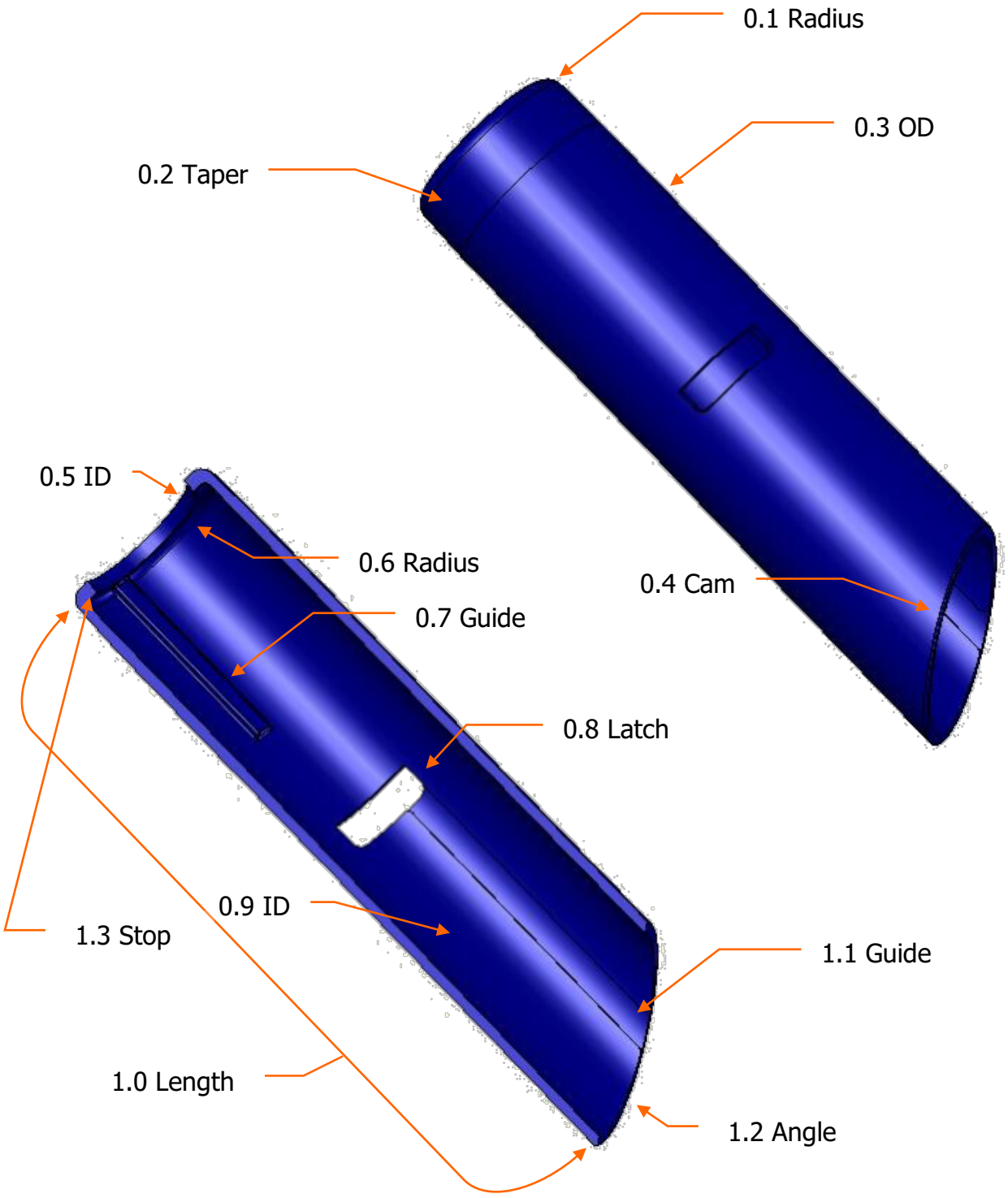
Cap – 12010


0.1 Radius
0.3 OD
0.2 Taper
0.5 ID
0.6 Radius
0.4 Cam
0.7 Guide
0.8 Latch
0.9 ID
1.3 Stop
1.1 Guide
1.0 Length
1.2 Angle

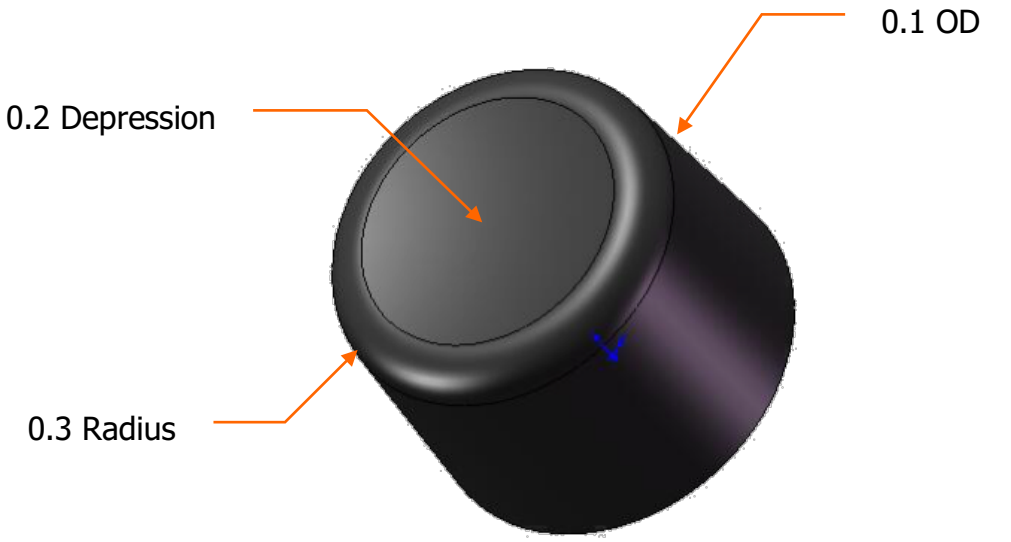
Cap Features

Feature	Function
12010-0.1	Radius that provides aesthetic appeal
12010-0.2	Taper that provides aesthetic appeal
12010-0.3	Outer diameter that provides aesthetic appeal
12010-0.4	Cam provides disengagement of safety lockout
12010-0.5	Inner diameter allows the button to move axially within the *Cap*
12010-0.6	Inner radius that provides clearance for the button to rest against
12010-0.7	Button guide that maintains the button position during activation of the pen
12010-0.8	Assembly latch which provides a permanent assembly of the *Cap* to the *Mid Housing* and works as the rotation stops for the deactivation of the safety
12010-0.9	Inner diameter provides clearance for the rotation of the safety feature
12010-1.0	Overall length of the *Cap*
12010-1.1	Assembly guide orients the *Mid Housing* to the *Cap* during the assembly process
12010-1.2	Angle that matches the *Lower Assembly* for the deactivation of the safety
12010-1.3	Bearing stop for the *Button*

