



ENVIRONMENTAL PUMPING SYSTEMS

GeoPump™ GP3 & 4

**I
N
S
T
R
U
C
T
I
O
N

M
A
N
U
A
L**

AUTOMATIC PNEUMATIC PUMPS

FOR

LANDFILL LEACHATE

LANDFILL GAS CONDENSATE

HYDROCARBON RECOVERY

TOTAL FLUIDS

DISSOLVED PHASE RECOVERY



Marton Geotechnical Services Ltd

Geotechnical Centre
Rougham Industrial Estate
Rougham, Bury St Edmunds
Suffolk , IP30 9ND
United Kingdom



Tel: +44 (0)1359 271167, Fax: +44 (0)1359 271168
Email: info@mgs.co.uk, Web: www.mgs.co.uk

1.0 Conformity

EC Declaration of Conformity
Document Number MGS/QF/037A



We Marton Geotechnical Services Ltd at above address declare under our sole responsibility that the product detailed below to which this declaration relates complies with protection requirements of the EU Machinery Directive 98/37/EC.

<i>Equipment description</i>	Pneumatic Pump
<i>Make/Brand</i>	GeoPump
<i>Models</i>	GP3B GP3T GP4B GP4T GP4BXD

Compliance with the essential health and safety requirements of the directives has been assessed by reference to the following harmonised standards

- BS EN 809:1998 Pumps and pump units for liquids – Common safety requirements
- BS EN ISO 16330:2003 Reciprocating displacement pumps and pump units – Technical requirements

A technical file for this equipment is retained at the above address

ATEX 95 Declaration of Conformity
Document Number MGS/QF/037B



We Marton Geotechnical Services Ltd at above address declare under our sole responsibility that the product detailed below to which this declaration relates complies with protection requirements of the EU Directive for Equipment intended for use in Potentially Explosive Atmospheres (ATEX) 94/9/EC

<i>Equipment description</i>	Pneumatic Pump
<i>Make/Brand</i>	GeoPump
<i>Models</i>	GP3B GP3T GP4B GP4T GP4BXD

Compliance with the essential health and safety requirements of the directives has been assessed by reference to the following harmonised standards

- BS EN 13463-1:2001 Non-electrical equipment for potentially explosive atmospheres – Part 1: Basic method and requirements.
- BS EN 13463-5:2001 Non-electrical equipment for potentially explosive atmospheres – Part 5: Protection by constructional safety “c”.

The marking of the equipment includes the following II 1 G c T6 Ta 1°C to 70°C
A technical file for this equipment is retained at the above address. An EC Type examination was carried out by Intertek (Notified Body No. 0359), certificate No. 15124

Bury St Edmunds, UK , February 2006

Martin Clegg
Director

2.0 Markings

Use in potentially explosive atmospheres

Your pump can be used in potentially explosive atmospheres if the symbol below is visible on the unit.



The characters to the right of the symbol provide information concerning the category and classification of the equipment with regards to ATEX 95 (94/9/EC).

Group: II
Category: 1
Environment: Gas/vapours

The pump should be serviced by qualified personnel according the appropriate service instructions.

Use only MGS approved parts for servicing. Use of non-approved parts will invalidate the EX approval.

No modifications or changes to the pump are allowed, this will make the EX approval invalid.



BEFORE INSTALLING AND OPERATING THE GEOPUMP ALWAYS READ THE INSTRUCTIONS MANUAL AND CONSULT IT IF YOU HAVE ANY DOUBTS REGARDING THE GEOPUMP FUNCTIONING



THE GEOPUMP IS USED IN POTENTIALLY EXPLOSIVE ENVIRONMENTS. WE RECOMMEND FULL ZONING AND RISK ANALYSIS BE UNDERTAKEN BY THE USER PRIOR TO INSTALLATION



ONLY SUITABLY TRAINED/QUALIFIED PERSONNEL SHOULD CARRY OUT WORK/SERVICE/REPAIRS TO GEOPUMPS



SEEK ADVICE FROM SPECIALIST COMPRESSED AIR SUPPLIERS FOR THE DESIGN AND SUPPLY OF THE COMPRESSED AIR SYSTEM



SUITABLE PERSONAL PROTECTIVE CLOTHING INCLUDING SAFETY GOGGLES, FOOTWEAR AND GLOVES MUST BE WORN



NO SMOKING AT ANY TIME

3.0 Introduction

This manual is intended for all users of the **GeoPump** manufactured by MGS Ltd and provides information on the installation, operation and maintenance of the **GeoPump**.

3.1 GeoPump general description

The **GeoPump** is an automatic, inherently safe pneumatically operated pump which can be used for a wide range of applications including groundwater remediation and landfill where explosive environments exist. It can be arranged to fill from either the top or the bottom to suit different applications.

Since it can be used over such a wide range it is important therefore to identify your particular application to ensure the correct installation specification and operation.

