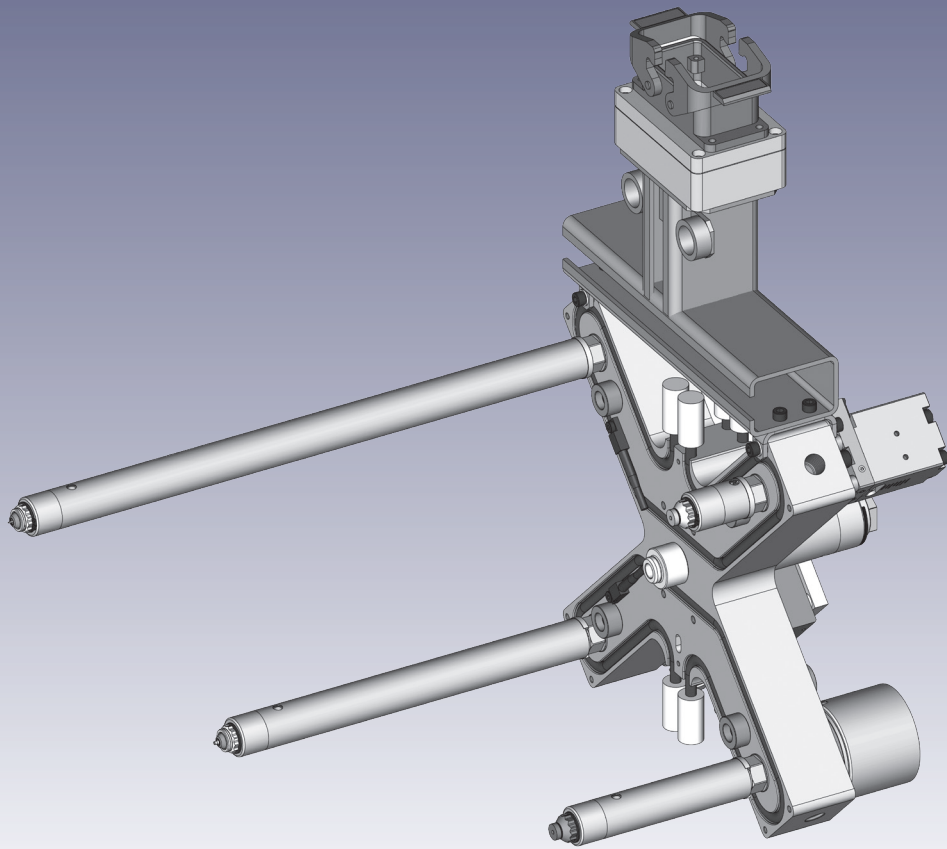


09E-03 Product Catalog

Threaded Nozzles Hot Runner Series



Doc009201_RIS.png

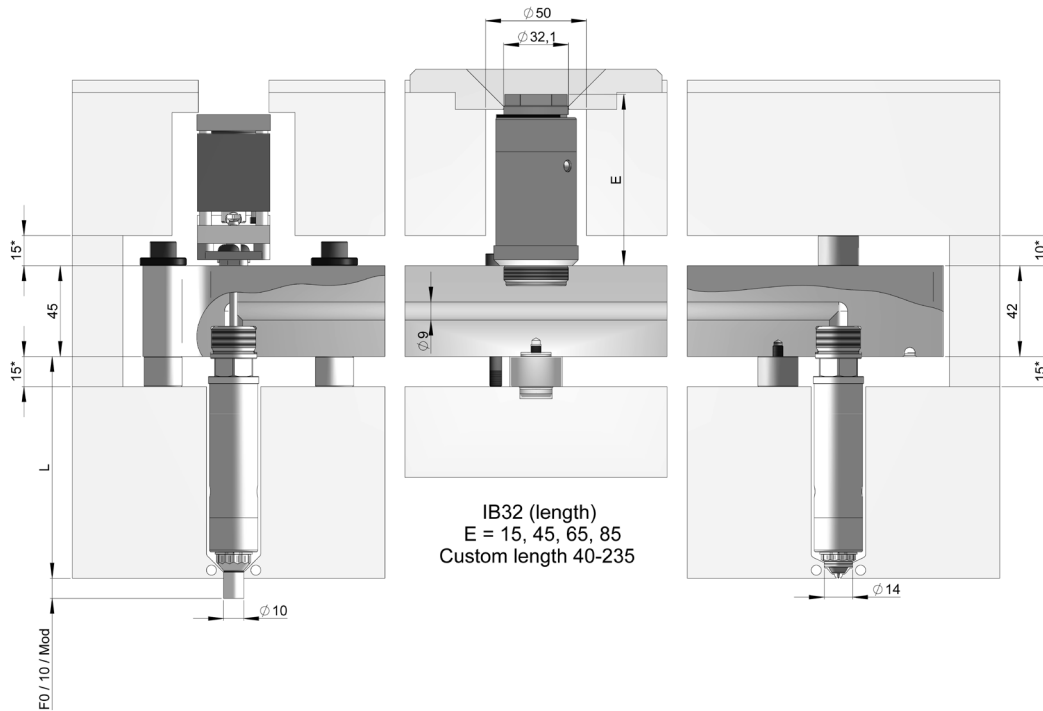
Stabilize your Process _____





Hot Runner System - Bolt Down / Thrust Pad Manifold

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

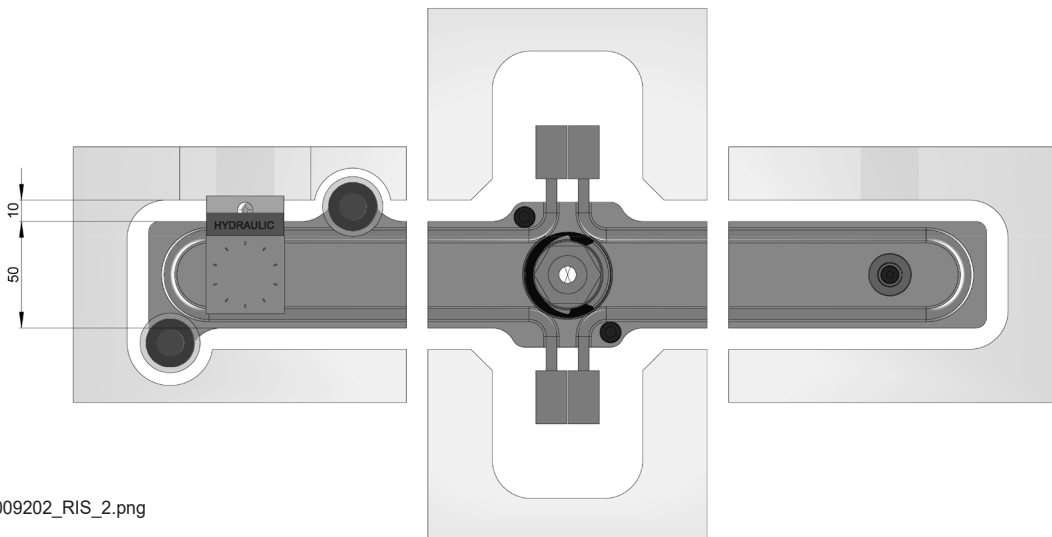


Doc009202_RIS_1.png

Bolt down selection

Inlet bushing