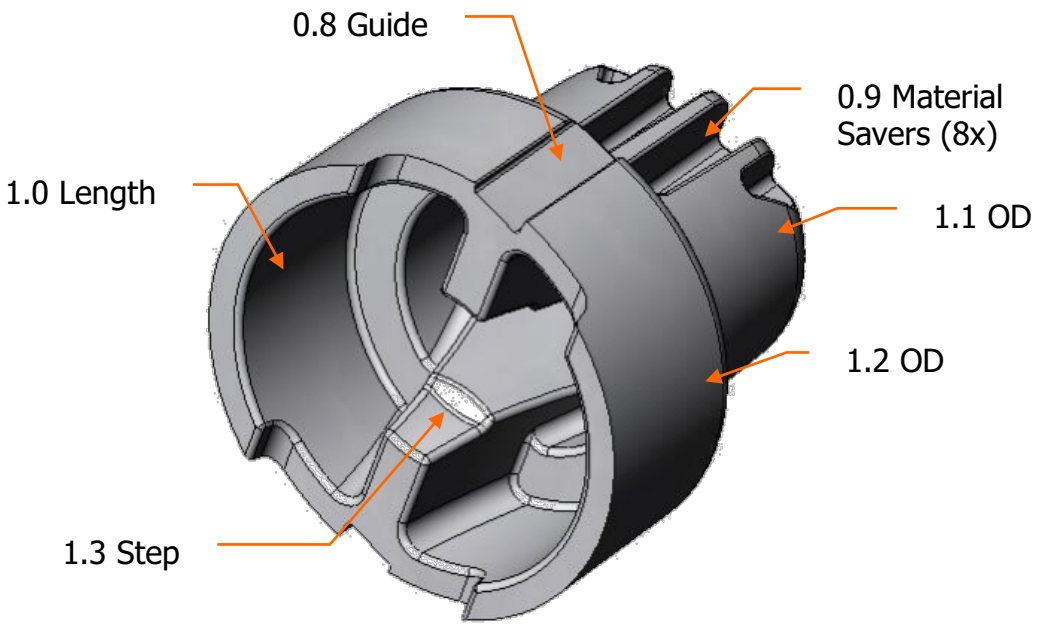
Cap Functional Requirements

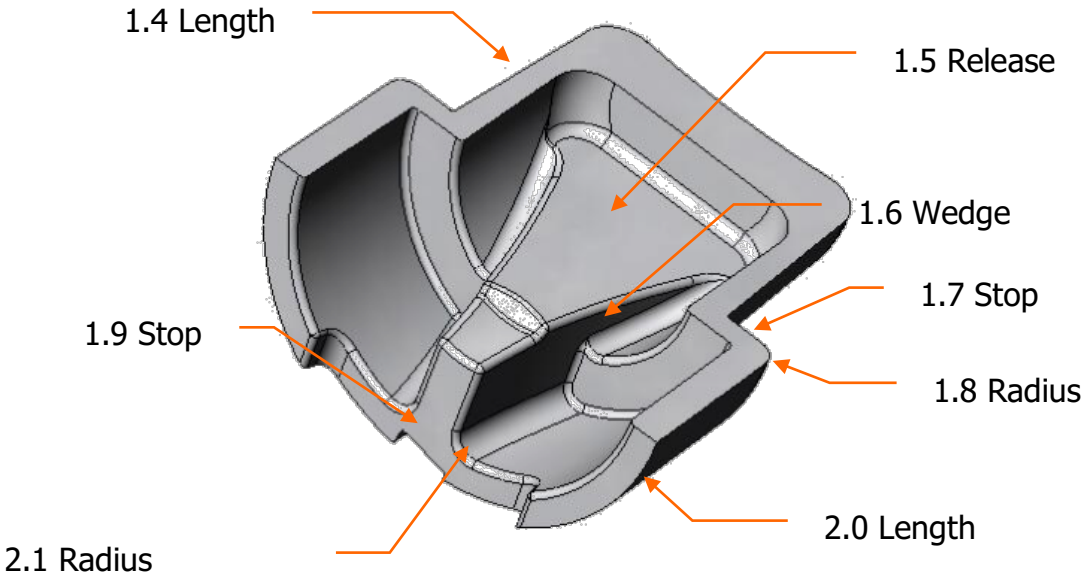
Requirement	Notes
Function	• Provides an attractive form and cosmetic exterior • Provides the user a surface to grasp to rotate and deactivate the safety • Protects the *Inner Housing* subassembly • Provides alignment of internal components
Manufacturing	Injection molded part, parting line along length of part and stripped from the core
Assembly	*Inner Housing* sub-assembly is pressed into the *Cap*
Joining	Snap Fit
Material Requirements	Injection molded plastic that provides good surface finish for cosmetic appeal, good mold-ability, high impact strength, stiffness, and dimensional stability
Material Choice	Polycarbonate (clear), Bayer Makrolon 2558 **OR** Polycarbonate (clear), RTP 300
Secondary Operations	None
Inspection	Verification of critical features

Button - 22004



Button - 22004





Button Features

Feature	Function
22004-0.1	Outer diameter that provides aesthetic appeal
22004-0.2	Depression that provides tactile feel
22004-0.3	Radius that provides aesthetic appeal
22004-0.4	Anti-material saver fills the void made by the material savers in the first shot
22004-0.5	Wall thickness provides tactile feel
22004-0.6	Length of button allows the button to be seen during activation
22004-0.7	Inner diameter conforms to the outer diameter of the first shot
22004-0.8	Guide ensures alignment of button during activation
22004-0.9	Material savers to reduce part weight and sinks
22004-1.0	Length of *Button* stoke safety
22004-1.1	Small outer diameter of first shot that defines inner diameter of second shot
22004-1.2	Large outer diameter that travels within the *Cap*
22004-1.3	Wedge safety that when in the safe position the *Fingers* can not "jump" over
22004-1.4	Button length that supports defines the height of the second shot
22004-1.5	Face of the wedge
22004-1.6	Wedge profile that creates that functionally separates the fingers to activate the device
22004-1.7	The stop that stops the axial movement of the button inside the cap
22004-1.8	A radius added for manufacturability that coincides with the associated radius in the *Cap*
22004-1.9	A cut out area that stops the axial movement of the *Button* during activation

22004-2.0	The length of the large outer diameter of the part
22004-2.1	A radius that is in place for manufacturability

Button Functional Requirements

Requirement	**Notes**
Function	
Manufacturing	
Assembly	
Joining	
Material	
Material Choice	
Secondary Operations	
Inspection	