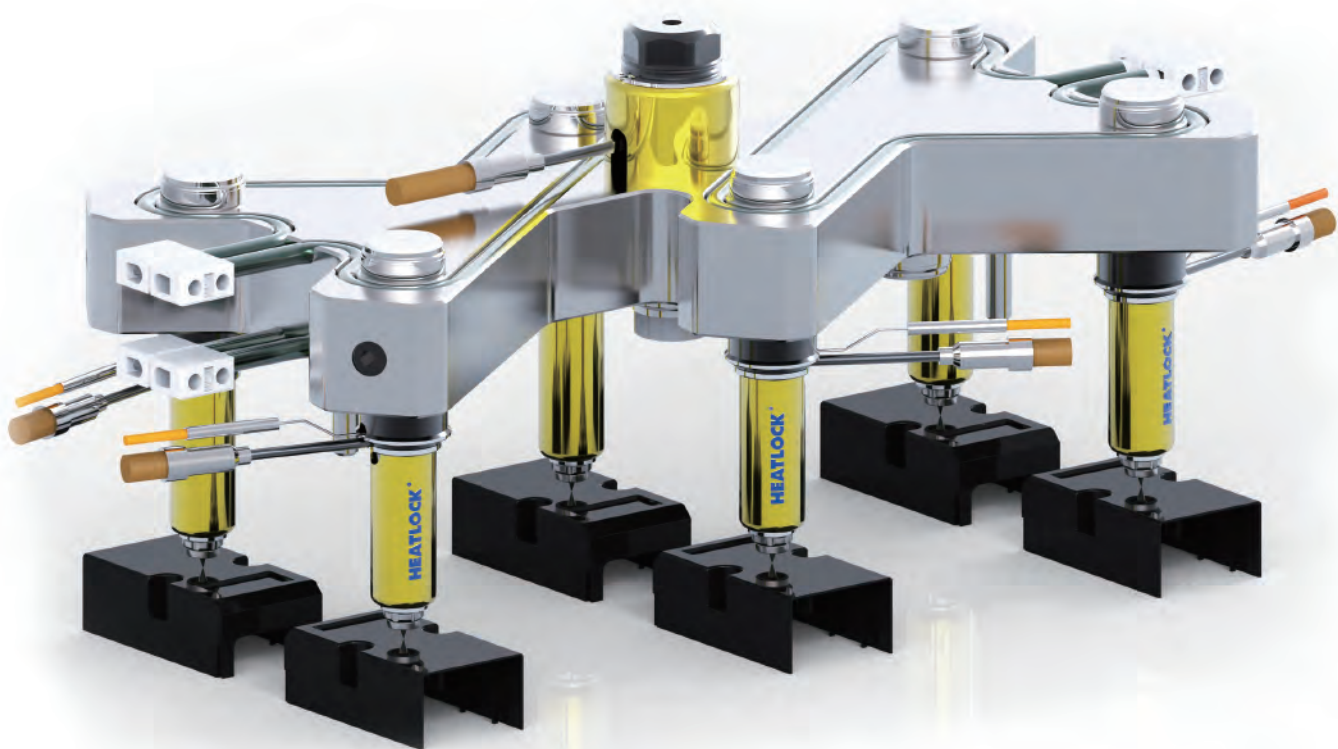


**HEATLOCK®**

# **YOURGLOBAL HOT-RUNNER SOLUTION**



# HEATLOCK®

## Global Hot Runner Solution Provider

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

Our Operation is set up according to international business standards with strict quality and management system as key ingredients. We have more than 30 years' experience with Hot Runner Solutions.

We supply standardised products or special hot runner solutions, hot half's all up to your specific requirements. All simulated in depth, if needed, by our global partners. Our network has top of the line tech know-how.

### **Ceramic insulated, CE technology**

HEATLOCK Hot Runners are known for their ceramic insulation, which insulates all the contact- and location-points from the mould. With our patented CE fix technology have we made ceramics even easier to use with increased sustainability

### **Service fanatics**

Heatlock is a service company fanatic about customer care, we deliver hot runner solutions, your lean partner.

### **Global partners**

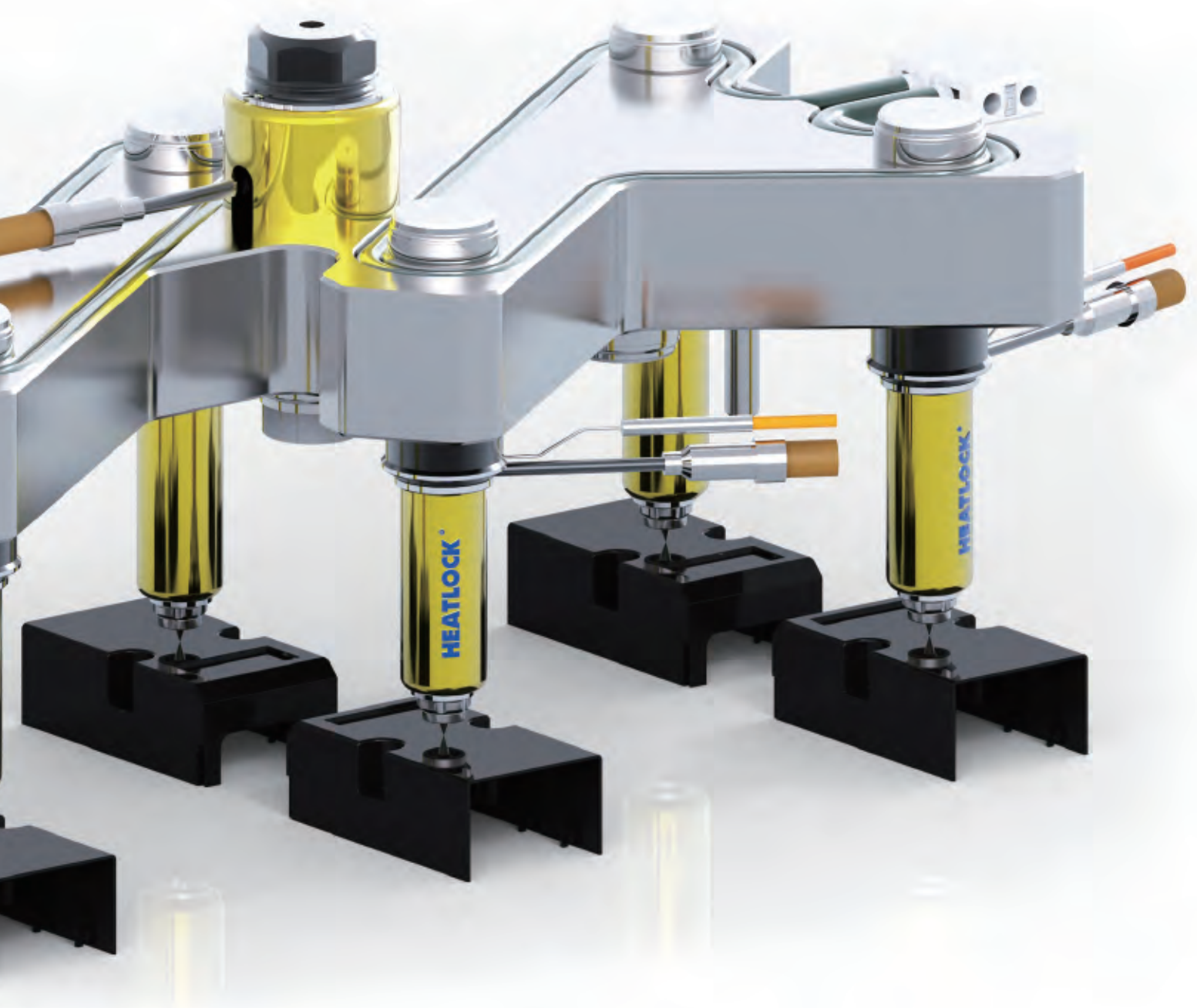
Throughout our global network of partners, HEATLOCK guarantees high quality service no matter where your mould is produced or in production. You make your mould in China, Germany, Portugal, UK.....our Global Call service takes care of you.

Tech centre and spare part stock in;

**China \* Germany \* US**

**GLOBAL ASSISTANCE, HELP ANYWHERE==  
GLOBAL CALL BY HEATLOCK**





## A2 Series Modular Perfection

Hot runners re-engineered to make it simple and easy to use with maximum performance and modularity.

Use the standard configurations in case of commodity resins, for engineering resins simply up-grade with our high performance modules.

Install the A2 Hot Runner system in your mould and adjust gate position to your maximised position using our virtual gate position technology. Grind back spacers to adjust for calculated heat expansion close the clamp plate and your ready to go.

Individually designed nozzle solutions available to suit your production needs.

## → A2 Nozzle Selection Guide -1

</

Max. Recommended shot weight																									
Low	80	200	400	800	200	400	80	200	400	800	80	200	400	100	300	600	1100	100	300	600	1100	100	300	600	1100
Medium	60	100	260	400	100	260	60	100	260	400	60	100	260	60	125	310	500	60	125	310	500	60	125	310	500
High	5	20	50	100	20	50	5	20	50	100	5	20	50	7	25	60	115	7	25	60	115	7	25	60	115

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

Viskosity:

Low

Medium








High

\*\*\* Sehr gut geeignet \*\* gut geeignet \* heatlock -- Nicht empfohlen

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

## → A2 Nozzle Selection Guide -2

(mm)

																							
Type	VOS			VGS			VGX			XL-NPX		XL-NOS		XL-PPX		XL-POS		MEGA-NOS	MEGA-POS	MT			
Φ Feed	5	7	10	5	7	10	5	7	10	10	17	10	17	10	17	10	17	24	24	4	5		
Φ Gate	0.8~2	1~3	1.2~3	0.8~2	1~3	1.2~3	0.8~2	1~3	1.2~3	1.2~3	1.8~5	1.2~3	1.8~5	1.2~3	1.8~5	1.2~3	1.8~5	*	*	0.6~1.5	0.6~2		

### Max. Recommended shot weight

Low	200	500	900	200	500	900	200	500	900	1100	2800	800	2500	1100	2800	1100	2800	*	*	80	200
Medium	80	200	380	80	200	380	80	200	380	500	1750	400	1500	500	1750	500	1750	*	*	60	100
High	20	50	100	20	50	100	20	50	100	115	1000	100	800	115	1000	115	1000	*	*	-	-

### Suitability

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

Viskosity:

