

## GREENOAK EQUIPMENT

### OUR GOAL

We strive to establish service / demand balance  
And trying to create various alternative  
Solutions. Hence, our biggest aim is to keep and  
Develop current manufacture, and strengthen  
our prestige.

It is a fact that, we are located in pioneer  
Positions, and succeeded to boost technical  
Abilities to be present amongst pioneers. Today  
We intend to be present in world markets.  
Regarding our efforts, today Greenoak  
Manufacture bear the seals of:

- ISO 9001 : 2000 Quality Assurance Certificate
  - CE Declaration
  - GOST-R Certificate
- Post Sales Service Efficiency Certificate,

Therefore, we succeeded in promoting  
Manufacture quality.



## GREENOAK EQUIPMENT

### DEFINITION AND TERMS

#### Hazard Caution Signs



Read user guide before operating



Caution! Life hazard!  
To be opened by authorized personnel only  
Use genuine spare parts only.



Ground sign.  
(Should be white or silver colour)

#### Description of Milking Machine and Advantages.

Our milking machines, which are manufactured for serial production has A modern design by Turkish engineers, harmonisates latest advances In technology.

Your product is equipped with stainless steel milk buckets, and we Are the first in Turkey regarding this subject.



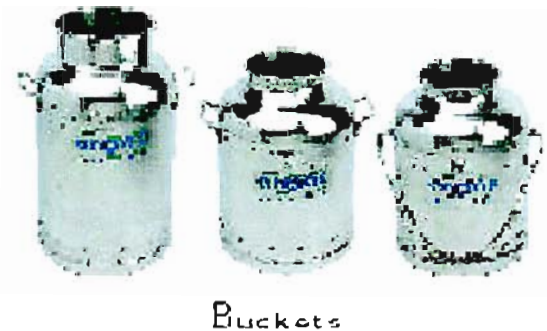
## GREENOAK EQUIPMENT

### DEFINITION OF MILKING MACHINE AND ADVANTAGES

Main advantages of our milking machines are;  
Stainless steel bucket manufacture do not create sterile area as storage space  
Only, but also easy to clean (Comply standards, regulations of the EU)

Strong vacuum pump supplies constant vacuum during milking. Therefore,  
Constant pressure applied to nipples, and milked animals are not harmed or  
hurt and milk is taken in a short period.

### DEFINITION





## GREENOAK EQUIPMENT

**Chassis:** Designed to operate  
Both at small and big  
Corporations.

**Pulsator:** Our pulsators  
Which are delivered after testing  
Process, are adjustable for all animals.

**Vacuum pump:** Various powered  
Vacuum pumps manufactured  
Previously, checked by flow meter  
Afterwards and prepared to work for a long period.

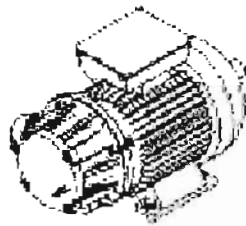
**Exhaust:** Manufactured for  
reduced noise operation.

**Lubricator:** Oil flow speed is  
adjustable.

**Milking Bundle:** Food safe rubber  
nozzles are manufactured  
especially for Greenoak. Outer  
Covers are stainless steel.



Exhaust



Vacuum pump

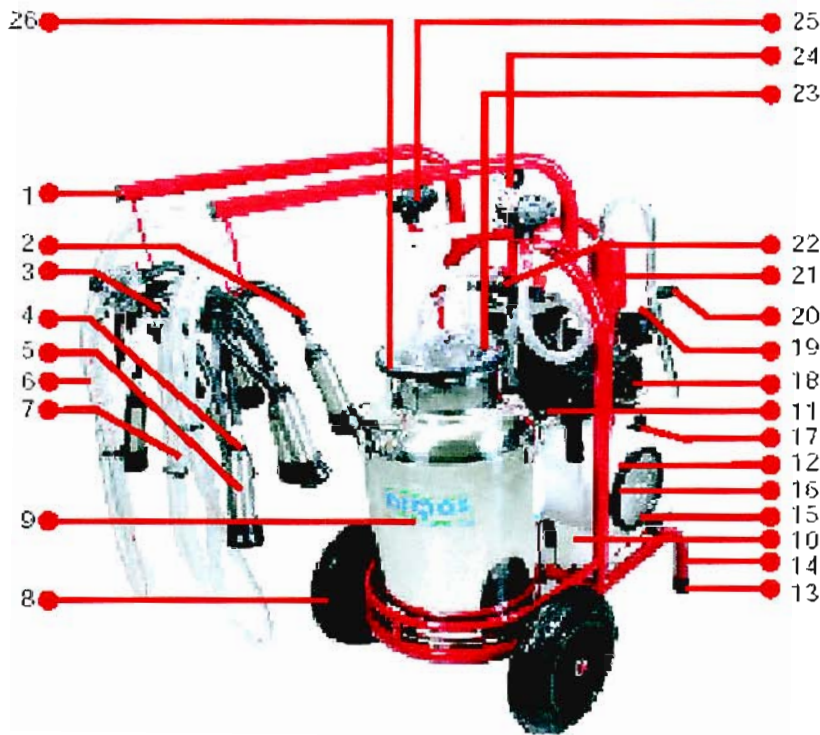


Milking bundle

**GREENOAK EQUIPMENT**

**Introduction of Milking Machine**

01.01 Introduction Of Milking Machine



**GREENOAK EQUIPMENT**

01.02 Spare Part's Names

1. Antenna wedge
2. Rubber nozzle
3. Short vacuum hose
4. Nozzle plastic
5. Stainless nozzle
6. Mixing hose
7. Twin hose
8. Tyre
9. Stainless bucket
10. Vacuum tank bottom plug
11. Electric engine
12. Vacuum tank
13. Foot wedge
14. Chassis
15. Vacuum tank side lid
16. Vacuum tank side lid gasket
17. Regulator
18. Vacuum pump
19. Lubricator
20. Handle
21. Exhaust
22. Plastic valve
23. Bucket lid (40 liters)
24. Vacuum motor
25. Pulsator
26. Bucket cover lid gasket (40 liters)





## GREENOAK EQUIPMENT

### **Transportation and Storage**

During transportation of machine, plastic or carton boxes used to avoid harm. Multi layer storages during transportation must be avoided. Friction during Transportation must be prevented by applying isolation material between.

#### **Warning**

During transportation, hold machine from handle or bottom.

#### **Storage**

Storage must be in dry atmospheric conditions. Machine must be kept under Plastic cover. Must be avoided from sunlight and moist.

#### **Warning**

After transportation vehicle admits customers area and after storage, no Responsibility is taken by Greenoak



## GREENOAK EQUIPMENT

### **Preparing for operation and operation:**

Points must be focused on prior running:

- ? Machine must supply power from grounded line.
- ? Check operation voltage that is printed on engine, if compiling with line voltage.
- ? All protection precautions must be taken before operation.

### **Process before operation:**

- ? Follow same milking time everyday.
- ? Submerge a clean and soft cloth into warm water that your hand can resist. Squeeze it. And make necessary cleaning on nipples, as you massage them. (This process will relax animal and release milk faster.)
- ? Apply pre milk prior to milking. Take milk into a separate cap to empty nipple (Do not pre milk onto the ground or bucket.)
- ? First milk that you obtain usually contains high amount of bacteria. Further more you'll be able to recognize rotten milk because of illness. Pre milking will relax milking process too.
- ? We recommend you to put a plenty of feed in front of the animal. This is for easy milking and milk efficiency. Feeding animal just after milking is a must.
- ? Carry the machine right next to the animal.

### **Warning**

Cleaning of bucket must be checked prior milking.





## GREENOAK EQUIPMENT

### Operating

- To avoid air infiltration into the system, please:
  - Shut milking claw valves by pulling up.
  - Shut bucket lids
  - Open two air valves, which are connected to pulsators.
- Turn the switch on.
- Vacuum meter will start to rise just after engine starts to run. By the effect of pre Adjusted regulator, vacuum meter will get into fixed position when reaches level of 0.48 bar. If the indicator doesn't reach marked point, please check lids, which are supposed to be shut And close them if they aren't so.
- Once you turned the valves on, pulsators will start to operate. Pulsing on nipples are 55-60 times per minute. At this point, vacuum meter will indicate 0.48 bar.

