Darcy Group
Brook House Larkfield Trading Estate, New Hythe Ln,
Aylesford
ME20 6GN

Interceptor Alarm Installation

Customer	TRAVIS PERKINS/KEYLINE LTD	Resource	ER12 Carl Greatorex
Contact	Lyndon Hart		
Address	Kegworth DE74 2bb	Job type	INSTALL - IM Alarm
		Reference	LM 228523 NPV Return
		Order number	NPV - CIF 00973
		Date	08/04/2022 08:00
Billing address	Travis Perkins/Keyline Ltd Northampton NN5 7UG		

Mike Clarkson

A Sheet Engineer Point of Work Risk Assesment		
	Answer	**Notes**
IS IT SAFE TO BEGIN WORK?	Yes	

A Tech IM Install Sheet		
	Answer	**Notes**
Are you able to begin the job?	Yes	
Do you need to carry out a pre works risk assesment?	Yes	
Overview of works undertaken	Carryout commission of two mains 14320 interceptor alarm systems. Probes checked back to panel with no issues, twelve month code installed. System left fully operational.	

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Unit locations What 3 Words	From.builders.perch
Product details and serial numbers	Mains 14320 Not visible on both units
confirm types of unit installed	14320 Darcy Mains
Have you entered a 12 month service code?	Yes
Have you marked manhole lids?	N/A
Have you used any additional parts?	No
Comments	N/A
Do you need to make a recommendation?	No
Do you need to return any parts to Birkenhead?	No
Are all works complete?	Yes

