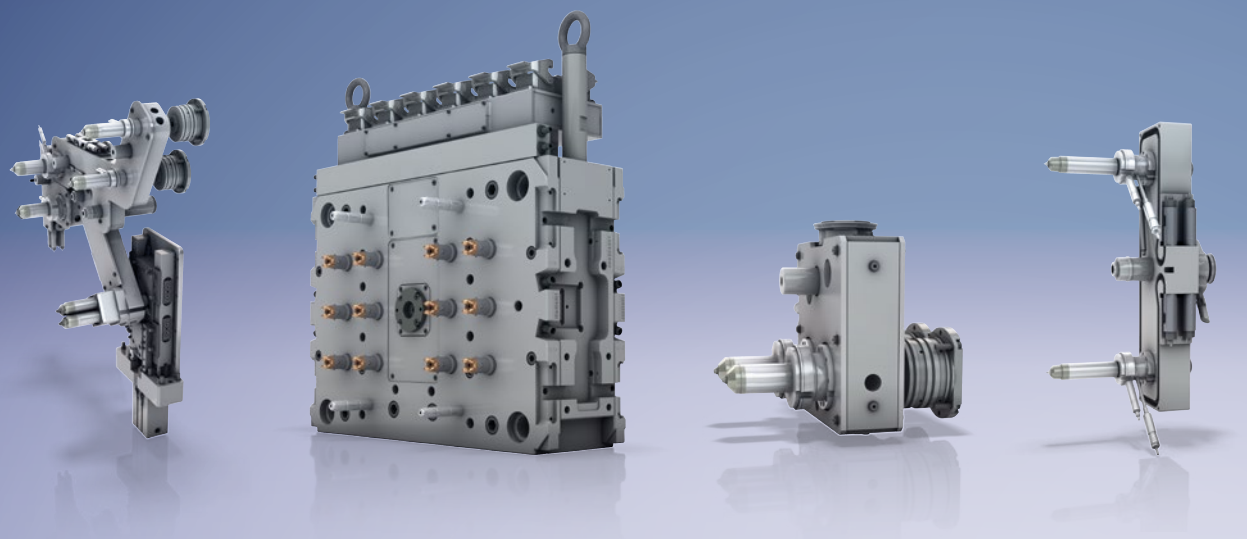
HOT RUNNER SOLUTIONS FOR YOUR INDUSTRY.

PRODUCT OVERVIEW

STANDARD HOT RUNNER NOZZLES | MULTI-TIP HOT RUNNER NOZZLES | MANIFOLD SYSTEMS
VALVE GATE TECHNOLOGY | HOT HALVES | CONTROL TECHNOLOGY

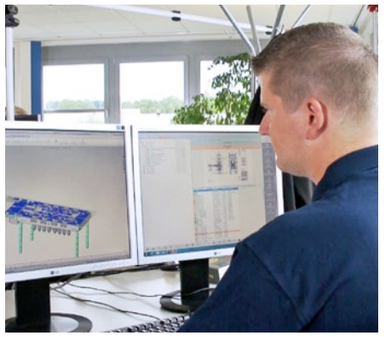


SOLUTIONS FOR
AUTOMOTIVE | CONSUMER | ELECTRICAL | MEDICAL | PACKAGING

GÜNTHER®
HOT RUNNER TECHNOLOGY

GÜNTHER HOT RUNNER TECHNOLOGY

PASSION FOR TECHNOLOGY



CONSTRUCTION

All technicians / engineers work at 3D stations using the programs SolidWorks and AutoCad.

APPLICATION ENGINEERING / TECHNICAL CENTER

Technical equipment:

- Arburg 270 S 250–60, closing force 25 t, shot weight 13/28 g
- Arburg 470 S 1300–350, closing force 130 t, shot weight 65/166 g, screw 40 mm max. 165 cm³/s
- Engel VC 200/80 Electric, closing force 80 t, shot weight 42/83 g, Injection unit drive electric, tie bar-less, screw 22 mm 125 cm³/s

PASSION FOR TECHNOLOGY – OR THE CHALLENGE OF SETTING STANDARDS

With outstanding product developments and solutions for the most challenging applications, GÜNTHER Hot Runner Technology is the pace-setter when it comes to innovations in hot runner technology.
What can be expected from modern hot runner technology?
First of all, a reduction in material and consequently costs, and then a not-to-be-underestimated reduction in energy costs, and in most cases, a reduction in cycle-times. But the technology will gain an even greater potential within the entire process chain: Automation is made easier and also the amount of reworking can be reduced – but the gains in productivity are the real, economic benefit of modern hot runner technology.

This brochure provides an overview of the complete range of innovative hot runner systems, from hot runner nozzles and valve gate technology to manifold systems, “hot halves“ and services.

This way we’re able to offer you a system tailored to each and every application when it comes to processing high-tech filled or flame-retardant thermoplastics.
In addition, we can provide you with all kinds of customized solutions.

Just contact us!

Herbert Günther Siegrid Sommer

STANDARD HOT RUNNER NOZZLES

1 _TT NOZZLE
Two fits for precise positioning and better protection against leaks.

STANDARD HOT RUNNER NOZZLES
For direct injection of 0.0189 g to 5000 g per nozzle.

The two-stage shaft with varying design features ensures outstanding insulation in the front area of the shaft and guarantees that the loss of heat between the hot runner nozzle and cavity is kept to a minimum.

STANDARD HOT RUNNER NOZZLES

GÜNTHER offers a line of nozzles to meet the demands of modern day injection mould technology with a variety of melt channel diameters, nozzle lengths and gate geometries.

The different nozzle types, whether as a single nozzle or for multi-tip gating, allow you to realize any number of applications.

Based on the modular design, individual parts, such as the heating element, sensor, material tube and nozzle tips, can be replaced. This offers great advantages when performing repairs and maintenance work (time savings, lower repair costs, less downtime).

