Attention: Please read instructions thoroughly before using equipment

Upon receiving the unit, please check IMMEDIATELY to see whether there is any visible damage to the bucket milker, vacuum pump, or other items. If there is any damage do not attempt to run the unit!

Call or email Bob White Systems. (802) 763-2777
YOUR BUCKET MILKER INCLUDES:

<table>
<thead>
<tr>
<th>Milking System:</th>
<th>Claw Style</th>
<th>Inflation #</th>
<th>Bucket Size</th>
<th># Animals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Westfalia</td>
<td>or</td>
<td>35lb S.S.</td>
<td>1 Cow</td>
</tr>
<tr>
<td></td>
<td>DeLaval</td>
<td>or</td>
<td>55lb S.S.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NuPulse</td>
<td></td>
<td>75lb S.S.</td>
<td></td>
</tr>
</tbody>
</table>

VACUUM PUMP REQUIREMENTS:

- 3-6 CFM Capacity per 4 inflations
- 13” Hg
- 1/4 HP of Motor Power Per 4 inflations

OPERATING YOUR NEW BUCKET MILKER

The following guidelines will assist the first time user in properly operating a Bucket type milker system.

Please note: Cow side practice and pre and post care of the animal is left solely up to the dairyman. Bob-White Systems recognizes only the practices published by the National Mastitis Council, Milking Machine Manufactures Council, and established 3A guidelines. Bob-White Systems makes no claim as to the right or wrong way of using the above type of milking systems, Bob-White Systems only describes the function of how the piece of equipment was designed to work and has been proven to work in practical field applications. **Bob-White Systems will not be held accountable for any claims or damages.**

Operating a Bucket milker requires minimal training and minimal equipment knowledge, but **does** require proper equipment maintenance and the development of a special technique in applying the milking claw as opposed to hand milking.

Steps of Operation:

1) **If Electric**, place your vacuum Pump in a central location near an 110V outlet. Review the vacuum pump pages before operating. **When plugging in the pump. Do Not Use an Extension Cord!**

   Vacuum levels to operate the bucket milker can be between 11” to 15” of Mercury. Recommended level is 13” or 14” Hg for Cows. Bucket systems require a large volume of vacuum to completely satisfy their requirements, if vacuum levels are too low it will be harder to apply the milking unit.

   Identify the pulsator adaptor. It is the black fitting under the blue pulsator with one black plastic port extending out from it. Using the 1/2” vacuum hose supplied, connect the adaptor port on the bucket lid to the vacuum system. The vacuum supplied to the adaptor on the lid supplies vacuum to both the bucket and the pulsator.

2) Pulsation rate is recommended to be between 50 and 60 pulsations per minute. The NuPulse claw will regulate pulsation rate based on the cow’s milk flow. NuPulse claws do not require a pulsation unit on the lid of the bucket milker.

   The ratio is the percentage of time the inflation is in the open (milk flow) phase compared to the time it is in a closed (massaging the teat) phase. This pulsator is a 60:40 ratio. DeLaval and WestFalia bucket milkers come with a #D95 pulsator equipped with a 60:40 ratio.
**Steps of operation Continued:**

**Setting the Pulsation Rate for the Westfalia or Delaval Claw:** While the whole unit is running, you will hear two clicks for every one pulse. Count the number of “Up Beats” (Clicks) the pulsator makes in 30 seconds. Multiply that number by two and you have the pulsation rate. There is a small Allen Wrench included with your pulsator to use in adjusting the setting. The Allen Screw is located on the back of the pulsator and small adjustments to the screw will change the rate.

3) **Checking the Claw:** Get to know your claw and how all of the pieces fit together. An important ‘joining’ to look at is where the inflation joins the port at the TOP of the claw. The inflations should be pushed on the port just enough to cover the opening. If it is pushed on the port too far, the inflation will not “self-kink” when all teat cups are allowed to hang towards the ground. Practice handling the claw before placing on the cow.

