



Instruction manual

Keydollar Dry Bed electric manure separator



Serial no.:	Type:	Year of construction:	Dealer:

Index

1.	Information for the user.....	3
1.1.	The purpose of the machine	3
2.	Images of the machine.....	4
3.	Hazard labels and icons.....	5
4.	Introduction	7
4.1.	Pressing advice and recommendations:.....	7
5.	Machine Description	8
6.	Measurements and replaceable parts	9
7.	Technical specifications	10
8.	Schema Electrical System	11
9.	Control panel	13
10.	Assembly Directions	14
11.	Calibration of the machine	15
11.1.	Spring tension press head:	15
11.2.	Gas pressure grease cartridges:	15
11.3.	Connecting inlet and drainpipes:	15
12.	Electrical connections.....	16
13.	Safety Instructions.....	17
14.	Installation/Placement	18
15.	Powering up and testing	19
16.	Periodical maintenance of the machine	20
17.	Problem identification	21
I.	CHECKLIST assembly Keydollar DryBed manure separator	22
	23	
II.	CHECKLIST adjustments/troubleshooting Keydollar DryBed manure separator	23
III.	EG-DECLARATION OF CONFORMITY FOR MACHINES	24
I.	Fabrikant; 25	

1. Information for the user

You have purchased a Keydollar machine. We want to thank you for the trust that you have placed in us by making this decision. The construction and manufacturing of our machines is based on years of study, research, testing and constant improvements on our product. This manual is an important part of the machine and encompasses every piece of information needed for optimal usage of the machine. Moreover, this manual holds important advice for using the machine in a safe way. We advise you to carefully read and heed the instructions within the manual, so you can use your Keydollar machine with complete satisfaction. The information within is important for the machine to function without issues, as is its lifespan. Furthermore, it is important for the safety of yourself as well as others near you. This manual is supposed to stay with the machine, even in case it is resold.

Your Keydollar dealer can deliver you all the original parts. These are manufactured under strict regulations to ensure high quality and a perfect fit for the machine in question.

Our technicians are constantly working to improve our products. Therefore we retain the right to make changes or improvements where we deem fit. This, however, does not oblige us to make changes to machines manufactured in the past.

1.1. The purpose of the machine

The Keydollar Agri XL manure separator may only be used in combination with a clean homogeneous mixed liquid manure gained from cattle farms, free from any form of pollution which does not directly spring from the animal.

2. Images of the machine



Image of the front of the machine



Image of the side of the machine



The identification plate is placed on the tube underneath the hopper. See the image to the left.

When ordering parts with your dealer, always supply the information on the identification plate.

3. Hazard labels and icons.

There are safety stickers with directions on various parts of the machine, these directions have to be followed at all times. They provide the user with the necessary information to be able to take every precaution to minimize the risk of injuries. Keep the safety stickers clean and legible under all circumstances, and are to be immediately replaced in case of wear and illegibility. De icons used are once more printed below for your convenience.



Standard Hazard Label



Electrical hazard



Icon that signifies that CE marking is present.



Standard Hazard Label

Pressing advice:

- Disconnect electricity when performing maintenance
- Read instruction manual when performing maintenance

IT IS ABSOLUTELY PROHIBITED TO BRING HANDS, OBJECTS, CLOTHING AND OTHER THINGS INTO THE VICINITY OF THE MOVING PARTS OF THE MACHINE. This can lead to life threatening situations.

4. Introduction

This users and maintenance manual holds vital information pertaining to the use of the machine you have just purchased. The information in this manual should be made available to the person qualified to work with, and to perform maintenance, on the machine. This manual is meant to be kept at an easy accessible location near the machine. Both the user and the owner, as well as the maintenance mechanic are expected to be sufficiently familiar with the contents of this manual. The descriptions, images and illustrations in this manual are not legally binding, and no right may be derived from them.

4.1. Pressing advice and recommendations:

- Usage or partial usage of the machine by unauthorized personnel is prohibited.
- The machine cannot be used for applications which do not conform to the applications described in this manual.
- There may be no maintenance, repairs or modifications to the machine during times that the machine is in operation. When such actions need to be performed, the machine shall be disconnected from its power supply, so that the machine by no means can be operational.
- Do not remove protecting or safety providing elements.
- Disconnect the machine from its power supply after every instance of operation.

