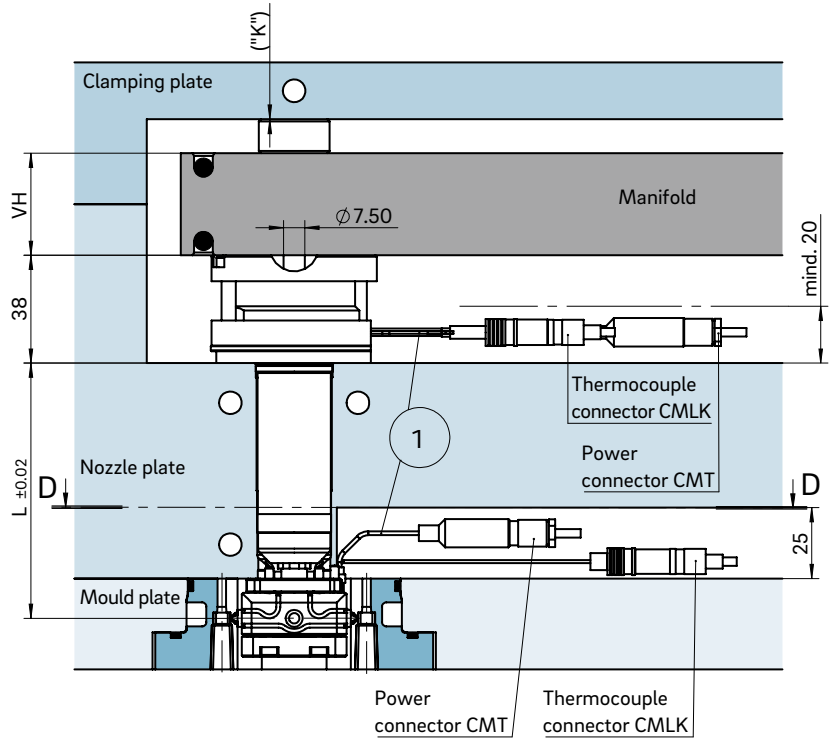


Gate point geometry

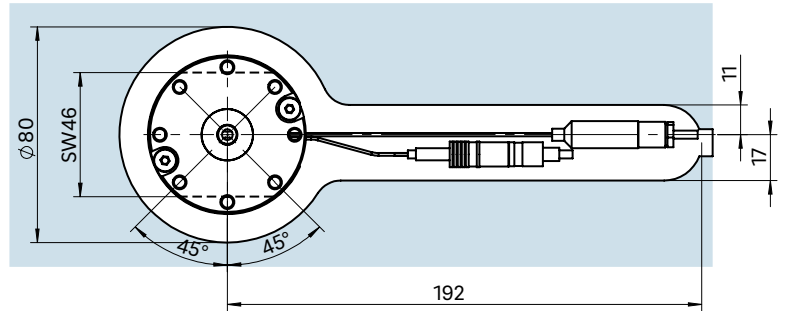


The size "K" required for heat expansion is to be ensured by grinding the pressure pads (12 + 0.1 mm)! Determine the difference between the height of the manifold system and the height of the frame plate when installed! ΔT specifies the temperature differential between the processing temperature and the mould temperature!

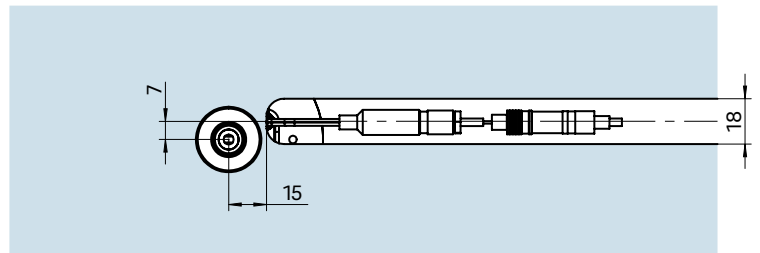
VH	ΔT (°C)	100	150	200	250	300	350
36 mm	K (mm)	0.021	0.059	0.098	0.137	0.177	0.217
46 mm	K (mm)	0.033	0.078	0.124	0.170	0.218	0.264
56 mm	K (mm)	0.046	0.097	0.150	0.203	0.258	0.311



Example Cutout for nozzle head, power and thermocouple plug connections



View D-D cutout for power and thermocouple plug connections of the sub-manifold



① Power and thermocouple plug connections in this area can only be bent once; minimum radius: R8

SW = flat area on nozzle head



OktaFlow[®] linear OLT58

Multi-drop hot runner nozzle
linear version for side gating

TECHNICAL DATA

80HT

Melt channel Ød 7.5 mm

Operating voltage 230 V_{AC} *

Nominal length of the nozzle (L) in mm

65	95	135
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

OLT58

Quantity of tips 1/2

Operating voltage 230 V_{AC} *

Contact us for other nozzle lengths!

*Volts alternating current

on request

NOTE

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





OktaFlow[®] linear OLT65

Multi-drop hot runner nozzle
linear version for side gating

TECHNICAL DATA

80HT

Melt channel Ød 7.5 mm

Operating voltage 230 V_{AC} *

Nominal length of the nozzle (L) in mm

65 95 135

■ ■ ■

OLT65

Quantity of tips 1/2

Operating voltage 230 V_{AC} *

Contact us for other nozzle lengths!

