



# Mobile Milking Machine Vacuum Pump

## INSTRUCTIONS FOR USE



Single-place (Code: 223 747)  
Double-place (code: 223 748)

10/38

## General

Suitable for farmers with a small number of animals to milk at a time. Easy operation and maintenance, stable vacuum, low noise, even pulsation rate and soft milking. The vacuum pump milking machine is available as a single-place or double-place and includes vacuum pump, motor, pulsator, milk tube, milk cluster and milk bucket.

## !WARNING!

**Fill with milking machine oil prior to use.  
Change oil filter every 6 months.**

## Operating Instructions

### 1. Check the machine over before use.

Regular maintenance and cleaning will keep the machine in good order for a long time. Cleaning the machine should be daily or after every use. Maintenance on the machine should be made once a month or less to make sure parts are well oiled or greased, and any repairs that may need to be made are done before things get worse.

Regular disinfection of the hoses (especially inside), tank, and suction cups is important. The cups should be covered or placed in a bag where they will not become contaminated or dirty during storage.

### 2. Attach all tubes and caps to the machine.

Make sure all tubes are connected properly; any that are not properly connected (or not connected at all) will not create a vacuum seal. Make sure also the O-ring for the lid is properly in place before attaching the lid. The lid should also be in place properly to create a good seal.

### 3. Have the cow standing in her stanchion with some feed.

If you keep to a regular milking schedule, she will know where to go and how to get in. Just make sure she is happy munching on a flake of hay (or part of a square bale) while being milked.

### 4. Clean the udder thoroughly.

Using a clean rag or paper towels, clean the teats and lower part of the udder of dirt and debris. As you do so, gently yet firmly, just like if you were hand-milking, squeeze each teat in a downward motion to initiate milk let-down and to dislodge any plugs that may be accumulated at the end of each teat. This may not be necessary if the udder is already so full that the teats are leaking

milk. Discard the rag or towel.

**5. Hook up the vacuum line to the vacuum port on the milker and turn on the pump.**

Attach the line to the port on the milker before turning on the motor to the pump. You may need some time to build up the negative pressure needed to begin milking, and to get the pulsator going in the inflations (or suction/teat cups). The pressure should reach around 48 kPa before putting the cups on.

\*Remember to make sure all connections are secure and attached before turning anything on.

**6. Move the bucket or bucket-milker unit beside the cow next to her rib cage.**

The bucket, especially if you have one that you are not moving around on the trolley, should be placed on the ground next to the cow. This leaves you room to access the cow's udder more easily.

**7. Grab the cluster and hold it under the udder with the milk hose pointed to the front of the cluster**

This cluster is a holding unit that collects milk from all four teats (via the suction cups or teat cups) before moving it down a tube into the sealed bucket or container. When you hold the cluster under the udder you are ensuring that the cups are going to be put on properly, avoiding it being twisted up during milking.

**8. Open the vacuum to the cluster and listen to make sure the pulsator is clicking properly.**

It should be ticking once every half to three-quarter of a second. Do not listen for too long because you need to maintain pressure to be able to add the teat cups to the cow without them falling off

**9. Add the teat cups to the teats one at a time.**

Start from the back, from right to left (if you are on the left side of the cow) then continue in the same manner with the front. Put them on as quickly and smoothly as possible so that the cups will not lose suction. Guide the cups onto the teat with your hand rather than trying to look under the cow to see where they are going to be attached. This will make things quicker and safer for you.

**10. Check to see how and if the milk is flowing into the bucket.**

If everything is flowing well, then sit back and relax and let the machine do the rest of the work.

**11. Remove the cups when the milk going into the bucket slows to a stop.**

The easiest way to do this is by kinking the hose to the cluster and cups which will allow the cups to fall off immediately. \*With large milk operations machines have automatic systems where each cup will fall off as soon as one quarter of the udder is out of milk. But with single/double milker units this is not so much of a luxury, so kinking of the hose is one of the easiest ways to remove the cups from the teats.

**12. Turn off the machine and remove the lid from the bucket.**

Pour the milk into clean buckets or a milk container for storage and later use.