Features

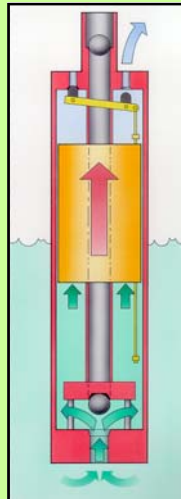
- The **GeoPump** is a positive displacement pump with a built in float, to activate the pump only when it is full.
- Fully pneumatic operation with no electrical components.
- Manufactured from resistant materials to provide reliability and longevity.
- Major components are manufactured from stainless steel, acetyl, and Viton.
- It is easy to take apart and clean in the field without the need for any special tools, making maintenance quick and easy.

3.2 How it works

Fill Cycle Pump starts to fill

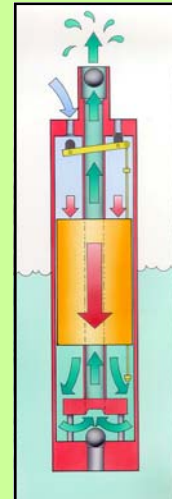
The inlet non-return valve opens, allowing fluid to enter the pump. As the fluid level in the pump rises, the internal float rises to the top of its stroke. In this upper position, the float actuates a lever assembly to open the air inlet valve, and compressed air enters the pump chamber.

Note: No air is used during the fill cycle.



Empty cycle Pump starts to empty

The air pressure within the pump chamber causes the fluid inlet valve to close. The fluid is then displaced from the pump chamber up through the discharge pipe. As the fluid level in the pump is lowered the float actuates the lever to close the air supply and open the air exhaust valve. A new cycle begins.



3.3 Shut-down

The GeoPump will automatically shut-down if:-

- There is insufficient liquid to operate the pump
- There is insufficient air volume or pressure to operate the pump
- The total head of the system exceeds the air pressure

4.0 Packaging, handling and storage

4.1 Packaging

The GeoPump is provided with a protective tube which can be used for short, medium or long term storage. It is recommended that this package be retained for future storage or transportation.

4.2 Handling

The GeoPump should always be handled with care during transport, installation, servicing and repair.



DO NOT DROP AS THIS MAY CAUSE DAMAGE TO INTERNAL COMPONENTS

4.3 Storage

The materials of the GeoPump are not adversely affected by temperature and no special requirement is needed for medium or long-term storage although temperature limits should be considered when storing or transporting some accessories, including hoses. Operating temperature for the GeoPump is + 2 to 70°C.

The GeoPump should be stored in the tubing provided or other similar protective covering. These tubes may be stacked but should not exceed three high.



DO NOT STORE ANY OTHER ITEMS ON TOP OF THE PROTECTIVE TUBES

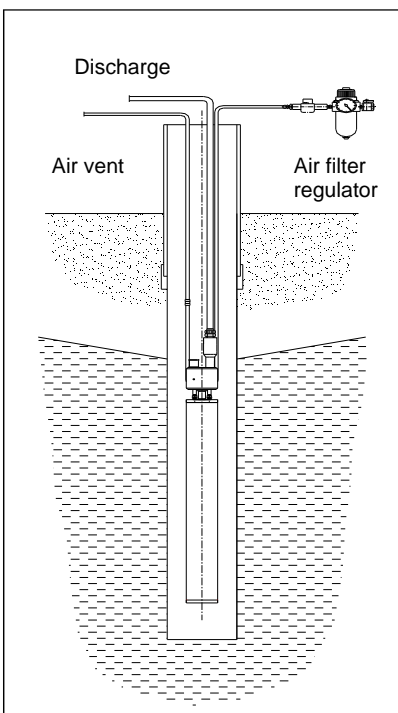
5.0 Installation

5.1 Getting started

In order to operate the GeoPump GP34 you will need the following:-

1. **Suitable extraction well > 100mm internal diameter containing liquid to be pumped**
2. **A compressed air system suitably designed to provide adequate air for the GeoPump (see specifications)**
3. **Suitable pipework to provide air to the pump**

5.2 Basic installations



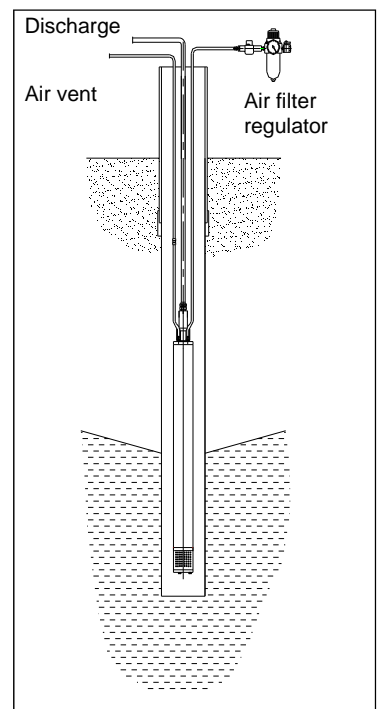
TOP FILLING



The type of installation will depend on the application.