*Volts alternating current

■ available

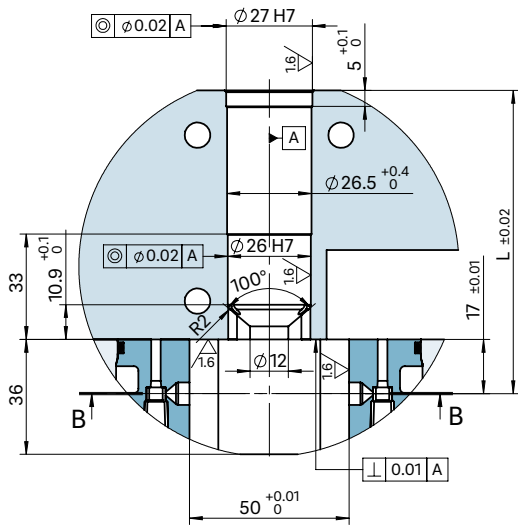
NOTE

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

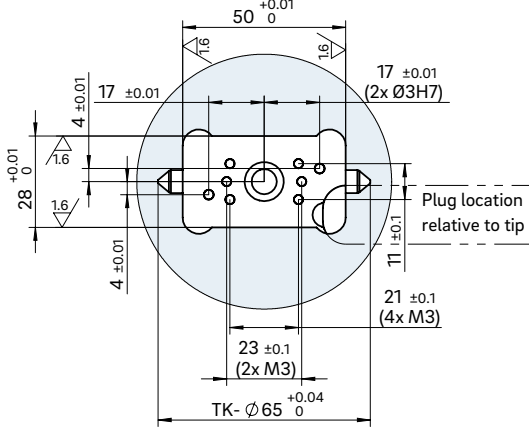




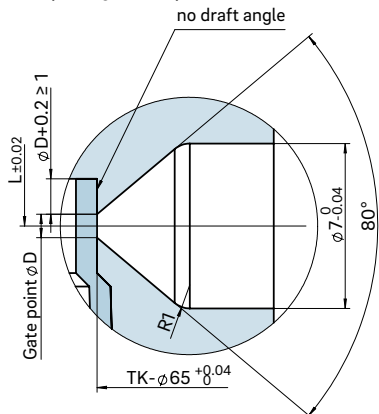
INSTALLATION



View B-B for fastening screw thread and tip distances

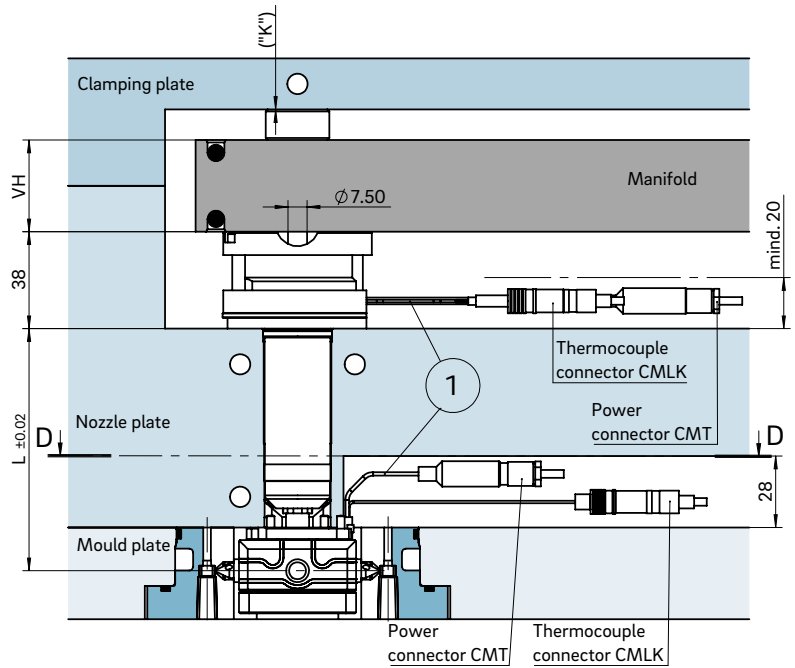


Gate point geometry

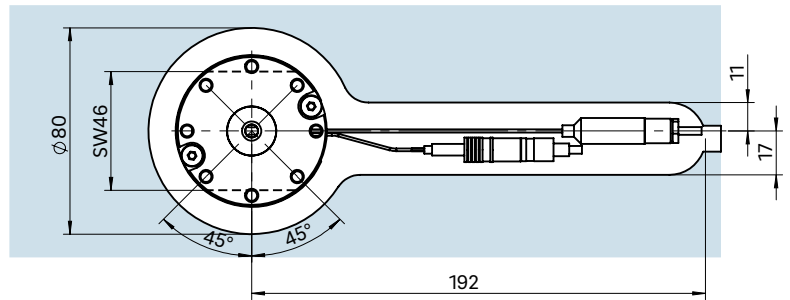


The size "K" required for heat expansion is to be ensured by grinding the pressure pads (12 + 0.1 mm)! Determine the difference between the height of the manifold system and the height of the frame plate when installed! ΔT specifies the temperature differential between the processing temperature and the mould temperature!