Low

Medium

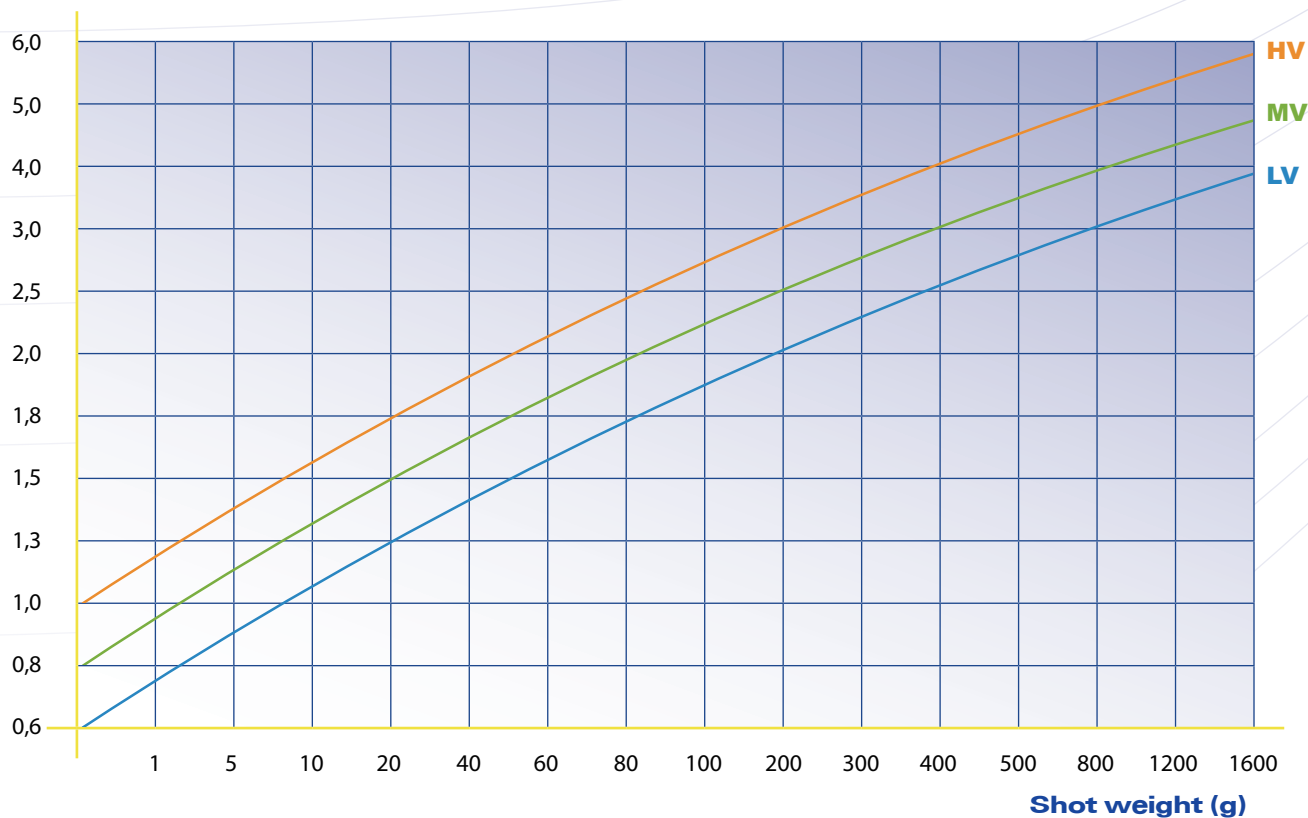
High

\*\*\* Sehr gut geeignet \*\* gut geeignet \* heatlock -- Nicht empfehle

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

## → A2 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.

## → A2 Technology



Our modular work-horse series, simplicity for easy to use and service, modularity to suit your requirement, All modular elements for the A2 series is the same as use for our A3 All-In-One series.

To find nozzle that suit your parts' gate requirements, simply select nozzle size, length and front style using our nozzle guide.

All 10 front styles are available in one exit or three exit tip option. For glass filled resins and other materials requiring wear resistant tip select our TZM tip for maximized life, available in one exit style. All tips are designed to give minimum stress to material while maintaining a stable controlled gate temperature.

Simply drop the Hot Runner system in your mould and adjust gate position to the optimum position using our virtual gate position technology, V-GATE, can it get easier?



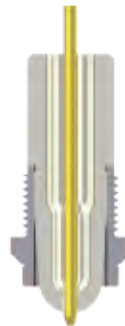
NOS



NOX



POS



VOS



NPS



PPS



VGS



NPX



PPX



VGX

## → A2 NOS+NPS+NPX Series



### NOS

- Topless direct gate small residue on the part
- One hole options for shear sensitive materials
- TZM one exit tips for reinforced materials

### NPX

- Direct gate small residue on the part, reduced stringing
- One exit options for shear sensitive materials, TZM one exit tips for reinforced materials
- Gating on contour or with a sprue gate
- Exchangeable gate, gate separated from mould plate

### NPS

- Direct gate small residue on the part, reduced stringing
- One exit options for shear sensitive materials, TZM one exit tips for reinforced materials
- Exchangeable gate, gate separated from mould plate



NOS



NPS



NPX

(mm)

Size	Size 04	Size 05	Size 07	Size 10
L	50~100	40~120	40~160	60~180
Feed $\phi$	4	5	7	10
Gate $\phi$	0.6~1.5	0.6~2	0.8~3	1.2~3

Shot Weight(g)				
Low-viscosity	80	200	400	800
Medium-viscosity	60	100	260	400
High-viscosity	5	20	50	100

## → A2 NOS+NPS+NPX Guide

### Order example:



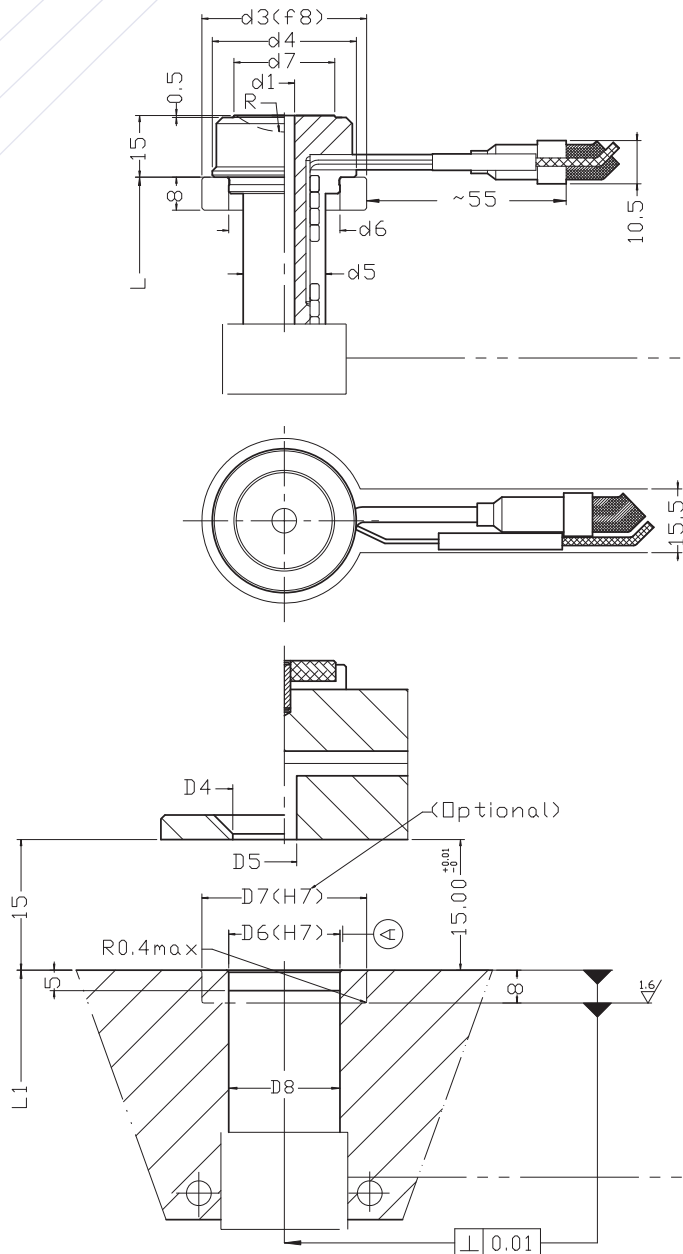
**A2 - NOS - 080 - 05 - 1 - 3**

Nozzle series	Front type	L	Feed dia.	Tip mat.	Exits in tip
A2	NOS	080	05	1	3

#### Tip codes:

material: 1=copper alloy, 3=HBM-CDC, 4=TZM-SHN

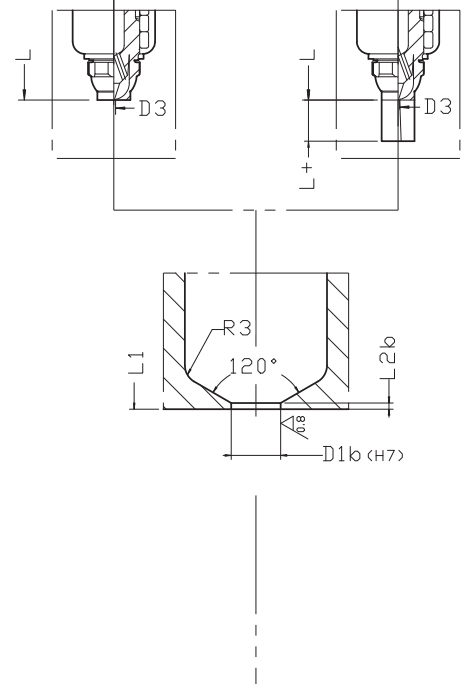
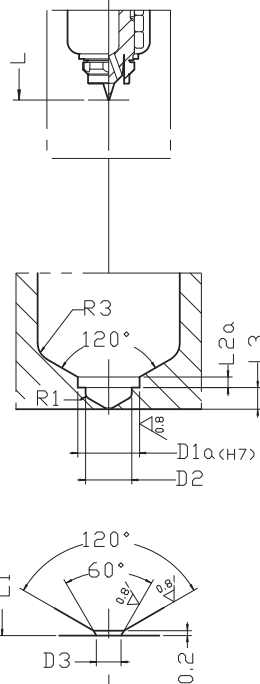
Exits: 1=one exit, 3=three exit



NOS

NPS

NPX



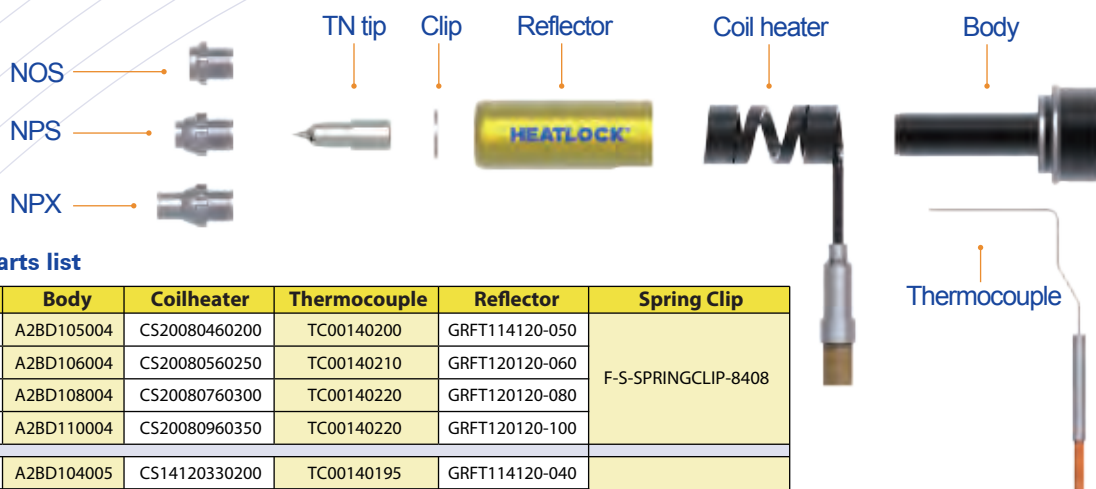
## → A2 NOS+NPS+NPX Dimension

(mm)