Thrust pad selection



Doc009202_RIS_2.png

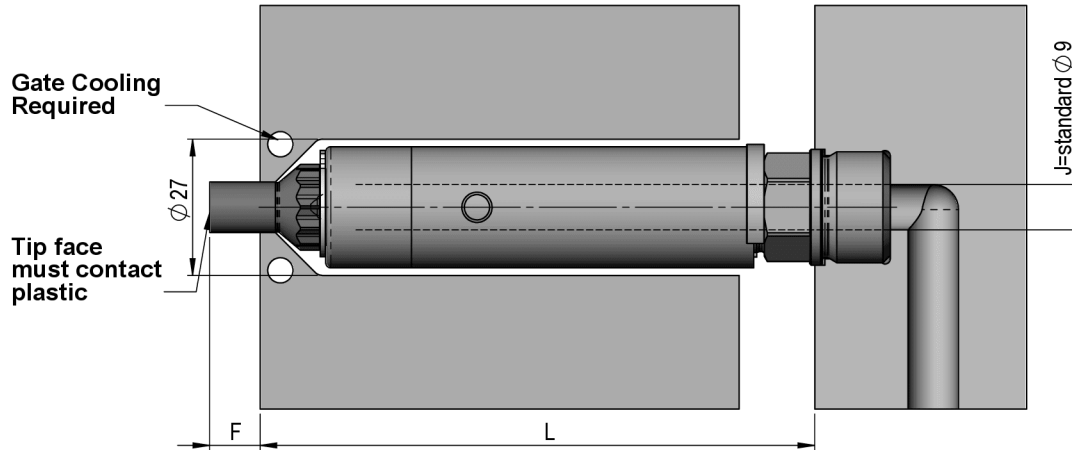
*min.10¹⁾ For a specific application, please consult Syntventive

Shown is a hot runner system to support actuators, consist of V-45 Manifold and IB 32 Inlet bushing. For hot runner systems with thermal shut-off nozzles, V-42 manifolds and IB 24 inlet bushing are available, for detailed dimensions consult Syntventive.



