



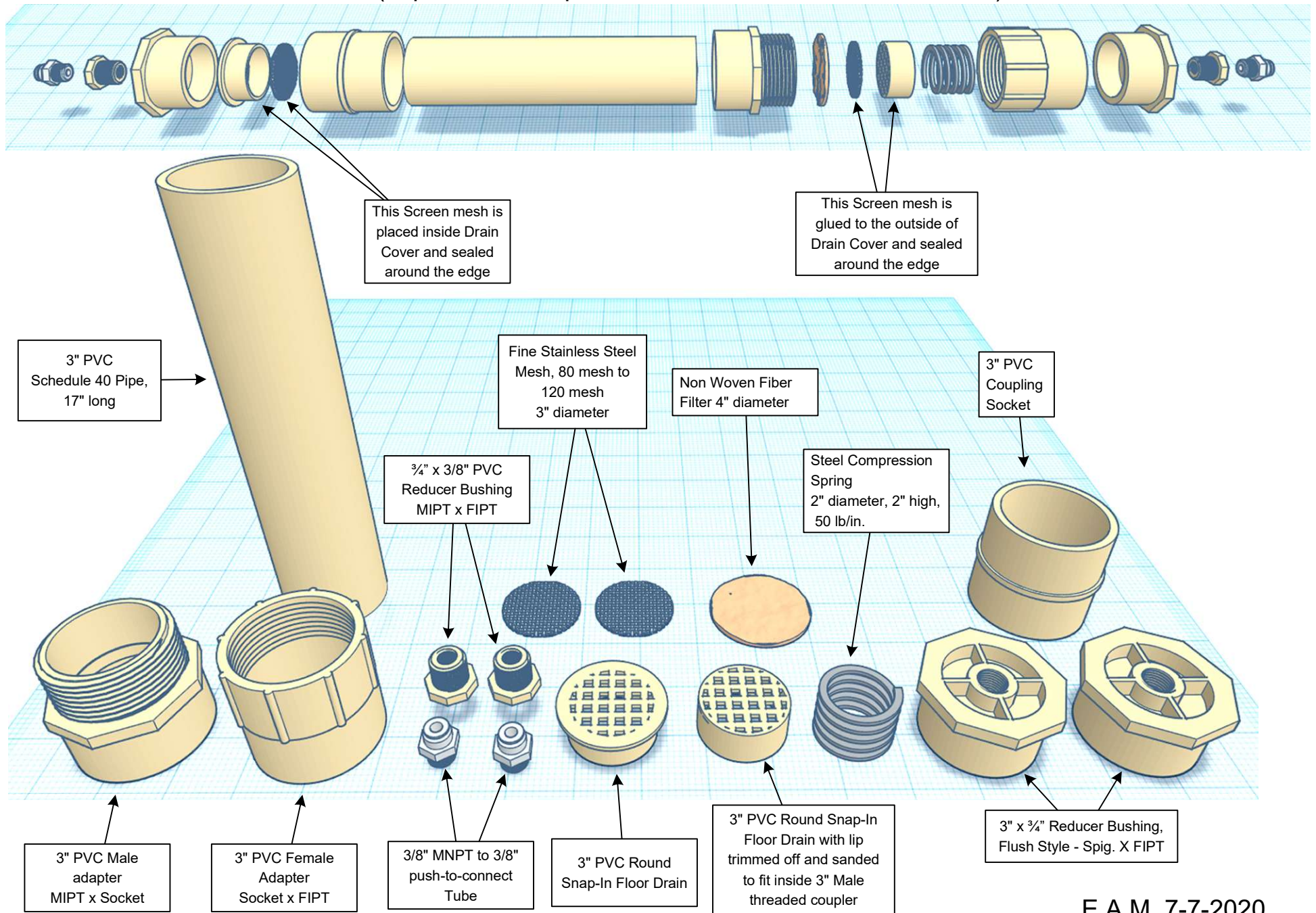
## ShieldMission OxiKit BOM

\$350 OxiKit Bundle + \$712.55 Other stores = \$1,062.55


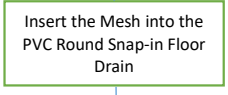
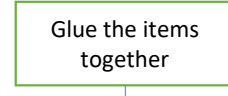