Contact MGS for advice

BOTTOM FILLING



5.3 Installation

STEP 1
Remove GeoPump from packaging



STEP 2
Check depth of liquid in well



STEP 3
Measure down well pipework



STEP 4
Connect pipework to pump



Air supply
blue to
IN



Air vent
black to
EX



Discharge

STEP 5
Turn on air supply to pump



STEP 6
Install GeoPump into well



Bottom filling

STEP 7
Adjust air filter/regulator to suit system requirement



Top filling



P
=
TDH
+ 1 bar



6.0 Fault finding

SYMPTOMS			POSSIBLE CAUSE
PUMP NOT CYCLING	PUMP CYCLES BUT VOLUME REDUCED OR THERE IS NO DISCHARGE	AIR IN FLUID DISCHARGE	DETAILS AS BELOW
X		X	Air supply
X			Air exhaust restricted
X			Fluid inlet blocked
X	X	X	Debris or scale
X			Debris in air inlet valve
	X		Fluid check valve
X		X	Valve settings
X			Liquid level below actuation point

AIR SUPPLY

- If the air pressure is too low, or the flow is severely restricted the pump will not cycle
- If the air pressure is less than the total head of the system the pump will not operate
CHECK AIR IS TURNED ON & THE PRESSURE IS HIGH ENOUGH

FLUID LEVEL

- The fluid level must be above the pump actuation point for the pump to operate
CHECK THE FLUID LEVEL IN THE WELL

AIR EXHAUST

- The air exhaust must be above the liquid level

FLUID INLET/OUTLET VALVES

- If the fluid inlet screen or top non return valve is blocked with debris liquid cannot enter the pump correctly
CHECK INLET/OUTLET VALVES FOR DEBRIS

DEBRIS OR SCALE

- If debris or scale has accumulated inside the pump the float may not be able to move freely up & down
CLEAN THE FLOAT, CONTROL ROD & PUMP CASING

DEBRIS IN AIR INLET VALVE

- If the pump is installed without the air turned on it is possible for the air inlet valve to become blocked
CHECK OPERATION OF AIR INLET VALVE & CLEAN IF NECESSARY

PUMP SETTINGS

- If the settings of the pump inlet & exhaust valves has changed the operation of the pump will be affected
CHECK PUMP SETTINGS AND ALTER IF NECESSARY

7.0 Specification

MODEL	GP3T	GP3B	GP4T	GP4B	GP4BXD
Pump type Fluid intake	Pneumatic Top fill	Pneumatic Bottom fill	Pneumatic Top fill	Pneumatic Bottom fill	Pneumatic Bottom fill
Max outside diameter Length Weight	67 mm 1170 mm 4.5 kg	67 mm 1105 mm 5 kg	89 mm 1180 mm 7.2 kg	89 mm 1145 mm 7.5 kg	89 mm 770 mm 4.5 kg
Materials of construction	Stainless steel Teflon FRP Polyethylene Polyurethane Viton	Stainless steel Teflon FRP Polyethylene Polyurethane Viton	Stainless steel Teflon FRP Polyethylene Polyurethane Viton	Stainless steel Teflon FRP Polyethylene Polyurethane Viton	Stainless steel Teflon FRP Polyethylene Polyurethane Viton
Air inlet/vent size	1/4" - 1/4" BSP	1/4" - 1/4" BSP	1/4"- 3/8" BSP	1/4"- 3/8" BSP	1/4"- 3/8" BSP
Fitting type	One-touch Compression Quick connect	One-touch Compression Quick connect	One-touch Compression Quick connect	One-touch Compression Quick connect	One-touch Compression Quick connect
Air supply tube OD*	10, 20 mm	10, 20 mm	10, 20 mm	10, 20 mm	10, 20 mm
Air vent tube OD*	10, 20 mm	10, 20 mm	12, 20 mm	12, 20 mm	12, 20 mm
Discharge size	1" BSP	1" BSP	1" BSP	1" BSP	1" BSP
Discharge tube OD*	16, 20, 32 mm	16, 20, 32 mm	16, 20, 32 mm	16, 20, 32 mm	16, 20, 32 mm
Average volume/cycle	0.65 litres	0.65 litres	1.2 litres	1.2 litres	0.65 litres
Max flow rate***	22 litres/min	28 litres/min	25 litres/min	55 litres/min	28 litres/min
Max operating Pressure****	7 bar	7 bar	7 bar	7 bar	7 bar
Min operating pressure	2 bar	2 bar	2 bar	2 bar	2 bar
Maximum drawdown	830 mm	580 mm	960 mm	660 mm	400 mm
Restart liquid level	1002 mm	630 mm	1050 mm	720 mm	450 mm
SG fluid range**	0.7 - 1.2	0.7 - 1.2	0.7 - 1.2	0.7 - 1.2	0.7 - 1.2
Max operating noise level dB(A)	< 65	< 65	< 65	< 65	< 65
Operating temperature	+ 1 to 70° C	+ 1 to 70° C	+ 1 to 70° C	+ 1 to 70° C	+ 1 to 70° C

