



**Civils and Infrastructure** 



# SuperSleve HouseDrain

SuperSleve HouseDrain is a multi-material system designed and developed specifically for 'Around the House' drainage, but is equally suitable for commercial and industrial developments.

It is a drainage system that combines inherent strength, reliability, durability and dimensional accuracy to give confidence in service and assurance during installation. Many new features have been introduced for flexibility and performance offering advantages to specifiers, installers and stockists.

Innovative concepts in design and manufacturing techniques have resulted in unsurpassed standards of excellence. It is the most modern and appropriate response to drainage requirements and is fully compatible with SuperSleve products.







# Product Selector

# SuperSleve HouseDrain

1			
Pipes	Description Dia	mm	Cat No
	100mm x 1.6m		SP1
Fittings	Description Dia	mm	Cat No
	Couplings (Polyproplylene) With EPDM sealing rings With Nitrile sealing rings		SC1/1 SC3/1
()	90° Bends Single Socket		SDB1/1S
CO -	Plain Ended		SB1/1
19	45° Bends Single Socket		SDB2/1S
Ž? –	Plain Ended		SB2/1
7	30° Bends Single Socket		SDB3/1S
2	Plain Ended		SB3/1
<u> </u>	15° Bends Single Socket		SDB4/1S
÷.	Plain Ended		SB4/1
	Flexible Bend (0-25°) Single Socket		SFB1/1
ž	45° Oblique Junction Double Socket		SDJ1/1D
~	Plain Ended		SJ1/1
-	90° Curved Square Junction Double Socket		SDJ2/1D
Ē	Plain Ended		SJ2/1
-CZ	Oblique Saddle Small - for pipes up to and including 300mm dia.		SJS1/1
	Large - for pipes larger than 300mm	ı dia.	SJS2/1
0	Square Saddle Small - for pipes up to and including 300mm dia.		SJS4/1
	Large - for pipes larger than 300mm	ı dia.	SJS5/1
P)	Rest Bend Single Socket		SDBR1
Þ	Rest Bend Plain Ended		SBR1
	Rest Bend Telescopic		SBRT1
	Rat Barrier		RAT/FM
	Taper Pipe Single Socketed		SDT2/1
0	Socket Adaptor for connection to traditional pipes, and fittings		SA1/1
$\mathfrak{D}$	Adaptor to HepSeal		SA2/1
0	Low-back P-trap Single Socketed		SDG1/1
S	Low-back P-trap Plain Ended		SG1/1
2	Inlet Gully Supplied as illustrated		SDG3/1
$\mathcal{N}$	As above + horizontal back inlet		SDG3/2
0	Spare Accessories Grid and vertical back inlet insert only Hopper c/w grid Sealed Cover Plate		SDG10 SDG2/6 SDG2/4
	Metal Grid Dip Tube Trap		SDG2/4 SDG2/5 SDC6
) (****	Paved Area Gully Supplied complete with Grid and Frame		SDG2/1
9	As above and horizontal back inlet		SDG2/3
$\sim$	Top Assembly c/w grid and frame and cover plate		SDG2/2 SDG2/4
	Metal Grid		SDG2/5