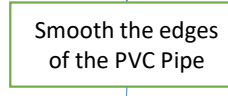


Description	Other Supplier Price	Qty Needed	In OxiKit Bundle	Other Supplier Total Price
<b>VALVES &amp; REGULATORS</b>				
3/8" NPT 3-Way Solenoid Valve, 12 V DC		2	2	
Direct Acting Solenoid Valve 1/4" ports 12 V DC		1	1	
High Pressure Regulator 3/8" NPT 150PSI		1	2	
Low Pressure Regulator 3 to 30PSI		1	1	
Pressure Gauge 1/4" NPT Back, 0-60psi (Back Mount)50mm Axial iron shell integrated pressure gaugechroming shell, brass back connection, dia. 50 mm.NPT1/4, accuracy 2.5%.		3	3	
<a href="#">3-30LPM LZQ-7 Oxygen Air Gas Flowmeter</a>	\$16.89	1	Not in Bundle	\$16.89
<b>FITTINGS</b>				
3/8" Male NPT to 3/8"Push to Connect - Strait		5	5	
3/8" Male NPT to 3/8"Push to Connect - 90 Elbow		6	14	
3/8"Push to Connect to 3/8"Push to Connect to 3/8"Push to Connect - Tee		6	8	
3/8"Push to Connect to 3/8"Push to Connect to 3/8"Push to Connect - Y		1	1	
3/8"Push to Connect to 3/8"Push to Connect - 90 Elbow		3	3	
1/4" Male NPT to 3/8" Push to Connect - 90 Elbow		2	5	
1/4" Male NPT to 3/8" Push to Connect - Strait		4	5	
Brass/Stainless 3/8-Inch tube PTC x 1/4-Inch Male NPT - Coupler		2	5	
<a href="#">Brass 1/4 NPT Female to 1/4" NPT Female - Coupling</a>	\$5.82	3	Not in Bundle	\$17.46
<a href="#">Brass 1/2-in NPT Male to 1/4" NPT Female - Adapter Bushing</a>	\$3.99	2	Not in Bundle	\$7.98
<a href="#">Brass 1/4" NPT male plug hex or square head</a>	\$7.99	1	Not in Bundle	\$7.99
<a href="#">Air pressure safety relief valve 1/4" NPT male set to open at 50 psi</a>	\$8.50	1	Not in Bundle	\$8.50
<b>TUBING</b>				
<a href="#">High Density Polyethylene (HDPE) Tubing, 1/4" ID, 3/8" per roll OD (10 Feet Per Machine Required- White)</a>	\$21.52	1	Not in Bundle	\$21.52
<a href="#">Clear Vinyl tube, 1/4" ID, 3/8" per roll OD (2 Feet Per Machine Required - Clear)</a>	\$16.99	1	Not in Bundle	\$16.99
1.5 orifices		3	3	
<b>BRAIN COMPONENTS</b>				
<a href="#">Arduino Uno Board With Mounting Plate</a>	\$21.90	1	Not in Bundle	\$21.90
<a href="#">Arduino Uno Board Relay Shield 4 relays</a>	\$9.99	1	Not in Bundle	\$9.99
12V 40 watt power supply		1	1	\$0.00
<a href="#">20 awg Electronics Wire</a>	\$14.99	1	1	\$14.99
<b>HEAT/HUMIDITY MANAGEMENT COMPONENTS</b>				
<a href="#">3/8" OD Copper Tubing (Need around 20')</a>	\$22.67	1	Not in Bundle	\$22.67
12V DC 120mm High Speed Cooling Fan		5	5	
Humidifier Water Bottle		1	1	
<b>COMPRESSOR</b>				
<a href="#">California Air Tools SP-9421 2.0HP Ultra Quiet and Oil-Free Air Compressor Motor</a>	\$364.64	1	Not in Bundle	\$364.64
<b>MISCELLANEOUS</b>				
Cable Ties 40 pack		1	40	
<a href="#">2" Wheels</a>	\$17.99	1	Not in Bundle	\$17.99
<a href="#">2x4x10 Wood</a>	\$6.95	1	Not in Bundle	\$6.95
<a href="#">3/4" MDF 15.5" x 15.5" (Can also use Plywood)</a>	\$36.00	1	Not in Bundle	\$36.00
<a href="#">1/4" MDF 6" x 4.5" (Can also use Plywood)</a>	\$8.53	1	Not in Bundle	\$8.53
in-line HIPAA Sanitary Air Filter		1	1	
Heat Shrink or Electrical Tape			Not in Bundle	
Solder or Twist Connectors			Not in Bundle	
<b>SIEVE PVC PARTS</b>				
<a href="#">3" Schedule 40 PVC Female Adapter - Socket to FIPT</a>	\$2.76	2	Not in Bundle	\$5.52
<a href="#">3" Schedule 40 PVC Male Adapter - MIPT to Socket</a>	\$3.42	2	Not in Bundle	\$6.84
<a href="#">3" x 3/4" Sch 40 PVC Reducer Bushing Flush Style - Spigot to FIPT</a>	\$2.36	6	Not in Bundle	\$14.16
<a href="#">3/4" x 3/8" Sch 40 PVC Reducer (T.T.) Bushing - MIPT to FIPT</a>	\$2.36	6	Not in Bundle	\$14.16
<a href="#">3" Sch 40 PVC Coupling - Socket to Socket</a>	\$2.56	6	Not in Bundle	\$15.36
<a href="#">2" x 3/4" Schedule 40 PVC Reducer Bushing - Spigot to FIPT</a>	\$1.36	2	Not in Bundle	\$2.72
<a href="#">PVC 3 in. Round Snap-In Floor Drain</a>	\$2.72	4	Not in Bundle	\$10.88
<b>SIEVE INTERNAL PARTS</b>				
2" Diameter x 3" Tall - Compression Springs - 50 lb per inch tension		2	2	
304 Stainless Steel Woven 100 Mesh 0.18mm Hole Disk 75mm		2	2	
304 Stainless Steel Woven 100 Mesh 0.18mm Hole Disk 71mm		2	2	
<a href="#">Non-woven Filter Material - Vent Register Filter 4" X 12"</a>	\$14.99	1	Not in Bundle	\$14.99
<a href="#">Gorilla PVC Cement 8 oz. R1584C Medium Body PrimaGlue, One-Step</a>	\$18.11	1	Not in Bundle	\$18.11
<a href="#">Rectorseal 25551 8-Ounce No. 5 Pipe Thread Sealant</a>	\$8.82	1	Not in Bundle	\$8.82

