

IDS GROUP

SUSTAINABLE SURFACE WATER DRAINAGE SOLUTIONS



**A better way of working for a safer
more sustainable environment**

www.ids-group.nl

CE Produced in the EU

Welcome to

Innovative drainage solutions
Product Overview
Certification & History
Product Data
Design & Installation Notes
Life Cycle-Future Maintenance

X
X
X
X
X
X

**A better way of working for a safer
more sustainable environment**

www.ids-group.nl

SUSTAINABLE SURFACE WATER DRAINAGE SOLUTIONS

Dura Drain

REDUCING CARBON +
REPURPOSING WASTE +
REDUCING RISK +
ENVIRONMENTAL IMPACTS

A better way
of working for
a safer more
sustainable
environment

INNOVATING SINCE 1997

The way we design and construct is changing.

To meet the new carbon/climate targets set by governments, designers are looking to create structures and serving infrastructure that contribute to a better built environment.

From initial conception, planning, designed function, operation, right through to it's end of life/legacy. Designers are looking for real and evident reduction in impacts at every stage of a project's construction.

Infrastructure for modern cities for example is already changing, where new roads and pavements are designed to give priority to and encourage increased use for pedestrians, cyclists, wheelchair users and public transport.

Our sustainable surface drainage solutions have evolved to meet the new challenges designers now face, providing real environmental benefits to the design within the product's make-up, method of install, system performance and end of life potential.

ENVIRONMENTAL BENEFITS

Reducing and offsetting environmental impacts are now a fundamental factor within project design.

In choosing products with a high recycled content, you immediately eradicate significant risks that waste can present to the natural environment. You also create a sustained demand for recycled material that drives innovation so we not only recycle more in terms of volume but in variety, recycling material that would once have been considered un-recyclable.

Additionally, our products and systems are specifically designed to lower risk and impacts at every stage of

their life cycle, through initial sourcing of the materials to the next stage of reuse, recycling or carbon recovery. Our processes are energy efficient, producing products with a low carbon footprint. The lighter weight of each product reduces carbon use in transport to and around site, and within the method of install.

As a responsible manufacturer we are also continually looking for improvement in what we do. Our medium to long term plan is to ultimately bring full control and an improving point of measure to each and every process across our products' life-cycle.

Our Environmental Product Declarations (EPD-Certs) are available on our website www.ids-group.nl

ENVIRONMENTAL BENEFITS



ENVIRONMENTAL BENEFITS

IDS Products and Systems can also bring further environmental benefits to a project's overall design in terms of function.

The IDS Shallow Profile linear drainage solutions allow for road and pavement design to be more focused on low carbon producing modes of transport. Pedestrians, cyclists and wheelchair users are given priority with surfaces providing a shallow rise and fall through each transition of function.

The combined kerb and drainage can be designed to provide both a physical and visual restraint/separation with continual, efficient run-off collection.

All IDS Products are designed to reduce risk involved with manual handling and within the processes of installation.

IDS Products provide the potential to re-use, re-make, recycle.

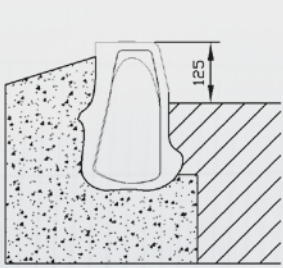
OPTIMUM DRAINAGE SOLUTIONS

DuraDrain Products allow for surface water collection within varied surfaces or as a combined road edge/kerb-boundary.

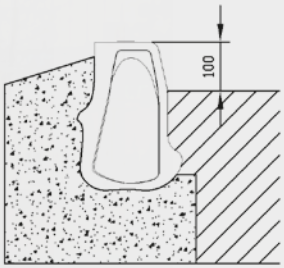
All standard units are monolithic and robust providing solutions for infrastructure with variable function and risk.



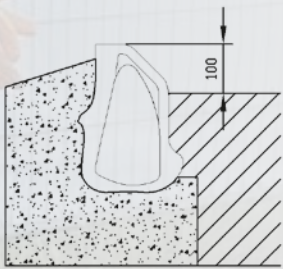
A better way
of working for
a safer more
sustainable
environment



