

Section 3: Surface Water Drainage Solutions:**3.3 QualiDrain Channel and Catchpit Drainage System****3.3.3 Definition: Storm Water Channel Drainage****3.3.2 Product introduction:**

A 'Storm Water linear Drain and catchpit' designed for ease of installation and ensuring a 'Quality Finish'.

QualiDrain is an easy to assemble & install all in one linear channel drainage and catchpit system for the collection & harvesting of rainwater & storm water. It consists of 250mm long Polypropylene channels with Glass-fill Nylon Grating; as well as stop-ends; bottom outlet pipe connectors, end-outlets available in two sizes & a u-clip. The system can handle vehicular traffic up to 12.5 tons and is capable of being installed in domestic or light commercial applications. This is a proudly South African product, manufactured in Knysna and a patented world first.

3.3.3 Key Benefits:

- a. Protects garages, driveways, pathways or patios from flooding by effectively collecting excess rainwater and distributing to the storm water system.
- b. When installed in parallel can serve as a catchpit to any required size.
- c. This lightweight product is easy to transport & install.
- d. Polypropylene Body is water repellant and therefore has a high flow rate with the minimum required fall.
- e. Glass-filled Nylon seamless grate design is tough, durable & aesthetically pleasing
- f. Less waste – purchase only the components you need.
- g. The click together System is simple – no junction boxes required.
- h. T-off in any direction without having to use a T piece and just by connecting the QualiDrain at 90 degrees to each other.
- i. Can also connect in L or + directions;
- j. The external ribbed structure improves anchoring within concrete and provides rigidity & stability.
- k. By connecting in parallel QualiDrain can be configured for use as a catch-pit.
- l. High flow rate, even with a minimal fall.
- m. Self-cleaning – just flush with clean water.
- n. Easy to shorten
- o. Supplied with a protective Dust Cover for use during installation.

3.3.4 Applications:

3.3.4.1 Can be used to control storm water: for example in domestic driveways foot paths, in front of sliding doors on patios, atriiums, swimming pools and along pavements. Any outdoor ground floor area that would require a linear drain connected to the storm water or rainwater harvesting system.

3.3.4.2 Can also be used to construct catchpits of any size by installing them in parallel.

3.3.5 Manufacturer's Installation Instructions

1. Lay out of suitable draining line

1.1 Establish the exact lay out that the draining line must follow.

1.2 Dig the required trench width & depth as follows: a minimum of 350mm wide by a minimum of 250mm deep. Please account for the size of the storm water pipe specified as it might add to the required depth. *(Rule of thumb as follows: The channel including the outlet & the pipe need to lay on a bed of concrete at least 100mm thick)* The length will depend on how many channels you require. Where a catchpit is to be installed ensure that the concrete into which the QualiDrain is floated goes into the spaces between each parallel laid channel

1.3 Break through the provided & indicated area of the channels with a sharp stanley knife.

1.4 Fit the additional components to the channel.

2. Position the channels

2.1 Proceed with the concrete cast for creating the channel bed. *(TIP: To obtain a good concrete, mix 3 parts river sand and some 15 mm stone aggregate to 1 part cement & add enough water to result in a fluid concrete. Use a*

maximum of 15mm Ø stone aggregate so as to enable the concrete to reach the less accessible ribbed areas of the channel)

2.2 Wait approximately 1 hour for the concrete to cure slightly before installing the pipework and laying the channels. While the concrete is drying prepare the channels needed for the drainage line. When used in a straight line simply click the ends together.

2.3 When used as a catchpit use a Stanley knife to cut out the channel side where indicated and then join the channels in parallel using a clip connector and silicon glue to ensure that they remain joined in position. It is best to turn the channels onto their face while doing this and, after the silicon has dried, turning them over before placing them into the concrete.



2.4 Insert the Stop Ends where required.

2.5 If the discharge point is at the end of the linear drain then use the appropriate stop end to connect either to a 50mm or 75 mm pipe. If underneath then remove the material at the base of the channel where indicated to connect into a 75mm or 50 mm outlet pipe. If connecting to a 110 mm storm water pipe then connect using a 75mm to 110mm pipe connector

2.6 Lay the channels on the concrete bed & link the bottom outlet to the drainage pipes.

2.7 Float the channels with the required fall of 3mm per channel.

3. Flanking the channels

3.1 Backfill with concrete ensuring all the hard to reach areas are filled.

3.3.6 Maintenance

NOTE: It is important to keep the Channel Drain well maintained and clean. This should be done regularly according to a maintenance plan, or when: -

- The storm / surface water has become noticeable slow while draining away
- The storm / surface water has become blocked and cannot drain away

In which case apply the following: -

3.3.6.1 Check that debris has not formed a blockage on the surface of the grate. If this is the case, simply remove and discard the debris.

3.3.6.2 Carefully remove the grate and inspect the channel & outlet for foreign matter.

3.3.6.3 Clean the channel by removing foreign matter and discard.

3.3.6.4 Test the system by flushing only "fresh water" through the channel (as it could be connected to a water harvest system) and once satisfied carefully replace the grate.

3.3.6.5 Should the problem persist, call a qualified Plumber to check the pipe-line for blockages.

Should additional assistance be required please send a detailed email with photographs to: tech@seaqual.co.za.

3.3.7 Product Warranty

QualiDrain Drainage System components & accessories are warranted against manufacturer defects for a period of 5 years from date of purchase. Please retain your Invoice along with the FG-codes provided on the products as proof of purchase.

