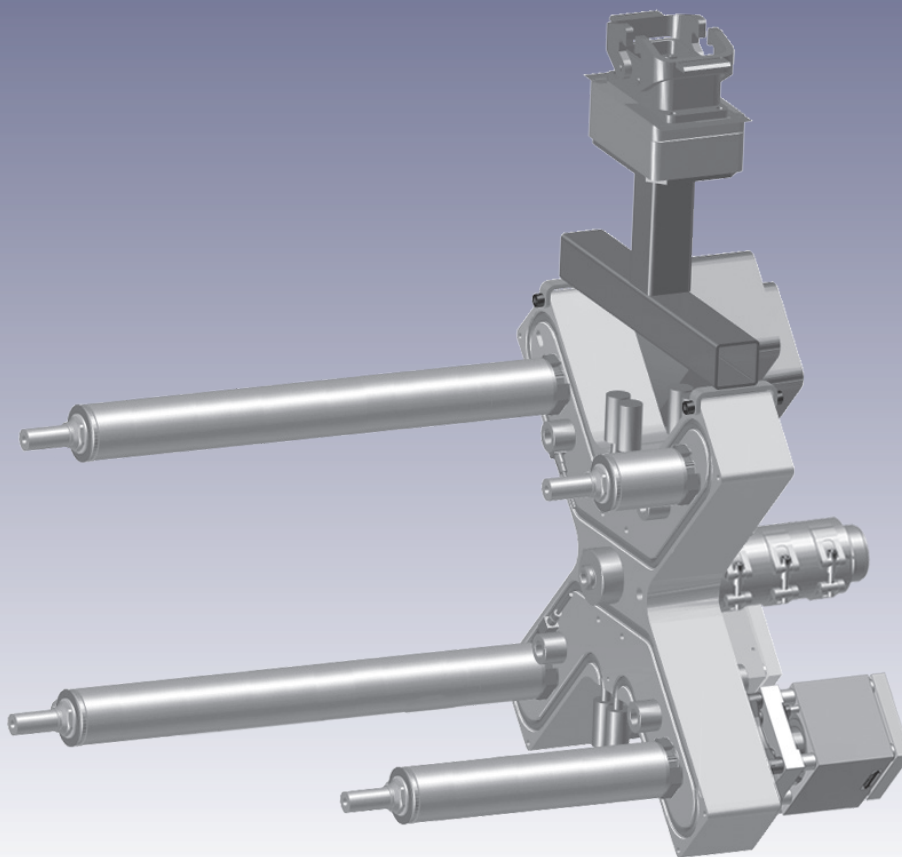


16E-06 Product Catalog

Threaded Nozzles Hot Runner Series

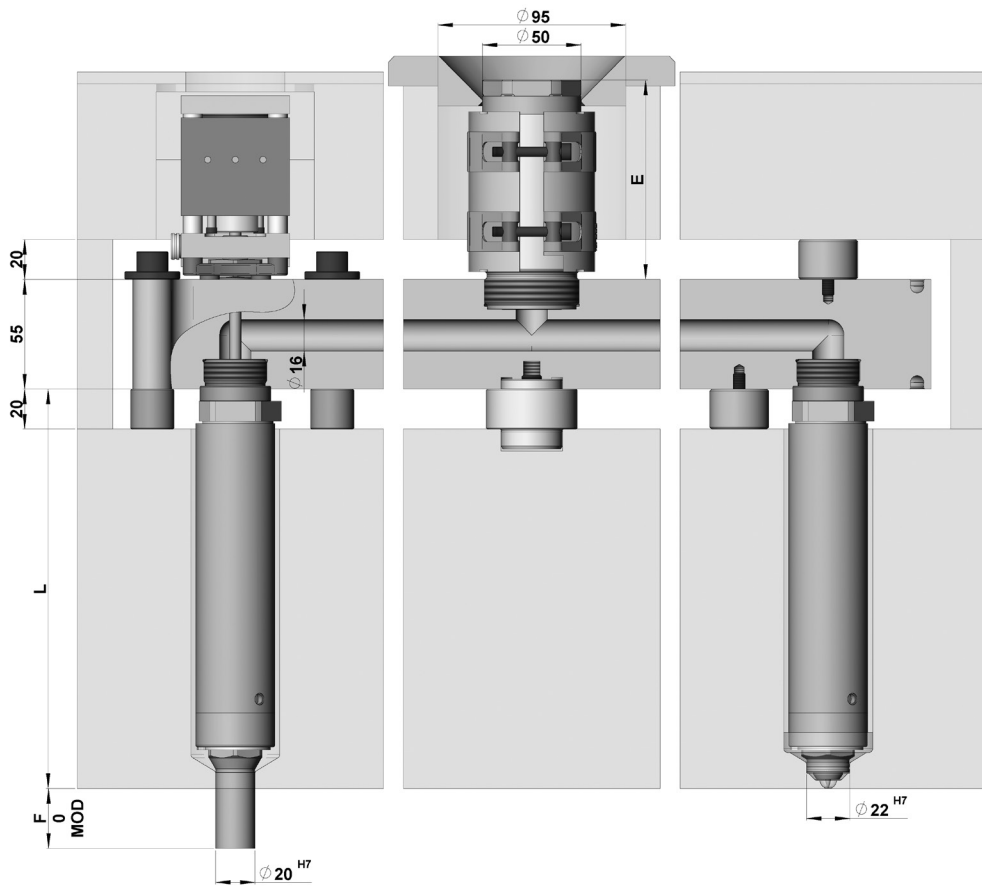


Stabilize your Process _____



Hot Runner System - Thrust Pad - / Bolt Down Manifold

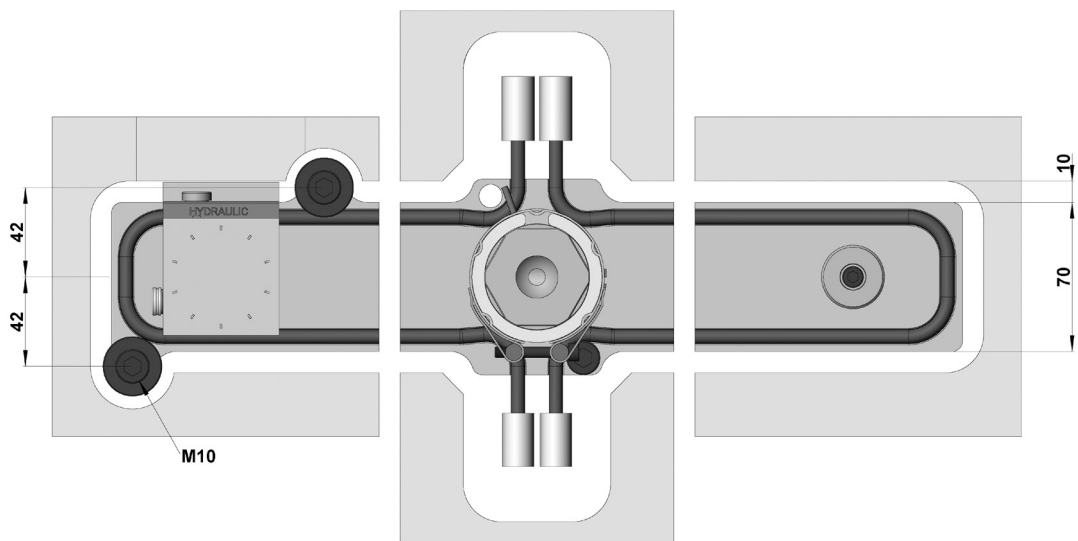
Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.



Bolt down selection

Inlet bushing

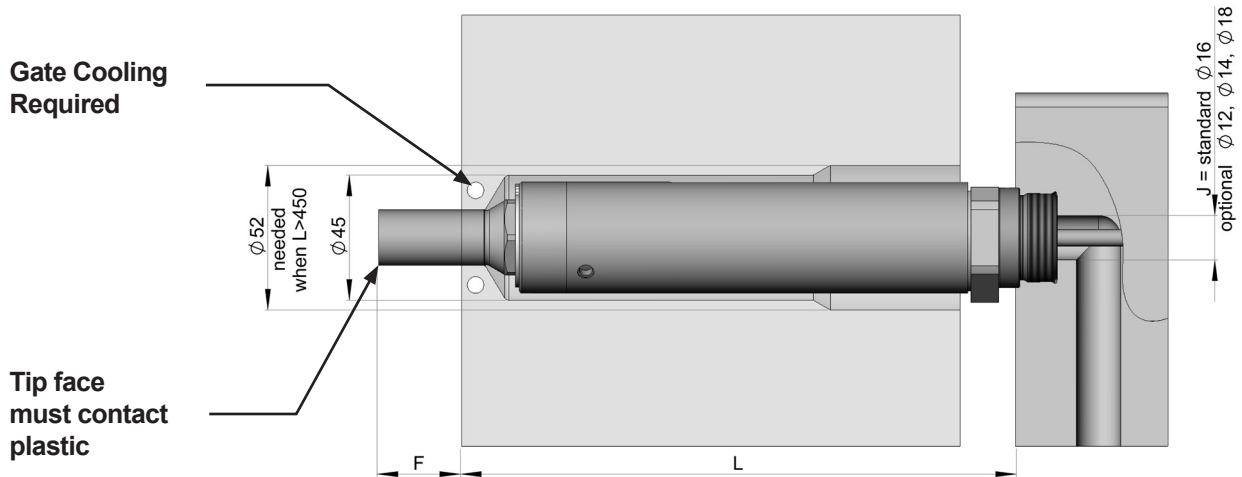
Thrust pad selection





Nozzle Lengths

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



L (mm)	Heater zone power ¹⁾ (Watt)			
	Power 1	Power 2	Power 3	Power 1-3
090 - 109,99	285W	-	-	285W
110 - 134,99	305W	-	-	305W
135 - 159,99	380W	-	-	380W
160 - 184,99	395W	-	-	395W
185 - 209,99	410W	-	-	410W
210 - 234,99	430W	-	-	430W
235 - 259,99	450W	-	-	450W
260 - 284,99	285W	450W	-	735W
285 - 309,99	285W	500W	-	785W
310 - 334,99	285W	545W	-	970W
335 - 359,99	285W	595W	-	880W
360 - 384,99	285W	640W	-	925W
385 - 409,99	285W	685W	-	970W
410 - 434,99	285W	735W	-	1020W
435 - 459,99	285W	780W	-	1065W
460 - 484,99	285W	830W	-	1115W



