

**Midwest Tile and Concrete**

Drawdown Calculations - Base on SPI Double Piggyback Mercury Float Switch

Calculations based on 3.5" tethers on "On" and "Off" floats  
 Minimum distance between "On" and "Off" tethers 2.5 Inches

**Note:**

If applicable, drainback volume must be added to the below drawdown distances. (See chart below for volumes per 100' of pipe)

In addition to the these drawdown distances the height of the pump, pump block, distance between "On" and "Alarm" floats, and the freeboard above the "Alarm" must be considered.

			Gallons/Dose Flood Dose			Gallons/Dose GEO-Flow/Mound			Gallons/Dose Presby		
			Bedrooms			Bedrooms			Bedrooms		
			3	4	5	3	4	5	3	4	5
Dose Tank Size	1000	Distance between "on" & "off" float tethers in Inches	19.6	N/A	N/A	4.2	5.9	7.6	2.5	N/A	N/A
Gallons/Inch	21.8	Drawdown in Inches	20.6	N/A	N/A	5.2	6.9	8.6	3.5	N/A	N/A
Dose Tank Size	1250	Distance between "on" & "off" float tethers in Inches	15.9	21.6	N/A	3.2	4.6	6.0	N/A	2.8	N/A
Gallons/Inch	26.6	Drawdown in Inches	16.9	22.6	N/A	4.2	5.6	7.0	N/A	3.8	N/A
Dose Tank Size	1500	Distance between "on" & "off" float tethers in Inches	13.5	18.3	23.1	2.6	3.8	5.0	N/A	N/A	3.0
Gallons/Inch	31.1	Drawdown in Inches	14.5	19.3	24.1	3.6	4.8	6.0	N/A	N/A	4.0
Dose Tank Size	2000	Distance between "on" & "off" float tethers in Inches	9.0	12.4	15.7	N/A	N/A	3.2	N/A	N/A	N/A
Gallons/Inch	44.8	Drawdown in Inches	10.0	13.4	16.7	N/A	N/A	4.2	N/A	N/A	N/A

Below is the dimension to set the lower float (off float) from the bottom of the tank to be certain the pump is always covered with effluent

**Gallons Per 100' Foot of Pipe**

Size	Gallons
1"	4.5
1.25"	7.8
1.5"	10.5
2"	17
3"	38
4"	66

Zoeller Pumps

- N53 - 13 1/16"
- N57 - 13 1/16"
- N98 - 15 1/16"
- N140 - 15 1/2"
- N151 - 14 3/4"
- N152 - 15 1/8"
- N153 - 15 1/8"
- N or E161 - 22 3/8"
- N or E163 - 22 3/8"
- N or E165 - 22 3/8"
- N or E188 - 22 3/8"
- N264 - 17 3/4"
- N or E270 - 18"
- N or E292 - 22 3/8"

Barnes Pumps

- SP33 - 14 3/4"
- SP50 - 14 3/4"
- SP75 - 15 1/4"
- 2SEV512L - 22 1/8"
- EH-L - 20 3/8"
- SE-L - 21 3/4"
- SEV412 - 19 1/4"
- SE51 - 21 3/4"
- SE52 - 21 3/4"
- SE774L - 21 3/4"
- SE1074L - 21 3/4"