Nozzle	A2 + NOS NPS NPX																									
	Size	04				05						07						10								
	L	50	60	80	100	40	50	60	80	100	120	40	60	80	100	120	140	160	60	80	100	120	140	160	180	
	L+	5				10						15						15								
	d1	4				5						7						10								
	d3	T23				C30,T30						T36,T40,T50						T50								
	d4	23				29						35						48								
	d5	13				20						24						34								
	d6	17				23						27						39								
	d7	14				18						24.5						32								
Mould	L1	50.13	60.15	80.18	100.22	40.11	50.13	60.15	80.18	100.22	120.26	40.12	60.15	80.19	100.23	120.27	140.31	160.34	60.26	80.32	100.38	120.44	140.50	160.57	180.63	
	L2a	1.1				2						2.5						2.6								
	L2b	1				1						1.5						2								
	L3	1.7				3.5						3.5						4.4								
	D1a	6				10						12						18								
	D1b	6				8						10						14								
	D2	4.5				7.5						9						12.4								
	D3	1.5≥0.6				2≥0.6						3≥0.8						≥2								
	D4	16				20						26.5						34								
	D5	4				5						7						10								
	D6	17				23						27						39								
	D7	T23				C30,T30						T36,T40,T50						T50								
	D8	17				23						27						39								

C=Ceramic T=Titanium

## → A2 NOS+NPS+NPX Spare Parts



Nozzle body spare parts list

Size	Nozzle L	Body	Coilheater	Thermocouple	Reflector	Spring Clip
04	50	A2BD105004	CS20080460200	TC00140200	GRFT114120-050	F-S-SPRINGCLIP-8408
	60	A2BD106004	CS20080560250	TC00140210	GRFT120120-060	
	80	A2BD108004	CS20080760300	TC00140220	GRFT120120-080	
	100	A2BD110004	CS20080960350	TC00140220	GRFT120120-100	
05	40	A2BD104005	CS14120330200	TC00140195	GRFT114120-040	F-S-SPRINGCLIP-1210
	50	A2BD105005	CS14120430200	TC00140200	GRFT120120-050	
	60	A2BD106005	CS14120530200	TC00140210	GRFT120120-060	
	80	A2BD118005	CS14120730200	TC00140220	GRFT120120-080	
	100	A2BD110005	CS14120930200	TC00140220	GRFT120120-100	
	120	A2BD112005	CS14121130200	TC00140250	GRFT120120-120	
07	40	A2BD204007	CS14150310260	TC00140195	GRFT224200-040	F-S-SPRINGCLIP-1410
	60	A2BD206007	CS14150510300	TC00140210	GRFT224200-060	
	80	A2BD208007	CS14150710350	TC00140220	GRFT224200-080	
	100	A2BD210007	CS14150910450	TC00140220	GRFT224200-100	
	120	A2BD212007	CS14151110450	TC00140250	GRFT224200-120	
	140	A2BD214007	CS14151310500	TC00140250	GRFT224200-140	
	160	A2BD216007	CS14151510550	TC00140250	GRFT224200-160	
10	60	A2BD306010	CS14210490400	TC00140210	GRFT334200-060	F-S-SPRINGCLIP-1912
	80	A2BD308010	CS14210690450	TC00140220	GRFT334200-080	
	100	A2BD310010	CS14210890500	TC00140220	GRFT334200-100	
	120	A2BD312010	CS14211090600	TC00140230	GRFT334200-120	
	140	A2BD314010	CS14211290650	TC00140250	GRFT334200-140	
	160	A2BD316010	CS14211490700	TC00140250	GRFT334200-160	
	180	A2BD318010	CS14211690750	TC00140270	GRFT334200-180	

Front Spare Parts

Item code	Size 04		Item code	Size 05		Item code	Size 07		Item code	Size 10	
	Nut	Tip		Nut	Tip		Nut	Tip		Nut	Tip
A3NOS0307061-1	A3OS030706	A3TN0306161-1	A3NOS110101-1	A3OS11010	A3TN109281-1	A3NOS212121-1	A3OS21212	A3TN211351-1	A3NOS316181-1	A3OS31618	A3TN314401-1
A3NOS0307063-1		A3TN0306163-1	A3NOS110103-1		A3TN109283-1	A3NOS212123-1		A3TN211353-1	A3NOS316183-1		A3TN314403-1
A3NPS0307061-1	A3PS030706	A3TN0306161-1	A3NOS110104-1		A3TN109284-1	A3NOS212124-1		A3TN211354-1	A3NOS316181-3	A3PS31416	A3TN314401-3
A3NPS0307063-1		A3TN0306163-1	A3NOS110101-3		A3TN109281-3	A3NOS212121-3		A3TN211351-3	A3NPS314161-1		A3TN314401-1
A3NPX0307061-1	A3PX030706	A3TN0306161-1	A3NPS108101-1	A3PS10810	A3TN109281-1	A3NPS210121-1	A3PS21012	A3TN211351-1	A3NPS314163-1	A3PX31416	A3TN314403-1
A3NPX0307063-1		A3TN0306163-1	A3NPS108103-1		A3TN109283-1	A3NPS210123-1		A3TN211353-1	A3NPS314161-3		A3TN314401-3
			A3NPS108104-1		A3TN109284-1	A3NPS210124-1		A3TN211354-1	A3NPX314161-1		A3TN314401-1
			A3NPS108101-3		A3TN109281-3	A3NPS210121-3		A3TN211351-3	A3NPX314163-1		A3TN314403-1
			A3NPX108101-1	A3PX10810	A3TN109281-1	A3NPX210121-1	A3PX21012	A3TN211351-1	A3NPX314161-3		A3TN314401-1
			A3NPX108103-1		A3TN109283-1	A3NPX210123-1		A3TN211353-1			A3TN314403-1
			A3NPX108104-1		A3TN109284-1	A3NPX210124-1		A3TN211354-1			A3TN314401-1
			A3NPS108101-3		A3TN109281-3	A3NPX210121-3		A3TN211351-3			A3TN314403-1



TN tip spare part list

	1 exit			3 exits
	copper	HBM-CDC	TZM-SHN	copper
Size 04	A3TN0306161-1	A3TN0306163-1	*	*
Size 05	A3TN109281-1	A3TN109283-1	A3TN109284-1	A3TN109281-3
Size 07	A3TN211351-1	A3TN211353-1	A3TN211354-1	A3TN211351-3
Size 10	A3TN314401-1	A3TN314403-1	*	A3TN314401-3

## → A2 POS+PPS+PPX Series



### POS

- Topless direct gate or on a sprue gate
- Open flow little shear stress
- Fast gate cooling

### PPS

- Topless direct gate or on a sprue gate
- Open flow little shear stress
- Exchangeable gate, gate separated from mould plate

### PPX

- Direct gate or on a sprue gate small residue on the part
- Open flow little shear stress
- Gating on contour or with a sprue gate
- Exchangeable gate, gate separated from mould plate



(mm)

Size	Size 04	Size 05	Size 07	Size 10
L	50~100	40~120	40~160	60~180
Feed $\phi$	4	5	7	10
Gate $\phi$	0.6~1.5	0.6~2	0.8~3	1.2~3

Shot Weight(g)				
Low-viscosity	100	300	600	1100
Medium-viscosity	60	125	310	500
High-viscosity	7	25	60	115