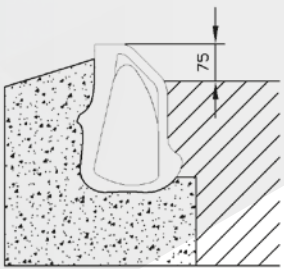
Half Batter Kerb - 125mm Upstand



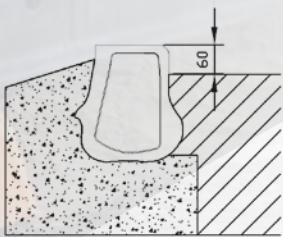
Half Batter Kerb - 100mm Upstand



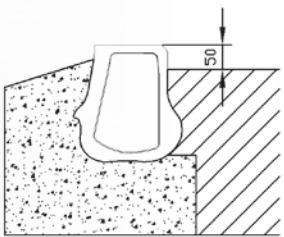
Splay (Full Batter) Kerb 100mm Upstand



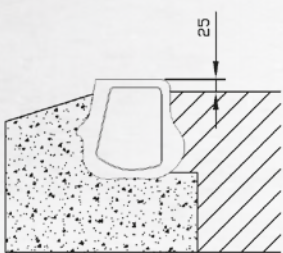
Splay (Full Batter) Kerb 75mm Upstand



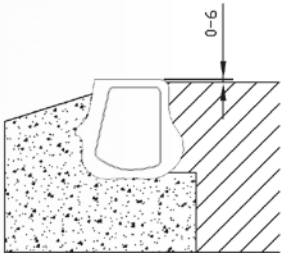
Bullnosed Low Profile Kerb 60mm Upstand



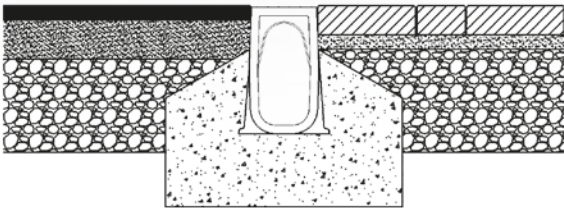
Bullnosed Low Profile Kerb 50mm Upstand



Bullnosed Crossing Kerb 25mm Upstand



Bullnosed Crossing Kerb 0-6mm Upstand



Flush Linear Channel with Varied Surfaces

COST EFFECTIVE PERFORMANCE

All exposed impermeable surfaces and structures require effective water drainage to prevent flooding or settlement and to protect surfaces. Dura linear surface drainage systems provide a sustainable, safe, efficient and cost-effective solution for the collection and evacuation of surface water run-off.

Using hydraulically efficient material, the shape and large cross-sectional areas provide a surface water drainage system that can deliver large volumes at outlet within a shallow construction.

Linear drainage systems collect run-off quickly and efficiently which helps extend the life of a project, and improve user safety. This is essential for Highways and Infrastructure generally.

Unlike the traditional kerb and gully methods where flows compound on the surface, the collected run-off is contained and driven to outlet hidden within the channel body. Linear drainage is a much more efficient method of drainage where levels across site can be simplified to deliver run off directly to a linear low point.

Dura Drain

COST EFFECTIVE PERFORMANCE



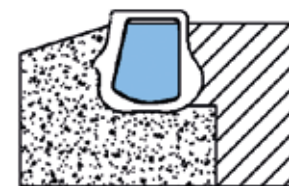
DuraDrain 70000HB

A_{hb} = Usable Channel Volume (Open-Flow) = 21,197mm²
 P_{hb} = Wetted Perimeter = 467mm
 n = Roughness Value = 0.009
 S = Slope/Equivalent Head
 $R = A/P$



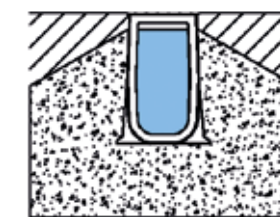
DuraDrain 60000SP

A_{splay} = Usable Channel Volume (Open-Flow) = 22,182mm²
 P_{splay} = Wetted Perimeter = 486mm
 n = Roughness Value = 0.009
 S = Slope/Equivalent Head
 $R = A/P$



DuraDrain 70035LP

A_{lp} = Usable Channel Volume (Open-Flow) = 21,197mm²
 P_{hb} = Wetted Perimeter = 467mm
 n = Roughness Value = 0.009
 S = Slope/Equivalent Head
 $R = A/P$



DuraChannel 50000LD

A = Usable Channel Volume (Open-Flow) = 18,246mm²
 P = Wetted Perimeter = 436mm
 n = Roughness Value = 0.009
 S = Slope/Equivalent Head
 $R = A/P$

$$V = 1/n \times R^{2/3} \times S^{1/2}$$

V (Velocity) x A = Q - Flow @ Outlet (Unrestricted)

For a fully proven system, flows should be calculated for each section of ckd to outlet/outlets.

Please see our Design & Installation Guide or contact us for more information.