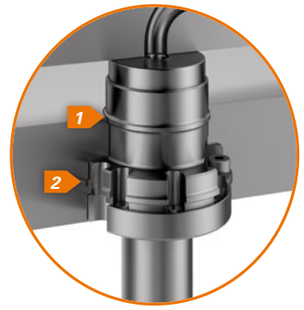
The GÜNTHER standard hot runner nozzles will sell themselves with their outstanding thermal separation afforded by the two-component shaft. This willl ensure excellent insulation in the front shaft area and thus very little heat loss between the hot runner nozzle and the cavity. These nozzles are suitable for processing of heat-sensitive materials, technical plastics, and high temperature polymers. With filled materials, such as glass fibres with heat stabilizers, wear-resistant heat conductor tips provide the best possible protection against mechanical and chemical attack. Standard hot runner nozzles are available in the CADHOC® database.

SLIM NOZZLES FOR FRONT MOUNTING – "_TT " SERIES

- Small shaft diameter 15, 18, 22 mm
- Material channel diameters of 3.8 mm, 4.8 mm und 6 mm
- Easy front mounting of the nozzles – the tool can remain on the machine during maintenance

1 Safety provided by the spatial and thermal separation of the connecting cable from the manifold.

2 To protect against leakage, the manifold area is sealed off from the cable ducts. Two fits provide precise positioning to the pitch center.



BLUEFLOW® TECHNOLOGY
INCREASED PRODUCTIVITY – LOWER ENERGY CONSUMPTION – HIGH QUALITY

- The BlueFlow® hot runner nozzle sets new quality and design standards for the parts made of thermally sensitive plastics.
- The BlueFlow® hot runner nozzle is particularly slim with a very small diameter.
- The BlueFlow® hot runner nozzle allows the heating capacity to be adjusted to the exact heating requirement for each section over the entire length of the nozzle – this way a uniform temperature is achieved.
- The BlueFlow® hot runner nozzle's impressively rapid thermal response is due to its compact design.
- The investment in the BlueFlow® hot runner nozzle will quickly pay off, considering all of the savings effects, such as lower energy consumption, reduced cycle times, and less scrap waste. The initially higher investment is regained in no time.
  Find out how much you can save with the BlueFlow® comparison calculator on our website: **www.blueflow.de**

YOUR BENEFITS AT A GLANCE

- **Optimum temperature transition** thanks to the large contact surfaces between the heat conducting tip and the heated material tube.
- **Reduction of the processing temperature** thanks to the excellent thermal conduction of the nozzle tips. No loss of heat, since there is no contact with the mould.
- **Easy mounting and protection against leaks** as well as less time spent on installation and removal.
- **Time savings and reduced tool costs** due to the easy H7 geometrical fit.
- **Outstanding insulation at the front of the nozzle** due to the two-component shaft, thus very little heat loss between nozzle and cavity.
- **Excellent gate quality,** due to the advantageous heat transfer at the gate position.
- **Wide range of processing temperatures,** since the temperature profile is linear.
- **Easy-to-install, plug-in power and thermocouple connections** make assembly and disassembly easy.

MULTI-TIP HOT RUNNER NOZZLES

OKTAFLOW® HOT RUNNER NOZZLES IN RADIAL AND LINEAR DESIGN

As the name OktaFlow® suggests, up to eight tips per nozzle can be used. The nozzle is mounted in a tool insert.
The tip can be removed from the direction of the split line, and that way the nozzle side of the mould does not have to be completely disassembled. Heating in the vicinity of the gate provides the optimum temperature profile for the direct injection of parts.

PITCH CIRCLE-Ø 45 mm

2 POWER CONNECTIONS AND 3 THERMOCOUPLE CONNECTIONS
plug-in, easy-to-install, and resistant to high temperatures.

HEATED TIP AREA
heating at the gate area.

1 MINI-MANIFOLD
supported on floating bearings, therefore unaffected by thermal expansion.

PINS
prevent part from rotating and position it at a certain height.

TIPS
can be replaced individually.

THE PERFECT SOLUTION FOR DIRECT SIDE GATING …

Guaranteed to be free of problematic, production-related “cold slugs”, these particularly cost-effective and space-saving multi-tip nozzles in the OktaFlow® series in either radial or linear design allow direct side gating. Both designs share the same features: They can be used in conjunction with a heated adapter or in combination with a manifold for multi-cavity injection moulding. Optionally, wear-resistant nozzle tips can be used when filled materials are processed to ensure long term use in continuous operation. The tips can be replaced individually. Quick colour changes on the machine reduce downtimes.

… AND FOR VERTICAL GATING – SGT TYPE MULTI-TIP HOT RUNNER NOZZLES IN COLLECTIVE HOUSING

With the multi-tip hot runner nozzle type SGT, GÜNTHER Hot Runner Technology has developed a series which offers you the greatest amount of freedom in the configuration of your hot runner systems. The nozzle line is perfect for multi-tip gating of small parts – and that with close cavity spacing. No matter how high the demands are in terms of gate position, gate quality and shot weight, the SGT nozzle line proves to be flexible and extremely adaptable to complex demands.

Another advantage for your applications: The temperature on each tip of the SGT nozzles can be regulated separately. The nozzles allow a gentle flow of melt and permit the use of compact, multi-cavity moulds on micro-injection machines.

MULTI-TIP HOT RUNNER NOZZLES IN COLLECTIVE HOUSING
can accommodate up to 8 nozzles with a nozzle length of ≥ 20 mm.