# Oxygen Concentrator Sieve Assembly - with Labels

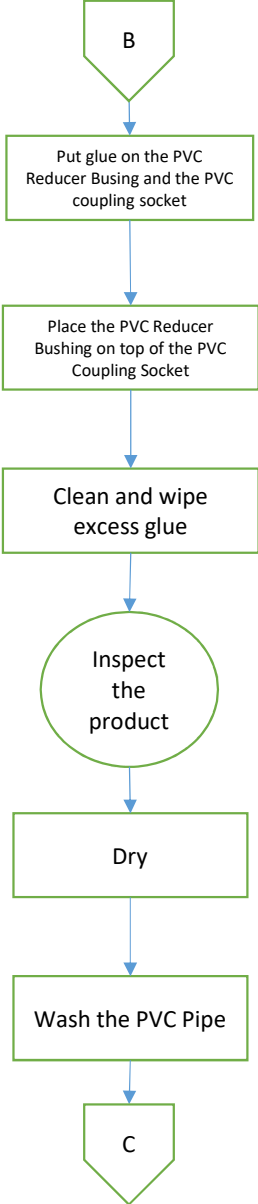
(Important: PVC parts should be schedule 40, not DWV)



E.A.M. 7-7-2020

FLOW CHART	PROCESS	MATERIAL	MISCELLANEOUS TOOLS/MATERIALS
 <pre> graph TD     Start([Start]) --&gt; Step1[Insert the Mesh into the PVC Round Snap-in Floor Drain]     Step1 --&gt; Step2[Glue the items together]     Step2 --&gt; Step3((Inspect the product))     Step3 --&gt; Step4[Smooth the edges of the PVC Pipe]     Step4 --&gt; Step5((Inspect the product))     Step5 --&gt; End[/A/] </pre>	Start	-	-
	1) Insert the Fine Stainless Steel Mesh into the PVC Round Snap-in Floor Drain	- Fine Stainless Steel Mesh(80 mesh to 120 mesh - 3" diameter) into the 3" PVC Round Snap-in Floor	-
	2) Place a little dab of super glue (every half inch) on the sides of the Fine Stainless Steel Mesh	- Fine Stainless Steel Mesh(80 mesh to 120 mesh - 3" diameter) into the 3" PVC Round Snap-in Floor	- Super Glue
	3) Inspect if Mesh is securely placed inside the PVC Round in Floor Drain	- Fine Stainless Steel Mesh(80 mesh to 120 mesh - 3" diameter) into the 3" PVC Round Snap-in Floor	-
	4) Smooth the edges (outside portion) of the PVC Schedule	- PVC Schedule 40 pipe, 17"	- Diburring Tool/cutter/ sander
	5) Inspect the product if the PVC Schedule fits smoothly with the PVC Coupling	- 3" PVC Coupling socket - 3" PVC Schedule 40 Pipe, 17" long	-
			