*Size & type of fitting will depend on application. If in doubt please contact MGS for advice

** For liquids outside this range please contact MGS

*** Dependent on system design & pipework size

**** Higher pressure versions available on request



**Where appropriate, PPE should be used.
If in doubt, use PPE.**

8.0 GeoPump dis-assembly

- 8.1 If pump is not already clean, clean with appropriate liquid (normally water) and inspect for any obvious problem or damage.
- 8.1.2 Empty any liquid from inside the pump casing by tipping the **GeoPump** so that liquid empties out through the top discharge valve. Repeat several times until the pump is empty.
- 8.1.3 Secure the top head of the **GeoPump** so that it cannot turn. Using a 'C spanner' or a 5 mm 'Tommy bar' undo the bottom head by turning it anti-clockwise. (figs 1 & 2).

Once loose the bottom inlet valve assembly can be undone and removed by hand. Check 'O' ring seals for damage when undoing.

- 8.1.4 Screw the special extraction tool (available as an accessory) on to the bottom of the internal discharge pipe (fig 3). Holding the pump casing extract the inner pump assembly by driving the extraction tool onto the ground (figs 4 & 5).



Fig 1



Fig 2



IF THE PUMP IS VERY TIGHT YOU MADE NEED A VERY SUDDEN & HARD DRIVING MOVEMENT TO REMOVE THE CASING. TAKE CARE NOT TO DAMAGE THE CASING



Fig 3



IF THE DEPOSITS ARE VERY SEVERE IT MAY BE NECESSARY TO IMMERSE IN A DILUTE CLEANING SOLUTION. TAKE CARE NOT TO DAMAGE THE FLOAT WHEN CLEANING



Fig 4

- 8.1.5 Once the internal components have been extracted inspect for any component damage and clean all deposits that may be present by either pressure or manual washing.



Fig 6



Fig 7

Deposits in landfill applications are often severe and the **GeoPump** may require cleaning more regularly (see figs 6 & 7). The frequency will be site and leachate quality dependent.



Fig 5



8.1 GeoPump disassembly contd

8.1.6 Deposits may also be present on the inside of the pump casing (fig 8) which if not cleaned correctly will tend to build up quicker when reinstalled.

Firstly remove as much of the deposits as possible by using a cloth or soft brush and water.

Final cleaning of the inside of the casing should be done using a special honing tool attached to an electric drill (fig 9).

Run the honer up and down inside the casing and then rinse the inside with clean water. Inspect for any residual deposits and repeat until completely clean (fig 10).



Fig 8

8.2 GeoPump re-assembly

Once the pump has been completely cleaned, inspect for any faults and re-assemble as follows:-

Grease the 'O' ring seals with a silicone based grease (Lubeserve PA4000 or equivalent).

Insert the pump back into the **TOP** of the pump casing and tap it gently on the ground to drive home the top head.

Place the bottom non-return valve assembly in the bottom of the casing and tighten by turning **CLOCKWISE**.

Tighten until the bottom head on the non-return valve is flush with the pump casing. **DO NOT OVERTIGHTEN.**

If the **GeoPump** is operating correctly re-install into the well.

If after re-installing problems still occur contact MGS for advice or return for service repair.



Fig 9

8.3 Spring replacement

The operating life of the spring is dependent on the cycle rate of the pump. The rate at which the pump cycles will depend on site conditions and the total dynamic head of the system. Under normal operating conditions the spring life should be in excess of one year but it is recommended that the spring be replaced during normal service intervals or after a continuous period of six months.