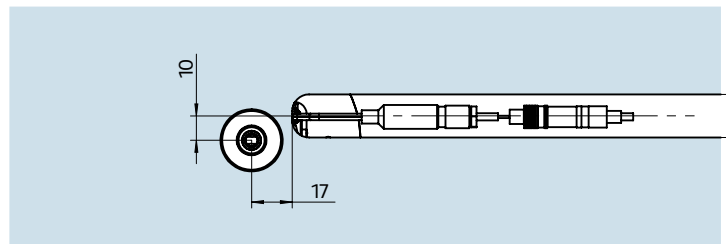
VH	ΔT (°C)	100	150	200	250	300	350
36 mm	K (mm)	0.021	0.059	0.098	0.137	0.177	0.217
46 mm	K (mm)	0.033	0.078	0.124	0.170	0.218	0.264
56 mm	K (mm)	0.046	0.097	0.150	0.203	0.258	0.311



Example Cutout for nozzle head, power and thermocouple plug connections



View D-D cutout for power and thermocouple plug connections of the sub-manifold



① Power and thermocouple plug connections in this area can only be bent once; minimum radius: R8

SW = flat area on nozzle head



OktaFlow[®] radial ORT45

Multi-drop hot runner nozzle
radial version for side gating

TECHNICAL DATA

80HT

Melt channel Ød 7.5 mm

Operating voltage 230 V_{AC} *

Nominal length of the nozzle (L) in mm

60	90	130
■	■	■

ORT45

Quantity of tips 1/2/4/8

Operating voltage 230 V_{AC} *

Contact us for other nozzle lengths!

*Volts alternating current

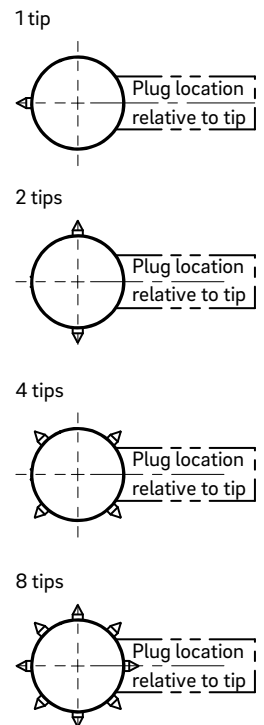
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NOTE

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

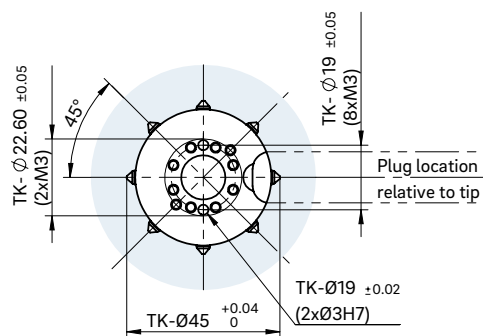


PLUG LOCATION RELATIVE TO TIP



View B-B

Fastening screw thread and tip distance





OktaFlow[®] radial ORT58

Multi-drop hot runner nozzle
radial version for side gating

TECHNICAL DATA

80HT

Melt channel Ød 7.5 mm

Operating voltage 230 V_{AC} *

Nominal length of the nozzle (L) in mm

65	95	135
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ORT58

Quantity of tips 1 / 2 / 4 / 8

Operating voltage 230 V_{AC} *

Contact us for other nozzle lengths!

*Volts alternating current

on request

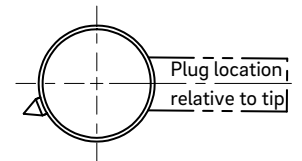
NOTE

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

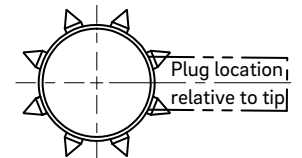
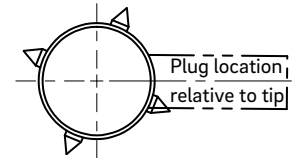
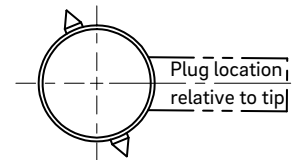


PLUG LOCATION RELATIVE TO TIP

1 tip

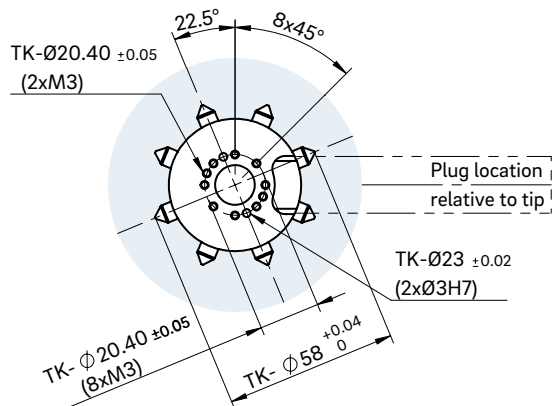


2 tips



View B-B

Fastening screw thread and tip distance





OktaFlow[®] radial ORT65

Multi-drop hot runner nozzle
radial version for side gating

TECHNICAL DATA

80HT

Melt channel Ød 7.5 mm

Operating voltage 230 V_{AC} *

Nominal length of the nozzle (L) in mm

65	95	135
■	■	■

ORT65

Quantity of tips 1/2/4/8

Operating voltage 230 V_{AC} *

Contact us for other nozzle lengths!