OPTIMUM DRAINAGE SOLUTIONS

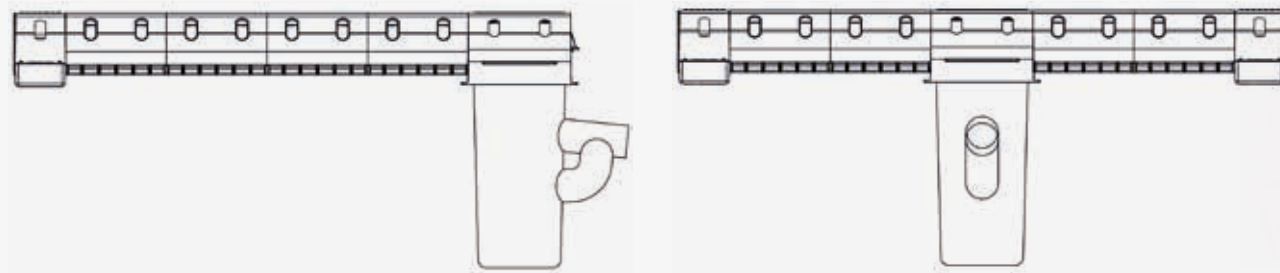
For an optimum solution, linear drainage systems should generally be designed with the fewest number of outlets and therefore offering the shallowest discharge into the serving carrier system.

The simplest solutions start with a sealed end cap and access point. Linear surface drainage solutions provide a more accessible system for maintenance. We recommend access points are positioned at the head of each linear section and at intervals to suit specific site conditions.

Inspection and jetting can be made within the channel from the access points and also through the inlet slots within the standard units.

Linear sections working at or just below capacity will generally be optimum in terms of silt transit. Ensuring sections are designed to their maximum length before outlet will generally prove optimum in terms of installed cost and reduced maintenance.

The choice and position of outlet can have an effect on the outputs within each section. We generally recommend full gully outfalls which provide wider access for maintenance and allow flows to drop-out free without obstruction into standard road gullies or access chambers.



**A better way
of working for
a safer more
sustainable
environment**



QUALITY, COMPLIANCE, PERFORMANCE ASSURED

Combined Kerb and Linear Surface Drainage Systems are a universally recognised and efficient method of draining surfaces. DuraDrain and DuraChannel are manufactured in accordance with EU Harmonised & UK Designated Standards (EN1433-Load Category Group 4-D400). The Standard verifies compliance and defines the requirements and demands for a product and system. The requirements for compliance have been developed and set by CEN/CENILEC within EU Legislation. They are designed to remove barriers to trade, promote entrepreneurship and improve access to markets.

Please visit our website for more information, or ask for our comprehensive Design & Installation Guide.

DuraDrain and DuraChannel systems comply fully with the harmonised standard (EN1433-D400) and carry the CE mark. IDS systems also meet the requirements of UK interim advice note IAN117/08 Rev 2 and can be approved, used and adopted within highways across the UK, Ireland & Mainland Europe.

Group 3 (min, class C250) – Kerb sides and non trafficked areas of hard shoulders and similar.

Group 4 (min, class D400) – Carriageways of roads (including pedestrian streets), hard shoulders and parking areas, for all types of road vehicles.

Please note – Qualification under EN1433 verifies compliance, defining the requirements for a product based on its intended use/function. Additionally, a hydraulic function check for each section to outlet is necessary.

EN1433 also stipulates installation “must” be carried out as per Manufacturers installation advice.

DURADRAIN 60000

The 60000 SP Range has a full batter (45 Degree) Splay Profile used primarily on fast moving carriageways, verges and rural infrastructure where there is no rear footway.

The profile is designed to allow accidental overrun but encourage vehicles back towards the carriageway.



REDUCING CARBON +
REPURPOSING WASTE +
REDUCING RISK +
ENVIRONMENTAL IMPACTS

DURADRAIN 60000

Item Code	Description	Weight/kg	Length/mm	Width/mm	Depth/mm	Useable Flow Area mm ²	Kerb Upstand/mm	Load Classification
60000	DuraDrain 305 Full Batter / Splay Standard Unit	7	500	215	305	22,182	75 / 100	EN1433 : 2002—D400



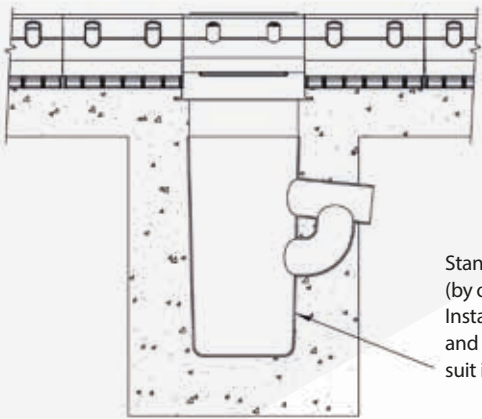
DuraDrain 305 Splay Standard Unit
The recycled & recyclable lightweight standard units are manufactured from a hydraulically efficient material and have a large useable volume. This means large areas can be drained quickly and safely, protecting surfaces by taking run-off at multiple points across the whole length of the kerb-line.

Item Code	Description	Weight/kg	Length/mm	Width/mm	Depth/mm	Kerb Upstand/mm	Load Classification
60050	DuraDrain 305 Full Batter / Splay Gully Outfall	68	500	457	353	75 / 100	EN1433 : 2002—D400



DuraDrain 305 Full Batter / Splay Gully Outfall
The DuraDrain Full Batter ductile iron top and base units provide a high quality, heavy duty outlet point. The units allow for single or dual inflows and have a large access area for maintenance.

