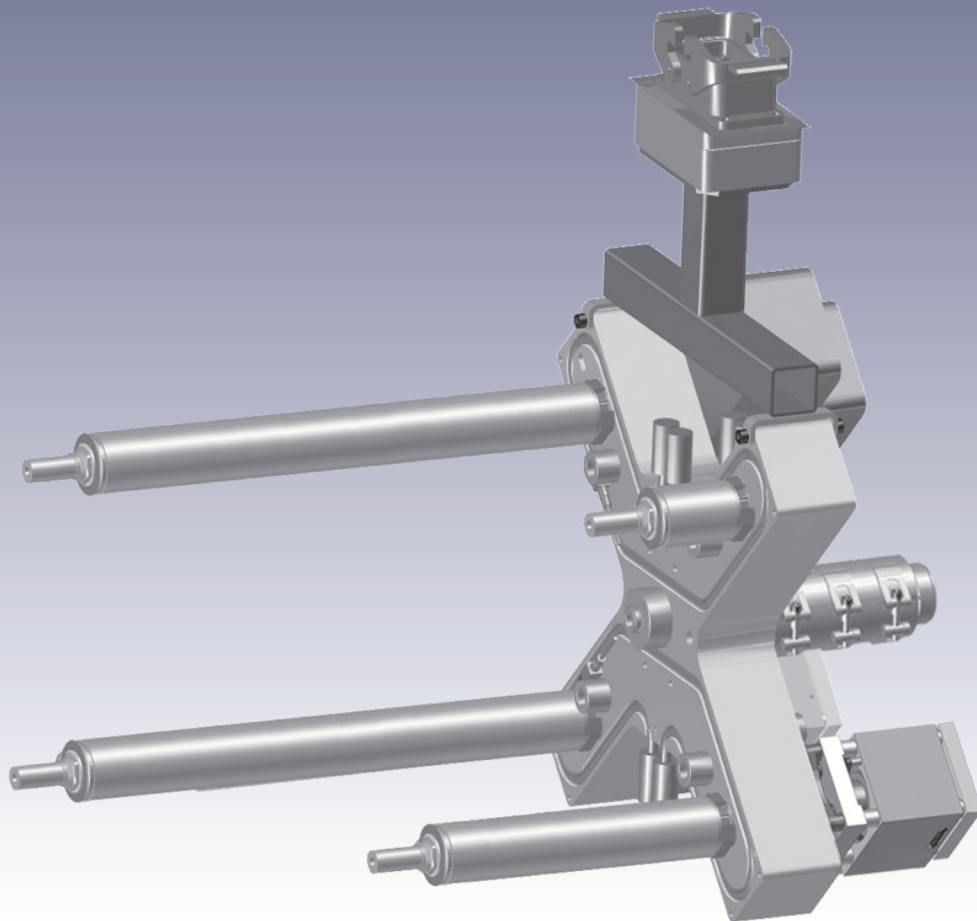


# 22E-06 Product Catalog

Threaded Nozzles Hot Runner Series

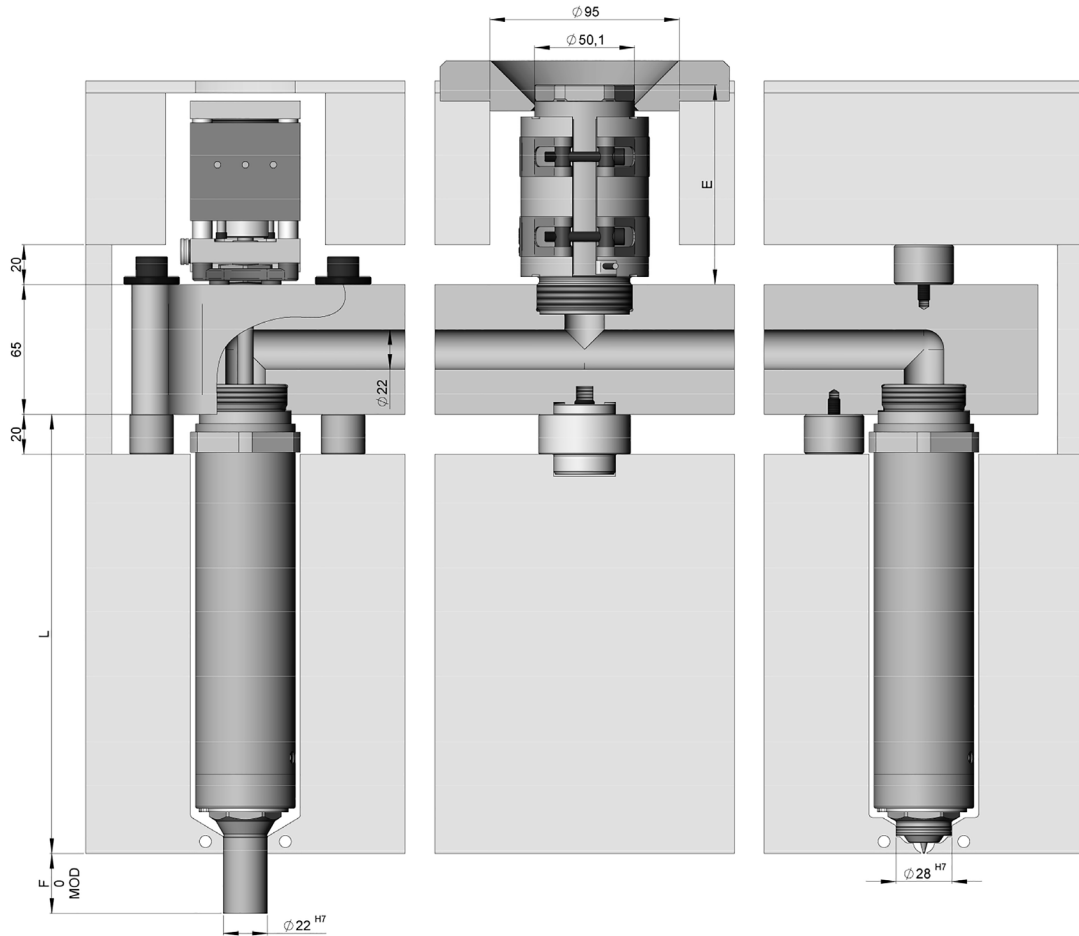


Stabilize your Process \_\_\_\_\_



Hot Runner System - Thrust Pad / Bolt Down Manifold

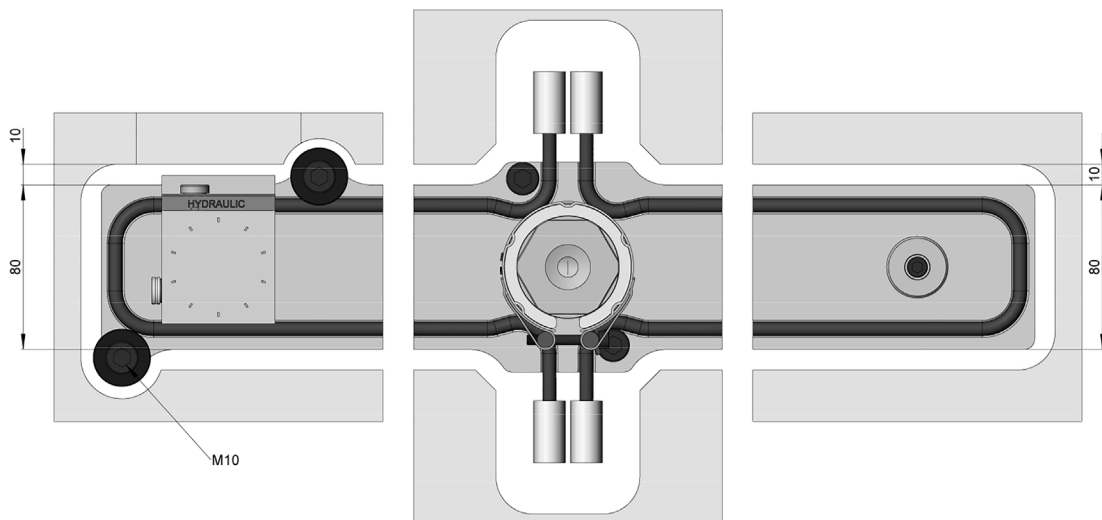
Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.



Bolt down selection

Inlet bushing

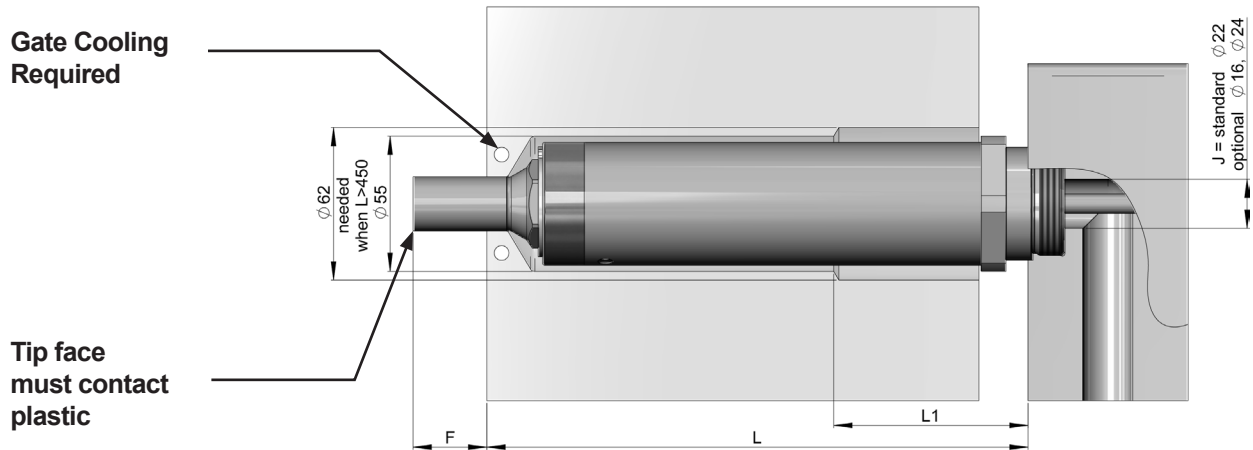
Thrust pad selection





Nozzle Lengths

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.



L (mm)	L1	Heater zone power <sup>1)</sup> (Watt)			
		Power 1	Power 2	Power3	Power 1-3
100 ... < 125		430 W	-	-	430 W
125 ... < 150		460 W	-	-	460 W
150 ... < 175		490 W	-	-	490 W
175 ... < 200		520 W	-	-	520 W
200 ... < 225		550 W	-	-	550 W
225 ... < 250		580 W	-	-	580 W
250 ... < 275		430 W	450 W	-	880 W
275 ... < 300		430 W	500 W	-	930 W
300 ... < 325		430 W	550 W	-	980 W
325 ... < 350		430 W	600 W	-	1030 W
350 ... < 375		430 W	650 W	-	1080 W
375 ... < 400		430 W	700 W	-	1130 W
400 ... < 425		430 W	750 W	-	1180 W
425 ... < 450		430 W	800 W	-	1230 W
450 ... < 475	L-450	430 W	850 W	-	1280 W
475 ... < 500	L-450	430 W	900 W	-	1330 W
500 ... < 525	L-450	430 W	950 W	-	1380 W
525 ... < 550	L-450	430 W	1000 W	-	1430 W



## Nozzle Lengths

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.

