



flow controls dedicated to SuDS



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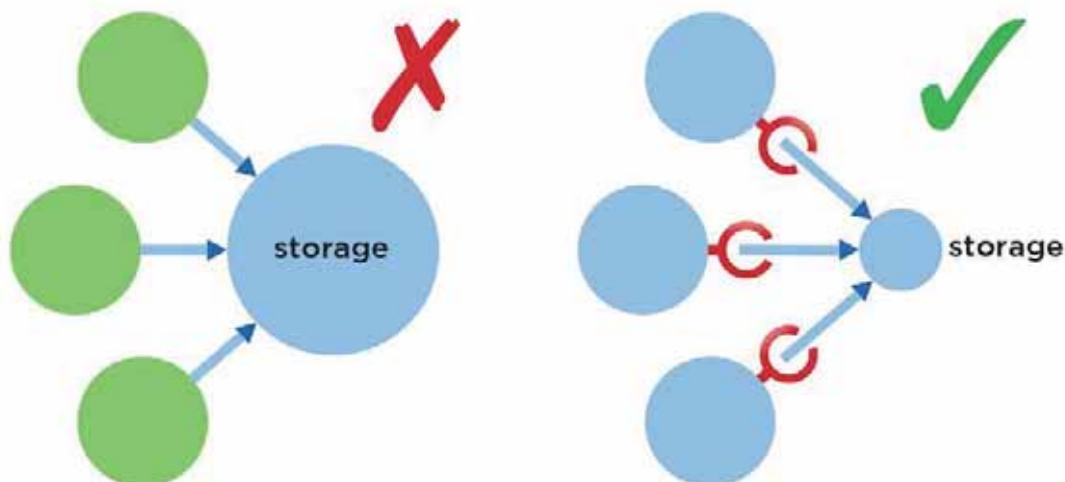
Flow Controls Dedicated to SuDS

Controflow® control chambers are specifically designed for shallow SuDS elements to manage rainwater runoff, including permeable pavements, swales and basins. They feature orifices, guarded where necessary, which are accessible for demonstrating straightforward compliance to local authorities as part of the SuDS design approval process. A universal stainless steel mesh SuDS Basket, for filling with stone, acts as an attractive pipe inlet or outlet within landscaped SuDS features.

Why We Need Flow Controls SuDS

SuDS are now a Government requirement on many developments, approved and often adopted by local authorities. The key to successful SuDS is water storage strategically deployed around a site within SuDS elements – such as swales, basins ponds and, particularly, permeable paving – forming discrete sub-catchments with flow controls. Controflow chambers can also maximise storage in permeable paving on sloping sites, with terraced compartments separated by simple check dams. They can also detain water to optimise ground infiltration, so reducing discharge volumes.

This approach avoids the additional land-take and costs of large, heavily engineered control and storage structures at the perimeter of developments. It also optimises the multi-functionality of SuDS. With their low cost and shallow construction, Controflow® chambers control flows from each sub-catchment, as well as at site perimeters, whilst keeping water flow on or near the surface.



Index

Product Code	Description	Page
SUDS01001	Controflow 300 Series Level Invert Screw Cap	3
SUDS01101	Controflow 300 Series Stepped Invert Protected Orifice	7
SUDS02005	Controflow 500 Series Universal Level Invert	9
SUDS02008	Controflow 500 Series 110Ø Stubs Stepped Invert Roddable	13
SUDS03001	Controflow 600 Series 160Ø Stubs Stepped Invert Roddable	15
SUDS04001	Roof Outlet Flow Control and Overflow Chamber	17
SUDS04101	Roof Outlet Overflow Chamber	19
SUDS04201	Parapet Wall Outlet Flow Control Chamber with Overflow	21
SUDS04301	Parapet Wall Outlet Overflow Chamber	23
SUDS08001	Stainless Steel Mesh Basket and Pipe Guard	25

Controflow Selector

	Application	Product Code	Description	Comments
Flow Control Chambers	Permeable Pavement Level Invert	SUDS01001	Controflow 300 Series Level Invert Screw Cap	For shallow applications only, max 600mm cover to invert
		SUDS02005	Controflow 500 Series Universal Level Invert	Max depth 1.2m
	Permeable Pavement Stepped Invert	SUDS02008	Controflow 500 Series 110Ø Stubs Stepped Invert Roddable	Typically Housing, 110mm Ø pipe connections
		SUDS03001	Controflow 600 Series 160Ø Stubs Stepped Invert Roddable	Typically Commercial, 160mm Ø pipe connections
	Swale	SUDS01001	Controflow 300 Series Level Invert Screw Cap	For shallow applications only, max 600mm cover to invert
		SUDS02005	Controflow 500 Series Universal Level Invert	Max depth 1.2m
	Skeletank On-Plot Attenuation Tanks	SUDS01101	Controflow 300 Series Stepped Invert Protected Orifice	Prescribed flow rate of 0.2 l/s
	Plastic Crate On-Plot Attenuation Tanks	SUDS01101	Controflow 300 Series Stepped Invert Protected Orifice	If overall depth of tank < 900mm, prescribed flow rate of 0.2 l/s
		SUDS02005	Controflow 500 Series Universal Level Invert	Max depth 1.2m
	General Drainage / Site Outfall	SUDS02005	Controflow 500 Series Universal Level Invert	Max depth 1.2m
Blue / Green Roof Outlets	Roof Outlet / Overflow	SUDS04001	Roof Outlet Flow Control and Overflow Chamber	
	Roof Outlet / Overflow	SUDS04101	Roof Outlet Overflow Chamber	
	Parapet Outlet / Overflow	SUDS04201	Parapet Wall Outlet Flow Control Chamber with Overflow	
	Parapet Outlet / Overflow	SUDS04301	Parapet Wall Outlet Overflow Chamber	
Swale	Swale Inlet / Outlet	SUDS08001	Stainless Steel Mesh Basket and Pipe Guard	

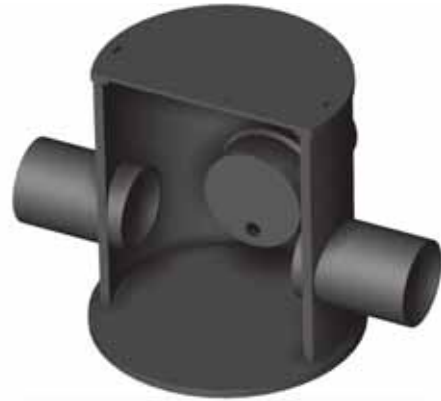
Controflow 300 Series Level Invert Screw Cap

SUDS01001



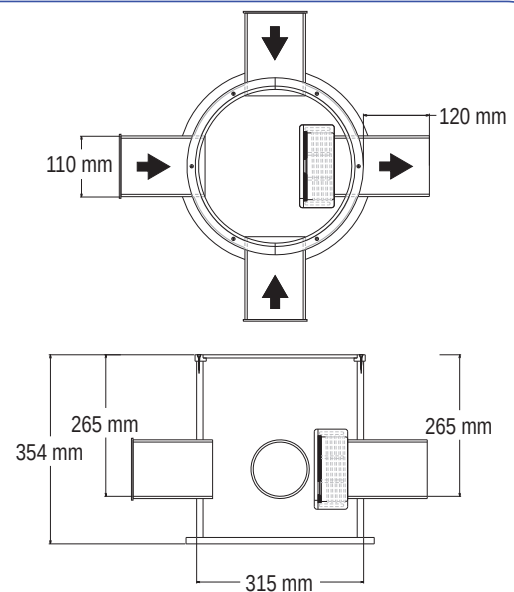
Description

A shallow flow control chamber with a removable, un-guarded circular orifice (to specified diameter), designed to manage pre-filtered outflows from permeable paving or other open graded sub-base constructions. Its small size and low cost make it ideal for check dams between permeable paving compartments. The removable cap locks in position with the orifice at invert level. The chamber is suitable for a maximum depth of 600mm from finished ground level, to the orifice plate and is supplied with three 110mm diameter inlet pipe connection stubs to offer a flexible layout. Supplied with a temporary protective site cover (permanent cover and frame not included).



Packaging Details

Element	Value	Unit
Packaging unit dimension	557 x 356 x 356 (LxWxD)	mm
Packaging unit weight	TBC	kg
Number of units per pallet	20	nr
Pallet dimensions	1200 x 1200 x 150 (LxWxD)	mm
Pallet weight	TBC	kg



Specification

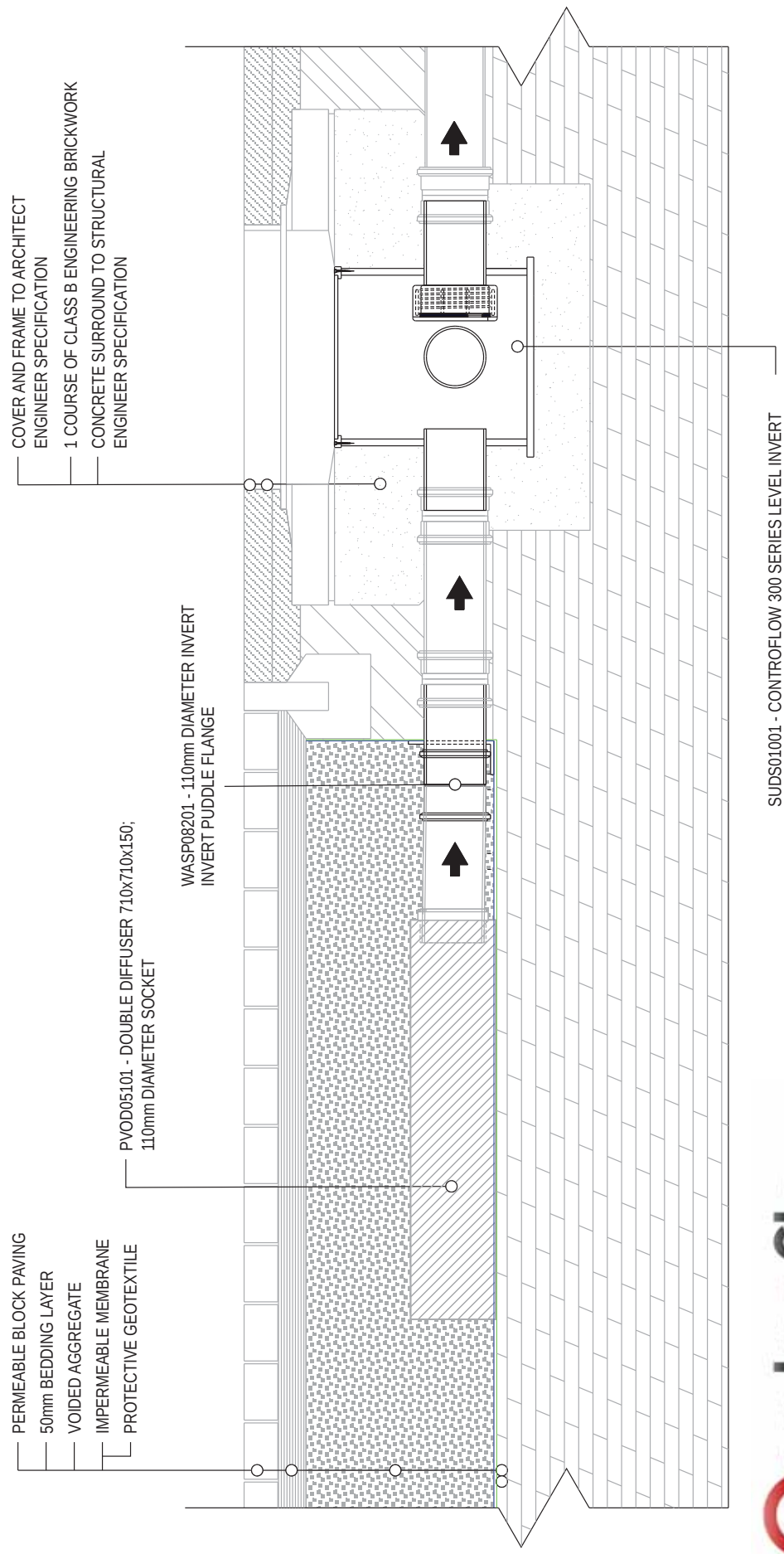
Element	Value	Unit
Overall width	555	mm
Overall depth	354	mm
Depth to invert	265	mm
Number of spigots	3-IN/1-OUT	nr
Spigot O.D ø	110	mm
Orifice type	Removable screw cap	
Unit weight	TBC	kg
Material	HDPE	

