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Sales & Products

☎ 0800 195 1212

✉ sales@jdpipes.co.uk

General Enquiries

☎ 01228 791503

✉ contact@jdpipes.co.uk

Technical Support

☎ 01228 794445

✉ technical.support@jdpipes.co.uk

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JDP is more than just a merchant. As part of Tessengerlo Group, a worldwide organisation operating across 21 countries, our manufacturing capabilities, technical knowledge and extensive product knowledge makes us one of the leading experts in your industry.

By continuing to invest in extensive stock levels to ensure local availability of our product range, and combining expertly trained staff, our own specially designed vehicle fleet, a dedicated in-house Technical Support team and a growing nationwide network of branches, JDP is always close to the project and ready to serve.

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John Davidson (Pipes) Limited, Townfoot, Longtown, Carlisle, Cumbria, CA6 5LY
Tel: 01228 791503 Email: contact@jdpipes.co.uk Web: www.jdpipes.co.uk

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1 Exchange Crescent, Conference Square, Edinburgh, EH3 8UL



REV1-1805

LAND DRAIN & TWINWALL SURFACE WATER DRAINAGE

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As urbanisation and the demand for food increases preventing flooding, re-using surface water, and increasing crop yields are critical challenges for the modern world.

JDP provides high quality land drain and twinwall products that, as part of a sustainable drainage system, can help protect homes, businesses and the environment from flooding as well as offering a solution to improve soil quality and harvests.



Land Drain

Efficient drainage in agriculture is essential to maintaining a good ground surface.

Flexible land drain coils can provide a versatile system to cover vast open areas at a fraction of the cost of traditional methods.

Loss of use due to water logging or damage can be eliminated by land drain, and an improved drainage system can improve soil structure and provide better quality vegetation and grass by as much as 150%.

Twinwall

In construction, it's important to remove surface water quickly and efficiently to prevent localised flooding.

Ground water can also increase static load on underground structures and retaining walls.

Utilising rigid twinwall lengths can provide high capacity drainage, and its strength and adaptability makes these systems a cost effective alternative to concrete or clay.



Land Drain & Twinwall Applications

Both land drain and twinwall are versatile drainage products making them useful in a variety of projects and situations from small gardens to motorways and highways.

Choosing the right product depends on the ground conditions and area that drainage is required. The larger the diameter, the more effective the drainage, but too large of a diameter may over-dry the ground; if the ground is very porous a smaller diameter may effectively be used to remedy drainage issues.

As experts in drainage and water management JDP can help guide you to the right products for your project.

Application Guidance

Application	Land Drainage					Twinwall					
	60	80	100	160	110	150	225	300	375	450	600
Small Gardens (up to 300m ²)	✓	✓	-	-	-	-	-	-	-	-	-
Large Gardens (300m ² +)	-	✓	✓	-	✓	-	-	-	-	-	-
Driveways	-	-	-	-	✓	✓	-	-	-	-	-
Open Spaces	-	-	✓	✓	✓	✓	-	-	-	-	-
Large Fields	-	-	-	✓	-	✓	✓	-	-	-	-
Culverts	-	-	-	-	-	-	-	✓	✓	✓	✓
Access Roads	-	-	-	-	-	✓	✓	✓	-	-	-
Highways	-	-	-	-	-	-	-	✓	✓	✓	✓

For guidance only. Soil conditions, specifications and standards may vary.



Small Garden Large Garden Open Spaces Large Fields Culverts Highways

Connecting Land Drain & Twinwall

Land drain & twinwall connect together using flexible drainage adaptors available from JDP.



Land Drain	Twinwall	Code
Nominal Size (mm)	Nominal Size (mm)	
60	110	2004AC1154
80	110	2004AC1251
100	110	2004SC115
100	150	2004AC1801
160	110	2004AC1702
160	150	2004AR1500
160	225	2004AC2904

Connecting Surface Water & Foul Sewer Drainage Systems

Surface water systems should always discharge to a suitable watercourse or soakaway point. In rare circumstances, they discharge into a foul sewer system, but only with permission from the local authority.

In these situations, and where these systems join, utilise an inspection chamber to ensure access for maintenance and inspection.



Description	Code
110mm PPIC Chamber Base Ø 320mm 170mm deep, 3x 110mm inlets	01024DSMB3
Ø 320mm Chamber Riser x 190mm With sealing ring	01024DSMR190
Ø 320mm PPIC A15 Round Cover & Frame	01024DSMCDR
Description	Code
110mm PPIC Chamber Base Ø 450mm 250mm deep	01024DLMB
Ø 450mm Chamber Riser x 235mm With sealing ring	01024DLMR
Ø 450mm PPIC A15 Square to Round Cover & Frame	01024DLMCR

Land drain systems should never connect to foul sewers. Contact JDP technical support for more information.