Fittings Descriptio	n	Dia mm	Cat No
40	Square Gully		SG2/1
	Supplied complete with grid	150 x 150	SG2/1
	Spare Polypropylene Grid	150 X 150	362/5
4	Square Gully with back inlet. Supplied complete with grid		SG2/2
	Square Polypropylene Grid	150 x 150	SG2/5
	Suitable alternative grids Grid, alloy Hinged grating + frame Sealing Plate + frame, alloy		IG2 IH2 IS2
Û	Square Raising Piece for SG2/1, SH1, SH2	Height 75mm 150mm 225mm 300mm	RRS2/1 RRS2/2 RRS2/3 RRS2/4
<b>B</b>	Access Gully c/w grid Access Gully c/w grid and horizontal back inlet Note: Can accept 110mm round or 100x100mm square rainwater pipes. + Spares Grid	120 x 120	SG3/1 SG4/1 IG1P
	Bridge Sealing plate + frame, alloy Frame - Alloy	120 x 120 120 x 120 120 x 120 120 x 120	QB1 IS1 IH1
Ø	Access Raising Piece for SG3/1 + SH3/1	Height 75mm 150mm 225mm 300mm	SRP5 SRP6 SRP7 SRP8
AD.	Hopper, Rectangle		SH3/1
V	+ Spares Grid Bridge Sealing Plate + Frame Hinged Grating + Frame		IG1P QB1 IS1 IH1
~	Hopper, Square		SH1
1	Grid, alloy	150 x 150	IG2
U <sup>e</sup>	Sealing Plate, alloy	150 x 150	IS2
	Hopper, Square with 100mm		SH2
M	horizontal inlet		
U	Grid, alloy	150 x 150	IG2
	Sealing Plate, alloy	150 x 150	IS2
<u>i</u>	Square Top Rodding Point Sealed c/w coupling		SRPS1/1
S	Rodding Point Plain ended		SRP1/1
$\sim$	Rodding Point		SRP2/1
	with airtight seal, Plain Ended		51(1 2/1
Inspection Description		Dia mm	Cat No
	Up to 1.2m deep 100/110mm PPIC Polypropylene Inspection Chamber 475mm diameter. Supplied with 4 inlet stoppers. 940mm deep Five 100/110mm inlets. Conversion adaptors supplied.		SPIC1/1
	595mm deep Five 100/110mm inle Conversion adaptors supplied.	ets.	SPIC2/1
٢	Round Ductile Iron Cover & Plastics Frame Includes security clips for additional safety EN124 A15 35kN		SPK8
	Square Ductile Iron Cover & Frame (airtight) Includes security clips for additional safety EN124 A15 35kN		SPKS8
Ì	Recessed cover for optional surface finish		SPCR8
6	Raising Piece, 175mm deep		SPIC4
$\bigcirc$	Sealing Ring, for Raising piece		SPIC5
I	Up to 600mm deep Polypropylene Mini Access CI 300mm diameter, Depth 600mm, 100/110mm inlets conversion adaptors supplied.	namber	
	Complete Unit including base unit, 2 raising pieces + cover and frame		SDAC1/1

Inspection Description	n Chambers	Dia mm	Cat No
	Polymer Cover and Frame (airtight) 345mm x 345mm square	Dia min	SDC3
P	Effective height 85mm Raising Piece With rubber sealing ring Effective height 150mm		SDC4
A	Base Unit 215mm deep with 2 100/110mm flexible inlets allowing 10° of movement. Conversion adapters s	westing	SDC5
	(Polypropylene)		Catilla
Descriptio	Adaptor Coupling	Dia mm	Cat No SA3/1
	to HepSleve Note: Other HepSleve adaptor available on request	°S -	
9	Internal Drain Connector to 32/40mm Waste to 50mm Waste		S/S460 S/S462
	Internal Blanking Plug		S/S89
<b>B</b>	Adaptors to fit nominal waste pipe sizes		
-	1x32mm 2x32mm	100 100 100	SA4 SA4/4
	1x32mm, 1x40mm 1x40mm 2x40mm	100 100 100	SA4/5 SA5 SA5/5
8	1x50mm 1x68mm 1x82mm	100 100 100	SA6 SA7 SA8
8	Adaptors to soil pipes Nom-100 Grommet ID mm- 106		SA9
	Internal Drain Connector		
y	-Rainwater to Round downpipe to Square downpipe		S/4A06B S/4A06C
0	Internal Drain Connector to Soil Stacks	100/110	S/S464
8	Rainwater Adaptor to round or square rainwater pipes up to 76mm		SA11
0 <sub>1</sub> )	WC Pan Horizontal Connector		SA12
õ	WC Pan, S-Trap Spigot		SA13
(iii)	Sliding Coupling		SC4/1
<b>())</b>	Adaptor to Cast Iron Pipes made to BS 437		SA14/1
	Stopper		SS1/1
0	Testing Stopper with integral nipple		SS2/1
6	Water Stop Flange Size: 300mm on 100mm size coupling		SWS1
Channel Descriptio	Fittings, Plain End	Dia mm	Cat No
	Pipe	Length	
Constants		0.3m 0.6m 1.0m	CPP1/1 CPP2/1 CPP3/1
(	Enlarger / Reducer	100-150	CTP1/1
$\bigcirc$	Bend 90°		CBP1/1
(	Bend 45°		CBP2/1
<u>(</u>	Bend 30°		CBP3/1
4 <u>1</u> 11	Bend 15°		CBP4/1
P	Oblique Junction Left-hand (illustrated)	100x100	CJP1/1L
	Oblique Junction Right-hand	100x100	CJP1/1R
B	Curved Square Junction Left-hand (illustrated)	100x100	CJP2/1L
	Curved Square Junction Right-hand	100x100	CJP2/1R