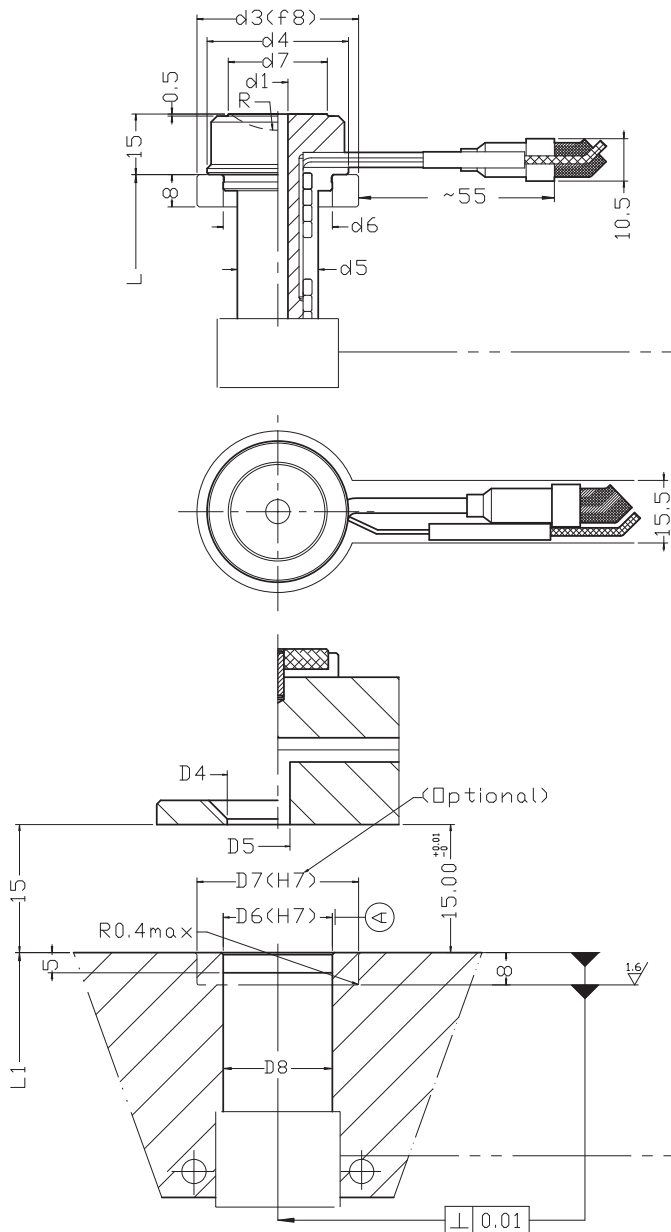
# → A2 POS+PPS+PPX Guide

## Order example:



A2 - POS - 080 - 05

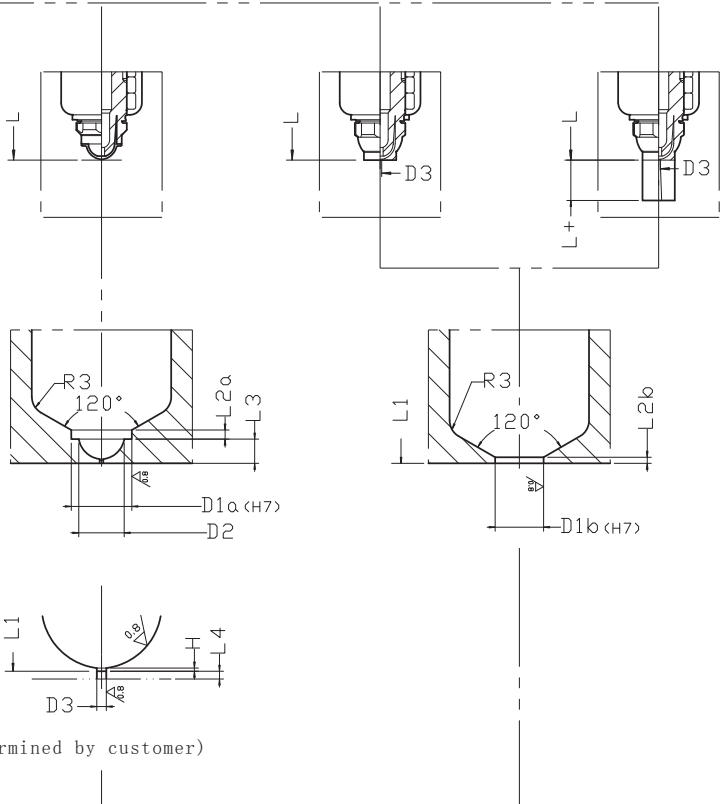
Nozzle series	Front type	L	Feed dia



POS

PPS

PPX



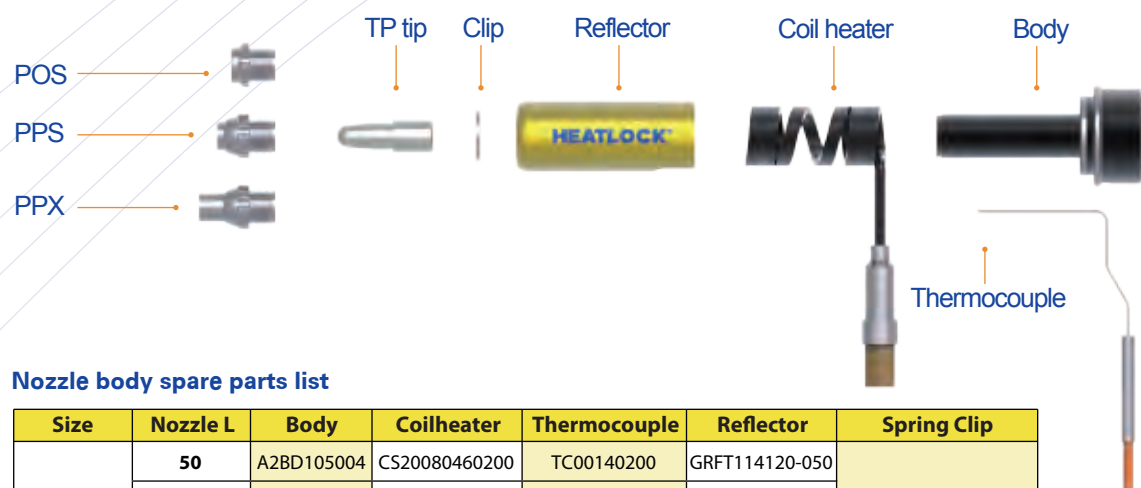
## → A2 POS+PPS+PPX Dimension

(mm)

	A2 + POS PPS PPX																									
	Size	04				05						07						10								
Nozzle	L	50	60	80	100	40	50	60	80	100	120	40	60	80	100	120	140	160	60	80	100	120	140	160	180	
	L+	5				10						15						15								
	d1	4				5						7						10								
	d3	T23				C30,T30						T36,T40,T50						T50								
	d4	23				29						35						48								
	d5	13				20						24						34								
	d6	17				23						27						39								
	d7	14				18						24.5						32								
Mould	L1	50.13	60.15	80.18	100.22	40.11	50.13	60.15	80.18	100.22	120.26	40.12	60.15	80.19	100.23	120.27	140.31	160.34	60.25	80.32	100.38	120.44	140.50	160.56	180.62	
	L2a	1.1				2						2.5						2.6								
	L2b	1				1						1.5						2								
	L3	1.7				3.5						3.5						4.4								
	D1a	6				10						12						18								
	D1b	6				8						10						14								
	D2	4.5				7.5						9						12.4								
	D3	1.5≥0.6				2≥0.6						3≥0.8						≥2								
	D4	16				20						26.5						34								
	D5	4				5						7						10								
	D6	17				23						27						39								
	D7	T23				C30,T30						T36,T40,T50						T50								
	D8	17				23						27						39								

C=Ceramic T=Titanium

## → A2 POS+PPS+PPX Spare Parts



Nozzle body spare parts list

Size	Nozzle L	Body	Coilheater	Thermocouple	Reflector	Spring Clip
04	50	A2BD105004	CS20080460200	TC00140200	GRFT114120-050	F-S-SPRINGCLIP-8408
	60	A2BD106004	CS20080560250	TC00140210	GRFT120120-060	
	80	A2BD108004	CS20080760300	TC00140220	GRFT120120-080	
	100	A2BD110004	CS20080960350	TC00140220	GRFT120120-100	
05	40	A2BD104005	CS14120330200	TC00140195	GRFT114120-040	F-S-SPRINGCLIP-1210
	50	A2BD105005	CS14120430200	TC00140200	GRFT120120-050	
	60	A2BD106005	CS14120530200	TC00140210	GRFT120120-060	
	80	A2BD118005	CS14120730200	TC00140220	GRFT120120-080	
	100	A2BD110005	CS14120930200	TC00140220	GRFT120120-100	
	120	A2BD112005	CS14121130200	TC00140250	GRFT120120-120	
07	40	A2BD204007	CS14150310260	TC00140195	GRFT224200-040	F-S-SPRINGCLIP-1410
	60	A2BD206007	CS14150510300	TC00140210	GRFT224200-060	
	80	A2BD208007	CS14150710350	TC00140220	GRFT224200-080	
	100	A2BD210007	CS14150910450	TC00140220	GRFT224200-100	
	120	A2BD212007	CS14151110450	TC00140250	GRFT224200-120	
	140	A2BD214007	CS14151310500	TC00140250	GRFT224200-140	
	160	A2BD216007	CS14151510550	TC00140250	GRFT224200-160	
10	60	A2BD306010	CS14210490400	TC00140210	GRFT334200-060	F-S-SPRINGCLIP-1912
	80	A2BD308010	CS14210690450	TC00140220	GRFT334200-080	
	100	A2BD310010	CS14210890500	TC00140220	GRFT334200-100	
	120	A2BD312010	CS14211090600	TC00140230	GRFT334200-120	
	140	A2BD314010	CS14211290650	TC00140250	GRFT334200-140	
	160	A2BD316010	CS14211490700	TC00140250	GRFT334200-160	
	180	A2BD318010	CS14211690750	TC00140270	GRFT334200-180	

Front Spare Parts

Item code	Size 04		Item code	Size 05		Item code	Size 07		Item code	Size 10	
	Nut	Tip		Nut	Tip		Nut	Tip		Nut	Tip
A3POS030706	A3OS030706	A3TP030615	A3P0S11010	A3OS11010	A3TP109271	A3POS21212	A3OS21212	A3TP211331	A3POS31618	A3OS31618	A3TP31438
A3PPS030706	A3PS030706		A3PPS10810	A3PS10810		A3PPS21012	A3PS21012		A3PPS31416	A3PS31416	
A3PPX030706	A3PX030706		A3PPX10810	A3PX10810		A3PPX21012	A3PX21012		A3PPX31416	A3PX31416	



## → A2 VOS+VGS+VGX Series

### VOS

- Pneumatic valve gate
- No residue on part
- Fast gate cooling

### VGS

- Pneumatic valve gate
- No residue on part
- Exchangeable gate, gate separated from mould plate

### VGX

- Pneumatic valve gate
- Direct gate or on a sprue gate small residue on the part
- Gating on contour or with a sprue gate
- Exchangeable gate, gate separated from mould plate



VOS



VGS



VGX

(mm)

Size	Size 05	Size 07	Size 10
L	40~120	40~160	60~180
Feed $\Phi$	5	7	10
Gate $\Phi$	$\geq 0.8$	$\geq 1.0$	$\geq 1.2$

Shot Weight(g)			
Low-viscosity	200	500	900
Medium-viscosity	80	200	380
High-viscosity	20	50	100

## → A2 VOS+VGS+VGX Guide

### Order example:



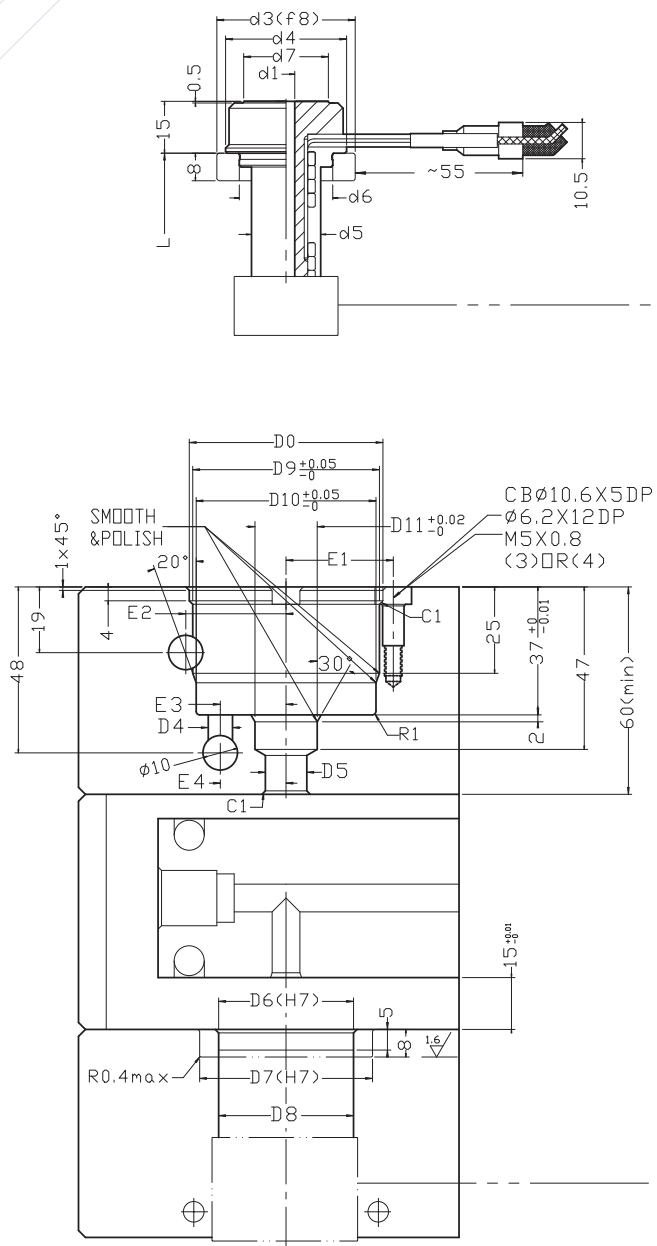
**A2 - VOS - 080 - 05**

Nozzle  
series

Front  
type

L

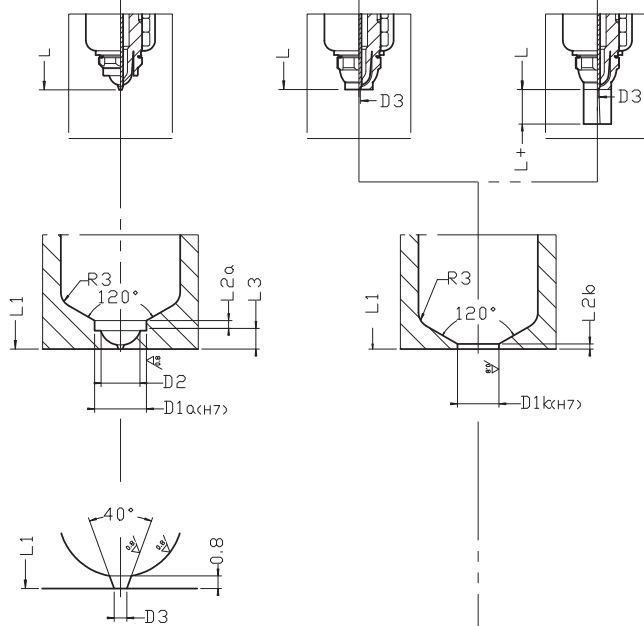
Feed  
dia



VOS

VGS

VGX



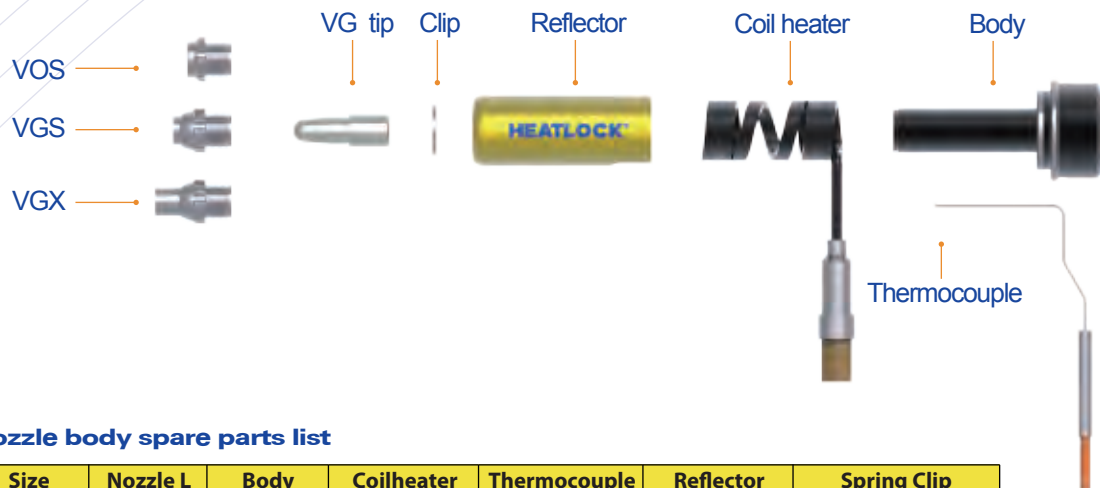
## → A2 VOS+VGS+VGX Dimension

(mm)