YOUR BENEFITS AT A GLANCE

MULTI-TIP HOT RUNNER NOZZLE TYPE OKTAFLOW®

- **Side gating under 90°** without “cold slugs”.
- **Close cavity spacing** in multi-cavity, compact moulds.
- **High number of cavities** in a compact size.
- **No need to divide inserts**
- **Mini-manifold supported on floating bearings,** therefore unaffected by heat expansion.
- **Optimum temperature profile,** since the control zone for the tips is separate.
- **Quick and easy replacement of nozzle tips** without having to remove the entire nozzle.
- **Easy-to-install, plug-in power and thermocouple connections**
- **Less control technology required**

MULTI-TIP HOT RUNNER NOZZLE TYPE SGT

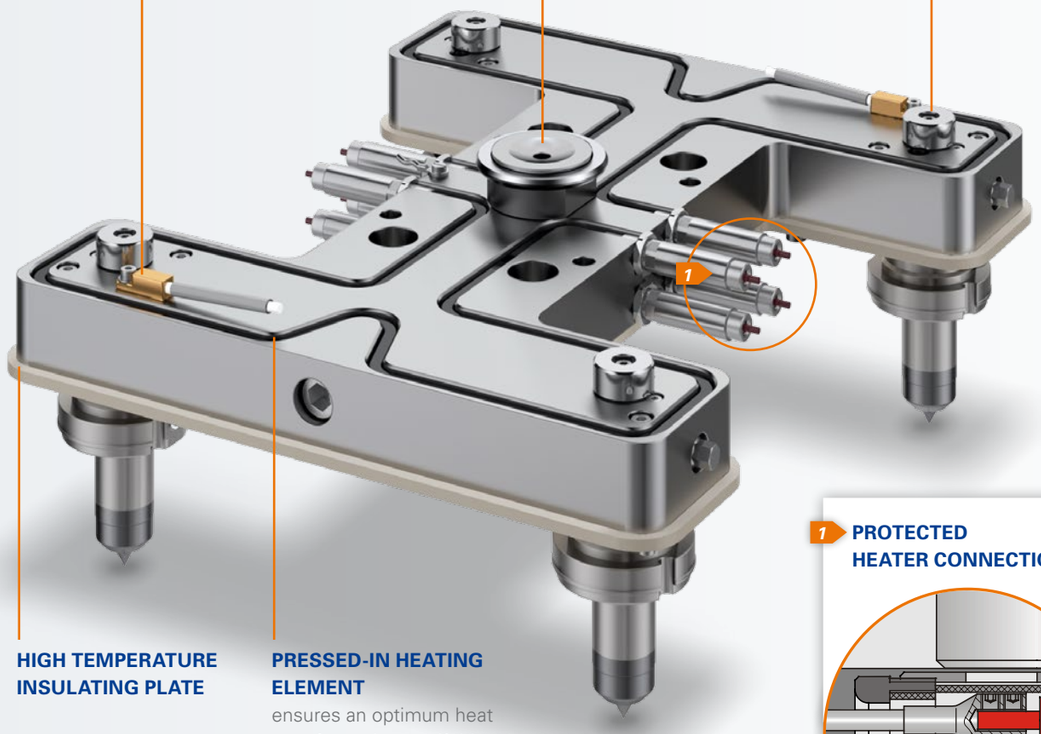
- **Simple mould construction** with a minimum requirement of control technology.
- **Close cavity spacing**
- **Individually controlled tips**
- **Also suitable for micro-injection machines**

MANIFOLD SYSTEMS

SURFACE-MOUNTED THERMOCOUPLE
positioned close to the material tube, ensures precise temperature control.

CONNECTION ELEMENT
is heated by the manifold, thus eliminating the need for an additional control.

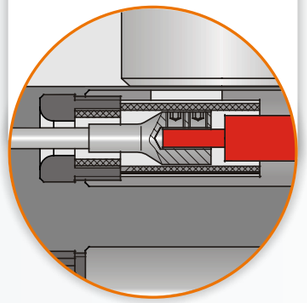
PRESSURE PADS
with low thermal conductivity.



HIGH TEMPERATURE INSULATING PLATE

PRESSED-IN HEATING ELEMENT
ensures an optimum heat transfer to the manifold and thus a homogeneous distribution of temperature.

1 PROTECTED HEATER CONNECTIONS



OUR MANIFOLDS FOR YOUR IDEAS

Straight manifold 1-drop
Straight manifold 2-drop
Straight manifold 4-drop
H-manifold up to 64-drop
Cross manifold 4-drop
T-manifold up to 32-drop
Star manifold 8-drop

GÜNTHER MANIFOLDS

All melt transporting components are externally heated, through which an optimum melt flow at the lowest possible pressure loss is guaranteed. Sleeves protect the heater connections against damage. Due to the flexible positioning of the nozzle, any gate dimension can be chosen.

Standard manifolds are stored in the CADHOC® system designer database and are readily available for download.

Pressed-in heating elements guarantee the optimum heat transfer to the manifold and thus a homogeneous temperature distribution. A variety of manifold versions is available, from partially and fully balanced to customised solutions.