Gully Installation Detail



A better way
of working for
a safer more
sustainable
environment

DURADRAIN 60000

Item Code	Description	Weight/kg	Width/mm	Depth/mm
70090	DuraDrain 305 Universal End Cap / Outlet	0.2	215	305



Duradrain 305 Universal End Cap / Outlet
DuraDrain Universal end caps to be cut to profile on site and fitted to access / outlets and standard units. Simply apply sealant up to the window / entry height and fix. Caps can be cut to allow for below ground pipe connections.

Item Code	Description	Weight/kg	Length/mm	Width/mm	Depth/mm	Useable Flow Area m ²	Kerb Upstand/mm	Load Classification
60072	DuraDrain 305 Splay Rodding Access / Outlet Unit	16	250	218	360	22,182	75 / 100	EN1433 : 2002—D400



DuraDrain 305 Splay Rodding Access / Outlet Unit
DuraDrain solid ductile iron access points can be installed at the head of each run and at regular intervals subject to site conditions. Units are supplied with a blank plug which can be removed, sealed and refitted. Alternatively they can be used as a robust shallow or intermediate outlet point (EN1401-162 Dia Rear Pipe Outlet).

Item Code	Description	Weight/kg	Length/mm	Width/mm	Depth/mm	Radius/m	Kerb Upstand/mm	Load Classification
60100	DuraDrain SP External Radius Unit 7/5	7	480	215	305	7/5	75 / 100	EN1433:2002—D400
60104	DuraDrain SP External Radius Unit 12/8	7	480	215	305	12/8	75 / 100	EN1433:2002—D400
60110	DuraDrain SP External Radius Unit 27/13	7	480	215	305	27/13	75 / 100	EN1433:2002—D400
60200	DuraDrain SP Internal Radius Unit 7/5	7	480	215	305	7/5	75 / 100	EN1433:2002—D400
60204	DuraDrain SP Internal Radius Unit 12/8	7	480	215	305	12/7	75 / 100	EN1433:2002—D400
60210	DuraDrain SP Internal Radius Unit 27/13	7	480	215	305	27/13	75 / 100	EN1433:2002—D400



DuraDrain SP External/Internal Radius Unit
Standard Units can be supplied facetted to suit both external and internal radii.

DURADRAIN 70000

The 70000 HB Range has a half battered profile used primarily on roads with a rear footway or at surface boundaries to hard standings and car parking areas.

The profile is designed to deter vehicle overrun and deflect traffic back onto the carriageway.



REDUCING CARBON +
REPURPOSING WASTE +
REDUCING RISK +
ENVIRONMENTAL IMPACTS

DURADRAIN 70000

Item Code	Description	Weight/kg	Length/mm	Width/mm	Depth/mm	Useable Flow Area mm ²	Kerb Upstand/mm	Load Classification
70000	DuraDrain 305 Half Batter Standard Unit	7	500	215	305	21,197	100 / 125	EN1433 : 2002—D400



DuraDrain 305 Half Batter Standard Unit

The recycled & recyclable lightweight standard units are manufactured from a hydraulically efficient material and have a large useable volume. This means large areas can be drained quickly and safely, protecting surfaces by taking run-off at multiple points across the whole length of the kerb-line.

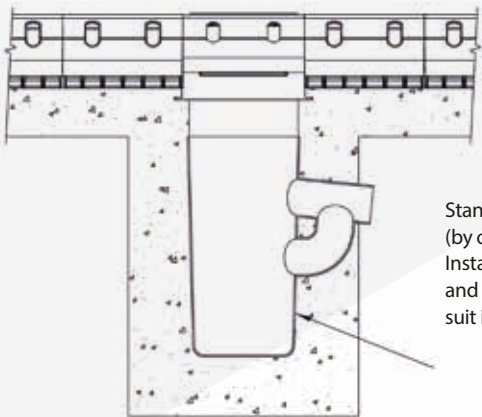
Item Code	Description	Weight/kg	Length/mm	Width/mm	Depth/mm	Kerb Upstand/mm	Load Classification
70050	DuraDrain 305 Full Batter / Splay Gully Outfall	68	500	457	353	100 / 125	EN1433 : 2002—D400



DuraDrain 305 Full Batter Gully Outfall

The DuraDrain Half Batter ductile iron top and base units provide a high quality, heavy duty outlet point. The units allow for single or dual inflows and have a large access area for maintenance.

Gully Installation Detail



Standard Gully Pot
(by others)
Installed at depth
and orientation to
suit invert requirements

A better way
of working for
a safer more
sustainable
environment

DURADRAIN 70000

Item Code	Description	Weight/kg	Width/mm	Depth/mm
70090	DuraDrain 305 Universal End Cap / Outlet	0.2	215	305



DuraDrain 305 HB End Cap / Outlet

DuraDrain Universal end caps can be fitted to access/ outlets and standard units. Simply apply sealant up to the window/entry height and fix. Caps can be cut to allow for below ground pipe connections.