Nozzle Lengths

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



Doc009203_RIS_en.png

One control area (thermocouple)			Two control areas (thermocouple)			
L (mm)		Heater zone power (Watt)	L (mm)		Heater zone power ¹⁾ (Watt)	
Standard lengths	Custom lengths	Power 1	Standard lengths	Custom lengths	Power 1	Power 2
60	>60-<70	150 W	-	>170-<180	150 W	130 W
70	>70-<80	180 W	180	=>180-<190	150 W	140 W
80	>80-<90	210 W	-	>190-<200	150 W	150 W
90	>90-<100	215 W	200	=>200-<210	150 W	160 W
100	>100-<110	220 W	-	>210-<220	150 W	170 W
110	>110-<120	225 W	220	=>220-<230	150 W	180 W
120	>120-<130	230 W	-	>230-<240	150 W	190 W
130	>130-<140	235 W	240	=>240-<250	150 W	200 W
140	=>140-<150	250 W	-	>250-<260	150 W	210 W
-	>150-<160	255 W	260	=>260-<270	150 W	220 W
160	=>160-<170	260 W	-	>270-<280	150 W	230 W
			280-	=>280-<290	150 W	240 W
			-	>290-<300	150 W	250 W
			300	=>300-<310	150 W	260 W
			-	>310-<320	150 W	270 W
			320	=>320-<330	150 W	280 W
			-	>330-<340	150 W	290 W
			340	=>340-<350	150 W	300 W
			-	>350-<360	150 W	310 W
			360	=>360-<370	150 W	320 W
			-	>370-<380	150 W	330 W
			380	=>380-<390	150 W	340 W
			-	>390-<400	150 W	350 W
			400	-	150 W	360 W

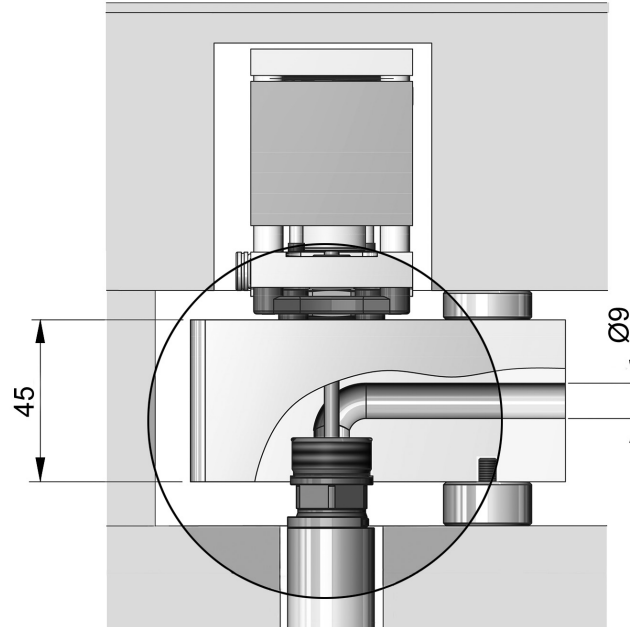
¹⁾ The numbering of the heating zones starts at the nozzle tip and ends at the nozzle head