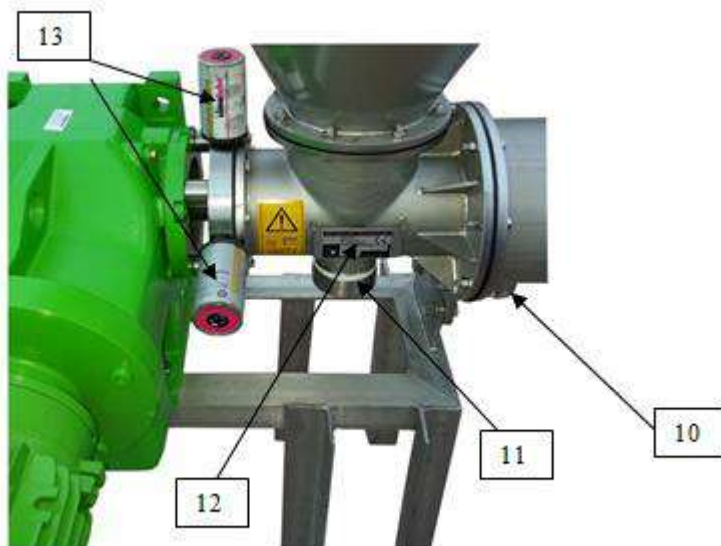
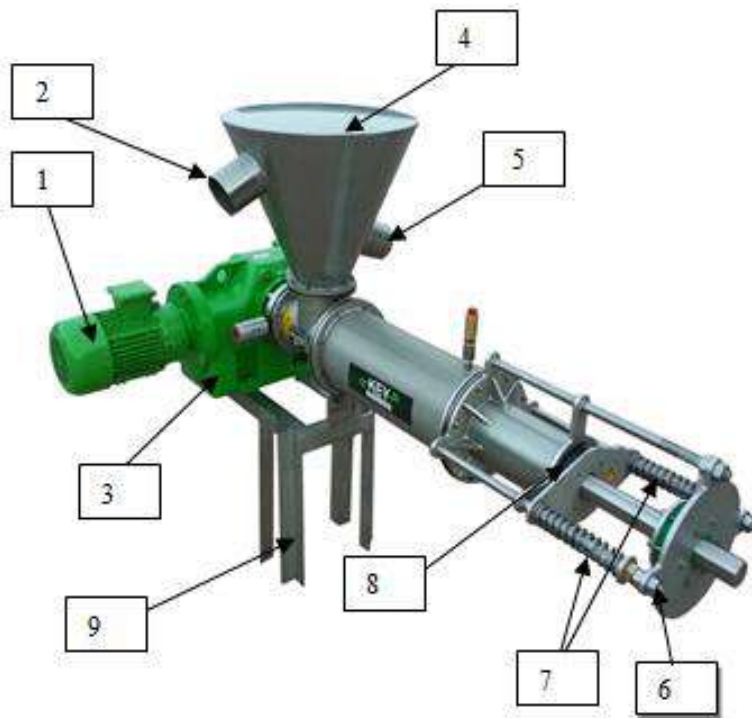
CAUTION:

- DURING THE WARRANTY THERE CAN BE ABSOLUTELY NO ASSEMBLY OF THE MACHINE BY THIRD PARTIES, WITHOUT VOIDING THE WARRANTY.
- ONLY ORIGINAL KEYDOLLAR PARTS ARE TO BE USED IN CONJUNCTION WITH THE MACHINE.
- WHEN THIS IS NOT THE CASE, THE WARRANTY WILL BE VOID.

MACHINE MODEL: Keydollar DryBed

USAGE: MACHINE USED FOR THE SEPARATION OF SOLID AND LIQUID PARTS OF MANURE.

