

# MEGAFLO<sup>®</sup> GREEN

*PANEL DRAIN &  
SUBSOIL DRAINAGE SYSTEM*

**GEOFABRICS<sup>®</sup>**  
Smarter Infrastructure



# BEFORE YOU BEGIN

## STORAGE

Megaflo® Green rolls should be stored in their original, unopened packaging. The designated storage area should be level, dry, well-drained and stable.

Damaged wrappers should immediately be repaired with weather resistant tape.

Wrapping should only be removed from rolls immediately prior to installation.

## WHAT YOU'LL NEED ON SITE

All Megaflo® Green products come wrapped in the bidim geotextile. Prior to installation the following equipment will be required:

- A grinder, cutting power tool or hand saw
- Carpet knife, safety knife or scissors
- Mechanical trenching equipment
- Megaflo® Green dispensing frame (optional)
- Support stakes
- Construction tape
- Pins

## THE SIZES

There are three standard sizes of Megaflo® Green rigid panel drains; 170mm, 300mm and 450mm. It is only 40mm thick in all sizes, making it ideal for cost savings in trench drainage.

A 900mm size is also available upon request and Megaflo® Green Ultra is available for extremely high load applications such as tailings dams.



**450mm**

**300mm**

**170mm**



# ROAD EDGE DRAINAGE

## TRENCHING

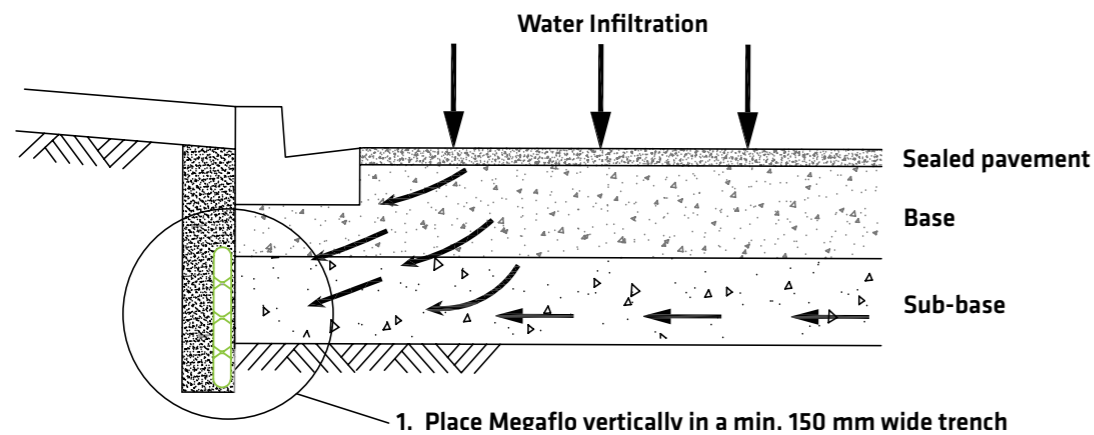
Trenches should be constructed to line and level to achieve a minimum 100mm cover for general load applications, with trench width of at least 100mm.

Road installations of Megaflo® Green rigid panel drain require at least 150mm cover. Road installations

should be a minimum of 100mm to 150mm wide according to the road authorities

specification or as specified in the construction drawings.

Bedding at trench invert is not required due to Megaflo® Green's rigidity. Its stiffness provides bridging of any minor irregularities in the trench base profile. When installing in trenches through rock, care should be taken to eliminate sharp protrusions on side walls and the trench base.



## GEOTEXTILE

Geotextile lining for trenches is optional. If a lining is used, bidim geotextile filter fabric must line the sides, base and top of the trench, with an overlap similar to trench width. Fabric encapsulating the specified drainage backfill should be closed off and overlapped prior to backfilling to finished surface levels.

## PLACEMENT

Road edge drainage applications require Megaflo® Green to be placed vertically against the side wall of the trench, closest to the direction of water infiltration, or as specified in construction drawings.

Where site conditions result in water draining from both sides, Megaflo® Green should be located in the centre of the trench. Megaflo® Green can be supported vertically in the trench by wooden stakes placed at approximately 10 metre centres.

## BACKFILLING

### BACKFILL REQUIREMENTS

Backfilling operations need to be undertaken with care, as during installation the surrounding backfill material will create load not only on the drainage core but the geotextile filter. Megaflo® Green's ribbed design helps the geotextile filter resist damage during installation.

### BACKFILL SPECIFICATION

Megaflo® Green can be installed with a range of standard filter gradings, including coarse washed sand, drainage aggregates and no fines concrete. Well graded, washed sand is the recommended backfill material. Backfill should be placed in maximum 150mm lifts to 95% standard compaction. Washed sand backfill can be watered in for effective compaction.

Compacted granular material around Megaflo® Green should incorporate a cover layer to 150mm above the drainage panel. Further material should be placed in lifts to complete filling to finished surface level.

Washed sand backfill materials should be placed with Megaflo® Green in accordance with the following guidelines.

No fines concrete and drainage aggregate backfill should be placed in accordance with the relevant specifications.

