

Instruction Manual for Nupulse Cow Bucket Milker



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HAMBY DAIRY SUPPLY

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Instructions for assembly of Cow Bucket Milker

1. Unpack all items

Do not throw away packing materials as you may find small items in packaging materials.

2. Vacuum pump

Add oil (Conde Pumps Only). 10w40 motoroil is recommended.

Remove rubber plug on oil reservoir on top of vacuum pump. Fill the container with oil.

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Supply



7100

Electric Vacuum System



7400

**Gas Powered
Vacuum System**



41000

**Nupulse Oil-less
Vacuum Supply**



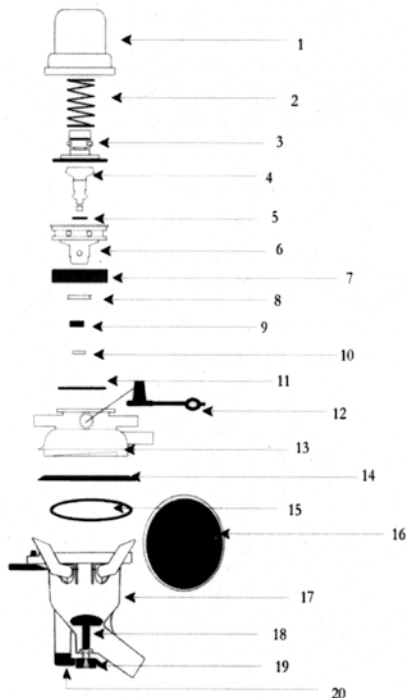
Vacuum pumps run on 115 volts. They come on when plugged in. For everyday use in your barn, or for remote mounting of vacuum pump, we recommend installing a 15 amp switched plug on your barn wall. This will allow you to turn the pump on and off with a switch instead of unplugging.

3. Assemble bucket.

Put lid on bucket and snap handle into place.

FulFlo Claw

FulFlo Claw



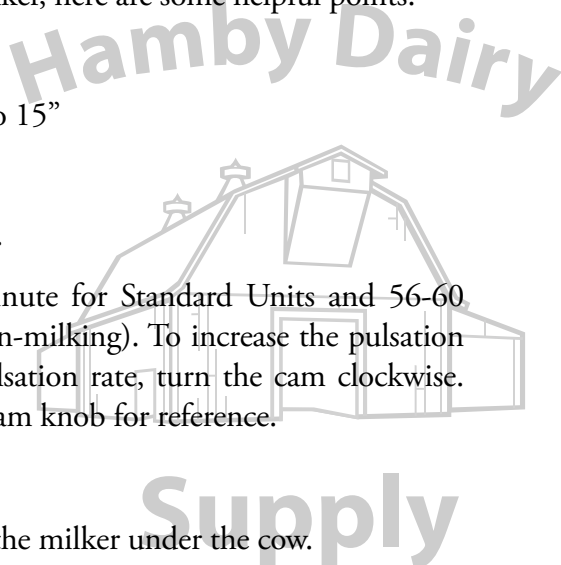
NO	PART	DESCRIPTION
1	MZ12001NP	FulFlo Dome
2	MZ10007NP	Pulsator Spring
3	MZ10005NP	Diaphragm Complete
4	MZ10022NP	Bobbin Only
5	MZ10009NP	Bobbin "O" Ring
6	MZ10010NP	Bobbin Housing
7	MZ10028NP	Air Filter
8	MZ10015NP	Bobbin Housing Seal
9	MZ10011NP	Bobbin Valve
10	MZ10012NP	Bobbin Clip
11	MZ10014NP	Middle "O" Ring
12	MZ10002NP	Wash Plug
13	MZ12005NP MZ12405NP	FulFlo Standard Middle FulFlo MLX Middle
14	MZ10030NP	Claw Protector Seal
15	MZ10017NP	Base "O" Ring
16	MZ10069NP	MLX Diaphragm
17	MZ12010NP MZ12110NP MZ12210NP MZ12310NP MZ12410NP MZ12510NP MZ12610NP MZ12710NP	FulFlo Standard Bowl FulFlo Standard Bowl with ShutOff FulFlo Parallel Standard Bowl FulFlo Parallel Std Bowl with ShutOff FulFlo MLX Bowl FulFlo MLX Base with ShutOff FulFlo Parallel MLX Bowl FulFlo Parallel MLX Bowl with ShutOff
18	MZ12016NP	ShutOff Valve
19	MZ12017NP	ShutOff Button
20	MZ12015NP	Rubber Foot for ShutOff

