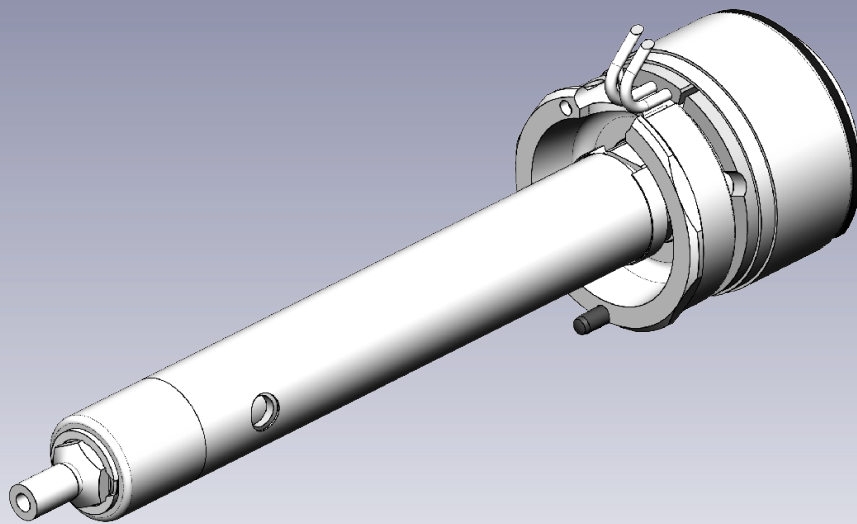


06S-03 Product Catalog

S p r u e B u s h i n g s



Doc009096_RIS_transparent.png

Stabilize your Process _____



Product Information

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

Product Type

Hot runner nozzles in the 06 S range
 → Nozzle size 06: Flow bore - \varnothing 6 mm
 → Nozzle style S: Sprue Bushing

Different gate options can be implemented.

Major Dimensions (mm)

J	Flow bore	\varnothing 6 ¹⁾
Jib1	Flow bore inlet bushing	\varnothing 4, \varnothing 5, \varnothing 6
Lsb	Nozzle length	50...190 ²⁾
F	Tip extension	see page 4, 5
D	Cutout	\varnothing 20
Dt	Tip \varnothing	see page 4
H	Gate Orifice	see page 4
K	Head height	40
Dk	Head diameter	\varnothing 40
Ds	\varnothing of Head centering	\varnothing 40
R	Nozzle contact radius	0...40
AD	Nozzle contact angle	90°...120°

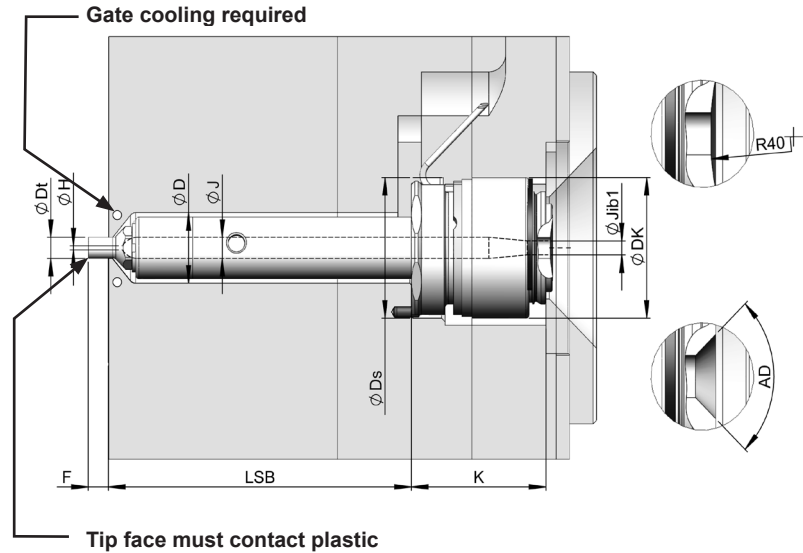
Application

For all usual thermoplastics Max. shot weight per nozzle (g):
 → 120 (open, low viscosity)

Heating

→ Externally heated, 230 V AC
 → Replaceable heater & thermocouple
 → Nozzle heater zones, 125...259 W
 → Head heater, 450 W
 Thermocouples, EN 60584
 Fe-CuNi 0 = Typ J;
 NiCr-Ni = Typ K

- 1) Standard flow bore value = \varnothing 6
 consult Synventive for custom dimensions
 \varnothing 4, \varnothing 5
 2) Standard lengths shown, consult Synventive
 for custom lengths.