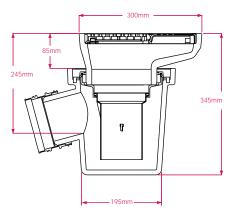
# Features and Benefits

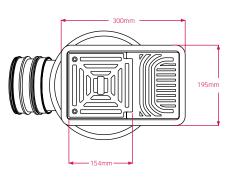
#### Inlet Gully - SDG3/1

- Removable dip tube trap -Improved maintenance by allowing gully to be cleaned more easily. Access to outlet for full bore rodding
- Multi-material construction -Optimum strength for a positive location, utilises versatility of modern materials
- Rectangular top -Neat fit to walls and paving materials
- Offset cover -Easy location to slab foundation or against building. Easy access to vertical back inlet
- Compact design -Reduced excavation and easy accommodation of shallow foundation to ground height with a flat base
- Ability to accept raising pieces -Maximum flexibility of height, using standard 150mm SuperSleve pipe cut to size

- 20% increased capacity -Unrestricted flow
- Good aesthetics -End user satisfaction
- 360° rotation of top of base -Ensures perfect fit every time. Outlet can be adjusted to take best design line
- Hinged 'Screw Down' captive grid -Enhanced safety and security
- Hinged Cover plate option -Increased design flexibility where grids are not suitable





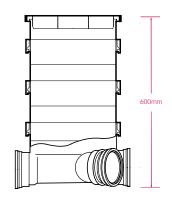


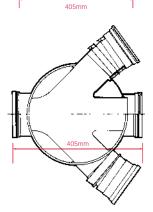
#### Mini Chamber - SDAC1/1

- Flexible inlet arms from 0° to 5° -Ease of connection in difficult conditions
- Square cover -Neat fit to paving and other surface materials
- Purpose made raising pieces with integral seals -Quick and simple height adjustment with no loss of system water and air tightness
- Only one base with two 45° inlets -Ordering simplified with ultimate in flexibility - one base does everything
- Advanced polymer cover
  Reduced maintenance and long life

- Non level invert. Inlet arms are raised above main channel -Flow greatly improved
- Increased flow characteristics by computer aided design Maximum efficiency and low maintenance
- Shallow base unit designed for direct fit to cover Accommodation of pipes laid at shallow depths







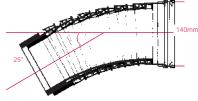
#### Pipes, Bends and Junctions

- Depth insertion marks embossed into pipe -Improved joint security and guaranteed performance
- Socketed fittings as standard -Speed and ease of fitting
- Flexible bend has 0-25° multi-direction adjustment -Different angles accommodated



#### Paved Area Gully - SDG2/1

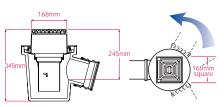
- 150mm square grid Easy fit to paving materials
- Hinged captive grid
  Tidy, secure and easy to maintain
- Removable dip tube trap Ease of maintenance and rodding
- Paving platform around grid Ensures accuracy of fit for paving
- 360° rotatable top Perfect fit and best line from gully to destination of drain line



Flexible Bend - SFB1/1



Socketed Fittings



Top can be rotated independently to the outlet

### Rodding Point - SRPS1/1

- Square top -Enables best fit to surface paving or buildings
- Hinged, sealed, screw down top -Secure, easy to maintain, suitable for all applications

#### Square PPIC Cover - SPKS8

- Square top -Enables accurate and tidy fit to paving materials
- Screw down and captive Safety and security improved
- Rotatable Best alignment to paving materials

#### Recessed PPIC Cover - SPCR8

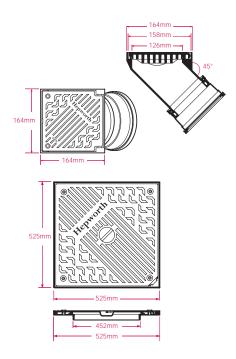
- Purpose fit to PPIC
  Ease of installation
- Optional surface finish
  Improved aesthetics

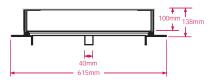
• Strength - one tonne wheel load Can be safely used in driveways

Excellent impact resistance

Durable material -

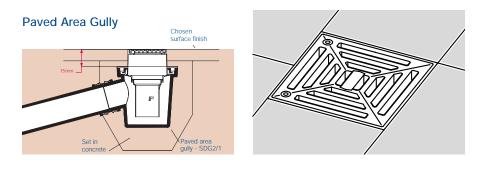
- Sealed top
  Suitable for all applications
  including internal
- Strength one tonne wheel load Can be safely used in driveways
- Square Design Enables accurate and tidy fit to paving materials