Nozzle	A2 + VOS VGS VGX																				
	Size	05						07						10							
	L	40	50	60	80	100	120	40	60	80	100	120	140	160	60	80	100	120	140	160	180
	L+	10						15						15							
	d1	5						7						10							
D3	≥0.8						≥1						≥1.2								
Mould	L1	40.11	50.13	60.15	80.18	100.2	120.3	40.12	60.15	80.19	100.2	120.3	140.3	160.3	60.26	80.32	100.38	120.44	140.50	160.57	180.63
	L2a	2						2.5						2.5							
	L2b	1						1.5						2							
	L3	3.5						3.5						4.5							
	D1a	10						12						18							
	D1b	8						10						14							
	D2	7.5						9						12.5							
	D4	6						6						7							
	D5	12						12						12							
	D6	23						27						39							
	D7	C30,T30						T36,T40,T50						T50							
	D8	23						27						39							

d3:C=Ceramic T=Titanium

## → A2 VOS+VGS+VGX Spare Parts



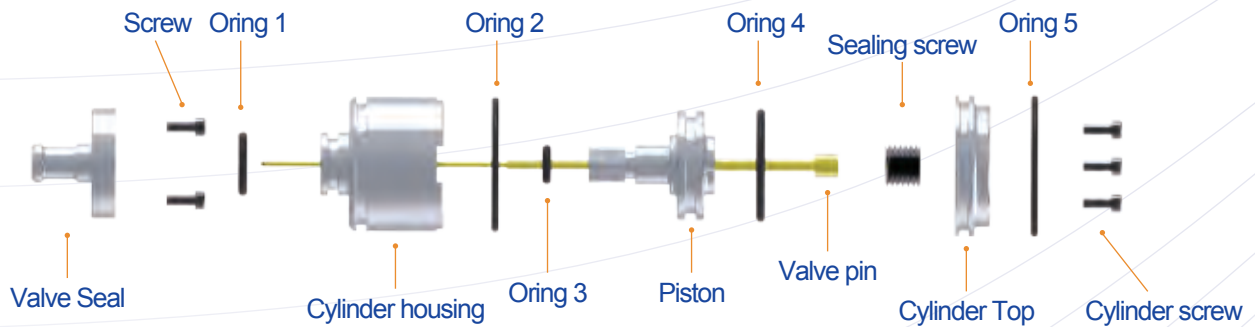
**Nozzle body spare parts list**

Size	Nozzle L	Body	Coilheater	Thermocouple	Reflector	Spring Clip
05	40	A2BD104005	CS14120330200	TC00140195	GRFT120120-040	F-S-SPRINGCLIP-1210
	50	A2BD105005	CS14120430200	TC00140200	GRFT120120-050	
	60	A2BD106005	CS14120530200	TC00140210	GRFT120120-060	
	80	A2BD118005	CS14120730200	TC00140220	GRFT120120-080	
	100	A2BD110005	CS14120930200	TC00140220	GRFT120120-100	
	120	A2BD112005	CS14121130200	TC00140250	GRFT120120-120	
07	40	A2BD204007	CS14150310260	TC00140195	GRFT224200-040	F-S-SPRINGCLIP-1410
	60	A2BD206007	CS14150510300	TC00140210	GRFT224200-060	
	80	A2BD208007	CS14150710350	TC00140220	GRFT224200-080	
	100	A2BD210007	CS14150910450	TC00140220	GRFT224200-100	
	120	A2BD212007	CS14151110450	TC00140250	GRFT224200-120	
	140	A2BD214007	CS14151310500	TC00140250	GRFT224200-140	
	160	A2BD216007	CS14151510550	TC00140250	GRFT224200-160	
10	60	A2BD306010	CS14210490400	TC00140210	GRFT334200-060	F-S-SPRINGCLIP-1912
	80	A2BD308010	CS14210690450	TC00140220	GRFT334200-080	
	100	A2BD310010	CS14210890500	TC00140220	GRFT334200-100	
	120	A2BD312010	CS14211090600	TC00140230	GRFT334200-120	
	140	A2BD314010	CS14211290650	TC00140250	GRFT334200-140	
	160	A2BD316010	CS14211490700	TC00140250	GRFT334200-160	
	180	A2BD318010	CS14211690750	TC00140270	GRFT334200-180	

**Front Spare Parts**

Item code	Size 05		Item code	Size 07		Item code	Size 10	
	Nut	Tip		Nut	Tip		Nut	Tip
A3VOS11010	A3OS11010	A3TV109261	A3VOS21212	A3OS21212	A3TV211331	A3VOS31618	A3OS31618	A3TV31438
A3VGS11010	A3GS10810		A3VGS21012	A3GS21012		A3VGS31416	A3GS31416	
A3VGX11010	A3GX10810		A3VGX21012	A3GX21012		A3VGX31416	A3GX31416	

## → A2 Cylinder Spart Part



### A2VG Cylinder spare parts

Size	Valve seal	Cylinder housing	Piston	Cylinder top	Valve pins	Screw	Sealing screw	Cylinder screw
A2VG05 A2VG07	CPVS063124	CPCY063835	CPPT063136	CPCT064010	PN0415230 PN0620260	M4X8	M12X10	M5X12X10
A2VG10	CPVS093424	CPCY095235	CPPT094536	CPCT095410	PN0935280 PN0935400	M4X8	M12X10	M5X12X10

Size	O-Ring 1	O-Ring 2	O-Ring 3	O-Ring 4	O-Ring 5
A2VG05 A2VG07	ORIN-00228	ORIN-00234	ORIN-00227	ORIN-00233	ORIN-00235
A2VG10	ORIN-00228	ORIN-00226	ORIN-00227	ORIN-00225	ORIN-00224

### A2VG Cylinder bore dimension

(mm)

Size	D0	D4	D5	D9	D10	D11	E1	E2	E3	E4
ACCP15230 ACCP20260 ACCP25260	42	6	12	40	38	18	24	23	15	18
ACCP35280 ACCP35400	56	7	12	54	52	18	31	29	19	19

## → A2 NOX Series



### NOX

- Topless direct gate small residue on the part
- One exit options for shear sensitive materials



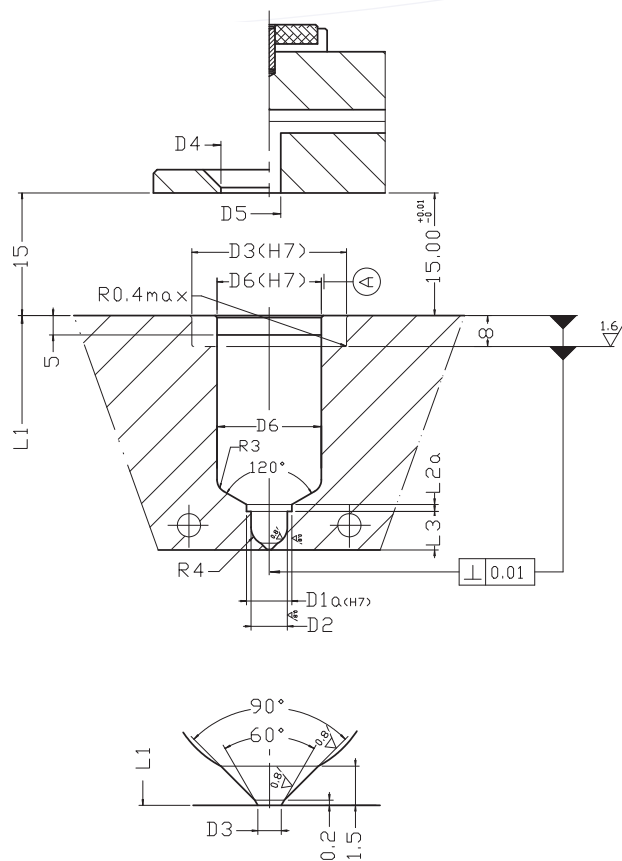
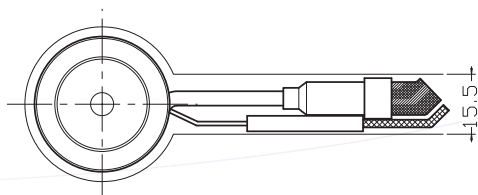
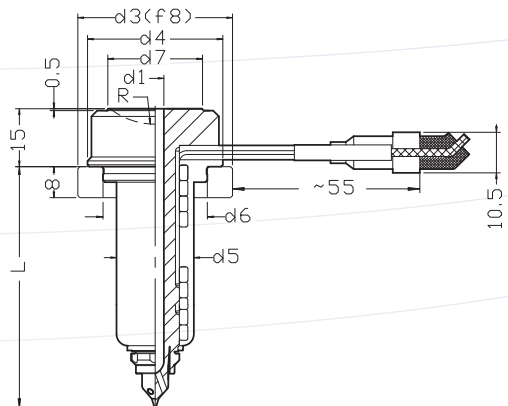
NOX

(mm)

Size	Size 05	Size 07
L	45~125	45~165
Feed $\phi$	5	7
Gate $\phi$	0.6~2	0.8~3

Shot Weight(g)		
Low-viscosity	200	400
Medium-viscosity	100	260
High-viscosity	20	50

**→ A2 NOX Guide**



### Order example:



**A2 - NOX - 085 - 05 - 1 - 3**

Nozzle series	Front type	L	Feed dia	Tip mat.	Exits in tip
---------------	------------	---	----------	----------	--------------