*Volts alternating current

■ available

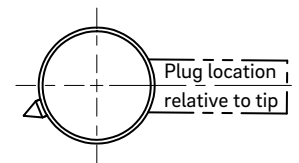
NOTE

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

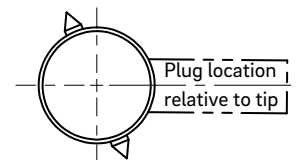


PLUG LOCATION RELATIVE TO TIP

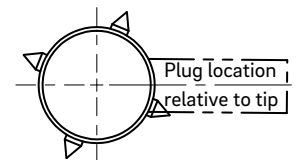
1 tip



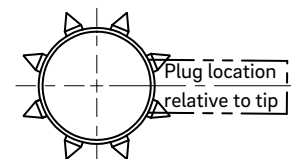
2 tips



4 tips

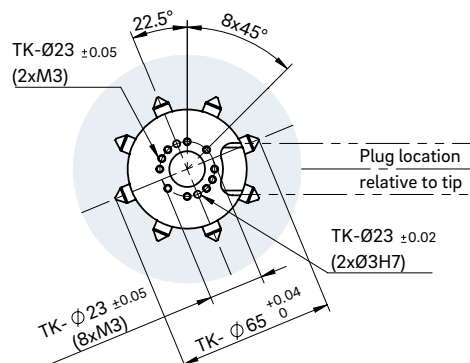


8 tips



View B-B

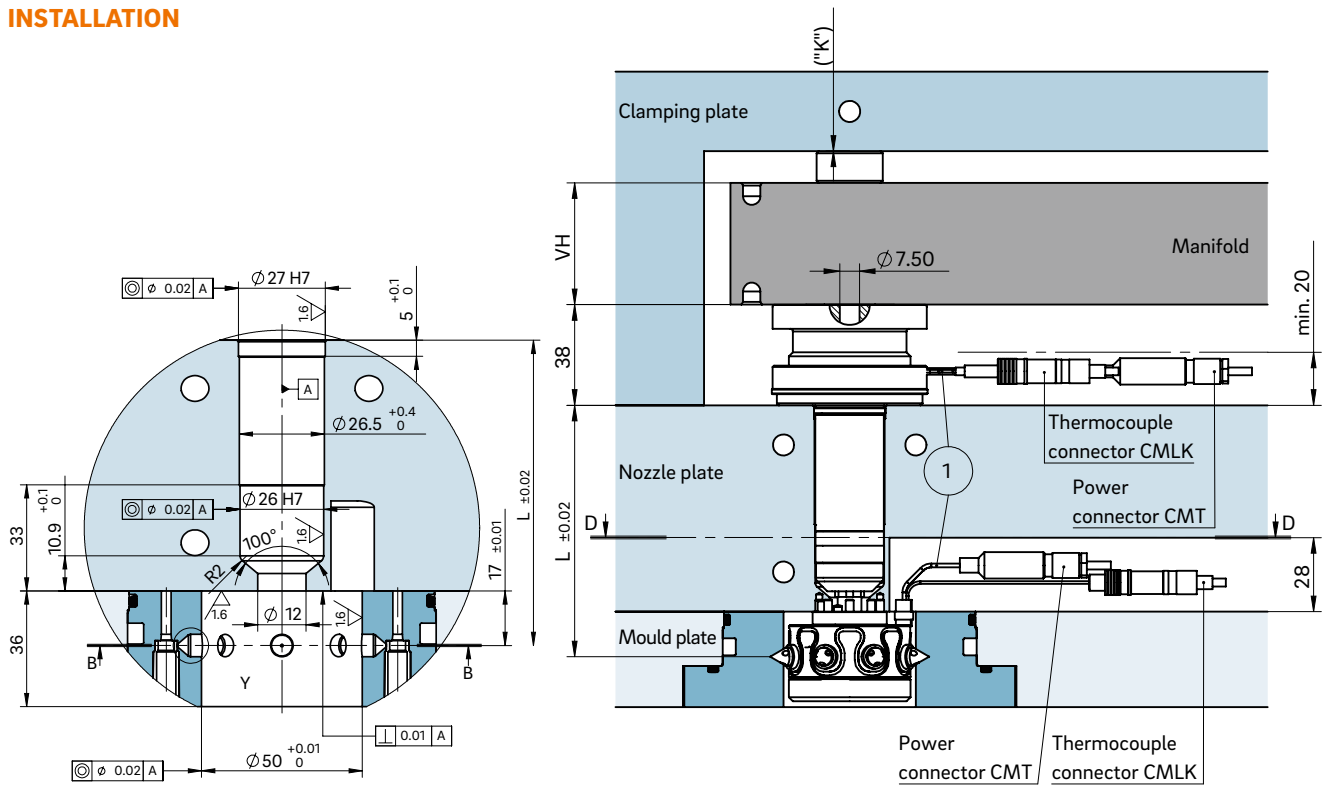
Fastening screw thread and tip distance



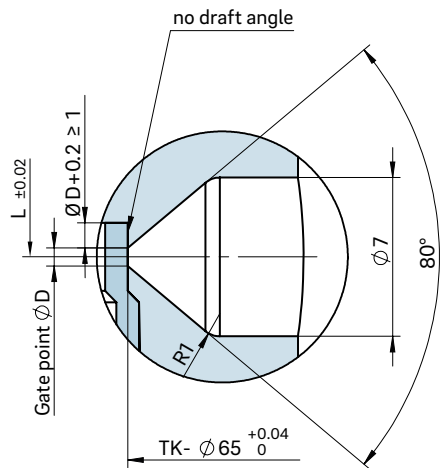
WEBCODE
42030



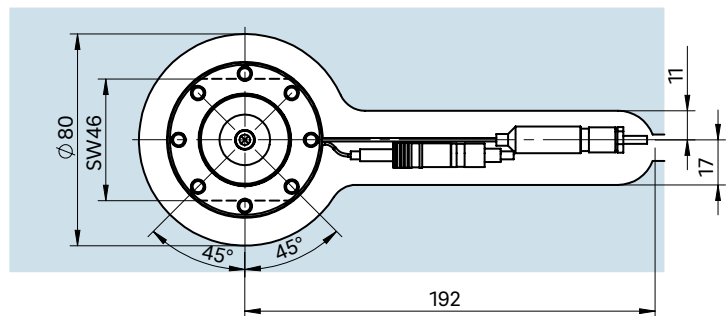
INSTALLATION



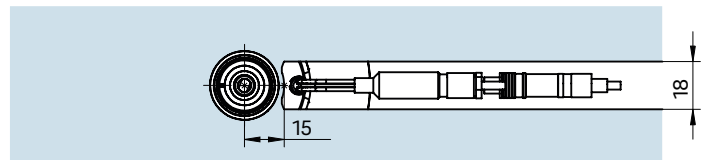
Gate point geometry



Example Cutout for nozzle head, power and thermocouple plug connections



View D-D cutout for power and thermocouple plug connections of the sub-manifold



The size "K" required for heat expansion is to be ensured by grinding the pressure pads (12 + 0.1 mm)! Determine the difference between the height of the manifold system and the height of the frame plate when installed! ΔT specifies the temperature differential between the processing temperature and the mould temperature!