FLOW CHART	PROCESS	MATERIAL	MISCELLANEOUS TOOLS/MATERIALS
<pre> graph TD     A{{A}} --&gt; B1[Put glue on the PVC the schedule and the PVC coupling socket]     B1 --&gt; B2[Place the PVC Coupling Socket on top of the PVC Schedule]     B2 --&gt; B3[Clean and wipe excess glue]     B3 --&gt; B4((Inspect the product))     B4 --&gt; B5[Dry]     B5 --&gt; B6[Place the PVC Round Snap-in Floor Drain inside the PVC Coupling socket]     B6 --&gt; B{{B}}           </pre>			
	6) Put glue on the PVC Coupling socket and the PVC Schedule. Put a large amount of glue on the outside of the Male end around 2" (PVC Schedule) and less on the inside of the female end (PVC Coupling Socket).	- 3" PVC Coupling socket into the - 3" PVC Schedule 40 Pipe, 17" long	- Super Glue
	7) Place the PVC Coupling socket on top of the PVC Schedule. Put a little bit of pressure to connect the parts.	- 3" PVC Coupling socket into the - 3" PVC Schedule 40 Pipe, 17" long	-
	8) Wipe any excess glue on the PVC	- 3" PVC Coupling socket into the - 3" PVC Schedule 40 Pipe, 17" long	Tissue/Towel
	9) Inspect the product if PVCs are securely connected and if there are any excess glue inside the PVC	- 3" PVC Coupling socket into the - 3" PVC Schedule 40 Pipe, 17" long	-
	10) Let it dry for a few minutes	- 3" PVC Coupling socket into the - 3" PVC Schedule 40 Pipe, 17" long	-
	11) Place the PVC Round Snap-in Floor Drain (with mesh from step 1) inside the PVC Coupling socket until it bottoms out.	- Fine Stainless Steel Mesh(80 mesh to 120 mesh - 3" diameter) into the 3" PVC Round Snap-in Floor	-

FLOW CHART	PROCESS	MATERIAL	MISCELLANEOUS TOOLS/MATERIALS
 <pre> graph TD     B{{B}} --&gt; A[Put glue on the PVC Reducer Busing and the PVC coupling socket]     A --&gt; B[Place the PVC Reducer Busing on top of the PVC Coupling Socket]     B --&gt; C[Clean and wipe excess glue]     C --&gt; D((Inspect the product))     D --&gt; E[Dry]     E --&gt; F[Wash the PVC Pipe]     F --&gt; C{{C}}           </pre>			
	12) Put glue on the Reducer Busing, and the PVC Coupling socket (with the PVC round Snap in Floor - mesh inside). Put a large amount of glue on the outside portion of the Male end (Reducer Busing) and less on the inside of the female end (PVC Coupling Socket).	- 3"x3/4" PVC Reducer Busing, Flush Style-Spig. X FIPT - 3" PVC Coupling socket	- Super Glue
	13) Place the PVC Reducer Busing on top of the PVC Coupling Socket. Put a little bit of pressure to connect the parts.	- 3"x3/4" PVC Reducer Busing, Flush Style-Spig. X FIPT - 3" PVC Coupling socket	-
	14) Wipe any excess glue on the PVC	- 3"x3/4" PVC Reducer Busing, Flush Style-Spig. X FIPT - 3" PVC Coupling socket	Tissue/Towel
	15) Inspect the product if PVCs are securely connected and if there are any excess glue inside the PVC	- 3"x3/4" PVC Reducer Busing, Flush Style-Spig. X FIPT - 3" PVC Coupling socket	-
	16) Let it dry overnight	- 3"x3/4" PVC Reducer Busing, Flush Style-Spig. X FIPT - 3" PVC Coupling socket	-
	17) Wash the inside portion of the PVC	- 3"x3/4" PVC Reducer Busing, Flush Style-Spig. X FIPT - 3" PVC Coupling socket	Tissue/Towel