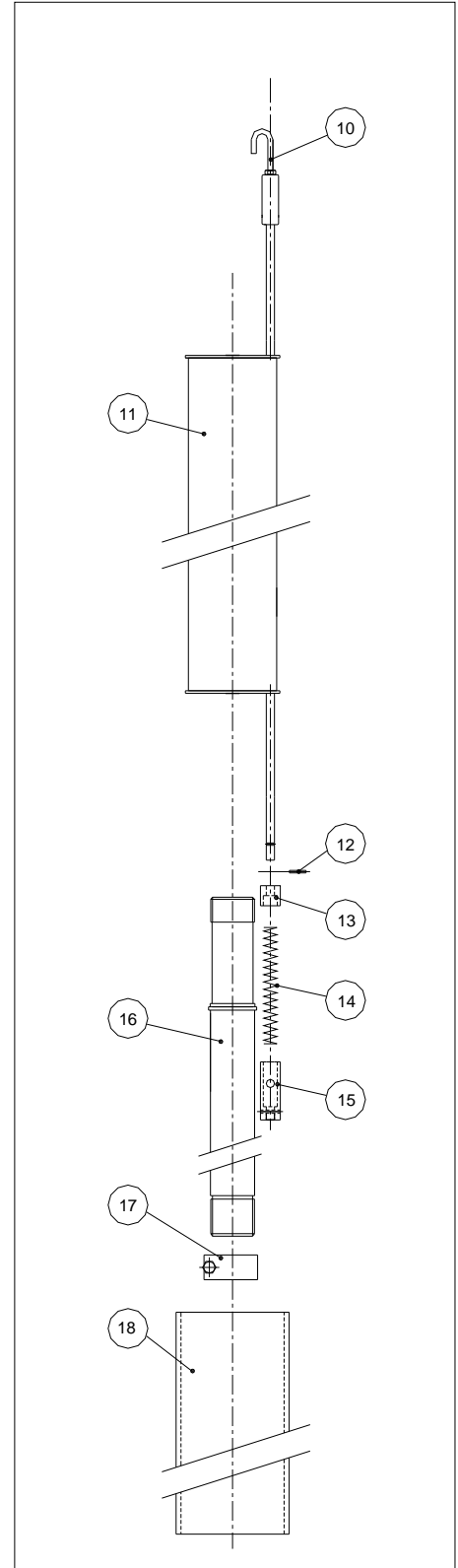
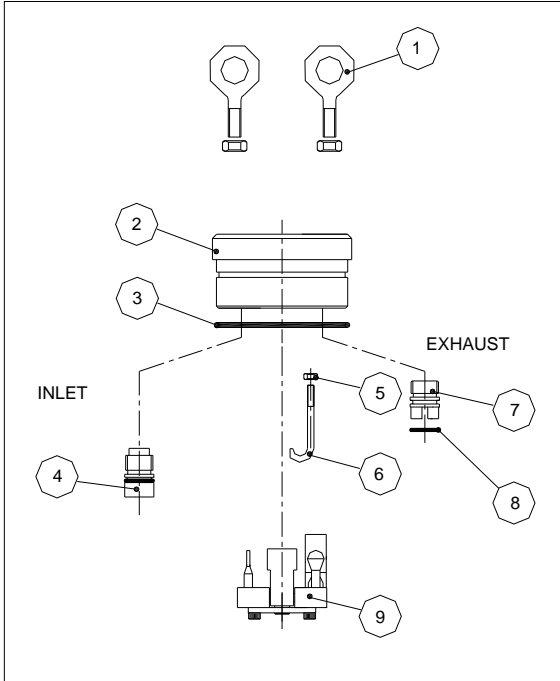
Fig 10

9.0 Spares

9.1 GeoPump GP3



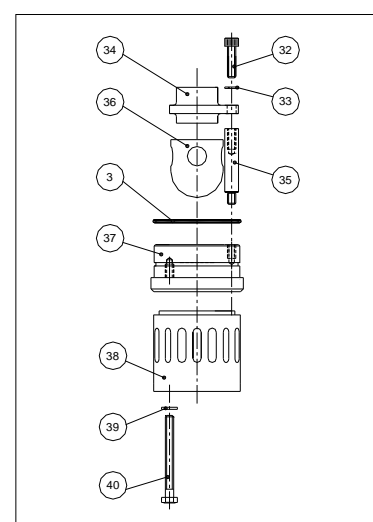
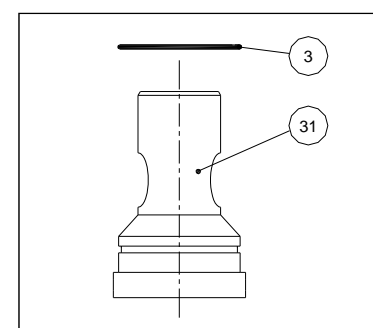
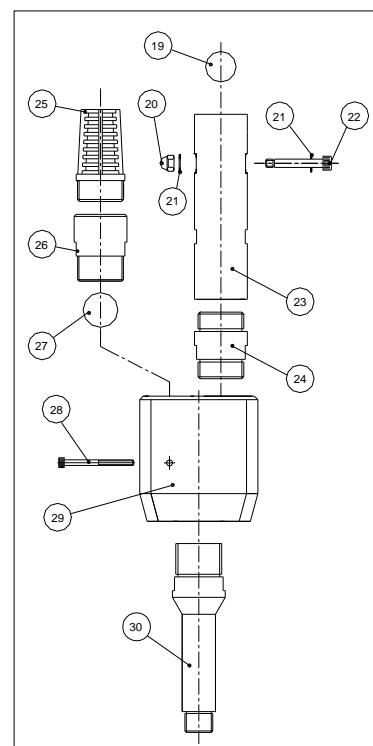
**PLEASE QUOTE SERIAL NUMBER
WHEN ORDERING SPARE PARTS**