Operation:

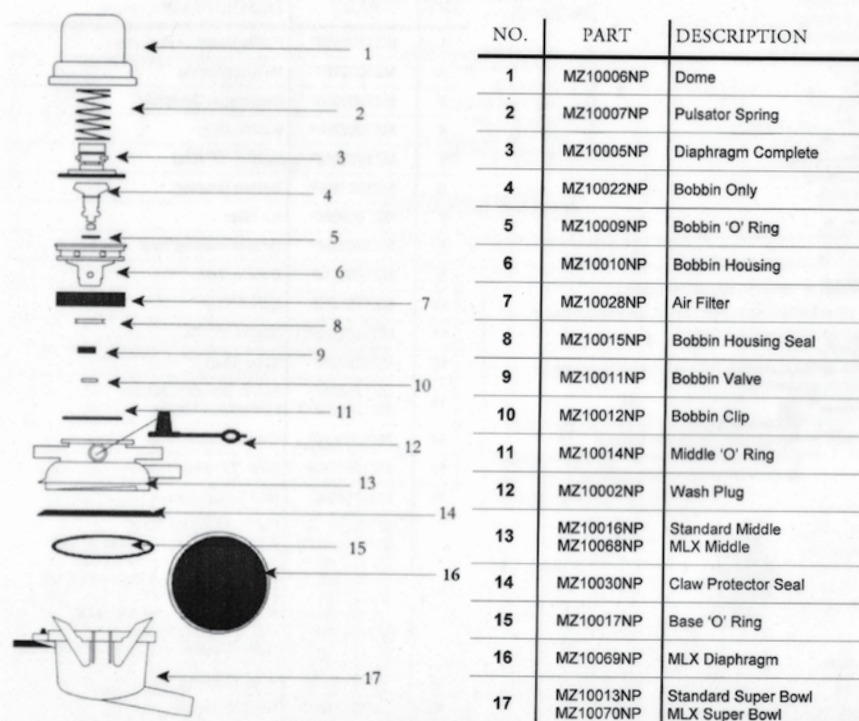
To obtain the maximum performance from your NuPulse Milker, here are some helpful points.

- Recommended vacuum levels are:
 - High line: Standard Unit - 14"; MLX Unit 14" to 15"
 - Medium Lines and Weight Jars: 13" to 13.5"
 - Low Lines and Bucket Milkers: 12 to 12.5"

Note: Add 1" when using tube type milker meters.
- Pulsation rate should be set at 54-56 Pulsations per minute for Standard Units and 56-60 pulsations per minute for MLX Units in static mode (non-milking). To increase the pulsation rate, turn the cam counterclockwise. To decrease the pulsation rate, turn the cam clockwise. Note: There is a (+) and a (-) molded into the top of the cam knob for reference.
- Clean the air filter regularly.
- Use hose hangers in stanchion barns to properly position the milker under the cow.
- Keep the milk hose as short as possible.
- Check the diaphragm, bobbin 'O' ring and bobbin vacuum regularly for cleanliness and proper operation.



Original Claw



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Note: Cleaning and Troubleshooting on back

How to Clean Your FulFlo and Original Claw

Wash water temperature should not drop below 110F during recirculation cycle, and should have a Ph of 11.5 or higher.

C.I.P. Cleaning using Jetters

1. Put teat cups on Jetters.
2. Insert jetter tube adapters into claw wash port.
3. Manually clean the pulsator parts weekly or as needed.
4. For maximum MLX diaphragm life, it is recommended that the units pulsate while washing.



Supply



NuPulse CIP claw & Milk Hose Washer for cow milker (505-10125NP)

CAUTION:

Do not over tighten the claw parts when reassembling. Let the 'O' rings do their job.

Troubleshooting

Units Falling Off

1. Over milking
2. Wet, soapy teats
3. Worn rubberware
4. Vacuum level too low
5. Line flooding

Pulsator Slows down or stops

1. Milk or vacuum hose kinked
2. Air leaks in claw
3. Bobbin hole plugged
4. Dirty air filter
5. Damaged or missing 'o' ring
6. Damaged diaphragm rubber

Slow Milking

1. Vacuum too low
2. Worn inflations
3. Vacuum leaks
4. Clogged bowl vent (MLX)
5. Over milking
6. Milk hose or inlet valve undersized
7. Pulsator rubberware worn out
8. Line flooding - too many units per slope, milk inlets lower 2/3 of pipeline.

