STEGMEIER LLC

Product Submittal Sheet

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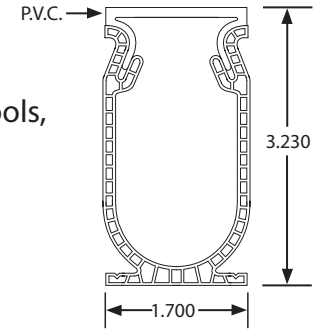
FRONTIER DECK DRAIN

" Removable Top Drain"

Frontier Deck Drain is a removable top drain that features a double wall base and snap in top (PVC). When installing this drain the tops are staggered past the joints making the joints very rigid. Because the tops are removable, this drain is easy to clean and the tops can be replaced if ever damaged. Frontier Deck Drain is used in many residential and commercial swimming pools, patios and other pedestrian traffic areas.



Patented

FLOW RATE:

Drain Calculations

Assumptions/ Constants:

Gradient - Slope (S) 1 in 200 (0.5%)	0.005 ft/ft, Contains UV inhibitors
Surface Roughness (Mannings n)	0.009 Plastic (PVC & ABS)
Rainfall Intensity (1) (TxDOT Manual)	5.8 in/hr for 10 year storm with time of concentration = to time of duration of 20 min.
Runoff Coefficient (C) (TxDOT Manual)	0.95 For concrete city streets 0.9 - 0.95 - i.e. all concrete pool deck

DRAIN NAME	Area A (ft^2)	Wetted Perimitter P (ft)	Hydraulic Radius R (ft)	Velocity V (ft/s)	Capacity - Q (cfs)	Capacity - Q (liters/sec)	Capacity - Q (gal/min)	Catchment Area - A (Acre)	Catchment Area - A (ft^2)	Catchment Area - A (m^2)	Length (ft)
FRONTIER DECK DRAIN	**0.029**	**0.573**	**0.051**	**1.602**	**0.046**	**1.3**	**20.8**	**0.008**	**367**	**34**	**1**

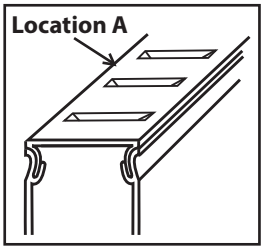
Notes/Equations:

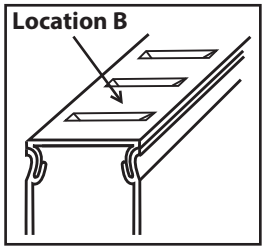
1. Above Catchment area based upon 1 foot, 1 meter, etc of the drain section.
2. R = A/P
3. v = (1.49/n)*(R)^(2/3)*(S)^(1/2)
4. Q = vA
5. A = Q/CI

LOAD TESTING:

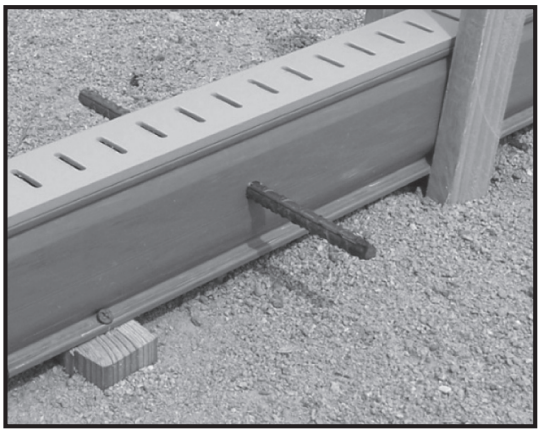
	DEFLECTION TO HORIZONTAL LINE		PUNCTURE/PERMANENT DEFORMATION MORE THAN 1/2"	
FRONTIER DECK DRAIN	**LOCATION A**	**134 psi**	**LOCATION A**	**922 psi**
	LOCATION B	**161 psi**	**LOCATION B**	**906 psi**

Impact Figures:





Cartons includes: 80' Base, 80' Top Cap, 8 Couplers and 4 End Adapters.



Recommended Stabilization:

To protect the drain from movement of the concrete, it is recommended to drill and pin the base of the drain midway, using a coated or non-metallic rigid reinforcement material. This dowel may be part of the reinforcement of the concrete slab but short bars are also effective, as their purpose is to hold the concrete apart, stabilizing the base of the drain.

Project Information	Contractor Information	Architect Information
Name:	Name:	Name:
Address:	Contact:	Contact:
	Phone:	Phone:
	Fax:	Fax: