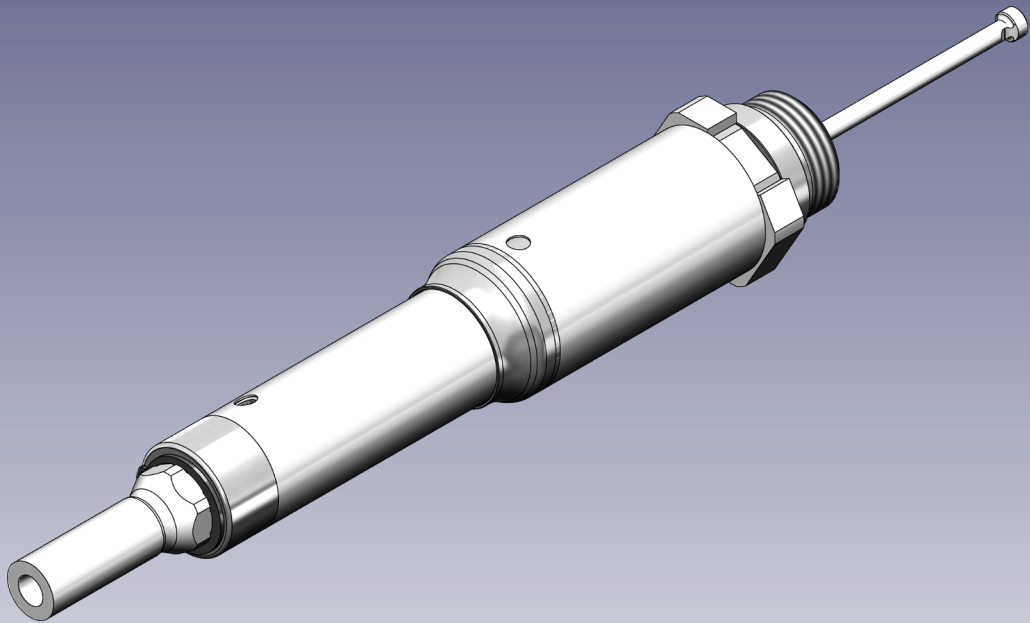


12EX16-03 Product Catalog

Threaded Nozzles Hot Runner Series

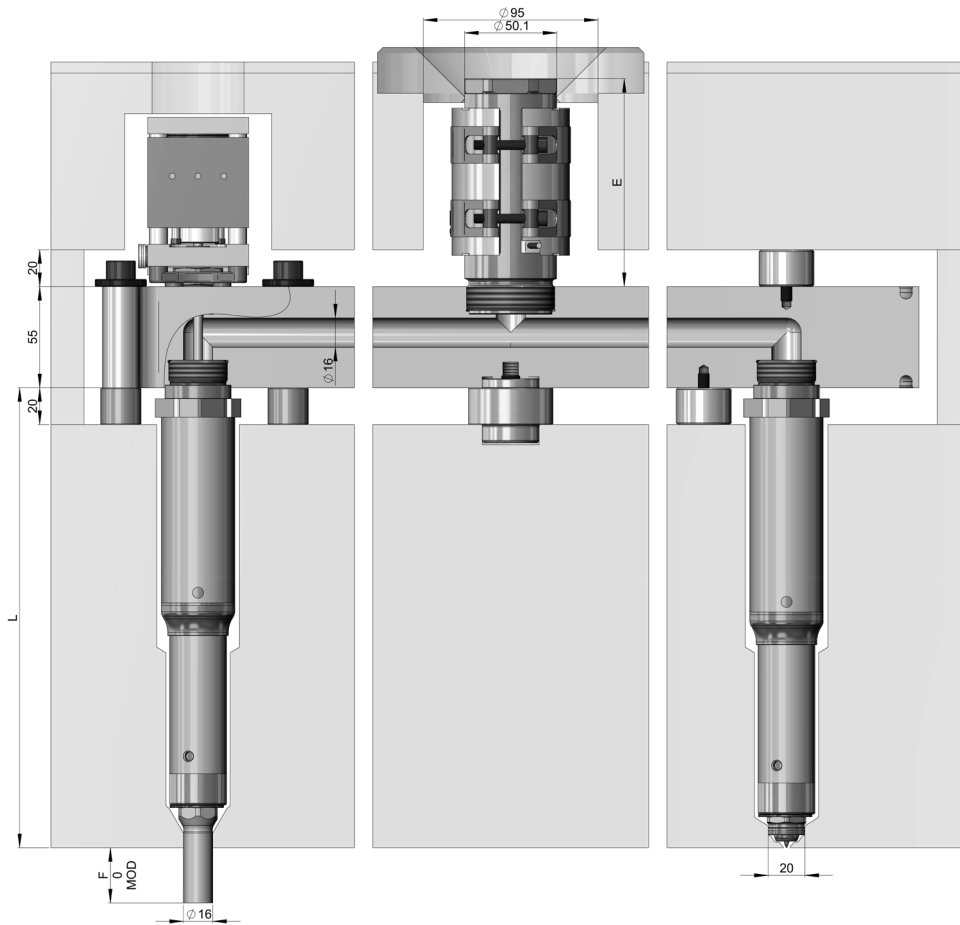


Stabilize your Process _____



Hot Runner System - Thrust Pad / Bolt Down Manifold

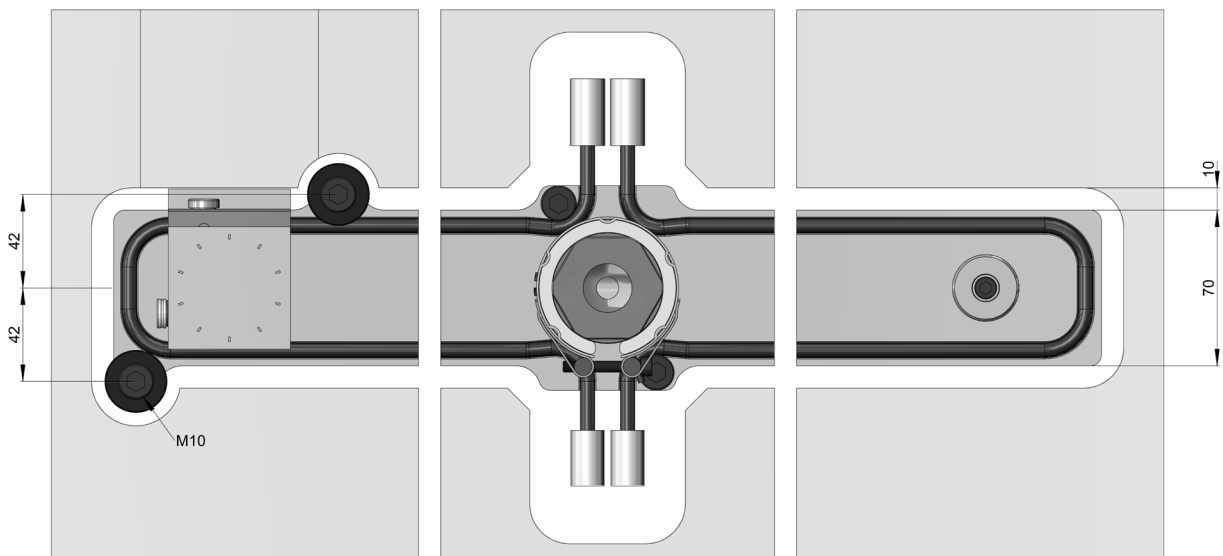
Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.



Bolt down selection

Inlet bushing

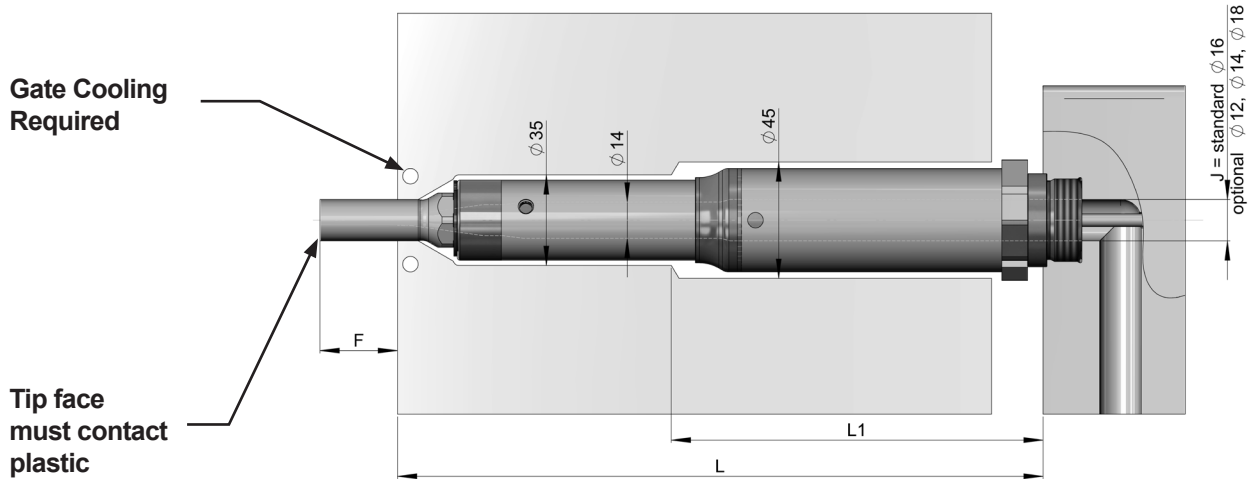
Thrust pad selection





Nozzle Lengths

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



L (mm)	L1	Heater zone power ¹⁾ (Watt)	
		Power 1	Power 2
200 - < 225	L-106	195W	200W
125 - < 250	L-106	195W	250W
250 - < 275	L-106	195W	300W
275 - < 300	L-106	195W	350W
300 - < 325	L-106	195W	400W
325 - < 350	L-106	195W	450W
350 - < 375	L-106	195W	500W
375 - < 400	L-106	195W	545W
425 - < 450	L-106	195W	595W
450 - < 475	L-106	195W	685W
475 - < 500	L-106	195W	735W
500 - < 525	L-106	195W	780W
525 - < 550	L-106	195W	830W
550 - < 575	L-106	195W	875W
575 - < 600	L-106	195W	925W
600 - < 625	L-106	195W	970W
625 - < 650	L-106	195W	1020W
675 - < 700	L-106	195W	1115W
725 - < 750	L-106	195W	1205W