LM 228523 NPV Return_1

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LM 228523 NPV Return_2

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LM 228523 NPV Return_3

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LM 228523 NPV Return_4

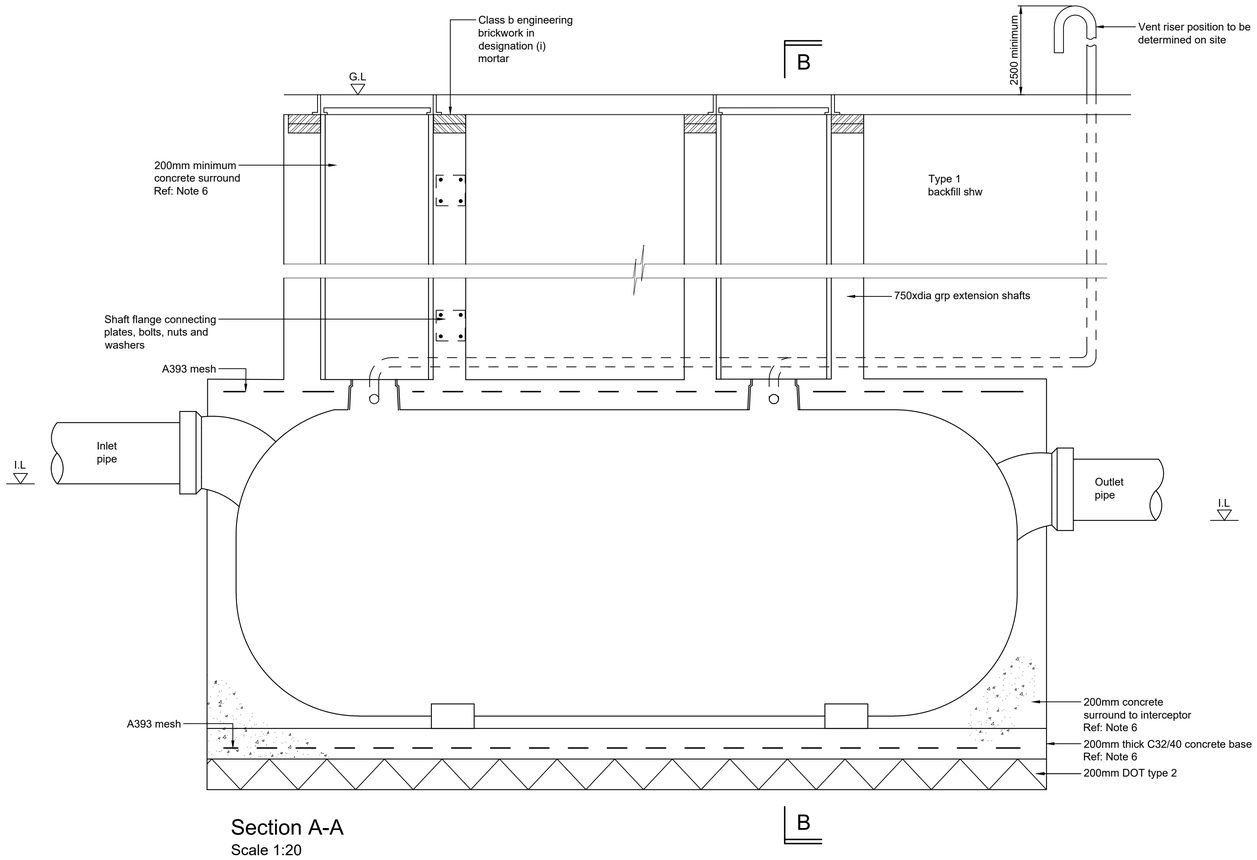
Warranty Certification

Job Reference Number:	**LM 228523 NPV Return**
Client:	**Travis Perkins/Keyline Ltd**

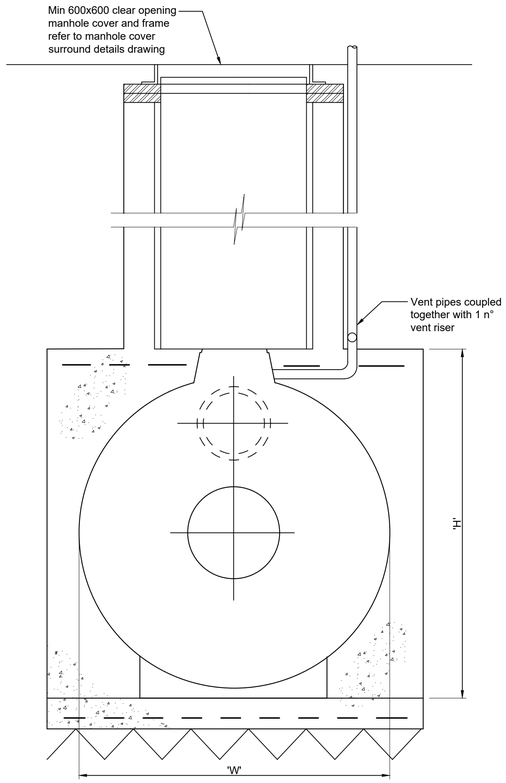
This certificate guarantees that the equipment detailed below has been installed and tested in accordance with the manufacturer's instructions and in line with the Environment Agency's Pollution Prevention Guidelines. The equipment has been demonstrated to be fully operational to the satisfaction of the customer/user and has a warranty period of 12 months from the date of attendance.

Equipment Overview:	14320 Darcy Mains
Serial Number/s:	Mains 14320 Not visible on both units
Works Completed:	INSTALL - IM Alarm
Site Address:	Kegworth DE74 2bb
Date of Attendance:	08/04/2022

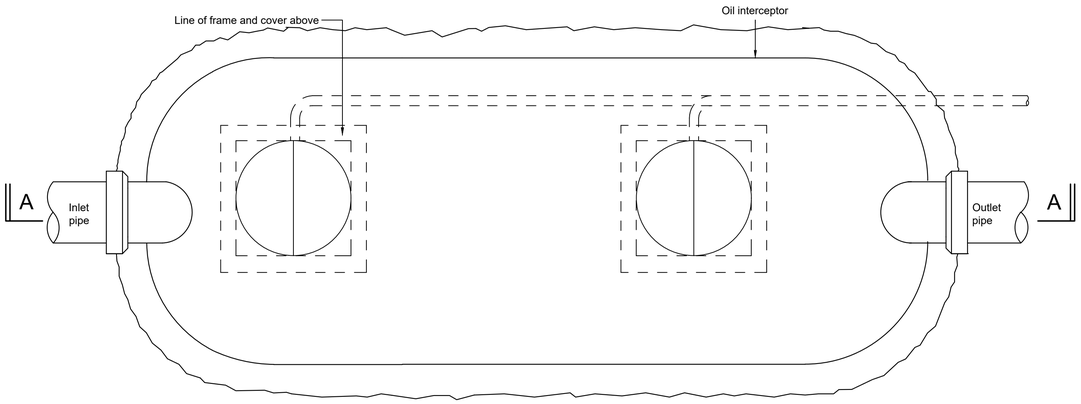
If your equipment needs attention at any point please contact us directly on 01732 762338