CADHOC®

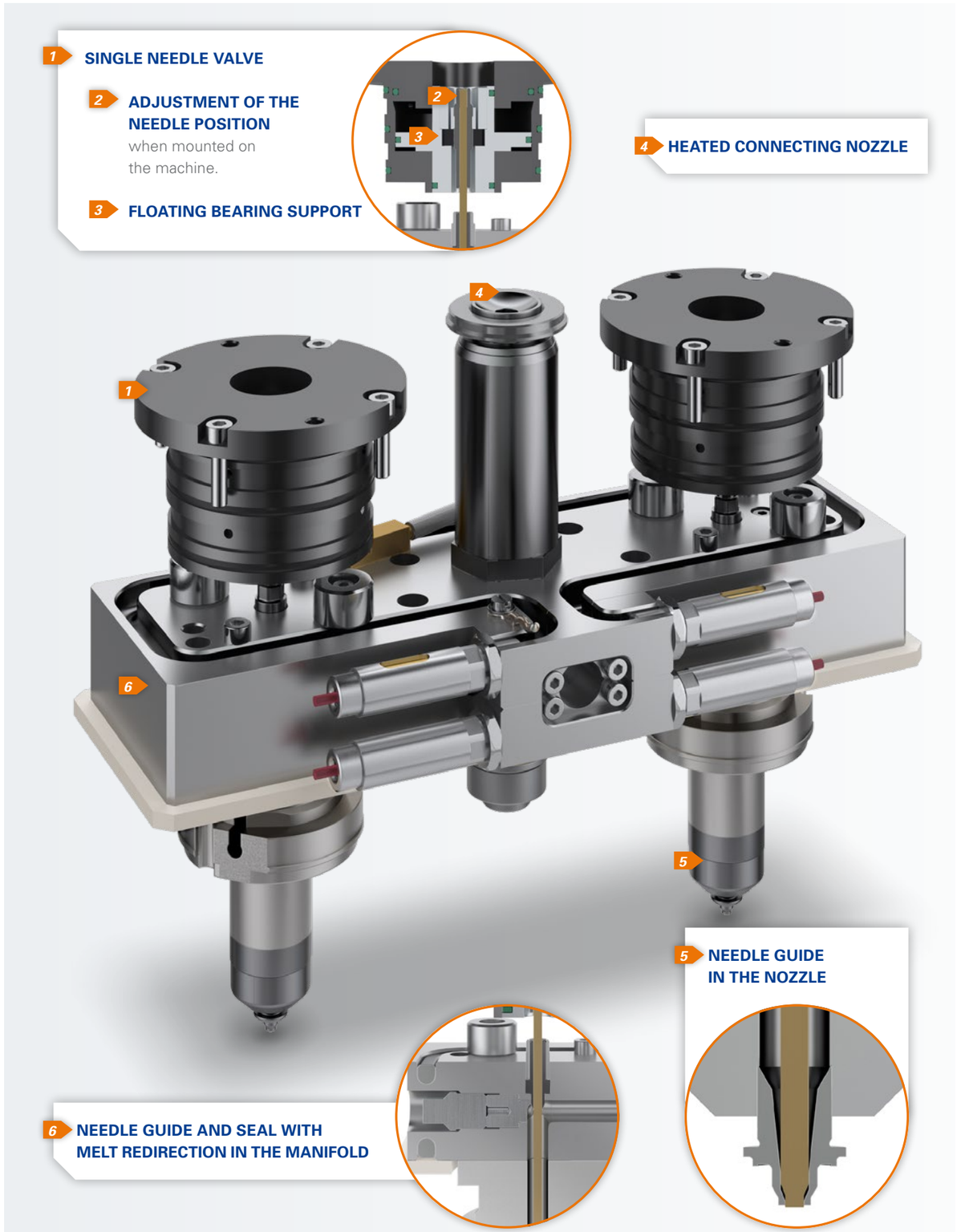
CADHOC® SYSTEM-DESIGNER

Go to the website **www.guenther-hotrunner.com** and open the CADHOC® system designer. Following the initial registration, you can start configuring your individual hot runner system. For each hot runner system, the 3D-models and negative volumes are available for download. This service is rounded off with a price list (as a PDF file). Once you have configured your individual hot runner system, you can select from various data formats.
The CADHOC® system designer and the systems running in the background will then generate the desired data.

YOUR BENEFITS AT A GLANCE

- **The continuous temperature control** ensures a melt flow with a low thermal load on the plastic.
- **The homogeneous temperature distribution** afforded by the pressed-in heating elements enables consistent production quality even with multi-cavity moulds.
- **The variable nozzle positioning** will facilitate an individual design of the moulds.
- **The externally protected power connections** enable a compact design.
- **Fast and easy cleaning** even without auxiliary equipment, such as a fluidized bed or furnace.
- **Inexpensive and readily available:** Standard straight manifolds and cross manifolds.
- **The model data is stored in the online CADHOC® database.**

VALVE GATE TECHNOLOGY



GÜNTHER VALVE GATE TECHNOLOGY

Are your demands high in terms of appearance, reduced cycle times, minimal shear stress, wide gate diameters and high process reliability? Then no need to look any further. The answer is: Valve gate technology from GÜNTHER.

The GÜNTHER valve gate portfolio includes numerous valve gate nozzles and needle actuation options. This allows the application-specific adaptation to the mould concept – both technically and economically perfect. The smallest and largest shot weights and gate cross-sections ranging from 0.8 to 5.0 mm can be achieved with valve gate technology.

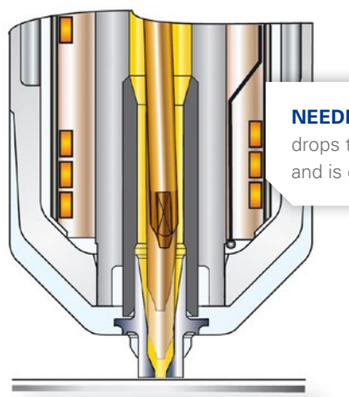
The innovative design of the contouring needle guide and the optimised valve-gate needle allow non-contact and wear-resistants operation. When closing, the needle is centred by means of a conical guide, until it fully and precisely enters the cylindrical guide.

The needle guide is mounted on floating bearings in the material tube. If worn out, the needle guide can be easily replaced.

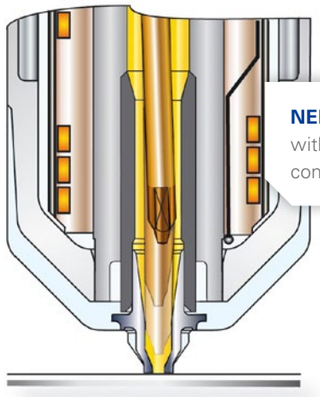
Special holes in the mould clamping plate allow the position of the valve needles to be adjusted individually from the outside.