550 ... < 575	L-450	430 W	1050 W	-	1480 W
575 ... < 600	L-450	430 W	1100 W	-	1530 W
600 ... < 625	L-450	430 W	1150 W	-	1580 W
625 ... < 650	L-450	430 W	1200 W	-	1630 W
650 ... < 675	L-450	430 W	1250 W	-	1680 W
675 ... < 700	L-450	430 W	950 W	450 W	1830 W

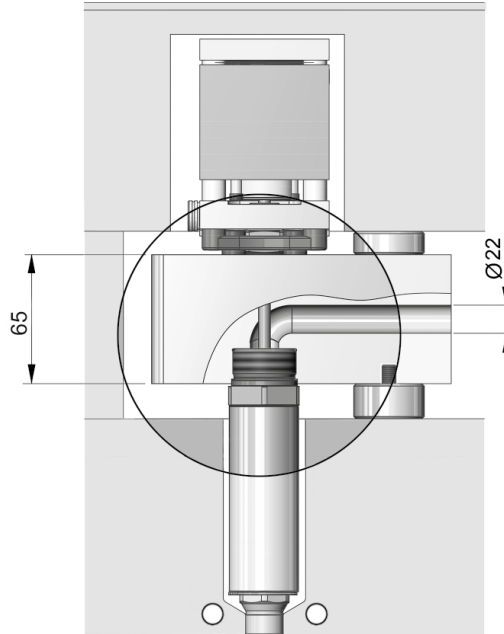
<sup>1)</sup> The numbering of the heating zones starts at the nozzle tip and ends at the nozzle head



Optional Features

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.

Smooth flow

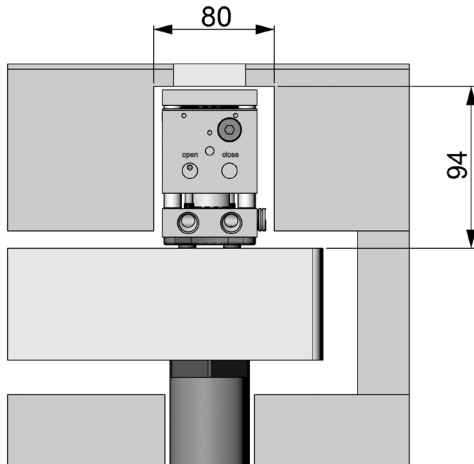




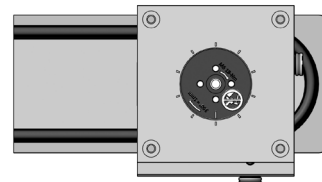
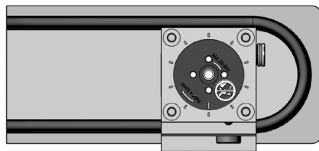
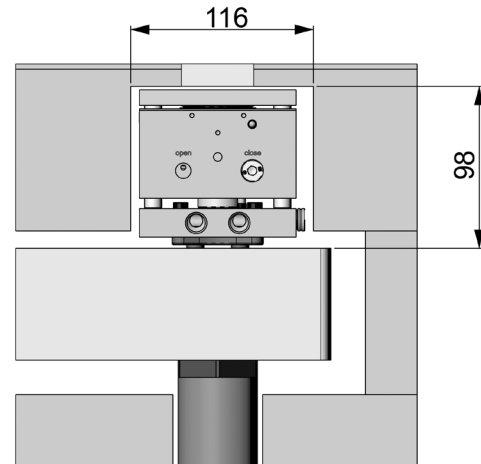
Available Actuators

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.

**HB4016  
(hydraulic)**



**PB8016  
(pneumatic)**



Pressure range:  
40 - 60 bar (600 - 870 psi)  
Min/Max Close Forces:  
5027 N / 7540 N

Available features:

- ◆ Position Sensor
- ◆ SynCool®

Pressure range:  
6 - 12 bar (87 - 174 psi)  
Min/Max Close Forces:  
3016 N / 6032 N

Available features:

- ◆ Position Sensor
- ◆ SynCool®

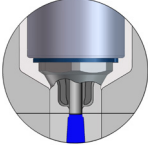
For additional specification and requirements see the actuator catalog CAT-03-0001\_EN-REV##



Nozzle Tip Styles

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.  
H = Gate orifice diameter, F = Tip extension, Dt = Tip Diameter, Mod = Modifiable

**VSP** Valve Gate - Straight Pin - Plunged Through

Tip Style		Description	Dt = Ø22 F = 0, 30, Mod	
			H=6.0	H=7.0
	<b>VSP</b>	Standard	✓	(✓)
	<b>VSP-SC</b>	Color Seal	✓	(✓)
	<b>VSP-WC</b>	Wear C	(✓)	✓

**VTP** Valve Gate - Tapered Pin - Plunged Through

Tip Style		Description	Dt = Ø22 F = 0, 30, Mod	
			H=6.0	H=6.5
	<b>VTP</b>	Standard	✓	(✓)
	<b>VTP-SC</b>	Color Seal	✓	(✓)