### Applying of Nozzle

- Hold milking claw as indicated on photo. At this case, Nozzle will fall down and will act as vacuum stopper plug (Photo 1)
- Hit claws upper plug (Upside down after you hold the Claw) downwards.
- Be careful that you hold the unit upright. Short milking Hoses must be bended to avoid vacuum release. (Photo 2)
- Hold one of nozzle with your left hand, press downwards So that you can bend short milk hose. And attach to nipple quickly.
- Do not attach other, before one surrounds nipple properly.
- Attach nozzle without twisting them.
- Be sure that, nozzles are touching breast properly.
- Check milk flow on transparent cover at claw.
- Although milking duration depends on the animals.
- Efficiency it is generally between 5-7 minutes.



## GREENOAK EQUIPMENT

### Uninstallation of Nozzles

- **When you observe that milk flow is ended, pull claws upper plug (Its upside down after you hold the claw) upwards.**
- **Afterwards, you can easily pull nozzles because of the vacuum loss.**

### Pulse Adjust

- **Pulse must be 55-60 per minute, and vacuum meter at 0.48 bar level.**
- **For control, insert your thumb into the nozzle and count pulses per minute.**

### Warning

If you detect difference or if your pulsator is out of order, do not open it. Forward to the Closest authorized dealer or service. Your problem will be solved instantly.

### To change vacuum round:

If you detect that vacuum is reduced, increase it by turning vacuum regulator to clockwise, Or if you detect the opposite, do vice versa (Photo 3)



## GREENOAK EQUIPMENT

### Maintenance

**THE MOST EXPENSIVE MAINTENANCE IS CHEAPER THAN CHEAPEST REPAIR.**

- Clean vacuum tank once a month. Take one lids off, clean, and remount it.
- If you detect water in the vacuum tank, discharge whenever it needs.
- Check nozzle for cracks on, change rubbers. Or, infiltrated milk can contact pulsators And cause malfunction.
- Change nozzles every six months or every 1800 milking periodically. Milk which Resides in cracks may cause nipple infection. Periodical changes will prevent Mastitis And other nipple diseases.
- Pulsators are dry types. Never lubricate them. Clean by air.

### Cleaning

- Clean your machine right after you finish milking.  
In cleaning process,  
run your machine as you are milking.
- Submerge milking bundle vertically into a bucket full of 30 C – 40 (86 – 104 F) of water. Milking bundle will start to siphon water. Continue this process till the water is totally siphoned.
- Repeat process with another bucket of water, includes disinfectant (recommended) agent.
- Clean your rubber parts and milk hose.
-