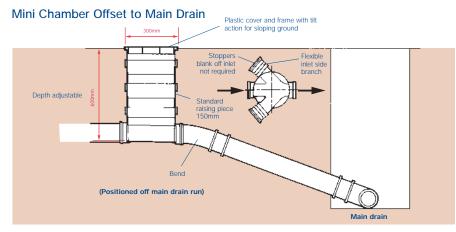






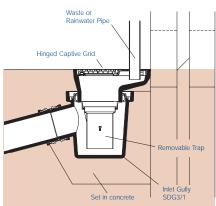
# **Application Details**



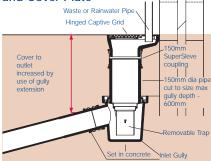




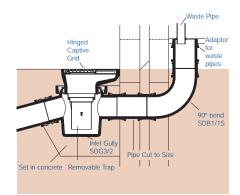
# Inlet Gully with External Vertical Waste Connection



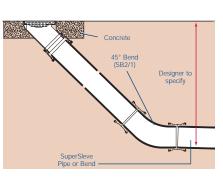
#### Inlet Gully with Raising Piece and Cover Plate

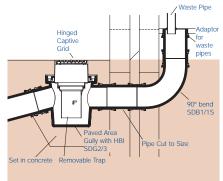


# Inlet Gully with Internal Vertical Waste Connection



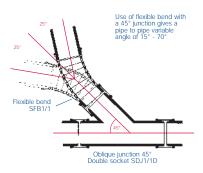
## **Rodding Point**





Paved Area Gully with Horizontal Inlet

### Flexible Bend



# Sitework

#### General

The SuperSleve HouseDrain range has been designed with the specific aims of increasing both speed and quality on site.

This has been achieved by the introduction of many new features which improve handling and make the system fully adjustable and easy to lay.

#### **Inlet Gully**

The inlet gully is provided complete with grid, hopper, base unit, frame, dip tube trap and flexible outlet.

Excavate a hole to approximately the correct location and depth. Firm the base of the excavation with granular material and accurately position the gully.

The gully body is designed with a broad flat base to aid stability in the excavation.

If a back inlet is required remove the stopper in the gully body. A raising piece (a standard SuperSleve 150mm pipe cut to length) can be inserted to adjust the height.

Rotate the base until the inlets and outlet are pointing in the required directions. Make holes for the inlet pipes into the blanking plate.

#### **Pipe and Fittings**

Plain ended pipes and couplings are available to maximise adaptability on site. A new flexible bend has also been introduced to improve the ease of final adjustment on site and also to allow for settlement after construction.

Cutting of pipes can be quickly carried out using the lever operated pipe cutting tool.

Lubricate the spigot to be jointed and push the pipe into the socket until the end of the coupling aligns with the depth of insertion mark on the pipe.

Fittings are available in the following configurations: Single socket bends to be used with chambers. Spigoted junctions for connections by insertion into existing lines.

#### Chambers

The chambers have all been designed with a broad base to improve stability in the trench. Connections to the chambers are through sockets allowing the direct entry of pipes and spigot fittings. Chambers incorporate a gradient across the base allowing speedy installation to take place and raising pieces are easily cut to the required height or angle. The cover and frame clips neatly to the raising piece or body and is manufactured from a high strength non-corrodible, fibre reinforced polymer to ensure durability and ease of removal at a future date. The cover is secured to the frame by four non corrosive screws.

#### Standards and Approvals

SuperSleve HouseDrain is manufactured to BS EN 295 where appropriate and kitemarked accordingly.

The Mini Access Chamber and Flexible Bend are covered by a British Board of Agrément Certificate.

#### **Quality Assurance**

All Hepworth drainage products are manufactured under a quality management system which is

approved to BS EN ISO 9001:2000 Quality Management Systems -Requirements.

All Hepworth manufacturing sites operate Environmental Management Systems



which comply with the requirements of and are certified to **BS EN ISO 14001**, Certificate Nos. EMS 71221, EMS 79968, EMS 77181, EMS 77364 and EMS 82340.

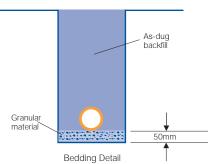
#### Strength

The strength of SuperSleve HouseDrain pipes has been designed to satisfy all the requirements of domestic drainage systems without the need for enhancement by expensive bedding and surround materials.

Strength data is as follows:

 Crushing strength - 40kN/m
 Bending Moment Resistance 2kN/m

#### Bedding



SuperSleve HouseDrain pipes are manufactured by advanced modern techniques producing a high strength clay barrel. The crushing strength is sufficiently high to enable the pipe to be laid directly onto a 50mm layer of suitable as-dug material or imported granular material. This bedding arrangement will be suitable for all domestic drainage situations. Where cover to the crown of the pipe is less than 400mm, additional protection such as concrete may be required.

