

Landscaping

Charcon HydroKerb®



Charcon HydroKerb® is a unique drainage system, particularly suited to conservation areas where aesthetic considerations are important and where a requirement exists to maintain the existing kerb line.

- Outstanding aesthetics with natural textured finish
- Maintains existing kerb line
- Excellent draining characteristics
- Three discrete drainage holes incorporated
- Fast to lay.

Applications

Hydrokerb is suitable for city roads, car parks and urban areas.

Manufacturing standard

HydroKerb is manufactured using a wet pressed method and tested in accordance with European Standard BS EN 1433. Top units are shot blasted to expose the aggregates.

All Aggregate Industries products are manufactured in accordance with ISO 9001 with factory compliance to ISO 14001.

Performance

Strength: The strength requirements are met to the manufacturing standard. Loading standard conforms to EN 1433 Class D (Class D = 400kN: Public highways and general parking areas).

Complementary products

Designed for use with British Standard kerb.



Colour swatch



1. Silver Grey

HydroKerb

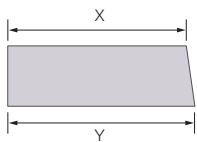
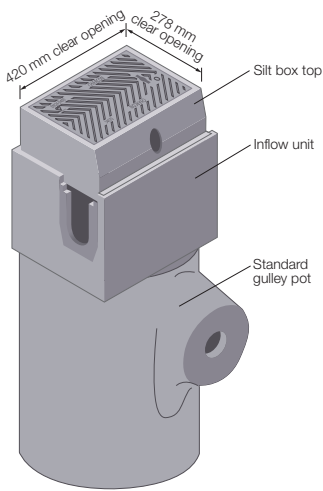
Dimensions (mm)	Top unit	Slit box top	Inflow unit	Inspection unit	Radius unit*	Sump unit	Crossing base plate	Polymer base unit
Finish/profile	Half batter	Ductile iron		Ductile iron	Half batter		Galvanised steel	Polymer concrete
Length	914	485	530	450	900	500	1000	1000
Width (overall)	125	305	350	125	125	320	120	130
Depth (overall)	255	243	350	255	255	710	6	250
Weight (approx. kg)	66	60	49	30	66	85	8	22
Colour available	Silver Grey	n/a	n/a	n/a	Silver Grey	n/a	n/a	n/a

Radii available – external and internal radius 4.5/6m, 7/11m and 12/36m

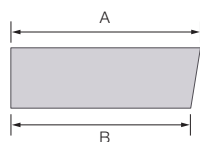
Charcon HydroKerb®

HydroKerb silt box top

Tested to EN 1433 Class D. Captive hinged and locking (stainless steel cap head bolt).



External splay units



Internal splay units

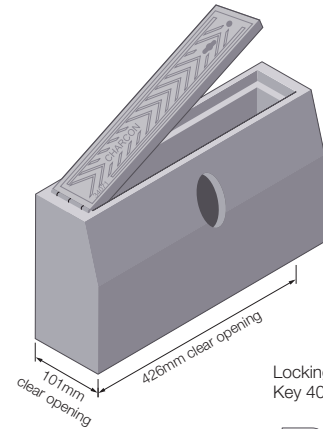
Radii

External radii (m)	A (mm)	B (mm)	Internal radii (m)	X (mm)	Y (mm)
4.5/6	875	900	4.5/6	900	875
7/11	886	900	7/11	900	886
12/36	892	900	12/36	900	892

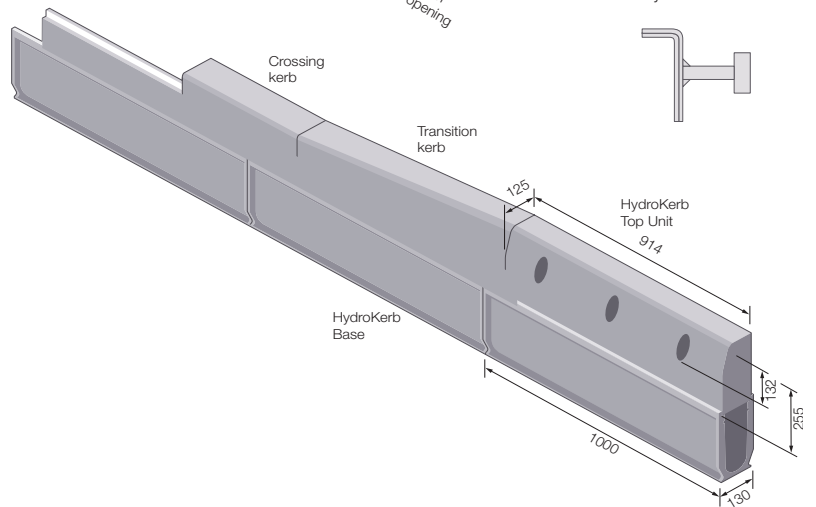
HydroKerb rodding unit

Load tested to category D400 of EN 1433 plus additional 10% ultimate test load. Captive hinged and locking (stainless steel cap head bolt).

