

# THE STRATAFLOW KERB INLET

At Citygreen we have developed the Kerb Inlet as part of the Strataflow™ system, which addresses the social, environmental and economic objectives of a successful water sensitive, urban design (WSUD).

## WHAT IS THE KERB INLET DESIGNED TO DO?

The Strataflow™ Kerb Inlet captures stormwater runoff from surrounding surfaces, diverting the polluted runoff from entering local waterway systems and harvests it for use by trees planted in the street verge.

The Kerb Inlet allows water from the road carriageway to flow through the front grate of the **drain at a capacity of up to 18L per second.** 

"Managing stormwater flow while helping trees grow."



# DESIGN PRINCIPLES

WSUD that connects trees with drainage and stores stormwater in bioretention systems will deliver cleaner waterways solutions, and healthier, climate resilient trees that are supercharged to cool the surrounding air, via evapotranspiration.

Stormwater that flows through the Strataflow™ Kerb Inlet can be directed to tree pits for the purpose of irrigation, which reduces the demand on valuable potable water for irrigation during dry times and ensures tree have access to the water they need, reducing maintenance requirements and costs.

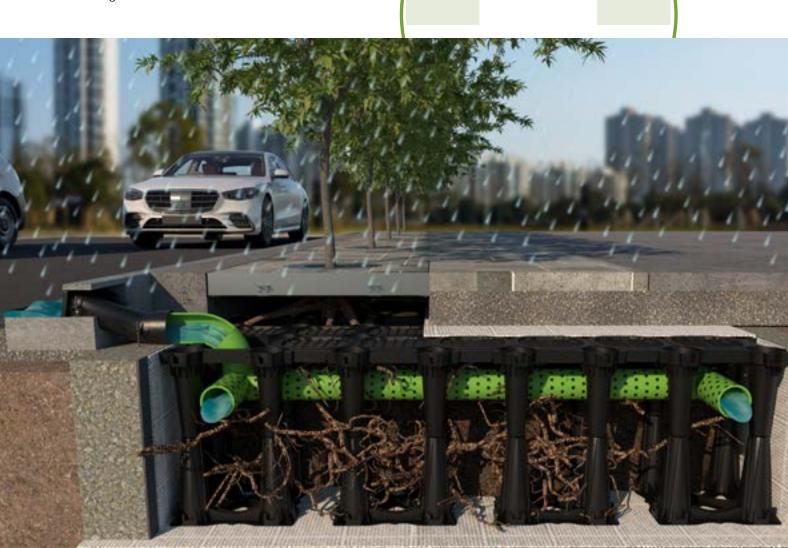
The use of stormwater for tree irrigation also mitigates against the urban heat island effect, as street trees, which offer much needed shade, also release water back into the air via evapotranspiration, an important process in cooling the Earth's surface and regulating local and global climates.

Australia

#### PARABOLIC ARCH PRINCIPLE

The Strataflow™ Kerb Inlet utilizes the parabolic arch principle, used in the design of bridges, to create openings for water to flow through the road kerb, without weakening the concrete structure. When installed, the Kerb Inlet system can accommodate up to 7t or 2204lbs of applied load.

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# ENGINEERING FEATURES

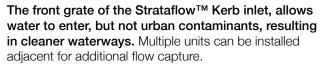




Specifically engineered slope within the inlet, allows water to drain away from the carriageway, and infiltrate into the adjacent garden beds or tree pits, while maintaining structural cover.

The body of the design is in a manifold shape, which allows for optimal water flow. The pipe outlet socket connects with a standard 150mm/6" diameter stormwater pipes and junctions.







The design also enables stormwater to be stored, filtered and distributed effectively for the benefit of urban trees. Mounting rods included for setting the inlet, are ready for concrete pour.

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# Looking for a cost-effective, sustainable stormwater solution?