VH	ΔT (°C)	100	150	200	250	300	350
36 mm	K (mm)	0.021	0.059	0.098	0.137	0.177	0.217
46 mm	K (mm)	0.033	0.078	0.124	0.170	0.218	0.264
56 mm	K (mm)	0.046	0.097	0.150	0.203	0.258	0.311

- ① Power and thermocouple plug connections in this area can only be bent once; minimum radius: R8
SW = flat area on nozzle head



18LHF

Multi-drop hot runner nozzle for side gating under 90°, without cold slugs, with thick-film heating element (BlueFlow®)

TECHNICAL DATA

18LHF

Melt channel Ød 4.8 mm

Operating voltage 230 V_{AC} *

Quantity of tips 1/2/4

Nominal length of the nozzle (L) in mm

60	80	100
■	■	■

*Volts alternating current

■ available

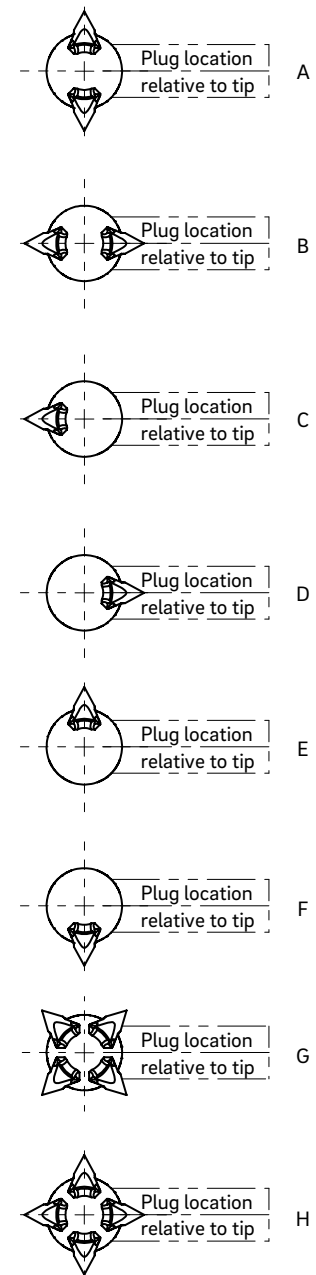
NOTE

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

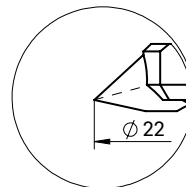
Design II is used in applications with filled materials, with a gate diameter ØAP >1.3 mm.



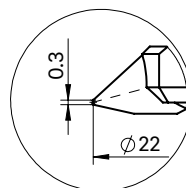
PLUG LOCATION RELATIVE TO TIP



Tip design I



Tip design II





22LHT

Multi-drop hot runner nozzle for side gating under 90°, without cold slugs, with conventional heating element