**Tip codes:**

material: 1=copper alloy

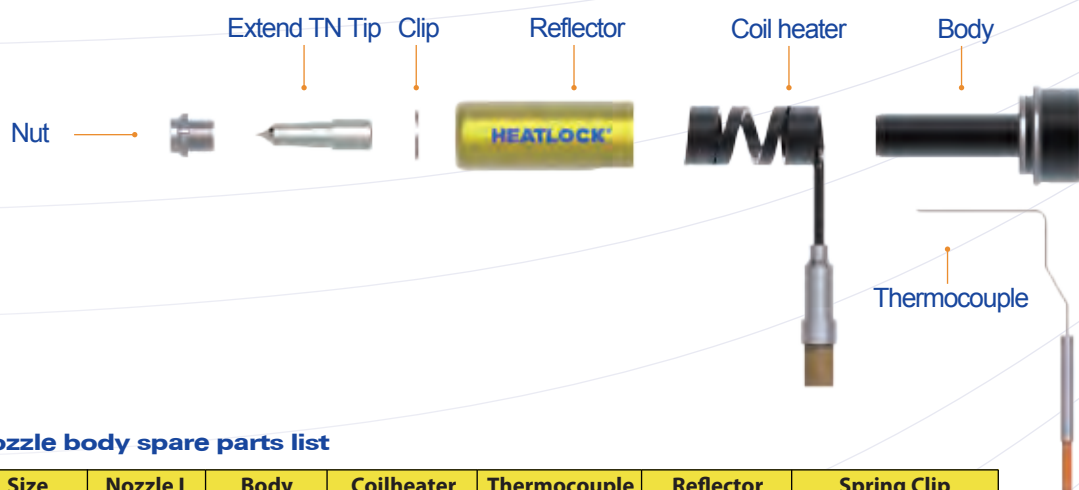
Exits: 1=one exit,3=three exit

## → A2 NOX Dimension

(mm)														
Nozzle	A2 NOX													
	Size	05						07						
	L	45	55	65	85	105	125	45	65	85	105	125	145	165
	d1	5						7						
	d3	C30,T30						T36,T40,T50						
	d4	29						35						
	d5	20						24						
	d6	23						27						
	d7	18						24.5						
Mould	L1	45.11	55.13	65.15	85.18	105.22	125.26	45.12	65.15	85.19	105.23	125.27	145.31	165.34
	L2a	2						2.5						
	L3	8.5						8.5						
	D1a	10						12						
	D2	8						9						
	D3	2≥0.6						3≥0.8						
	D4	20						26.5						
	D5	5						7						
	D6	23						27						
	D7	C30,T30						T36,T40,T50						
	D8	23						27						

d3:C=Ceramic T=Titanium

## → A2 NOX Spare Parts



**Nozzle body spare parts list**

Size	Nozzle L	Body	Coilheater	Thermocouple	Reflector	Spring Clip
05	45	A2BD104005	CS14120330200	TC00140195	GRFT120120-040	F-S-SPRINGCLIP-1210
	55	A2BD105005	CS14120430200	TC00140200	GRFT120120-050	
	65	A2BD106005	CS14120530205	TC00140210	GRFT120120-060	
	85	A2BD118005	CS14120730250	TC00140220	GRFT120120-080	
	105	A2BD110005	CS14120930350	TC00140220	GRFT120120-100	
	125	A2BD112005	CS14121130350	TC00140250	GRFT120120-120	
07	45	A2BD204007	CS14150310260	TC00140195	GRFT224200-040	F-S-SPRINGCLIP-1410
	65	A2BD206007	CS14150510300	TC00140210	GRFT224200-060	
	85	A2BD208007	CS14150710350	TC00140220	GRFT224200-080	
	105	A2BD210007	CS14150910450	TC00140220	GRFT224200-100	
	125	A2BD212007	CS14151110450	TC00140250	GRFT224200-120	
	145	A2BD214007	CS14151310500	TC00140250	GRFT224200-140	
	165	A2BD216007	CS14151510550	TC00140250	GRFT224200-160	



**Front Spare Parts**

Item code	Size 05		Item code	Size 07	
	Nut	Tip		Nut	Tip
A3NOX110101-1	A3OS11010	A3TN109331-1	A3NOX212121-1	A3OS21212	A3TN211401-1
A3NOX110101-3		A3TN109331-3	A3NOX212121-3		A3TN211401-3

## → A2 MT Series

### A2-MT series

- Easy to install, easy to use
- Fast gate cooling
- Suitable for direct gate on small parts
- For shot weights up to 140 gram
- Titanium insulation optional



Size	A2MT04	A2MT05
Tip pitch	10/16	24/32
L	40~80	80
Gate $\phi$	0.6~1.5	0.6~2
Feed $\phi$	4	5

Shot Weight(g)		
Low-viscosity	< 80	< 200
Medium-viscosity	< 60	< 100
High-viscosity	*	*

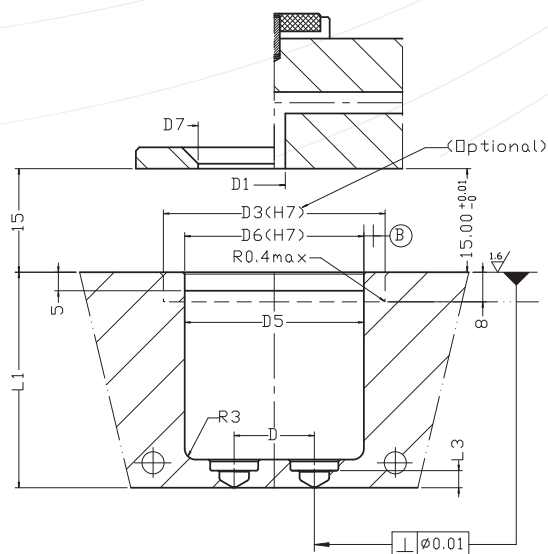
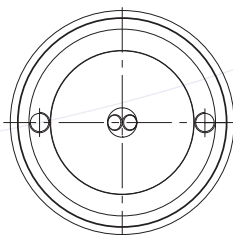
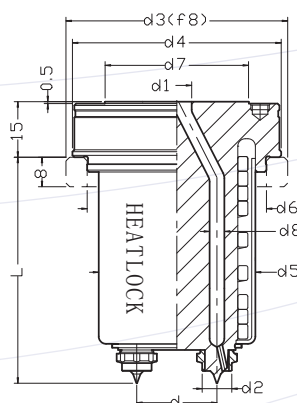
Order example :

**A2---MT---XX---XXX---XX---X**

(Series) (Size) (L) (D) (Tip Qty)

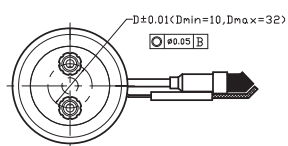
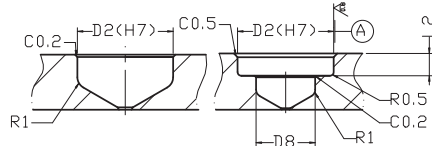
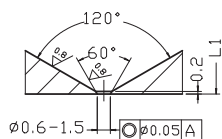
**A2 MT 04 040 10 2**

## → A2 MT Guide

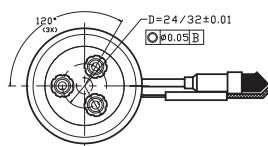


MT04

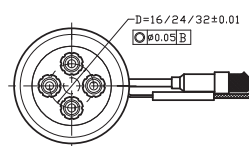
MT05



2 Gates



3 Gates



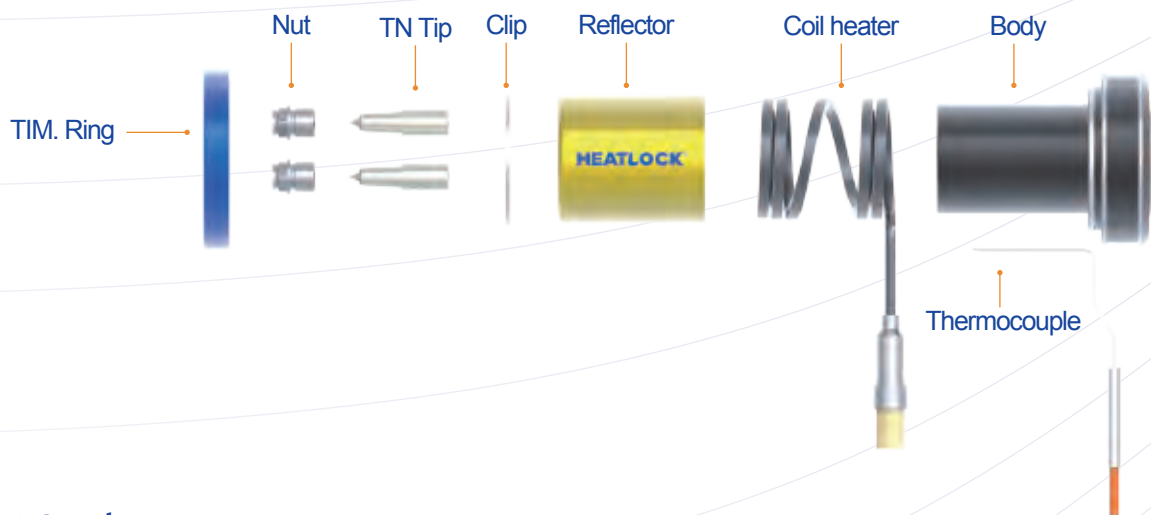
4 Gates

\* CC distance (D) or non-standard nozzle length can be made according to customers requirement.

## → A2 MT Dimension

	Nozzle										Mould											
Series	L	d	d1	d2	d3	d4	d5	d6	d7	d8	L1	L2	L3	D	D1	D2	D3	D5	D6	D7	D8	
A2MT04040102	40	10	8	8	T50	48	34	39	32	4	40.13	—	4.5	10	8	8	T50	39	39	34	—	
A2MT04080102	80										80.23											
A2MT04060162	60	16	8	8	T54	52	38	44	35	4	60.18	—	4.5	16	8	8	T54	44	44	37	—	
A2MT04080162	80										80.23											
A2MT04060164	60										60.18											
A2MT04080164	80										80.23											
A2MT05080242	80	24	8	10	T65	61	48	53	44	5	80.23	2	3.5	24	8	10	T65	53	53	46	7.5	
A2MT05080243	80																					
A2MT05080244	80																					
A2MT05080322	80	32	8	10	T73	69	56	61	52	5	80.23	2	5.5	32	8	10	T73	61	61	54	7.5	
A2MT05080323	80																					
A2MT05080324	80																					

## → A2 MT Spare Parts



**A2MT Spare parts**

Nozzle Type	Body	Tip	Nut	Coilheater	Thermocouple	Reflector	Titanium	Spring Clip
A2MT 04	A2MBD04040102	A3TN0465251	A3SL650908	CS14210330300	TC00140210	RFT334200-040	TIM05003908	F-S-SPRINGCLIP-1912
	A2MBD04080102			CS14210690450	TC00140230	RFT334200-080		
	A2MBD04060162		A3SL6509086	CS01280520500	TC00140220	RFT438200-060	TIM05404408	F-S-SPRINGCLIP-2412
	A2MBD04080162			CS01280680600	TC00140230	RFT438200-080		
	A2MBD04060164			CS01280520500	TC00140220	RFT438200-060		
	A2MBD04080164			CS01280680600	TC00140230	RFT438200-080		
A2MT 05	A2MBD05080242	A3TN109281-1	A3OS11010	CS01370720700	TC00140220	MTRFT548073	TIM06505308	F-S-SPRINGCLIP-3517
	A2MBD05080243							
	A2MBD05080244							
	A2MBD05080322			CS01430720900		MTRFT556073	TIM07306108	F-S-SPRINGCLIP-4117
	A2MBD05080323							
	A2MBD05080324							