Item Code	Description	Weight/kg	Length/mm	Width/mm	Depth/mm	Useable Flow Area m ²	Kerb Upstand/mm	Load Classification
70072	DuraDrain 305 HB Rodding Access / Outlet Unit	14	250	218	360	21,197	100 / 125	EN1433 : 2002—D400



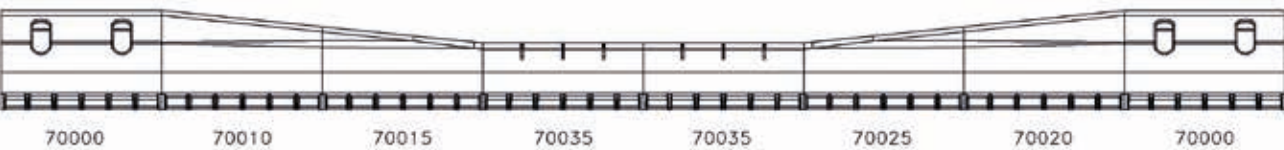
DuraDrain 305 HB Rodding Access / Outlet Unit

DuraDrain solid ductile iron access points can be installed at the head of each run and at regular intervals subject to site conditions. Units are supplied with a blank plug which can be removed, sealed and refitted. Alternatively they can be used as a robust shallow or intermediate outlet point (EN1401-162 Dia Rear Pipe Outlet).



DROP KERBS & CENTRE STONES

Item Code	Description	Weight/kg	Length/mm	Width/mm	Depth/mm	Load Classification
70010	DuraDrain Left Hand Drop Kerb L305	7	500	215	305 / 255	EN1433:2002—D400
70015	DuraDrain Left Hand Drop Kerb L255	5	500	215	255 / 205	EN1433:2002—D400
70020	DuraDrain Right Hand Drop Kerb R305	7	500	215	305 / 255	EN1433:2002—D400
70025	DuraDrain Right Hand Drop Kerb R255	5	500	215	255 / 205	EN1433:2002—D400
70035	DuraDrain Drainable Centre Stone 205	4.8	500	215	205	EN1433:2002—D400



We offer standard drop configurations from 125mm/ 100mm full kerb height. Road surfacing can be rolled to accommodate a 0-6mm or 25mm upstand through the crossing. DuraDrain one piece centre stones are supplied with vertical 8mm pedestrian friendly inlets to maintain drainage through each drop section.

DROP KERBS & CENTRE STONES

Item Code	Description	Weight/kg	Length/mm	Width/mm	Depth/mm	Radius/m	Kerb Upstand/mm	Certification	Load Classification
70100	DuraDrain HB External Radius Unit 7/5	7	480	215	305	7/5	75 / 125	EN1433:2002	D400
70104	DuraDrain HB External Radius Unit 12/8	7	480	215	305	12/8	75 / 125	EN1433:2002	D400
70110	DuraDrain HB External Radius Unit 27/13	7	480	215	305	27/13	75 / 125	EN1433:2002	D400
70200	DuraDrain HB Internal Radius Unit 7/5	7	480	215	305	7/5	75 / 125	EN1433:2002	D400
70201	DuraDrain HB Internal Radius Unit 12/8	7	480	215	305	12/8	75 / 125	EN1433:2002	D400
70210	DuraDrain HB Internal Radius Unit 27/13	7	480	215	305	27/13	75 / 125	EN1433:2002	D400

DuraDrain HB Internal/External Radius Unit
Standard Units can be supplied facettted to suit both external and internal radii.



DuraDrain Internal/External 90 Deg Corner
Standard full height and dropped units can be supplied cut and fixed to provide precise external or internal angles.

Item Code	Description	Weight/kg	Length/mm	Width/mm	Depth/mm	Kerb Upstand/mm	Certification	Load Classification
70005	DuraDrain External HB 90 Deg Corner	7	300	300	305	75 / 100	EN1433:2002	D400
70006	DuraDrain Internal HB 90 Deg Corner	7	300	300	305	75 / 100	EN1433:2002	D400
70031	DuraDrain External CS 90 Deg Corner	7	300	300	205	0 / 25	EN1433:2002	D400
70032	DuraDrain Inetrnal CS 90 Deg Corner	7	300	300	205	0 / 25	EN1433:2002	D400