Nozzle Lengths

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

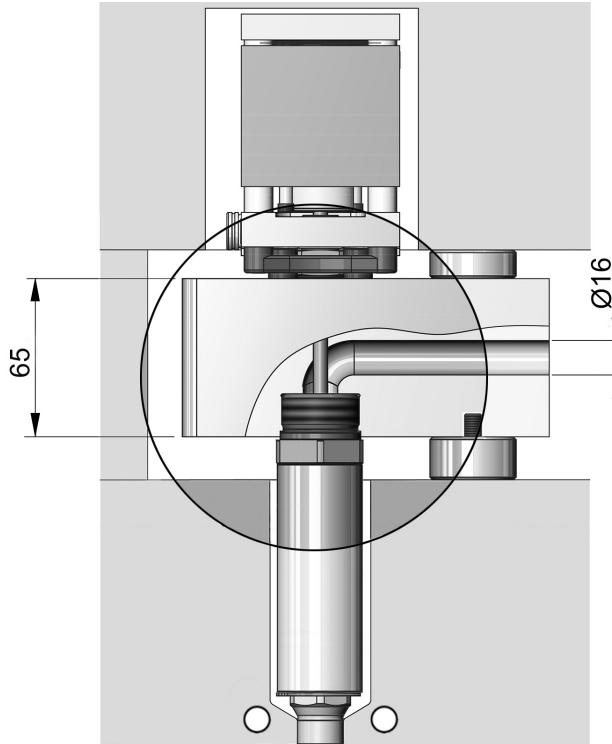
485 - 509,99	285W	875W	-	1160W
510 - 534,99	285W	925W	-	1210W
535 - 559,99	285W	970W	-	1255W
560 - 584,99	285W	1020W	-	1305W
585 - 609,99	285W	1065W	-	1350W
610 - 634,99	285W	1155W	-	1400W
635 - 659,99	285W	1160W	-	1445W
660 - 684,99	285W	1205W	-	1490W
1) The numbering of the heating zones starts at the nozzle tip and ends at the nozzle head				



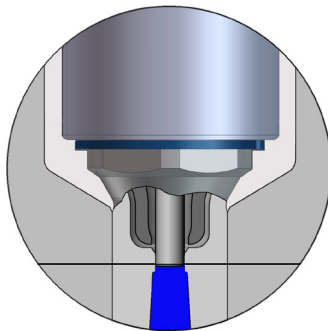
Optional Features

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

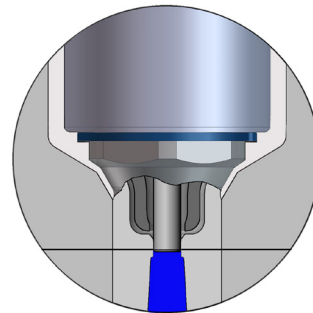
Smooth flow



Mold strengths



Standard cutout



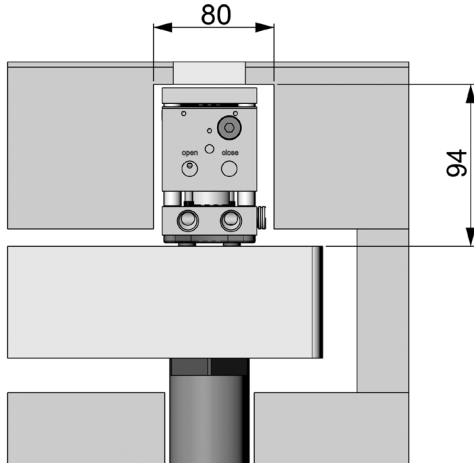
Reduced cutout



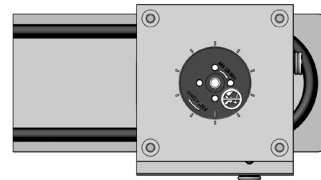
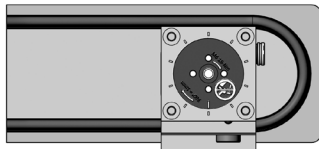
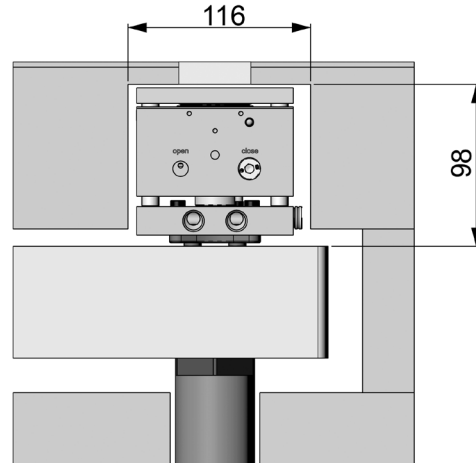
Available Actuators

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®

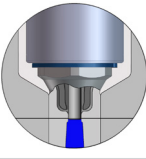
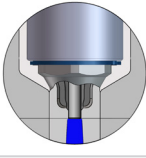
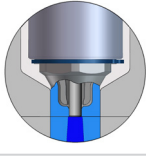
For additional specification and requirements see the actuator catalog CAT-03-0001_EN-REV##



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 = Ø20 F = 0, 30, Mod	
		H=5.0	H=6.0
 VSP	Standard	✓	(✓)
 VSP-SC	Color Seal	✓	(✓)
 VSP-WC	Wear C	(✓)	✓