TECHNICAL DATA

22LHT

Melt channel Ød 4.8 mm

Quantity of tips 1/2/4

Operating voltage 230 V_{AC}*

Nominal length of the nozzle (L) in mm

60	80	100
■	■	■

*Volts alternating current

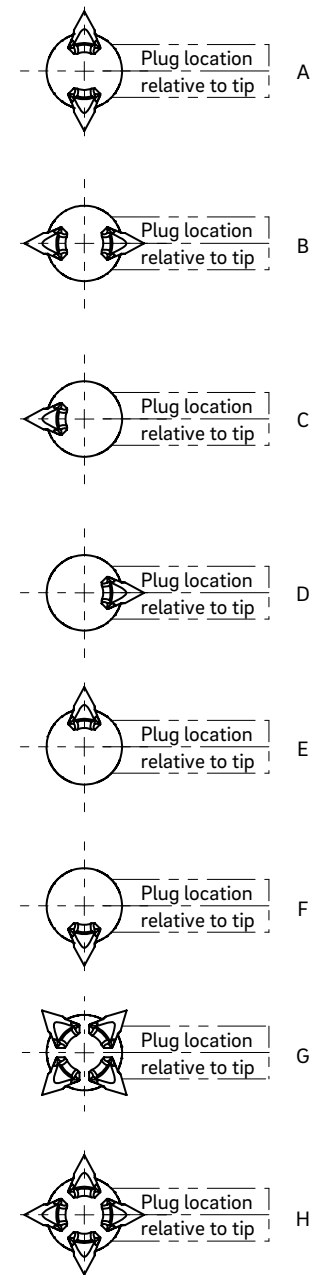
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NOTE

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



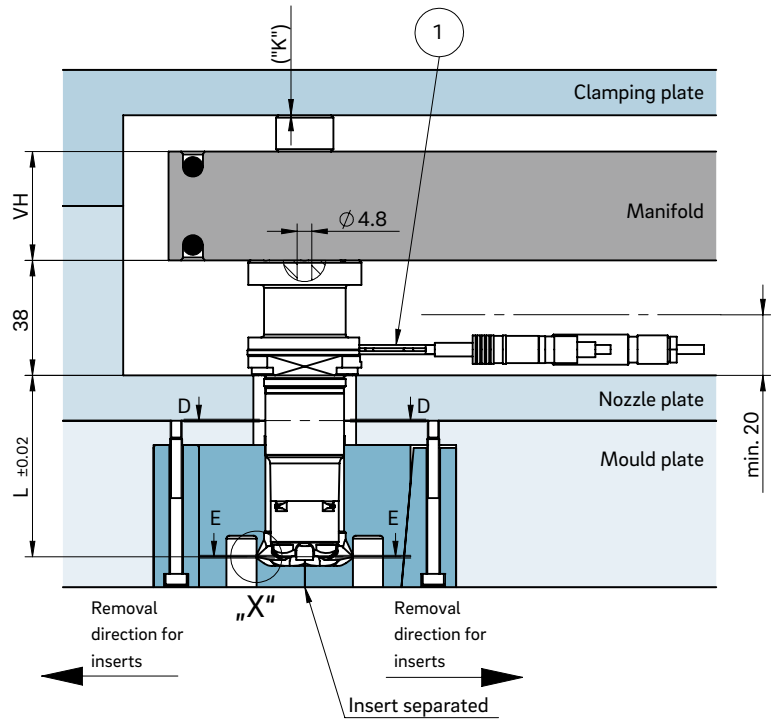
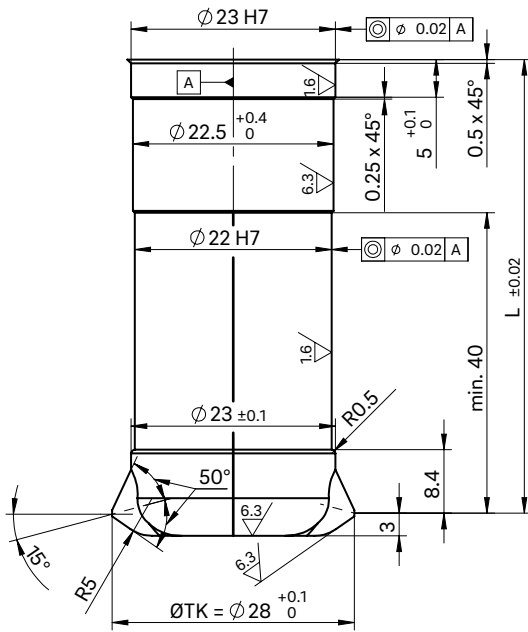
PLUG LOCATION RELATIVE TO TIP



