

Instruction Manual for Improved Hamby Cow Bucket Milker



Covers Series- 4501, 4502, 4501.711, 4501.712, 1501
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HAMBY DAIRY SUPPLY

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1-800-306-8937 ● www.hambydairysupply.com

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

The only assembly required is to attach the handle. Tighten the union on the bottom of the handle with a small pipe wrench. Now, the unit should be ready to plug into 110/115 volts, household current through standard wall outlet, and run. This unit has a long life vapor oil vane vacuum pump. Check oil level upon arrival, and before each use. The oil level gauge is the small piece of clear hose in a U-shape on the side of the pump. Oil must always be visible in this tube while pump is running. To add oil simply pop out the black plastic plug on top of oil tank. Refill with high quality *10w40 motor oil*. Press the plug back into place once oil level is full. Do not fill above the oil wick outlet.



As the oil runs through the vacuum pump it is discharged into the exhaust chamber in the back portion of the tank. The oil will settle to the bottom and the air will be exhausted thru the 3/4" pipe elbow toward the top of the chamber. If the pump is run for a long period of time in the same position, a small amount of oil may accumulate on the floor directly below the elbow. This is normal as it is the vapor of oil. If this creates a problem a small piece of cardboard can be placed under the exhaust elbow. The metal tank under the pump is a moisture trap and vacuum storage tank. Milk or water that gets drawn into the tank should drain out the duckbill drain in the bottom of the tank after pump is shut down. If too much water or milk enters the tank, the pump will need to be flushed.



Duckbill Drain
SKU: 18037

The 7100 Vacuum system runs on 110/115 volts. It comes 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.

Switched plug-ins are available at most hardware stores.



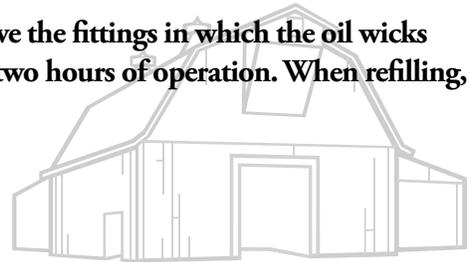
7100 Electric Vacuum System



7400 Gas Powered Vacuum System

Instructions for assembly of Bucket Milker *(continued)*

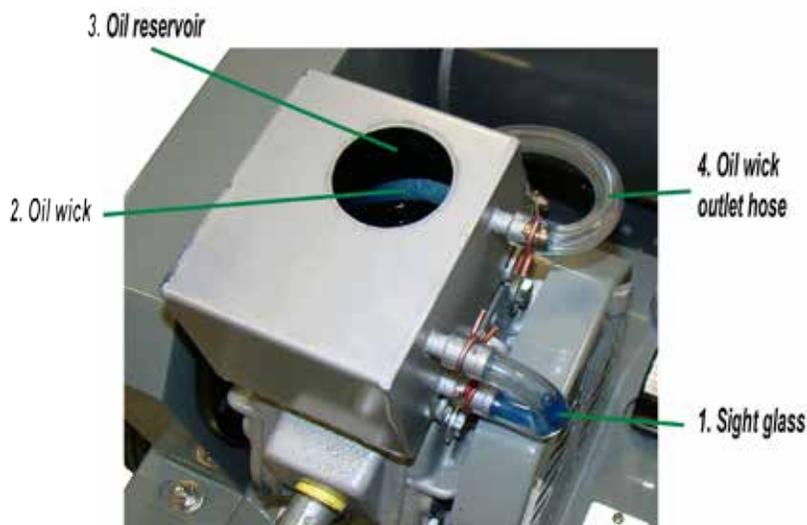
- Use a high detergency 10w-40 motor oil for all Conde Vapor Oil Vacuum Pumps. Synthetic oil, like Mobil 1, is recommended by Conde. This includes the LWVS portable, HD portable, or Model 6 stationary pump sold by Hamby Dairy Supply. When starting a new vapor oil pump, fill oil reservoir above the fittings in which the oil wicks are inserted. This will give the pump extra oil for the first two hours of operation. When refilling, fill to just below oil wicks.



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Note!

By looking in the sight glass you'll know when you need oil, because it will be low. It's best if the oil level inside the sight glass is 1/2 to 3/4 full.



Adding oil to the oil reservoir.

Instructions for assembly of Bucket Milker *(continued)*

4. Assemble Bucket

Put lid on bucket and snap handle into place.



5. Connect long blue stripe hose from the stallcock (1/4 turn valve) on the vacuum pump handle to the grey plastic hose port "Y" at the bucket lid. The lid comes with pulsator and milking unit prebuilt.



Stall cock



Hose port

6. The GEA Vacupuls pulsator is factory preset for cow milking. There are no adjustable parts to it.

Filter should be changed every 1-12 months depending on facility cleanliness.