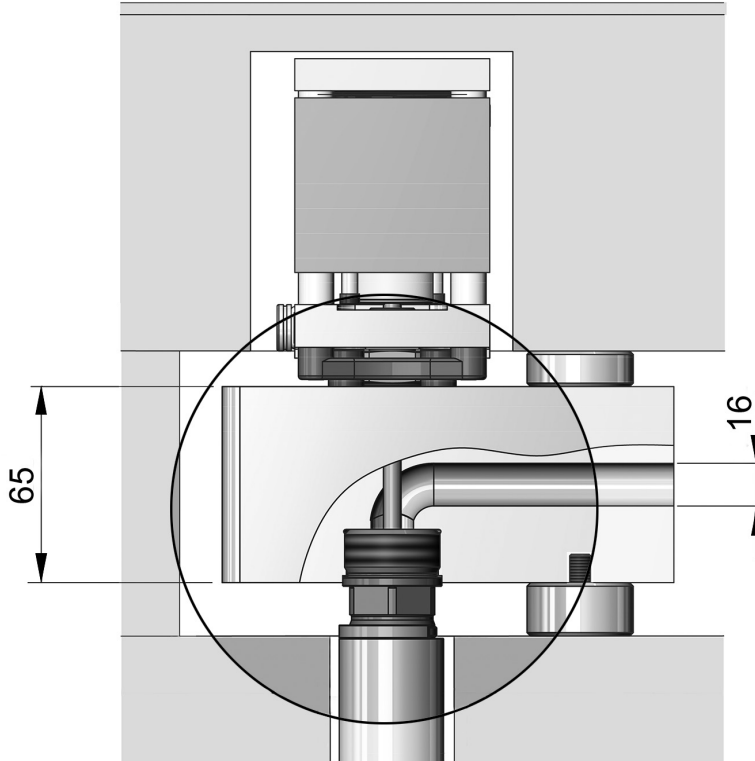
¹⁾ The numbering of the heating zones starts at the nozzle tip and ends at the nozzle head.



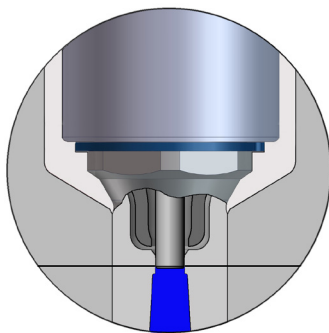
Optional Features

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

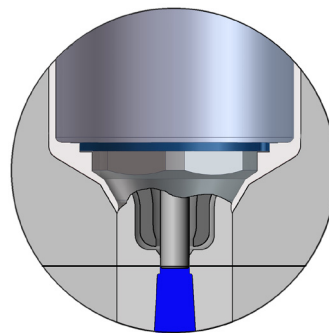
Smooth flow



Mold strengths



Standard

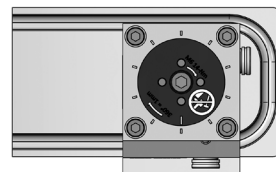
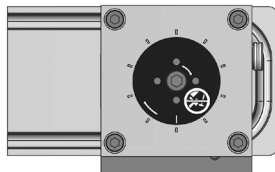
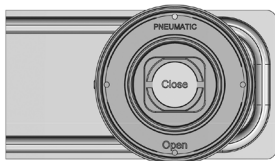
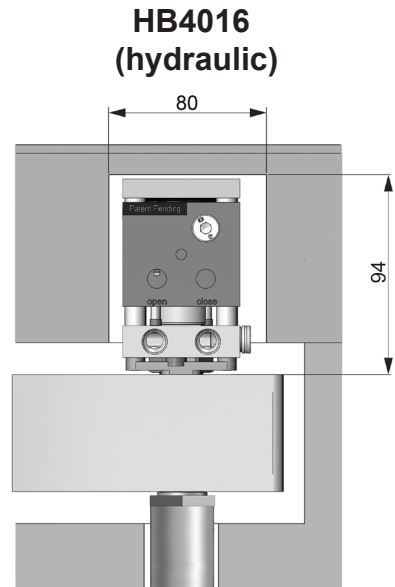
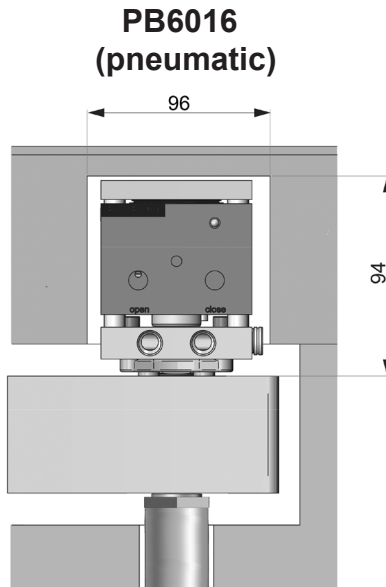
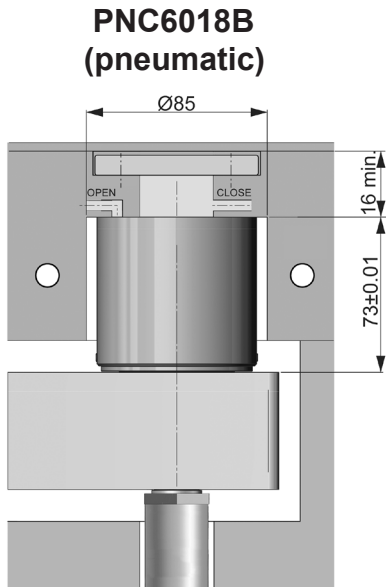


Reduced



Available Actuators

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



Pressure range:
6 - 12 bar (87 - 174 psi)
Min/Max Close Forces:
1696 N / 3393 N

Pressure range:
6 - 12 bar (87 - 174 psi)
Min/Max Close Forces:
1696 N / 3393 N

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

Available features:
♦ Position Sensor
♦ SynCool®

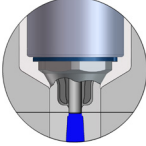
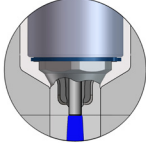
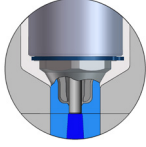
Available features:
♦ Position Sensor
♦ SynCool®