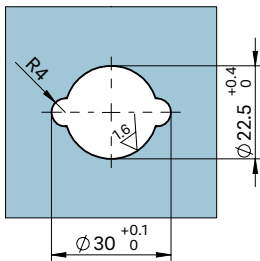
WEBCODE
42050



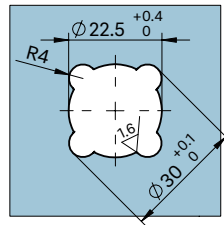
INSTALLATION



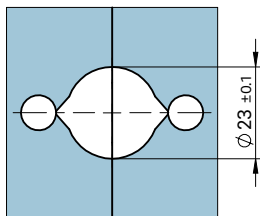
View D-D for two nozzle tips



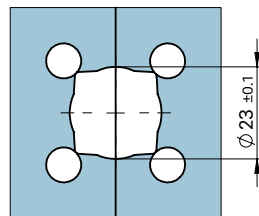
View D-D for four nozzle tips



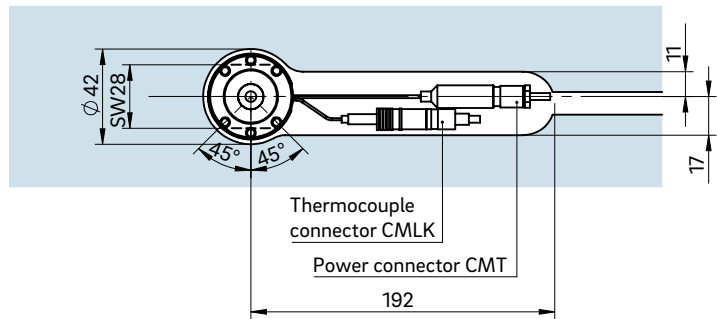
View E-E for two nozzle tips



View E-E for four nozzle tips

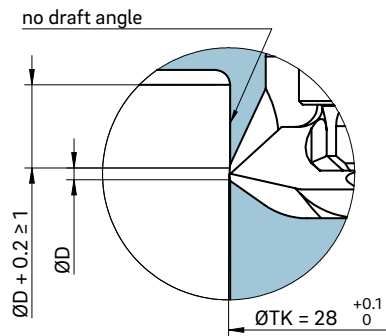


Example cutout for nozzle head, power and thermocouple plug connections

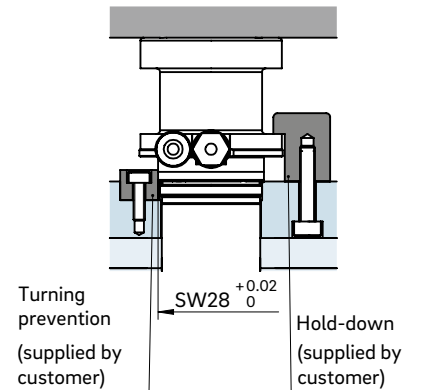


① Thermocouple plug connection in this area can only be bent once; minimum radius: R8
SW = flat area on nozzle head

Detail "X"



Turning prevention



The size "K" required for heat expansion is to be ensured by grinding the pressure pads (12 + 0.1 mm)! Determine the difference between the height of the manifold system and the height of the clamping plate when installed! ΔT specifies the temperature differential between the processing temperature and the mould temperature!

VH	ΔT (°C)	100	150	200	250	300	350
36 mm	K (mm)	0.021	0.059	0.098	0.137	0.177	0.217
46 mm	K (mm)	0.033	0.078	0.124	0.170	0.218	0.264
56 mm	K (mm)	0.046	0.097	0.150	0.203	0.258	0.311

To prevent open jet formations, injection should be carried out against a core, for example.



26LHT

Multi-drop hot runner nozzle for side gating under 90°, without cold slugs, with conventional heating element