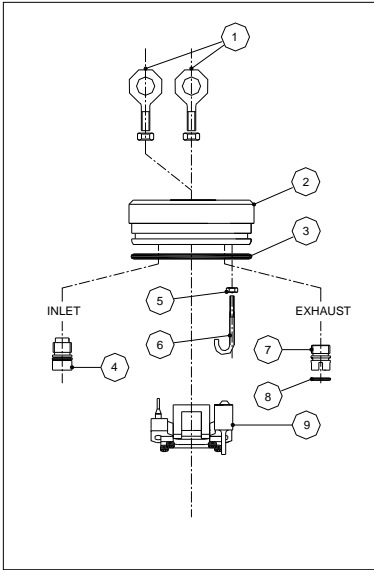
ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Lifting eye	P0261
2	1	GP3 top head	P0303
3	1	O-ring	L10-040
4	1	Inlet valve assembly	E39-201
5	1	Lock nut	M21-001
6	1	Stop arm	P0362
7	1	Exhaust valve body	P0309
8	1	O-ring	L10-031
9	1	Pivot block assembly	E36-301
10	1	Control rod assembly	E36-304
11	1	Float assembly	E36-305
12	1	Dowel pin	M56-011
13	1	Top stop spring	P0417
14	1	Spring	P0419A
15	1	Bottom stop spring	P0418A
16	1	Discharge pipe	P0317
17	1	Float bottom stop	K23-087
18	1	Pump casing FRP	P0322
18a	1	Pump casing SS	P0374

9.1 Spares - GeoPump GP3 contd

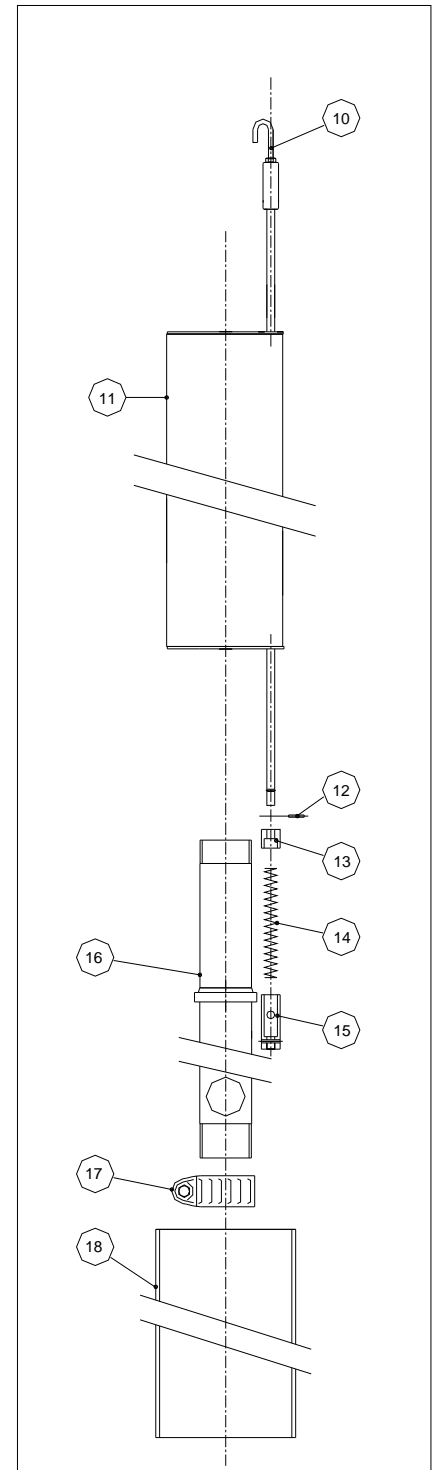
ITEM	QTY	DESCRIPTION	PART NUMBER
19	1	Inlet valve ball	P15-010
20	1	Dome nut	M25-002
21	1	Flat washer	M30-033
22	1	Cap head screw	P0328
23	1	Plunger GP3	P0314
24	1	1" BSP nipple	P0350
25	1	Intake strainer GP3	E52-001
26	1	Inlet/outlet NRV seat	P0367
27	1	Ball	P15-018
28	1	Cap screw	M11-100
29	1	Inlet/outlet NRV body	P0132
30	1	Adaptor	P0312
31	1	Intake bung	P0331
32	1	Cap screw	M11-028
33	1	Coil washer	M31-004
34	1	Intake valve top	P0316
35	3	Intake valve shaft	P0172
36	1	Plunger	P0314
37	1	Intake valve seat	P0310
38	1	Intake valve screen	P0315
39	3	Flat washer	M30-004
40	3	Hexagon head bolt	M10-169