Multi-purpose locking/lifting key available for use with Silt Box and inspection unit. HydroKerb crossing baseplate available in galvanised steel.



Locking/lifting Key 40626



Tops and bases for radius units are the same length. To begin laying to a radius, bases must be trimmed so both start at the same point.

Charcon HydroKerb®

Rainfall intensity (50mm/hr)

Gradient	Catchment width = 5m		Catchment width = 10m		Catchment width = 15m		Catchment width = 20m	
	flow (l/s)	length to outlet (m)	flow (l/s)	length to outlet (m)	flow (l/s)	length to outlet (m)	flow (l/s)	length to outlet (m)
1:1000	8.06	116	8.75	63	8.96	43	9.58	23
1:500	10.28	148	10.56	76	10.63	51	10.83	26
1:200	14.17	204	14.03	101	13.96	67	13.33	32
1:100	19.03	274	18.61	134	18.13	87	17.08	41
1:500	26.67	384	25.83	186	25.21	121	22.08	53

Rainfall intensity (75mm/hr)

Gradient	Catchment width = 5m		Catchment width = 10m		Catchment width = 15m		Catchment width = 20m	
	flow (l/s)	length to outlet (m)	flow (l/s)	length to outlet (m)	flow (l/s)	length to outlet (m)	flow (l/s)	length to outlet (m)
1:1000	8.54	82	8.96	43	9.38	30	9.38	15
1:500	10.42	100	10.63	51	10.94	35	10.63	17
1:200	14.06	135	13.96	67	13.75	44	13.13	21
1:100	18.75	180	18.13	87	17.5	56	16.25	26
1:500	26.25	252	25.21	121	23.75	76	21.25	34

General principles

The aim is to ensure prompt and cost effective removal of surface water during and immediately after rainfall.

- Multiple inlet holes system and continuous U-shaped channel profile enables system design.
- This can provide a lower cost solution to traditional gully systems.

Note: Not suitable for carriageways carrying high volumes of fast flowing heavy vehicles.

Design procedure

When the runs to be designed have a longitudinal gradient (i.e. not laid flat) the following procedure may be used.

1. Determine desired run length from drawing.

Assess area to be drained to run.
Note: location of main sewer.

2. Decide on rainfall intensity.

Usually either 50 mm/hr or 75 mm/hr.

3. Calculate gradient based on proposed levels.

Choose next lower gradient from tables above if not an exact match.

4. Based on catchment width, read off maximum length to outlet.

5. Divide length of desired run by value from tables above to give number of outlets required.

System capacity

In common with all combined kerb and drainage systems, HydroKerb units will not run full due to turbulence from the inlet holes. System flow capacities given are, therefore, confined to realistic flow levels rather than theoretical/full bore maximum levels.

Sustainability and local sourcing

Energy use: Aggregate Industries is at the forefront of sustainability and has committed to reduce carbon emissions by 20% by 2016 based on a 2012 base line.

Recyclable: 100% of the product can be recycled thus reducing the amount of material that is sent to landfill.

Manufacturing location: Produced in the UK, with locally sourced materials under strict environmental and social legislation, for local supply.

Responsible sourcing: Aggregate Industries is the first company in the world to achieve a BES 6001:2008 Responsible Sourcing Certificate from BRE Global. Products are assessed on:

- quality management
- environmental management
- health and safety management
- greenhouse gas emissions
- minimising raw material usage
- labour practice
- biodiversity
- community engagement.

Key aggregate and recycled content

Hydrokerb top units are manufactured using a high quality granite aggregate. Base units are manufactured from polymer concrete based on polyester resin.

Generic green guide rating*

Not applicable.

Policies

Aggregate Industries' policies on the environment and community, health and safety and sustainable solutions for different product applications can be viewed on our website www.aggregate.com

Installation standard

Install in accordance with Aggregate Industries recommendations. For specific guidance refer to www.aggregate.com or call the technical helpline on 01335 372222.

Maintenance and cleaning

Aggregate Industries can supply on request advice on specific stain removal and general maintenance, suitable cleaning products, referrals to specialist cleaning companies etc.

COSHH data

Full COSHH data on the Charcon range of products is available on request. Please call the technical helpline on 01335 372222.

Technical support

Detailed guidance and assistance with the preparation of specification of the Charcon range of hard landscaping products, including model clauses, is available through the sales office. A free technical design service is also available.

For further information, please refer to our technical services on 01335 372222.

*Ratings based upon generic green guide values (2009) supplied by BRE Global Ltd, www.thegreenguide.co.uk

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