TECHNICAL DATA

26LHT

Melt channel Ød 6.0 mm

Quantity of tips 1/2/4

Operating voltage 230 V_{AC}*

Nominal length of the nozzle (L) in mm

60	80	100
■	■	■

*Volts alternating current

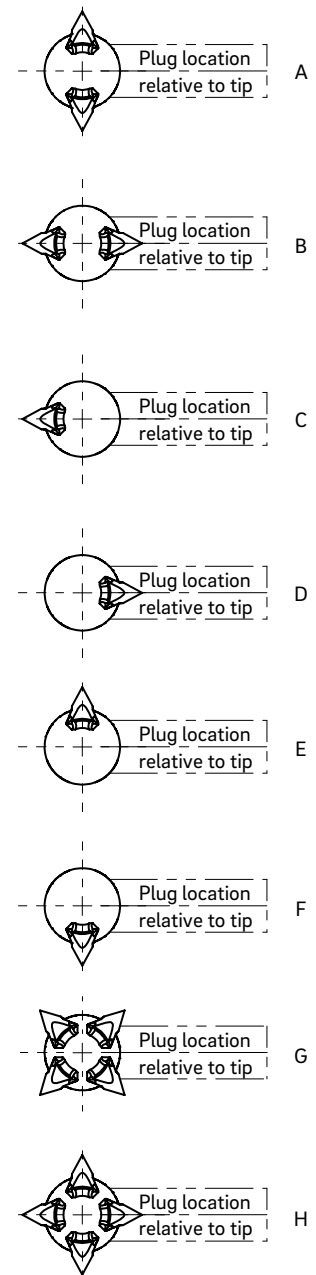
■ available

NOTE

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

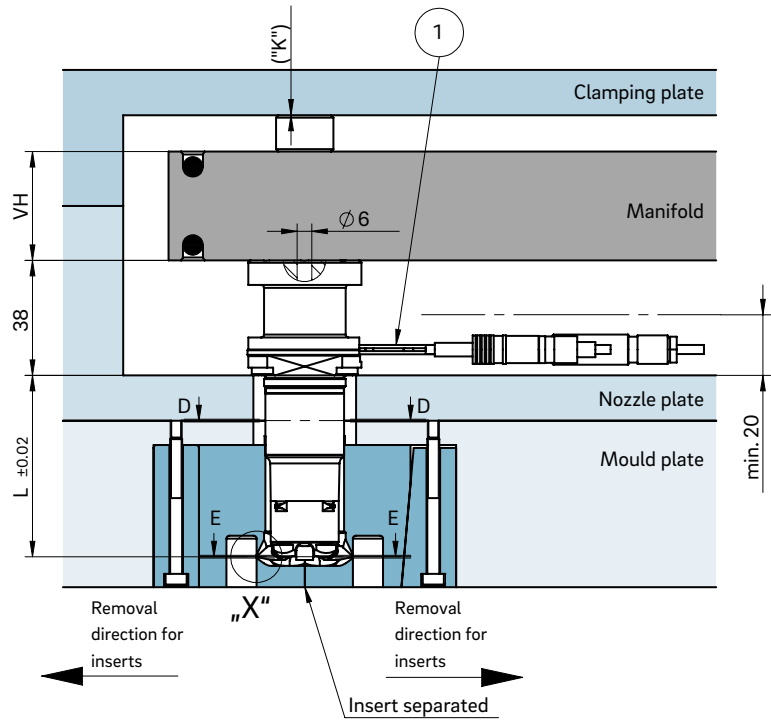
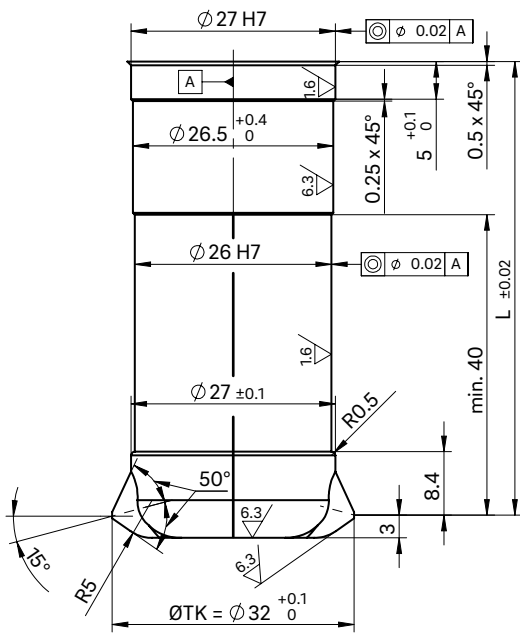


PLUG LOCATION RELATIVE TO TIP

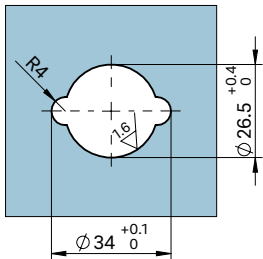




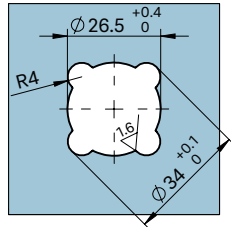
INSTALLATION



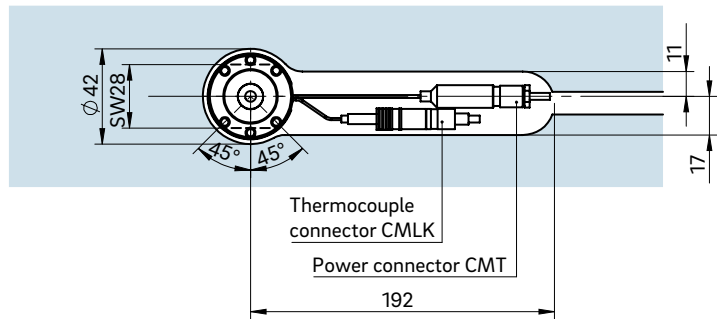
View D-D for two nozzle tips



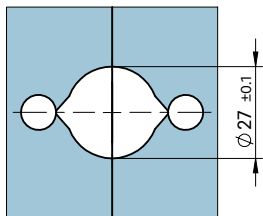
View D-D for four nozzle tips



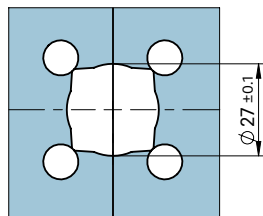
Example cutout for nozzle head, power and thermocouple plug connections



View E-E for two nozzle tips

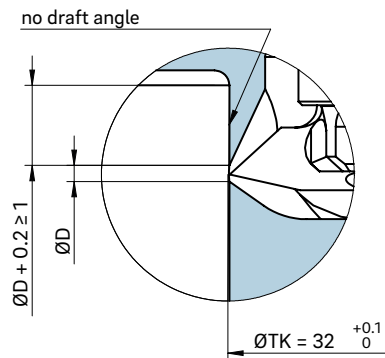


View E-E for four nozzle tips

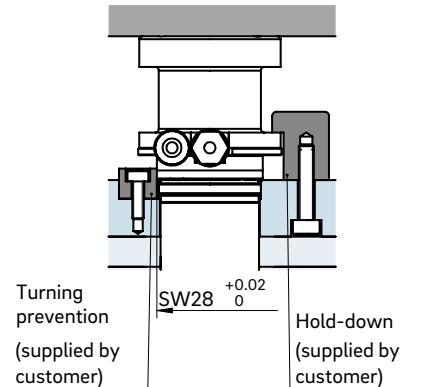


- ① Power and thermocouple plug connections in this area can only be bent once; minimum radius: R8
SW = flat area on nozzle head

Detail "D"



Turning prevention



The size "K" required for heat expansion is to be ensured by grinding the pressure pads (12 + 0.1 mm)! Determine the difference between the height of the manifold system and the height of the clamping plate when installed! ΔT specifies the temperature differential between the processing temperature and the mould temperature!

VH	ΔT (°C)	100	150	200	250	300	350
36 mm	K (mm)	0.021	0.059	0.098	0.137	0.177	0.217
46 mm	K (mm)	0.033	0.078	0.124	0.170	0.218	0.264
56 mm	K (mm)	0.046	0.097	0.150	0.203	0.258	0.311

To prevent open jet formations, injection should be carried out against a core, for example.