Section A-A
Scale 1:20



Section B-B
Scale 1:20



Indicative Plan On Interceptor
Scale 1:20

Notes

1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.
2. If received electronically it is the recipients responsibility to print to correct scale. Only written dimensions should be used.
3. This drawing should be read in conjunction with all other relevant drawings and specifications.
4. Minimum lap lengths :-
   - 10mm Ø bars - 350mm
   - 12mm Ø bars - 425mm
   - 16mm Ø bars - 575mm
   - 20mm Ø bars - 700mm
   - 25mm Ø bars - 875mm
5. For bar bending dimensions refer to the relevant reinforcement schedule.
6. Separator concrete surround to be:
   Concrete conforming to BS 8500 -1: 2015 + A2 : 2019 and BS EN 206 : 2013 + A1 : 2016
   - All concrete for foundations is to confirm to BS 8500 -2 : 2015 + A2 : 2019:-
   - Compressive strength class = 28 /35
   - Design chemical class= DC1
   - Cement type or combination = in accordance with table 6 of BS 8500 pt 2
   - Maximum aggregate size = 20mm
   - Chloride class = CL 0. 40
   - Consistency class = S2
   - Nominal cover to be 75mm bottom, 50mm top
7. All concrete cover surrounds to be air entrained.
8. All concrete to be placed in accordance with the recommendations of BS EN 13670:2009
9. Surface finish to concrete to be a fine smooth finish to exposed faces and a basic finish to all other faces in accordance with the specification.
10. Should the air temperature fall to 4°C or less, special precautions are to be taken, all to the approval of the engineer.
11. For adoptable sewers all concrete to be sulphate resisting. Otherwise if required generally by contract or dictated by site conditions concrete shall be sulphate resisting.

Separator Specification
- SPEL Separator - Specification Varies - Refer to RPS Drawing EMGP9-RPS-SI-XX-DR-D-1300.
- Tank to be with a 25 year tank shell warranty.
- The separator must be supplied with a SPEL 'fail safe' automatic alarm/monitoring system utilising a conductive probe with alarm panel located in the office.
- Tank weight specification to suit the overall tank depth and ground water table in accordance with SPEL Tank to be surrounded in concrete in accordance with SPEL installation guidelines.

Final Issue

100mm SCALE 1:20

Rev	Description	By	Ckd	Date
C01	Final Issue.	JTR	PW	21.10.21
P01	First Issue	MH	PW	28.01.21

MAKING COMPLEX EASY

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Client: SEGRO

Project: East Midlands Gateway
Plot 12

Title: Interceptor Details

RPS Project Number	Scale @ A1	Date Created
NK020494	1:20	28.01.21
Task Team Manager	**Information Author**	**Task Information Manager**
MH	MH	PW

Status: CR

Document Number: EMG9-RPS-SI-XX-DR-D-1325
Project Code - Originator - Zone - Level - Type - Role - Drawing Number