VTP Valve Gate - Tapered Pin - Plunged Through

Tip Style	Description	Dt = Ø20 F = 0, 30, Mod H=4.5	
 VTP	Standard	✓	
 VTP-SC	Color Seal	✓	

✓ Preferred

(✓) Available

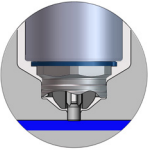
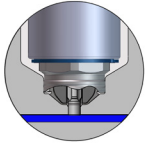
✗ Not Available



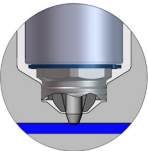
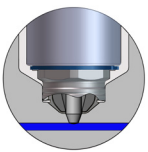
Nozzle Tip Styles

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 = Ø22	
			H=4.0	H=5.0
	VSW	Standard	(✓)	✓
	VSW-SC	Color Seal	(✓)	✓

VTW Valve Gate - Tapered Pin - Blind

Tip Style		Description	Dt = Ø22	
			H=4.0	H=4.5
	VTW	Standard	(✓)	✓
	VTW-SC	Color Seal	(✓)	✓

✓ Preferred

(✓) Available

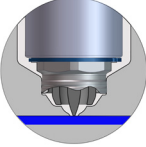

✗ Not Available



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 = Ø22			
		H=2.5	H=3.0	H=3.5	H=4.0
 TTW	Standard	✓	✓	✓	✓
 TTW-SC	Color Seal	✓	✓	✓	✓

TTP Thermal Gate – Torpedo - Plunged Through

Tip Style	Description	Dt = Ø20 F = 0, 30, Mod			
		H=2.5	H=3.0	H=3.5	H=4.0
 TTP	Standard	✓	✓	✓	✓
 TTP-SC	Color Seal	✓	✓	✓	✓

TFP Thermal Gate – Full Flow - Plunged Through

Tip Style	Description	Dt = Ø20 F = 0, 30, Mod			
		H=2.0	H=2.5	H=3.0	H=3.5
 TFP	Standard	✓	✓	✓	✓
 TFP-SC	Color Seal	✓	✓	✓	✓

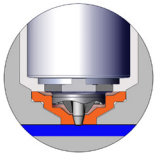
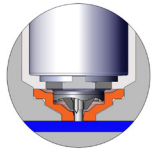
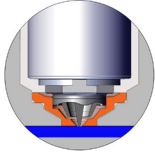
✓ Preferred (✓) Available ✗ Not Available



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

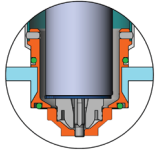
Wear Insert

Part	Description	F = 0, 30, Mod					
		H=2.5	H=3.0	H=3.5	H=4.0	H=4.5	H=5.0
	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	Description	VSP	VTP	VSW	VTW	TTP	TTW	TFP
	NC Nozzle Cooling Bushing for Nozzle Tips, Blind and Plunged Through	✓	✓	✓	✓	✓	✓	✓
								

Wear Insert and Cooling Bushing

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

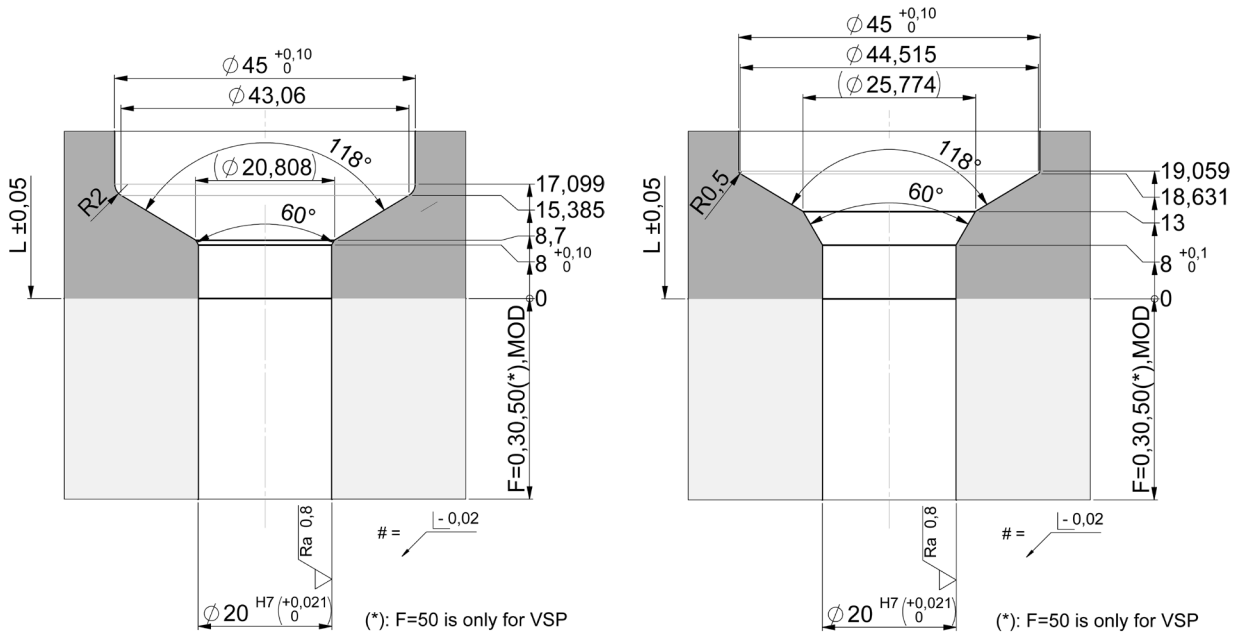
✓ Preferred (✓) Available ✗ Not Available