✓ Preferred

(✓) Available

✗ Not Available



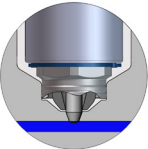
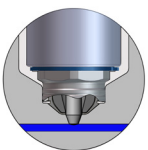
Nozzle Tip Styles

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.  
H = Gate orifice diameter, F = Tip extension, Dt = Tip Diameter, Mod = Modifiable

**VSW** Valve Gate - Straight Pin - Blind

Tip Style	Description	H=4.0	H=5.0	H=6.0	H=7.0
		Dt = Ø28			
	<b>VSW</b> Standard	✓	(✓)	✓	(✓)
	<b>VSW-SC</b> Color Seal	✓	(✓)	✓	(✓)

**VTW** Valve Gate - Tapered Pin - Blind

Tip Style	Description	H=5.5	H=6.0	H=6.5
		Dt = Ø28		
	<b>VTW</b> Standard	(✓)	✓	(✓)
	<b>VTW-SC</b> Color Seal	(✓)	✓	(✓)

✓ Preferred

(✓) Available

✗ Not Available





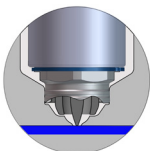
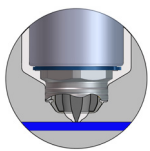
Nozzle Tip Styles

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.  
H = Gate orifice diameter, F = Tip extension, Dt = Tip Diameter, Mod = Modifiable

**TTP** Thermal Gate – Torpedo - Plunged Through

Tip Style		Description	Dt = Ø22 F = 0, 30, Mod			
			H=3.0	H=3.5	H=4.0	H=4.5
	<b>TTP</b>	Standard	✓	✓	✓	✓
	<b>TTP-SC</b>	Color Seal	✓	✓	✓	✓

**TTW** Thermal Gate – Torpedo - Blind

Tip Style		Description	Dt = Ø28			
			H=3.0	H=3.5	H=4.0	H=4.5
	<b>TTW</b>	Standard	✓	✓	✓	✓
	<b>TTW-SC</b>	Color Seal	✓	✓	✓	✓

**TFP** Thermal Gate – Full Flow - Plunged Through

Tip Style		Description	Dt = Ø22 F = 0, 30, Mod			
			H=2.5	H=3.0	H=3.5	H=4.0
	<b>TFP</b>	Standard	✓	✓	✓	✓
	<b>TFP-SC</b>	Color Seal	✓	✓	✓	✓

✓ Preferred

(✓) Available

✗ Not Available

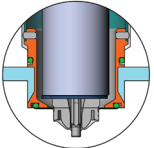


Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.  
 H = Gate orifice diameter, F = Tip extension, Dt = Tip Diameter, Mod = Modifiable

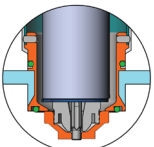
### Wear Insert

Part			F = 0, 30, Mod						
			H=3.0	H=3.5	H=4.0	H=4.5	H=6.0	H=6.5	H=7.0
	<b>WI-VTW</b>	Wear Insert for VTW Nozzle tips	✗	✗	✗	✗	✓	✓	✗
	<b>WI-VSW</b>	Wear Insert for VSW Nozzle tips	✗	✗	✗	✗	✓	✗	✓
	<b>WI-TTW</b>	Wear Insert for TTW Nozzle tips	✓	✓	✓	✓	✗	✗	✗

### Cooling Bushing

Part	VSP	VTP	VSW	VTW	TTP	TTW	TFP
 <b>NC</b> Nozzle Cooling Bushing for Nozzle Tips, Blind and Plunged Through	✓	✓	✓	✓	✓	✓	✓

### Cooling Bushing and Wear Insert

Part	Description	VSW	VTW	TTW
	<b>NC + WI</b> Wear Insert combined with Nozzle Cooling Bushing for Nozzle Tip Blind	✓	✓	✓

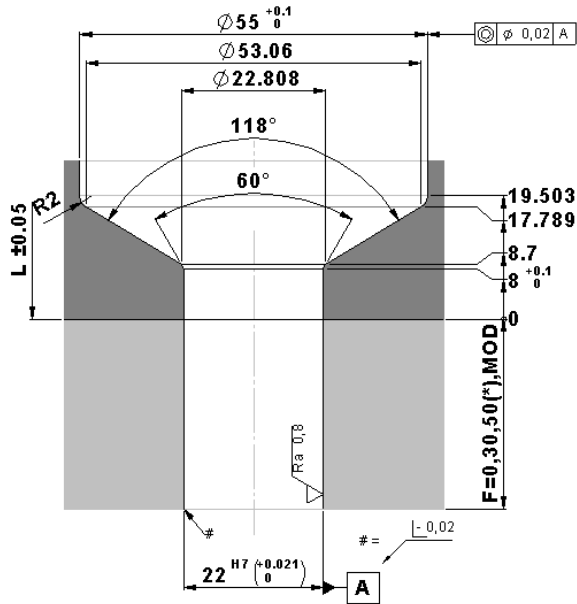
✓ Preferred     
 (✓) Available     
 ✗ Not Available



Nozzle Tip Cutout Dimensions

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.  
Dimensions for reference only. Reference system drawing for complete dimensions prior to machining gate detail in mold.