### DRAINAGE AGGREGATE

The selection of a single sized gravel drainage aggregate 6 – 8mm can be considered where the soil to be drained is a coarse sand or uniformly graded gravel.

### WASHED SAND

Typical specification for coarse washed sand;

AUSTRALIAN STANDARDS SIEVE SIZE mm	PARTICLE SIZE DISTRIBUTION % PASSING BY MASS
9.5	100
4.75	90-100
2.36	70-100
1.18	40-65
0.6	12-40
0.3	0-16
0.15	0-4
0.075	0-3

### NO FINES CONCRETE

No fines concrete may be required where high structural loads, wheel loads or settlement of other backfill material may compromise pavement life or integrity.

A single-sized 10-20mm stone, water to cement ratio of 0.5 and cement density of 250kg/m<sup>3</sup> is appropriate for installation with Megaflo® Green.

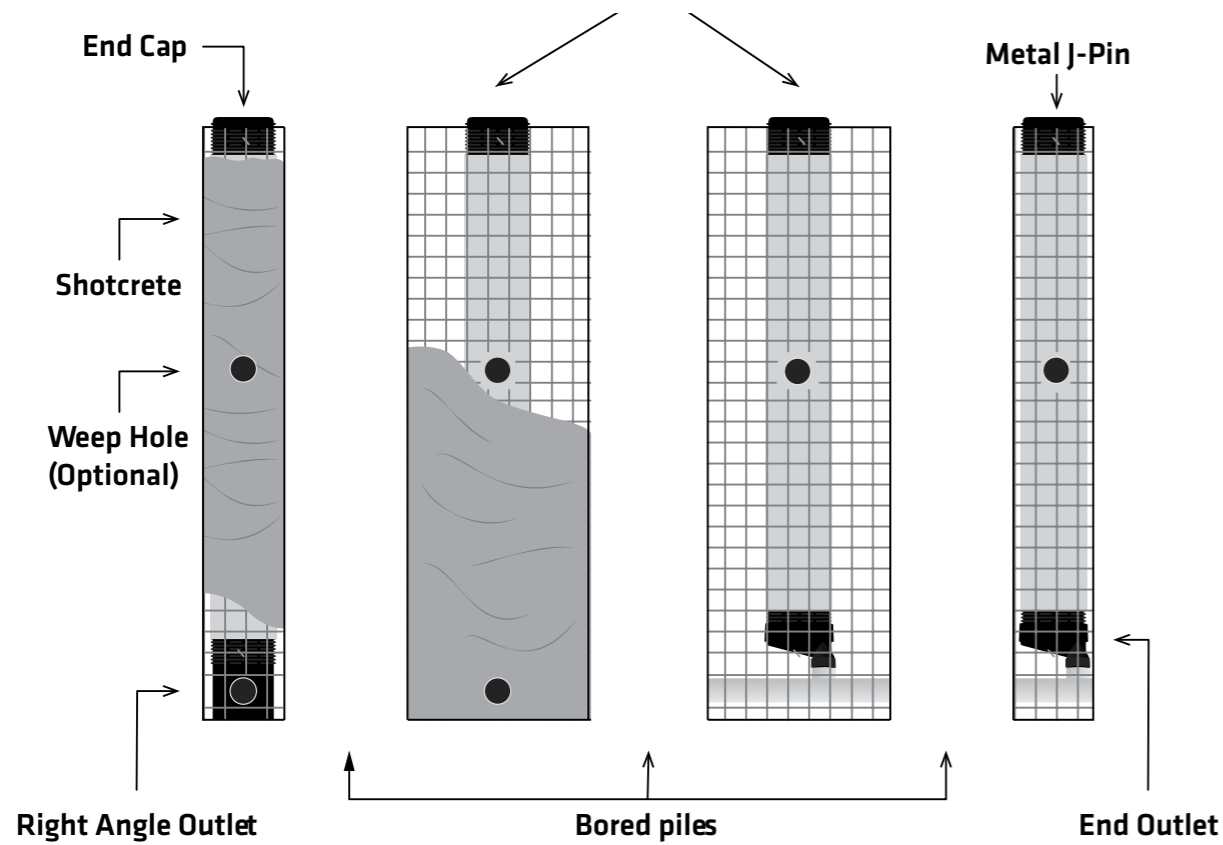
### OTHER DRAINAGE MEDIA

Standard filter specifications do not cover every situation and the compatibility of the filter material with the surrounding soil and Megaflo® Green should be checked.



# SHOTCRETE & RETAINING WALL DRAINAGE

Place Megaflo® Green 170mm at midpoint between piles. Megaflo® Green shall run the full height of the wall. You can either have a weep hole at the base or you can connect it to a perimeter pipe with an end outlet fitting.