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



Standard Cutout

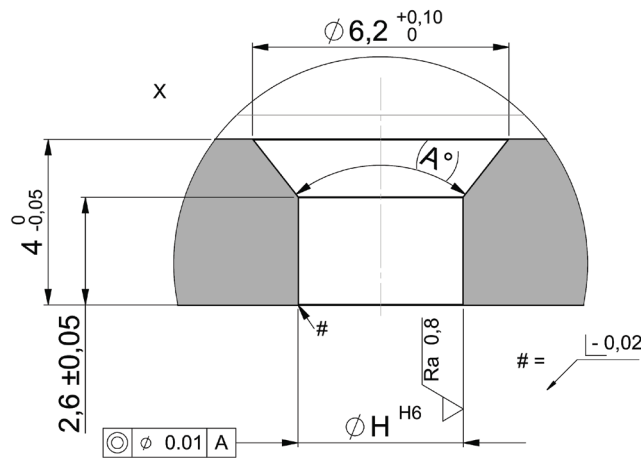
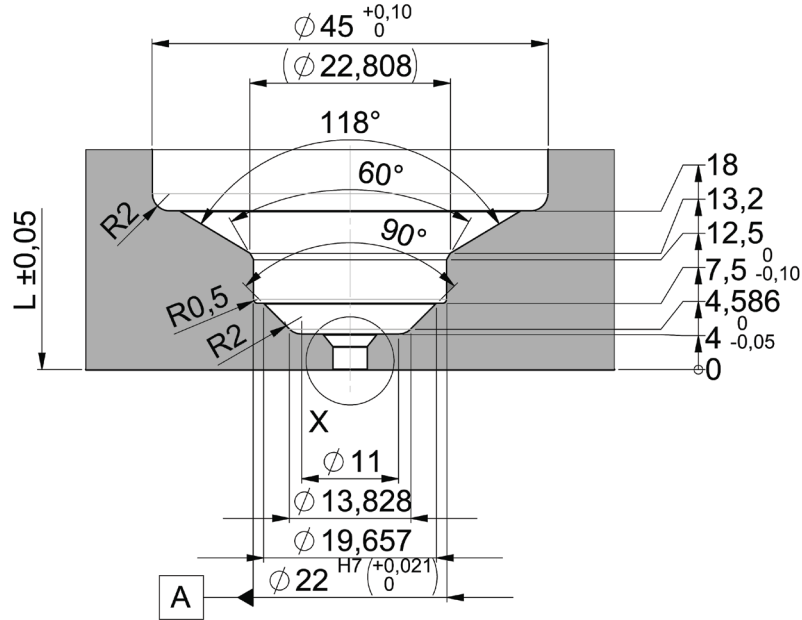
Reduced Cutout



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 H6	(A°)
4,0 ^{+0,008} / ₀	76,31
5,0 ^{+0,008} / ₀	46,4

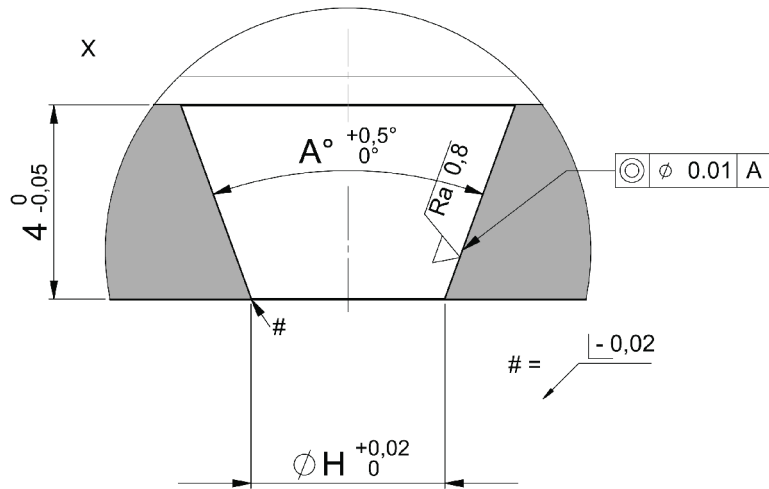
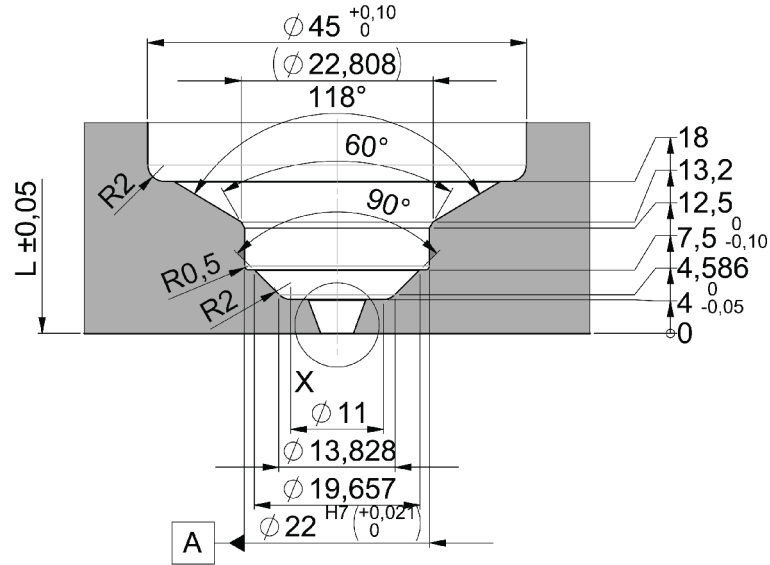
1. At the area of the nozzle gate replaceable, hardened (52 +2/-1HRC) inserts are recommended by Synventive.
2. Synventive recommends that the gate area geometry is manufactured by grinding and not EDM with a surface quality of $\sqrt{Ra0,8}$