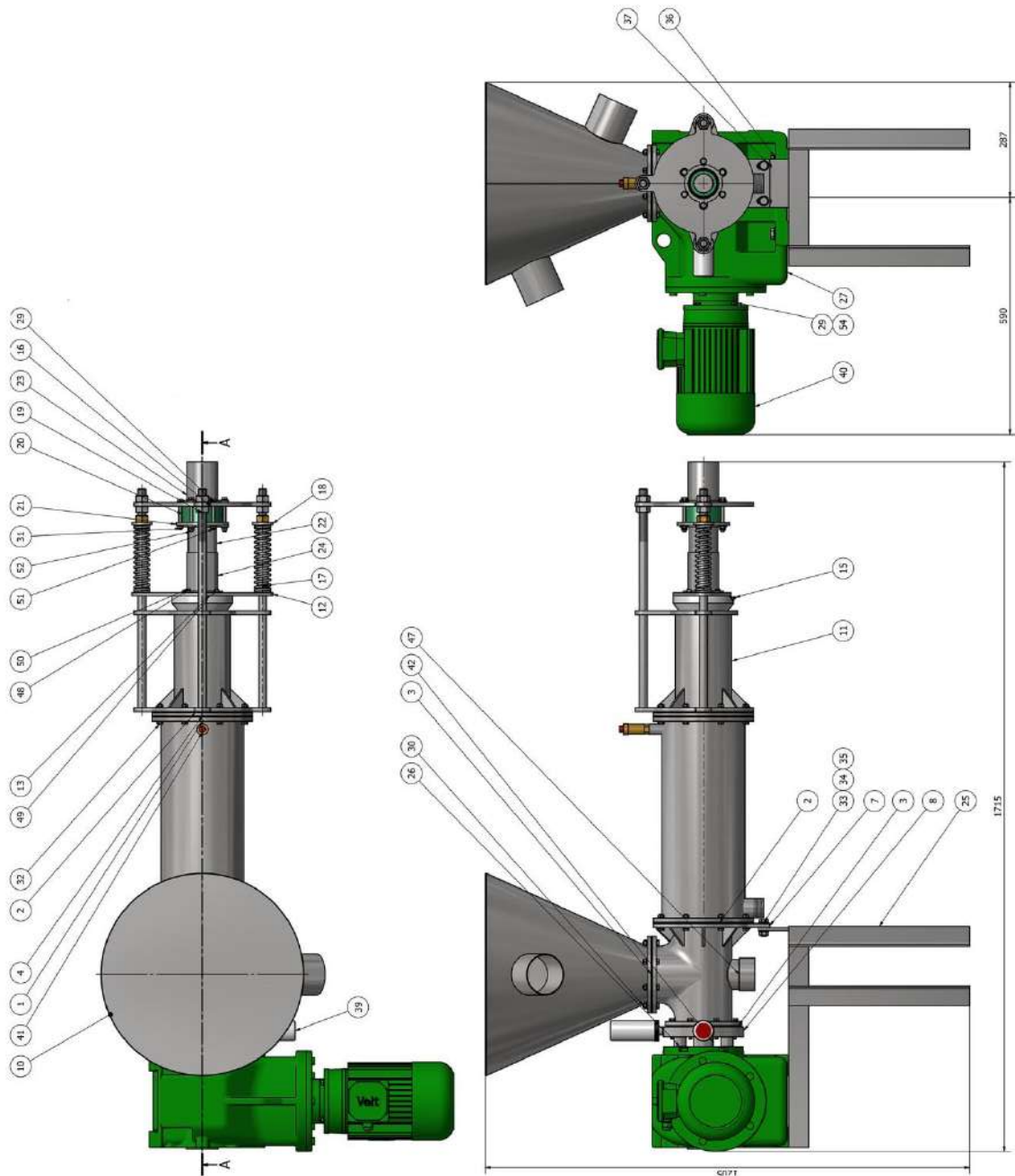
5. Machine Description

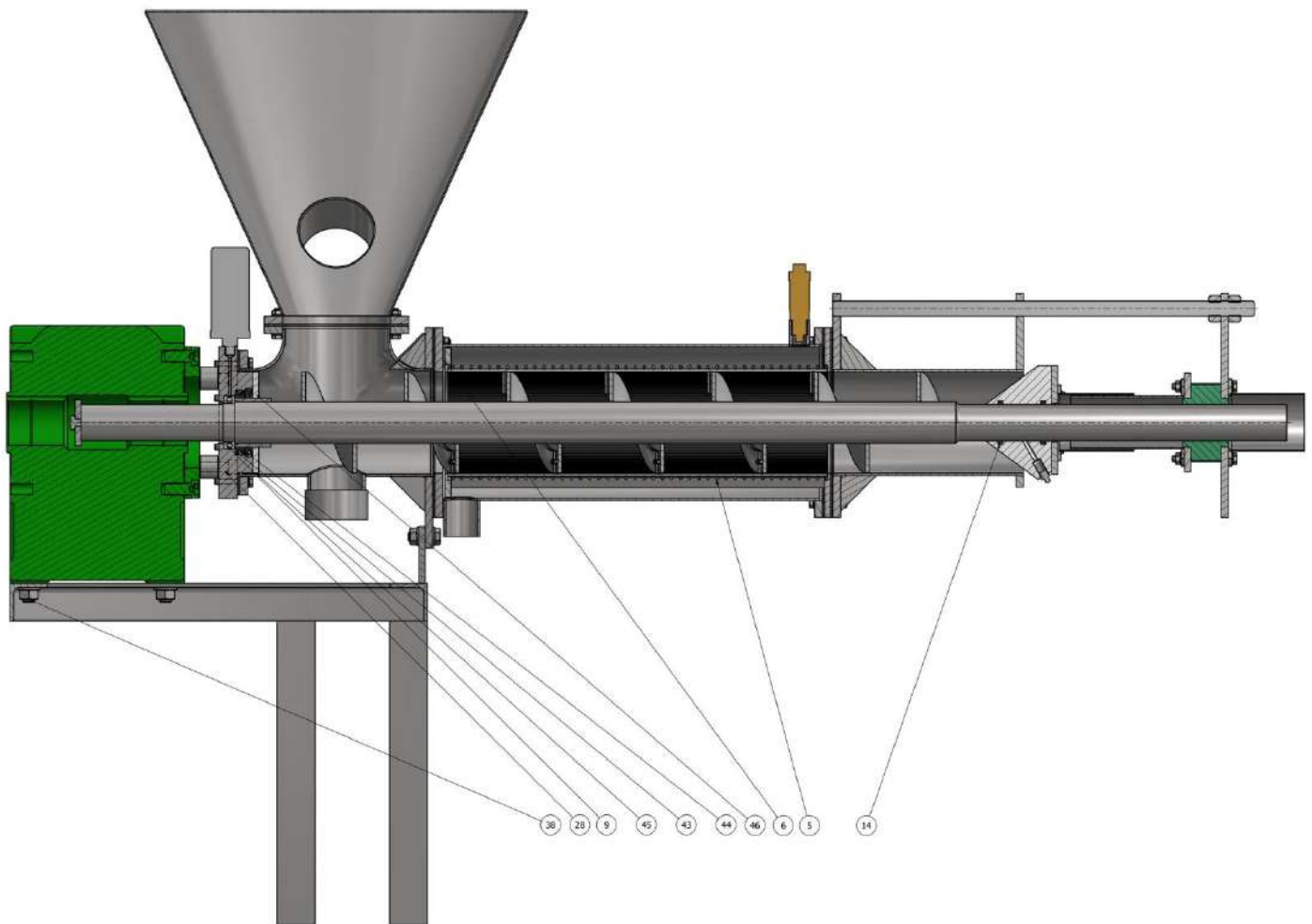


1. Electric motor
2. Overflow Output
3. Gearbox
4. Manure Reservoir
5. Input slurry
6. Set Nuts/Compression springs
7. Compression Springs
8. Shutdown Cones
9. Mounting Frame
10. Drain Liquid Fraction
11. Drain Ability
12. Type Plate
13. Gas Pressure/
Lubricating Pattern