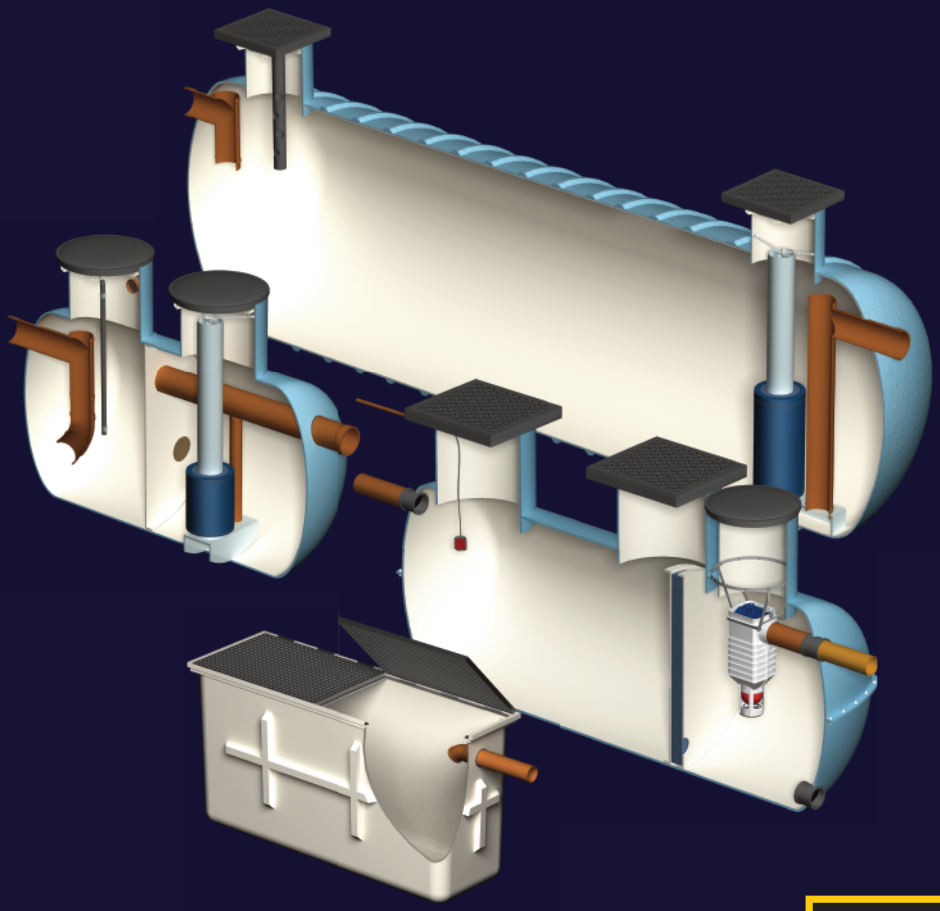
Revision: C01

rpsgroup.com

Marsh Industries

Marsh Hydroil: Oil separators

Installation and operating manual



www.marshindustries.co.uk

Marsh Industries delivers world-class water/wastewater treatment products and solutions to the domestic, commercial and agricultural sectors from its UK manufacturing plants in Kettering and Bridgwater.

The company is recognised as a collaborative and trusted partner to its customers, with a reputation for providing quality products that really do add value:

- Sewage treatment plants 4-500+ PE
- Pump chambers 234-100,000L
- Septic tanks and cesspools 2800-20,000L
- Uni:Gem™ septic conversion units 4-60PE
- Marsh GMS grease traps 234-20,000L
- Degrilleur™ trash/debris barrier
- Agri-silage tanks Up to 100,000L
- Storm:Dammer® stormwater attenuation Up to 130,000L
- Rainwater harvesting systems 1500-20,000L
- Hydroil™ oil separators

All products are fully type-tested and certified to ensure compliance with relevant environmental permitting programmes and building regulations.

Note: Marsh Industries accepts no liability for any damage or loss, including consequential loss caused by the failure of any drainage equipment or any failure caused by gross solids or fats entering the sewage treatment plant.

It is the responsibility of the installer/contractor to undertake installation of the sewage treatment plant as per the manufacturer instructions.

Marsh Industries believes that the information printed in this manual is accurate, and published for information only. No warrants, express or implied, are contained therein, nor does any legal liability attach to Marsh Industries for any reason whatsoever. The company's policy is one of continuous product improvement and we reserve the right to make alterations to our range and specification without prior notice.

1 Health and safety

These instructions are provided in the interest of your safety. Please read carefully before installing or using the equipment.

It is important that this document is retained with the oil separator for future reference, and included in any on site maintenance process description for cleaning and planned maintenance. Should the site transfer ownership, the person responsible should always ensure that all relevant documentation is transferred so that the new owner can be made familiar with the operation of the equipment.

