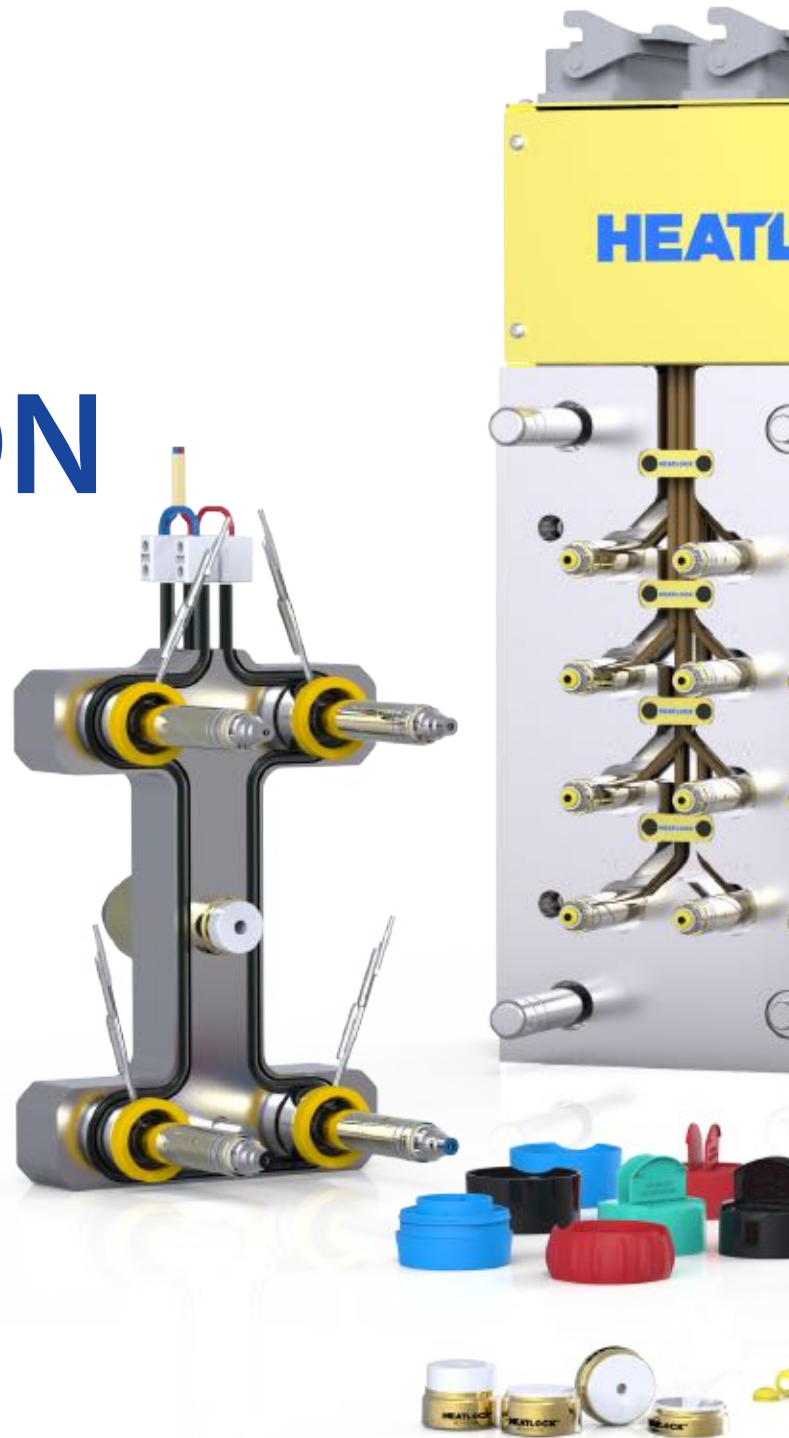


# HOT RUNNER PERFECTION MADE BY SWEDEN

THE STRAIGHT, Ultimate  
everything, nozzle series





Our passion is hot runner solutions, and we pride ourselves on simplicity whilst maintaining maximum performance, achieving modular perfection.

THE STRAIGHT series, a marvel in details for maximum performance, branching out from our modular perfection the A2&A3 well proven nozzle series, featuring our NEW GROUND BREAKING STRAIGHT heaters.