Designed for permeable paving

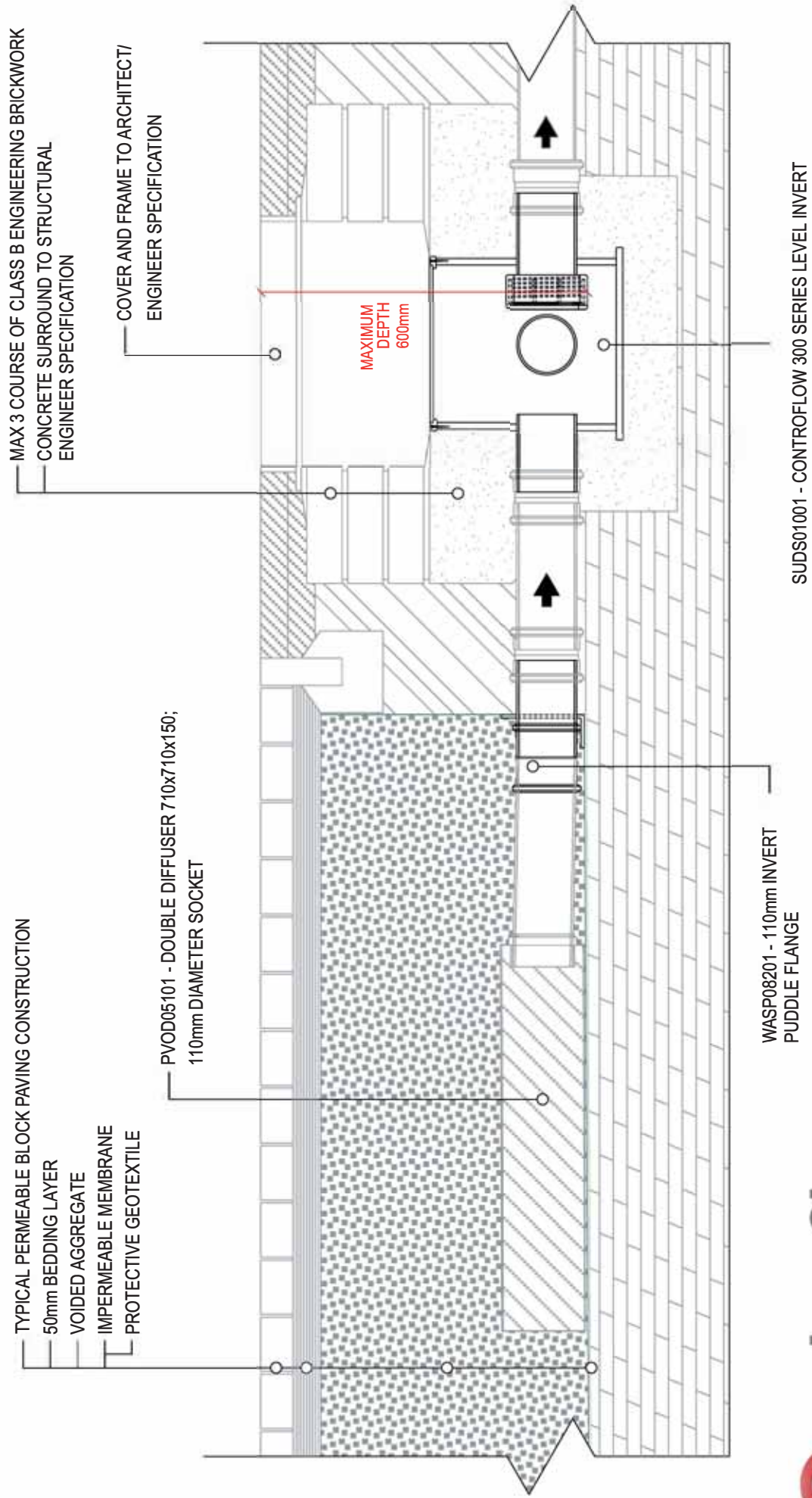
Suitable for shallow construction

Ideal for check dams

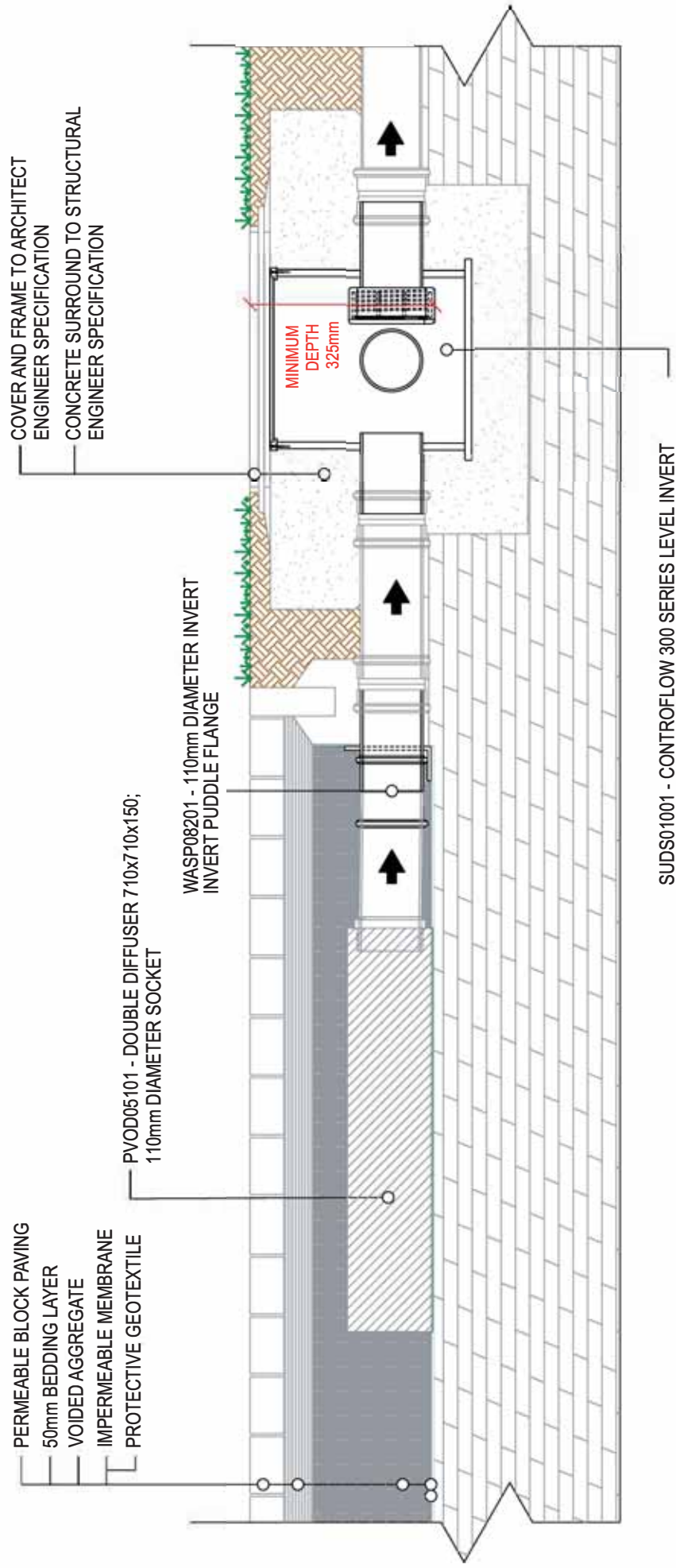
SUDS01001 - CONTROFLOW 300 SERIES LEVEL INVERT GENERAL APPLICATION



SUDS01001 - CONTROFLOW 300 SERIES LEVEL INVERT MAXIMUM DEPTH APPLICATION



SUDS01001 - CONTROFLOW 300 SERIES LEVEL INVERT MINIMUM APPLICATION



Version 4 - Sept 17

Controflow 300 Series Stepped Invert Protected Orifice

SUDS01101



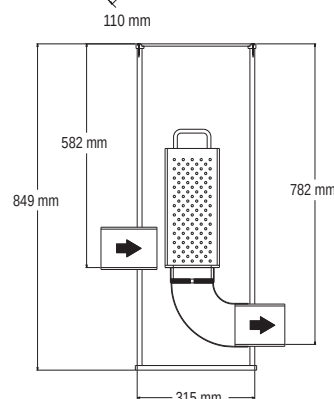
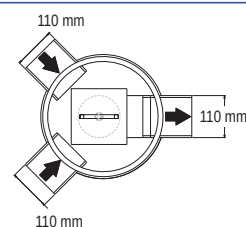
Description

The Controflow 300 Series Stepped Invert Protected Orifice is specifically designed for attenuation on housing developments. The standard 11mm diameter orifice, protected by a removable filter, allows for surface water runoff to be restricted to a flow rate of 0.2 l/s, preferably within the curtilage of each plot to suit the site layout. The chamber is complete with two standard 110mm diameter inlet spigots, and a 200mm sump to accommodate the deposition of any suspended solids. Chambers are supplied with a temporary protective site cover (permanent cover and frame not included).