FLOW CHART	PROCESS	MATERIAL	MISCELLANEOUS TOOLS/MATERIALS
<pre> graph TD     C{{C}} --&gt; Dry[Dry]     Dry --&gt; Smooth[Smooth the edges of the PVC Pipe]     Smooth --&gt; Glue[Put glue on the PVC Male adaptor and the PVC schedule.]     Glue --&gt; Place[Place the PVC Male adaptor Socket on top of the PVC Schedule]     Place --&gt; Wipe[Clean and wipe excess glue]     Wipe --&gt; Inspect((Inspect the product))     Inspect --&gt; D{{D}}           </pre>			
	18) Let it dry for a few minutes	- 3"x3/4" PVC Reducer Busing, Flush Style- Spig. X FIPT - 3" PVC Coupling socket	-
	19) Smooth the edges (outside portion) of the other end of the PVC Schedule	- PVC Schedule 40 pipe, 17"	- Diburring Tool/cutter/ sander
	20) Glue the PVC Male adaptor Socket into the other open side of the PVC Schedule . Put a large amount of glue on the outside portion of the Male end around 2" (PVC Schedule) and less on the inside of the female end (PVC Male adaptor socket).	- 3" PVC Male adaptor MIPT X Socket - 3" PVC Schedule 40 Pipe, 17" long.	- Super Glue
	21) Place the PVC Male adaptor Socket on top of the PVC Schedule. Put a little bit of pressure to connect the parts.	- 3" PVC Male adaptor MIPT X Socket - 3" PVC Schedule 40 Pipe, 17" long.	-
	22) Wipe any excess glue on the PVC	- 3" PVC Male adaptor MIPT X Socket - 3" PVC Schedule 40 Pipe, 17" long.	Tissue/Towel
	23) Inspect the product if PVCs are securely connected and if there are any excess glue inside the PVC	- 3" PVC Male adaptor MIPT X Socket - 3" PVC Schedule 40 Pipe, 17" long.	-

FLOW CHART	PROCESS	MATERIAL	MISCELLANEOUS TOOLS/MATERIALS
<pre> graph TD     D{{D}} --&gt; Dry1[Dry]     Dry1 --&gt; Glue[Put glue on the PVC Reducer Bushing and the PVC female adaptor socket.]     Glue --&gt; Place[Place the PVC Reducer Bushing on top of the PVC female adaptor socket]     Place --&gt; Clean[Clean and wipe excess glue]     Clean --&gt; Inspect((Inspect the product))     Inspect --&gt; Dry2[Dry]     Dry2 --&gt; E{{E}}           </pre>			
	24) Let it dry overnight	- 3" PVC Male adaptor MIPT X Socket - 3" PVC Schedule 40 Pipe, 17" long.	-
	25) Glue the PVC Reducer Bushing into the other open side of the PVC Female adaptor socket . Put a large amount of glue on the outside portion of the Male end around 2" (PVC Reducer Bushing) and less on the inside of the female end (PVC female adaptor socket).	- 3"x3/4" Reducer Bushing, Flush Style-Spig. X FIPT - 3" PVC Female adaptor Socket X FIPT.	- Super Glue
	26) Place the PVC Reducer Bushing on top of the PVC female adaptor socket. Put a little bit of pressure to connect the parts.	- 3"x3/4" Reducer Bushing, Flush Style-Spig. X FIPT - 3" PVC Female adaptor Socket X FIPT.	-
	27) Wipe any excess glue on the PVC	- 3"x3/4" Reducer Bushing, Flush Style-Spig. X FIPT - 3" PVC Female adaptor Socket X FIPT.	Tissue/Towel
	28) Inspect the product if PVCs are securely connected and if there are any excess glue inside the PVC	- 3"x3/4" Reducer Bushing, Flush Style-Spig. X FIPT - 3" PVC Female adaptor Socket X FIPT.	-
	29) Let it dry overnight	- 3"x3/4" Reducer Bushing, Flush Style-Spig. X FIPT - 3" PVC Female adaptor Socket X FIPT.	-