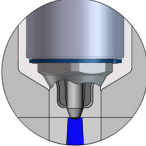
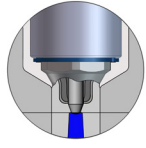
Nozzle Tip Styles

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 = Ø16 F = 0, 30, Mod	
			H=4.0	H=5.0
	VSP	Standard	✓	(✓)
	VSP-SC	Color Seal	✓	(✓)
	VSP-WC	Wear C	(✓)	✓

VTP Valve Gate - Tapered Pin - Plunged Through

Tip Style		Description	Dt = Ø16 F = 0, 30, Mod	
			H=3.0	H=3.5
	VTP	Standard	✓	(✓)
	VTP-SC	Color Seal	✓	(✓)

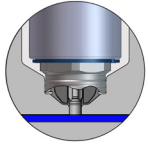
✓ Preferred
 (✓) Available
 ✗ Not Available



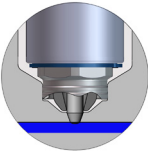
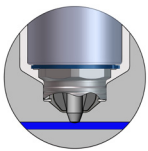
Nozzle Tip Styles

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	Dt = Ø20	
			H=3.0	H=4.0
	VSW	Standard	✓	(✓)
	VSW-SC	Color Seal	✓	(✓)

VTW Valve Gate - Tapered Pin - Blind

Tip Style		Description	Dt = Ø20			
			H=2.0	H=2.5	H=3.0	H=3.5
	VTW	Standard	(✓)	(✓)	✓	(✓)
	VTW-SC	Color Seal	(✓)	(✓)	✓	(✓)

✓ Preferred

(✓) Available

✗ Not Available



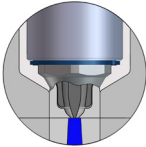
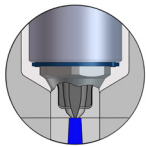
Nozzle Tip Styles

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

TTW Thermal Gate – Torpedo - Blind

Tip Style	Description	Dt = Ø20			
		H=2.0	H=2.5	H=3.0	H=3.5
 TTW	Standard	✓	✓	✓	✓
 TTW-SC	Color Seal	✓	✓	✓	✓

TTP Thermal Gate – Torpedo - Plunged Through

Tip Style	Description	Dt = Ø16 F = 0, 30, Mod			
		H=2.0	H=2.5	H=3.0	H=3.5
 TTP	Standard	✓	✓	✓	✓
 TTP-SC	Color Seal	✓	✓	✓	✓

TFP Thermal Gate – Full Flow - Plunged Through

Tip Style	Description	Dt = Ø16 F = 0, 30, Mod			
		H=1.5	H=2.0	H=2.5	H=3.0
 TFP	Standard	✓	✓	✓	✓
 TFP-SC	Color Seal	✓	✓	✓	✓

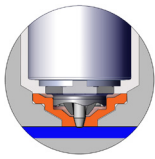
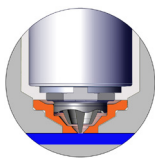
✓ Preferred (✓) Available ✗ Not Available



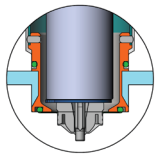
Wear Inserts / Cooling Bushings

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

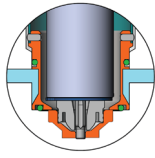
Wear Insert

Part	Description	F = 0, 30, Mod				
		H=2.0	H=2.5	H=3.0	H=3.5	H=4.0
 WI-VTW	Wear Insert for VTW Nozzle tips	✓	✓	✓	✓	✗
 WI-VSW	Wear Insert for VSW Nozzle tips	✗	✗	✓	✗	✓
 WI-TTW	Wear Insert for TTW Nozzle tips	✓	✓	✓	✓	✗

Cooling Bushing

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

Wear Insert and Cooling Bushing

Part	VSW	VTW	TTW
 NC + WI			
Wear Insert combined with Nozzle Cooling Bushing for Nozzle Tip Blind	✓	✓	✓

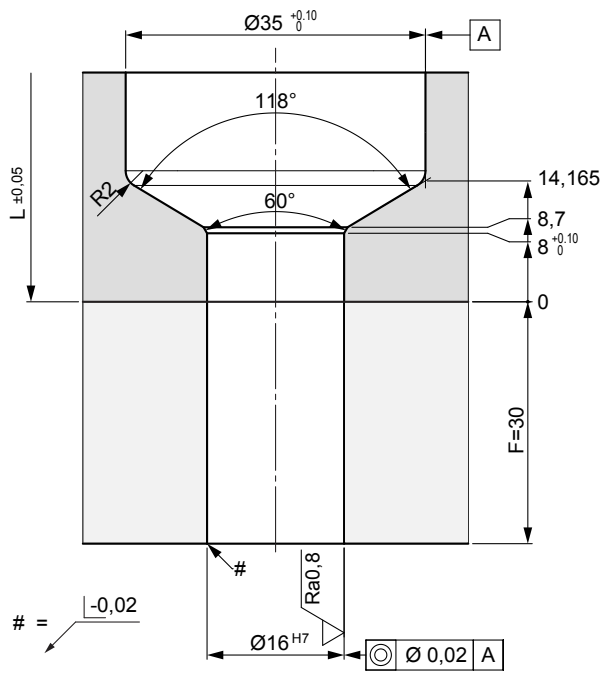
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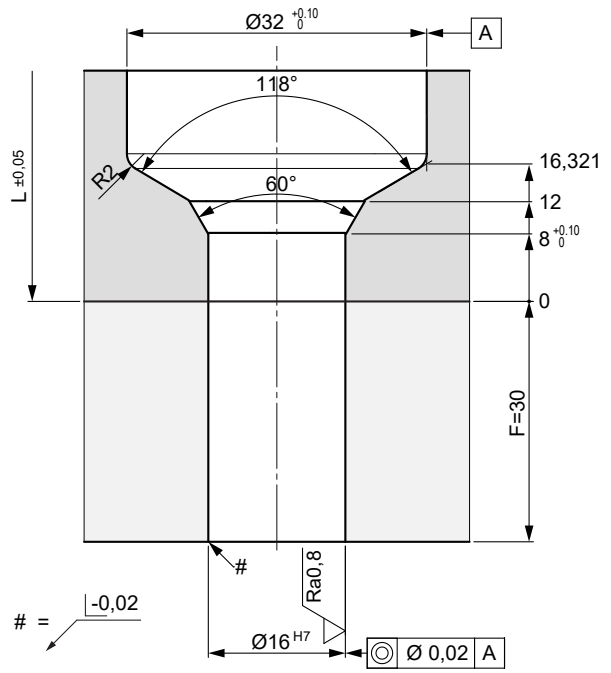
Nozzle Tip Cutout Dimensions