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



ϕH	A
4,0	40°
4,5	30°

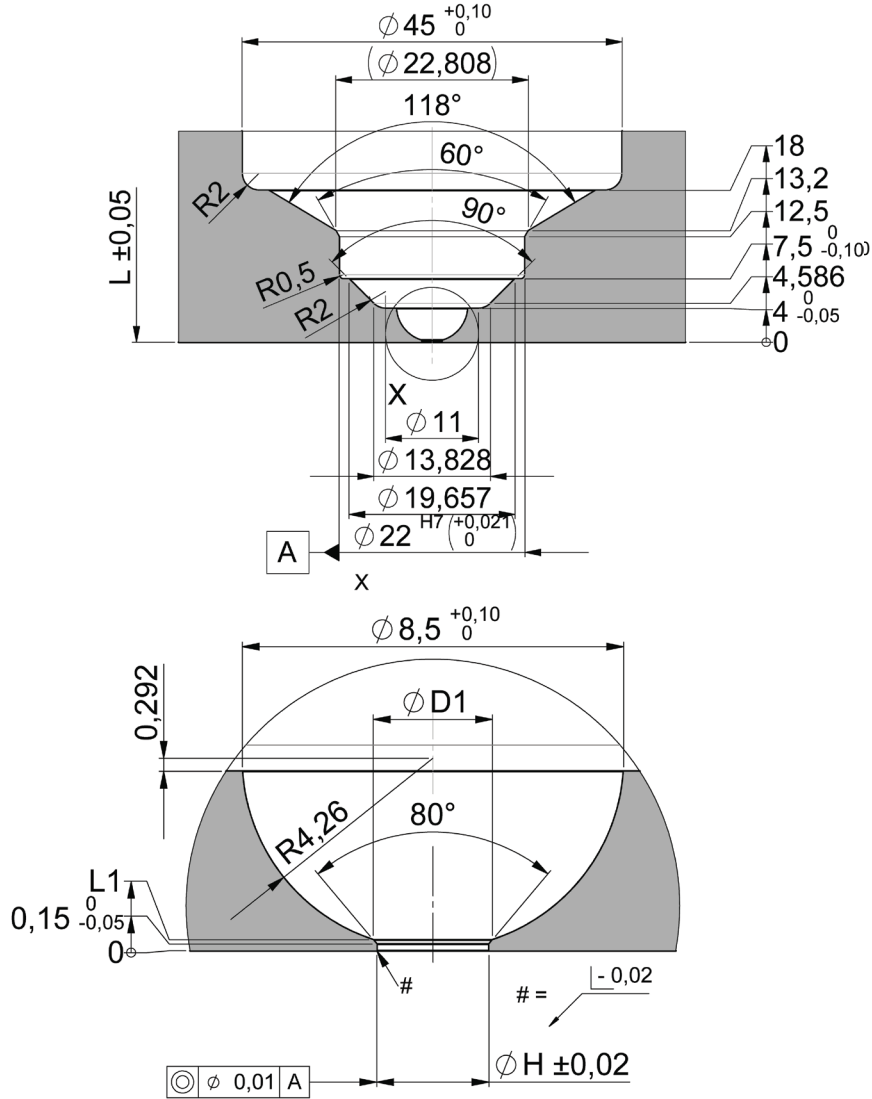
1. At the area of the nozzle gate replaceable, hardened (52 +2/-1HRC) inserts are recommended by Synventive.
2. Synventive recommends that the gate area geometry is manufactured by grinding and not EDM with a surface quality of $\sqrt{Ra0,4}$