Packaging Details

Element	Value	Unit
Packaging unit dimension	440 x 852 (WxD)	mm
Packaging unit weight	TBC	kg
Number of units per pallet	TBC	nr
Pallet dimensions	1200 x 1200 x 150 (LxWxD)	mm
Pallet weight	TBC	kg



Specification

Element	Value	Unit
Overall width	436	mm
Overall depth	847	mm
Sump depth	200	mm
Depth to invert of inlet	582	mm
Depth to invert of outlet	782	mm
Inlet Spigot O.D ø	110	mm
Outlet Spigot O.D ø	110	mm
Maximum flow rate	0.2	l/s
Unit weight	TBC	kg
Material	HDPE	

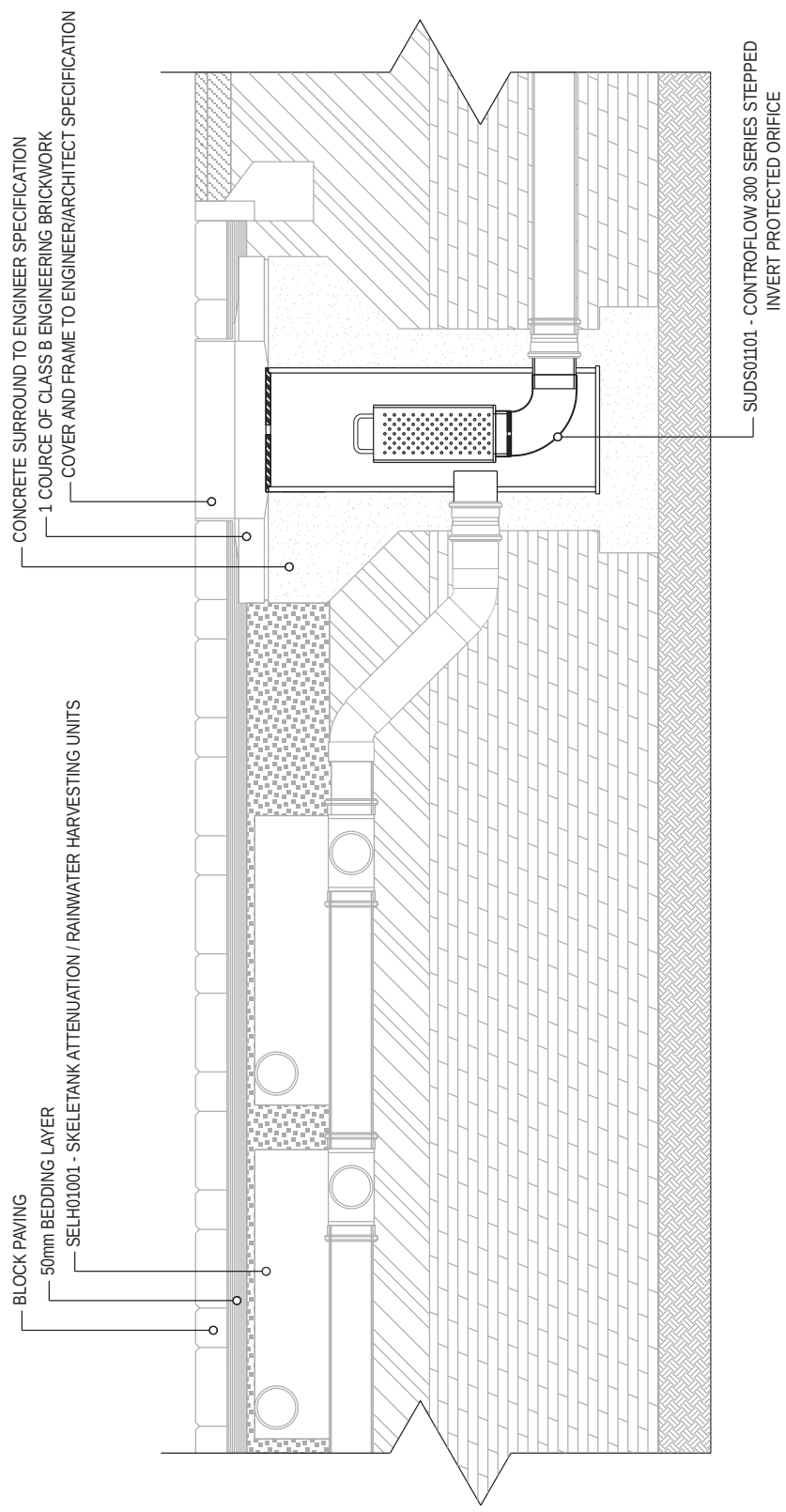
Designed for housing developments

Protected orifice

0.2 l/s restricted flow rate

SUDS01101 - CONTROFLOW 300 SERIES STEPPED INVERT PROTECTED ORIFICE

GENERAL APPLICATION - CONTROLLING OUTLET FLOWS FROM SHALLOW RAINWATER HARVESTING TANKS



Controflow 500 Series Universal Level Invert

SUDS02005



Description

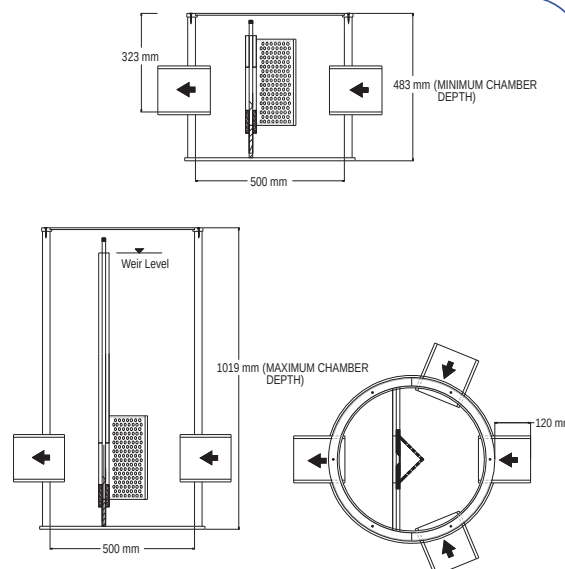
A flexible universal flow control chamber, with level inverts, suitable for any SuDS technique. The slide-out centre plate acts as an overflow weir and contains a circular orifice (to specified diameter), protected by an upstream filter guard. The slide-out centre plate can be temporarily removed to gain access to rod the connections, during regular maintenance services. The Controflow 500 Series Universal Level Invert is available with either 160mm or 110mm diameter connection stubs which offer a flexible layout and is available in depths ranging from 483mm to 925mm. An optional foul air trap is available when connected to the combined sewer. Chambers are supplied with a temporary protective site cover (permanent cover and frame available upon request).



Packaging Details

Element	Value	Unit
Packaging unit dimension	773 x 773 x 1032 (LxWxD)	mm
Packing unit weight	TBC	kg
Number of units per pallet	8	nr
Pallet dimensions	1200 x 1200 x 150 (LxWxD)	mm
Pallet weight	TBC	kg

*packaging dimensions based on maximum chamber depth



Specification

Element	Value	Unit
Maximum depth of chamber	1019	mm
Minimum depth of chamber	483	mm
Overall width	753	mm
Spigot O.D Ø	160 or 110	mm
Orifice type	Fixed plate	
Unit weight	TBC	kg
Material	HDPE	

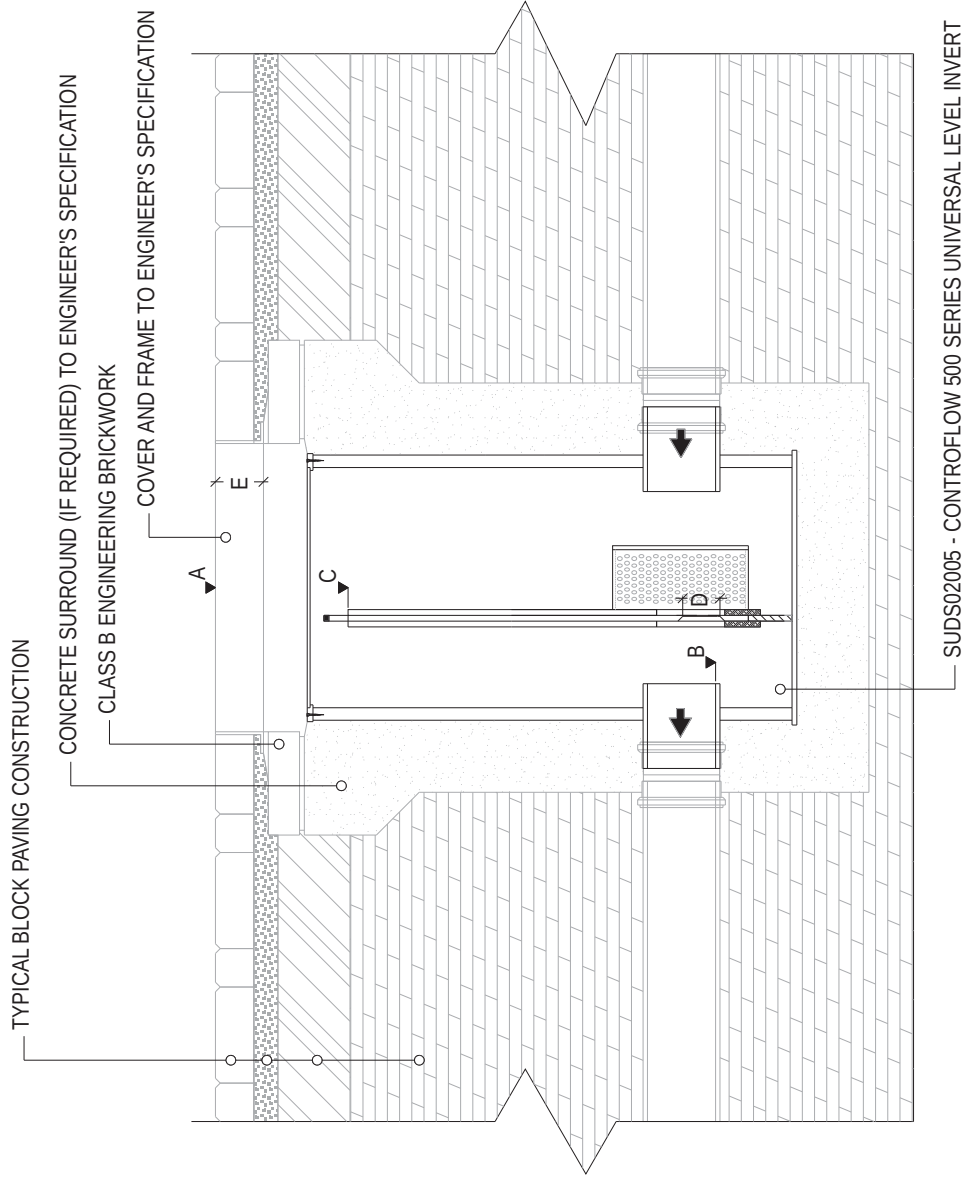
Information Check List

(required prior to order being processed)

Element	Value	Unit
Cover level		m (A.O.D)
Pipe invert level		m (A.O.D)
Weir Level		m (A.O.D)
Orifice diameter		mm
Depth of cover and frame to be used		mm
Spigot Diameter		mm
Number of inlet spigots		nr.