6. Measurements and replaceable parts

Item	art. nr	ENG
1	160616	Filter housing
2	160612	Gasket 250 mm / 135 mm
3	160614	Gasket 190 mm / 130 mm
4	160613	Gasket 250 mm / 200 mm
5	160596	Screen 0.5 mm for DryBed
6	160617	DIN 7991 - M8x16
7	160585	DryBed Tee
8	160580	Bearing housing
9	160778	Thrust ball bearing 51110
10	160600	DryBed Funnel
11	160587	Press housing
12		Pressure controller
13	160590	Press cone
14	160610	O-ring for press cone
15	160618	Grease nipple cone
16	160619	Flange Press housing
17	160588	Spring
18	160620	Ring for spring
19	160621	DIN 934 - M20
20	160622	Plastic bearing
21	160623	Flange for plastic bearing
22	160624	Protective hood for screw 1
23	160625	Protective hood for screw 2
24	160626	Protective hood for screw 3
25	160604	Frame DryBed
26	160627	washer Gearbox
27	160611	Gearbox KTM 63
28	160628	DIN 912 - M12 x 55 (cylinder head cap screw)
29	160629	DIN 125 - A8.4 (washer)
30	160630	DIN933 - M8 x 35
31	160631	DIN 934 - M8
32	160632	DIN 933 - M8 x 45
33	160633	DIN 125 - A13 (washer)
34	160634	DIN 933 - M12 x 35
35	160635	DIN 934 - M12
36	160636	DIN 125 - A17
37	160637	DIN 933-M16 x 60
38	160638	DIN 934 - M16
39	160782	Automatic Grease cartridge 125 ml
40	160578	Electric motor 2,2 kW
41	160639	Breather
42	160595	Screw incl. synthetic material
43	160780	Olliseal 65 85 10
44	160781	Olliseal 65 90 10
45	160584	Seal for bearing house
46	160640	DIN 7991 - M5 x 16
47		ISO 4144 Caps C1 form 1 2 1/2
48	160641	DIN 125 - 6.4 (washer)
49	160642	DIN 912 - M6 x 20
50	160643	DIN 6912 - M6 x 25 (Cylinder Head Cap Screw)
51	160644	DIN 933 - M8 x 70
52	160645	DIN 933 - M8 x 80
54		DIN 933 - M8 x 25

