

**SolidWorks Student Edition.**

DR. BY: **For Academic Use Only.** Various

erp006@bucknell.edu

FINISH: None

**Assembly Document**

DIMENSIONS ARE IN INCHES  
TOLERANCES: ±0.003

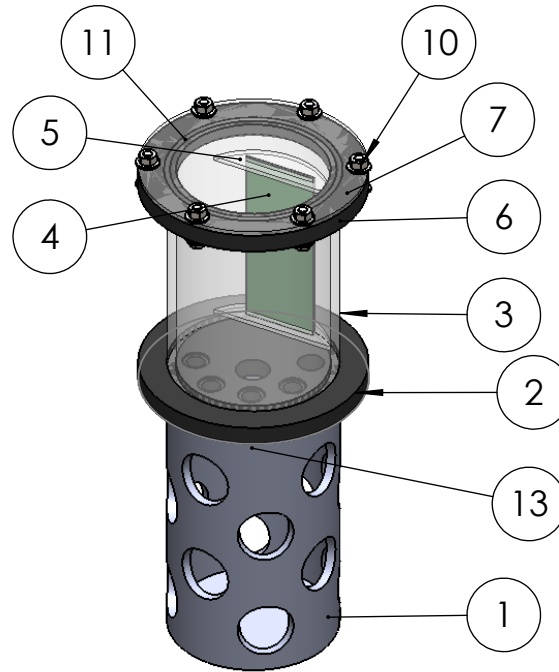
DATE: 7/6/2015

*Open Sonde - Water Quality Sensing*

SHEET: 1 of 5

SCALE: 1:3

REV: 1.1



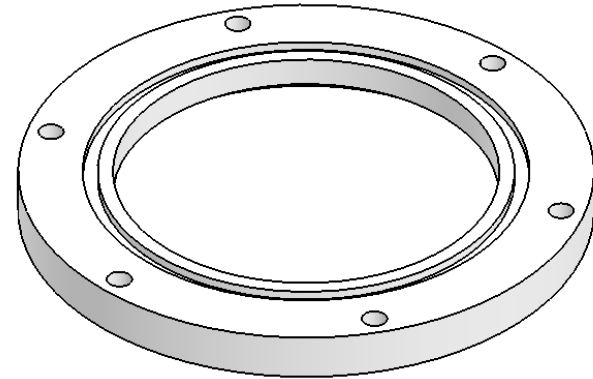
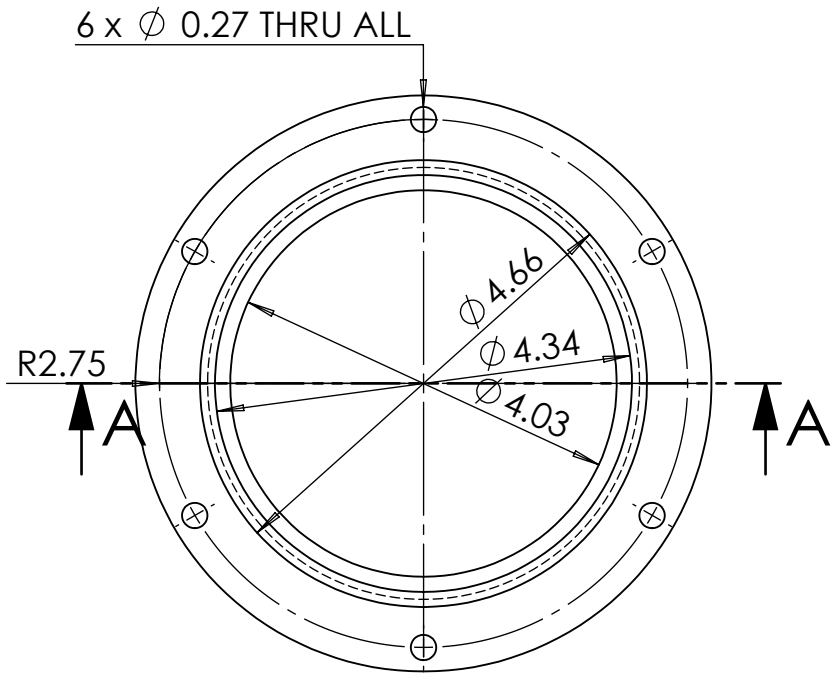
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	Cost
1	PVC Screen	To be sourced premade Grainger 5RWK8	1	~\$20
2	Top Plate	PVC Sheet 1/2" McMaster #8747K128	1	1/2 * \$31.23
3	Enclosure Tube	Clear PVC Size 4 McMaster 49035K51	1	1/3 * \$65.90
4	PCB	Stand-In part currently in use.	1	n/a
5	Circuit Board Wings	Will be laser cut from scrap acrylic.	2	\$0
6	Top Ring	PVC Sheet 1/2" McMaster #8747K128	1	1/2 * \$31.23
7	Top Cap	Laser Cut 1/4" Acrylic McMaster 4615T17	1	\$4.08
10	Fastener Stack	1/4"-20 Fastener Stack with nuts and washers	6	~5.00 - all
11	O-Ring	O-Ring Gasket McMaster 9452K195	1	1/25 * \$7.69
n/a	PVC Cement	PVC Cement for Sealing Top Ring to Clear PVC McMaster #74605A24	1	\$5.27
13	Sensor Water Tight Fittings	1/2" NPT - McMaster #69915K57	4	\$3.46 ea