A.O.D - Above Ordinance Datum

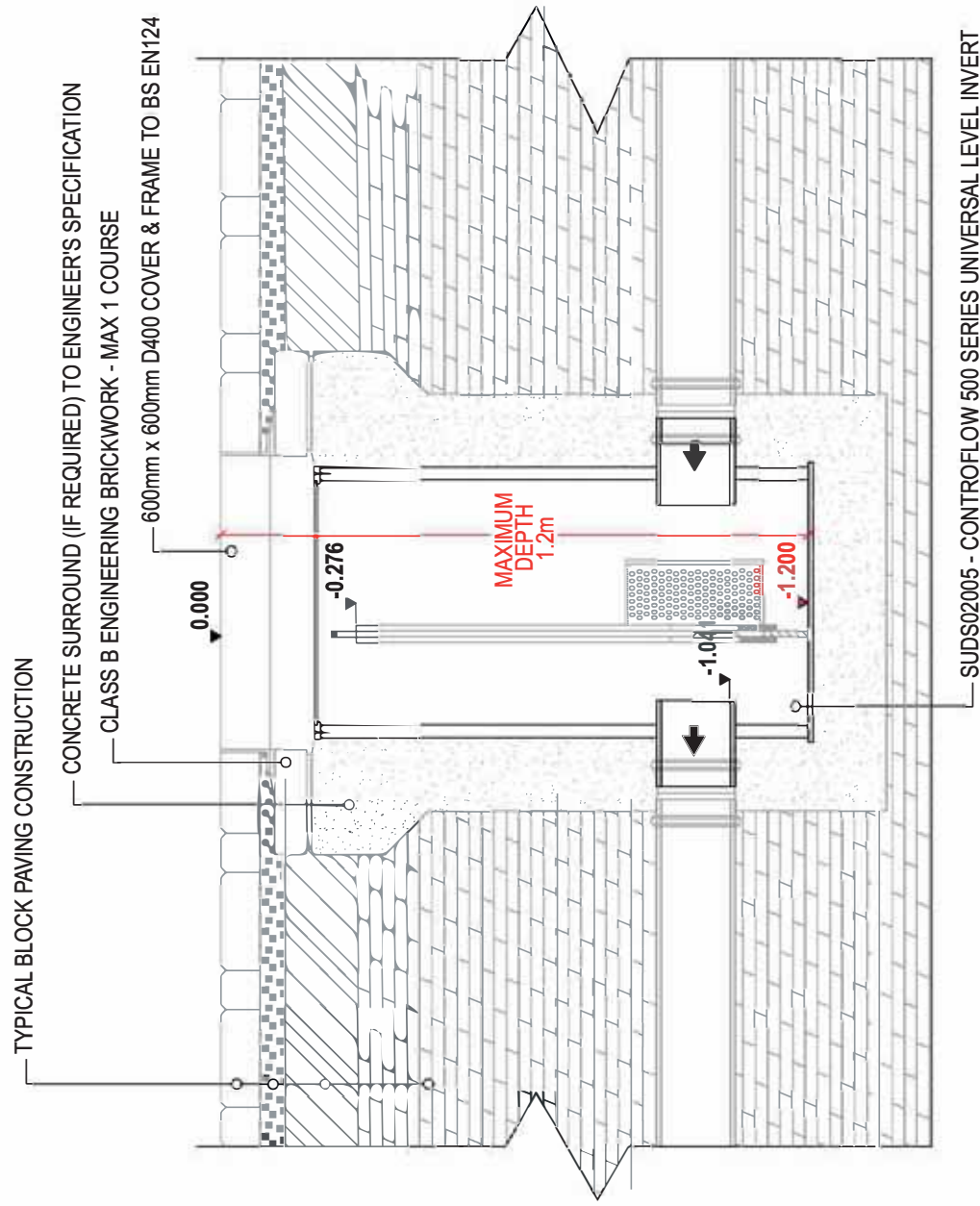
SUDS02005 - CONTROFLOW 500 SERIES UNIVERSAL LEVEL INVERT GENERAL APPLICATION



- A - COVER LEVEL (m AOD)
- B - PIPE INVERT LEVEL (m AOD)
- C - WEIR LEVEL (m AOD)
- D - ORIFICE DIAMETER (mm)
- E - DEPTH OF COVER AND FRAME TO BE USED (mm)

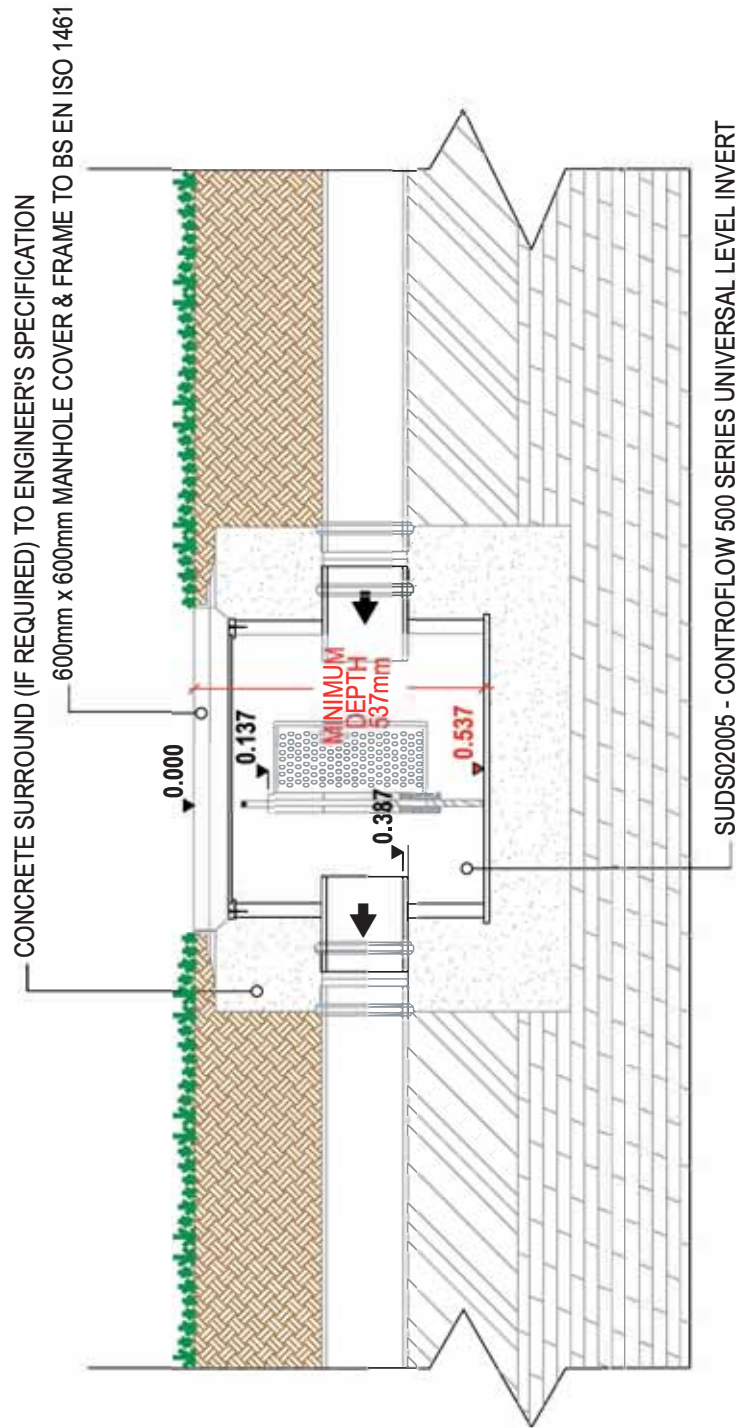


SUDS02005 - CONTROFLOW 500 SERIES UNIVERSAL LEVEL INVERT MAXIMUM DEPTH APPLICATION



NOTE: IN ACCORDANCE WITH BUILDING REGULATIONS H1, CLEARANCE OF BLOCKAGES, TABLE 11. SHOULD THE DEPTH OF THE CHAMBER FROM INVERT LEVEL, TO THE TOP OF THE SPECIFIED COVER EXCEED 1.2 METRES, A RESTRICTED ACCESS COVER NO GREATER THAN 350mm MUST BE USED FOR HEALTH AND SAFETY REASONS TO DETER ENTRY.

SUDS02005 - CONTROFLOW 500 SERIES UNIVERSAL LEVEL INVERT MINIMUM DEPTH APPLICATION



NOTE: IN ACCORDANCE WITH BUILDING REGULATIONS H1, CLEARANCE OF BLOCKAGES, TABLE 11.

SHOULD THE DEPTH OF THE CHAMBER FROM INVERT LEVEL, TO THE

TOP OF THE SPECIFIED COVER EXCEED 1.2 METRES, A RESTRICTED ACCESS

COVER NO GREATER THAN 350mm MUST BE USED FOR HEALTH AND SAFETY REASONS TO DETER ENTRY.

Version 4 - Oct 17

Controflow 500 Series 110 Ø Stubs Stepped Invert Roddable

SUDS02008



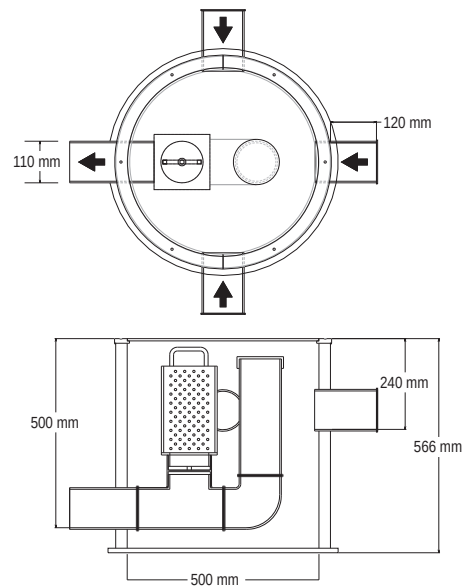
Description

A standard flow control chamber with a single, guarded orifice (to specified diameter), designed to manage outflows from permeable paving or other open graded sub-base construction. Controflow 500 Series 110mm Diameter Stubs Stepped Invert chambers simplify the construction of transitions from shallow permeable paving to deeper constructions or pipe outfalls. The protective guard and orifice cap are removable, and the rodding access upstand can act as an overflow with its cap removed. Three 110mm diameter inlet pipe connection stubs offer layout flexibility. Supplied with a temporary protective site cover (permanent cover and frame not included).