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



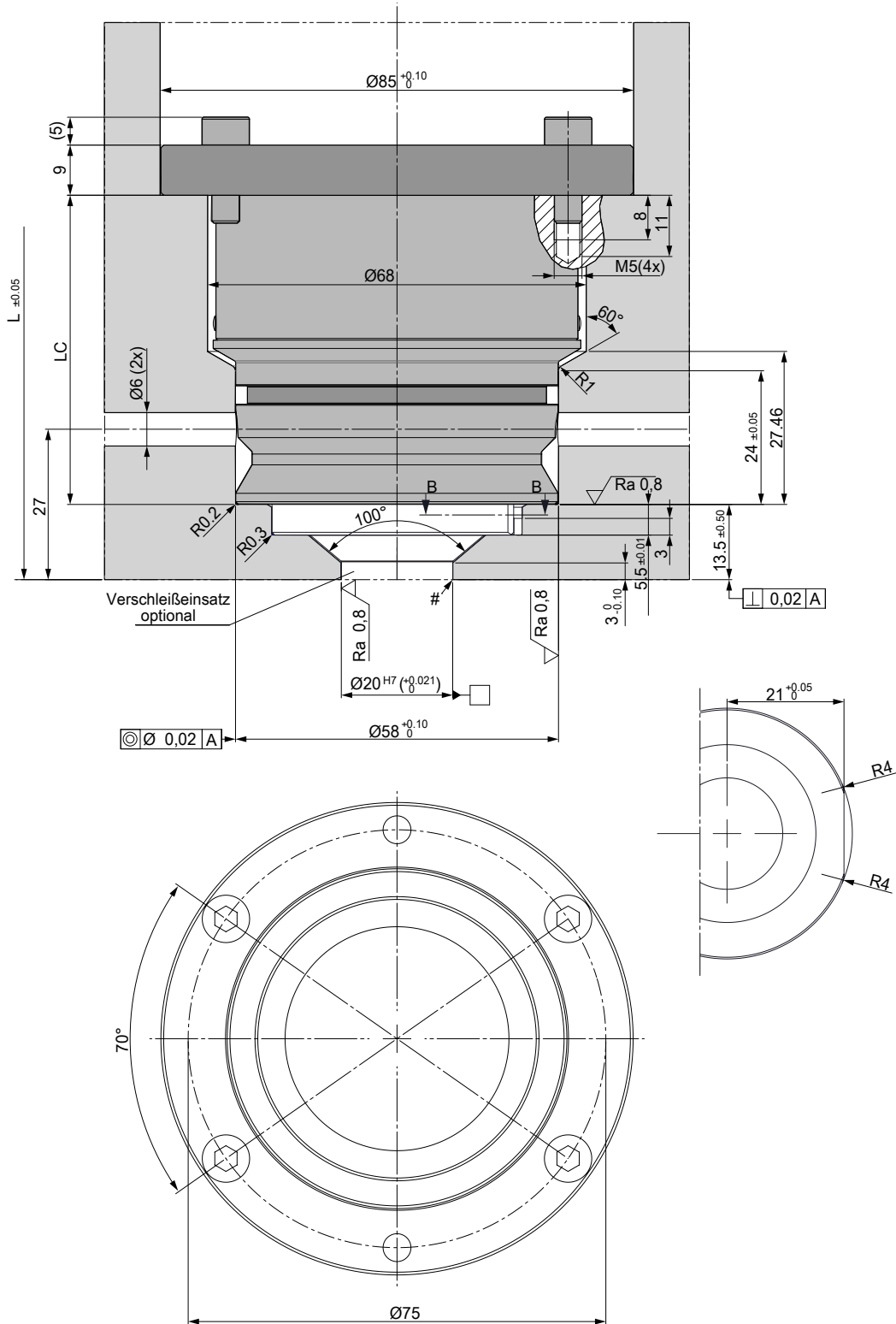
1. At the area of the nozzle gate replaceable, hardened (52 +2/-1HRC) inserts are recommended by Synventive.
2. Synventive recommends that the gate area geometry is manufactured by grinding and not EDM with a surface quality of $\sqrt{Ra0,8}$



Cooling Bushing 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 cutout dimensions

