



OFF MAINS DRAINAGE CATALOGUE



Sewage Treatment Plants

Septic Tanks

Septic Tank Conversion Plants

Rainwater Harvesting Systems



Pump Stations

Grease Traps

Septic Tank Filters



Marsh Industries

Marsh Industries

Introduction

Marsh Industries is an independent British company based in Kettering Northamptonshire. We manufacture Sewage, Drainage and Water Recycling products, supplying major UK Builders & Civil Engineering Merchants. We are also used and specified by major contractors and institutions such as the National Trust, English Heritage, British Waterways, RSPCA and the Environment Agency.

Major capital investment in new tooling, patterns, moulds along with product development has resulted in us being able to offer extremely competitive priced products.

This catalogue gives details of our extensive ranges of products ranging from:

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Marsh products have been tested and certified to European standards where appropriate.



Part of the production units at Kettering



Marsh Ensign Domestic Sewage Treatment Plants

6PE-20PE (Off Mains Drainage)



Estimation For The Correct Plant Size	6PE	10PE	12PE	16PE	20PE
Suitable For Any Of These PE=People	4 bed residence 6 people	2no. 3 bed residences 10 people	2no. 4 bed residences 12 people	1no. 4 bed & 2no. 3 bed residences 16 people	3no. 4 bed residences 18 people
At Work or Office no. canteen	9 people working	15 people working	18 people working	25 people working	32 people working
Height Tank	1935mm	1935mm	2139mm	2284mm	2284mm
Width Tank	1650mm	1650mm	1912mm	1912mm	1912mm
Length Tank	2602mm	2602mm	2860mm	2860mm	3400mm
Ground Level To Inlet Invert	550mm	550mm	550mm	720mm	720mm
Ground Level To Outlet Invert	625mm	625mm	625mm	800mm	800mm
Compressor Internal or External	Either But External Better	Either But External Better	Either But External Better	Either But External Better	Either But External Better
Max. Power Consumption	35w	45w	70w	120w	120w
Final Effluent Quality BOD/TSS/Ammonia	12:19:09	12:19:09	12:19:09	12:19:09	12:19:09
Gravity Or Pumped Outlet	Both Available	Both Available	Both Available	Both Available	Both Available
Invert Risers Available	Yes	Yes	Yes	Yes	Yes
De-sludging Full Loading Months	12	12	12	12	12
Weight Empty (approx.)	250kg	250kg	360kg	375kg	500kg
Tested & Certified To EN12566-3	Yes	Yes	Yes	Yes	Yes
Surround Concrete Pea-shingle	2m ³	2m ³	3m ³	3.2m ³	3.9m ³

Marsh ENsign Range
Sewage Treatment Plants From 6 – 50PE
Six Person to Fifty Person

- Tested
- Approved
- Certified
- Ex-Stock
- Great Value
- High Performance
- Low Running & Maintenance

- Made for domestic & commercial off mains drainage
- Designed & tested to EN 12566-3:2005 + A1:2009
- The plant has low visual impact with unobtrusive lids
- Normally only needs a granular surround.
- The self aligning low profile means faster installation
- Estimated annual running costs of £52 for six persons
- Easy access, with integral separate de-sludge pipe
- Almost silent running & odour free
- Manufactured in the United Kingdom and is backed with a 25 year structural guarantee.
- Invert risers and pumped outlets can be supplied for deeper drain connections
- Designed with integral recycling system that makes it ideal for intermittent use.
- Approved for discharging into a watercourse, ditch or land drainage bed.
- Listed on the British water web pages

The Strongest Sewage Treatment Plant on the Market

Marsh ENsign Range
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E. sales@marshindustries.co.uk

Made in the United Kingdom

For Domestic & Commercial Off Mains Drainage Certified To EN12566-3

- The plant has low visual impact with unobtrusive lids. Normally only needs a granular surround.
- The self aligning low profile means quicker installation low running costs est. At below £35 per annum for a six person.
- Easy access integral separate de-sludge pipe.
- Almost silent running & odour free.
- Manufactured in the united kingdom & is backed with a 25 year structural guarantee.
- Invert risers and pumped outlets can be supplied for deeper drain connections.
- Designed with integral recycling system that makes it ideal for intermittent use.