Green Oak



Green Oak

## GREENOAK EQUIPMENT

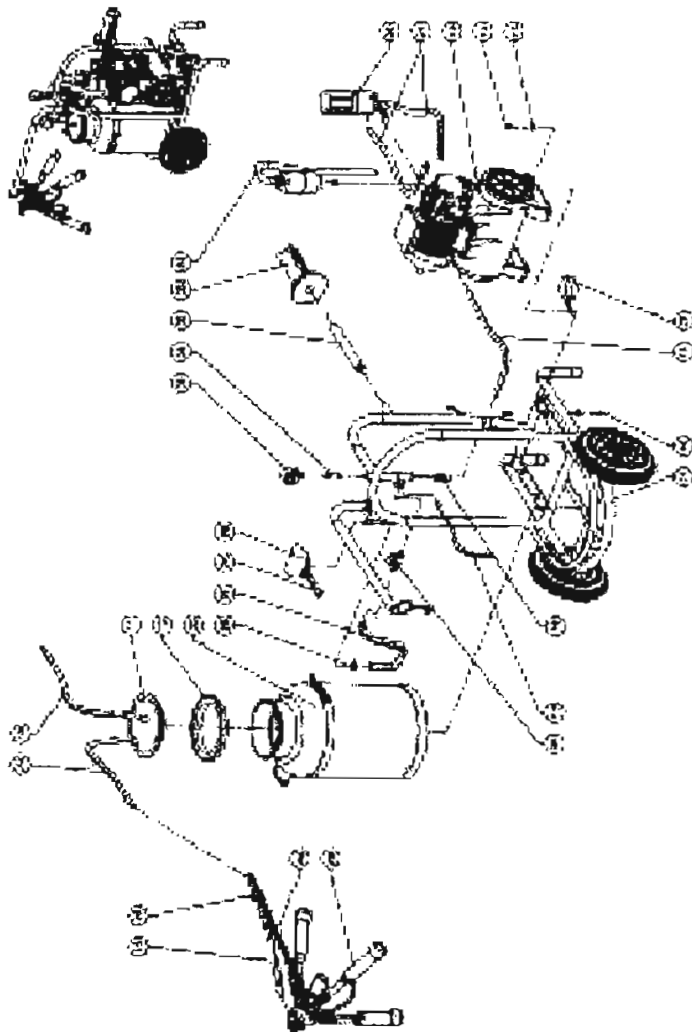
### Recommendations

- Keep your machine clean every time.
- Use grounded fuse.
- If any malfunction occurs in the engine, allow an authorized Electrician to check it.
- If you detect a malfunction in the pump, inform our service.
- During milking process, be sure that the bucket is not overflowing.
- Discharge collected milk after every milking. Otherwise, milk Can be siphoned by vacuum pump and may cause malfunction. Check your machine frequently. Change old parts. You can supply Every kind of spare parts from our dealers or factory.

**GREENOAK EQUIPMENT**

**SINGLE AND DOUBLE MILKING (OILED OR DRY TYPE)  
MILKING MACHINE INSTALLATION**

05.01 Milking Machine Installation





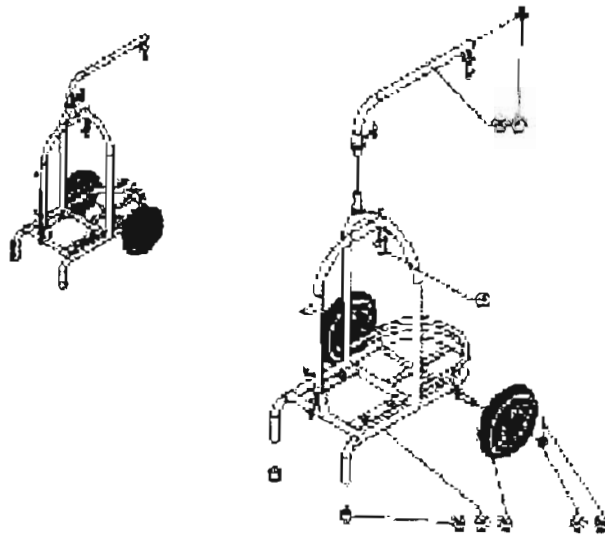
## GREENOAK EQUIPMENT

### Milking Machine Spare Part's Names

1. Chassis installation
2. Handle
3. Handle bar
4. Vacuum meter hose
5. Vacuum meter
6. Air distribution valve (Plastic valve)
7. Pulsator hose (24\*12\*450 PVC)
8. Hose cuffs metal 18\*25
9. Pulsator
10. Vacuum hose 24\*13\*300 PVC
11. Bucket lid 40 litres
12. Bucket lid gasket 40 litres
13. Installation of vacuum pump with tank
14. Bolt M8\*20
15. Washer 5/16"
16. Nut M8
17. Air hose (Between tank and air distributor)
18. ½ male adaptor
19. Exhaust installation
20. Clean lubricator installation
21. Oil siphon hose (Thin oil hose)
22. Stainless steel bucket
23. Milking hose 14\*24 PVC
24. Twin hose
25. Hose cuff
26. Milking bundle
27. Dirty oil apparatus