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.

VSP, VTP, TTP, TFP Nozzle tip cutout dimensions



Standard Cutout



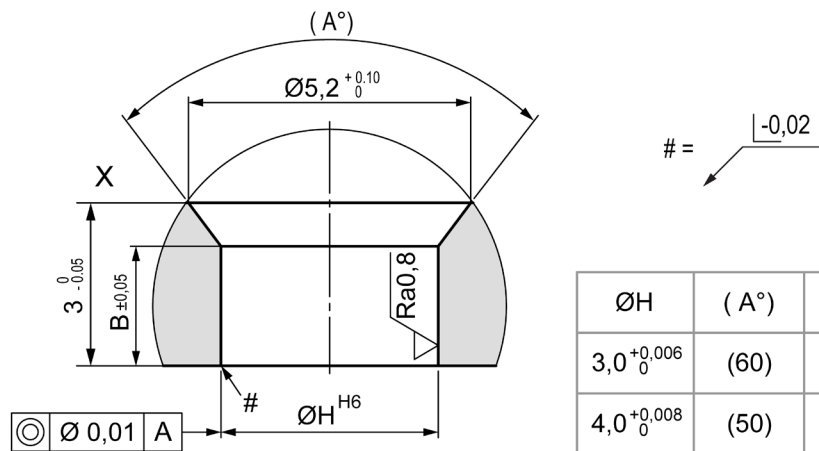
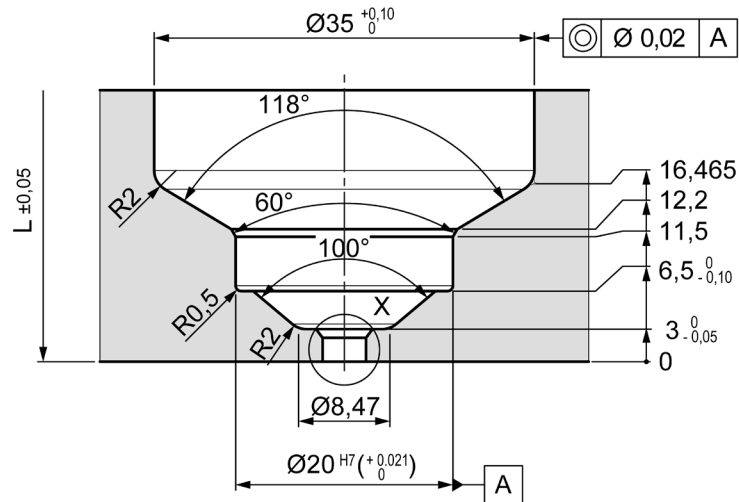
Reduced Cutout



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



ØH	(A°)	B
3,0 ^{+0,006} / ₀	(60)	1.27
4,0 ^{+0,008} / ₀	(50)	1.72

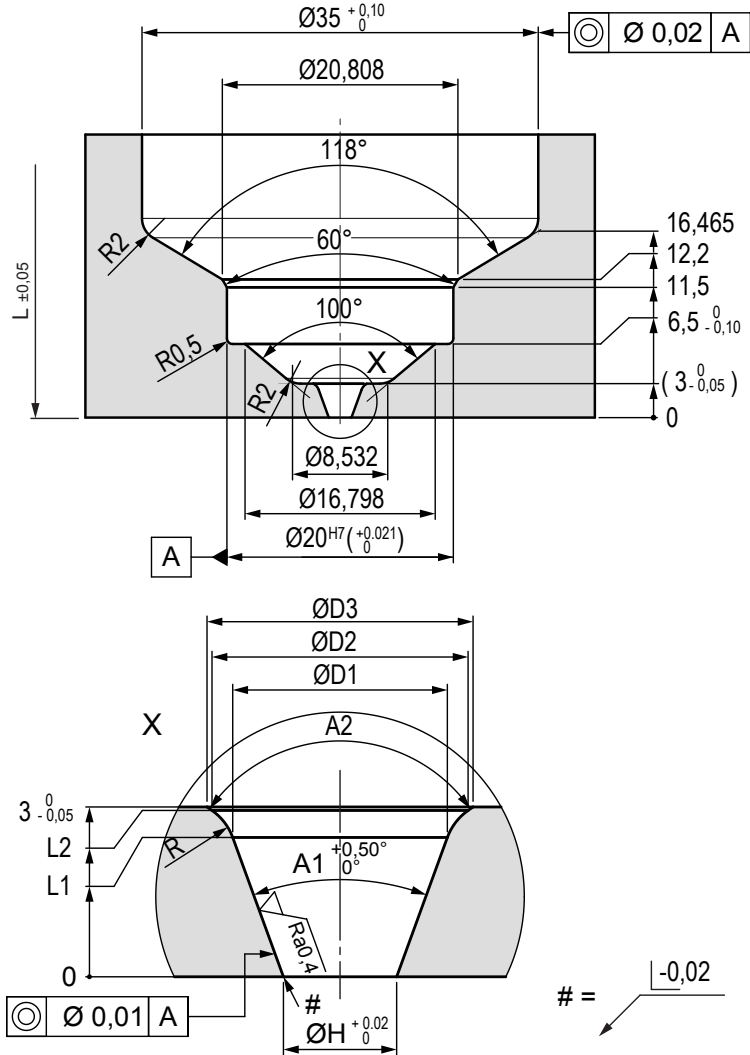
1. At the area of the nozzle gate replaceable, hardened (52 +2/-1HRC) inserts are recommended by Synventive.
2. Synventive recommends that the gate area geometry is manufactured by grinding and not EDM with a surface quality of $\sqrt{Ra0,8}$