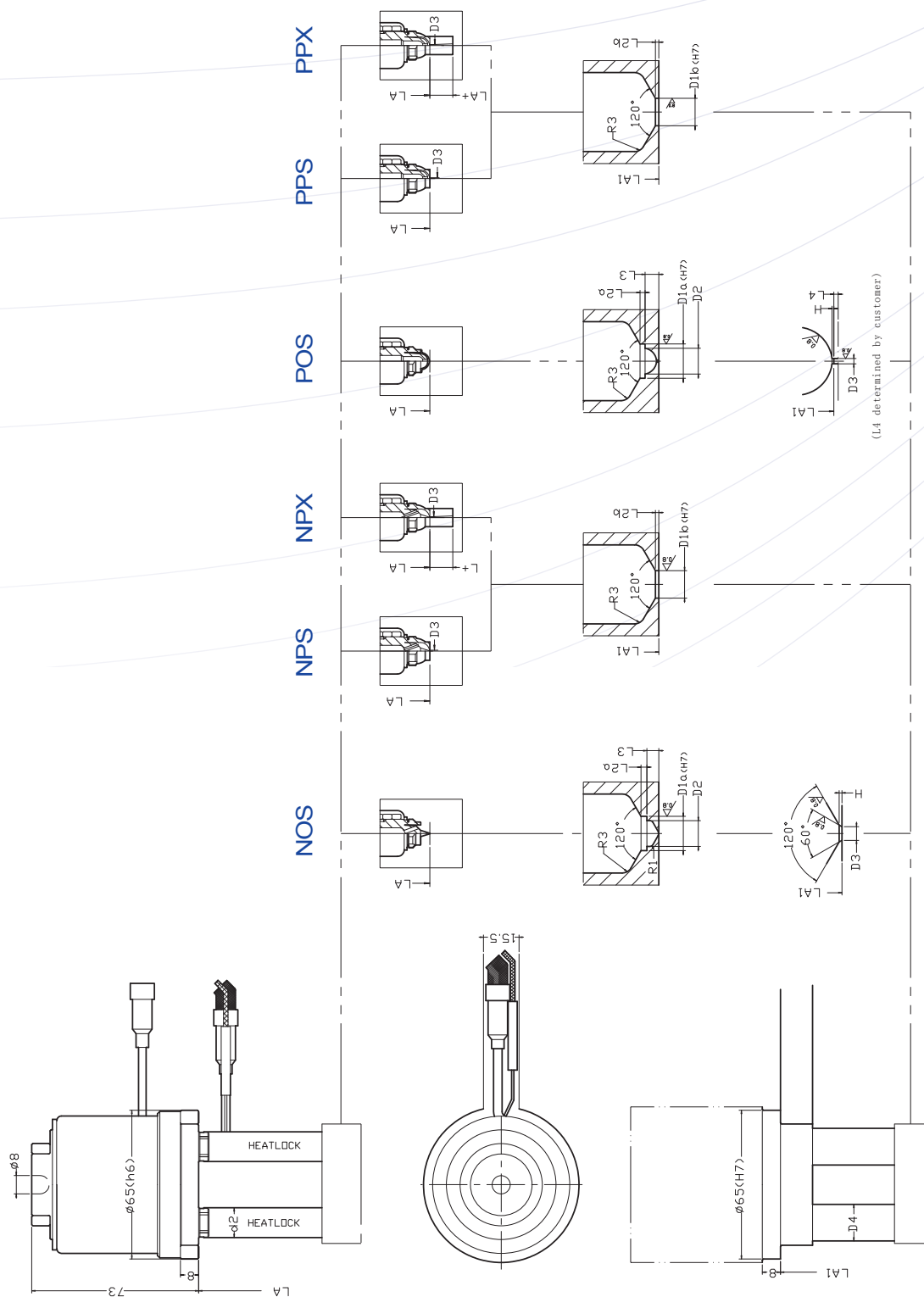
## → Multi Compact



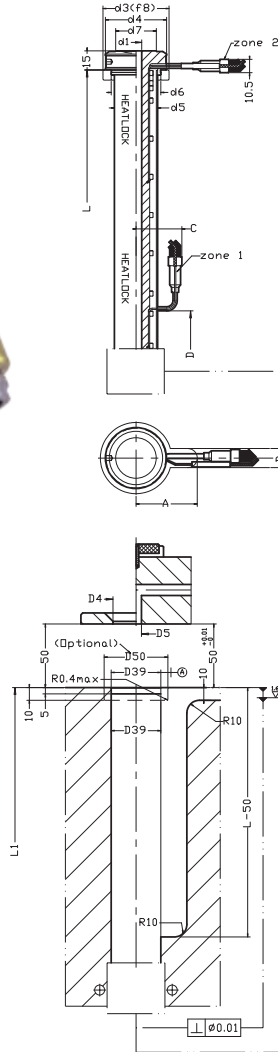
Size	Size 05
Tip pitch	
L	64~114
Feed Ø	4
Gate Ø	0.6-1.5
Shot Weight(g)	
Low-viscosity	140
Medium-viscosity	80
High-viscosity	15

Nozzle	LA	64	74	94	114
	LA+	6			
	d1	4			
	d2	13			
Mould	LA1	64.15	74.17	94.21	114.25
	L2a	1.1			
	L2b	1			
	L3	1.7			
	D1a	6			
	D1b	3			
	D2	4.5			
	D3	1.5≥0.6			
	D4	15			
	H	0.2			

**→ Multi Compact Guide**



## → A2-XL Nozzle Guide



### Order example:

→ **A2 - NOS - 300 - 24 - 1 - 1**

Nozzle series    Front type    L    Feed dia    Tip mat.    Exits in tip

### Tip codes:

Material: 1=copper alloy, 2=heard metal  
Exits: 1=one exit, 3=three exits

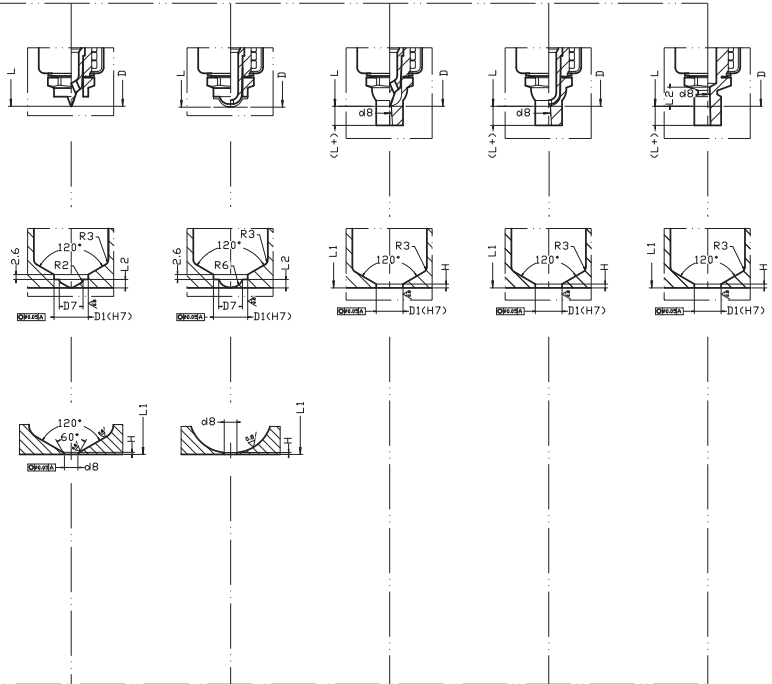
NOS

POS

NPX

PPX

ENX



### A2-XL Series

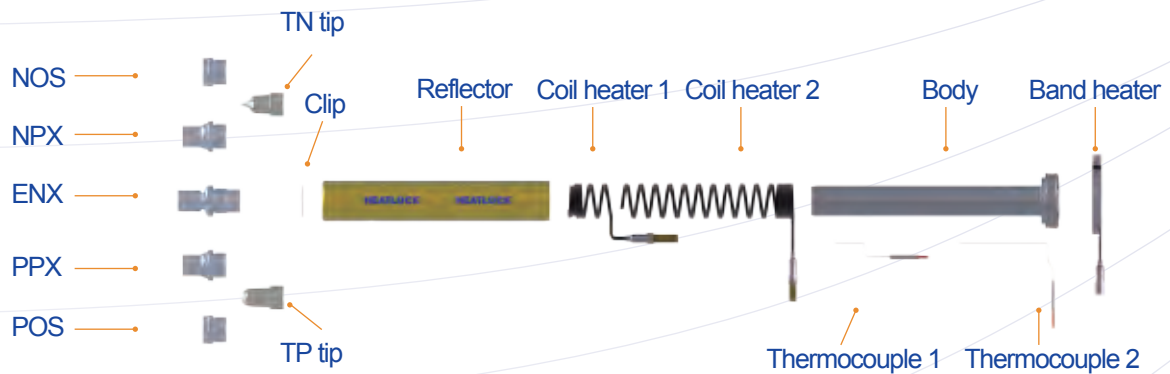
Series	L	L(+)			d1	d4	d7	d8			L2			H					D1					D2	D3	D4	D5	D6	D7	A	A	A	A
	All	ENX	NPX	PPX	All	All	All	ENX	NPX	PPX	ENX	NOS	POS	ENX	NOS	POS	NPX	PPX	NOS	POS	NPX	PPX	ENX	All	All	All	All	All	All	All	All	All	
Size 10	200<L<500	10	10		10	48	32	2	≥2		10	4.4	2	0.3			2		18		14		39	T50	34	9	39	12.5	40	15	35	65	
Size 17	250<L<500	20	15		17	52	34.5	3	≥2		10	5.4	2	0.4			2		26		20		44	T54	37	14	44	18	45	15	40	65	

\*D3 Dimension: T is Titanium ring

Length Expansion(L1=L+X.XX)

If order our long nozzle,we will give a drawing which tell you how to machining the nozzle bore.

## → A2-XL Nozzle Spare Part Guide



**Nozzle body spare parts list**

Nozzle L	Body	Coilheater		Thermocouple		Reflector	Band heater	Spring Clip
		Coilheater1	Coilheater2	Thermocouple1	Thermocouple2			
≤ 200	A2BD320010-M	CS14210500250-1	CS14211250500-2-M	TC00140210	TC00140220	RFT334200-M	BH347250	F-S-SPRINGCLIP-1912
≤ 250	A2BD325010-M		CS14211750650-2-M		TC00140230	RFT334250-M		
≤ 300	A2BD330010-M		CS14212250750-2-M		TC00140250	RFT334300-M		
≤ 350	A2BD335010-M		CS14212750900-2-M		TC00140250	RFT334350-M		
≤ 400	A2BD340010-M		CS14213251000-2-M		TC00140270	RFT334400-M		
≤ 450	A2BD345010-M		CS14213751400-2-M		TC00140270	RFT334450-M		
≤ 500	A2BD350010-M		CS14214251500-2-M		TC00140290	RFT334500-M		
≤ 250	A2BD425017-M	CS01280500350-1	CS01281750800-2-M	TC00140210	TC00140230	RFT438250-M	BH451300	F-S-SPRINGCLIP-2515
≤ 300	A2BD430017-M		CS01282250950-2-M		TC00140250	RFT438300-M		
≤ 350	A2BD435017-M		CS01282751200-2-M		TC00140250	RFT438350-M		
≤ 400	A2BD440017-M		CS01283251350-2-M		TC00140270	RFT438400-M		
≤ 450	A2BD445017-M		CS01283751550-2-M		TC00140270	RFT438450-M		
≤ 500	A2BD450017-M		CS01284251750-2-M		TC00140290	RFT438500-M		