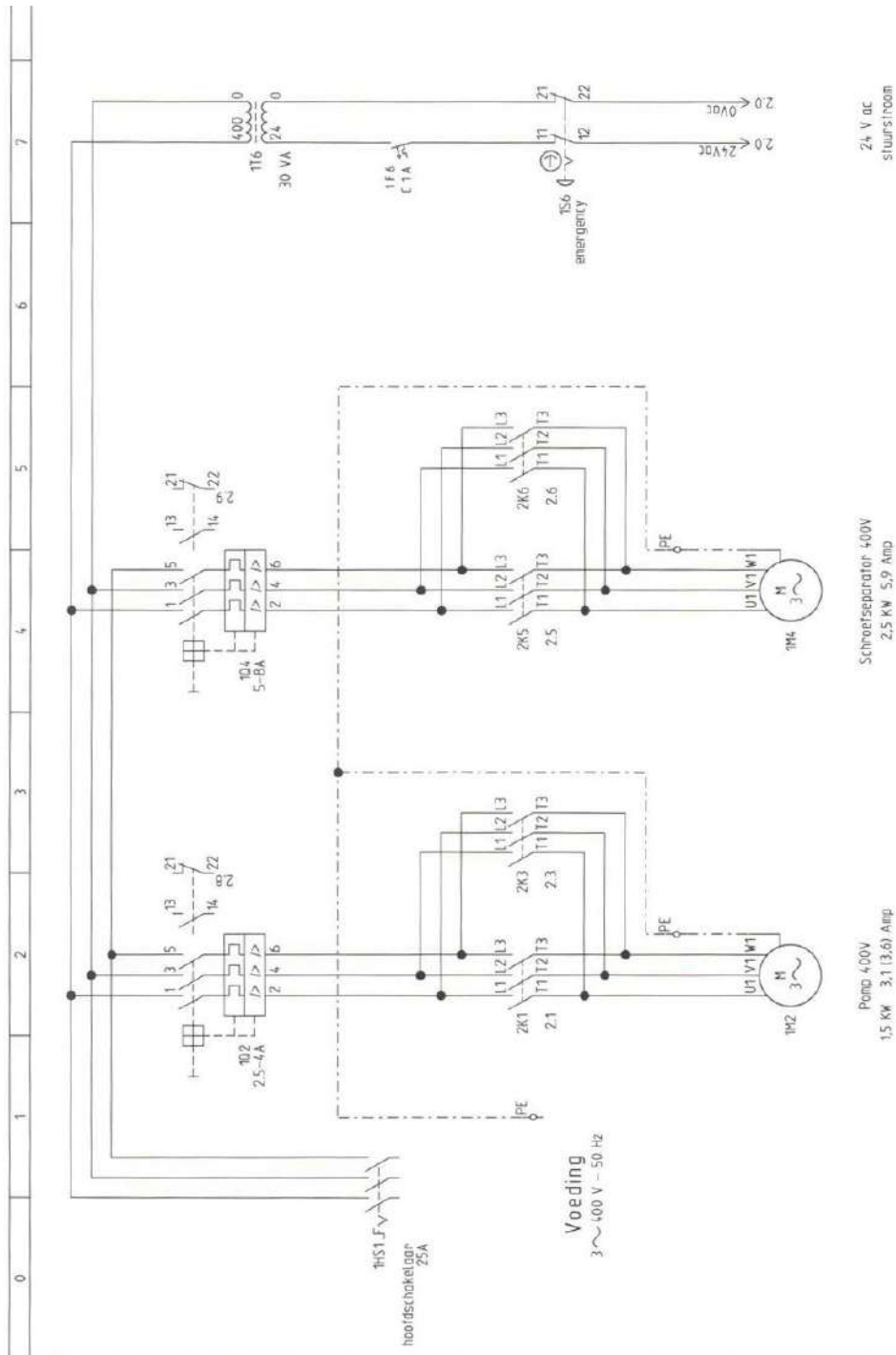


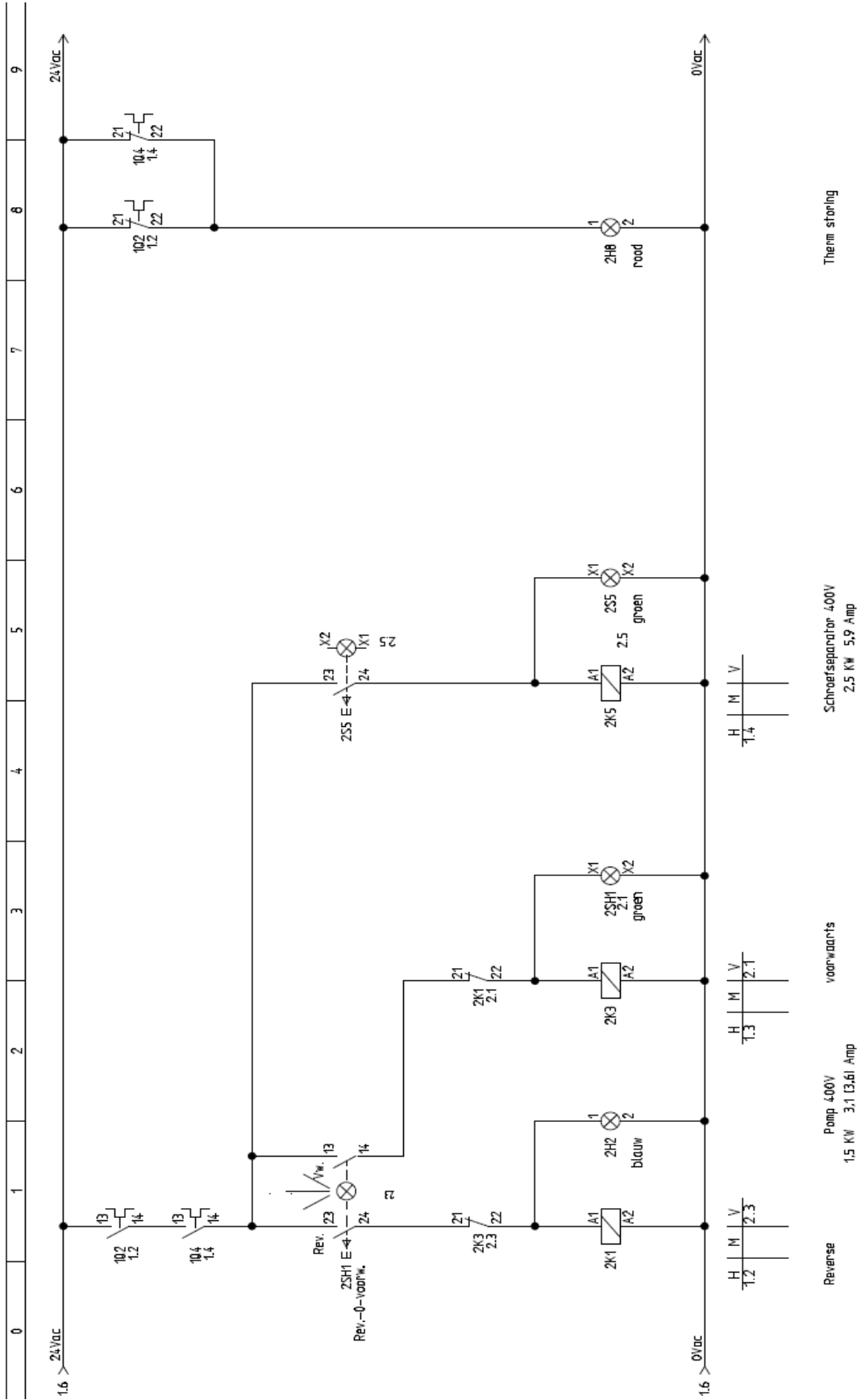


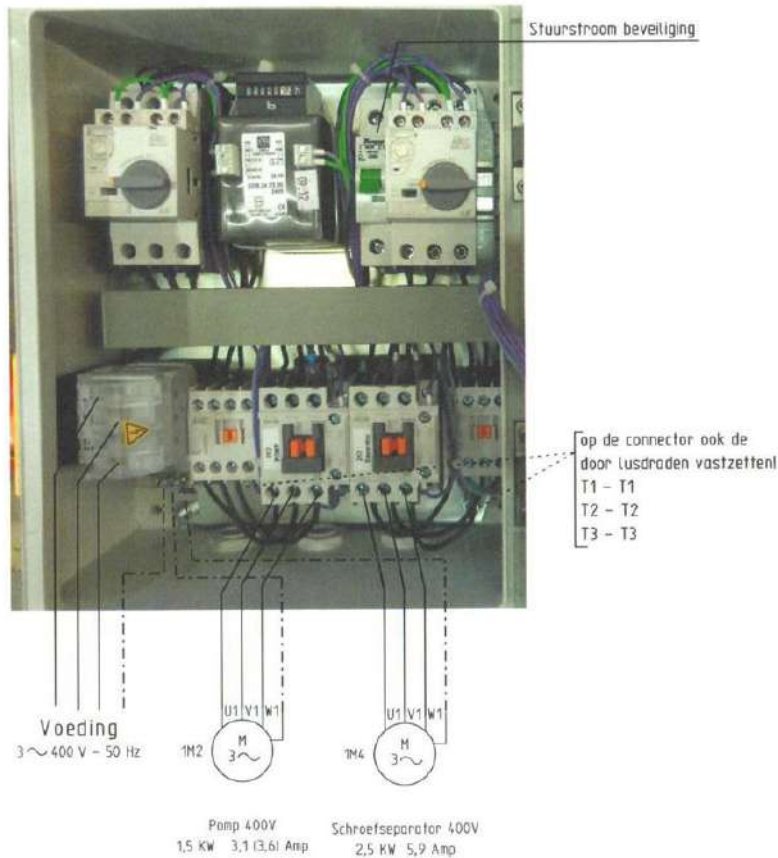
7. Technical specifications

Model:	Dry Bed
Capacity m³ per hour:	1 tot 3
Voltage:	Δ/Y 400/690 V 2,2 kW. 5,9/ 3,41 A.
Type of power:	Volt type VM 100 S4; 2,2 kW; 4p; 1500rpm
Volume reservoir:	If the overflow is connected correctly, a maximum of 30 liters.
Building material:	Stainless steel, 304
Supply:	4 inch
Drainage:	2 inch
Overflow:	4 inch