THE STRAIGHT HEATER series is available in two versions, BUCKLE and THIN. We have together with our high tech heater supplier developed the heater to suit our design and applications. Given a straight temperature profile not influenced by melt or mould temperature. This unique temperature profile, is so good we simply call it, THE STRAIGHT!

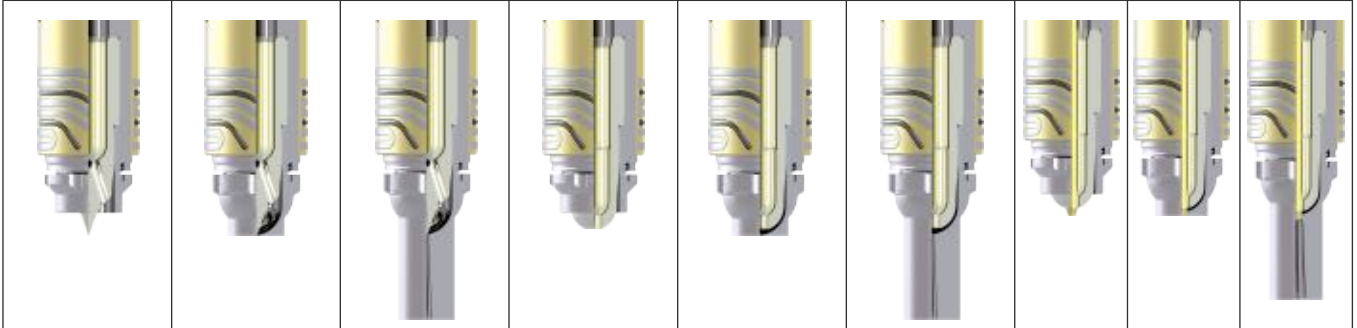
Of course with our signum; -simplicity easy to use and service, modularity to suit.

Suitable for all kinds of resins, commodity or engineering, filled or un-filled. You simply choose the model suitable for your resin, our total super modularity makes it possible.

Available as robust Single Cavity nozzle or as multi cavity nozzles, stack up style or screw in, our well known All-in-One series.

## → Nozzle Selection Guide

(mm)



Type	NOS			NPS			NPX/NSX			POS			PPS			PPX/PSX			VOS		VGS		VGX/VSX				
ΦFeed	4	5	7	4	5	7	4	5	7	4	5	7	4	5	7	4	5	7	4	5	7	5	7	5	7	5	7
ΦGate	0.6-1.5	0.6-2	0.8-3	0.6-1.5	0.6-2	0.8-3	0.6-1.5	0.6-2	0.8-3	0.6-1.5	0.6-2	0.8-3	0.6-1.5	0.6-2	0.8-3	0.6-1.5	0.6-2	0.8-3	0.8-2	1-3	0.8-2	1-3	0.8-2	1-3	0.8-2	1-3	

### Max. Recommended shot weight

	Max. Recommended shot weight																							
Low	80	200	400	80	200	400	80	200	400	100	300	600	100	300	600	100	300	600	200	500	200	500	200	500
Medium	60	100	260	60	100	260	60	100	260	60	125	310	60	125	310	60	125	310	80	200	80	200	80	200
High	5	20	50	5	20	50	5	20	50	7	25	60	7	25	60	7	25	60	20	50	20	50	20	50

### Suitability

PP	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
PS/PE	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
ABS/SAN	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
POM	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
LCP	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PBT	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PET	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PA6/PA66	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
PC	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
PMMA	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
PPO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PES/PEK	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PPS/PEI	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Viscosity:

