PREMIER PLASTICS

GRAVITY 2017

GRAVITY POWERED PRESSURE DOSING CALCULATOR FOR SEPTIC FIELDS

Before using this program read Guideline document (updated March 22, 2019)

Project Name and Date : Example Jan. 2020

Designer: Sepp Tickfield ROWP

SYSTEM INPUTS

Static head (vertical) available at site (ft.) (Mid level in dosing tank to field inlet manifold)	8.00
Total number of orifices in field or section (max.150)	60
Diameter of orificies (inches)	3/16
Desired Squirt height (ft.) (Start with minimum)	2.33
Total length of transport pipe - dosing tank to field manfold *Include equiv. length of fittings (ft.): Pipe equiv. 90 elbow - 8' 45 elbow - 3' Coupling - 6'*	85

BASE SYSTEM

(includes 30 ft. of transport pipe) (Refer to www.premierplastics.com for actual test results)

Transport pipe diameter of base system	2"Pipe	3"Pipe
Static head required for squirt height (ft.) *(Derived from experimental data)*	**6.20**	**6.02**

EXTENDED TRANSPORT PIPE (OVER 30 ft.)

Total US gallons per minute (Reference only)	**40.96**
Diameter of extended transport pipe (inches) (try options)	2.00
Friction head loss - ft. per 100ft. (Reference only)	**3.27**
Friction head loss for extended transport pipe (ft.)	**1.80**

OUTPUT**

Transport pipe diameter of base system	2"Pipe	3"Pipe
Static head required for base system (ft.) (see above)	**6.20**	**6.02**
Friction head loss for extended transport pipe (ft.) (see above)	**1.80**	**1.80**
Total static head required for desired squirt height (ft.)	**7.99**	**7.82**
Net excess static head available (ft.) (-) negative (If not close to zero try another squirt height or pipe size (+/-)) *For maximum squirt height potential this number would be zero.*	**+0.01**	**+0.18**

****Valid only for fully flooded (vented) flow in transport pipe**

This guideline was developed to the best of our knowledge and is not intended as a substitute for evaluation performed by a registered industry professional. Nominal accuracy: ± 15%

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VOLUME OF DISCHARGE PIPING (US Gal.)			
	Diam. (ins.)	Length(ft.)	Volume
Transport pipe	2.00	85.00	**13.89**
Lateral piping	1.25	300.00	**19.15**

RECOMMENDED MINIMUM DOSE (US Gal.) USING 3 INCH FLOUT FOR RESIDENTAL PRESSURE FIELDS.	
	Min. Dose
2 ins. diameter transport pipe: (2.0 x Transport volume) + (2.0 x Lateral volume)	**66**
OR	
3 ins. diameter transport pipe: (3.0 x Transport volume) + (2.0 x Lateral volume)	**132**

****Valid only for fully flooded (vented) flow in transport pipe**

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For the record.

Daily Design Flow ____________________

Recommended Dose Vol. ____________________

Design Doses per Day ____________________

Recommended Dosing Tank Package:

Premier Plastics Model no. ____________________

Dose Counter Required? ____________________