9.2 Spares - GeoPump GP4



ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Lifting eye	P0261
2	1	GP4 top head assembly	E38-201
3	2	O-ring	L10-013
4	1	Inlet valve assembly	E39-201
5	1	Locknut	M21-001
6	1	Stop arm	P0287
7	1	Exhaust valve body	P0271
8	1	O-ring	L10-032
9	1	Pivot block assembly	E38-301
10	1	Control rod assembly	E38-304
10a	1	Control rod assembly XD	E38-309
11	1	Float assembly	E38-305
11a	1	Float assembly XD	E38-310
12	1	Dowel pin	M50-011
13	1	Top stop spring	P0417
14	1	Spring	P0419A
14a	1	Spring XD	P0419B
15	1	Bottom stop spring	P0418A
15a	1	Bottom stop spring XD	P0418B
16	1	Discharge pipe	P0266
16a	1	Discharge pipe - XD	P0174
17	1	Bottom stop float	K23-038
18	1	Pump casing FRP	P0295
18a	1	Pump casing FRP-XD model	P0170
18b	1	Pump casing SS	P0375

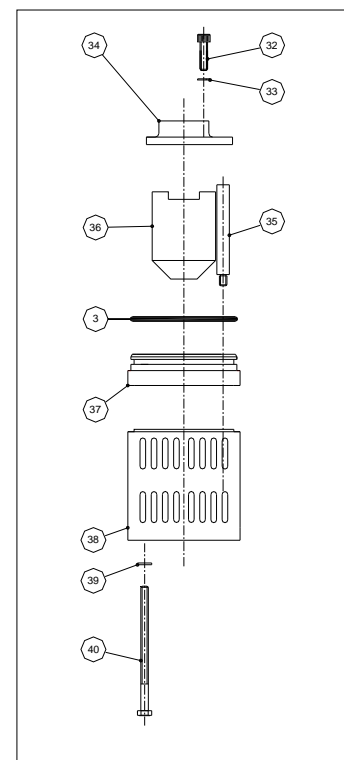
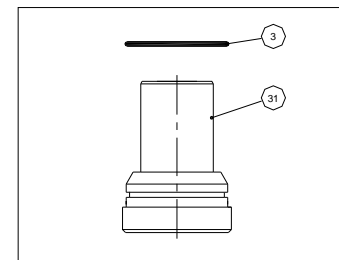
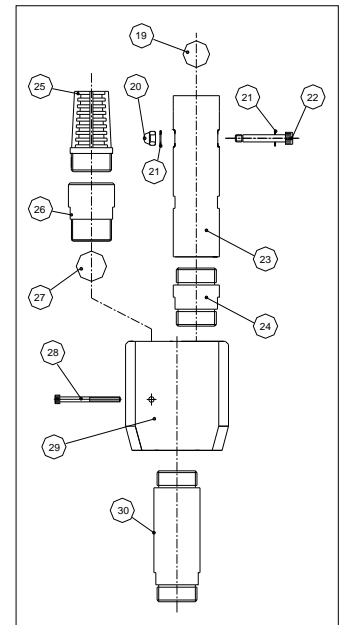


9.2 Spares - GeoPump GP4 contd



**PLEASE QUOTE SERIAL NUMBER
WHEN ORDERING SPARE PARTS**

ITEM	QTY	DESCRIPTION	PART NUMBER
19	1	7/8" Ball	P15-010
20	1	Domed nut	M25-002
21	1	Flat washer	M30-033
22	1	Shouldered cap head screw	P0328
23	1	Discharge NRV body	P0313
24	1	1" BSP nipple	P0350
25	1	Intake strainer	E52-001
26	1	Inlet/outlet NRV seat	P0367
27	1	1" Ball	P15-018
28	1	Cap screw	M11-100
29	1	Inlet/outlet NRV body	P0132
30	1	Adaptor	P0329
31	1	Intake bung	P0300
32	3	Cap screw	M11-028
33	3	Coil washer	M31-004
34	1	Intake valve top	P0281
35	3	Intake valve shaft	P0142
35a	3	Intake valve shaft XD	P0172
36	1	Plunger	P0156
36a	1	Plunger XD	P0175
37	1	Intake valve seat	P0137
38	1	Intake valve screen	P0152
38a	1	Intake valve XD	P0176
39	3	Flat washer	M30-004
40	3	Hexagon head bolt	M10-168





10.0 Return of goods

10.1 Returns procedure

If goods are to be returned for either service/repair or warranty, the customer should contact MGS Ltd for a **Returns Authorisation Number** and request a **Returned Equipment Report Form QF034** and **Returned Goods Health and Safety Clearance Form QF038** prior to shipment. This number is to be clearly marked on the outside of the shipment.

Complete the **Returned Equipment Report Form QF034**, including as much detail as possible, and enclose it with the returned goods.

All returned goods are also to be accompanied by a completed **Returned Goods Health and Safety Clearance Form QF038** attached to the outside of the package (to be accessible without opening the package) and a copy of both forms should be faxed in advance to the factory.

