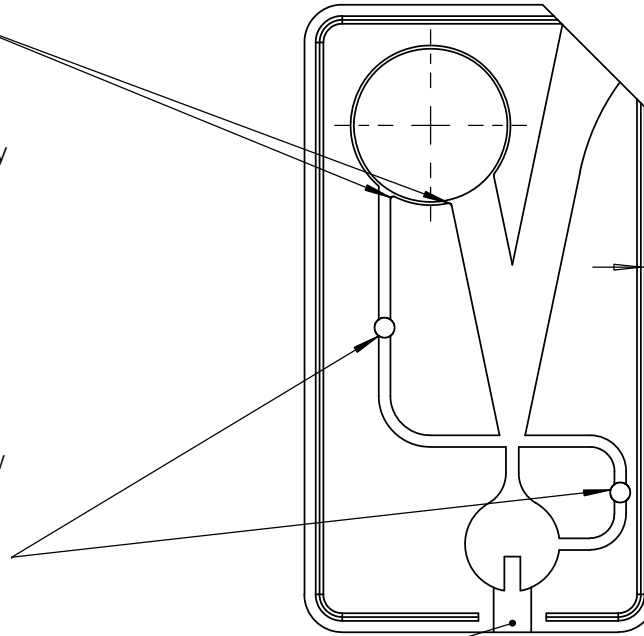


small fillets to eliminate burrs

(M3x.5 tapped thru)
Metric to align with the rest of the medical system and global supply chain.
tapped in OP1
before the channels
are milled as the tapping process displaces a large burr across the channel that must be manually deburred if it's tapped after the channels are milled. The burr will affect flow as they remain in the channel even as the metering screw is backed out.



2mm

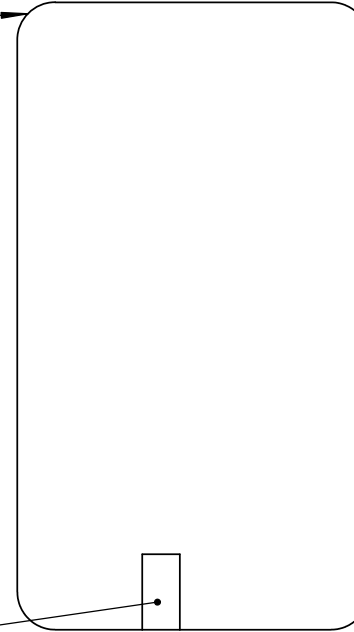
There are "V" grooves inset 2mm around the periphery of the part to allow the parts to be taped together and then a few cc's of WELD-ON 4 is injected with a hypodermic needle squeeze bottle to bond the parts together

0.100" radius milled with a ball endmill in OP1. The input is a turned Polycarbonate part that gets solvent welded into place making the part stronger. The original design has 1/8 NPT threads here which presents the following problems

- The tapered thread puts wedging stress on the joint of the part where it is weakest
- The root of the thread is difficult to sterilize as contaminants can travel up the thread
- Tapping the part on its edge is an additional operation that takes time

<div>Bounding Box Dimensions</div>		<div>PROPRIETARY AND CONFIDENTIAL</div> <div>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TYLER SMUTZ OF KILLSTRESS DESIGNS®. REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF KILLSTRESS DESIGNS IS PROHIBITED.</div>	UNLESS OTHERWISE SPECIFIED:		DRAWN	TS	11/30/2010	WWW.KILLSTRESSDESIGNS.COM			
			DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±					CHECKED	TS	4/7/2020	<div>[KILLSTRESS] DESIGNS</div>
Client			QUANTITY: 1		ENG APPR.						
					MFG APPR.						
					Q.A.						
Length: 83			Due date:	MATERIAL 0.250" Polycarbonate		<div>Contact Info 1340 N Dynamics St, unit L, Anaheim CA 92806 Work: 714.884.3799 Cell: 716.400.6114 contact@killstressdesigns.com www.killstressdesigns.com</div>			SIZE	DWG. NO.	
Width: 46.5		HAY Diamond_PEEP_Ryan v4 DFM_2									
Height: 6.35		FINISH		<div>Disclaimer: This work is intended solely for the Client named. Client assumes all responsibility and risk with respect to Client's use of the product, which is provided "as is" without warranties, representations or conditions of any kind, either express or implied.</div>			Scale: 1:1		WEIGHT:	1 of 1	
NEXT ASSY USED ON		APPLICATION					DO NOT SCALE DRAWING				
5		4		3		2		1			

Profile fillets make the part more durable, easier to handle, and the machine can round the corner at higher speed.