Packaging Details

Element	Value	Unit
Packaging unit dimension	805 x 568 (WxD)	mm
Packaging unit weight	TBC	kg
Number of units per pallet	6	nr
Pallet dimensions	1200 x 1200 x 150 (LxWxD)	mm
Pallet weight	TBC	kg



Specification

Element	Value	Unit
Overall width	803	mm
Overall depth	566	mm
Number of spigots	3-IN/1-OUT	nr
Inlet spigot Ø O.D.	110	mm
Outlet spigot Ø O.D.	110	mm
Maximum flow	10	l/s
Minimum flow	0.2	l/s
Unit weight	20	kg
Material	HDPE	

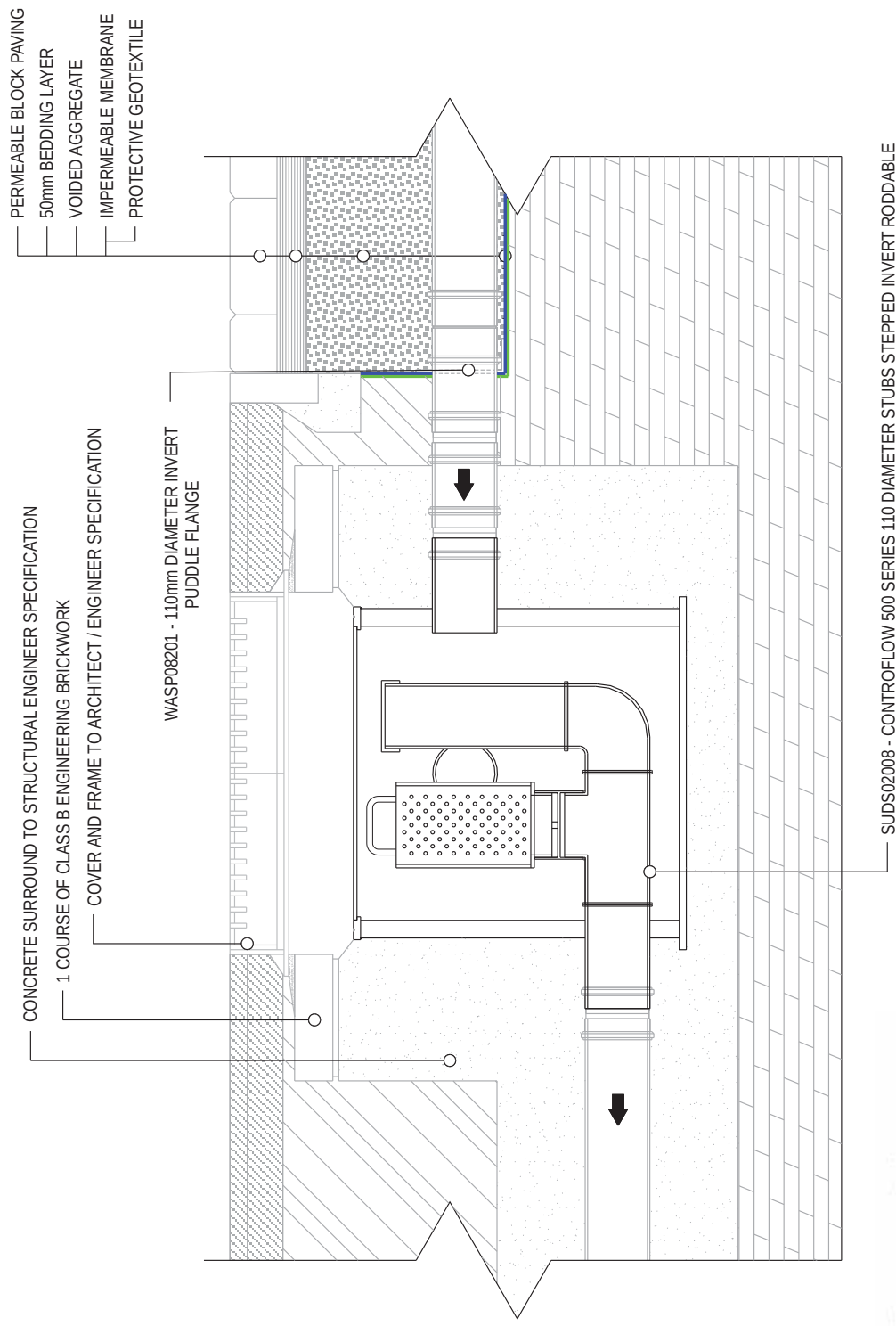
Ideal for permeable paving

Simplifies construction

Orifice guard and rodding access

SUDS02008 - CONTOFLOW 500 SERIES 110 DIAMETER STEPPED INVERT RODDABLE GENERAL APPLICATION

CONTROLLING WATER FLOW FROM PERMEABLE PAVING SYSTEMS TO SEWERS IN DOMESTIC APPLICATIONS



Version 4 - Sept 17

Controflow 600 Series 160 Ø Stubs Stepped Invert Roddable

SUDS03001



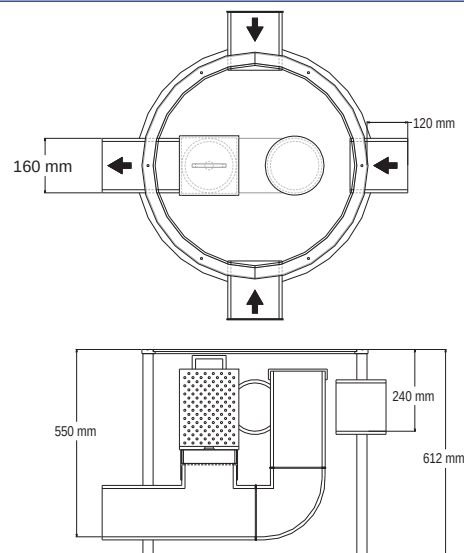
Description

A larger diameter, standard flow control chamber with a single, guarded orifice (to specified diameter), designed to manage outflows from permeable paving or other open graded sub-base construction. Controflow 600 Series 160mm Diameter Stubs Stepped Invert chambers simplify the construction of transitions from shallow permeable paving to deeper constructions, or pipe outfalls. The protective guard and orifice cap are removable, and the rodding access upstand can act as an overflow with its cap removed. Three 160mm diameter inlet pipe connection stubs offer layout flexibility. Supplied with a temporary protective site cover (permanent cover and frame not included).



Packaging Details

Element	Value	Unit
Packaging unit dimension	840 x 616 (WxD)	mm
Packaging unit weight	TBC	kg
Number of units per pallet	TBC	nr
Pallet dimensions	1200 x 1200 x 150 (LxWxD)	mm
Pallet weight	TBC	kg



Specification

Element	Value	Unit
Overall width	836	mm
Overall depth	612	mm
Number of spigots	3-IN/1-OUT	nr
Inlet spigot Ø O.D.	160	mm
Outlet spigot Ø O.D.	160	mm
Maximum flow	TBC	l/s
Minimum flow	TBC	l/s
Unit weight	TBC	kg
Material	HDPE	0