When applying the milker unit (claw) the shut off on the claw must be opened (push shut off up) to allow vacuum to be supplied to the unit. Make sure the vacuum pump is running and you can hear air being drawn into the opening of the inflations. While holding the claw in your left hand, the shells and inflations will hang down towards the ground so that the inflations “kink” and cut the vacuum off to the inflation.

Once all 4 of the inflations are “kinked” and no air is able to enter the inflations through the inflations' openings the pulsator will start clicking, this will indicate you are now ready to apply the milker unit. Begin placing the inflations on the animal one at a time, starting with the furthest teat from you. While supporting the claw and applying slight upward pressure on the inflations already placed on the animal to help maintain their position until all 4 inflations are attached.

If the pulsator stops clicking while attaching the claw to the cow, stop and start over. Take a deep breath. Try again.

4) **To stop vacuum to the inflations and remove the units from the animal** close the shut off on the claw, (pull shut off down).
Cleaning and Maintenance

Cleaning:

Once milking is finished, pull out the paper sock filter of the in-line filter and dispose of it properly.

Tip: The filter can be a good indicator of your Cow’s health. Become familiar with what her “normal” looks like, always keeping an eye out for large clumps, blood clots, etc.

Rinse: Directly after milking, rinse the entire milking unit with water (90°-120°F). The Claw can be rinsed in place by submerging in a sink/pail and drawing the water through the unit. The shut-off button should be pressed down and locked in place under the small plastic notches. Be sure to make a dipping motion while it sucks up water to increase turbidity and scrubbing action. This will also clean the milk hose from the claw to the bucket.

It is important to not overfill your bucket using this method. Be sure that your sink/pail is filled appropriately for the size of your milking bucket. Overfilling the milk bucket can send suds and fluids into the vacuum line.

Wash: To Clean the Claw in Place (CIP) submerge in a sink/pail with 1 oz of cleaning powder for every two gallons of warm water (125°F). Take a moment to scrub the inside of each inflation with the Bore Brush. Make a dipping motion as the claw runs the cleaning solution into the bucket. Once the solution has been transferred to the milking bucket separate the Pulsator (with or without the adaptor) and set it aside. If the adaptor has milk on it, clean and let dry completely. Clean the lid with a brush, paying special attention to the ports. Separate the lid gasket and clean thoroughly.

Final Rinse: There are two ways you can proceed with a Final Rinse.

Warm Water Rinse: Rinse the solution off of the claw, bucket, and remaining parts with warm water (125°F).

ACID Rinse: After rinsing the equipment cleaner off of all the surfaces, rinse in tepid water that has been acidified. Choose a dairy acid cleaner that is right for you. This will remove traces of alkaline cleaner and prevent mineral deposits (Milk Stone) from building up, even on stainless steel. Do not rinse again, set to dry.

Storage: After the cleaning and rinsing procedures are accomplished, the claw should be positioned so that it will drain any residual solution and the bucket should be turned upside down to ensure complete draining. Make sure there is no water caught between the shell and inflation every time.

Sanitize: Just before each milking, re-assemble the milking machine. The Pulsator and adaptor will need to be returned to the lid, with the Pulsator slid fully onto the adaptor and the lid nut tightened to a “Finger Tight” pressure. Flush with a dairy sanitizer by following the directions on the sanitizer label for proper concentration, contact time and water temperature.

For NuPulse users: The milk line will attach to the port that has a stainless steel guard around it on the underside of the lid. The vacuum line is attached to the port with no guard around it.
**MAINTENANCE:**

**INFLATIONS** should be changed regularly (for rubber inflations every 1,200 milkings, for silicone inflations every 5,000 milkings, or sooner if damage is apparent).

**Milk tubing** and **pulsation line** should be replaced every year to promote sanitary conditions and maintain flexibility.

**The pulsator** should be periodically cleaned. For BRK or Interpuls pulsators this is done by submerging the pulsator in water and cleaning with a soft toothbrush style brush. Use warm soapy water (mild dish soap is fine). To dry the pulsator, place it on the bucket on let it operate on the bucket for several minutes until dry. Do not attempt to dry when freezing conditions exist. And remember BRK and Interpuls pulsator should never be oiled.