Cows Kicking

1. Vacuum set too high
2. Pulsator malfunction
3. Stray voltage
4. Over milking
5. Sore teats

Units Speed Up

1. This is normal during heavy milk flow

4 steps to Cleaning Your Bucket

Your milking machine must be kept clean and sanitary in order to have healthy milk that will keep without spoiling. Cleaning should be done immediately after milking. Don't let the milking machine sit dirty as the milk residues may dry on and then they will be much harder to clean. Your new milking machine will come with a one month supply of cleaning chemicals (Pfanzite) and 3 brushes for cleaning.



pic. 1



pic. 2



pic. 3

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- Step 1: WARM RINSE with 2-3 gallon warm water. Draw the warm water (100 degrees) from a bucket through the inflations and hoses (vacuum pump on) into the bucket of your milker. Discard water.
- Step 2: HOT WASH with 2-3 gallon hot water (140 degree) and 1/4 cup of powder Pfanzite dairy detergent. Draw this wash solution through the inflations and hoses and into the bucket. Repeat this step at least 3 times with the hot wash solution.
- Step 3: WARM RINSE with 2 gallon warm water. Draw through milker. Hang all components so that they drip dry in a clean sanitary place. Store your pail upside down on an open shelf rack or use bucket hanger so that it may drip dry.
- Step 4: Remove lid, then remove lid gasket and brush lid with swiss pail brush (pic.2)

ACID RINSING OPTION

Acid rinsing is very important for removing milkstone. Milkstone is made primarily of calcium residues from the milk and from hard water. Milkstone likes to stick to stainless steel and glass. Other milk residues, such as protein and fat like to stick to milkstone. This will result in a buildup that will leave your shiny stainless steel looking dull. That buildup can contaminate your milk effecting flavor and quality. It also provides a good medium for bad bacteria to grow on.

If your milking machine gets a dull look, then prepare a solution of 1 gallon hot (140 degree) water along with 1 ounce of Citrophos. Draw that through the milker 4 or 5 times, then brush wash the outside with this solution.

- Step 5: COLD SANITIZE with a chlorine solution 15 minutes prior to milking.



Washing Accessories & Supplies

Pfanzite powder detergent	25lbs.	7751-0041-033
Duophan	45 lbs. pail	7751-0041-074
Citrophos acid detergent	4 gallon	7751-0240-184
Long handle brush	(pic 1. above)	C-363FO
Swiss pail brush	(pic 2. above)	C-456FO
Inflation brush	(pic 3. above)	1150-003
Hose brush kit		1150-120K
Auto Bucket washer		56200
Small stainless steel sink		56195
Large 29 gallon SS sink	(38 inches x 20 inches)	1070-604
Wall mout or legs for large sink		1053SSWB
Mixing faucet - wall mount		1071-571

Instructions for Machine Milking Family Cows

Cows like consistency. Milk at the same time each day.
Follow the same routine each milking.

1. Wash your hands. Dirty hands spread disease.
2. Wear Nitrile Milking Gloves to reduce the spread of mastitis causing germs from your hands. The small cracks and crevices in human hands harbor a lot of bacteria including contagious Staph Aureus.
3. Sanitize your milking machine with a chlorinated sanitizing solution just before you milk.
4. Entrance. Bring the Cow into a calm, stress free milking environment. Stress, such as loud noise, inhibits milk let down.
5. Warm hands first and then fore strip. Hand milk 1 or 2 squirts from each teat onto the black screen of a strip cup. Look for clots, clumps, blood, or signs of abnormal milk. Fore stripping promotes milk letdown & faster milkout.
6. Teat Prep & Sanitation. The purpose of this step is to reduce the amount of bacteria on teat skin and promote milk let down.
 - Teat Wipes: Wipe and massage each teat for 15 seconds. Use one wipe per cow or one per teat if they are visibly dirty. Teats will dry in a few seconds due to the alcohol in the wipes.
 - Pre Dipping: Predip with Teat Kote 10/111. Wait 30 seconds, then dry off with a paper or cloth towel. Use one clean towel per cow. Do not reuse the towel as this may spread diseases from one cow to the next.
7. The goal is to milk clean, dry teats. Wet udders are a good conduit for bad bacteria and mastitis (udder infection). Wet udders may drip down to the top of the liner, and if the liner slips it will suck in the dirty water. Limit water use on the udder.
8. Apply the milker within one minute of the beginning of teat preparation. This maximizes the animals natural milk letdown (oxytocin), speeds up milk flow, and reduces the machine on time. Let the vacuum pull the milker onto the teat.