#### **Installed Cost**

Detailed analysis and case studies have established that SuperSleve HouseDrain is the lowest installed cost domestic drainage system available. This has been brought about by savings in bedding material, speed of installation and flexible fittings.

The ever increasing 'Landfill Tax' has a direct impact on the total installed cost of drainage systems. However, unlike other material systems, SuperSleve HouseDrain is not dependent upon a granular stone bedding and surround for its strength. This means that most excavated material can be back-filled into the drainage trench, dramatically reducing the amount of surplus spoil to be removed from site, creating savings on expensive stone, time, haulage and tax.

Two examples below demonstrate the installed cost savings possible using SuperSleve HouseDrain on a typical site of 4 Houses (200m pipe run):

# Example 1- SuperSleve pipe using a 50mm bedding

- Surplus Spoil not returned to trench = 10.26 tonnes
- Pipe bedding material (20mm graded aggregate) 9 tonnes totalling £49.84
- Haulage: Based on £5.00 / ton
- Landfill Tax 'inactive' = £2.00 / ton
- 2 Landfill Tax 'active' = £7.00 / ton

Total	£ / metre	Saving Per House
1 £121.66	0.61	£137.00
2 £172.99	0.86	£174.99

Example 2 - PVC-U pipe using a 100mm bed, surround and cover (standard required for equal support)

- Surplus Spoil not returned to trench
  41.85 tonnes
- Pipe bedding material (10mm single sized pea gravel) 53 tonnes totalling £376.72
- Haulage: Based on £5.00 / ton
- Landfill Tax 'inactive' = £2.00 / ton
- 2 Landfill Tax 'active' = £7.00 / ton

Total	£ / metre	Extra Cost Per House
1 £669.67	3.35	£137.00
2 £872.92	4.36	£174.99

#### Health and Safety Information

To ensure your safety; Hepworth strongly recommends the use of goggles or similar eye protection and gloves when using pipe cutters.

# **Advisory Services**

#### **Technical Advisory Service**

This service covers all aspects of Hepworth products from design through to maintenance.

Hydraulic and structural design
 Quantity take offs and material scheduling

For any advice or assistance on these matters contact the Technical Advisory Service on:

Tel: 0870 443 5551 Fax: 0870 443 5552

#### Literature

For details of other products in the Hepworth range, please telephone the Literature Service Hotline on:

Tel: 0870 443 6000 Fax: 0870 443 8000

#### Availability

The Hepworth range is available through a nationwide network of builders merchants or direct from Hepworth. For further details please telephone our order enquiry hotlines on:

Tel: 0870 443 6000 Fax: 0870 443 8000

Or via our website for further details of premier stockists.

### **System Proposition**

SuperSleve HouseDrain has been developed to complement the existing SuperSleve 150mm products used extensively in Housing, Commercial and Industrial, Sewers and Roads.

It has many advantages in the provision of drainage systems that are expected to last and to perform.

#### Service Performance

- Reduced blockages
- Easy maintenance
- Increased post installation adaptability

#### Design and Specification

- Easy to design using rigid pipe methods and a rationalised range
- Confidence in service and assurance in installation due to:
- Socketed fittings
- Flexible connections
- Depth insertion marks
- 100% increased shear resistance

#### Procurement

- Less stock and more product choice
- Full compatibility with SuperSleve
- Improved impact resistance
- Self evident product application
- More features designed in

#### Installation

- Speed and ease of installation
- Flexibility of components
- Lower installed costs

## Lifetime Jetting Guarantee

The increasing use of high pressure jetting as a routine and cost-effective method of removing blockages in sewers has led to concerns among water companies, local authorities, developers, contractors and water jetting specialists about the ability of pipelines to withstand such applications. In response to these concerns Hepworth Building Products has introduced a unique Lifetime Jetting Guarantee\* on its sewerage systems for jetting maintenance up to 7,500 psi.

#### The Guarantee

All SuperSleve HouseDrain products are guaranteed for the system lifetime against penetration of the pipe wall caused by the following jetting criteria:

- High pressure water jet used at a pressure of up to 7,500 psi (517 bar)
- At a flow rate not exceeding 20 gallons per minute (1.5 litres per second)
- Held immobile for a constant period of not more than 5 minutes
- \* When laid in accordance with Hepworth instructions and the requirements of the codes of practice and guides relevant to their use.





Hepworth Building Products Ltd, Edlington Lane, Edlington, Doncaster DN12 1BY, UK. Telephone: +44 (0)1709 856300 Fax: +44 (0)1709 856301 Email: customerservices@hepworth.co.uk

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