0.100" radius milled with a ball endmill in OP1. The input is a turned Polycarbonate part that gets solvent welded into place making the part stronger. The original design has 1/8 NPT threads here which presents the following problems

- The tapered thread puts wedging stress on the joint of the part where it is weakest
- The root of the thread is difficult to sterilize as contaminants can travel up the thread
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			DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±			DRAWN	TS	11/30/2010
			CHECKED	TS	4/7/2020			
			<div>KILLSTRESS</div> <div>DESIGNS</div>					
						ENG APPR.		
Length: 83	Client		QUANTITY: 1	MFG APPR.				
Width: 46.5		Q.A.						
Height: 6.35	Due date:	MATERIAL 0.250 Polycarbonate	<div>Contact Info</div> <div>1340 N Dynamics St. unit L, Anaheim CA 92806 Work: 714.884.3799 Cell: 716.400.6114 contact@killstressdesigns.com> www.killstressdesigns.com</div>			SIZE	DWG. NO.	REV
NEXT ASSY USED ON		FINISH				Harry_Diamond_PEEP_Ryan	v4 DFM	
APPLICATION		DO NOT SCALE DRAWING						
						Scale: 1:1	WEIGHT:	1 of 1

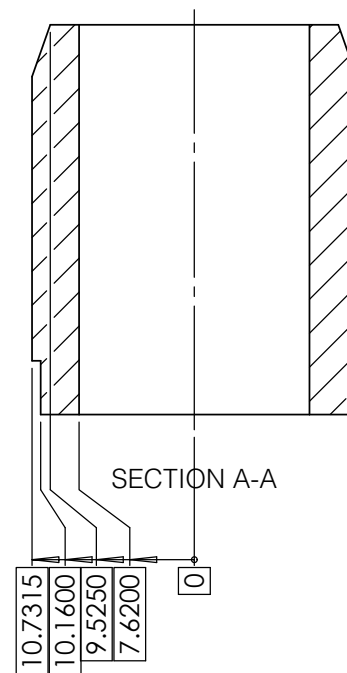
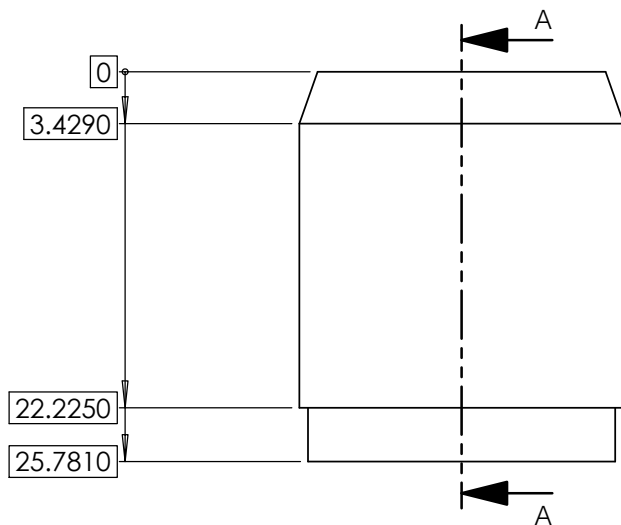
5

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2

1



Turned shoulder on the outlet material ensures that the solvent weld joint tolerance is controlled. Plastics have a pretty wide tolerance band from material suppliers and since the part needs to be turned anyway the shoulder does not add any appreciable production time. This also makes it easier to control fits if the turned parts are being produced in one shop and milled parts are produced in another.