VSP, VTP, TTP, TFP - Nozzle tip cutout dimensions



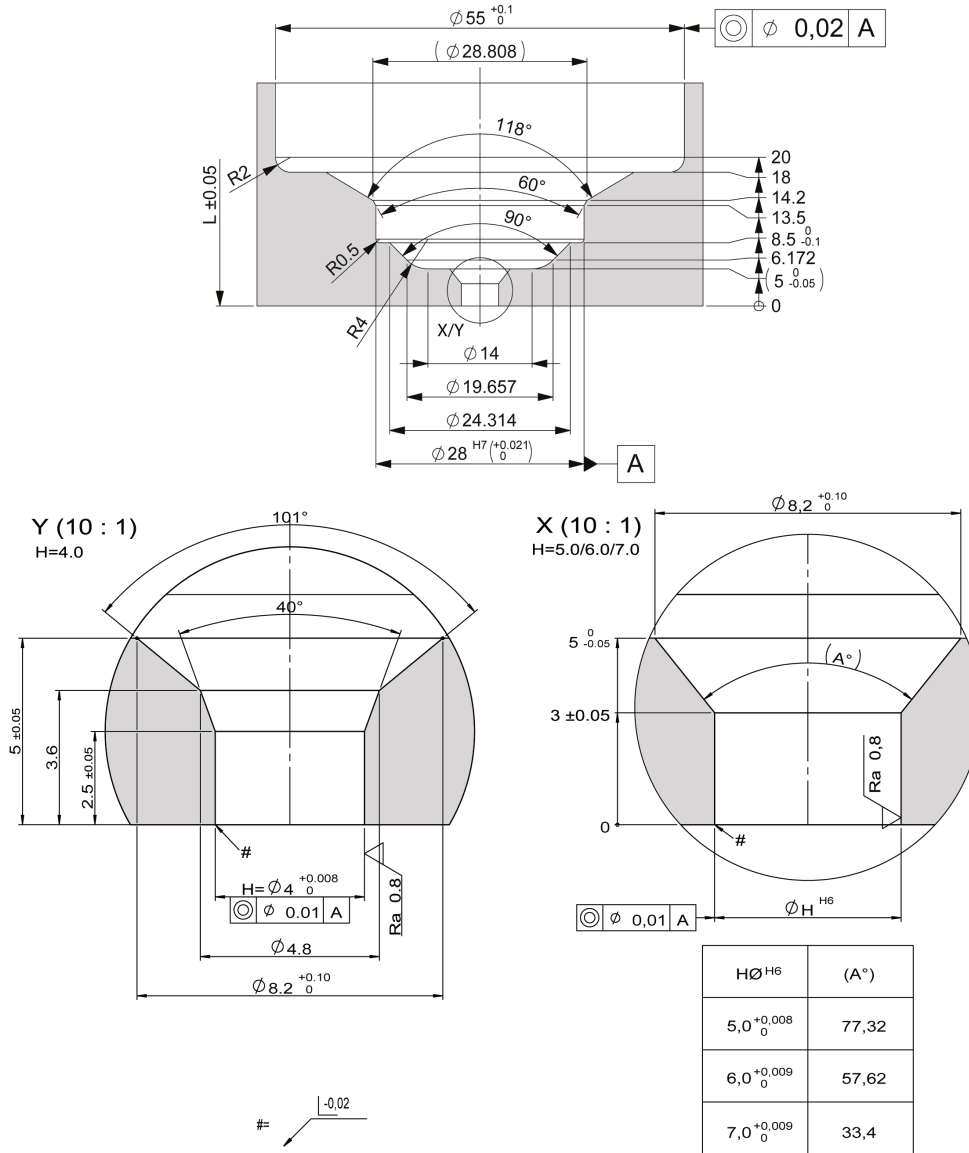
(\*): F=50 is only for VSP



Nozzle Tip Cutout Dimensions

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.  
Dimensions for reference only. Reference system drawing for complete dimensions prior to machining gate detail in mold.

VSW - Nozzle tip cutout dimensions



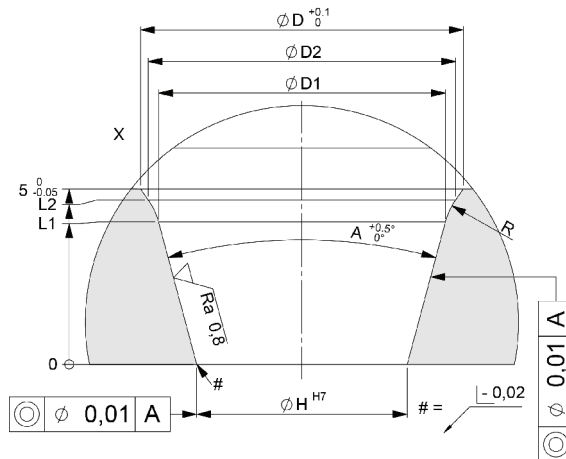
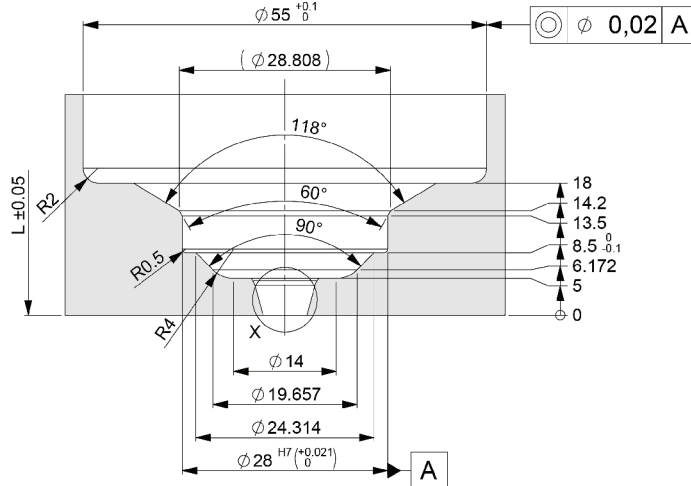
1. At the area of the nozzle gate replaceable, hardened ( $52 \pm 2$ -1HRC) inserts are recommended by Synventive.
2. Synventive recommends that the gate area geometry is manufactured by grinding and not EDM with a surface quality of  $\sqrt{Ra0.8}$



Nozzle Tip Cutout Dimensions

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm. Dimensions for reference only. Reference system drawing for complete dimensions prior to machining gate detail in mold.