**GREENOAK EQUIPMENT**

05.03 Chassis Installation



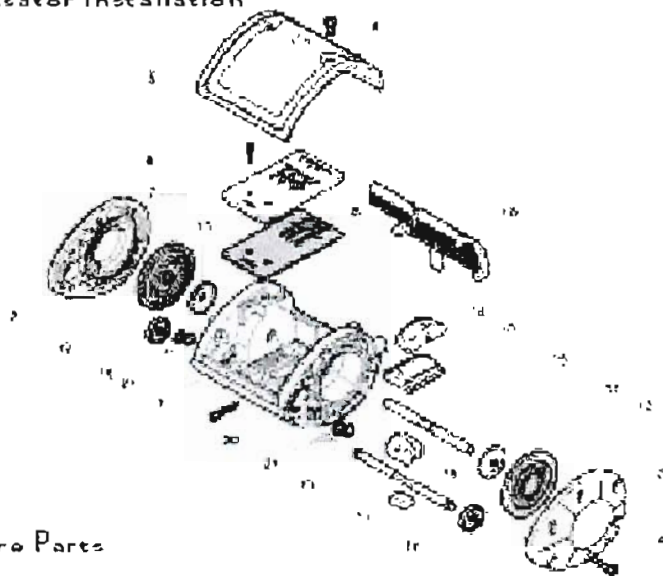
Spare Parts

1. Chassis
2. Tyre
3. Tyre washer (Straight chip) M20
4. Tyre pin 3'35
5. Chassis foot wedge
6. Antenna wedge
7. Cross

## GREENOAK EQUIPMENT

### Pulsator Installation

#### 05.04 Pulsator Installation



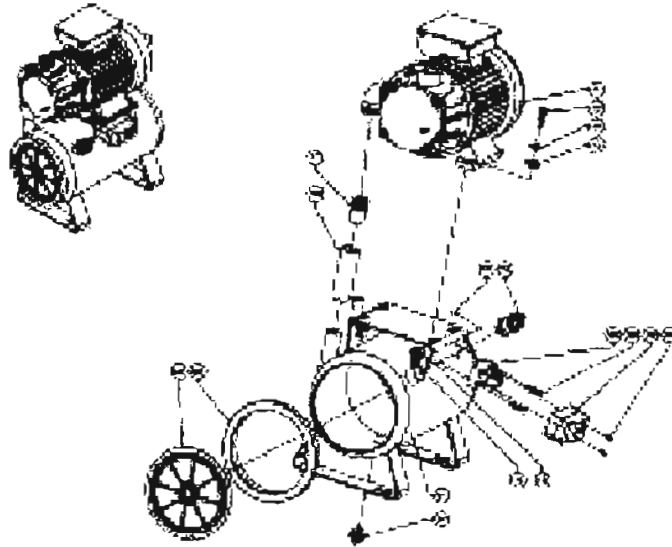
#### Spare Parts

- |  |  |
|--|--|
| 1. Pulsator main body                                | 12. Pulsator big diaphragm                   |
| 2. Pulsator left side cover                          | 13. Pulsator front axis slide bottom         |
| 3. Pulsator right side cover                         | 14. Pulsator front axis slide top            |
| 4. Pulsator cover installation screw inox YSB 3,5*12 | 15. Pulsator front axis                      |
| 5. Pulsator stainless cover                          | 16. Pulsator small diaphragm                 |
| 6. Pulsator cover screw inox YSB 3,5*13              | 17. Pulsator back axis slide bottom          |
| 7. Pulsator plate                                    | 18. Pulsator back axis slide top             |
| 8. Pulsator plate gasket                             | 19. Pulsator back axis                       |
| 9. Pulsator bakelite screw inox YHB 2,9*9,5          | 20. Pulsator adjust screw inox M4*25 inx bus |
| 10. Pulsator filter                                  | 21. Pulsator O-Ring 2,57*1,78                |
| 11. Pulsator front axis guard                        | 22. Pulsator adapter                         |
|  | 23. Pulsator adapter rubber (13)             |