8. Schema Electrical System







9. Control panel

The machine is delivered with a control panel containing an on/off switch, main switch and a second category emergency stop. The electrical schema of the circuit shall at all times be kept in the panel.

We strongly advice against the use of the manure separator without the control panel. In such instances, warranties will therefore be immediately void.

10. Assembly Directions

In preparation of the installation of the machine, first a sturdily build construction needs to be made for the machine. A concrete L-wall of which the dimensions and quality are sufficient for the dimensions and weight of the machine in question, is to be used. The foundation on which the whole rests needs to be stable and robust. The owner of the machine is at all times responsible for the placement and creation of this stable construction site. The manufacturer of the Keydollar DryBed is not in any way responsible for the placement of concrete foundations or other manner of foundations.

When delivered the machine itself is completely assembled, therefore it only needs to be positioned on the retaining wall, as described before, through the use of bolts that are suited to this end. Assembly on a specially created plateau needs to be performed with care. Bolts for this purpose need to be made from sufficiently tough steel and are to be used in the way prescribed by the manufacturer.

The assembly of the DryBed on the retaining wall is done with 2 bolts. These two bolts are secured through the construction frame to the concrete retaining wall. As the owner of the machine you are expected to check if the fixing of the machine is still adequate after every 24 hour period of operation. Through vibrations or other disturbances, it is possible that the assembly points are loosened. In case this is observed, you should immediately contact your dealer.

11. Calibration of the machine

- **Calibration of the machine shall be at all times be performed by authorised personnel. Calibration of this machine by unauthorised personnel is prohibited.**
- **Calibration of the machine is only to be performed at times that the machine is completely powered down, and disconnected from its power supply. Under no circumstances can there be any manner of calibration be performed in case the machine is connected in any possible way.**

11.1. Spring tension press head:

The spring tension on the press head (see 'Description of the machine', item 7) , to limited extent, is meant to measure the dry part proportion of the outgoing solid part. The press head shall at all times be tuned in such a way that in case of an empty press head, the springs are able to seal the press head with the plastic cone. This prevents spouts.

11.2. Gas pressure grease cartridges:

The two simalube gas pressured grease cartridges, which lubricate the bearings/barrier, are in case of normal usage supposed to be set to '6'. This is modified through the use of a socket wrench. CAUTION: DO NOT ACCIDENTALLY SET TO 9! Normal usage here implies an operation time of 30 hours a week.

11.3. Connecting inlet and drainpipes:

The inlet pipes of the machine shall at all times be no larger than 4 inch. This means an inner size of 100 mm. This can be connected to the machine through a tulle-hose connection.

The drainage of the liquid parts is gravity powered. The drainpipes shall be no smaller than 4 inch, or 100 mm on the inside. The drainpipes shall be free of contaminants and the liquid shall be drained from the machine without pressure and powered by gravity???. If this is not the case, the machine may be under no circumstance be made operational.

The drainage of the overflow pipes is gravity powered. The drainpipes shall be no smaller than 4 inch, or 100 mm on the inside. The drainpipes shall be free of contaminants and the liquid shall be drained from the machine without pressure and powered by gravity. If this is not the case, the machine may be under no circumstance be made operational.

12. Electrical connections

The machine is delivered with the electrical components needed for the operations of the machine (electro motor). Connecting these components correctly and in accordance with the demands of such an environment and the characteristics of the connection, are completely the responsibility of the installer in question. The installation shall be performed according to national and international applicable rules. The machine equipped with electrical components.

For information on the electro motor installed in the machine, we direct you to the identification plate on the motor itself. As well as the documents pertaining to the motor (available at the manufacturer of the motor).

The electromotor is delivered while connected to the control panel.
Only the control panel is to be connected to the strong current network through the use of the CEE 5 pole 16 amperes plug.



PS.: Before the electrical supply to the machine is activated, it has to be thoroughly checked if any of the electrical components are connected correctly and are not in any way able to be in contact with water. Not doing so can potentially create life threatening situations.

When the machine is completely connected, at all times the direction of rotation of the machine needs to be checked before manure is supplied to it. The machine is supposed to move the manure towards the press head so that the solid part can be pressed dry here and along the ends-cone, can leave the machine. The person in question has to be sure of the fact that during such checks all people are at a safe distance of the machine.

13. Safety Instructions

The machine may only be used and maintained by personnel that has the necessary knowledge and skills. Further they shall be familiar with the operation of the machine and instructed in the safety precautions and measures to prevent accidents.

The user must strictly follow the safety directions found in this manual as well as the ones found on the machine itself. The general measures to prevent accidents and the safety measures are to be followed to the letter.

Usage of the machine in accordance with the intended goal of the machine also includes taking notice of the use and maintenance directions described in this manual. Additionally this further includes sole usage of original parts and other attachments prescribed by the manufacturer.