Marsh Ensign Domestic Sewage Treatment Plants

25PE-50PE (Off Mains Drainage) Certified to BSEN12566-3

Estimation For The Correct Plant Size	25PE	30PE	35PE	40PE	45PE-50PE
Suitable For Any Of These Combinations	4no. 4 bed residences 24 people	5no. bed or 6no. 3 bed residences 30 people	7no. 3 bed residences 35 people	8no. 3 bed residences 40 people	9no. 3 bed residences 45 people
At Work or Office no. canteen	38 people working	48 people working	56 people working	72 people working	80 people working
Height Tank	2284mm	2284mm	2284mm	2284mm	2284mm
Width Tank	1912mm	1912mm	1912mm	1912mm	1912mm
Length Tank	3400mm	4550mm	4550mm	5500mm	5500mm
Ground Level To Inlet Invert	770mm	770mm	770mm	770mm	770mm
Ground Level To Outlet Invert	850mm	850mm	850mm	850mm	850mm
Compressor Internal or External	Either But External Better	Either But External Better	Either But External Better	Either But External Better	Either But External Better
Max. Power Consumption	150w	220w	220w	240w	240w
Final Effluent Quality BOD/TSS/Ammonia	12:19:09	12:19:09	12:19:09	12:19:09	12:19:09
Gravity Or Pumped Outlet	Both Available	Both Available	Both Available	Both Available	Both Available
Invert Risers Available	Yes	Yes	Yes	Yes	Yes
De-sludging Full Loading Months	12	12	12	12	12
Weight Empty (approx.)	600kg	700kg	740kg	800kg	835kg
Tested & Certified To EN12566-3	Yes	Yes	Yes	Yes	Yes
Surround Concrete Pea-shingle	4m ³	4.6m ³	4.6m ³	5.3m ³	5.3m ³




Marsh Ultra Polylok Commercial & Industrial Sewage Treatment Plants

55PE-275PE (Off Mains Drainage) Certified to BSEN12566-3



Ultra Polylok	PE	DWFm ³ /day	Maximum Daily Loads		De-sludge & Filter Clean	Overall Length	Dia.
			BOD g	Ammonia g	Days		
Ultra Polylok 55-60 Uni:Tank	60	12000	3600	480	90	8.1m	1.8m
Ultra Polylok 75 Uni:Tank	75	15000	4500	600	90	11.6m	1.8m
Ultra Polylok 100 Uni:Tank	100	20000	6000	800	90	11.8m	1.9m
Ultra Polylok 125 Uni:Tank	125	25000	7500	1000	90	7.4m	2.7m
Ultra Polylok	PE	DWFm ³ /day	Maximum Daily Loads		De-sludge & Filter Clean	Overall Length	Dia.
			BOD g	Ammonia g	Days		
Modular Tanks							
Ultra Polylok 100 Shallow	100	20000	6000	800	90	7.4m	2.7m
Ultra Polylok 150 2no. 8.1m x 1.8m + 1no. 2.7m x 1.8m	150	30000	9000	1200	90	20.4m	1.8m
Ultra Polylok 175 2no. 8.1m x 1.8m + 1no.2.7m x 1.8m	175	35000	10500	1400	60	20.4m	1.8m
Ultra Polylok 200 2no. 7.4m x1no. 2.7m	200	40000	12000	1600	60	15.5m	2.7m
Ultra Polylok 225 2no.8.1m x 1.8m + 1no.7.4m x 2.7m	225	45000	13500	1800	60	15.5m	2.7m
Ultra Polylok 250 2no. 8.1m x 1.8m + 1no.7.4m x 2.7m	250	50000	15000	2000	60	25.6	2.7m &1.8m
Ultra Polylok 275 2no. 8.1m x 1.8m + 1no.7.4m x 2.7m	275	55000	16500	2200	60	25.6m	2.7m &1.8m

Your Decision Has Never Been More Important!



Ultra Polylok UV Sewage Plants 55-275PE
Reducing Bacteria By Over 99%

Integral Ultra Violet Treatment For Off Mains Sewage
 From quality septic tanks to pump stations to rain harvesting to sewage treatment plants Marsh is a great specification.