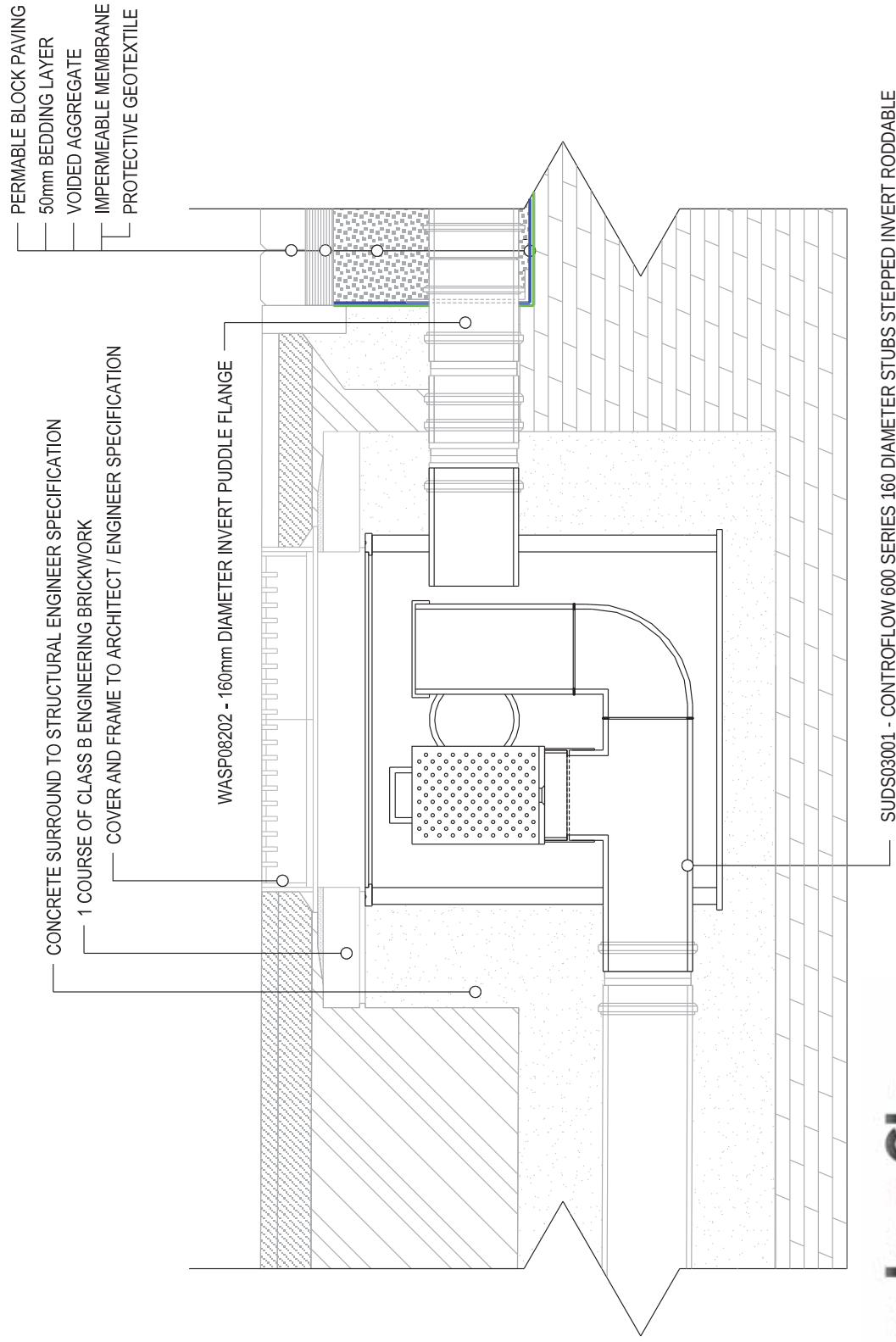
Ideal for permeable paving

Simplifies construction

Orifice guard and rodding access

SUDS03001 - CONTROFLOW 600 SERIES 160 DIAMETER STUBS STEPPED INVERT RODDABLE GENERAL APPLICATION

CONTROLLING WATER FLOW FROM PERMEABLE PAVING SYSTEMS TO SEWERS FOR COMMERCIAL APPLICATIONS



Version 3 - Sept 17

Roof Outlet Flow Control and Overflow Chamber

SUDS04001

Description

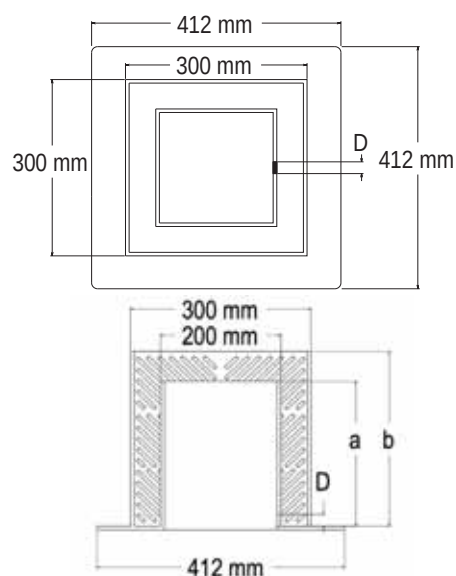
The Controflow Roof Outlet Overflow Control Chamber, is a universal combined flow control and overflow chamber for use on blue and green roofs. The roof outlet chamber can be easily installed, and is ideal for restricting flows from blue/green roofs, without interfering with existing roof outlets. Each chamber is designed to limit the flow through an orifice at the required discharge rate, and has an integral debris filter and an unrestricted overflow through a vertical outlet. (permanent cover and frame available upon request)

Controflow



Packaging Details

Element	Value	Unit
Packaging unit dimension	TBC	mm
Packaging unit weight	TBC	kg
Number of units per pallet	TBC	nr
Pallet dimensions	TBC	mm
Pallet weight	TBC	kg



Specification

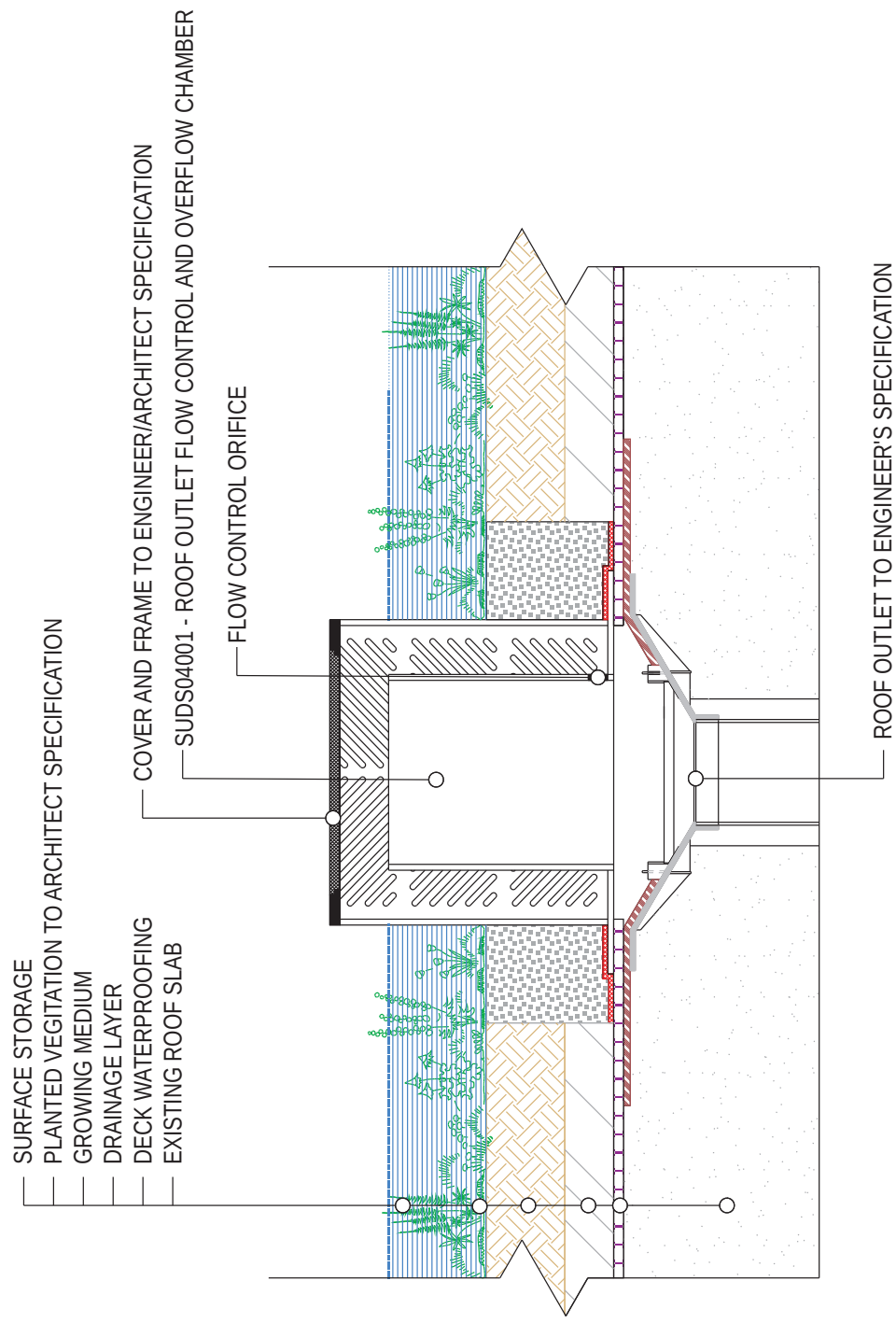
Element	Value	Unit
Overall width	412	mm
Overall depth	412	mm
Maximum flow	TBC	l/s
Minimum flow	TBC	l/s
Unit weight	TBC	kg
Material	HDPE	

Integral debris filter

Universal flow control outlet

Combined flow control and overflow

SUDS04001 - ROOF OUTLET FLOW CONTROL AND OVERFLOW CHAMBER GENERAL APPLICATION



Roof Outlet Overflow Chamber

SUDS04101



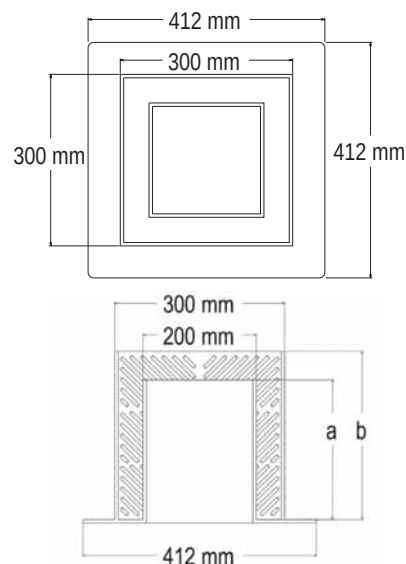
Description

An overflow chamber for use on green/blue roofs designed to allow water to overflow and discharge through a vertical outlet. (permanent cover and frame not included)



Packaging Details

Element	Value	Unit
Packaging unit dimension	0	mm
Packaging unit weight	0	kg
Number of units per pallet	0	nr
Pallet dimensions	0	mm
Pallet weight	0	kg



Specification

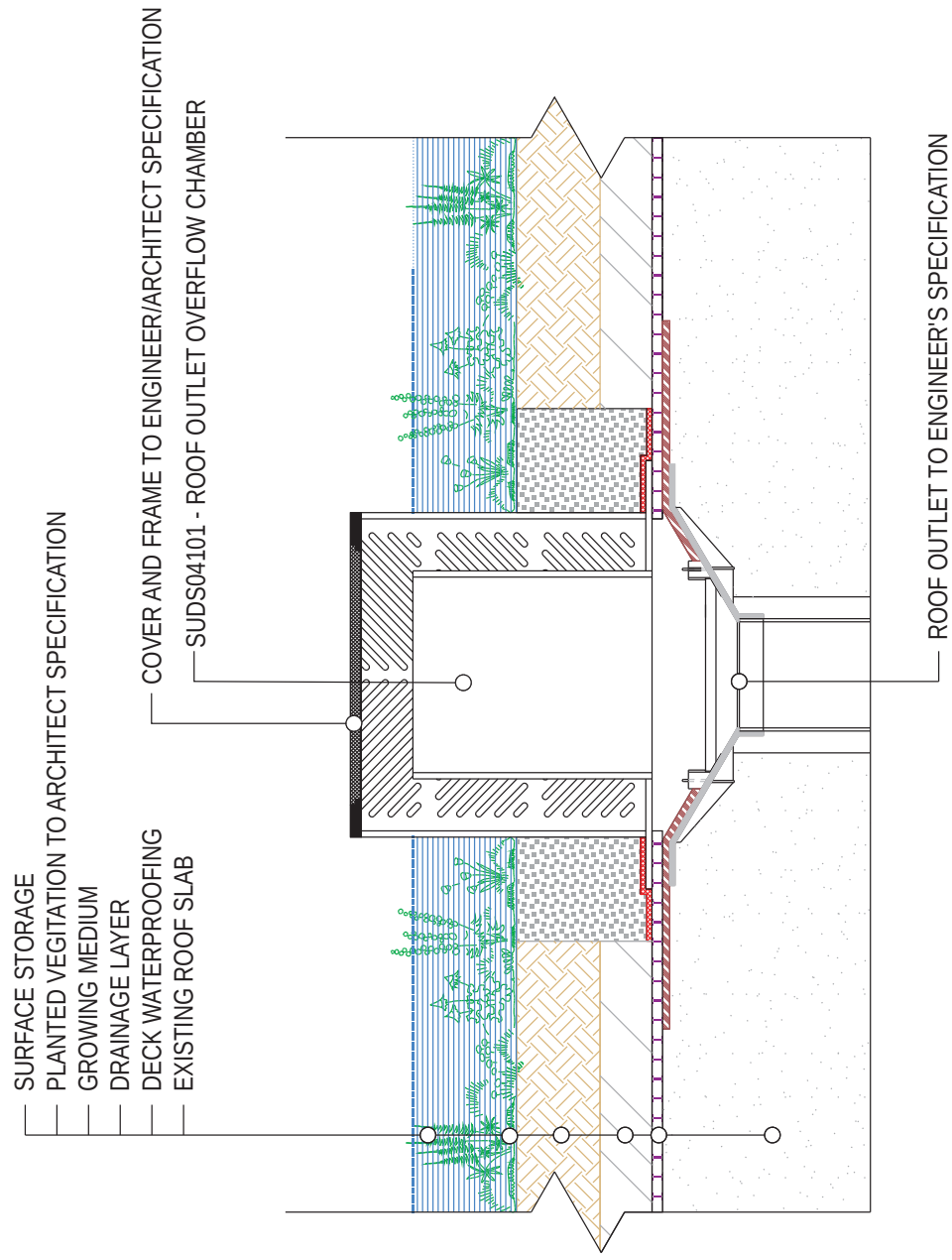
Element	Value	Unit
Overall width	412	mm
Overall depth	412	mm
Unit weight	TBC	kg
Material	HDPE	