Filters and Repair Kit for GEA Westfalia Vacupuls Constant Pulsator on page 8.

7. Plug vacuum system in to a 110/115 volt 15 amp circuit. Unit comes on immediately when plugged in.
8. How to control vacuum level

The ideal vacuum level for milking cows is between 12.5 and 13.5 inches of vacuum. To adjust level, loosen the nut on top of the regulator and turn the main body to adjust. Turn the body clockwise to increase and counterclockwise to decrease vacuum level. Tighten the nut when the desired vacuum level is reached.



Gauge



Regulator

9. Wash the bucket milker prior to 1st use and immediately after each milking.

Instructions for Machine Milking Cow

Dairy 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 Milk 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 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 screen of a strip cup. Look for clots, clumps, blood, or signs of abnormal milk. Fore stripping promotes milk let down & 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: (optional) 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 let down (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 Cows *continued*

9. Start vacuum pump with stallcock closed. Open stallcock with shut-off in claw closed. Hold milker claw with shut-off down and shells and inflations pointing down towards the ground. When ready to put on cow push shut off up and put inflations on teats one at a time, starting with the teat farthest from you.

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. Shut off the vacuum to the claw by pulling plunger on the bottom of the claw down, then gently pull the inflations 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 sphincter muscle at the end of the teat is relaxed. If the cow is not milking out properly, then you may need to adjust the way the milker is hanging, 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.

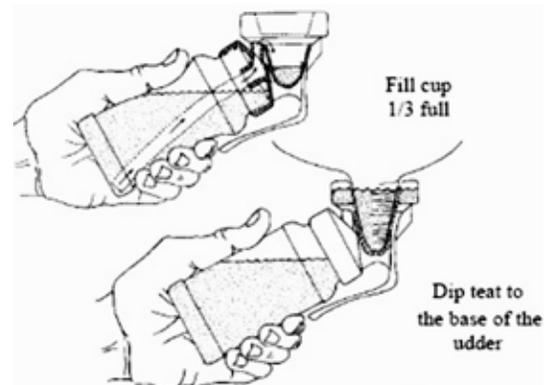
14. It is important to keep the dairy cow standing for a while after milking. This will give some time for the sphincter muscle to contract and the teat orifice to seal back up. A good solution is to have a rack of fresh hay and fresh water available when they exit the milking parlor.



Hamby Dairy



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Teat Dip Cup
SKU: HDC

5 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

Hamby Dairy



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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) DO NOT GET PULSATOR WET!

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.

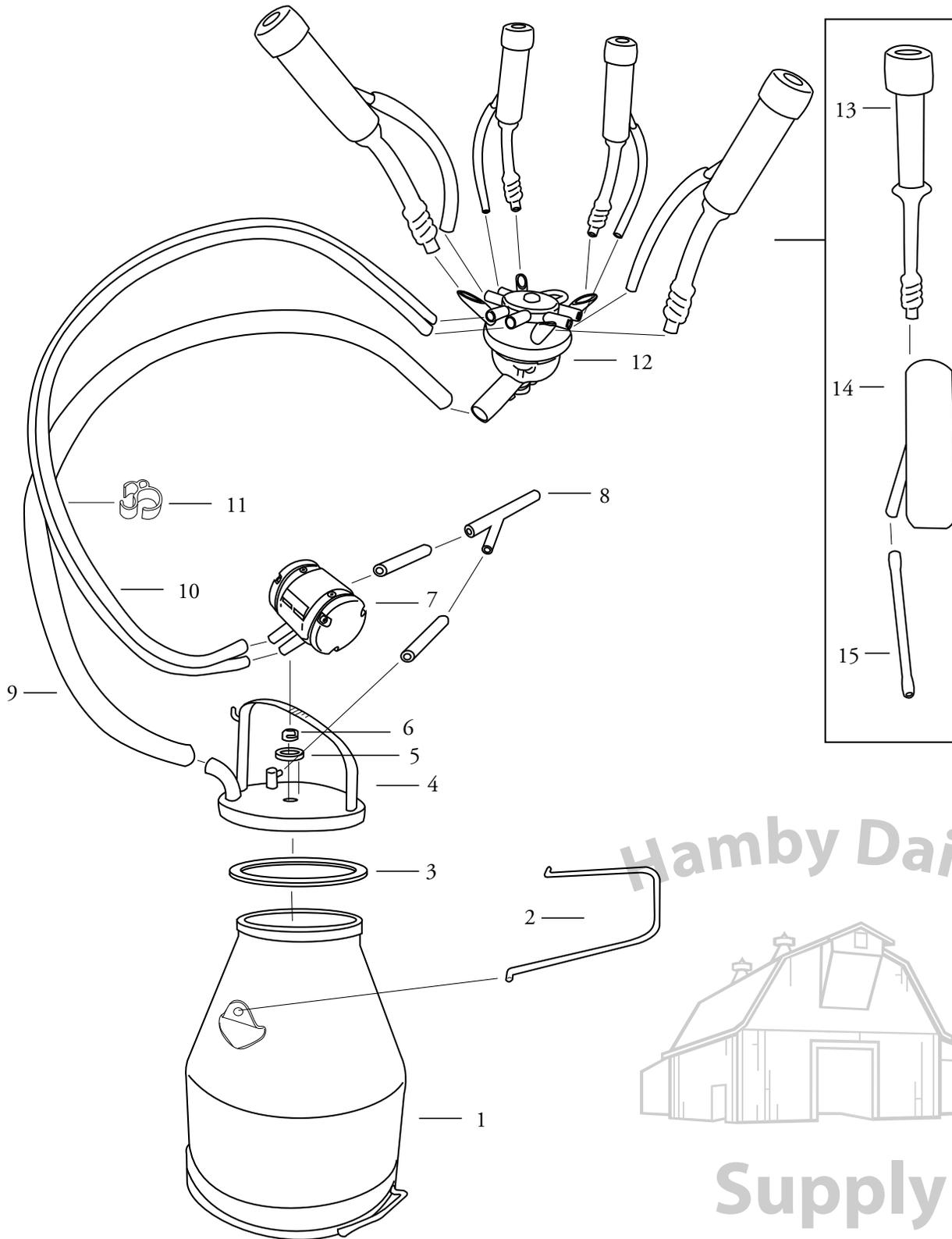
- Step 5: COLD SANITIZE with a chlorine solution 15 minutes prior to milking.