**13. Repeat for other cows.**

**14. Clean the machine afterwards.**

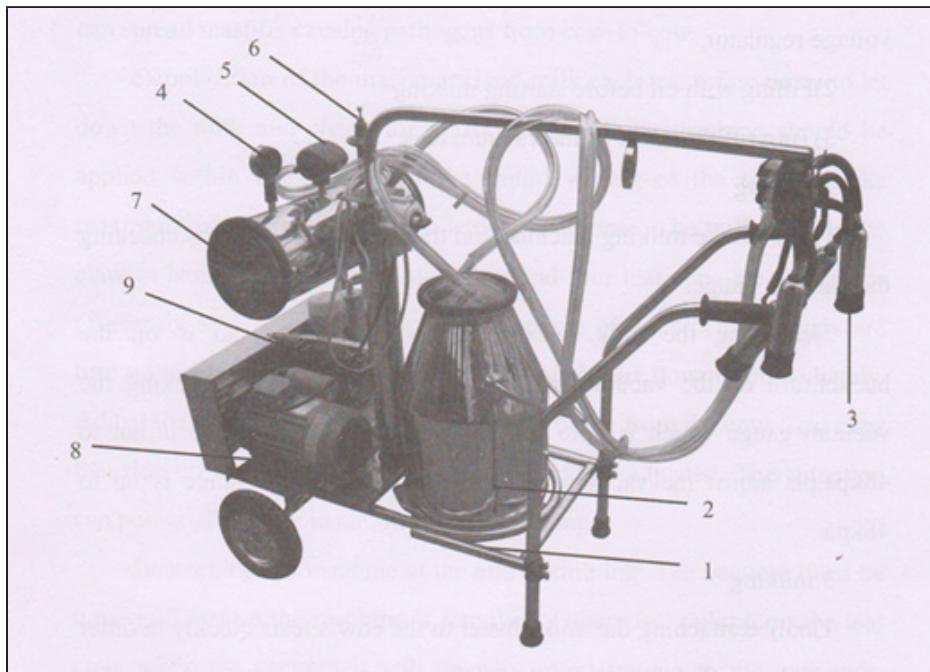
Get a pail of water with a couple cups of cleaning solution (cold water is best), put the suction cups open end down into the pail, then turn on the machine. The machine will actively suck the water and cleaning solution through the hoses into the bucket, until the pail is empty. Repeat with plain clean water afterwards to wash out any residue chemical. \*Milk liners need replacing after 3000 uses.

**15. Store the machine in a warm dry place until next use.**

## Troubleshooting

Fault	Reason	Resolution
Vacuum Pump doesn't work	Motor doesn't work Oil temp too low or oil viscosity too big	Check the voltage Check short circuit Warm oil to 12°C Turn vacuum pump by hand
Vacuum degree too low	Vacuum gauge is stuck Oil seal is damaged Oil is low or dirty Filter clogged	Check tube Change oil seal Change oil Clean filter
Loud noise	Driver motor wear Vane wears	Change driver motor Change vane
Motor not working	Motor not working	Check motor voltage Check connection Change new motor

# Parts



## Parts List:

1. Frame
2. Bucket
3. Cluster
4. Vacuum Gauge
5. Milk Pulsator
6. Vacuum Regulator
7. Vacuum Tank
8. Motor
9. Vacuum Pump

# Specification

	Single-place	Double-place
Operating Vacuum	0.04-0.05MPa (adjustable)	0.04-0.05MPa (adjustable)
Pulsation Time	60-80 per minute	60-80 per minute
Pulsation Rate	60/40	60/40
Power	1.1kw	1.1kw
Motor Speed	1440rmp per min	1440rmp per min
Pump Capacity (L/min)	200/250	200/251
Cows per hour	10 - 12	20 -24
No. Buckets	One	Two
No. Clusters	One set	Two sets

\*\* Milking machine vacuum pump oil (rotary vane) can be purchased from leading farm stores.



Supplied by Shoof International Ltd. [www.shoofdirect.co.nz](http://www.shoofdirect.co.nz)