A better way of working for a safer more sustainable environment

DURADRAIN SHALLOW PROFILE

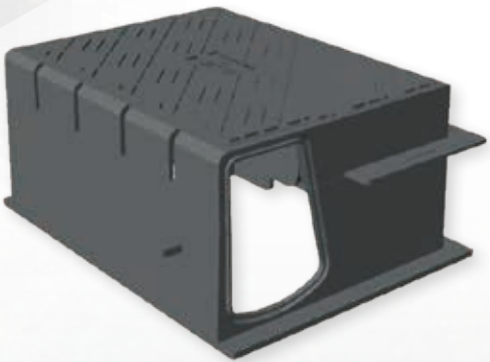
Item Code	Description	Weight/kg	Length/mm	Width/mm	Depth/mm	Kerb Upstand/mm	Load Classification
70035	DuraDrain Drainable Centre Stone 205	4.8	500	215	205	0—25	EN1433:2002—D400
70038	DuraDrain Low Profile Bullnose 240	5.5	500	215	240	35—60	EN1433:2002—D400



Shallow Profile Standard Units

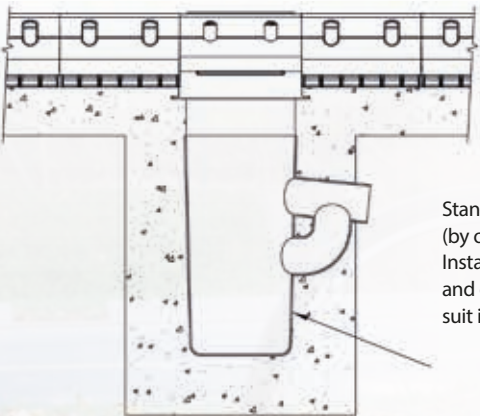
The recycled & recyclable lightweight drainable units are manufactured from a hydraulically efficient material and have a large useable volume. This means large areas can be drained quickly and safely, protecting surfaces by taking runoff at multiple points across the whole length of the kerb-line.

Item Code	Description	Weight/kg	Length/mm	Width/mm	Depth/mm	Kerb Upstand/mm	Load Classification
70055	DuraDrain B/N Gully Outfall	58	500	457	253	0 / 60	EN1433 : 2002—D400
70058	DuraDrain B/N GO Access only c/w Sealed Base Plate	60	500	457	253	0 / 60	EN1433 : 2002—D400



DuraDrain BN Gully Outfall

The DuraDrain Bullnose ductile iron top and base units provide a high quality, heavy duty outlet point. The units allow for single or dual inflows and have a large access area for maintenance. This unit can be supplied with a sealed baseplate when used as access only.



Standard Gully Pot
(by others)
Installed at depth
and orientation to
suit invert requirements

REDUCING CARBON +
REPURPOSING WASTE +
REDUCING RISK +
ENVIRONMENTAL IMPACTS

CKD (Combined Kerb & Drainage) is already an accepted and adoptable method of highway drainage. Our shallow profile drainable units give designers further options to allow for shallower kerb upstands, ideal for cycleways with designated lane separation.

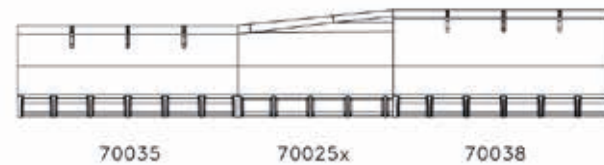


DURADRAIN SHALLOW PROFILE

Modern infrastructure design for our towns and cities is changing to meet the new net carbon zero targets set by governments to reduce environmental impacts. Designers are creating roads and pavements to encourage increased use for pedestrians, cyclists, wheelchair users and public transport.

SHALLOW PROFILE TRANSITION UNIT

We can also supply pre-fabricated handed drop / transitions to accommodate variable changes in height common with low profile designs where crossing points are shallow.



For more information please see
our [Design & Installation Guide](#).

DURACHANNEL

The 50000 DuraChannel Range is a traditional monolithic linear surface water drainage system. The recycled & recyclable lightweight standard units are manufactured from a hydraulically efficient material and have large useable volume. This means large areas can be drained quickly and safely, protecting surfaces by taking run-off at multiple points across the whole length of the channel-line.



**REDUCING CARBON +
REPURPOSING WASTE +
REDUCING RISK +
ENVIRONMENTAL IMPACTS**



DURACHANNEL

Item Code	Description	Weight/kg	Length/mm	Width/mm	Depth/mm	Useable Flow Area mm ²	Slot Type	Colour	Load Classification
50000	DuraDrain 160mm Standard Unit	7	500	187	160	12,479	8mm Dual-Ped	Black	EN1433:2002—D400
50002	DuraDrain 260mm Standard Unit	8	500	187	260	18,246	8mm Dual-Ped	Black	EN1433:2002—D400



DuraChannel Standard Unit

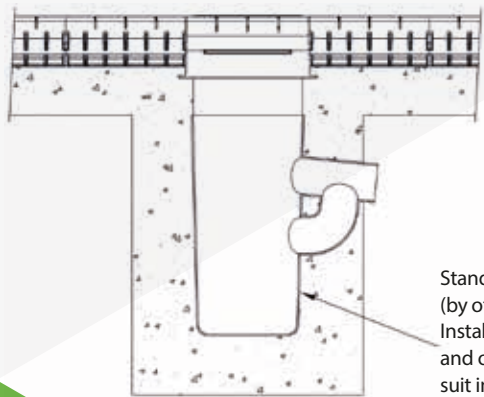
The recycled & recyclable lightweight standard units are manufactured from a hydraulically efficient material and have large useable volume. This means large areas can be drained quickly and safely, protecting surfaces by taking run-off at multiple points across the whole length of the channel-line.