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	A1	A2	R	L1	L2	D1	D2	D3
2,0	40°	110°	1	2,46	2,938	3,792	4,524	4,7
2,5	40°							4,68
3,0	40°							5,18
3,5	30°							5,11

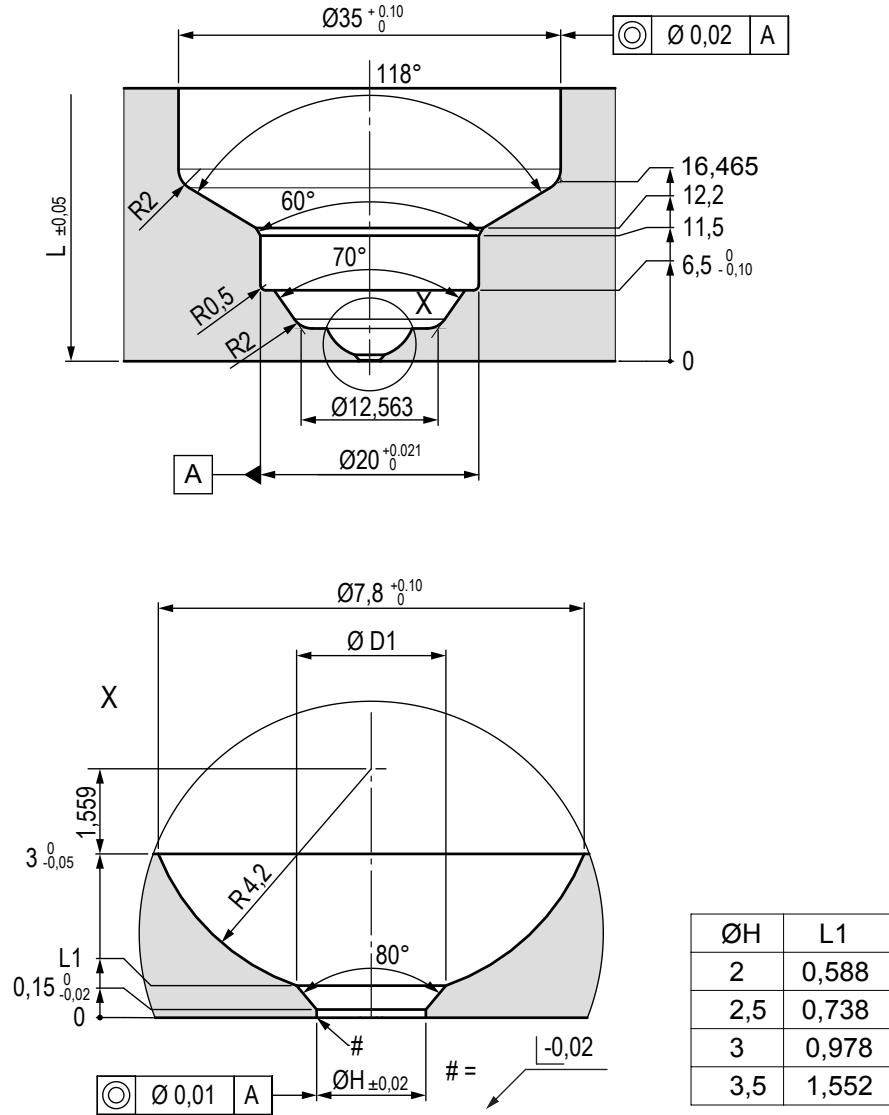
1. At the area of the nozzle gate replaceable, hardened (52 +2/-1HRC) inserts are recommended by Synventive.
2. Synventive recommends that the gate area geometry is manufactured by grinding and not EDM with a surface quality of $\sqrt{Ra0,4}$