## GREENOAK EQUIPMENT

### 05.05 Vacuum Tank Installation

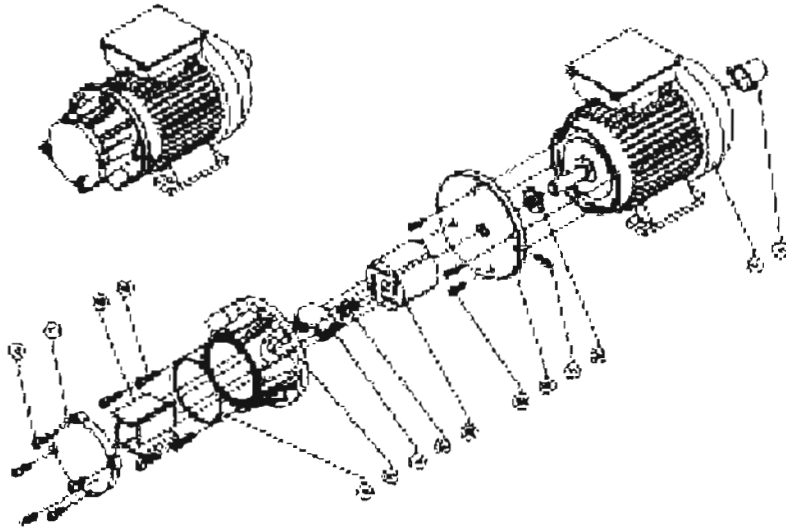


#### Spare Parts

- |  |  |
|--|--|
| 1. Tank body                             | 11. Vacuum pump and electric engine          |
| 2. Bottom plug                           | 12. Engine isolation male flange (Plastic)   |
| 3. Side lid gasket                       | 13. Engine isolation female flange (Plastic) |
| 4. Side lid                              | 14. Flat flange 5/16"                        |
| 5. Electric switch                       | 15. Connection bolt M 8*30                   |
| 6. Electric switch connection bolt M4*30 | 16. Connection bolt nut M 8                  |
| 7. Electric switch connection nut        | 17. Check valve                              |
| 8. Switch cover                          |  |
| 9. Switch cover bolt M4*10               |  |
| 10. Regulator                            |  |