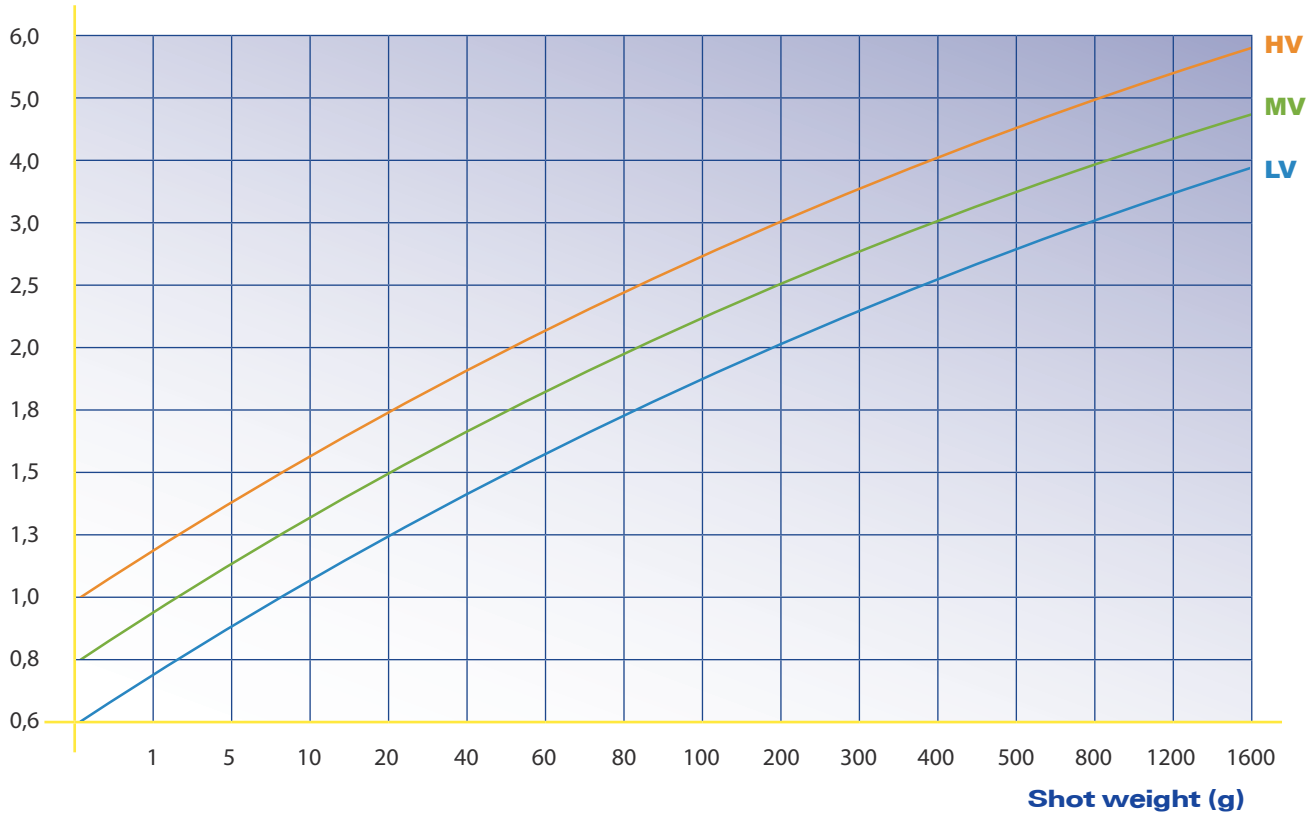
Low	Medium	High
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\*\*\* Good \*\* Ok \* Contact HEATLOCK -- Not recommended

All value above & approximate. For details regarding your product welcome to contact Heatlock.

## → Nozzle Gate Diameter

Gate Ø



**NOTE:**

1. For "TP" type reduce gate Ø -30%
2. For filled materials increase gate Ø +20%

1. **LV** Low viscosity materials PS, PE, PP
2. **MV** Medium viscosity materials ABS, SAN, PA, POM
3. **HV** High viscosity materials PC, PMMA, PC/ABS, PUR

Above diagram is a guideline built on experience from thousands of applications. However is the result depending on numerous conditions in your mould; balance between shot weight, injection speed, injection pressure, mould temperature, temperature control around the gate area, temperature control opposite the gate.

A smaller gate freeze faster compared with a larger gate, a faster cycle time allow smaller gate, long cycle time requires bigger gate.

If cycle time is short and injection speed fast it may be necessary to design gate cooling to avoid gate to overheat.

When you gate on a runner is it recommended to make the gate slightly larger to reduce pressure drop and decrease shear rates. Runner shall be adjusted in size to suit Hot Runner moulding to get shortest cycle time.

Above diagram is a guideline only, final decision is to be decided by the moulder or simulation considering all factors of the process.