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



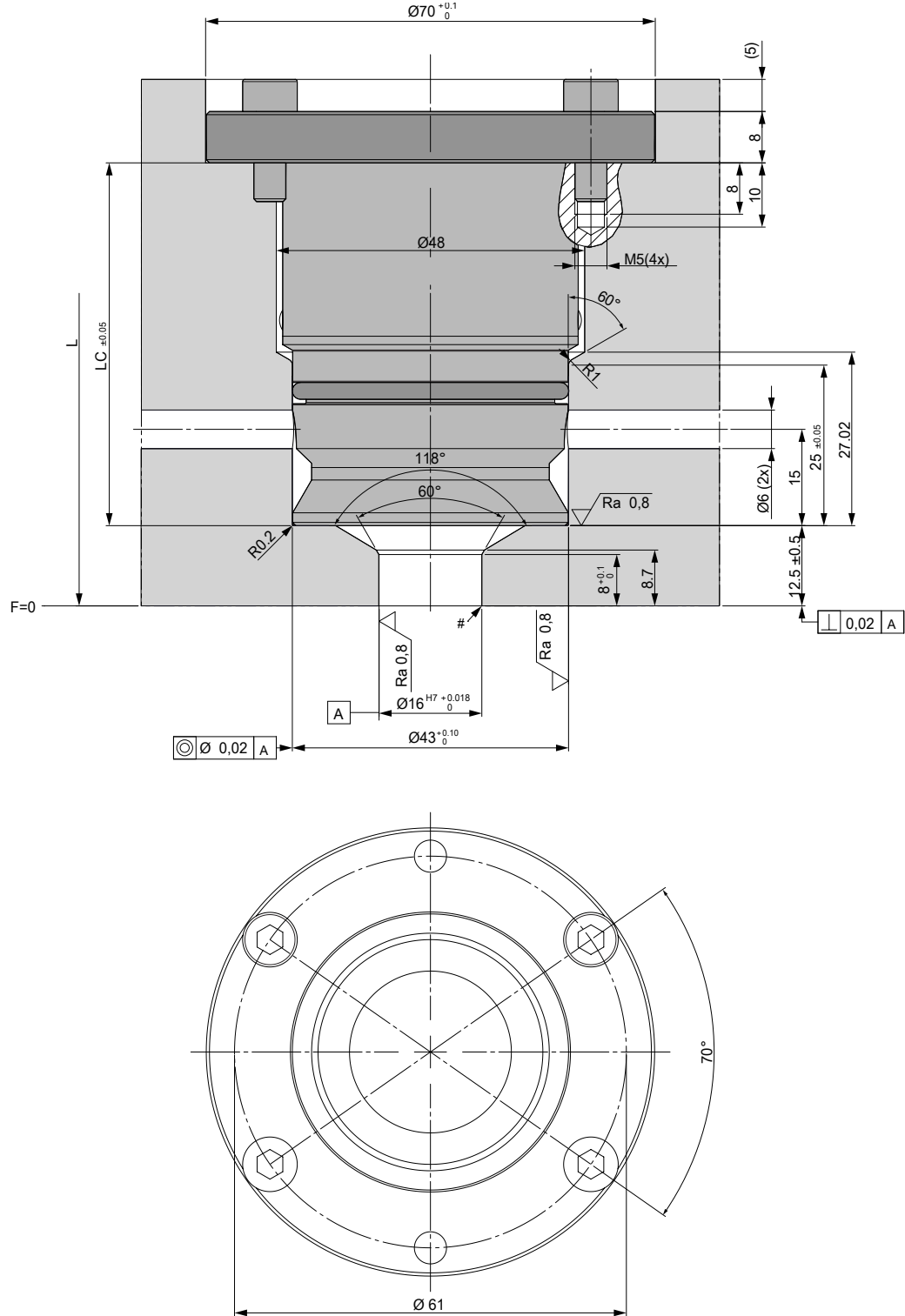
1. At the area of the nozzle gate replaceable, hardened (52 +/-1HRC) inserts are recommended by Synventive.
2. Synventive recommends that the gate area geometry is manufactured by grinding and not EDM with a surface quality of $\sqrt{Ra0,8}$



Cooling Bushing 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.