Item Code	Description	Weight/kg	Length/mm	Width/mm	Depth/mm	Load Classification
50060	DuraDrain Universal Outfall	38	360	360	461	EN1433 : 2002—D400
50064	DuraDrain UO Junction/angle c/w Sealed Base Plate	39	360	360	461	EN1433 : 2002—D400



DuraChannel Universal 4-Way Inflow Outfall/Junction/Corner Unit

The DuraChannel ductile iron grate and base units provide a high quality, heavy duty outlet point. The unit allows for four way channel inflows and has a large access area for maintenance. This unit can be supplied with a sealed baseplate to provide a robust, fully supported corner/junction unit.



Standard Gully Pot
(by others)
Installed at depth
and orientation to
suit invert requirements

A better way
of working for
a safer more
sustainable
environment

UNIVERSAL UNITS

Item Code	Description	Weight/kg	Length/mm	Width/mm	Depth/mm	Useable Flow Area mm ²	Slot Type	Colour	Load Classification
50072	DuraChannel 260mm Rodding Access	18	250	202	360	18246	8mm Dual-Ped	Black	EN1433 : 2002-D400W



DuraChannel 260mm Rodding Access

DuraChannel solid ductile iron access points can be installed at the head of each run and at regular intervals subject to site conditions. Units are supplied with a blank plug which can be removed, sealed and refitted. Alternatively they can be used as a robust shallow or intermediate outlet point (EN1401-162 Dia Rear Pipe Outlet).

Item Code	Description	Weight/kg	Width/mm	Depth/mm
50090	DuraChannel End Cap	0.2	187	360

DuraChannel End Cap

DuraDrain Universal end caps can be fitted to access/ outlets and standard units. Simply apply sealant up the window / entry height and fix. Caps can be cut to allow for below ground pipe connections.



HB & SP Duradrain - Hydraulic Flow Chart
DURADRAIN ENSURE YOU MEET YOUR CDM OBLIGATIONS

DURADRAIN/DURACHANNEL SEALANT

Item Code	Description	Weight/kg	Volume	Coverage	Colour	COSHH Data
80000	DuraDrain One Part Low Modulus Polyurethane Sealant	0.8	600ml	10 Joints / Tube	Grey	See Website Downloads
80010	DuraDrain Sealant Applicator	2	N/A	N/A	N/A	N/A
80005	DuraChannel One Part Low Modulus Polyurethane Sealant	0.8	600ml	10 Joints / Tube	Black	See Website Downloads



DuraDrain/DuraChannel sealant should be applied around the channel body up to the road surface / inlet level.

All Units have a flush face to face contact so each unit can be hammered to line and level creating an effective seal across the whole joint width. The bed and brace within the retention elements create a single structure and unlike traditional jointed or laid-in channels, there are no weak points across the joint providing a longer lasting seal in service.

For highways adoption all joints must be sealed. (EN1433-HA-Doc_IAN117/08 Rev 2.)

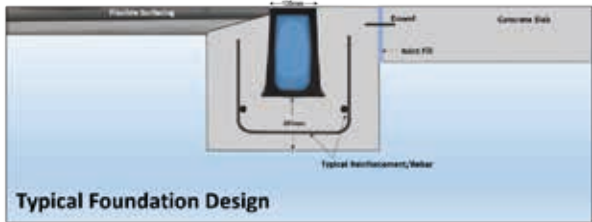
For more information please see our Design & Installation Guide.

A better way of working for a safer more sustainable environment

PROJECT TITLE: PROJECT INNOVATION DATE: 28/01/21						30,676kg of Carbon saved for every 1000m with a DuraKerb installation. (PAS 2050.IS by Sustain Limited).				
Run Number	Run Length (m)	Designed Rate of Intensity (mm/hr)	Required Run Capacity (L/sec)	Catchment Area (m²)	Select Kerb Profile	Run Capacity @ Outlet - Flows Driven by Gradient - One Directional	Run Capacity @ Outlet - Flows Driven by Gravity- Restraint	Run Capacity @ Outlet - Flows Driven by Gravity- Outlet to outlet - Two Directional (L/sec)	OK	Notes
1/1.000	33.1	58.7	8.02	492	HB	20.84			✓	Required run capacities are based on a rainfall intensity of 50mm/hr+ 20% to allow for climate change, falling on 100% of the catchment areas taken from drawings supplied.
1/2.000	22.4	58.7	9.10	558	HB	30.37			✓	
1/3.000	46.1	58.7	13.22	811	HB	28.26			✓	