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L _{SB} (mm)	Heater zone power (Watt)	
	Nozzle	Head
50	125 W	450 W
60	125 W	450 W
70	139 W	450 W
80	139 W	450 W
90	159 W	450 W
100	159 W	450 W
110	179 W	450 W
120	179 W	450 W
130	199 W	450 W
150	219 W	450 W
170	239 W	450 W
190	259 W	450 W



Cutout in Mold Plate for Nozzle and Connections

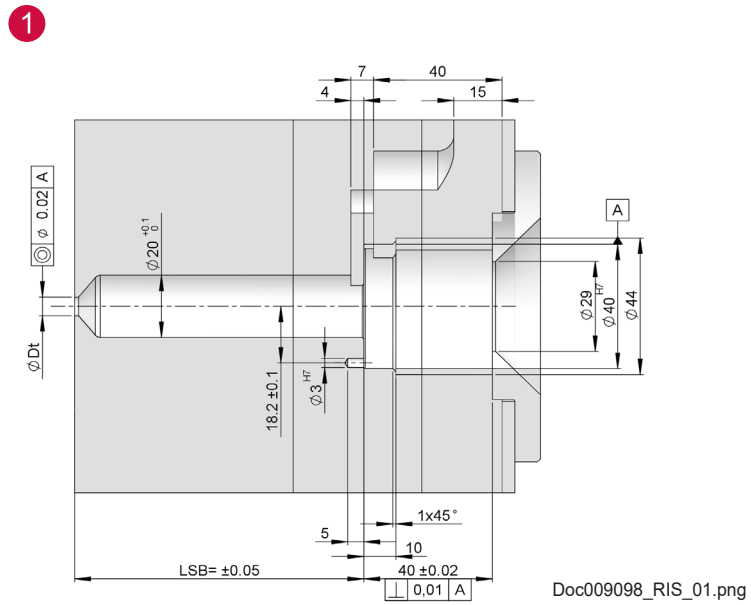
Illustrations simplified, schematically drawn and not to scale. All dimensions in mm

1. Cutout for the nozzle

LSB Nozzle length

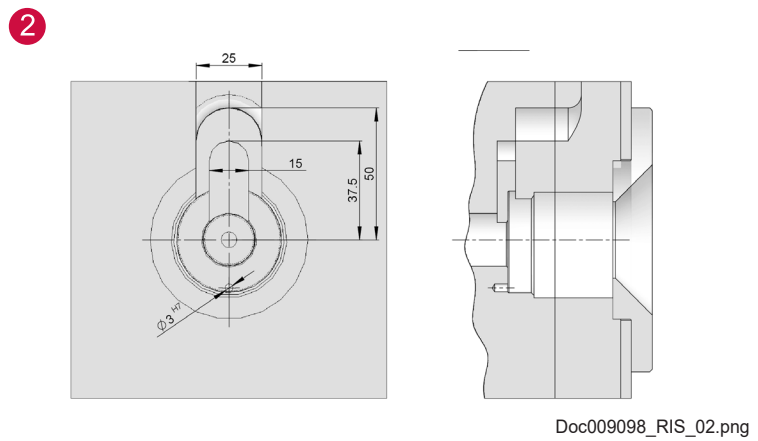
General tolerances: DIN ISO 2768-mK

Surfaces: $\sqrt{Ra 3.2}$ ($\sqrt{Ra 1.6}$ $\sqrt{Ra 0.8}$)



2. Cutout for connections

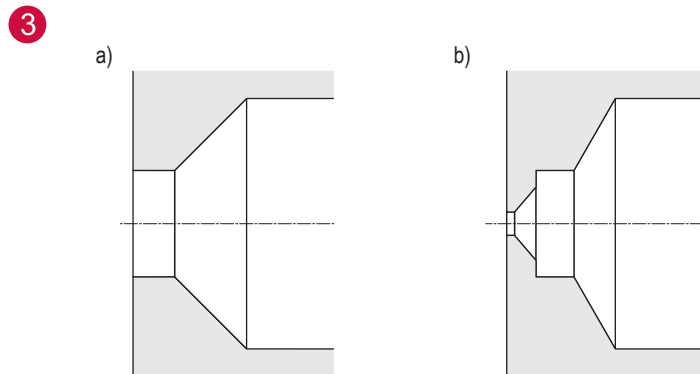
- Electrical power
- Thermocouple



3. Cutout for the nozzle tip

- a) Through bore nozzle tip (Plunged through)
- b) Blind bore nozzle tip (Blind)

Depending on the selected nozzle type, different cutouts are required for the nozzle tip.