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

Replacement Parts for Improved Hamby Bucket Milker



Hamby Dairy



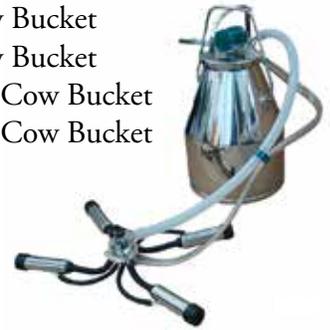
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Replacement Parts for Improved Hamby Bucket Milker

1.	65# Stainless Steel Bucket - Long Handle	SKU: 30166 (call to order)
2.	Stainless Steel Bucket Handle - Long	SKU: 30152
3.	Gasket for stainless steel bucket lids	SKU: 1041
4.	Replacement lid for GEA Westfalia bucket milker	SKU: 1095
5.	Mounting Gasket for GEA Westfalia German Pulsators	SKU: 0007-2253-770
6.	Pulsator Mount for Westfalia Bucket Milker Lid	SKU: 7041-2318-000
7.	GEA Westfalia Vacupuls Constant pulsator 60/40 for Cows	SKU: 7041-2700-550
-	Repair Kit for Westfalia Vacupuls Constant pulsator	SKU: 7041-9905-000
-	Air Filters for GEA Westfalia Vacupuls Constant pulsator	SKU: 7315-4107-000
8.	Air Y for Westfalia Bucket Milker	SKU: 7021-2627-020
9.	5/8 I.D. Silicone Milk Hose / Tubing - 3 feet	SKU: 1090-096FT
10.	9/32 ID Surge Twin Clear Pulsation Hose / Tubing Green Stripe 3 feet	SKU: 7750-0112-618FT
11.	HOSE CLIP 5/8 x 9/32 Twin	SKU: 7036-9926-060e
12.	DeLaval Standard floview milker claw	SKU: 1010-860fv
13.	INFLATION (Liner) NARROW BORE for 06 Shells - set of 4	SKU: 1100-022
14.	INFLATION (Liner) Medium Bore for 06 Shells - set of 4	SKU: 25034
15.	06 Shell with Rolled Top Edge	SKU: 4306
16.	9/32 x 7.5 short air tubes WF DLV set of 4	SKU: 1090-204

Replacement Parts for Improved Hamby Bucket Milker

Improved Hamby 1 or 2 Cow Bucket Milker complete basic system	4501 1 Cow Bucket
	4502 2 Cow Bucket
Improved Hamby 1 or 2 Cow Bucket Milker complete with Wash Pkg	4501.711 1 Cow Bucket
	4501.712 2 Cow Bucket
Improved Hamby Cow Bucket Milker with Grade A stainless steel bucket	1501



■ Inflations, Liners, short air tubes & Claws

INFLATION (Liner) NARROW BORE for 06 Shells	1100-022	set/4
INFLATION (Liner) Medium Bore for 06 Shells	25034	set/4
06 Shell with Rolled Top Edge	4306	each
9/32 x 7.5 short air tubes WF DLV	1090-204	set/4



4306

06 Shell with **Rolled Top Edge**

■ Milk, Vacuum & Pulsation tubing (replace at least once per year)

