



(317) 346-4110

**DRAINAGE** www.drainagesolutionsinc.com solutions, INC

# TREADMASTER COMMERCIAL DECK DRAIN

Treadmaster Commercial Deck Drain is a removable top drain that features an Aluminum top. This product also features a double wall base and a snap in top.

When installing this drain the tops are staggered past the joints making the joints very rigid. Because the Aluminum tops are removable this drain is easy to clean and the tops can be replaced if ever damaged. Treadmaster commercial is used on many commercial swimming pools, fitness centers and other pedestrian traffic areas.

## FLOW RATE:

**Drain Calculations** 

#### **Assumptions/ Constants:**

Gradient - Slope (S) 1 in 200 (0.5%) Surface Roughness (Mannings n) Rainfall Intensity (1) (TxDOT Manual) Runoff Coefficient (C) (TxDOT Manual) 0.005 ft/ft, Contains UV inhibitors 0.009 Plastic (PVC & ABS)

5.8 in/hr for 10 year storm with time of concentration = to time of duration of 20 min. 0.95 For concrete city streets 0.9 - 0.95 - i.e. all concrete pool deck

	Area	Wetted Perimitter	Hydraulic Radius	Velocity	Capacity - Q		Catchment Area - A		Length		
DRAIN NAME	A (ft <sup>2</sup> )	P (ft)	R (ft)	V (ft/s)	(cfs)	(liters/sec)	(gal/min)	(Acre)	(ft²)	(m²)	(ft)
TREADMASTER	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

4. Q = VA 5. A = Q/CI

LOAD TESTING:	DEFLECTION TO HORIZ	ZONTAL LINE	PUNCTURE/PERMANENT DEFORMATION MORE THAN 1/2"		
TREADMASTER	LOCATION A	134 psi	LOCATION A	922 psi	
COMM. DRAIN	LOCATION B	161 psi	LOCATION B	906 psi	

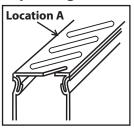
**Cartons includes:** 1 each - 10' Base, 10' Aluminum Top Cap and Coupler.

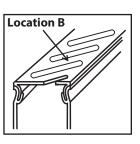
### **Recommended Stabilization:**

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.

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







Patented