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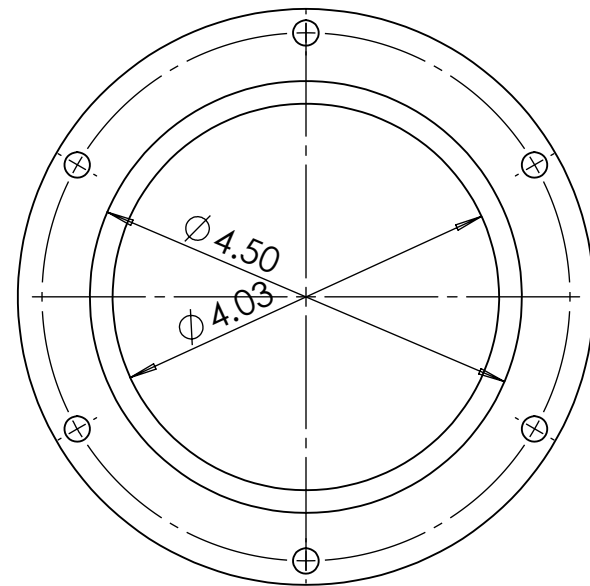
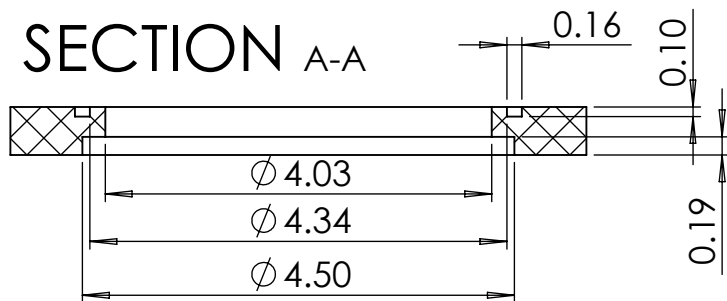
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**Bill of Materials**  
 DIMENSIONS ARE IN INCHES  
 TOLERANCES: ±0.003

*Open Sonde - Water Quality Sensing*  
 DATE: 7/6/2015 SHEET: 2 of 5 SCALE: 1:5 REV: 1.1



SECTION A-A



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FINISH: None

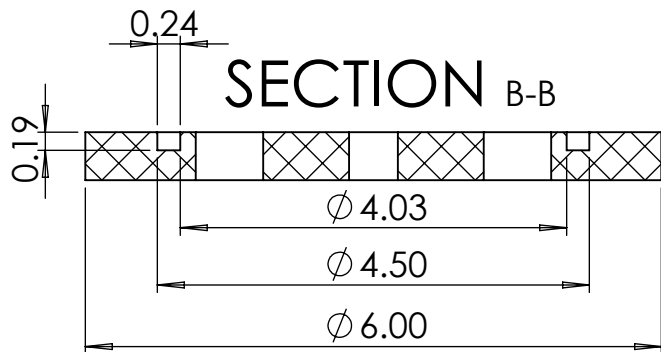
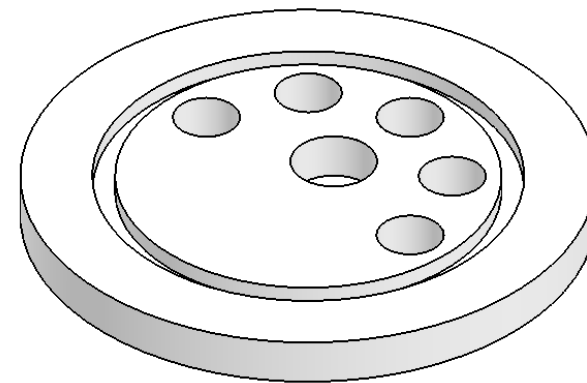
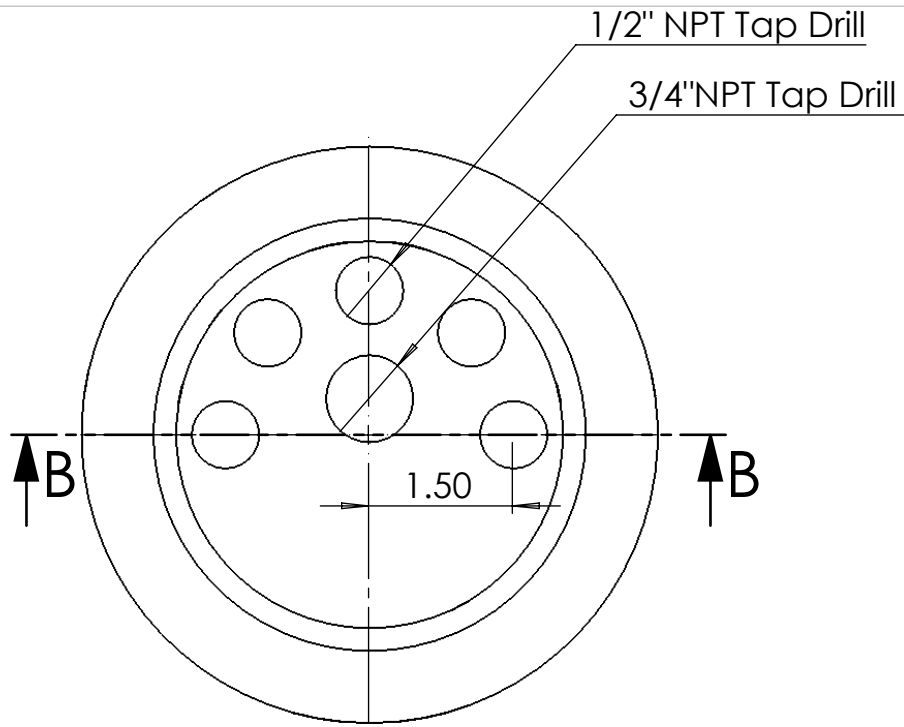
Top Ring