MARSH
 Innovation In Design

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Marsh Ultra Polylok Sewage Treatment Plants have the patented Polylok® Filter fitted to all the plants from 55PE-275PE. These filters improve significantly the final effluent quality further reducing both the suspended solids BOD levels. The Ultra Polylok plants use energy efficient compressors, and come with high level alarms as standard.

We also offer the Marsh Ultra Polylok UV (ultraviolet disinfection unit) which was specifically designed for disinfecting the effluent from residential and commercial aerobic sewage treatment plants. It is able to reduce by over 99% faecal coliform bacteria levels. The unit is designed with no moving parts, has no chemical dosing and will destroy viruses, parasites and pathogenic bacteria, treating the final discharge that will then meet the most stringent UK treatment standards. The unit has an integral 200mm fitted sample chamber.

Marsh Uni:Gem Septic Tank Conversion Units

6PE-35PE (Off Mains Drainage)

For Spherical, Brick & Concrete Septic Tanks Tested to BSEN12566-3 along with a spherical septic tank

Est. For The Correct Plant Size	Gem 2 6PE	Shallow Gem 2 6PE	Gem 2A 12PE	Shallow Gem 2A 12PE	Shallow Gem 2B 15PE
Suitable For Any Of These People=PE	4 bed home 6 people	4 bed home 6 people	2no. 4 bed homes 12 people	2no. 4 bed homes 12 people	2no. 4 bed & 1no. 3 bed homes 16 people
At Work or Office no canteen	9 people working	9 people working	18 people working	18 people working	25 people working
Height Tank	2200mm	1393mm	2200mm	1393mm	2300mm
Width Tank	1200mm	1295mm	1930mm	1295mm	1930mm
Length Tank	Cylindrical	1502mm	Cylindrical	2002mm	Cylindrical
Ground Level To Inlet Invert	1005mm	125mm	1005mm	125mm	125mm
Ground Level To Outlet Invert	1080mm	200mm	1080mm	200mm	200mm
Max. Power Consumption	30w	30w	70w	70w	120w
Effluent Quality	20:30:20	20:30:20	20:30:20	20:30:20	20:30:20
Gravity Or Pumped Outlet	Both Available	Both Available	Both Available	Both Available	Both Available
Invert Risers Available	Yes	Yes	Yes	Yes	Yes
Des-ludge Full Loading Months	12	12	12	12	12
Weight Empty (approx.)	130kg	140kg	190kg	160kg	225kg
Tested To EN12566-3	Yes	Yes	Yes	Yes	Yes
Volume of Surround Concrete Pea-shingle	2m ³	2m ³	3m ³	3m ³	3.2m ³

Approx .Est. For The Correct Plant Size	Gem 3 20PE	Gem 4 25PE	Gem 5 30PE	Gem 6 35PE
Suitable For Any Of These Combinations People=PE	4no. 3 bed houses 20PE	4no. 4 bed houses 24PE	6no. 3 bed houses 30PE	7no. 3 bed houses 35PE
At Work or Office no canteen	30 people working	38 people working	48 people working	56 people working
Height Tank	2300mm	2300mm	2300mm	2300mm
Width Tank	1930mm	1930mm	1930mm	1930mm
Length Tank	Cylindrical	2800mm	3500mm	4210mm
Ground Level To Inlet Invert	700mm	700mm	700mm	700mm
Ground Level To Outlet Invert	875mm	875mm	875mm	875mm
Max. Power Consumption	120w	150w	220w	220w
Effluent Quality	20:30:20	20:30:20	20:30:20	20:30:20
Gravity Or Pumped Outlet	Both Available	Both Available	Both Available	Both Available
Invert Risers Available	Yes	Yes	Yes	Yes
Desludge Full Loading Months	12	12	12	12
Weight Empty (approx.)	375kg	600kg	700kg	740kg
Tested To EN12566-3	Yes	Yes	Yes	Yes
Volume of Surround Concrete	3.2m ³	4m ³	4.6m ³	4.6m ³

Uni:Gem is the market leader in Septic Tank upgrades and converts a septic tank into a sewage plant. The Uni:Gem produces a final effluent quality better than 20:30:20, this then can be discharged direct to a water-course or percolation bed.

