# Megaflo® Panel Drain System

General Brochure













**Megaflo**® panel drain provides the dimensional stability and field-proven structural strength for quick, effective subsurface drainage. **Megaflo**® consists of a perforated HDPE core wrapped with **bidim**® nonwoven geotextile to prevent soil ingress into the drainage system.

Performance is the distinguishing feature of the panel drain due to its ability to rapidly collect and remove water. Compared to 100mm diameter round pipe, **Megaflo®** has twice the inflow capacity for an equivalent length and will drain water in less than 60% of the response time. Its slim 40mm wide profile permits faster and more cost effective installation in a narrower trench.

The design of the Megaflo® panel drain permits significantly higher flow velocity at lower head.

**Megaflo**<sup>®</sup> Ultra is a heavier grade offering greater crush resistance for extreme high fill, high load applications without compromising any of its proven flow performance features.

### **FUNCTIONS**



### **Drainage**

Removal of excess water from a structure whether it be a road, retaining wall or sports field is key to long term performance of the structure. **Megaflo**® is a unique composite drainage system with an unsurpassed infiltration rate and rigid flow path which ensures effective drainage under the most challenging conditions.





# **Rapid Response Time**

Rapid removal of excess water is a key consideration in roads and sports fields where excess water can result in significant damage to the pavement or limit the playability of the sports surface. The long flat shape of **Megaflo®** incorporates a high open area for inflow of water - allowing rapid response time well in excess of conventional drainage systems.







Vertically installing the **Megaflo®** drainage panel utilises the ribbed structure to provide higher strength under traffic loads. The properties of high compressive modulus, longitudinal stiffness and structural rigidity aids the mechanical performance of **Megaflo®**, ensuring the long term hydraulic flow capacity of the drain. High structural strength allows for a minimum cover depth of 100mm, recommended for **Megaflo®** in most applications. **Megaflo®** typically requires less backfill in comparison to a traditional trench which results in cost savings and faster installation.



# **G**EOFABRICS®

### **APPLICATIONS**

### **ROADSIDE EDGE DRAINS**

**Megaflo**® provides faster and higher inflow capacity due to its high trench installation profile and earlier interception of pavement infiltration. **Megaflo**® has a high compressive modulus and structural rigidity (preventing deflection under normal service loads), due to its elongated ribbed profile incorporating internal support.

Simple installation techniques provide installation savings compared to a traditional round pipe drainage system.



### **SPORTS FIELDS**

Sports field surfaces endure high traffic, which if not drained adequately, results in costly and time consuming maintenance. Adequate drainage requires the fast and effective removal of water after a storm.

The use of narrow width **Megaflo**<sup>®</sup> flat panel drain ensures minimal disruption of the existing sports surface with a simple, cost effective installation process.



### **RETAINING WALLS**

**Megaflo**® provides reliable drainage in specialist construction applications such as retaining walls, shotcrete walls and tunnels.

The **Megaflo**® drainage system can be utilised vertically or horizontally to remove excess water, preventing the build up of water pressures induced on the structure.



### **LANDFILL**

Landfill leachate and gas collection systems are an integral part of landfill design for lining and capping systems.

The high compressive strength of **Megaflo**® under normal and inclined loads makes it the ideal product for a range of landfill drainage applications.



### MINING

**Megaflo**® is ideally suited for use as collector drains in mining applications. Its high compressive modulus and structural rigidity prevents deflection and the loss of flow capacity under high load or localised settlement.

Megaflo® Ultra is available for the rapid drainage of tailing dams.



## **GOLF COURSES**

The trenchless option of **Megaflo®** laid directly onto the subgrade results in significant savings in man-hours and material compared to traditional round pipe.

Regardless of the subgrade soil type, all golf courses can benefit from improved drainage using **Megaflo**®.



### ADVANTAGES OF MEGAFLO® DRAINAGE SYSTEMS

High Crush Strength	The high vertical crush strength means <b>Megaflo®</b> can be installed closer to the surface reducing the cost of excavation.	
Enhanced Performance	The increased height and rapid response times associated with <b>Megaflo®</b> ensures the system outperforms traditional drainage options. The flat pipe construction prevents intrusion of the cover geotextile allowing flow rates to be maintained despite soil confinement pressure.	
Cost Effective	encapsulated <b>Megatio</b> ® to provide significant cost savings when compared to traditional	
Environmentally Friendly	<b>Megaflo®</b> is manufactured from recycled HDPE, minimising the carbon footprint of the project.	

### **MEGAFLO® DIMENSIONS**

Product Description	Height	Roll Length
Megaflo® 170	170mm	50m or 100m
Megaflo® 300	315mm	50m or 100m
Megaflo® 450	450mm	50m or 100m
Megaflo® 900	900mm	50m

### **FITTINGS**

A range of standard **Megaflo**<sup>®</sup> fittings are available:

- Megaflo® couplers are a high strength, secure means to join continuous sections of Megaflo®, inserted beneath the geotextile.
- · Connecting to 100mm diameter round pipe is easily achieved using either the Megaflo® side outlet or Megaflo<sup>®</sup> end outlet where required.
- Megaflo® end caps can be fitted to terminations to prevent backfill ingress into the system.

Other fittings are available for connecting **Megaflo®** in various arrangements depending on the application.

Contact your nearest sales branch for our non-standard Megaflo® fittings.



Fittings are available to suit all Megaflo® sizes:

Α	Joiner Coupling	С	Side Outlet
В	End Outlet	D	End Cap

Support Literature

- Megaflo® Technical Data Sheet Megaflo® Installation Guidelines
- Megaflo® Fittings Flyer Megaflo® Model Specification SuDDS Design Software
- CAD Drawings Road Edge Cost Calculator Sportsfield Cost Calculator

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