## GREENOAK EQUIPMENT

### 05.06 Motor Pump Installation



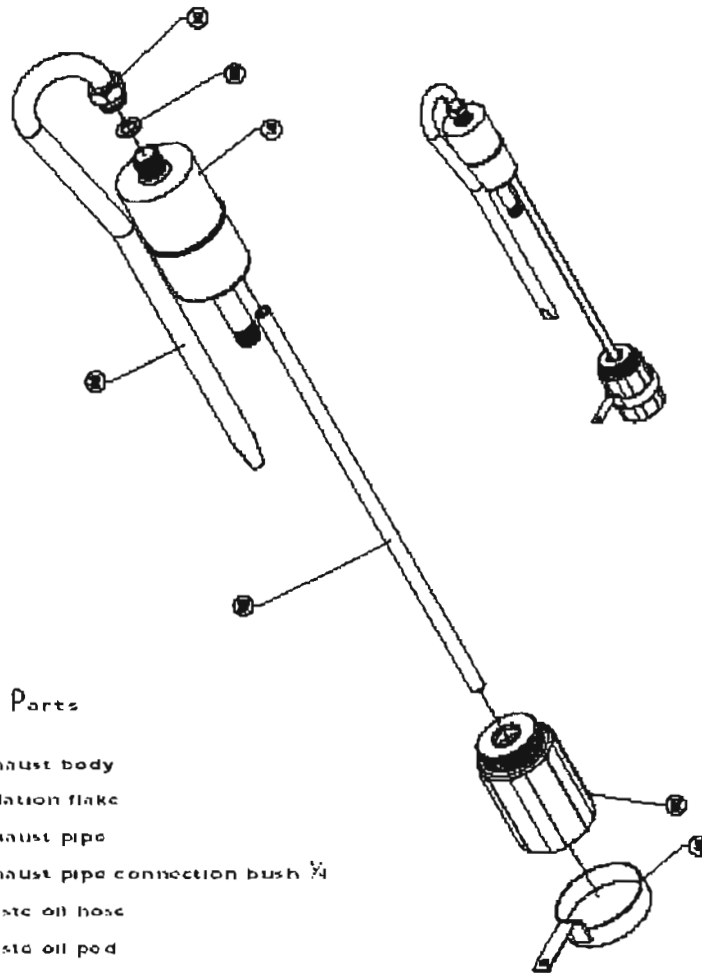
#### Spare Parts

- |  |  |
|--|--|
| 1. Electric engine<br>(0.55 kW 1450 rpm. 50 Hz.) | 8. Body connection bolt imbus M<br>8*30        |
| 2. Vacuum pump bottom flange                     | 9. Flap  |
| 3. Vacuum pump bottom flange<br>pad              | 10. O ring 3*105                               |
| 4. Flange connection bolt<br>imbus M 8*20        | 11. Pump cover                                 |
| 5. Rotor   | 12. Pump cover connection bolt<br>imbus M 6*20 |
| 6. Rotor connection screw YHB<br>imbus M 10*20   | 13. Oil bush                                   |
| 7. Pump body                                     | 14. Bend                                       |
|  | 15. Engine axis guard cover                    |

## GREENOAK EQUIPMENT

### Oiled Exhaust Installation

#### 05.07 Oiled Exhaust Installation

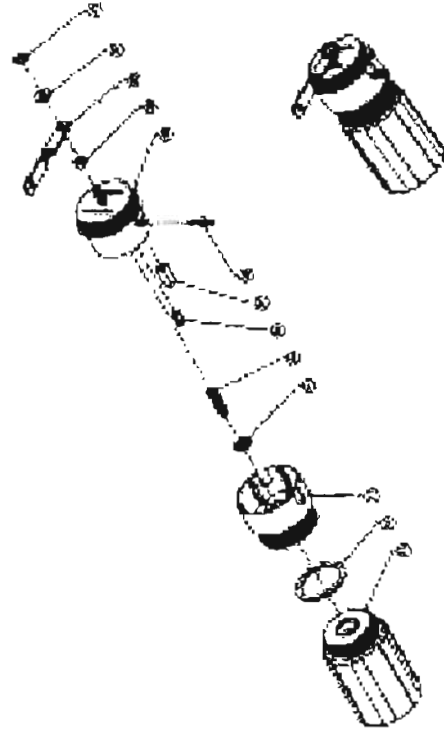


#### Spare Parts

1. Exhaust body
2. Isolation flange
3. Exhaust pipe
4. Exhaust pipe connection bush  $\frac{3}{4}$
5. Waste oil hose
6. Waste oil pod
7. Waste oil apparatus

**GREENOAK EQUIPMENT**

05.08 Lubricator Installation

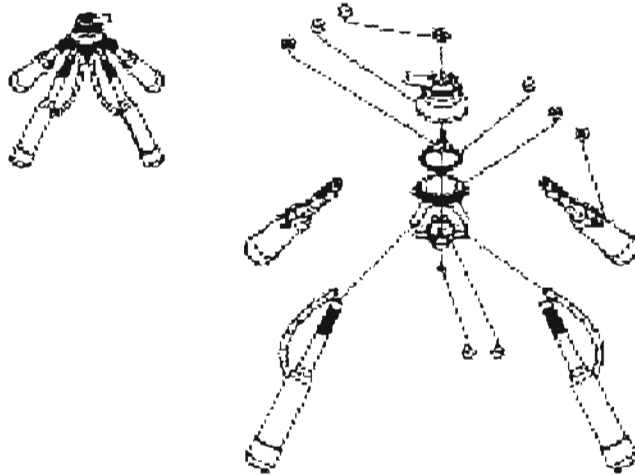


Spare Parts

- |                              |                              |
|------------------------------|------------------------------|
| 1. Nut M8                    | 8. Aluminium plate           |
| 2. Flat stake 5/16"          | 9. Adjust screw              |
| 3. Clean oil apparatus       | 10. Adjust screw counter nut |
| 4. Counter nut M8            | 11. Lubricator top           |
| 5. Lubricator bottom         | 12. Lubricator gasket        |
| 6. Oil hose entrance bush M6 | 13. Lubricator pedestal      |
| 7. Bush connection square    |                              |