## → STRAIGHT BUCKLE, SB, heater series

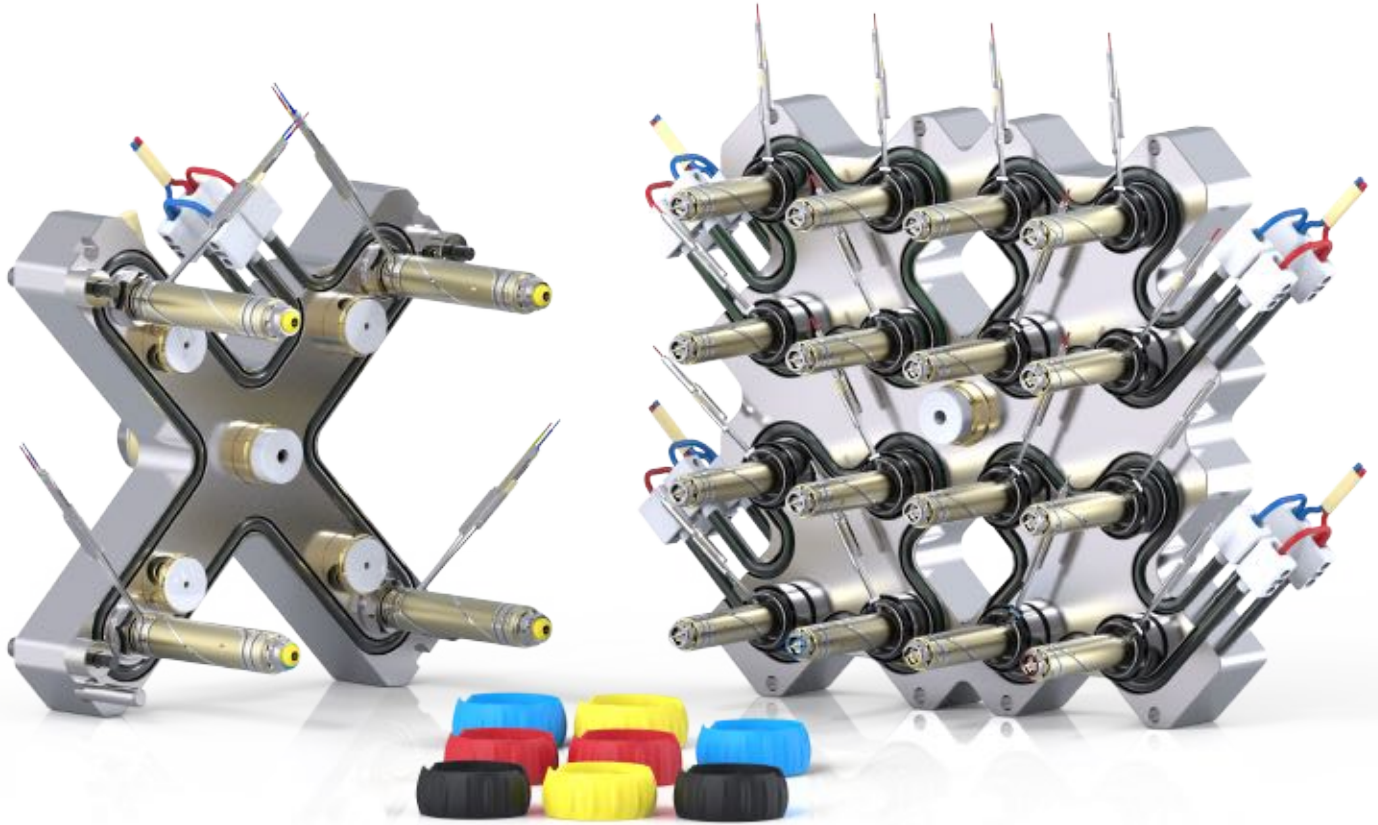


SB heater is a marvel of heater technology, state of the art. You can almost design the energy supply per mm of heater length. Each heater is designed for our nozzle series only and individual nozzle length, as tailor made as it can be.

On top of that it's signature, simplicity. The BUCKLE, you move in one direction it opens the heater, in other direction heaters locks to the nozzle. Heaters unique design opens up or closes its inner diameter making heater change, if ever needed, a breeze.

Delivering STRAIGHT temperature profile and easy to use at the same time!

## → STRAIGHT THIN, ST, Nozzle series



ST heater is masterpiece of compact heater technology and state of the art production know-how. Focus has been to reach an excellent heat supply with a thin heater profile to give the nozzle series a close pitch without losing heat performance. Each heater is designed for our nozzle series only and individual to each length, as tailor made as it can be.

Result is a THIN heater delivering excellent temperature profile and at the same time with a low power rating to preserve energy. It's unique production technology, with dedication to details ensure each heater is identical delivering equal temperatures between the hot runner drops.

Delivering STRAIGHT temperature profile and easy to use at the same time!