Easy to install

Universal roof outlet overflow

Suitable for varying green/blue roof constructions

SUDS04101 - ROOF OUTLET OVERFLOW CHAMBER GENERAL APPLICATION



Parapet Wall Outlet Flow Control Chamber with Overflow

SUDS04201



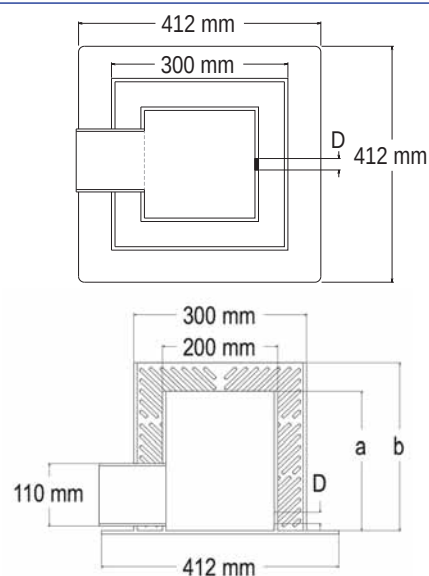
Description

A flow control chamber, with a combined overflow, to suit green/blue roof constructions with parapet wall outlets. Designed to limit water flows through an orifice to the designed discharge rate. The SUDS04201 - Parapet Wall Outlet Flow Control Chamber with Overflow is supplied with an integral debris filter to protect the orifice, ensuring unhindered flow control performance. (cover and frame available upon request)



Packaging Details

Element	Value	Unit
Packaging unit dimension	TBC	mm
Packaging unit weight	TBC	kg
Number of units per pallet	TBC	nr
Pallet dimensions	TBC	mm
Pallet weight	TBC	kg



Specification

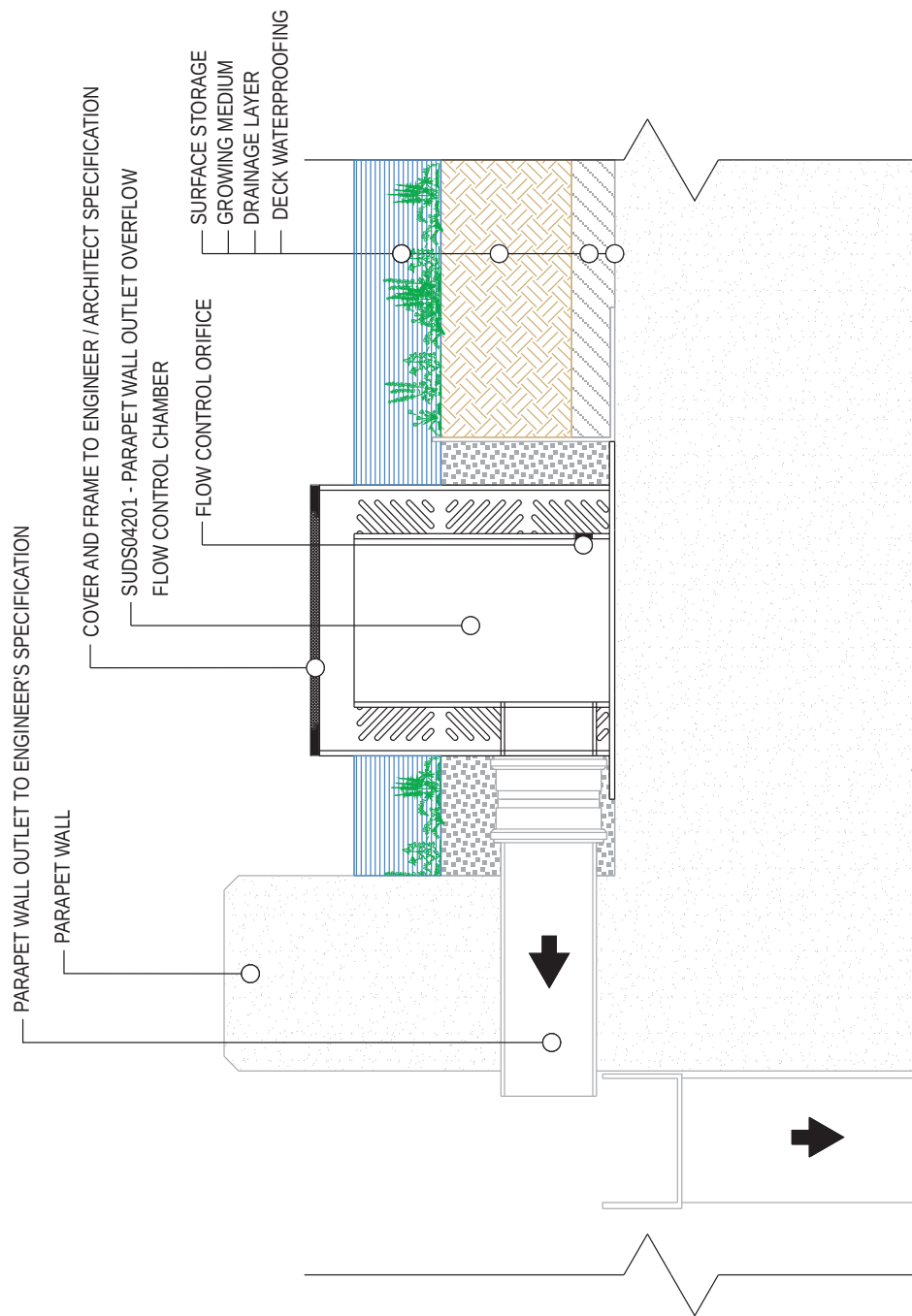
Element	Value	Unit
Overall width	412	mm
Overall length	412	mm
Maximum flow	TBC	l/s
Minimum flow	0.2	l/s
Outlet spigot diameter	110	mm
No. of spigots	1	nr
Unit weight	TBC	kg
Material	HDPE	

Universal parapet roof outlet

Restricts flows to designed rates

Suitable for varying green/blue roof constructions

SUDS04201 - PARAPET WALL OUTLET OVERFLOW FLOW CONTROL CHAMBER GENERAL APPLICATION



Parapet Wall Outlet Overflow Chamber

SUDS04301

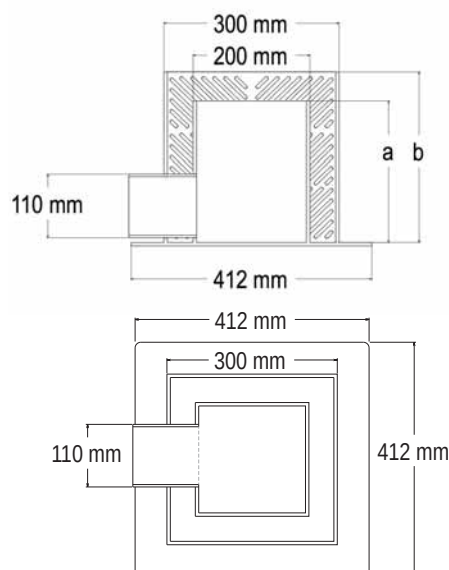
Description

A flow control chamber, with a combined overflow, to suit green/blue roof constructions with parapet wall outlets. Designed to allow water to flow unrestricted through the parapet wall, preventing green/blue roof constructions from exceeding the designed top water level. The chamber is supplied with an integral debris filter and a standard 110mm $\varnothing$ push fit PVC-u coupling for connection to existing roof outlets. (permanent cover and frame not included)



Packaging Details

Element	Value	Unit
Packaging unit dimension	TBC	mm
Packaging unit weight	TBC	kg
Number of units per pallet	TBC	nr
Pallet dimensions	TBC	mm
Pallet weight	TBC	kg



