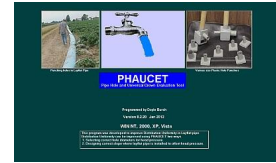


Phaucet Instructions

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FIRST Set your defaults

The default values are under file and preferences or default values depending on what version you have.

Leave everything the same except you can change the pipe diameter to 15 or whatever is your most used size, as well as the distance between watered furrows (3.17 is 38 inches and what I use most), you can put pipe wall thickness to 9 or 10 mil (what we use most), **MAKE SURE ELEVATIONS OR RODS IS SET TO ELEVATIONS, JUST CLICK THE BOX AND HIT E, AND HOLE TYPE HAS TO BE C FOR CIRCULAR, JUST CLICK ON THE BOX AND CLICK C.** LEAVE EVERYTHING ELSE THE SAME. EXIT THE BOX AND CLOSE THE PROGRAM. NOW REOPEN THE PROGRAM TO MAKE SURE ALL CHANGES ARE SAVED.

Phaucet Program Instructions (entering the data)

1. Enter field name
2. Enter GPM
3. Target Head should be 1.0 to 2.5 (more info on #17)
4. Rods or Elevation: make sure this to set to E
5. Under stations, click on first box (should be a 0), then hit enter until you get to whatever the length of pipe is. (example if 1237 ft, hit enter to 1200 then click on next box and put 1237). If the pipe run is too long, we may have to do it in 2 stages. Running supply tubing with all info filled out except the furrow length, distance between holes, hole size, and number of holes per row. Because we are not watering with this pipe, just supplying.
6. Under elevation, default is 10, put 10 in last box if no slope exists with pipe, if farmer says that the **pipe** will fall two feet from the well to the bottom of the field, then you put 10 in first box and 8 in the last box. If he says it falls a foot, put a 10 in first box and a 9 in last box. Have had to put a half a barrel under pipe every so often to slow the water down if fall is too great. If it rises a half of a foot from the well, put a 10 in first box and a 10.5 in last box (If it's a foot rise, put 10 and 11). **A lot of times growers are putting half barrels under tubing to take out the fall every so often. Depending on the fall, about a half barrel for every levy or every other levy usually works... then you can put no fall in the program because the barrels are taking it out of the equation... takes time to learn on barrels...growers with experience know this....**
7. Put furrow length in first box even with the 0 in stations for the length of the furrow at the well. If the furrow length is the same at the bottom of the field enter same number on last row. If different put that number in last box and it will interpolate the data later. If it is the same furrow length until the last 237 ft (or whatever) put that number in at 1000, and put the row length at the end in at 1237, and it will adjust later for the point rows when you hit interpolate.
8. Distance between holes (3.17 is 38 inch rows, you have to put this number in as a decimal number) Hit enter until all are full. **BE SURE TO MEASURE DISTANCE BETWEEN HOLES IF THE PIPE IS RUNNING AT AN ANGLE ACROSS THE ROWS (38 inch rows with any angle will increase the distance between holes!)**

9. Pipe diameter – better to run program and see what size works best. Check the flow of the well with flow meter or plum bob. **Must be full pipe with either one to be accurate.**

12 inch – less than 1200 GPM

15 inch – 1200 to 2200 GPM

18 inch – greater than 2200 GPM

10. Hole diameter – leave it at 5/8 or whatever. It will change this to what it needs to be.

11. Number of holes at each – ONE. Unless the well is too large for the number of rows and the hole size comes out as something larger than 1 inch. Then we may need to put 2 holes per middle. Hit enter until all are filled out.

12. Tubing – 10 mil., some is 9mil Hit enter until all are filled out. This doesn't change anything and doesn't matter except that the heavier tubing will hold more pressure.

13. Hit Interpolate furrow length.

14. Click on **Design** at the top of program and it will bring down a list of options. Click on **computer hole selection**. **Every box of the spreadsheet must be filled out before this step.**

15. It will calculate out.

16. Should be 90 or greater uniformity, but sometimes with point rows you have to live with lower.

17. Highest head should not be greater than 2.5 (If close change the target head and re-calculate) Have had highest head slightly above and been ok. Lowest head should be above 1, but could still be ok if under. 0.5 is absolute lowest head pressure. IF YOU CAN KEEP HIGHEST HEAD UNDER 2.0, BUT ITS OK TO GO UP TO 2.5, IF YOUR SURE ABOUT YOUR FLOW... better to be safe than sorry... If the pressure will not get below 2.5, click input screen and change the tubing size to the next larger size tubing and run it again. Sometime we can't get the pressure down and need transfer tubing.

TRANSFER TUBING – Comes in 660 ft roles! It will handle pressure up to 5... like to keep it at 4.5 and under if possible! Just look at your design and see where head pressure is under 2.5 and use transfer until you get there if needed.

18. If hole sizes are larger than 1 inch, CLICK **INPUT SCREEN** AT THE TOP, and change to 2 holes per middle. Don't have good luck with these large hole sizes...

19. Save the file. Helpful to save with rpm, set info, pipe size used ect. In name... Just helps to go back and view what you did. Also put this in the location area and it will put it on the printout when you print hole summary. Hit File, Print and Hole Summary to get the best page for the grower. Put each grower into their own folder. You will find what is best for you as you do more.

Example. Back40 1700rpm first run or back40 1700rpm north
Back40 1500rpm set2 or back40 1500rpm south
Back40 NW 650 ft 18 then 15

20. Printing design. Always save field after you get your design (saves as .CSH automatically) this just makes opening it later easier. And gives saved name on printout for reference. Click File and chose **Print Hole Summary**.

Calculating how long it will take to water. Just an ESTIMATE!!!! First irrigation will normally take longer and subsequent irrigations will be quicker. Especially when growers are using the irrigation scheduler...

The program now gives you this estimate.

Really don't like to irrigate for more than 36 hours!