The Uni:Gem utilises the existing septic tank and is a two stage high specification recycling treatment process in a single tank. The units are supplied to improve traditional "onion" style septic tanks as well as shallower brick and concrete tanks. Shallow Uni:Gems for high water table and hard rock terrains.

Marsh Industries has supplied the Uni:Gem to Environment Agency, National Trust, English Heritage and hundreds of individual sites and installations throughout the UK.

Marsh Septic Tanks Ranges

Tested to BSEN12566-1 (Off Mains Drainage)



EN Standard Septic/ Cesspools	Litres	No. Of People	Inlet Invert Depth	Dia.	Height
EN2800 Spherical, Bottle Septic	2800	4	1m	1750	2800
EN3800 Spherical Bottle Septic	3800	10	1m	1850	2950
EN4500 Spherical Bottle Septic	4500	14	1m	2020	3000
Shallow Cylindrical	Litres	No. Of People	Invert	Dia.	Length
EN2800 Shallow Cylindrical	2800L	4	250mm-500mm	1100	3000m length
EN3800 Shallow Cylindrical	3800L	10	250mm-500mm	1250	3150m length
EN4500 Shallow Cylindrical	4500L	14	250mm-500mm	1600	2950m length
EN6000 Shallow Cylindrical	6000L	18	250mm-500mm	1900	2950m length
EN10000 Shallow Cylindrical	10000L	25	250mm-500mm	1900	4200m length
Green Filter Septic Tank With Filter	Litres	No. Of People	Inlet Invert Depth	Dia.	Height
MP2800	2800	4	1m	1750	2800
MP3800	3800	10	1m	1850	2950
MP4500	4500	14	1m	2020	3000
Five Filter Aeration Septic 20:30: Effluent Quality	Litres	No. Of People	Inlet Invert Depth	Dia.	Height
FF2800	2800	4	1m	1750	2800
FF3800	3800	10	1m	1850	2950
FF4500	4500	14	1m	2020	3000



The EN Onion Septic range allows the solids to settle in the form of sludge with the lighter liquid undergoing a biological process through the contact with the oxygen this allows the solids to further breakdown, this lighter liquid still contains smaller particles of solids and high levels of BOD but passes through the septic tank into the drainage field.

Green Filter Septic Tanks, offer further filtration of the final effluent. This filtration reduces the levels of BOD & the volume of suspended solids. Green Filter septic's have the patented Polylok[®] filter fitted into the outlet Tee piece, this is easily accessible and takes 30 seconds to clean. By choosing a Green Filter septic tank, you will prevent the blocking of the soak-away, reduce smell and lower the risk of raw sewage rising to the surface of land drain.

Five Filter Septic Tank, produces a 20:30: standard, the unit aerates the sewage in a biological zone within the unit, Polylok[®] filters along with an internal recycling ensure the effluent that passes into the soak-away is free from solids and smell. The unit uses energy saving compressors average running costs are £35 per annum.

