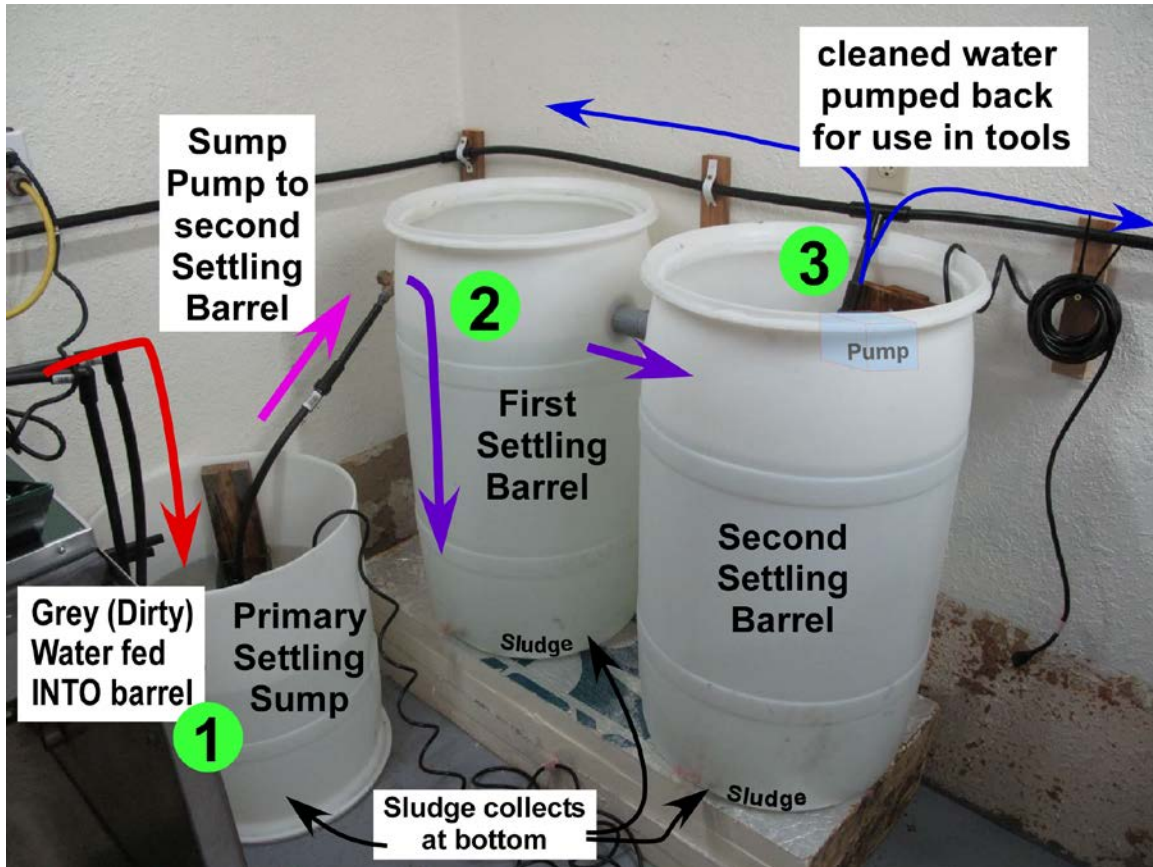


Recirculating Water System

Shown below is a multi-barrel water reclamation system. This system uses multiple barrels to allow for better settling of the particles. It illustrates the basics of what is needed to recycle cutting water. Below is a schematic of a single barrel system where limited space is available. The two barrel system will allow for better settling.