FREE DESIGN ADVICE

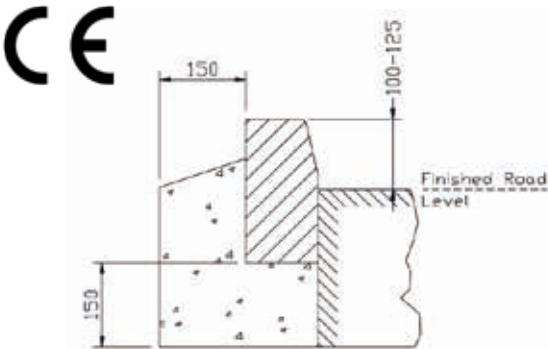
Dura Products offer the opportunity to design & construct innovatively, with responsibility to the environment and everyone involved in the construction process. We can supply simple run schedules, provide product details in various formats for insertion and full hydraulic calculations with design/installation advice for the complete Dura range.



We can provide data files for all our products in PDF, DWG and 3D STP formats.

Please feel free to get in touch or visit our website for more information.

Although Dura Products offer unique benefits, they are specifically design to comply with regular industry and/or harmonised British and European standards.



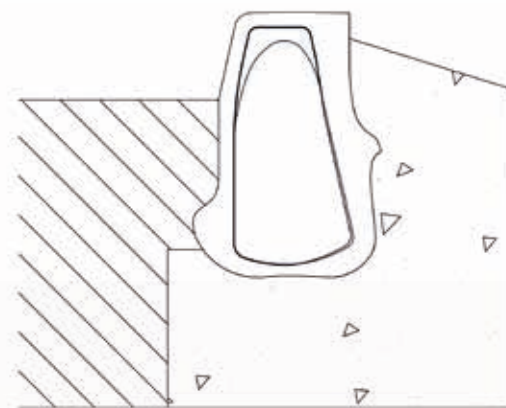
DESIGN & INSTALLATION INFORMATION

Standard Installation Details (See note below regarding specific installations).

Every project, large or small, should be fully assessed so a correct installation method can be agreed and therefore full integration achieved. All projects have differing and specific demands so it is important for designers to make a full risk assessment.

Please visit our website for more information, or ask for our comprehensive Design & Installation Guide.

The position of the kerbs/drainage units, the surrounding structure/landscape, functions, road alignment, levels, specific local design criteria and the type/volume of traffic will determine a best method of installation.



SYSTEM & PRODUCT MAINTENANCE

- 1 DuraDrain and DuraChannel are designed to be integrated into varied hard-landscapes and perform the function of drainage within the channel body. After initial installation, each section of CKD/Channel should be jetted to ensure the bores are free of silt and debris. It is possible to jet from the surface through the slots/inlets working from an open access point to outlet. Outlets should also be free of silt and any obstruction. Once cleaned the access lids should be re-fitted and the locking bolts fixed securely.
- 2 The frequency and necessity for maintenance is project specific and can be influenced by factors prior to collection and at outlet discharge. If necessary, a maintenance procedure can be agreed as part of the overall drainage strategy with a full risk assessment carried out.
- 3 A visual inspection can be carried out periodically to assess the condition. It is usual to see scuff marks which will not affect the function or longevity of the product. Access lids should be checked to ensure they are locked and secure.
- 4 Where there has been a serious accident and units require replacing, new units can be cut to size and patched-in. It is important to take the repair across the extent of any damage and ensure the existing bed and brace or haunches are sound. Units can then be re-installed using Durakerb bedding mortar or a strong polymer modified mortar with adhesive properties if considered necessary.
- 5 It is important to assess the drainage function also. A visual inspection of the surrounding surfaces will generally provide evidence of pooling which could be a result of a blockage within the channel body. Any leaves, mud, and rubbish should be swept away from the inlet/slots so run-off entry is clear.
- 6 Each section of CKD/Channel should be jetted to outlet to ensure the bores are free of silt and debris. It is possible to jet from the surface and loosen any stubborn weed growth through the slots/inlets working from an open access point to outlet. Outlets should also be cleared free of silt and any obstruction and the drainage connections are sound. Once cleaned the access lids should be re-fitted and the locking bolts fixed securely.
- 7 Access Lids and Gully Units are bolted and locked using M8/M16 socket head allen keys.

View all our **project references** at:
<https://www.ids-group.nl/en/Projectreferences>



IDS GROUP

**SUSTAINABLE SURFACE
WATER DRAINAGE
SOLUTIONS**

T: +31(0)46-2077004

INNOVATIVE DRAINAGE SOLUTIONS B.V.

Business Park Stein 108

6181 MA Elsloo - The Netherlands

www.ids-group.nl

 Produced in the EU



**A better way of working for a safer
more sustainable environment**