Marsh Rain Cell Rainwater Harvesting Home & Garden Ranges

Garden Only Range								
Code	Design	Litres	Inlet Invert	Dia.	Height	Length	Pipe Dia	Outlet 32mm
MR1-1000	Cylindrical	1100	400mm	1100mm	1500mm		110mm	300mm
MR1-1700	Cylindrical	1750	500mm	1100mm	2200mm		110mm	300mm
MR1-2800	Spherical	2800	500mm	1750mm	2350mm		110mm	300mm
MR1-2500	Shallow	2500	500mm	1100mm	1600mm	3000mm	110mm	300mm
MR1-3800	Spherical	3800	500mm	1850mm	2450mm		110mm	300mm
MR1-3500	Shallow	3500	500mm	1350mm	1800mm	3100mm	110mm	300mm
MR1-4500	Spherical	4500	500mm	2000mm	2450mm		110mm	300mm
MR1-6000	Cylindrical	6000	500mm	1800mm	2220mm	3100mm	110mm	300mm
MR1-10000	Cylindrical	10000	500mm	1800mm	2220mm	4100mm	110mm	300mm
MR1-12000	Cylindrical	12000	500mm	1800mm	2220mm	5400mm	110mm	300mm
Home & Garden Range								
Code	Design	Litres	Inlet Invert	Dia.	Height	Length	Pipe Dia	Outlet 32mm
MR2-1000	Cylindrical	1100	400mm	1100mm	1500mm		110mm	300mm
MR2-1700	Cylindrical	1750	500mm	1100mm	2200mm		110mm	300mm
MR2-2800	Spherical	2800	500mm	1750mm	2350mm		110mm	300mm
MR2-2500	Shallow	2500	500mm	1100mm	1600mm	3000mm	110mm	300mm
MR2-3800	Spherical	3800	500mm	1850mm	2450mm		110mm	300mm
MR2-3500	Shallow	3500	500mm	1350mm	1800mm	3100mm	110mm	300mm
MR2-4500	Spherical	4500	500mm	2000mm	2450mm		110mm	300mm
MR2-6000	Cylindrical	6000	500mm	1800mm	2220mm	3100mm	110mm	300mm
MR2-10000	Cylindrical	10000	500mm	1800mm	2220mm	4100mm	110mm	300mm
MR2-12000	Cylindrical	12000	500mm	1800mm	2220mm	5400mm	110mm	300mm



Rain Cell Rainwater harvesting systems are designed for both Home & Garden and Garden only. Using GRP tanks (not polypropylene or polyethylene) can be installed in pea shingle surround in good ground conditions, a full concrete surround is needed in high water table areas.

Shallow depth units are available, Rain Cell use only 3P Technik components both ranges are easy to install and are really "plug & go".

Marsh Pump Chambers For Domestic, Basement, Commercial Sites

Pump Chambers up to 20,000L available



Product Code	Single / Twin	People	GRP Chamber & Height Dia.		Inlet Invert	Storage Below Invert	Total Storage	Outlet In-vert	Mdpe Fitting
Mini DW	Single	Basement	1100mm	600mm	500mm	120	234	300mm	63mm
Midi DW	Single	Basement	1500mm	600mm	500mm	180	352	300mm	63mm
Mini Sewage	Single	Basement	1100mm	600mm	500mm	120	234	300mm	63mm
Midi Sewage	Single	Basement	1500mm	600mm	500mm	180	352	300mm	63mm
CPS1 SP	Single	2	1100mm	1100mm	500mm	470 Litres	867 Litres	300mm	63mm
CPS1 TP	Twin	2	1100mm	1100mm	500mm	470 Litres	867 Litres	300mm	63mm
CPS2 SP	Single	4	1500mm	1100mm	700mm	780 Litres	1183 Litres	300mm	63mm
CPS2 TP	Twin	4	1500mm	1100mm	700mm	780 Litres	1183 Litres	300mm	90mm
CPS3 SP	Single	6	2200mm	1100mm	900mm	1025 Litres	1735 Litres	300mm	63mm
CPS3 TP	Twin	6	2200mm	1100mm	900mm	1025 Litres	1735 Litres	300mm	90mm
CPS4 SP	Single	8	2600mm	1100mm	900mm	1340 Litres	2050 Litres	300mm	63mm
CPS4 TP	Twin	8	2600mm	1100mm	900mm	1340 Litres	2050 Litres	300mm	90mm
CPS8 SP	Single	12	2200mm	1600mm	900mm	2150 Litres	3671 Litres	300mm	90mm
CPS8 TP	Twin	12	2200mm	1600mm	900mm	2150 Litres	3671 Litres	300mm	90mm

Marsh Pump Chamber Specification are designed to meet the 2002 Building Regulations Part H, this means that a 150 litres of liquid are required for storage for each person over a 24 hour period: We have been in dialogue with the WRc throughout the design of these higher specification Pump Chambers to ensure our contractors are covered for the forthcoming changes in the Sewers for Adoption Edition 7th. The above range has cast iron pumps with integral floats PVCu pressure pipe and high level alarms. The Pump chambers are manufactured using virgin resin and glass. We also offer a range of pump chambers using galvanised pipework, with external valve chambers, kiosks, and telemetry alarms.