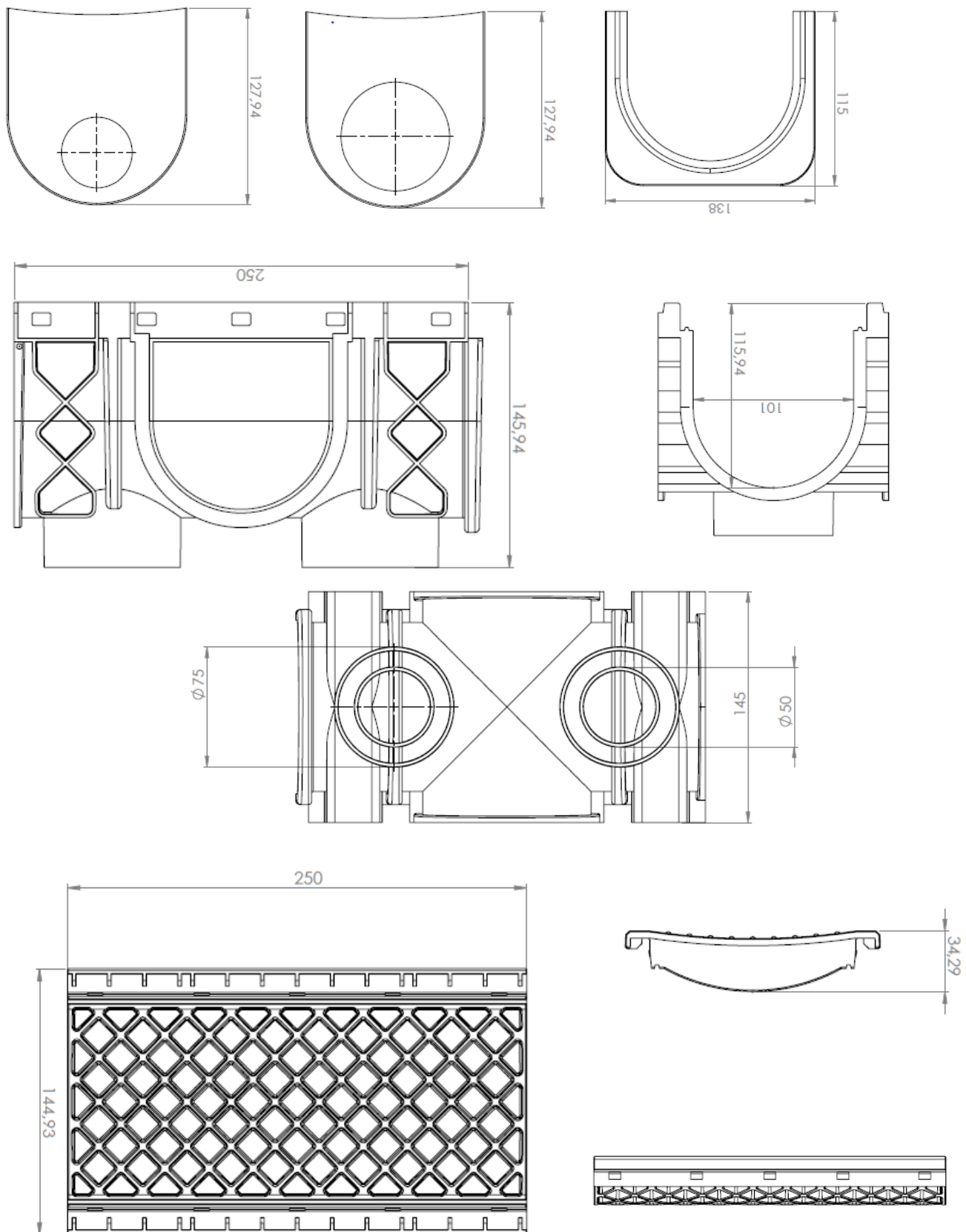
3.3.8 QualiDrain Drainage System Product Data

3.3.8.1 Table A:

Product:	QualiDrain Body & Grate - Black
Product Code:	200070
Barcode:	6009880161720
External Dimensions: L x B x H in mm	250mm x 143mm x 153mm
Internal Dimensions: L x B x H in mm	256mm x 100mm x 97mm
Weight in kg:	0.850 kg
Bottom outlet 1 ID Ø Bottom outlet 1 OD Ø	45.5 mm 50 mm
Bottom outlet 2 ID Ø Bottom outlet 2 OD Ø	70.5 mm 75 mm
Minimum reduce length to	152mm
Grate Holes	11mmx11mm 80 honeycomb holes
Grate Dimensions:	22mm 31mm centre
Product / Box	1 Unit

3.3.8.2 QualiDrain Accessories Product Data

Product:	QualiDrain Kit End Outlet 50mm x 1	QualiDrain Kit End Outlet 75mm x 1	QualiDrain Kit U-Clip x 1	QualiDrain Kit Stop-end x 1
Product Code:	200071	200072	200073	200074
Barcode:	6009880161737	6009880161744	6009880161751	6009880161768
Dimensions: L x B x H in mm	50mm Ø 45.5mm Ø L = 115mm B= 5mm H=121mm	75mm Ø 70.5mm Ø L = 115mm B= 5mm H=121mm	117mmx5mmx133mm	115mmx5mmx121mm
Weight in kg:	0.070kg	0.065kg	0.030kg	0.070kg
Product / bag	1	1	1	1

3.3.9 Drawings & Product Images

CAD files are available upon request in writing: tech@seaqual.co.za