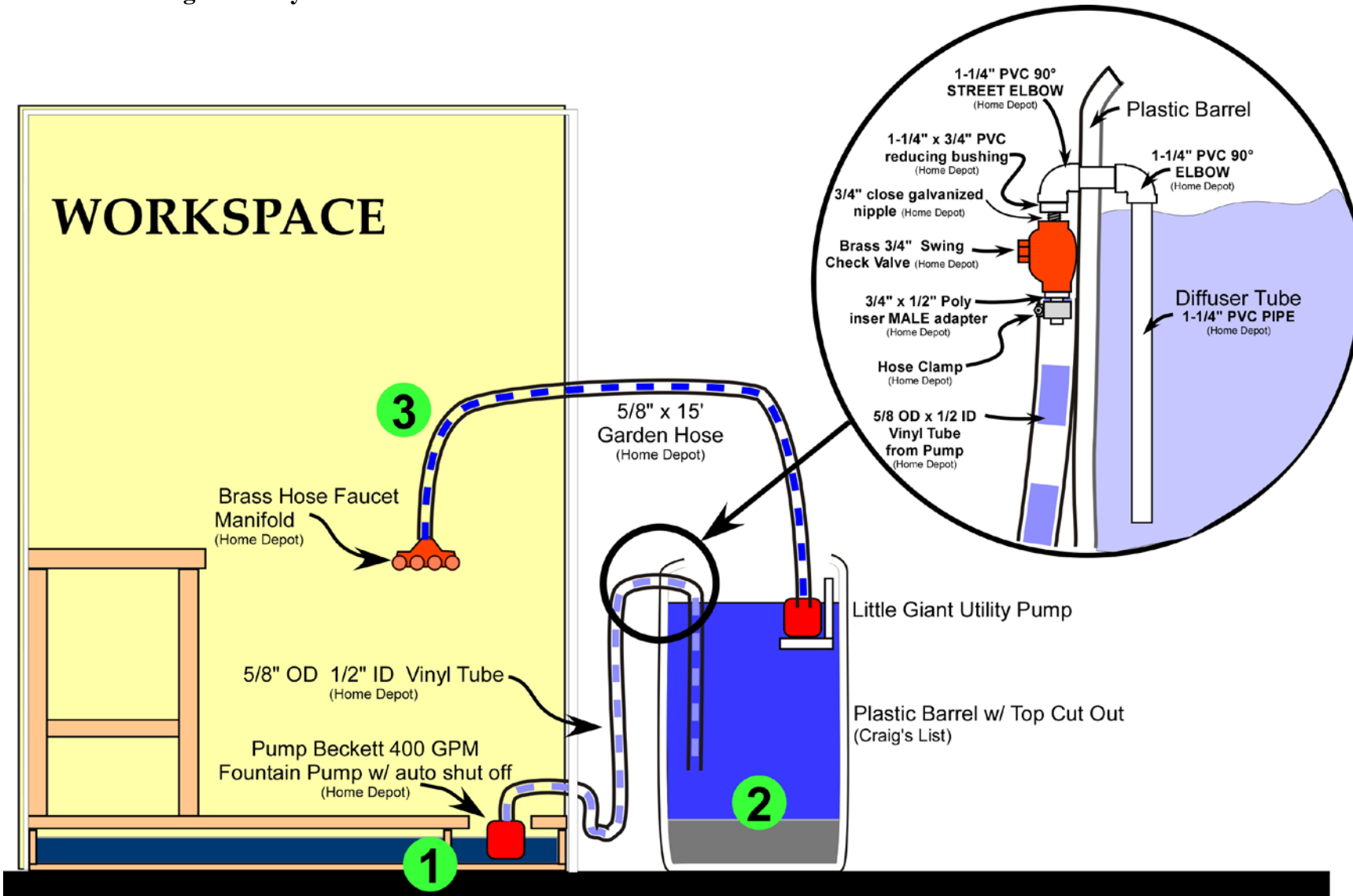
The three key elements of a recirculating system are labeled with the three green dots:

1. Collect and settle large particles. The sump, Primary settling.
2. First settling barrel. Water is pumped from sump to the bottom of the barrel.
3. Second settling barrel. Water flows from top of first through a tube to the bottom of the second barrel. The water at the top of this barrel is pumped back to the work area for use in the tools.

Very little volume of water is needed to reduce dust and keep your blades cool. The total volume of water determines how long the particles have to settle.

Below is a schematic diagram for a single barrel system, along with a parts list, for to use in a small studio.