Optional Features

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

Smooth Flow

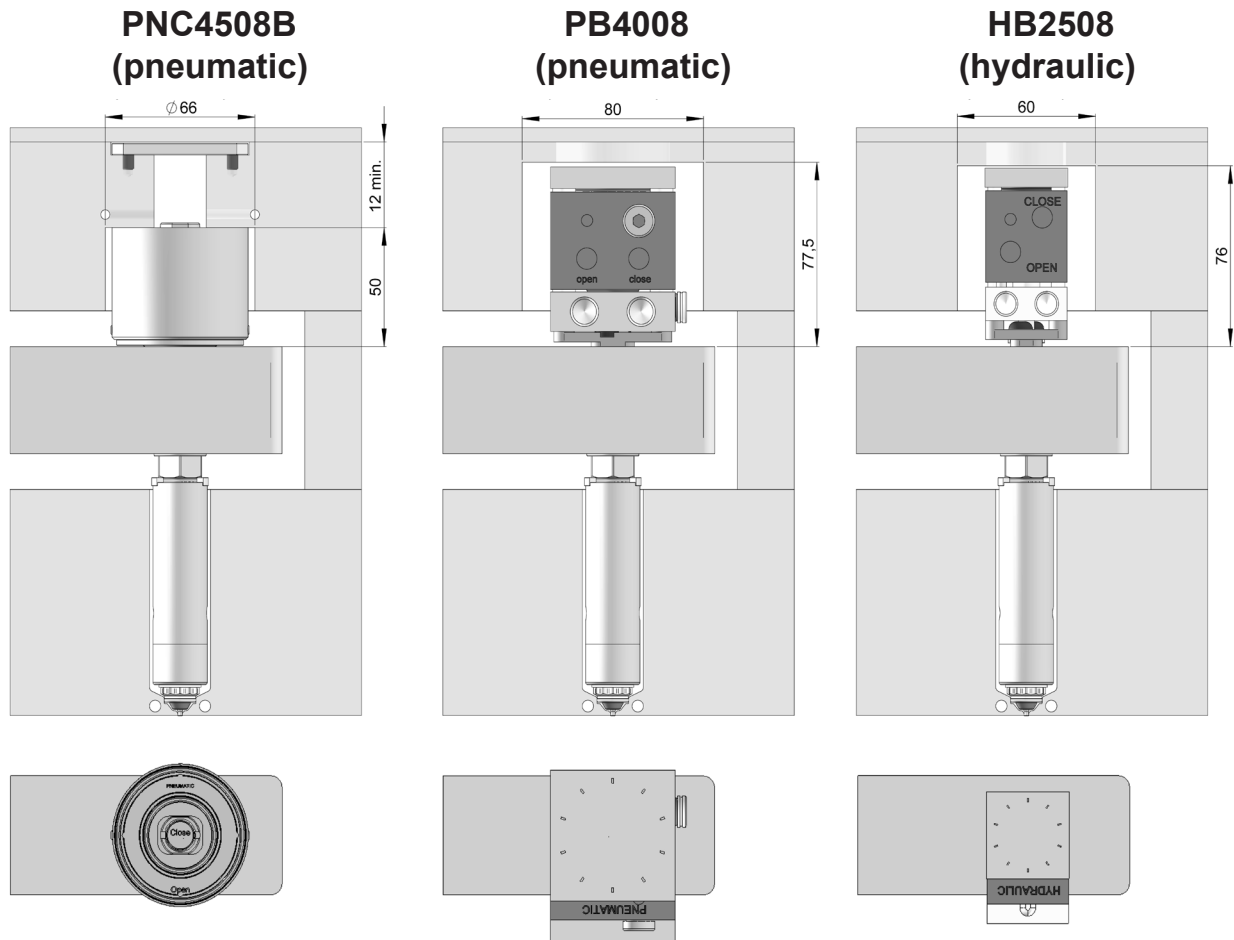


Doc007711.png



Available Actuators

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



Doc009204_RIS.png

Pressure range:
 6 - 12 bar (87 - 174 psi)
 Min/Max Close Forces:
 954 N / 1908 N

Pressure range:
 6 - 12 bar (87 - 174 psi)
 Min/Max Close Forces:
 754 N / 1508 N

Available features:
 ♦ Position Sensor
 ♦ SynCool®

Pressure range:
 40 - 60 bar (600 - 870 psi)
 Min/Max Close Forces:
 1963 N / 2945 N

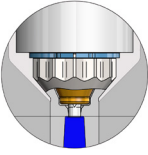
Available features:
 ♦ Position Sensor
 ♦ SynCool®



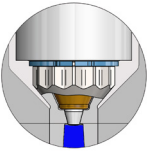
Nozzle Tip Styles

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

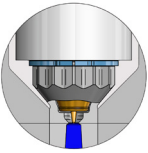
VSP Valve Gate - Straight Pin - Plunged Through

Tip Style	Description	Dt = Ø10 F10, 0, Mod H=2.5		
 VSP Doc009110_RIS.png	Standard			✓