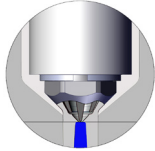




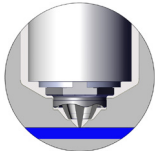
Nozzle Tip Styles

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

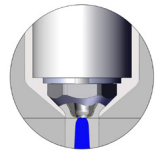
TTP Thermal Gate – Torpedo - Plunged Through

Tip Style	Description	Dt = Ø6 F = 0, 6, Mod		
		H = 0.8	H = 1.2	H = 1.6
	TTP Standard Doc008996_RIS.png	✓	✓	✓

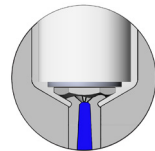
TTW Thermal Gate – Torpedo - Blind

Tip Style	Description	Dt = Ø9		
		H = 0.8	H = 1.2	H = 1.6
	TTW Standard Doc009076_RIS.png	✓	✓	✓

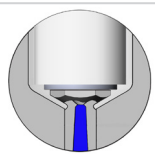
TNK Thermal Gate – Full Flow - Plunged Through

Tip Style	Description	Dt = Ø6 F = 0, 6, Mod		
		H = 0.8	H = 1.2	H = 1.6
	TNK Standard Doc009077_RIS.png	✓	✓	✓

TTK Thermal Gate – Torpedo - K

Tip Style	Description	Dt = Ø6 F = 6, Mod H=1.2 / Mod 1.2 - 2.0		
			TTK Standard (cold runner applications, semi crystalline materials) Doc009078_RIS.png	

TPK Thermal Gate – Full Flow - K

Tip Style	Description	Dt = Ø6 F = 6, Mod H=1.2 / Mod 1.2 - 2.0		
			TPK Standard (cold runner applications) Doc009079_RIS.png	

✓ Preferred

(✓) Available

✗ Not Available



Wear Inserts

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

Part	Description	F = 0, 6, Mod			
		H=0.8	H=1.2	H=1.6	
	WI- TTW Doc009080_RIS.png	Wear Insert (without Dimple)	✓	✓	✓
		F = 0			
	Wear Insert (with Dimple) Doc009081_RIS.png	✓	✓	✓	