Up to 50 % GF-filled plastics can be processed, depending on the application.

PM NEEDLE GUIDE OPTIONS



NEEDLE GUIDE LA
drops through to the article and is contouring.



NEEDLE GUIDE LAZ
with a tapered external contour.

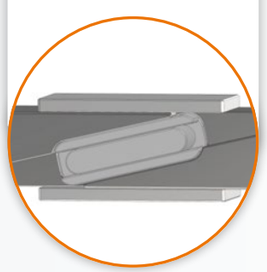
YOUR BENEFITS AT A GLANCE

- **Savings in time and money** thanks to simplified maintenance procedures and short downtimes. No need to remove the tool to replace the needle guide and needle. No need to rework the tool inserts when the gate diameter wears.
- **Long service life of the needle guide,** thus cost savings and fewer downtimes.
- **Consistent gate quality** over a longer period even with filled plastics.
- Change of material is no problem with the **uncomplicated adaptation of the gate.**
- **Precise opening**
- **Sequential injection moulding and cascades possible.**

MULTI-NEEDLE ACTUATORS

1 POWERFUL AND FAST SERVO DRIVE
for valve gate systems.
Up to 24 needle settings in the µ-range.
Needles close in < 0.2 s.
Unrestricted suitability for clean room applications.

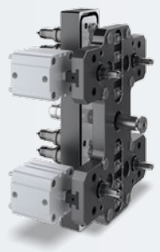
2 SLIDING COMPONENTS WITH SPECIAL COATING



SLIDING CAM MECHANISM

When a row of closely spaced nozzles is to be actuated, a sliding cam mechanism should be used as a drive. Multi-cavity mould design for small mould dimensions. High product quality, as all cavities are filled uniformly by the synchronous opening and closing of the needles. Needle position can be adjusted when still installed in the machine.

ACTUATING OPTIONS: ELECTRICAL HYDRAULIC PNEUMATIC



LIFTING PLATE MECHANISM

Reliable injection of even the lowest shot weights ensured by the even opening and closing of the needle. Practical for actuating up to 8 nozzles spaced with bigger pitches. The external cylinder can be replaced without disassembly of the tool. Needle position can be adjusted when still installed in the machine.

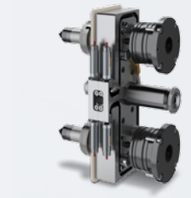
ACTUATING OPTIONS: HYDRAULIC PNEUMATIC

SINGLE-NEEDLE ACTUATORS

SINGLE NEEDLE VALVE ENV

Single needle actuation in single and multiple systems. Sequential opening and closing of the needle allows cascade injection moulding. Integration of the actuator in the clamping plate. Needle can be adjusted or replaced without removing the tool. Narrow cavity spacing from 46 mm with hydraulic actuator, from 67 mm with pneumatic actuator.

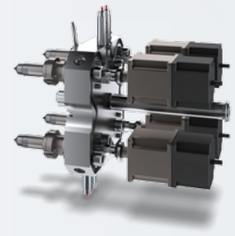
ACTUATING OPTIONS: HYDRAULIC PNEUMATIC



STEPPER MOTOR SMA 10

Electrical drive for complex applications with up to four different needle positions per cycle. Up to 16 SMA 10 stepper motors can be controlled with high precision using the ServoControlSingle device. One control module for every two stepper motors is used. With the control unit SCE 1.0, the position of every single closing needle in the tool can be adjusted individually. Needle adjustment in the range of 1/100 mm. Unrestricted suitability for clean room applications.

ACTUATING TYPE: ELECTRICAL



ELECTROMAGNET ME 10/UV 75

A compact, powerful drive for rapid needle movements for adaptation in the clamping plate. Easy installation and mould construction. Maintenance-free. Energy efficient switching times. Needle stroke 10 mm. Needles can be adjusted individually in the range of ± 1 mm. Up to 4 needles can be controlled simultaneously and with high precision by means of an external controller (eValveControl-4). Option of 8-drop parallel operation. Unrestricted suitability for clean room applications.

ACTUATING TYPE: ELECTRICAL

SINGLE VALVE-GATE NOZZLE TYPE NEST

The pneumatically driven NEST valve-gate nozzle offers highest process reliability in the processing of high-quality, sophisticated materials. The maximum processing temperature of > 320 °C covers a wide range of applications; material tube diameters from 5 to 12 mm and lengths of up to 250 mm make it possible to achieve a variety of moulded parts and mould designs. Ready-to-install valve-gate system.

ACTUATING TYPE: PNEUMATIC

YOUR BENEFITS AT A GLANCE

- **Ability to influence a running process,** since each valve gate needle can be controlled separately.
- Basically **individual cavities** can be shut off.
- **Time savings** thanks to the easy adjustment and replacement of the needles when installed in the machine.
- Optimum adjustment of the needle **with the help of the fine thread.**
- Replacement of the cylinder **without disassembly of the tool.**
- **Precise opening and closing of the valve needles** by means of the guide unit.
- **Reliable injection moulding even with the lowest shot weights** due to the even opening and closing of the needles.
- **Precise and intelligent needle control** with simple installation and connection.

CONTROLLERS

eValveControl-4

ServoControl Single SCE 1.0

HOT HALVES

RAPIDFLOW® HOT HALF
completely assembled and wired.
Delivery time: 3 weeks.
Attractive price-performance ratio.

CADHOC®

By using the **GÜNTHER SYSTEM-DESIGNER CADHOC®** to configure hot halves, you can save time and money by means of detailed data at an early project phase.