VTP Valve Gate - Tapered Pin - Plunged Through

Tip Style	Description	Dt = Ø10 F10, 0, Mod H=2.5		
 VTP Doc009111_RIS.png	Standard			✓

TTP Thermal Gate – Torpedo - Plunged Through

Tip Style	Description	Dt = Ø10 F10, 0, Mod		
		H=1.5	H=2.0	H=2.5
 TTP Doc009109_RIS.png	Standard	✓	✓	✓

✓ Preferred

(✓) Available

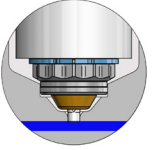
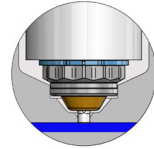
✗ Not Available




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	Dt = Ø14					
			H=1.5	H=2.0	H=2.5	H=3.0		
	VSW <small>Doc009112_RIS.png</small>	Standard	✓	✓	✓	✓		
Tip Style		Description	Dt = Ø14					
			H=1.2	H=1.6	H=1.8	H=2.0	H=2.5	H=2.7
	TA-VSW <small>Doc009112_RIS.png</small>	Standard	✓	✓	✓	✓	✓	✓

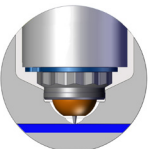
VTW Valve Gate - Tapered Pin - Blind

Tip Style		Description	Dt = Ø14		
			H=1.5	H=2.0	H=2.5
	VTW <small>Doc009113_RIS.png</small>	Standard	✓	✓	✓

TTW Thermal Gate – Torpedo - Blind

Tip Style		Description	Dt = Ø14			
			H=1.2	H=1.6	H=2.0	H=2.5
	TTW <small>Doc009114_RIS.png</small>	Standard	✓	✓	✓	✓

TTW-C Thermal Gate – Torpedo - Blind

Tip Style		Description	Dt = Ø14			
			H=1.2	H=1.6	H=2.0	H=2.5
	TTW-C <small>Doc009115_RIS.png</small>	Standard	✓	✓	✓	✓

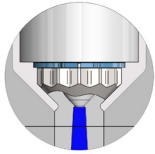
✓ Preferred
 (✓) Available
 ✗ Not Available



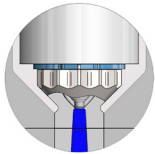
Nozzle Tip Styles

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

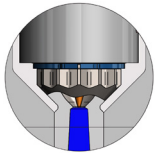
TPK Thermal Gate – Full Flow - Plunged Through

Tip Style	Description	Dt = Ø10 F = 10	
		H=2.0	H=2.5
 TPK <small>Doc009119_RIS.png</small>	Standard	✓	✓

TNK Thermal Gate – Full Flow - Plunged Through

Tip Style	Description	Dt = Ø10 F = 10	
		H=2.0	H=2.5
 TNK <small>Doc009120_RIS.png</small>	Standard Cold Runner	✓	✓

TTK Thermal Gate – Torpedo - Plunged Through

Tip Style	Description	Dt = Ø10 F = 10	
		H=2.0	H=2.5
 TTK <small>Doc009121_RIS.png</small>	Standard Cold Runner	✓	✓

✓ Preferred

(✓) Available

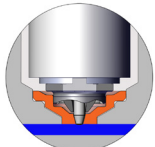
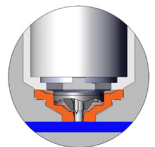
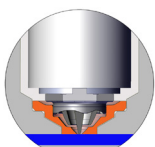
✗ Not Available



Wear Inserts / Cooling Bushings

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

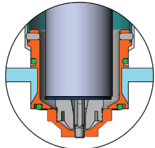
Wear Inserts

Part	Description	F = 0, 10, Mod					
		H=1.2	H=1.5	H=1.6	H=2.0	H=2.5	H=3.0
 WI-VTW <small>Doc009122_RIS.png</small>	Wear Insert for VTW Nozzle tips	✗	✓	✗	✓	✓	✗
 WI-VSW <small>Doc009123_RIS.png</small>	Wear Insert for VSW Nozzle tips	✗	✓	✗	✓	✓	✓
 WI-TTW <small>Doc009124_RIS.png</small>	Wear Insert for TTW Nozzle tips	✓	✗	✓	✓	✓	✗

Cooling Bushings

Part	TTW	VSW	VTW	TTP	VSP	VTP	TPK	TNK	TTK
 NC <small>Doc009125_RIS.png</small>	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Nozzle Cooling Bushing for Nozzle Tips, Blind and Plunged Through <small>Doc009126_RIS.png</small>									