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

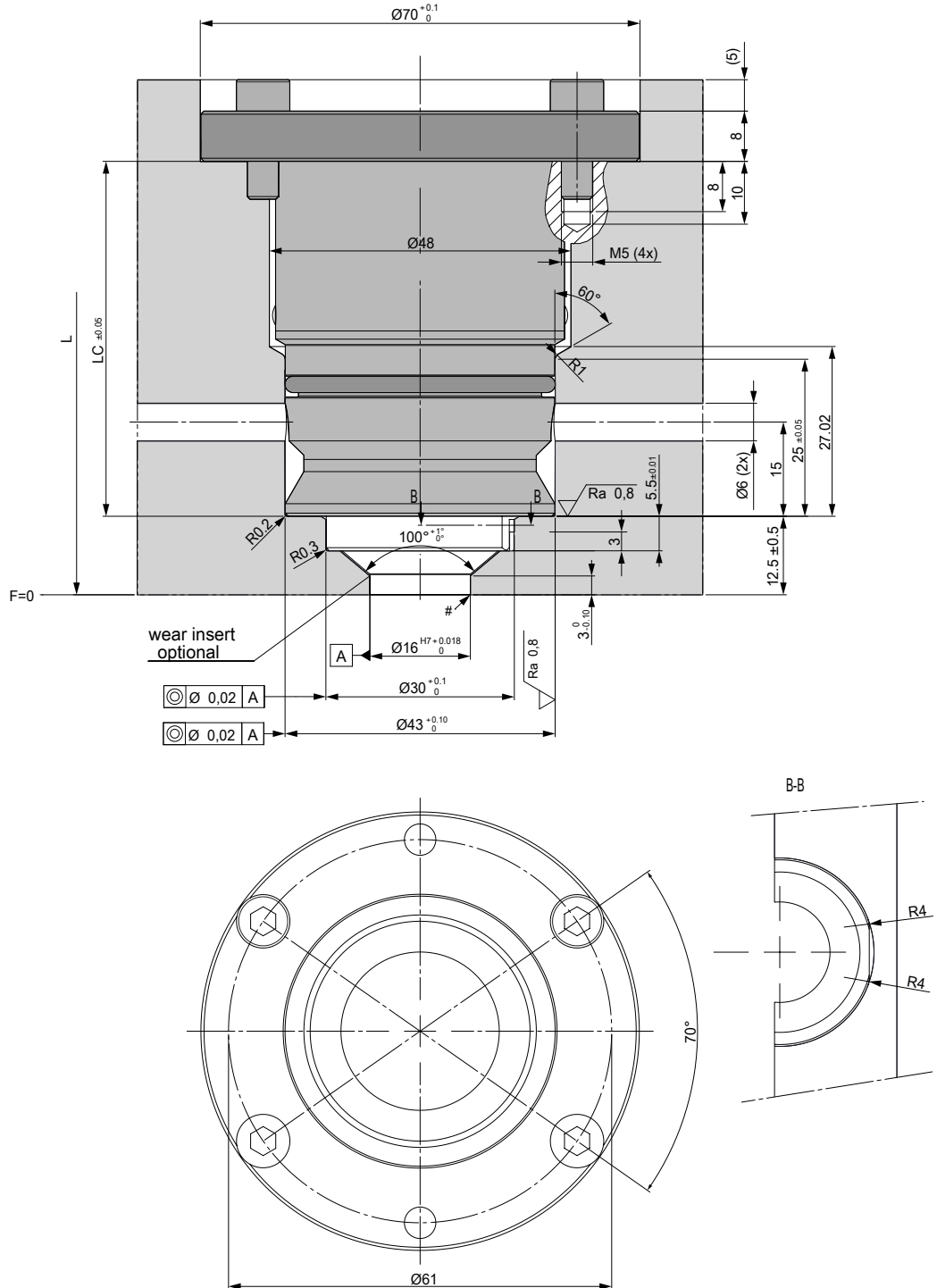




Cooling Bushing Cutout Dimensions

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.

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

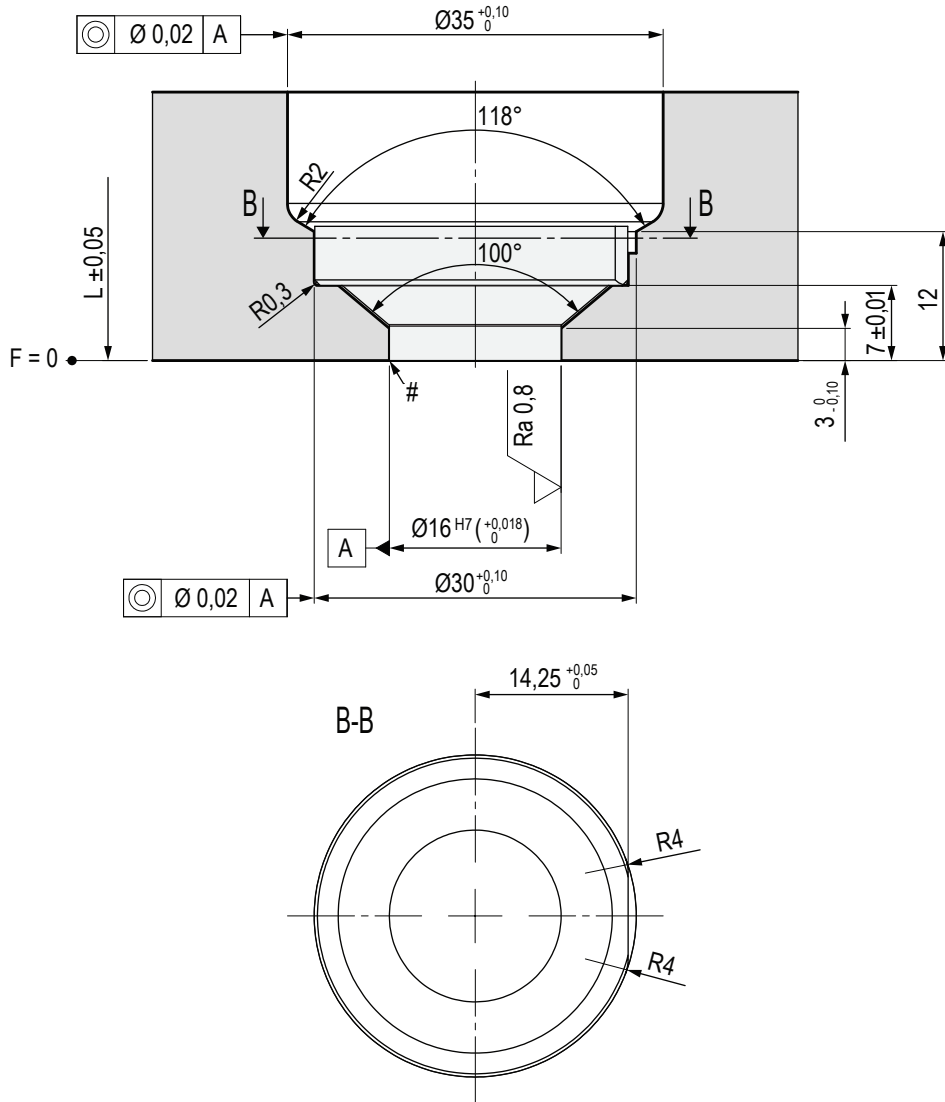




Wear Insert Cutout Dimensions

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



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