5/8" Silicone Milk Hose opaque	1090-096FT	per foot
5/8" Milk Hose—Surge brand clear w/Green stripe	7750-0220-527FT	per foot
9/32 ID Surge Twin Clear Pulsation Hose Green Stripe	7750-0112-618FT	per foot
1/2 Vacuum Hose	4328	8 feet
1/2 ID Silicone Vacuum Hose	1550	per foot
Air Y for Westfalia Bucket Milker	7021-2627-020	each
HOSE CLIP 5/8 x 9/32 Twin	7036-9926-060e	



1095

Replacement lid for GEA Westfalia bucket milker

■ Lid and Lid Gaskets

Replacement lid for GEA Westfalia bucket milker	1095
Gasket for Hamby stainless steel bucket lids	1053

■ Pulsator Mounts

Pulsator Mount for Westfalia Bucket Milker Lid	7041-2318-000
Mounting Gasket for GEA Westfalia German Pulsators	0007-2253-770
NPT Mount for GEA Westfalia Pulsators	7041-2320-070

Replacement Parts for Improved Hamby Bucket Milker

■ Pulsators and adaptors

GEA Westfalia Vacupuls Constant pulsator 60/40 for Cows	7041-2700-550
Basic Repair Kit for GEA Westfalia Vacupuls Constant pulsator	7051-9905-030
Repair Kit for Westfalia Vacupuls Constant pulsator	7041-9902-030
Air Filters for GEA Westfalia Vacupuls Constant pulsator (12)	7315-4107-000



7315-4107-000
Air Filters for GEA Westfalia
Vacupuls Constant pulsator (12)

■ Bucket & Handle

65# Stainless Steel Bucket	30166 (call to order)
Stainless Steel Bucket Handle - Long	30152



30152
Stainless Steel Bucket Handle
- Long

■ Replacement Parts for Standard floview style milker claw

Claw as shown with shutoff	1010-860fv
Kit Bowl with Gasket & Shutoff	10863fv
Gasket Only	10865fv
Plug Style Shutoff	10861fv
Shutoff Lock	10864fv



1010-860fv
Claw as shown with shutoff

■ Vacuum gauges and regulators

Small vacuum gauge for portables 2 inch dia.	7124
Vacuum gauge 2.5 inch dia. glycerin filled	7126
Brass vacuum regulator...all portables up to 1.5 HP 3/4 NPT	7121
Foam filter for 7121 vacuum regulator.	7122

Hamby Dairy



7121
Brass Vacuum Regulator

■ Bucket Washer

Hamby Bucket Washer Super Cleaning Package - 6 pics	5160
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Supply

Bucket Washer for Cow Milkers

6 UNIT NEW STYLE KLEEN-Flo® WASHER PARTS BREAKDOWN

THIS WASHER IS SHIPPED FULLY ASSEMBLED AND READY TO HOOK UP. DESIGNED FOR CLEANING MILKING UNITS ON A VACUUM OPERATED SYSTEM.

KLEEN FLO NEW STYLE CLAW WASHER INSTALLATION GUIDE

1. Claw washers should be installed on the wall, 12 to 16 inches above the top of the tub, where the milker units will be in to wash.
2. The drain hose on the bottom of the washer with a check ball, should be about 3" from the bottom of the tub. The elbow on top of the washer is a vacuum inlet; install a valve or lever stall cock to shut off vacuum supply when not in use.
3. Performance of the claw washers may vary from one installation to the next, as some vacuum systems may run at a higher or lower vacuum level.

- 56200 - Complete 10" claw washer assembly , 6 unit
- 56202 - Stainless wall bracket for 10" washer
- 56209 - Weight (3 required)
- 56210 - Clip pin (2 required)
- 56211 - Rod spring
- 56212 - Stainless steel float
- 56213 - Gasket for clear sight tube (2 required)
- 56214 - Clear sight tube, 10"
- 56216 - Bottom dome with 6 - 5/8" ports
- 56217 - Bracket gasket (under bottom dome)
- 56218 - Drain hose
- 56219 - Check valve assembly for drain hose
- 56220 - Ball only for drain assembly
- 56221 - Clip pin for drain assembly
- 56222 - Rubber plug for ports
- 1060-219 - Inlet closure caps 5/8
- 56259 - Stainless e-clip for washer rod
- 56245 - Valve guide block without bushing
- 56252 - New style stainless dome with 23/32" hole
- 56269 - 10" rod assembly for new style washer, with valve head and rod seal
- 56256 - New style valve head
- 56263 - New style 10" rod ONLY
- 38215 - Blue elbow, with 3/8 thread
- 38211 - Rubber seal for releaser rod
- 7857 - Stall cock



To see a video about installing the bucket washer go to:
<https://www.youtube.com/watch?v=yLp4F5eyn84&feature=youtu.be>