Perforated Coil (Non Kitemarked)

Nominal Size (mm)	ID (mm)	Coil Length (m)	Coil Weight (kg)	Code
60	50	50	9.00	0504SP6050
		150	27.00	0504SP60150
80	65	25	6.75	0504SP8025
		50	13.50	0504SP8050
100	85	100	27.00	0504SP80100
		25	9.25	0504SP10025
100	85	50	18.50	0504SP10050
		100	37.00	0504SP100100
160	135	50	39.50	0504SP16050



End Caps

60mm Coil End Cap	0511HEC60
80mm Coil End Cap	0511HEC80
100mm Coil End Cap	0511HEC100
160mm Coil End Cap	0511HEC160

End cap colour may vary



Branches

100 x 60 - 100mm Multibranch Junction	0511LDJ100
100 x 60 - 100mm Maxi Multi Junction	0510CDJ10M
160 x 60 - 160mm Multibranch Junction	0511LDJ160
160 x 60 - 160mm Maxi Multi Junction	0510CDJ160M



Unperforated Coil (Non Kitemarked)

Nominal Size (mm)	ID (mm)	Coil Length (m)	Coil Weight (kg)	Code
60	50	150	9.00	0504SU60150
80	65	50	13.50	0504SU8050
		100	27.00	0504SU80100
100	85	25	9.25	0504SU10025
		50	18.50	0504SU10050
100	85	100	37.00	0504SU100100
		25	9.25	0504SU10025
160	135	50	39.50	0504SU16050

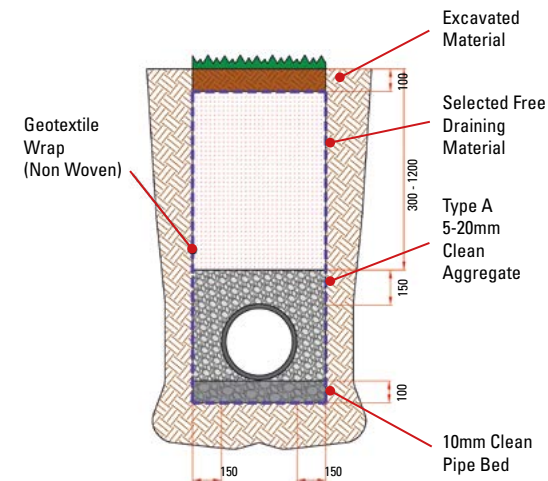
Connectors

60mm Coil Connector	0511DC60
80mm Coil Connector	0511DC80
100mm Coil Connector	0511DC100
160mm Coil Connector	0511DC160



Typical Land Drain Installation

In good practice, surface water drainage & foul sewer systems should be separated and should never directly connect to one another. In rare circumstances, use an inspection chamber or catchpit to merge drainage systems.



Minimum cover depth should be at least 450mm to prevent damage due to surface traffic or maintenance operations. Use a combination of junctions and runs to gain maximum drainage area. Runs should be spaced approximately 3 to 4m apart. The choice of permeable backfill is imperative to the longevity of the system. If draining into a watercourse a suitable headwall with vermin guard must be used.



Unperforated Twinwall (Carrier Drain)

Nominal Size (mm)	ID (mm)	OD (mm)	Length (m)	Weight (kg/m)	Code
110	100	119	6	0.8	0425110TPU
150	149	178	6	1.4	0425150TPU
225	221	265	6	3.0	0425225TPU
300	295	354	6	5.0	0425300TPU
375	372	426	6	6.0	0425375TPU
450	445	512	6	8.5	0425450TPU
600	592	680	6	14.5	0425600TPU



Sealing Rings (Plain End Pipe)

Nominal Size (mm)	Code
110	0425110TRS
150	0425150TRS
225	0425225TRS
300	0425300TRS
375	0425375TRS
450	0425450TRS
600	0425600TRS



Perforated Twinwall (Filter Drain)

Nominal Size (mm)	ID (mm)	OD (mm)	Length (m)	Weight (kg/m)	Code
110	100	119	6	0.8	0425110TPP
150	149	178	6	1.4	0425150TPP
225	221	265	6	3.0	0425225TPP
300	295	354	6	5.0	0425300TPP
375	372	426	6	6.0	0425375TPP
450	445	512	6	10.2	0425450TPP
600	592	680	6	14.5	0425600TPP