VTW - Nozzle tip cutout dimensions



ØH	A°	D	A1	R	L1	D1	L2	D2
5,5	40	9,14	/	/				
6	30	9,2	70	2	4,057	8,174	4,687	8,761
6,5	30	9,18	/	/				

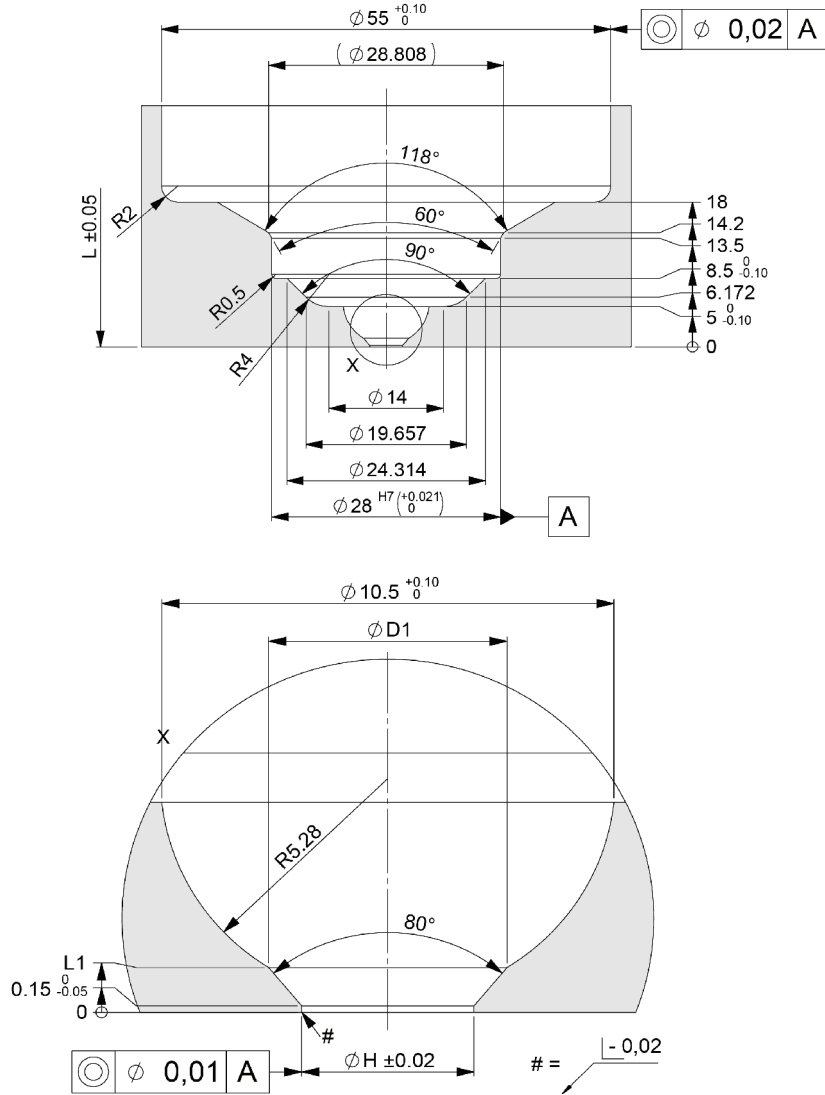
- At the area of the nozzle gate replaceable, hardened (52 +2/-1HRC) inserts are recommended by Synventive.
- Synventive recommends that the gate area geometry is manufactured by grinding and not EDM with a surface quality of  $\sqrt{Ra0,4}$



Nozzle Tip Cutout Dimensions

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TTW - Nozzle tip cutout dimensions