Wear Insert and Cooling Bushing

Part	TTW	VSW	VTW
 NC + WI Wear Insert combined with Nozzle Cooling Bushing for Nozzle Tip Blind <small>Doc009127_RIS.png</small>	✓	✓	✓

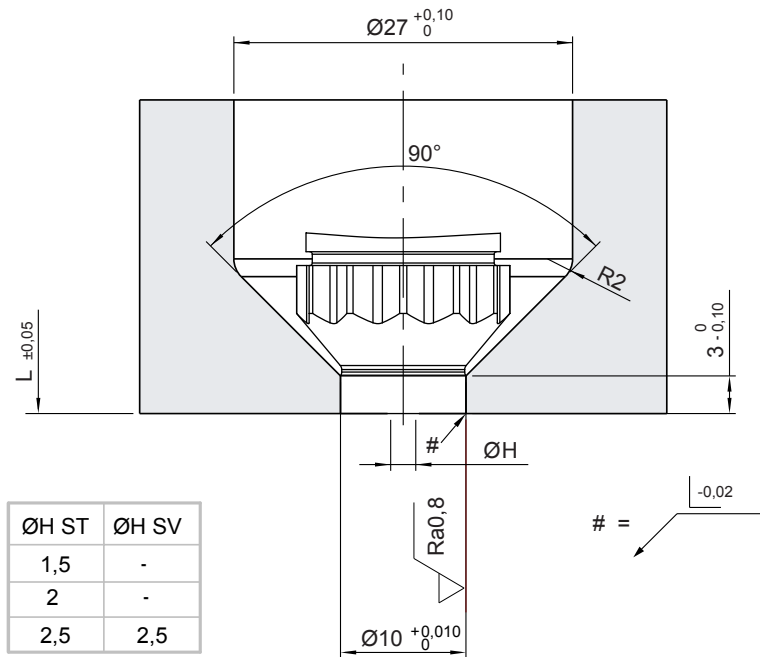
✓ Preferred
 (✓) Available
 ✗ Not Available



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.

TTP, VSP, VTP Nozzle tip cutout dimensions



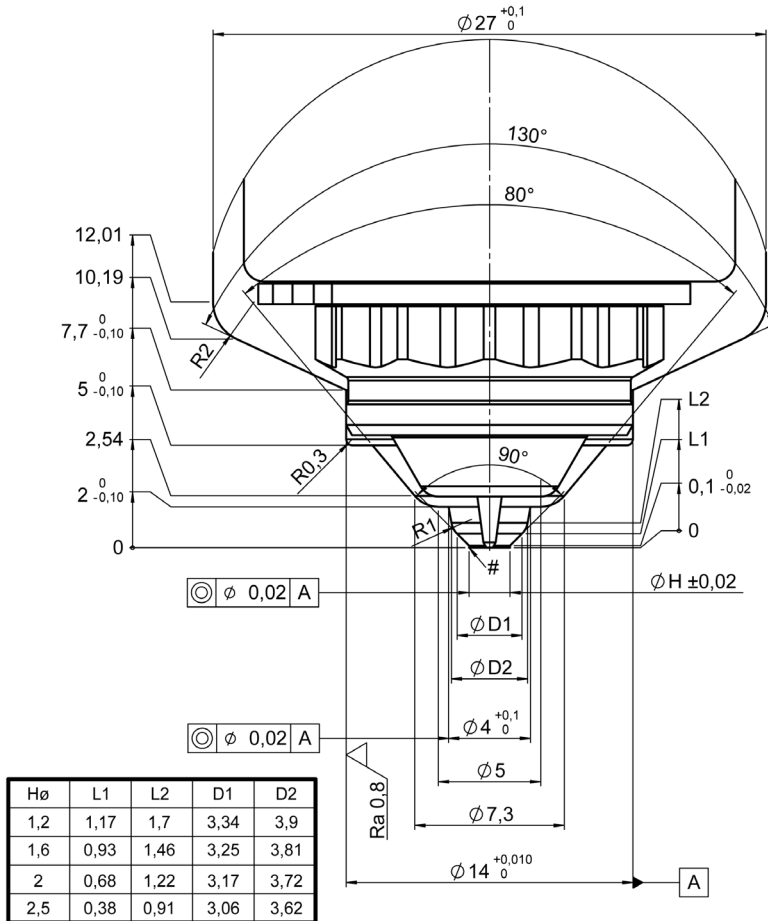
Doc003860.ai



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.