- Installation should only be carried out by a suitably qualified contractor
- We advise the use of protective workwear including dust mask and gloves when cutting GRP components
- Electrical work should be carried out by a qualified electrician
- Contaminated surface water can contain substances harmful to human health and good hygiene practice should be observed
- Attention should be paid to selection of the correct access cover. Covers should be selected with reference to the location of the unit and traffic loads in the local area likely to be driving over the unit
- Unless the Marsh turret guard (optional extra) is fitted to your unit, when removing covers precautions must be taken against falling into the unit
- Adhere to all local and legislative health and safety requirements
- Ensure that you are familiar with the working area,and that the person responsible for the site is aware of your work. A safe system of work should be documented and a permit to work may also be required

2 Alarm system

An oil level alarm is required to be fitted to the separator, signalling an alarm condition when 90% of the oil storage volume is reached. The alarm system may be mains powered or battery powered (solar trickle charge).

3 Maintenance

Correct and timely maintenance is essential for the correct operation of the system. You should not rely on the oil level alarm to signal when emptying is required. A regular visual inspection of the unit should also be taken along with a separator maintenance log. A functional test of the oil level alarm system should also be undertaken periodically.

Removal of oils and silt/sludge should be carried out by a licensed waste carrier. A list of these will be available from your local authority.

Please note that these guidelines are of a 'generic' nature. The exact installation location, and any site constrictions will always take precedence over any advice given in this document. It is the responsibility of those installing the unit to examine and verify that the appropriate site specific ground conditions are taken into consideration for each installatio, including any potential traffic.

4 Handling and storage

On delivery, ensure the unit is placed in a safe location prior to installation.

The centre of gravity of the unit may not be in the centre of the tank. This risk will increase as the size of the separator increases. Therefore great care should be taken to ensure that the unit is stable when lifting. Water may collect inside the unit if it has been stored on site for any length of time before installation, which could add to the instability.

When lifting do not use chains around the body of the unit.

A spreader bar should be used to ensure that the unit is stable during the lift and that the load is evenly distributed. When lifting the unit, a spreader bar should be used where slings are at an angle of less than 30 degrees from vertical.

Lifting equipment should be selected by taking into account the unit weight, length and the distance of lift required on site. Marsh Industries accepts no responsibility for the selection of lifting equipment.

When stored on site, the unit must be placed on ground which is flat, level and free from risks of impact damage.

Site Planning

The following points should be considered before installation of the equipment:

- The outfall from the unit must have the consent of the relevant local authority and/or Environment Agency
- The installation should have Planning and Building Control approval
- You should consider the use of manual or automatic cut-off valves both upstream and downstream of the unit in order to isolate the separator in an emergency or during maintenance
- Roof water should be excluded from separators
- Ground conditions and water table level should be assessed
- If the discharge is to a soakaway (class 1 units only), a percolation/porosity test should be carried out as part of the assessment of suitability for sub-soil drainage – see Part H of Building Regulations for further information
- There must be at least 1 metre of clear, level ground all around the access covers to allow for routine maintenance
- Mains water supply should be accessible for routine cleaning and refilling the unit after removal of waste material and liquid
- You must provide an electrical supply for the oil alarm system (unless you have purchased a solar or battery powered unit)

5 Installation

Specific site conditions should be taken into consideration when designing concrete backfill and should be designed to bear any loads which may be applied during and after installation to prevent the tank from being subjected to these loads.

- In locations where the excavation will not safely maintain a vertical wall, it will be necessary to shore up the sidewalks of the excavation with a suitable trenching sheet system and bracing to maintain a vertical wall from the bottom to the top of the excavation. DO NOT completely remove the shoring system until the backfill is complete, but before the concrete fully hardens