$\varnothing H$	L1	D1
3	0,64	3,822
3,5	0,812	4,611
4	1,066	5,538
4,5	1,527	6,811

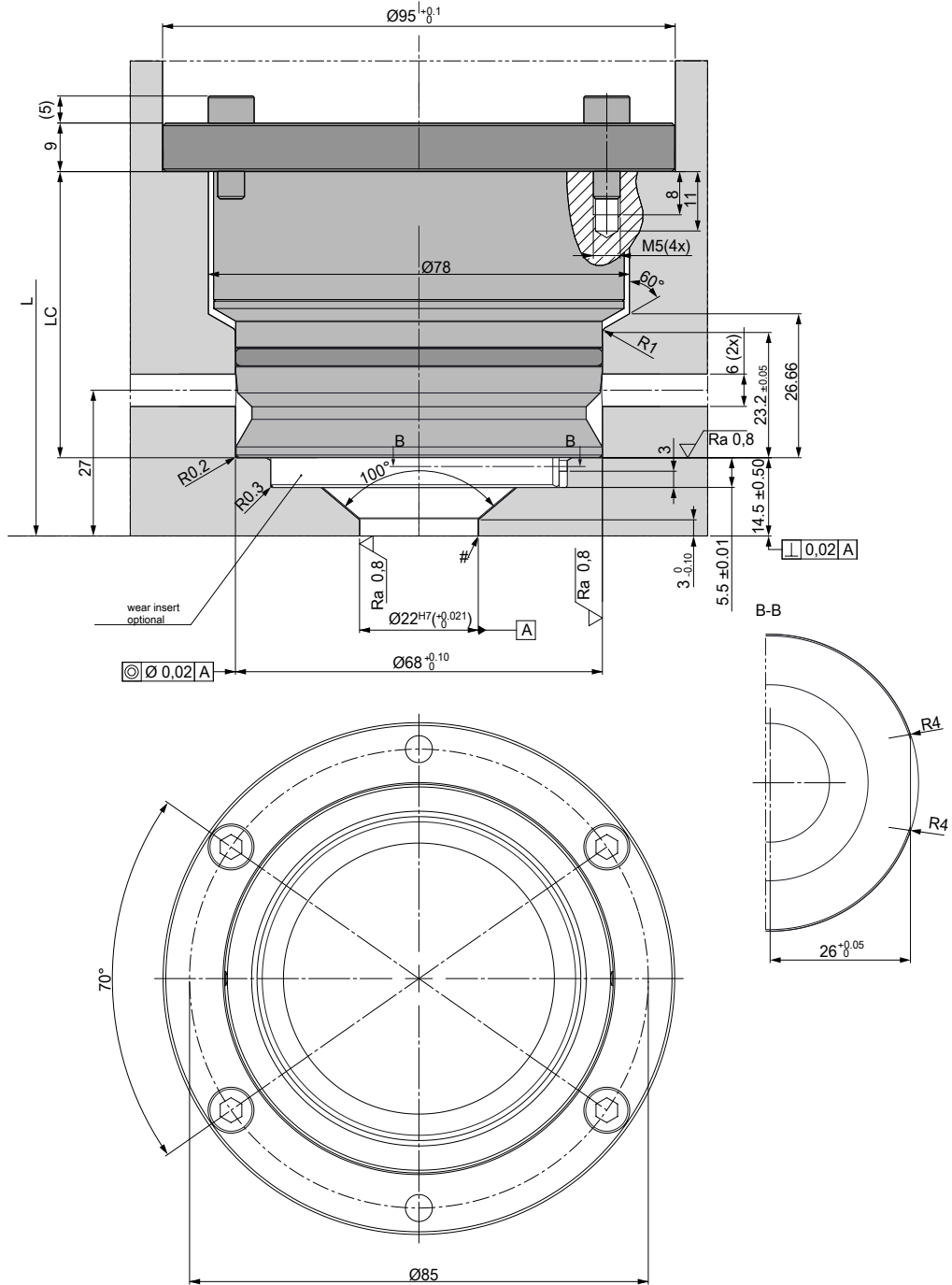
1. At the area of the nozzle gate replaceable, hardened (52 +2/-1HRC) inserts are recommended by Synventive.
2. Synventive recommends that the gate area geometry is manufactured by grinding and not EDM with a surface quality of  $\sqrt{Ra0.8}$



Cooling Bushing with Wear Insert Cutout Dimensions

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.  
Dimensions for reference only. Reference system drawing for complete dimensions prior to machining gate detail in mold.