The manufacturer does not compensate damage caused by the machine if not used in accordance with the goal of the machine as prescribed by the manufacturer. The user takes responsibility of any possible risk through any use other than the one prescribed by the manufacturer.

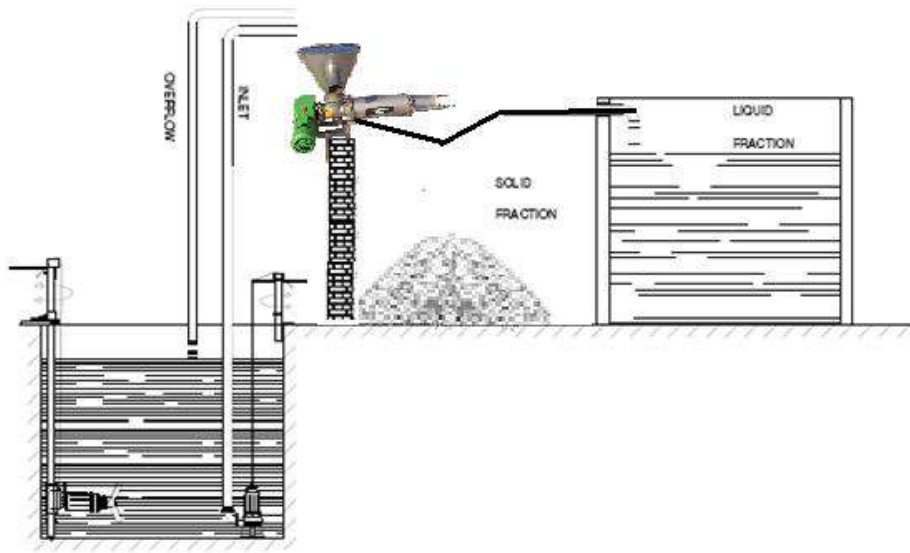
Any applied modifications to the machine by the user or third parties without the prior written consent of the manufacturer, will lead to the resignation of any obligations on the part of the manufacturer concerning eventual damages or accidents.

Read and take note of the safety precautions.

Read and take note of all the safety precautions in both the manual and on the machine itself before usage of the machine. Familiarise yourself with the workings and the function of the machine, as well as the facilities and controls before usage. Doing so during operation is too late! Never entrust the operation of the machine to people not schooled in the operation and the work to be carried out. Engage the Key Dollar dealer when parts of the manual are unclear.

14. Installation/Placement

Shown here is an example of placement of the Key Dollar manure separator. The machine shall be placed in a similar manner, further all prescribed instructions in the manual are to be upheld at all times.



External dimensions of the machine:

Width: 890 mm

Height: 1260 mm

Length: 1620 mm

15. Powering up and testing

Before the machine is powered up it is necessary to check whether the installation and **the connections of the input and drainage systems are correctly performed.** In addition the following steps need to be taken:

1. The user and maintenance manual shall be SECURELY READ AND UNDERSTOOD.
2. De machine shall be fitted to the foundation correctly.
3. The electrical connections are to be connected correctly and the outlets are to be closed off correctly.
4. The direction of rotation of the machine is to be checked.
5. All safety instructions have been followed. Further all the safety elements are in place, readable and understood.

BEFORE POWERING UP THE MACHINE FOR THE FIRST TIME, EXTRA ATTENTION SHALL BE GIVEN TO ANY FORM OF ABNORMALITIES: (SOUNDS, IRREGULAR ROTATIONAL BEHAVIOUR, ETC). WHEN SOMETHING ABNORMAL IS IDENTIFIED, CONTACT WITH THE DEALER IS TO BE SOUGHT IMMEDIATELY.

The aforementioned procedures are to be performed every time the machine is powered up after not having been used for one or more days.

As soon as the machine is powered up a check is to be performed of the following points within the first 4 minutes of operation.

- All of the inlet and drain pipes are free of blockage.
- The drain pipes overflow and the drain pipes for liquid parts are sufficiently free of pressure and are able to function on run off.
- If this is not the case, then the machine shall be directly powered down and the problem resolved.

16. Periodical maintenance of the machine

Because the Keydollar machines are designed for intensive usage the machines are able to deliver unprecedented performance concerning capacity and possibilities. Nevertheless the machines need some periodical maintenance to maintain their high level of performance. See the table below for the necessary maintenance instructions. At the time of any kind of maintenance the machine is to be powered down and disconnected for its electrical supply. Maintenance is to be performed with a great carefulness and can only be performed by personnel whom have familiarised themselves with the information in this manual, and who are furthermore capable of correctly performing the needed maintenance.

Maintenance	Period
Checking of the production of solid part, pressure free drainage liquid part, pressure free drainage overflow and space between separator and reduction gear.	After every thirty hours of operation.
Lubrication stainless steel wire ends for adjustments.	After every 100 hours of operation.
Checking if the Simalube gas pressure grease cartridge functions correctly	After every month*
Forceful flushing out of liquid part tray/drainage	After every 100 hours of operation
Switching out Simalube grease cartridge at normal usage (see ‘calibrating the machine’)	After every 6 months
Complete cleaning of the machine and redo of the complete powering up procedure	After every 1000 hours of operation.

* Lubrication of the bearings and dust rings are to be done through the use of the Simalube gas pressure grease cartridge. We advise the use of an Interflon Simalube Gas pressure grease cartridge, available through Keydollar BV

WHEN POWERING UP THE MACHINE FOR THE FIRST TIME, EXTRA ATTENTION SHALL BE GIVEN TO ANY FORM OF ABNORMALITIES: (SOUNDS, IRREGULAR ROTATIONAL BEHAVIOUR, ETC). WHEN SOMETHING ABNORMAL IS IDENTIFIED, CONTACT WITH THE DEALER IS TO BE SOUGHT IMMEDIATELY.