### Strataflow<sup>™</sup> Kerb Inlet delivers multi-purpose WSUD benefits



Passive irrigation of existing trees



Deep soil moisture retention/infiltration



Stormwater integration with treepits



Grow healthier climate resilient trees



Mitigate UHI with increased evapotranspiration



Bioretention stormwater integration

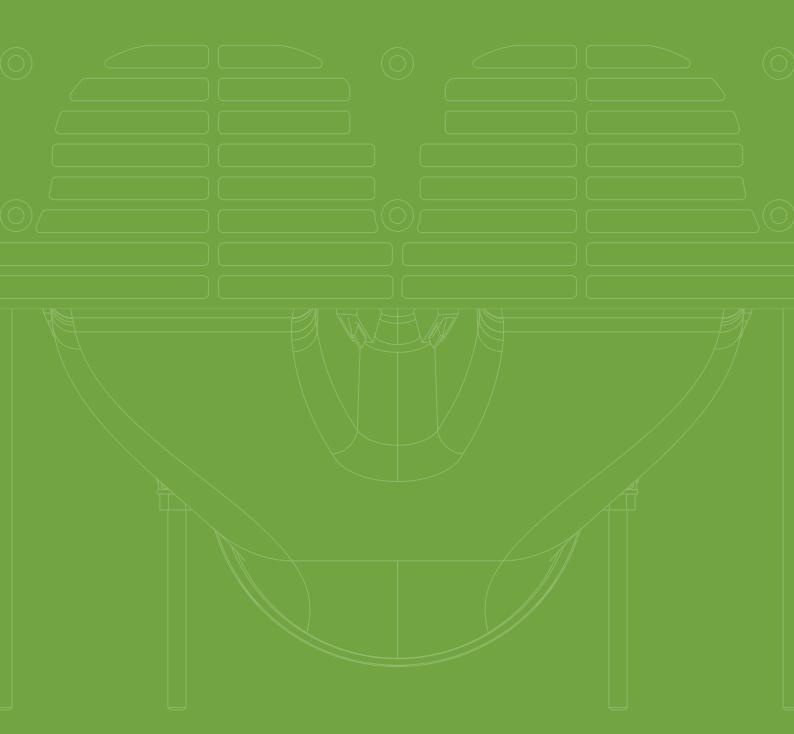


#### **CONTACT US**

Request a quote by scanning the QR code Call us on +61 1300 066 949 (AUS) or +1 888 999-3990 (USA/CAN)

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### **SOLUTIONS WE SUPPLY**

#### **GEOSYNTHETICS**

Filter Fabrics

Stabilization Fabrics

#### Geogrids

- Road Grids
- Wall Grids
- Slope Stabilization

#### **Specialty Fabrics**

#### **Composite Geomembranes**

• GCLs, PVC, HDPE, LLDPE, EPDM, Granular Bentonite

#### **SEDIMENT CONTROL**

#### **Inlet Protection**

· Grated Inlet, Curb Inlet, Area Inlet Protection

#### **Ditch Checks**

- · Triangle Silt Dike
- GeoRidge

#### **Perimeter Protection**

- · High and Low-Porosity Silt Fence, Straw Wattles, Silt Socks
- Safety Fence

#### Flocculants & Water Treatment

Polymer-Based & Natural Flocculants

#### Sediment Basin Skimmers

**Dewatering Bags** 

#### **Trackout Control**

- FODS
- Rumble Grates

#### **Turbidity Curtains**

#### **EROSION CONTROL**

719.257.7840

#### **Basic Hydraulically Applied Mulches**

- Wood
- Paper
- Blends
- Straw

#### **High-Performance Hydraulically Applied Products**

- FGM
- · Additives & Tackifiers

#### **Temporary Erosion Control Blankets**

- Coir & Jute Mat/Nettings
- Short-Term ECBs
- Extended-Term ECBs

#### **Permanent Erosion Control Blankets**

- Turf Reinforcement Mats
- HP-TRMs
- Anchor Reinforced Vegetation System

#### Structural BMPs

- Transition Mats
- Geoweb Cellular Confinement
- Composite Vegetated Armor System
- Flex MSE Vegetated Wall System
- Articulated Concrete Block
- Gabions
- · Grout-Filled Geotextile Mats

#### Vegetation Establishment

- · Native Seed & Turf Seed
- Fertilizers
- · Organic Soil Additives
- Stratavault Soil Cells

#### STORMWATER MANAGEMENT

#### Water Quality

- Inlet Filter Boxes
- Pre-Treatment Chamber
- Nutrient Separating Baffle Boxes
- · High-Flow Biofiltration Media
- · Hydrodynamic Separators
- Stratavault

#### Water Ouantity

- · Modular Underground Storage Systems
- Chamber Detention Systems

#### Drainage

- HDPE Swale Liner
- Pipe & Fittings
- · Drainage Composites
- Strip Drain

#### **Inlet Structures**

- PVC
- · Drain Basins, In-Line Drains
- Landscape

#### Permeable Pavers

- Permeable Articulating Concrete Block
- Grass Pavers
- · Gravel Pavers
- Concrete Pavers

#### **SPECIALTY**

Natural & Synthetic Coir Fiber Logs **Vegetated Reinforced Soil Slopes** Soil Anchors **Root Barrier System** AquaBlok Muscle Wall

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