1. Cut Megaflo® Green to length to match the height of the wall
2. Affix a Megaflo® Green end cap to the top end of the pre-cut length
3. Place Megaflo® Green lengths between bored piles
4. Hold Megaflo® Green in place using a metal J pin driven into the wall surface on each side of the length as well as the top and bottom
5. Attach a standard Megaflo® Green Right Outlet connector to the bottom of each length
6. Insert pre-cut length of 100mm diameter smooth bore round pipe into the standard Megaflo® Green Right Outlet connector
7. Place and secure specified reinforcing mesh over entire surface
8. Spray shotcrete as specified
9. Cut 100mm diameter round pipe flush with wall surface



# SPORTSFIELDS & TURF DRAINAGE

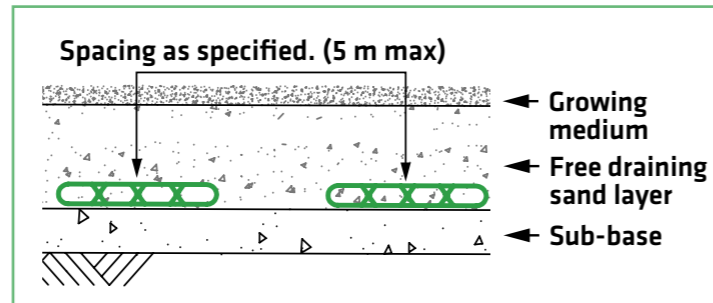
Removing surplus water from synthetic or natural turf sports fields and golf courses quickly is important so play can resume as soon as possible. Using Megaflo® Green drainage panel allows the sports field surface to make a speedy recovery.

The Megaflo® Green flat panel drainage system has been installed in sports fields all around the world, including world class stadiums, such as FIFA World Cup, cricket, athletics and football stadiums and is approved for use by USGA for both California Green Profile and USGA Gravel Profile.

Megaflo® Green offers increased drainage performance when compared to conventional round pipe. The large surface area design of the Megaflo® Green flat panel drainage system results in a water removal rate of almost twice that of a 100mm round pipe. The increased drainage performance of Megaflo® Green means that sports field surfaces are quickly returned to a playable condition even in wet weather.

A distinct benefit of the Megaflo® Green rigid flat panel drainage solution is its ease of installation.

Its trench-less installation method means that once a surface has been prepared and leveled, the Megaflo® Green panel drain can then be laid without disrupting the base level. With no trenches to dig, this means there is no need for gravel backfill and no disposal of trench spoils, resulting in a significant reduction in installation costs. The high crush resistance also means that during the installation process product will not be wasted due to machinery damage.



# SPORTSFIELDS & GOLF COURSES

In sportsfield and golf course applications we recommend that the construction drawings are followed to ensure drainage layout meets the designer's specifications. For information regarding connections please refer to the fitting guide section of this document.



# TURF DRAINAGE

For typical turf drainage applications Megaflo® Green is laid flat, typically in either a herringbone or fish bone pattern. Spacings between rows of Megaflo® Green should not exceed 5m.

Megaflo® Green is available with or without the filter geotextile. In some applications the designer may want the filter geotextile cut during installation as seen above.



# MEGAFLO® GREEN FITTING GUIDE

Megaflo® Green fittings are manufactured utilising recycled polymer. There is a full range of fittings available for Megaflo® Green to allow you to:

- Connect Megaflo® Green at junctions when laid flat in sportsfield and turf applications
- Fittings to connect Megaflo® Green to round pipe in roads, basement walls, shotcrete and retaining wall applications.
- End caps to finish lengths of Megaflo® Green
- Pin the Megaflo® Green to the surface so it maintains it's layout in windy conditions

## 150MM U-PINS

4MM THICK



## MEG450G HDPE LAY FLAT FITTINGS

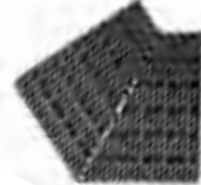
AVAILABLE IN MEG450G SIZE ONLY



MF45/30LFHX



MF45/30LF/45



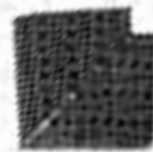
MF45LF45



MF45LFT



MF45/30LFT



MF45LFR



MF45/45LFX



MF45/45LF/45

## OUTLET FITTINGS

AVAILABLE IN MEG170G, MEG300G AND MEG450G SIZES



JOINER COUPLING (CO)



SIDE OUTLET (SO)



RIGHT OUTLET (RO)



END CAP (EC)



END OUTLET (EO)

# T-Y MULTI FITTING

AVAILABLE IN MEG170G SIZE ONLY

Megaflo® Green TY Multi Fitting is designed to provide flexibility when connecting sections of Megaflo® Green 170G together.

The TY Multi Fitting is supplied as a sealed unit which can be cut to suit any number of configurations. The cut off piece can be used as an end cap to reduce waste in the install process.



# MULTI FITTING

AVAILABLE IN MEG170G AND MEG300G SIZES

For use in turf and golf course application the Megaflo® Green Multi Fitting is the solution for herringbone layouts as well as almost any other intersecting design.



MFLF MULTI (WITHOUT SLOTS)



MFLF MULTIS (WITH SLOTS)

# GEOFABRICS®

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Megaflo® Green panel drains are manufactured in a facility certified to ISO9001, Certificate No. FS673633.



Proud member of the Infrastructure Sustainability Council of Australia (ISCA). Our products directly contribute to IS credits in infrastructure and civil engineering projects.