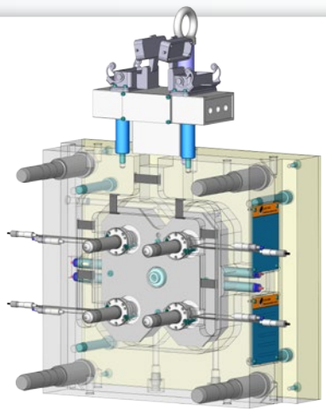
Hot halves based on the type of manifold
- Straight manifold, 2-drop, 4-drop,
- H-manifold, 4-drop, 8-drop, and
- Cross manifold, 4-drop

Plate sizes from 196 x 296 mm to 796 x 996 mm (depending on size of manifold and type of manifold).

Scope of delivery: Hot halves in 2-plate-system, including guide elements, cable channel, cooling, etc.

All system nozzles with tip and open nozzle piece can be used.

Visit our website at:
www.guenther-hotrunner.com



THE “HOT HALVES” ARE READY-TO-INSTALL WITH MANY BENEFITS

Focussing on your requirements, we’ll design the solution most appropriate for you. You’ll get a sophisticated tool concept, in which all components are compatible. For testing purposes, you can take advantage of our technical center under production conditions. We also will provide you with support in the fields of commissioning, maintenance and repairs.

EFFICIENT AND INEXPENSIVE

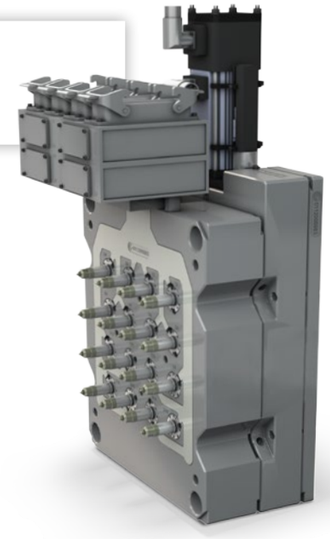
Complete mould halves with height-adjusted hot runner and without cavity plate for all areas of industry eliminate installation errors, reduce project planning expenses, and maximize the performance of GÜNTHER hot runner systems.

ADVANTAGES OF OUR WIDE RANGE OF HOT HALF PRODUCTS

From the top edge of the article, we’ll supply a complete tool half with height-adjusted hot runner. Completely wired and function-tested. With this ready-to-install solution, you are able to avoid elaborate fine-tuning work and possible installation errors.
We deliver hot halves with valve gate technology with either an electric, hydraulic or pneumatic drive.

HOT HALF
Tandem
24-/48 cavity

HOT HALF
Valve gate
16-cavity



YOUR BENEFITS AT A GLANCE

- **Ready-to-install solution.** Hot half is delivered fully wired, assembled and function-tested. Eliminates installation errors and is efficient, since no elaborate fine-tuning work is required.
- **Eliminates additional fitting costs caused by reworking on defective hot runners.** Cost savings through rapid mould construction.
- **Shortened project planning times,** since the construction of the mould only has to be concentrated only on the ejection side and cavity plate. Project planning runs parallel to mould planning.
- **Online configuration using the CADHOC® System-Designer.** The system suggests plate sizes.
- **Extended warranty period** for hot halves which are operated with the latest GÜNTHER controllers and GÜNTHER connecting components.

CONTROL TECHNOLOGY

CONTROL TECHNOLOGY FOR HOT RUNNER SYSTEMS

Control Technology from GÜNTHER is characterized by a product line perfectly tailored to the needs of the user.
Our range extends from a 1-channel universal controller to a 150-zone control cabinet with touch-screen operation.

The control units run with an operating voltage of 230 V – practical and user-friendly.

USER FRIENDLY CONTROL TECHNOLOGY

- Precise control
- Reliable and sturdy
- Rapid pulse group control
- High process reliability due to a permanent diagnostics function and fault monitoring

TEMPERATURE CONTROLLERS DP 1 TO DP 6

The compact controllers for the economical and convenient control of small hot runner systems. Easy to operate thanks to separate displays (set and actual temperatures) and input keys.

DP 1 TO DP 5

- Control of 1 to 5 control zones
- Fuzzy PID control behaviour
- Softstart function for controlled start-up
- Actual temperature and set temperature displayed for each zone
- Pulse group control
- Temperature reduction during production breaks
- Change of operating mode (settings and controls)

DP 6

- Control of 6 control zones
- Front side BOOST and LOWER keys
- Group selection, selection of several zones with short-cut keys (like DPT 20)

MULTI-CHANNEL CONTROLLERS DPT 5 TO DPT 15

The multi-channel controllers of the DPT series offer a wide variety of functions for the safe control of complex hot runner systems.

- Control of 5, 10 or 15 control zones
- Menu-driven operation via LCD display
- Language selection
- Fuzzy PID control behaviour
- Load detection, load monitoring
- Several controllers can be linked by means of an interface to form an easy-to-operate overall system
- DPT devices (10/15) have a star/delta change over for different mains voltages
- Optional: Interface operation through injection machine

MULTI-CHANNEL CONTROLLERS DPT 20 TO DPT 45

The compact controllers DPT 20 and DPT 30 – DPT 45 are based on the controller DPT 15. The new controllers offer even more operational convenience and reliability.