DO NOT force the teat into the liner. It only needs to go in about 1/2 inch.



Instructions for Machine Milking Family Cows continued

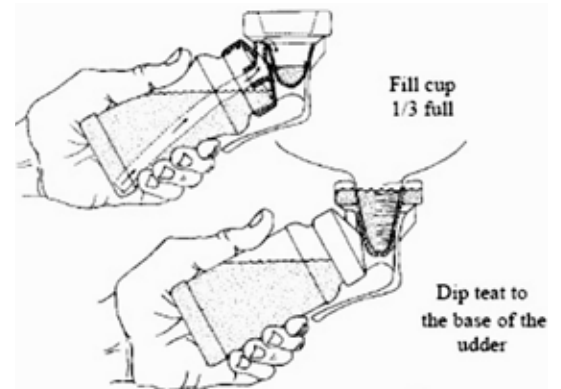
9. Adjust milking unit so it hangs square with out twisting the teats. A little forward tension will provide faster milkout.
10. The cow is finished milking when the large volume of milk flow drops off to a trickle. Milk out time should be 5 to 10 minutes on most cows. Pinch off the rubber milk tubes on the bottom of the inflations, then gently pull the inflation down off the teats.
11. Animals that were hard to milk by hand will take longer to milk with a machine. Most healthy udders will shrink significantly when milked out...Except for the first few days (post calving) when the udder has a lot of swelling (edema). Usually the swelling leaves within a few days and then the udder should shrink when milked out. Dynamint udder cream will help reduce swelling if used in the first few days after calving.
12. Should you post strip? No! Research has shown that post stripping may cause more harm than benefit. It may train the cow to hold back some milk and your hands will contaminate the teat end at a vulnerable time when the Keratin teat end seal is open. If the cow is not milking out properly, then you may need to adjust the way the milker is hanging, adjust the pulsator, or vacuum level, or have your milking machine checked for proper operation.
13. Post dip IMMEDIATELY for Teat disinfection. Post dipping sanitizes the teat skin including the opening at the bottom of the teat. Post dipping has been proven to dramatically reduce cases of udder infections. Post Dip with AstroTek. Teat Kote 10/111, or DermaSept protocol tested teat dips. Use the Hamby Dairy Supply dip cup provided with your milking machine. This non-return style dip cup provides a fresh dose of teat dip for each teat. For temperatures below 25 degrees, DermaSept is recommended because it will not freeze.



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14. It is important to keep the dairy cow standing for a while after milking. This will give some time for the wax-like seal of the teat orifice to seal back up. A good solution is to have a rack of fresh hay and fresh water available right after they exit the milking parlor.



Order List for our most popular Dairy Supplies



**Nitrile Milking
Gloves**

Nitrile Milking Gloves with aloe	Small.....	1169-990
Nitrile Milking Gloves with aloe	Med	1169-991
Nitrile Milking Gloves with aloe	Large.....	1169-992
Nitrile Milking Gloves with aloe	XLg.....	1169-993



**Strip Cup with
black screen**

Nitrile Milking Gloves plain.....	Small.....	407-TA576
Nitrile Milking Gloves plain.....	Med	407-TA586
Nitrile Milking Gloves plain.....	Large.....	407-TA596
Nitrile Milking Gloves plain.....	XLg.....	407-TA597



CMT Kit

Strip Cup with black screen.....	5030
CMT Kit.....	5025
CMT Concentrate Refill	5026



**Milk Check
Teat Wipes**

Milk Check Teat Wipes	bucket of 700	5070
Milk Check Teat Wipes	refills of 700	5071
Sanisure Cloth Dairy Towel.....	each.....	1041-067E



**DermaSept
Teat Dip**

Hamby Dairy Supply Side Dipper Teat Dip Cup	HDC
Teat Kote 10/111 Pre or Post dip Iodine Teat Dip	1 gallon 7751-0241-434G
Teat Kote 10/111 Pre or Post dip Iodine Teat Dip	5 gallon 7751-0041-435
DermaSept Sanitizing Teat Conditioner / Winter Teat Dip	1 gallon 7751-0240-340G



**Dynamint
Udder Cream**

Dynamint Udder Cream w/ peppermint oil, eucalyptus oil & tea tree oil.....	DM0500HB
Kendall Udder Cream	28 oz. 1180-002
Kendall Udder Cream	4.5 pound pail..... 1180-003