Marsh Polylok® Grease Traps Domestic & Commercial

Product Code	Litres	Meals	Height mm	Width	Length
Kitchen Mate	365	150	610	780	780
Kitchen Master	480	200	840	780	780
Kitchen King	700	300	610	780	1500
Mar Brand	1000	400	1000	1100	
Mar Brand 1	1300	500	1000	1700 Dia.	
Mar Fog 1	1750	750	2000	1100	
Mar Fog 2	3850	1000	2000	1700 Dia.	
Mar Fog 6000	6000	2200	2200	1900	3100

We also offer a range of Chemical Dosing Grease Traps please contact the office for details.

Sizing Criteria:

EN1825 the new European design standard for Grease Separators details the correct sizing method for the calculation of the nominal size (NS) of grease traps there are four major criteria and calculations are required.

- Maximum flow rate of water over a twenty four hour period.
- Maximum temperature of water.
- Density of grease/oils to be separated or trapped.
- Influence of cleaning and rinsing agents used.

For calculation purpose we assume those parts 2, 3 and 4 all have a denomination of 3. When multiplied together, then a simple calculation can be used to ascertain the size of unit required. This is the max flow rate x 3.

Other Marsh Products

Septic Tank Filters & Covers:

- P68 –Polylok Filter 1-13 people •
- P122-Polylok Filter up to 32 people •
- P625 Polylok up to 200 people •
- Carbon Covers-Odour control for septic tanks and sewage plants •



Table of Loadings For Sewage Disposal Facilities

Please Check British Water Web Page For More Information



Per Person/activity/day unless otherwise specified	Flow	BOD	N
	Litres	Grams	Grams
Domestic Dwellings			
Standard Residential	180	60	8
Mobile home type incl.caravans with full services	180	75	8
Industrial			
Office/factory without canteens	50	25	5
Office/factory with canteens	100	38	5
Open Industrial site e.g.construction,quarry, without canteen	60	25	5
*Full time staff	90	38	5
*Part time staff	45	25	3
Schools			
Non residential with canteen cooking on site	90	38	5
Non residential no canteen	50	25	5
Boarding School 1.residents	200	75	10
Boarding School 2.full time staff (including mid-day meal)	90	38	5
Hotels,Pubs & Clubs			
Hotel Guests (Prestige hotels)	300	106	12
Hotel Guests (3 and 4 star)	250	94	10
Guests (Bedroom only no food)	80	50	6
Residential Training Conference Guest (including meals)	360	150	15
Non residential conference guest	60	25	2.5
Drinkers	12	15	5
Holiday camp chalet/lodges resident	227	94	10
Resident staff	180	75	10
Day Staff	90	38	5
Restaurants-Full meals-luxury catering	30	38	4
Restaurants-Full meals-preprepared meals Standard	25	30	2.5
Restaurants-Snack bars and bar meals	15	19	2.5
Restaurants-Function rooms including buffets	15	19	2.5
Restaurants-Fast food ie roadside	12	12	2.5
Restaurants-Fast food burger chain and similar	12	15	4
Student (Accommodation only)	100	56	5
Amenity Sites			
Toilet Blocks (per use)	10	12	2.5
Toilet (WC) per use	10	12	2.5
Toilet (Urinal) per use	5	12	2.5
Toilet Blocks in long stay carparks/lorry parks per use	10	19	4
Shower per use	40	19	2
Golf Club	20	19	5
Local community sports club, eg squash, rugby and football	40	25	6
Swimming (where a separate pool exists without an associated sports cent	10	12	2.5
Health Club/Sports Centre	50	19	4
Tent sites	75	44	8
Caravan sites 1.Touring not serviced	100	44	8
Caravan sites 2.Static not serviced	100	44	8
Caravan sites 3.Static fully serviced	180	75	8
Hospitals and Residential care Homes			



Warranty & Guarantee

- The minimum design life of the tank structure is twenty five years. (internally & externally)
- The compressor blower is covered by a two year guarantee.
- The diffuser is covered by a five year guarantee.
- Engineered using high performance materials.
- All metal components stainless steel.



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