**Pulsators** should be rebuilt every 25,000 hours of operation. All the parts that should be replaced are available in a kit from Bob-White Systems. This rebuild can be performed by the dairyman and requires no special skills.
Frequently Asked Questions & Troubleshooting

FAQ:

My cow has a low udder and the teat cups drag on the ground when allowed to “self-kink” as they drop toward the ground. How can I milk my cow with two hands when I need eight hands?

We have options for you! They are as follows:

- **Build up a platform for the cow to stand her back feet on.**
- **Dig a large depression in the ground under her udder.**
- **Plug a teat cup or two with the Plastic Inflation Plug-It until you are ready for that teat.**
- **Hold two of the inflations in the hand that holds the claw. Slide the claw under the udder at an angle as you attach the furthest teat. The “shut off” button will be pulled out while you get a hold. Once under the cow, slide a spare finger over to the button and depress it as you put the first teat cup on the furthest teat from you. This is a juggling act but can be done! Pictures shown below. Practice with your fingers before attempting to place on the cow.**
- **Acquire a new cow with a higher udder**

**Troubleshooting**

**Units Falling Off**
- Overmilking
- Wet, soapy teats
- Worn rubberware
- Vacuum level too low
- Line flooding
- Leak in the vacuum line
- Shut-off button is ‘OPEN’

**Cow/Goat/Sheep Kicking**
- Vacuum set too high
- Pulsator malfunction
- Stray voltage
- Over milking
- Teat end abrasions/sore teats
- Bad attitude/disposition

**Unit Speeds Up**
- This is normal for a Nupulse Claw during heavy milk flow
- Check the pulsation rate for the pulsators on the lid of the buckets. Adjust to the recommended pulses per minute for your species.

Troubleshooting continued on next page...
TROUBLESHOOTING CONTINUED:

**SLOW MILKING**
- VACUUM TOO LOW
- WORN INFLATIONS
- VACUUM LEAKS
- CLOGGED BOWL VENT (NuPulse)
- OVER MILKING
- MILK HOSE OR INLET VALVE UNDERSIZED
- PULSATOR RUBBERWARE WORN OUT
- PIPELINE FLOODING-TOO MANY UNITS PER SLOPE, MILK INLETS LOWER 2/3 OF PIPELINE
- EDEMA: Swollen tissue of the udder—can be treated with Dyna-mint, udder creams, etc.

**PULSATOR SLOW DOWN OR STOP**
- MILK HOSE KINKED (NuPulse)
- AIR LEAKS IN CLAW
- BOBBIN HOLE PLUGGED (NuPulse)
- DIRTY AIR FILTER
- DAMAGED OR MISSING “O” RING (NuPulse)
- DAMAGED DIAPHRAGM RUBBER (NuPulse)
- CHECK THE PULSATION RATE FOR THE PULSATOR ON THE LID OF THE BUCKETS. ADJUST TO THE RECOMMENDED PULSES PER MINUTE FOR YOUR SPECIES.

**FAQ:**

My pulsator isn’t working. What do I do?

Here are a few things to double check:

- Check the vacuum pressure. Vacuum gauges should be set to 14" mg for cows and 12" mg for goats/sheep. Listen for any air escaping in the system.
- Check that your pulsator adaptor is positioned correctly. **90% of the time this is the reason for a faulting pulsator.**
  
  The pulsator adaptor has a beveled side and a flat side to the piece that slides onto the pulsator. Be sure that the flat side of the adaptor is pushed all the way against the pulsator. This ensures that the square on the pulsator and the hole on the adaptor line up properly. The photo to the right shows the flat side facing the top of the photo and the beveled side facing the bottom of the photo.
- Check the interior of the pulsator for any dirt, or sawdust. This requires opening up the pulsator. We recommend you do this by following the D#95 Pulsator Instructions and Parts worksheet. Do you need another copy? See bob-whitesystems.com for a digital copy.