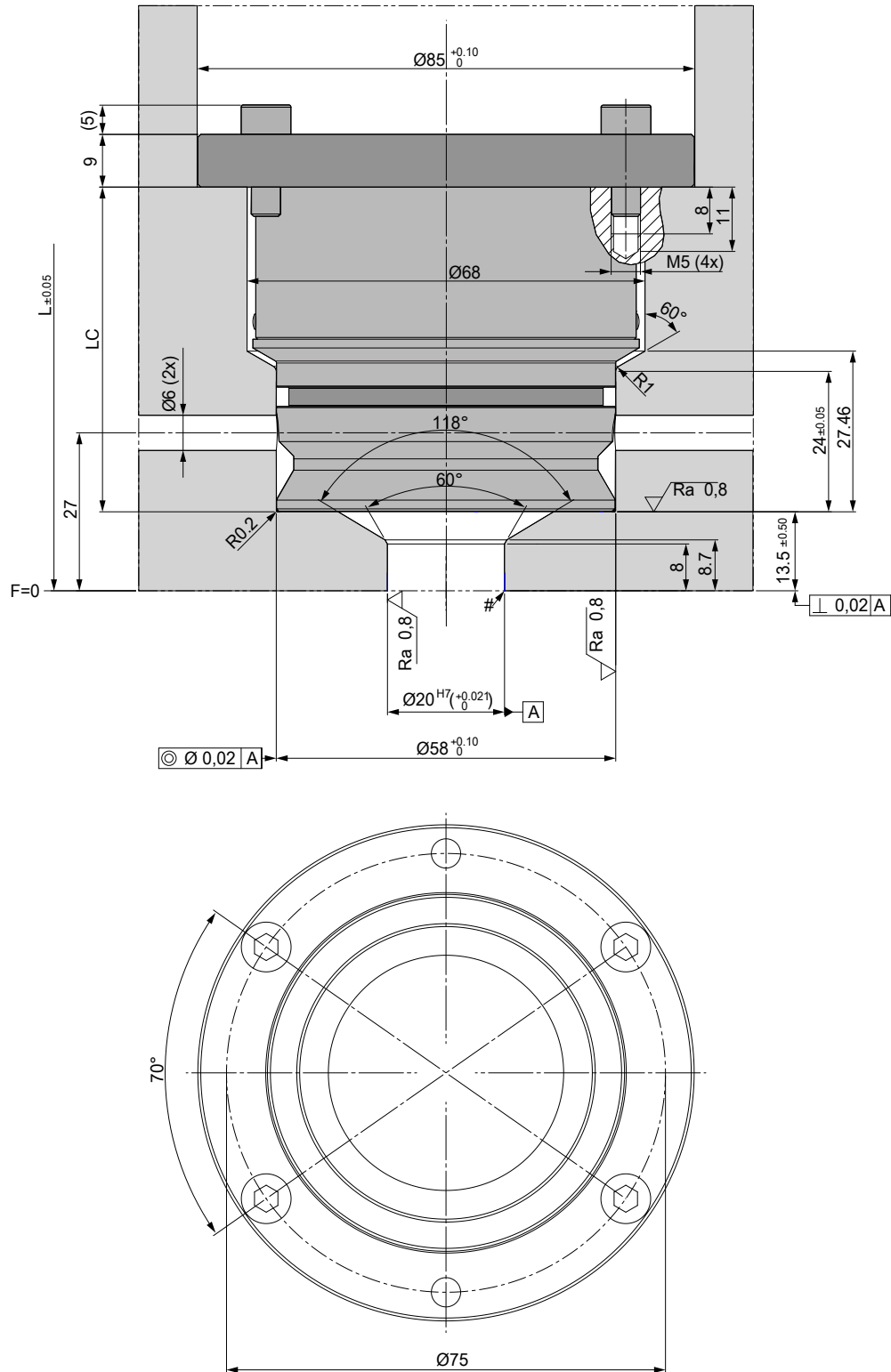




Cooling Bushing Cutout Dimensions

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

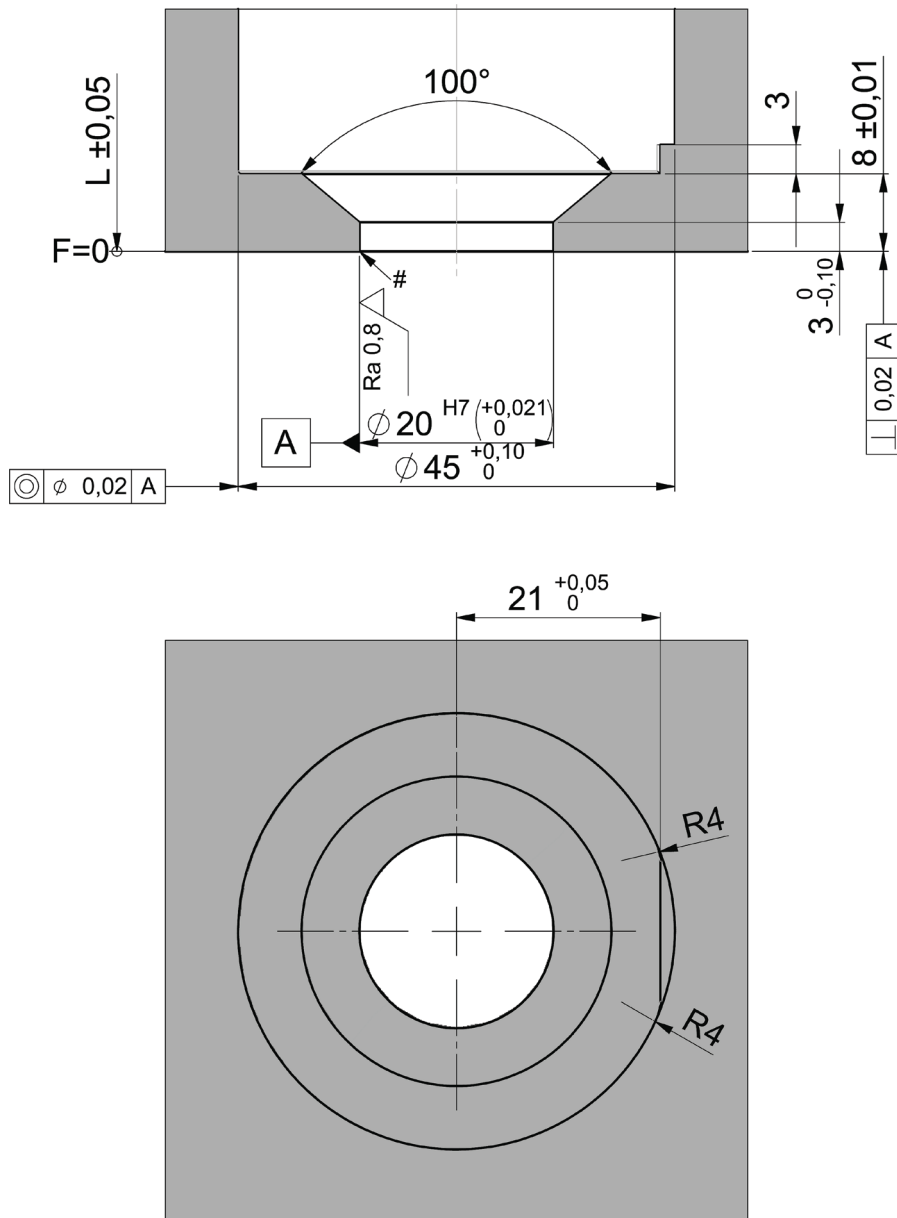




Wear Insert Cutout Dimensions

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



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