I have found that buying vacuum bags, connectors and pumps from companies that target woodworkers can be a very expensive proposition, so here is an overview of how I save tons of $$$!

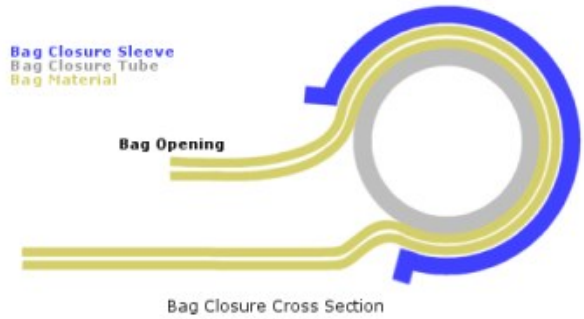
Bags: The good bags are the vinyl one with 30 mil thickness. I discovered that in my area (N of Atlanta, close to Lake Lanier) there are many upholsterers that service the high end boating community. The clear curtains that they make for boats are often 30 mil vinyl. Boat owners want flawless clear curtains, so I buy scraps or the ends of a roll where there may be flaws or just too short for use as a curtain. These vinyl rolls are usually 52" wide. I can usually buy scraps or end rolls for about $10 per linear yard. So, for $10 (+ -) you have a 36" x 52" vinyl sheet. Depending on how you fold it, you can make an 18" x 52" bag or a 36" x 26" bag. Because of the cheap cost, I have several bags sized to fit different projects.

To turn the vinyl sheet into a bag, I fold it in half and glue 2 sides to make the bag. I use either vinyl cement or PVC cement that Home Depot carries . . . maybe sub $10.00 for a can. When the sheet is folded, I spread the cement along the inside of where I want the seam to be, and clamp a 2x4 above and below the seam until the cement dries. Use plenty of cement and don't worry about the glue line. Clamping the seams should put sufficient pressure to make a seal and prevent leakage.

You now have a bag with 3 sealed sides (1 from the fold, and 2 from gluing seams.)

The bag now needs a way to seal the remaining open side and a way for a vacuum pump to evacuate the air in the bag.

To seal the open end, fold over a small portion of the bag and simply clamp it together. Over the years, I have made numerous jigs to help with the clamping, but they were all awkward to use. I finally settled on a $12 closure system from JoeWoodworker.com. Here is a picture of how it works and a picture of it in use in my shop. I use a 1/2" dowel instead of the Bag Closure Tube that comes with the system from JoeWW. I found that the dowel is a bit smaller and is much easier to get in place quickly.



Bag Closure Cross Section

When pressing veneer against a flat surface, I place a flat board (platen) inside the bag to draw the veneering materials into a flat plane. For that, I cut down a piece of ¾" laminate-covered MDF to a size that fits inside of the bag that I am using. This stuff is super cheap and you may have some laying around or buy a damaged sheet from your lumber supply house. Be sure to cut kerfs in it to allow even and complete air evacuation. Flip it over and run it through the table saw with shallow cuts.

Obviously, when I am vacuum pressing veneer against a surface with curves on both sides, I do not use the platen . . . just the bag.

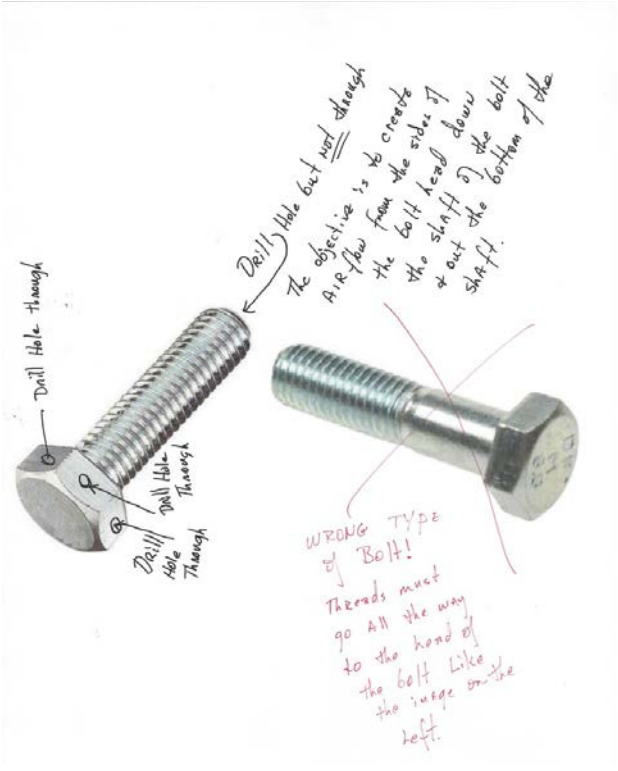
The next requirement is a way to pull vacuum out of your bag. I use vacuum pumps that I buy off of the local CraigsList. I would suggest a pump with at least 3cfm. You don't really need much more than that unless you are veneering huge projects like 4'x8'. I buy pumps here for $85 - $100 that work great. I think that they usually come from AC repair contractors.

The hose that I use from the pump to the bag is 3/8" inside diameter vinyl hose from HD . . sub $10.00

Now you need a fixture to attach the hose to the bag and draw the air out of the bag. I make mine for a couple of bucks using a bolt, 2 nuts, 2 big washers, a very small hose clamp and a bit of plumbers putty.

When in place, the head of the bolt fits into a shallow hole drilled into the platen and that bolt feeds through a hole you must cut into the bottom side of the bag. Push the bolt through the platen and then through the hole in the bag. To seal the hole in the bag with the bolt in place, thead a nut onto the bolt and then one of the big washers. Insert that through the hole in the bag and place the 2nd big washer and the 2nd nut in place. Use a bit of plummer's putty on both sides of the bag against both washers to create a seal. Now fit the vinyl hose onto the threaded end of the bolt and fix it in place with the small hose clamp. The picture below shows the fixture coming out of the platen and through the bottom layer of the bag

Before you assemble the bolt, washers, etc. you must drill holes in the bolt. Drill small holes all the way through the 6 sides of the head of the bolt. Drill a hole into the bottom of the bolt towards the bolt head, but do not drill through the top of the bolt. Make sure that you drilled deep enough so that the holes you drilled in the sides of the bolt head open into the hole you just drilled into the shaft.



Lastly, I use an old router table from a garage sale for a permanent set up for the bag, pump and platen that I use must of the time.