Recirculating Water System

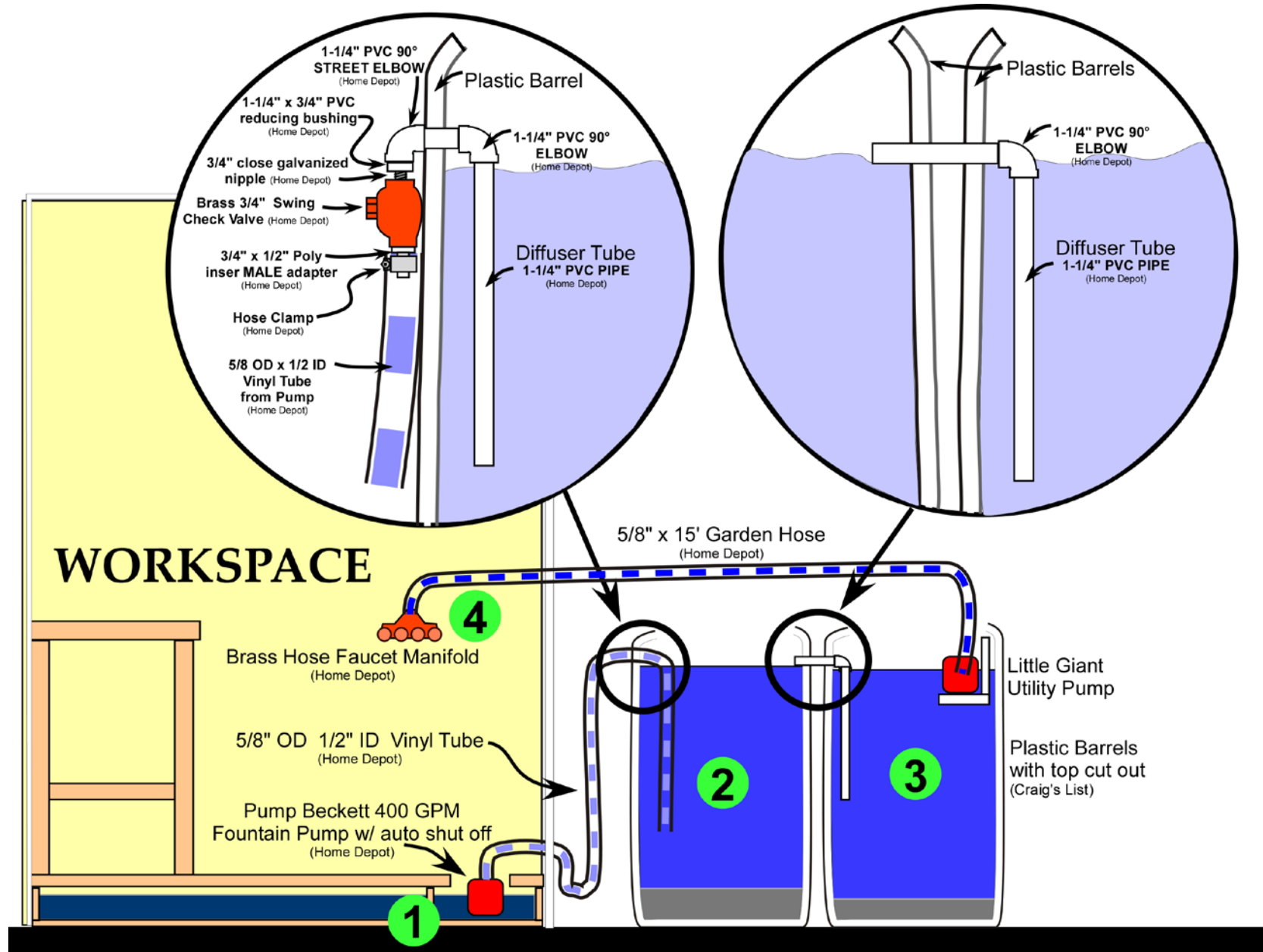


Recirculating 1 Barrel Water System for Wet Carving

Recirculating Water System Parts List Single Barrel System

ITEM	SOURCE	PRICE
Rain barrels There are many folks selling these. Plastic Food Grade (used) 55 gal	Craigs list SKY (He has many sizes) - 253 495-5943 In Puyallup	\$20
Little Giant utility pump - This pump can pump water up 25' and will supply enough pressure to your tools, even through small diameter tubing. This pump is also very good for flushing and cleaning the sediment out of the barrels.	Online - Global industrial. Com (local) http://www.globalindustrial.com/p/plumbing/pumps/utility-pumps/little-giant-submersible-utility-pump-10ft-cord?infoParam.campaignId=T9F&gclid=CM_DqLaQvMECFZQAaQodirMAMg&gclsrc=aw.ds Others also sell it locally, but the price is higher. Whitecap, local stores. http://www.whitecap.com/shop/wc/56171	\$115 w/ shipping
Beckett 400 GPH w/ auto shut off.	A fountain pump that Home Depot sells. I use this pump to pump from the sump to the barrel. It would work for the upper pump but doesn't have enough pressure for my uses. Sensor on pump needs to be cleaned every so often. http://www.homedepot.com/p/Beckett-400-GPH-Auto-Shut-Off-Fountain-Pump-M400AS/204670888?N=5yc1vZc9r9	\$55
3/4" swing check valve brass	Home Depot	\$9.67
5/8"x1/2"x 20' vinyl tube	Home Depot	\$7.26
Brass hose faucet manifold	Home Depot	\$15.47
1-1/4"x10' PVC pipe		\$6.00
1-1/4" PVC el 90		\$.98
1-1/4"PVC street el 90		\$1.98
1-1/4" PVC bushing 1-1/4x 3/4" SPGXMIP		\$.98
3/4" close Galv. Nipple		\$1.34
3/4"x1/2" make adaptor		\$.73
5/8"x15' garden hose		\$7.97
2 Ea. Hose clamps		
PVC cement		
	Estimated TOTAL	\$275

Recirculating Water System



Recirculating 2 Barrel Water System for Wet Carving