VSW, VTW, TTW - Cooling bushing with wear insert cutout dimensions

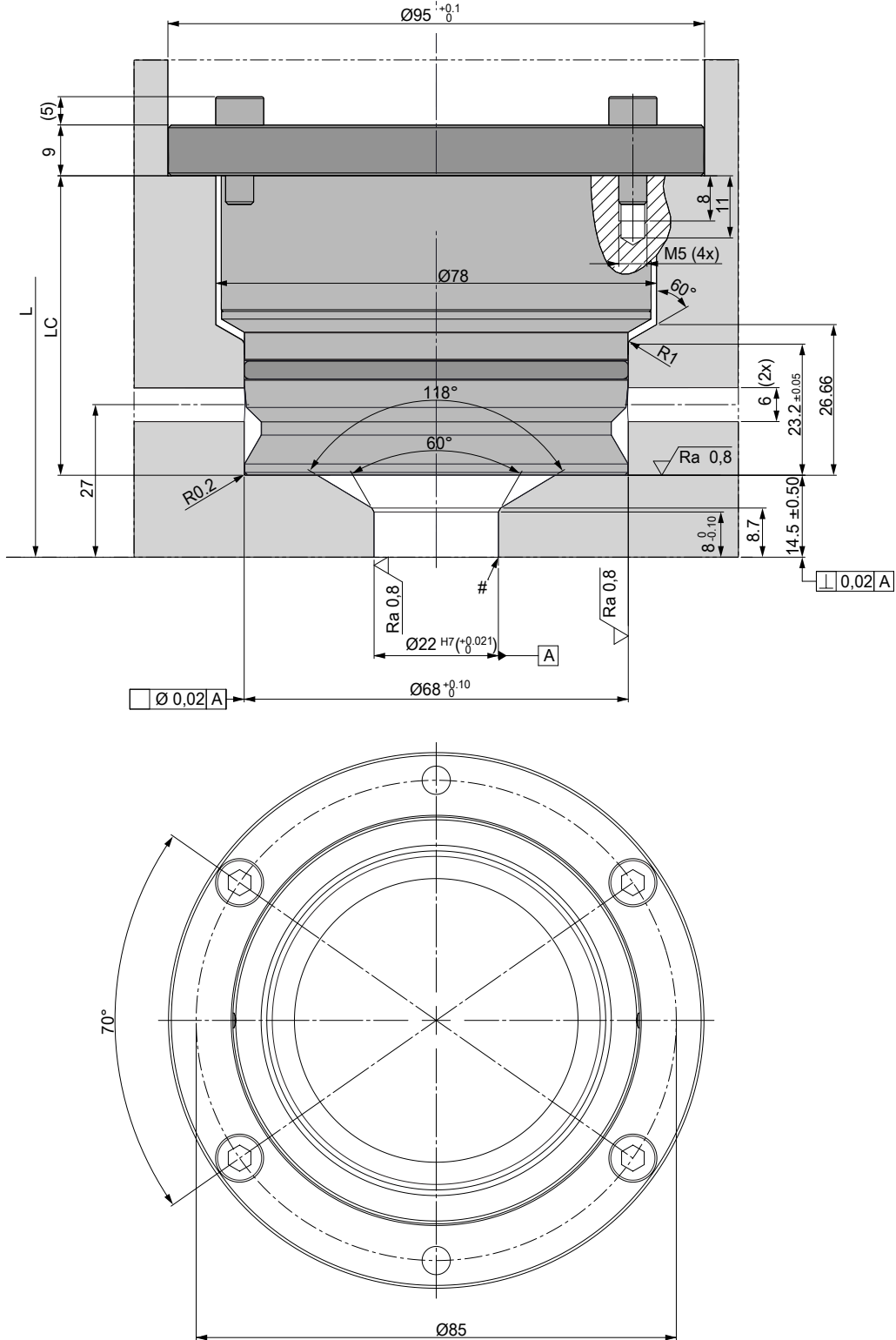




Cooling Bushing Cutout Dimensions

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm. Dimensions for reference only. Reference system drawing for complete dimensions prior to machining gate detail in mold.

VSP, VTP, TTP, TFP - Cooling bushing cutout dimensions



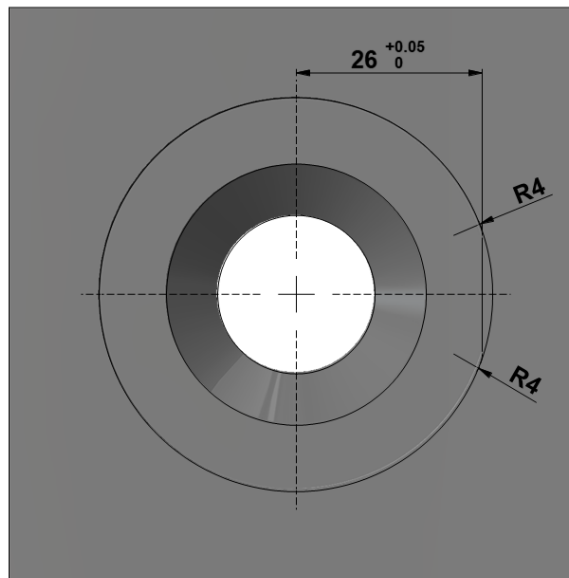
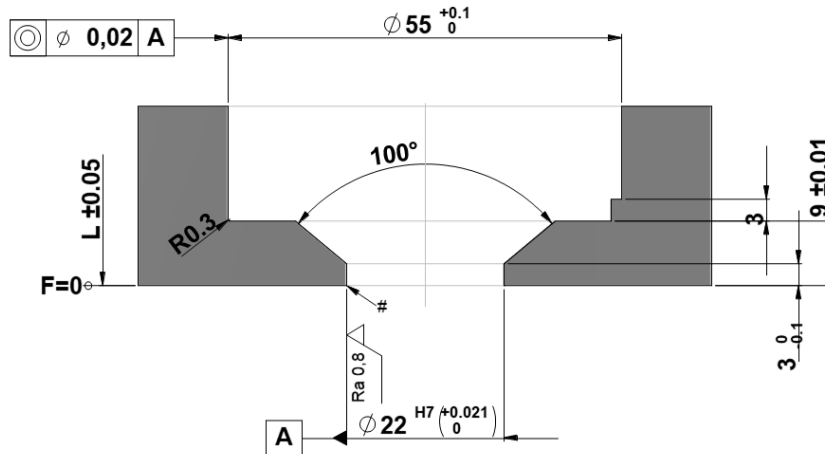




Wear Insert Cutout Dimensions

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.  
Dimensions for reference only. Reference system drawing for complete dimensions prior to machining gate detail in mold.

VSW, VTW, TTW - Wear insert cutout dimensions



**The Americas**

Synventive Molding Solutions Inc.  
10 Centennial Drive  
Peabody, MA 01960, USA  
Tel.: +1 978 750 8065  
Fax: +1 978 646 3600  
E-Mail: [info@synventive.com](mailto:info@synventive.com)

**Europe**

Synventive Molding Solutions GmbH  
Heimrodstr. 10  
64625 Bensheim, Germany  
Tel.: +49 (0) 6251 / 9332-0  
Fax: +49 (0) 6251 / 9332-90  
E-Mail: [infohrde@synventive.com](mailto:infohrde@synventive.com)

**Asia**

Synventive Molding Solutions (Suzhou) Co.Ltd.  
12B Gang Tian Industrial Square  
Suzhou Industrial Park, China 215021  
Tel.: +86 512 6283 8870  
Fax: +86 512 6283 8890  
E-Mail: [infohrcn@synventive.com](mailto:infohrcn@synventive.com)