TTW - Nozzle tip cutout dimensions



Doc009206_RIS.png

Notes:

- Cooling required around the nozzle tip, opposite to the nozzle tip
- The front of the nozzle tip must always be against plastic.

General tolerances according to DIN ISO 2768-mK

At the area of the nozzle gate replaceable, hardened (52 +2/-1 HRC) inserts are recommended by Syntentive.

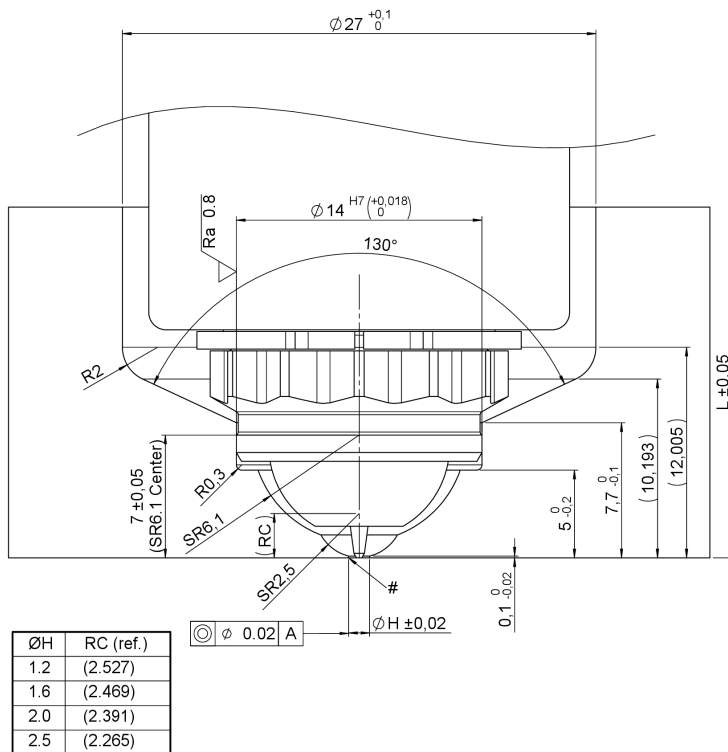
Syntentive recommends that the gate area geometry is manufactured by grinding and not EDM with a surface quality of $\sqrt{Ra 0,8}$.



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.

TTW-C - Nozzle tip cutout dimensions



Notes:

- Cooling required around the nozzle tip, opposite to the nozzle tip
- The front of the nozzle tip must always be against plastic.

Doc009209_RIS.png

General tolerances according to DIN ISO 2768-mK

At the area of the nozzle gate replaceable, hardened (52 +2/-1 HRC) inserts are recommended by Synventive.

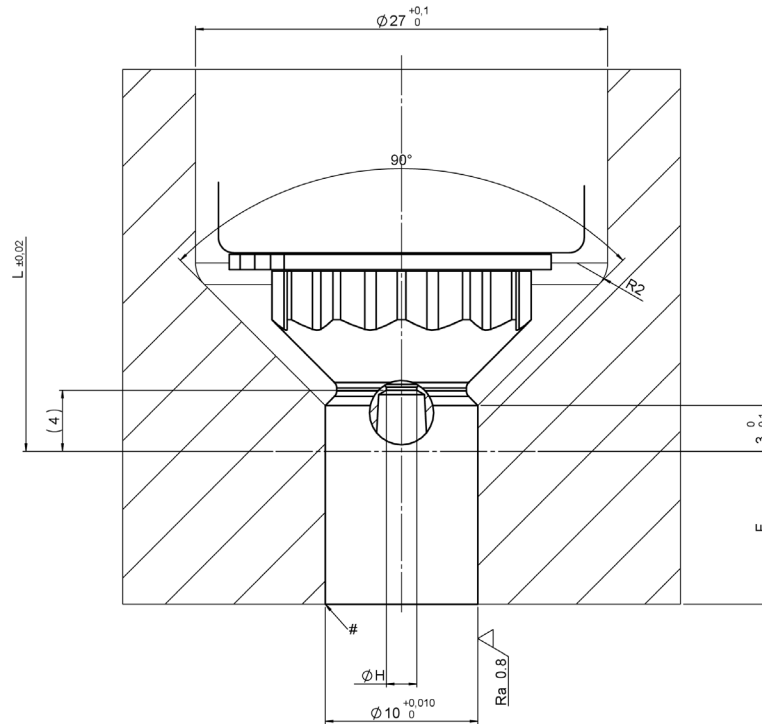
Synventive recommends that the gate area geometry is manufactured by grinding and not EDM with a surface quality of $\sqrt{Ra 0.8}$.