## GREENOAK EQUIPMENT

### 05.09 Milking Bundle Installation



#### Spare Parts

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. Claw air distributor</li> <li>2. Claw body</li> <li>3. Claw connection bolt M5</li> <li>4. Claw lid gasket</li> <li>5. Claw lid</li> <li>6. Claw interior parts repair kit male</li> <li>7. Claw interior parts repair kit female</li> </ol> | <ol style="list-style-type: none"> <li>8. Nozzle installation               <ul style="list-style-type: none"> <li>•Stainless nozzle cover</li> <li>•Nozzle plastic</li> <li>•Short vacuum hose</li> <li>•Rubber nozzle</li> </ul> </li> </ol> |
|--|--|

To avoid a mistake, please forward correct code numbers of the parts, when you order.



**GREENOAK EQUIPMENT**

**DIAGNOSTIC AND REPAIR**

<b>MALFUNCTION</b>	<b>REASONS</b>	<b>REPAIR</b>
<b>PULSATOR NOT OPERATING</b>	Vent is closed	Open vent
	Hose between pulsator and vent is dislocated	Relocate hose
	Pulsator frozen (Extreme weather conditions)	Open pulsator top lid and manually help to move
	Pulsator dirty	Uninstall on to a clean cloth and clean. Install as figured on the photo
<b>PLEASE CONTACT CLOSEST DEALER OR SERVICE, IF YOU RECOGNIZE A MALFUNCTION OTHER THAN ABOVE</b>		
<b>VACUUM METER DON'T TOUCH MARKED POINT</b>	Bucket lid open	Close lid
	Vacuum tank side lids are dislocated	Check vacuum tank side lids and locate them
	Milking claws plugs open	Close plugs
	Flaps in engine are detrited or broken	Dislocate pump cover, check, and replace
<b>MILK FLOW IN HOSE LOW</b>	Hose choked	Clean hose
	Air hole over milk claw choked	Clean air hole
<b>TWIN PULSE HOSE CONTAINS MILK</b>	Nozzle plastic blown up	Change nozzle plastic



## GREENOAK EQUIPMENT

### Technical Specifications

#### AK / 1 SINGLE BUCKET, SINGLE MILKING DRY TYPE MILKING MACHINE

- One 180 litres / min, dry type pump.
- Four graphite flaps, lubrication free.
- One ¼ HP(0,55 kW) 220 V. 1400 rpm 50 Hz. Electric engine.
- One 60/40 Greenoak pneumatic pulsator.
- One stainless steel bucket.

#### AY / 1 SINGLE BUCKET, SINGLE MILKING OILED TYPE MILKING MACHINE

- One 200 litres./ min. oiled type pump.
- Four fiber flaps. Consume number 10 oil at summer, and 20/50 at winter.
- ¼ HP (0,55 kW) 220 V 1400 RPM 50 Hz. Electric engine.
- One 60/40 Greenoak pneumatic pulsator.
- One stainless steel bucket.

#### AK / 2 SINGLE BUCKET DOUBLE MILKING DRY TYPE MILKING MACHINE

- 200 litres / min, dry pump.
- Four graphite flaps. Lubrication free.
- ¼ HP (0,55 kW) 220V 1400rpm, 50 Hz. Electric engine.
- Two 60/40 Greenoak pneumatic pulsator.
- One stainless steel milking bucket.

#### AY / 2 SINGLE BUCKET DOUBLE MILKING OILED TYPE MILKING MACHINE

- 220 litres / min, pump oiled type.
- Four fiber flaps. Consumes; number 10 oil at summer, 20/50 at winter.
- ¼ HP (0,55 kW) 220 V 1400 RPM 50 Hz. Electric engine.
- One 60/40 Greenoak pneumatic pulsator.
- One stainless steel bucket.

### EXPIRY DATE

Estimated operation period is 10 years after first run.

**GREENOAK EQUIPMENT**

**POST SALES SERVICES, SERVICE AND SPARE PARTS**



Adaptor



Adaptor gasket



Adaptor side exit



Dry exhaust



Vacuum tank side cover and gasket



Oiled fiber flaps



Graphite flaps



Check valve



Plastic valve



Regulator