✓ Preferred

(✓) Available

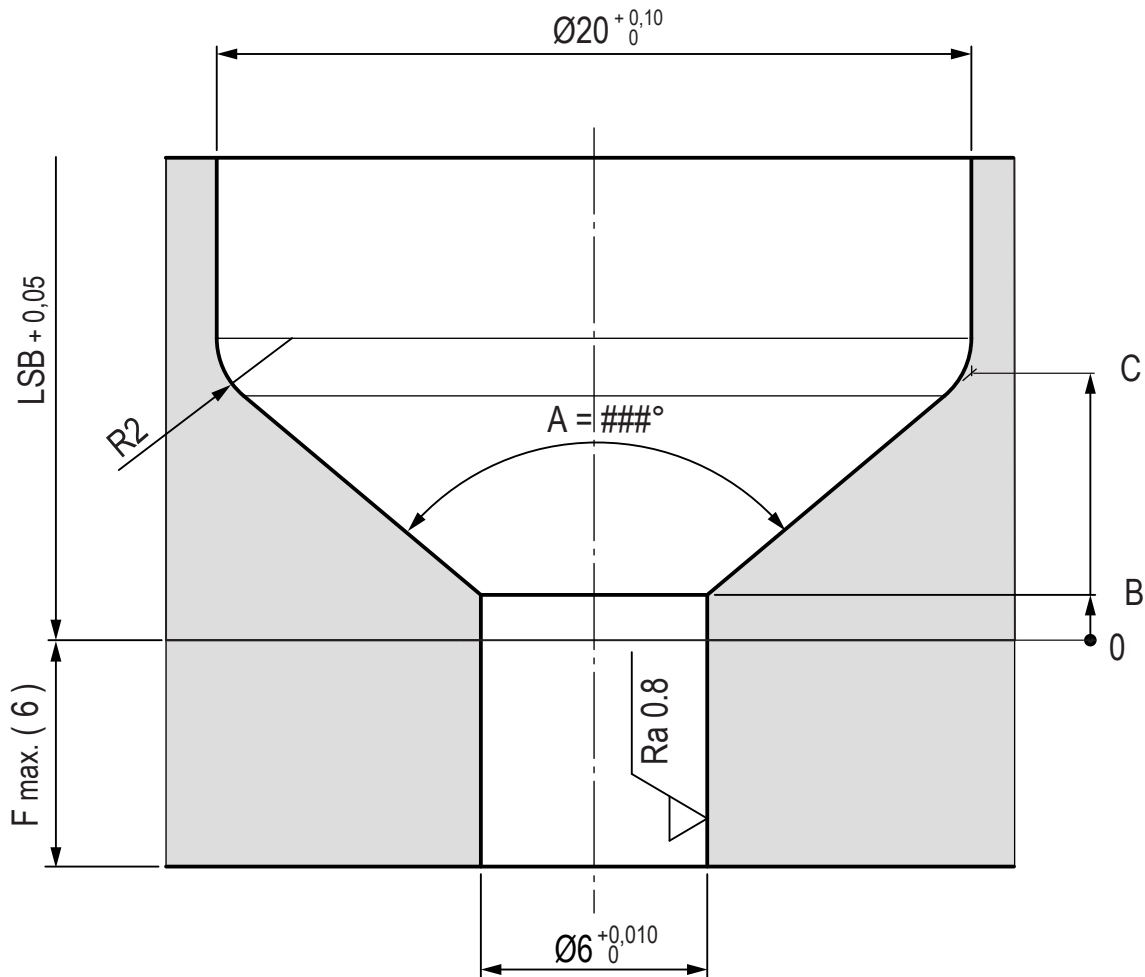
✗ Not Available



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, TNK, TTK, TPK- Nozzle tip cutout dimensions



	A	B	C
TTP	100°	1,2	7,1
TNK TTK TPK	120°	3,2	7,24

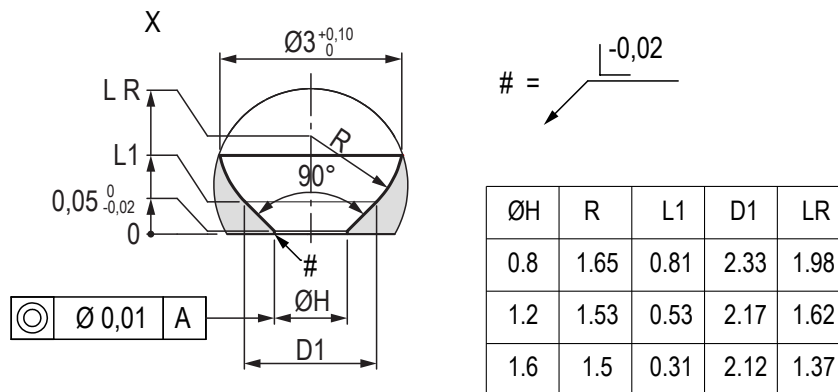
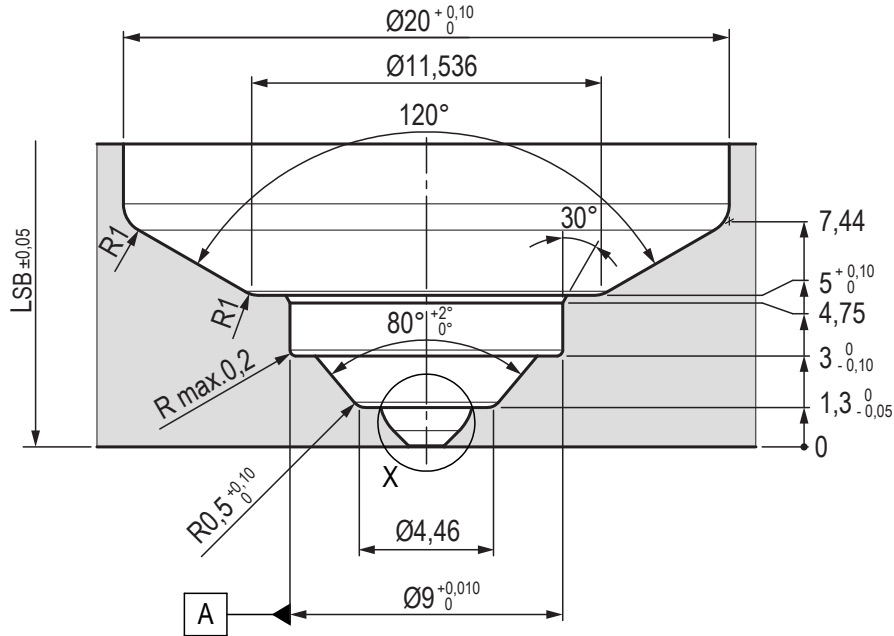
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Nozzle Tip Cutout Dimensions