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.

TPK, TNK, TTK Series - Nozzle tip cutout dimensions



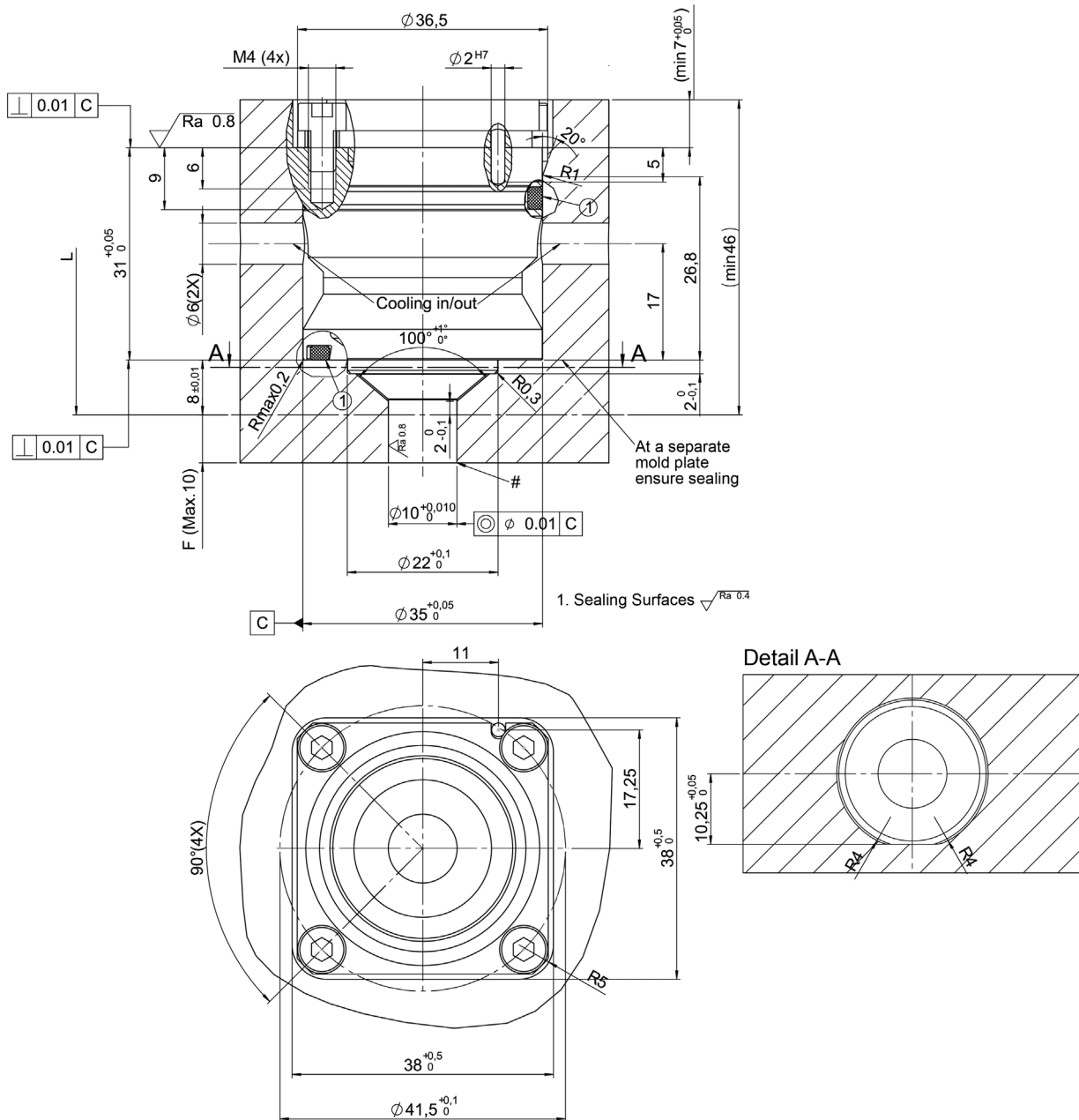
Doc009208_RIS.png



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



Doc007723.png

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