DIMENSIONS ARE IN INCHES  
TOLERANCES:  $\pm 0.003$

DATE: 7/2/2015

OpenSonde - Water Quality Sensing

SHEET: 3 of 5 | SCALE: 1:2 | REV: 1.1



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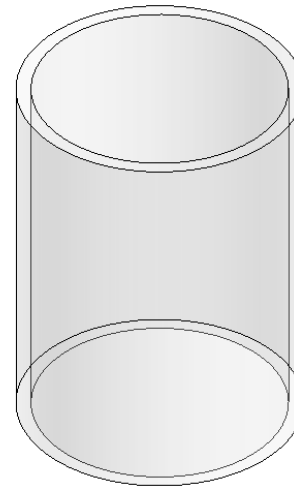
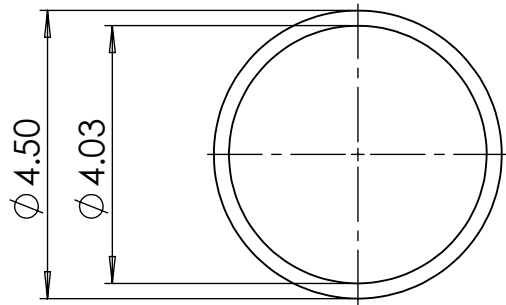
**Bottom Ring**

DIMENSIONS ARE IN INCHES  
TOLERANCES: ±0.003

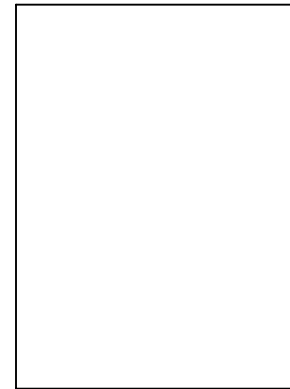
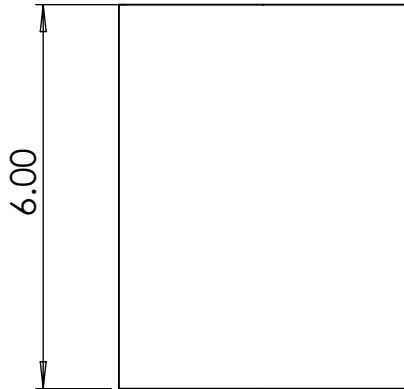
DATE: 7/2/2015

*OpenSonde - Water Quality Sensing*

SHEET: 4 of 5 SCALE: 1:2 REV: 1.1



Top and bottom edges should be faced, if possible, to provide for the best gluing surface, and a watertight seal.



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DR. BY: <b>For Academic Use Only.</b> erp006@bucknell.edu	MATERIAL: Clear PVC	<b>Enclosure Main Tube</b>	<i>OpenSonde - Water Quality Sensing</i>			
FINISH: None	DIMENSIONS ARE IN INCHES TOLERANCES: ±0.003	DATE: 7/2/2015	SHEET: 5 of 5	SCALE: 1:3	REV: 1.1	