End Caps

Nominal Size (mm)	Code
110	0401EC1059
150	0401EC1778
225	0401EC5064
300	0401EC6010



Double Socket Bends

Nominal Size (mm)	11.25°/15°	22.5°/30°	45°	90°
110	0425110X15TB	0425110X30TB	0425110X45TB	0425110X90TB
150	0425150X15TB	0425150X30TB	0425150X45TB	0425150X90TB
225	0425225X15TB	0425225X30TB	0425225X45TB	0425225X90TB
300	0425300X15TB	0425300X30TB	0425300X45TB	0425300X90TB
375	0425375X15TB	0425375X30TB	0425375X45TB	0425375X90TB
450	0425450X15TB	0425450X30TB	0425450X45TB	0425450X90TB
600	0425600X15TB	0425600X30TB	0425600X45TB	0425600X90TB

Double Socket Couplings



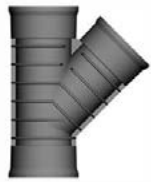
Nominal Size (mm)	Code
110	0425110TC
150	0425150TC
225	0425225TC
300	0425300TC
375	0425375TC
450	0425450TC
600	0425600TC

Equal Junctions



Nominal Size (mm)	45° Code	90° Code
110	0425100X45YJ	0425110X90TJ
150	0425150X45YJ	0425150X90TJ
225	0425225X45YJ	0425225X90TJ
300	0425300X45YJ	0425300X90TJ
375	0425375X45YJ	0425375X90TJ
450	0425450X45YJ	0425450X90TJ
600	0425600X45YJ	0425600X90TJ

Unequal Junctions



Nominal Size (mm)		45° Code	90° Code
Main	Branch		
150	110	0425150X100YJ	0425150X110TJ
150	150	0425150X150YJ	0425150X150TJ
225	150	0425225X150YJ	0425225X150TJ
225	110	0425225X100YJ	0425225X110TJ
225	225	0425225X225YJ	0425225X225TJ
300	300	0425300X300YJ	0425300X300TJ
300	150	0425300X150YJ	0425300X150TJ
300	225	0425300X225YJ	0425300X225TJ
375	150	0425375X150YJ	0425375X150TJ
450	150	0425450X150YJ	0425450X150TJ
600	150	0425600X150YJ	0425600X150TJ

Sewer Reducer



Nominal Size (mm)		Code
Main	Branch	
150	110	0425FAB150X110R
225	110	0425FAB225X110R
225	160	0425FAB225X160R
300	110	0425FAB300X110R
300	160	0425FAB300X160R

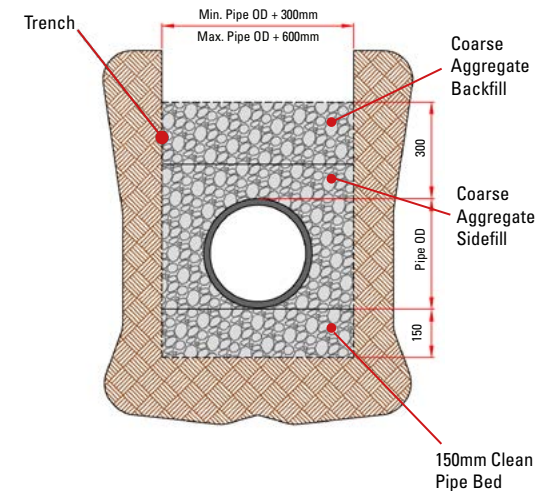
Level Invert Reducers



Nominal Size (mm)		Code
Main	Branch	
150	110	0425FAB150X110TR
225	110	0425FAB225X94TR
225	150	0425FAB225X150TR
300	110	0425FAB300X94TR
300	150	0425FAB300X150TR
300	225	0425FAB300X225TR

Typical Twinwall Installation

In good practice, surface water drainage & foul sewer systems should be separated and should never directly connect to one another. In rare circumstances, use an inspection chamber or catchpit to merge drainage systems.



Trench width no wider than OD +600mm and no narrower than OD +300mm, though larger trenches are permissible.

150mm pipe bed should be free from voids, local soft spots removed and replaced with hardcore. Sidefill material is to be a single sized coarse aggregate in accordance with BS EN 13242:4.3.2, compacted to 95% at 150-300mm layers, and should extend to a minimum of 100mm over the crown of the pipe.

Backfill should continue to a minimum of 300mm above the crown of the pipe, compacted in 300mm layers, with suitable material free of any stone particles larger than 50mm.

Specifications vary. For highways reference the Manual of Contract Documents for Highway Works Volume 3 drawing no. F1 (Types T & S) and F2 (Types G, H & I).