



St. Joseph County Health Department

“Promoting physical and mental health and facilitating the prevention of disease, injury, and disability for all St. Joseph County residents”

PRESSURE TRENCH DISTRIBUTION WORKSHEET

This worksheet must be accurately completed and submitted with the site plan which demonstrates all aspects of the subsurface pressure system.

SYSTEM SPECIFICATIONS: See Health Department specification sheet for information

Soil Load Rate _____ Required absorption area _____ ft²

Number of bedrooms/equivalents _____ x 150 = Daily Design Flow (DDF): _____ gallons

SEPTIC TANK: Size: _____ gallons Manufacturer _____

DOSE TANK: Size: _____ gallons Manufacturer _____

Gallons _____ per inch or foot Internal dimensions _____ width _____ length
(circle one)

ABSORPTION FIELD: _____ Aggregate/pipe/holes down _____ Chambers/laterals suspended/holes up

Lateral separation _____ feet on center Minimum trench depth _____ Maximum trench depth _____

Chambers: Manufacturer _____ Length per chamber _____ feet

Total number of chambers _____ Chambers per run or trench _____

Trenches: Number _____ Length _____ feet Width _____ feet Total square feet _____

Bed: Bottom must be level Length _____ feet Width _____ feet Total square feet _____

DISTRIBUTION NETWORK: _____ Center Feed or _____ End Feed (max lateral length 55 feet)

Only pressure rated pipe, fittings (couplers, reducers, elbows, tee’s, etc.) will be used. _____ Yes _____ No

Manifold and all laterals will be placed at the same elevation _____ Yes _____ No - contact the department

Laterals: Total number _____ Length _____ feet Diameter _____ inches (Use Lateral Diameter Graph)

Holes: Soil loading rate _____ (Spec 23 sand is 1.2) Spacing _____ feet on/center Size $\frac{1}{4}$ inch

Holes/lateral _____ Holes/system _____ Flow/lateral _____ gpm Flow/system _____ gpm

Total length of laterals _____ x the volume/foot = Total volume of laterals _____ gallons

Total number of holes x 1.28 gpm (3.0’ design head) Or 1.17 gpm (2.5’ design head) = _____ total gpm

Lateral length in feet with hole placement. Mark the appropriate lateral length and count the holes.
(From the manifold, holes start $\frac{1}{2}$ the distance of the hole spacing and no hole shall be placed less than that distance from the end cap. Do not forget to count the hole in the end cap.)

Example: 3 feet on center hole spacing is universal for all soil load rates)

0	1½	4½	7½	10½	13½	16½	19½	22½	25½	28½	31½	34½	37½	40½	43½	46½	49½	52½	55
!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!

Manifold: Length _____ Diameter _____ Refer to Table IX of Rule 410 IAC 6-8.1
 (Note: Manifold diameter in the Rule specifies a 2 inch minimum and 4 inch maximum)

Delivery Line: Length _____ feet Diameter _____ inches Volume* _____ (length x volume/foot)

*This is the drain back amount to be added to the actual dose to determine the float settings.

Pipe diameter:	1"	1¼"	1½"	2"	3"	4"
Gallons/foot:	.045	.078	.106	.174	.384	.650

Friction loss in delivery line: Sec. 53 (v) Table VIII of Rule 410 IAC 6-8.1

Friction loss at _____ gpm = _____ feet per 100 ft. of _____ inch diameter pipe

Number from Table VIII _____ x _____ delivery line length/100 = _____ Friction loss

Dose amount is dependent upon the design load rate of the system:

_____ SLR is 1.2 gallons per ft² day: Required dose = ¼ DDF

_____ SLR is less than 1.2 gallons per ft² day: Required dose = DDF

In a repair situation when backfilling with Spec 23 sand is necessary, use a 1.2 load rate and contact the Health Department to discuss any "special circumstances" that may exist with the site.

Required dose _____ + Drain back _____ = _____ total gallons to determine float settings

Volume calculation: Required dose to the field must be ≥ 7 times the volume of the distribution laterals

Required dose _____ ≥ 7 x total length of distribution lines _____ x volume/foot _____ = _____

PUMP: Manufacturer _____ Model _____ Horse power _____

Performance curve included with TDH and gpm plotted _____ Yes Pump is adequate _____ Yes

Drawdown distance: pump on/off _____ x _____ gallons per inch or foot = _____ total dose amount

Dosing Tank will be set up in compliance with Sec. 44 and Sec. _____ Yes _____ No
 45 of the State Code

Electrical Connections will be inside gas proof box. _____ Yes _____ No

All Septic Tank and Dosing Tanks will have risers in accordance _____ Yes _____ No
 with Sec. 39 (g)

Each Dose Tank will be equipped with an audible and visual alarm _____ Yes _____ No
 on a separate circuit from the pump

Pump must stay submerged at all times _____ Yes _____ No

TOTAL DYNAMIC HEAD:

A. Friction Loss in Delivery Line _____ feet

B. Elevation Difference (Pump off to Manifold) _____ feet

C. System Design Head _____ feet

A + B + C = Total Dynamic Head = _____ feet