FLOW CHART	PROCESS	MATERIAL	MISCELLANEOUS TOOLS/MATERIALS
<pre> graph TD     E{{E}} --&gt; A[Place Zeolite inside the PVC assembly]     A --&gt; B[Vibrate the Zeolite]     B --&gt; C[Place the Fiber Filter on top of the Zeolite]     C --&gt; D[Place PVC round snap in floor Drain on top of the Fiber Filter]     D --&gt; E[Push the PVC to compress the Zeolite]     E --&gt; F[Place the spring on top of the PVC round snap]     F --&gt; F{{F}}           </pre>			
	30) Place a considerable amount of Zeolite inside the PVC Pipe, approximately 26mm from the top of the PVC Male adaptor. Please see computation sheet for the computation of the height of the Zeolite.	- Zeolite - PVC Assembly from step 1 to 29	-Funnel -Caliper
	31)Ensure to vibrate the bottom side and a little on the top of the PVC assembly	- Zeolite - PVC Assembly	- air hammer with 50 PSI
	32) Place the Non Woven Fiber Filter on top of the Zeolite	- Non Woven Fiber Filter 4" Diamter - Zeolite - PVC Assembly	-
	33) Place the PVC round snap in floor Drain (with mesh outside) on top of the non woven Fiber Filter.	- 3" PVC round snap in floor Drain with Lip trimmed - Non Woven Fiber Filter 4" D - Zeolite - PVC Assembly	-
	34) Push the PVC round snap in floor Drain to compress the Zeolite	- 3" PVC round snap in floor Drain with Lip trimmed - Non Woven Fiber Filter 4" D - Zeolite - PVC Assembly	-
	35) Place the spring on top of the PVC round snap in floor Drain	- 3" PVC round snap in floor Drain with Lip trimmed and sanded with mesh - Spring	-



FLOW CHART	PROCESS	MATERIAL	MISCELLANEOUS TOOLS/MATERIALS
<pre> graph TD     F{{F}} --&gt; B1[Place the cut PVC Round in Floor drain on top of the spacer]     B1 --&gt; B2[Place the cut PVC Round in Floor drain with spacer on top of the spring]     B2 --&gt; B3[Put glue on the Male Thread and Female Thread]     B3 --&gt; B4[Place the Female adaptor on top of the Male Adaptor.]     B4 --&gt; B5[Tighten the canister]     B5 --&gt; B6((Check the gap of the Male and female thread))     B6 --&gt; G{{G}}           </pre>			
	36) Place the the cut portion of the PVC Round Snap in Floor Drain with lip on top of the Spigot threaded MPT PVC(spacer)	- 1 1/2 mm PVC Round Snap in Floor Drain with lip - 3" 3/4" x 2" spigot threaded MPT PVC(spacer)	-
	37) Place PVC Round Snap in Floor Drain with lip and the Spigot threaded MPT PVC(spacer) assembly on top of the Spring	- 14 1/2 mm PVC Round Snap in Floor Drain with lip - 3" 3/4" x 2" spigot threaded MPT PVC(spacer) - spring	-
	38) Put Sealant on the entire Male Thread and lighter on the Female thread	- 3" PVC Male adaptor MIPT X Socket - 3" PVC Female adaptor MIPT X Socket	- Sealant
	39) Place the Female adaptor on top of the Male Adaptor.	- 3" PVC Male adaptor MIPT X Socket - 3" PVC Female adaptor MIPT X Socket	-
	40) Ensure to tightly seal the canister	- 3" PVC Male adaptor MIPT X Socket - 3" PVC Female adaptor MIPT X Socket	- Belt wrench
	41) Measure the gap of Male and female thread. Acceptable Gap is 7mm	- 3" PVC Male adaptor MIPT X Socket - 3" PVC Female adaptor MIPT X Socket	- Caliper

FLOW CHART	PROCESS	MATERIAL	MISCELLANEOUS TOOLS/MATERIALS
<pre> graph TD     G{{G}} --&gt; A[Screw the canister]     A --&gt; B[Dry]     B --&gt; C[End]           </pre>			
	42) Seal the top portion of the Canister	- Canister - 3/8 MNPT to 3/8" push to Connect tube	-
	43) Let it Dry overnight	- Canister	-
	End	-	-