<div>Bounding Box Dimensions</div>		<div>Length: 25.781</div>	<div>Width: 21.463</div>	<div>Height: 21.463</div>	<div>PROPRIETARY AND CONFIDENTIAL</div> <div>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TYLER SMUTZ OF KILLSTRESS DESIGNS®. REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF KILLSTRESS DESIGNS IS PROHIBITED.</div>	UNLESS OTHERWISE SPECIFIED:			<div>DRAWN</div>	<div>TS</div>	<div>4/6/2020</div>	<div>WWW.KILLSTRESSDESIGNS.COM</div>		
						<div>DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±</div>								
					<div>Client</div>	<div>QUANTITY: 1</div>			<div>ENG APPR.</div>			<div>[KILLSTRESS] DESIGNS</div>		
						<div>Due date:</div>	<div>MATERIAL 1/2" Polycarb pipe</div>							
					<div>FINISH</div>		<div>Q.A.</div>							
						<div>DISCLAIMER: This work is intended solely for the Client named. Client assumes all responsibility and risk with respect to Client's use of the product, which is provided "as is" without warranties, representations or conditions of any kind, either express or implied.</div>	<div>CONTACT INFO 1340 N Dynamics St. unit L, Anaheim CA 92806 Work: 714.884.3799 Cell: 716.400.6114 contact@killstressdesigns.com www.killstressdesigns.com</div>						<div>SIZE</div>	<div>DWG. NO.</div>
					<div>NEXT ASSY USED ON</div>			<div>Project Oscillating Vent Outlet</div>						
					<div>APPLICATION</div>			<div>DO NOT SCALE DRAWING</div>			<div>Scale: 2:1</div>		<div>WEIGHT:</div>	<div>1 of 1</div>

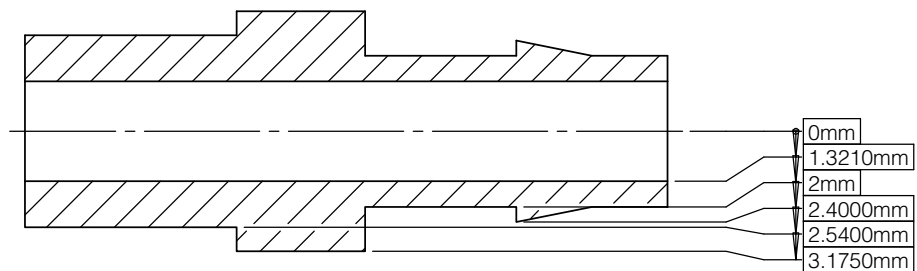
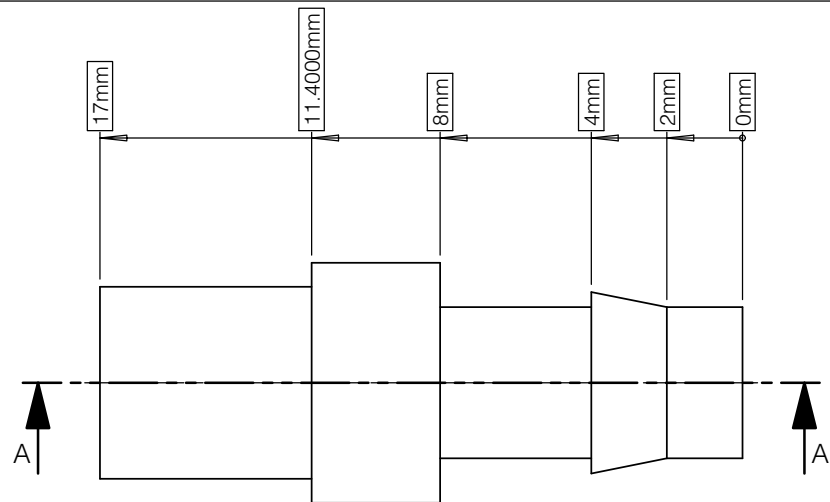
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1



SECTION A-A

Bounding Box Dimensions		PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TYLER SMUTZ OF KILLSTRESS DESIGNS®. REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF KILLSTRESS DESIGNS IS PROHIBITED.	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	DRAWN	TS	4/6/2020	WWW.KILLSTRESSDESIGNS.COM		
				CHECKED	TS	4/7/2020	<div> <div>[</div> <div>KILLSTRESS</div> <div>DESIGNS</div> <div>]</div> </div>		
Length:				ENG APPR.					
Width:				MFG APPR.					
Height:				Q.A.					
Disclaimer: This work is intended solely for the Client named. Client assumes all responsibility and risk with respect to Client's use of the product, which is provided "as is" without warranties, representations or conditions of any kind, either express or implied.		Client KSD	QUANTITY: 1	Contact Info 1340 N Dynamics St., unit L, Anaheim CA 92806 Work: 714.884.3799 Cell: 716.400.6114 contact@killstressdesigns.com www.killstressdesigns.com			SIZE	DWG. NO.	REV
		Due date:	MATERIAL 1/2" Polycarb rod				A	Project Oscillating Vent Inlet	
		NEXT ASSY USED ON	FINISH						
		APPLICATION	DO NOT SCALE DRAWING				Scale: 5:1	WEIGHT:	1 of 1