- Each heating circuit has a max. load of 3.5 KW
- Selection key for each zone
- Simple pin assignment by means of 24-pin HAN ES plugs
- ON/OFF switch for tool heating
- Timer function for time-controlled heating of the tool
- Easy operation with zone selection keys
- Fast adjustment of all relevant temperature settings, e. g. for nozzles, manifolds or also nozzle

DP 2

DP 6

DPT 15

DPT 45

YOUR BENEFITS AT A GLANCE

- **User friendly.** Due to separate display/input keys and practically self-explanatory menu navigation.
- **Operating mode and process control function can be changed.** Operating mode: Settings or control, process control: Master or Slave.
- **Continual error monitoring.** Interrupts process at excessive temperature, subnormal temperature and failure of a hot runner element. Hot runner temperature is lowered in case of error/shutdown.
- **Set/Actual display for every control.** LED display for every control and details of all parameters can be shown.
- **Multiple temperature controllers.** Retrofitting of the control zones possible, e. g. for DPT 5, DPT 10, DPT 15 for 5 – 15 zones, also for DPT 20 – 45 and DPT multi-zone.
- **Extremely fast, high precision temperature control** without temperature fluctuations, thus suitable for fast-acting nozzles.
- **Practical additional features: Soft start function, start-up ramp, diagnostics function, etc.** They optimize the process reliability and operational convenience and detect wiring errors.

SERVICE OFFERS

NO MATTER WHAT YOU DO, WE ALWAYS BEAR ONE THING IN MIND: YOUR SUCCESS

That's why we support you not only with our sophisticated products, but also with our comprehensive services. From thorough advice about hot runner systems and the systematic planning of individual solutions, to hands-on training courses for users and design engineers. We also offer you specialist conferences where you can find out more about the latest developments in hot runner technology.

CONTACT

Always the right contact

At GÜNTHER Hot Runner Systems you will always find the right person to deal with. Simply choose the department you need and get in touch with your contact.

TECHNICAL CENTER/SIMULATION

The hot runner system design based on diverse application-specific experience is backed up by pressure loss calculations and filling analyses. Application engineers are available for the commissioning of moulds. You are welcome to let us carry out material testing, optimization, and samplings of your moulds on our three injection moulding machines with 25 tons to 130 tons closing force.

SEMINARS & WEBINARS

Know-how in plastics & more

Interesting seminars and training courses will give you the latest know-how and knowledge in no time.

Take advantage of our webinars. These seminars takes place through the Internet, and offer the following benefits:

- Concise and targeted information
- no travel and accommodation costs
- no lost work days!

APPLICATION DATABASE

Software for design suggestions and machine configurations.

The application database is software for selecting design proposals and machine configurations. After simply putting in all of the hot runner and material requirements, the application database will provide a selection of tested systems and their results. You can also enter your own applications directly into the database. The application will then be tested in-house and released. Please register at no charge.

CADHOC®

Our System-Designer

As a registered user, you'll be able to configure your own hot runner system in a very short time using our online-Tool CADHOC®. Quick, easy and safe to use, you can download all relevant data, including 3D-negative volumes immediately.
Price information is also available directly.

BLUEFLOW®-ENERGY COMPARSION CALCULATOR

Save energy, lower costs!

Enter the required parameters and start theBlueFlow® comparison.

Visit our website at:
www.blueflow.de

DELTA-TOOL-CALCULATION PROGRAM

Calculation of hot runner height

For gate diameters smaller than ØD =1.2 mm, the nozzle must be installed further back from the gate.

Visit our website **www.guenther-hotrunner.com** to find the Delta-Tool-calculation program. You can download the program free of charge onto your PC.

NOTICE

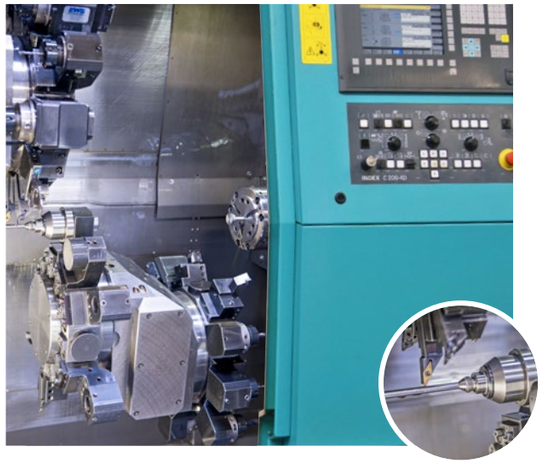
Please visit our website www.guenther-hotrunner.com for more details about the aforementioned service offers.

GÜNTHER HOT RUNNER TECHNOLOGY

PASSION FOR PRECISION

PASSION FOR PRECISION – OR THE PLEASURE OF SUPERIOR PERFORMANCE

Extensive knowledge in material and manufacturing technology, competent employees and a well-equipped machine park are the basis for producing efficient solutions for individual requirements.



INDEX C65 PRODUCTION AUTOMATIC LATHE

Technical data:
- Three tool systems on two identical spindles
- 2 Y-axes for 3 turrets and 2 spindles
- Simultaneous machining with 3 turrets on 2 spindles and work insensitive to collision
- Extremely low unit and cycle times due to simultaneous machining with up to three tools
- Suitable for tools, such as nozzle shaft

CHAMELEON – LINEAR HANDLING SYSTEM FOR MANIFOLDS AND HOT HALVES

- Chameleon loads production machines and hoppers during operation
- Reduction of changing times
- Shorterlead times and improved on-time delivery
- Quality assurance

CT 960 UNIVERSAL INTERNAL AND EXTERNAL CYLINDRICAL GRINDING MACHINE

Technical data:
- Z and X axes and fully controlled B and C axes
- Speeds of 1500 to 120,000 RPM achieved through four high-frequency spindles
- Suitable for tools, such as needle guide and mini-manifold of the OktaFlow® nozzles