17. Problem identification

1) The separator stops spontaneously.

This can have one of two causes.

- 1) The spring pressure is set too high. In this case the motor is not able to press the solid part out of the separator which causes it to jam. Lessen the spring pressure and try to power up the machine again. Does the machine still not power up? Disassemble the press head, clean it and once again start the machine with an empty press head.**

CAUTION: UNDER NO CIRCUMSTANCE IS THE THERMIC SAFETY OF THE ELECTRO MOTOR TO BE ADJUSTED.

- 2) A substance not intended for the separator is jamming the separator. Inspect the separator for contaminants. Additionally, inspect the screw and the sieve.**

2) The amount of solid part is too low/too high or too wet/too dry.

The cause for a lack of solid part can have many possible causes. Follow the troubleshooting instruction included in supplement 2.

3) The electro motor shortly hums but does not run.

Possibly the thermic safety or another problem in your electrical installation is the issue. At all times you are to contact your dealer or the supplier of the machine if this is the case.



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I. CHECKLIST assembly Keydollar DryBed manure separator

Client :

Item	Checked
BEFORE POWERING UP/TESTING THE MACHINE	
Hoseclamp 4 inch hose the right size, properly fastened.	
Hoseclamp 2 inch liquid part drainage properly fastened.	
Flanges DN80 lubricated, fastened.	
Correct direction of rotation pump; Suction at front end pump, press at drive end pump (upwards).	
Electro motor connected correctly? (Triangle, 400 volts)	
Thermic safety pump set to 2,5 Amp	
Thermic safety separator set to 5 Amp	
Both gas pressure grease cartridges set to 6 months.	
Is the liquid part drainage pressure-less and <u>completely on the fall</u> ???, no 'bag-forming'. (Max 4 meters of hose, thereafter a tube of minimally 100 mm or the like)	
<u>Well ingoing manure sufficiently mixed (ask client)</u>	
Minimal length springs 14 cm.	
DURING POWERING UP/TESTING THE MACHINE	
Sufficient overflow ingoing manure from overflow hose	
Sufficient liquid part from liquid part hose	
Dry matter percentage Solid part approved.	
Liquid part drainage to other well than ingoing manure.	
Wire ends spring sufficiently lubricated.	
AFTER 1 HOUR OF OPERATION	
Temperature of electro motor not too high	
Dry matter percentage Solid part constant and approved.	
No apparent leakage, dripping at output solid part.	
No leakage at sealing Kuijpers worm-pump	
Workings spring pressure dry matter percentage discussed with client. Spring length & head length. Too tight = lots of wear to screw/sieve and risk of jamming. AT OWN RISK	
Workings gas pressure grease cartridge discussed with client, replace after 3 months (CHECK)	
Workings pump & control panel & possible cloggings discussed with client	

Note:.....
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II. CHECKLIST adjustments/troubleshooting Keydollar DryBed manure separator

Client :

Item	Checked
HAS THERE BEEN MIXED SUFFICIENTLY? (DISCUS WITH CLIENT)	
Has the pump pumped sufficiently without capacity separator? Mix shortly before powering up with regard to mashing.	
IS THE LIQUID PART STORED IN A SEPARATE WELL? There can be no liquid part included in the ingoing product, this lessens the capacity.	
Spring tension on press head, length spring minimally <u>14 cm</u> .	
TESTING MACHINE, check list	
Is there a sufficient amount of overflow wen the separator is POWERED ON?	
Is it possible for the liquid part to flow away without pressure? (liquid part hose cannot remain FULL)	
Opened cap at the upper end of the separator, inside is no vacuum (Pay attention when loosening, you can hear it)	
No strange noises or vibrations in the pump?	
Electro motor is connected correctly (triangle, 400 volts)	
Separator is even/level.	
Sufficient amounts of liquid part from liquid part hose	
TECHNICAL ASPECTS MACHINE	
No excessive wear sieve?	Internal diameter sieve:
No excessive wear screw?	Diameter Screw:
Sieve and press head aligned correctly?	
Check before departing	
Temperature of electro motor not too high	
Dry matter percentage Solid part constant and approved.	
No apparent leakage, dripping at drainage solid part	
No leakage at sealing Kuijpers worm-pump	
Wire ends at the front sufficiently lubricated.	
Thermic safety pump set to <u>3,0</u> Amp	
Thermische safety separator set to max <u>5,0</u> Amp.	
Emphasise to client that the machine has to do a number of hours of operation; perfect consistent results are only assessable after a minimum of 20 hours of operation.	

Note:
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III. EG-DECLARATION OF CONFORMITY FOR MACHINES **(according to supplement II.1.A of the machine guideline)**

Keydollar BV hereby declares as manufacturer that the Keydollar DryBed, with the following specifications:

Machine	: Keydollar manure separator
Type	: DryBed
Operating voltage	: 230 V – 380V
Power	: 2,2 kW
Serial number	:
Year of construction	:

Meets the provisions of the guideline below:

Machine guideline (2006/42/EG)

and furthermore declares that (parts of) the harmonised standards below are applied:

NEN EN 60204-1: 2010
NEN EN ISO 13849-1
NEN EN 953
NEN EN ISO 13857

Name manufacturer	: Keydollar BV
Address	: Eigen Haard 25, 8561 EX Balk
Country	: Nederland

Manufacturer;

Keydollar BV

Eigen Haard 25

8561 EX Balk

tel. 0031 (0)514-593562

Dealer;

Place dealer stamp here.