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



- 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 $\sqrt{Ra0.8}$

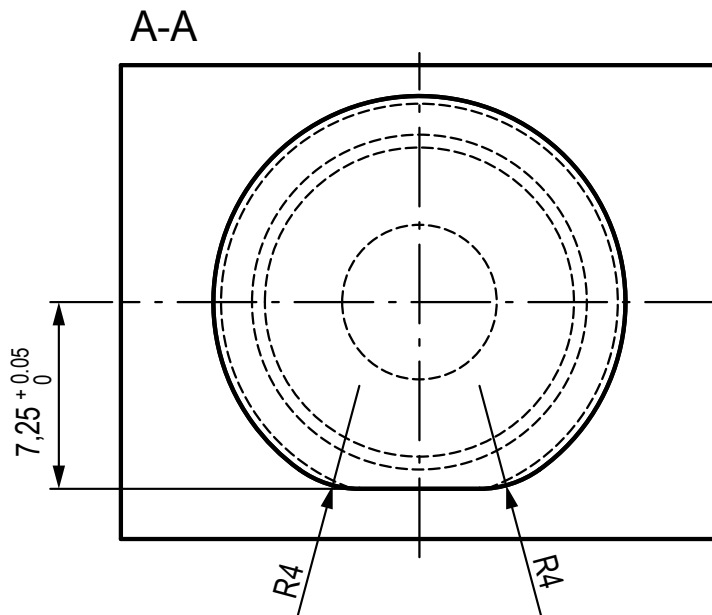
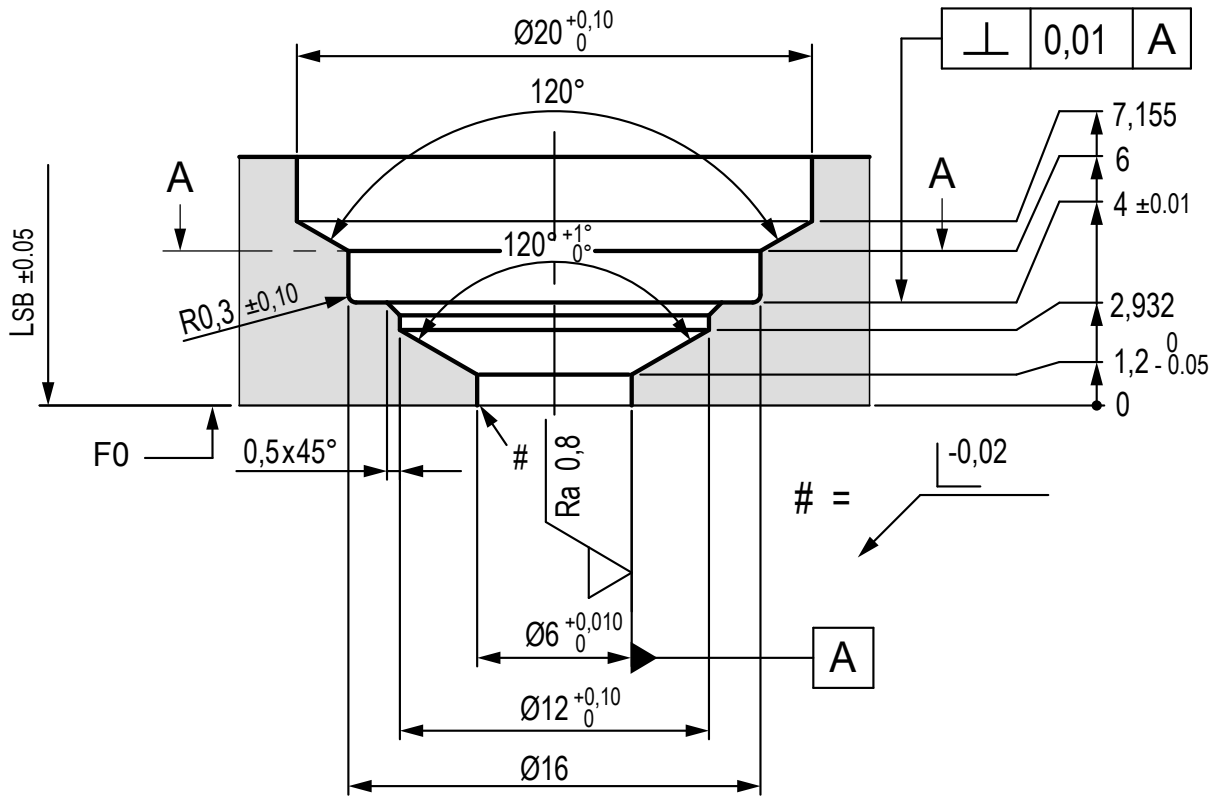
Doc006960.ai



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.

WI-TTW - Wear insert cutout dimensions



Doc006964.ai

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