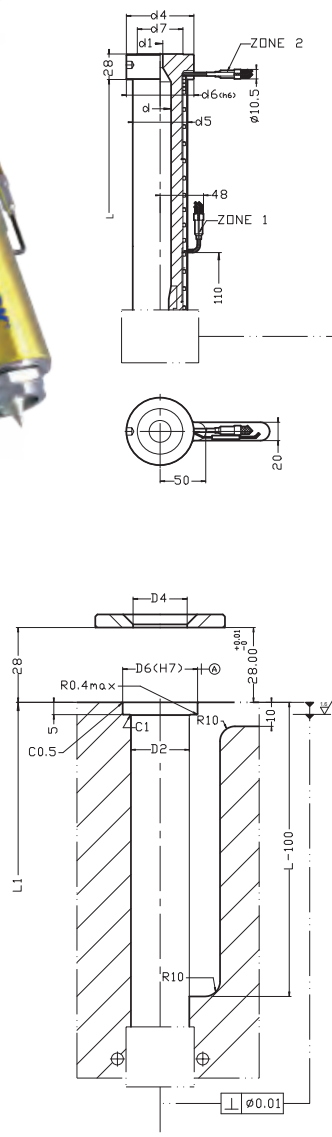
**Front spare parts**

Item code	Size 10		Item code	Size 17	
	Nut	Tip		Nut	Tip
A3NOS316181-1	A3OS31618	A3TN314401-1	A3NOS424261-1	A3OS42426	A3TN422451-1
A3NOS316181-3		A3TN314401-3	A3NOS424261-3		A3TN422451-3
A3NOS316183-1		A3TN314403-1	A3NOS424263-1		A3TN422453-1
A3NPX314161-1	A3PX31416	A3TN314401-1	A3NPX420241-1	A3PX42024	A3TN422451-1
A3NPX314161-3		A3TN314401-3	A3NPX420241-3		A3TN422451-3
A3NPX314163-1		A3TN314403-1	A3NPX420243-1		A3TN422453-1
A3ENX31416	A3PPX31416	A3ENX31416	A3ENX42024	A3ENX42024	A3ENX42024
A3POS31618	A3OS31618	A3TP31438	A3POS42426	A3OS42426	A3TP42243
A3PPX31416	A3PX31416		A3PPX42024	A3PX42024	

**TN tip spare part list**

1 exit		3 exits
copper	HBM-CDC	copper
A3TN314401-1	A3TN314403-1	A3TN314401-3
A3TN422451-1	A3TN422453-1	A3TN422451-3

→ A2 MEGA Nozzle



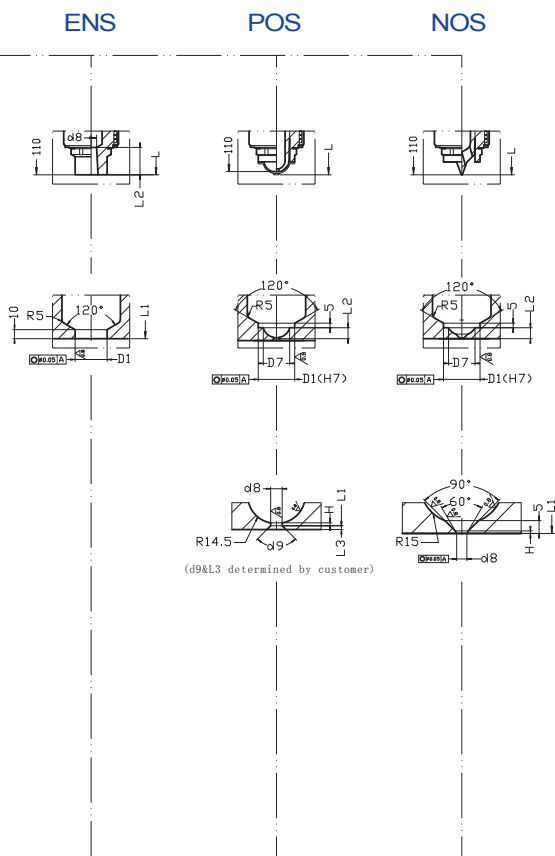
**Order example:**

➔ **A2 - NOS - 300 - 24 - 1 - 1**

Nozzle series    Front type    L    Feed dia    Tip mat.    Exits in tip

**Tip codes:**

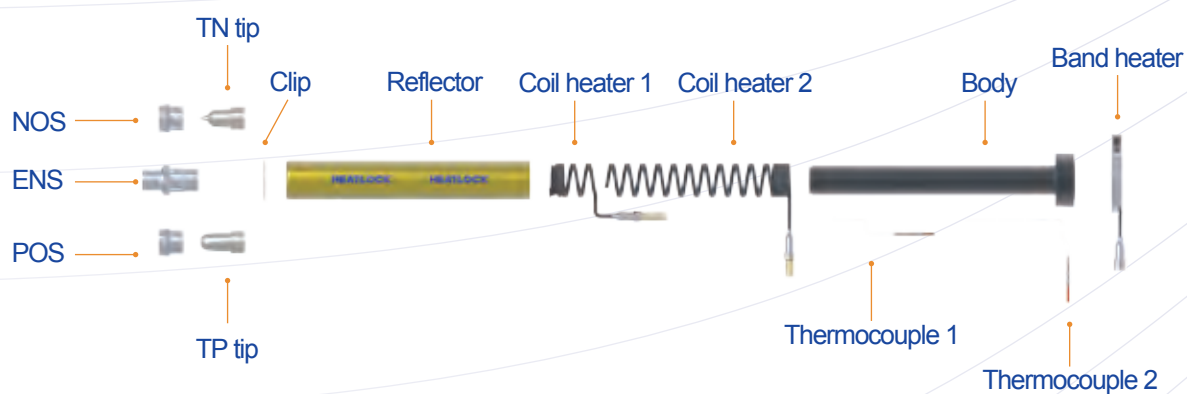
Material: 1=copper alloy,  
Exits: 1=one exit, 3=three exits



Series	L	d	d1	d4	d5	d6	d7	d8			L2			H		D1			D2	D4	D6	D7	
	All	All	All	All	All	All	All	ENS	POS	NOS	ENS	POS	NOS	POS	NOS	ENS	POS	NOS	All	All	All	POS	NOS
Size 24	200<L<500	24	5~10	74	60	74	50	12	≥6	≥4	30	12		1.5	1	35	40	40	64	60	74	29	

Length Expansion(L1=L+X.XX)  
If order our long nozzle,we will give a drawing which tell you how to machining the nozzle bore.

## → A2 MEGA Nozzle Spare Part



### Nozzle body spare parts list

Nozzle Type	Body	Coilheater		Thermocouple		Reflector	Band heater	Spring Clip
		Coilheater1	Coilheater2	Thermocouple1	Thermocouple2			
≤ 300	A2BD24300-M	CS01490800750-1	CS01491871800-2-M	TC00140220	TC00140250	RFT2460300-M	BO74015600	F-S-CUSH-00458
≤ 400	A2BD24400-M		CS01492871800-2-M		TC00140270	RFT2460400-M		
≤ 500	A2BD24500-M		CS01493871800-2-M		TC00140330	RFT2460500-M		

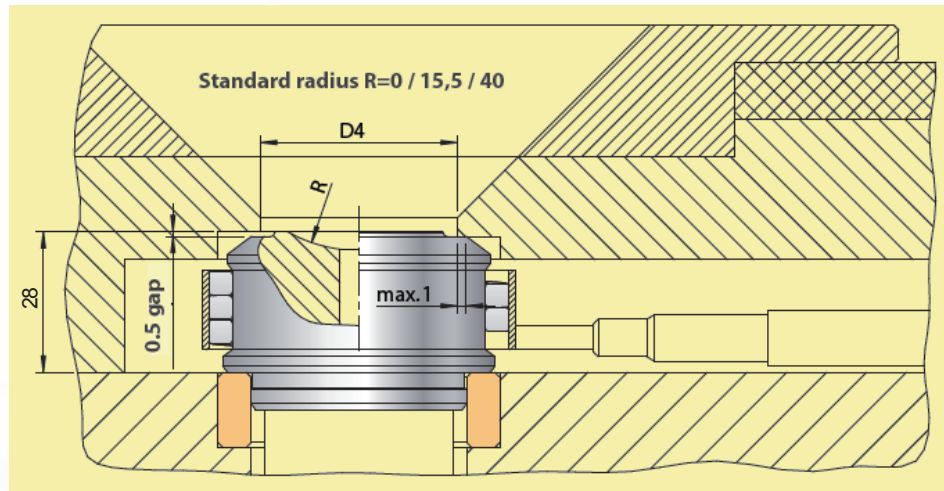
### Front spare parts

Item code	Size 24	
	Nut	Tip
A3NOS2440401-1	A3OS244040	A3TN2436741-1
A3NOS2440401-3		A3TN2436741-3
A3NOS2440402-1		A3TN2436742-1
A3ENS243540	A3ENS243540	A3ENS243540
A3POS244040	A3OS244040	A3TP31438

### Tip spare parts list

1 exit		3 exits
copper	hard metal	copper
A3TN2436741-1	A3TN2436742-1	A3TN2436741-3

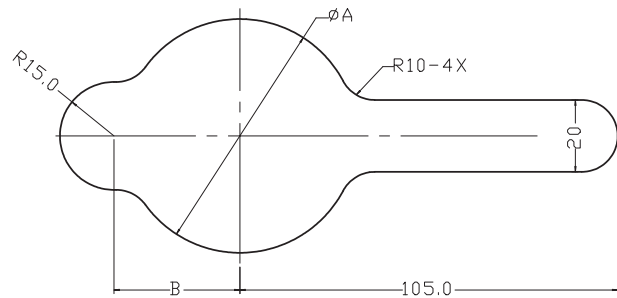
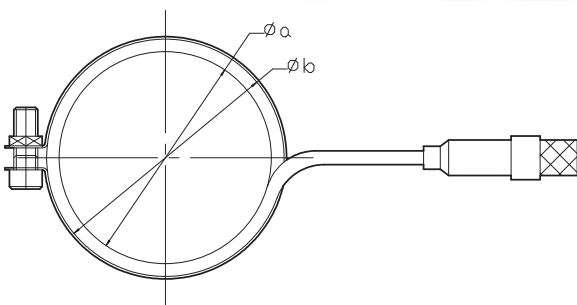
## → A2 Nozzle Bandheater



For resins with higher melt temperature than 250 °C  
Use a rear band heater for maximum temperature for maximum temperature control

**NOTE:** control band heater with a separate temperature controller

<b>Power</b>	White(2X)	Power
	Yellow/Green	Earth
<b>Thermocouple</b>	Blue	Minus[-]
	Red	Positive[+]



Part NO.	Dimension	a	b	Watts
BH127150	33x10	27	33	150
BH230200	36x10	30	36	200
BH233200	39x10	33	39	200
BH235250	41x10	35	41	250
BH347250	53x10	47	53	250
BH451300	57x10	51	57	300

Part NO.	A	B
BH127150	40	30
BH230200	43	32
BH233200	45	32
BH235250	48	34
BH347250	62	40
BH451300	65	40

# HEATLOCK®

## Hong Kong:

### Heatlock Co Ltd

Witty Commercial Building, 9-FL, Room 12/F,  
1A-1L Tung Choi Street, Mong Kok, KLN, Hong Kong  
ph: +852 8120 5469

## China PRC:

Ramada Plaza, Room 1108, Building 1, Beijiao Town  
Shunde District, Foshan City, Guangdong, PRC  
Postal code: 528311  
ph: +86 757 2991 5868  
fx: +86 757 2991 5860

## Order & info:

frontdesk@heatlock.com



To find one of our dedicated Heatlock technology or service centres  
please visit our website **[www.heatlock.com](http://www.heatlock.com)**