Specification

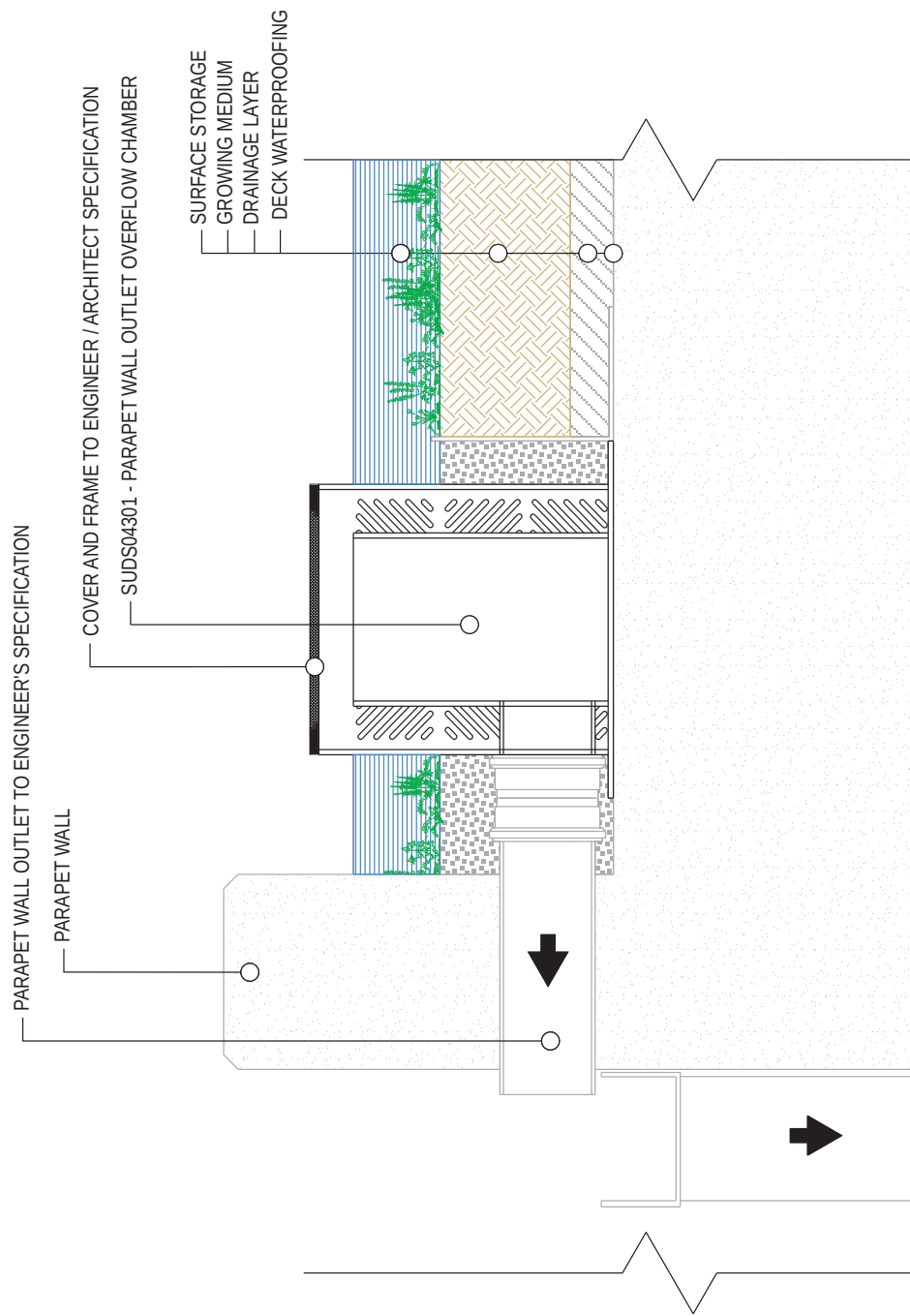
Element	Value	Unit
Overall width	412	mm
Overall length	412	mm
Outlet spigot diameter	110	mm
No. of spigots	1	nr
Unit weight	TBC	kg
Material	HDPE / PVC-u	

Universal parapet roof outlet

Unrestricted overflow to existing outlet

Suitable for varying green/blue roof constructions

SUDS04301 - PARAPET WALL OUTLET OVERFLOW CHAMBER GENERAL APPLICATION



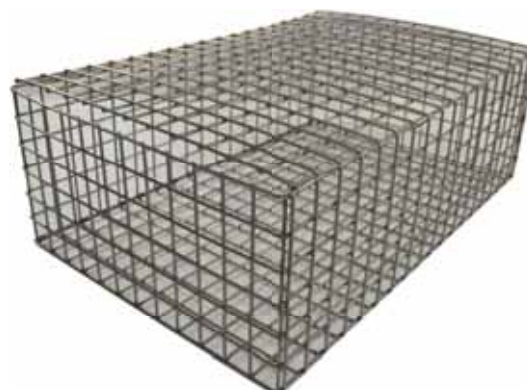
750x600x450 Stainless Steel Mesh Basket

SUDS08001



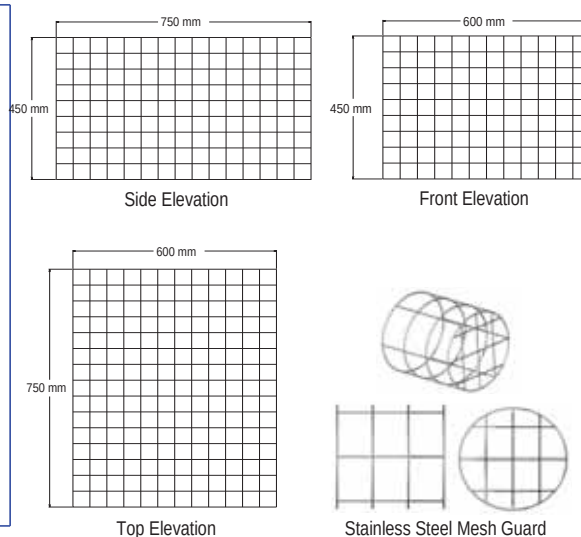
Description

The Controflow Stainless Steel Mesh Basket serves as a decorative and functional inlet, or outlet, to swales. The Stainless Steel Mesh Basket are to be filled with 50mm - 80mm stone, and installed in accordance with site specific drawings and specifications. All baskets are supplied with a stainless steel mesh pipe guard, sized to suit the inlet or outlet pipe.



Packaging Details

Element	Value	Unit
Packaging unit dimension	750x600x450 (LxWxD)	mm
Packaging unit weight	TBC	kg
Number of units per pallet	8	nr
Pallet dimensions	1200x1200x150 (LxWxD)	mm
Pallet weight	TBC	kg



Specification

Element	Value	Unit
Unit width	600	mm
Unit Length	750	mm
Unit depth	450	mm
Basket lid mesh Ø	5	mm
Basket body mesh Ø	3	mm
Mesh aperture	50	mm
Unit weight	TBC	kg
Material	Stainless Steel	

*Stainless steel mesh guard sized to suit inlet/outlet pipe

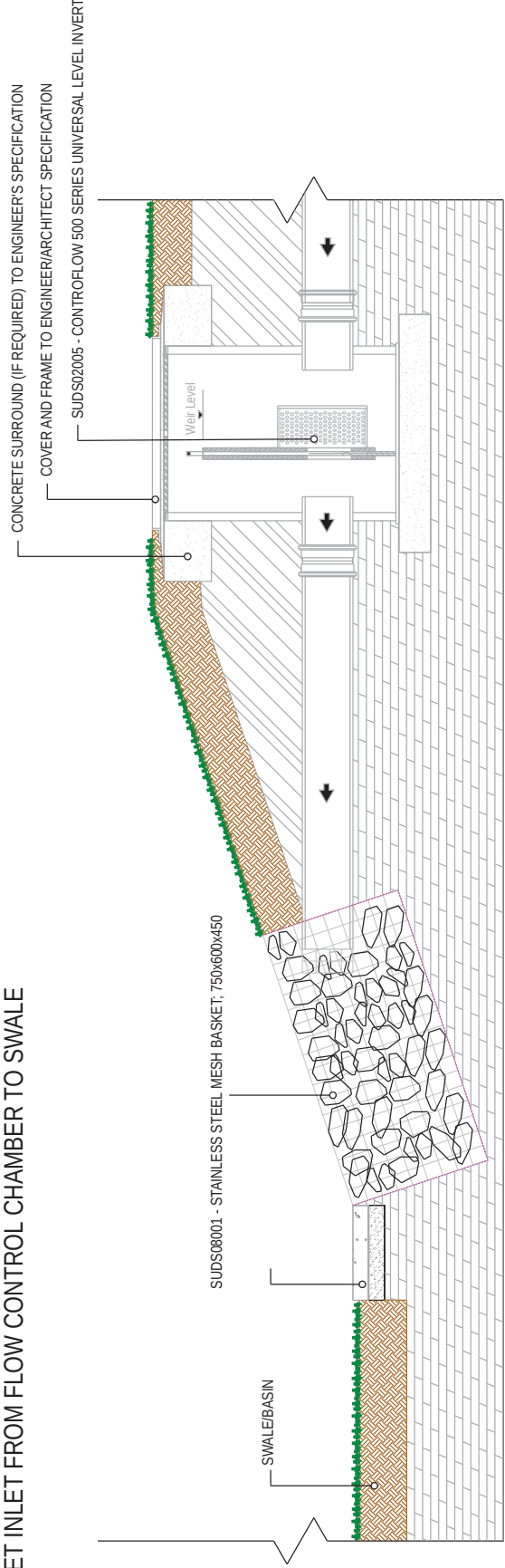
Stainless steel construction

Stainless steel pipe mesh guard

Decorative and functional

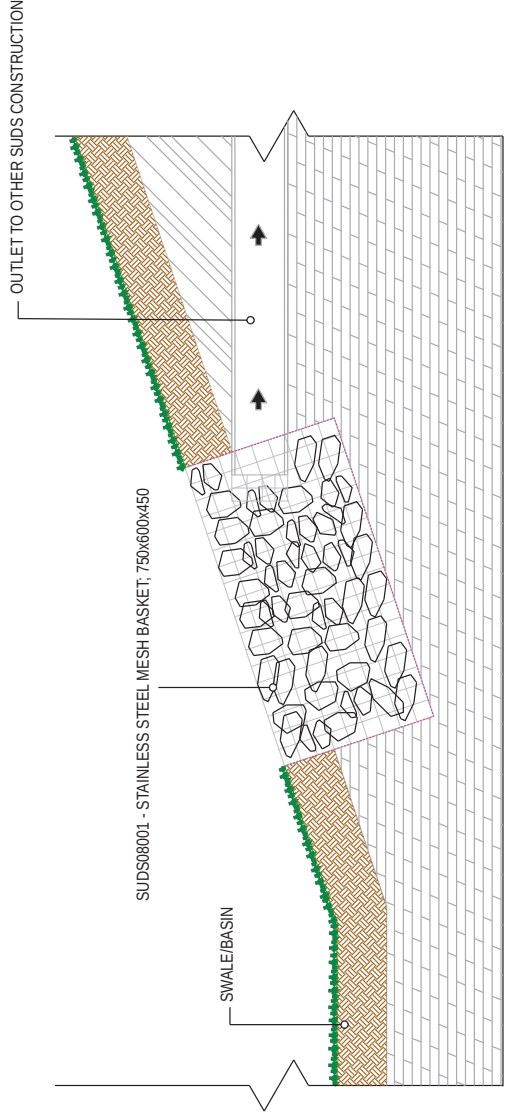
SUDS08001 - STAINLESS STEEL MESH BASKET; 750x600x450 EXAMPLE APPLICATION 1

BASKET INLET FROM FLOW CONTROL CHAMBER TO SWALE



SUDS08001 - STAINLESS STEEL MESH BASKET; 750x600x450 EXAMPLE APPLICATION 2

BASKET OUTLET FROM SWALE TO OTHER SUDS CONSTRUCTION





flow controls dedicated to SuDS



Controflow® control chambers are specifically designed for shallow SuDS elements to manage rainwater runoff, including permeable pavements, swales and basins. They feature orifices, guarded where necessary, which are accessible for demonstrating straightforward compliance to local authorities as part of the SuDS design approval process. A universal stainless steel mesh SuDS Basket, for filling with stone, acts as an attractive pipe inlet or outlet within landscaped SuDS features.

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SuDS
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