10.1.1 Chargeable Service or Repairs

Decontamination

With the typical working environments of the GeoPump, it is inevitable that they will be contaminated when returned to MGS Ltd. MGS Ltd is duty bound to de-contaminate ALL GeoPumps which are returned for which there is a standard charge (please contact MGS Ltd for details).

Inspection & estimate

It is the policy of MGS Ltd that an estimate is provided to the customer prior to any repair being carried out and therefore a set charge for inspecting the pump and providing an estimate is also chargeable.

10.1.2 Warranty Claim

(See Limited Warranty Conditions)

This covers defects which arise as a result of a failure in design or manufacturing. It is a condition of the warranty that the GeoPump must be installed and used in accordance with the manufacturer's instructions and has not been subject to misuse.

In order to make a warranty claim, contact MGS Ltd and request a **Returned Equipment Report Form QF034**. Tick the warranty claim box and return the form with the goods as above. You will then be contacted and informed whether your warranty claim is valid.

10.2 Packaging and Carriage

All used goods shipped to the factory **must** be sealed inside a clean plastic bag and packed in a suitable carton. If the original packaging is not available, MGS Ltd should be contacted for advice. MGS Ltd will not be responsible for damage resulting from inadequate returns packaging or contamination under any circumstances.

10.3 Transport & Storage

All goods should be adequately packaged to prevent damage in transit or intermediate storage.



11.0 Maintenance Schedule

The schedule below is only a recommendation and individual site applications may demand more frequent intervals. If in doubt please contact MGS for advice.

	daily	weekly	monthly	4 monthly	6 monthly	yearly
GeoPump						
Check for operation		X				
Check cycle rate			X			
Check hoses & fittings		X				
Check cycle volume			X			
Check float operation			X			
Remove casing & clean			X			
Clean as necessary*			X			
Adjust as necessary			X			
Replace bottom NRV plunger*						X
Replace top NRV ball**						X
Replace spring***					X	
Cycle counter						
Check reading		X				
Clean			X			
Compressor						
Condensate drain	X					
Check oil level		X				
Check emergency stop operation				X		
Replace oil filter				X		
Replace air filter				X		
Replace oil				X		
Check drive belt condition & tension						
Air filter/regulator						
Check operation			X			
Check auto drain			X			
Check pressure gauge				X		
Check filter				X		
Replace filter					X	
Pipe work						
Check for leaks			X			
Check valves for operation			X			

* this may alter if a high degree of solids are being pumped

** dependent on individual site conditions

*** ATEX requirement



Limited Warranty

The manufacturer, **Marton Geotechnical Services Limited (MGS)**, warrants the **GeoPump GP3 & GP4** manufactured by it, under normal use and service, to be free from defects in material and workmanship under the following terms and conditions:-

The Purchaser shall satisfy himself that the pumping system has been correctly designed to provide satisfactory hydraulic conditions for the operation of the **GeoPump GP3 & GP4**.

Sufficient site data has been provided to **MGS** by the purchaser as regards the nature of the liquid to be pumped to allow **MGS** to check material compatibility of the **GP3 & GP4** and other component parts.

In the absence of any site data being provided by the purchaser standard construction materials will be supplied. All costs for subsequent modifications will be borne by the purchaser.

The **GeoPump GP3 & GP4** equipment shall be installed in accordance with the manufacturer's recommendations.

The equipment is warranted for 1 year from the date of shipment from the manufacturer to the purchaser.

The warranty is limited to replacement of part or parts which, are determined to be defective upon inspection at the factory. Shipment of defective part or parts to the factory shall be at the expense of the Purchaser. Return shipment of repaired/replaced part or parts covered by this warranty shall be at the expense of the Manufacturer.

Unauthorised alteration and/or repair by anyone which, causes failure of the unit or associated components will void this **LIMITED WARRANTY** in its entirety.

The Purchaser warrants through the purchase of the GeoPump GP3 or GP4 pumping equipment that he is familiar with the equipment and its proper use. In no event shall the manufacturer be liable for any injury, loss or damage, direct or consequential, special, incidental, indirect or punitive, arising out of the use of or inability to use the equipment sold to the Purchaser by the Manufacturer.

The Purchaser assumes all risks and liability whatsoever in connection with the pumping equipment from the time of delivery to Purchaser.

Environmental Pumping Systems



Marton Geotechnical Services Ltd - MGS

Geotechnical Centre
Rougham Industrial Estate
Rougham
Bury St Edmunds
Suffolk
IP30 9ND
England

T: +44 (0) 1359 271167
F: +44 (0) 1359 271168
E: info@mgs.co.uk
www.mgs.co.uk

MGS Europe GmbH

Brüsseler Allee 21C
41812 Erkelenz
Germany

T: +49 (0) 2431 94 57 62
F: +49 (0) 2431 94 57 73
E: info@mgs-europe.de
www.mgs-europe.de