- In areas where the water table is above the bottom of the excavation or the excavation is liable to flood, the excavation should be dewatered using a suitable pumping method
- During installation care must be taken to ensure that the body of the unit is uniformly supported so that 'point loads' on the unit are avoided
- Excavate a hole of sufficient length and width to accommodate the tank and a minimum of 225mm thickness of concrete surround - and to a depth which allows for the depth of the unit plus concrete base slab and haunch. Also taking in account proposed inlet invert depth
- Construct a suitable concrete base slab appropriate to site conditions. Ensure that the slab is flat and level
- When the concrete base slab has set enough to support the unit, lay a concrete haunch along the middle of the cast slab to provide even support under the unit
- Lower the unit onto the haunch using suitable lifting equipment
- It is important that the unit is level after installation to allow correct operation of the internal components
- Pour approximately 300mm depth of clean water into each chamber of the unit simultaneously. DO NOT OVERFILL
- Pour concrete backfill to approximately 300mm depth under and to the sides of the tank ensuring good compaction to remove voids. DO NOT use vibrating pokers
- Continue pouring concrete backfill, simultaneously keeping the internal water level no more than 300mm above the backfill level at all times until the backfill is just below the underside of the outlet connection, leaving sufficient room to connect the inlet and outlet pipework
- Connect inlet and outlet drains and vent pipes when safe access to the backfill can be gained
- Should you wish to connect in and outlet pipework that is not immediately compatible with the fittings on the unit, proprietary flex seal couplings can be obtained to fit over the outside of the site pipework and the outside of separator connection
- Continue backfilling with concrete over the tank body to the required level. Build up a shell of concrete, minimum 225mm thick, around the access shaft(s). Temporarily strut the access shaft to avoid distortion
- On class 1 units only, where an extension shaft is fitted to meet a deeper invert, a coalescer extension handle is also provided with the shaft. If there is a coalescer, remove it from the unit before adding the extension shaft. Remove the pre-fitted handle, add the extension piece and replace the handle, bolting it securely in place. Replace the handle so that it can be bolted near to the top of the extension neck. When refitting, ensure that the coalescer tube is correctly pushed onto the base fitting
- It is advisable to seal the joints on the extension shafts (particularly on sites with high ground water) with appropriate sealant. Where more than one neck section is required to suit a deep invert, consider back-filling section by section. If the extension neck is too long please trim using a fine-toothed saw
- Oil level alarm systems - Lay 82mm diameter PVCu underground ducting between the alarm panel location and the alarm probe position. The ducting should be 500mm below ground level and fitted with a drawstring for later cable insertion. Any changes of direction should be by long radius bend. If necessary, drill a suitable hole in the access shaft adjacent to the alarm probe terminal box, to accept the ducting and seal
- Vent sockets should be placed as high in the access shaft as possible. Consult with local building control on exact specification of vent installation. As a minimum the vent should terminate no less than 2.4m above the ground, and at least 1m away from any window

- In traffic areas a suitable top slab must be constructed. The top slab should bear on a suitable foundation to prevent superimposed loads being transmitted to the unit and access shafts. Loads applied to covers and frames must bear on the top slab, not the access shaft
- The unit should be filled with clean water up to the invert level of the outlet pipe. Ensure the unit identification is placed/marked inside the neck for future information

The unit is now ready for use

6 Waste removal and servicing

Separated light liquid must be removed from the separator when the oil capacity has been reached.

An oil level alarm system gives warning when the separated light liquid/water interface level reaches 90% of the maximum recommended oil storage volume required.

Separators should be inspected at least every six months. A log should be maintained detailing the depth of oil found, any oil and any silt removal, or cleaning carried out.

Each site will be different in the amount and type of silt/oils generated, however as a minimum inspections every 6 months should be made to assess the volume of silt and oil accumulated.

Alarm probes should be removed and cleaned with water whenever waste material is removed from the separator.

Waste Removal Procedure

- Isolate the unit and prevent flow from entering
- Remove the access cover and lower the desludging hose in to the separation chamber. Draw off the surface oil. Always remove the oil before attempting to remove the coalescer
- Lower the desludging hose to the base of the tank and empty the unit of any silt or sludge that may have collected. Do not remove more water than is necessary
- Ensure that you access and clean both compartments
- Remove the alarm probe and clean with water and replace
- Consider the period of time that the coalescer has been installed and consider removing and inspecting (cleaning or replacing) the coalescer media. If removed, ensure that it is correctly replaced and secured into position
- Re-fill the separator with clean water up to the outlet level. The alarm will display an alarm condition until the separator is re-filled. Check alarm operation when the unit is full

7 Maintenance log

Site address/location	
Separator location	
Type of separator	
Nominal flow	
Total capacity	

Inspection/ maintenance date	Comments	Waste volumes removed (if applicable)

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