HERMLE C40U

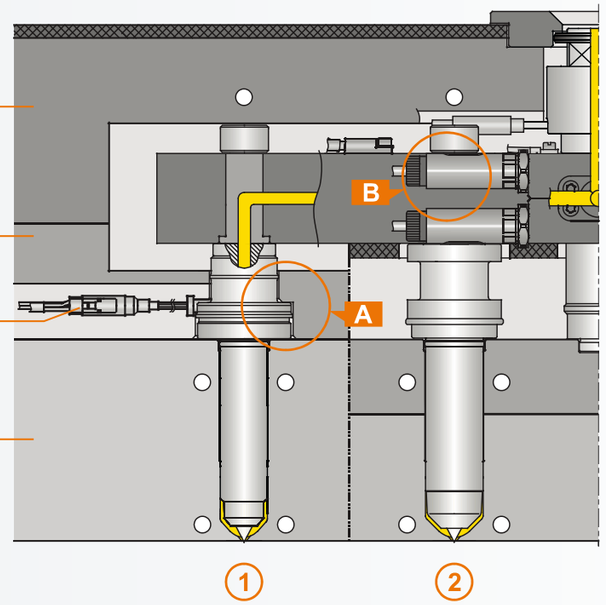
Technical data:
- 5 axes simultaneously
- Travel: X-Y-Z 850 – 700 – 500
- Speed: 10,000 1/min
- 125 tool positions
- Suitable for work pieces, such as manifolds and hot halves

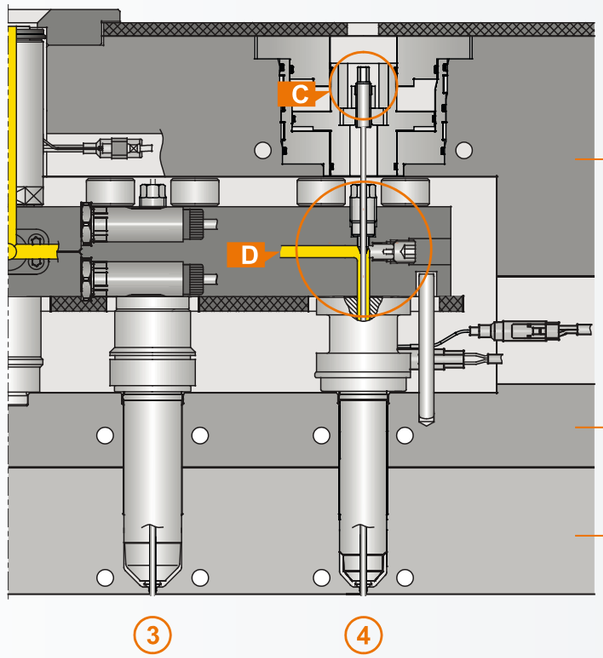
S33 UNIVERSAL EXTERNAL CYLINDRICAL GRINDING MACHINE

Technical data:
- Two left external grinding discs with a diameter of 500 mm
- Cutting speed up to max. 50 m/s
- Fully automatic loading and unloading
- Workpieces can be processed individually and quickly
- Suitable for work pieces, such as material tube, nozzle shaft and housing

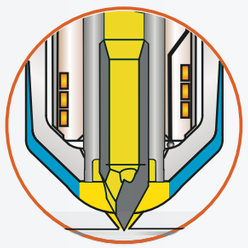
HOT RUNNER – OPEN SYSTEM

HOT RUNNER – VALVE GATE SYSTEM

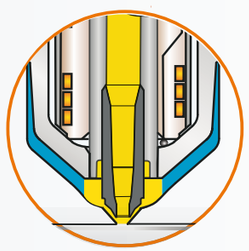




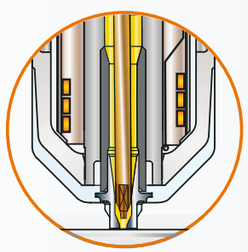
Gate geometry
OPEN NOZZLE WITH TIP



Gate geometry
OPEN NOZZLE WITH GATE WITHOUT TIP



Gate geometry
VALVE-GATE NOZZLE



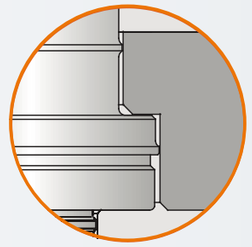
1 NOZZLE TYPE STT
- with shaft
- screwed on at parting line

2 NOZZLE TYPE SHT
- with shaft
- screwed onto manifold

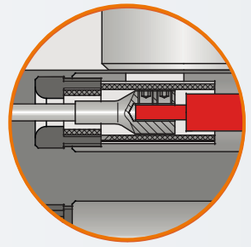
3 VALVE-GATE NOZZLE TYPE NMT
- with shaft
- for limited tool space
- not screwed onto manifold

4 BLUEFLOW® VALVE-GATE NOZZLE TYPE NHF
- with shaft
- with thickfilm heater
- screwed onto manifold

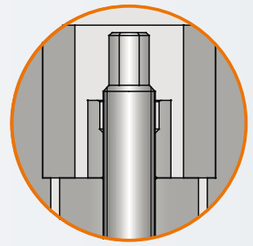
A TWO FITS FOR PRECISE POSITIONING AND MORE SAFETY AGAINST LEAKAGE



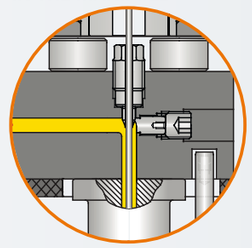
B PROTECTED HEATING CONDUCTOR CONNECTION



C NEEDLE ADJUSTMENT



D NEEDLE GUIDE AND SEAL WITH MELT DIRECTION CHANGE IN THE MANIFOLD



We develop individual solutions for your requirements – quickly, accurately and flexibly. Seminars and optimal advice about the use of our products contribute to a better understanding. Within the partnerships with our customers, we always focus our efforts on being a competent and useful partner.

With nearly 200 employees and a worldwide network of partners in 33 locations, we're there where and when you need us. Through our international structure, we are always up-to-date on the latest market and product developments as well as business processes in the plastics processing industry.

GÜNTHER®
HOT RUNNER TECHNOLOGY

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